TECHNICAL MANUAL

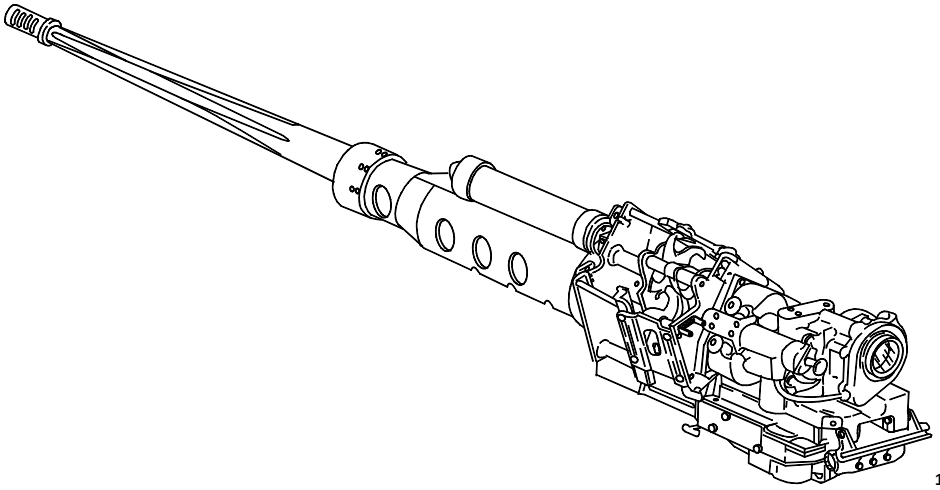
UNIT AND DIRECT SUPPORT MAINTENANCE MANUAL (INCLUDING DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST)

FOR

GUN, AUTOMATIC: 25-MM, M242 W/EQUIPMENT (1005-01-086-1400) (EIC: 4TE)

AND

GUN, ENHANCED AUTOMATIC: 25-MM, M242 W/EQUIPMENT (1005-01-454-0396) (EIC: 4TE)



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SUPERSEDURE NOTICE. This manual supersedes TM 9-1005-200-20&P, dated May 1992, TM 9-1005-200-30&P, dated August 1992, TM 08672A-20&P/1, dated May 1992, and TM 08672A-30&P/2, dated August 1992, including all changes.

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HEADQUARTERS, DEPARTMENT OF THE ARMY

JUNE 2001

PCN MARINE CORPS 1840862000

WARNING SUMMARY

Obey all safety rules, regulations, and orders when handling or working with guns.

Do not touch electrical conductors. Serious injury or death may occur if extreme care is not used.

Never remove barrel assembly with live ammo in the gun.

Gun barrels get very hot and stay hot for a long time after firing. Touching hot gun barrels and parts will cause serious flesh burns. Heat mittens must be worn to prevent burns.

Gun assemblies are heavy. Gun receiver weighs approximately 41.7 kg (92 lb). Gun barrel weighs approximately 40.4 kg (89 lb). Two people are needed to lift each of these heavy assemblies.

Working with lockwire is dangerous and can cause serious injuries. Use eye protection. Control both ends of wire at all times. Hold free ends of wire when cutting to prevent flying pieces.

Wear eye protection when cutting lockwire. You can be blinded if lockwire hits you in the eye.

During inspection of auto gun receiver, be sure barrel chamber, breech assembly, bolt, and automatic gun feeder are clear of ammunition.

Dry cleaning solvent (SD) is flammable and toxic. Use in well-ventilated area away from an open flame or a smoking area. This solvent evaporates quickly and has a drying effect on the skin. It may cause cracks in the skin and, in some cases, mild irritation or inflammation. If solvent comes in contact with eyes or skin, flush with water.

When using adhesives, paint, or dry cleaning solvent, apron, gloves, and goggles should be worn, and a respirator should be used if not working in a well-ventilated area.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep fingers away from moving parts of gun. Serious injury or death may occur.

Wear eye protection when removing or installing retaining rings. Retaining rings are under spring tension. Personnel can be blinded if struck in the eye by flying retaining rings.

Failure to replace the breech assembly and the firing pin at the specified intervals may result in explosion or unexpected firing of the gun. Serious injury or death to personnel and damage to equipment may result.

Do not pull breech assembly more than 8 in. (203.2 mm) out of auto gun receiver when removing barrel support assembly.

If auto gun receiver is left unattended or will be moved, reinstall machine key to prevent breech from falling out.

Serious injury can result if fingers or hands are caught between roller chain assembly and drive or idler sprocket wheels.

Wear eye protection when using compressed air. Compressed air used for cleaning purposes shall not exceed 30 psi (206.85 kPa).

Wear eye protection when removing or installing spring pins. Personnel can be blinded if struck in the eye by flying springs.

WARNING SUMMARY - Continued

Wear eye protection when using striking instruments. Personnel can be blinded if struck in the eye by flying chips.

If M919 usage is suspected, prior to performing any M242 weapon maintenance procedures, survey the muzzle end of the gun barrel with the beta/gamma probe of the AN/VDR-2, or the PDR-77, or equivalent radiation detection instrument. Make sure the beta shield on the probe is open, and operate the radiation detection instrument in accordance with its prescribed operating procedures (See TM 11-6665-251-10 or TM 11-6665-365-10 and 12&P). If the barrel is found to be radioactively contaminated, the barrel is to be taken out of service without being cleaned, ends sealed with tape, and the barrel marked "Low Level Radioactive Waste". Storage and disposition of the barrel is accomplished in accordance with AR 11-9.

When handling material contaminated by Depleted Uranium (DU), avoid skin contact with the corrosion by wearing NBC gloves. Always flush hands before eating or touching your face. Dispose of gloves in accordance with AR 11-9, Army Radiation Safety Program.

Guidelines for Safe Response to Handling, Storage, and Transportation Accidents Involving Army Tank Munitions or Armor which contains Depleted Uranium (Refer to TB 9-1300-278).

FIRST AID

For further first aid data, see FM 4-25.11.

ARMY TM 9-1005-200-23&P
MARINE CORPS TM 08672A-23&P
C2

CHANGE

NO. 2

HEADQUARTERS
DEPARTMENT OF THE ARMY
U.S. MARINE CORPS
WASHINGTON, DC, 1 November 2006

TECHNICAL MANUAL

UNIT AND DIRECT SUPPORT MAINTENANCE MANUAL
(INCLUDING DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST)
FOR
GUN, AUTOMATIC: 25-MM, M242 W/EQUIPMENT
(1005-01-086-1400) (EIC: 4TE)
AND
GUN, ENHANCED AUTOMATIC: 25-MM, M242 W/EQUIPMENT
(1005-01-454-0396) (EIC: 4TE)

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By Order of the Secretary of the Army:

PETER J. SCHOOMAKER
General, United States Army
Chief of Staff

Official:

JOYCE E. MORROW
Administrative Assistant to the
Secretary of the Army
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By Order of the Commandant of the Marine Corps:

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U.S. MARINE CORPS
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TECHNICAL MANUAL

UNIT AND DIRECT SUPPORT MAINTENANCE MANUAL
(INCLUDING DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST)
FOR
GUN, AUTOMATIC: 25-MM, M242 W/EQUIPMENT
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ARMY TM 9-1005-200-23&P
MARINE CORPS TM 08672A-23&P
C1

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PETER J. SCHOOMAKER
General, United States Army
Chief of Staff

Official:



SANDRA R. RILEY
Administrative Assistant to the
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ARMY No. 9-1005-200-23&P*
MARINE CORPS No. 08672A-23&P**

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HOW TO USE THIS MANUAL

GENERAL

Knowing how to use this manual is very important to you.

a. References are to work packages in this manual or to other publications.

b. Throughout this manual, text is keyed to the illustrations by use of numbered callouts. When an item is called out in a procedure, a number in parentheses in the text corresponds with a number on the illustration.

c. Each task begins with a setup sheet. It tells you what you need to do the task: tools, materials, parts, and other publications. It tells you what must be done to the equipment before you begin the task and provides general safety instructions.

d. In the maintenance procedures, the numbered steps, printed in capital letters, are to be used by an experienced person. They are reminders about the order in which a task should be done. The lettered steps are a guide to the person who is less familiar with the gun.

INDEXES

This manual is organized to help you quickly find the information you need. There are several useful indexes:

a. Table of Contents. The table of contents lists, in the order of presentation, all chapters, work packages, and alphabetical index and gives the page numbers where they begin.

b. Alphabetical Index. This index, located at the back of the book, is an extensive subject index for the entire manual. The page numbers following each entry tell you where in the manual to find a particular subject.

LISTS

a. Metric/US Customary Measurement Chart. Measurements in this manual are given in both metric and US customary units. The table inside the back cover compares metric measurements to their equivalent US customary units. Also provided are conversion factors to convert metric units to US customary units.

b. Nomenclature Cross-Reference List. Throughout this manual, most items are referred to by their official nomenclature. In the list, the items referred to by their common names are listed alphabetically, followed by their official nomenclature.

HOW TO USE THIS MANUAL - Continued

TROUBLESHOOTING OVERVIEW

a. This procedure is designed to isolate failures in the gun system. The procedure should start with a step-by-step functional test in the Operator's Manual to identify the problem. The functional test sends the mechanic to troubleshooting procedures, isolating the malfunction. When the malfunction is located, the mechanic is sent to the replace or repair work package. After the repair is finished, the mechanic is sent back to the functional test. This verifies a successful repair. After a successful test, the gun is returned to service.

A Functional test shows a failure.

B Failed component identified.

C Failed component repaired or replaced.

D Functional test begun again.

E Functional test successfully completed.

b. A failure check/symptom index is included as a general reference to the troubleshooting procedures. ALWAYS START THE PROCEDURE WITH THE FUNCTIONAL TEST IN ORDER TO VERIFY THE SYMPTOM, AND END THE PROCEDURE WITH THE FUNCTIONAL TEST IN ORDER TO VERIFY THE REPAIR.

MAINTENANCE PROCEDURES

a. Initial Setup. Initial Setup is a list of everything needed in order to do maintenance on one part of the weapon.

Tools and Special Tools—Lists tools needed to perform maintenance.

Materials/Parts—Lists expendable/durable materials and 100% replaceable parts. Each material or part is followed by a part number or work package reference. If more than one part is needed, the quantity needed precedes the part number or reference.

Personnel Required—Lists the number of personnel needed when more than one person is required.

References—Lists other publications containing necessary information.

Equipment Conditions—Lists conditions to be met before starting the procedure. The reference on the left of the condition is a work package reference to instructions for setting up the condition.

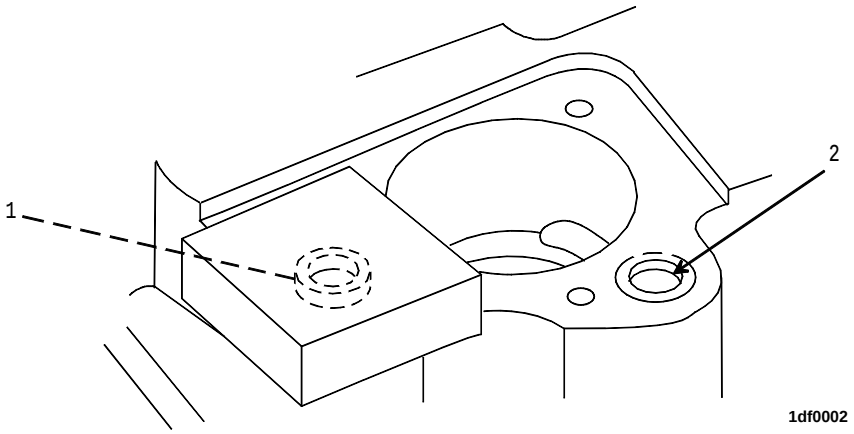
b. Step-By-Step Procedures. Step-by-step procedures are illustrated procedures for maintenance authorized in the maintenance allocation chart (MAC). For replacement of parts, see WP 0086 00 through WP 0115 00.

c. WARNINGS and CAUTIONS. Throughout the manual you will see WARNING and CAUTION data which must be followed.

(1) WARNING. A warning is used to alert the user of hazardous operating and maintenance procedures, practices, conditions, statements, etc., that may result in injury to or death of personnel if not strictly observed.

(2) CAUTION. A caution is used to alert the user of hazardous operating or maintenance procedures, practices, conditions, statements, etc., that may result in damage to or destruction of equipment or of mission effectiveness if not strictly observed.

d. Callouts. A dashed callout arrow in the procedures means the part being called out is hidden, i.e., you can't see it on the illustration. For example:



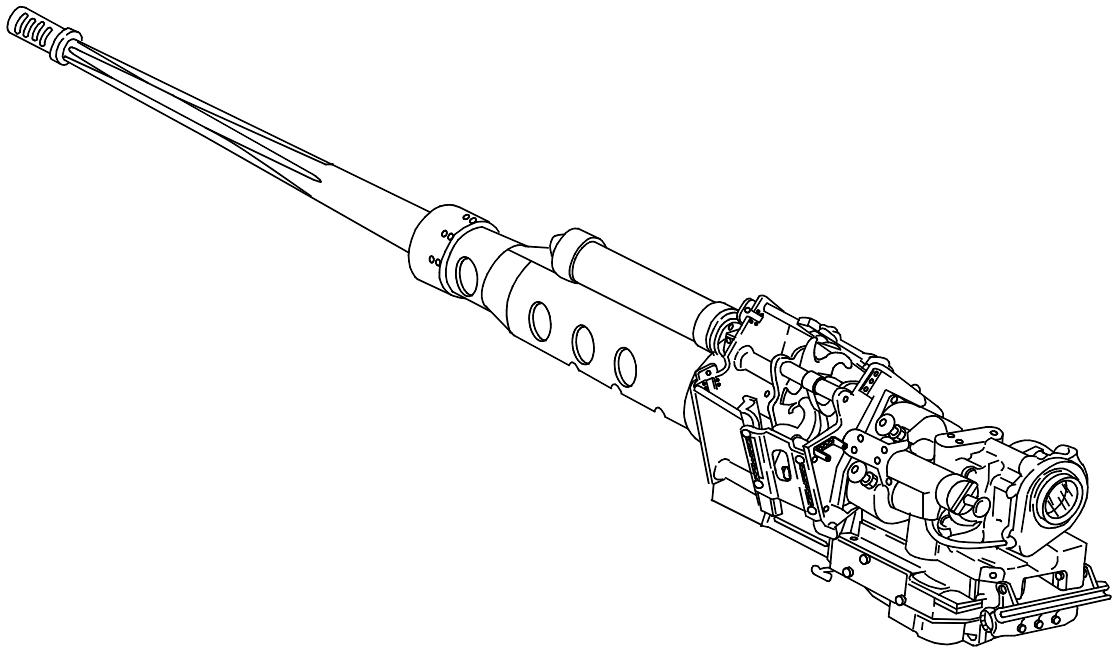
(1) Callout 1 is the seal.

(2) Callout 2 is the housing bore.

UNIT AND DIRECT SUPPORT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

GENERAL INFORMATION



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SCOPE

a. Type of Manual. Direct Support Maintenance, including repair parts and special tools list.

b. Model Number and Equipment Name. M242, 25-mm Automatic Gun and M242 25-mm Enhanced Automatic Gun.

c. Purpose of Equipment. Provides protection and fighting capabilities.

MAINTENANCE FORMS, RECORDS, AND REPORTS

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA PAM 738-750, Functional Users Manual for the Army Maintenance Management System (TAMMS). Marine Corps personnel will use TM 4700-15/1, Equipment Record Procedures.

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)

If your gun needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know what you don't like about the design. Put it on SF 368, Product Quality Deficiency Report. Army users mail it to us at: Commander, US Army Armament Research, Development and Engineering Center, ATTN: AMSTA-AR-QAW-C(R)/Customer Feedback Center, Rock Island, IL 61299-7300. Marine Corps personnel will submit SF 368 in accordance with MCO 4855.10, Quality Deficiency Report, to: Commanding General, Marine Corps Logistics Base (Code 808), Albany, GA 31704-5000. We'll send you a reply.

CORROSION PREVENTION AND CONTROL (CPC)

Corrosion Prevention and Control (CPC) of Army material is a continuing concern. It is important that any corrosion problems with this item be reported so that the problem can be corrected and improvements can be made to prevent the problem in future items.

While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem.

If a corrosion problem is identified, it can be reported using SF 368. Use of key words such as "corrosion," "rust," "deterioration," or "cracking" will assure that the information is identified as a CPC problem.

The form should be submitted to: Commander, US Army Armament Research, Development and Engineering Center, ATTN: AMSTA-AR-QAW-C(R)/Customer Feedback Center, Rock Island, IL 61299-7300.

DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE

Refer to TM 750-244-7 for procedures concerning destruction of the M242, 25-mm Automatic Gun. For complete details on the use of demolition materials and methods of priming and detonating demolition charges, refer to FM 5-25.

PREPARATION FOR STORAGE OR SHIPMENT

Marine Corps personnel will refer to MCO P4450.7, Marine Corps Warehousing Manual. Army user refer to WP 0070 00 through WP 0072 00.

NOMENCLATURE CROSS-REFERENCE LIST

Common Name	Official Nomenclature
AP Ammo	Ammunition, Armor Piercing
Breech Key	Machine Key
Bullet	Projectile
Chain	Roller Assembly Chain
Clevis Nut	Round Plain Nut
Damper Housing Plug	Machine Thread Plug
Drive Motor	Motor, Direct Current
Electrical Feed Select Solenoid	Electrical Solenoid
Feed Shaft	Shouldered Shaft
HE Ammo	Ammunition, High Explosive
Hex Key	Socket Head Screw Hexagonal Key
Index Drive Cover Assembly	Access Cover
Link Bridge	Mounting Bracket
Link Stripper	Connecting Link
Mechanical Interlock	Rocker Assembly
Needle Bearing	Roller Needle Bearing
Motor/Sear Plug	Receptacle
Rear Plate Assembly	Mounting Plate
Screw Threaded Insert	Self-Locking Helical Coil Insert
Spin Handle	Spin-Style Socket Wrench Handle
Track	Roller Chain Track
Worm Shaft Nut	Round Worm Plain Nut

SUPPORTING INFORMATION FOR REPAIR PARTS, SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT

Common Tools and Equipment

For authorized common tools and equipment, Army personnel refer to the Modified Table of Organization and Equipment (MTOE) applicable to your unit. Marine Corps personnel, refer to the Table of Equipment (T/E) applicable to your unit.

Special Tools, TMDE, and Support Equipment

a. Special tools are listed in WP 0113 00 of this manual.

b. Test Measurement and Diagnostic Equipment (TMDE) is listed in WP 0085 00 of this manual.

Repair Parts

Repair parts are listed and illustrated in WP 0087 00 through WP 0112 00 of this manual.

END OF WORK PACKAGE

CHAPTER 1

DESCRIPTION AND THEORY OF OPERATION FOR M242 25-MM AUTOMATIC GUN AND M242 25-MM ENHANCED AUTOMATIC GUN

UNIT AND DIRECT SUPPORT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

EQUIPMENT DESCRIPTION AND DATA

EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES

a. EXTERNALLY POWERED (EP): An electric motor, located on the bottom and to the rear of the auto gun receiver, drives all the moving parts inside the gun. Ammunition feeding, loading and firing, extraction, and ejection are all done by the motor. The gun does not depend on barrel recoil or expanding gases for operation. The auto gun receiver is solidly attached to a rigid mount and does not recoil when the gun is fired. Only the barrel, breech, and bolt assemblies recoil.

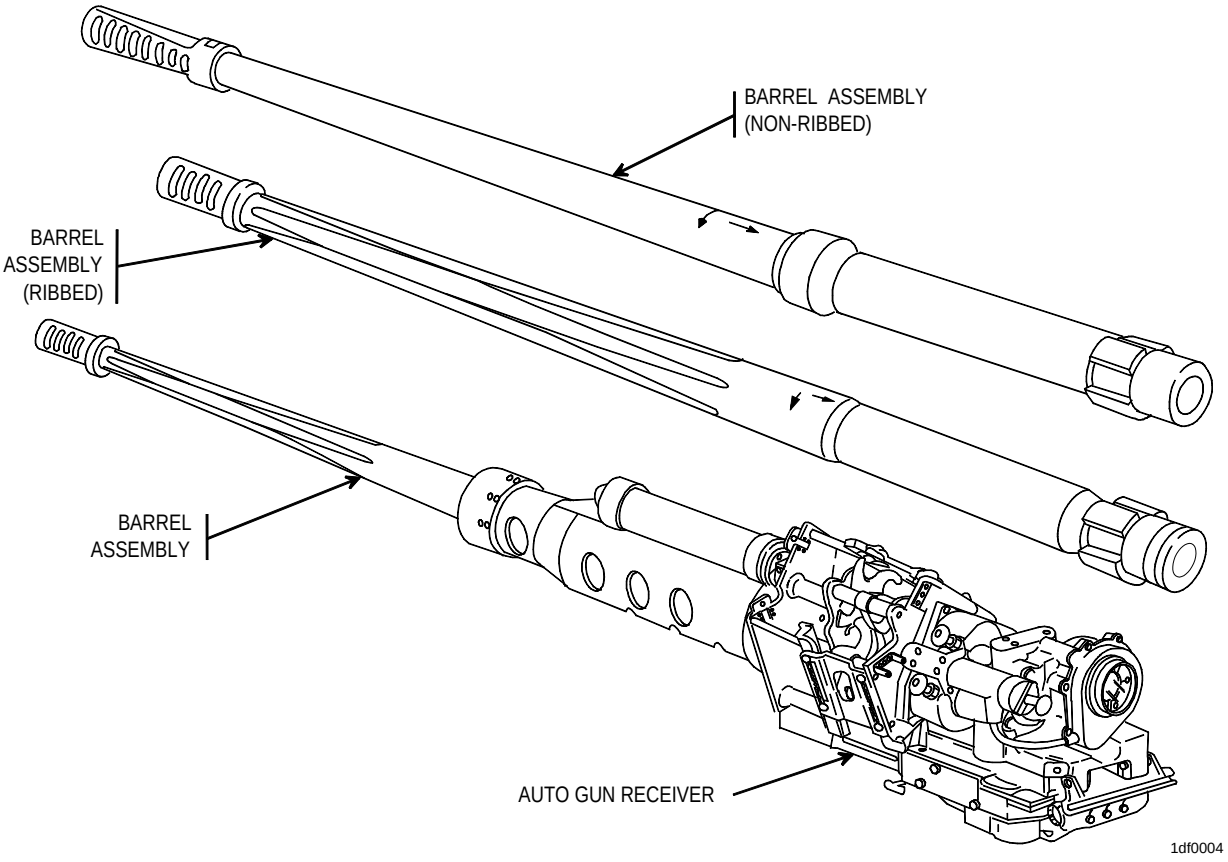
b. SAFE PROTECTION: The firing pin is cocked just before firing to ensure safe operation during the ram cycle. As the bolt turns to lock into the breech, the firing pin tang makes contact and compresses against the firing pin pawl, located on the track. When in the SAFE position, the safety pawl (located next to the firing pin pawl) is raised and prevents the firing pin from riding forward and striking the primer when the bolt completes its turn into the breech. If the weapon is in the FIRE position, the safety pawl is lowered below the path of the firing pin tang, allowing the firing pin to release and strike the primer. The bolt is seared (locked in the "open bolt" position) when the trigger is released. This is accomplished by simultaneously removing voltage to the sear solenoid. The sear pivots into the chain area and captures the chain master link, stopping the bolt and track assembly in the SEAR (rearward) position.

c. QUICK-CHANGE CAPABILITY: The gun can be removed from a mount and another gun installed in a short time. Two persons can remove the automatic gun feeder, barrel assembly, and auto gun receiver quickly.

d. MECHANICAL INTERLOCK MISFIRE/HANGFIRE PROTECTION: The receiver assembly mechanical interlock system stops the gun with the bolt locked in the breech if a round misfires or hangfires. During normal firing, the mechanical interlock system is initiated by the breech moving rearward during recoil, striking the rocker arm located below the right rear side of the breech. This rocker arm moves the operating rod forward (located on the base of the receiver), activating the linkage behind the rear chain guide. When activated, the rear chain guide linkage pivots the sear out of the chain area, allowing the chain safety link to pass and allowing the bolt to extract the spent cartridge. If there is no recoil (as is the case when a round misfires or hangfires), the mechanical interlock system is not activated and the sear captures the chain safety link, locking the bolt in the forward position.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS

a. BARREL ASSEMBLY: Mounts in front end of auto gun receiver. The barrel gives directional control to the projectile and brakes some of the barrel recoil. The ribbed barrel has two types of internal finishes, nitride and chrome. While either type of barrel is usable on the standard gun, the chrome barrel is required for the enhanced gun. The non-ribbed barrel is only used on the standard gun.



b. AUTOMATIC GUN FEEDER:

(1) Mounts on top of auto gun receiver.

(2) Removes linked ammunition from chutes.

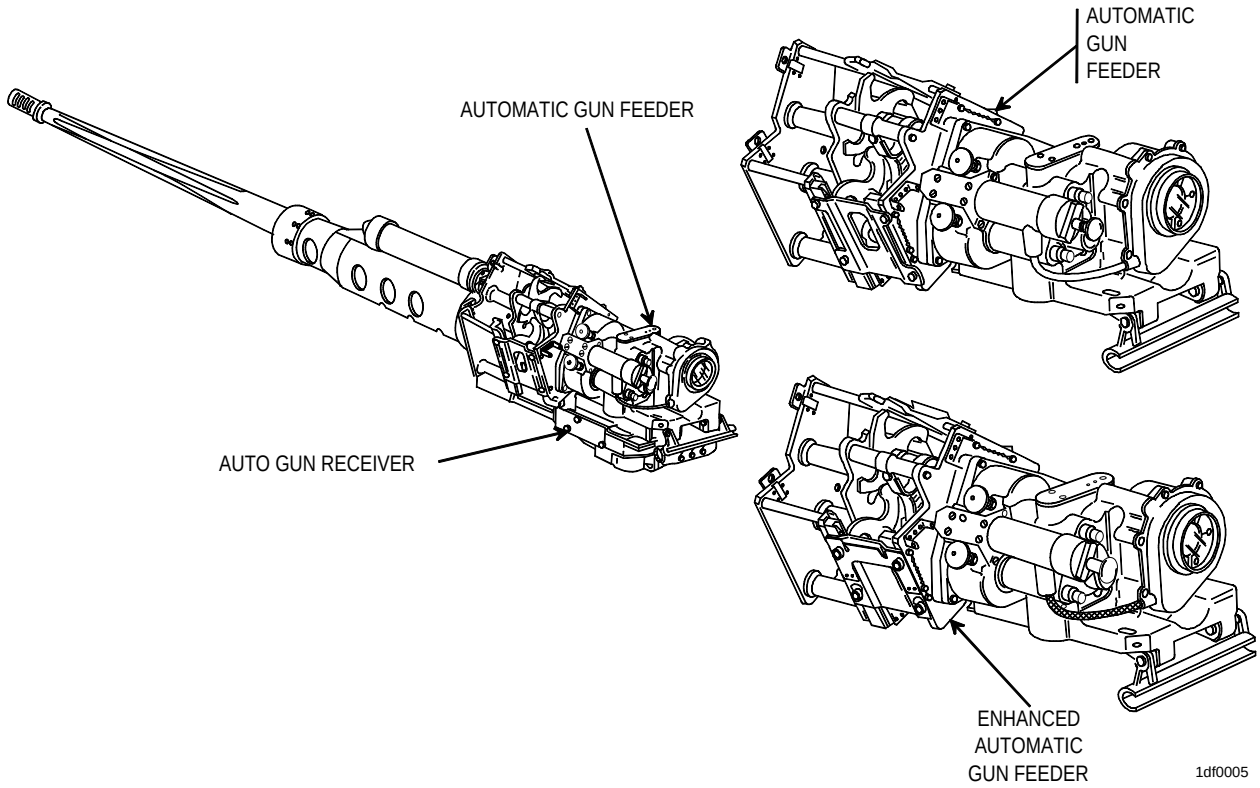
(3) Strips rounds from links.

(4) Places round into face of bolt.

(5) Removes spent cartridge case from face of bolt.

(6) Provides a means of selecting any one of two types of available ammunition.

(7) There are two types of automatic gun feeders, standard and enhanced. The enhanced feeder features quick-detachable link covers and a "built-in-test" (BIT) ready feed select solenoid. While the enhanced feeder is usable with the standard gun, it is required for the enhanced gun.



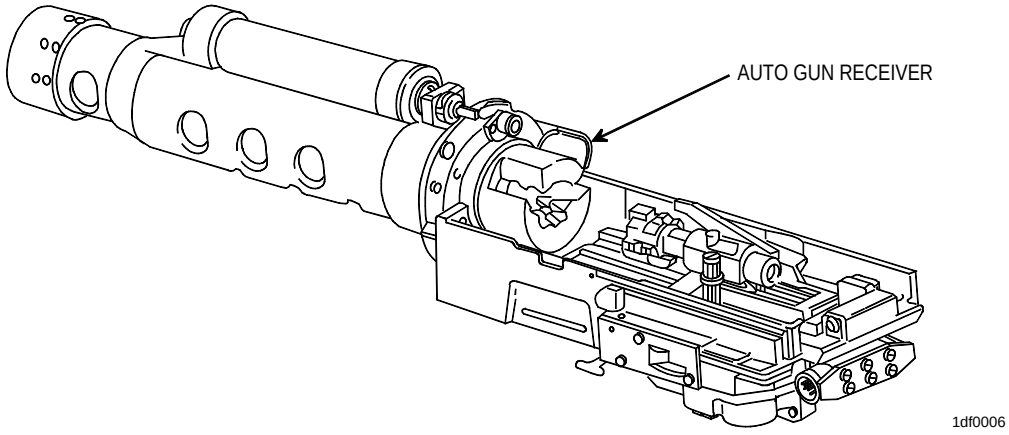
c. AUTO GUN RECEIVER:

(1) Provides a means of securing the automatic gun to a mount.

(2) Rams and fires the rounds, and extracts and ejects spent cartridge cases.

(3) Suppresses the recoil force from the barrel and breech assembly.

(4) There are two types of auto gun receivers, standard and enhanced. The enhanced receiver features a larger breech assembly, longer recoil, a triple spring drive clutch and a BIT-ready gun drive motor. The enhanced auto gun receiver is required for the enhanced gun.



DIFFERENCES BETWEEN STANDARD AND ENHANCED M242 GUNS

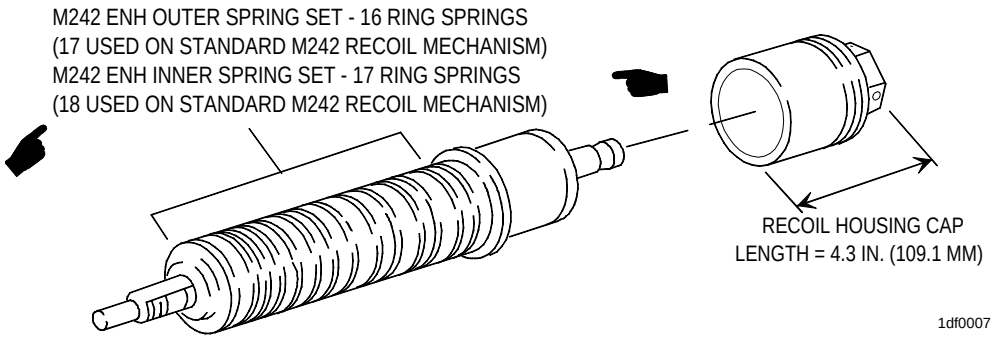
a. M242 ENHANCED GUN IDENTIFICATION. The Enhanced M242 gun (M242 ENH) can be identified by the following markings:

Receiver, PN 12524301: Stamped with "M242 ENH" on the receiver side.
Feeder Assembly, PN 12524100-1: Has "quick detachable" bridges.
Barrel Assembly, PN 12524520: Ribbed barrel assembly with chrome lined bore.

b. M242 ENHANCED GUN UNIQUE COMPONENTS. While the Standard and Enhanced M242 guns share many common components, the Enhanced M242 uses a number of components that are unique and are not interchangeable with the Standard M242 parts.

(1) Recoil Mechanism, PN 12524530 (Standard M242, PN 12524420)
Recoil Housing Cap, PN 12524529 (Standard M242, PN 12524422)

(a) Physical differences: The M242 ENH recoil mechanism uses one less inner and outer ring springs in the recoil spring sets. The damper housing is modified to accommodate the shorter spring stack. All other recoil mechanism components are common with the standard M242 recoil mechanism. The M242 ENH recoil housing cap has an overall length of 4.3 in. (109.1 mm), making it 0.2 in. (4.9 mm) shorter than the older caps used on the standard M242.



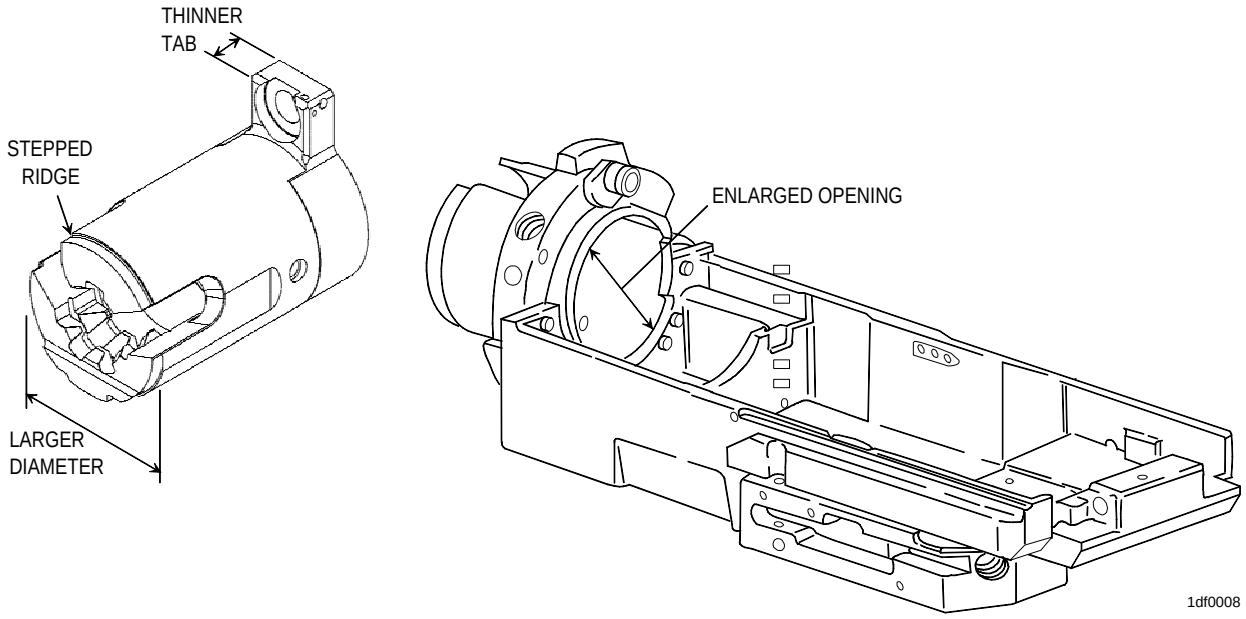
M242 ENH Recoil Mechanism and Recoil Housing Cap

(b) Interchangeability: The M242 ENH recoil mechanism is not interchangeable with the Standard M242 recoil mechanism, and may only be used in the M242 ENH. The inner and outer spring sets, and damper housing are not interchangeable with the Standard M242 recoil mechanism components.

The M242 ENH gun requires the short recoil cap, PN 12524529. The Standard M242 may use either recoil housing cap PN 12524422 or PN 12524529.

(2) Breech Assembly, PN 12524527 (Standard M242, PN 12524370)
Receiver Assembly, PN 12524364 (Standard M242, PN 12524360)

(a) Physical differences: The breech outer diameter was increased by 5 mm, and a stepped ridge is cut into the breech's aft end. The recoil mechanism tab thickness was reduced to provide the correct interface with the M242 ENH recoil mechanism. The M242 ENH receiver housing opening was enlarged to accommodate the larger breech diameter.

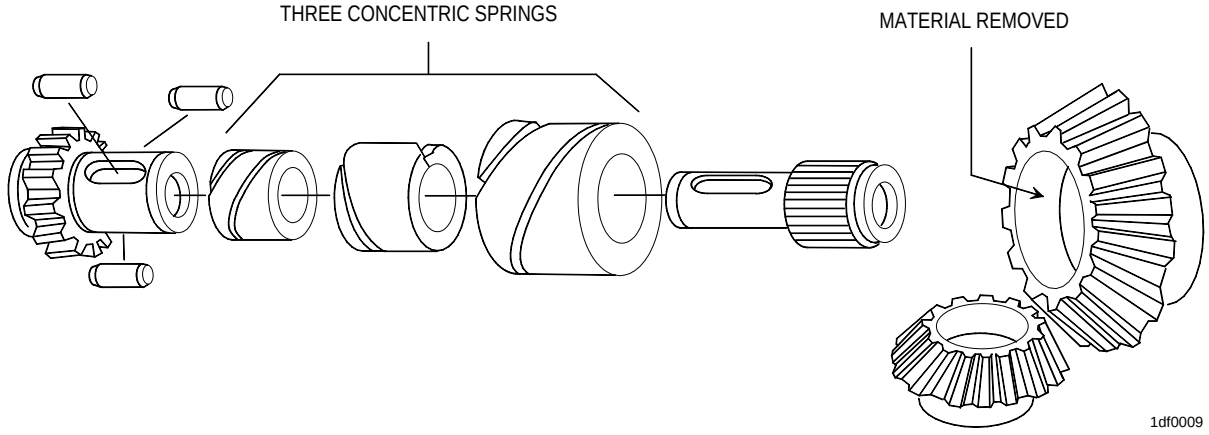


M242 ENH Breech and Receiver Assemblies

(b) Interchangeability: The M242 ENH breech and receiver assemblies are not interchangeable with the Standard M242 breech and receivers.

(3) Triple Spring Clutch, PN 12524542 (Standard M242, PN 12524146)
Bevel Gear Set, PN 12524549 (Standard M242, PN 12524257)

(a) Physical differences: The M242 ENH receiver clutch uses three concentric springs, instead of the single or double spring arrangements found on the standard M242. All of the triple spring clutch components have been redesigned and differ from the single and double spring clutch components. The bevel gear mating with the triple spring clutch has had material removed to provide clearance for the larger diameter clutch spring set.



M242 ENH Triple Spring Clutch and Bevel Gear Set

(b) Interchangeability: The triple spring clutch and new bevel gear set are not individually interchangeable with the single/double spring clutch or the old bevel gear set; they must be used together. The M242 ENH must use the triple spring clutch and the new bevel gear set. The Standard M242 could use the triple spring clutch and the new bevel gear set if both components are installed at the same time.

DIFFERENCES BETWEEN STANDARD AND ENHANCED M242 GUNS - Continued

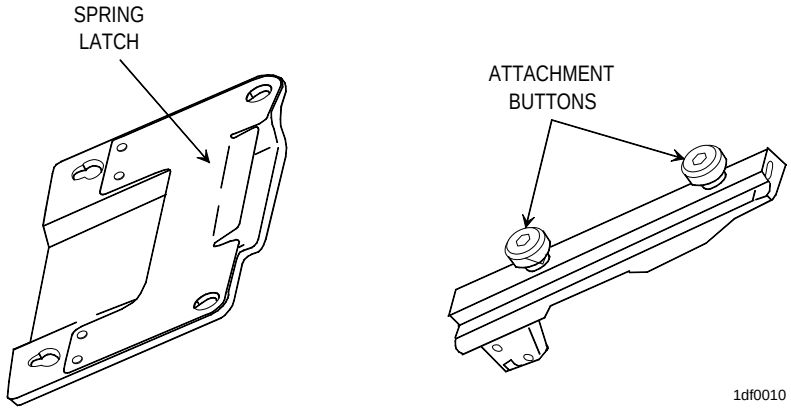
(4) Barrel Assembly, PN 12524520

(a) Physical differences: The M242 ENH guns have been fielded with a ribbed barrel assembly with a chrome lined bore to provide longer barrel life. Barrel assemblies fielded with Standard M242 guns (round barrel assembly, PN 12524001 and ribbed nitride barrel assembly, PN 12524507) have nitride bores.

(b) Interchangeability: The ribbed chrome barrel assembly is useable on all configurations of M242 guns. The ribbed chrome barrel assembly components (with the exception of the barrel) are common with the ribbed nitride barrel assembly (PN 12524507). The round and ribbed nitride barrels will fit and function with the M242 ENH; however, their use is not encouraged.

(5) Link Bridge, PN 12524584 (Standard M242, PN 12524489 and PN 12524488)
Rear Upper Link Stripper, PN 12524576 (Standard M242, PN 12524484)
Rear Lower Link Stripper, PN 12524577 (Standard M242, PN 12524487)
Forward Upper Link Stripper, PN 12524578 (Standard M242, PN 12524485)
Forward Lower Link Stripper, PN 12524579 (Standard M242, PN 12524486)
Forward Feeder Assembly, PN 12524574 (Standard M242, PN 12524273)
Rear Plate Assembly, PN 12524575 (Standard M242, PN 12524190)

(a) Physical differences: The M242 ENH bridges have an integral attachment spring latch. Both the upper and lower feed paths use the same bridge, as opposed to the two different bridges used on the Standard M242 feeder assembly. The four link strippers used on the M242 ENH have attachment buttons installed to secure new bridges instead of the capscrews used on the Standard M242 feeder assembly. The attachment buttons are positioned so that the new bridge will always be installed correctly. Both the forward feeder assembly and the rear plate assembly have had material removed from the outer edges to allow clearance for the new bridge's attachment spring.



M242 ENH Bridge and Typical Link Stripper

(b) Interchangeability: The M242 ENH bridges and link strippers are not "one for one" interchangeable with the Standard M242 feeder assembly bridges and link strippers. The M242 ENH must only use the new bridges and link strippers. The forward feeder assembly and rear plate assembly are useable on the Standard M242, but must be used on the M242 ENH. The M242 ENH bridges and link strippers could be installed on a standard M242 if both M242 ENH forward feeder assembly and rear plate assembly are installed at the same time. All of these M242 ENH components are part of the M242 ENH feeder assembly, PN 12524100-1. While the new feeder assembly must be used with the M242 ENH, it will work interchangeably with the Standard M242 gun.

(6) Gun drive motor, PN 12524409 (Standard M242, PN 12524494 and PN 12524473)
Feed Select Solenoid, PN 12524404 (Standard M242, PN 12524168 and 12524181)
Feed Select Solenoid Harness, PN 12524403 (Standard M242, PN 12524167)

(a) Physical differences: The M242 ENH gun drive motor is a 1.0 horsepower direct current motor that contains a jumper wire in the motor/turret jack (J1) between pins J1-M and J1-M. This jumper wire provides a means for vehicle built in test (BIT) to determine whether the turret gun wiring harness is properly attached to the gun drive motor. This jumper wire is the only difference between the M242 ENH gun drive motor and the Standard M242 1.0 HP motor (PN 12524494). The M242 ENH feed select solenoid (FSS) and FSS harness contain a jumper wire in the 14 pin connector (P1) between pins P1-K and P1-N. This jumper wire provides a means for vehicle BIT to determine if the feeder assembly handle is properly closed. This jumper wire is the only difference between the new M242 ENH FSS and harness, and the Standard M242 FSS with detachable harness (PN 12524168) and FSS harness (PN 12524167). The FSS solenoid bodies are identical in the two configurations.

(b) Interchangeability: The M242 ENH will function with any gun drive motor, FSS or FSS harness; however, if the vehicle BIT attempts to check for proper gun drive motor connection and feeder handle position, it will report faults if the new gun drive motor and FSS are not installed. It is highly recommended that only the new components be installed in the M242 ENH gun. The new motor, FSS, and FSS harness are fully interchangeable with the standard M242 gun.

EQUIPMENT DATA

Caliber	25-mm Dual Feed
Ammunition Data	
U.S. Combat	M791 (APDS-T), M792 (HEI-T) M919 (APFDS-T)
U.S. Target Practice	M793 (TP-T), M910 (TPDS-T)
European	Oerlikon KBA Type (all)
Muzzle Velocity	
M792, M793	3610 ft/sec (1100 m/sec)
M791	4462 ft/sec (1360 m/sec)
M919	4545 ft/sec (1385 m/sec)
Weight	
Auto Gun Receiver	90 lb (40.8 kg)
Barrel Assembly (Ribbed)	107 lb (48.5 kg)
Barrel Assembly (Non-Ribbed)	95 lb (43.0 kg)
Automatic Gun Feeder	59 lb (26.7 kg)
Total Gun System (Ribbed Barrel)	256 lb (116.1 kg)
Total Gun System (Non-Ribbed Barrel)	244 lb (110.5 kg)
Dimensions	
Gun Length (with Non-Ribbed Barrel Assembly)	108.7 in. (276.1 cm)
Gun Length (with Ribbed Barrel Assembly)	105.2 in. (267.2 cm)
Width	13.0 in. (33.0 cm)
Height	15.0 in. (38.0 cm)
Length Behind Front of Feed	21 in. (53.3 cm)
Barrel Length (Non-Ribbed Barrel Assembly)	85.98 in. (218.4 cm)
Barrel Length (Ribbed Barrel Assembly)	82.36 in. (209.2 cm)

EQUIPMENT DATA - Continued

Rate of Fire	Single Shot; 100, 200
Time to Rate	0.15 sec
Time to Stop	0.12 sec
Power Required Single Shot,100, 200 spm	1.0 hp at 24 Vdc
Clearing Method (Cookoff Safe)	Open Bolt
Safety	Absolute Hangfire Protection
Case Ejection	Forward
Peak Recoil Force	12,000 pounds-force (53,400 Newtons) (Standard Gun)
	9,000 pounds-force (40,000 Newtons) (Enhanced Gun)
Dispersion	0.5 mil
Reliability Demonstrated	22,000 Mean Rounds Between Failure (MRBF)

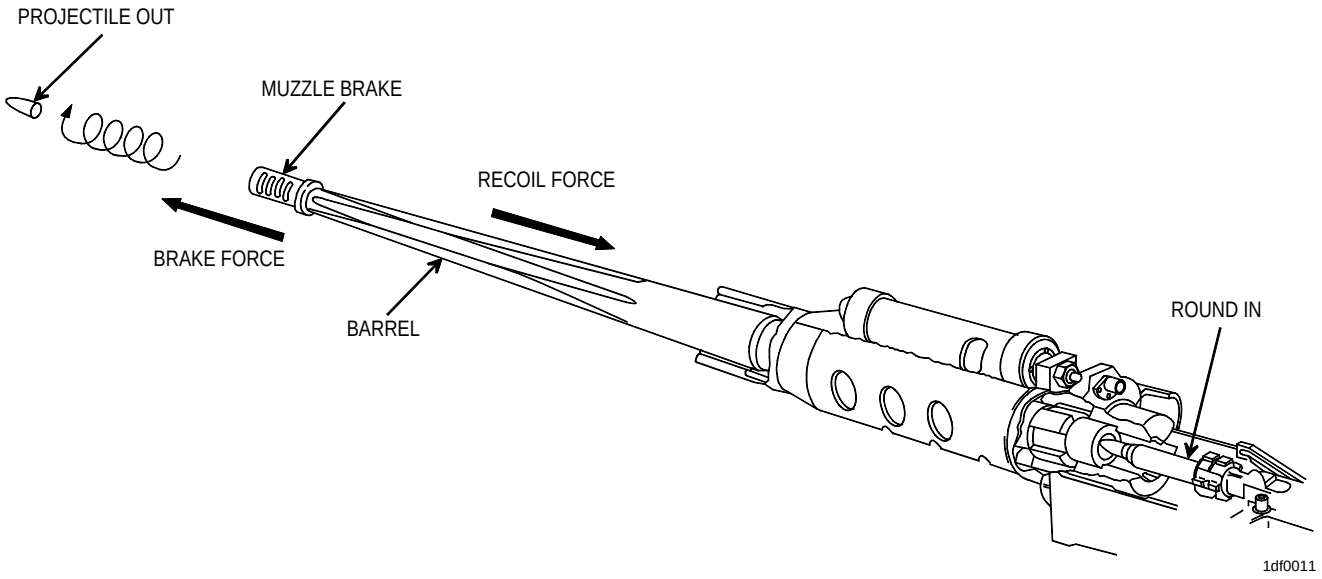
END OF WORK PACKAGE

UNIT AND DIRECT SUPPORT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

THEORY OF OPERATION

BARREL ASSEMBLY OPERATION



The barrel assembly gives directional control to projectile. The barrel assembly consists of the following components.

a. BARREL:

(1) Receives rounds in the cartridge chamber at breech end of barrel.

(2) Helps contain explosive force when round fires.

(3) Develops a right-spin rotation to projectile.

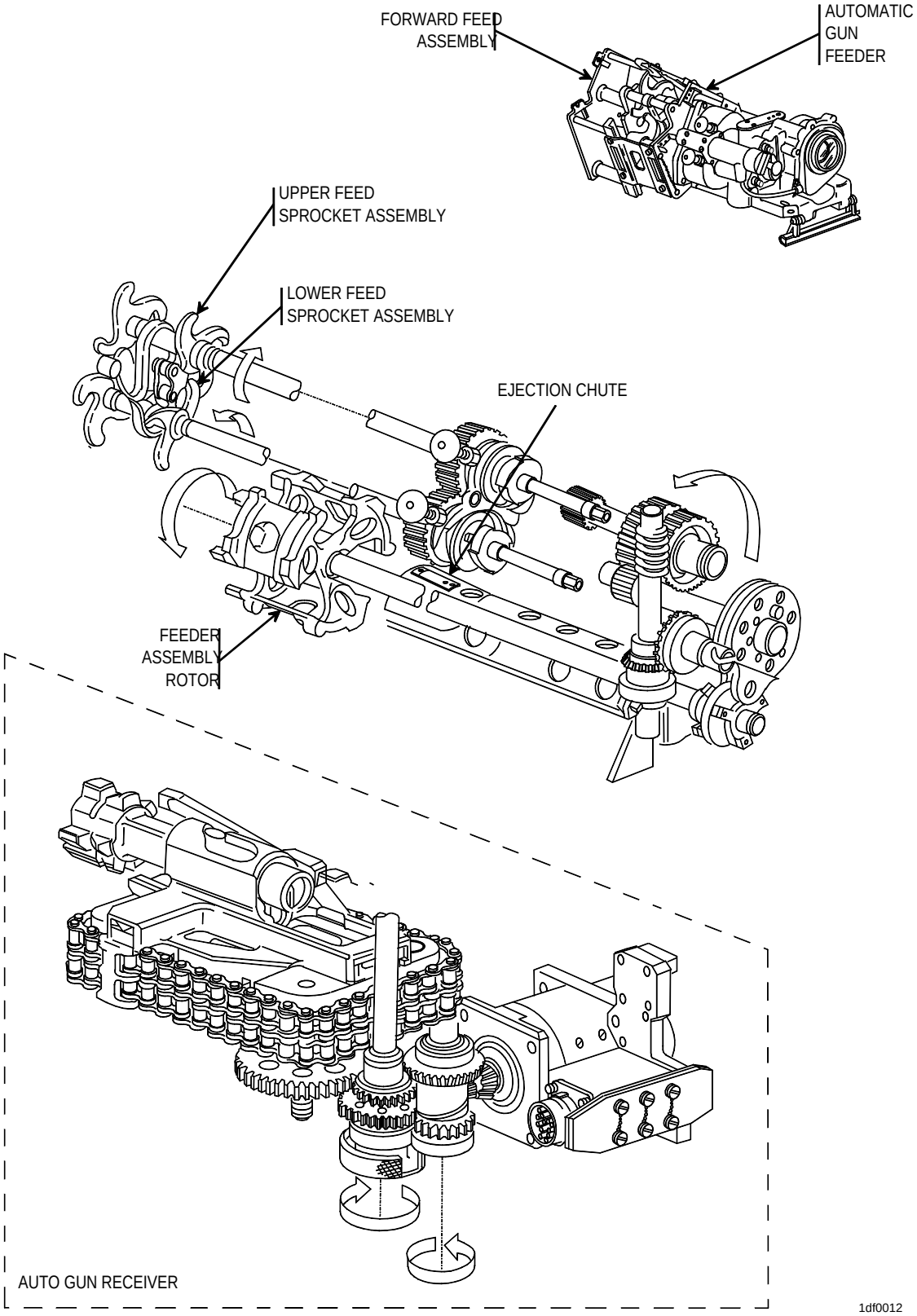
b. MUZZLE BRAKE:

(1) Counters some explosive recoil force.

(2) Disperses muzzle blast.

(3) Reduces blast flash.

AUTOMATIC GUN FEEDER OPERATION



a. AUTOMATIC GUN FEEDER FORWARD FEED SECTION: The forward feed section pulls linked rounds into the gun; separates the rounds and links; places rounds in the bolt face; removes spent round cases from the bolt face; and aids in ejecting spent cases from the gun. The forward feed section consists of the following components:

(1) FORWARD FEED ASSEMBLY:

(a) Supports upper feed and lower feed sprocket assemblies.

(b) Supports feeder assembly rotor.

(c) Provides mounting for the forward feeder gate, lower round guide, and the two forward link strippers.

(d) Provides a mounting bracket for the forward end of the feed chutes.

(e) Supports the forward end of the ejection chute.

(2) UPPER FEED SPROCKET ASSEMBLY: The upper feed sprocket strips AP rounds from links and places them in the feeder assembly rotor.

(3) LOWER FEED SPROCKET ASSEMBLY: The lower feed sprocket strips HE rounds from links and places them in the feeder assembly rotor.

(4) ROUND POSITIONER ASSEMBLY: The round positioner assembly guides and positions the rounds during transfer from sprocket assemblies to feeder assembly rotor.

(5) FEEDER ASSEMBLY ROTOR:

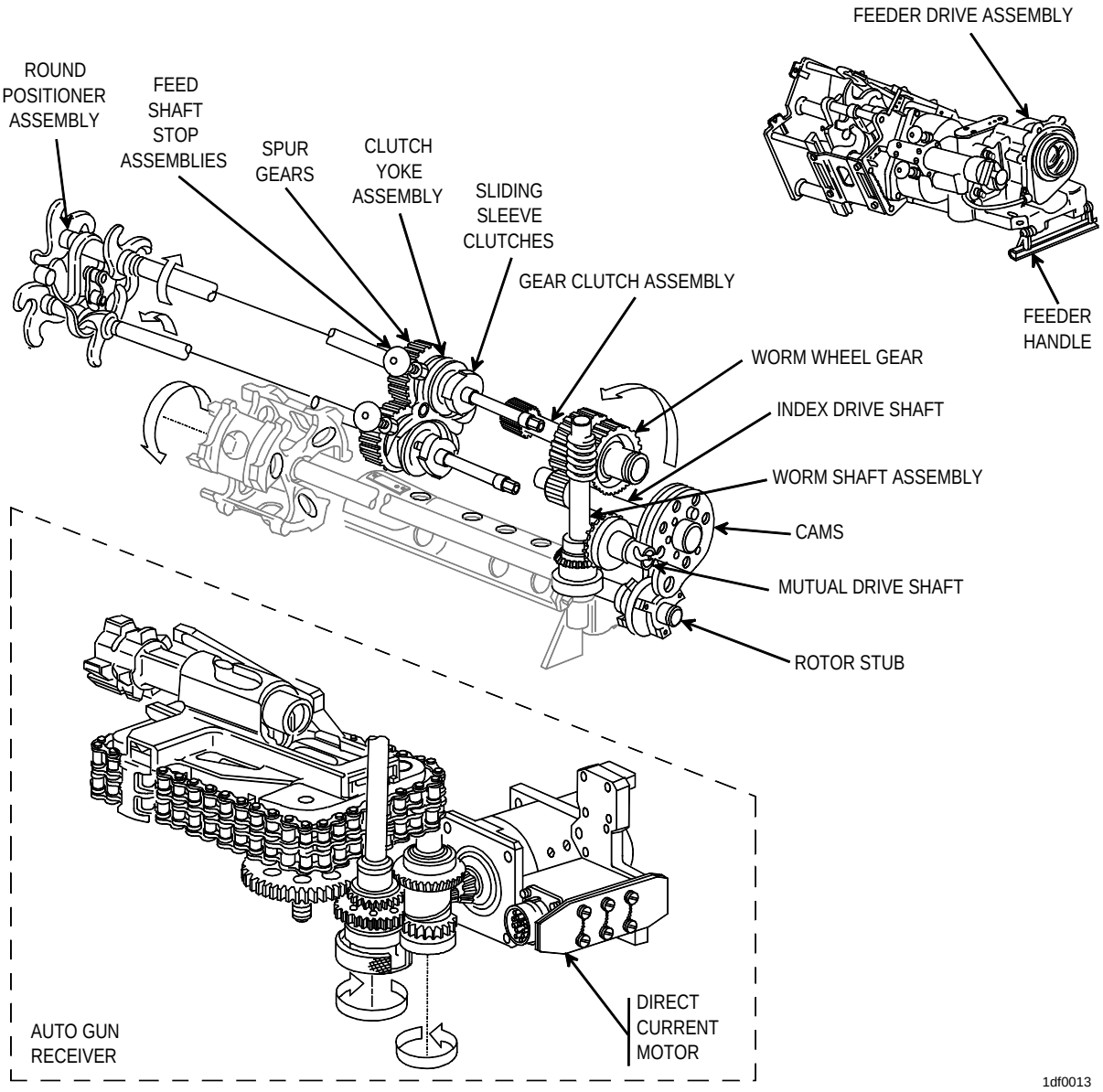
(a) Takes rounds from the sprocket assemblies.

(b) Positions rounds in bolt face.

(c) Moves spent cases in front of the ejector.

(6) EJECTION CHUTE: The ejection chute guides spent cases to the eject port on the auto gun receiver.

AUTOMATIC GUN FEEDER OPERATION - Continued



b. FEEDER DRIVE ASSEMBLY: Mounts and drives the forward feeder section components and controls feed selection. Provides a means to manually operate the gun during a power failure, and sends electrical signals to the turret controls indicating the position of the bolt. The feeder drive assembly contains the following components:

(1) WORMSHAFT ASSEMBLY: Driven by the auto gun receiver drive shaft. The wormshaft assembly turns the worm wheel gear and also provides a means to manually operate the gun through the manual drive gear.

(2) WORM WHEEL GEAR: Drives the gear clutch assembly.

(3) GEAR CLUTCH ASSEMBLY: The spur gearshaft, of the gear clutch assembly, drives the upper spur gear and the index drive shaft with the clutch spur gear. The gear clutch assembly also provides for timing the index drive section with the feed shaft section. The clutch will slip if the automatic gun feeder jams.

(4) UPPER SPUR GEAR: Drives the lower spur gear and the upper sliding sleeve clutch (when engaged by the electrical solenoid).

(5) LOWER SPUR GEAR: Drives the lower sliding sleeve clutch (when engaged by the electrical solenoid).

NOTE

The lower shouldered shaft and sliding sleeve clutch operates the same as the upper shouldered shaft and sliding sleeve clutch.

(6) UPPER SLIDING SLEEVE CLUTCH: Drives the upper shouldered shaft (when engaged) which in turn drives the upper feed sprocket assembly.

(7) UPPER SHOULDERED SHAFT: Drives the upper feed sprocket assembly (when engaged) which in turn strips rounds from links. Contains lugs that mate with the feed shaft stop assemblies.

(8) CLUTCH YOKE ASSEMBLY: Rotated by the electrical feed select solenoid. The clutch yoke assembly engages or disengages the sliding sleeve clutch assemblies when the feed selection is changed by the electrical feed select solenoid either manually or electrically.

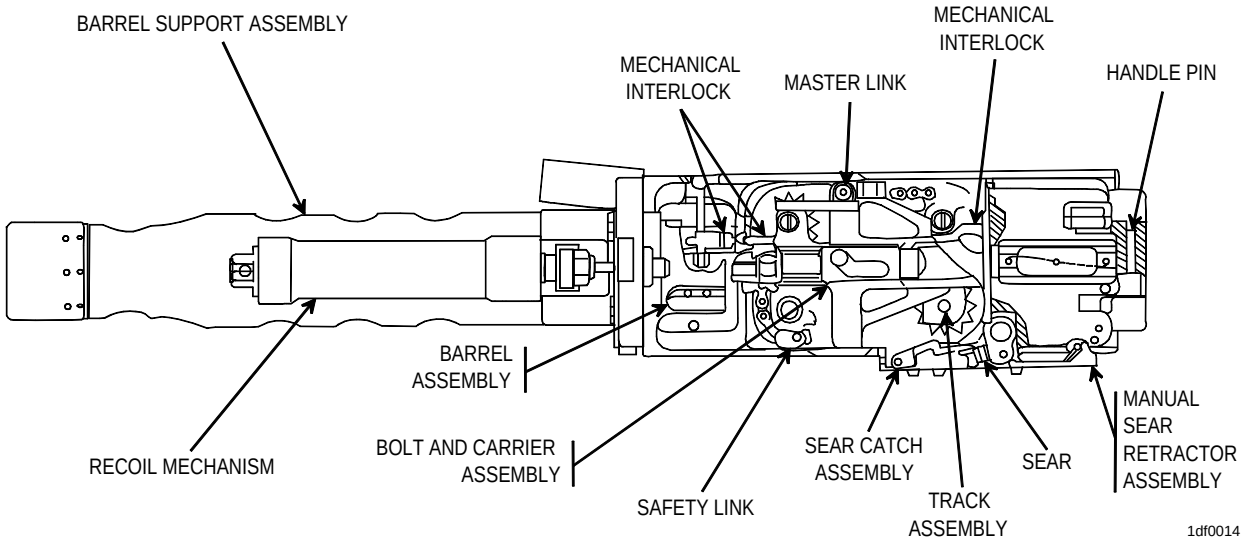
(9) INDEX DRIVE SHAFT: Driven by the gear clutch assembly. The index drive shaft is timed with the gear clutch assembly and rotates the rotor stub, which provides the sprocket assemblies with proper ratio to the feeder assembly rotor. The index drive shaft also rotates the control cam to give the position of the bolt.

(10) ROTOR STUB: Drives the feeder assembly rotor and provides the proper ratio between the sprocket assembly and feeder assembly rotor.

(11) FEEDER HANDLE: Locks the automatic gun feeder to the auto gun receiver and provides a quick disconnect between the feeder and receiver electrical connectors when the handle is in the unlocked position.

(12) ELECTRICAL FEED SELECT SOLENOID: Provides manual or electrical selection of ammunition type (AP or HE). The feed select solenoid harness used on the enhanced feeder provides a jumper connection to allow for BIT on the vehicle.

AUTO GUN RECEIVER OPERATION



a. AUTO GUN RECEIVER: Rams and fires rounds. Extracts and ejects spent cases or unfired rounds. Contains a mechanical interlock system that stops the gun if a round misfires or hangfires. The auto gun receiver consists of the receiver gears, track assembly, and bolt and carrier assembly, and includes the following subassemblies:

(1) BARREL SUPPORT ASSEMBLY: Holds breech assembly in auto gun receiver and supports barrel.

(2) RECOIL MECHANISM: Absorbs most of recoil force when round fires. The enhanced gun features a longer recoil stroke to further reduce recoil load.

(3) BREECH ASSEMBLY: Fits into front end of auto gun receiver and around barrel. Breech assembly and bolt lugs lock to contain explosive force when round fires. The enhanced gun features a larger breech that is not interchangeable with the standard gun.

(4) SEAR: Controlled by electrical sear solenoid and mechanical interlock. Locks roller assembly chain in event of misfire, by engaging the safety link, and in the SEAR position, by engaging the master link.

(5) SEAR CATCH ASSEMBLY: Keeps roller assembly chain from rebounding backward during firing recoil.

(6) SEAR RETRACTOR ASSEMBLY: Provides a means to manually disengage the sear during manual emergency operation.

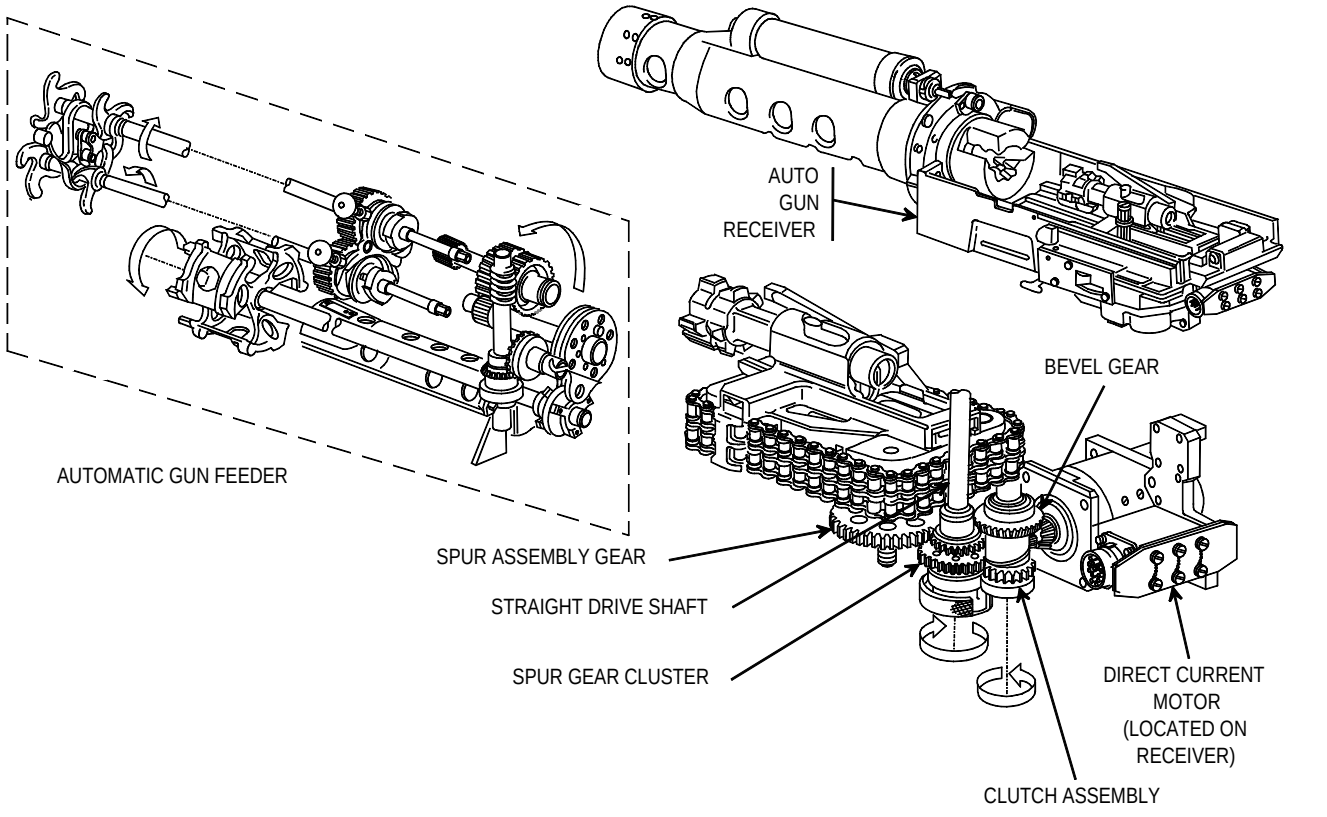
(7) MECHANICAL INTERLOCK: Engages sear to stop bolt from being unlocked from breech assembly if there is no recoil (round misfires or hangfires).

(8) DIRECT CURRENT MOTOR: Drives gears and mechanism required to operate gun. The enhanced gun direct current motor provides a jumper connection that enables vehicle BIT.

(9) HANDLE PIN: Applies spring tension to lock feeder handle on one side and provides a lock on the opposite side.

(10) ELECTRICAL SEAR SOLENOID: Provides electrical control of sear through the release link and sear push rod.

(11) RIVETED RECEIVER: Contains or provides attachment for all auto gun receiver components and subassemblies. The enhanced gun riveted receiver features a larger front housing to accommodate the larger breech.



b. RECEIVER GEARS: Driven by direct current motor. Receiver gears work as follows:

(1) BEVEL GEARS: The small bevel gear, mounted on the motor shaft, drives the large bevel gear, which in turn drives the clutch assembly. The enhanced gun requires a unique set of gears to accommodate its triple spring clutch assembly.

(2) CLUTCH ASSEMBLY: Drives spur gear cluster. If gun jams, clutch assembly slips to prevent damage to drive train. The enhanced gun requires the triple spring clutch assembly.

(3) SPUR GEAR CLUSTER: Drives the straight drive shaft and spur assembly gear.

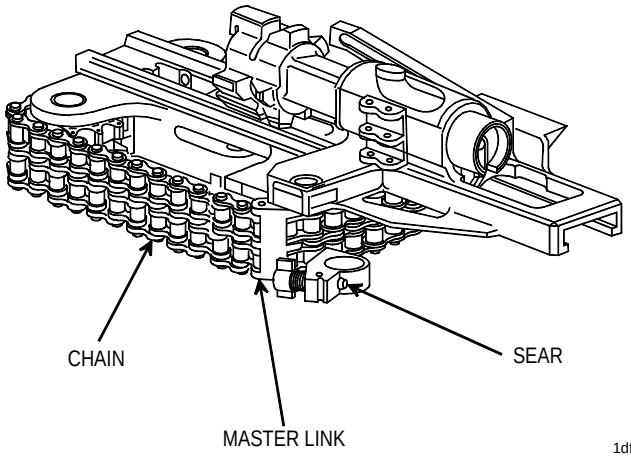
(4) STRAIGHT DRIVE SHAFT: Drives the feeder drive assembly.

(5) SPUR ASSEMBLY GEAR: Drives the drive sprocket in the bolt and track assembly.

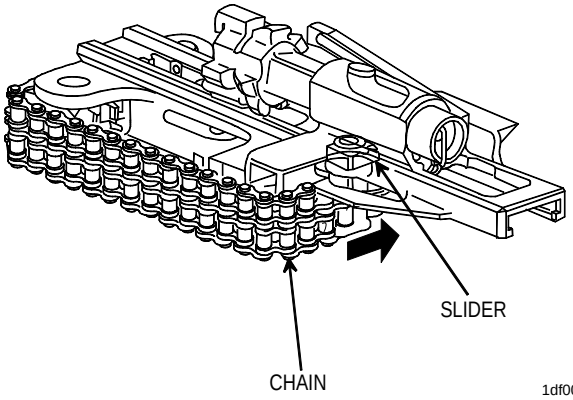
AUTO GUN RECEIVER OPERATION - Continued

c. TRACK ASSEMBLY: Driven by the track drive sprocket. The track assembly accomplishes the following during each complete cycle:

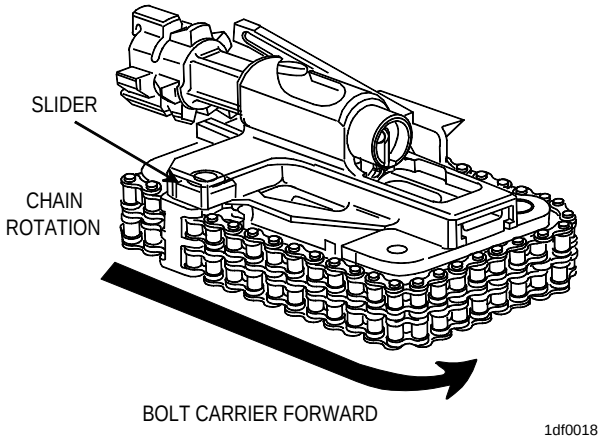
(1) Sear engages master link and positions the roller assembly chain before firing.



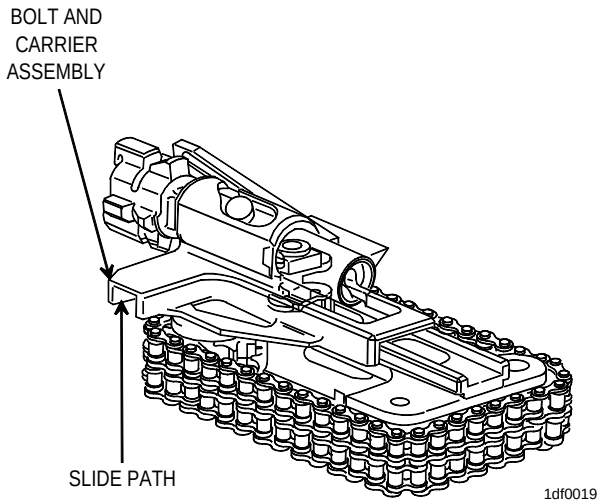
(2) After sear release, drive sprocket drives the roller assembly chain including master link and master link slider.



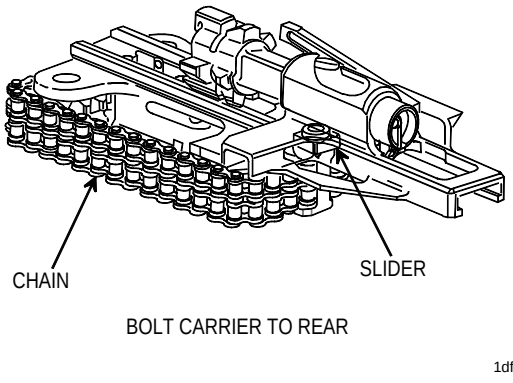
(3) Master link slider fits into the slider path in the bolt and carrier assembly. As roller assembly chain rotates (counterclockwise) around sprockets, the slider moves the bolt and carrier assembly forward and backward.



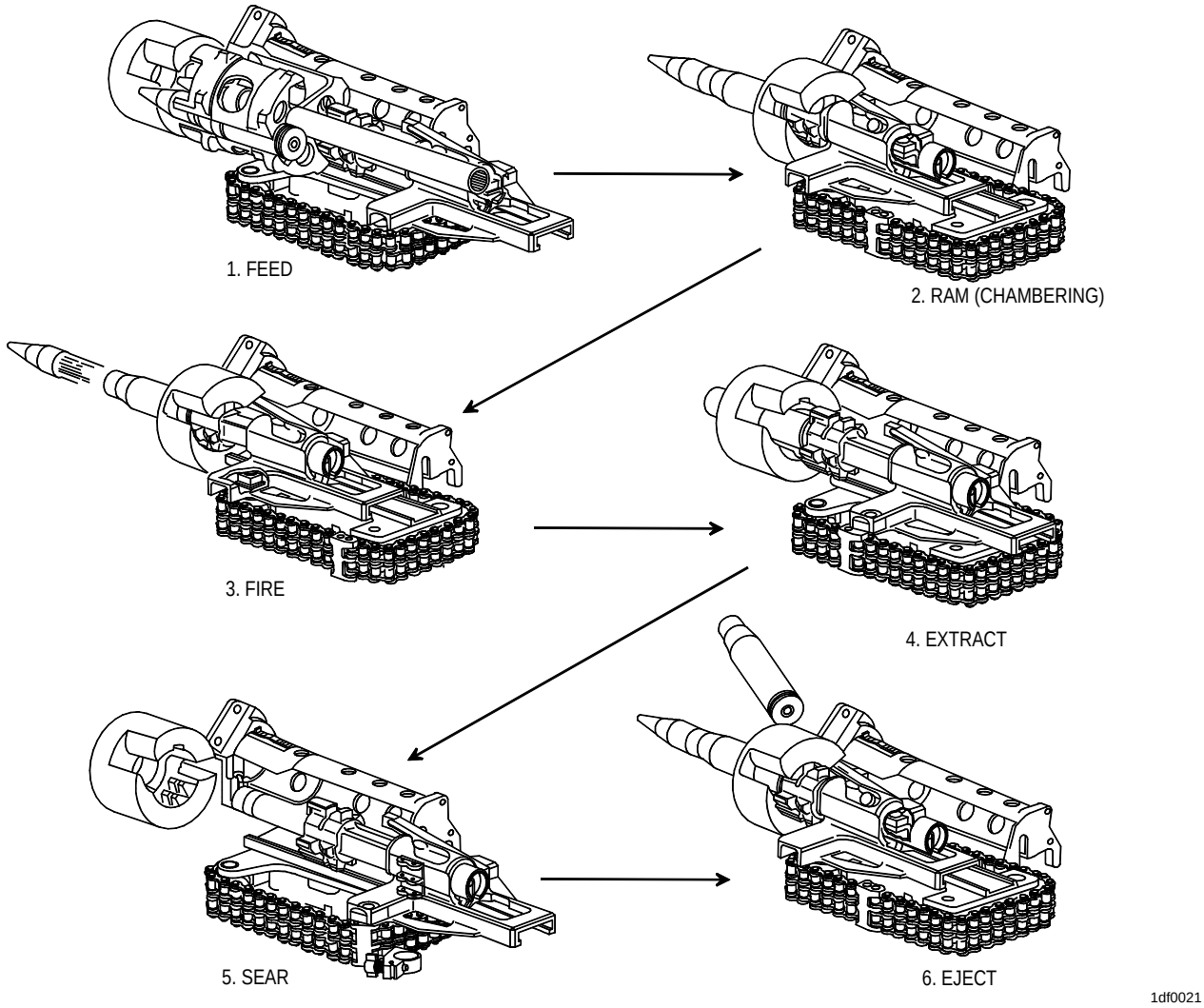
(4) When bolt and carrier assembly is in the forward position, the slider moves from right to left across the slider path (firing dwell time to allow hot gases to escape).



(5) When bolt and carrier assembly is in the rear position, the slider moves from left to right across the slider path (feed dwell time to allow a new round to be positioned in the bolt face, and the spent case positioned in front of the ejector).



AUTO GUN RECEIVER OPERATION - Continued



d. BOLT AND CARRIER ASSEMBLY: Driven by track assembly. The bolt and carrier assembly accomplishes the following operations during each complete cycle:

(1) When the carrier assembly is in the rear position, the feeder assembly rotor positions a new round in the bolt face.

(2) Rotation of the roller assembly chain (counterclockwise) moves the carrier assembly forward. In the forward position, locking lugs on the bolt lock into the breech locking lugs.

(3) Firing assembly pin is cocked, then released, and the round fires.

(4) Bolt and carrier assembly starts to move to the rear, unlocking the bolt and breech lugs, and extracts the spent case.

(5) In SEAR position, the gun is locked in the open bolt position and ready to repeat the firing cycle.

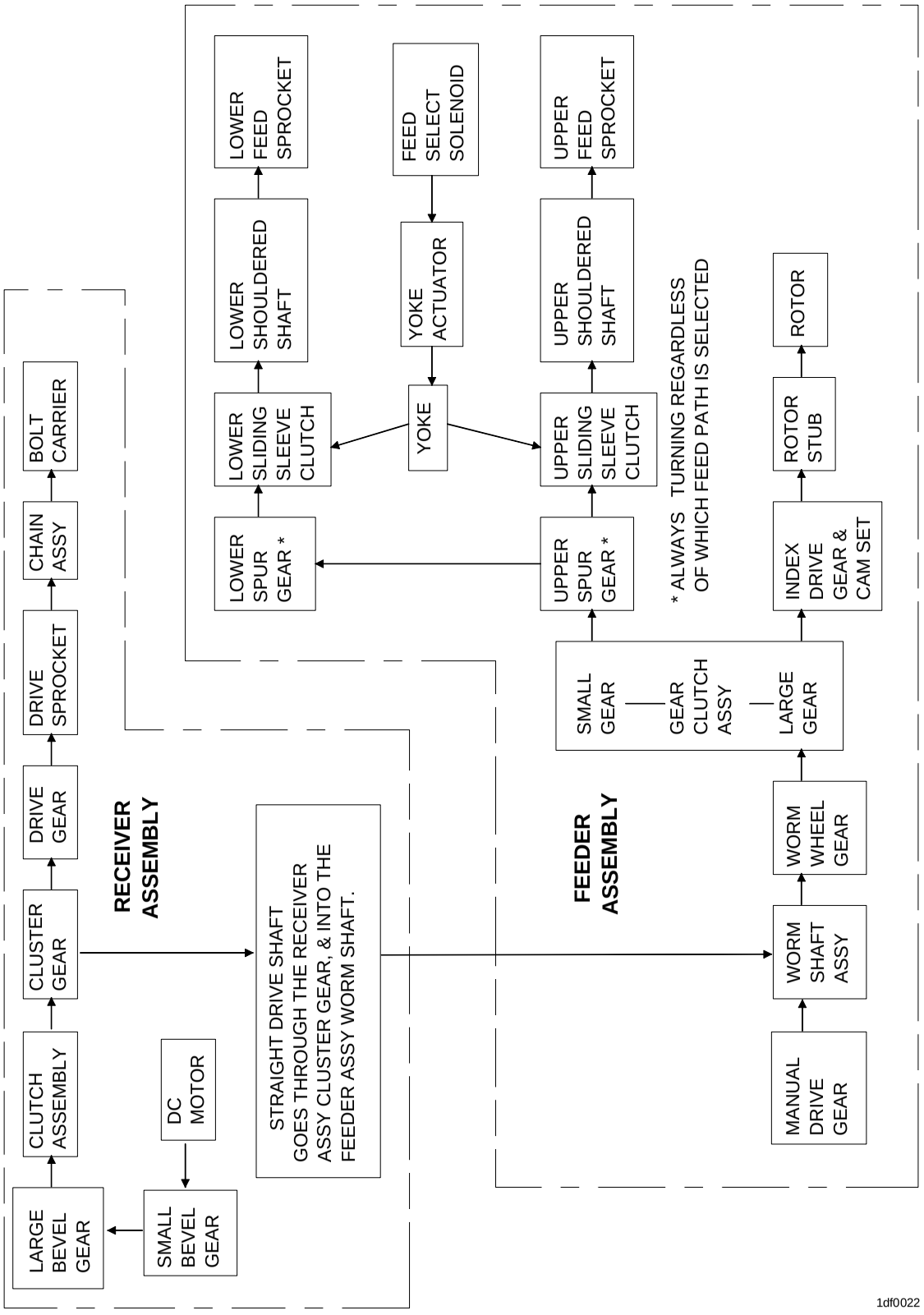


Figure 1. Receiver and Feeder Assembly Mechanical Components Block Diagram.

ELECTRICAL SYSTEM OPERATION

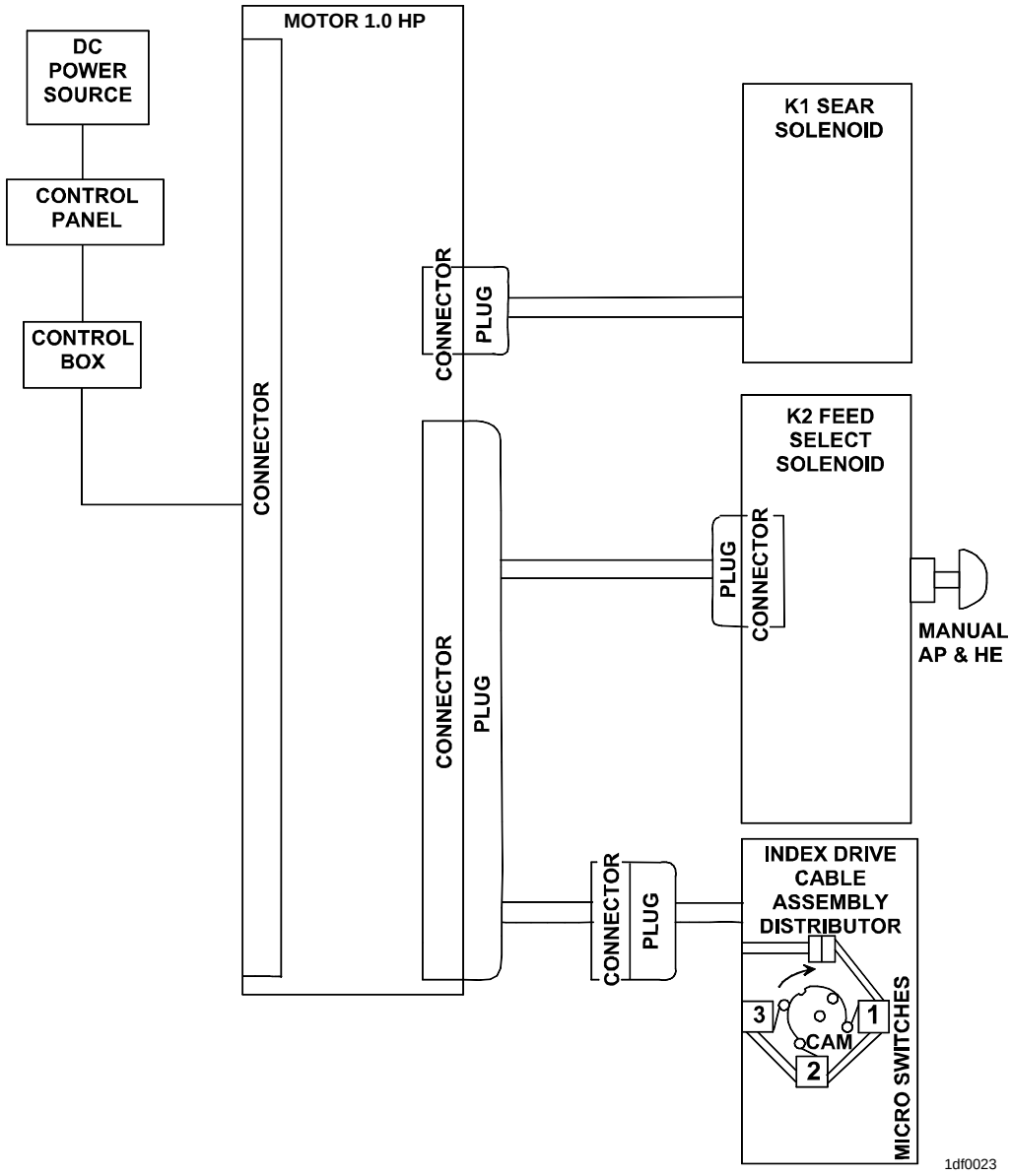


Figure 2. M242 Gun Electrical System Block Diagram.

The electrical system consists of the direct current motor, electrical sear solenoid, electrical feed select solenoid, and index drive cable assembly. See Figures 3 and 4 for the electrical wiring diagrams. Component functions are:

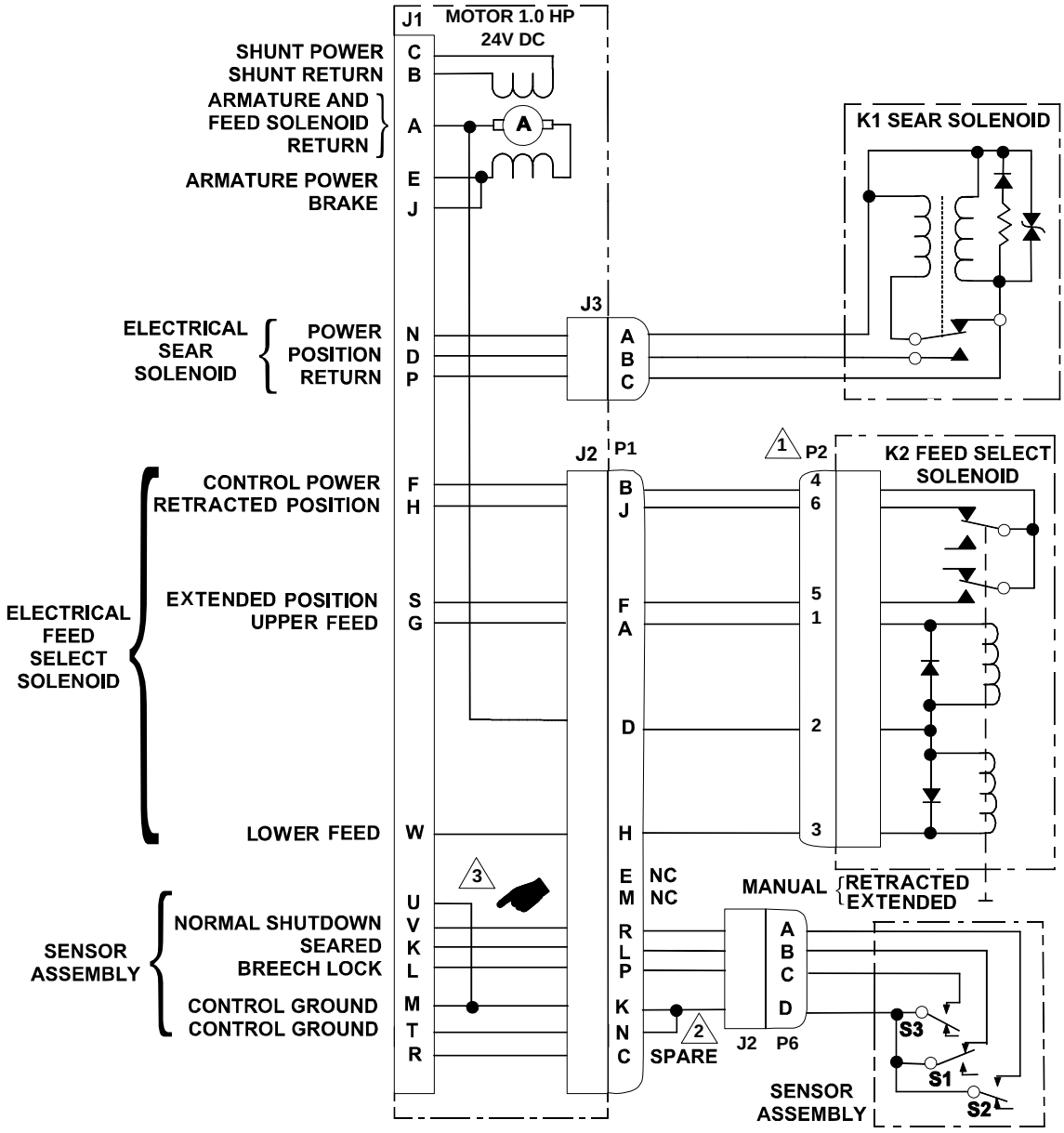
a. DIRECT CURRENT MOTOR: Operates on voltages between 18 and 30 Vdc and drives the auto gun receiver and automatic gun feeder gears. Contains junction and connectors for interface between auto gun receiver and automatic gun feeder. The enhanced gun motor contains a jumper wire that enables on-vehicle BIT.

b. ELECTRICAL SEAR SOLENOID: Controls sear by moving release link and sear push rod.

c. ELECTRICAL FEED SELECT SOLENOID: Provides manual and electrical selection of AP or HE ammunition. Sends an electrical signal to the control panel to indicate ammunition selection. Contains connector for interface between automatic gun feeder and auto gun receiver. The enhanced gun solenoid contains a jumper wire to enable on-vehicle BIT.

d. INDEX DRIVE CABLE ASSEMBLY: Provides sensing of the bolt position through a series of three microswitches. Sends electrical signals through the electrical feed select solenoid cable to the control box and control panel to provide the necessary control and indication functions (normal shutdown, seared, or breech locked).

ELECTRICAL SYSTEM OPERATION - Continued



1 P2 is only used on PN 12524168 & 12524404 Feed Select Solenoids. The Feed Select Solenoid Harness is hard wired on the PN 12524181 Feed Select Solenoid.

2 Feed Select Solenoid P1/Pin N Jumper Wire is only installed on PN 12524403 Feed Select Solenoid Harness.

3 Motor J1/Pin U Jumper Wire is only installed on PN 12524409 Direct Current Motor.

1df0024

Figure 3. Electrical Wiring Diagram for Standard M242 Gun.

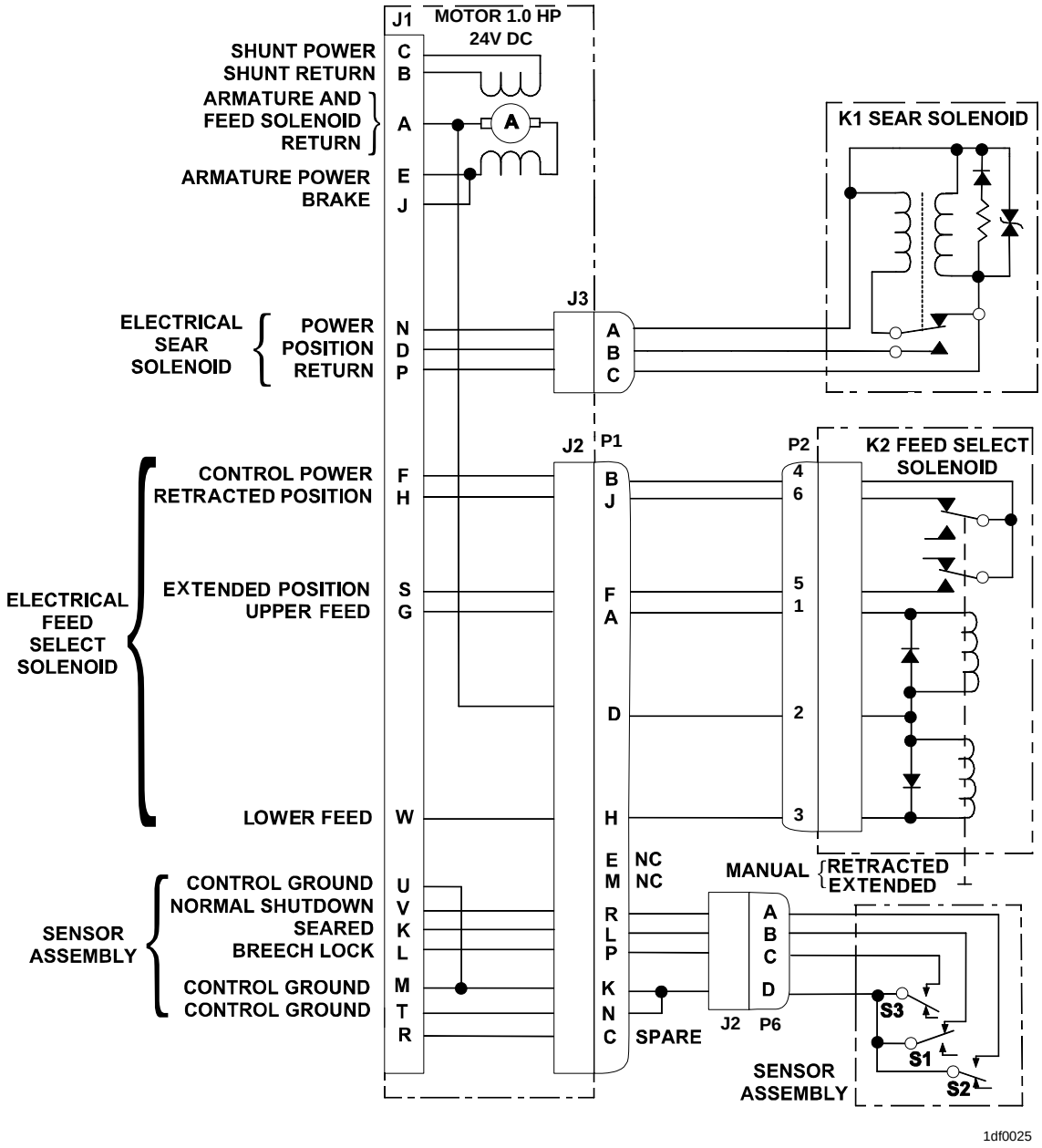


Figure 4. Electrical Wiring Diagram for Enhanced M242 Gun.

END OF WORK PACKAGE

CHAPTER 2

UNIT TROUBLESHOOTING PROCEDURES FOR M242 25-MM AUTOMATIC GUN AND M242 25-MM ENHANCED AUTOMATIC GUN

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

TROUBLESHOOTING INDEX

GENERAL

a. Troubleshooting procedures are limited to those listed in the troubleshooting symptom index. The table lists the common malfunctions which you may find during the operation or maintenance of the M242 Gun or its components. You should perform the tests/inspections and corrective actions in the order listed.

b. This manual cannot list all malfunctions that may occur, nor all tests or inspections and corrective actions. If a malfunction is not listed or is not corrected by listed corrective actions, notify your supervisor.

CHECK/SYMPTOM INDEX

NOTE

This check/symptom index can only be used as a general reference to troubleshooting. Troubleshoot your gun in the order shown by the diagrams. Always do the functional test first in order to verify the symptom. After repair, repeat the functional test to verify proper function.

Check	Work Package
Automatic Gun Feeder Electrical Check	WP 0006
Automatic Gun Feeder Manual Cycle Check	WP 0007
Auto Gun Receiver Manual Cycle Check	WP 0008
Electrical Checkout	WP 0005

Symptom	
Excessive Recoil or Inadequate Damping	WP 0015
Gun Cycles But Will Not Fire	WP 0013
Gun Fires at Reduced Rate	WP 0009
Gun Fires Intermittently or at Irregular Rate	WP 0016
Gun Fires With Safety On	WP 0014
Gun Fires Without Hangfire Protection	WP 0017
Gun Stalls	WP 0012
Gun Will Not Cycle	WP 0010
Gun Will Not Stop in Sear Position	WP 0011

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

ELECTRICAL CHECKOUT

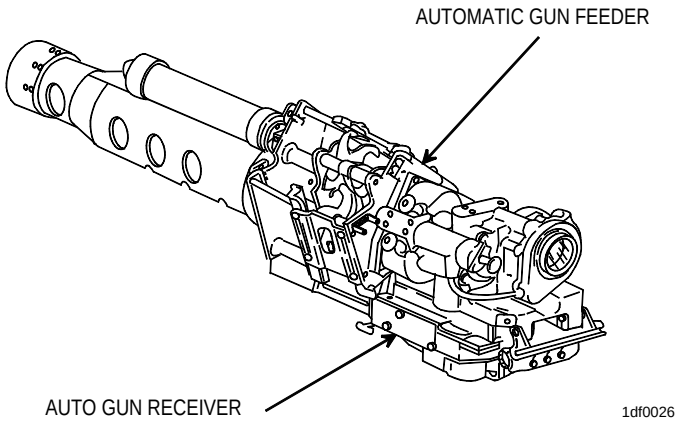
INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Bit holder (item 20, WP 0085 00)
Hand crank (item 10, WP 0087 00)
Multimeter (item 25, WP 0085 00)
Screwdriver bit (item 2, WP 0085 00)
Torque wrench, 0-80 in.-oz. (item 51, WP 0085 00)

Tools and Special Tools - Continued
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Personnel Required
Two

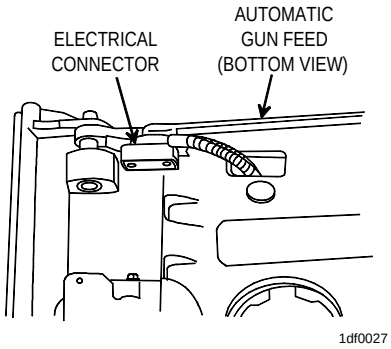
Equipment Conditions
WP 0023 00 Barrel assembly removed
WP 0026 00 Automatic gun feeder removed



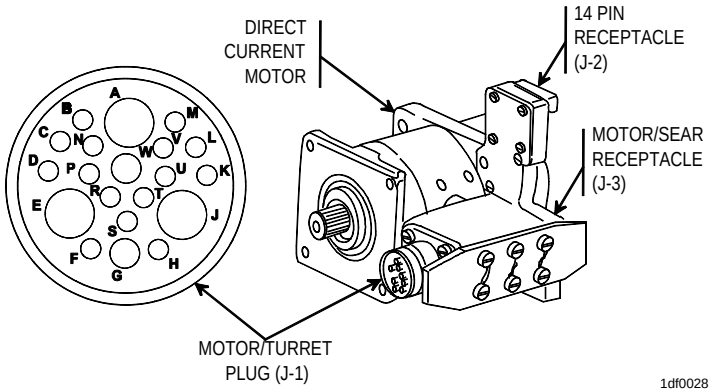
ELECTRICAL CHECKOUT - Continued

Check automatic gun feeder electrical connector and electrical feed select solenoid cable. Are there bent, burned, broken or missing pins, damaged cable, or other physical damage?

YES → Attempt to straighten bent pins. For all other types of damage, replace the feed select solenoid (FSS) harness (WP 0047 00). If harness is not removable, replace the FSS (WP 0045 00).



NO



Check receiver motor/turret plug (J1) and 14 pin receptacle (J2). Are there bent, burned, broken, or missing pins, or is there other physical damage to either connector?

YES → Attempt to straighten bent pins. For all other types of damage, replace direct current motor (WP 0061 00).

NO

Without disconnecting motor/sear (J3) connector, inspect electrical sear solenoid connector for cracks or other physical damage. Is damage present?

YES → Separate motor/sear (J3) connector. Is damage limited to electrical sear solenoid?

YES → Replace electrical sear solenoid (WP 0052 00).

NO

NO

Install automatic gun feeder on auto gun receiver (WP 0026 00).

Is ohmmeter calibration date current and is ohmmeter functioning properly? Find resistance in meter leads and be sure to subtract them from the meter readings.

NO → Calibrate/repair ohmmeter.

YES

Perform resistance check between pins C & B on motor/turret plug. Is there a reading of 5.0 ohms or more?

NO → Replace direct current motor (WP 0061 00).

YES

Perform resistance check between pins E & J on motor/turret plug. Is there a reading of less than 0.5 ohm?

NO → Replace direct current motor (WP 0061 00).

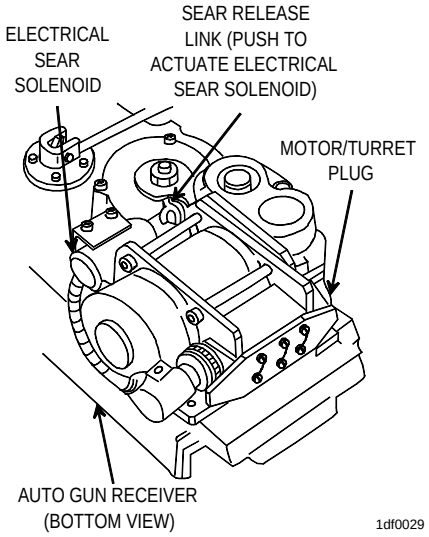
YES

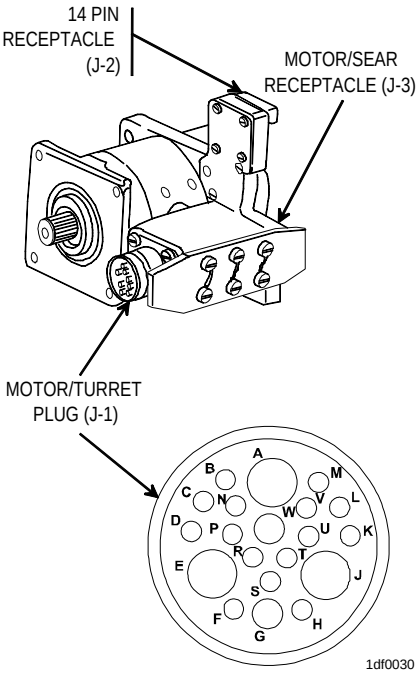
Perform resistance check between pins A & E on motor/turret plug. Is there continuity?

NO → Replace direct current motor (WP 0061 00).

YES

Replace direct current motor (WP 0061 00) and electrical sear solenoid (WP 0052 00).





ELECTRICAL CHECKOUT - Continued

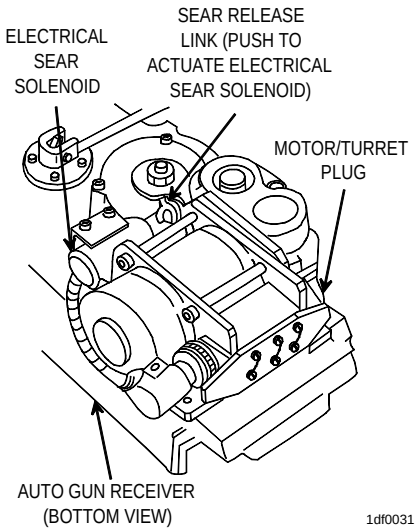
Perform resistance check between pins N & P on motor/turret plug. Is there a reading of 1.0 to 4.0 ohms?

NO → Disconnect motor/sear plug (J3 connector). Check for continuity through motor between pins J1-N & J3-A and J1-P & J3-C. Is there continuity?

YES → Replace electrical sear solenoid (WP 0052 00).

NO → Replace direct current motor (WP 0061 00).

YES



Manually actuate electrical sear solenoid and hold firmly through this block of checks.
Perform resistance check on motor/turret plug through this block of checks.

At pins N & P, is there a reading of 30 to 50 ohms?

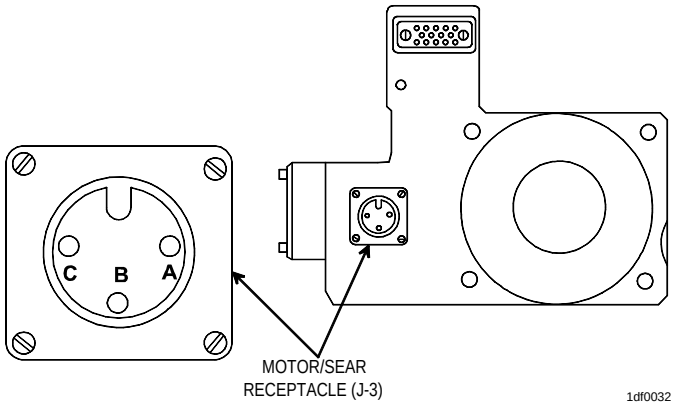
At pins N & D, is there a reading of 1.0 to 4.0 ohms?

NO → Disconnect motor sear plug (J3 connector). Check for continuity through motor between pins J1-N & J3-A, J1-D & J3-B, and J1-P & J3-C. Is there continuity?

YES → Replace electrical sear solenoid (WP 0052 00).

NO → Replace direct current motor (WP 0061 00).

YES



Perform resistance check between pins A & G and pins A & W on motor/ turret plug. Is there a reading less than 1.0 ohm?

NO

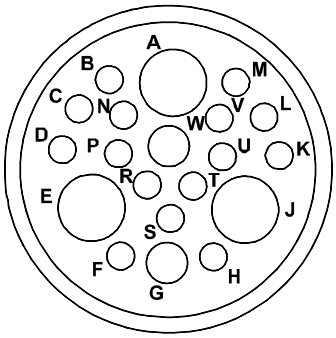
Remove the feeder assembly from receiver. Check for continuity through motor between pins J1-A & J2-D, J1-G & J2-A, and J1-W & J2-H. Is there continuity?

NO

Replace direct current motor (WP 0061 00).

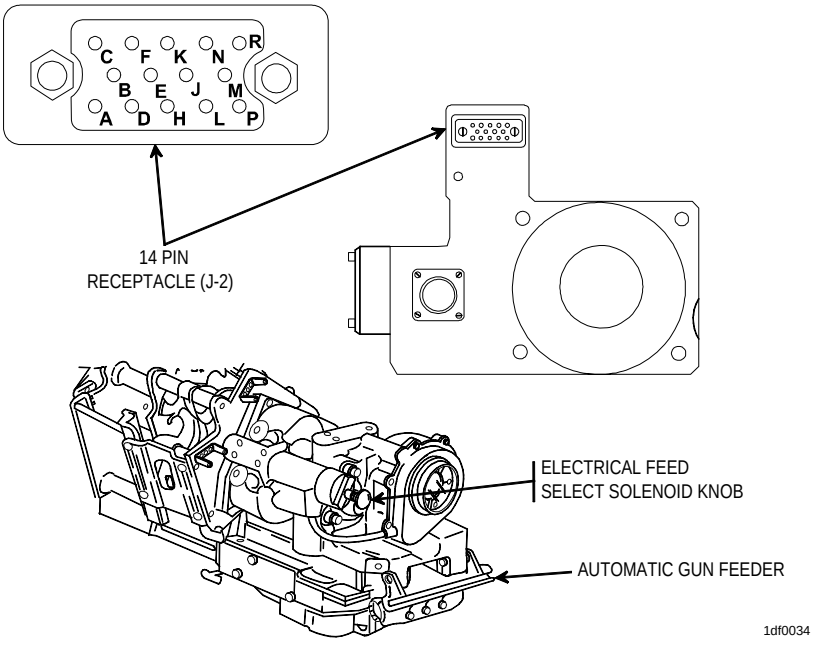
YES

YES



MOTOR/TURRET PLUG (J-1)

1df0033



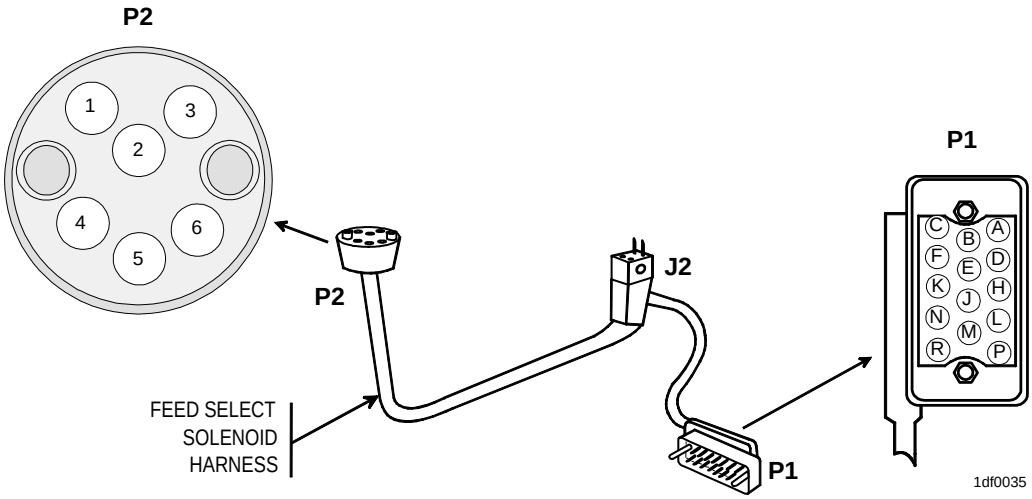
1df0034

ELECTRICAL CHECKOUT - Continued

Disconnect feed select solenoid harness P2 from feed select solenoid body (WP 0047 00). (If harness cannot be disconnected, replace feed select solenoid (WP 0045 00).) Check for continuity between pins P1-A & P2-1, P1-D & P2-2, and P1-H & P2-3. Is there continuity?

YES → Replace FSS body (WP 0046 00).

NO → Replace FSS harness (WP 0047 00).



Pull electrical feed select solenoid knob out to the lower feed position and perform resistance check between pins S & F on motor/turret plug. Push electrical feed select solenoid knob in to the upper feed position and perform resistance check between pins H & F. Are both readings less than 0.5 ohm?

NO

Remove the feeder assembly from receiver. Check for continuity through motor between pins J1-F & J2-B, J1-H & J2-J, and J1-S & J2-F. Is there continuity?

NO

Replace direct current motor (WP 0061 00).

YES

Disconnect FSS harness P2 from FSS body (WP 0047 00). (If harness cannot be disconnected, replace FSS (WP 0045 00). Check for continuity between pins P1-B & P2-4, P1-J & P2-6, and P1-F & P2-5. Is there continuity?

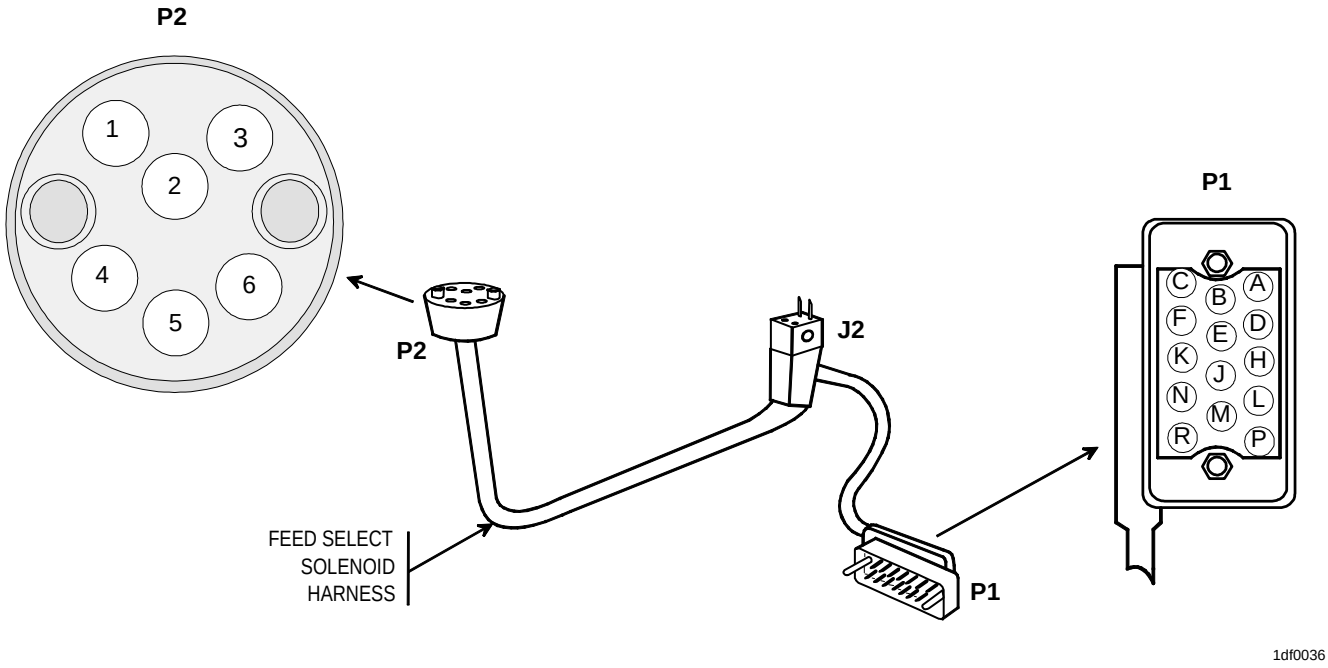
YES

Replace FSS body (WP 0046 00).

NO

Replace FSS harness (WP 0047 00).

YES



ELECTRICAL CHECKOUT - Continued

Ensure bolt position indicator is in SEAR position. Perform resistance check between pins M & K on motor/turret plug. Is there a reading of less than 0.5 ohm?

NO →

Remove the feeder assembly from receiver. Check for continuity through motor between pins J1-K & J2-L and J1-M & J2-K. Is there continuity?

NO →

Replace direct current motor (WP 0061 00).

YES ↓

YES ↓

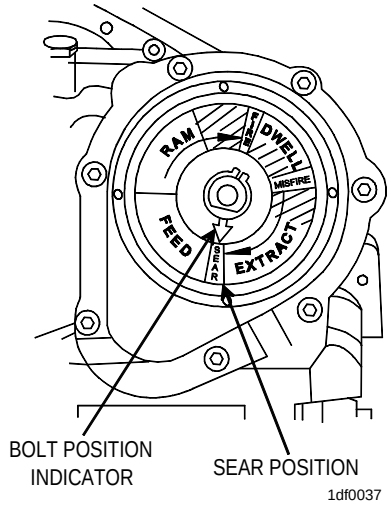
Disconnect FSS harness J2 from index drive cover assembly (WP 0047 00). Check for continuity between pins P1-L & J2-B and P1-K & J2-D. Is there continuity?

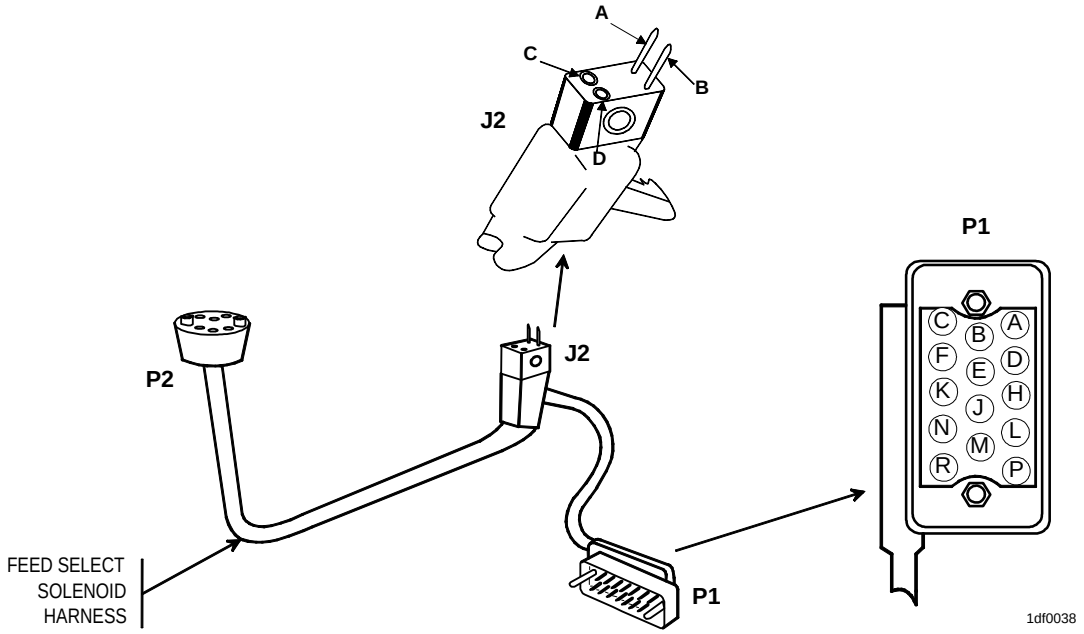
NO →

Replace FSS harness (WP 0047 00). If harness is not removable, replace feed select solenoid (WP 0045 00).

YES ↓

Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair of index drive cover assembly.





Press sear release link and use hand crank to manually cycle gun until bolt position indicator is halfway into the RAM zone. Perform resistance check between pins M & K on motor/turret plug. Is there an open circuit?

NO

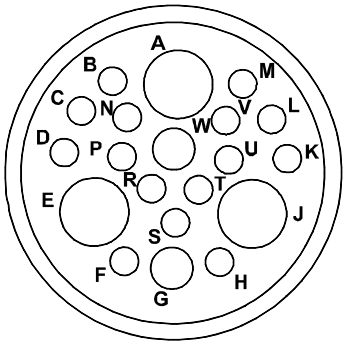
Remove the feeder assembly from receiver. Check for a short circuit by checking continuity through motor between pins J1-K & J2-K and J1-M & J2-L. Is there a short circuit (continuity)?

YES

Replace direct current motor (WP 0061 00).

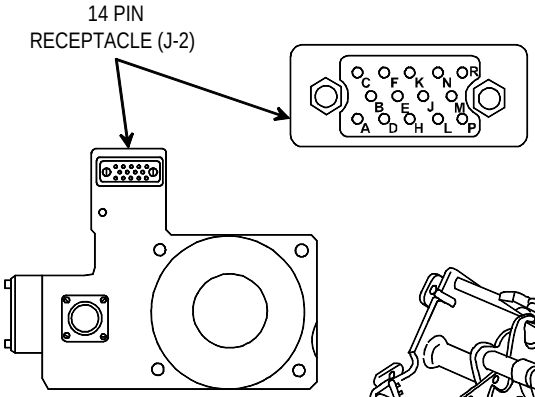
YES

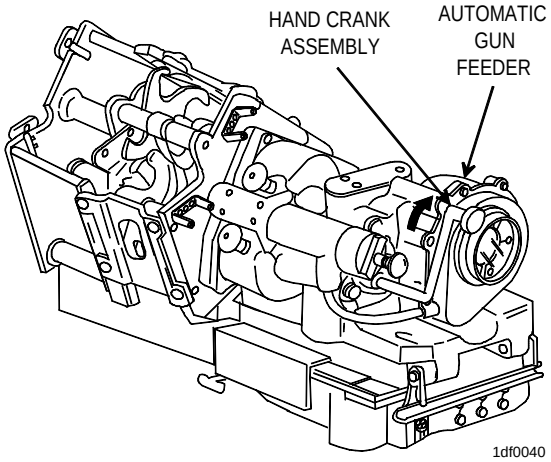
NO



MOTOR/TURRET PLUG (J-1)

1df0039





1df0040

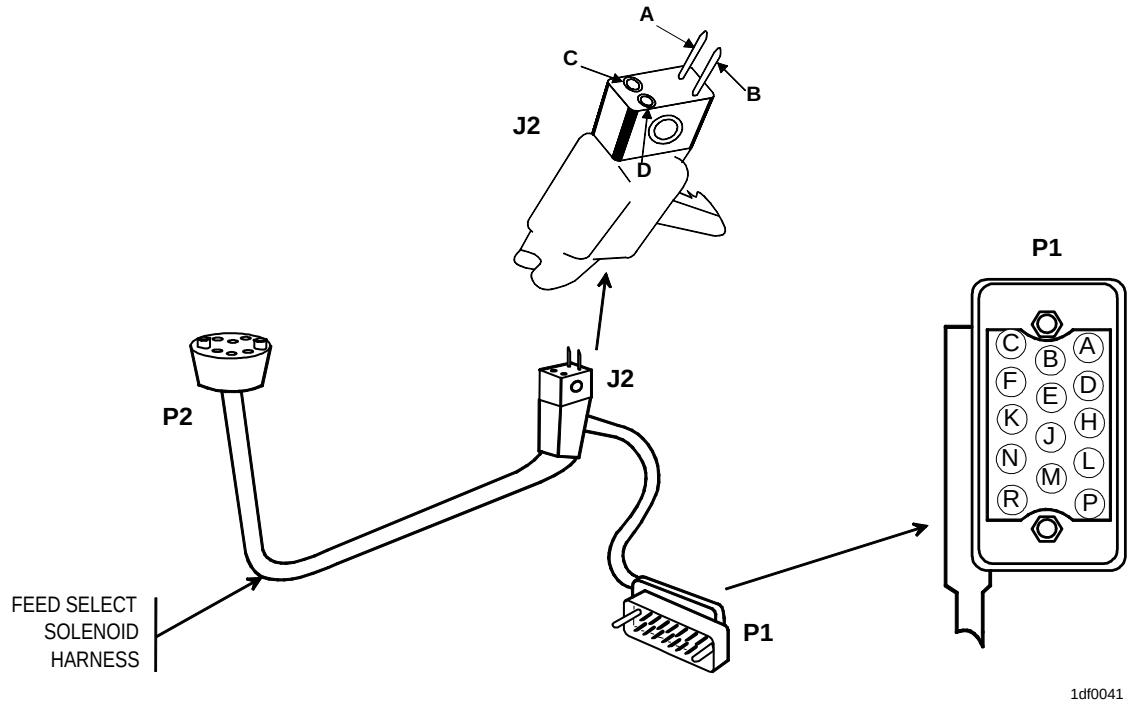
ELECTRICAL CHECKOUT - Continued

Disconnect FSS harness J2 from index drive cover assembly (WP 0047 00). Check for a short circuit by checking continuity between pins P1-L & J2-D and P1-K & J2-B. Is there a short circuit (continuity)?

NO → Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair of index drive cover assembly.

YES

Replace FSS harness (WP 0047 00). If harness is not removable, replace FSS (WP 0045 00).



NOTE

Camplate notch lags the bolt position indicator arrow by 90 degrees.

Use hand crank to manually rotate gun until bolt position indicator is pointing 1/4-in. before COOKOFF ZONE (cross-hatched area). While performing resistance check between pins L & M on motor/turret plug, have helper look through bolt position indicator glass and hand crank gun slowly until the actuator roller falls into the camplate notch. Did a reading of less than 0.5 ohms occur when roller fell into the camplate notch?

NO →

Remove the feeder assembly from receiver. Check for continuity through motor between pins J1-L & J2-P and J1-M & J2-K. Is there continuity?

NO → Replace direct current motor (WP 0061 00).

YES ↓

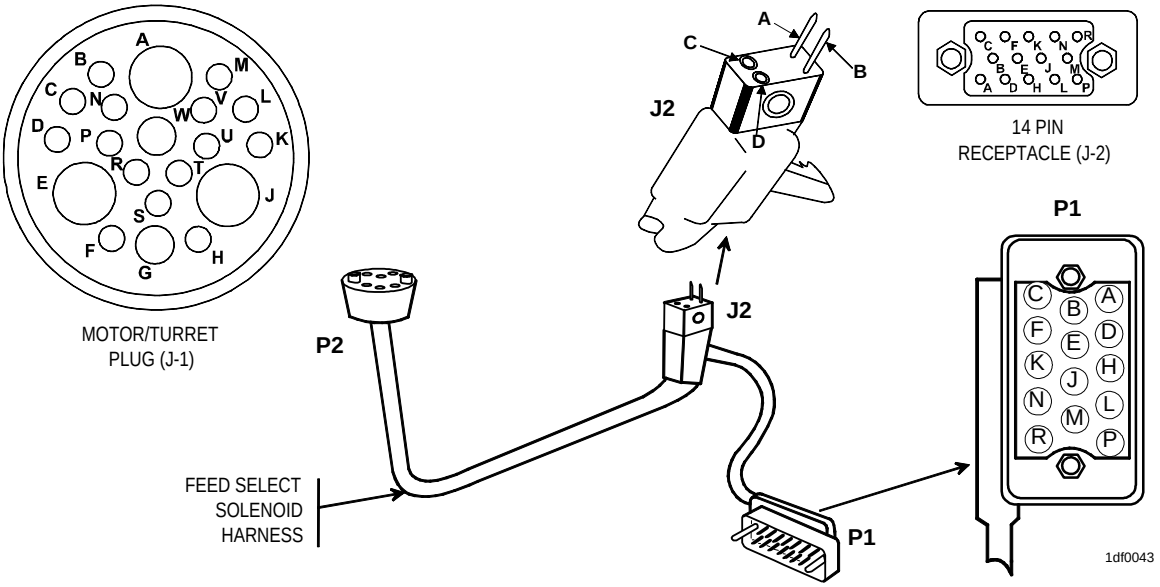
Disconnect FSS harness J2 from index drive cover assembly (WP 0047 00). Check for continuity between pins P1-P & J2-C and P1-K & J2-D. Is there continuity?

NO → Replace FSS harness (WP 0047 00). If harness is not removable, replace FSS (WP 0045 00).

YES ↓

Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair of index drive cover assembly.

YES ↓



ELECTRICAL CHECKOUT - Continued

Use hand crank to manually rotate gun until bolt position indicator is pointing to MISFIRE. With bolt position indicator in MISFIRE, perform resistance check between pins L & M on motor/turret plug. Is there an open circuit?

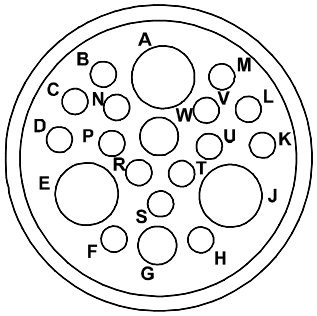
NO → Remove the feeder assembly from receiver. Check for a short circuit by checking continuity through motor between pins J1-L & J2-K and J1-M & J2-P. Is there a short circuit (continuity)?

YES → Replace direct current motor (WP 0061 00).

NO → Disconnect FSS J2 from index drive cover assembly (WP 0047 00). Check for a short circuit by checking continuity between pins P1-P & J2-D and P1-K & J2-C. Is there a short circuit (continuity)?

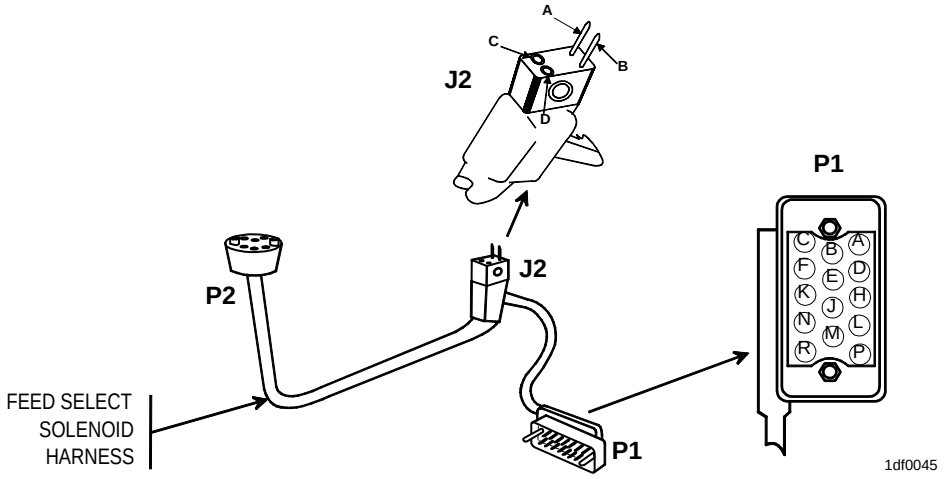
YES → Replace FSS harness (WP 0047 00). If harness is not removable, replace FSS (WP 0045 00).

NO → Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair of index drive cover assembly.



MOTOR/TURRET PLUG (J-1)

1df0044



1df0045

Press sear release link and use hand crank to manually rotate gun. While performing resistance check between pins M & V on motor turret plug, have helper look through bolt position indicator glass and hand crank gun slowly until bolt position indicator enters the EXTRACT zone, and the actuator roller falls into the camplate notch. Did a reading of less than 0.5 ohms occur when the roller fell into the camplate notch?

NO

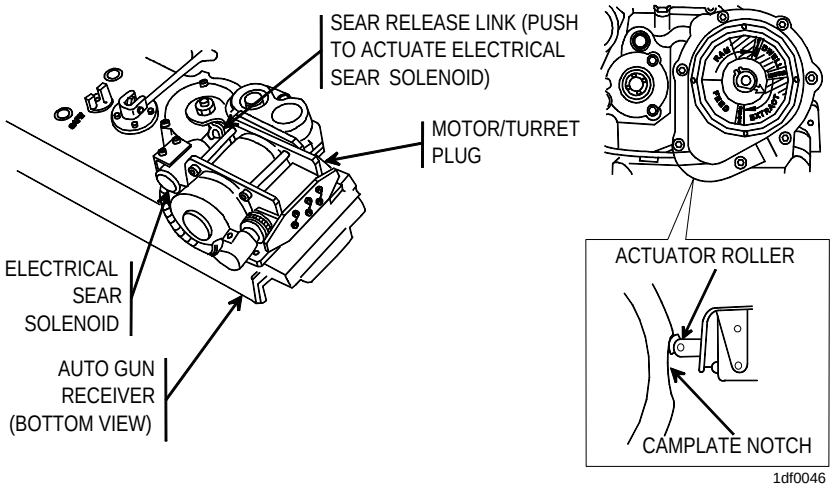
Remove the feeder assembly from receiver. Check for continuity through motor between pins J1-V & J2-R and J1-M & J2-K. Is there continuity?

NO

Replace direct current motor (WP 0061 00).

YES

YES

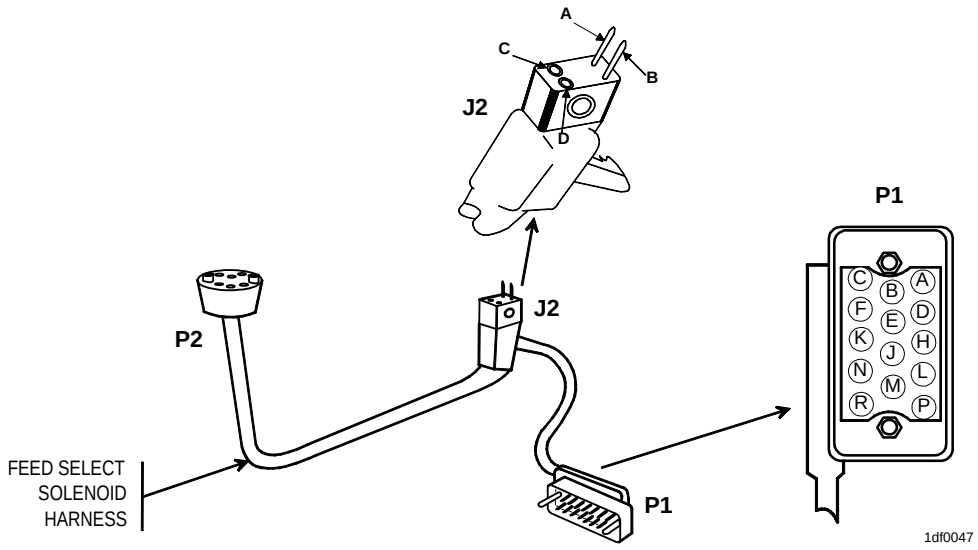


ELECTRICAL CHECKOUT - Continued

Disconnect FSS harness J2 from index drive cover assembly (WP 0047 00). Check for continuity between pins P1-R & J2-A and P1-K & J2-D. Is there continuity?

YES → Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair of index drive cover assembly.

NO → Replace FSS harness (WP 0047 00). If harness is not removable, replace FSS (WP 0045 00).



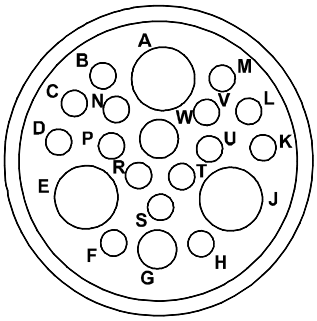
Use hand crank to manually cycle gun to SEAR. Perform resistance check between pins M & V on motor/turret plug. Is there an open circuit?

NO

Remove the feeder assembly from receiver. Check for a short circuit by checking continuity through motor between pins J1-V & J2-K and J1-M & J2-R. (For enhanced gun only, also check between pins J1-U & J2-R.) Is there a short circuit (continuity)?

YES

Replace direct current motor (WP 0061 00).



MOTOR/TURRET PLUG (J-1)

1df0048

NO

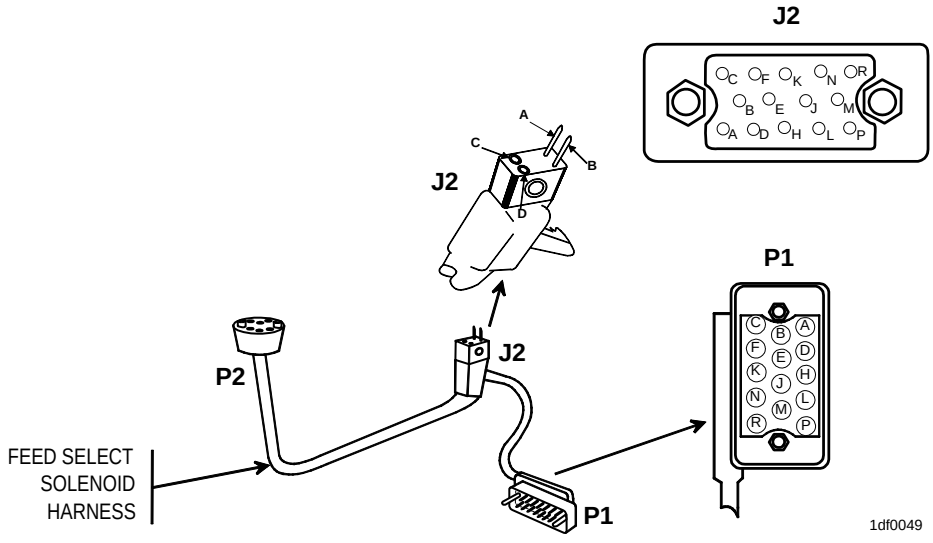
Disconnect FSS harness J2 from index drive cover assembly (WP 0047 00). Check for a short circuit by checking continuity between pins P1-R & J2-D and P1-K & J2-A. Is there a short circuit (continuity)?

YES

Replace FSS harness (WP 0047 00). If harness is not removable, replace FSS (WP 0045 00).

NO

Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair of index drive cover assembly.



1df0049

ELECTRICAL CHECKOUT - Continued

For standard guns: Electrical checkout complete.

For enhanced guns only: Check for continuity between pins U & M on motor/turret plug. Is there continuity?

NO → Replace direct current motor (WP 0061 00).

YES

For enhanced guns only, verify that feeder handle is locked and check for continuity between pins T & M on motor/turret plug. Is there continuity?

NO → Remove feeder assembly from receiver. Check for continuity through motor between pins J1-M & J2-K and J1-T & J2-N. Is there continuity?

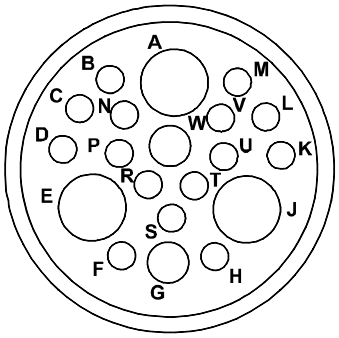
NO → Replace direct current motor (WP 0061 00).

YES

Enhanced gun electrical checkout complete.

YES

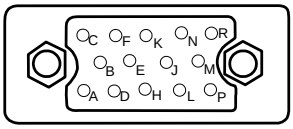
Replace FSS harness (WP 0047 00).



MOTOR/TURRET PLUG (J-1)

1df0050

J2



1df0051

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

AUTOMATIC GUN FEEDER ELECTRICAL CHECK

INITIAL SETUP:

Tools and Special Tools
Hand crank (item 10, WP 0087 00)
Multimeter (item 25, WP 0085 00)

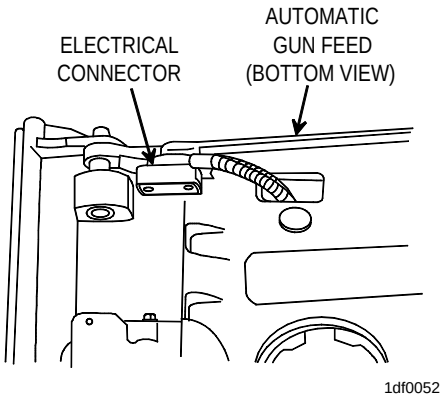
Equipment Conditions
WP 0023 00 Barrel assembly removed
WP 0026 00 Automatic gun feeder removed

Personnel Required
Two

Check electrical feed select solenoid (FSS) cable connector P1. Are there bent, burned, broken or missing pins, damaged cable, or other physical damage?

YES → Attempt to straighten bent pins. For all other types of damage, replace the FSS harness (WP 0047 00). If harness is not removable, replace the FSS (WP 0045 00).

NO ↓



ELECTRICAL CHECKOUT - Continued

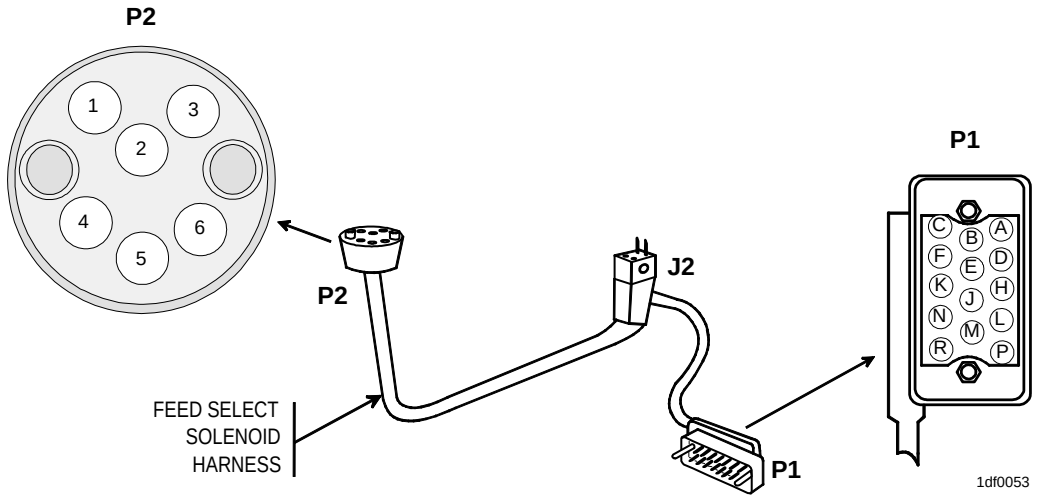
Perform resistance check between pins P1-D & P1-A and P1-D & P1-H on FSS 14 pin receptacle. Is there reading of less than 1.0 ohms?

NO → Disconnect FSS P2 from FSS body (WP 0047 00). (If harness cannot be disconnected, replace FSS (WP 0045 00).) Check for continuity between pins P1-A & P2-1, P1-D & P2-2, and P1-H & P2-3. Is there continuity?

YES → Replace FSS body (WP 0046 00).

NO → Replace FSS harness (WP 0047 00).

YES



Pull FSS knob out to the lower feed position and perform resistance check between pins P1-B & P1-F on FSS 14 pin receptacle. Push FSS knob in to the upper feed position and perform resistance check between pins P1-B & P1-J. Are both readings less than 0.5 ohms?

NO

Disconnect FSS harness P2 from FSS body (WP 0047 00). (If harness cannot be disconnected, replace FSS (WP 0045 00).) Check for continuity between pins P1-B & P2-4, P1-J & P2-6, and P1-F & P2-5. Is there continuity?

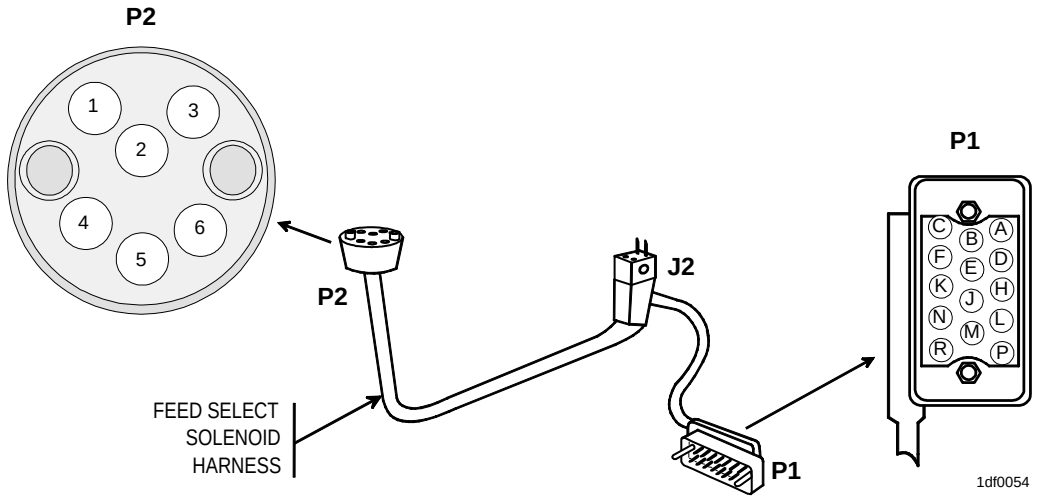
YES

Replace FSS body (WP 0046 00).

NO

Replace FSS harness (WP 0047 00).

YES



ELECTRICAL CHECKOUT - Continued

Ensure that the bolt position indicator is in SEAR position. Perform resistance check between P1-K & P1-L on FSS 14 pin connector. Is there a reading of less than 0.5 ohms?

NO →

Disconnect FSS harness J2 from index drive cover assembly (WP 0047 00). Check for continuity between pins P1-L & J2-B and P1-K & J2-D. Is there continuity?

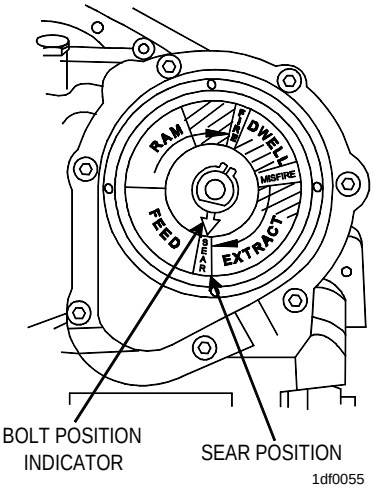
NO →

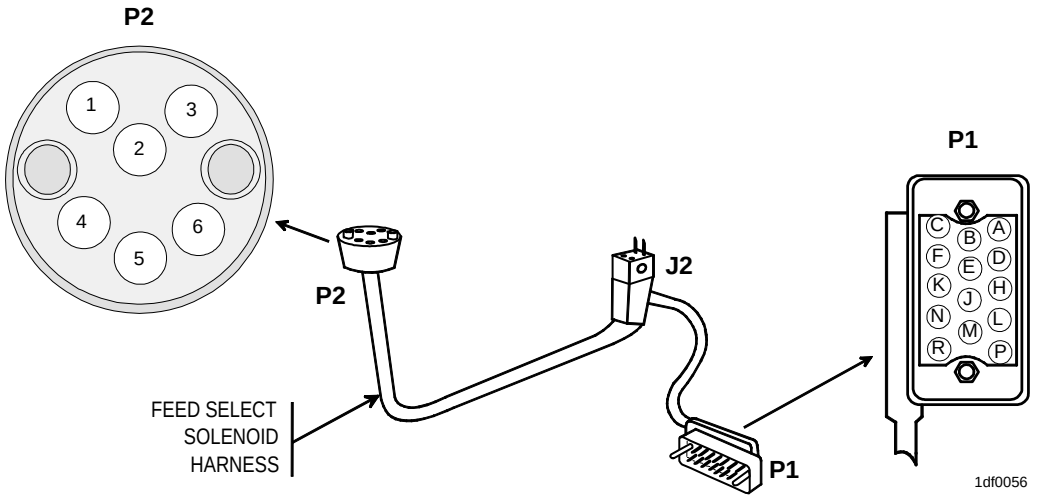
Replace FSS harness (WP 0047 00). If harness is not removable, replace FSS (WP 0045 00).

YES ↓

YES ↓

Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair of index drive cover assembly.





Press timer release rod and use hand crank to manually cycle feeder until bolt position indicator is halfway into the RAM zone. Perform resistance check between pins P1-K & P1-L on the FSS 14 pin connector. Is there an open circuit?

NO

Disconnect FSS harness J2 from index drive cover assembly (WP 0047 00). Check for a short circuit by checking continuity between pins P1-L & J2-D and P1-K & J2-B. Is there a short circuit (continuity)?

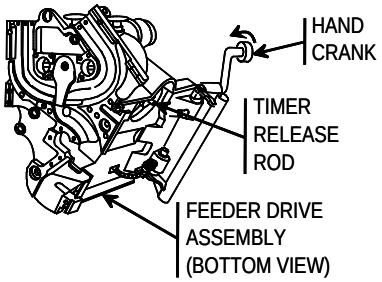
NO

Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair of index drive cover assembly.

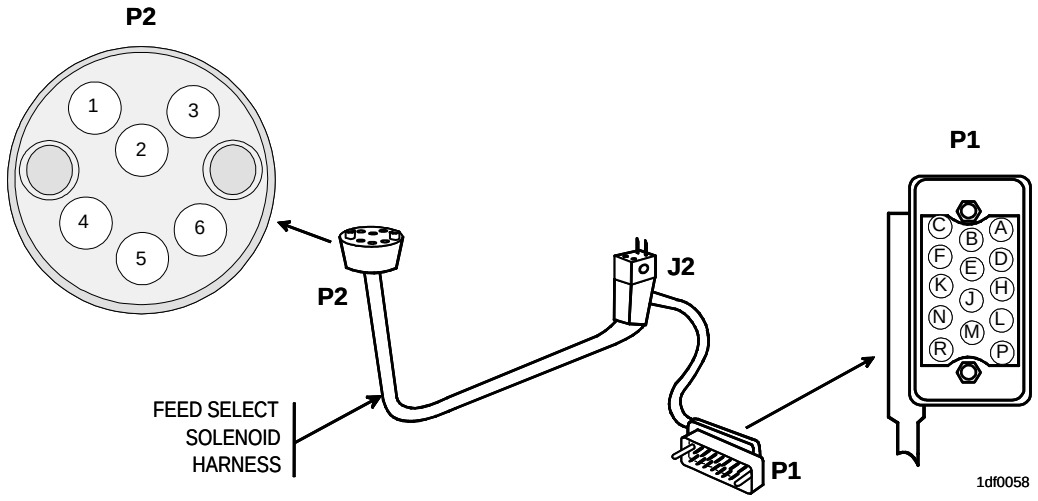
YES

Replace FSS harness (WP 0047 00). If harness is not removable, replace FSS (WP 0045 00).

YES



1df0057



1df0058

ELECTRICAL CHECKOUT - Continued

NOTE

Camplate notch lags the bolt position indicator arrow by 90 degrees.

Use hand crank to manually cycle feeder until bolt position indicator is 1/4 inch before COOKOFF ZONE (cross-hatched area). While performing resistance check between pins P1-P & P1-K on the FSS 14 pin connector, have helper look through bolt position indicator glass and hand crank feeder slowly until the actuator roller falls into the camplate notch. Did a reading of less than 0.5 ohms occur when roller fell into the camplate notch?

NO →

Disconnect FSS harness J2 from index drive cover assembly (WP 0047 00). Check for continuity between pins P1-P & J2-C and P1-K & J2-D. Is there continuity?

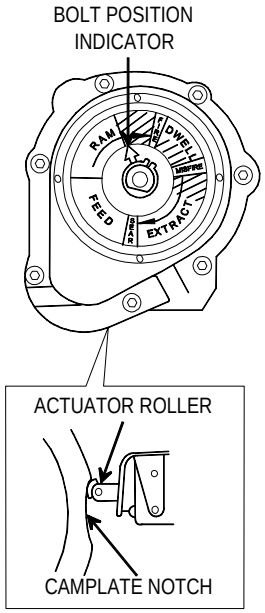
NO →

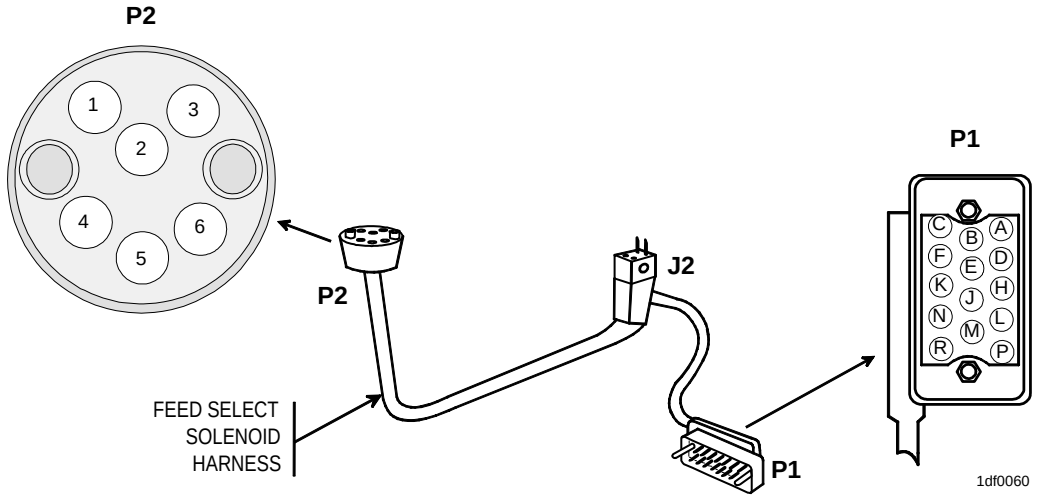
Replace FSS harness (WP 0047 00). If harness is not removable, replace FSS (WP 0045 00).

YES ↓

Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair of index drive cover assembly.

YES ↓





Use hand crank to manually rotate gun until bolt position indicator is pointing to MISFIRE. Perform resistance check between pins P1-P & P1-K on FSS 14 pin connector. Is there an open circuit?

NO

Disconnect FSS J2 from index drive cover assembly (WP 0047 00). Check for a short circuit by checking for continuity between pins P1-P & J2-D and P1-K & J2-C. Is there a short circuit (continuity)?

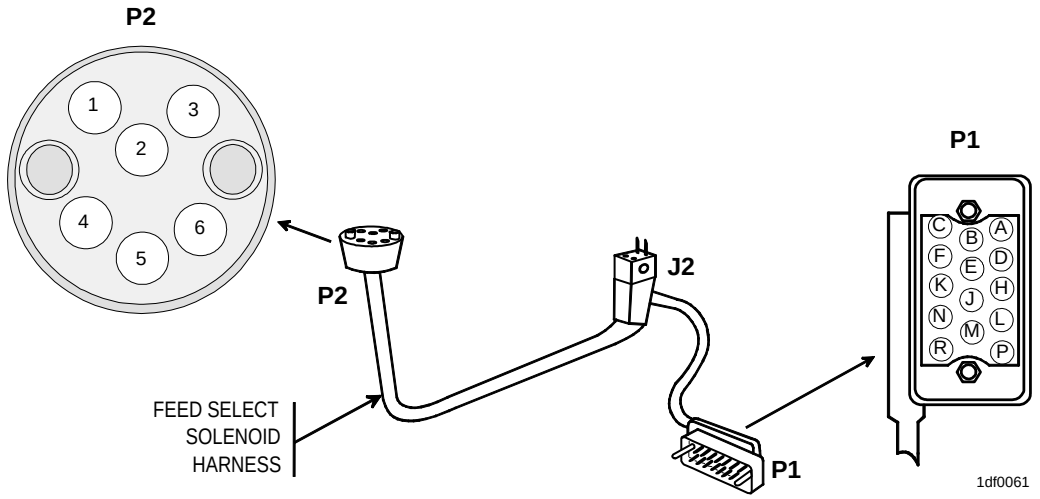
YES

Replace FSS harness (WP 0047 00). If harness is not removable, replace FSS (WP 0045 00).

NO

Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair of index drive cover assembly.

YES



ELECTRICAL CHECKOUT - Continued

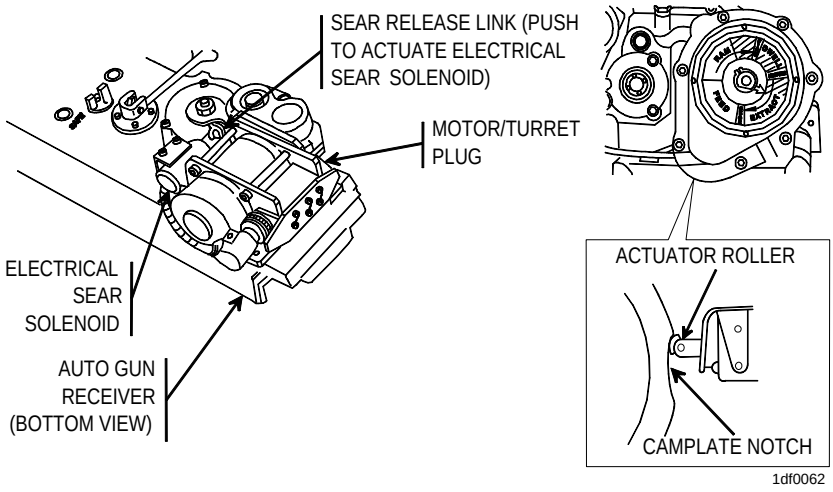
While performing resistance check between pins P1-K & P1-R of the FSS 14 pin connector, have helper look through bolt position indicator glass and hand crank gun slowly until bolt position indicator enters the EXTRACT zone and the actuator roller falls into the camplate notch. Did a reading of less than 0.5 ohms occur when the roller fell into the camplate notch?

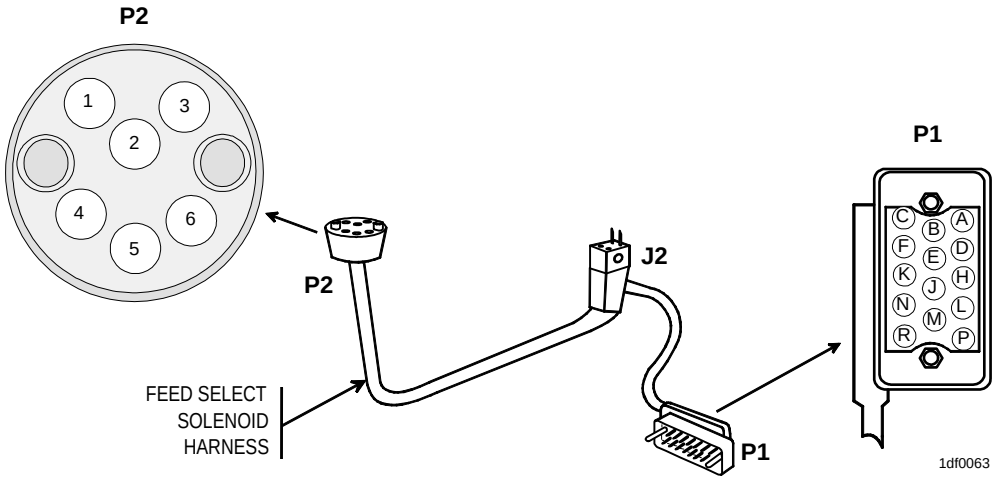
NO → Disconnect FSS harness J2 from index drive cover assembly (WP 0047 00). Check for continuity between pins P1-R & J2-A and P1-K & J2-D. Is there continuity?

YES → Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair of index drive cover assembly.

NO → Replace FSS harness (WP 0047 00). If harness is not removable, replace FSS (WP 0045 00).

YES





Use hand crank to manually rotate feeder to SEAR. Perform resistance check between pins P1-K & P1-R on the FSS 14 pin connector. Is there an open circuit?

NO

Disconnect FSS harness J2 from index drive cover assembly (WP 0047 00). Check for short circuit by checking for continuity between pins P1-R & J2-D and P1-K & J2-A. Is there a short circuit (continuity)?

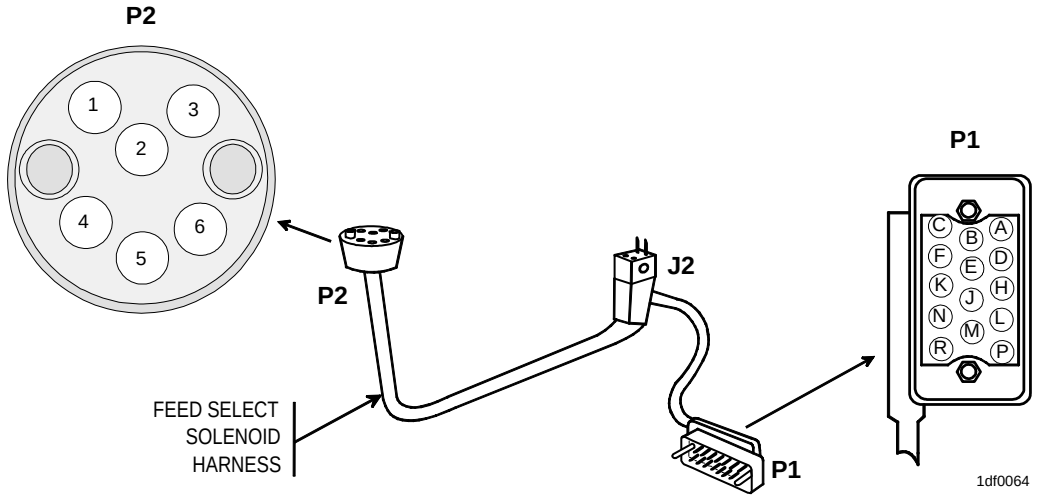
YES

Replace FSS harness (WP 0047 00). If harness is not removable, replace FSS (WP 0045 00).

NO

Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair of index drive cover assembly.

YES



ELECTRICAL CHECKOUT - Continued

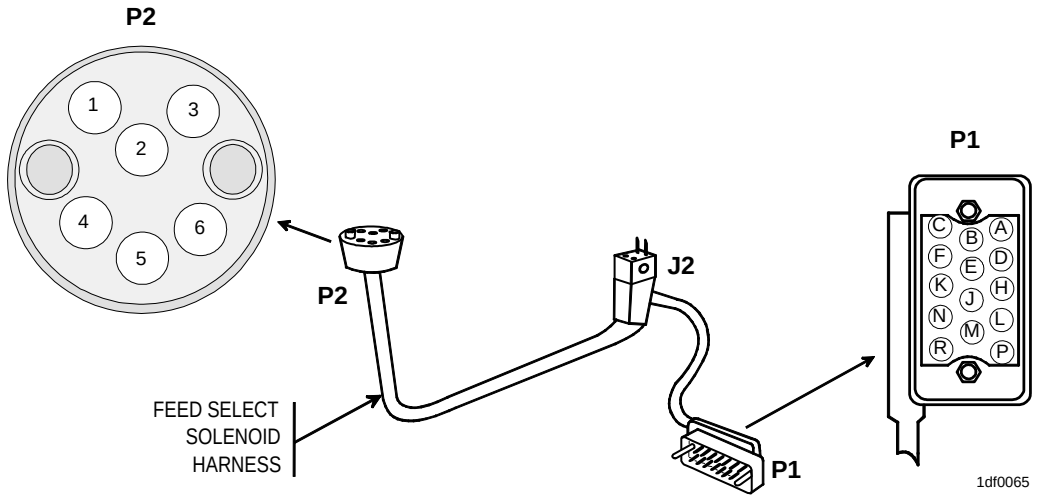
For standard automatic gun feeders: Electrical checkout complete.

NO → Replace FSS harness (WP 0047 00).

For enhanced automatic gun feeders only: Perform resistance check between pins P1-N & P1-K on the FSS 14 pin connector. Is there continuity?

YES

Enhanced automatic gun feeder electrical checkout complete.



END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

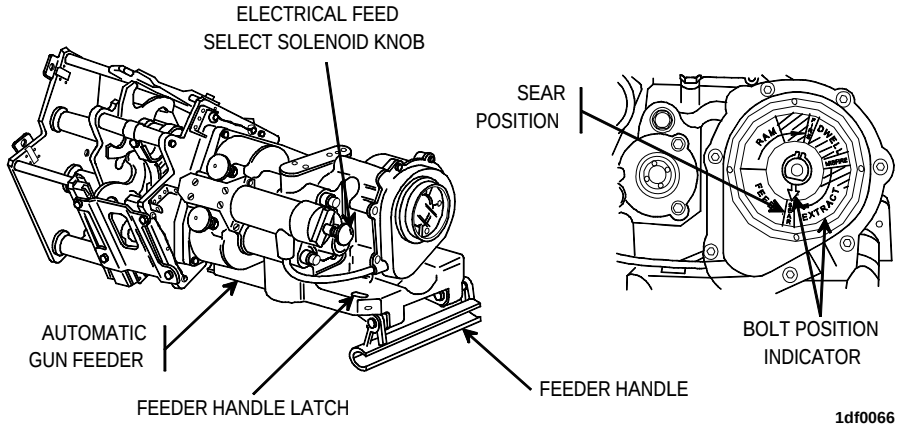
AUTOMATIC GUN FEEDER MANUAL CYCLE CHECK

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Dummy cartridge with link (item 6, WP 0085 00)
Slippage torque tool (item 42.2, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

References
TM 9-2350-252-10-2
TM 9-2350-284-10-2
TM 9-2350-284-10-2-1
TM 9-2350-294-10-2

Equipment Conditions
WP 0023 00 Barrel assembly removed
WP 0026 00 Automatic gun feeder removed



NOTE

Check that bolt position indicator is in sear position.

Push and pull electrical feed select solenoid knob. Does knob snap into each position with a distinct click?

NO → Is bolt position indicator in SEAR position?

NO → Cycle feeder assembly to SEAR position and repeat test.

YES ↓

YES ↓

AUTOMATIC GUN FEEDER MANUAL CYCLE CHECK - Continued

Check that feeder clutch has not slipped. Attempt to hold the feed sprocket of the selected feed path stationary, and cycle feeder until sprocket turns. Continue cycling until feeder stops in SEAR. Use 14 mm wrench to rotate upper feed shaft extension counterclockwise and the lower feed shaft extension clockwise until seated against the feed shaft stop. Does the feed select knob snap into each position with a distinct click?

NO

Replace feed select solenoid body (WP 0046 00) and repeat test. If knob still doesn't snap into position with distinct clicks, the feeder drive assembly is bad. Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair.

YES

Push, then release feeder handle latch while raising and lowering feeder handle. Does feeder handle move freely and snap into position with a distinct click and remain locked until feeder handle latch is pushed again?

NO

Repair feeder drive assembly handle (WP 0048 00).

YES

NOTE

Do not turn worm shaft nut before pushing timer release rod. If automatic gun feeder binds, tap worm shaft nut clockwise with plastic-face hammer to loosen.

Stand automatic gun feeder on forward end and attempt to turn worm shaft nut counterclockwise without pushing timer release rod. Does worm shaft turn one complete revolution?

YES

Feeder drive assembly is bad. Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair.

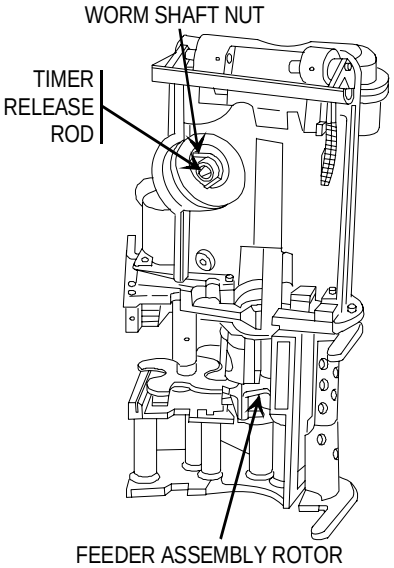
NO

Push timer release rod and turn worm shaft nut nine turns counterclockwise, releasing timer release rod after the first quarter turn. Does worm shaft lock in SEAR with a distinct click?

NO

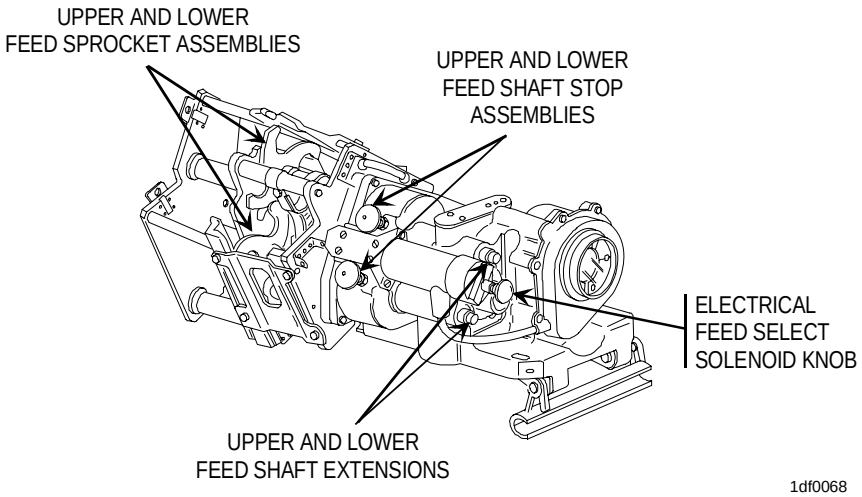
Feeder drive assembly is bad. Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair.

YES



AUTOMATIC GUN FEEDER (BOTTOM VIEW)

1df0067



Place electrical feed select solenoid knob in upper feed (retracted) position. Observe upper feed shaft stop assembly and push timer release rod while turning worm shaft nut nine turns counterclockwise. Does feed shaft stop raise when you turn worm shaft nut and snap back in when automatic gun feeder locks in SEAR?

NO →

Feeder drive assembly is bad. Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair.

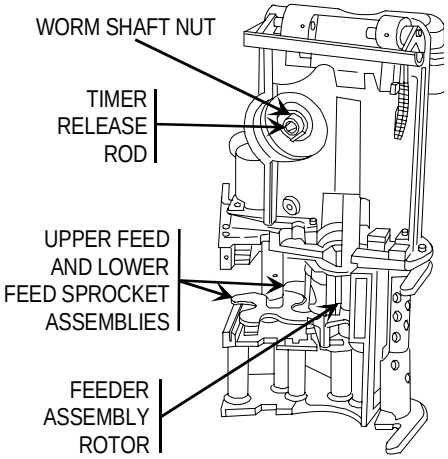
YES ↓

Repeat above steps in lower feed (extended) position and observe lower feed shaft stop assembly. Does feed shaft stop raise when you turn worm shaft nut and snap back in when automatic gun feeder locks in SEAR?

NO →

Feeder drive assembly is bad. Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair.

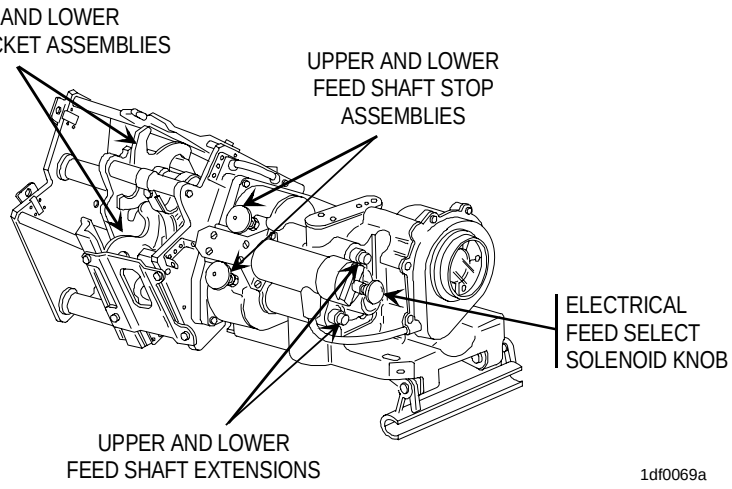
YES ↓



AUTOMATIC GUN FEEDER
(BOTTOM VIEW)

1df0069

AUTOMATIC GUN FEEDER MANUAL CYCLE CHECK - Continued



NOTE

Feed select solenoid knob position must be opposite of the feed shaft extension that is being turned during the reverse (unload) process

YES

Place electrical feed solenoid knob in lower feed (extended) position. Cycle upper feed sprocket in reverse (unload). Place 14mm ratchet wrench on upper feed shaft extension. Pull upper feed shaft stop assembly out and hold while turning the wrench counterclockwise. Does feed sprocket spin in reverse (unload) direction?

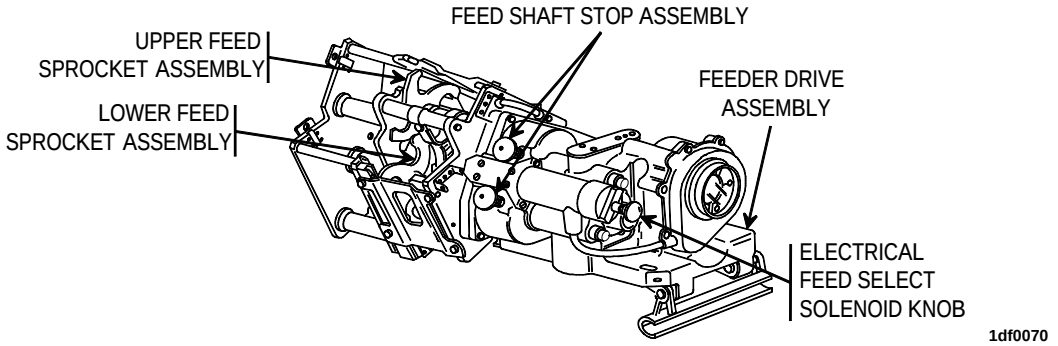
NO → Feeder drive assembly is bad. Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair.

YES

Place electrical feed solenoid knob in upper feed (retracted) position. Cycle lower feed sprocket in reverse (unload). Place 14mm ratchet wrench on lower feed shaft extension. Pull lower feed shaft stop assembly out and hold while turning the wrench clockwise. Does feed sprocket spin in reverse (unload) direction?

NO → Feeder drive assembly is bad. Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair.

YES



NOTE

Make sure upper and lower feed shaft stop assemblies return to seated position. It may be necessary to move feed shaft extensions back and forth until knobs snap down.

Push timer release rod while turning worm shaft nut nine turns counter-clockwise. Observe feeder assembly rotor and lower feed sprocket assembly. Does feeder assembly rotor rotate one-third turn and stop while lower feed sprocket assembly continues to turn?

NO → Feeder drive assembly is bad. Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair of worm shaft assembly.

YES

Repeat above steps in upper feed position and observe feeder assembly rotor and upper feed sprocket assembly. Does feeder assembly rotate one-third turn and stop while upper feed sprocket assembly continues to turn?

NO → Feeder drive assembly is bad. Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair of worm shaft assembly.

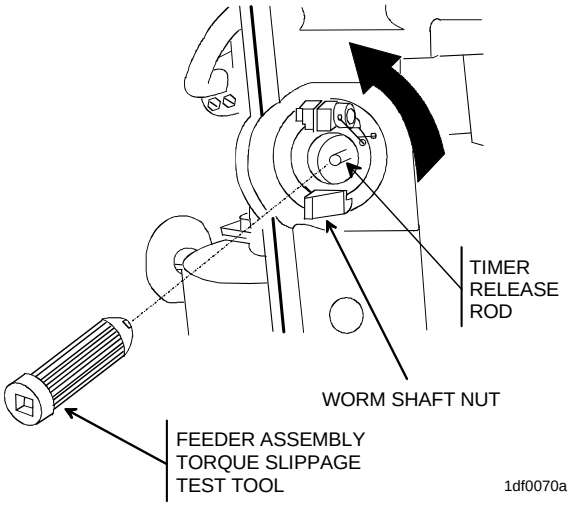
YES

AUTOMATIC GUN FEEDER MANUAL CYCLE CHECK - Continued

Using slippage torque tool (item 44.2, WP 0085 00), torque test gear clutch assembly. Press timer release rod and rotate worm shaft nut one half turn counter-clockwise, then insert the slippage torque tool in the worm shaft nut. Pinch a dummy round in the selected feed sprocket and rotate slippage torque tool counter-clockwise until clutch slips. Clutch should slip between 27 to 150 in.-lb (3.1 to 17.0 N-m). Did clutch slip within torque limits?

NO → Feeder drive assembly is bad. Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair of gear clutch assembly.

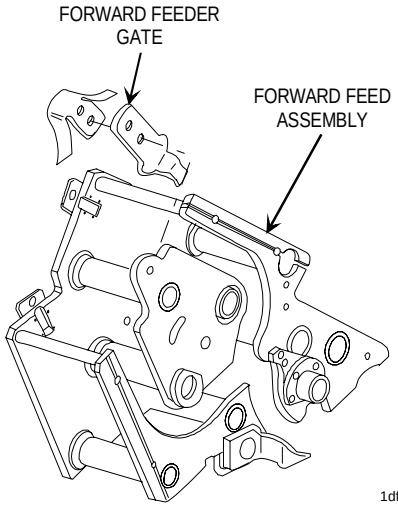
YES



Push forward feeder gate to limits and check for binding, cracks or broken gate, and weak or broken spring. Do these conditions exist?

YES → Replace forward feeder gate and/or defective springs (WP 0033 00).

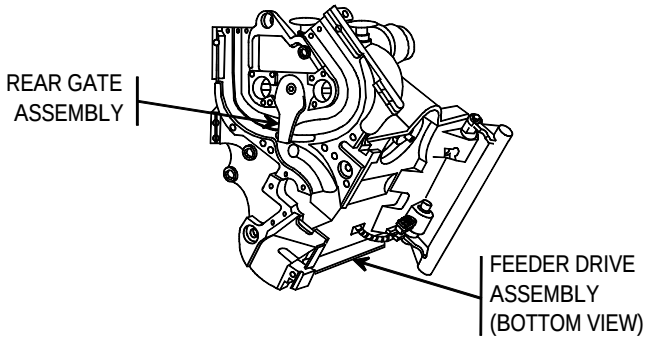
NO



Push rear gate assembly to limits and check for binding or broken gate and weak or broken spring. (The rear gate assembly will have spring tension in only one direction.) Do these conditions exist?

YES → Rear gate assembly is bad. Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair.

NO

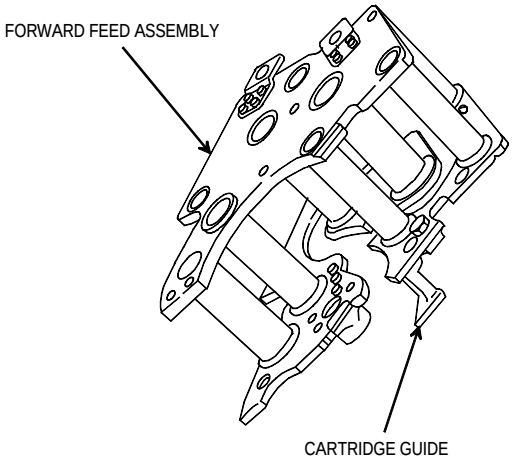


1df0072

Check cartridge guide for breaks and bends. Do these conditions exist?

YES → Replace cartridge guide (WP 0034 00).

NO



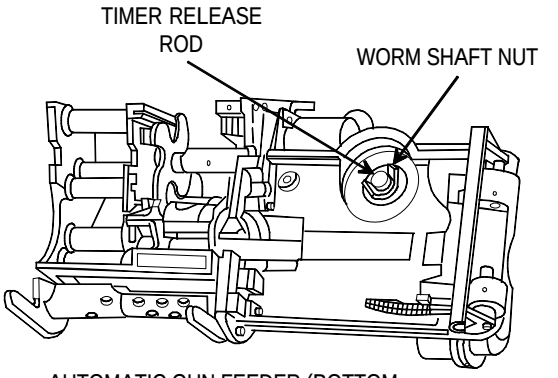
1df0073

AUTOMATIC GUN FEEDER MANUAL CYCLE CHECK - Continued

NOTE

Guide link tabs into stripper grooves.

Select lower feed and load one dummy round with link into automatic gun feeder.

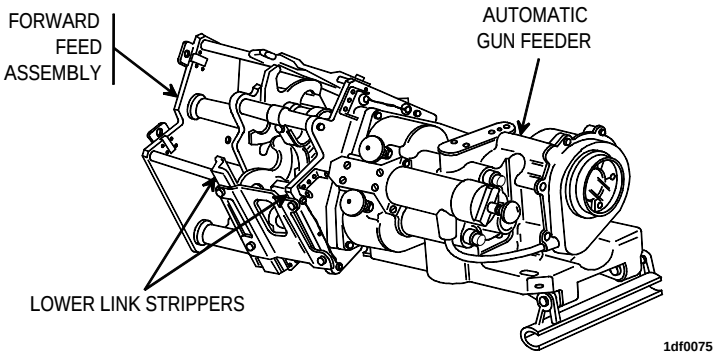


AUTOMATIC GUN FEEDER (BOTTOM VIEW)

1df0074

NOTE

Do not turn worm shaft nut before pushing timer release rod. If automatic gun feeder binds, tap worm shaft nut clockwise with plastic-face hammer to loosen.



1df0075

Push timer release rod and hold. Release timer release rod after the first quarter turn. Turn worm shaft nut counterclockwise by hand. Manually cycle one dummy cartridge with link through lower side of forward feed assembly. Did ammunition link cycle through link stripper without problems?

NO →

Inspect ammunition links for damage. Are links damaged?

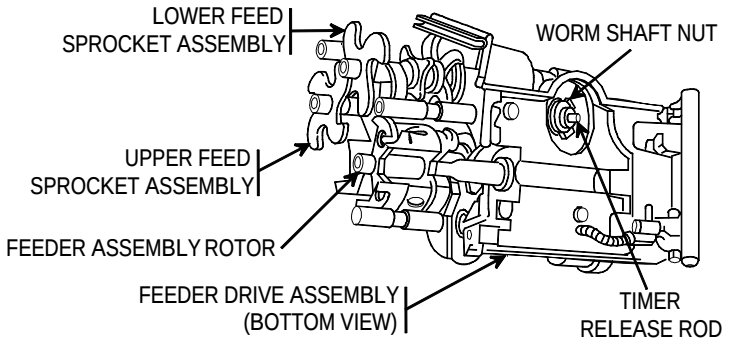
YES →

Replace ammunition links (see TM 9-2350-252-10-2, TM 9-2350-284-10-2, TM 9-2350-284-10-2-1, or TM 2350-294-10-2).

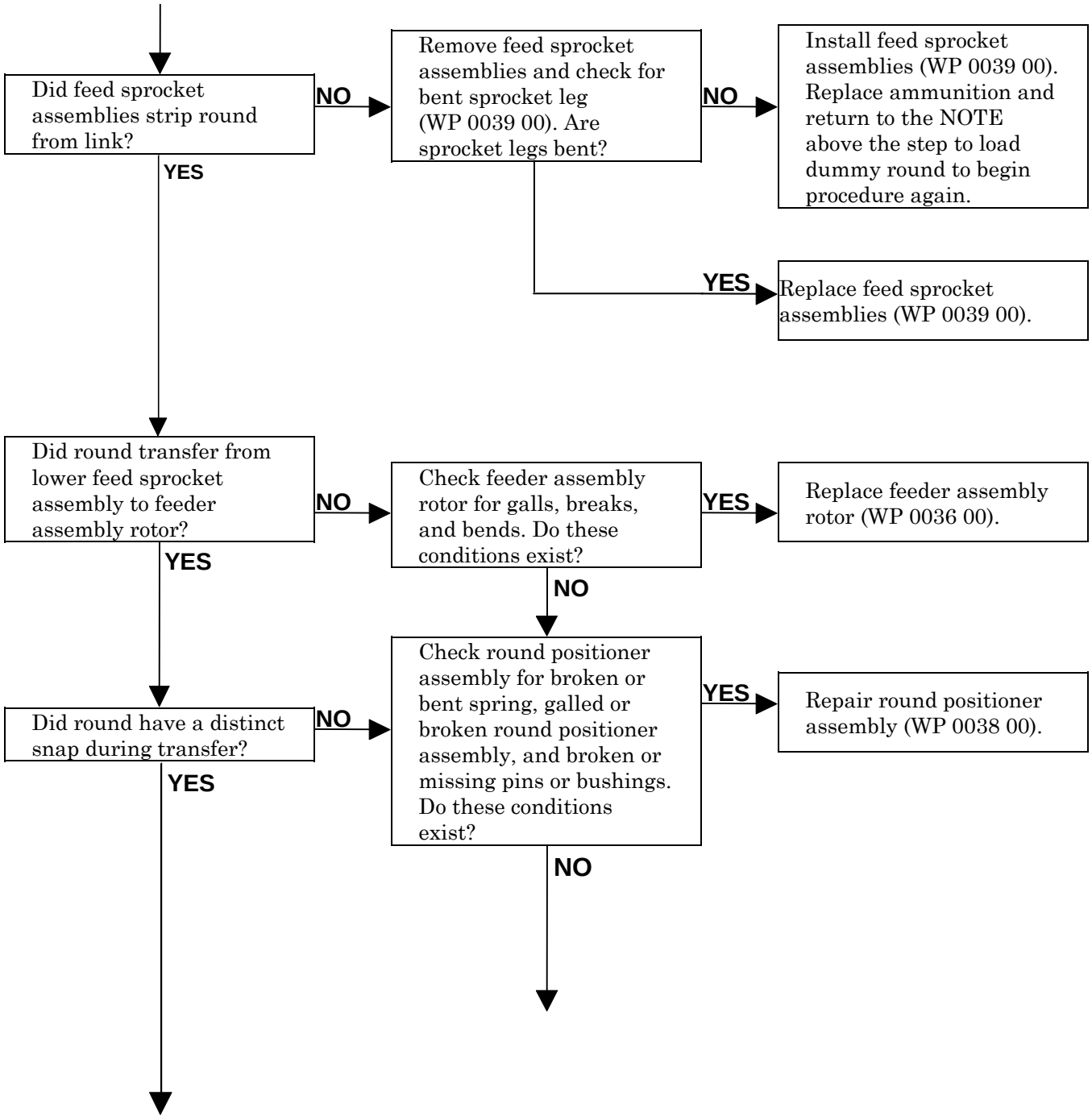
NO

Replace defective lower link strippers (WP 0030 00 and WP 0031 00), as required.

YES



1df0076


Did feed sprocket assemblies strip round from link?
NO
Remove feed sprocket assemblies and check for bent sprocket leg (WP 0039 00). Are sprocket legs bent?
NO
Install feed sprocket assemblies (WP 0039 00). Replace ammunition and return to the NOTE above the step to load dummy round to begin procedure again.
YES
Replace feed sprocket assemblies (WP 0039 00).
YES
Did round transfer from lower feed sprocket assembly to feeder assembly rotor?
NO
Check feeder assembly rotor for galls, breaks, and bends. Do these conditions exist?
YES
Replace feeder assembly rotor (WP 0036 00).
YES
NO
Did round have a distinct snap during transfer?
NO
Check round positioner assembly for broken or bent spring, galled or broken round positioner assembly, and broken or missing pins or bushings. Do these conditions exist?
YES
Repair round positioner assembly (WP 0038 00).
YES
NO

AUTOMATIC GUN FEEDER MANUAL CYCLE CHECK - Continued

Did round attempt to cock during transfer? (Round should remain approximately perpendicular to the rear plate assembly.)

YES → Deflect round positioner assembly to one side and then to other side, about 1/8 in. (3 mm) in each direction. Did round positioner assembly nose return to center of feeder assembly rotor and is round positioner flat spring parallel to rotor?

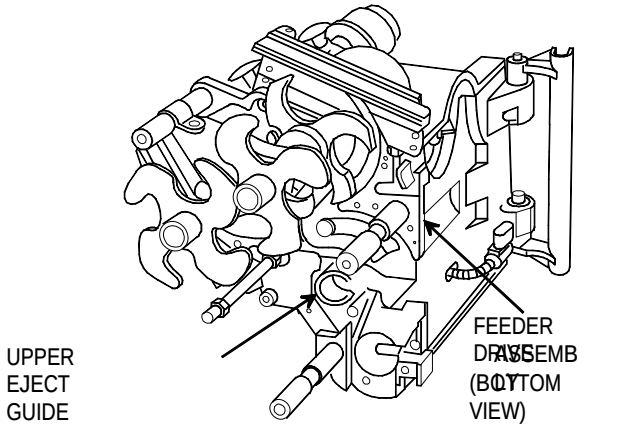
NO → Repair round positioner assembly (WP 0038 00).

YES → Feeder drive assembly is bad. Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair.

NO → Does the upper eject guide control and guide the rear end of the cartridge?

NO → Replace upper eject guide (WP 0042 00).

YES



Check link shield for cracks and bends. Do these conditions exist?

YES → Replace link shield feeder (WP 0029 00).

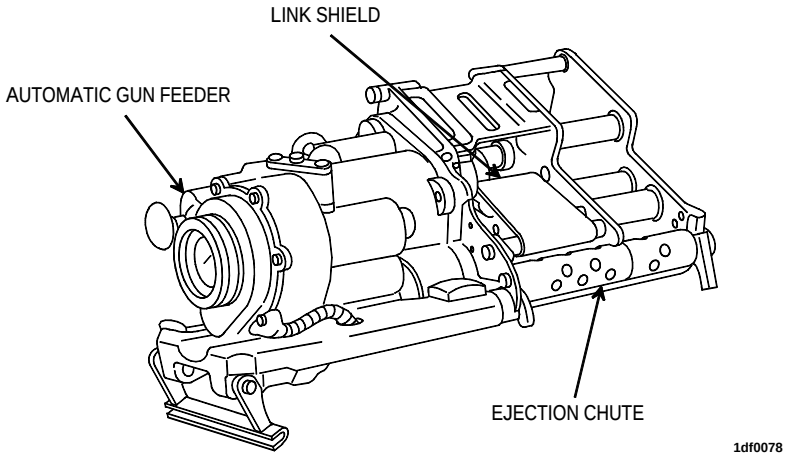
NO

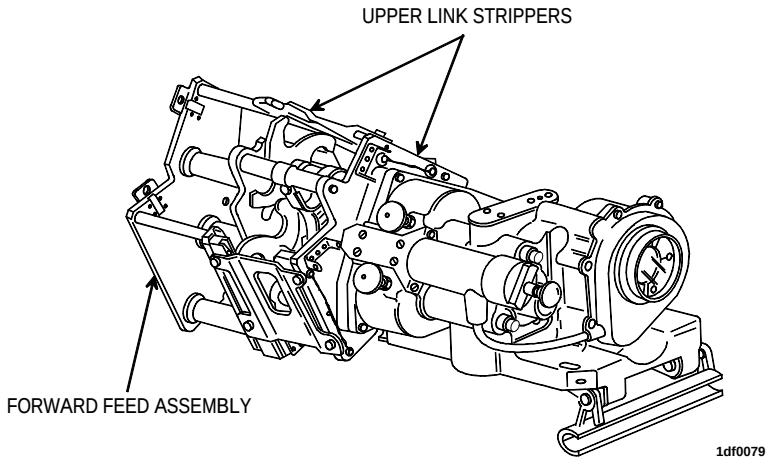
Check ejection chute for cracks, bends, deep dents, breaks, and damaged flat springs or flat spring rivets. Do these conditions exist?

YES → Replace ejection chute (WP 0032 00).

NO

Remove dummy round and ammunition links from feeder assembly and continue cycling automatic gun feeder to the SEAR position by turning the worm shaft nut counterclockwise.





AUTOMATIC GUN FEEDER MANUAL CYCLE CHECK - Continued

NOTE

Do not turn worm shaft nut before pushing timer release rod. If automatic gun feeder binds, tap worm shaft nut clockwise with plastic-face hammer to loosen.

NOTE

Guide link tabs into stripper grooves.

Select upper feed and load one dummy round with link into automatic gun feeder.

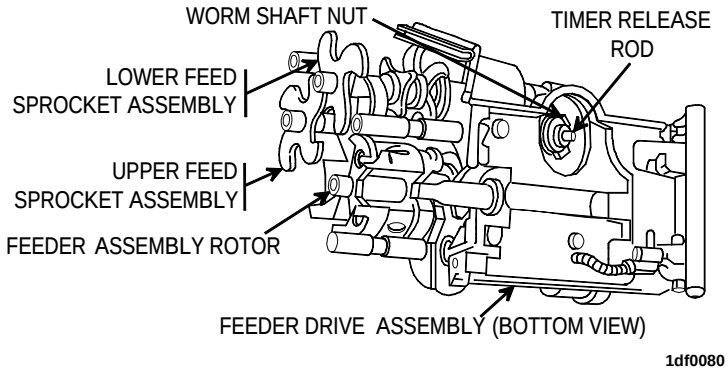
Push timer release rod and hold. Release timer release rod after first quarter turn. Turn worm shaft nut counterclockwise by hand. Manually cycle one dummy cartridge with link through upper side of forward feed assembly. Did ammunition link cycle through link stripper without problems?

NO → Inspect ammunition links for damage. Are links damaged?

YES → Replace ammunition links (see TM 9-2350-252-10-2, TM 9-2350-284-10-2, TM 9-2350-284-10-2-1, or TM 9-2350-294-10-2).

NO → Replace defective upper link strippers (WP 0030 00 and WP 0031 00), as required.

YES



Did round transfer from upper feed sprocket assembly to feeder assembly rotor?

NO → Check feeder assembly rotor for galls, breaks, and bends. Do these conditions exist?

YES → Replace feeder assembly rotor (WP 0036 00).

NO → Did round have a distinct snap during transfer?

YES → Check round positioner assembly for broken or bent spring, galled or broken positioner, and broken or missing pins or bushings. Do these conditions exist?

YES → Repair round positioner assembly (WP 0038 00).

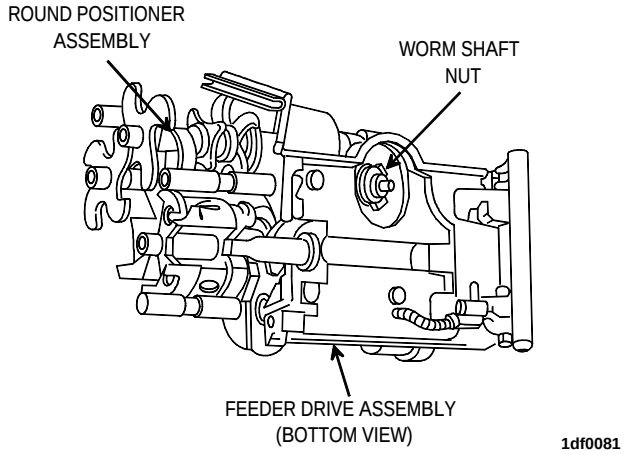
NO → Did round attempt to cock during transfer? (Round should remain approximately perpendicular to the rear plate assembly.)

YES → Deflect round positioner assembly to one side and then to other side, about 1/8 in. (3 mm) in each direction. Did round positioner nose return to center of feeder assembly rotor?

NO → Repair round positioner assembly (WP 0038 00).

YES → Feeder drive assembly is bad. Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair.

NO → Remove all dummy cartridges and ammunition links from feeder assembly. Turn worm shaft nut counterclockwise until feeder is locked in SEAR position. Automatic gun feeder manual cycle check complete.



END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

AUTO GUN RECEIVER MANUAL CYCLE CHECK

INITIAL SETUP:

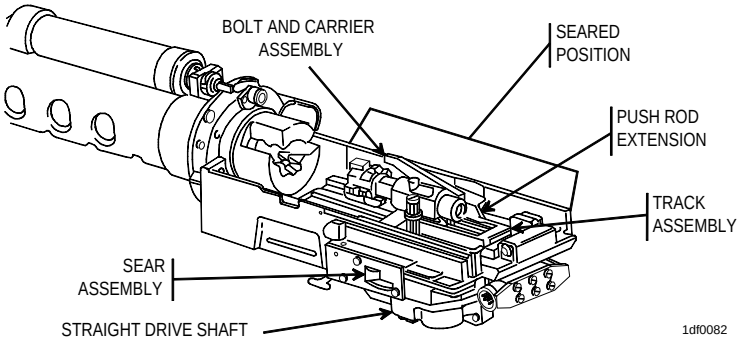
Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Equipment Conditions
WP 0023 00 Barrel assembly removed
WP 0026 00 Automatic gun feeder removed

Depress center button on straight drive shaft and pull down to retaining ring stop. Raise straight drive shaft with center button depressed to full up position. Release button to lock straight drive shaft in full up position. Does the straight drive shaft meet the above conditions and slide up and down without binding?

NO → Inspect straight drive shaft (WP 0060 00).

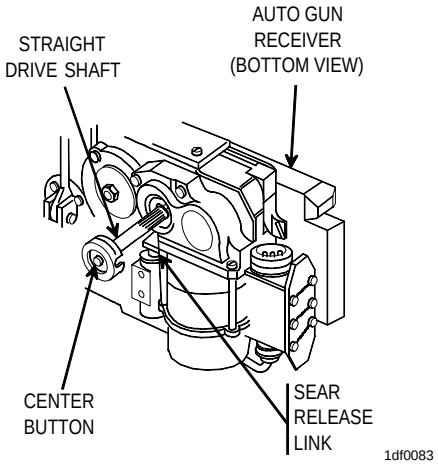
YES



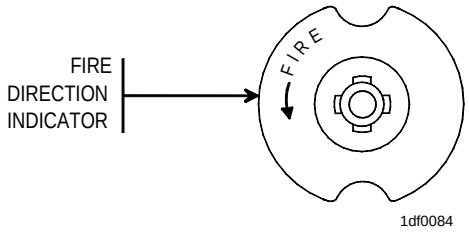
Press and hold sear release link. Does the sear assembly move away from the chain master link and does the push rod extension rise above the receiver rear deck? Release sear release link. Do the components go back to their original position? (The push rod extension may not return to original position.)

NO → Inspect sear assembly (WP 0065 00) and repair chain guides and mechanical interlock (WP 0069 00).

YES



AUTO GUN RECEIVER MANUAL CYCLE CHECK - Continued



Press button in center of straight drive shaft. Pull straight drive shaft down until it stops. Press and release sear release link while turning straight drive shaft in FIRE direction. Does straight drive shaft turn?

NO → Remove bolt and track assembly (WP 0053 00). Try to turn straight drive shaft. Does straight drive shaft turn?

YES → Does drive gear turn?

NO → Clutch or receiver gears are bad. Inspect clutch and receiver gears (WP 0067 00).

YES → Repair track assembly (WP 0056 00).

Repair track assembly (WP 0056 00). → If receiver still does not cycle out of SEAR position, clean and repair chain guides and mechanical interlock (WP 0069 00) or replace rear track (WP 0057 00).

NO → Remove direct current motor (WP 0061 00). Try to turn straight drive shaft. Does straight drive shaft turn?

YES → Replace direct current motor (WP 0061 00).

NO → Clutch or receiver gears are bad. Inspect clutch and receiver gears (WP 0067 00).

YES → Does chain move without binding?

NO → Remove bolt and track assembly (WP 0053 00). Try to turn straight drive shaft. Does straight drive shaft turn?

YES → (end)

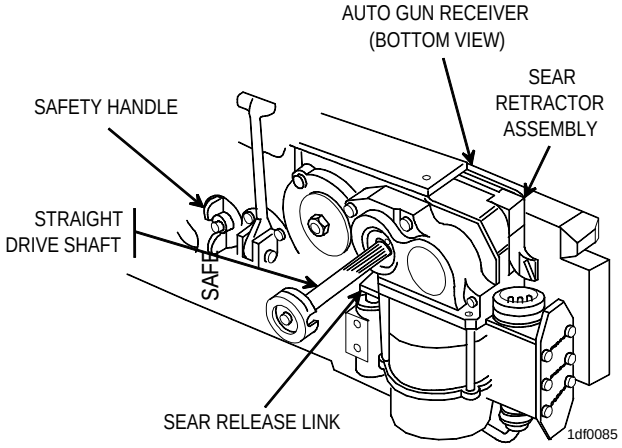
NOTE

It may be necessary to pull sear release link while pushing sear retractor assembly.

Turn safety handle to FIRE position and push outside edge of sear retractor assembly until it clicks into position. Turn straight drive shaft in FIRE direction. Look at bolt and carrier assembly as it moves forward. Does firing pin pawl hold firing pin tang and compress firing pin spring as bolt enters breech?

NO → Repair bolt and carrier assembly (WP 0055 00) or track assembly (WP 0056 00).

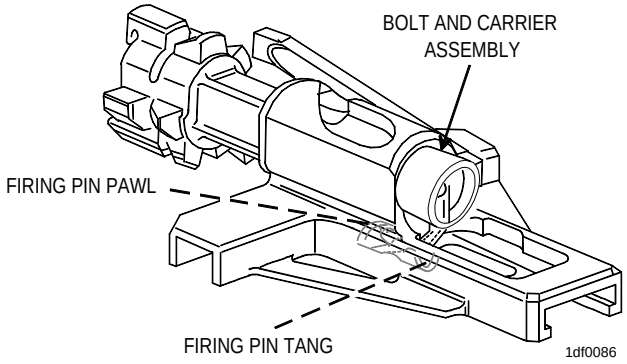
YES



Turn straight drive shaft in FIRE direction. Does firing pin tang snap off firing pin pawl when breech bolt locks into breech assembly?

NO → Repair bolt and carrier assembly (WP 0055 00) or track assembly (WP 0056 00).

YES

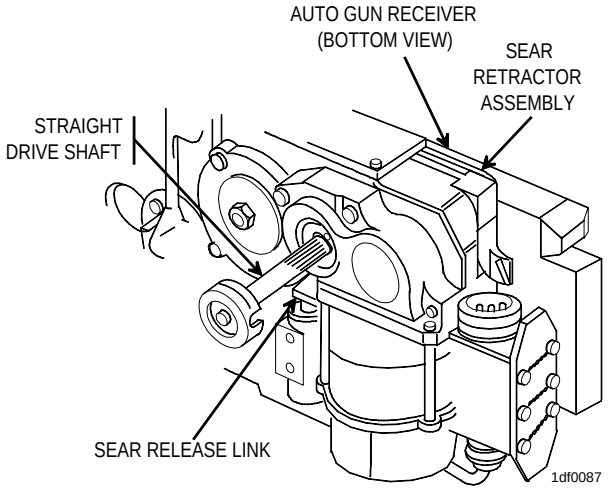


AUTO GUN RECEIVER MANUAL CYCLE CHECK - Continued

Release sear retractor assembly by pressing inside edge of sear retractor assembly. Turn straight drive shaft in FIRE direction approximately one-and-a-half turns. Does sear stop the safety link?

NO → Replace sear assembly (WP 0065 00).

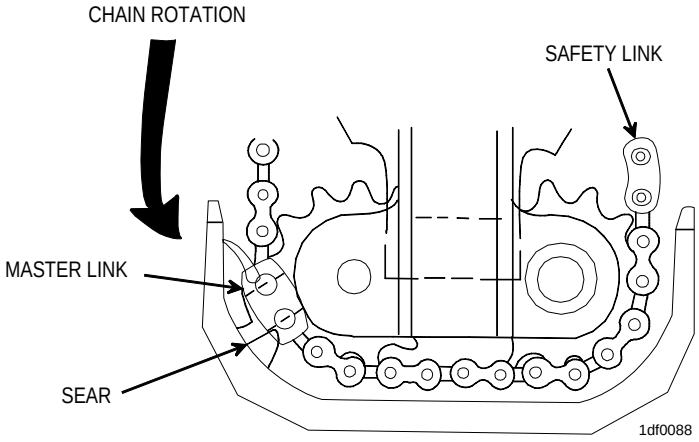
YES



Press sear release link and turn straight drive shaft in FIRE direction until click is heard. Release sear release link. Continue turning straight drive shaft approximately two-and-a-half turns. Does sear stop the master link?

NO → Replace sear assembly (WP 0065 00).

YES

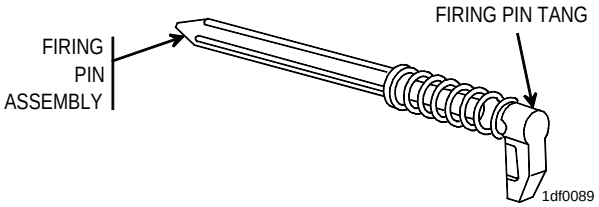


Attempt to rotate straight drive shaft in either direction. Except for slight movement, does straight drive shaft continue to rotate?

YES → Replace sear catch assembly (WP 0064 00).

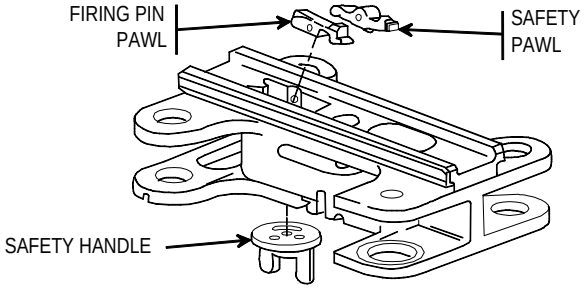
NO

Turn safety handle to SAFE position and push outside edge of sear retractor assembly until it clicks into position. Turn straight drive shaft in FIRE direction. Look at bolt and carrier assembly as it moves forward. Does firing pin tang slide off firing pin pawl and onto safety pawl without allowing firing pin to fall?

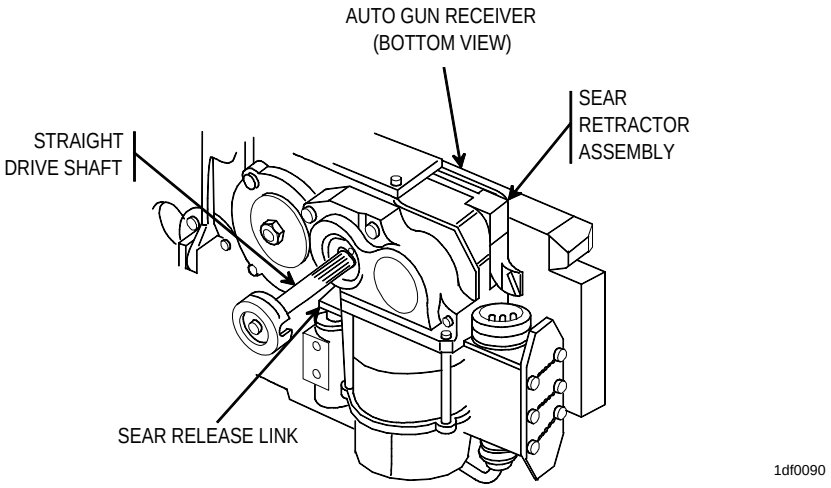


NO → Repair track assembly (WP 0056 00).

YES

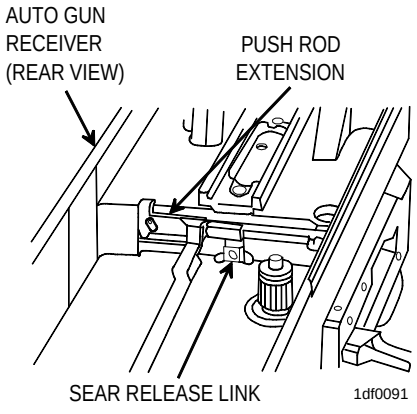


After receiver locks in MISFIRE (bolt locked), release sear retractor assembly by pressing inside edge of sear retractor assembly. Press and release sear release link while turning straight drive shaft in FIRE direction until receiver is locked in SEAR.



Push outside edge of sear retractor assembly until it clicks into position. Rotate straight drive shaft in FIRE direction until bolt carrier moves through full rear position and continues forward to mid-ram position. Does the push rod extension remain in the down position?

NO → Repair chain guides and mechanical interlock (WP 0069 00).



YES

AUTO GUN RECEIVER MANUAL CYCLE CHECK - Continued

Strike rocker assembly with a non-steel rod in a straight downward motion. Does the push rod extension raise up?

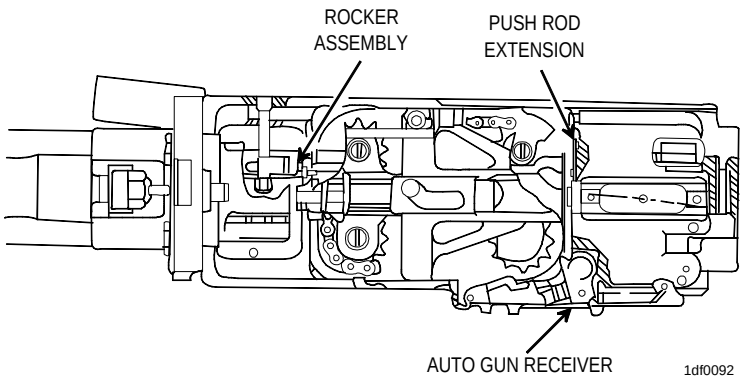
NO → Repair chain guides and mechanical interlock (WP 0069 00).

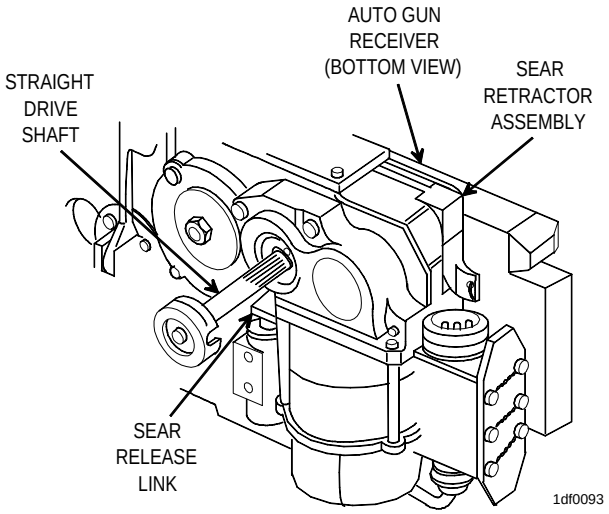
YES

Press inside edge of sear retractor assembly to release sear retractor, and cycle receiver into MISFIRE. Press and release sear release link while turning straight drive shaft in FIRE direction until master link is locked in SEAR.

If automatic gun feeder is not going to be installed, raise drive shaft to prevent damage.

Auto gun receiver manual cycle check is complete and receiver is timed.





END OF WORK PACKAGE

UNIT

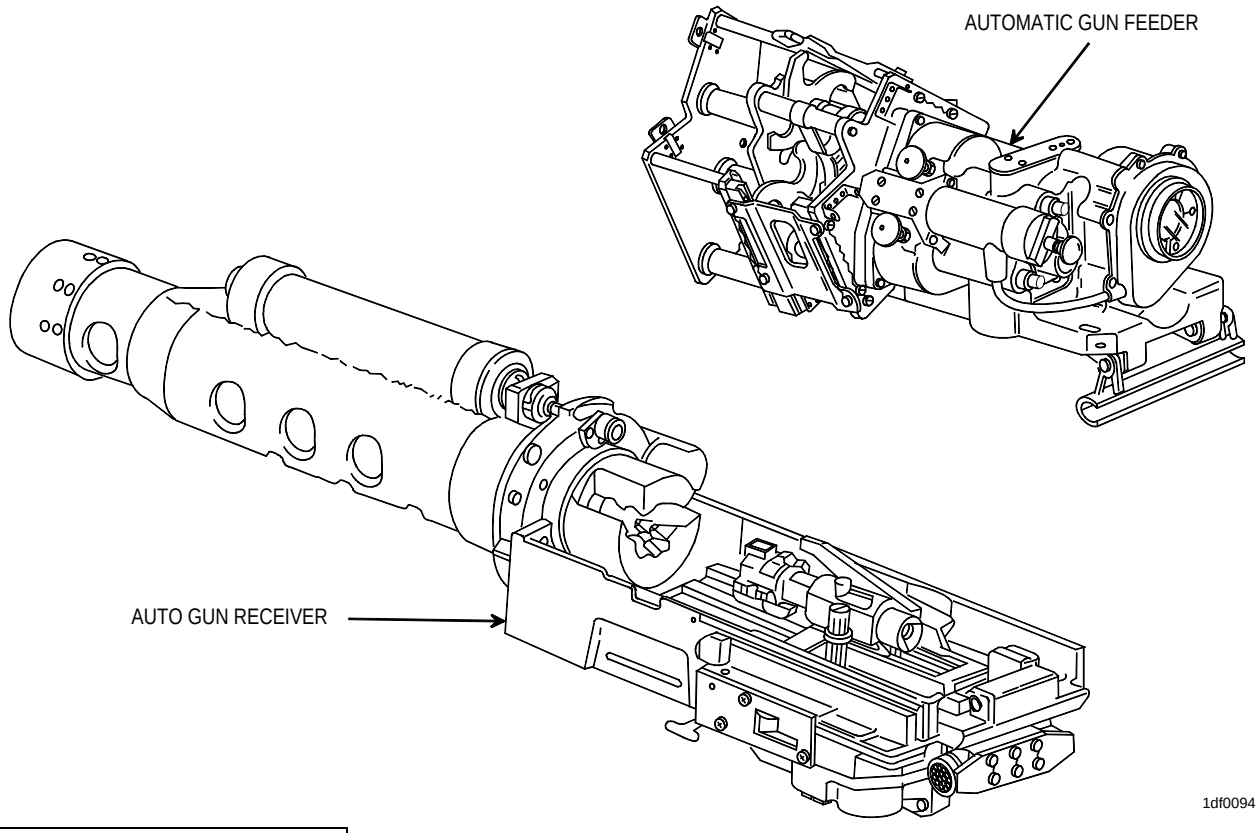
M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

GUN FIRES AT REDUCED RATE

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Equipment Conditions
WP 0023 00 Barrel assembly removed
WP 0026 00 Automatic gun feeder removed



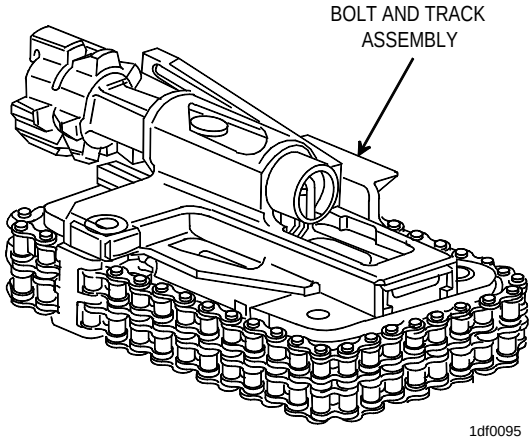
Perform electrical check-out (WP 0005 00). Does equipment check out in accordance with electrical checkout?

NO → Replace defective parts (WP 0005 00), as required.

YES ↓

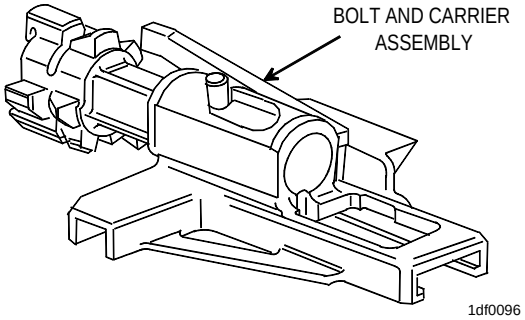
GUN FIRES AT REDUCED RATE- Continued

Remove bolt and track assembly (WP 0053 00). Remove bolt and carrier assembly (WP 0054 00).



Check bolt and carrier assembly for galls, scoring, and burrs. Do these conditions exist?

YES → Repair bolt and carrier assembly (WP 0055 00).



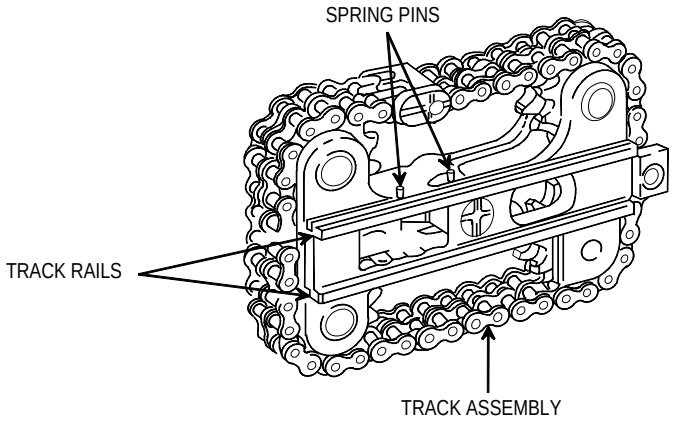
NO

NOTE

Some chipping and burring of track rails is normal.

Check track rails for scoring, galls, and burrs. Check the two spring pins under track rails to see if they are unequally spaced on each side of the track. Do above conditions exist?

YES → Repair track assembly (WP 0056 00).

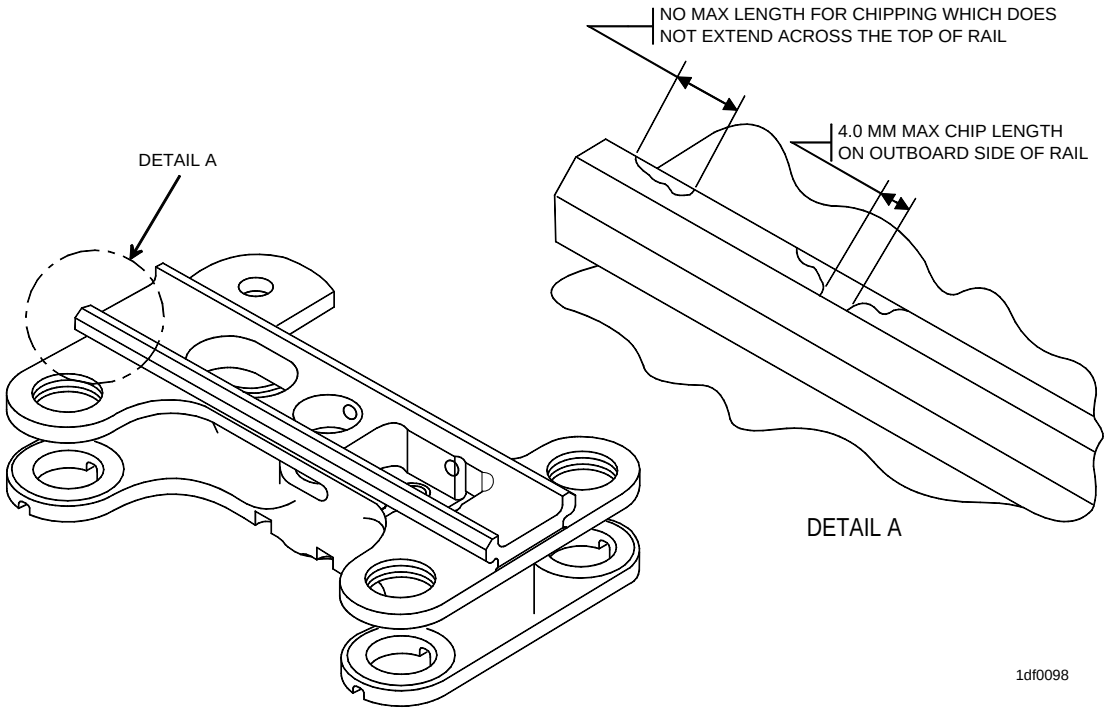


NO

Check track rails (sliding surfaces) for chips that extend across the top of the rail and measure 5/32 in. (4.0 mm) or greater along the outboard side of the rail. Does this condition exist?

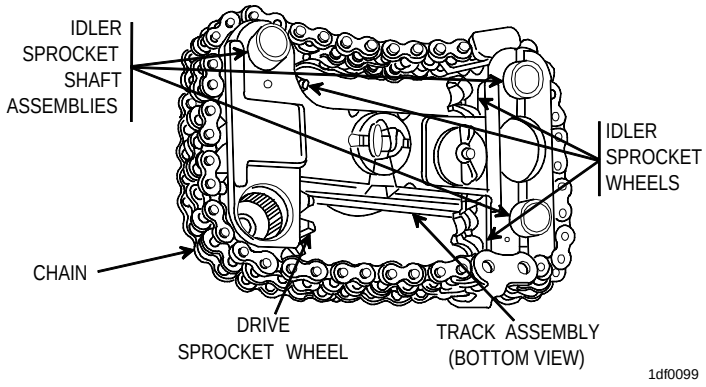
YES → Repair track assembly by replacing track (WP 0056 00).

NO



GUN FIRES AT REDUCED RATE- Continued

Remove chain and sprocket wheels (WP 0056 00).



Check idler sprocket shaft assemblies for cracks, bends, galls, and broken or missing pin. Do these conditions exist?

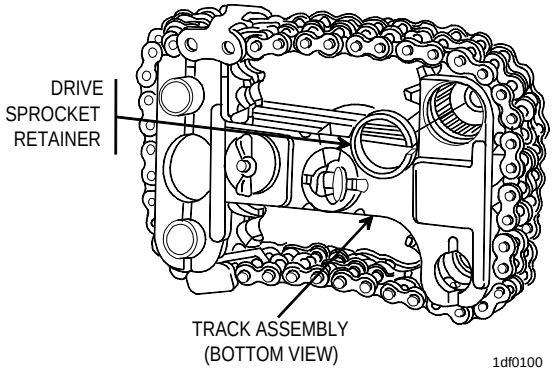
YES → Repair track assembly (WP 0056 00).

NO

Check drive sprocket wheel for galls and chipped splines and teeth. Do these conditions exist?

YES → Repair track assembly (WP 0056 00).

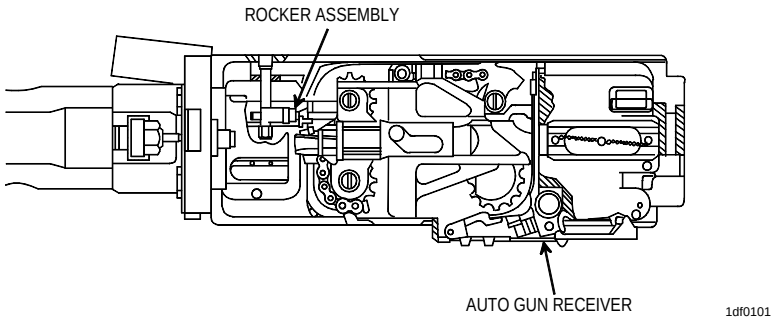
NO



Check drive sprocket retainer for scoring, galls, and bends. Do these conditions exist?

YES → Repair track assembly (WP 0056 00).

NO



Reach into auto gun receiver just behind right side of breech assembly and push down on rocker assembly. Does rocker assembly return to original position?

NO → Repair chain guides and rocker assembly (WP 0069 00), as required.

YES

Assemble track assembly (WP 0056 00). Assemble bolt and track assembly (WP 0054 00). Install bolt and track assembly in auto gun receiver (WP 0053 00).

Manually cycle auto gun receiver through one cycle. Do auto gun receiver gears turn freely?

NO → Repair auto gun receiver gears (WP 0067 00).

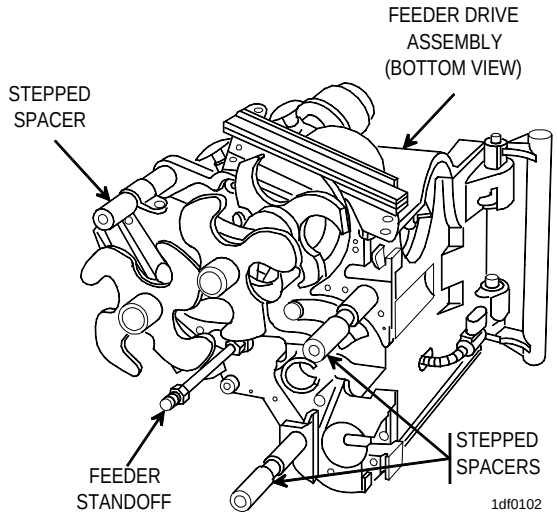
YES

GUN FIRES AT REDUCED RATE- Continued

Perform automatic gun feeder manual cycle check (WP 0007 00). Does automatic gun feeder bind?

NO → Install automatic gun feeder (WP 0026 00).

YES



Check stepped spacers and feeder standoff for bends. Does this condition exist?

YES → Replace stepped spacers (WP 0041 00) or feeder standoff (WP 0040 00).

NO

Grasp feed sprocket assemblies and move from side to side and top to bottom. Is there play between feed leg and bushings?

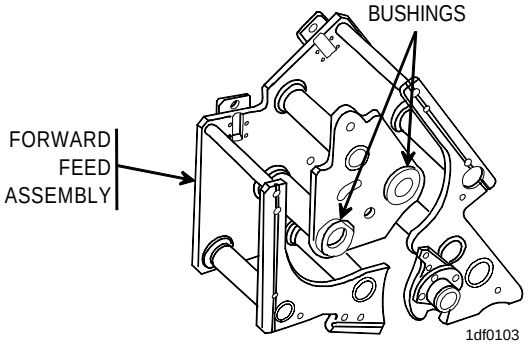
YES → Replace forward feed assembly (WP 0034 00) and send defective forward feed assembly to Direct Support Maintenance for replacement of defective bushing.

NO

Grasp feeder assembly rotor and move from side to side and top to bottom. Is there play between feed leg and bushing? (Fore and aft rotor movement is normal.)

YES → Replace forward feed assembly (WP 0034 00) and send defective forward feed assembly to Direct Support Maintenance for replacement of defective bushing.

NO

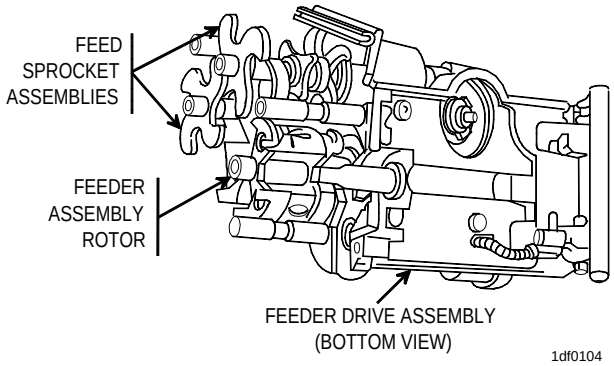


Remove forward feed assembly (WP 0034 00) and check bushings for galls and bends. Do these conditions exist?

YES → Replace forward feed assembly (WP 0034 00) and send defective forward feed assembly to Direct Support Maintenance for replacement of defective bushings.

NO

Install forward feed assembly (WP 0034 00). Install automatic gun feeder (WP 0026 00).



END OF WORK PACKAGE

UNIT

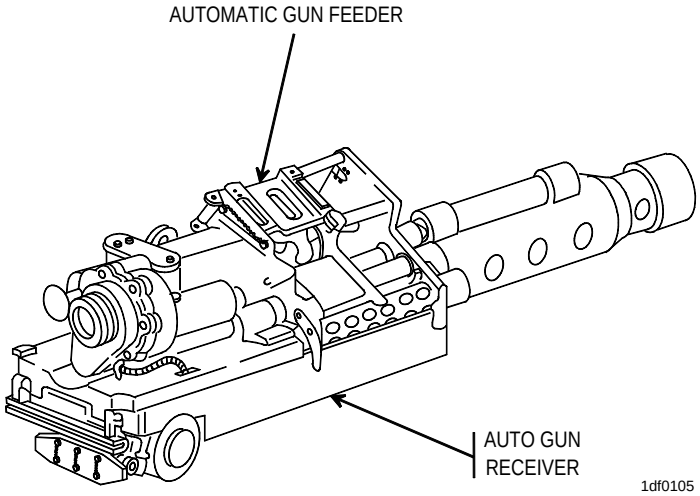
M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

GUN WILL NOT CYCLE

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Equipment Conditions
WP 0023 00 Barrel assembly removed



Perform electrical checkout (WP 0005 00). Does equipment check out in accordance with electrical checkout?

NO → Replace defective parts (WP 0005 00), as required.

YES

Remove automatic gun feeder (WP 0026 00) and perform automatic gun feeder manual cycle check (WP 0007 00). Does automatic gun feeder conform to check?

NO → Replace defective parts (WP 0007 00), as required.

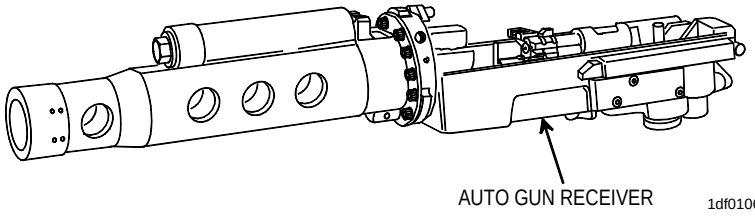
YES

GUN WILL NOT CYCLE - Continued

Perform auto gun receiver manual cycle check (WP 0008 00). Does auto gun receiver conform to check?

NO → Replace defective parts (WP 0008 00), as required.

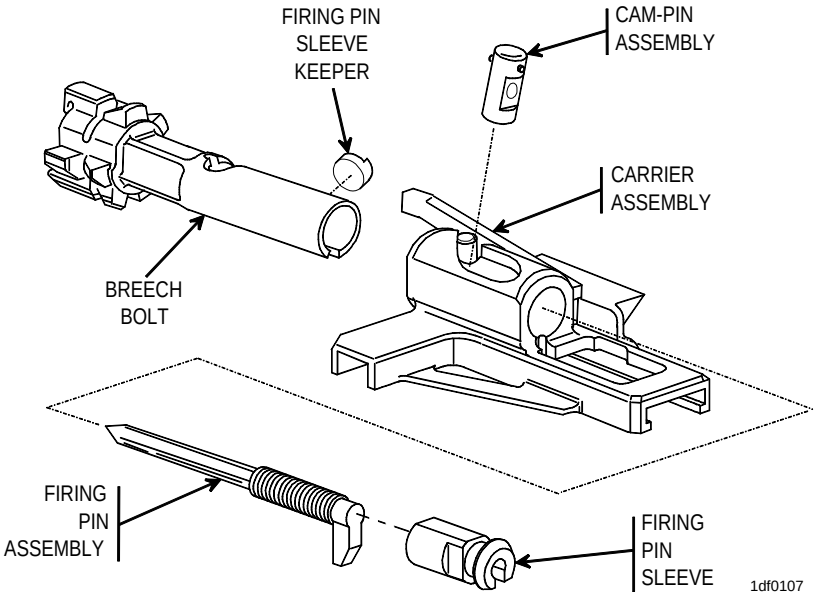
YES



Remove bolt and track assembly (WP 0053 00). Remove bolt and carrier assembly (WP 0054 00). Disassemble bolt and carrier assembly (WP 0055 00) and check all parts for galls, breaks, bends, and wear. Do these conditions exist?

YES → Repair bolt and carrier assembly by replacing defective parts (WP 0055 00).

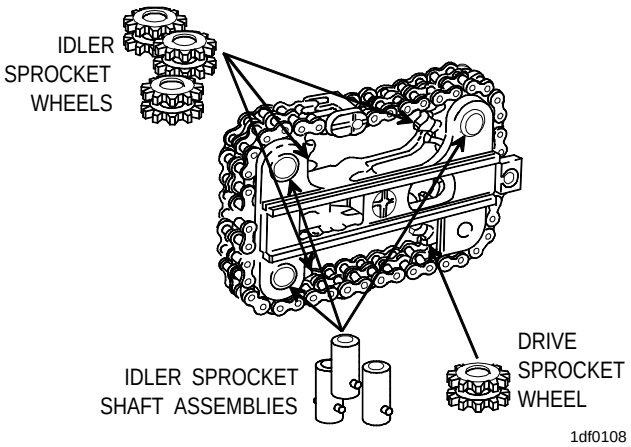
NO



Remove chain and sprocket wheels (WP 0056 00) and check track, idler sprocket shaft assemblies, and sprocket wheels for breaks, bends, broken teeth, and deep galls or high burrs. Do these conditions exist?

YES → Repair track assembly by replacing defective parts (WP 0056 00).

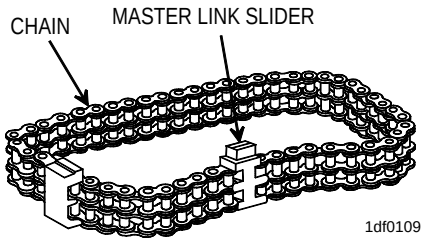
NO



Check chain for jammed, broken, or loose links and galled or scored master link slider. Do these conditions exist?

YES → Repair track assembly by replacing chain (WP 0056 00).

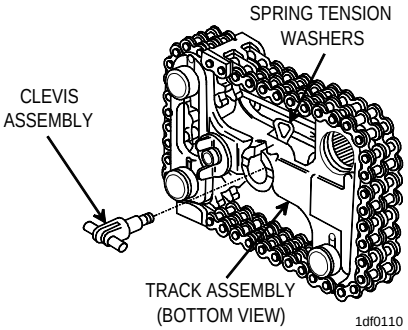
NO



Check clevis assembly for broken or missing spring tension washers. Do these conditions exist?

YES → Repair track assembly by replacing clevis assembly (WP 0056 00).

NO

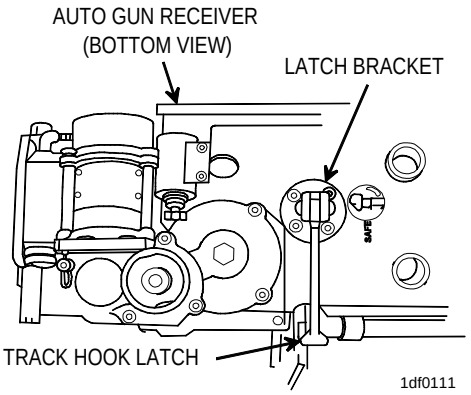


GUN WILL NOT CYCLE - Continued

Check track hook latch and latch bracket for breaks, bends, and wear. Do these conditions exist?

YES → Replace track hook latch (WP 0058 00) or latch bracket (WP 0059 00).

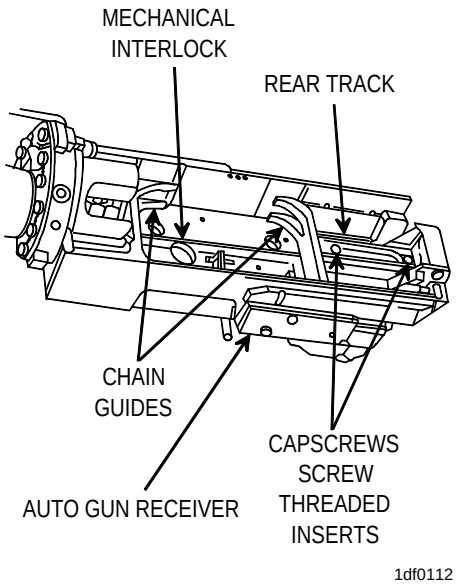
NO



Check rear track for breaks or bends. Check capscrews and receiver screw threaded inserts for stripped threads. Do these conditions exist?

YES → Replace rear track (WP 0057 00). If screw threaded inserts are damaged, send auto gun receiver to Direct Support Maintenance for replacement of screw threaded inserts.

NO



Check chain guides for high burrs, bends, and breaks. Do these conditions exist?

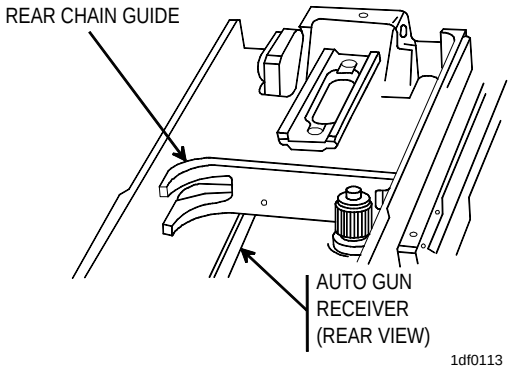
YES → Repair chain guide(s) and mechanical interlock by replacing defective chain guide(s) (WP 0069 00).

NO

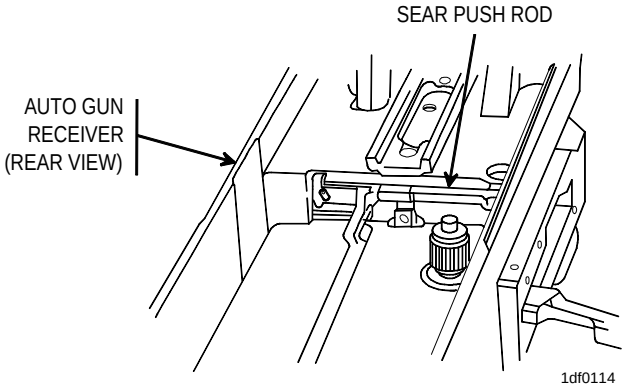
Remove rear chain guide (WP 0069 00) and check mechanical interlock components for bends and jams. Do these conditions exist?

YES → Repair chain guide(s) and mechanical interlock by replacing defective parts (WP 0069 00).

NO



Install mechanical interlock and rear chain guide (WP 0069 00). Assemble track assembly (WP 0056 00). Assemble bolt and carrier assembly (WP 0055 00). Assemble bolt and track assembly (WP 0054 00). Install bolt and track assembly (WP 0053 00).



Perform auto gun receiver manual cycle check (WP 0008 00).

END OF WORK PACKAGE

UNIT

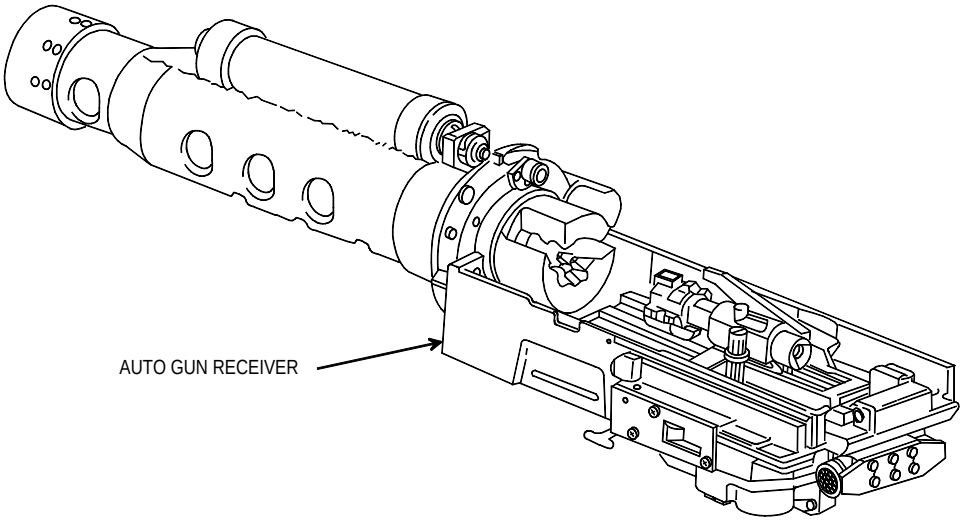
M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

GUN WILL NOT STOP IN SEAR POSITION

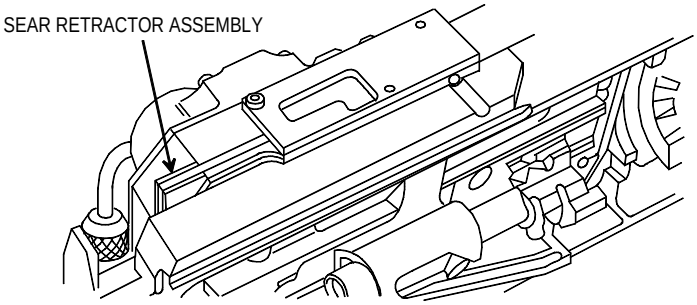
INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Equipment Conditions
WP 0023 00 Barrel assembly removed
WP 0026 00 Automatic gun feeder removed



1df0115



1df0116

NOTE

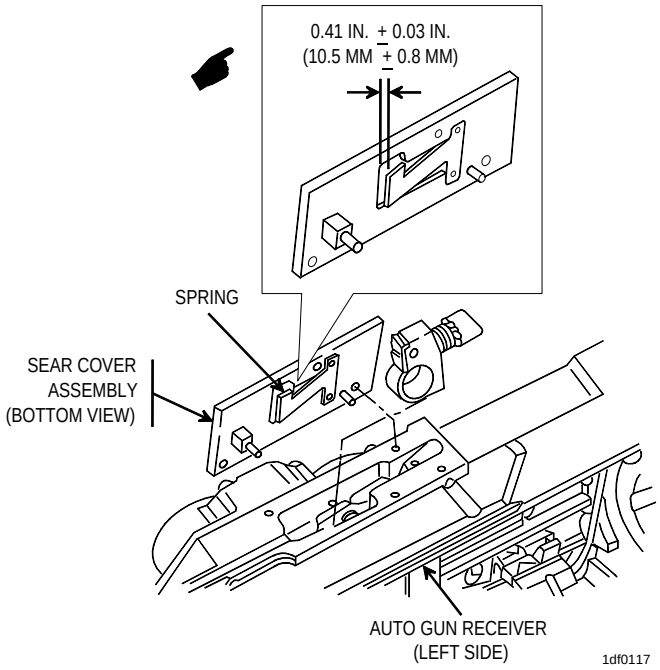
Ensure manual sear retractor is disengaged (sear retractor is flush with the receiver sidewall).

Perform electrical checkout (WP 0005 00). Does equipment perform in accordance with electrical checkout?

NO → Replace defective parts (WP 0005 00), as required.

YES

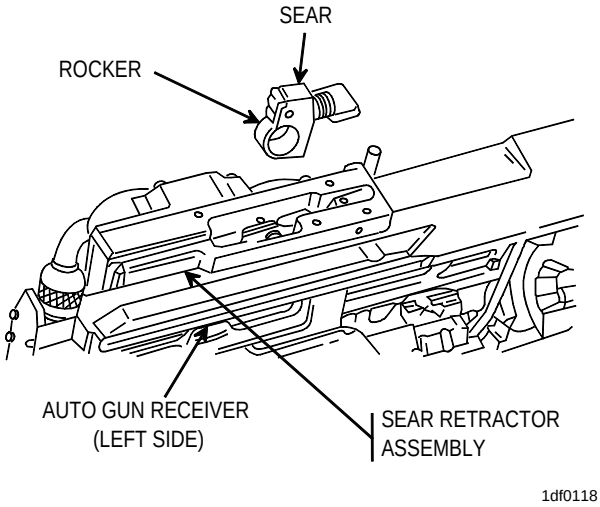
GUN WILL NOT STOP IN SEAR POSITION - Continued



Remove cover assembly (WP 0063 00) and depress spring three times against cover. Measure distance from tip of spring to face of cover. Is it 0.41 in. ± 0.03 in. (10.5 mm ± 0.8 mm)?

NO → Replace cover assembly (WP 0063 00).

YES



Remove sear assembly (WP 0065 00) and check for broken or bent arm and burrs on contact surface of arm, rocker, and washers. Do these conditions exist?

YES → Replace sear assembly (WP 0065 00).

NO

Remove bolt and track assembly (WP 0053 00). Check chain master link for breaks and bends. Do these conditions exist?

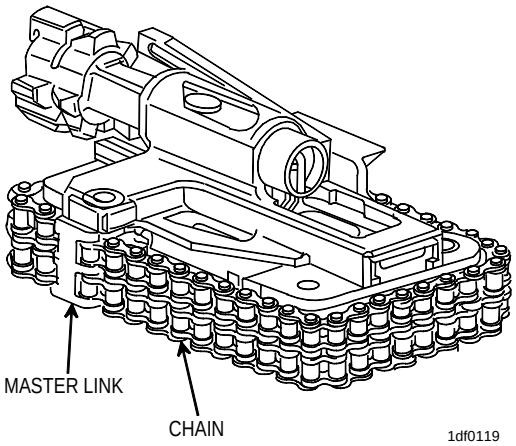
YES → Repair track assembly by replacing chain (WP 0056 00).

NO

Check sear retractor assembly for bent, broken, or fatigued spring and broken or bent sear retractor. Do these conditions exist?

YES → Replace sear retractor assembly (WP 0063 00).

NO



Install sear assembly (WP 0065 00). Install sear cover assembly (WP 0063 00). Install bolt and track assembly (WP 0053 00). Perform auto gun receiver manual cycle check (WP 0008 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

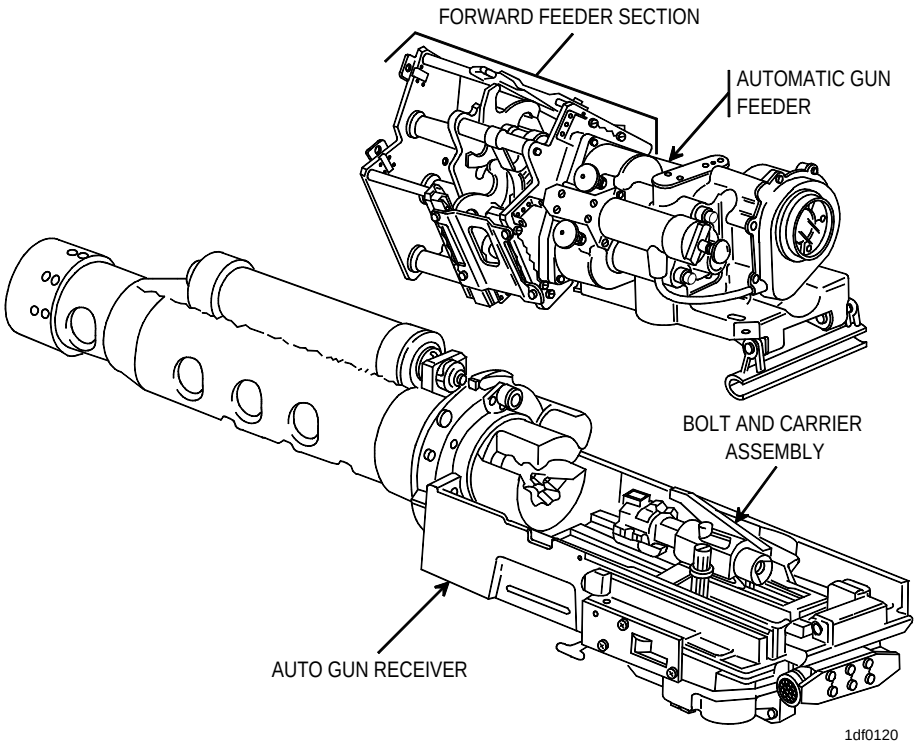
GUN STALLS

INITIAL SETUP:

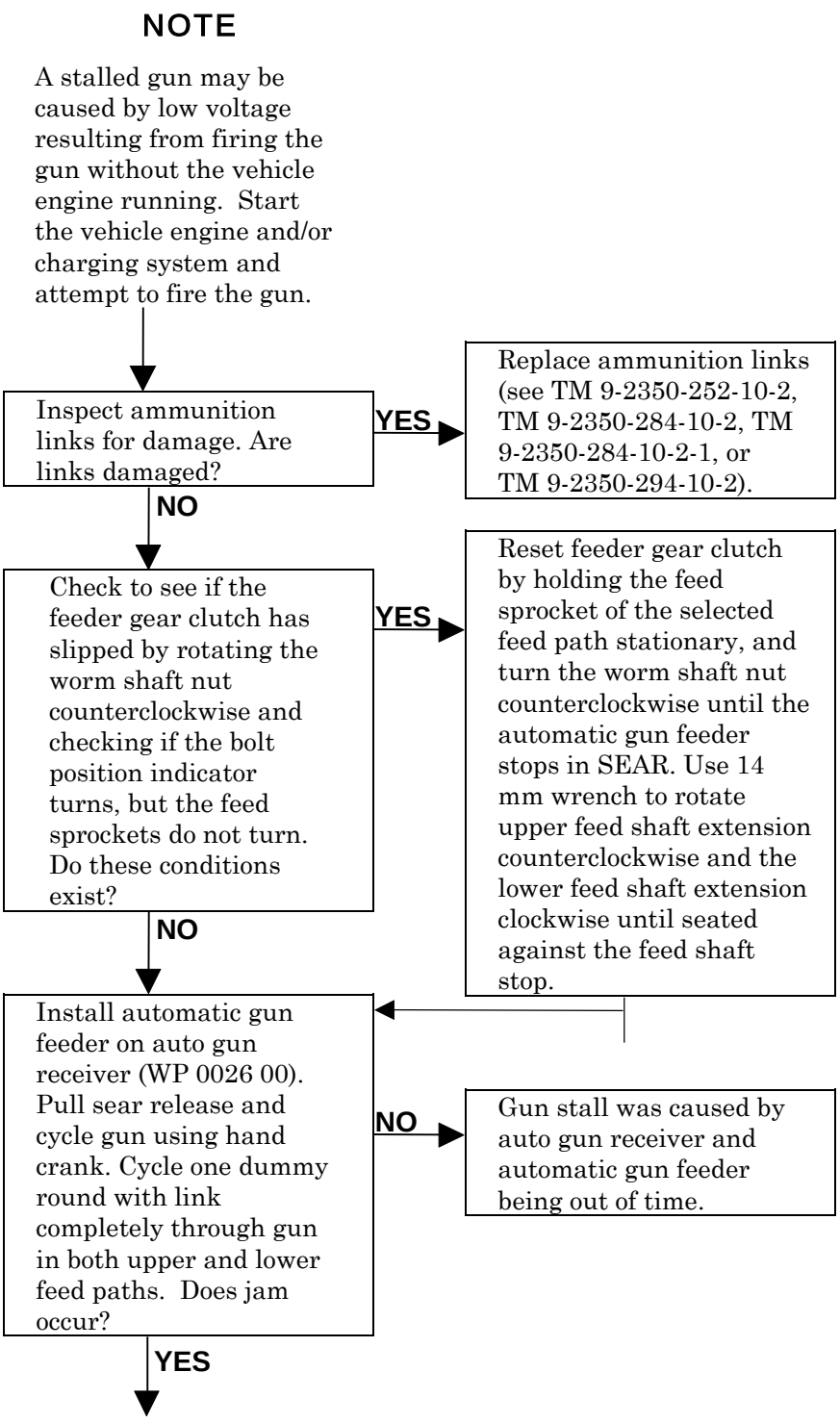
Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Dummy cartridge with link (item 6, WP 0085 00)
Hand crank (item 10, WP 0087 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

References
TM 9-2350-252-10-2
TM 9-2350-284-10-2
TM 9-2350-284-10-2-1
TM 9-2350-294-10-2

Equipment Conditions
WP 0023 00 Barrel assembly removed
WP 0026 00 Automatic gun feeder removed



GUN STALLS - Continued

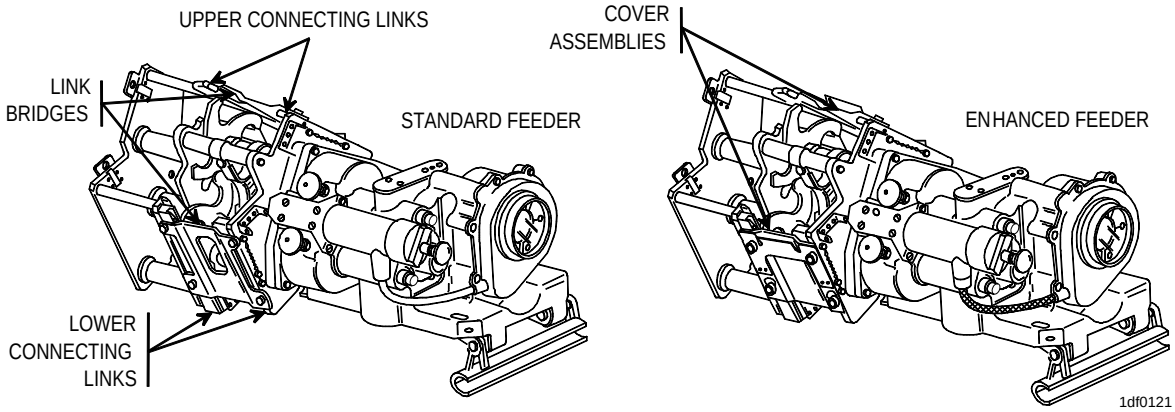


Did ammunition link slide completely through link strippers?

NO

Replace defective link strippers (WP 0030 00 and WP 0031 00), link bridge (standard feeder WP 0027 00) or link cover assembly (enhanced feeder WP 0028 00), as required.

YES



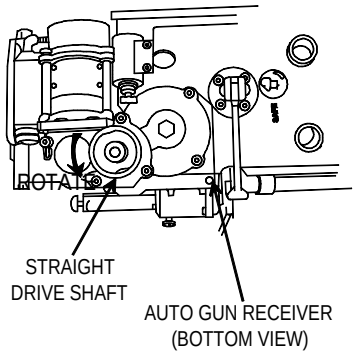
GUN STALLS - Continued

Did feed sprocket assemblies strip round from link strippers?

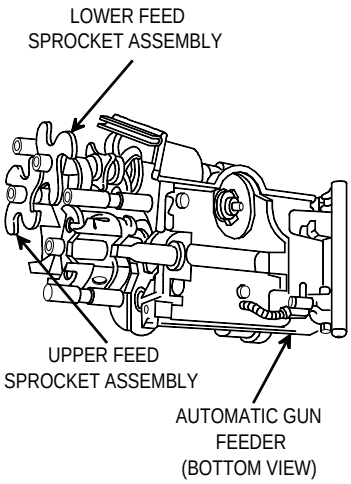
NO → Remove feed sprocket assemblies (WP 0039 00). Check for bent sprocket leg. Are sprocket legs bent?

NO → Install feed sprocket assembly (WP 0039 00) and repeat task.

YES → Replace feed sprocket assembly (WP 0039 00).



1df0122



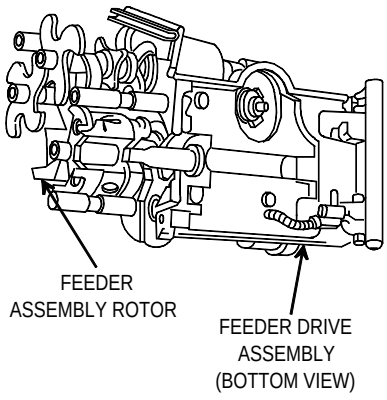
1df0123

YES → Did round transfer from feed sprocket assembly to feeder assembly rotor?

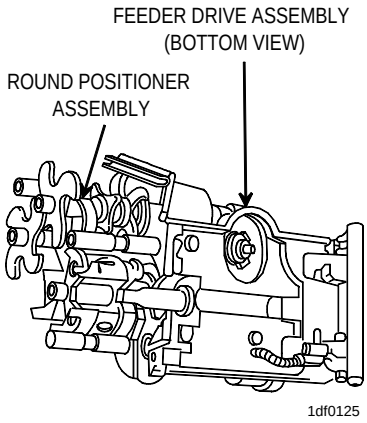
NO → Check feeder assembly rotor for breaks, bends, and wear. Do these conditions exist?

YES → Replace feeder assembly rotor (WP 0036 00).

NO



1df0124



Check round positioner assembly for broken or bent spring, galled or broken positioner, and broken or missing pins or bushings. Do these conditions exist?

YES → Repair round positioner assembly (WP 0038 00).

NO

Deflect round positioner assembly to one side and then the other, about 1/8 in. (3 mm) in each direction. Did round positioner nose return to center of feeder assembly rotor?

NO → Repair round positioner assembly (WP 0038 00).

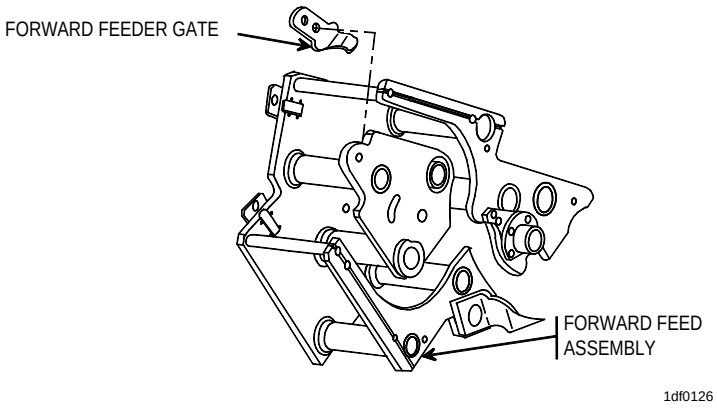
YES → Feeder drive assembly is bad. Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair.

GUN STALLS – Continued

Remove automatic gun feeder (WP 0026 00).

NOTE

The forward feeder gate is under spring tension in both directions.



Check forward feeder gate for binding, bent or broken gate, and fatigued or bent spring. Do these conditions exist?

YES → Replace forward feeder gate and/or defective parts (WP 0033 00).

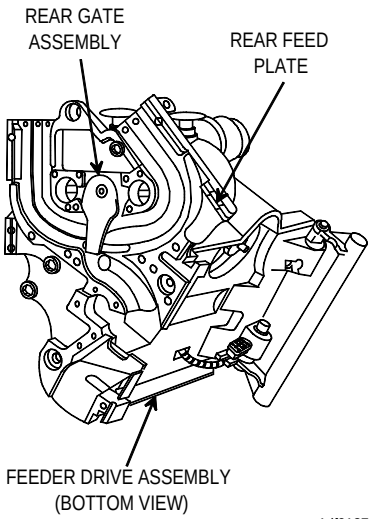
NO

NOTE

The rear gate assembly is only under spring tension in one direction.

Check rear gate assembly for binding, broken gate, wear, and broken spring. Do these conditions exist?

YES → Replace feeder assembly (WP 0026 00) and send defective feeder assembly to Direct Support Maintenance for repair of rear feed plate.

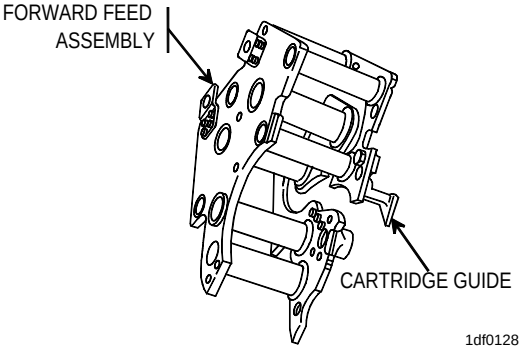


NO

Check cartridge guide for breaks and bends. Do these conditions exist?

YES → Replace cartridge guide (WP 0034 00).

NO



Did upper eject guide control and guide rear of cartridge?

NO → Replace upper eject guide (WP 0042 00).

YES

Check link shield for bends and cracks. Do these conditions exist?

YES → Replace link shield (WP 0029 00).

NO

Check ejection chute for cracks, bends, deep dents, and breaks. Do these conditions exist?

YES → Replace ejection chute (WP 0032 00).

NO

Remove bolt and track assembly (WP 0053 00). Remove bolt and carrier assembly from track assembly (WP 0054 00). Check carrier for galls and bends. Do these conditions exist?

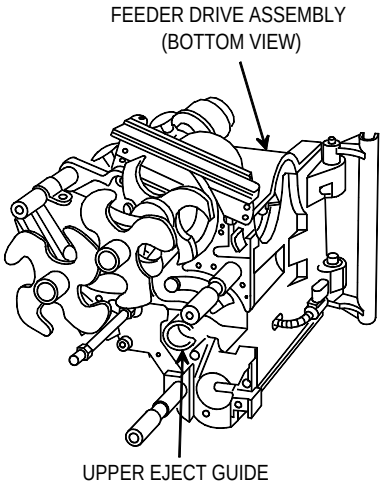
YES → Repair bolt and carrier assembly by replacing carrier assembly (WP 0055 00).

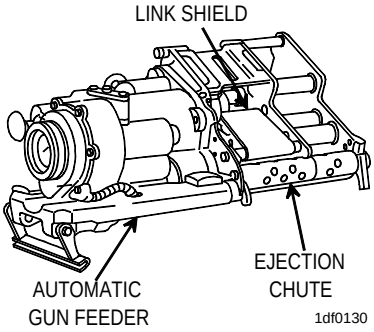
NO

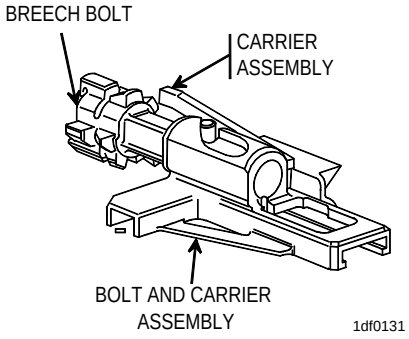
Check breech bolt for galls, bends, and wear on breech bolt lugs and extractor lips. Do these conditions exist?

YES → Repair bolt and carrier assembly by replacing breech bolt (WP 0055 00).

NO





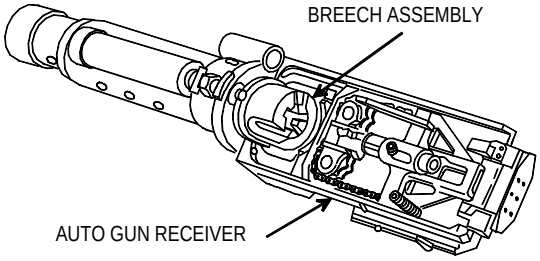


GUN STALLS - Continued

Disassemble bolt and carrier assembly (WP 0055 00) and check all parts for breaks, galls, and wear. Do these conditions exist?

YES → Repair bolt and carrier assembly by replacing defective parts (WP 0055 00).

NO

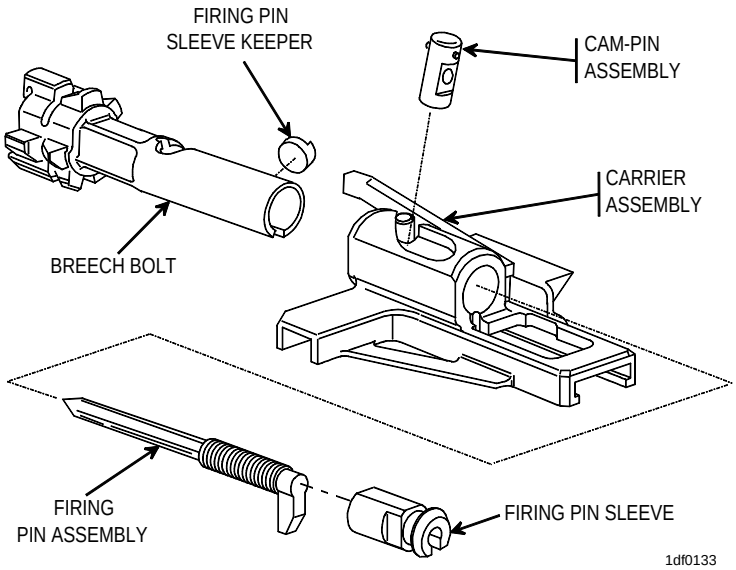


1df0132

Check breech assembly locking lugs for galls, burrs, and wear. Do these conditions exist?

YES → Replace breech assembly (WP 0051 00).

NO



1df0133

Assemble bolt and carrier assembly (WP 0055 00). Assemble bolt and track assembly (WP 0054 00). Install bolt and track assembly (WP 0053 00). Install barrel assembly (WP 0023 00). Place a dummy round in face of breech bolt and perform auto gun receiver manual cycle check (WP 0008 00). Perform automatic gun feeder manual cycle check (WP 0007 00).

END OF WORK PACKAGE

UNIT

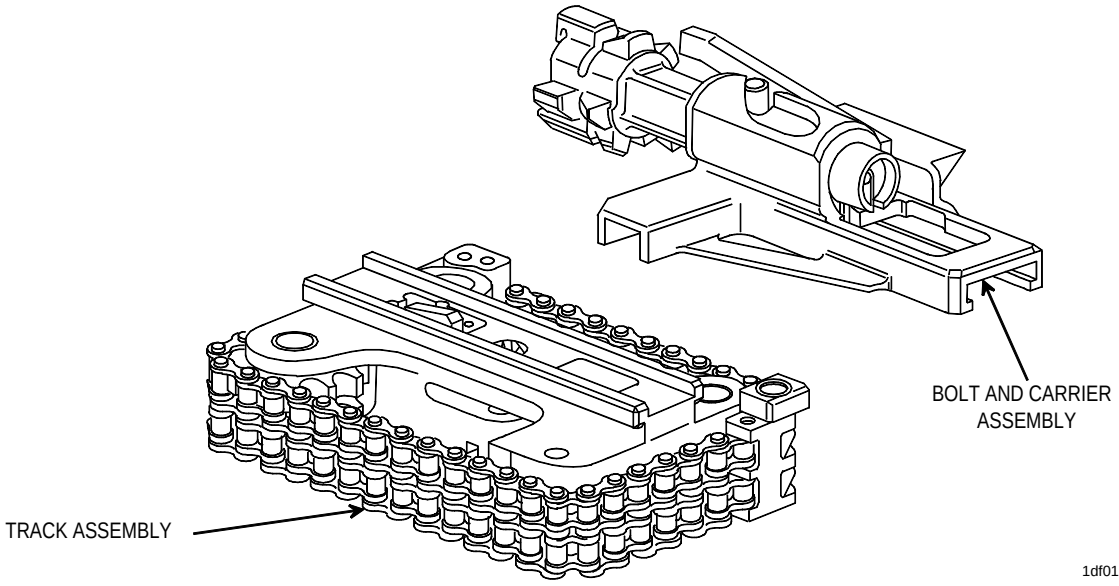
M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

GUN CYCLES BUT WILL NOT FIRE

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

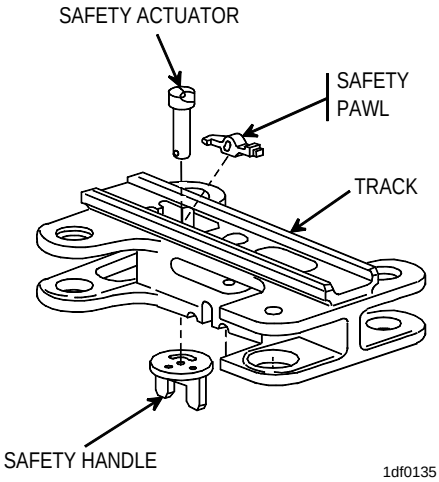
Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0053 00 Bolt and track assembly removed
WP 0054 00 Bolt and carrier assembly removed



Rotate safety handle to FIRE and back to SAFE. Does safety pawl move up and down when handle is moved?

NO → Repair track by replacing safety actuator and/or safety pawl (WP 0056 00).

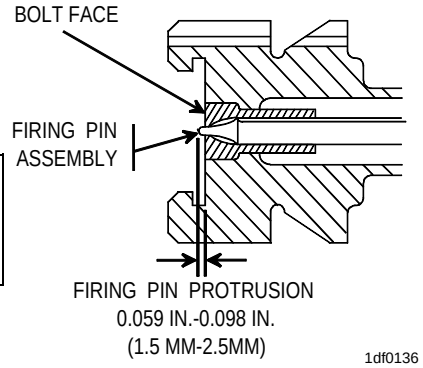
YES ↓



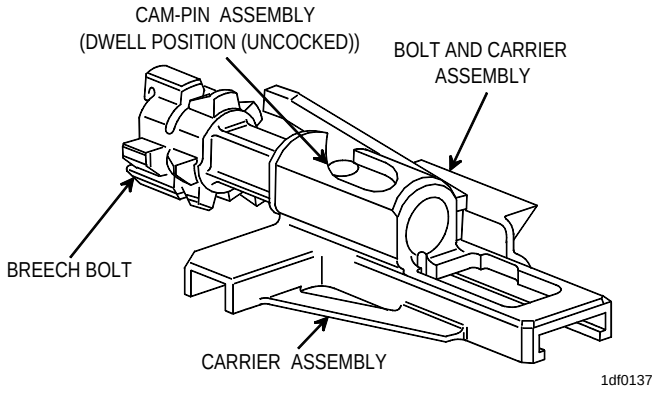
GUN CYCLES BUT WILL NOT FIRE - Continued

Ensure breech bolt is in forward dwell position (uncocked) and check firing pin assembly protrusion. Is firing pin protrusion between 0.059 in. and 0.098 in. (1.5 mm and 2.5 mm)?

NO → Repair bolt and carrier assembly by replacing firing pin assembly (WP 0055 00).

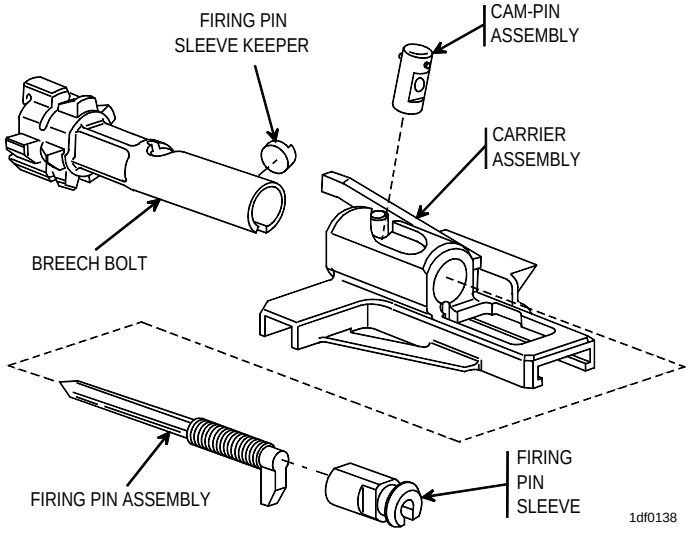


YES



Disassemble bolt and carrier assembly (WP 0055 00) and check parts for cracks, breaks, chips, and missing parts. Check firing pin assembly for burnt or broken firing pin tip and broken spring. Do these conditions exist?

YES → Repair bolt and carrier by replacing defective parts (WP 0055 00).

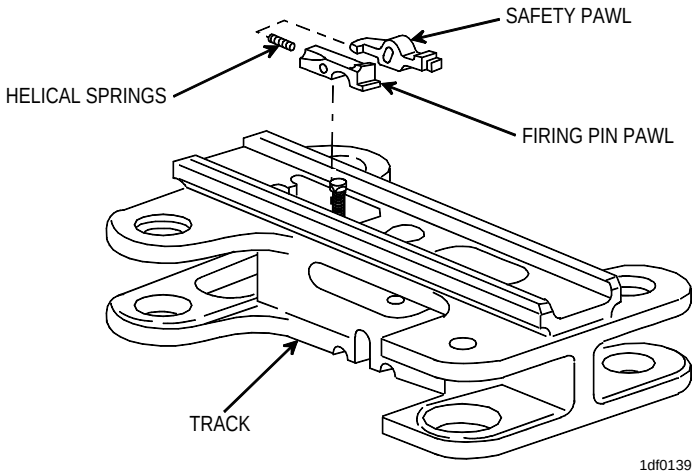


NO

Check firing pin pawl and safety pawl for chips, breaks, and worn or missing parts. Do these conditions exist?

YES → Repair track by replacing firing pin pawl, safety pawl, or helical springs (WP 0056 00).

NO



Press firing pin pawl. Does firing pin pawl return to original position?

NO → Repair track by replacing firing pin pawl, safety pawl, or helical springs (WP 0056 00).

YES

Assemble bolt and carrier assembly (WP 0055 00). Assemble bolt and track assembly (WP 0054 00). Install bolt and track assembly (WP 0053 00). Perform auto gun receiver manual cycle check (WP 0008 00).

END OF WORK PACKAGE

UNIT

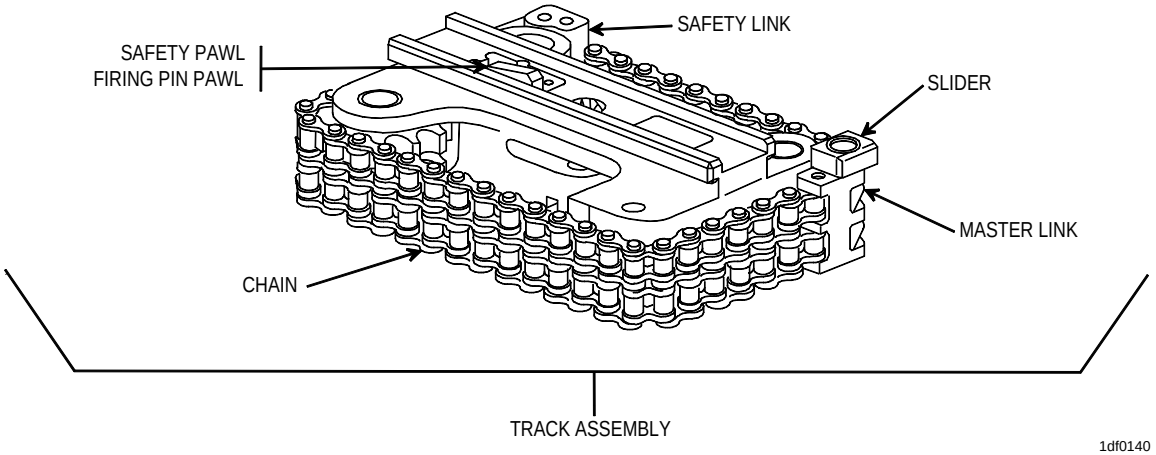
M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

GUN FIRES WITH SAFETY ON

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

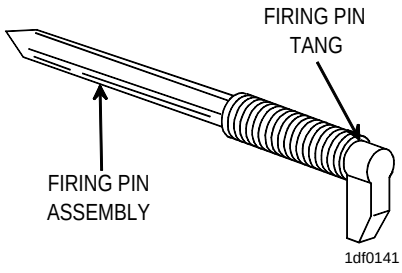
Equipment Conditions
WP 0023 00 Barrel assembly removed
WP 0026 00 Automatic gun feeder removed
WP 0053 00 Bolt and track assembly removed
WP 0054 00 Bolt and carrier assembly removed



Check firing pin tang for breaks and chips. Do these conditions exist?

YES → Repair bolt and carrier assembly by replacing firing pin assembly (WP 0055 00).

NO



Visually check for excessive wear, chips, and breaks on top of safety pawl. Is safety pawl defective?

YES → Repair track by replacing defective safety pawl (WP 0056 00).

NO

GUN FIRES WITH SAFETY ON - Continued

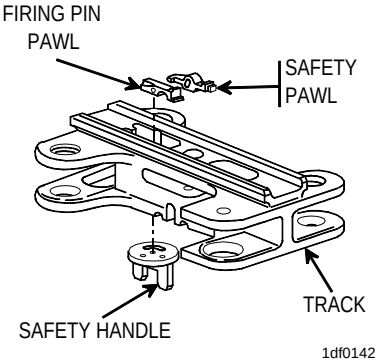
Rotate safety handle from SAFE to FIRE position and back to SAFE. Does safety pawl move up and down?

YES → Assemble track (WP 0056 00). Install bolt and carrier assembly (WP 0054 00). Install bolt and track assembly (WP 0053 00). Perform auto gun receiver manual cycle check (WP 0008 00).

NO

Remove safety actuator from track (WP 0056 00). Check helical spring, safety actuator, and the underside of the safety pawl for breaks. Does this condition exist?

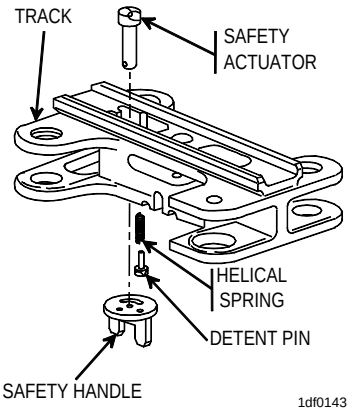
YES → Repair track by replacing defective parts (WP 0056 00).



NO

Check safety handle for breaks and galls. Do these conditions exist?

YES → Repair track by replacing safety handle (WP 0056 00).



NO

Assemble track (WP 0056 00). Install bolt and carrier assembly (WP 0054 00). Install bolt and track assembly (WP 0053 00). Perform auto gun receiver manual cycle check (WP 0008 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

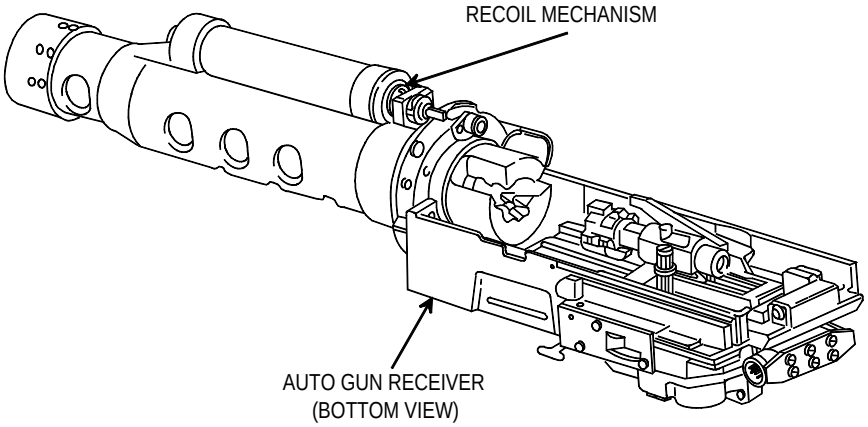
EXCESSIVE RECOIL OR INADEQUATE DAMPING

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
Abrasive cloth (item 5, WP 0116 00)

Equipment Conditions
WP 0023 00 Barrel assembly removed
WP 0026 00 Automatic gun feeder removed



IF 1/2 IN. (12.7 MM) OR MORE OF ROD IS VISIBLE, SERVICE IS NOT REQUIRED

1df0144

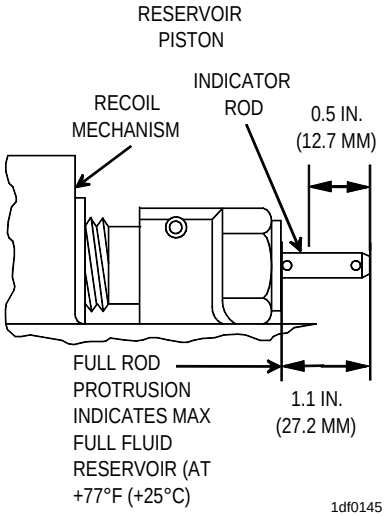
NOTE

Damper reservoir piston indicator rod will contract during cold temperatures. Check damper at room temperature.

Check reservoir piston indicator rod protrusion. Is sufficient damper fluid indicated?

NO → Remove and inspect recoil mechanism (WP 0049 00). If not damaged or leaking, service recoil mechanism (WP 0049 00). If damage or leakage exists, replace recoil mechanism (WP 0049 00) and send defective recoil mechanism to Direct Support Maintenance for repair.

YES ↓



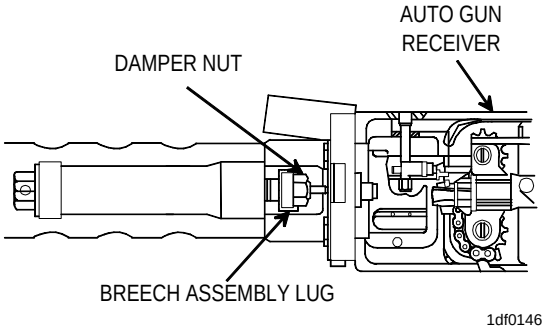
1df0145

EXCESSIVE RECOIL OR INADEQUATE DAMPING - Continued

Check damper nut for cracks. Check breech assembly lugs for breaks. Do these conditions exist?

YES → Replace damper nut if damaged (WP 0049 00). Replace breech assembly if lug is broken (WP 0051 00).

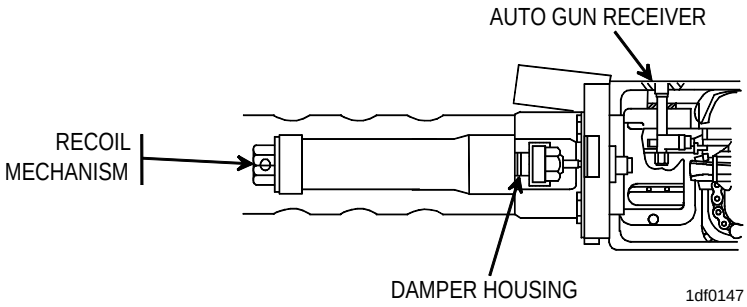
NO



Check exposed end of damper housing for stripped threads and breaks. Do these conditions exist?

YES → Replace recoil mechanism (WP 0049 00) and send defective recoil mechanism to Direct Support Maintenance for repair.

NO



Remove, clean, and inspect recoil mechanism (WP 0049 00). Does evidence of damage or leakage exist?

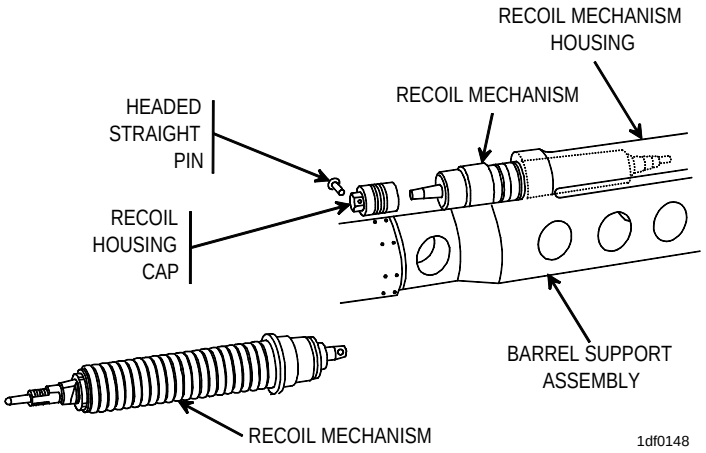
YES → Replace recoil mechanism (WP 0049 00) and send defective recoil mechanism to Direct Support Maintenance for repair.

NO

Check recoil housing cap for breaks, stripped threads, and missing or broken headed straight pin. Do these conditions exist?

YES → Replace recoil housing cap or headed straight pin (WP 0049 00).

NO



Check recoil mechanism housing for cracked welds and for breaks, burrs, and galls inside housing. Do above conditions exist?

YES → Remove burrs and galls if they can be removed with abrasive cloth or fine stone. If cracked welds or breaks are found, inspect barrel support assembly (WP 0050 00).

NO

Service recoil mechanism (WP 0049 00).

END OF WORK PACKAGE

UNIT

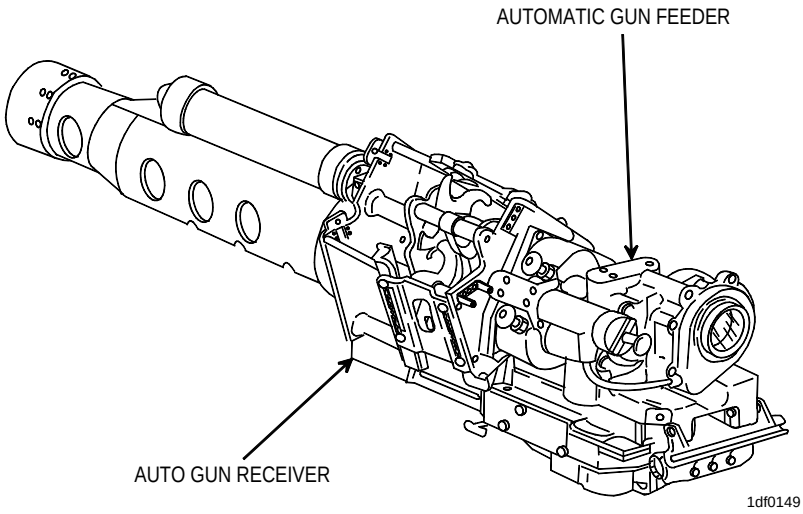
M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

GUN FIRES INTERMITTENTLY OR AT IRREGULAR RATE

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Equipment Conditions
WP 0023 00 Barrel assembly removed



Perform electrical checkout (WP 0005 00). Does equipment perform in accordance with electrical checkout?

NO → Replace defective parts as indicated by electrical checkout procedure (WP 0005 00).

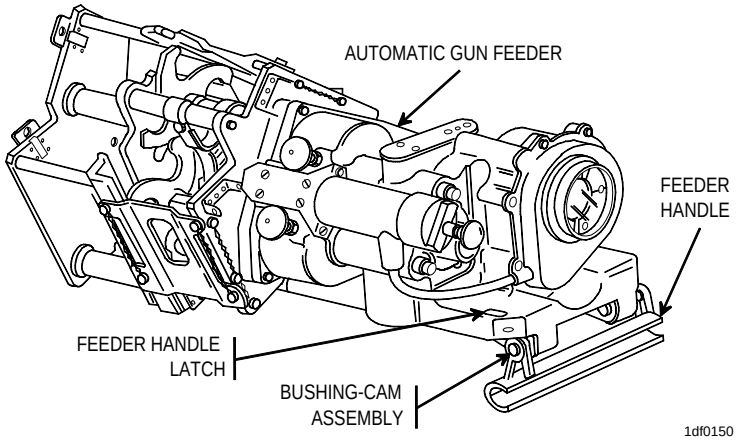
YES ↓

GUN FIRES INTERMITTENTLY OR AT IRREGULAR RATE - Continued

Press feeder handle latch and rotate feeder handle up to unlock position. Rotate feeder handle down to lock position. Release feeder handle latch. Does bushing-cam assembly move electrical solenoid connector to right (unlock) when raised, and to left (lock) when lowered?

NO → Repair feeder handle (WP 0048 00).

YES

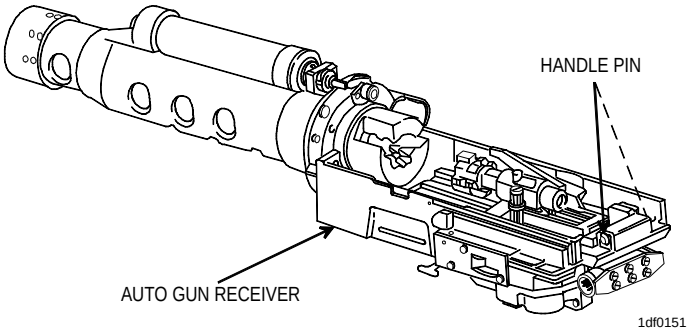


Remove automatic gun feeder (WP 0026 00).

Use 3/16 in. drive pin punch. Push on handle pin from right side of auto gun receiver. Does handle pin protrude out left side of auto gun receiver and return to position when released?

NO → Replace handle pin or defective parts (WP 0062 00).

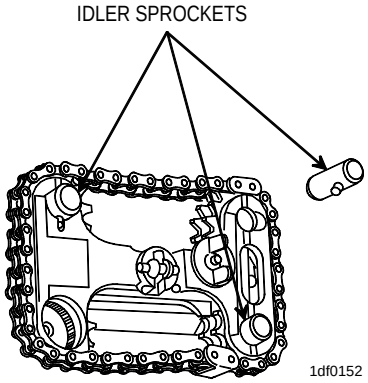
YES



Remove bolt and track assembly (WP 0053 00). Are the three idler sprocket shaft assembly spring pins properly seated in groove?

NO → Repair track assembly (WP 0056 00) by inspecting/replacing idler sprocket shaft assembly preformed packings.

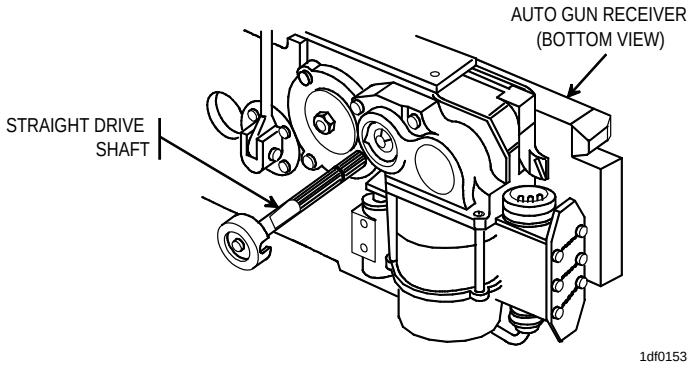
YES



Check straight drive shaft for stripped splines or bent shaft. Do these conditions exist?

YES → Replace straight drive shaft (WP 0060 00).

NO



GUN FIRES INTERMITTENTLY OR AT IRREGULAR RATE - Continued

NOTE

Some chipping and burring of track rails is normal.

Remove bolt and carrier assembly (WP 0054 00). Check track rails for scoring, galls, and burrs (WP 0056 00). Check the two spring pins under the track rails to see if they are unequally spaced on each side of the track. Do these conditions exist?

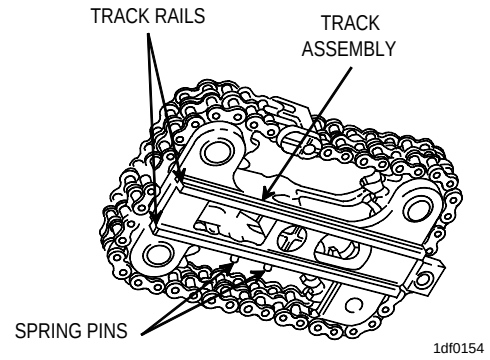
YES → Repair track assembly (WP 0056 00).

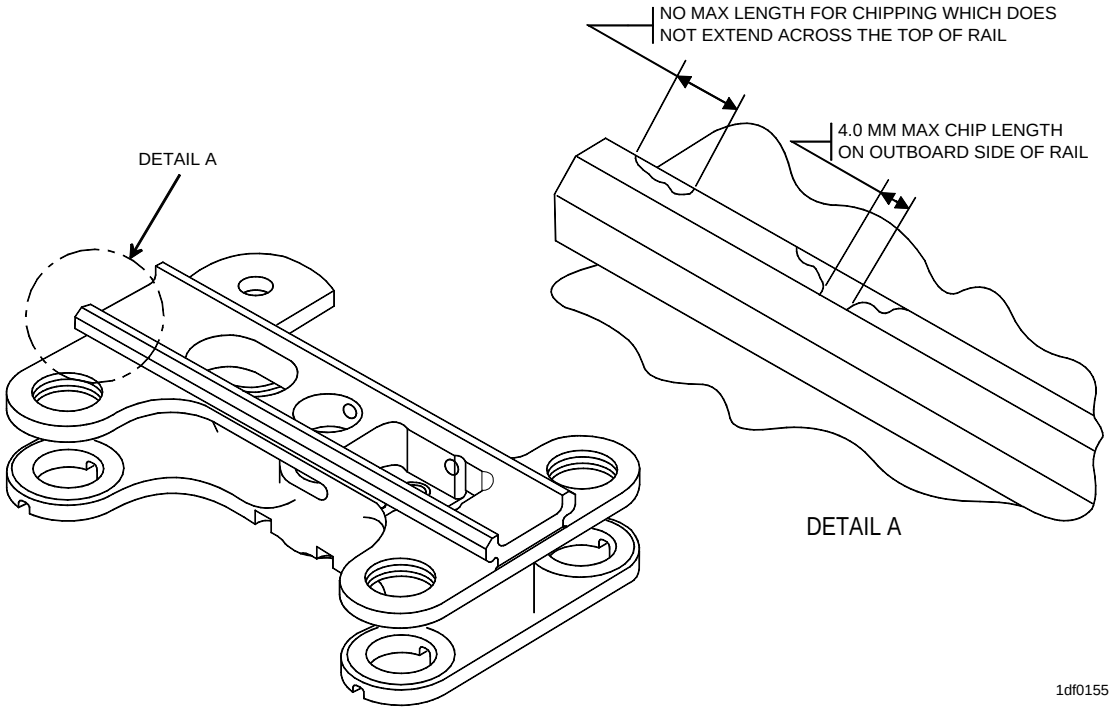
NO

Check track rails (sliding surfaces) for chips that extend across the top of the rail and measure 5/32 in. (4.0 mm) or greater along the outboard side of the rail. Does this condition exist?

YES → Repair track assembly by replacing track (WP 0056 00).

NO

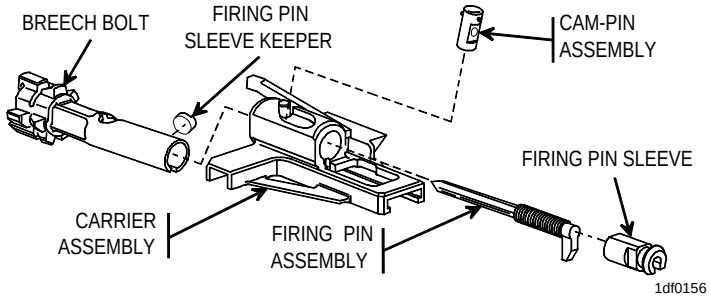




Disassemble bolt and carrier assembly (WP 0055 00). Check bolt and carrier assembly parts for breaks and bends. Do these conditions exist?

YES → Repair bolt and carrier assembly by replacing defective parts (WP 0055 00).

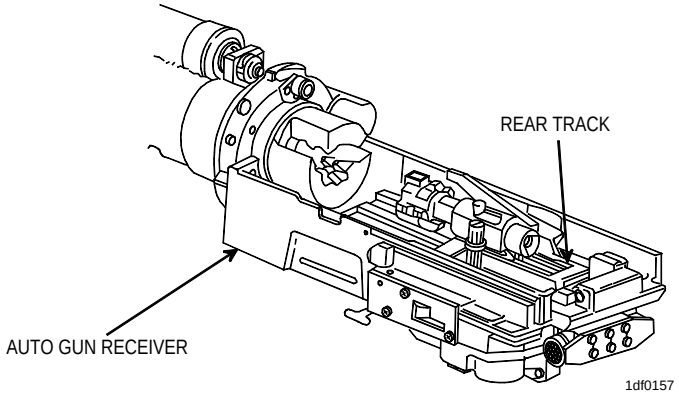
NO



Check rear track for cracks, galls, scoring, and bends. Do these conditions exist?

YES → Replace rear track (WP 0057 00).

NO



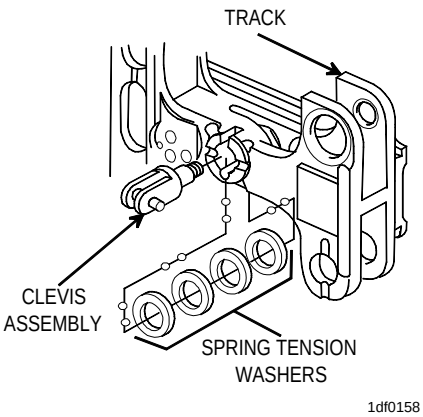
Check clevis assembly for breaks and bent, loose, or missing parts. Do these conditions exist?

YES → Repair track by replacing defective clevis assembly parts (WP 0056 00).

NO

NOTE

Clevis assembly shown removed for clarity.

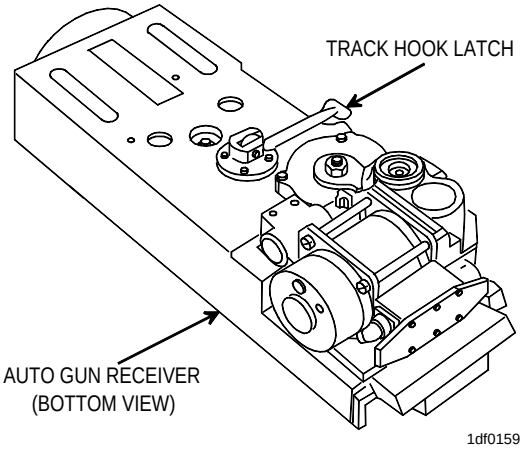


GUN FIRES INTERMITTENTLY OR AT IRREGULAR RATE - Continued

Check track hook latch for wear and bends. Do these conditions exist?

YES → Replace track hook latch (WP 0058 00).

NO

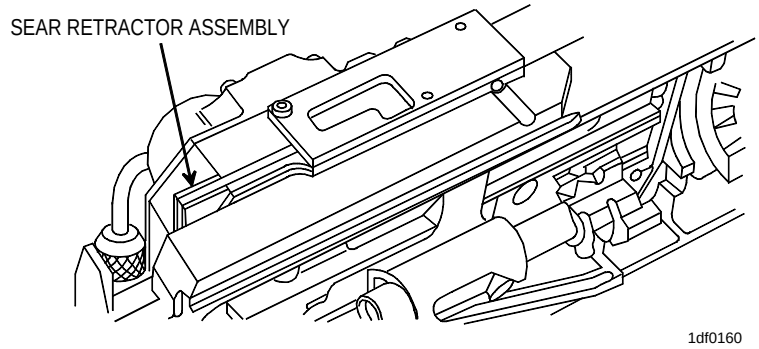


Assemble bolt and carrier assembly (WP 0055 00). Install bolt and carrier assembly (WP 0054 00). Install bolt and track assembly (WP 0053 00).

Press outside edge of sear retractor assembly to engage sear. Does sear retractor assembly click and pull sear away from chain assembly?

NO → Inspect/repair sear rocker assembly (WP 0069 00) and sear retractor assembly (WP 0063 00).

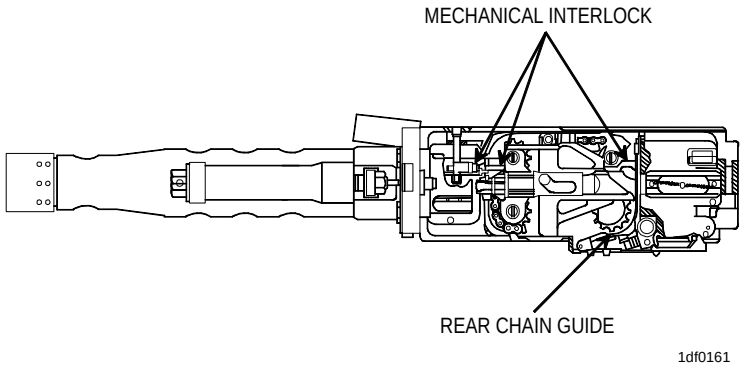
YES



Is push rod extension in raised position?

NO → Inspect/repair rear chain and mechanical interlock mechanism (WP 0069 00).

YES



Rotate bolt and track assembly by manually turning the straight drive shaft in the FIRE direction to the most rearward position and then forward until push rod extension is visible. Is push rod extension retracted below receiver rear deck?

NO → Inspect/repair rear chain and mechanical interlock mechanism (WP 0069 00).

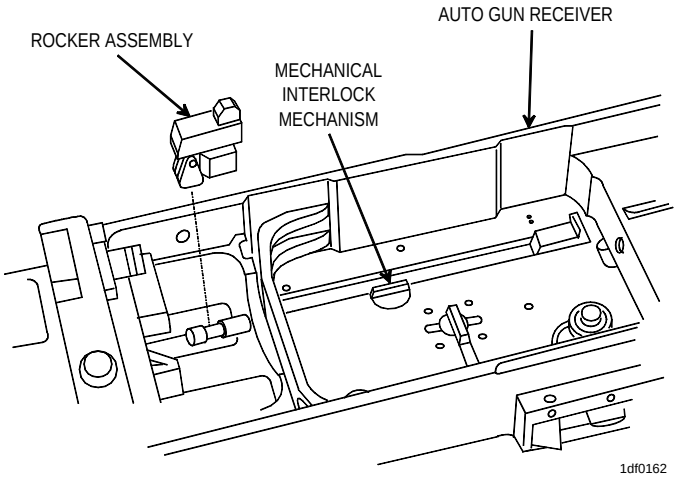
YES

GUN FIRES INTERMITTENTLY OR AT IRREGULAR RATE – Continued

Firmly push or lightly strike the rocker assembly with a straight downward motion. Did the push rod extension snap up into the raised position?

NO → Inspect/repair rear chain and mechanical interlock mechanism (WP 0069 00).

YES



Press inside edge of sear retractor assembly to disengage sear.

Perform automatic gun feeder manual cycle check (WP 0007 00).

No faults found. Task complete.

END OF WORK PACKAGE

UNIT

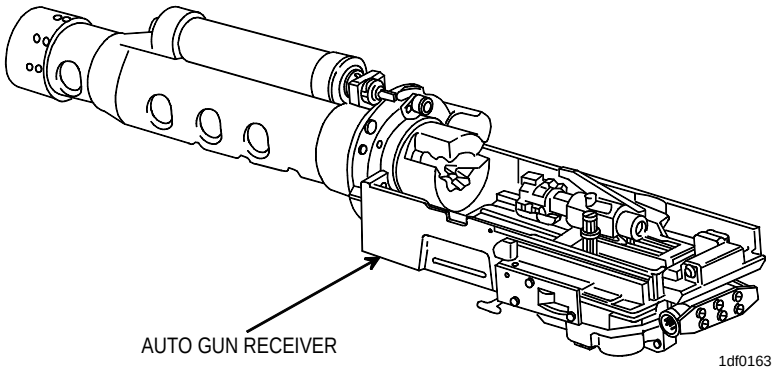
M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

GUN FIRES WITHOUT HANGFIRE PROTECTION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

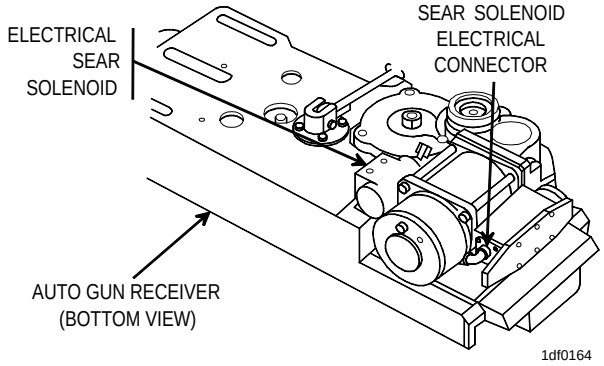
Equipment Conditions
WP 0023 00 Barrel assembly removed



Perform electrical check on electrical sear solenoid (WP 0005 00). Does sear solenoid pass the electrical check?

NO → Replace electrical sear solenoid (WP 0052 00).

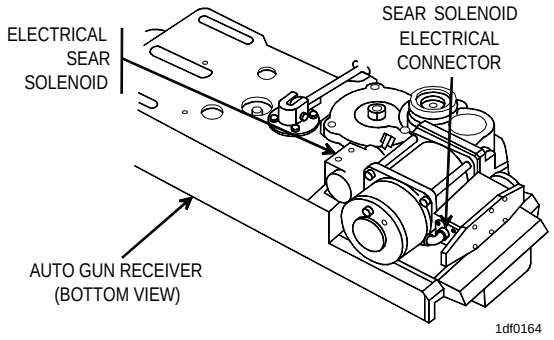
YES ↓



GUN FIRES WITHOUT HANGFIRE PROTECTION – Continued

Remove bolt and track assembly (WP 0053 00). Remove bolt and carrier assembly (WP 0054 00). Check carrier assembly for bent, broken, or worn cam-pin assembly. Do these conditions exist?

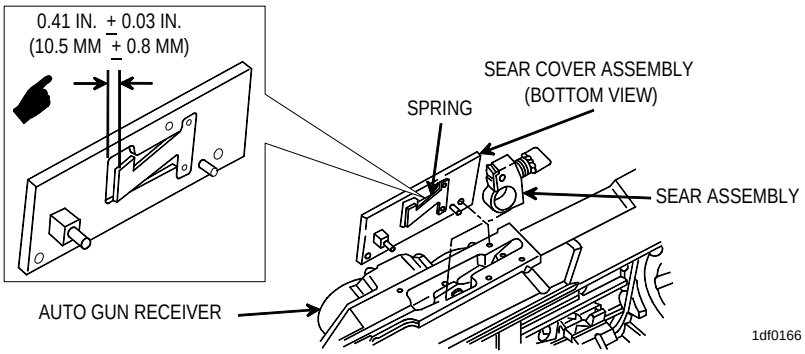
YES → Repair bolt and carrier assembly by replacing cam-pin assembly (WP 0055 00).



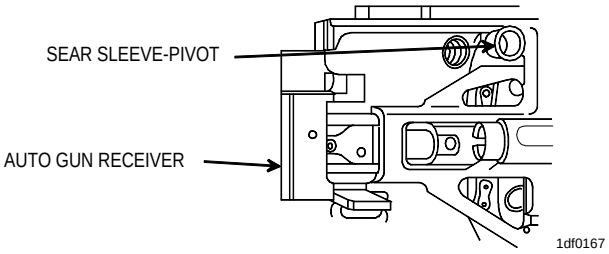
NO

Remove sear assembly (WP 0065 00) and check sear and sear sleeve-pivot for bends, breaks, and galls. Check cover assembly for broken spring and improper spring height (WP 0063 00) (Proper height is 0.41 in. ± 0.03 in. (10.5 mm ± 0.8 mm)). Do these conditions exist?

YES → Replace sear assembly (WP 0065 00), sear sleeve-pivot (WP 0065 00), or sear cover assembly (WP 0063 00), as applicable.

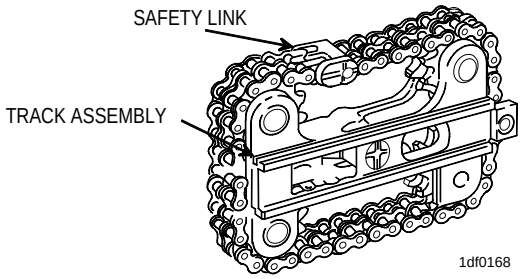


NO



Check chain for cracked or worn safety link. Do these conditions exist?

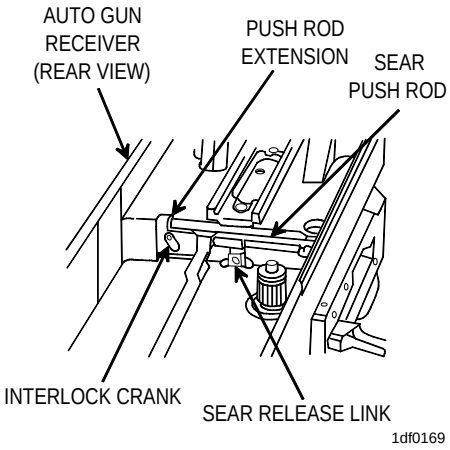
YES → Repair track assembly by replacing defective chain (WP 0056 00).



NO

Remove rear chain guide (WP 0069 00). Check sear push rod, interlock crank, push rod extension, and sear release link for cracks, bends, galling, and obvious wear. Check push rod extension spring for improper free length. (Proper free length is 1/2 in. ± 3/32 in. (12.7 mm ± 2.4 mm)). Do these conditions exist?

YES → Repair chain guide and rocker assembly by replacing defective mechanical interlock parts (WP 0069 00).



NO

GUN FIRES WITHOUT HANGFIRE PROTECTION – Continued

Check rocker assembly for cracked or bent rocker and/or rocker spring housing and broken or missing spring pin or helical spring. Do these conditions exist?

YES → Repair chain guide and mechanical interlock by replacing defective rocker assembly parts (WP 0069 00).

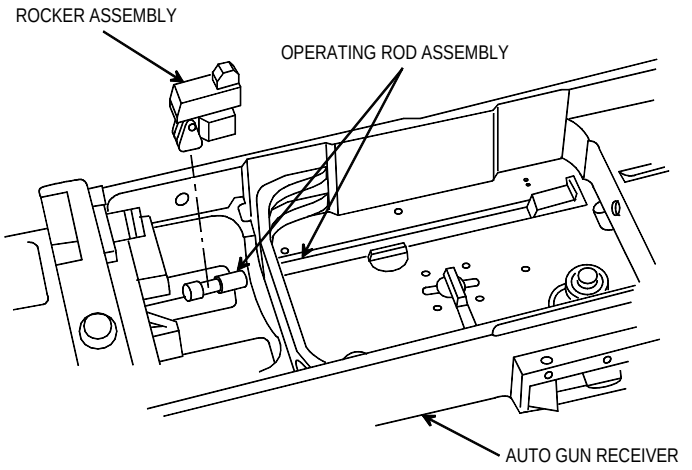
NO

Check operating rod assembly for bends, breaks, cracks, and obvious wear. Do these conditions exist?

YES → Repair chain guides and mechanical interlock by cleaning and/or replacing operating rod assembly (WP 0069 00).

NO

Install rear chain guide (WP 0069 00). Install sear assembly (WP 0065 00). Assemble bolt and track assembly (WP 0054 00). Install bolt and track assembly (WP 0053 00). Perform auto gun receiver manual cycle check (WP 0008 00).



END OF WORK PACKAGE

CHAPTER 3

DIRECT SUPPORT TROUBLESHOOTING PROCEDURES FOR M242 25-MM AUTOMATIC GUN AND M242 25-MM ENHANCED AUTOMATIC GUN

DIRECT SUPPORT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

FEEDER DRIVE ASSEMBLY MANUAL CYCLE AND ELECTRICAL CHECK

INITIAL SETUP:

Tools and Special Tools
Hand crank (item 10, WP 0087 00)
Multimeter (item 25, WP 0085 00)

Personnel Required
Two

Check to see if feeder drive assembly is in SEAR position. Select upper feed mode by pushing the yoke actuator forward. Will yoke actuator move into forward position?

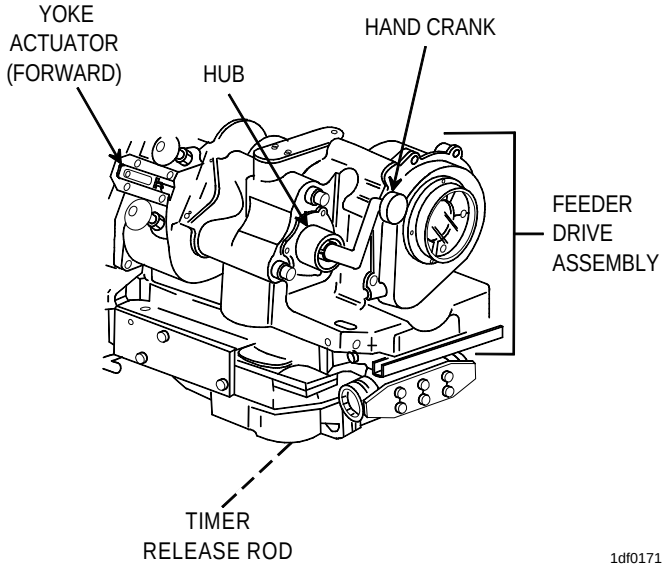
NO → Sliding sleeve clutches, clutch yoke assembly, or spur gears incorrectly assembled/installed. Disassemble feeder drive assembly and reinstall components (WP 0073 00)

YES

Insert hand crank into hub. Without depressing the timer release rod, attempt to rotate hand crank in a clockwise direction. Does the hand crank rotate more than 1/2 turn?

YES → Pawl shaft assembly is not capturing index drive shaft. Inspect pawl shaft assembly, timer lever, and access cover for correct installation (WP 0073 00).

NO



FEEDER DRIVE ASSEMBLY MANUAL CYCLE AND ELECTRICAL CHECK – Continued

YES

Depress timer release rod and rotate hand crank approximately 1/4 turn in the FIRE direction to disengage pawl shaft from the index drive shaft. Does hand crank turn freely?

NO → Feeder drive assembly components incorrectly installed. Disassemble feeder drive assembly and reinstall components (WP 0073 00).

YES

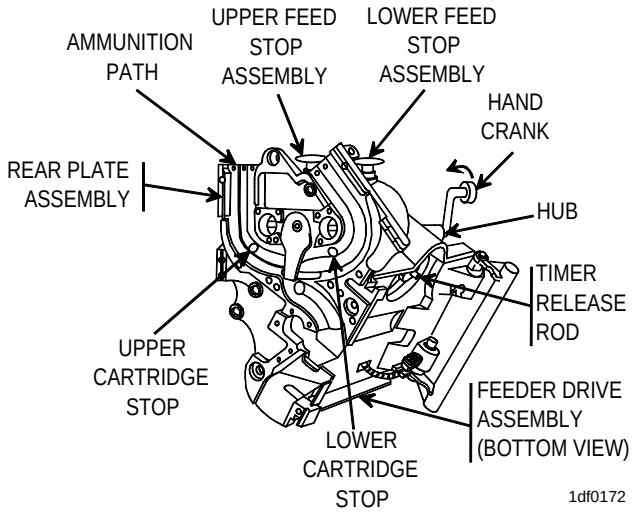
Turn hand crank at least one revolution and depress upper cartridge stop into rear plate assembly, until it is flush with the ammunition path. Can cartridge stop be pressed in?

NO → Cartridge stop, spur gear, or rear plate assembly improperly assembled/installed. Disassemble feeder drive assembly and reinstall components (WP 0073 00).

YES

NOTE

A total of nine hand crank or worm shaft revolutions are required to completely cycle the index drive shaft/control cam from SEAR position, back to SEAR position.

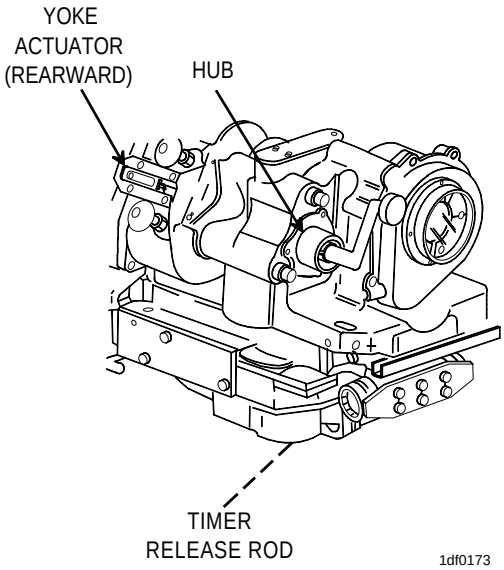


Continue rotating hand crank in the FIRE direction while observing the upper feed stop assembly. Does the feed stop assembly rise and then snap back into its original position, as the index drive shaft and cam control locked into SEAR position?

NO → Check feed stop assembly, sliding slip clutch, and shouldered shaft for damage and improper assembly. Replace damaged parts or reassemble as required (WP 0073 00).

YES

Remove hand crank from hub.



Check upper cartridge stop. Did cartridge stop rise and remain above the ammunition path?

NO → Check cartridge stop for wear and spur gear for wear and improper assembly. Replace damaged parts or reassemble as required (WP 0073 00).

YES

Select lower feed mode by pulling the yoke actuator rearward. Will yoke actuator move into rear position?

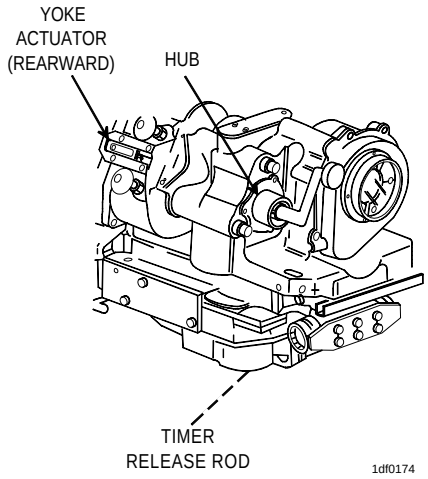
NO → Sliding sleeve clutches, clutch yoke assembly, or spur gears incorrectly assembled/installed. Disassemble feeder drive assembly and reinstall components (WP 0073 00).

YES

FEEDER DRIVE ASSEMBLY MANUAL CYCLE AND ELECTRICAL CHECK – Continued

YES

Insert hand crank into hub. Depress timer release rod and rotate hand crack approximately 1/4 turn in the FIRE direction to disengage pawl shaft from the index drive shaft.



Turn hand crank at least one revolution and depress lower cartridge stop into rear plate assembly, until it is flush with the ammunition path. Can cartridge stop be pressed in?

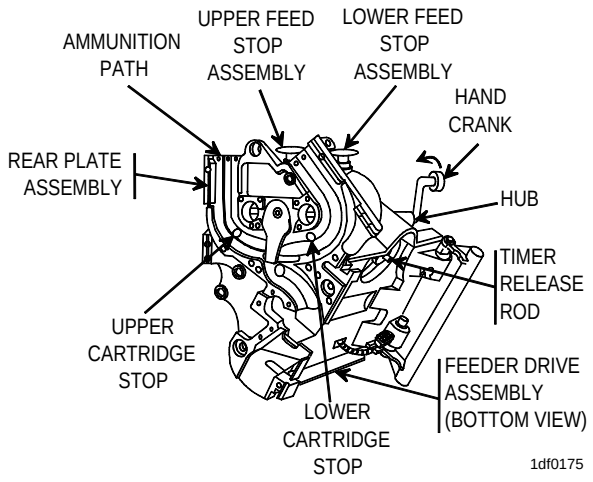
NO

Cartridge stop, spur gear, or rear plate assembly improperly assembled/installed. Disassemble feeder drive assembly and reinstall components (WP 0073 00).

YES

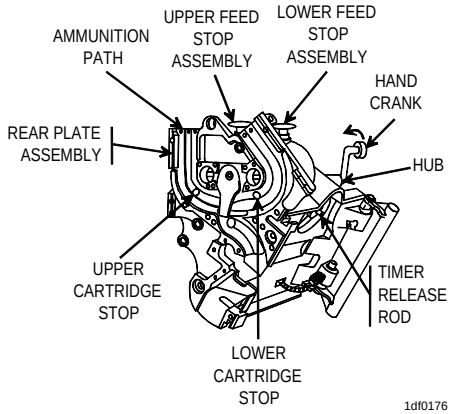
NOTE

A total of nine hand crank or worm shaft revolutions are required to completely cycle the index drive shaft/control cam from SEAR position, back to SEAR position.



Continue rotating hand crank in the FIRE direction while observing the lower feed stop assembly. Does the feed stop assembly rise and then snap back into its original position, as the index drive shaft and cam control locked into SEAR position.

NO → Check feed stop assembly, sliding slip clutch, and shouldered shaft for damage and improper assembly. Replace damaged parts or reassemble as required (WP 0073 00).



YES

Remove hand crank from hub.

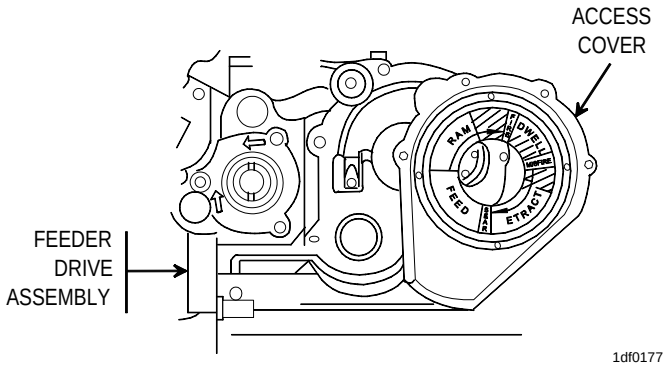
Check lower cartridge stop. Did cartridge stop rise and remain above the ammunition path?

NO → Check cartridge stop for wear and spur gear for wear and improper assembly. Replace damaged parts or reassemble as required (WP 0073 00).

YES

NOTE

The automatic feeder electrical check (WP 0006 00) provides an equivalent electrical check utilizing the electrical feed select solenoid (FSS) 14 pin connector. If the feeder drive assembly has the FSS installed, the automatic feeder electrical check may be used in lieu of the remainder of this check.



Ensure the feeder drive assembly is in SEAR position. Remove access cover. Use multimeter to measure resistance between pins P6-B & P6-D (switch S1). Is resistance less than 0.5 ohms?

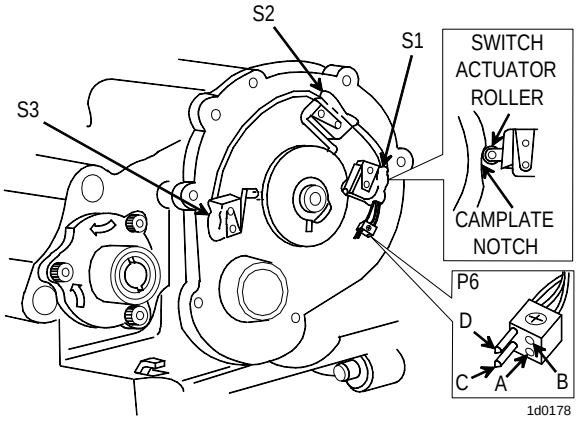
NO → Adjust S1 switch actuator as required (WP 0073 00). Repair index drive cover assembly by replacing cable assembly if closed circuit resistance is greater than 0.5 ohms (WP 0078 00).

YES

FEEDER DRIVE ASSEMBLY MANUAL CYCLE AND ELECTRICAL CHECK – Continued

While monitoring the resistance between pins P6-B & P6-D, have a helper insert the hand crank, depress the timer release rod, and rotate hand crank in the FIRE direction. Does the resistance between pins P6-B & P6-D increase to infinity (open circuit condition) as the switch actuator roller moves out of the camplate notch?

NO → Adjust S1 switch actuator as required (WP 0073 00). Repair index drive cover assembly by replacing cable assembly if short circuit condition exists (WP 0078 00).



YES

Continue turning hand crank until camplate notch is centered on the next switch actuator roller. Use multimeter to measure resistance between pins P6-C & P6-D (switch S3). Is resistance less than 0.5 ohms?

NO → Adjust S3 switch actuator as required (WP 0073 00). Repair index drive cover assembly by replacing cable assembly if closed circuit resistance is greater than 0.5 ohms (WP 0078 00).

YES

While monitoring the resistance between pins P6-C & P6-D, have a helper rotate hand crank in the FIRE direction. Does the resistance between pins P6-C & P6-D increase to infinity (open circuit condition) as the switch actuator roller moves out of the camplate notch?

NO → Adjust S3 switch actuator as required (WP 0073 00). Repair index drive cover assembly by replacing cable assembly if short circuit condition exists (WP 0078 00).

YES

Continue turning hand crank until camplate notch is centered on the last switch actuator roller. Use multimeter to measure resistance between pins P6-A & P6-D (switch S2). Is resistance less than 0.5 ohms?

NO → Adjust S2 switch actuator as required (WP 0073 00). Repair index drive cover assembly by replacing cable assembly if closed circuit resistance is greater than 0.5 ohms (WP 0078 00).

YES

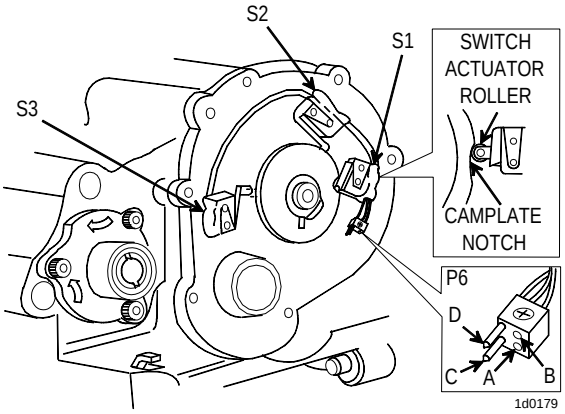
While monitoring the resistance between pins P6-A & P6-D, have a helper rotate hand crank in the FIRE direction. Does the resistance between pins P6-A & P6-D increase to infinity (open circuit condition) as the switch actuator roller moves out of the camplate notch?

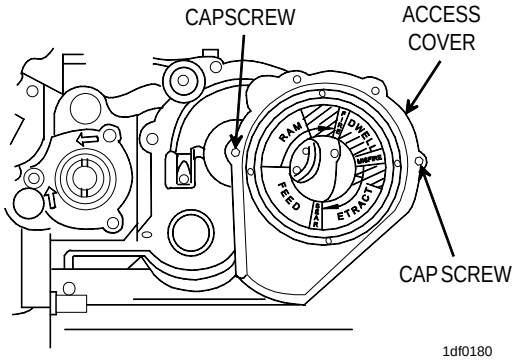
NO → Adjust S2 switch actuator as required (WP 0073 00). Repair index drive cover assembly by replacing cable assembly if short circuit condition exists (WP 0078 00).

YES

Install access cover with two capscrews.

Rotate hand crank in FIRE direction until feeder drive assembly is in SEAR position. Feeder drive assembly manual cycle and electrical check complete.





END OF WORK PACKAGE

CHAPTER 4

UNIT MAINTENANCE INSTRUCTIONS FOR M242 25-MM AUTOMATIC GUN AND M242 25-MM ENHANCED AUTOMATIC GUN

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

SERVICE UPON RECEIPT

ARMY

a. Upon receipt of equipment, unpack the contents and perform the following checks:

(1) Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, report the damage on SF 364, Report of Discrepancy (Packaging).

(2) Check the equipment against the packing slip to see if the shipment is complete. Report all discrepancies in accordance with the instruction of AR 735-11-2.

b. RECOIL MECHANISM. Verify that the recoil damper rod position and fluid level are correct. Place recoil housing cap over damper rod and install headed straight pin. The indicator rod must protrude a minimum of 0.5 in. (12.7 mm) past the end of the damper housing assembly, but not more than 1.1 in. (27.2 mm). If the measurement is incorrect, service damper reservoir in accordance with WP 0049 00.

MARINE CORPS

Marine Corps personnel will use MDC P4610.19 (Transportation and Travel Record of Transportation Discrepancies).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

PREVENTIVE MAINTENANCE CHECKS AND SERVICES INTRODUCTION

GENERAL

Preventive maintenance checks and services are performed by Unit Maintenance on the Standard or Enhanced M242 25mm Automatic Gun are either round dependent, time dependent, or performed as a result of specific conditions or incidents. Any maintenance problems discovered that are beyond your authorization will be referred to Direct Support Maintenance for correction.

The check or service will be considered the minimum requirements for operation of the Standard or Enhanced M242 25mm Automatic Gun under usual conditions. Unusual operating conditions, such as extreme temperatures, dust or sand, moist or salty atmosphere, and rain or snow, require more frequent services.

ROUND DEPENDENT CHECK AND SERVICES. Rounds dependent check and services are performed to make certain that parts subject to adjustment variations, wear, or sudden failure are inspected, adjusted, or replaced before overall performance is affected. These checks and services will be performed strictly as scheduled, after the gun has fired the number of rounds specified for each item.

TIME DEPENDENT CHECK AND SERVICES. Time dependent checks and services consist primarily of inspection checks to make certain that the Standard or Enhanced M242 25mm Automatic Gun is in an operational condition. These checks and services will normally be performed when the gun has been operated or will be operated. Specific time dependent and rounds dependent preventive maintenance checks and services to be performed are listed in
WP 0021 00, Table 1.

DESCRIPTION OF COLUMNS:

Item No. Column. This column specifies the logical order of performance. It will be used as a source of item numbers for the “TM Number” column on DA Form 2404, Equipment Inspection and Maintenance Worksheet, in recording preventive maintenance checks and services.

Interval Column. This column designates the intervals at which the procedures are to be performed.

Item To Be Inspected Column. This column lists the items that require periodic checks and services.

Procedure Column. This column describes the maintenance checks and services to be performed. The weapon or component is considered “Not Ready/Available” if it fails to meet the inspection requirements of the referenced inspections.

GENERAL - Continued

WARNING

Failure to replace the breech assembly and the firing pin at the specified intervals may result in explosion or unexpected firing of the gun. Serious injury or death to personnel and damage to equipment may result.

When handling material contaminated by Depleted Uranium (DU), avoid skin contact with the corrosion by wearing NBC gloves. Always flush hands before eating or touching your face. Dispose of gloves in accordance with AR 11-9.

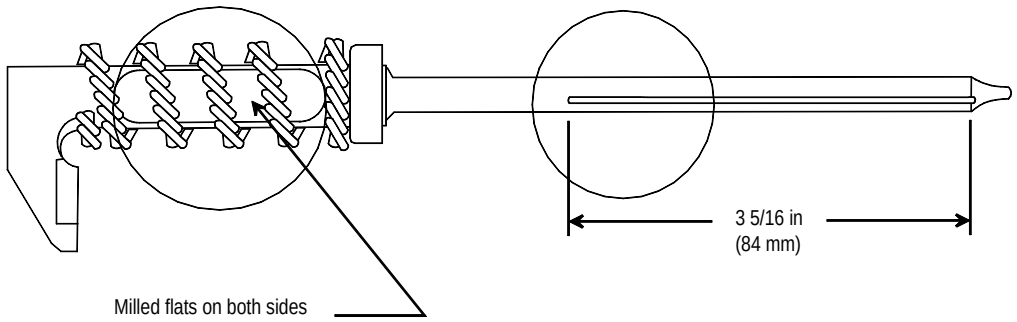
If M919 usage is suspected, prior to performing any M242 weapon maintenance procedures, survey the muzzle end of the gun barrel with an AN/VDR-2, PDR-27 or equivalent radiation detection instrument, in accordance with prescribed operating procedures (see TM 11-6665-251-10 or TM 11-6662-361-10). If the barrel is found to be radioactively contaminated, the barrel is to be taken out of service without being cleaned, ends sealed with tape, and the barrel marked "Low Level Radioactive Waste". Storage and return of the barrel is accomplished in accordance with AR 11-9.

If a Bradley vehicle is hit or burned in combat, refer to TB 9-1300-278, Guidelines for Safe Response to Handling, Storage, and Transportation Accidents Involving Army Tank Munitions or Armor which contain Depleted Uranium.

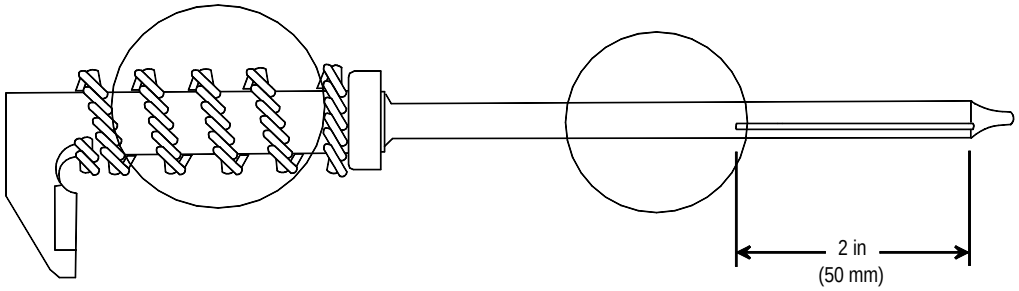
Due to the critical nature of the breech assembly and firing pin for the safe and reliable operation of the gun, these components, without exception, will be inspected or replaced at the following intervals.

Standard Breech Assembly (12524370)	**Inspect** at 12,500 rounds, and every 2,500 rounds thereafter. **Replace** at 25,000 rounds (WP 0051 00)
Enhanced Breech Assembly (12524527)	**Inspect** at 25,000 rounds, and every 5,000 rounds thereafter.
Firing Pin (12524325)	**Replace** at 8,000 rounds (WP 0055 00)
Firing Pin (12524512)	**Replace** at 12,000 rounds (WP 0055 00)

Physical identification of the firing pin and breech designs are shown on the following page.

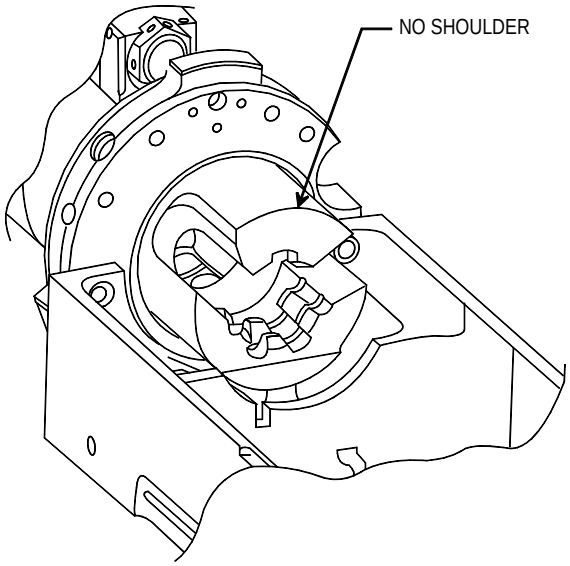


FIRING PIN ASSEMBLY PN 12524512

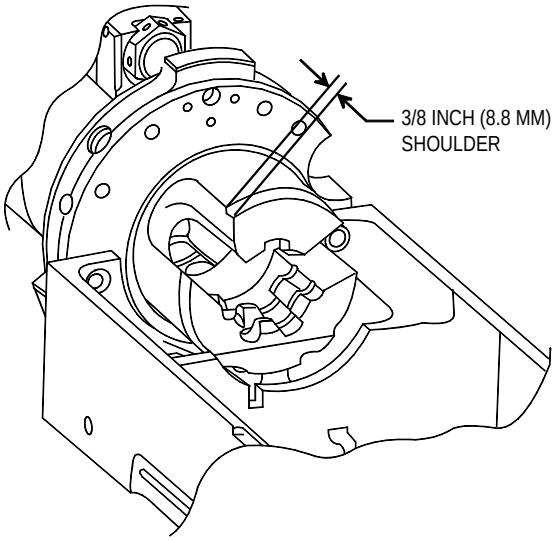


FIRING PIN ASSEMBLY PN 12524325

1df0181



STANDARD M242 BREECH ASSEMBLY
PN 12524370



ENHANCED M242 BREECH ASSEMBLY
PN 12524527

1df0182

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

UNIT PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS

PMCS PROCEDURES

NOTE

Have DA Form 2408-4 (Weapon Record Data card) present for each weapon being inspected.

Table 1. Unit Preventive Maintenance Checks and Services for M242 Automatic Gun

	BF = Before Firing AF = After Firing M = Monthly SA = Semi-annually AN = Annually RDS = Round Dependent							
Item No.	**Interval**						**Item to be Inspected**	**Procedure**
	BF	AF	M	SA	AN	RDS		
1							**GUN ASSEMBLY**	
1.1		*	*				Gun Assembly	Clean/Inspect/Lubricate gun per TM 9-2350-252-10-2, TM 9-2350-284-10-2, TM 9-2350-284-10-2-1, or TM 2350-294-10-2.
1.2					*		Gun Assembly	Perform Electrical Checkout per WP 0005 00.
2							**BARREL ASSEMBLY**	
2.1					*		Barrel Assembly	Remove/Clean/Inspect/Lubricate/ Install per WP 0023 00.
2.2					*	5,000	Barrel Assembly	Inspect barrel bore erosion per WP 0023 00.
2.3					*	5,000	Barrel Assembly	Inspect barrel straightness per WP 0023 00.
2.4	*			*			Barrel Assembly	Check for muzzle brake tightness per WP 0023 00.
3							**FEEDER ASSEMBLY**	
3.1		*					Feeder Assembly	Remove/Inspect/Install/Test per WP 0026 00.
3.2	*				*		Feeder Assembly	Perform Automatic Gun Feeder Manual Cycle Check WP 0007 00.

PMCS PROCEDURES - Continued

Table 1. Unit Preventive Maintenance Checks and Services for M242 Automatic Gun - Continued

	BF = Before Firing AF = After Firing M = Monthly SA = Semi-annually AN = Annually RDS = Round Dependent							
Item No.	**Interval**						**Item to be Inspected**	**Procedure**
	BF	AF	M	SA	AN	RDS		
4							**RECEIVER ASSEMBLY**	
4.1					*		Receiver Assembly	Inspect per WP 0026 00.
4.2					*		Receiver Assembly	Perform Auto Gun Receiver Manual Cycle Check WP 0008 00.
4.3	*			*			Recoil Mechanism	Remove/Clean/Inspect/Service/ Lubricate/Install recoil mechanism per WP 0049 00.
4.4					*		Barrel Support Assembly	Inspect per WP 0050 00.
4.5					*		Receiver Front Housing	Inspect per WP 0050 00.
4.6				*		12,500 then every 2,500 rounds	Breech Assembly (12524370)	Remove/Inspect/Lubricate/Install per WP 0051 00.
4.7				*		25,000 then every 5,000 rounds	Breech Assembly (12524527)	Remove/Inspect/Lubricate/Install per WP 0051 00.
4.8				*			Electrical Sear Solenoid	Inspect per WP 0052 00.
4.9		*			*		Bolt and Track Assembly	Remove/Disassemble/Clean/ Inspect/Lubricate/Assemble/Install per WP 0053 00/WP 0054 00.
4.10					*		Bolt and Track Assembly	Inspect firing pin protrusion per WP 0054 00.
4.11		*			*		Bolt and Carrier Assembly	Disassemble/Clean/Inspect/Lubricate/Assemble per WP 0055 00.
4.12						12,000	Firing Pin Assembly (12524512)	Replace per WP 0055 00.
4.13						8,000	Firing Pin Assembly (12524325)	Replace per WP 0055 00.
4.14				*			Direct Current Motor	Remove/Inspect/Lubricate/Install per WP 0061 00.
4.15				*			Sear Assembly	Remove/Inspect/Lubricate/Install per WP 0065 00.
4.16				*			Receiver Gears	Remove/Clean/Inspect/Lubricate/ Install per WP 0067 00.
4.17				*			Chain Guide & Mechanical Interlock	Disassemble/Clean/Inspect/Lubricate/Assemble per WP 0069 00.

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

GENERAL MAINTENANCE

GENERAL

WARNING

If M919 usage is suspected, prior to performing any M242 weapon maintenance procedures, survey the muzzle end of the gun barrel with the beta/gamma probe of the AN/VDR-2, or the PDR-77, or equivalent radiation detection instrument. Make sure the beta shield on the probe is open, and operate the radiation detection instrument in accordance with its prescribed operating procedures (See TM 11-6665-251-10 or TM 11-6665-365-10 and 12&P). If the barrel is found to be radioactively contaminated, the barrel is to be taken out of service without being cleaned, ends sealed with tape, and the barrel marked "Low Level Radioactive Waste". Storage and disposition of the barrel is accomplished in accordance with AR 11-9.

When handling material contaminated by Depleted Uranium (DU), avoid skin contact with the corrosion by wearing NBC gloves. Always flush hands before eating or touching your face. Dispose of gloves in accordance with AR 11-9.

Guidelines for Safe Response to Handling, Storage, and Transportation Accidents Involving Army Tank Munitions or Armor which Contain Depleted Uranium (refer to TB 9-1300-278).

The maintenance instructions include removal, cleaning, inspection, lubrication, servicing, and installation functions as required for each maintenance task. General maintenance procedures that apply to all assemblies are as follows:

IDENTIFICATION

During disassembly, tag leads on electrical parts to ensure proper reassembly. Tag each lead as it is removed.

TORQUING

a. Where needed, torque values are listed in the maintenance task. The torque values given in the text of this manual are the actual values that must be applied to the nut or screw for proper maintenance.

b. Some tasks require the use of a torque wrench adapter when the nut or screw cannot be reached with a regular socket on the end of the torque wrench. These adapters add to the overall length of the torque wrench and make the dial or scale reading less than the actual torque applied to the nut or screw. To prevent over torquing and damage to equipment, calculate a corrected dial or scale reading.

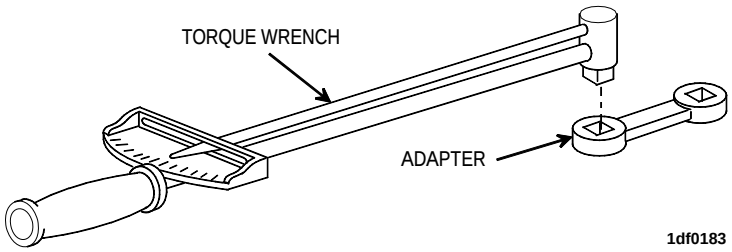
TORQUING - Continued

NOTE

The length of the torque wrench is measured from the center of the handle to the center of the drive. The length of the adapter is measured from the center of the drive to the center of the wrench.

c. To determine the corrected (scale or dial) reading for this task, use the following formula:

$$\text{Corrected reading} = \text{Required torque value} \div \frac{\text{Length of torque wrench + length of adapter}}{\text{Length of torque wrench}}$$



EXAMPLE: Required torque is 270 to 300 in.-lb (30.51 to 33.9 N-m).
Length of torque wrench is 22 in. (558.8 mm).
Length of adapter is 3 in. (76.2 mm).

$$\text{Corrected reading} = \text{Required torque value} \div \frac{\text{Length of torque wrench + length of adapter}}{\text{Length of torque wrench}}$$

$$\text{Corrected reading} = \text{270 in.-lb (30.51 N-m)} \div \frac{\text{22 in. (558.8 mm) + 3 in. (76.2 mm)}}{\text{22 in. (558.8 mm)}}$$

$$\text{Corrected reading} = \text{270 in.-lb (30.51 N-m)} \div \frac{\text{25 in. (635 mm)}}{\text{22 in. (558.8 mm)}}$$

$$\text{Corrected reading} = \text{270 in.-lb (30.51 N-m)} \div 1.14$$

$$\text{Corrected reading} = \text{237 in.-lb (26.78 N-m)}$$

CLEANING

a. GENERAL. All parts must be cleaned well and kept clean during maintenance. Dirt or foreign matter can cause malfunctions and equipment failure. Cleaning procedures are covered in the task relating to the specific part. When using adhesives, paint, or dry cleaning solvent, apron, gloves, and goggles should be worn, and a respirator should be used if not working in a well-ventilated area.

b. AVOID ABRASIVES. Except where called for in a task, do not use abrasives, files, wire brushes, or sharp tools. On some surfaces, finish is important to the operation of close-fitting parts.

WARNING

Dry cleaning solvent (SD) is flammable and toxic. Use in well-ventilated area away from an open flame or a smoking area. This solvent evaporates quickly and has a drying effect on the skin. It may cause cracks in the skin and, in some cases, mild irritation or inflammation. If solvent comes in contact with eyes or skin, flush with water.

c. REMOVAL AGENTS. Remove gum or old grease deposits by soaking parts in dry cleaning solvent (item 27, WP 0116 00). Scrub parts with a brush. Use abrasive cloth (item 5, WP 0116 00) to remove minor surface defects.

d. CLEANING INSTRUCTIONS. Dirt can damage parts and cause malfunctions. When you perform any cleaning procedure, do the following:

(1) Clean all parts before inspection, after repair, and before assembly.

(2) Keep hands free of grease. Grease collects dirt.

(3) After cleaning, cover or wrap parts to protect from dirt.

CAUTION

Cleaning solvent causes leather, rubber, and synthetic materials to become brittle. Do not use cleaning solvent to clean seals.

(4) Clean seals with soap and water. Dry parts with a clean wiping rag (item 21, WP 0116 00).

WARNING

Wear eye protection when using compressed air. Compressed air used for cleaning purposes shall not exceed 30 psi (206.85 kPa).

(5) Blow out insert holes with compressed air.

INSPECTION

All removed parts must be inspected with care. Replace parts if damage or wear exceeds allowable limits as specified in the maintenance task.

a. BEARINGS. Inspect bearings for free and smooth rotation, and broken or missing balls or rollers. Also look for tightness of fit in bearing bores. Inspect bearing races for wear and color changes due to heat.

b. BUSHINGS AND BUSHING-TYPE BEARINGS.

(1) Check all bushings and bushing-type bearings for secure fit in casting. Check for color changes which could mean overheating. Inspect for size, scoring, out-of-roundness, burrs, sharp edges, and signs of seizing.

(2) Check for dirt in oil holes and in bushing-type bearings. Oil holes and grooves must be clean and not damaged.

INSPECTION - Continued

c. PREFORMED PACKINGS AND GASKETS.

(1) Inspect preformed packings for wear, brittleness, cracks, cuts, and damage.

(2) Inspect gaskets and seals for wear, nicks, cuts, and torn or missing gasket material. Replace gasket if needed. Gaskets and seals on electrical parts may be reused.

d. INSERTS. Inspect inserts for cracks, stripped or damaged threads, and loose fit.

e. STUDS. Inspect all studs for stripped or damaged threads, bent or loose condition, and signs of stretching.

f. GEARS. Inspect gears for burrs, wear, cracked or broken teeth, and pitting at tooth contact areas.

g. SPLINED PARTS. Inspect splined parts for burrs, wear, and twisted, cracked, or broken splines.

h. THREADED PARTS. Inspect all threaded parts for burrs and stripped or damaged threads.

i. SPRINGS. Inspect springs for wear, defects, breaks, and loss of tension or compression. Load and height inspection data, where needed, are given in maintenance procedures.

j. RETAINING RINGS. Inspect retaining rings for nicks, burrs, defects, loss of tension, and wear.

k. ELECTRICAL PARTS. Inspect electrical parts before you install them. Look for mildew, corrosion, or burned parts. Inspect wire insulation for cracks, tears, burns, or missing material.

LUBRICATION

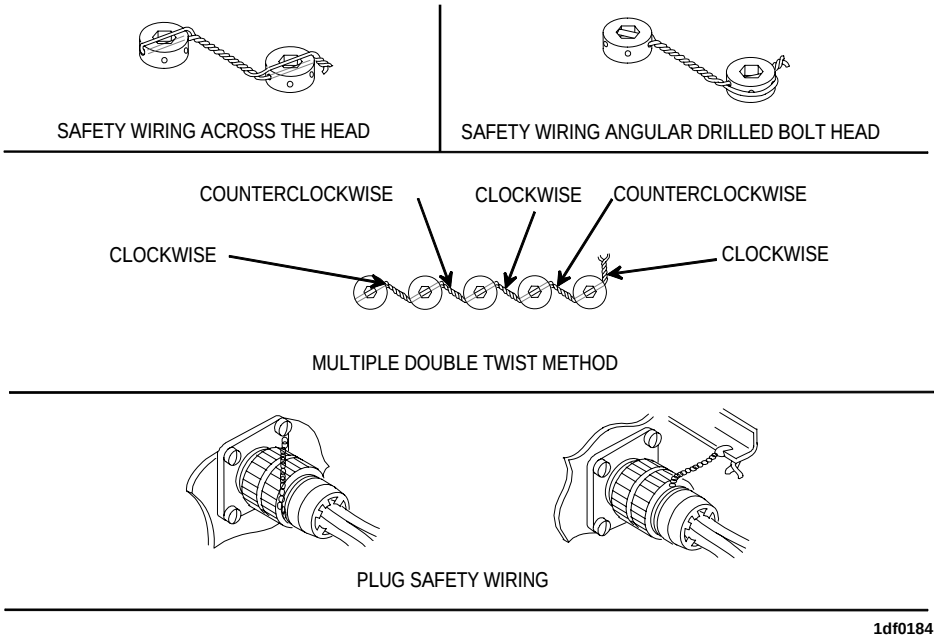
a. Lubrication is very critical for the smooth and reliable operation of parts. It is essential that only the specified lubricant be applied to those surfaces of parts identified in the maintenance task.

b. Avoid applying excessive amounts of lubricant as this will trap dirt and grit which may cause the early failure of a part or component.

LOCKWIRE

a. LOCKWIRE TECHNIQUE.

(1) Lockwire must be tight after installation to prevent failure due to rubbing or vibration.



(2) Lockwire must always be installed so that it tends to tighten the part, thereby counteracting the natural tendency of the part to loosen. Determine whether the part tightens when turned to the right or to the left, as this governs the direction in which the lockwire is to be threaded through the safety hole. The illustrations above show typical methods for lockwiring right-hand threaded parts.

(3) Lockwire must never be overstressed. When tightening the lockwire, twist it enough to ensure the securing of the part, but not so much that the wire becomes stressed to the point where it will break under a slight load.

(4) Handle lockwire during installation so that the strands do not become kinked, nicked, or flattened. Avoid pulling the wire around square corners or gripping it too tightly with tools.

(5) Make certain safety holes are exposed as much as possible and that parts are properly tightened before installing lockwire. However, parts should not be loosened or torqued beyond the specified values in order to improve the location of the safety holes. Do not drill or use unspecified safety holes.

(6) Never twist off the wire ends with pliers. Cut the ends square to eliminate sharp points, leaving from three to six turns after the loop. Do not allow cut ends to fall into the parts being lockwired.

(7) Lockwire ends must be bent in toward the item being lockwired to prevent possible injury to the operator's hands.

(8) Lockwire must never be reused.

(9) Use double lockwire in all cases.

LOCKWIRE - Continued

b. LOCKWIRE INSTALLATION.

NOTE

Tools needed are turret mechanic's supplemental tool kit (item 43, WP 0085 00) and artillery and turret mechanic's tool kit (item 41, WP 0085 00).

Supplies needed are nonelectrical wire (as required by specific procedure).

Screws, nuts, and bolts made for lockwiring have one or more holes (1) for the insertion of lockwire (2).

To install lockwire (2), plan a path (3) and determine the length of the lockwire (2) to do this job.

1. Insert lockwire (2) through the hole of the first screw (4) to about the middle of the length of lockwire (2) being used.

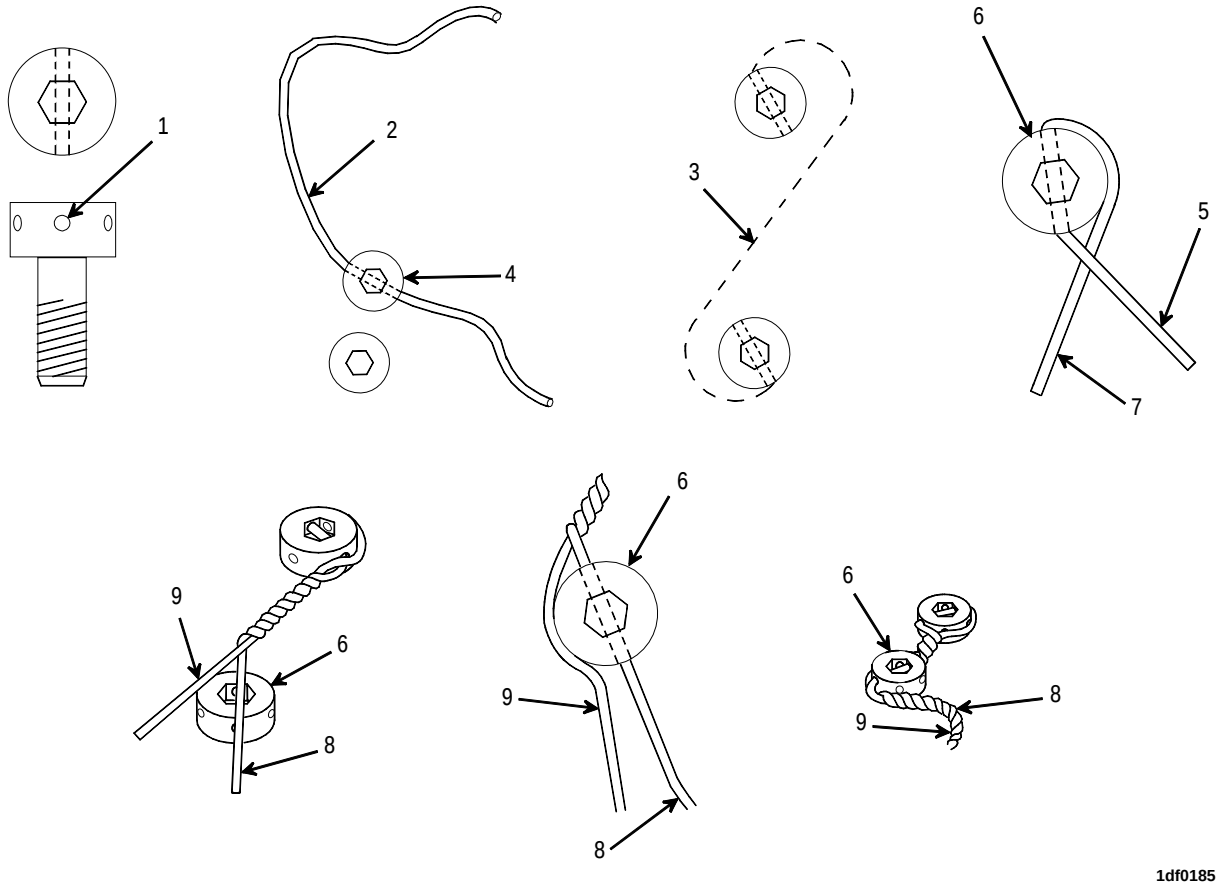
2. Bend lockwire end (5) around the right side of screwhead (6).

3. At each screwhead (6), bring lockwire end (7) on left over the top of lockwire end (5). Using wire twisting pliers, twist lockwire ends (5 and 7) together until they just reach the next screwhead (6).

4. Push top lockwire end (8) through hole in screwhead (6). Bend bottom lockwire end (9) around left side of screwhead (6) to meet lockwire end (8) coming out of hole in screwhead (6).

5. Bring lockwire end (9) over top of lockwire end (8) and twist lockwire ends (8 and 9) about four or five times beyond the last screwhead (6).

6. Cut off lockwire ends (8 and 9) leaving about four or five turns beyond last screwhead (6).



END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

BARREL ASSEMBLY REMOVAL/INSTALLATION
REMOVAL, CLEANING, INSPECTION, LUBRICATION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Bore erosion gage (item 15, WP 0085 00)
Cleaning rod (item 4, WP 0087 00)
Common #2 shop equipment (item 34, WP 0085 00)
Heat mittens (item 24, WP 0085 00)
Spanner wrench (item 48, WP 0085 00)
Strap wrench (item 49, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Cleaning swab (item 28, WP 0116 00)
Grease (item 11, WP 0116 00)
Lubricating oil (item 14, WP 0116 00)
Wooden block (item 3, WP 0116 00)

Personnel Required
Two

References
WP 0024 00

Equipment Conditions
Clean 25-mm gun barrel (TM 9-2350-252-10-2, TM 9-2350-284-10-2, TM 9-2350-284-10-2-1, or TM 9-2350-294-10-2)

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

Barrel assembly will be hot after repeated firing. Wear heat mittens when removing barrel assembly to avoid being burned.

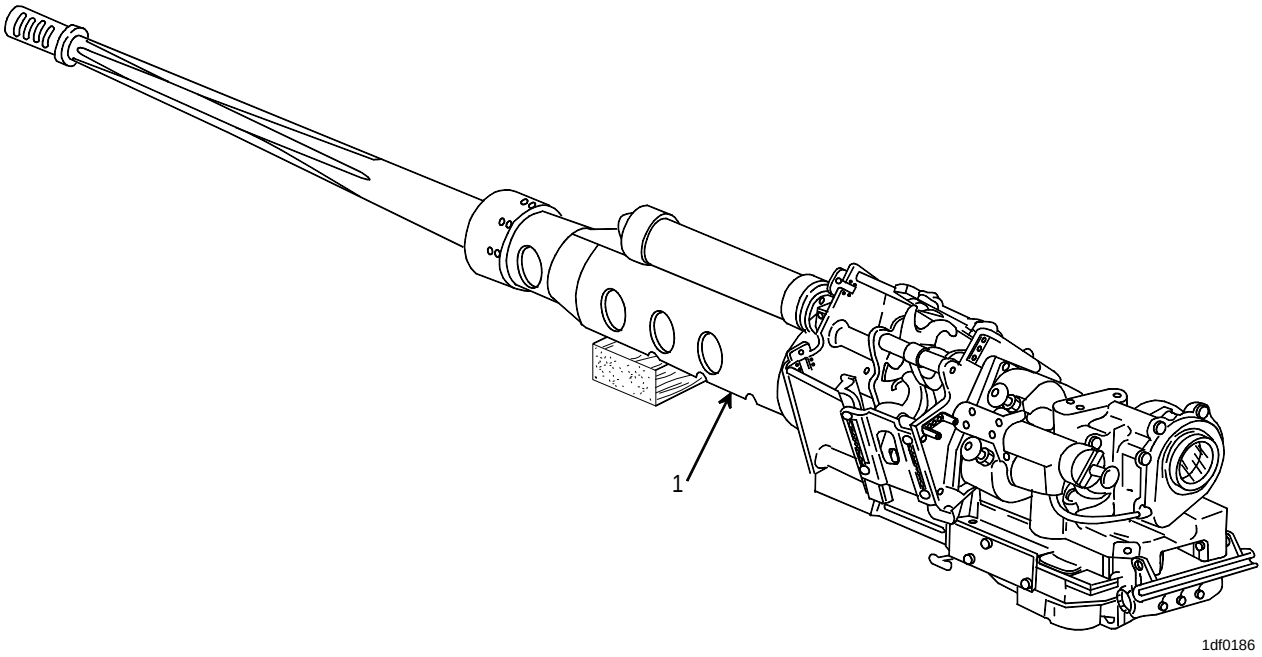
Never remove barrel assembly with live ammo in the gun.

Barrel assembly is extremely heavy. Use helper to move barrel assembly.

REMOVAL

1. PLACE M242, 25-MM AUTOMATIC GUN (1) ON A CLEAN, FLAT SURFACE.

   Position M242, 25-mm automatic gun (1) as shown.

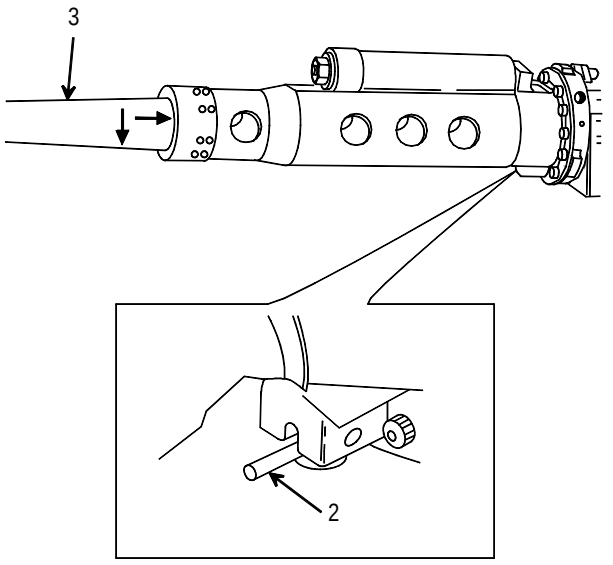


NOTE

Removal of the barrel assembly is identical for all barrel configurations.

2. REMOVE BARREL ASSEMBLY.

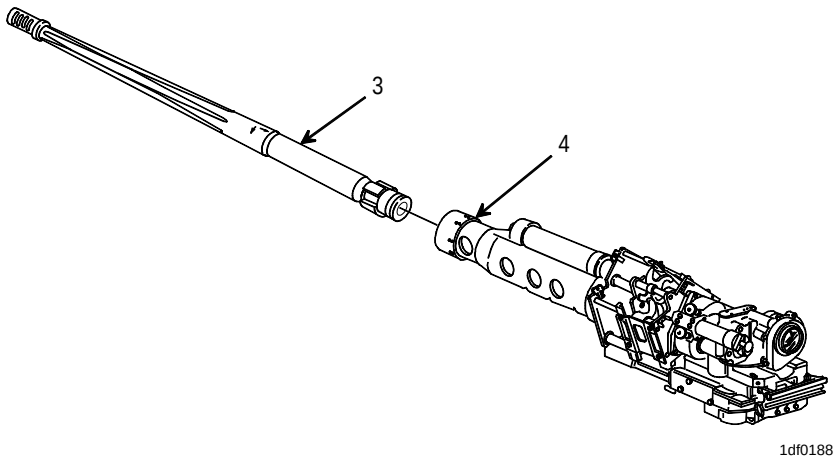
a. Press down on barrel lock pin (2) and rotate barrel assembly (3) to UNLOCK position.



WARNING

Barrel assembly is extremely heavy. Use a helper to remove the barrel assembly or injury may result.

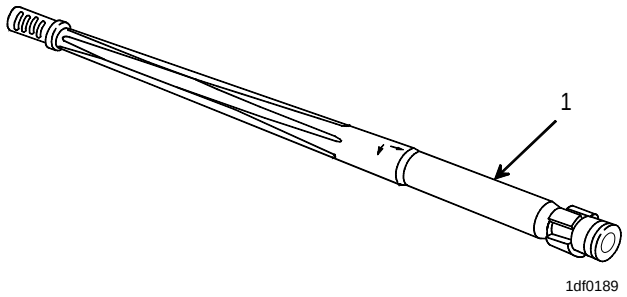
b. Pull barrel assembly (3) out of barrel support assembly (4).



CLEANING

VERIFY BARREL ASSEMBLY HAS BEEN CLEANED.

Verify barrel assembly has been cleaned (refer to TM 9-2350-252-10-2, TM 9-2350-284-10-2, TM 9-2350-284-10-2-1, or TM 9-2350-294-10-2-2).



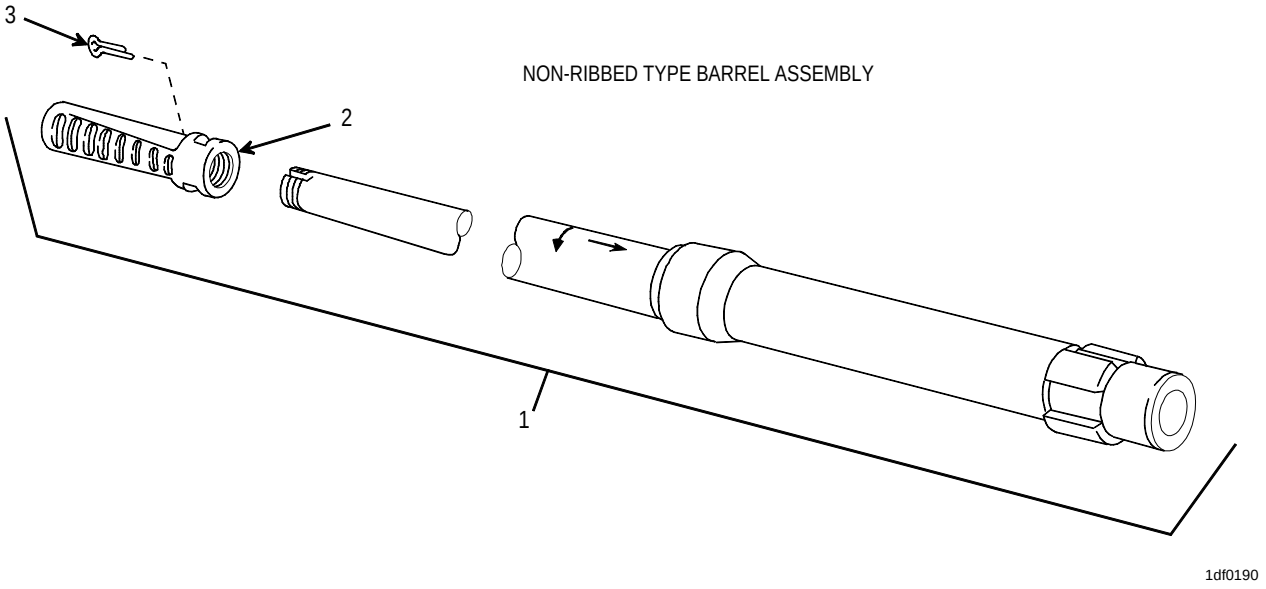
INSPECTION

1. NON-RIBBED BARREL ASSEMBLY ONLY: INSPECT BARREL ASSEMBLY.

   a. Inspect barrel assembly (1) for cracks or bends. If either of these conditions are found, replace complete barrel assembly.

   b. Inspect barrel assembly (1) for loose muzzle brake (2). Slight looseness is acceptable, but muzzle brake shall not rotate more than 1/4 in. (0.64 cm). Muzzle brakes failing this criteria must be reinstalled (WP 0024 00).

   c. Inspect barrel assembly (1) for damaged or missing cotter pin (3). Replace missing or damaged cotter pin (WP 0024 00).



2. RIBBED TYPE AND CHROME BARREL ASSEMBLIES ONLY: INSPECT BARREL ASSEMBLY

NOTE

Some ribbed type barrel assemblies may have a tab washer installed at the muzzle brake.

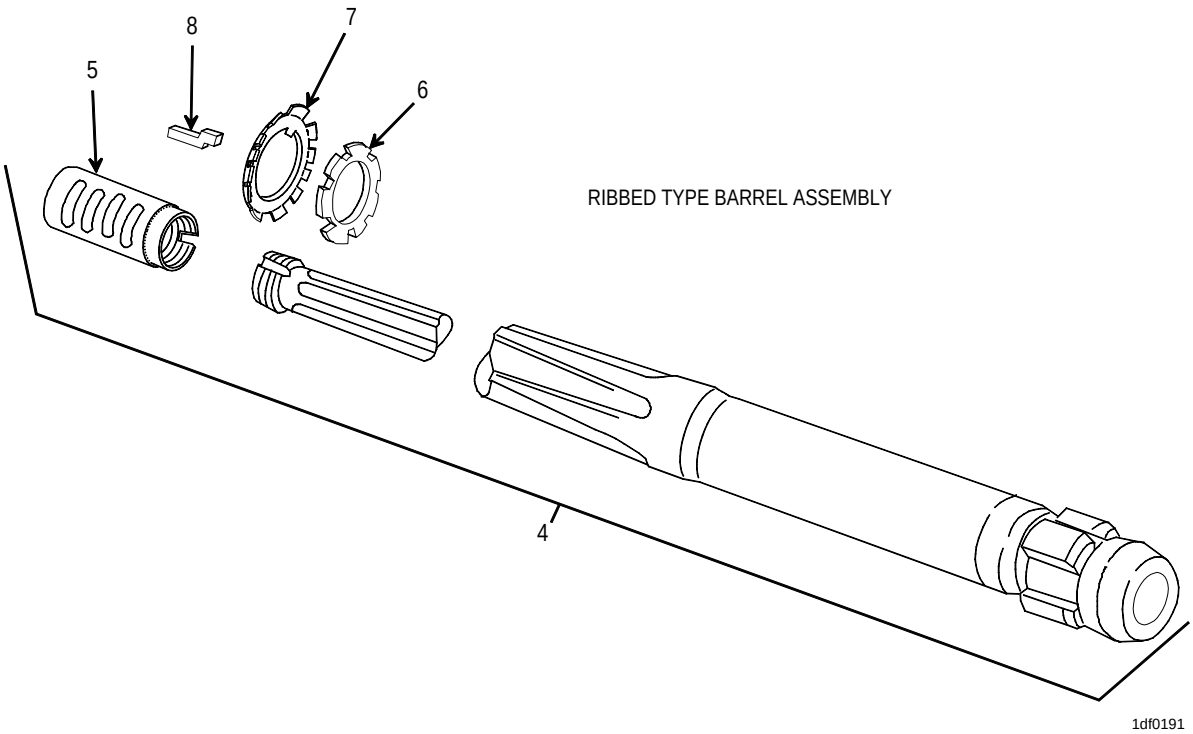
a. Inspect barrel assembly (4) for loose muzzle brake (5) or loose spanner nut (6). For barrel assemblies (4) with locking tab washer (7), slight rotation of the muzzle brake is acceptable, but it shall not rotate more than 1/4 in. (0.64 cm). For barrel assemblies without locking tab washer (7), no movement is allowed. Tighten muzzle brake spanner nut (WP 0024 00).

b. Inspect barrel assembly (4) for damaged or missing key (8). Replace damaged or missing key (WP 0024 00).

c. Inspect barrel assembly (4) for broken or cracked locking tab washer (7) (if installed). Replace damaged locking tab washer (WP 0024 00).

d. For ribbed barrels without locking tab washer (7), using spanner wrench, verify that spanner nut (6) torque is 135 ft-lb ± 10 ft-lb (183 N-m ± 14 N-m).

e. Inspect barrel assembly for cracks or bends. If either of these conditions are found, replace barrel (WP 0024 00).



INSPECTION – Continued

3. CHROME BARREL ONLY: INSPECT CHROMED SURFACE OF BARREL ASSEMBLY.

NOTE

The loss of a small amount of chrome plate over the life of the cannon tube is normal and will not affect accuracy or safety of the barrel.

Inspect chromed surface in bore. If 20 percent (1/5) or more of chrome surface is missing, replace barrel.

4. INSPECT BARREL ASSEMBLY FOR EROSION.

NOTE

Inspection for erosion is the same for all barrel configurations.

a. Push the sliding collar (9) forward on the bore erosion gage rod (10) until it meets the gage head (11).

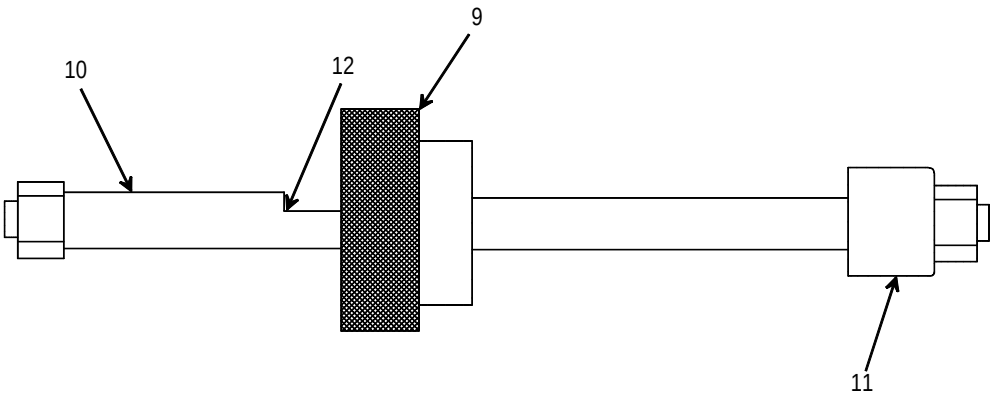
b. Insert the gage into the barrel chamber.

c. Pushing forward on the sliding collar to steady the gage, gently push the bore erosion gage rod (10) through the sliding collar (9) until it stops.

d. The barrel erosion measurement is taken from the relative position of the sliding collar (9) to the rear (the end near you) of the 5/8 in. (1.59 cm) notch (12) on the bore erosion gage rod (10).

e. If the rear of the notch (12) is visible, the barrel is serviceable.

f. If the rear of the notch (12) is not visible, the barrel is unserviceable. Replace barrel.



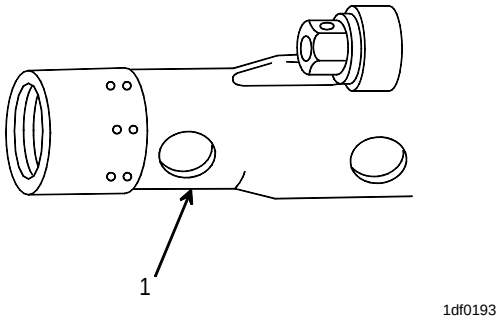
1df0192

LUBRICATION

1. LUBRICATE BARREL SUPPORT ASSEMBLY.

   a. Using acid brush, fill grooves inside barrel support assembly (1) with grease.

   b. Using acid brush, apply a light coat of grease to flat surfaces inside barrel support assembly (1).

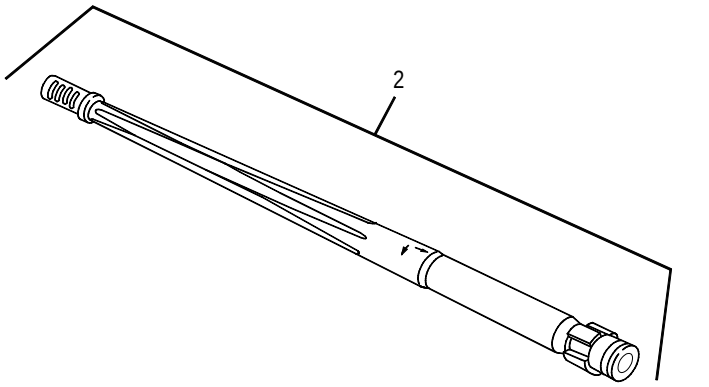


1df0193

2. LUBRICATE BARREL ASSEMBLY.

   a. Using acid brush, apply a light coat of general lubricating oil to barrel assembly (2).

   b. Using cleaning rod and cleaning swab, apply a light coat of oil to bore of barrel assembly (2).



1df0194

INSTALLATION

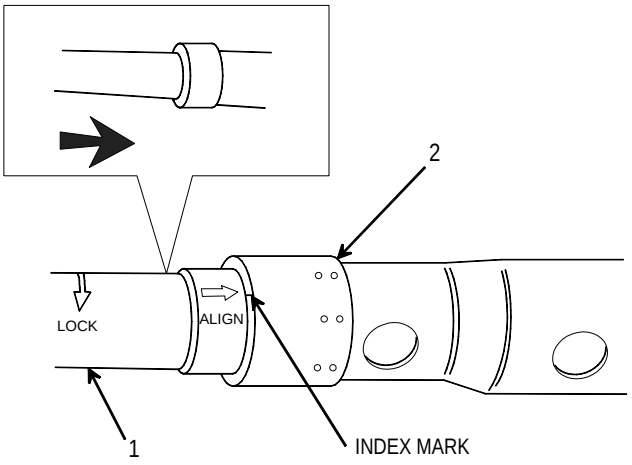
WARNING

Barrel assembly is extremely heavy. Use a helper to install the barrel assembly or injury may result.

INSTALL BARREL ASSEMBLY.

a. Insert barrel assembly (1) into barrel support assembly (2).

b. Rotate barrel assembly (1) until the ALIGN arrow is aligned with the index mark on the barrel support assembly (2).

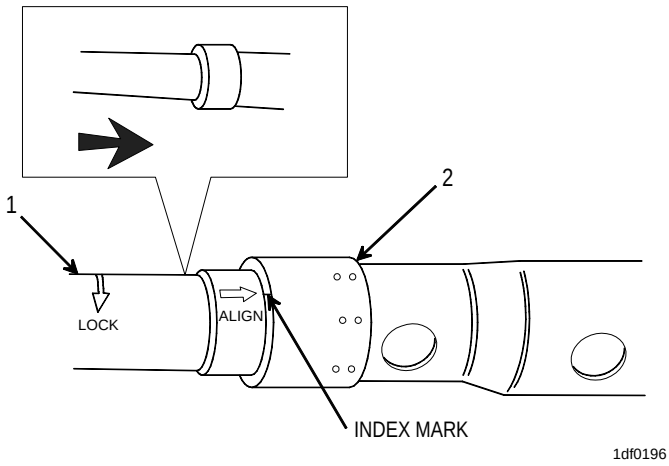


CAUTION

Damage to breech assembly will result if barrel assembly is forced into barrel support assembly.

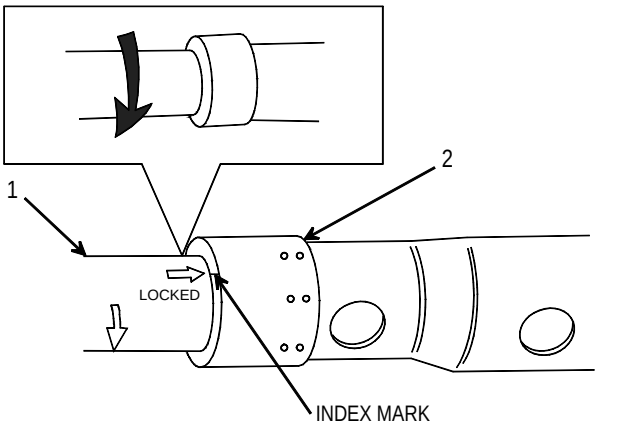
c. Push the barrel assembly (1) all the way into barrel support assembly (2) until it stops.

d. Rotate barrel assembly (1) in the direction of the LOCK arrow until a loud click is heard.



e. Visually check to see that the LOCKED arrow on the barrel assembly (1) is aligned with the index mark on the barrel support assembly (2).

f. Rotate barrel assembly (1) back and forth to make certain it is locked into barrel support assembly (2).



END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

BARREL ASSEMBLY DISASSEMBLY/ASSEMBLY DISASSEMBLY, CLEANING, INSPECTION, ASSEMBLY

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Common #2 shop equipment (item 34, WP 0085 00)
Goggles (item 19, WP 0085 00)
Rubber gloves (item 18, WP 0085 00)
Spanner wrench (item 48, WP 0085 00)
Strap wrench (item 49, WP 0085 00)

Materials/Parts
Abrasive cloth (item 5, WP 0116 00)
Antiseize compound (item 6, WP 0116 00)
Cotter pin (5315-01-206-4660)

Materials/Parts - Continued
Dry cleaning solvent (item 27, WP 0116 00)
Solid film lubricant (item 13, WP 0116 00)
Wiping rags (item 21, WP 0116 00)

Personnel Required
Two

Equipment Conditions
WP 0023 00 Barrel assembly removed

Special Environmental Conditions
Well-ventilated area required when using dry cleaning solvent..

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

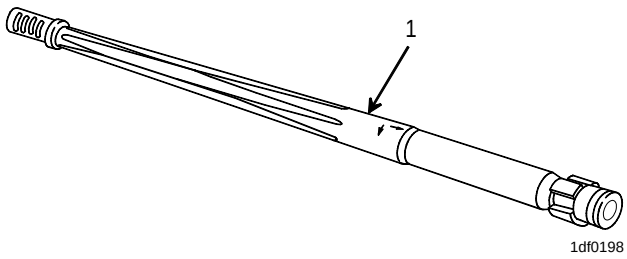
Keep your fingers away from moving parts of gun. Serious injury or death may occur.

Barrel assembly is extremely heavy. Use helper to move barrel assembly.

DISASSEMBLY

1. PLACE M242, 25-MM BARREL ASSEMBLY ON A CLEAN FLAT SURFACE.

   Position M242, 25-mm barrel assembly (1) as shown.



NOTE

Some ribbed type barrel assemblies may have a locking tab washer installed at the muzzle brake.

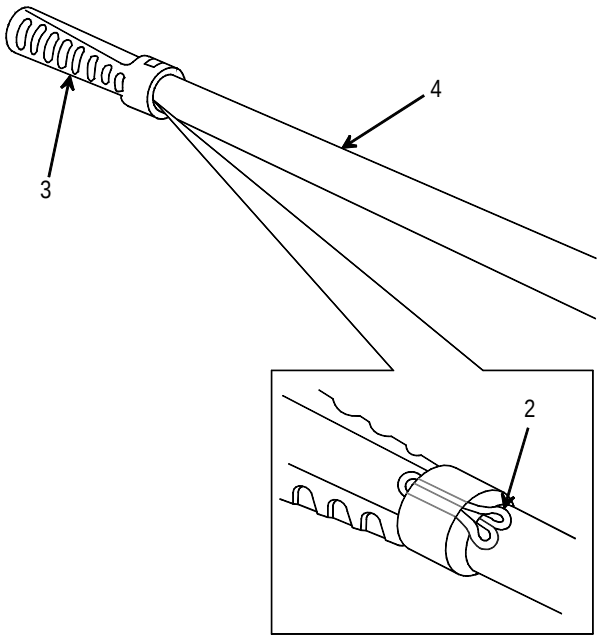
If disassembling non-ribbed type barrel assembly, perform steps a and b. If disassembling ribbed type barrel assembly without locking tab washer, perform steps c through f.

If disassembling ribbed type barrel assembly with a locking tab washer, perform steps g through l.

2. REMOVE MUZZLE BRAKE.

   a. Remove cotter pin (2) from muzzle brake (3). Discard cotter pin.

   b. Unscrew and remove muzzle brake (3) from 25-mm barrel (4).



NON-RIBBED (ROUND) BARREL ASSEMBLY
1df0199

NOTE

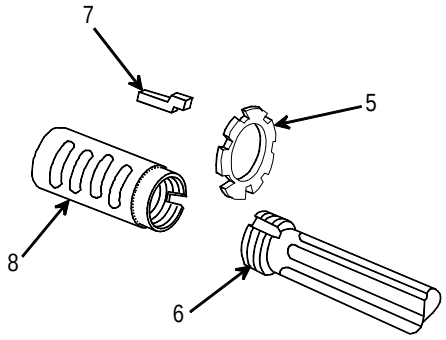
Have a helper hold barrel with a strap wrench while removing the spanner nut.

c. Loosen spanner nut (5) until it is completely backed off threaded area of 25-mm barrel (6).

d. Remove machine key (7) from muzzle brake (8).

e. Unscrew muzzle brake (8) from 25-mm barrel (6).

f. Unscrew spanner nut (5) from 25-mm barrel (6).



RIBBED (NITRIDE OR CHROME) BARREL ASSEMBLY
WITHOUT LOCKING TAB WASHER
1df0200

DISASSEMBLY – Continued

g. Straighten bent tabs on locking tab washer (9).

NOTE

Have a helper hold the barrel with a strap wrench while removing the spanner nut.

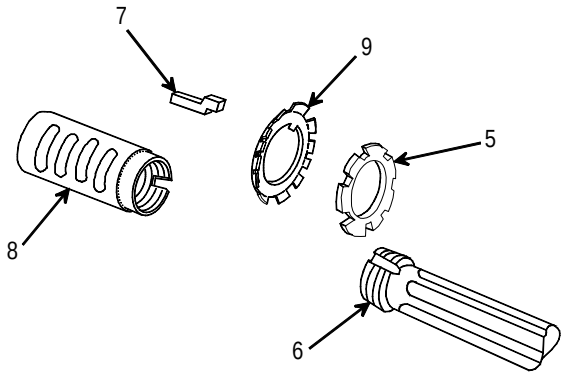
h. Loosen spanner nut (5) until it is completely backed off threaded area of the 25-mm barrel (6).

i. Remove machine key (7) from muzzle brake (8).

j. Unscrew muzzle brake (8) from 25-mm barrel (6).

k. Remove locking tab washer (9) from 25-mm barrel (6).

l. Unscrew spanner nut (5) from 25-mm barrel (6).



RIBBED (NITRIDE OR CHROME) BARREL ASSEMBLY
WITH LOCKING TAB WASHER
1df0201

CLEANING

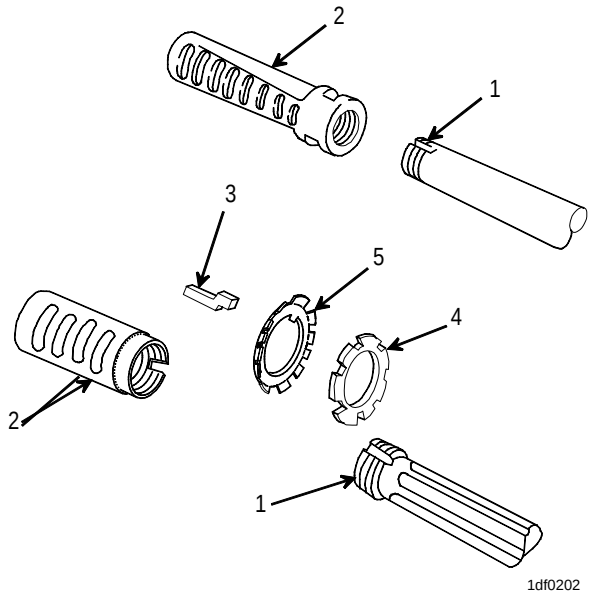
WARNING

Dry cleaning solvent (SD) is flammable and toxic. Use in well-ventilated area away from an open flame or a smoking area. This solvent evaporates quickly and has a drying effect on the skin. It may cause cracks in the skin and, in some cases, mild irritation or inflammation. If solvent comes in contact with eyes or skin, flush with water.

CLEAN BARREL ASSEMBLY.

a. Using paint brush and dry cleaning solvent, clean barrel threads (1), muzzle brake (2), machine key (3), spanner nut (4), and locking tab washer (5), as applicable.

b. Dry components with a clean wiping rag.



INSPECTION

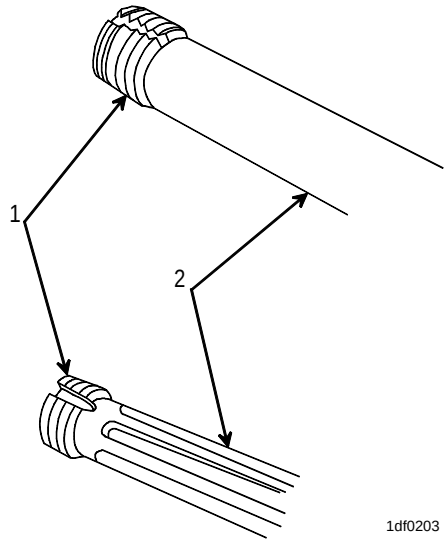
NOTE

If inspecting non-ribbed type barrel assembly, perform steps 1 and 2 only. If inspecting ribbed type barrel assembly without locking tab washer, perform steps 1 through 4. If inspecting ribbed type barrel assembly with locking tab washer, perform steps 1 through 5.

1. INSPECT BARREL.

   a. Visually inspect threads (1) for signs of cross threading. Replace 25-mm barrel (2) if threads (1) have been damaged by cross threading.

   b. Visually inspect exterior of barrel (2) for corrosion. If corrosion is found, remove corrosion with abrasive cloth and apply solid film lubricant.



INSPECTION – Continued

2. INSPECT MUZZLE BRAKE.

   a. Visually inspect muzzle brake (3) for cracks or evidence of cross threading. If cracks or cross threading are found, replace muzzle brake.

   b. Visually inspect muzzle brake (3) for corrosion. If corrosion is found, remove corrosion with abrasive cloth and apply solid film lubricant.

3. INSPECT SPANNER NUT.

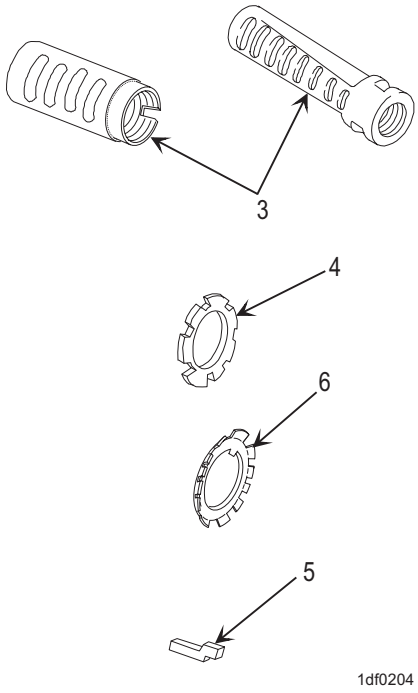
   Visually inspect spanner nut (4) for cracks or evidence of cross threading. If cracks or cross threading are found, replace spanner nut.

4. INSPECT MACHINE KEY.

   Visually inspect machine key (5) for cracks or deformation. If cracks or deformation are found, replace machine key.

5. INSPECT LOCKING TAB WASHER.

   Visually inspect locking tab washer (6) for cracks or breaks. If cracks or breaks are found, replace locking tab washer.



ASSEMBLY

WARNING

When torquing spanner nut, ensure spanner wrench does not slip off nut. If wrench slips, injury to personnel or damage to equipment could occur.

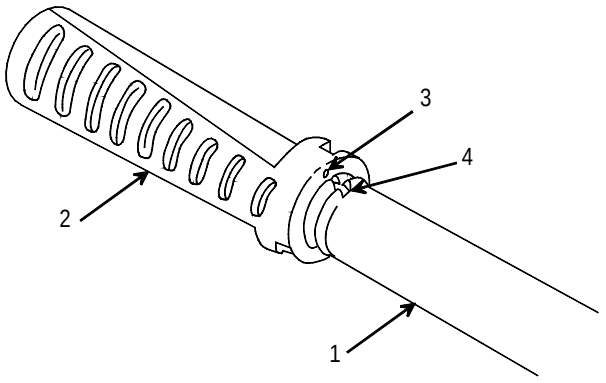
NOTE

If assembling non-ribbed type barrel assembly, perform steps a through c. If assembling ribbed type barrel assembly without locking tab washer, perform steps d through j. If assembling ribbed type barrel with locking tab washer, perform steps k through s.

1. INSTALL MUZZLE BRAKE.

   a. Apply antiseize compound to threads of 25-mm barrel (1).

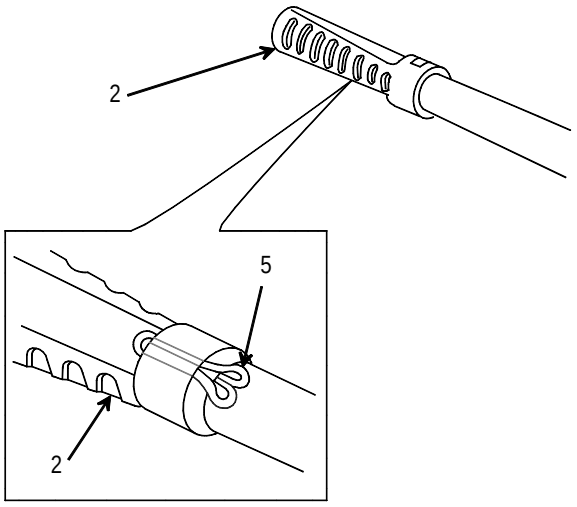
   b. Thread muzzle brake (2) all the way onto 25-mm barrel (1). Back off muzzle brake (2) until cotter pin hole (3) aligns with slot (4) in barrel threads.



NON-RIBBED (ROUND) BARREL ASSEMBLY

1df0205

   c. Install new cotter pin (5) into muzzle brake (2) and bend ends of cotter pin (5) as shown.



1df0206

ASSEMBLY – Continued

d. Thread spanner nut (6), grooved side first, past threads until it lies loose on 25-mm barrel (7).

e. Apply antiseize compound to threads of 25-mm barrel (7).

f. Thread muzzle brake (8) completely onto 25-mm barrel (7) until snug.

g. Back off muzzle brake (8) until barrel keyway aligns with muzzle brake keyway. Do not turn muzzle brake more than one complete turn when aligning keyways.

h. Install machine key (9) into keyway (10).

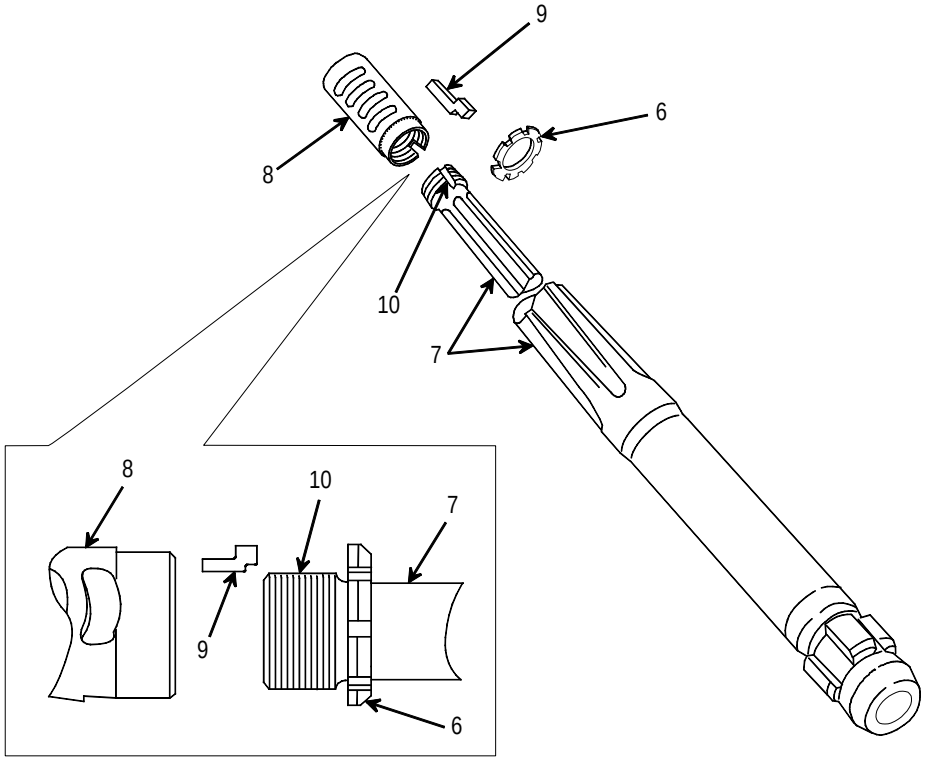
i. Thread spanner nut (6) on 25-mm barrel (7) and tighten against muzzle brake (8) and machine key (9).

NOTE

Have a helper hold barrel with a strap wrench while torquing the spanner nut.

j. Using spanner wrench, torque spanner nut to 135 ft-lb ± 10 ft-lb (183 N-m ± 14 N-m).

k. Thread spanner nut (6), flat side first, until it lies loose on 25-mm barrel (7).



RIBBED (NITRIDE OR CHROME) BARREL ASSEMBLY
WITHOUT LOCKING TAB WASHER

1df0207

l. Position locking tab washer (11) with tabs pointed towards spanner nut. Align locking tab key (12) with barrel keyway (10) and slide locking tab washer until it lies loose on 25-mm barrel (7).

m. Apply antiseize compound to threads of 25-mm barrel (7).

n. Thread muzzle brake (8) completely onto 25-mm barrel (7) until snug.

o. Back off muzzle brake (8) until barrel keyway (10) aligns with muzzle brake keyway. Do not turn muzzle brake more than one complete turn when aligning keyways.

p. Install machine key (9) into keyway (10).

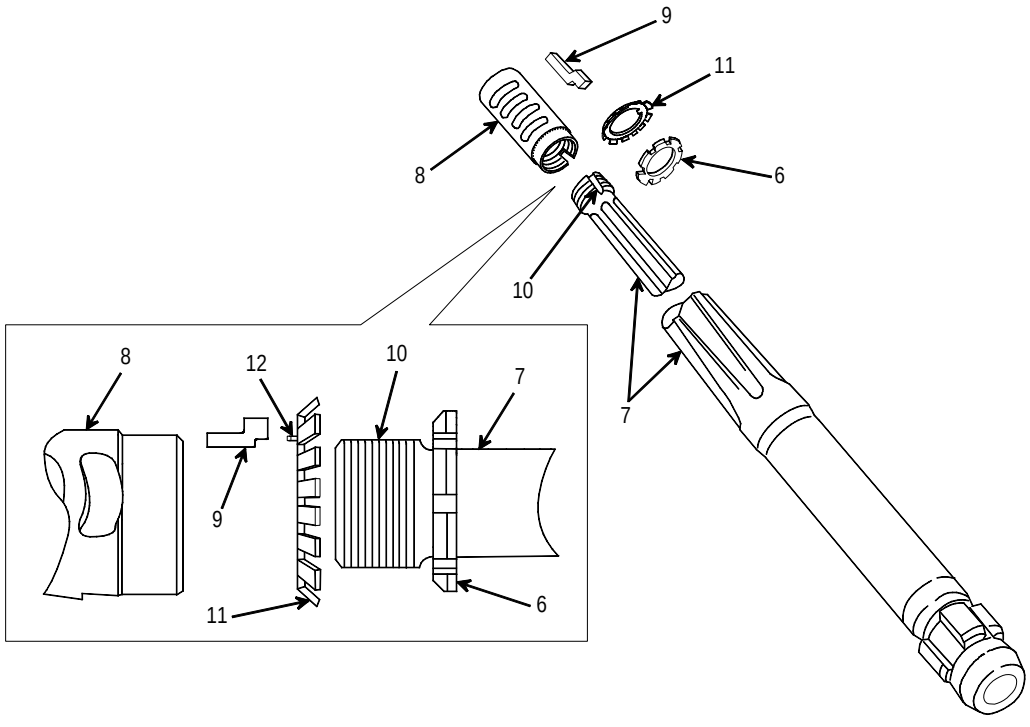
q. Re-position locking tab washer (11) and thread spanner nut (6) on 25-mm barrel (7). Tighten spanner nut (6) against muzzle brake (8), machine key (9) and locking tab washer (11).

NOTE

Have a helper hold barrel with a strap wrench while torquing the spanner nut.

r. Using spanner wrench, torque spanner nut to 50 ft-lb ± 5 ft-lb (67.8 N-m ± 6.7 N-m).

s. Bend locking tab washer (11) tabs into spanner nut (6) notches.



RIBBED (NITRIDE OR CHROME) BARREL ASSEMBLY
WITH LOCKING TAB WASHER

1df0208

2. INSTALL BARREL ASSEMBLY (WP 0023 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

FEED CHUTE LATCH PINS REMOVAL/INSTALLATION
REMOVAL, INSPECTION, INSTALLATION
THIS WORK PACKAGE APPLIES TO ONLY THE MARINE CORPS.

INITIAL SETUP:

Tools and Special Tools
General mechanic's tool kit (Marine Corps) (item 42, WP 0085 00)
Goggles (item 19, WP 0085 00)

Materials/Parts
Abrasive cloth (item 5, WP 0116)
Retaining ring (MS16633-1031)

Equipment Conditions
WP 0026 00 Automatic feeder removed

WARNING

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

REMOVAL

NOTE

Removal of upper and lower feed chute latch pins are identical.

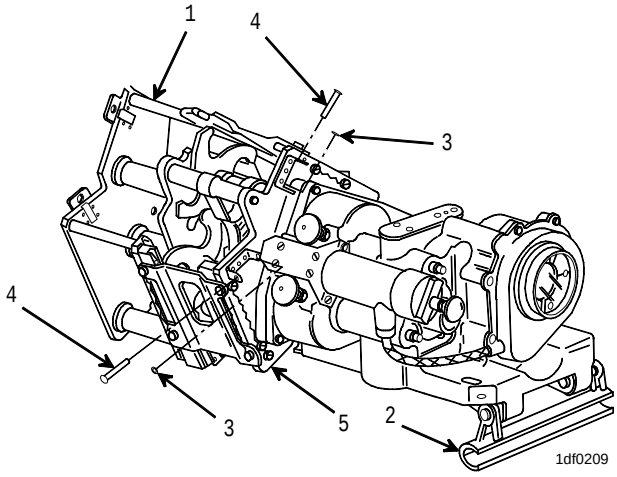
1. PLACE FEEDER ASSEMBLY ON A CLEAN, FLAT SURFACE.

   Position feeder assembly (1) with feeder handle (2) down.

2. REMOVE FEED CHUTE LATCH PIN.

   a. Using screwdriver, pry retaining ring (3) from latch pin (4). Discard retaining ring.

   b. Remove latch pin (4) from rear plate assembly (5).



INSPECTION

1. INSPECT FEED CHUTE LATCH PIN.

   a. Visually inspect latch pin for bends, chips, and cracks. If any of these conditions are found, replace latch pin.

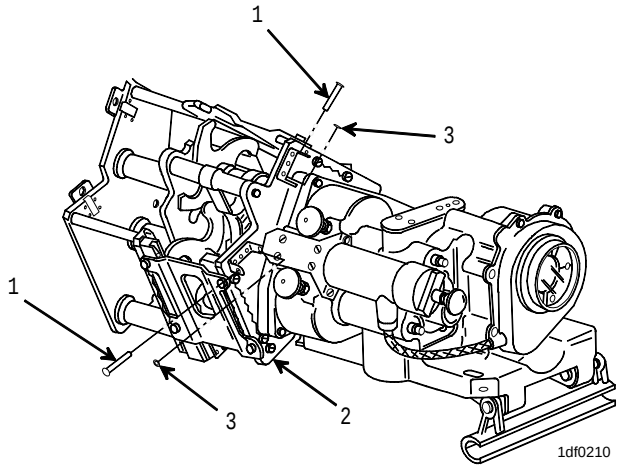
   b. Visually inspect latch pin for corrosion. If corrosion is found, remove with abrasive cloth.

INSTALLATION

1. INSTALL FEED CHUTE LATCH PIN.

   a. Insert latch pin (1) into rear plate assembly (2) so that head of pin faces out from feeder.

   b. Using screwdriver, push new retaining ring (3) onto latch pin (1).



2. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

AUTOMATIC GUN FEEDER REMOVAL/INSTALLATION REMOVAL, INSPECTION, INSTALLATION, TESTING

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Goggles (item 19, WP 0085 00)
Hand crank (item 10, WP 0087 00)
Slippage torque tool (item 44.2, WP 0085 00)

Materials/Parts
Lockwire (item 33, WP 0116 00)

References
WP 0007 00
WP 0025 00 (Marine Corps only)

Equipment Conditions
WP 0023 00 Barrel assembly removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

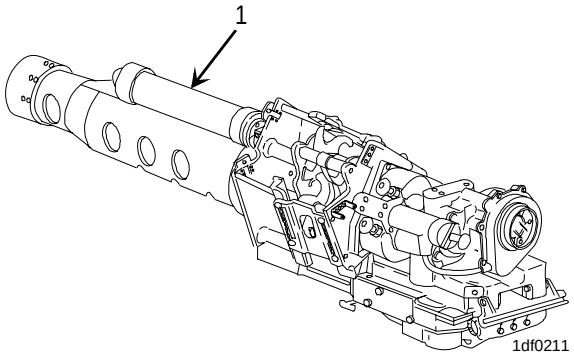
CAUTION

Place feeder handle in down (locked) position to protect electrical connector on bottom of automatic gun feeder.

REMOVAL

1. PLACE M242, 25-MM AUTOMATIC GUN ON A CLEAN, FLAT SURFACE.

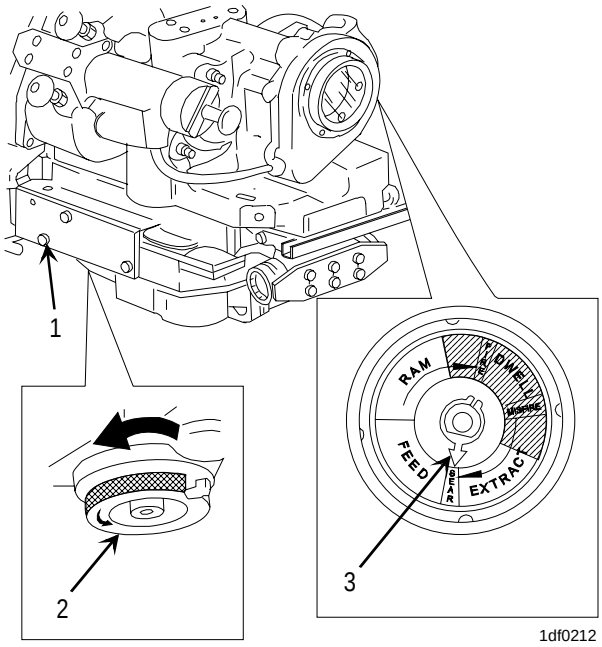
   Position M242, 25-mm automatic gun (1) as shown.



2. LOCK M242, 25-MM AUTOMATIC GUN IN SEAR POSITION.

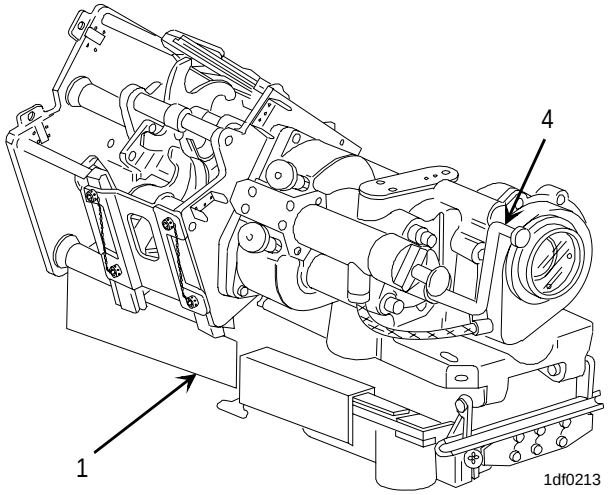
   a. Rotate straight drive shaft (2) counterclockwise until M242, 25-mm gun stops and becomes locked.

   b. Visually check bolt position indicator (3) to verify that M242, 25-mm automatic gun (1) is locked in SEAR position.

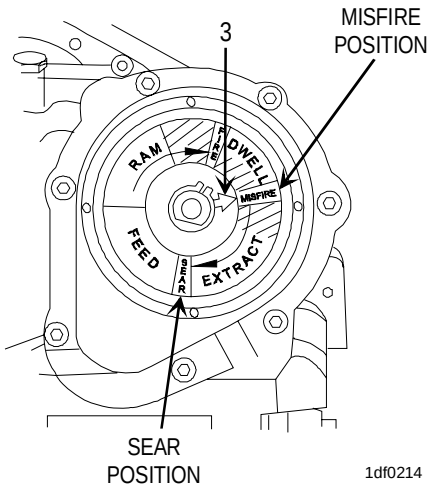


c. If M242, 25-mm automatic gun (1) locks and bolt position indicator (3) points to MISFIRE, install hand crank (4), press sear release link (5), and rotate hand crank (4) one-half turn. After one-half revolution of hand crank (4), release sear release link (5).

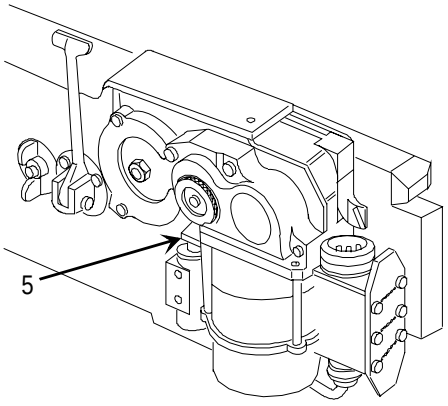
d. Continue rotating hand crank (4) until M242, 25-mm automatic gun (1) locks and bolt position indicator (3) points to SEAR position. Remove hand crank (4).



1df0213



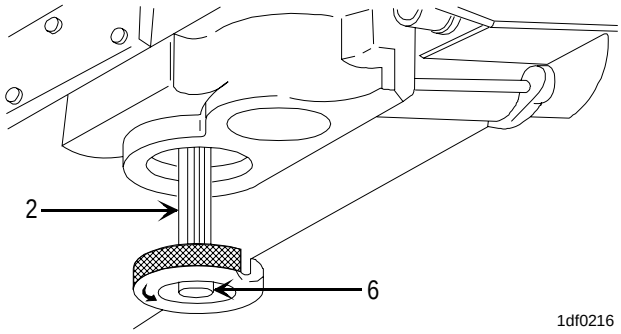
1df0214



1df0215

3. LOWER STRAIGHT DRIVE SHAFT.

Press release button (6) and lower straight drive shaft (2).

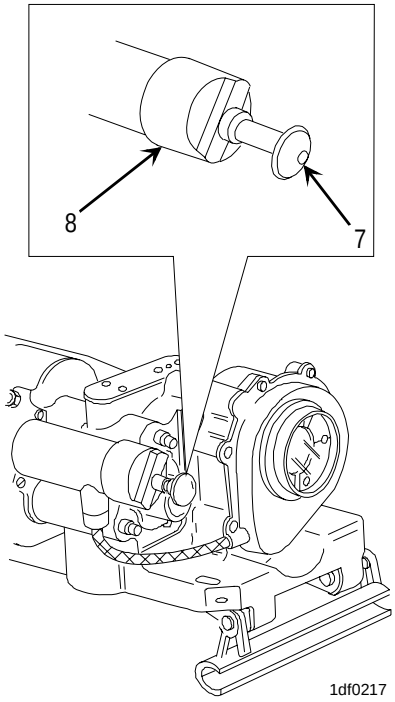


1df0216

REMOVAL - Continued

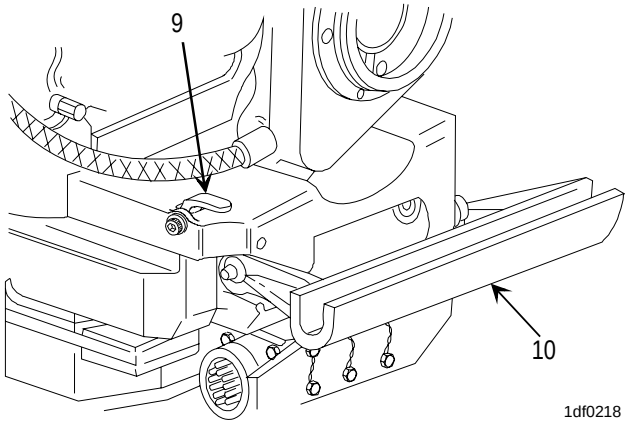
4. SELECT UPPER FEED.

   Push feed select knob (7) into electrical feed select solenoid (8).



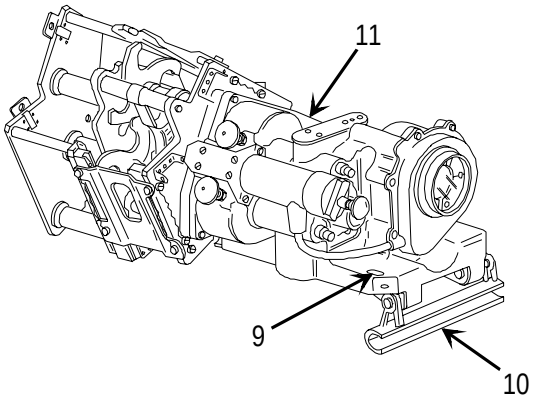
5. UNLOCK AUTOMATIC GUN FEEDER.

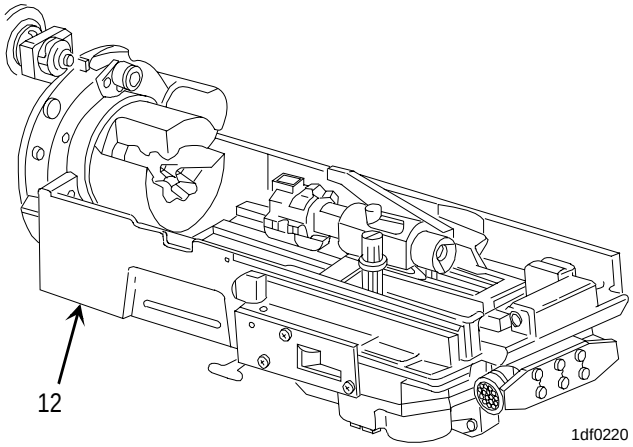
   Press down on feeder handle latch (9) and rotate feeder handle (10) upwards.



6. REMOVE AUTOMATIC GUN FEEDER.

Slide automatic gun feeder (11) to the rear, press down on feeder handle latch (9), and rotate feeder handle (10) down to locked position. Lift automatic gun feeder (11) off auto gun receiver (12).





INSPECTION

WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

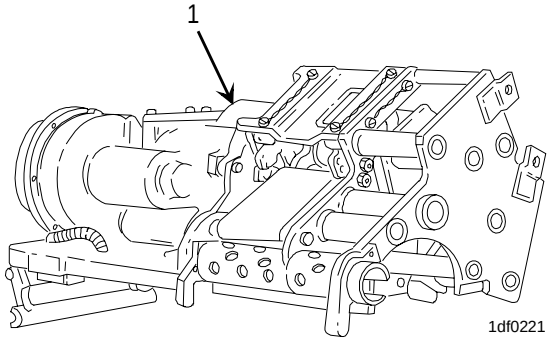
CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

1. INSPECT AUTOMATIC GUN FEEDER.

   a. Visually inspect automatic gun feeder (1) for cracked, bent, or broken parts. If any of these conditions exist, replace those defective parts.

   b. Visually inspect automatic gun feeder (1) for loose or missing hardware. Tighten or replace hardware as needed.

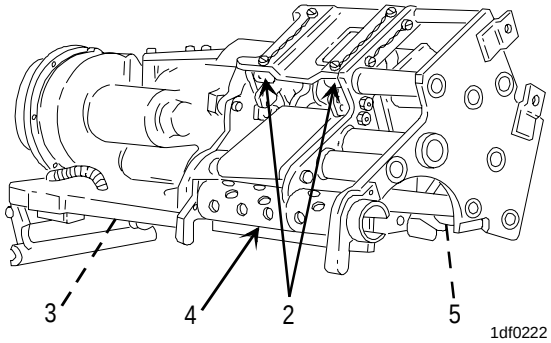


INSPECTION - Continued

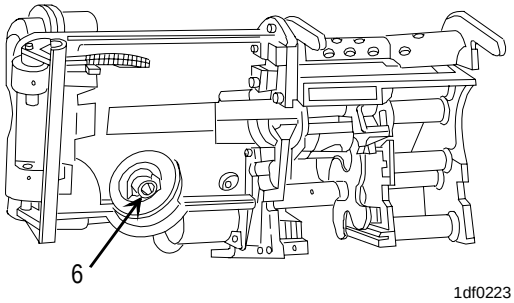
c. Visually inspect link strippers (2), cam bushing screw (3), ejection chute (4), cartridge guide (5), worm shaft nut (6), and wire harness (7) for installed lockwire. Replace lockwire if missing.

d. Standard Feeder Only: Visually check link bridge (8) for lockwire. Replace lockwire if missing.

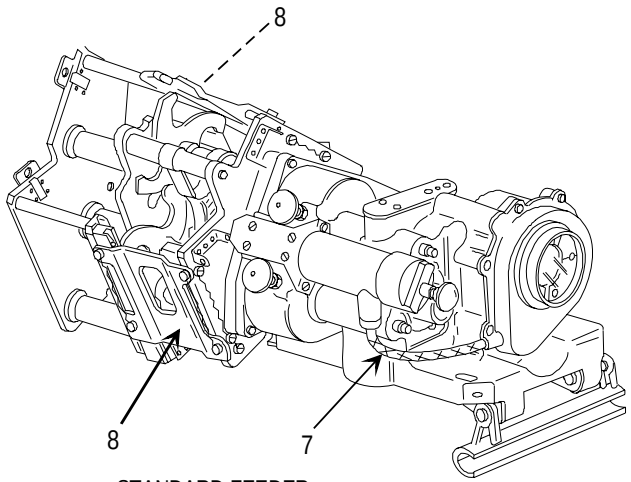
e. Enhanced Feeder Only: Visually inspect cover assembly (9) for loose or missing rivets. If loose or missing rivets are found, replace cover assembly.



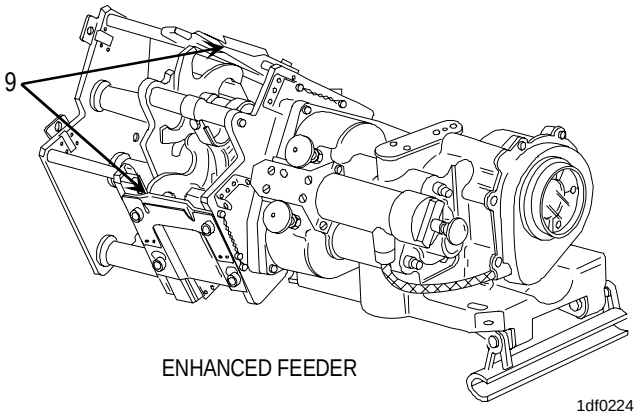
1df0222



1df0223



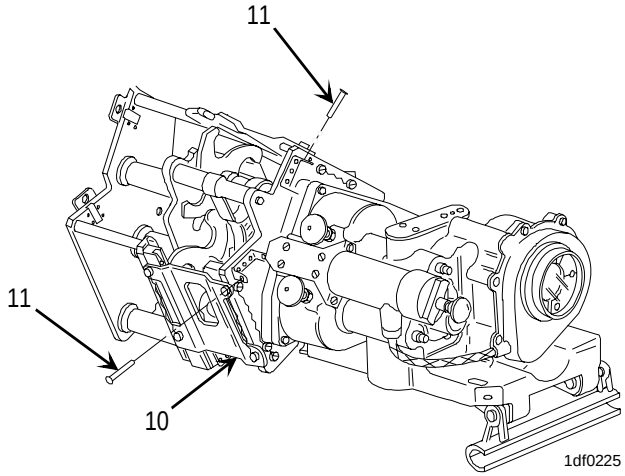
STANDARD FEEDER



ENHANCED FEEDER

1df0224

f. Marine Corps Only: Inspect rear plate assembly (10) for damaged or missing feed chute latch pins (11). If feed chute latch pins are damaged or missing, refer to WP 0025 00.



NOTE

The gear clutch assembly can be torque tested without disassembling the feeder assembly by measuring torque slippage at the worm shaft nut.

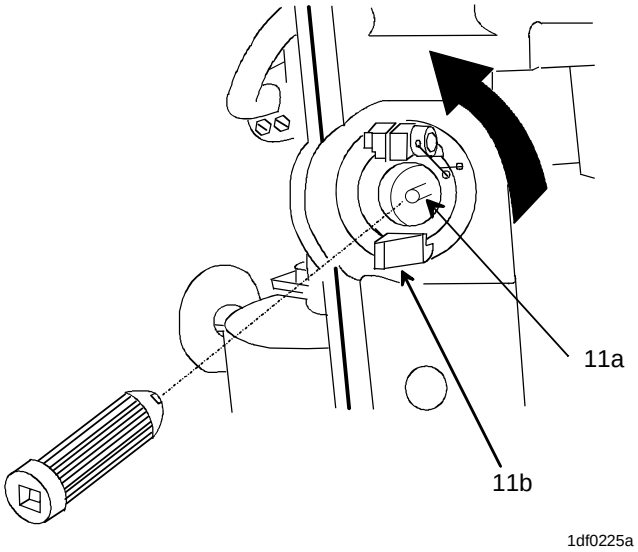
2. TORQUE TEST GEAR CLUTCH ASSEMBLY.

a. Press timer release knob (11a) and rotate worm shaft nut (11b) counterclockwise one half turn.

b. Pinch a dummy round in the selected feed sprocket until worm shaft will no longer turn.

c. Insert torque slippage tool and turn counterclockwise until the clutch slips. Use torque wrench.

d. Clutch should slip between 27 to 150 in.-lb (3.1 to 17.0 N-M). If torque slippage does not occur in this range, send feeder to Direct Support Maintenance for repair of the gear clutch assembly.



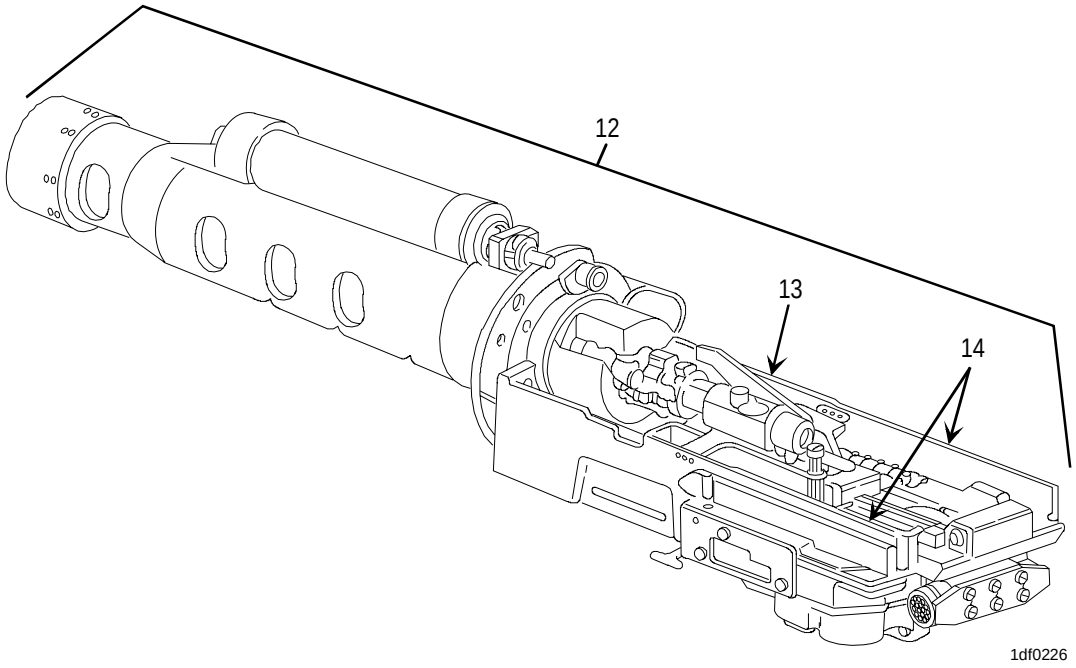
INSPECTION - Continued

3. INSPECT RECEIVER ASSEMBLY.

   a. Inspect receiver assembly (12) for cracked, broken, or worn parts. If any of these conditions are found, replace defective parts.

   b. Inspect receiver assembly (12) for nicks and dings. Deburr all nicks and dings to remove sharp edges.

   c. Inspect receiver housing assembly (13) for cracks or damage along the guide rails (14). Cracks shall not exceed 6.0 inches (152.4 mm) in length per rail and have a depth no greater than 0.5 inch (12.7 mm) from the top of the receiver. Damaged or deformed guide rails may be repaired by removing damaged material up to 6 inches in length and up to 0.5 inch in depth. If the receiver housing is damaged beyond these limits, replace the gun.

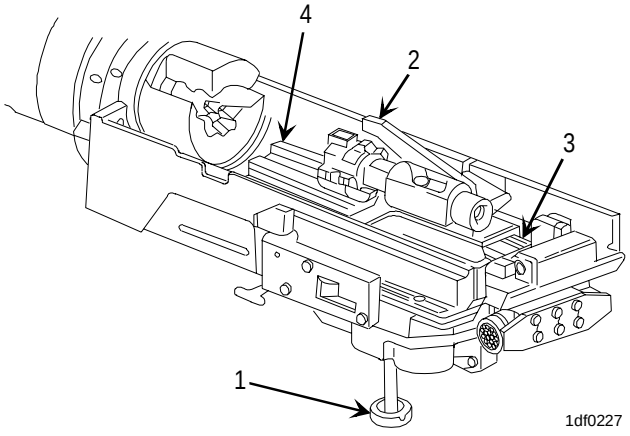


INSTALLATION

1. VERIFY AUTO GUN RECEIVER IS IN SEAR POSITION.

   a. Attempt to rotate straight drive shaft (1) in both directions. Bolt and carrier assembly (2) should remain locked with carrier on rear track (3).

   b. If straight drive shaft (1) turns, continue to rotate until bolt and track assembly (4) locks in SEAR position.



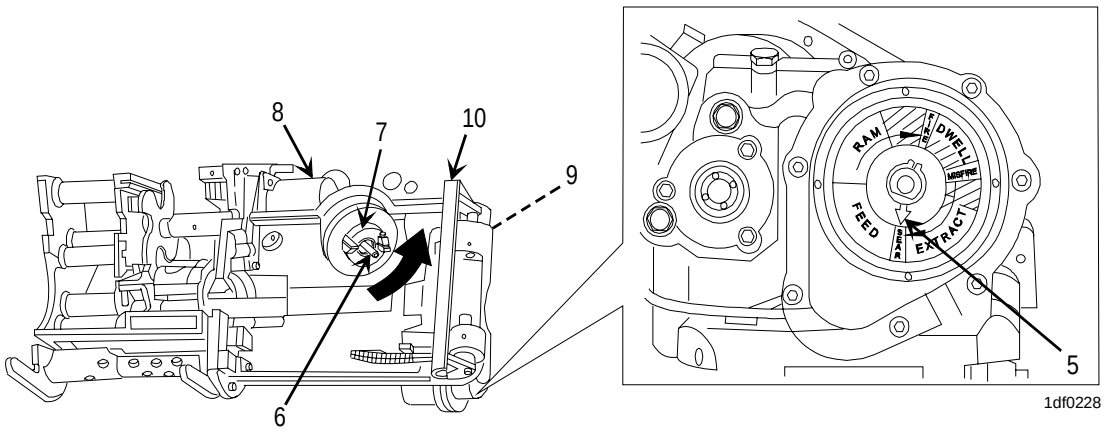
2. LOCK AUTOMATIC GUN FEEDER IN SEAR POSITION.

   a. Visually inspect bolt position indicator (5) to verify it is pointing to SEAR position.

   b. If bolt position indicator (5) does not point to SEAR, press timer release rod (6) and rotate worm shaft nut (7) counterclockwise.

   c. Rotate worm shaft nut (7) until automatic gun feeder (8) locks and bolt position indicator (5) points to SEAR position.

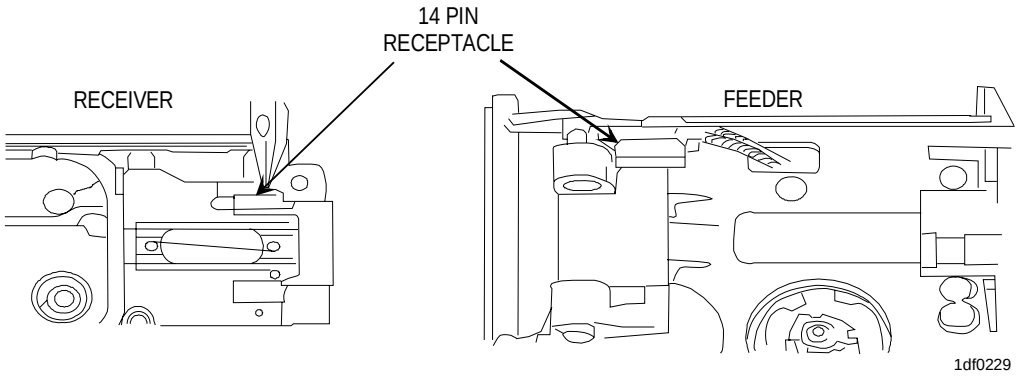
   d. Press down on feeder handle latch (9) and rotate and lock feeder handle (10) upwards.



INSTALLATION - Continued

3. INSTALL AUTOMATIC GUN FEEDER.

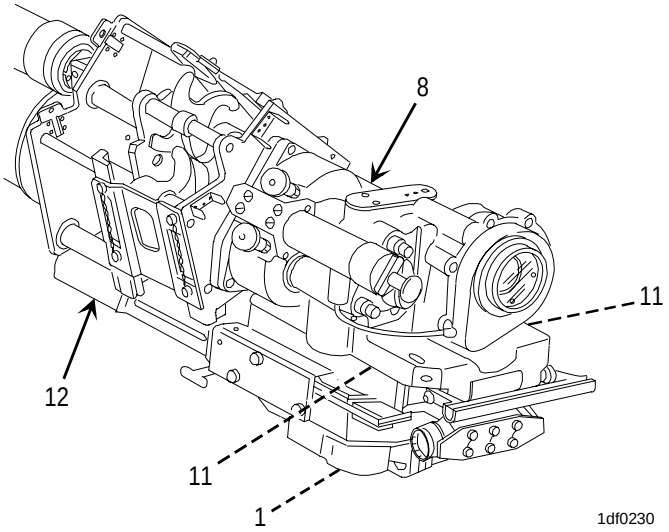
   a. Inspect 14-pin connector casings on the feeder and receiver. If bent, straighten until proper alignment can be obtained. Replace wiring harness if proper alignment cannot be achieved.



   b. Verify that straight drive shaft (1) is in lowered position.

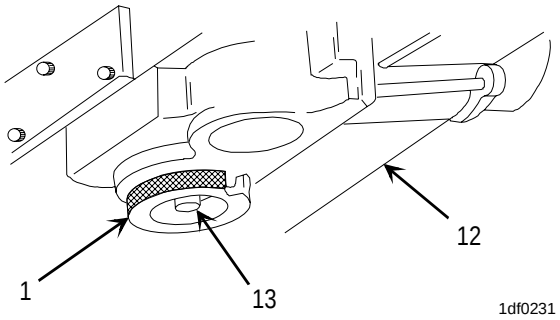
   c. Position automatic gun feeder (8) onto auto gun receiver guide rails (11).

   d. Slide automatic gun feeder (8) forward until it rests firmly against end of auto gun receiver (12).



4. RAISE STRAIGHT DRIVE SHAFT.

Press release button (13) and fully insert drive shaft (1) into auto gun receiver (12). Pull down to ensure drive shaft is locked in place. If drive shaft handle rotates more than 1/2 in. (13 mm), send auto gun receiver to Direct Support Maintenance for repair.



CAUTION

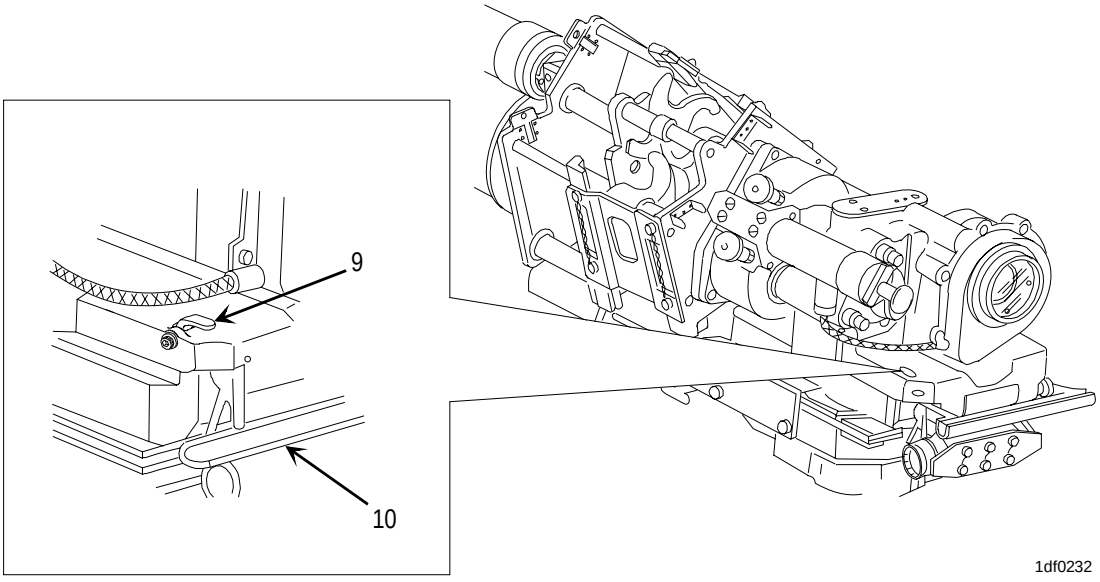
Damage to 14-pin connector can result if feeder and receiver are not properly aligned and handle is forced.

NOTE

Do not force handle. If excessive force is required, check alignment of feeder on receiver.

5. LOCK AUTOMATIC GUN FEEDER.

Press down on feeder handle latch (9) and rotate feeder handle (10) downward until locked.



TESTING

1. INSTALL HAND CRANK ON AUTOMATIC GUN FEEDER.

   a. Insert hand crank (1) into hub (2) as shown.

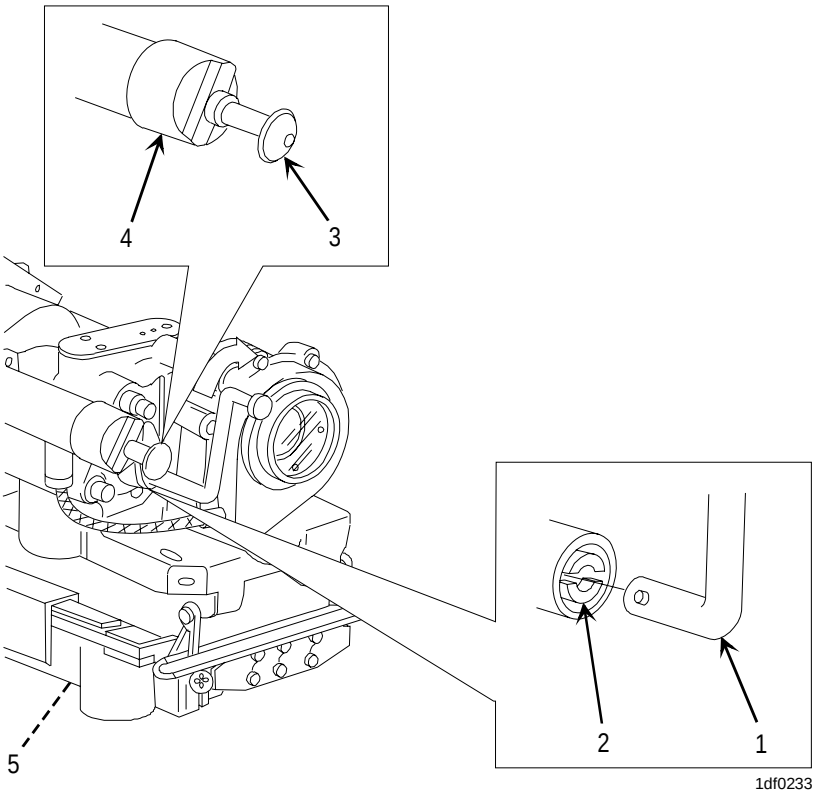
   b. Rotate hand crank (1) clockwise to lock it into hub (2).

2. SELECT LOWER FEED.

   Pull out feed select knob (3) on electrical feed select solenoid (4).

3. RELEASE GUN FROM SEAR POSITION.

   Press sear release link (5) and rotate hand crank clockwise one-half turn. Release sear release link (5).



4. ROTATE HAND CRANK CLOCKWISE AND OBSERVE THE FOLLOWING ACTIONS.

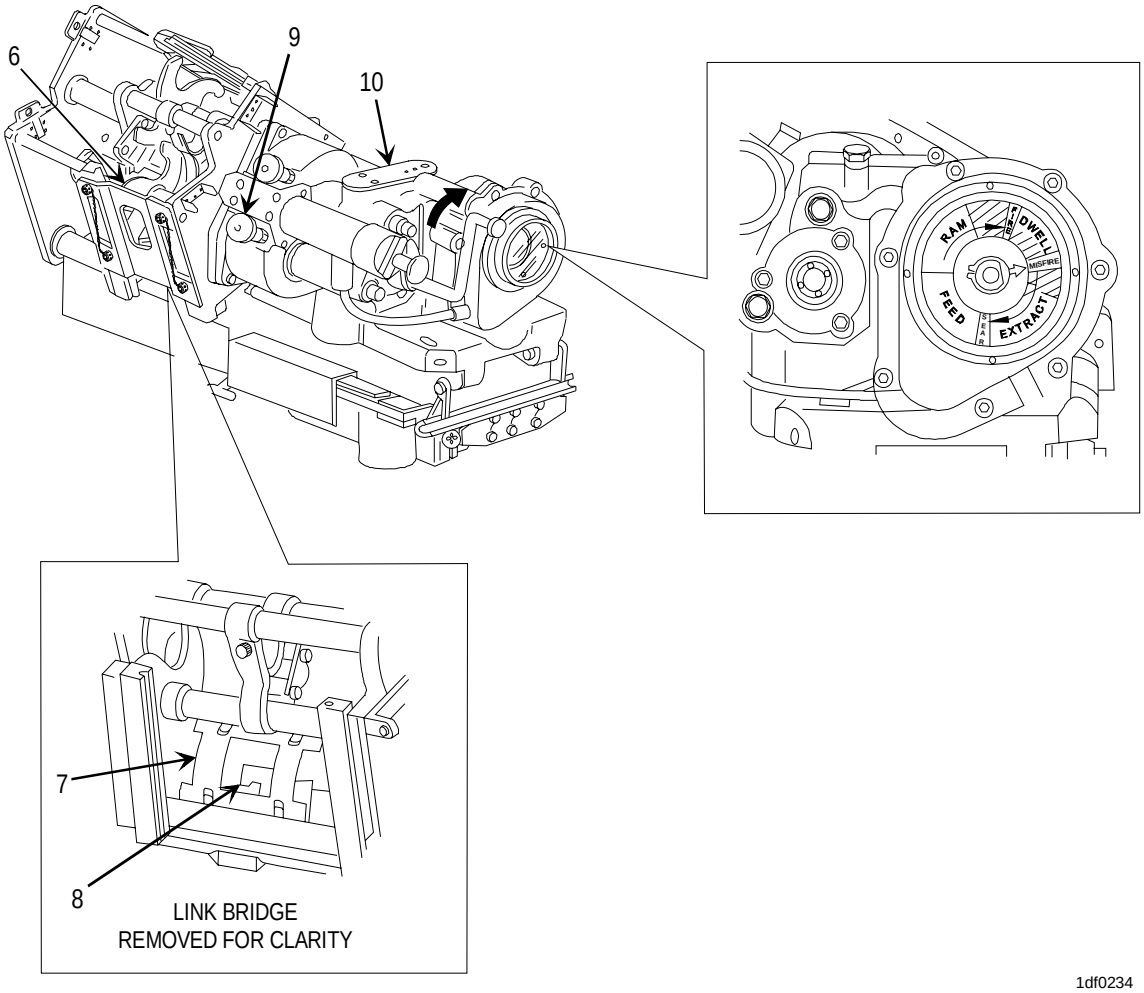
   a. Lower feed sprocket assembly (6) rotates and feeder assembly rotor (7) rotates 1/3 turn.

   b. Bolt and carrier assembly (8) moves in a forward direction.

   c. Lower feed shaft stop assembly (9) moves out.

   d. Automatic gun feeder (10) stops and locks in MISFIRE position.

   e. If any of the above actions do not occur, perform automatic gun feeder manual cycle check (WP 0007 00).



TESTING - Continued

5. CYCLE AUTOMATIC GUN FEEDER OUT OF MISFIRE POSITION.

   Press sear release link (5) and rotate hand crank (1) clockwise one-half turn. Release sear release link (5).

6. ROTATE HAND CRANK CLOCKWISE AND OBSERVE THE FOLLOWING ACTIONS.

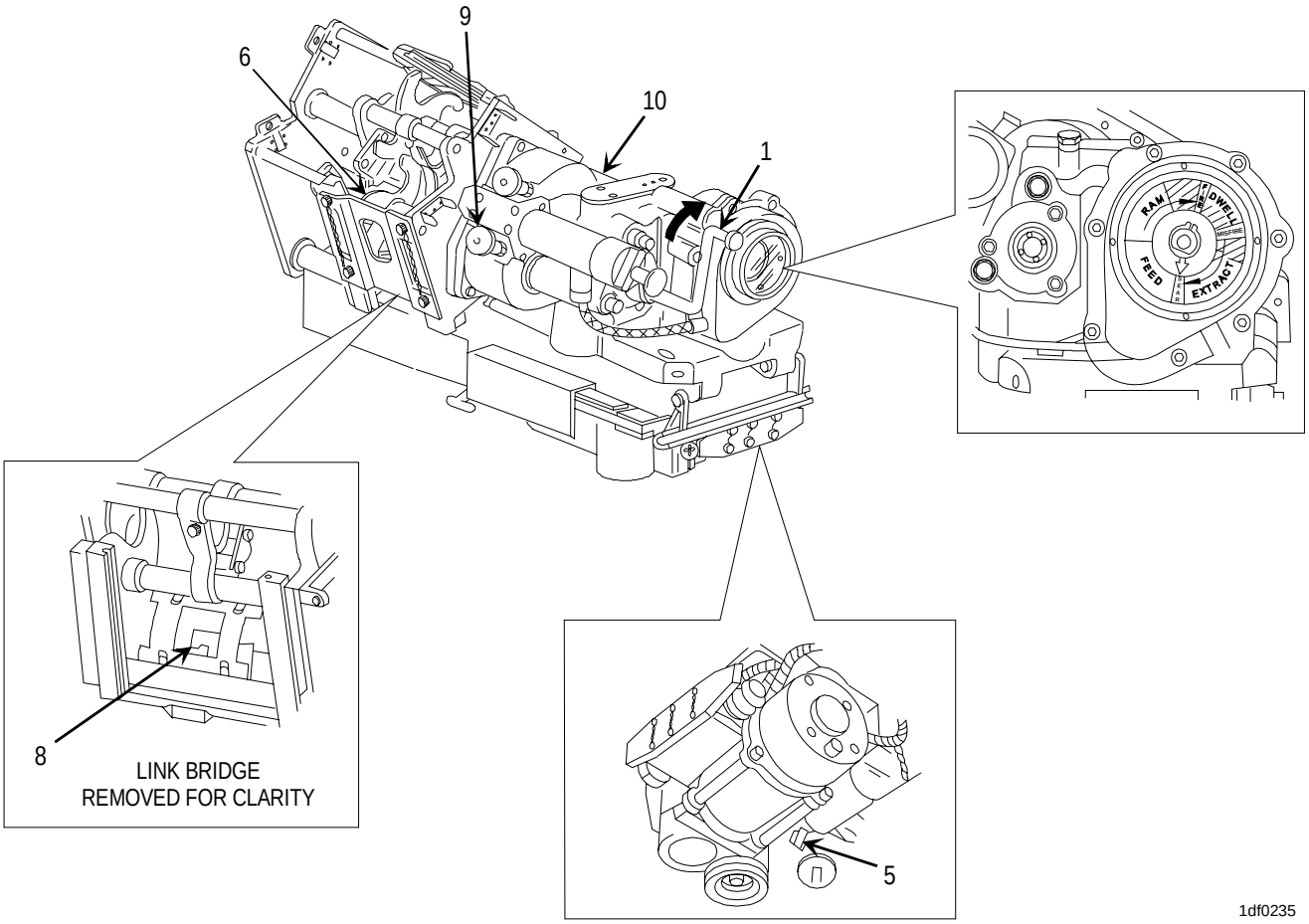
   a. Lower feed sprocket assembly (6) rotates.

   b. Bolt and carrier assembly (8) moves in rearward direction.

   c. Lower feed shaft stop assembly (9) snaps into locked position.

   d. Automatic gun feeder (10) stops and locks in SEAR position.

   e. If any of the above actions do not occur, perform automatic gun feeder manual cycle check (WP 0007 00).



7. SELECT UPPER FEED.

   Push feed select knob (3) into electrical feed select solenoid (4).

NOTE

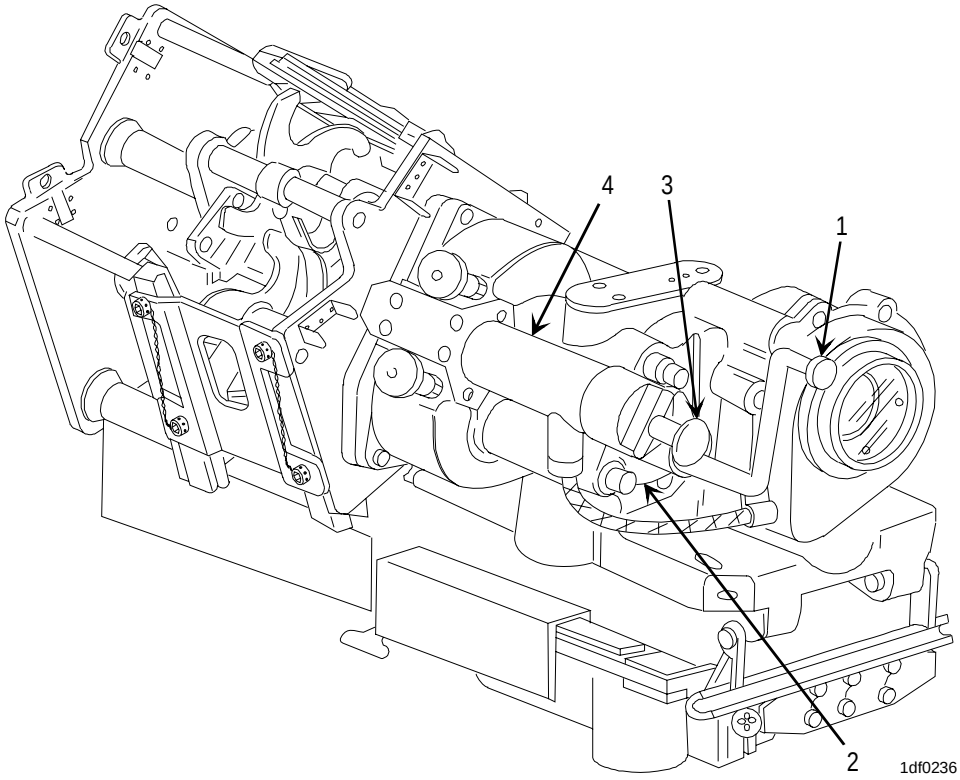
The functional cycle check in upper feed will be identical to the functional cycle check in lower feed except for feed sprocket and feed shaft stop assembly movement. When in upper feed, the upper feed sprocket and upper feed shaft stop assembly will operate.

8. REPEAT FUNCTIONAL CYCLE CHECK WITH UPPER FEED SELECTED.

   Repeat functional cycle check, steps 3 through 6.

9. REMOVE HAND CRANK.

   Rotate hand crank (1) counterclockwise and pull out of hub (2).



10. INSTALL BARREL ASSEMBLY (WP 0023 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

LINK BRIDGE REMOVAL/INSTALLATION
REMOVAL, INSPECTION, INSTALLATION
THIS WORK PACKAGE APPLIES ONLY TO THE STANDARD AUTOMATIC GUN FEEDERS.

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Goggles (item 19, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
Lockwire (item 33, WP 0116 00)

Equipment Conditions
WP 0026 00 Automatic gun feeder removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

CAUTION

Place feeder handle in down (locked) position to protect electrical connector on bottom of automatic gun feeder.

REMOVAL

NOTE

The following procedure is written and illustrated for the upper link bridge, but also applies to the lower link bridge.

1. PLACE AUTOMATIC GUN FEEDER ON A CLEAN, FLAT SURFACE.

   Position automatic gun feeder (1) with feeder handle (2) down as shown.

WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

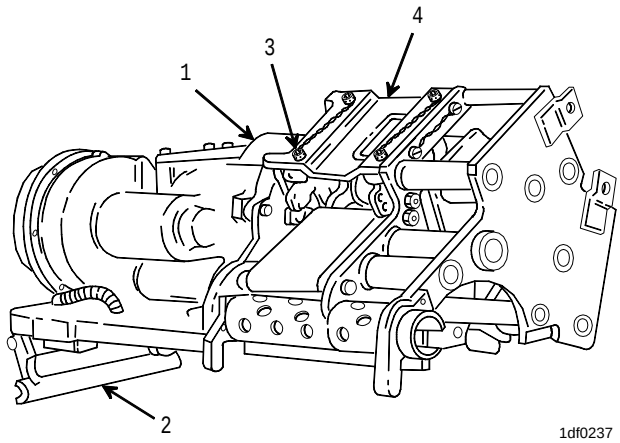
Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

2. REMOVE LOCKWIRE FROM LINK BRIDGE CAPSCREWS.

   Remove lockwire from four capscrews (3).

3. REMOVE LINK BRIDGE.

   Remove four capscrews (3) and link bridge (4).



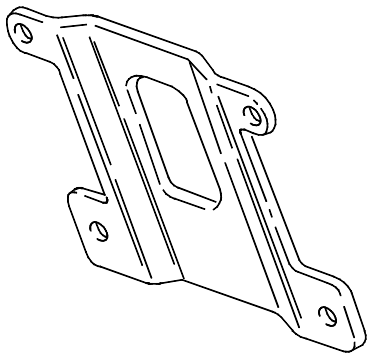
INSPECTION

NOTE

Not all weapons have a link bridge.

INSPECT LINK BRIDGE.

Visually inspect link bridge for cracks, or bends. If either of these conditions are found, replace link bridge.



1df0238

INSTALLATION

NOTE

The following procedure is written and illustrated for the upper link bridge, but also applies to the lower link bridge.

1. INSTALL LINK BRIDGE.
   a. Install link bridge (1) and four capscrews (2).
   b. Torque four capscrews (2) to 60 in.-lb ± 5 in.-lb (6.78 N-m ± 0.57 N-m).

WARNING

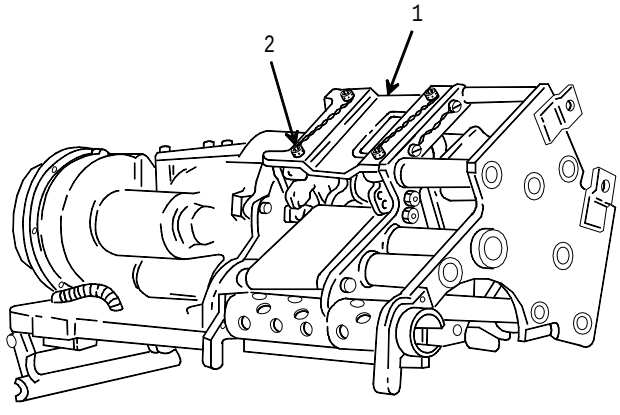
Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

2. INSTALL LOCKWIRE ON CAPSCREWS.

   Lockwire four capscrews (2).



1df0239

3. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

LINK COVER ASSEMBLY REMOVAL/INSTALLATION
REMOVAL, INSPECTION, INSTALLATION
THIS WORK PACKAGE APPLIES ONLY TO THE ENHANCED AUTOMATIC GUN FEEDERS.

INITIAL SETUP:

Equipment Conditions
WP 0026 00 Automatic gun feeder removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

CAUTION

Place feeder handle in down (locked) position to protect electrical connector on bottom of automatic gun feeder.

REMOVAL

NOTE

The following procedure is written and illustrated for the lower link cover assembly, but also applies to the upper link cover assembly.

Link cover assembly is used for both the upper and lower link bridges.

1. PLACE AUTOMATIC GUN FEEDER ON A CLEAN, FLAT SURFACE.

Position automatic gun feeder (1) with feeder handle (2) down as shown.

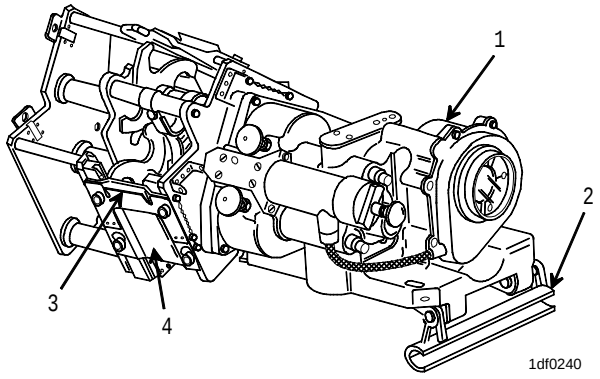
CAUTION

Link cover assembly can be damaged if cover assembly spring latch is raised too far.

2. REMOVE LINK COVER ASSEMBLY.

   a. Lift up cover assembly spring latch (3) approximately 1/4 in. (6 mm).

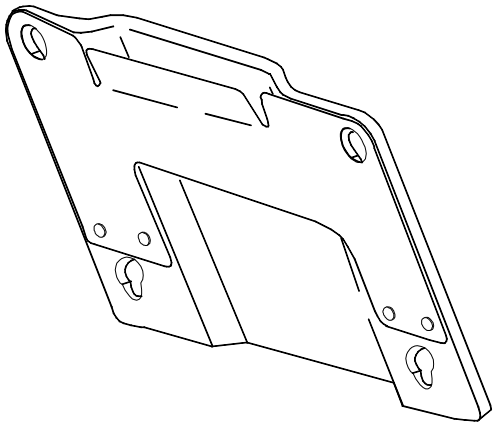
   b. Slide cover assembly (4) down, and remove from feeder assembly (1).



INSPECTION

INSPECT LINK COVER ASSEMBLY.

Visually inspect link cover assembly for chips, cracks, bends, and loose or missing rivets. If any of these conditions are found, replace link cover assembly.



INSTALLATION

NOTE

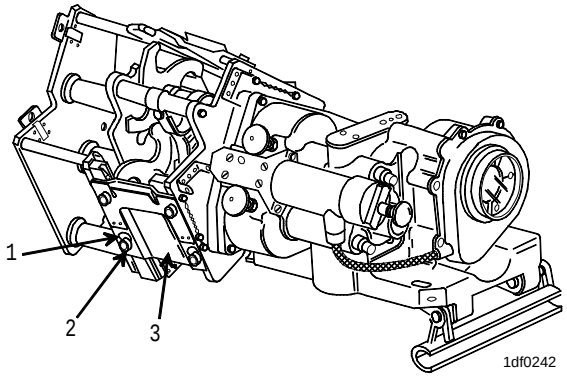
The following procedure is written and illustrated for the lower link cover assembly, but also applies to the upper link cover assembly.

Link cover assembly is used for both the upper and lower link bridges.

1. INSTALL LINK COVER ASSEMBLY.

   a. Align link cover mounting holes (1) over link stripper buttons (2).

   b. Push link cover assembly (3) down and slide until locked in place.



2. ALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

LINK STRIPPER BUTTON REMOVAL/INSTALLATION
REMOVAL, INSTALLATION
THIS WORK PACKAGE APPLIES ONLY TO THE ENHANCED AUTOMATIC GUN FEEDERS.

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)
Torque Wrench, 0-200 in-lb (item 54, WP 0085 00)

Materials/Parts
Adhesive (item 1, WP 0116 00)
Button (2) (item 4, WP 0090 00)
Button (2) (item 11, WP 0090 00)
Button (2) item 28, WP 0090 00)
Button (2) item 32, WP 0090 00)
Sealing compound primer (item 20, WP 0116 00)

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0028 00 Link cover assemblies removed (Enhanced Feeder only)

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

CAUTION

Place feeder handle in down (locked) position to protect electrical connector on bottom of automatic gun feeder.

NOTE

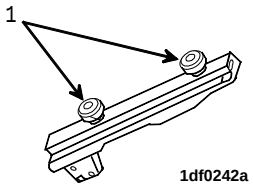
Only perform this procedure if the link stripper buttons are damaged or loose.

This task is typical for all link stripper buttons.

REMOVAL

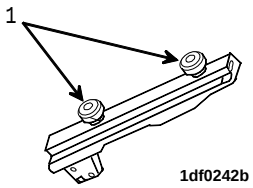
REMOVE LINK STRIPPER BUTTONS (1).

Remove link stripper buttons (1) as required.



INSTALLATION

1. INSTALL LINK STRIPPER BUTTONS (1).
   a. Apply primer and adhesive to thread of link stripper buttons (1).
   b. Install link stripper buttons (1).
   c. Torque to 80 in-lbs +/- 5 in lbs (9.04 N-m +/- 0.57 N-m).



2. INSTALL LINK COVER ASSEMBLY (WP 0028 00).
3. INSTALL AUTOMATIC GUN FEEDER (WP 0026.00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

LINK SHIELD REMOVAL/INSTALLATION
REMOVAL, INSPECTION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit
(item 41, WP 0085 00)

Equipment Conditions
WP 0026 00 Automatic gun feeder removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

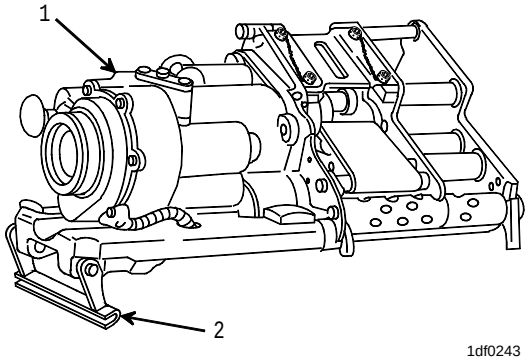
CAUTION

Place feeder handle in down (locked) position to protect electrical connector on bottom of automatic gun feeder.

REMOVAL

1. PLACE AUTOMATIC GUN FEEDER ON A CLEAN, FLAT SURFACE.

   Position automatic gun feeder (1) with feeder handle (2) down.

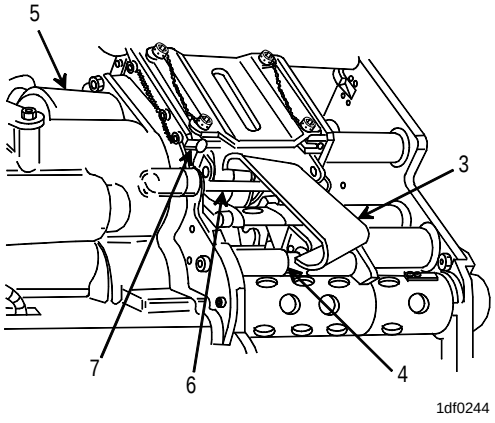


2. REMOVE LINK SHIELD.

   a. Pry up on link shield (3) until it springs away from lower right stepped spacer (4).

   b. Lift link shield (3) about 1 in. (25.4 mm). Push link shield (3) toward feeder drive assembly (5) until small curved portion of link shield (3) is clear of feeder standoff (6) and is under rear upper link stripper (7).

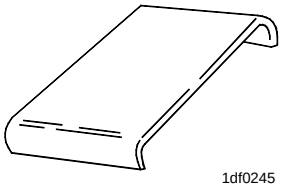
   c. Lift and rotate link shield (3) to the right. Remove link shield (3) from feeder drive assembly (5).



INSPECTION

INSPECT LINK SHIELD.

Visually inspect link shield for bends and cracks. If either of these conditions are found, replace link shield.



INSTALLATION

CAUTION

Do not force link shield into place. Link shield must be gently maneuvered under forward upper link stripper.

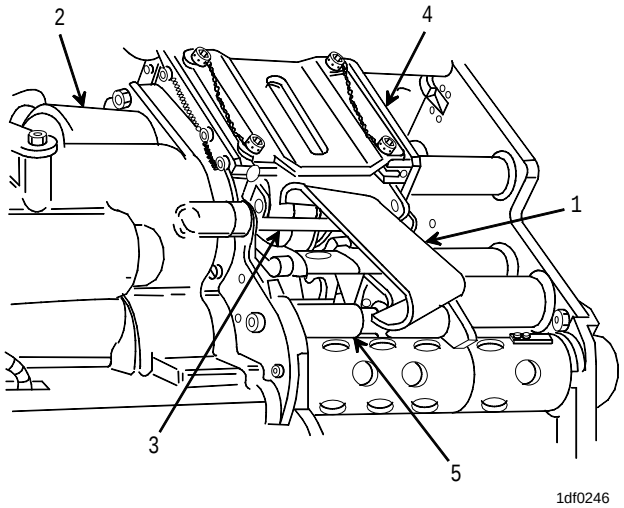
1. INSTALL LINK SHIELD.

   a. Position link shield (1) with small curved portion of shield down and toward feeder drive assembly (2). Place upper right corner of shield over feeder standoff (3) and under forward upper link stripper (4).

   b. Lower the left side of the link shield (1) until shield is resting on feeder standoff (3).

   c. Pull link shield (1) out and down until small curved portion of shield is firmly seated on feeder standoff (3).

   d. Push down on lower center portion of link shield (1) with thumb until large curve of shield snaps down over lower right stepped spacer (5).



2. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

FORWARD LINK STRIPPER REMOVAL/INSTALLATION REMOVAL, INSPECTION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
- Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
- Common #2 shop equipment (item 34, WP 0085 00)
- Goggles (item 19, WP 0085 00)
- Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
- Adhesive (item 1, WP 0116 00)
- Lockwire (item 33, WP 0116 00)
- Sealing compound primer (item 20, WP 0116 00)

Equipment Conditions
- WP 0026 00 Automatic gun feeder removed
- WP 0027 00 Link bridges removed (Standard Feeder only)
- WP 0028 00 Link cover assemblies removed (Enhanced Feeder only)

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

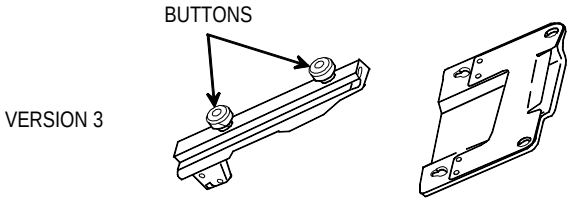
Keep your fingers away from moving parts of gun. Serious injury or death may occur.

CAUTION

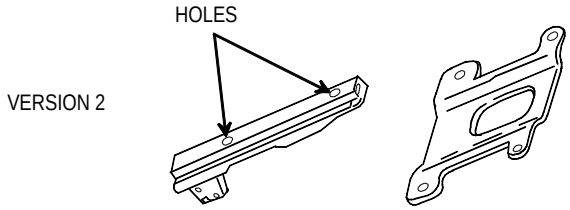
Place feeder handle in down (locked) position to protect electrical connector on bottom of automatic gun feeder.

NOTE

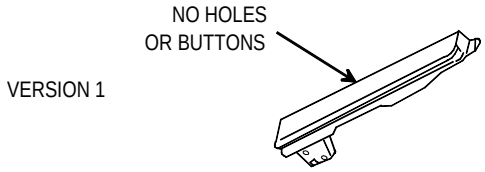
There are three types of link strippers used on the M242 feeder assembly. The enhanced feeder requires link strippers (Version 3) with attached buttons. These link strippers are used with the cover assembly. Newer standard feeders use link strippers (Version 2) drilled to accept two capscrews and the link bridge.
Older standard feeders were produced with link strippers (Version 1) without buttons or holes and do not use either the cover assembly or the link bridge. These link strippers are no longer available. If a link stripper on a standard gun requires replacement, the stripper and its mate must be replaced with a forward and rear link stripper (Version 2) and the appropriate link bridge. The replacement procedures are similar for all types of link strippers.



ENHANCED FEEDER LINK STRIPPERS AND COVER ASSEMBLY
(USED WITH FORWARD FEED ASSEMBLY 12524574
AND REAR PLATE ASSEMBLY 12524575)



STANDARD FEEDER LINK STRIPPERS AND LINK BRIDGE
(USED WITH FORWARD FEED ASSEMBLY 12524273 OR 12524120
AND REAR PLATE ASSEMBLY 12524190)



STANDARD FEEDER LINK STRIPPER (NO LONGER
AVAILABLE - REPLACE WITH LINK STRIPPERS
AND LINK BRIDGE)

1df0247

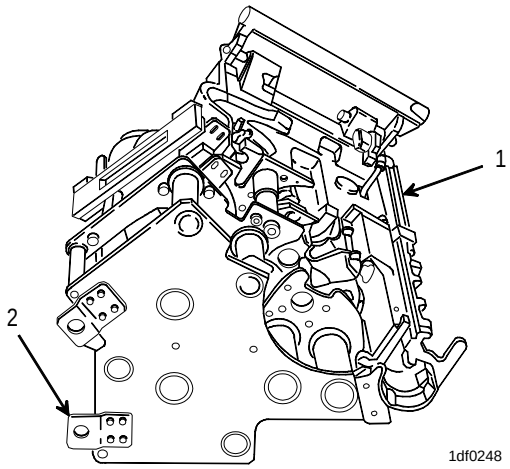
REMOVAL

NOTE

The following procedure is written and illustrated for the forward lower link stripper, but also applies to the forward upper link stripper.

1. PLACE AUTOMATIC GUN FEEDER ON A CLEAN, FLAT SURFACE.

   Position automatic gun feeder (1) with ejection chute bracket (2) on bottom.



WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

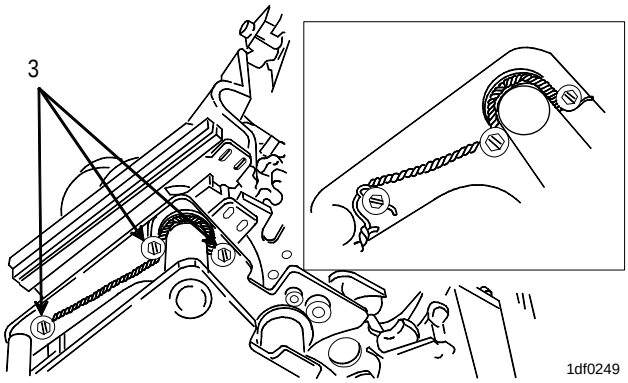
Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

2. REMOVE LOCKWIRE FROM CAPSCREWS.

   Remove lockwire from three capscrews (3).

3. REMOVE CAPSCREWS.

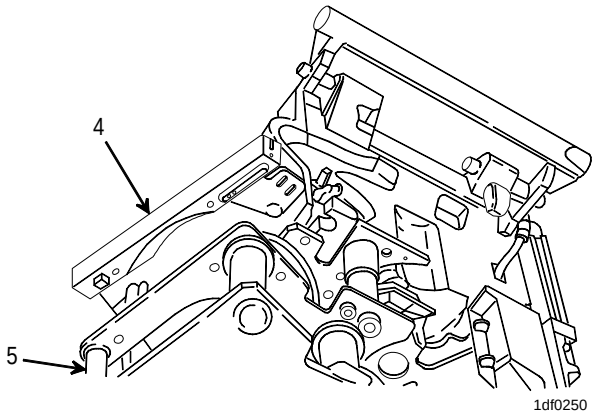
   Remove three capscrews (3).



REMOVAL - Continued

4. REMOVE FORWARD LOWER LINK STRIPPER.

   Lift forward lower link stripper (4) away from forward feed assembly (5).



INSPECTION

NOTE

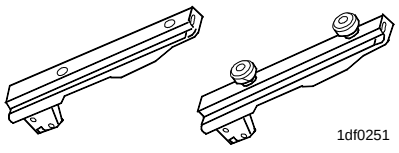
Remove any preservative coating from forward link strippers before inspection.

INSPECT FORWARD LINK STRIPPER.

a. Visually inspect forward link stripper for chips, cracks, bends, and damaged threads. If any of these conditions are found, replace forward link stripper.

b. Enhanced Feeders Only: Visually inspect forward link stripper for missing or damaged buttons. If either of these conditions are found, replace forward link stripper.

c. Enhanced Feeders Only: Visually inspect forward link stripper for loose buttons. If buttons are loose, apply primer and adhesive. Torque buttons to 80 in.-lb ± 5 in.-lb (9.04 N-m ± 0.57 N-m).



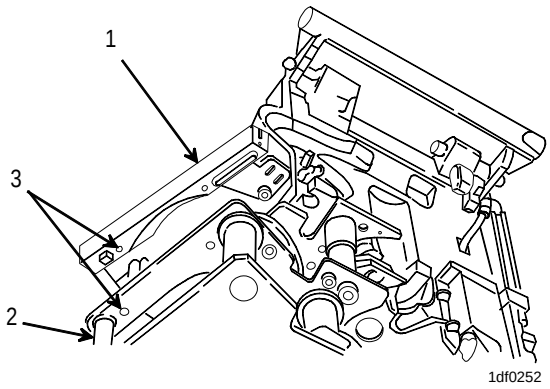
INSTALLATION

NOTE

The following procedure is written and illustrated for the forward lower link stripper, but also applies to the forward upper link stripper.

1. INSTALL FORWARD LOWER LINK STRIPPER.

Position forward lower link stripper (1) on forward feed assembly (2). Align mounting holes (3).



INSTALLATION – Continued

2. INSTALL CAPSCREWS.

   a. Install and tighten three capscrews (4).

   b. Torque three capscrews (4) to 60 in.-lb ± 5 in.-lb (6.78 N-m ± 0.57 N-m).

WARNING

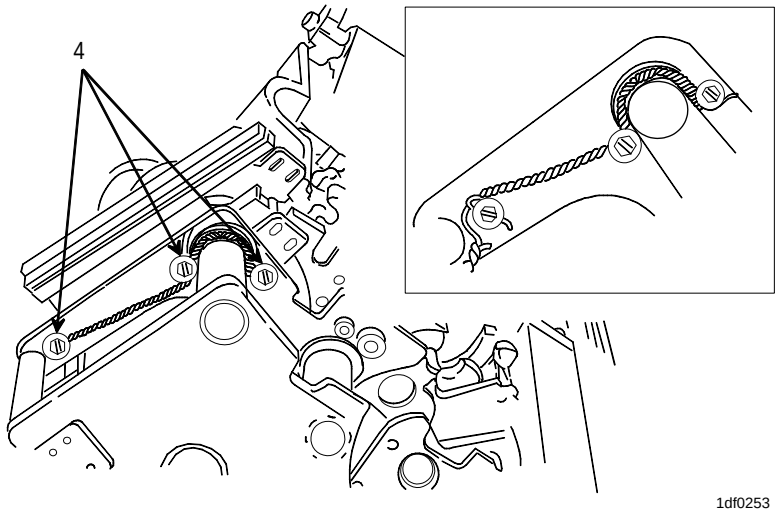
Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

3. INSTALL LOCKWIRE ON CAPSCREWS.

   Lockwire three capscrews (4).



4. INSTALL LINK BRIDGES FOR STANDARD FEEDERS (WP 0027 00) OR INSTALL LINK COVER ASSEMBLIES FOR ENHANCED FEEDERS (WP 0028 00).

5. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

REAR LINK STRIPPER REMOVAL/INSTALLATION
REMOVAL, INSPECTION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
- Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
- Common #2 shop equipment (item 34, WP 0085 00)
- Goggles (item 19, WP 0085 00)
- Turret mechanic's supplemental tool kit (item 44, WP 0085)

Materials/Parts
- Adhesive (item 1, WP 0116 00)
- Lockwire (item 33, WP 0116 00)
- Sealing compound primer (item 20, WP 0116 00)

Equipment Conditions
- WP 0026 00 Automatic gun feeder removed
- WP 0027 00 Link bridges removed (Standard Feeder only)
- WP 0028 00 Link cover assemblies removed (Enhanced Feeder only)

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

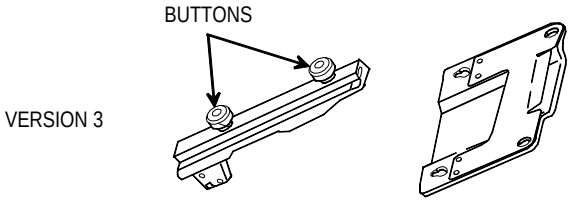
Keep your fingers away from moving parts of gun. Serious injury or death may occur.

CAUTION

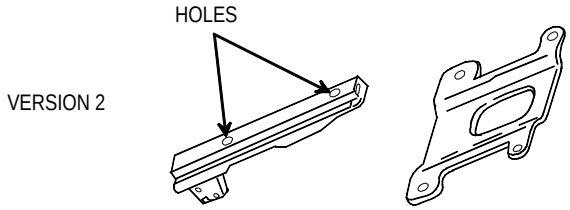
Place feeder handle in down (locked) position to protect electrical connector on bottom of automatic gun feeder.

NOTE

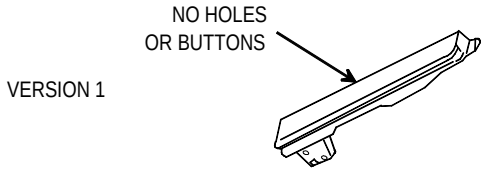
There are three types of link strippers used on the M242 feeder assembly. The enhanced feeder requires link strippers (Version 3) with attached buttons. These link strippers are used with the cover assembly. Newer standard feeders use link strippers (Version 2) drilled to accept two capscrews and the link bridge. Older standard feeders were produced with link strippers (Version 1) without buttons or holes and do not use either the cover assembly or the link bridge. These link strippers are no longer available. If a link stripper on a standard gun requires replacement, the stripper and its mate must be replaced with a forward and rear link stripper (Version 2) and the appropriate link bridge. The replacement procedures are similar for all types of link strippers.



ENHANCED FEEDER LINK STRIPPERS AND COVER ASSEMBLY
(USED WITH FORWARD FEED ASSEMBLY 12524574
AND REAR PLATE ASSEMBLY 12524575)



STANDARD FEEDER LINK STRIPPERS AND LINK BRIDGE
(USED WITH FORWARD FEED ASSEMBLY 12524273 OR 12524120
AND REAR PLATE ASSEMBLY 12524190)



STANDARD FEEDER LINK STRIPPER (NO LONGER
AVAILABLE - REPLACE WITH LINK STRIPPERS
AND LINK BRIDGE)

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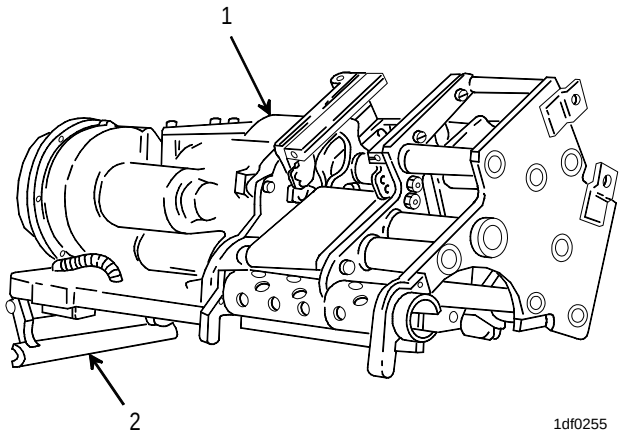
REMOVAL

NOTE

The following procedure is written and illustrated for the rear upper link stripper, but also applies to rear lower link stripper.

1. PLACE AUTOMATIC GUN FEEDER ON A CLEAN, FLAT SURFACE.

   Position automatic gun feeder (1) with feeder handle (2) down as shown.



WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

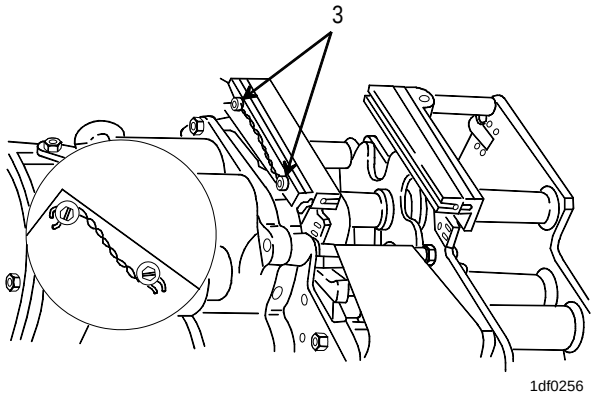
Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

2. REMOVE LOCKWIRE FROM CAPSCREWS.

   Remove lockwire from two capscrews (3).

3. REMOVE CAPSCREWS.

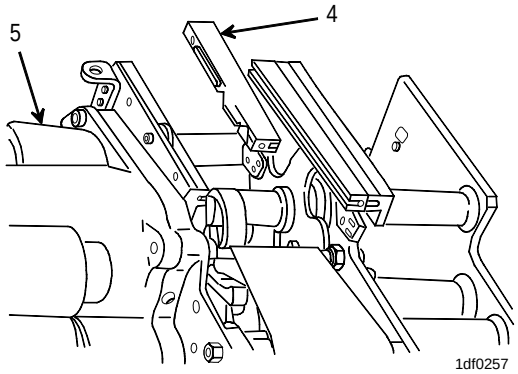
   Remove two capscrews (3).



REMOVAL - Continued

4. REMOVE REAR UPPER LINK STRIPPER.

   Lift rear upper link stripper (4) away from feeder drive assembly (5).



INSPECTION

NOTE

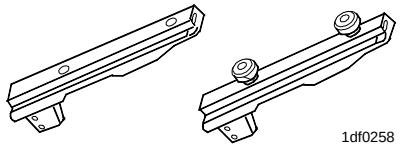
Remove any preservative coating from rear link stripper before inspection.

INSPECT REAR LINK STRIPPER.

a. Visually inspect rear link stripper for chips, cracks, bends, and damaged threads. If any of these conditions are found, replace rear link stripper.

b. Enhanced Feeders Only: Visually inspect rear link stripper for missing or damaged buttons. If either of these conditions are found, replace rear link stripper.

c. Enhanced Feeders Only: Visually inspect rear link strippers for loose buttons. If buttons are loose, apply sealing compound primer and adhesive. Torque buttons to 80 in.-lb ± 5 in.-lb (9.04 N-m ± 0.57 N-m).



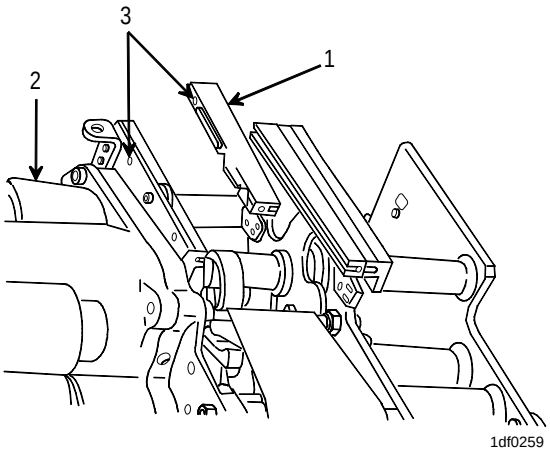
INSTALLATION

NOTE

The following procedure is written and illustrated for the rear upper link stripper, but also applies to the rear lower link stripper.

1. INSTALL REAR UPPER LINK STRIPPER.

   Position rear upper link stripper (1) on feeder drive assembly (2). Align mounting holes (3).



2. INSTALL CAPSCREWS.

   a. Install and tighten two capscrews (4).

   b. Torque two capscrews (4) to 60 in.-lb ± 5 in.-lb (6.78 N-m ± 0.57 N-m).

WARNING

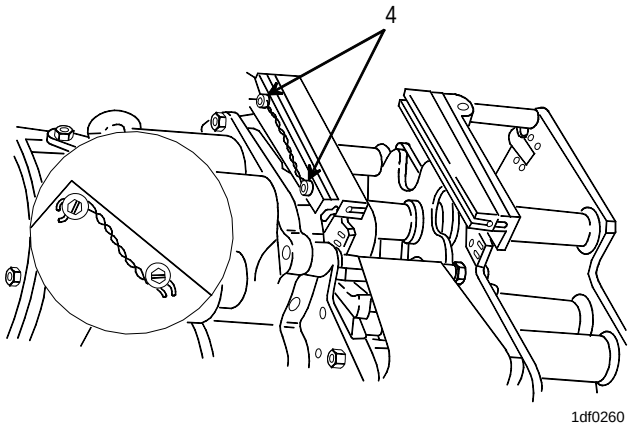
Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

3. INSTALL LOCKWIRE ON CAPSCREWS.

   Lockwire two capscrews (4).



4. INSTALL LINK BRIDGES FOR STANDARD FEEDERS (WP 0027 00) OR INSTALL LINK COVER ASSEMBLIES FOR ENHANCED FEEDERS (WP 0028 00).

5. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

EJECTION CHUTE REMOVAL/INSTALLATION
REMOVAL, INSPECTION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Goggles (item 19, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
Lockwire (item 33, WP 0116 00)

Equipment Conditions
WP 0026 00 Automatic gun feeder removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

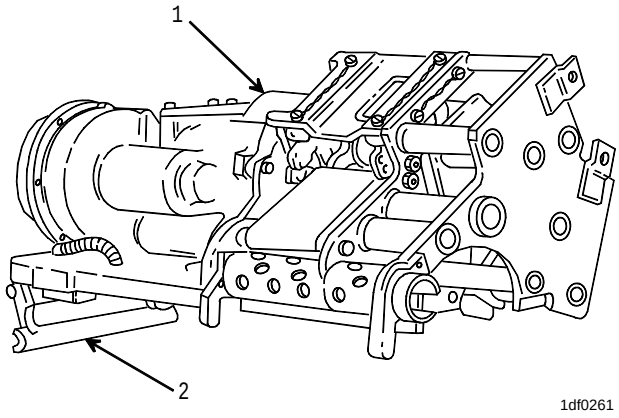
CAUTION

Place feeder handle in down (locked) position to protect electrical connector on bottom of automatic gun feeder.

REMOVAL

1. PLACE AUTOMATIC GUN FEEDER ON A CLEAN, FLAT SURFACE.

   Position automatic gun feeder (1) with feeder handle (2) down.



WARNING

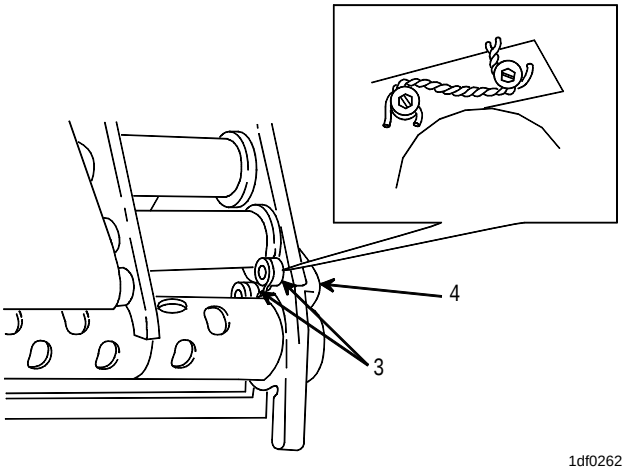
Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

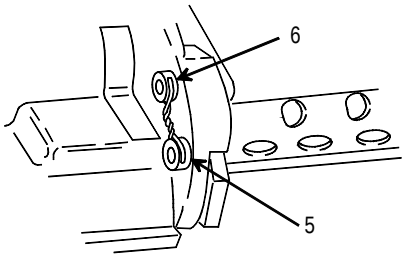
Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

2. REMOVE LOCKWIRE FROM FORWARD CAPSCREWS AND REAR UPPER CAPSCREWS.

   a. Remove lockwire from two forward capscrews (3) on ejection chute (4).

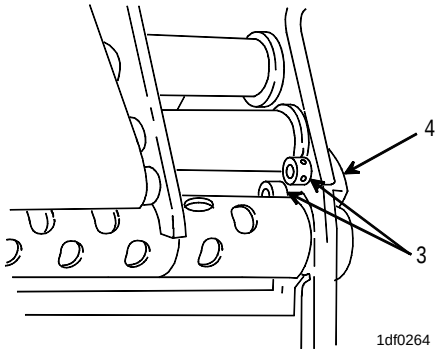


b. Remove lockwire from rear upper capscrews (5) and (6).

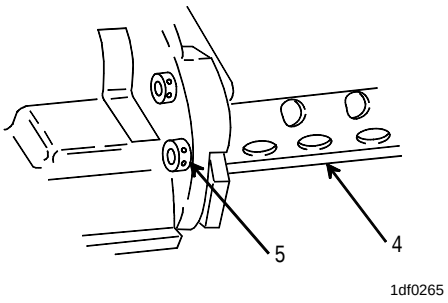


3. REMOVE FORWARD CAPSCREWS AND REAR UPPER CAPSCREW.

a. Remove two forward capscrews (3) from ejection chute (4).



b. Remove only the rear upper capscrew (5) from ejection chute (4).



REMOVAL - Continued

4. POSITION FEEDER DRIVE ASSEMBLY.

   Position feeder drive assembly (7) with ejection chute (4) up.

WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

5. REMOVE LOCKWIRE FROM REAR LOWER CAPSCREWS.

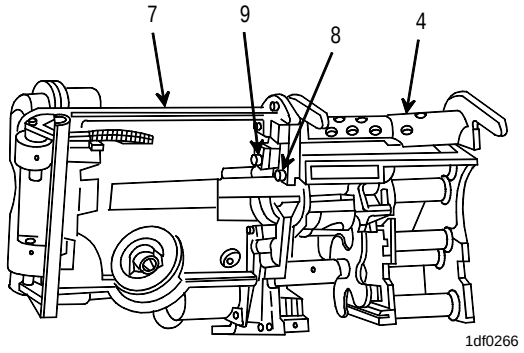
   Remove lockwire from rear lower capscrews (8) and (9).

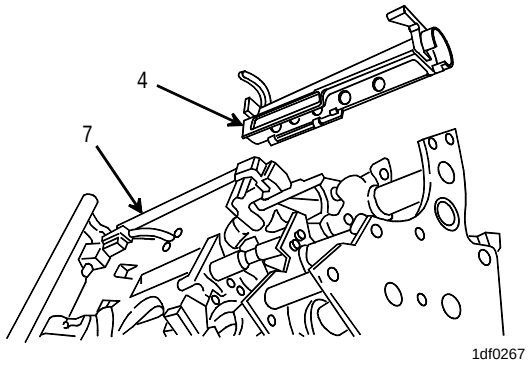
6. REMOVE REAR LOWER CAPSCREW.

   Remove only the rear lower capscrew (8) from feeder drive assembly (7).

7. REMOVE EJECTION CHUTE.

   Pull ejection chute (4) away from feeder drive assembly (7).

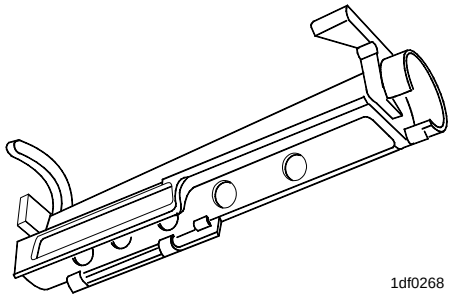




INSPECTION

INSPECT EJECTION CHUTE.

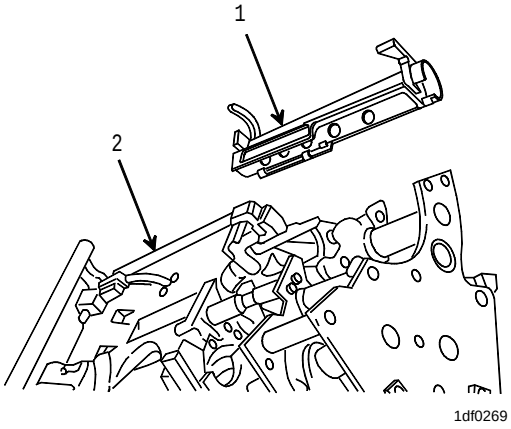
Visually inspect ejection chute for chips, cracks, bends, and stripped threads. If any of these conditions are found, replace ejection chute.



INSTALLATION

1. INSTALL EJECTION CHUTE.

   Position ejection chute (1) on feeder drive assembly (2). Align ejection chute and feeder drive assembly mounting holes.

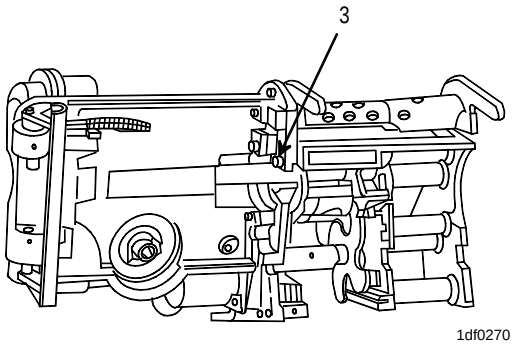


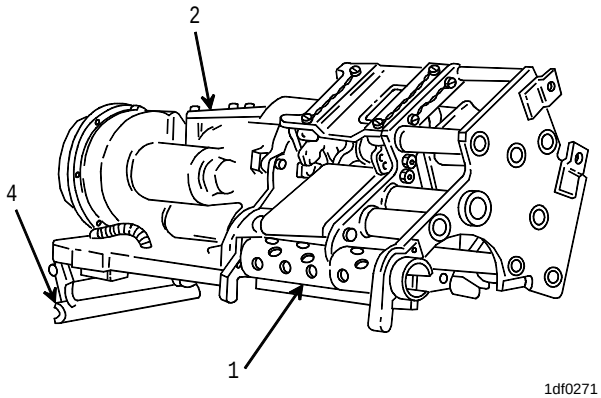
2. INSTALL REAR LOWER CAPSCREW.

   Loosely install rear lower capscrew (3).

3. POSITION FEEDER DRIVE ASSEMBLY.

   Position feeder drive assembly (2) with feeder handle (4) down and ejection chute (1) on bottom as shown.





INSTALLATION - Continued

4. INSTALL REAR UPPER CAPSCREW AND FORWARD CAPSCREWS.

   a. Loosely install rear upper capscrew (5) and forward capscrew (6).

   b. Install and tighten forward capscrew (7).

5. TORQUE FORWARD CAPSCREW AND TWO REAR CAPSCREWS.

   Tighten and torque two rear capscrews (3) and (5) and forward capscrew (6) to 60 in.-lb ± 5 in.-lb (6.78 N-m ± 0.57 N-m).

WARNING

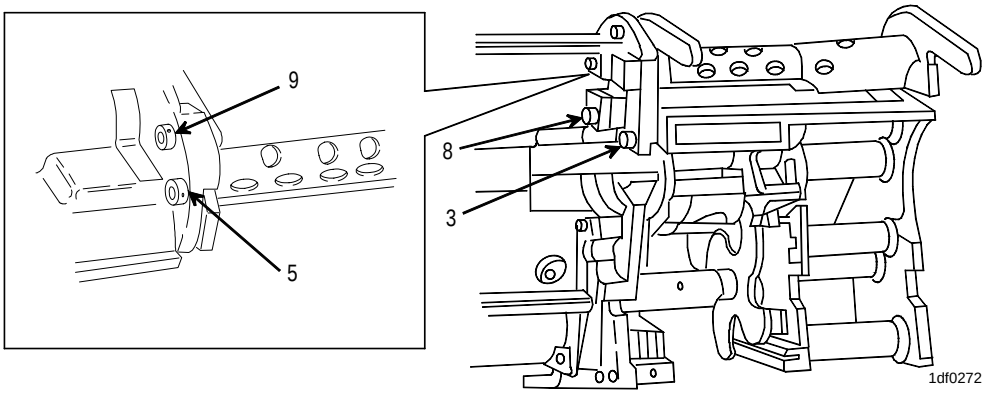
Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

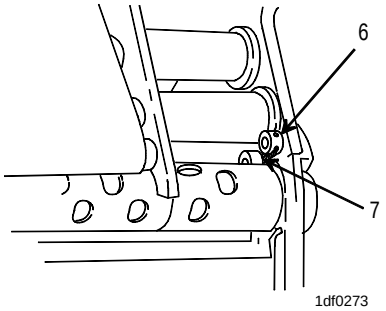
CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

6. INSTALL LOCKWIRE ON FORWARD AND REAR CAPSCREWS.

   Lockwire two forward capscrews (6) and (7), two rear capscrews (3) and (8), and two rear capscrews (5) and (9).





7. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

FORWARD FEEDER GATE REMOVAL/INSTALLATION REMOVAL, INSPECTION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Common #2 shop equipment, (item 34, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
Self-locking nut (12524617-1)

Personnel Required
Two

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0027 00 Link bridges removed (Standard Feeder only)
WP 0028 00 Link cover assemblies removed (Enhanced Feeder only)

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

CAUTION

Place feeder handle in down (locked) position to protect electrical connector on bottom of automatic gun feeder.

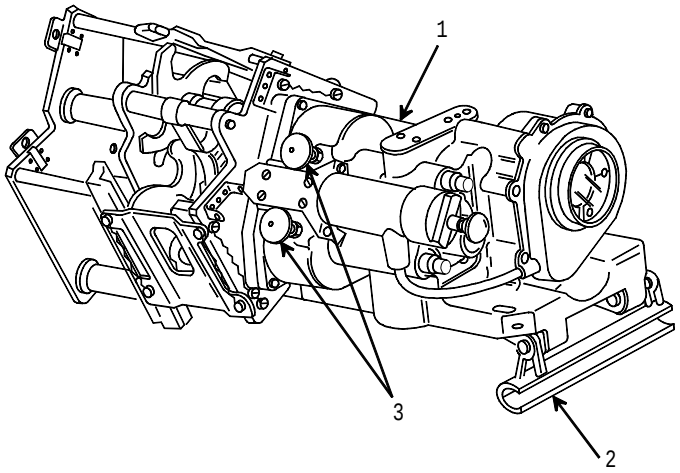
REMOVAL

1. POSITION AUTOMATIC GUN FEEDER.

   Place automatic gun feeder (1) on a clean, flat surface with feeder handle (2) in down position as shown.

2. GAIN ACCESS TO FORWARD FEEDER GATE CAPSCREWS.

   a. Pull out on both feed shaft stop buttons (3). Hold buttons out until next step is complete.



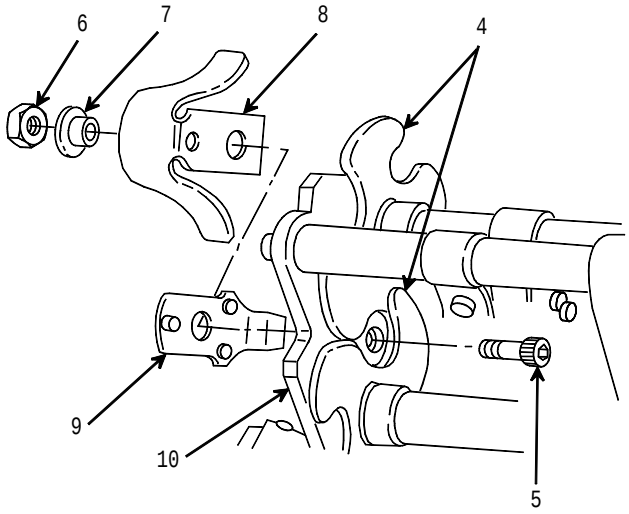
1df0274

   b. Turn upper and lower feed sprocket assemblies (4) until capscrew (5) is visible.

3. REMOVE FORWARD FEEDER GATE.

   a. Remove and discard self-locking nut (6).

   b. Remove capscrew (5), sleeve spacer (7), special spring (8), and forward feeder gate (9) from forward feed assembly (10).



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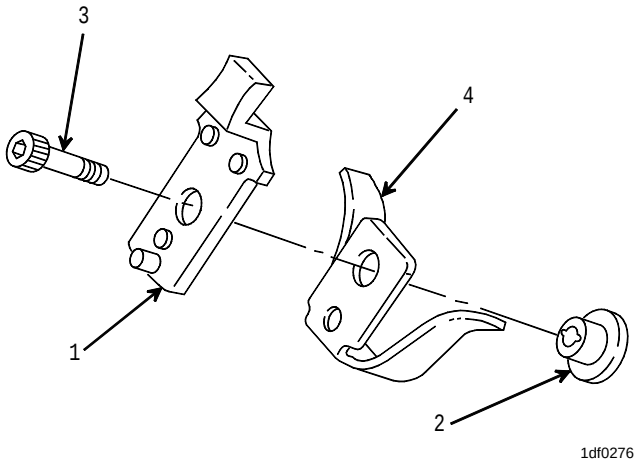
INSPECTION

INSPECT FORWARD FEEDER GATE PARTS.

a. Visually inspect forward feeder gate (1) and sleeve spacer (2) for bends, breaks, and galls. If any of these conditions are found, replace defective part.

b. Visually inspect capscrew (3) for stripped threads. If stripped threads are found, replace capscrew.

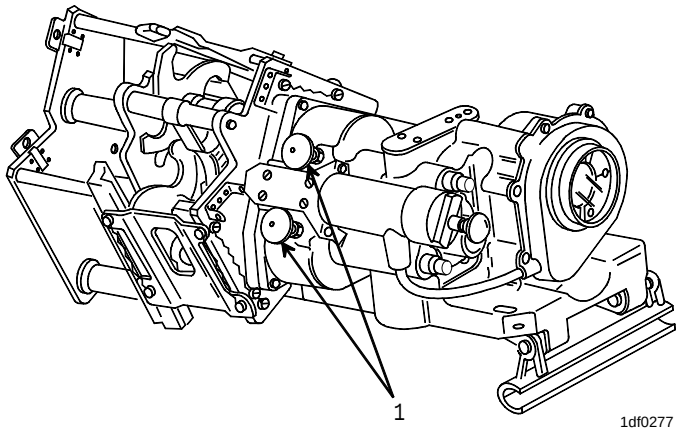
c. Visually inspect special spring (4) for bends and breaks. If either of these conditions are found, replace special spring.



INSTALLATION

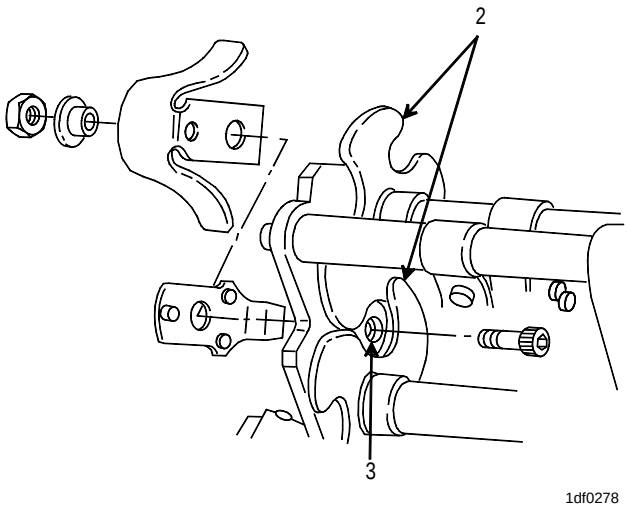
1. GAIN ACCESS TO FORWARD FEEDER GATE MOUNTING HOLE.

a. Pull out both feed shaft stop buttons (1).



INSTALLATION – Continued

b. Turn upper and lower feed sprocket assemblies (2) until mounting hole (3) is visible.

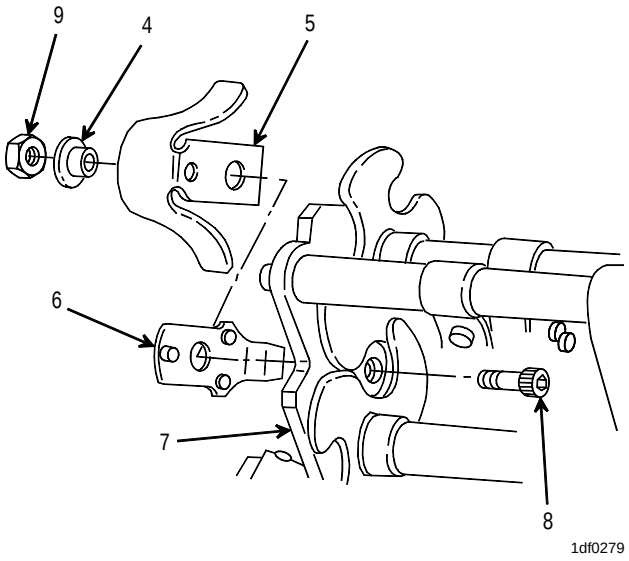


2. INSTALL FORWARD FEEDER GATE.

a. Assemble sleeve spacer (4), special spring (5), and forward feeder gate (6).

b. Compress special spring (5) while installing subassembly into forward feed assembly (7).

c. Insert capscrew (8) through forward feed assembly (7) and install new self-locking nut (9).



NOTE

Capscrew and self-locking nut threads and bearing surfaces must be free of lubricant while capscrew is being tightened.

3. TORQUE CAPSCREW.

   Hold new self-locking nut (9) and torque capscrew (8) to 60 in.-lb ± 5 in.-lb (6.78 N-m ± 0.57 N-m).

4. INSTALL LINK BRIDGES FOR STANDARD FEEDER (WP 0027 00) OR INSTALL LINK COVER ASSEMBLIES FOR ENHANCED FEEDER (WP 0028 00).

5. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

FORWARD FEED ASSEMBLY AND CARTRIDGE GUIDE REMOVAL/INSTALLATION REMOVAL, INSPECTION, LUBRICATION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Goggles (item 19, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Grease (item 11, WP 0116 00)
Lockwire (item 33, WP 0116 00)
Self-locking nut (12524617-1)

References
WP 0007 00
WP 0033 00
WP 0035 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0027 00 Link bridges removed (Standard Feeder only)
WP 0028 00 Link cover assemblies removed (Enhanced Feeder only)
WP 0029 00 Link shield removed
WP 0030 00 Forward link strippers removed
WP 0032 00 Ejection chute removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

CAUTION

Place feeder handle in down (locked) position to protect electrical connector on bottom of automatic gun feeder.

NOTE

The Enhanced Feeder must use PN 12524574 Forward Feed Assembly to accommodate the link cover assemblies. The Standard Feeder may use PN 12524273 or 12524574 with the link bridges.

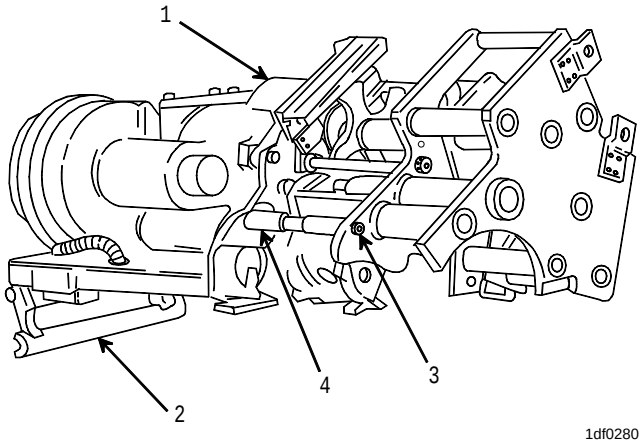
REMOVAL

1. POSITION FEEDER DRIVE ASSEMBLY.

   Place feeder drive assembly (1) on a clean, flat surface with feeder handle (2) down.

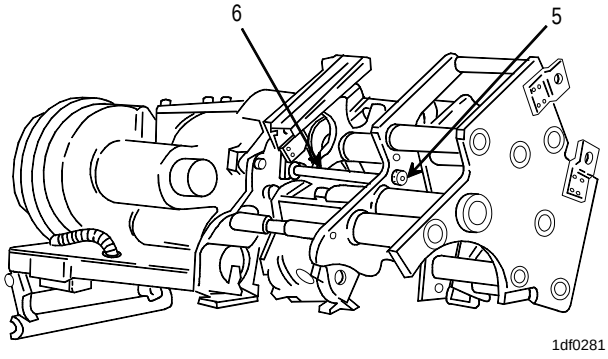
2. REMOVE CAPSCREW.

   Remove capscrew (3) from lower right stepped spacer (4).



3. REMOVE SELF-LOCKING NUT.

   Remove self-locking nut (5) from feeder standoff (6). Discard self-locking nut.



4. POSITION FEEDER DRIVE ASSEMBLY.

   Position feeder drive assembly (1) with lower feed sprocket assembly (7) up.

WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

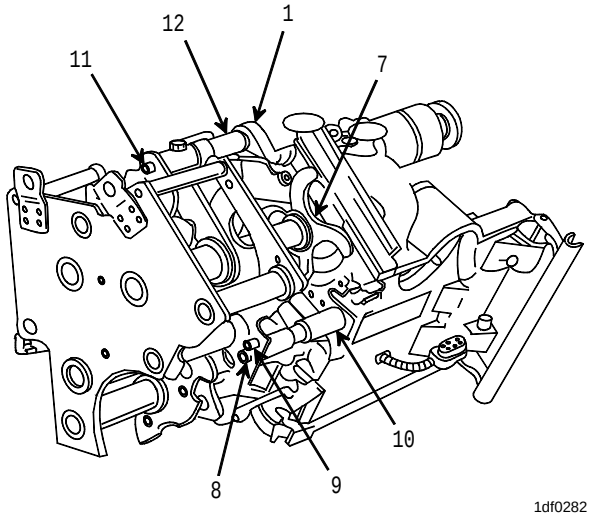
5. REMOVE LOCKWIRE FROM CAPSCREWS.

   Remove lockwire from capscrews (8) and (9).

6. REMOVE CAPSCREWS.

   a. Remove capscrew (8) from lower left stepped spacer (10).

   b. Remove capscrew (11) from upper left stepped spacer (12).



REMOVAL – Continued

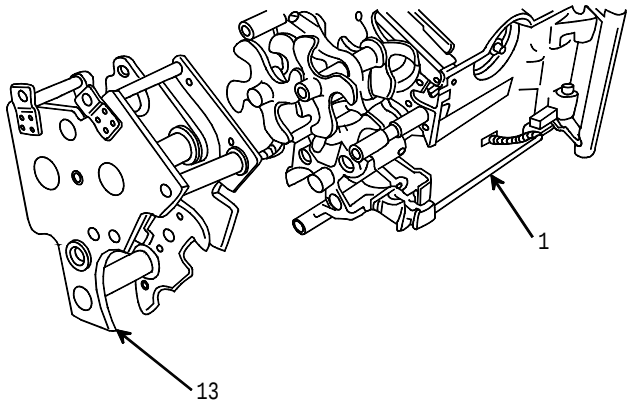
7. REMOVE FORWARD FEED ASSEMBLY.

CAUTION

If the forward link strippers were not removed, the upper and lower feed sprockets must be rotated to provide clearance from the forward link strippers.

a. Pull forward feed assembly (13) away from feeder drive assembly (1).

b. Remove forward feed assembly (13).



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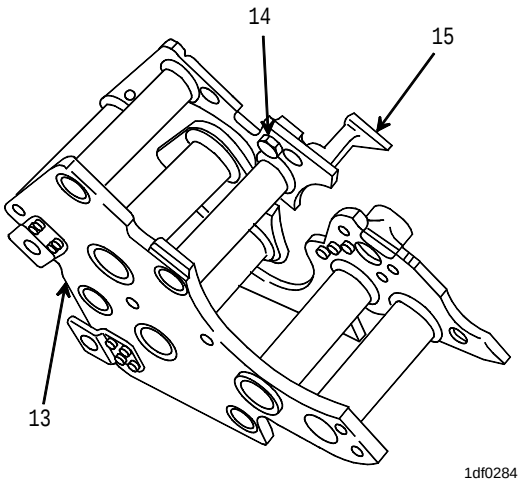
8. REMOVE FORWARD FEEDER GATE (WP 0033 00).

9. REMOVE CARTRIDGE GUIDE CAPSCREW.

Remove capscrew (14) from cartridge guide (15).

10. REMOVE CARTRIDGE GUIDE.

Pull cartridge guide (15) away from forward feed assembly (13).



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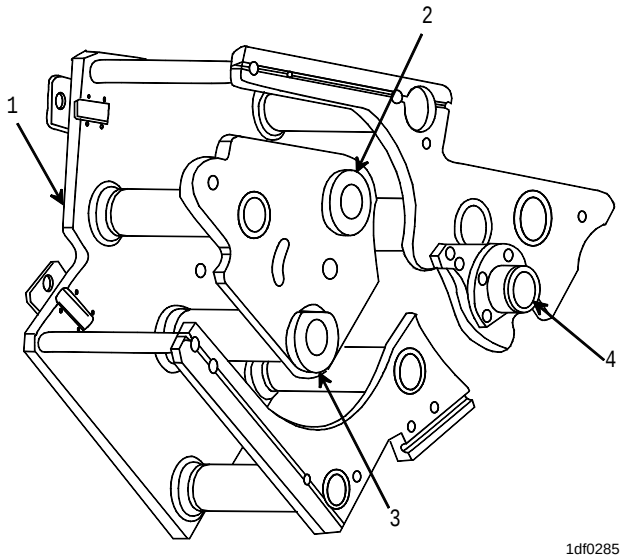
INSPECTION

1. INSPECT FORWARD FEED ASSEMBLY.

   a. Visually inspect forward feed assembly (1) for cracks and broken parts. If either of these conditions are found, replace forward feed assembly.

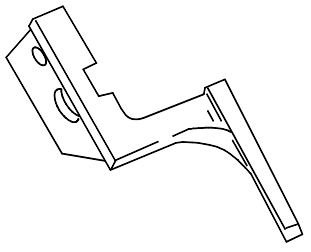
   b. Visually inspect inside diameters of upper bushing (2) and lower bushing (3) for scoring, galling, and pitting. If any of these conditions are found, replace defective bushing(s) (WP 0035 00).

   c. Visually inspect inside diameter of support (4) for scoring, galling, and pitting. If any of these conditions are found, replace forward feed assembly.



2. INSPECT CARTRIDGE GUIDE.

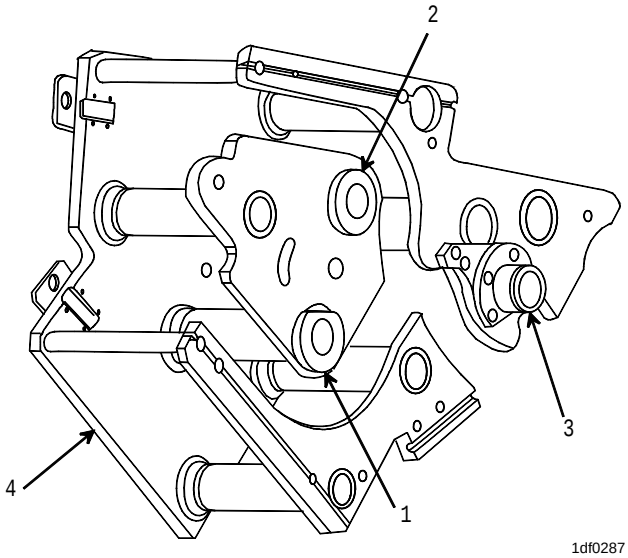
   Visually inspect cartridge guide for chips, bent guide, and galls. If any of these conditions are found, replace cartridge guide.



LUBRICATION

LUBRICATE FORWARD FEED ASSEMBLY BUSHINGS.

Using acid brush, apply light coat of grease to two bushings (1) and (2), and support (3) on forward feed assembly (4).

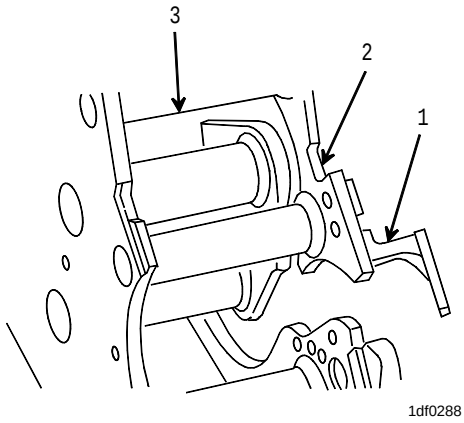


INSTALLATION

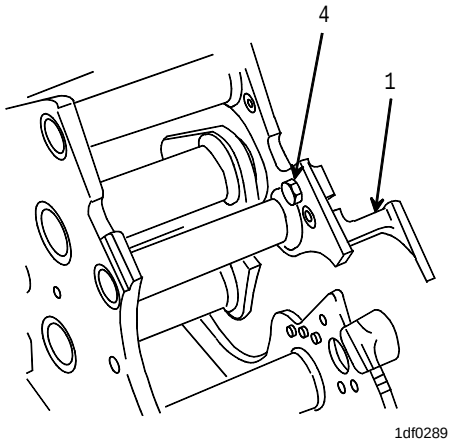
1. INSTALL CARTRIDGE GUIDE.

   a. Install cartridge guide (1) in slot (2) of forward feed assembly (3).

   b. Slide cartridge guide (1) in slot (2) until cartridge guide holes align with holes in forward feed assembly (3).



c. Install capscrew (4) in cartridge guide (1) and torque to 60 in.-lb ± 5 in.-lb (6.78 N-m ± 0.57 N-m).



2. INSTALL FORWARD FEEDER GATE (WP 0033 00).

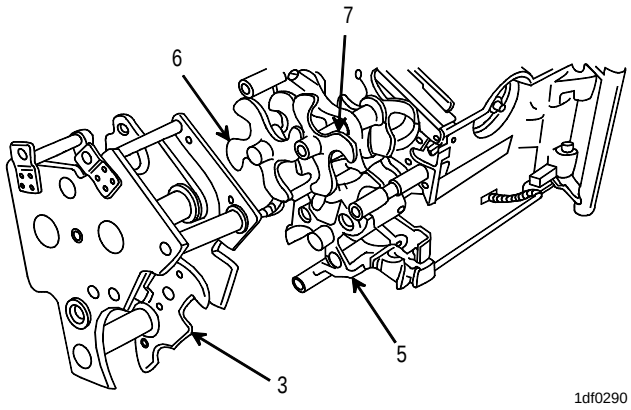
3. INSTALL FORWARD FEED ASSEMBLY.

NOTE

Feed sprocket may need to be pulled against rounds positioner spring tension to align holes.

a. Align forward feed assembly (3) with feeder assembly rotor (5) and upper and lower feed sprocket assemblies (6) and (7).

b. Push forward feed assembly (3) until feeder assembly rotor (5) and upper feed and lower feed sprocket assemblies (6) and (7) are seated.



INSTALLATION – Continued

WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

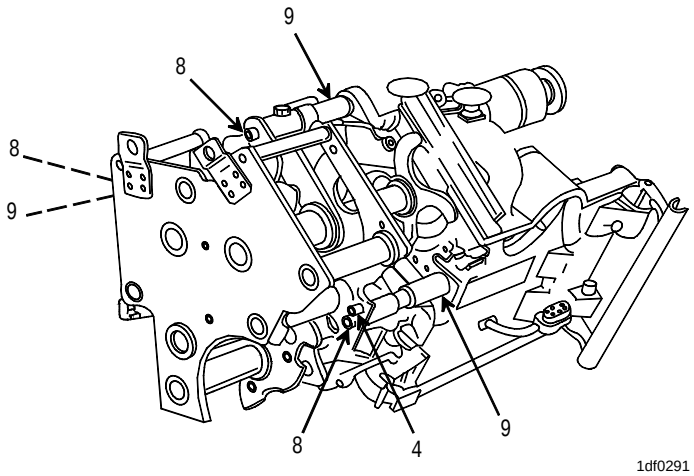
CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

4. INSTALL CAPSCREWS.

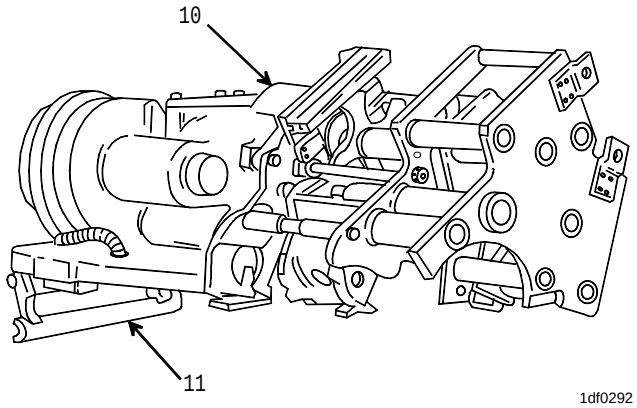
   a. Install three capscrews (8) into three stepped spacers (9). Torque three capscrews (8) to 160 in.-lb ± 10 in.-lb (18.08 N-m ± 1.13 N-m).

   b. Lockwire capscrew (4) to nearest capscrew (8).



5. POSITION FEEDER DRIVE ASSEMBLY.

   Place feeder drive assembly (10) on a clean, flat surface with feeder handle (11) down.

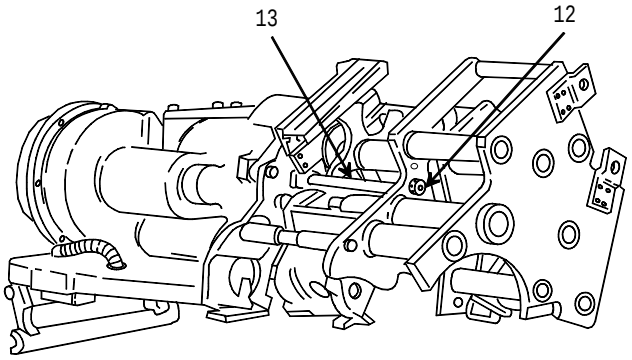


6. INSTALL SELF-LOCKING NUT.

NOTE

Do not back off self-locking nut after it has been torqued (tightened). Threads of nut and standoff, and bearing surfaces of nut and forward feed assembly must be free of lubricant while applying torque.

Install new self-locking nut (12) on feeder standoff (13) and torque nut to 67 in.-lb ± 8 in.-lb (7.57 N-m ± 0.90 N-m).



7. INSTALL EJECTION CHUTE (WP 0032 00).

8. INSTALL FORWARD LINK STRIPPERS (WP 0030 00).

9. INSTALL LINK SHIELD (WP 0029 00).

10. INSTALL LINK BRIDGES FOR STANDARD FEEDER (WP 0027 00) OR LINK COVER ASSEMBLIES FOR ENHANCED FEEDER (WP 0028 00).

11. PERFORM AUTOMATIC GUN FEEDER MANUAL CYCLE CHECK (WP 0007 00).

12. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

FORWARD FEED ASSEMBLY DISASSEMBLY/ASSEMBLY DISASSEMBLY, INSPECTION, ASSEMBLY

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's supplemental tool kit (item 44, WP 0085 00)
Goggles (item 19, WP 0085 00)
Turret mechanic's tool kit (item 41, WP 0085 00)

Materials/Parts
Adhesive (item 1, WP 0116 00)
Flanged sleeve bushing (12524215)
Sealing compound primer (item 20, WP 0116 00)
Sleeve bushing (12524213-15)
Sleeve bushing (12524212)
Wooden block (2) (approximately 1/2 in. x 2 in. x 6 in. (12.7 mm x 50.8 mm x 152.4 mm))

Equipment Conditions
WP 0034 00 Forward feed assembly removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Wear eye protection when using striking instruments. You can be blinded if flying chips hit you in the eye.

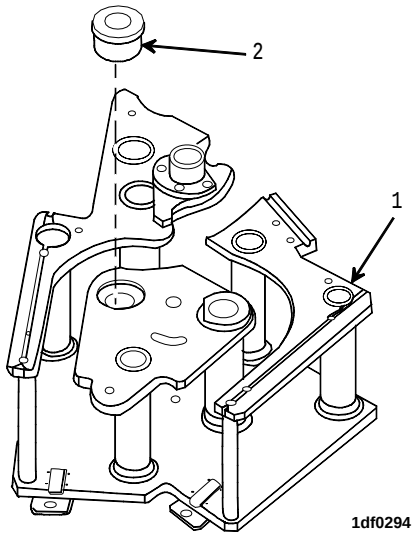
DISASSEMBLY

1. POSITION FORWARD FEED ASSEMBLY.

   Place forward feed assembly (1) on a clean, flat surface.

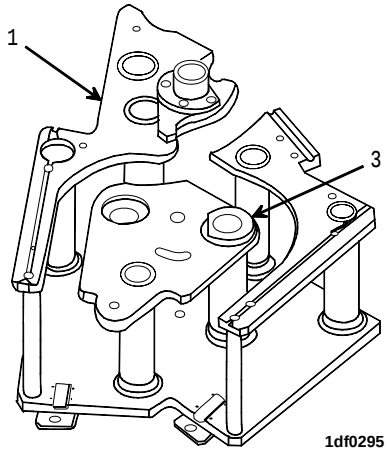
2. REMOVE ROUND FLANGED SLEEVE BUSHING.

   Using inside puller, remove the round sleeve bushing (2) from forward feed assembly (1). Discard round sleeve bushing.



3. REMOVE FLAT-SIDED FLANGED SLEEVE BUSHING.

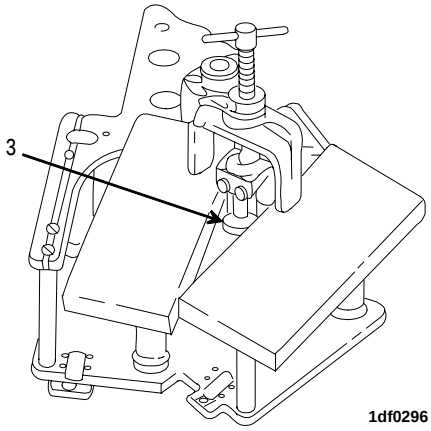
   a. Mark the flat side position of sleeve bushing (3) on forward feed assembly (1).



b. Place two blocks of wood on both sides of the flat-sided sleeve bushing (3).

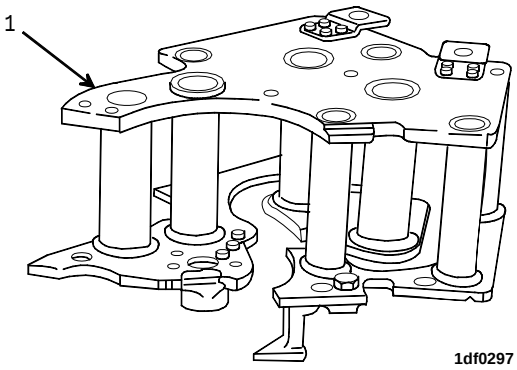
c. Install inside puller into flat-sided sleeve bushing (3) so that the legs of inside puller are on the two blocks of wood.

d. Remove and discard flat-sided sleeve bushing (3).

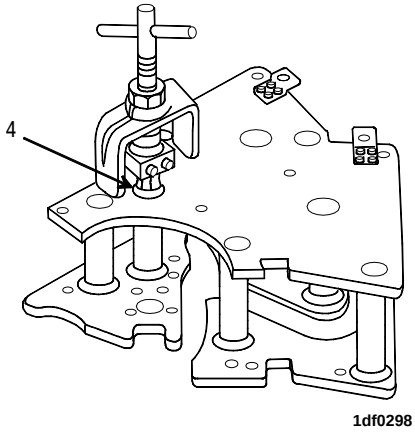


4. REMOVE FLANGED SLEEVE BUSHING.

a. Turn over the forward feed assembly (1).



b. Using inside puller, remove the round flanged sleeve bushing (4). Discard flanged sleeve bushing.



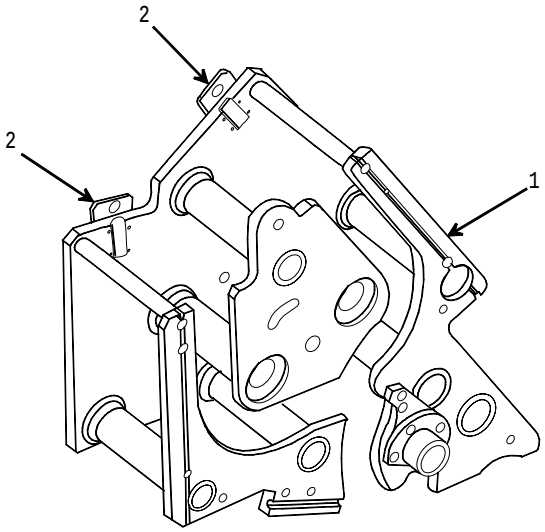
INSPECTION

INSPECT FORWARD FEEDER SUBASSEMBLY.

a. Visually inspect forward feeder subassembly (1) for cracks, chips, breaks, galls, and bends. If any of these conditions are found, replace forward feeder subassembly.

b. Visually inspect mounting brackets (2) for cracks or bends. If either of these conditions are found, replace mounting brackets.

c. Visually inspect mounting brackets (2) for loose or missing rivets. If rivets are missing, install new rivets. Rivet heads must be flush to 0.6 mm below machine surface and flush to 1.0 mm below cast surface.



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ASSEMBLY

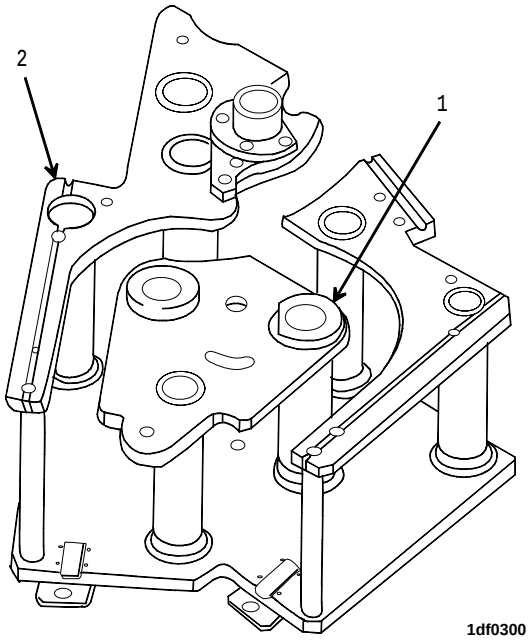
1. INSTALL NEW FLAT-SIDED FLANGED SLEEVE BUSHING.

a. Apply sealing compound primer and adhesive to new flat-sided sleeve bushing (1) and align with marks drawn on the forward feed assembly (2).

NOTE

Ensure that flat in the flange is aligned with the marks drawn on the forward feed assembly when seated.

b. Install new flat-sided sleeve bushing (1) until bushing is seated into forward feed assembly (2).

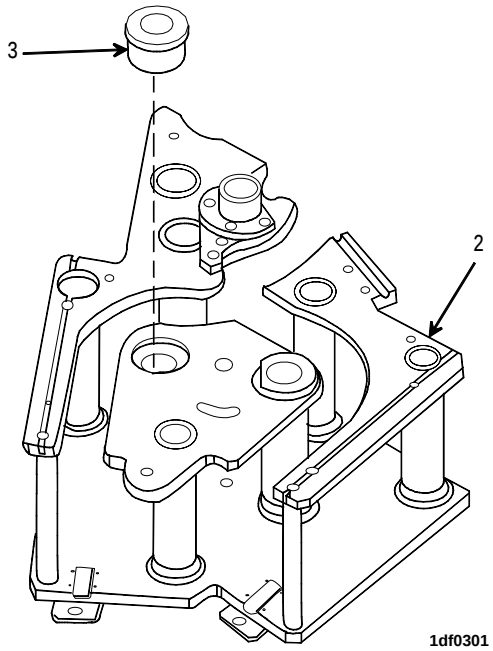


NOTE

The two round sleeve bushings look the same, but one bushing has a large inside bevel on the flanged end. The other has a smaller inside bevel.

2. INSTALL NEW ROUND, SMALL INSIDE-BEVEL SLEEVE BUSHING.

Apply sealing compound primer and adhesive to new round, small inside-bevel sleeve bushing (3) and install until bushing is seated into forward feed assembly (2).

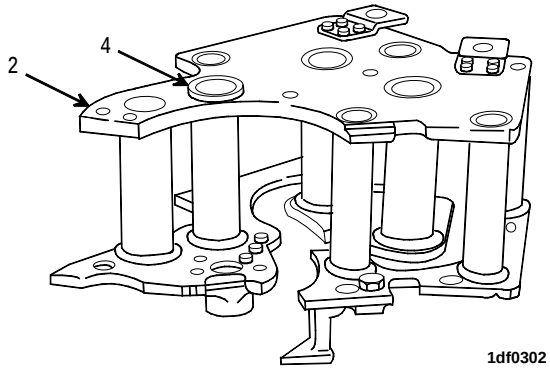


ASSEMBLY – Continued

3. INSTALL NEW ROUND, LARGE INSIDE-BEVEL FLANGED SLEEVE BUSHING.

   a. Turn over forward feed assembly (2).

   b. Apply sealing compound primer and adhesive to new round, large inside-bevel flanged sleeve bushing (4) and install until bushing is seated into forward feed assembly (2).



4. INSTALL FORWARD FEED ASSEMBLY (WP 0034 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

FEEDER ASSEMBLY ROTOR REMOVAL/INSTALLATION REMOVAL, INSPECTION, LUBRICATION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Grease (item 11, WP 0116)

References
WP 0007 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0027 00 Link bridges removed (Standard Feeder only)
WP 0028 00 Link cover assemblies removed (Enhanced Feeder only)
WP 0029 00 Link shield removed
WP 0032 00 Ejection chute removed
WP 0034 00 Forward feed assembly removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 shall be in effect.

Do not wear jewelry when working on gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

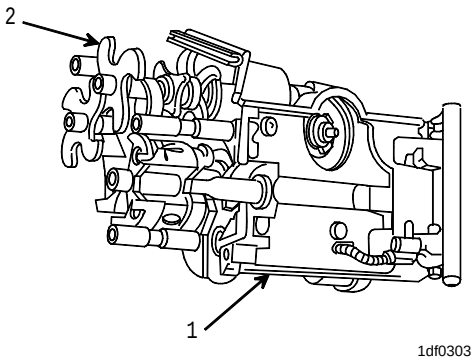
CAUTION

Place feeder handle in down (locked) position to protect electrical connector on bottom of automatic gun feeder.

REMOVAL

1. POSITION AUTOMATIC GUN FEEDER.

   Position feeder drive assembly (1) with lower feed sprocket assembly (2) on top as shown.

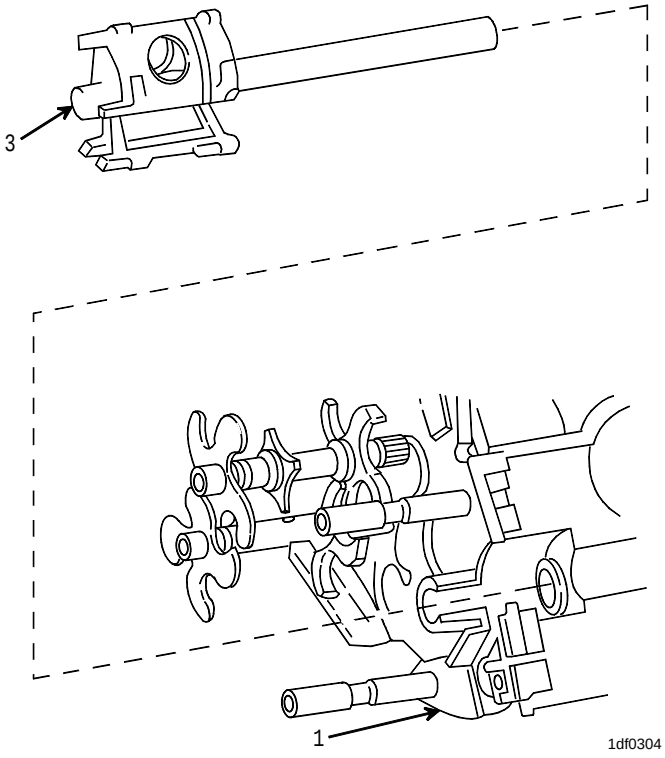


2. REMOVE FEEDER ASSEMBLY ROTOR.

NOTE

The lower feed sprocket may need to be raised slightly to remove the rotor.

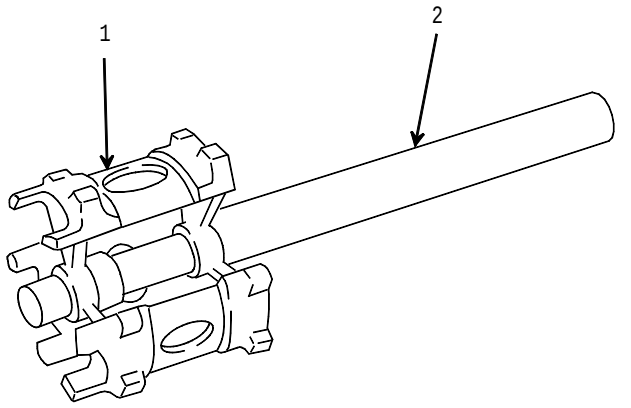
Grasp front section of feeder assembly rotor (3) and pull it straight out of feeder drive assembly (1).



INSPECTION

INSPECT FEEDER ASSEMBLY ROTOR.

Visually inspect rotor (1) and rotor shaft (2) for cracks, bends, galls, breaks, and damaged splines. If any of these conditions are found, replace feeder assembly rotor.



LUBRICATION

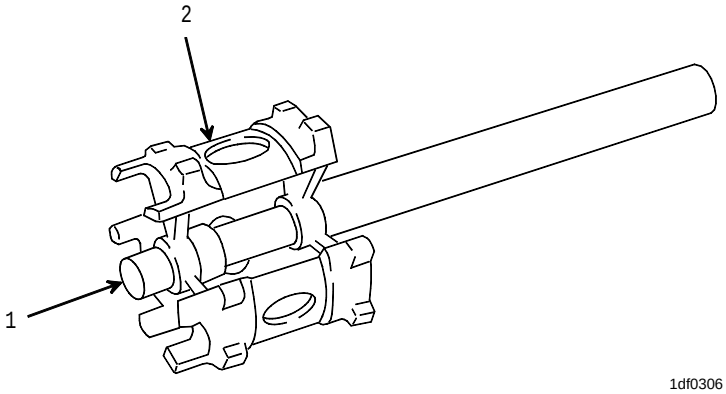
LUBRICATE FEEDER ASSEMBLY ROTOR.

CAUTION

Do not apply grease to rotor. Grease on rotor will attract dust and dirt which might stop gun.

a. Using acid brush, apply light coat of grease to the outside of short end of shaft (1) of feeder assembly rotor (2).

b. Using acid brush, apply light coat of grease to splines inside long end of shaft (1).



INSTALLATION

1. INSTALL FEEDER ASSEMBLY ROTOR.

NOTE

The lower feed sprocket may need to be raised slightly to install the feeder.

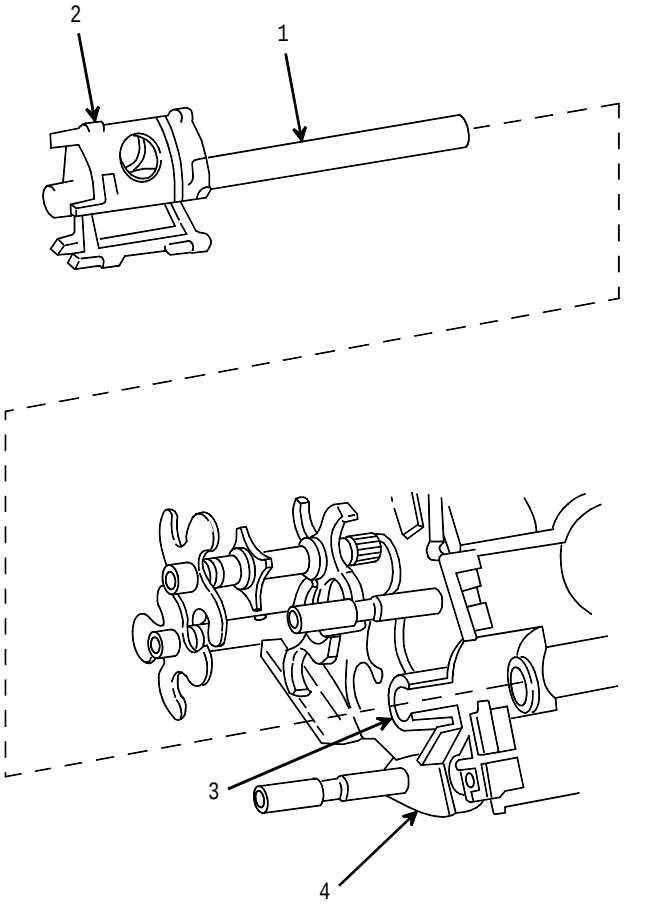
a. Grasp shaft (1) of feeder assembly rotor (2) and insert shaft (1) through upper eject guide (3) and into feeder drive assembly (4).

b. Carefully turn and push feeder assembly rotor (2) until splines in end of rotor shaft (1) slide into splines in feeder drive assembly (4).

NOTE

When fully installed, feeder assembly rotor will not turn.

c. Push feeder assembly rotor (2) into feeder drive assembly (4) as far as it will go.



1. INSTALL FORWARD FEED ASSEMBLY (WP 0034 00).
2. INSTALL EJECTION CHUTE (WP 0032 00).
3. INSTALL LINK SHIELD (WP 0029 00).
4. INSTALL LINK BRIDGES FOR STANDARD FEEDER (WP 0027 00) OR INSTALL LINK COVER ASSEMBLIES FOR ENHANCED FEEDER (WP 0028 00).
5. PERFORM AUTOMATIC GUN FEEDER MANUAL CYCLE CHECK (WP 0007 00).
6. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

ROUND POSITIONER ASSEMBLY REMOVAL/INSTALLATION REMOVAL, INSPECTION, LUBRICATION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)
6-mm socket (item 38, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Cotter pin (MS24665-132)
Grease (item 11, WP 0116 00)
Self-locking nut (12524617-1)

Personnel Required
Two

References
WP 0007 00
WP 0038 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0027 00 Link bridges removed (Standard Feeder only)
WP 0028 00 Link cover assemblies removed (Enhanced Feeder only)
WP 0029 00 Link shield removed
WP 0032 00 Ejection chute removed
WP 0034 00 Forward feed assembly removed
WP 0036 00 Feeder assembly rotor removed
WP 0043 00 Upper feed shaft stop removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

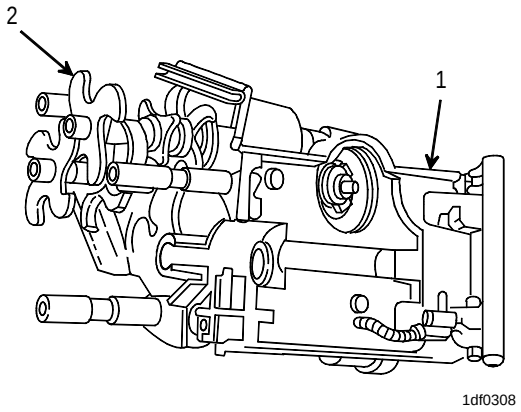
CAUTION

Place feeder handle in down (locked) position to protect electrical connector on bottom of automatic gun feeder.

REMOVAL

1. POSITION FEEDER DRIVE ASSEMBLY.

   Position feeder drive assembly (1) on a clean, flat surface with lower feed sprocket assembly (2) on top.

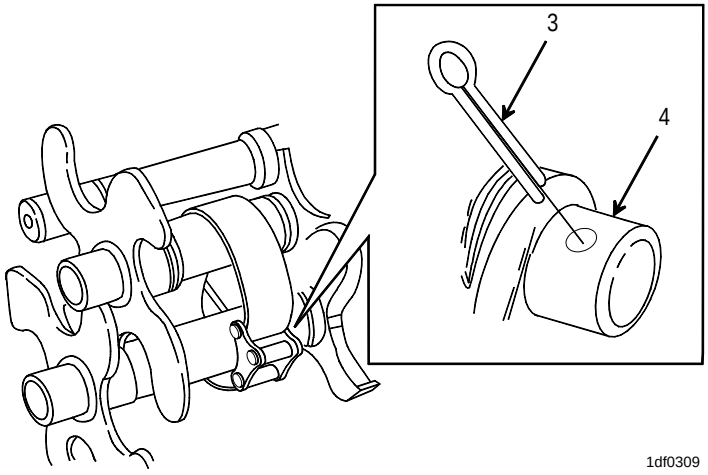


2. REMOVE UPPER HEADED STRAIGHT PIN AND SLEEVE BUSHING.

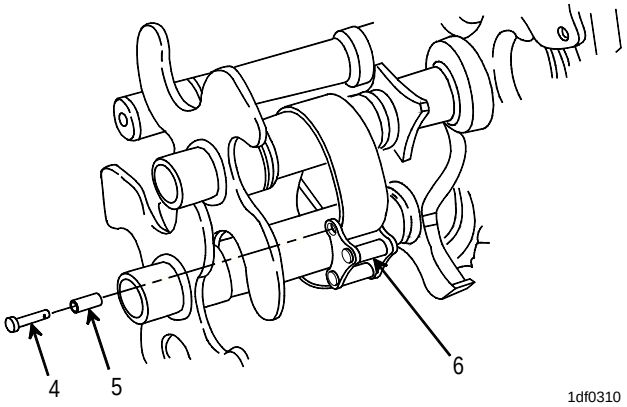
NOTE

Do not remove headed straight pin from center of round positioner assembly.

   a. Remove cotter pin (3) from upper headed straight pin (4). Discard cotter pin.



   b. Remove upper headed straight pin (4) and sleeve bushing (5) from round positioner assembly (6).

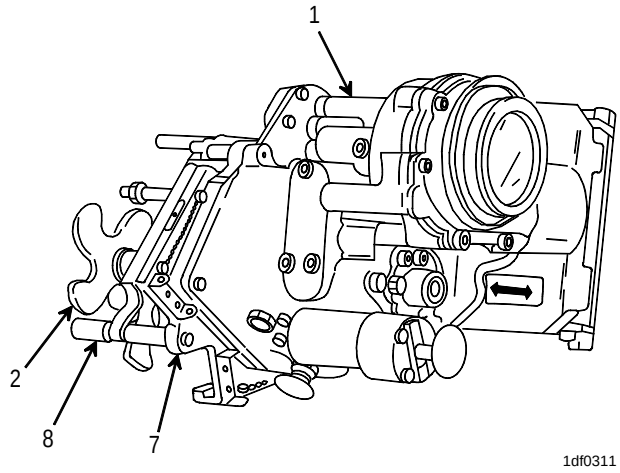


3. POSITION FEEDER DRIVE ASSEMBLY.

   Place feeder drive assembly (1) with lower feed sprocket assembly (2) on bottom.

4. REMOVE CAPSCREW.

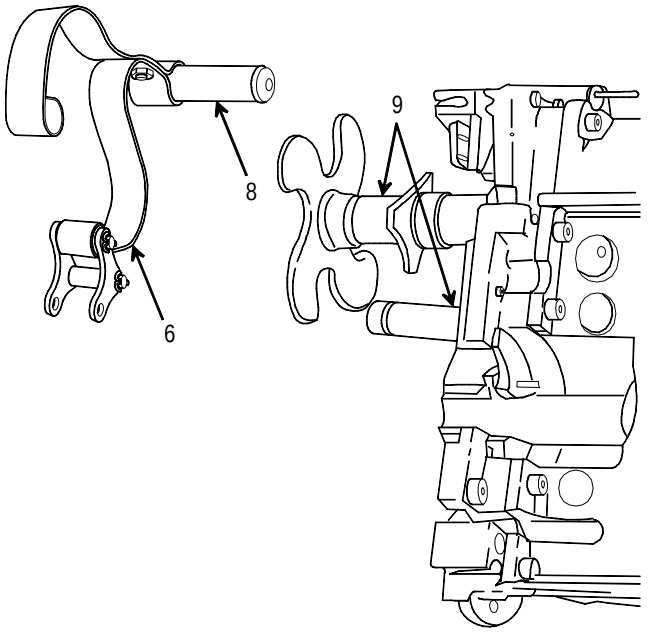
   Remove capscrew (7) from upper left stepped spacer (8).



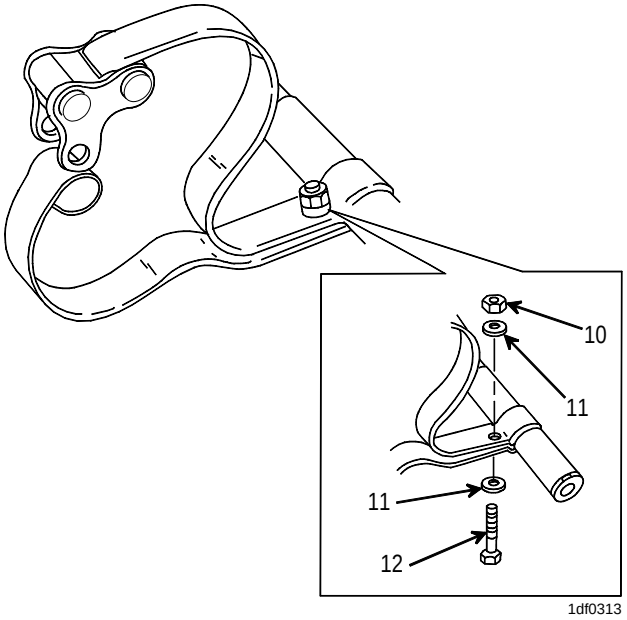
REMOVAL - Continued

5. REMOVE ROUND POSITIONER ASSEMBLY.

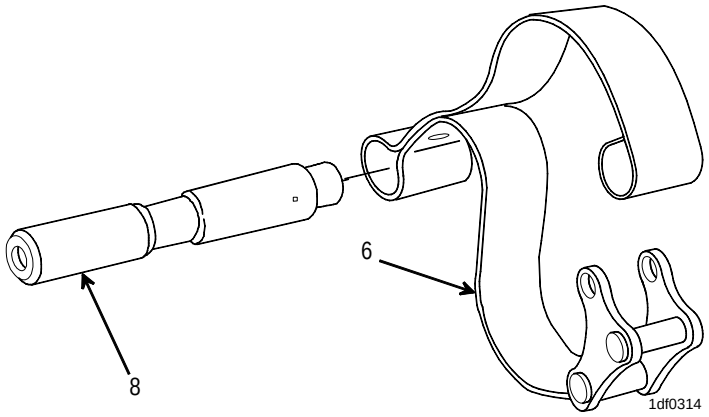
   a. Spread round positioner assembly (6) and pull it with upper left stepped spacer (8) from around sprocket shafts (9).



   b. Remove self-locking nut (10), two flat washers (11), and capscrew (12). Discard self-locking nut.



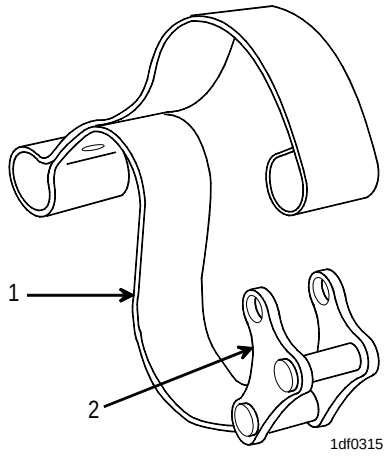
c. Slide upper left stepped spacer (8) out of round positioner assembly (6).



INSPECTION

INSPECT ROUND POSITIONER ASSEMBLY.

Visually inspect flat spring (1) and round positioner (2) for cracks, broken parts, distortion, and corrosion. If any of these conditions exist, repair round positioner assembly (WP 0038 00).



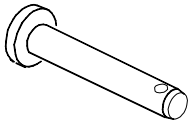
LUBRICATION

CAUTION

Do not apply grease on round positioner assembly parts except as shown. Dust and dirt sticking to greased parts can be carried into auto gun receiver and cause gun to jam.

1. LUBRICATE HEADED STRAIGHT PIN.

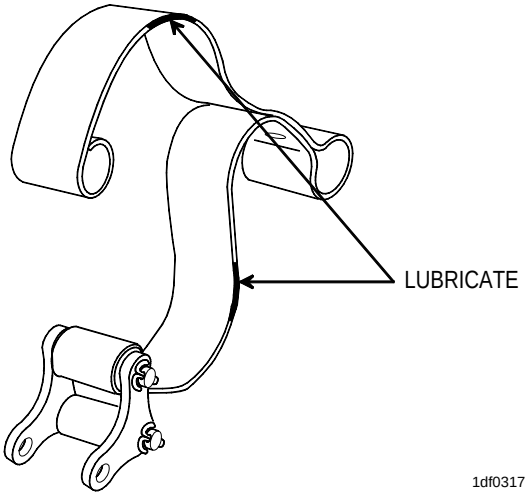
   Using acid brush, apply light coat of grease to shank of headed straight pin.



1df0316

2. LUBRICATE FLAT SPRING.

   Using acid brush, apply light coat of grease to flat spring in areas indicated below.

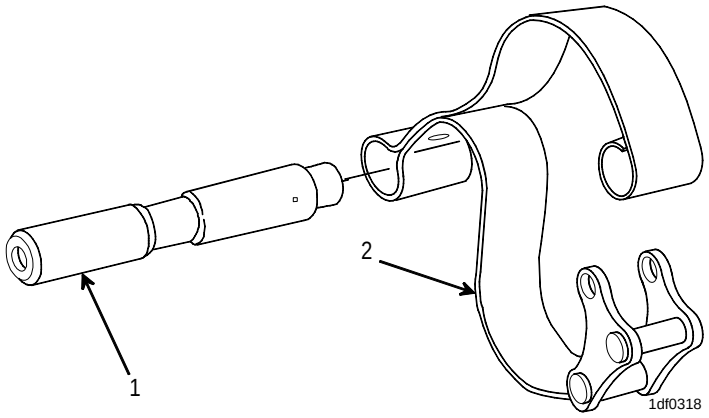


1df0317

INSTALLATION

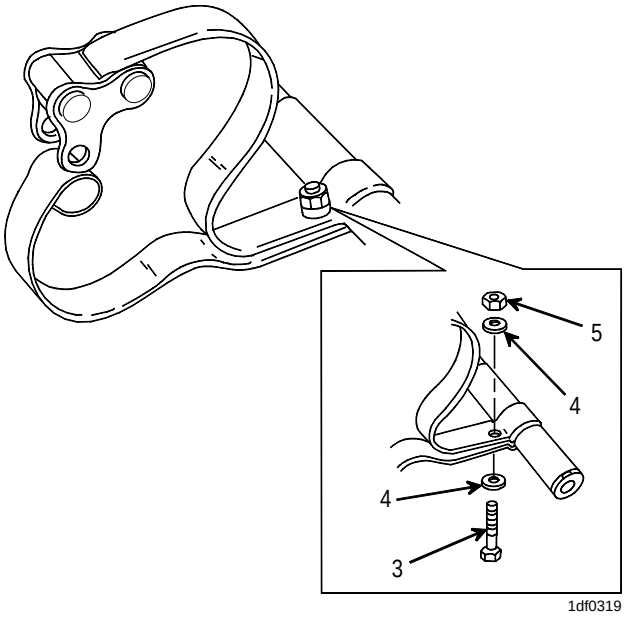
1. INSTALL ROUND POSITIONER ASSEMBLY.

   a. Slide upper left stepped spacer (1) into round positioner assembly (2) as shown.



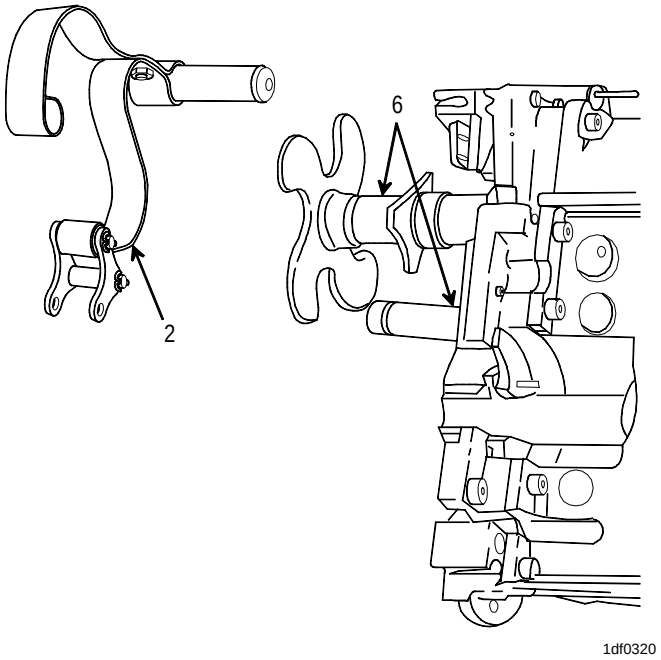
   b. Install capscrew (3), two flat washers (4), and new self-locking nut (5).

   c. Torque capscrew (3) to 60 in.-lb ± 5 in.-lb (6.78 N-m ± 0.57 N-m).



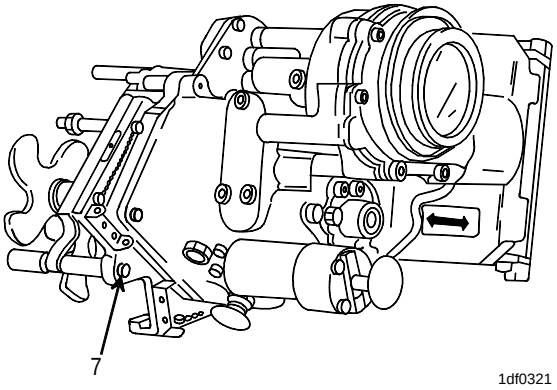
INSTALLATION – Continued

d. Spread round positioner assembly (2) and install around upper feed and lower feed sprocket assembly shafts (6).



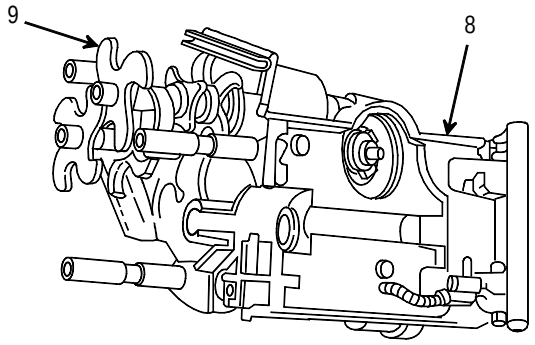
2. INSTALL CAPSCREW.

Install and torque capscrew (7) to 160 in.-lb ± 10 in.-lb (18.08 N-m ± 1.13 N-m).



3. POSITION FEEDER DRIVE ASSEMBLY.

Position feeder drive assembly (8) with lower feed sprocket assembly (9) on top.

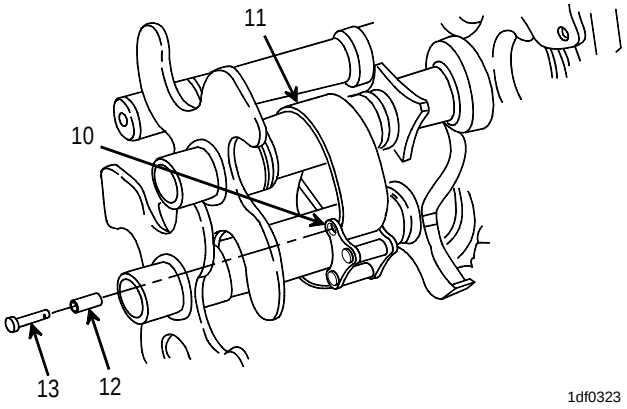


4. INSTALL SLEEVE BUSHING AND UPPER HEADED STRAIGHT PIN.

NOTE

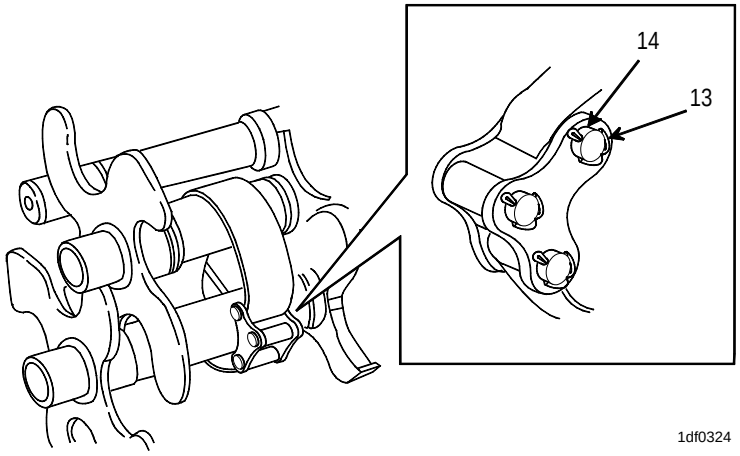
One soldier should hold and align round positioner and flat spring while the other soldier installs sleeve bushing and headed straight pin.

a. Push round positioner (10) and flat spring (11) together and install sleeve bushing (12) and upper headed straight pin (13).



INSTALLATION – Continued

b. Install new cotter pin (14) in headed straight pin (13).



5. INSTALL UPPER FEED SHAFT STOP (WP 0043 00).
6. INSTALL FEEDER ASSEMBLY ROTOR (WP 0036 00).
7. INSTALL FORWARD FEED ASSEMBLY (WP 0034 00).
8. INSTALL EJECTION CHUTE (WP 0032 00).
9. INSTALL LINK SHIELD (WP 0029 00).
10. INSTALL LINK BRIDGES FOR STANDARD FEEDER (WP 0027 00) OR LINK COVER ASSEMBLIES FOR ENHANCED FEEDER (WP 0028 00).
11. PERFORM AUTOMATIC GUN FEEDER MANUAL CYCLE CHECK (WP 0007 00).
12. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

ROUND POSITIONER ASSEMBLY DISASSEMBLY/ASSEMBLY DISASSEMBLY, INSPECTION, LUBRICATION, ASSEMBLY

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Cotter pin (2) (MS24665-132) (old configuration round positioner assembly only)
Cotter pin (3) (MS24665-132) (new configuration round positioner assembly only)
Grease (item 11, WP 0116 00)

References
WP 0007 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0027 00 Link bridges removed (Standard Feeder only)
WP 0028 00 Link cover assemblies removed (Enhanced Feeder only)
WP 0029 00 Link shield removed
WP 0032 00 Ejection chute removed
WP 0034 00 Forward feed assembly removed
WP 0036 00 Feeder assembly rotor removed
WP 0037 00 Round positioner assembly removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

NOTE

Two configurations of round positioner assemblies exist. Do not interchange sleeve bushings, headed straight pins, or flat springs between the two configurations. Refer to Table 1.

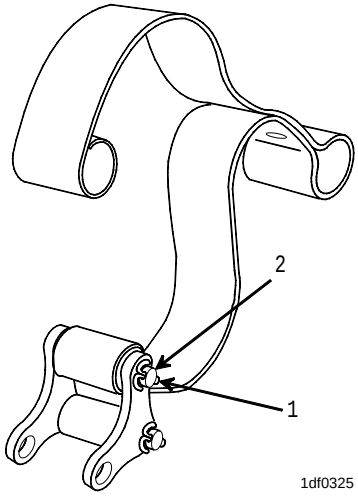
Table 1. Round Positioner Assembly Configurations

	Old Configuration (PN 12524160)	New Configuration (PN 12524524)
Flat Spring	12524162 (18 mm wide)	12524525 (24 mm wide)
Headed Straight Pin	MS20392-3C33 (32 mm long)	MS20392-3C39 (35 mm long)
Sleeve Bushing	12524161 (18 mm long)	12524526 (24 mm long)

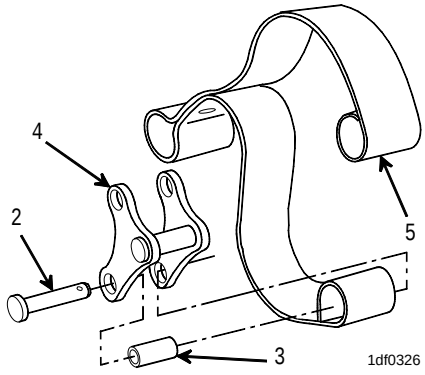
DISASSEMBLY

REMOVE ROUND POSITIONER.

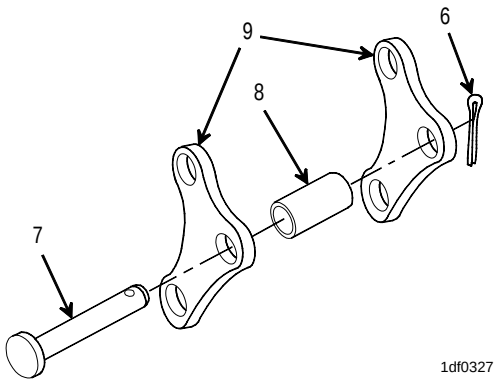
a. Remove cotter pin (1) from headed straight pin (2).



b. Pull headed straight pin (2) and sleeve bushing (3) out to remove round positioners (4) from flat spring (5).



c. Remove cotter pin (6) from headed straight pin (7) and remove headed straight pin (7) and bushing (8) from two positioners (9).



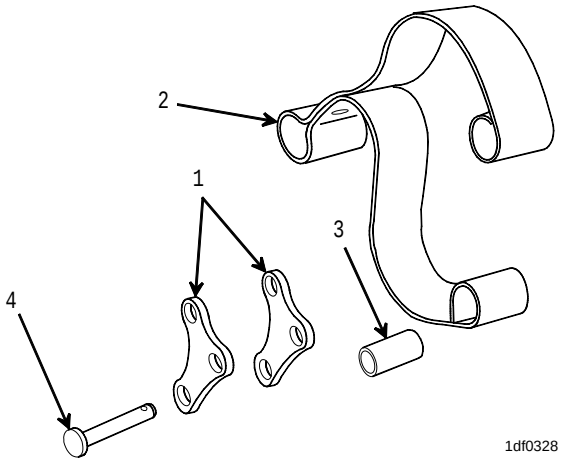
INSPECTION

INSPECT ROUND POSITIONER ASSEMBLY PARTS.

a. Visually inspect round positioner (1) for cracks, chips, and breaks. If any of these conditions are found, replace round positioner.

b. Visually inspect flat spring (2) for cracks, distortion, and corrosion. If any of these conditions are found, replace flat spring.

c. Visually inspect three sleeve bushings (3) and three headed straight pins (4) for galled condition and corrosion. If either of these conditions are found, replace defective part.



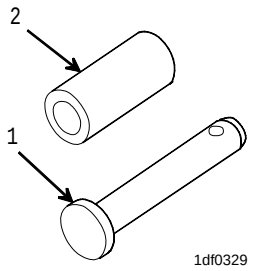
LUBRICATION

LUBRICATE HEADED STRAIGHT PIN AND SLEEVE BUSHING.

CAUTION

Apply grease only as specified in step below. Dust and dirt sticking to greased parts can be carried into auto gun receiver and cause automatic gun to jam.

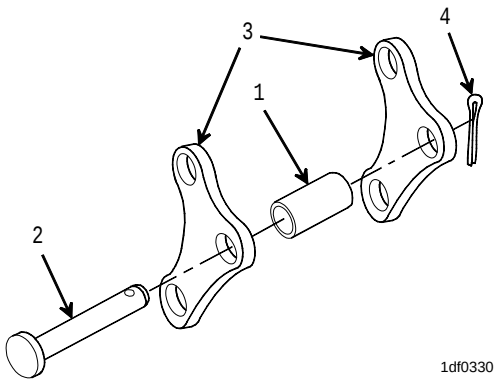
Using acid brush, apply a light coat of grease to shank of headed straight pin (1) and to outside surface of sleeve bushing (2).



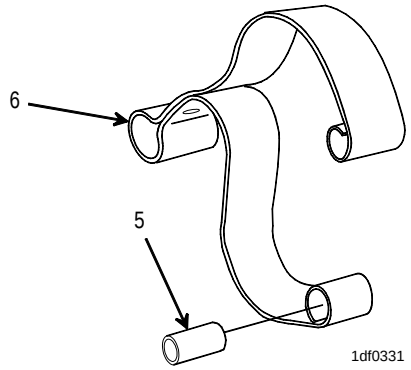
ASSEMBLY

1. INSTALL ROUND POSITIONER.

   a. Install bushing (1) and headed straight pin (2) in center holes of two positioners (3) and secure with new cotter pin (4). Bend ends of cotter pin (4) in opposite directions around headed straight pin (2).

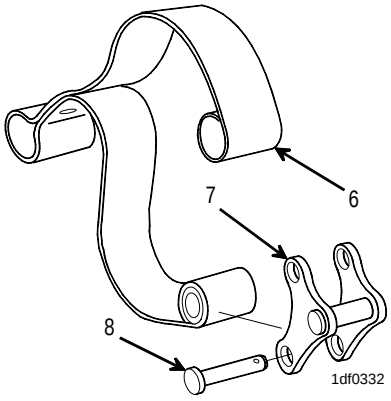


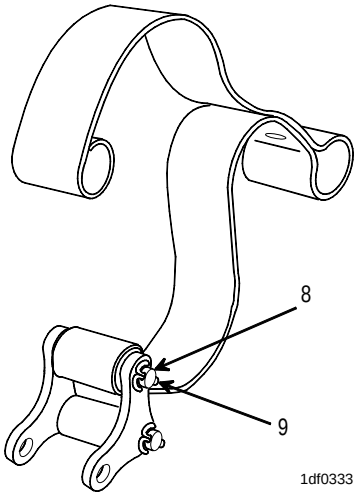
b. Push sleeve bushing (5) into flat spring (6) until it is flush with spring edges.



c. Place flat spring (6) between round positioners (7) and install headed straight pin (8) through round positioners (7) and flat spring (6).

d. Install new cotter pin (9) in headed straight pin (8). Bend ends of cotter pin (9) in opposite directions around headed straight pin (8).





2. INSTALL ROUND POSITIONER ASSEMBLY (WP 0037 00).

3. INSTALL FEEDER ASSEMBLY ROTOR (WP 0036 00).

4. INSTALL FORWARD FEED ASSEMBLY (WP 0034 00).

5. INSTALL EJECTION CHUTE (WP 0032 00).

6. INSTALL LINK SHIELD (WP 0029 00).

7. INSTALL LINK BRIDGES FOR STANDARD FEEDER (WP 0027 00) OR INSTALL LINK COVER ASSEMBLIES FOR ENHANCED FEEDER (WP 0028 00).

ASSEMBLY - Continued

8. PERFORM AUTOMATIC GUN FEEDER MANUAL CYCLE CHECK (WP 0007 00).

9. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

UPPER AND LOWER FEED SPROCKET ASSEMBLIES REMOVAL/INSTALLATION REMOVAL, INSPECTION, LUBRICATION, INSTALLATION

INITIAL SETUP:

Materials/Parts
Acid brush (item 4, WP 0116 00)
Grease (item 11, WP 0116 00)

References
WP 0007 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0027 00 Link bridges removed (Standard Feeder only)
WP 0028 00 Link cover assemblies removed (Enhanced Feeder only)
WP 0029 00 Link shield removed
WP 0031 00 Rear link strippers removed
WP 0032 00 Ejection chute removed
WP 0034 00 Forward feed assembly removed
WP 0036 00 Feeder assembly rotor removed
WP 0037 00 Round positioner assembly removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

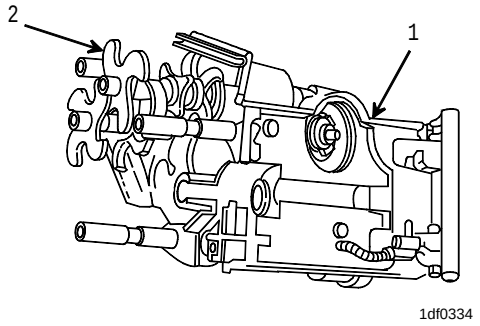
CAUTION

Place feeder handle in down (locked) position to protect electrical connector on bottom of automatic gun feeder.

REMOVAL

1. POSITION FEEDER DRIVE ASSEMBLY.

   Place feeder drive assembly (1) on a clean, flat surface with lower feed sprocket assembly (2) up as shown.



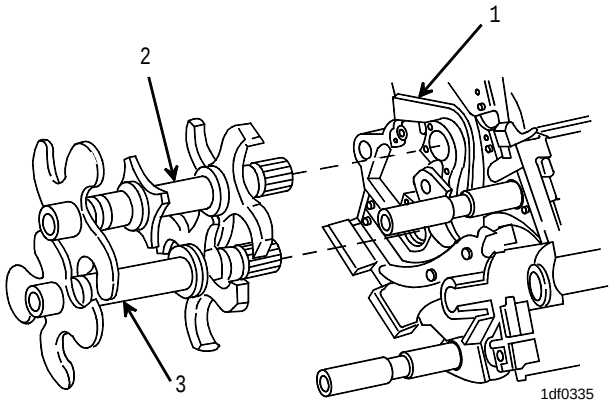
2. REMOVE UPPER AND LOWER FEED SPROCKET ASSEMBLIES.

NOTE

The upper feed sprocket assembly shaft is longer than the lower feed sprocket assembly shaft. The lower feed sprocket assembly has a third sprocket on it's shaft.

   a. Grasp upper feed sprocket assembly (3) and lower feed sprocket assembly (2) at the same time.

   b. Pull both sprocket assemblies straight out of feeder drive assembly (1).

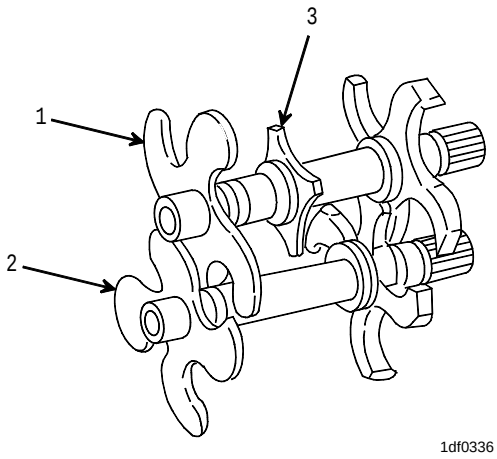


INSPECTION

INSPECT UPPER FEED AND LOWER FEED SPROCKET ASSEMBLIES.

a. Visually inspect both sprocket assemblies (1) and (2) for cracks, chips, broken or bent sprockets, and damaged splines. If any of these conditions are found, replace sprocket assembly(ies).

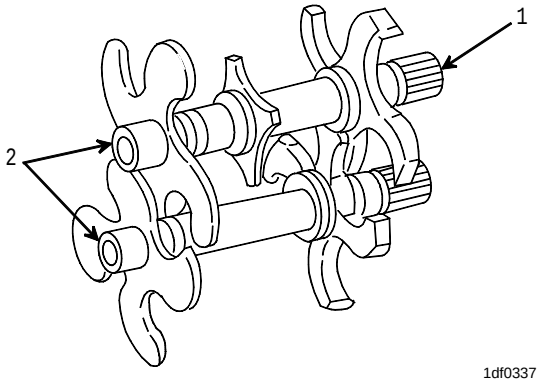
b. Visually inspect lower feed sprocket assembly (1) for presence of third sprocket (3) on its shaft. Replace lower feed sprocket assemblies that do not have the third sprocket.



LUBRICATION

LUBRICATE UPPER FEED AND LOWER FEED SPROCKET ASSEMBLIES.

Using acid brush, apply light coat of grease to sprocket assembly splines (1) and ends of shaft (2).



INSTALLATION

NOTE

Feeder drive assembly has been positioned with the lower feeder drive assembly hole and splines in the uppermost or top hole position.

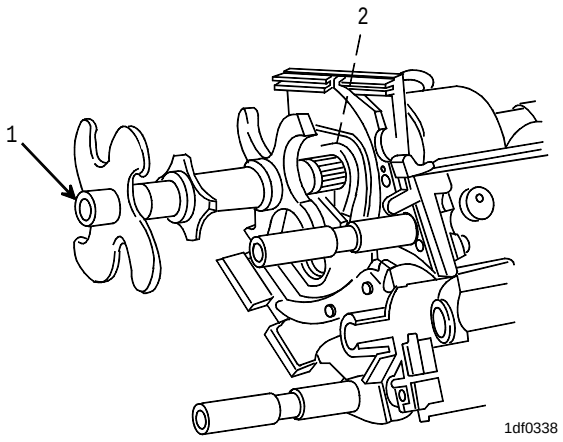
If feed sprocket assemblies are installed with round positioner spring attached, feed sprocket assemblies may need to be pulled against spring tension to align holes.

1. INSTALL UPPER FEED AND LOWER FEED SPROCKET ASSEMBLIES.

   a. Align lower feed sprocket assembly (1) (short shaft) with lower feeder drive assembly hole (2) (top hole).

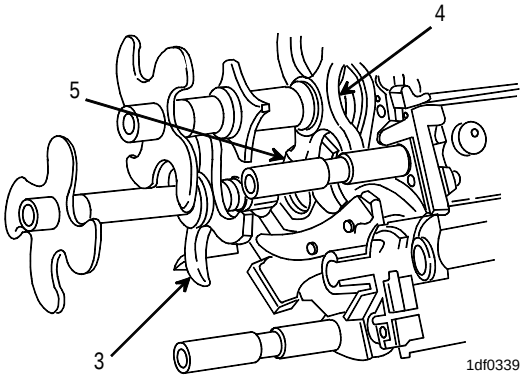
   b. Twist lower feed sprocket assembly (1) in either direction until sprocket shaft splines match feeder drive assembly splines.

   c. Slide shaft of lower feed sprocket assembly (1) into place.



   d. Place upper feed sprocket assembly legs (3) between lower feed sprocket assembly legs (4). Align upper feed sprocket shaft splines with upper feeder drive assembly hole splines (5) (bottom hole).

   e. Slide shaft into place.



2. INSTALL ROUND POSITIONER ASSEMBLY (WP 0037 00).
3. INSTALL FEEDER ASSEMBLY ROTOR (WP 0036 00).
4. INSTALL FORWARD FEED ASSEMBLY (WP 0034 00).
5. INSTALL EJECTION CHUTE (WP 0032 00).
6. INSTALL REAR LINK STRIPPERS (WP 0031 00).
7. INSTALL LINK SHIELD (WP 0029 00).
8. INSTALL LINK BRIDGES FOR STANDARD FEEDER (WP 0027 00) OR INSTALL LINK COVER ASSEMBLIES FOR ENHANCED FEEDER (WP 0028 00).
9. PERFORM AUTOMATIC GUN FEEDER MANUAL CYCLE CHECK (WP 0007 00).
10. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

FEEDER STANDOFF REMOVAL/INSTALLATION
REMOVAL, INSPECTION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

References
WP 0007 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0027 00 Link bridges removed (Standard Feeder only)
WP 0028 00 Link cover assemblies removed (Enhanced Feeder only)
WP 0029 00 Link shield removed
WP 0032 00 Ejection chute removed
WP 0034 00 Forward feed assembly removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

CAUTION

Place feeder handle in down (locked) position to protect electrical connector on bottom of automatic gun feeder.

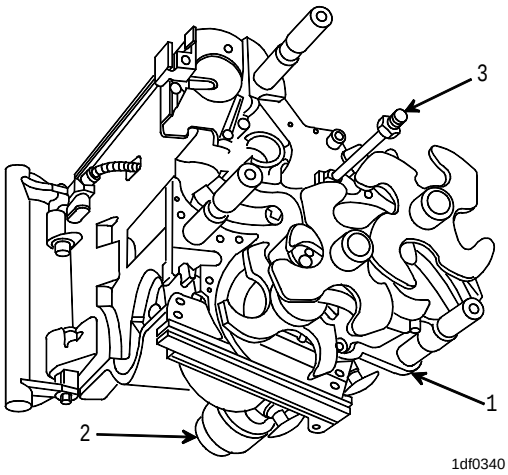
REMOVAL

1. POSITION FEEDER DRIVE ASSEMBLY.

   Place feeder drive assembly (1) on a clean, flat surface with electrical solenoid (2) on bottom as shown.

2. REMOVE FEEDER STANDOFF.

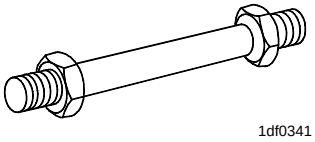
   Remove feeder standoff (3) from feeder drive assembly (1).



INSPECTION

1. INSPECT FEEDER STANDOFF.

   Visually inspect feeder standoff for stripped threads, bends, cracks, and chips. If any of these conditions are found, replace feeder standoff.



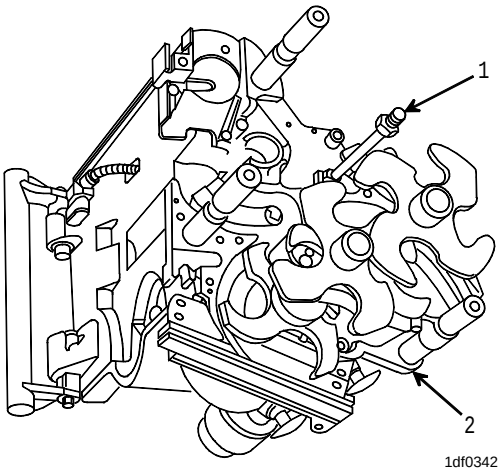
2. INSPECT REAR PLATE ASSEMBLY.

   Visually inspect rear plate assembly for loose or damaged screw threaded inserts. If either of these conditions are found, send rear plate assembly to Direct Support Maintenance for repair.

INSTALLATION

1. INSTALL FEEDER STANDOFF.

   Install short threaded end of feeder standoff (1) in feeder drive assembly (2).



2. INSTALL FORWARD FEED ASSEMBLY (WP 0034 00).
3. INSTALL EJECTION CHUTE (WP 0032 00).
4. INSTALL LINK SHIELD (WP 0029 00).
5. INSTALL LINK BRIDGES FOR STANDARD FEEDER (WP 0027 00) OR INSTALL LINK COVER ASSEMBLIES FOR ENHANCED FEEDER (WP 0028 00).
6. PERFORM AUTOMATIC GUN FEEDER MANUAL CYCLE CHECK (WP 0007 00).
7. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

STEPPED SPACER REMOVAL/INSTALLATION REMOVAL, INSPECTION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Common #2 shop equipment (item 34, WP 0085 00)
6-mm socket (item 38, WP 0085 00)

References
WP 0007 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0027 00 Link bridges removed (Standard Feeder only)
WP 0028 00 Link cover assemblies removed (Enhanced Feeder only)
WP 0029 00 Link shield removed
WP 0030 00 Forward link strippers removed
WP 0032 00 Ejection chute removed
WP 0034 00 Forward feed assembly removed
WP 0036 00 Feeder assembly rotor removed
WP 0037 00 Round positioner assembly removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

CAUTION

Place feeder handle in down (locked) position to protect electrical connector on bottom of automatic gun feeder.

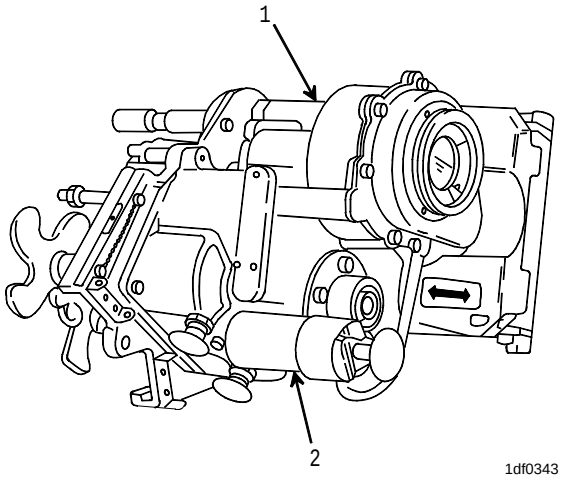
REMOVAL

NOTE

One stepped spacer is removed during round positioner assembly removal.

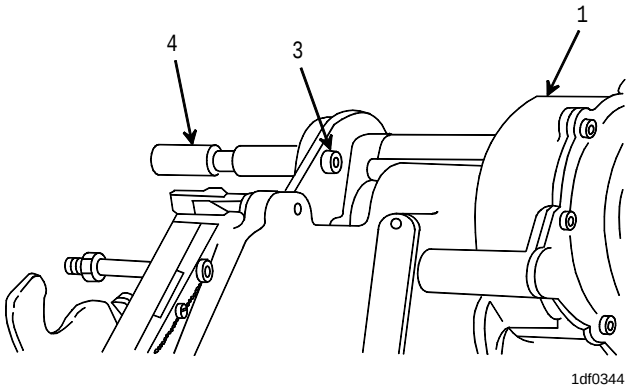
1. POSITION FEEDER DRIVE ASSEMBLY.

   Position feeder drive assembly (1) with electrical feed select solenoid (2) at bottom.



2. REMOVE LOWER RIGHT STEPPED SPACER.

   Loosen capscrew (3). Remove capscrew (3) and lower right stepped spacer (4) from feeder drive assembly (1).

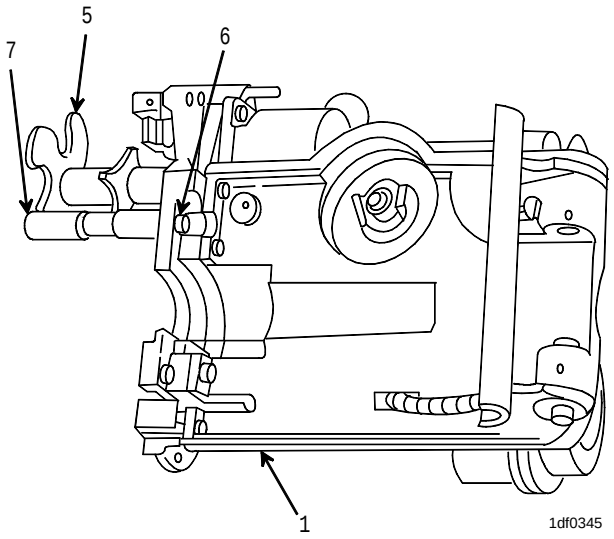


3. POSITION FEEDER DRIVE ASSEMBLY.

   Position feeder drive assembly (1) with lower feed sprocket assembly (5) at top.

4. REMOVE LOWER CENTER STEPPED SPACER.

   Loosen capscrew (6). Remove capscrew (6) and lower center stepped spacer (7) from feeder drive assembly (1).



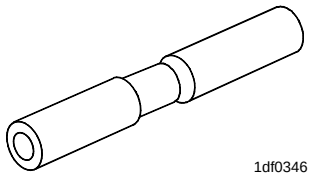
INSPECTION

NOTE

All three stepped spacers are the same.

INSPECT STEPPED SPACERS.

Visually inspect stepped spacers for stripped threads, bends, cracks, and chips. If any of these conditions are found, replace stepped spacer(s).

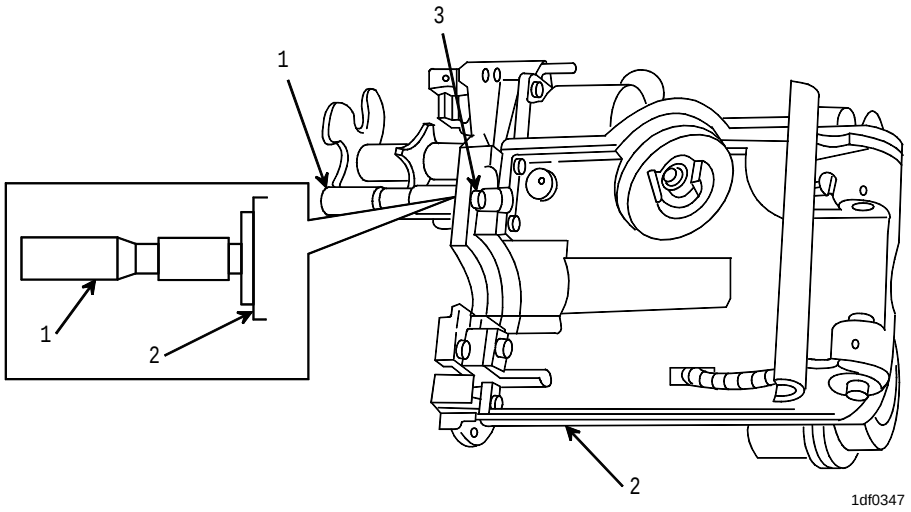


INSTALLATION

1. INSTALL LOWER CENTER STEPPED SPACER.

   a. Insert lower center stepped spacer (1) into recessed hole in feeder drive assembly (2). Install capscrew (3) until it stops.

   b. Torque capscrew (3) to 160 in.-lb ± 10 in.-lb (18.08 N-m ± 1.13 N-m).

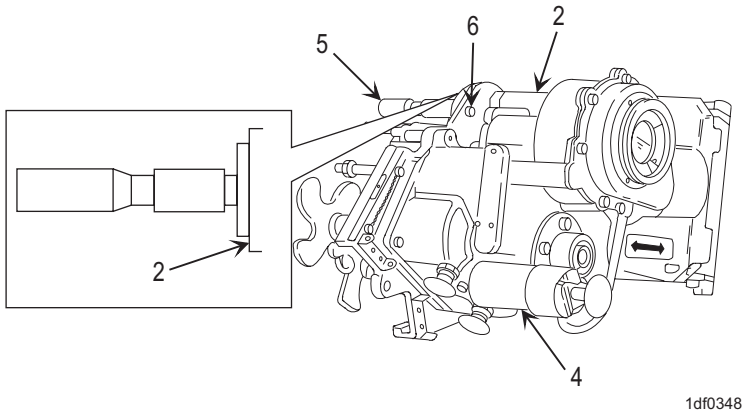


2. INSTALL LOWER RIGHT STEPPED SPACER.

   a. Position feeder drive assembly (2) on side with electrical solenoid (4) at bottom.

   b. Insert lower right stepped spacer (5) into recessed hole in feeder drive assembly (2). Install capscrew (6) until it stops.

   c. Torque capscrew (6) to 160 in.-lb ± 10 in.-lb (18.08 N-m ± 1.13 N-m).



3. INSTALL ROUND POSITIONER ASSEMBLY (WP 0037 00).
4. INSTALL FEEDER ASSEMBLY ROTOR (WP 0036 00).
5. INSTALL FORWARD FEED ASSEMBLY (WP 0034 00).
6. INSTALL EJECTION CHUTE (WP 0032 00).
7. INSTALL FORWARD LINK STRIPPERS (WP 0030 00).
8. INSTALL LINK SHIELD (WP 0029 00).
9. INSTALL LINK BRIDGES FOR STANDARD FEEDER (WP 0027 00) OR INSTALL LINK COVER ASSEMBLIES FOR ENHANCED FEEDER (WP 0028 00).
10. PERFORM AUTOMATIC GUN FEEDER MANUAL CYCLE CHECK (WP 0007 00).
11. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

UPPER EJECT GUIDE REMOVAL/INSTALLATION
REMOVAL, INSPECTION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Common #2 shop equipment (item 34, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

References
WP 0007 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0027 00 Link bridges removed (Standard Feeder only)
WP 0028 00 Link cover assemblies removed (Enhanced Feeder only)
WP 0029 00 Link shield removed
WP 0032 00 Ejection chute removed
WP 0034 00 Forward feed assembly removed
WP 0036 00 Feeder assembly rotor removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

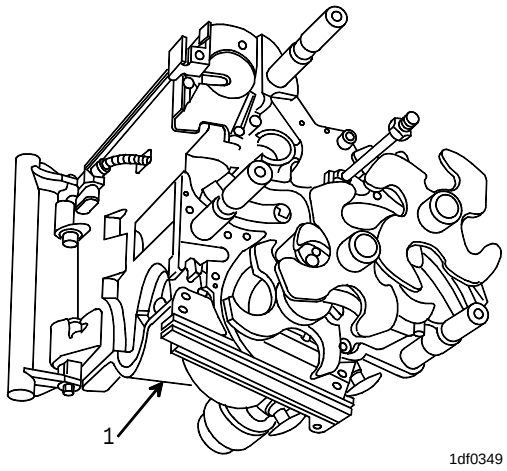
CAUTION

Place feeder handle in down (locked) position to protect electrical connector on bottom of automatic gun feeder.

REMOVAL

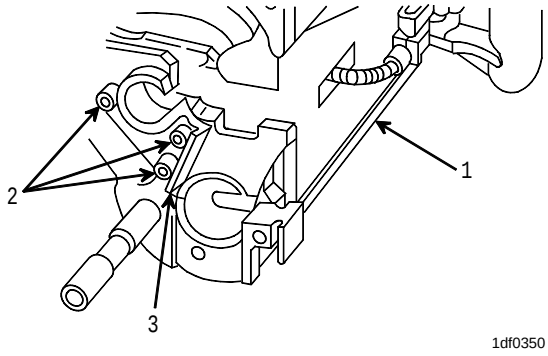
1. POSITION FEEDER DRIVE ASSEMBLY.

   Place feeder drive assembly (1) on side as shown.



2. REMOVE UPPER EJECT GUIDE.

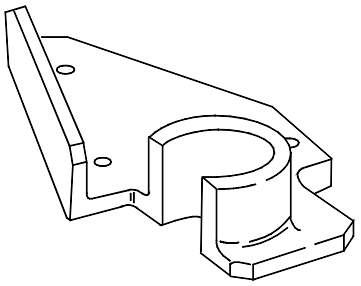
   Remove three capscrews (2) and upper eject guide (3) from feeder drive assembly (1).



INSPECTION

1. INSPECT UPPER EJECT GUIDE.

   Visually inspect upper eject guide for bends, cracks, and chips. If any of these conditions are found, replace upper eject guide.



1df0351

2. INSPECT REAR PLATE ASSEMBLY.

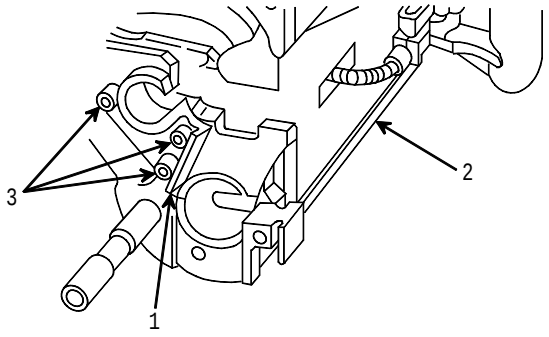
   Visually inspect rear plate assembly for loose or damaged screw threaded inserts. If either of these conditions are found, send rear plate assembly to Direct Support Maintenance for repair.

INSTALLATION

1. INSTALL UPPER EJECT GUIDE.

   a. Position upper eject guide (1) on feeder drive assembly (2). Install three capscrews (3) finger-tight.

   b. Torque three capscrews (3) to 60 in.-lb ± 5 in.-lb (6.78 N-m ± 0.57 N-m).



1df0352

2. INSTALL FEEDER ASSEMBLY ROTOR (WP 0036 00).

3. INSTALL FORWARD FEED ASSEMBLY (WP 0034 00).

4. INSTALL EJECTION CHUTE (WP 0032 00).

5. INSTALL LINK SHIELD (WP 0029 00).

6. INSTALL LINK BRIDGES FOR STANDARD FEEDER (WP 0027 00) OR INSTALL LINK COVER ASSEMBLIES FOR ENHANCED FEEDER (WP 0028 00).

INSTALLATION - Continued

7. PERFORM AUTOMATIC GUN FEEDER MANUAL CYCLE CHECK (WP 0007 00).

8. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

FEED SHAFT STOPS REMOVAL/INSTALLATION REMOVAL, INSPECTION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanics tool kit (item 41, WP 0085 00)

Equipment Conditions
WP 0026 00 Automatic gun feeder removed

References
WP 0044 00

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 shall be in effect.

Do not wear jewelry when working on gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

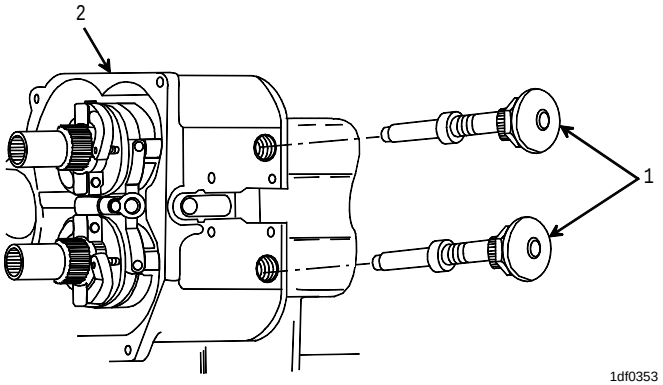
CAUTION

Place feeder handle in down (locked) position to protect electrical connector on bottom of automatic gun feeder.

REMOVAL

REMOVE FEED SHAFT STOP ASSEMBLIES.

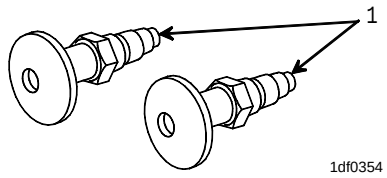
Remove two feed shaft stop assemblies (1) from feeder housing assembly (2).



INSPECTION

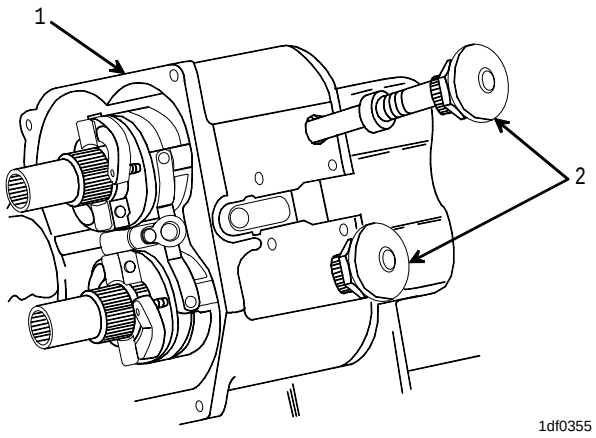
INSPECT FEED SHAFT STOP ASSEMBLIES.

Visually inspect feed shaft stop assemblies (1) for dirt, broken springs, and galls. If any damage is found, refer to WP 0044 00.



INSTALLATION

1. INSTALL FEED SHAFT STOP ASSEMBLIES.
   a. Position feeder housing assembly (1) as shown.
   b. Install two feed shaft stop assemblies (2) into feeder housing drive assembly (1).
   c. Tighten both feed shaft stop assemblies (2).



2. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

FEED SHAFT STOP ASSEMBLIES DISASSEMBLY/ASSEMBLY DISASSEMBLY, CLEANING, INSPECTION, LUBRICATION, ASSEMBLY

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Goggles (item 19, WP 0085 00)
Rubber gloves (item 18, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Dry cleaning solvent (item 27, WP 0116 00)
Grease (item 11, WP 0116 00)
Spring pin (12524618-2)

Personnel Required
Two

Equipment Conditions
WP 0043 00 Feed shaft stop assemblies removed

Special Environmental Conditions
Well-ventilated area required when using dry cleaning solvent.

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

NOTE

The following procedure is written for one feed shaft stop assembly, but applies to both feed shaft stop assemblies.

There are two configurations of feed shaft stop assemblies available: 12524080 are the long stops; 12524170 are the short stops. Repair parts are no longer available for the long stops. If replacing a defective long stop with a short stop, both long stops must be replaced.

DISASSEMBLY

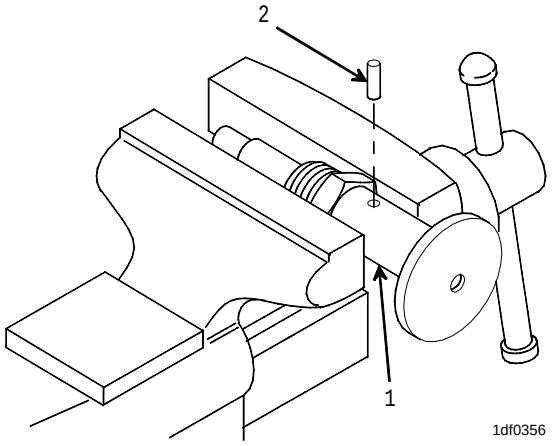
WARNING

Wear eye protection when removing spring. You can be blinded if spring hits you in the eye.

DISASSEMBLE FEED SHAFT STOP ASSEMBLY.

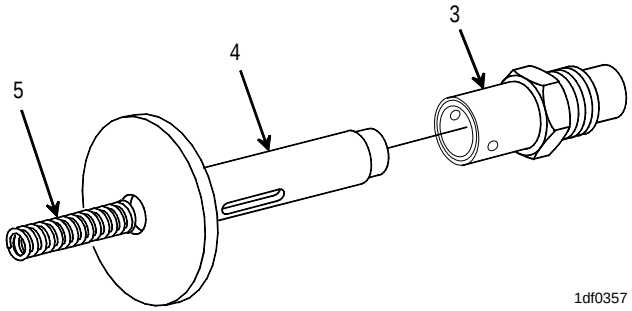
a. Place feed shaft stop assembly (1) in vise.

b. Tap spring pin (2) out of feed shaft stop assembly (1). Discard spring pin.



c. Remove feed shaft stop sleeve (3) from feed shaft stop button (4).

d. Push helical spring (5) out of feed shaft stop button (4).



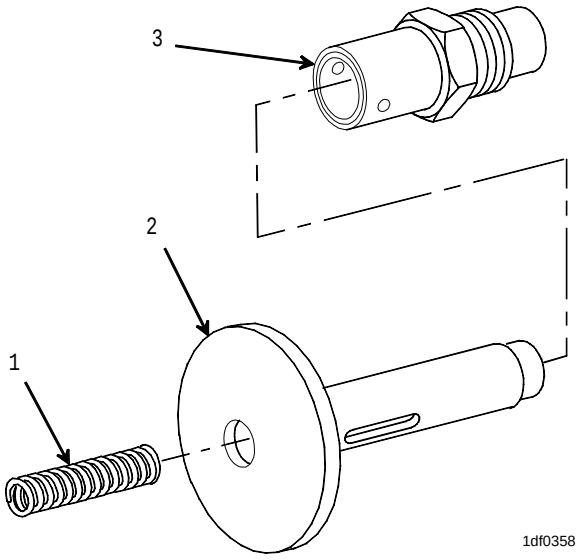
CLEANING

WARNING

Dry cleaning solvent (SD) is flammable and toxic. Use in well-ventilated area away from an open flame or a smoking area. This solvent evaporates quickly and has a drying effect on the skin. It may cause cracks in the skin and, in some cases, mild irritation or inflammation. If solvent comes in contact with eyes or skin, flush with water.

CLEAN FEED SHAFT STOP ASSEMBLY COMPONENTS.

Using brush and dry cleaning solvent, clean helical spring (1), feed shaft stop button (2), and feed shaft stop sleeve (3).

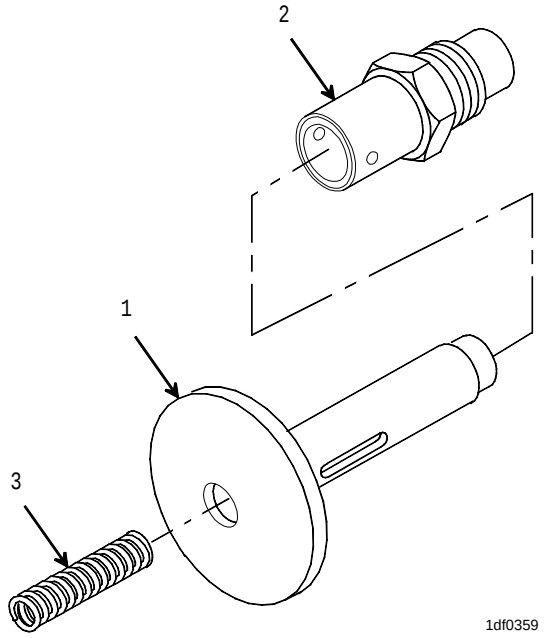


INSPECTION

INSPECT FEED SHAFT STOP ASSEMBLY COMPONENTS.

a. Visually inspect feed shaft stop button (1) and feed shaft stop sleeve (2) for cracks, breaks, bends, and galls. Visually inspect feed shaft stop sleeve (2) for damaged threads. If feed shaft stop button (1) or feed shaft stop sleeve (2) is damaged, replace entire feed shaft stop assembly.

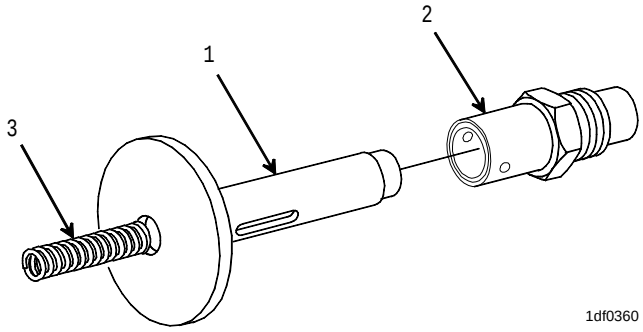
b. Visually inspect helical spring (3) for cracks or breaks. If either of these conditions are found, replace helical spring.



LUBRICATION

LUBRICATE FEED SHAFT STOP ASSEMBLY COMPONENTS.

Using acid brush, apply a light coat of grease to feed shaft stop button (1), feed shaft stop sleeve (2), and helical spring (3).



ASSEMBLY

WARNING

Wear eye protection when installing spring. You can be blinded if spring hits you in the eye.

NOTE

The following procedure is written for one feed shaft stop assembly, but applies to both feed shaft stop assemblies.

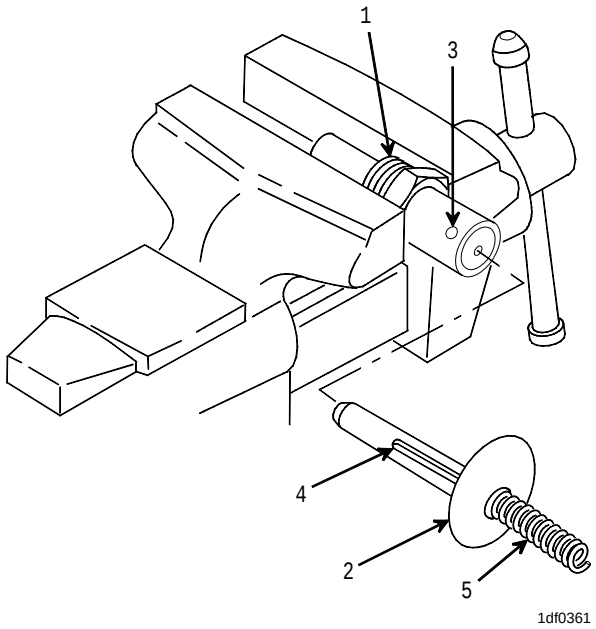
1. ASSEMBLE FEED SHAFT STOP ASSEMBLY.

   a. Place feed shaft stop sleeve (1) in vise with large open end out.

   b. Insert feed shaft stop button (2) into feed shaft stop sleeve (1).

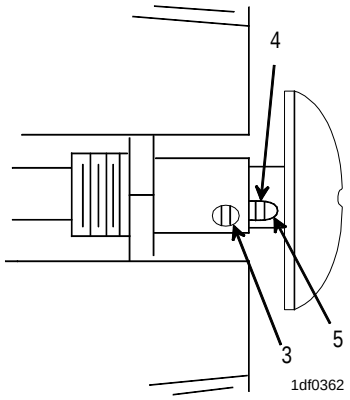
   c. Align pin hole (3) with spring slot (4).

   d. Insert helical spring (5) in feed shaft stop button (2).



ASSEMBLY -Continued

e. Check alignment of pin hole (3) with spring slot (4). Helical spring (5) should be visible in spring slot (4).



f. Start new spring pin (6) into pin hole (3). Check that feed shaft stop button moves in and out freely.

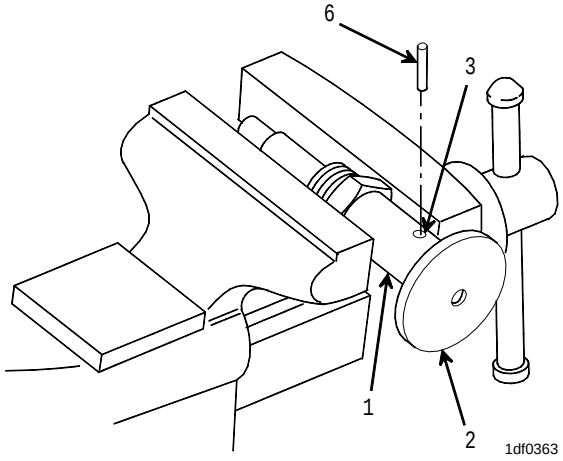
NOTE

Use helper to compress helical spring during next step.

g. Compress helical spring until it clears pin hole (3).

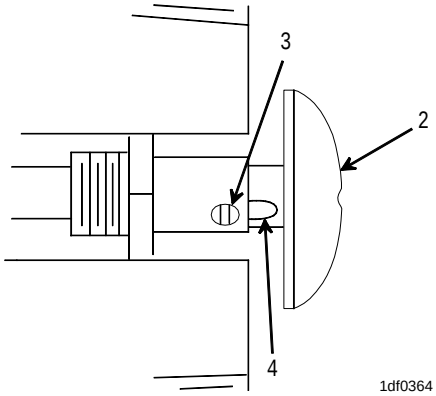
h. Tap spring pin (6) in as far as it will go clearing end of helical spring.

i. Continue tapping spring pin (6) until pin is flush with feed shaft stop sleeve (1).



j. Pull feed shaft stop button (2) out until you can look through spring slot (4). There should be spring tension on the feed shaft stop button (2) and the helical spring should not be visible in the slot.

k. If the helical spring can be seen, repeat DISASSEMBLY and ASSEMBLY steps.



2. INSTALL FEED SHAFT STOP ASSEMBLIES (WP 0043 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

ELECTRICAL FEED SELECT SOLENOID PN 12524181 REMOVAL/INSTALLATION
REMOVAL, INSPECTION, INSTALLATION
THIS WORK PACKAGE APPLIES ONLY TO THE STANDARD AUTOMATIC GUN

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Bit holder (item 20, WP 0085 00)
Cross tip screwdriver (item 32, WP 0085 00)
Goggles (item 19, WP 0085 00)
Screwdriver bit (item 2, WP 0085 00)
Torque wrench, 0-80 in.-oz (item 51, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)
4 mm socket wrench (item 37, WP 0085 00)

Materials/Parts
Self-locking nut (2) (MS21042-04)
Lockwire (item 33, WP 0116 00)

Personnel Required
Two

References
WP 0006 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

CAUTION

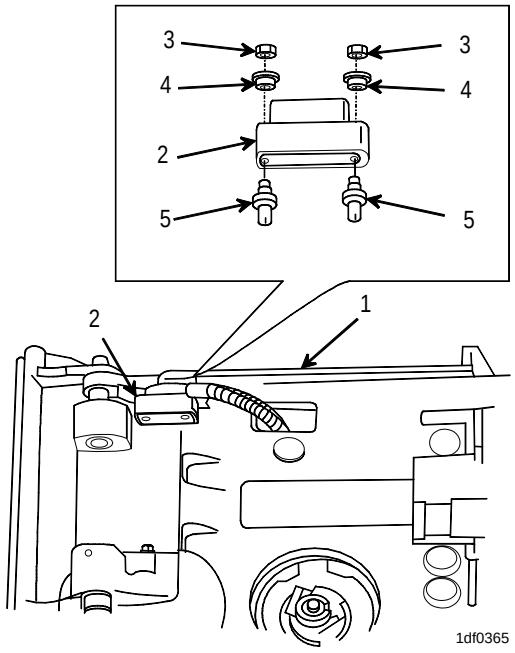
Place feeder handle in down (locked) position to protect electrical connector on bottom of automatic gun feeder.

REMOVAL

1. REMOVE ELECTRICAL CONNECTOR FROM BRACKET ASSEMBLY BUSHING.

   a. Turn automatic gun feeder (1) on its side so that electrical connector (2) is on top.

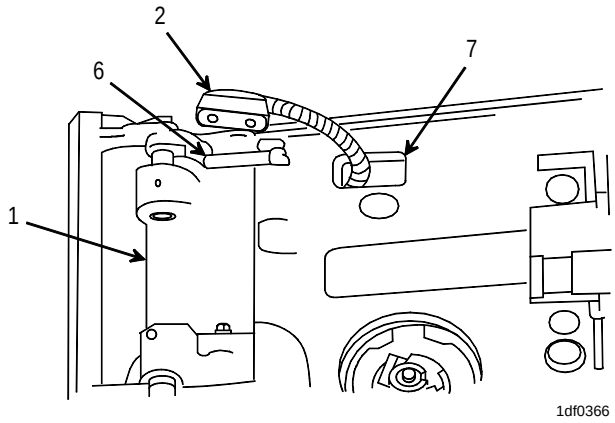
   b. Remove two self-locking nuts (3), two sleeve spacers (4), and two guide pins (5). Discard self-locking nuts.



CAUTION

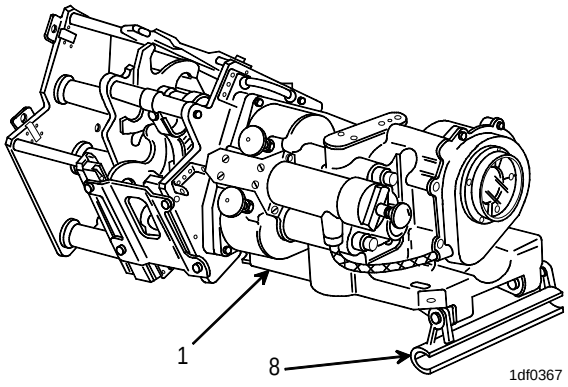
Use caution in removal of electrical connector so as not to damage pins or connector casing. Gently use a screwdriver to pry on rubber part of electrical connector if needed to remove electrical connector from bracket assembly bushing.

   c. Pull electrical connector (2) out of bracket assembly bushing (6) and push electrical connector (2) through hole (7) in automatic gun feeder (1).



2. POSITION AUTOMATIC GUN FEEDER.

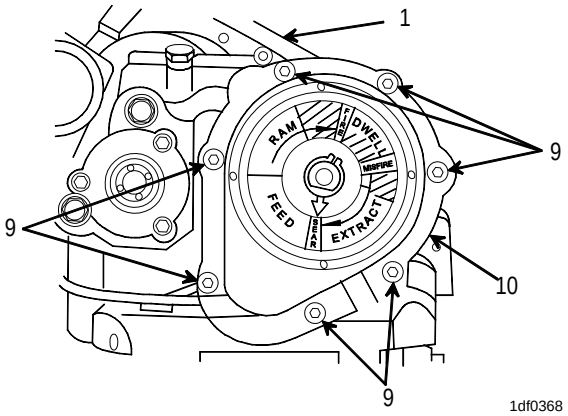
Place automatic gun feeder (1) on a clean, flat surface with handle (8) in down position.



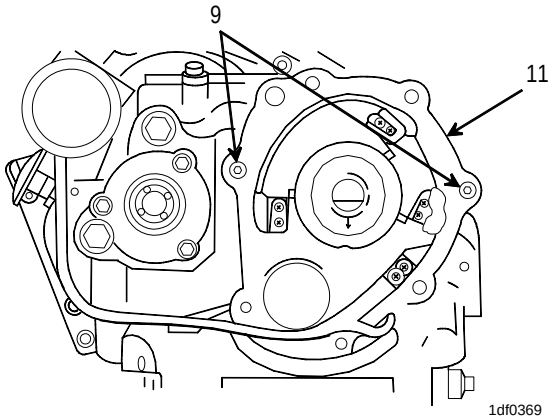
3. REMOVE ACCESS COVER.

a. Remove seven capscrews (9) from access cover (10).

b. Pull access cover (10) from automatic gun feeder (1).



c. Temporarily install two capscrews (9) into index driver cover assembly (11).



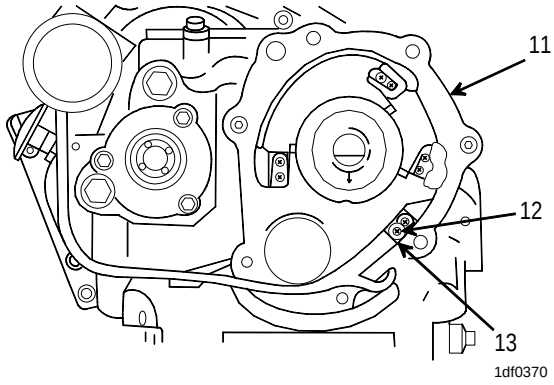
REMOVAL - Continued

CAUTION

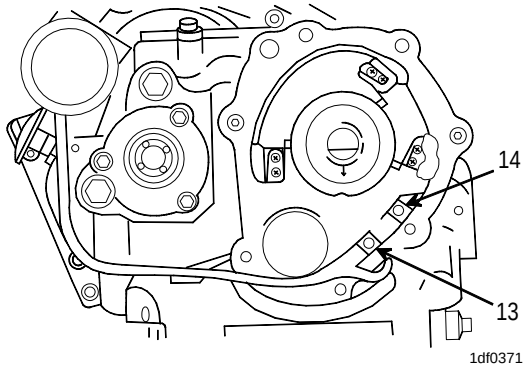
Use flat tip screwdriver to gently pry connector apart, using caution not to damage connector.

4. DISCONNECT WIRING HARNESS CONNECTOR J2.

   a. Remove screw (12) from wiring harness connector J2 (13) on the index drive cover assembly (11).



   b. Pull wiring harness connector J2 (13) out of cable connector (14).



NOTE

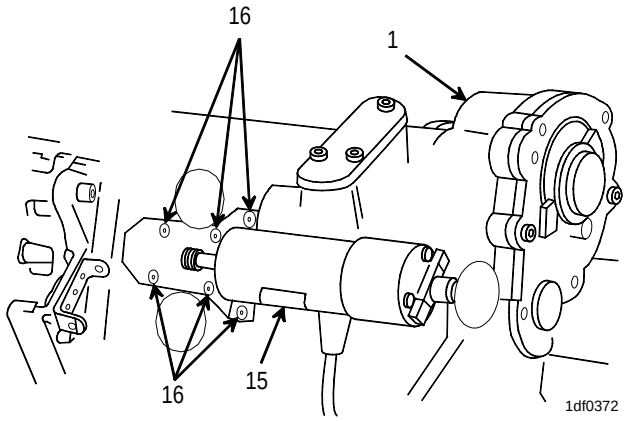
Slide yoke actuator may be attached to feed select solenoid when removed. If it is, reinstall slide yoke actuator.

5. REMOVE ELECTRICAL FEED SELECT SOLENOID.

   a. Place automatic gun feeder (1) against work surface with electrical feed select solenoid (15) positioned as shown.

   b. Remove six capscrews (16).

   c. Lift electrical feed select solenoid (15) from automatic gun feeder (1).

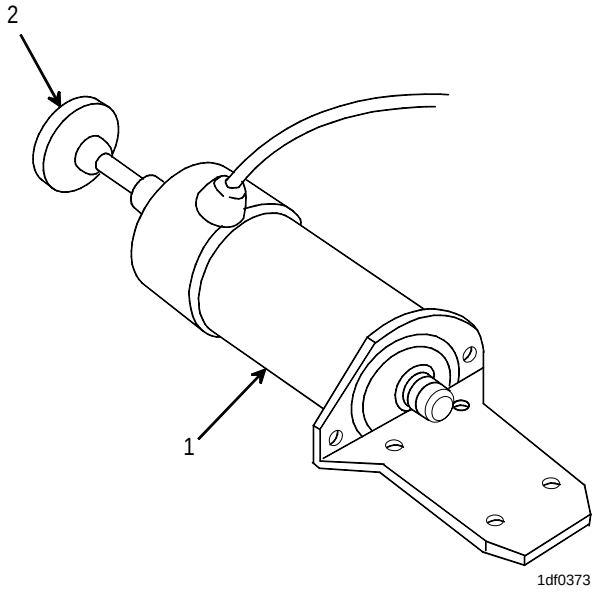


INSPECTION

1. INSPECT ELECTRICAL FEED SELECT SOLENOID.

   a. Visually check electrical feed select solenoid (1) for cracks, bends, and broken parts. If any of these conditions are found, replace electrical feed select solenoid.

   b. On electrical feed select solenoid (1), push and pull red select knob (2) to verify that it locks into detent positions and that plunger moves in and out. If it doesn't, replace electrical feed select solenoid.



   c. Visually inspect wiring harness for frayed cable or broken connector pins. If any of these conditions are found, replace electrical feed select solenoid.

INSPECTION - Continued

2. INSPECT AUTOMATIC GUN FEEDER HOUSING.

   Visually inspect feeder housing for loose or damaged screw threaded inserts. If either of these conditions are found, send feeder housing to Direct Support Maintenance for repair.

INSTALLATION

WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

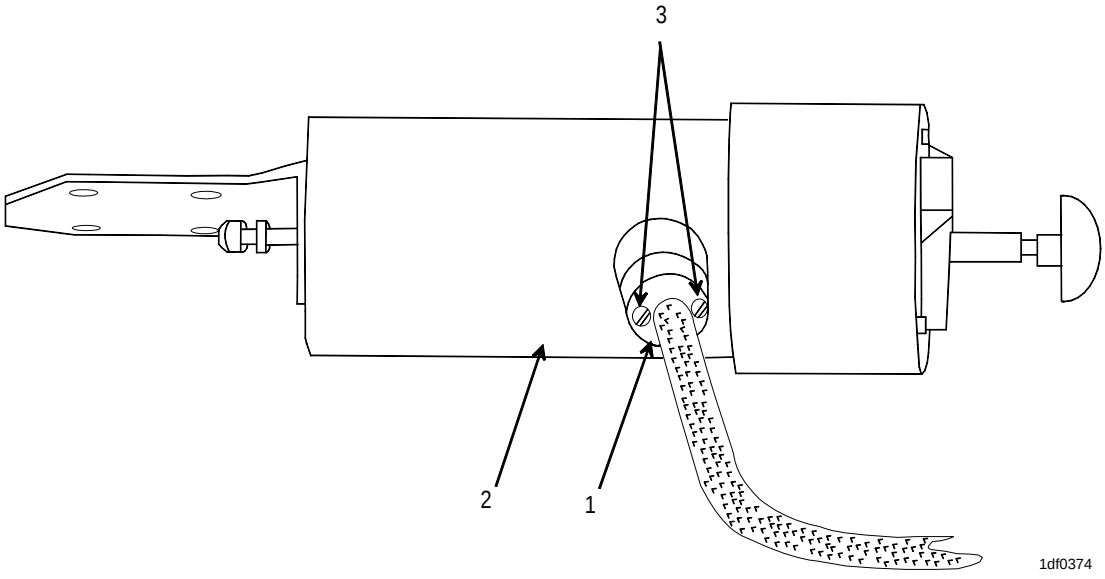
NOTE

If you are installing an electrical feed select solenoid with an integral wiring harness (PN 12524181), proceed to step 2.

1. ASSEMBLE ELECTRICAL FEED SELECT SOLENOID BODY AND WIRING HARNESS.

   a. Install harness connector (1) into electrical feed select solenoid body (2) with two captive screws (3).

   b. Lockwire two captive screws (3).

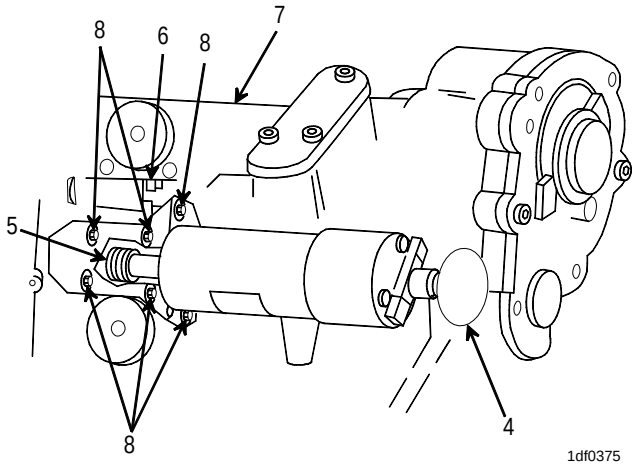


2. INSTALL ELECTRICAL FEED SELECT SOLENOID.

   a. Push red select knob (4) in until it stops.

   b. Place plunger tip (5) into fork actuator T-slot (6) in automatic gun feeder (7) and align holes.

   c. Install and torque six capscrews (8) to 60 in.-lb ± 5.0 in.-lb (6.78 N-m ± 0.57 N-m).



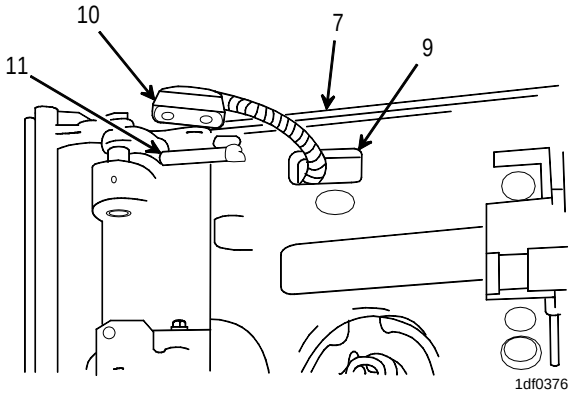
CAUTION

Use caution in installation of electrical connector so as not to damage pins or connector casing. Gently use a screwdriver to pry on rubber part of electrical connector if needed to install electrical connector to bracket assembly bushing.

3. INSTALL ELECTRICAL CONNECTOR.

   a. Position automatic gun feeder (7) on its side with hole (9) on top.

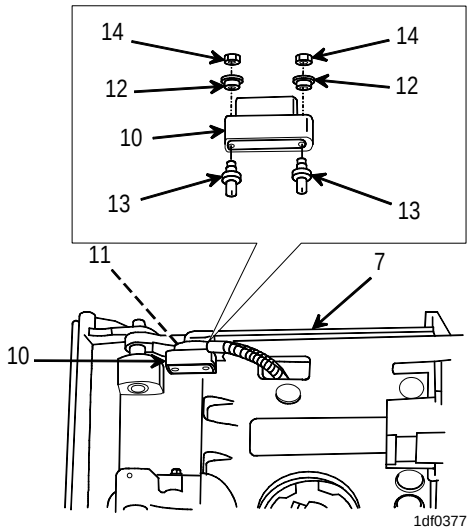
   b. Feed electrical connector (10) through hole (9) in automatic gun feeder (7) and insert electrical connector (10) into bracket assembly bushing (11) with pin side of electrical connector (10) down.



INSTALLATION – Continued

c. Install two spacers (12) through bracket assembly bushing (11) and into electrical connector (10).

d. Install two guide pins (13) through electrical connector (10), bracket assembly bushing (11), and spacers (12). Secure with two new self-locking nuts (14).



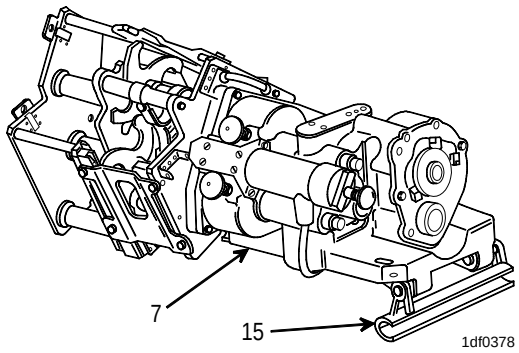
CAUTION

Do not overtighten screw or wiring harness will split.

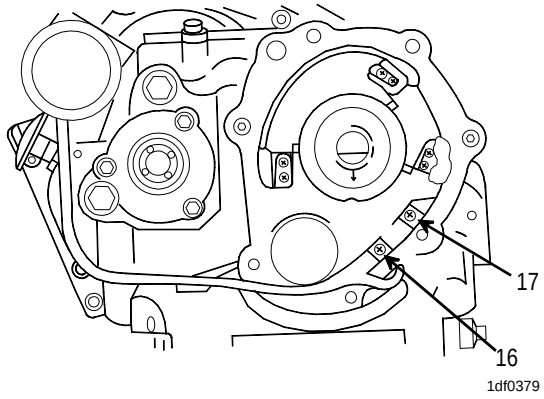
Pins on connectors are fragile. Take care not to damage pins.

4. CONNECT WIRING HARNESS CONNECTOR J2.

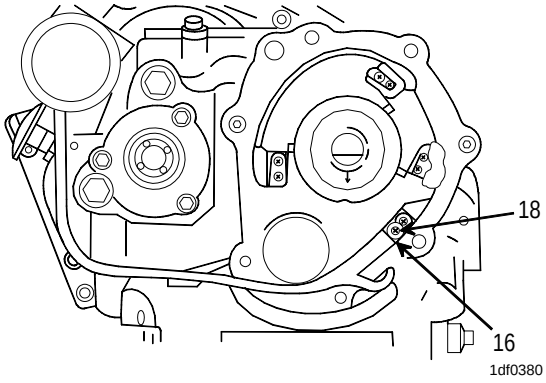
a. Place automatic gun feeder (7) with feeder handle (15) on bottom.



b. Connect wiring harness connector J2 (16) to cable connector (17).

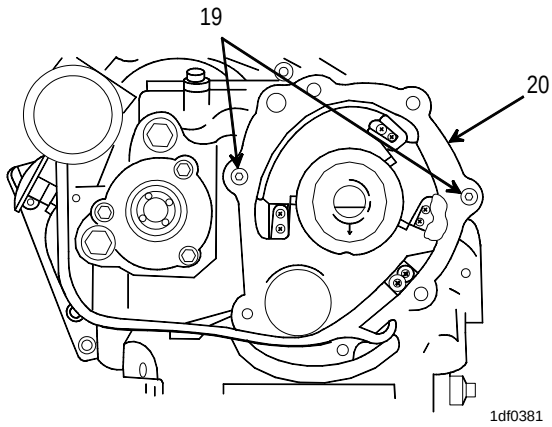


c. Install screw (18) on wiring harness connector J2 (16). Torque screw to 36 in.-oz ± 4 in.-oz (0.254 N-m ± 0.028 N-m).



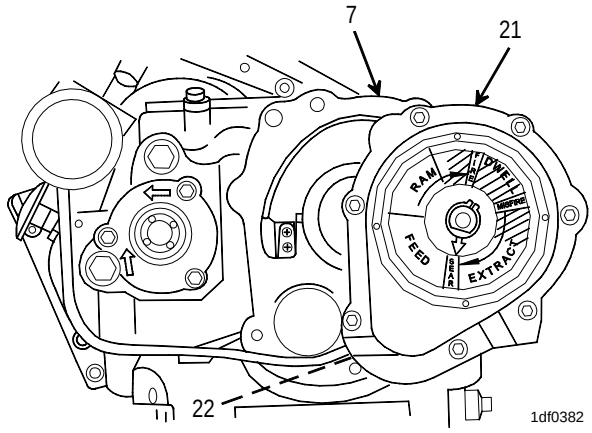
5. INSTALL ACCESS COVER.

a. Remove two capscrews (19) that were temporarily installed into index drive cover assembly (20).

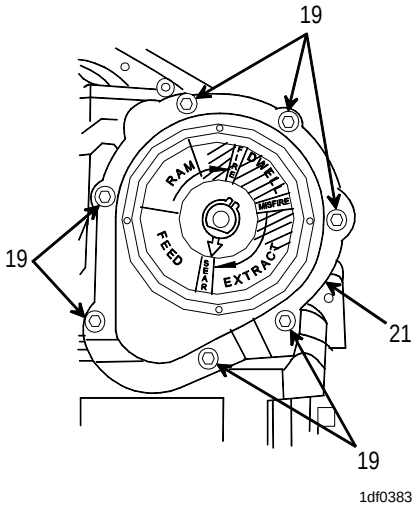


INSTALLATION – Continued

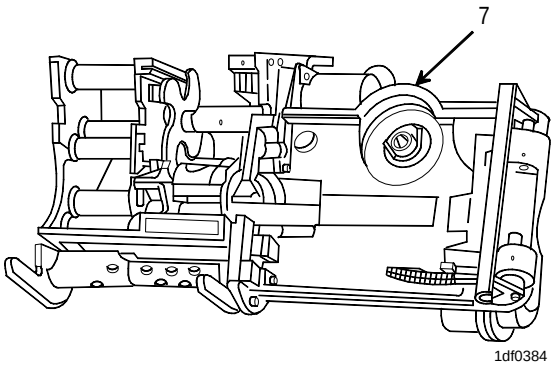
b. Align access cover (21) with automatic gun feeder (7) so wiring harness fits into the cutout (22).



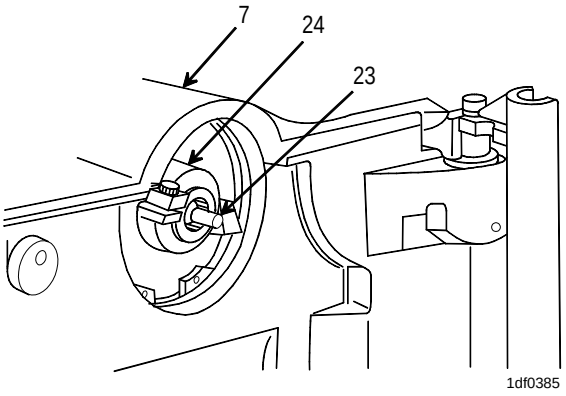
c. Loosely install seven capscrews (19) into access cover (21).



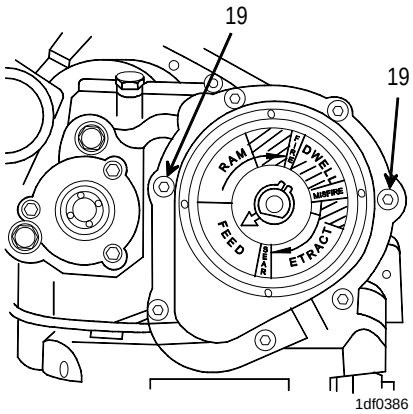
d. Position automatic gun feeder (7) on side as shown.



e. Trip automatic gun feeder (7) out of sear position by pressing rod (23) in and turning worm shaft nut (24) counterclockwise until arrow points between the two "E"s in the word "FEED".

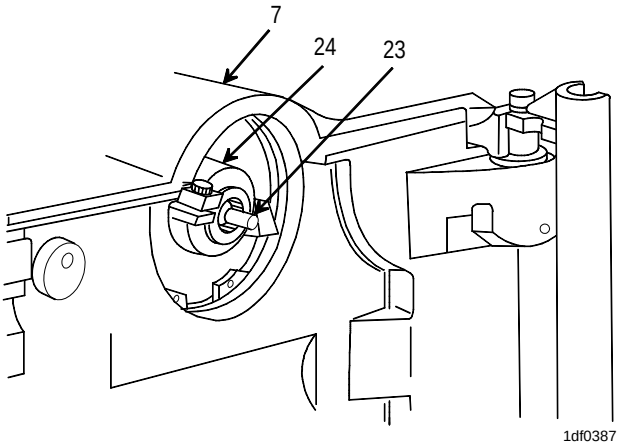


f. Tighten two opposing capscrews (19).



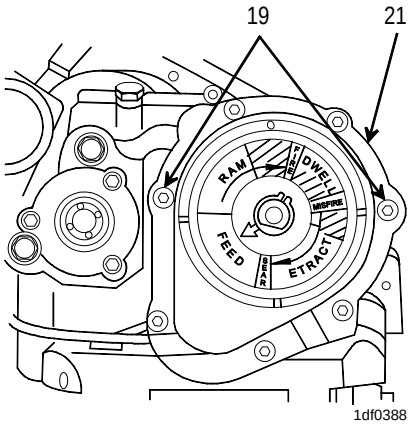
g. Rotate worm shaft nut (24) counterclockwise until automatic gun feeder (7) locks in sear position. Trip automatic gun feeder (7) out of sear position by pressing in rod (23) and turning worm shaft nut (24) counterclockwise through three complete feed cycles. Feel for binding as worm shaft nut (24) is turned.

h. If no binding is found, proceed to step k.

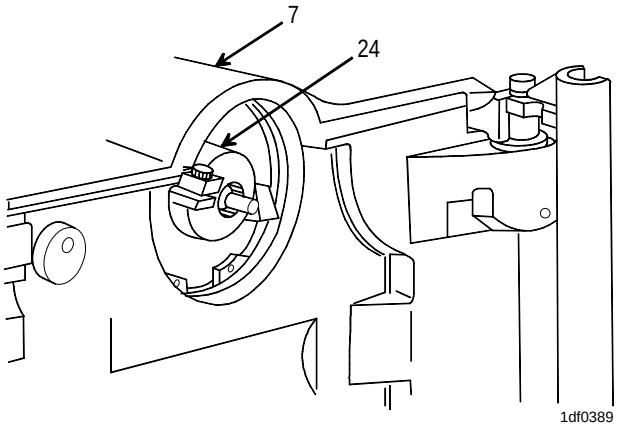


INSTALLATION - Continued

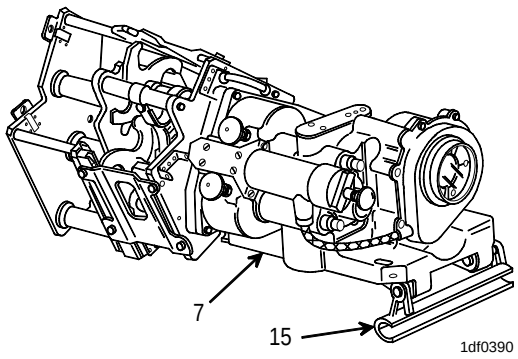
i. If binding occurs, loosen two capscrews (19) 1/4 to 1/2 turn and slightly shift the position of the access cover (21).



j. Trip automatic gun feeder (7) out of sear. Turn the worm shaft nut (24) counterclockwise through one cycle and stop in sear. Repeat steps e through h, as required, until the binding has either been removed or reduced as much as possible.



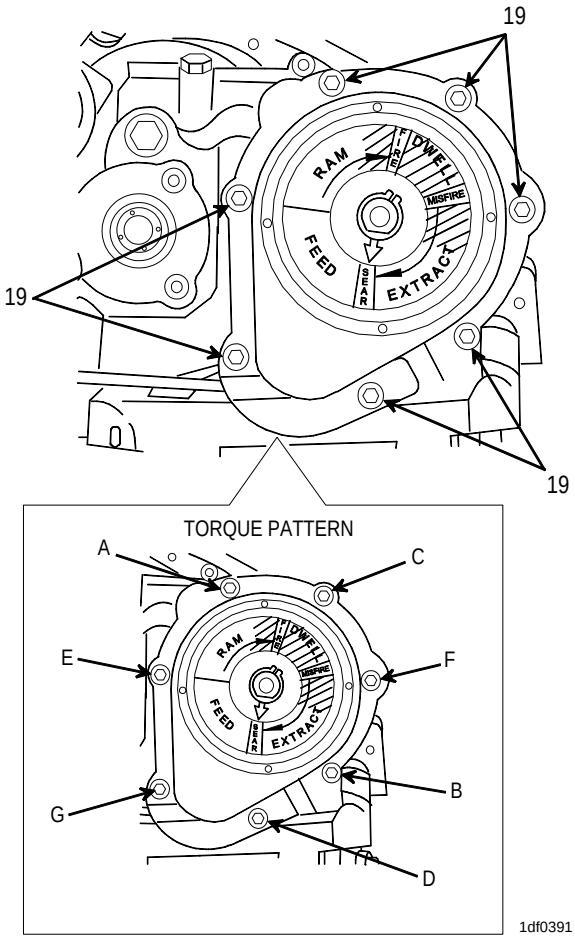
k. Position automatic gun feeder (7) with feeder handle (15) down.



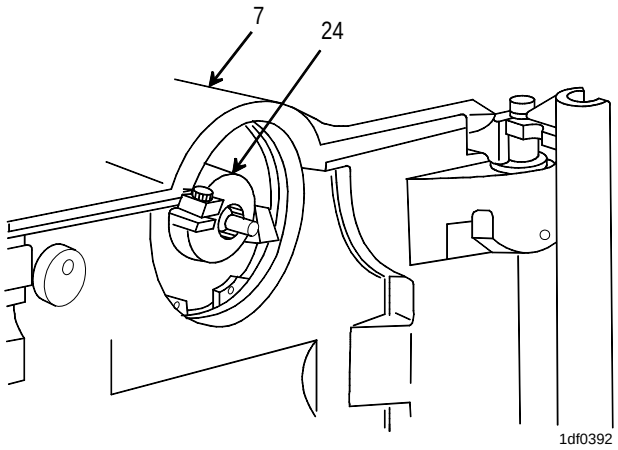
NOTE

Follow the alphabetical torque pattern to ensure that binding does not occur.

l. Torque capscrews (19) to 60 in.-lb ± 5.0 in.-lb (6.78 N-m ± 0.57 N-m) in accordance with torque pattern.



m. Trip automatic gun feeder (7) out of sear and turn the worm shaft nut (24) counterclockwise through three complete feed cycles. If binding occurs, repeat steps c through h.



6. PERFORM AUTOMATIC GUN FEEDER ELECTRICAL CHECK (WP 0006 00).

7. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

ELECTRICAL FEED SELECT SOLENOID BODY REMOVAL/INSTALLATION REMOVAL, INSPECTION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Cross-tip screwdriver (item 32, WP 0085 00)
Goggles (item 19, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)
4-mm socket wrench (item 37, WP 0085 00)

Materials/Parts
Lockwire (item 33, WP 0116 00)

References
WP 0006 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

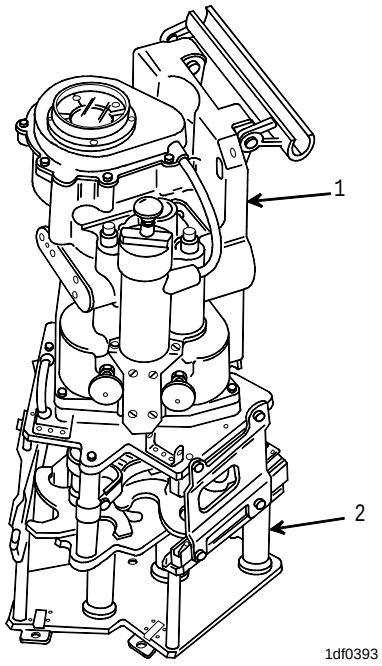
CAUTION

Place feeder handle in down (locked) position to protect electrical connector on bottom of automatic gun feeder.

REMOVAL

1. POSITION FEEDER DRIVE ASSEMBLY.

   Position automatic gun feeder (1) standing upright on forward feed assembly (2).



WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

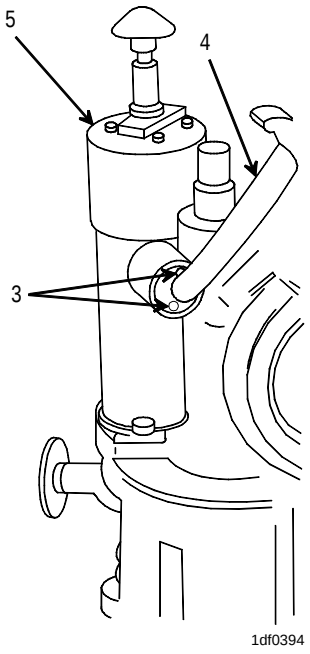
Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

2. DISCONNECT WIRING HARNESS CONNECTOR P2.

   a. Remove lockwire from two captive screws (3).

   b. Loosen two captive screws (3).

   c. Remove wiring harness (4) from electrical feed select solenoid (5).



NOTE

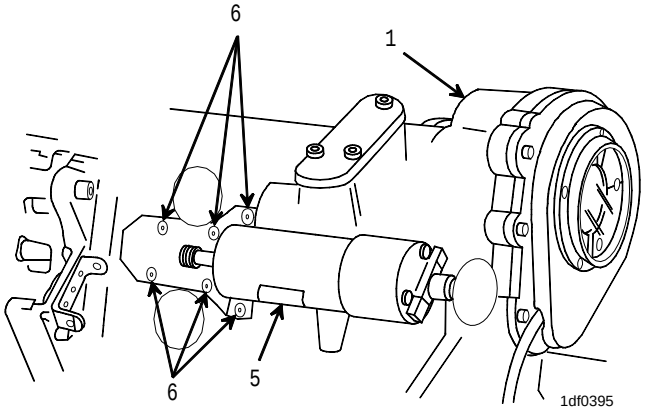
Slide yoke actuator may be attached to feed select solenoid when removed. If it is, reinstall slide yoke actuator.

3. REMOVE ELECTRICAL FEED SELECT SOLENOID.

   a. Place automatic gun feeder (1) against work surface with electrical feed select solenoid (5) positioned as shown.

   b. Remove six capscrews (6).

   c. Lift electrical feed select solenoid (5) from automatic gun feeder (1).



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INSPECTION

1. INSPECT ELECTRICAL FEED SELECT SOLENOID WIRING HARNESS.

   Visually inspect electrical feed select solenoid wiring harness connector for loose, damaged, or missing hardware. If any of these conditions are found, replace hardware.

2. INSPECT AUTOMATIC GUN FEEDER HOUSING.

   Visually inspect feeder housing for loose or damaged screw threaded inserts. If either of these conditions are found, send feeder housing to Direct Support Maintenance for repair.

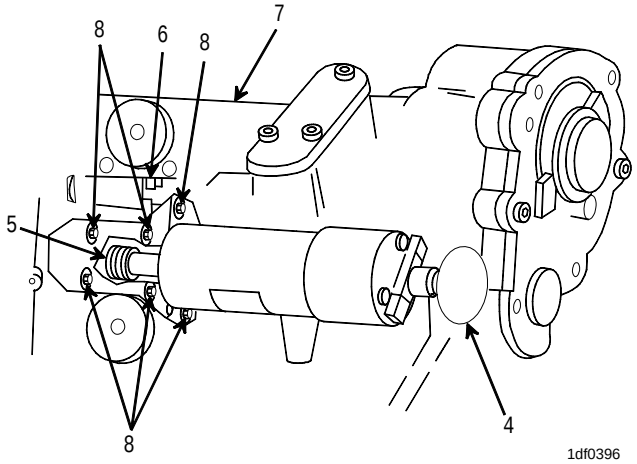
INSTALLATION

1. INSTALL ELECTRICAL FEED SELECT SOLENOID.

   a. Push red select knob (1) in until it stops.

   b. Place plunger tip (2) into fork actuator T-slot (3) in automatic gun feeder (4) and align holes.

   c. Install and torque six capscrews (5) to 60 in.-lb ± 5 in.-lb (6.78 N-m ± 0.57 N-m).



WARNING

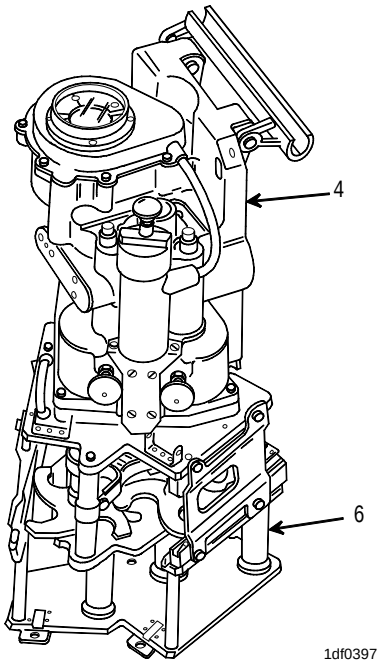
Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

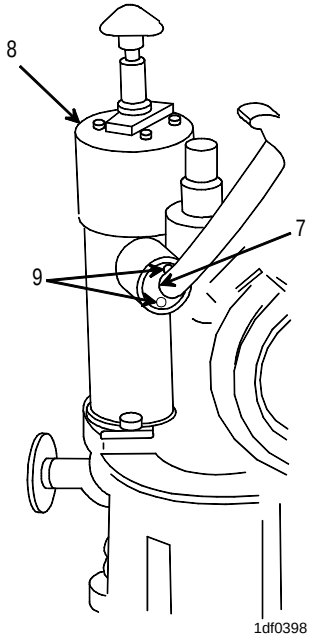
2. CONNECT WIRING HARNESS CONNECTOR P2.

   a. Position automatic gun feeder (4) standing upright on forward feed assembly (6).



b. Install wiring harness connector (7) onto electrical feed select solenoid (8) with two captive screws (9).

c. Lockwire two captive screws (9). Torque screws to 4.0 in.-lb ± 1.0 in.-lb (0.45 N-m ± 0.11 N-m).



3. PERFORM AUTOMATIC GUN FEEDER ELECTRICAL CHECK (WP 0006 00).

4. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

ELECTRICAL FEED SELECT SOLENOID WIRING HARNESS REPLACEMENT REMOVAL, INSPECTION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Bit holder (item 20, WP 0085 00)
Cross-tip screwdriver (item 32, WP 0085 00)
Goggles (item 19, WP 0085 00)
Screwdriver bit (item 2, WP 0085 00)
Socket (item 36, WP 0085 00)
Torque wrench, 0-80 in.-oz (item 51, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)
4-mm socket wrench (item 37, WP 0085 00)

Materials/Parts
Lockwire (item 33, WP 0116 00)
Self-locking nut (2) (MS21042-04)

Personnel Required
Two

References
WP 0006 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

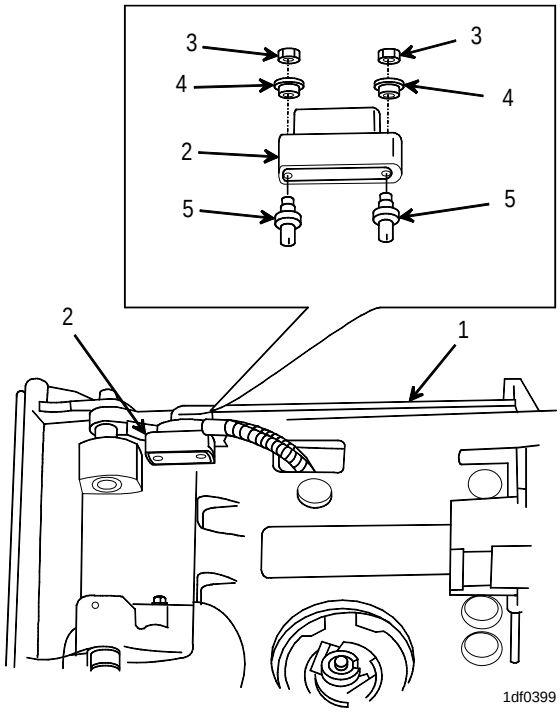
Keep your fingers away from moving parts of gun. Serious injury or death may occur.

REMOVAL

1. REMOVE ELECTRICAL CONNECTOR FROM BRACKET ASSEMBLY BUSHING.

   a. Turn automatic gun feeder (1) on its side so that electrical connector (2) is on top.

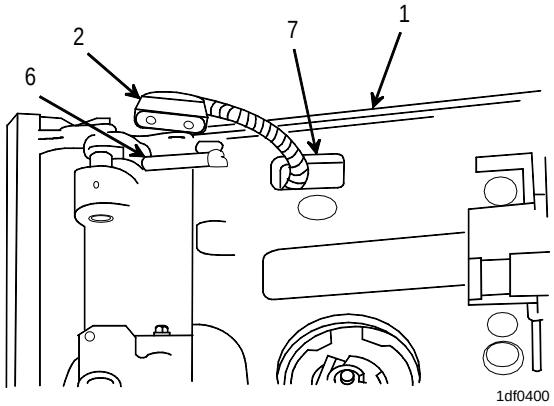
   b. Remove two self-locking nuts (3), two sleeve spacers (4), and two guide pins (5). Discard self-locking nuts.



CAUTION

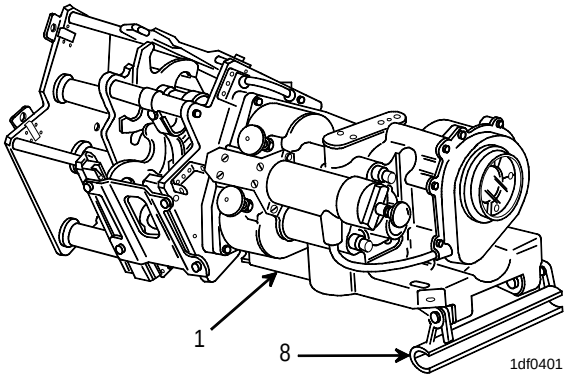
Use caution in removal of electrical connector so as not to damage pins or connector casing. Gently use a screwdriver to pry on rubber part of electrical connector if needed to remove connector from bracket assembly bushing.

   c. Pull electrical connector (2) out of bracket assembly bushing (6) and push electrical connector (2) through hole (7) in automatic gun feeder (1).



2. POSITION AUTOMATIC GUN FEEDER.

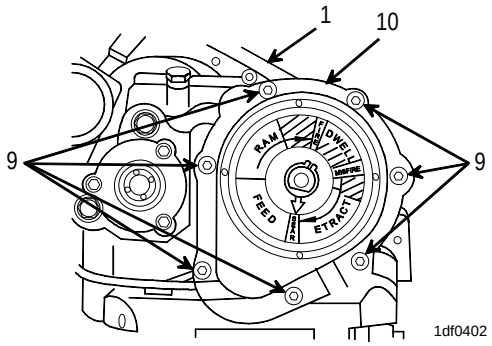
Place automatic gun feeder (1) on a clean, flat surface with feeder handle (8) in down position.



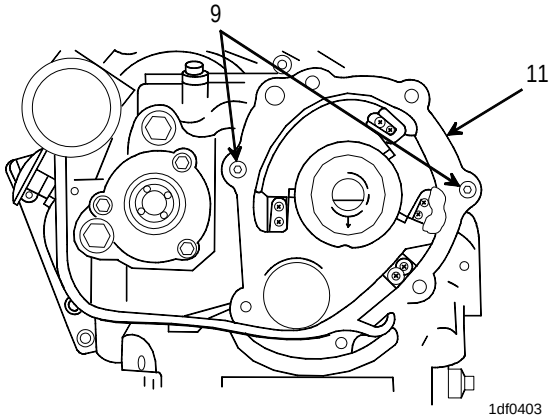
3. REMOVE ACCESS COVER.

a. Remove seven capscrews (9) from access cover (10).

b. Pull access cover (10) from automatic gun feeder (1).



c. Temporarily reinstall two capscrews, (9) into index drive cover assembly (11).



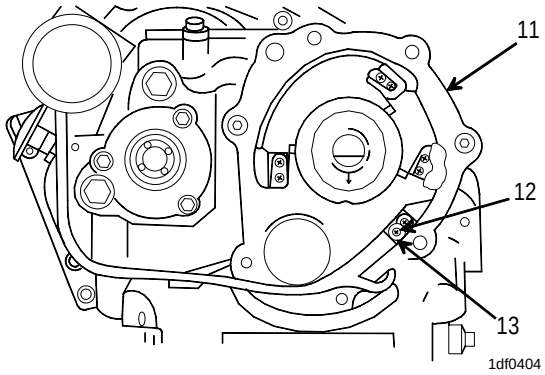
REMOVAL - Continued

CAUTION

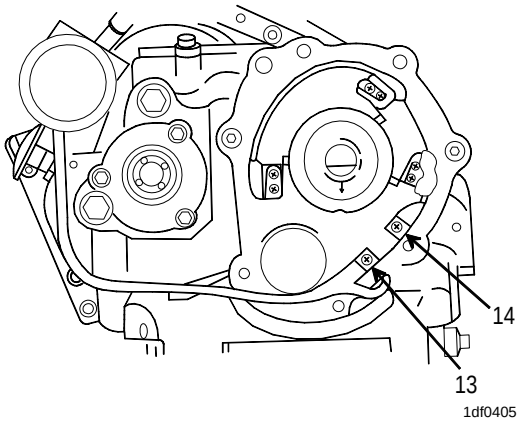
Using flat tip screwdriver, gently pry connector apart, using caution not to damage connector.

4. DISCONNECT WIRING HARNESS CONNECTOR J2.

   a. Remove screw (12) from wiring harness connector J2 (13) on the index drive cover assembly (11).

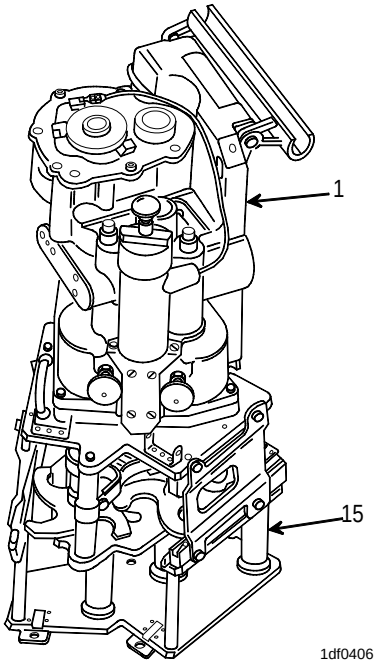


   b. Pull wiring harness connector J2 (13) out of cable connector (14).



5. POSITION AUTOMATIC GUN FEEDER.

Position automatic gun feeder (1) standing upright on forward feed assembly (15).



REMOVAL – Continued

WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

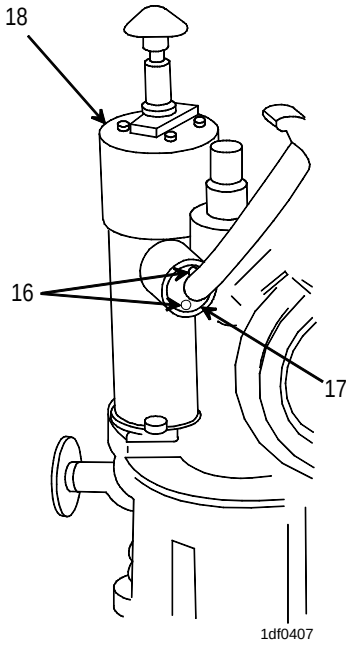
Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

6. DISCONNECT WIRING HARNESS CONNECTOR P2.

   a. Remove lockwire from two captive screws (16).

   b. Loosen two captive screws (16).

   c. Remove wiring harness connector P2 (17) from electrical feed select solenoid (18).



INSPECTION

INSPECT ELECTRICAL FEED SELECT SOLENOID BODY.

Visually inspect feed select solenoid body connector for burnt, bent, or broken connector pins. If any of these conditions are found, replace feed select solenoid body.

INSTALLATION

WARNING

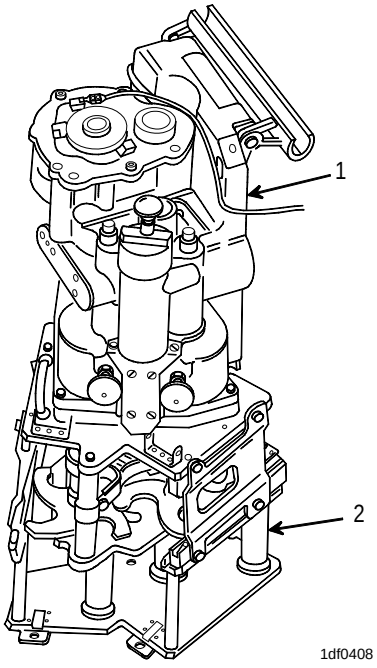
Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

1. CONNECT WIRING HARNESS CONNECTOR P2.

   a. Position automatic gun feeder (1) standing upright on forward feed assembly (2).

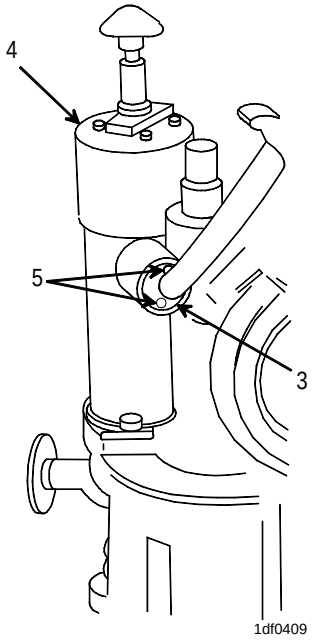


INSTALLATION – Continued

b. Install wiring harness connector P2 (3) onto electrical feed select solenoid (4) with two captive screws (5).

c. Torque two captive screws (5) to 4.0 in.-lb ± 1.0 in.-lb (0.45 N-m ± 0.11 N-m)

d. Using lockwire, lockwire two captive screws (5).



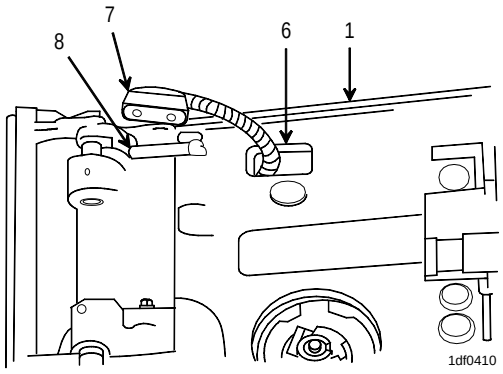
CAUTION

Use caution in installation of electrical connector so as not to damage pins or connector casing. Gently use a screwdriver to pry on rubber part of electrical connector if needed to install connector in bracket assembly bushing.

2. INSTALL ELECTRICAL CONNECTOR.

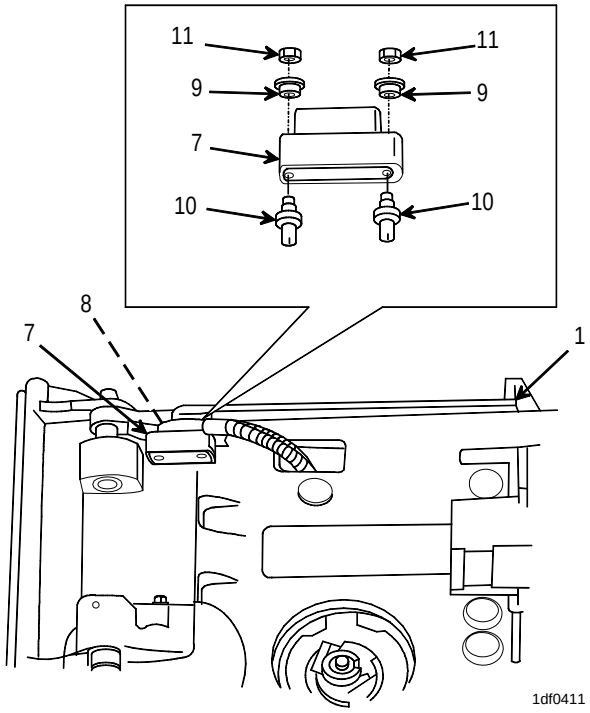
a. Position automatic gun feeder (1) on its side with hole (6) on top.

b. Feed electrical connector (7) through hole (6) in automatic gun feeder (1) and insert electrical connector (7) into bracket assembly bushing (8) with pin side of electrical connector (7) down.



c. Install two spacers (9) through bracket assembly bushing (8) and into electrical connector (7).

d. Install two guide pins (10) through electrical connector (7) and bracket assembly bushing (8) and spacers (9). Secure with two new self-locking nuts (11).

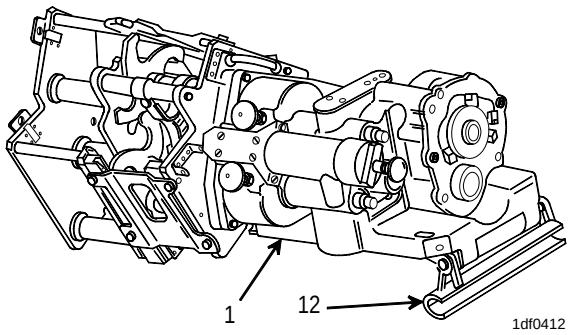


CAUTION

Do not overtighten screw or wiring harness will split.

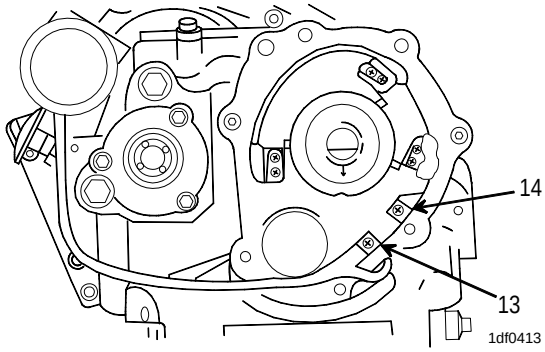
3. CONNECT WIRING HARNESS CONNECTOR J2.

a. Place automatic gun feeder (1) with feeder handle (12) on bottom.

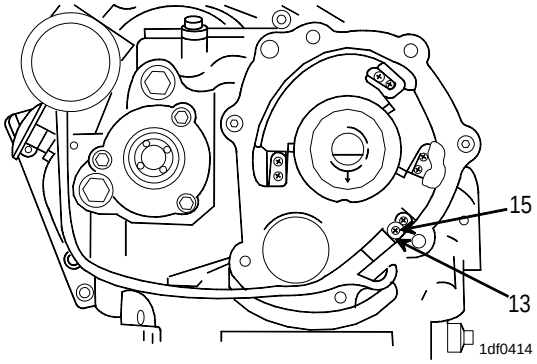


INSTALLATION - Continued

b. Connect wiring harness connector J2 (13) to cable connector (14).

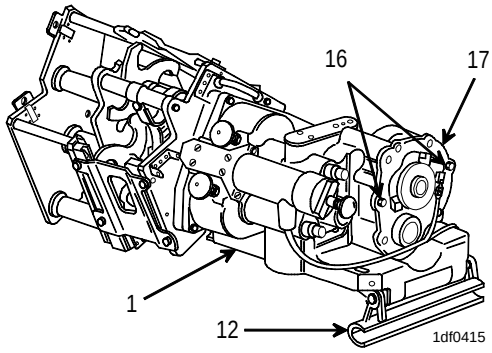


c. Install screw (15) on wiring harness connector J2 (13). Torque screw to 36 in.-oz ± 4 in.-oz (0.254 N-m ± 0.028 N-m).

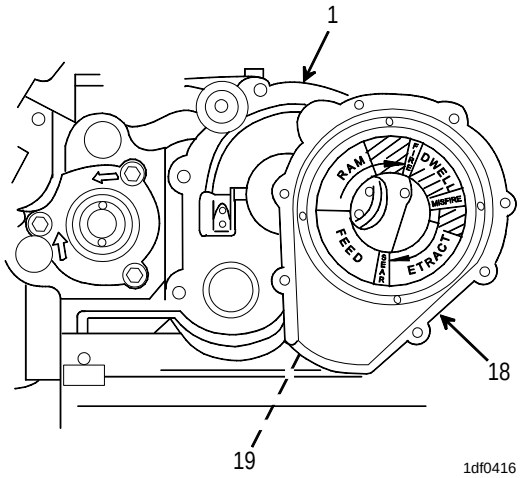


4. INSTALL ACCESS COVER.

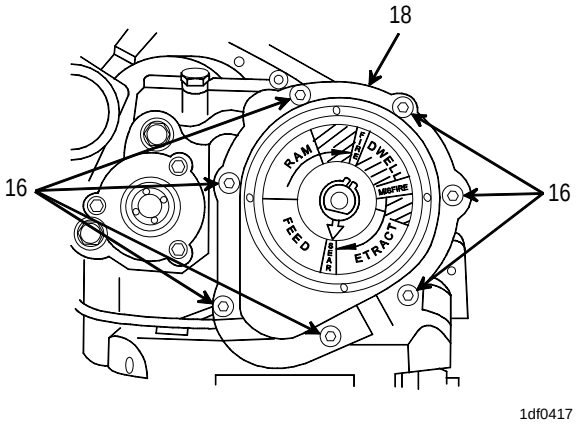
a. Position automatic gun feeder (1) with feeder handle (12) down and remove two capscrews (16) temporarily installed in index drive cover assembly (17).



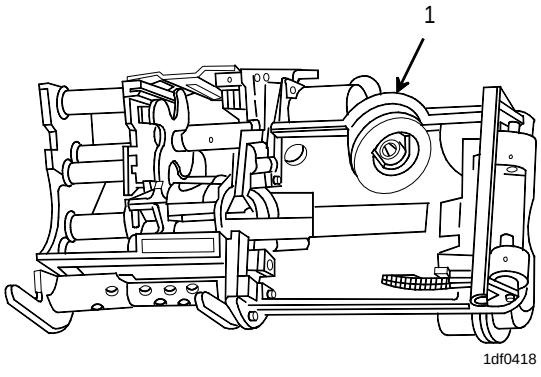
b. Align access cover (18) with automatic gun feeder (1) so wiring harness fits into the cutout (19).



c. Loosely install seven capscrews (16) into access cover (18).

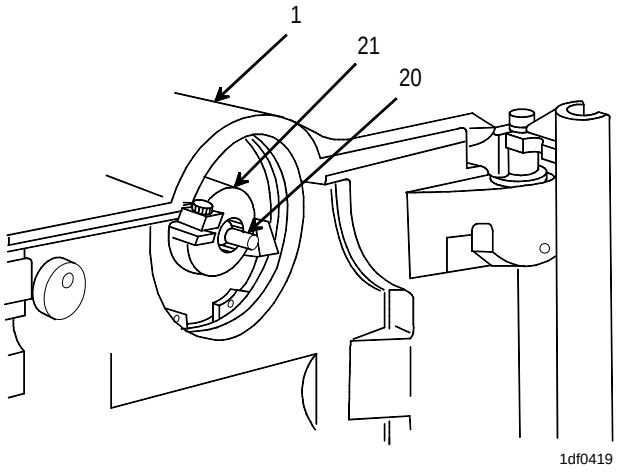


d. Position automatic gun feeder (1) on side as shown.

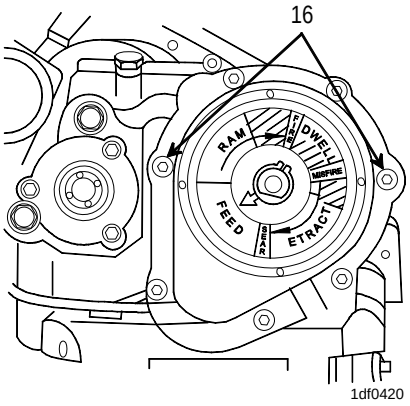


INSTALLATION - Continued

e. Trip automatic gun feeder (1) out of sear position by pressing rod (20) in and turning worm shaft nut (21) counterclockwise until the arrow points between the two "E"s in the word "FEED".

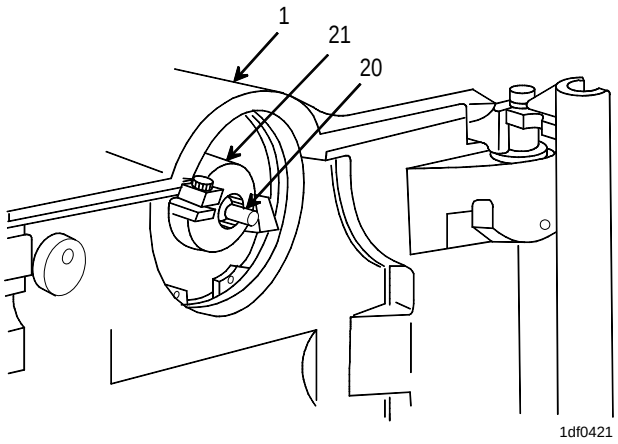


f. Tighten two opposing capscrews (16).

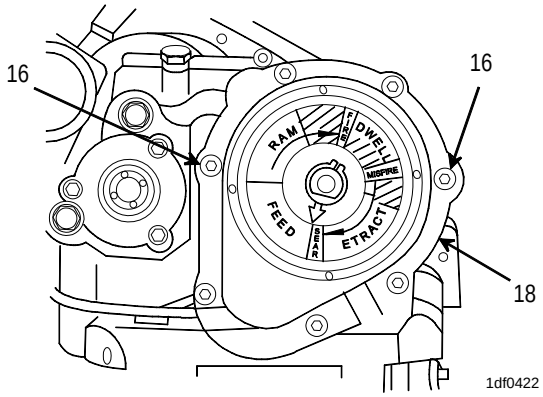


g. Rotate worm shaft nut (21) counterclockwise until automatic gun feeder (1) locks in sear position. Trip automatic gun feeder (1) out of sear position by pressing in rod (20) and turning worm shaft nut (21) counterclockwise through three complete feed cycles. Feel for binding as worm shaft nut (21) is turned.

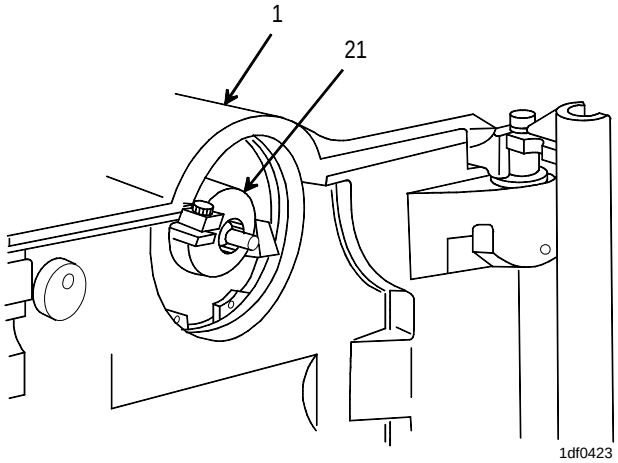
h. If no binding is found, proceed to step k.



i. If binding occurs, loosen two capscrews (16) 1/4 to 1/2 turn and slightly shift the position of the access cover (18).

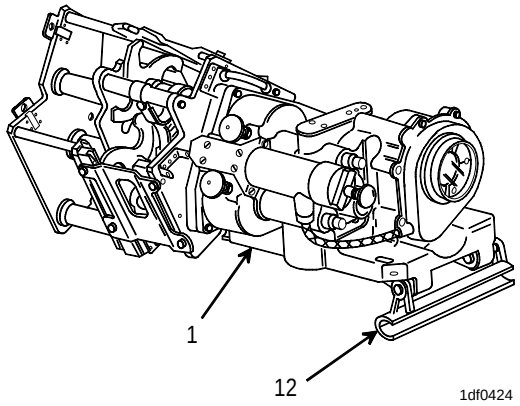


j. Trip automatic gun feeder (1) out of sear position and turn the worm shaft nut (21) counterclockwise through one feed cycle and stop in sear position. Repeat steps e through h as required until the binding has either been removed or reduced as much as possible.



INSTALLATION - Continued

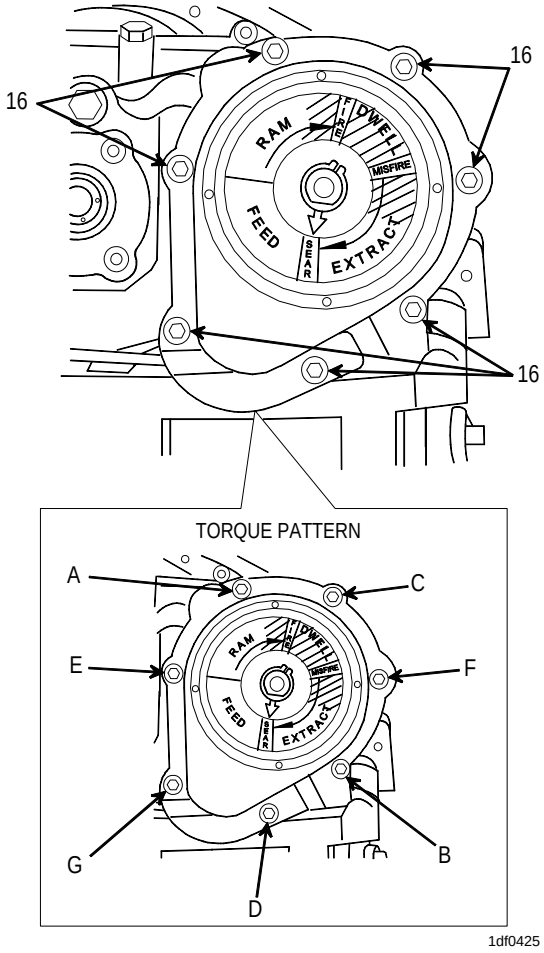
k. Position automatic gun feeder (1) with feeder handle (12) down.



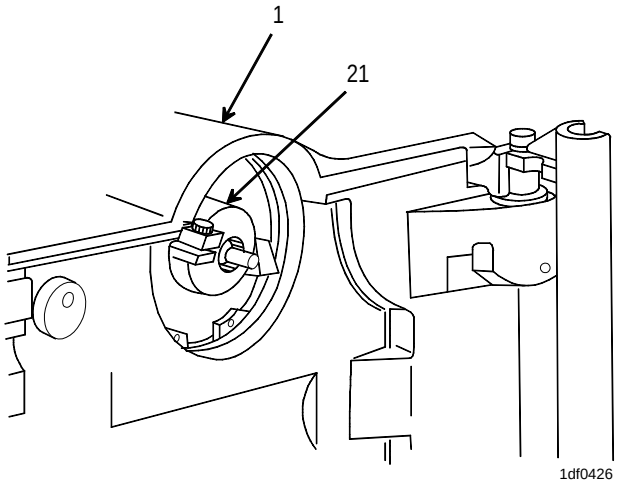
NOTE

Follow the alphabetical torque pattern to ensure that binding is minimized or eliminated.

l. Torque capscrews (16) to 60 in.-lb ± 5.0 in.-lb (6.78 N-m ± 0.57 N-m) in accordance with torque pattern.



m. Trip automatic gun feeder (1) out of sear position and turn worm shaft nut (21) counterclockwise through three complete feed cycles. If binding occurs, repeat steps c through h.



5. PERFORM AUTOMATIC GUN FEEDER ELECTRICAL CHECK (WP 0006 00).

6. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

FEEDER HANDLE DISASSEMBLY/ASSEMBLY DISASSEMBLY, INSPECTION, LUBRICATION, ASSEMBLY

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Goggles (item 19, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)
4-mm socket wrench (item 37, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Adhesive (item 1, WP 0116 00)
Grease (item 11, WP 0116 00)
Lockwire (item 33, WP 0116 00)
Sealing compound primer (item 20, WP 0116 00)
Self-locking nut (2) MS21042-04
8 x 5/8-in. aluminum tube (item 32, WP 0116 00)

Personnel Required
Two

Equipment Conditions
WP 0026 00 Automatic gun feeder removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

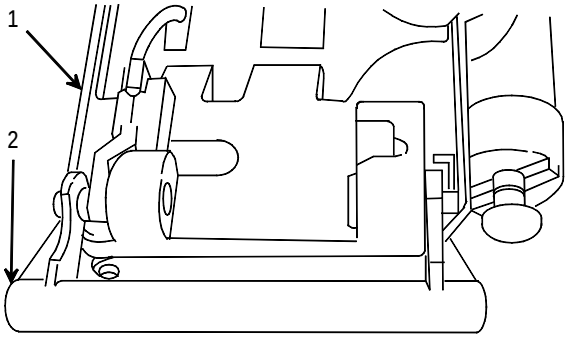
Do not wear jewelry when working on gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

DISASSEMBLY

1. POSITION AUTOMATIC GUN FEEDER.

   Place automatic gun feeder (1) as shown on suitable work surface with feeder handle (2) in unlock position.



WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

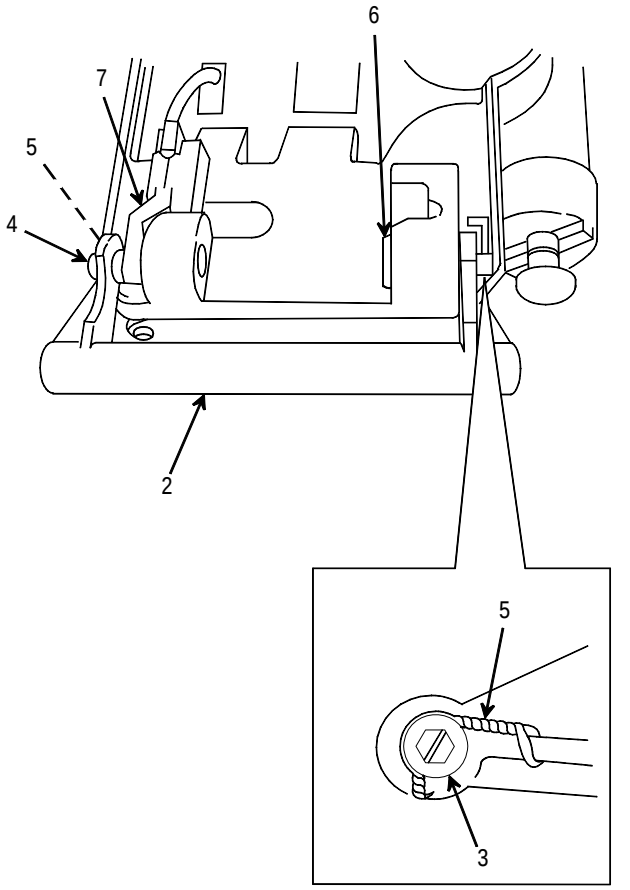
Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

2. REMOVE FEEDER HANDLE.

   a. Remove lockwire from right side bushing-cam assembly capscrew (3).

   b. Remove two capscrews (3) and (4) and two flat washers (5) from feeder handle (2).

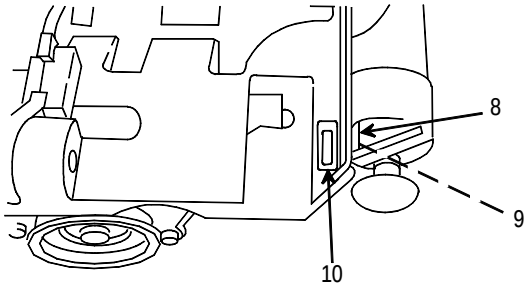
   c. Move feeder handle (2) to right to remove it from bushing-cam assembly (6). Move feeder handle (2) to left to remove it from bushing-bracket assembly (7).



1df0428

3. REMOVE FEEDER HANDLE LATCH.

   a. Remove latch pivot pin (8) and flat washer (9) from feeder handle latch (10).



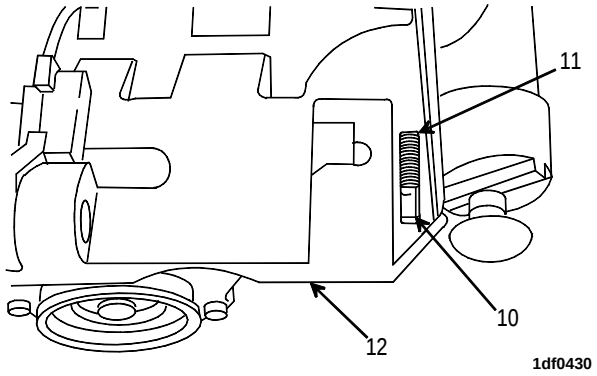
1df0429

DISASSEMBLY - Continued

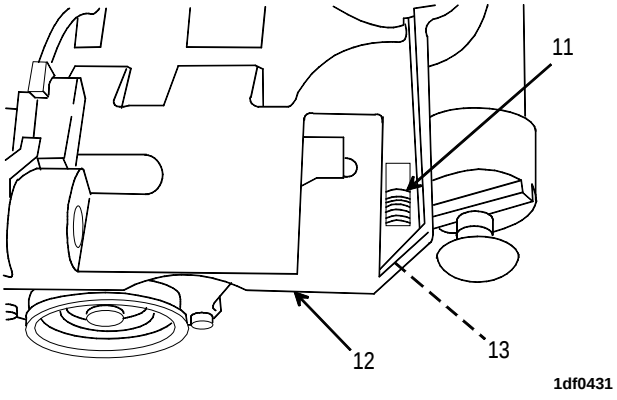
WARNING

Wear eye protection when removing springs or using striking instruments. You can be blinded if struck in the eyes by spring or flying chips.

b. Depress helical spring (11) into housing assembly (12) and remove feeder handle latch (10).



c. Remove helical spring (11) from hole (13) in housing assembly (12).

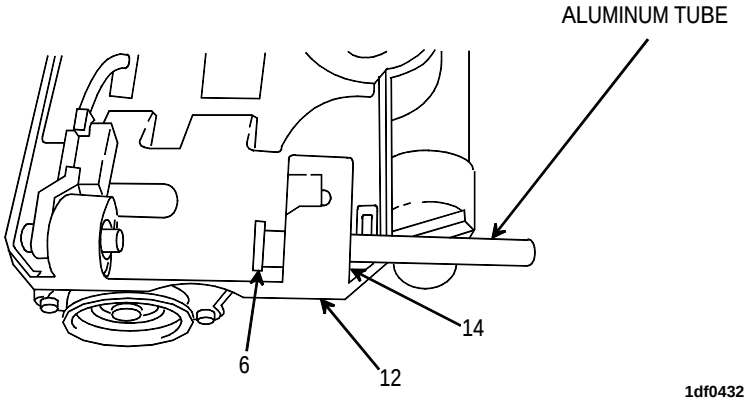


WARNING

Wear eye protection when removing springs or using striking instruments. You can be blinded if struck in the eyes by spring or flying chips.

4. REMOVE BUSHING-CAM ASSEMBLY.

Using 8 x 5/8-in. aluminum tube, tap bushing-cam assembly (6) out of lug (14) on housing assembly (12).



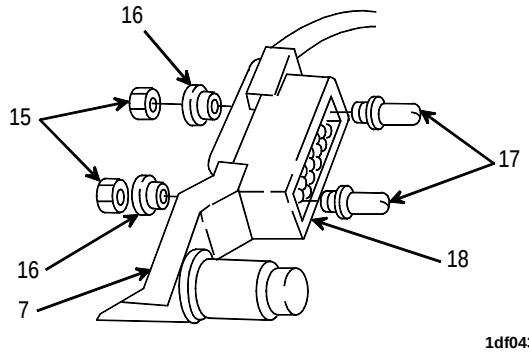
5. REMOVE ELECTRICAL CONNECTOR.

a. Remove two self-locking nuts (15), two sleeve spacers (16), and two guide pins (17). Discard self-locking nuts.

CAUTION

Use of caution in removal of electrical connector so as not to damage pins or connector casing. Gently use screwdriver to pry on rubber part of electrical connector if needed to remove connector from bracket.

b. Pull electrical connector (18) out of bushing-bracket assembly (7).



DISASSEMBLY - Continued

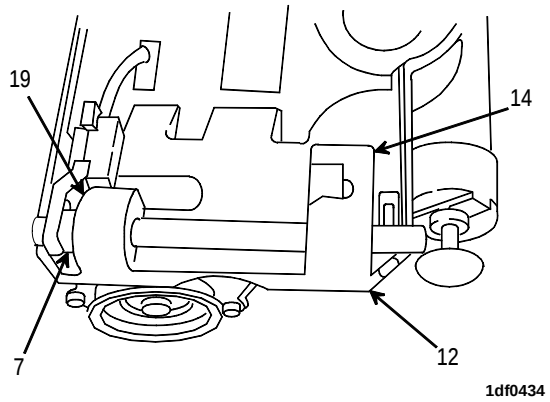
WARNING

Wear eye protection when removing springs or using striking instruments. You can be blinded if struck in the eyes by spring or flying chips.

6. REMOVE BUSHING-BRACKET ASSEMBLY.

   a. Insert 8 x 5/8-in. aluminum tube through lug (14).

   b. Tap bushing-bracket assembly (7) out of lug (19) on housing assembly (12).



INSPECTION

INSPECT FEEDER HANDLE PARTS.

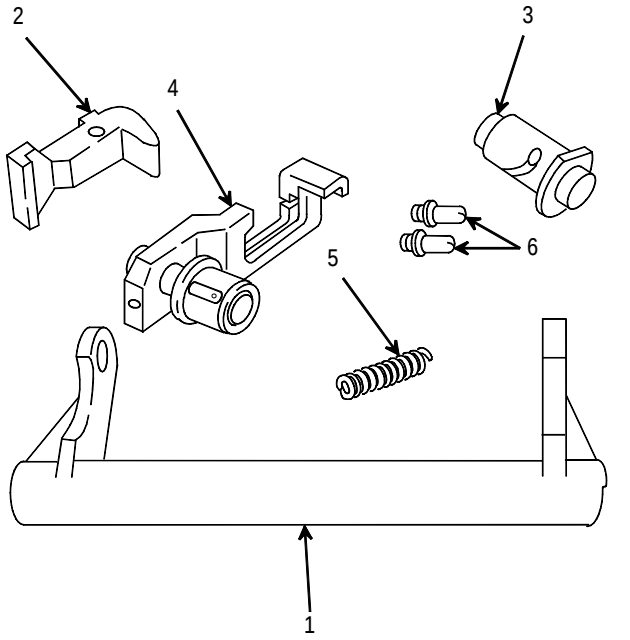
   a. Visually inspect feeder handle (1) for cracks, bends, and chips. If any of these conditions are found, replace feeder handle.

   b. Visually inspect feeder handle latch (2) for cracks, bends, chips and hole longation. If any of these conditions are found, replace feeder handle latch.

   c. Visually inspect bushing-cam assembly (3) and bushing-bracket assembly (4) for galls, cracks, chipped cam pin, and seizing or restricted movement within bushing. If any of these conditions are found, replace defective part.

   d. Visually inspect helical spring (5) for breaks or bends and use ruler to check for free length of 1/32 in. ± 3/32 in. (26.2 mm ± 2.4 mm). If breaks or bends are found, or if length is incorrect, replace helical spring.

   e. Visually inspect guide pins (6) for bends or damaged threads. If either of these conditions are found, replace guide pins.



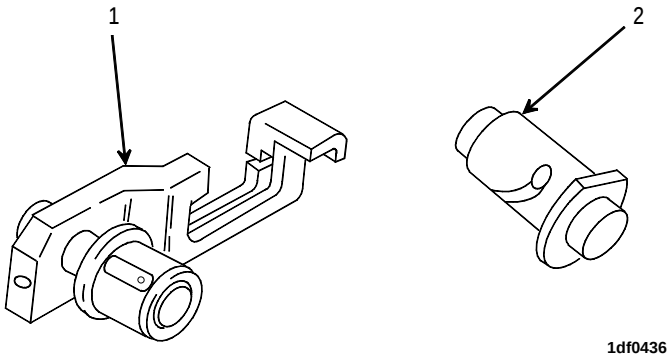
LUBRICATION

1. LUBRICATE BUSHING-BRACKET ASSEMBLY.

   Using acid brush, apply light coat of grease to sliding surface of bushing-bracket assembly (1).

2. LUBRICATE BUSHING-CAM ASSEMBLY.

   Using acid brush, apply light coat of grease to sliding surfaces of bushing cam assembly (2). Avoid getting grease in socket head capscrew threads.



ASSEMBLY

WARNING

Wear eye protection when installing springs. Personnel can be blinded if struck in the eyes by flying springs.

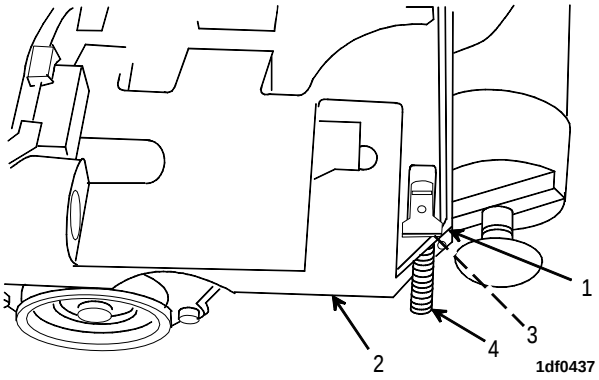
CAUTION

Do not over torque latch pivot pin. Damage to feeder housing threads will result.

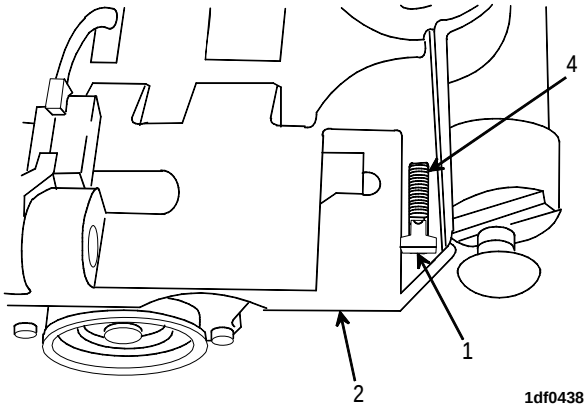
1. INSTALL FEEDER HANDLE LATCH.

   a. Place feeder handle latch (1), rectangular end first, into feeder housing assembly (2). Do not rotate latch.

   b. Align notch in feeder handle latch (1) with helical spring access hole (3) and insert helical spring (4). Using a 5 mm hex wrench and screwdriver, fully insert helical spring.



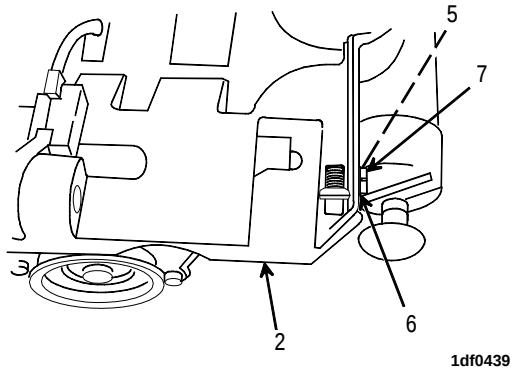
   c. Compress helical spring (4) completely into housing assembly (2) and rotate feeder handle latch (1), 45 degrees.



d. Align feeder handle latch pivot hole with hole (5) in housing assembly (2).

e. Install flat washer (6) on latch pivot pin (7) and install latch pivot pin (7) in housing assembly (2).

f. Torque latch pivot pin (7) to 32.5 in.-lb ± 2.5 in.-lb (3.67 N-m ± 0.28 N-m).

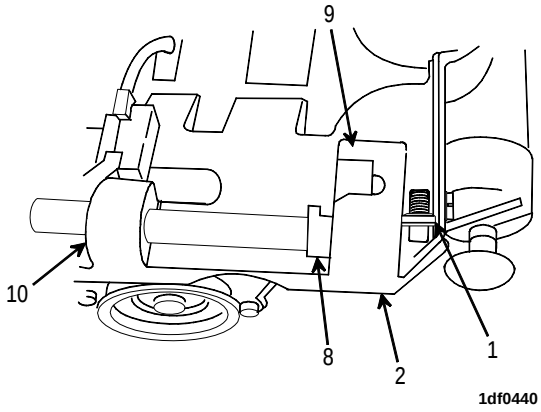


2. INSTALL BUSHING-CAM ASSEMBLY.

a. Insert bushing-cam assembly (8) into lug (9) of housing assembly (2), with flat edge of cam flange down.

b. Insert 8 x 5/8-in. aluminum tube through lug (10).

c. Hold feeder handle latch (1) out of the way and tap bushing-cam assembly (8) into lug (9) until cam flange is flush with lug (9).

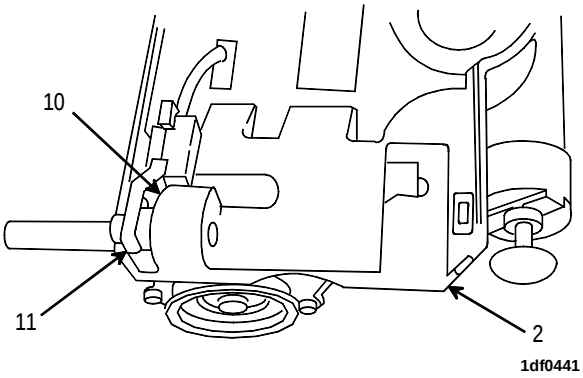


ASSEMBLY – Continued

3. INSTALL BUSHING-BRACKET ASSEMBLY.

   a. Insert bushing-bracket assembly (11) into lug (10) of housing assembly (2).

   b. Place 8 x 5/8-in. aluminum tube over bushing-bracket assembly (11). Tap aluminum tube until bushing-bracket assembly (11) is flush with lug (10).



WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

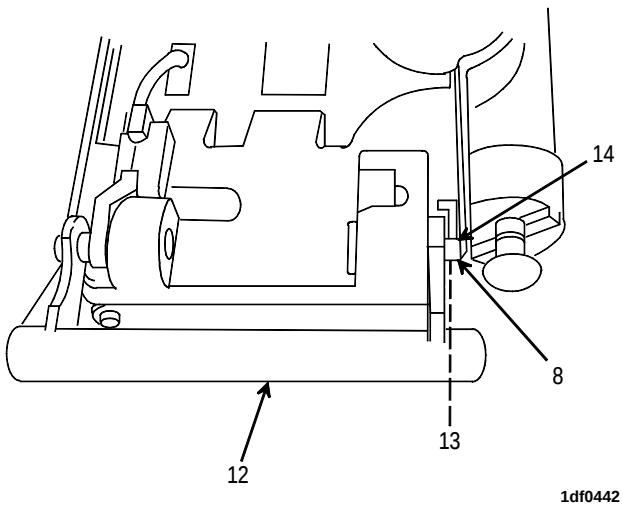
CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

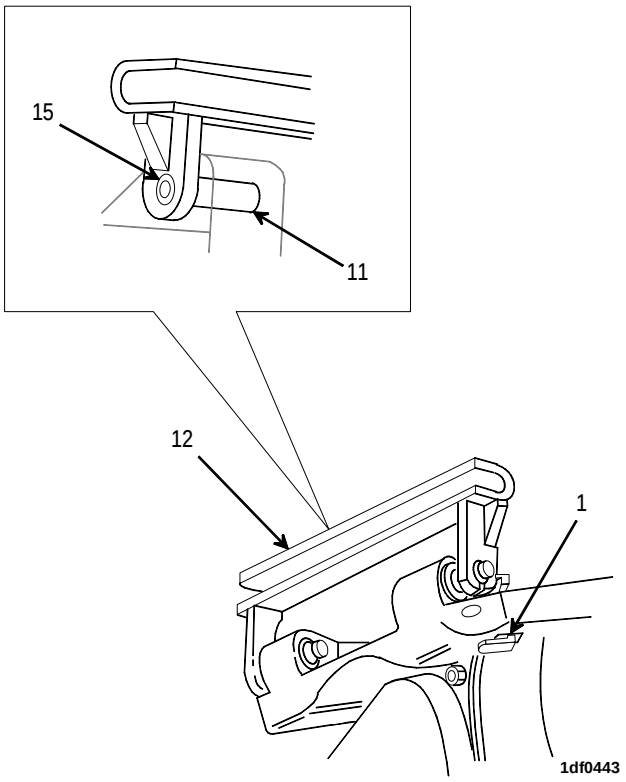
4. INSTALL FEEDER HANDLE.

   a. Place slotted side of feeder handle (12) on bushing-cam assembly (8).

   b. Install flat washer (13) on capscrew (14) and install capscrew (14) in bushing-cam assembly (8). Torque capscrew (14) to 60 in.-lb ± 5 in.-lb (6.78 N-m ± 0.57 N-m).



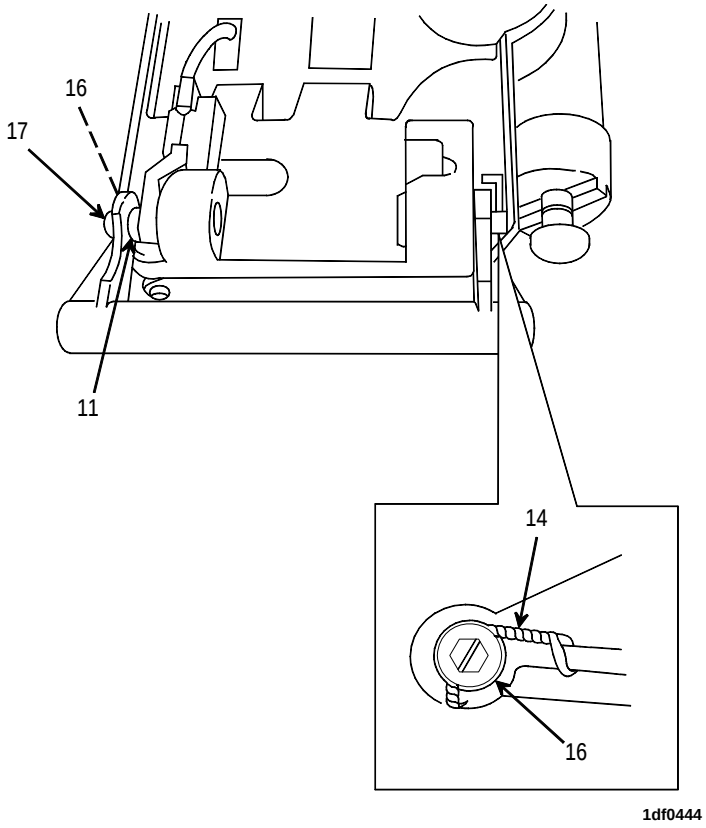
c. Press feeder handle latch (1) and rotate feeder handle (12) up, aligning hole (15) in feeder handle (12) with bushing-bracket assembly (11) at the same time.



ASSEMBLY – Continued

d. Install flat washer (16) on capscrew (17) and install capscrew (17) in bushing-bracket assembly (11). Torque capscrew (17) to 60 in.-lb ± 5 in.-lb (6.78 N-m ± 0.57 N-m).

e. Install lockwire to right side bushing cam assembly capscrew (14).

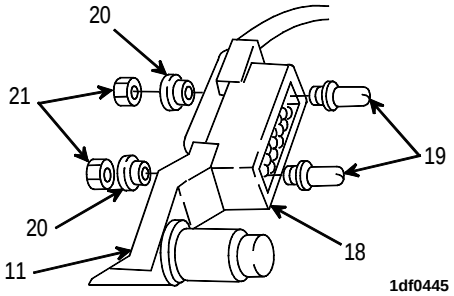


5. INSTALL ELECTRICAL CONNECTOR.

a. Insert electrical connector (18) into bushing-bracket (11) with pin side of connector facing inward.

b. Install guide pins (19) through connector (18) and bushing-bracket assembly (11).

c. Hold guide pins (19) and install two sleeve spacers (20) and two new self-locking nuts (21).

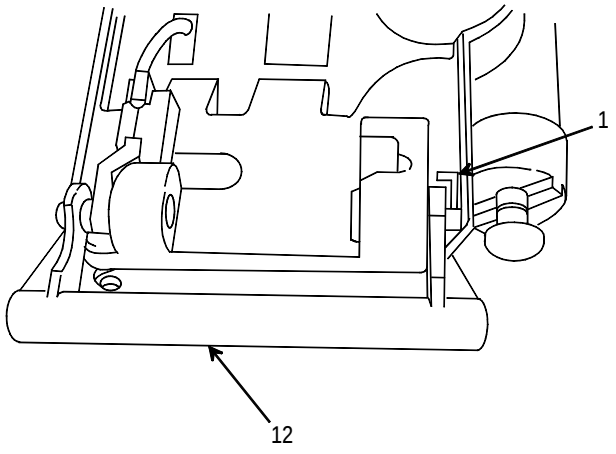


6. CHECK OPERATION OF FEEDER HANDLE.

   a. Press feeder handle latch (1). Rotate feeder handle (12) 1/2 in. (12.7 mm) and release feeder handle latch (1).

   b. Continue to rotate feeder handle (12) until feeder handle latch (1) locks handle.

   c. Repeat steps a and b in the opposite direction.



1df0446

7. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

RECOIL MECHANISM REMOVAL/INSTALLATION
REMOVAL, CLEANING, INSPECTION, SERVICING, LUBRICATION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Damper rod tool (item 10, WP 0085 00)
Damper rod tool (item 11, WP 0085 00)
Damper valve tool (item 44.1, WP 0085 00)
Goggles (item 19, WP 0085 00)
Rubber gloves (item 18, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)
Vise (item 45, WP 0085 00)
Vise holding tool (item 14.1, WP 0085 00)
32-mm combination wrench (item 46, WP 0085 00)
32-mm crowfoot wrench (item 9, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Cotter pin (MS24665-283)
Damper fluid (item 10, WP 0116 00)
Dry cleaning solvent (item 27, WP 0116 00)

Materials/Parts - Continued
Grease (item 11, WP 0116 00)
Lock pin (2) (item 18, WP 0116 00)
Lockwire (item 34, WP 0116 00)
Plastic bottle (item 3.1, WP 0116 00)
Preformed packing (M83248/1-902)
Preformed packing (NAS1611-326)
Wiping rags (item 21, WP 0116 00)

References
WP 0008 00
WP 0083 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed

Special Environmental Conditions
Well-ventilated area required when using dry cleaning solvent.

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Auto gun receiver is too heavy for one person to lift. Get help to lift or carry auto gun receiver.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

NOTE

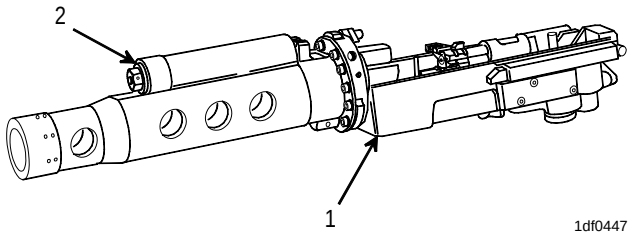
There are two types of recoil mechanisms used on the M242 Enhanced and Standard guns. The M242 Enhanced Gun can only use the 12524530 recoil mechanism. It can be identified by it's 16 outer ring springs. The M242 Standard Gun must use the 12524420 recoil mechanism. It can be identified by it's 17 outer ring springs.

There are two different lengths of recoil housing caps. Part numbers 12524529 and 12524422, revision C or higher, have an overall length of 4.3 in. (109.1 mm). This length cap must be used on the M242 Enhanced Gun. Part number 12524422, revision B or lower, is 4.49 in. (114.0 mm) long. Either cap may be used on the M242 Standard Gun.

REMOVAL

1. PLACE AUTO GUN RECEIVER ON A CLEAN, FLAT SURFACE.

   Position auto gun receiver (1) with recoil mechanism (2) on top.



WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

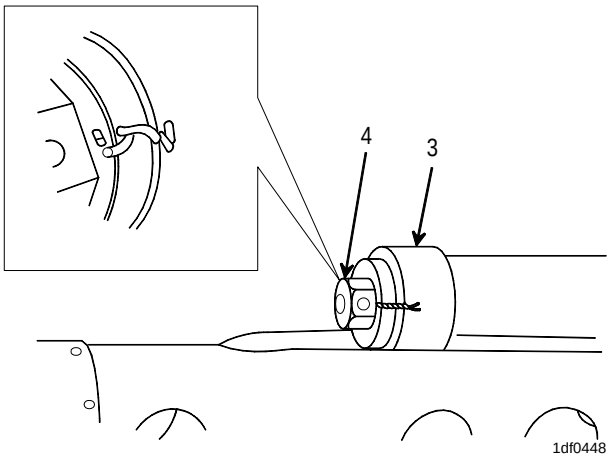
CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

Do not tear lockwire from recoil housing cap. Damage to recoil housing cap could occur.

2. REMOVE LOCKWIRE FROM BARREL SUPPORT ASSEMBLY AND RECOIL HOUSING CAP.

   Cut lockwire from barrel support assembly (3) and recoil housing cap (4). Discard lockwire.

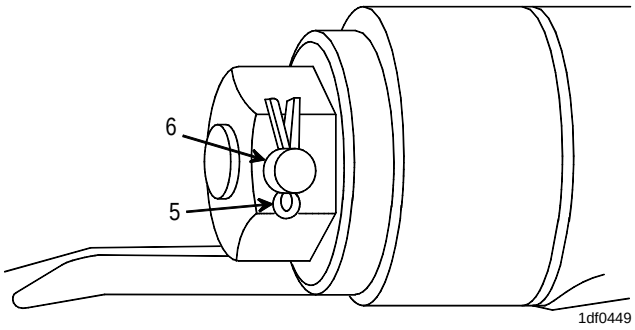


3. REMOVE COTTER PIN FROM HEADED STRAIGHT PIN.

NOTE

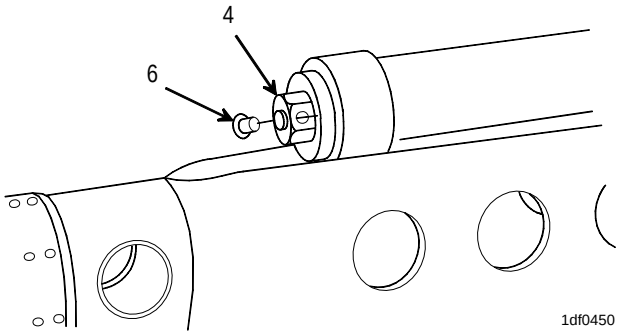
Recoil housing cap may have to be turned in order to remove cotter pin or headed straight pin.

Remove cotter pin (5) from headed straight pin (6). Discard cotter pin.



4. REMOVE HEADED STRAIGHT PIN.

Remove headed straight pin (6) from recoil housing cap (4).



REMOVAL - Continued

WARNING

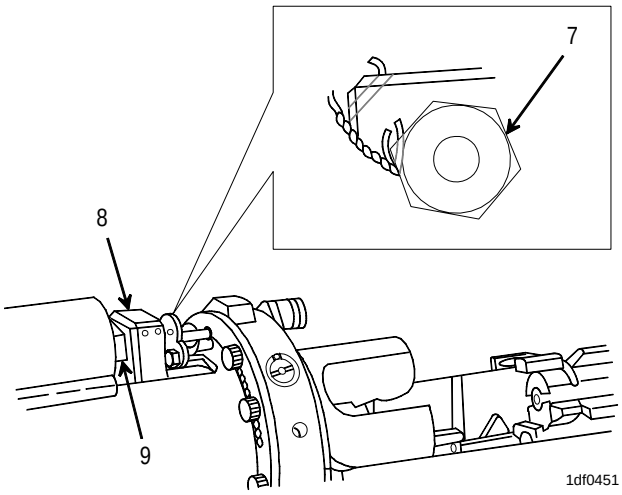
Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

5. REMOVE LOCKWIRE FROM DAMPER NUT AND BREECH TAB.

Cut lockwire from damper nut (7) and breech tab (8). Do not cut lockwire from recoil spring retaining nut (9). Discard lockwire.

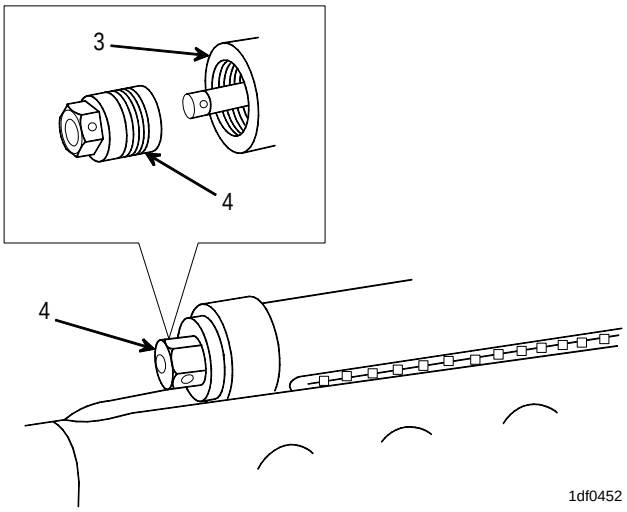


NOTE

During removal, take note of any evidence of fluid leakage inside of recoil housing cap.

6. REMOVE RECOIL HOUSING CAP.

Remove recoil housing cap (4) from barrel support assembly (3).

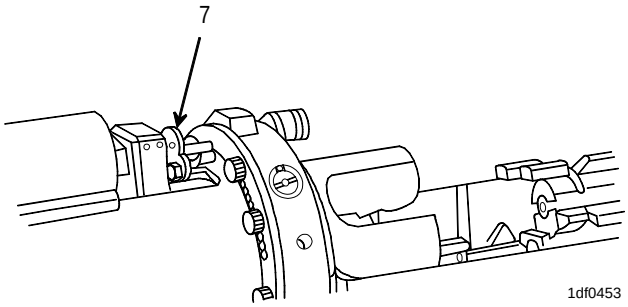


CAUTION

If the gun was fired without the barrel locked in the breech, the damper nut must be replaced regardless of visible damage.

7. REMOVE DAMPER NUT.

Remove damper nut (7).



REMOVAL - Continued

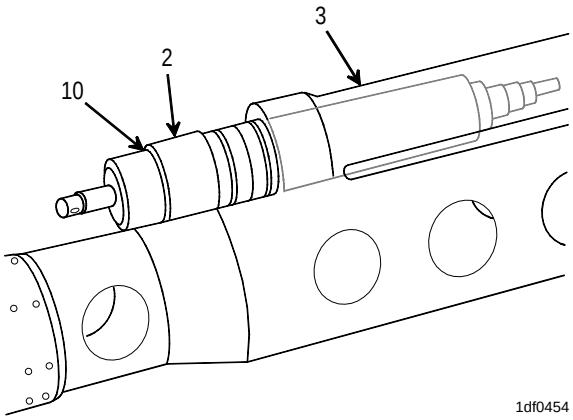
NOTE

The outer preformed packing is used as a dust seal and may be reused if no damage is seen.

8. REMOVE RECOIL MECHANISM.

   a. Pull recoil mechanism (2) forward out of barrel support assembly (3).

   b. Remove preformed packing (10). Discard preformed packing if damaged.



CLEANING

WARNING

Dry cleaning solvent (SD) is flammable and toxic. Use in well-ventilated area away from an open flame or a smoking area. This solvent evaporates quickly and has a drying effect on the skin. It may cause cracks in the skin and, in some cases, mild irritation or inflammation. If solvent comes in contact with eyes or skin, flush with water.

CAUTION

Do not contaminate ring springs. Do not allow cleaning solvent to contact ring springs. Avoid damper fluid contamination. Do not allow grease on damper rod, piston rod, end of support extension, or filler hole area on recoil housing cap.

CLEAN REMOVED RECOIL MECHANISM.

NOTE

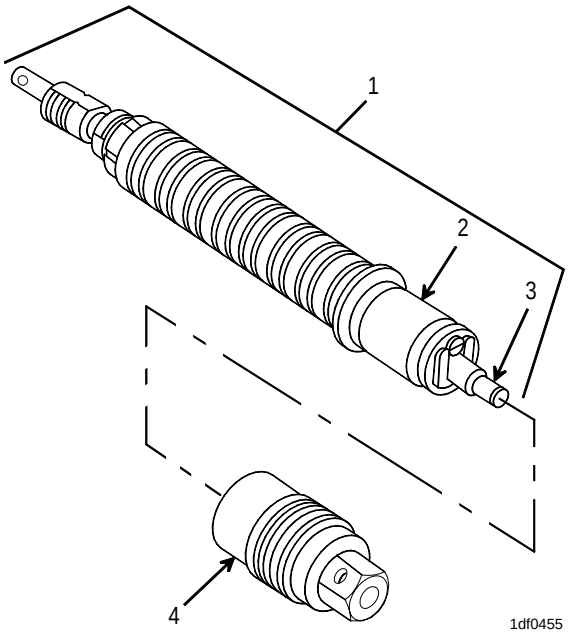
During cleaning procedure, visually inspect for evidence of damper fluid leakage on housing assembly cap, recoil damper rod, and indicator rod.

   a. Using clean, dry wiping rag, wipe all grease from outside of recoil mechanism (1).

b. Using a new clean wiping rag dampened with dry cleaning solvent, wipe all grease from damper housing cap (2).

c. Using a new clean wiping rag lightly dampened with dry cleaning solvent, carefully wipe and clean recoil damper rod (3).

d. Using a new clean wiping rag dampened with dry cleaning solvent, wipe and clean recoil housing cap (4). Allow cap to air dry.



INSPECTION

NOTE

Indicator rod may retract during cold temperatures or extend during high temperatures. Inspect and service when recoil mechanism and damper fluid are at room temperature, approximately 77°F (25°C).

1. INSPECT REMOVED RECOIL MECHANISM.

   a. Check outside of recoil damper rod (1), indicator rod (2) and recoil housing cap (3) for evidence of damper fluid leakage. If there is evidence of leakage or maintenance records show that recoil mechanism has required servicing at least two times in the past four weeks, send recoil mechanism to Direct Support Maintenance for seal replacement. Proceed to step 2.

   b. Examine recoil damper rod (1) and indicator rod (2) for bent, scratched, scored, cracked, or grooved diameters. Check for cracks around pin holes. If any of these conditions are found, send recoil mechanism to Direct Support Maintenance for repair. Proceed to step 2.

   c. Inspect recoil housing cap (3) and nut (4) for cracked, stripped, or damaged threads. Inspect headed straight pin (5) for cracks and bends. If any of these conditions are found, replace defective part.

   d. Inspect stacked springs (6) for cracks and galling. If either of these conditions are found, send recoil mechanism to Direct Support Maintenance for repair. Proceed to step 2.

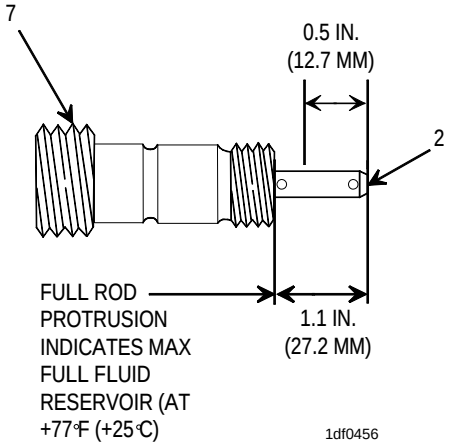
NOTE

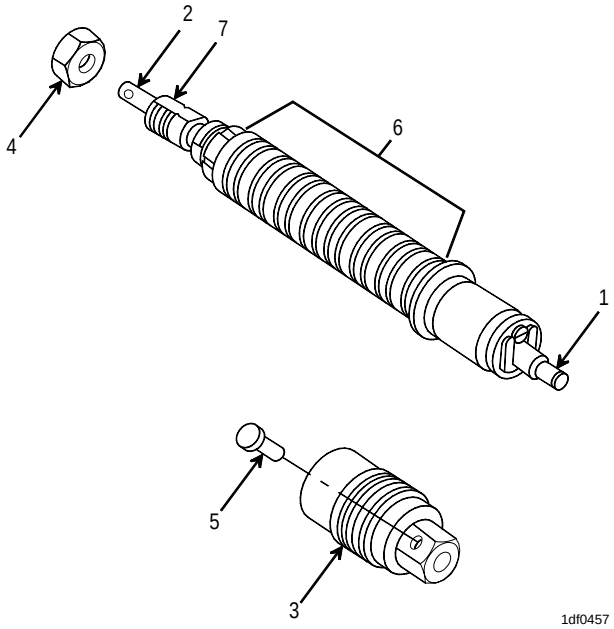
Spacing from first ring to shoulder at each end of recoil mechanism may vary.

   e. Inspect stacked springs (6) for cocked segments. No two outer springs should be touching. If springs are cocked or touching, lay recoil mechanism on flat surface and tap with plastic-face hammer until outer rings are aligned. If springs cannot be realigned, send recoil mechanism to Direct Support Maintenance for repair. Proceed to step 2.

   f. Examine damper housing assembly (7) for cracks, stripped threads, or other damage. If any of these conditions are found, send recoil mechanism to Direct Support Maintenance for repair. Proceed to step 2.

   g. Verify that recoil damper rod (1) position and fluid level are correct. Place recoil housing cap (3) over recoil damper rod (1) and install headed straight pin (5). The indicator rod (2) must protrude a minimum of 0.5 in. (12.7 mm) past the end of the damper housing assembly (7), but not more than 1.1 in. (27.2 mm). If measurement is incorrect, service damper reservoir.


7
0.5 IN.
(12.7 MM)
2
FULL ROD
PROTRUSION
INDICATES MAX
FULL FLUID
RESERVOIR (AT
+77°F (+25°C)
1.1 IN.
(27.2 MM)
1df0456

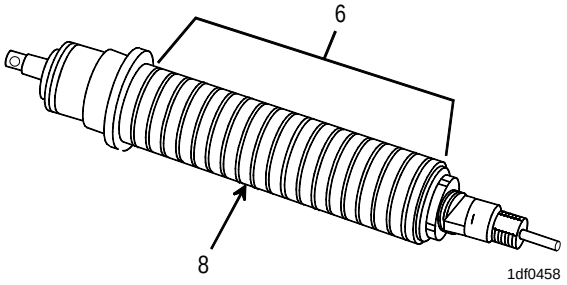

2
7
4
6
1
5
3
1df0457

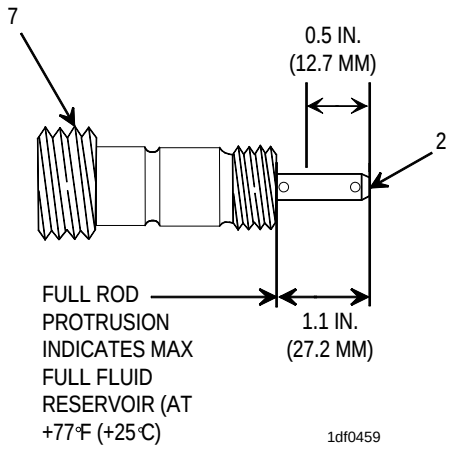
INSPECTION - Continued

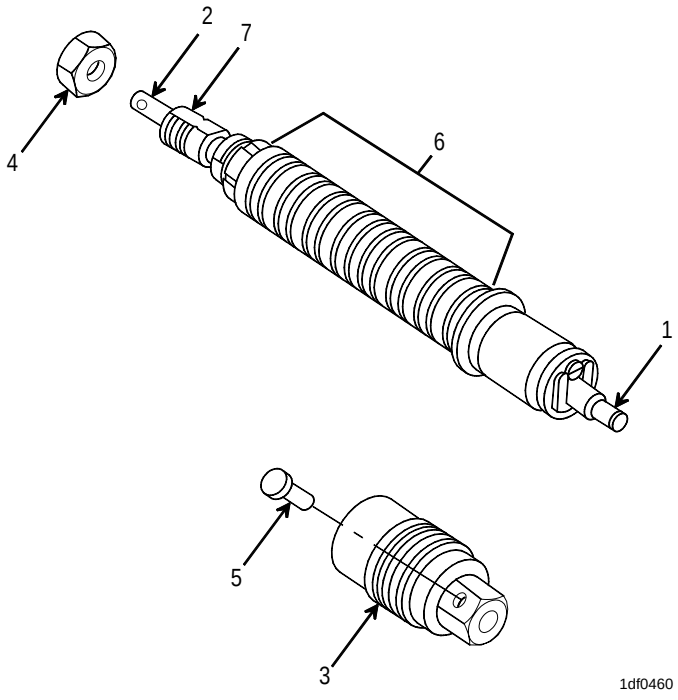
2. INSPECT NEW RECOIL MECHANISM.

   a. Visually inspect stacked springs (6) on new recoil mechanism (8) for cocked segments. If two or more outer springs are touching, lay new recoil mechanism on flat surface and tap with plastic-face hammer until springs are aligned. If springs cannot be realigned, send recoil mechanism to Direct Support Maintenance for repair.

   b. Verify that recoil damper rod (1) position and fluid level are correct. Place recoil housing cap (3) over recoil damper rod (1) and install headed straight pin (5). The indicator rod (2) must protrude a minimum of 0.5 in. (12.7 mm) past the end of the damper housing assembly (7), but not more than 1.1 in. (27.2 mm). If measurement is incorrect, service damper reservoir.







SERVICING

1. POSITION RECOIL MECHANISM.

CAUTION

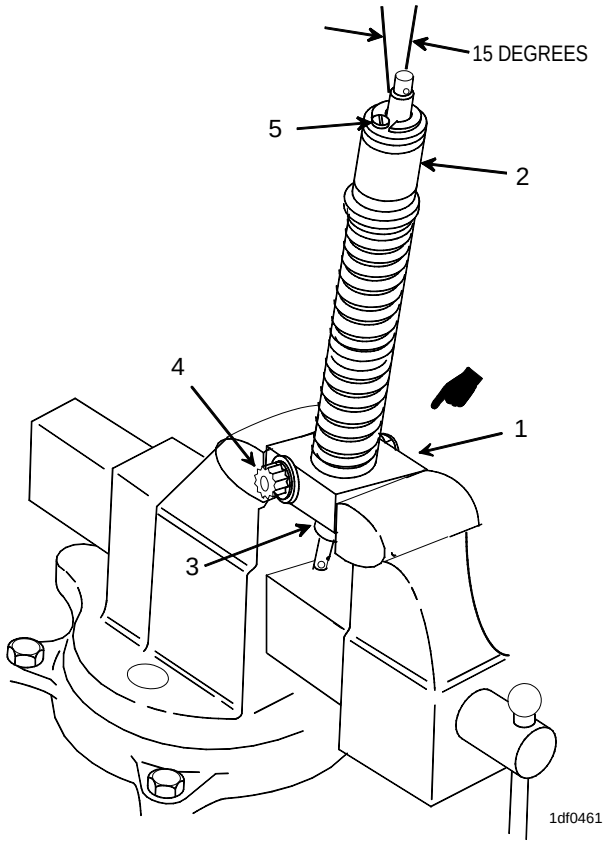
If vise holding tool is not available, clamp recoil mechanism in vise with jaw caps (item 5, WP 0085 00) on outer spring assortment segments. DO NOT use excess clamping pressure or spring assortment segments could be damaged. Tighten vise only enough to hold recoil mechanism.

a. Clamp vise holding tool (1) in vise.

b. Insert recoil mechanism (2) in vise holding tool (1) with flat edge of damper housing (3) toward bolt (4).

c. Loosen vise enough to tilt vise holding tool (1) and recoil mechanism (2) about 15 degrees, with damper housing plug (5) at highest point.

d. Tighten vise.



SERVICING - Continued

2. SET RESERVOIR PISTON POSITION.

CAUTION

Scratches on indicator rod will damage internal damper seal. Do not use tools on indicator rod.

NOTE

If first hole in indicator rod can be seen, go to step b.

Lock pins will not fit through opening in vise holding tool. Install lock pins after placing recoil mechanism through vise holding tool.

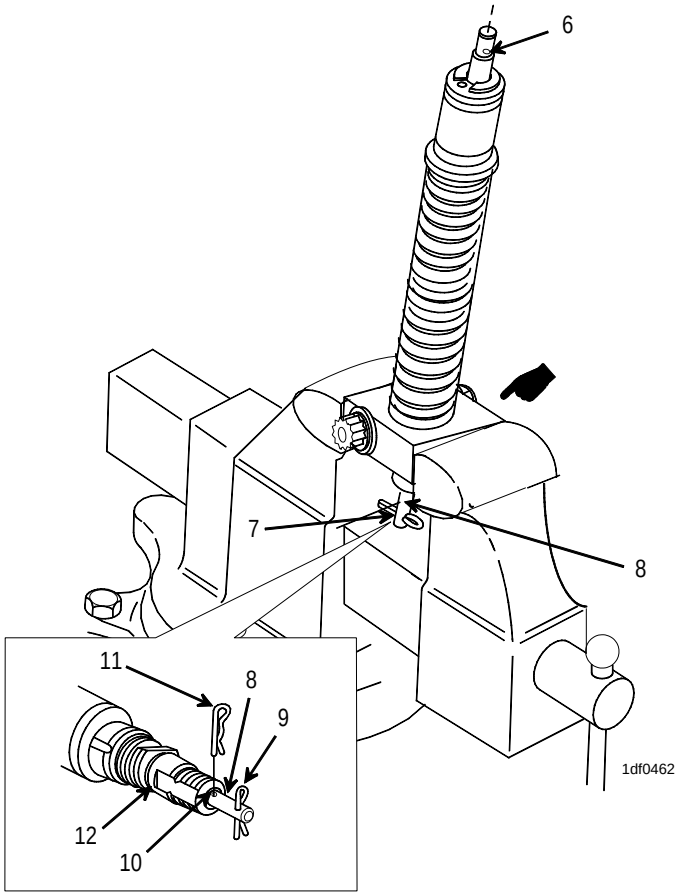
a. Press recoil damper rod (6) until first hole (7) in indicator rod (8) can be seen.

b. Insert a lock pin (9) in first hole (7) in rod end of indicator rod (8).

c. Pull lock pin (9) down and slide out indicator rod (8) until second hole (10) can be seen.

d. Insert lock pin (11) in second hole (10) in indicator rod (8).

e. Release tension on first lock pin (9) until second lock pin (11) contacts damper housing (12).



3. SET RECOIL DAMPER ROD POSITION.

NOTE

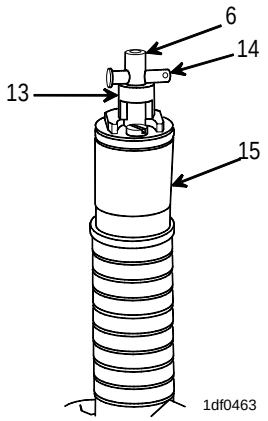
When using locally manufactured damper rod tools (WP 0083 00), perform steps a and b. If not using damper rod tools, proceed to step c.

Use tool CSAL-1 (0.686 in. long) if overall recoil housing cap length is 4.3 in. (109.1 mm). Use tool CSAL-2 (0.880 in. long) if overall cap length is 4.5 in. (114.0 mm).

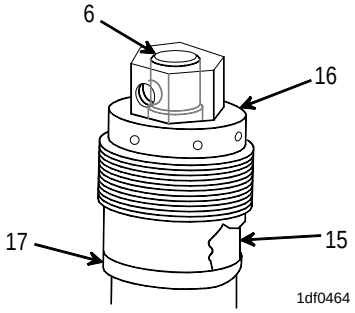
The M242 enhanced gun will always use a 4.3 in. (109.1 mm) recoil housing cap. The M242 standard gun may use either length. If recoil housing cap length is unknown, use tool CSAL-2.

a. Slide damper rod tool (13) over recoil damper rod (6) and install straight headed pin (14).

b. Push recoil damper rod (6) until headed straight pin (14), damper rod tool (13), and damper housing cap (15) are touching. Proceed to step 4 to service damper reservoir.



c. Slide recoil housing cap (16) over damper housing cap (15) and recoil damper rod (6). Seat recoil housing cap (16) on recoil spring sleeve spacer (17).



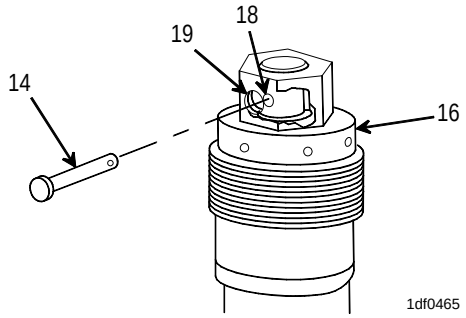
SERVICING - Continued

d. Align recoil damper rod hole (18) with recoil housing cap hole (19) and insert headed straight pin (14).

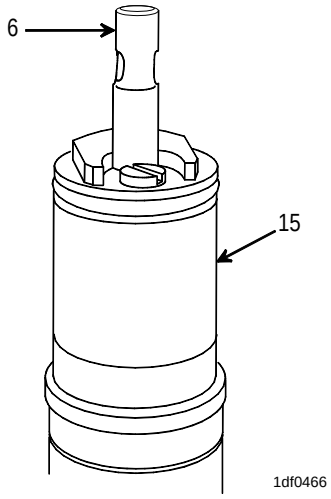
NOTE

Recoil damper rod must not move for remainder of procedure.

e. Carefully remove headed straight pin (14) and recoil housing cap (16).



f. Use a pencil to mark the recoil damper rod (6) at the top of the damper housing cap (15) to verify recoil damper rod (6) does not move throughout step 4.



4. SERVICE DAMPER RESERVOIR.

NOTE

Spring segments and spacer must be kept dry during reservoir servicing.

Graphics are provided to show procedure being done with and without using damper rod tool.

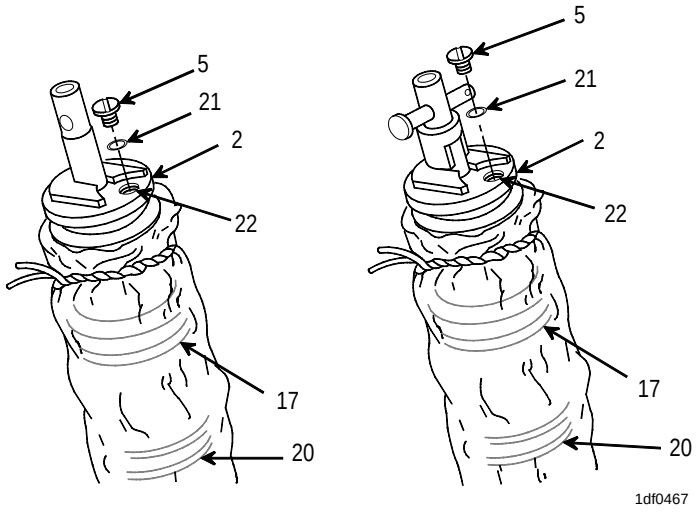
a. Wrap three turns of a clean, dry wiping rag around recoil mechanism (2) above outer spring assortment segments (20) and recoil spring sleeve spacer (17). Secure rag with lockwire.

b. Slowly remove damper housing plug (5).

c. Remove and discard preformed packing (21).

d. Using plastic bottle, slowly fill damper reservoir with clean damper fluid until fluid is at top lower edge of filler hole (22).

e. Check that damper reservoir is full, and that no air bubbles can be seen in filler hole (22).



WITHOUT DAMPER ROD TOOL

WITH DAMPER ROD TOOL

SERVICING - Continued

f. Wipe clean and insert the damper valve tool (23) into filler hole (22) and through a flange hole in recoil damper rod (6).

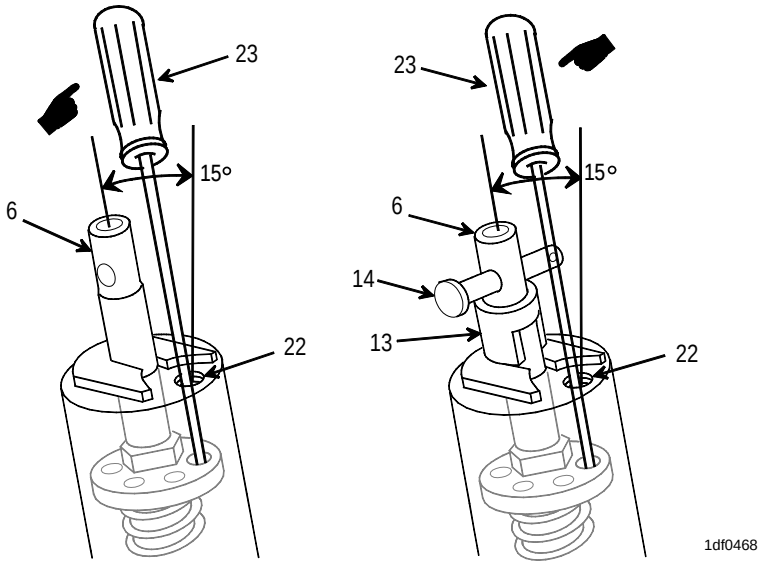
NOTE

Recoil damper rod does not need to be held when using the damper rod tool.

g. While holding recoil damper rod (6) with one hand, gently push down on damper valve tool (23). Hold for 30 seconds to allow fluid to flow into lower reservoir.

h. Repeat steps d through g until damper reservoir is full of fluid.

i. Remove damper valve tool (23).



WITHOUT DAMPER ROD TOOL

WITH DAMPER ROD TOOL

j. Using a clean, dry wiping rag, wipe off top of recoil mechanism (2) and around filler hole (22).

k. Install a new preformed packing (21) on damper housing plug (5). Install and tighten damper housing plug (5).

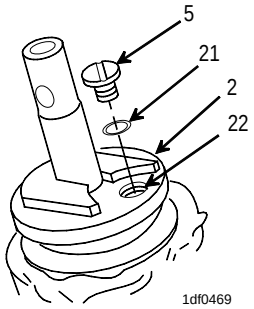
l. If damper rod tool (13) was used, remove straight headed pin (14) and damper rod tool (13).

m. Using a new clean dry wiping rag, wipe off all traces of damper fluid from top of recoil mechanism (2) and around damper housing plug (5).

n. Remove recoil mechanism (2) and vise holding tool (1) from vise.

o. Lay recoil mechanism (2) on a clean, dry surface.

p. Remove rag from top of recoil mechanism (2).



q. Pull out on indicator rod (8), remove second lock pin (11), slowly release tension on indicator rod (8) until it stops.

r. Inspect pencil mark (if applicable), or place recoil housing cap (16) on recoil mechanism (2) and check alignment of recoil housing cap hole (19) and recoil damper rod hole (18). If the indicator rod (8) retracted beyond the second hole (10), the pencil mark is no longer visible, or the recoil damper rod hole (18) does not align with the recoil housing cap hole (19), reinstall second lock pin (11) and repeat servicing steps 1 through 4.

s. Remove remaining lock pin (9).

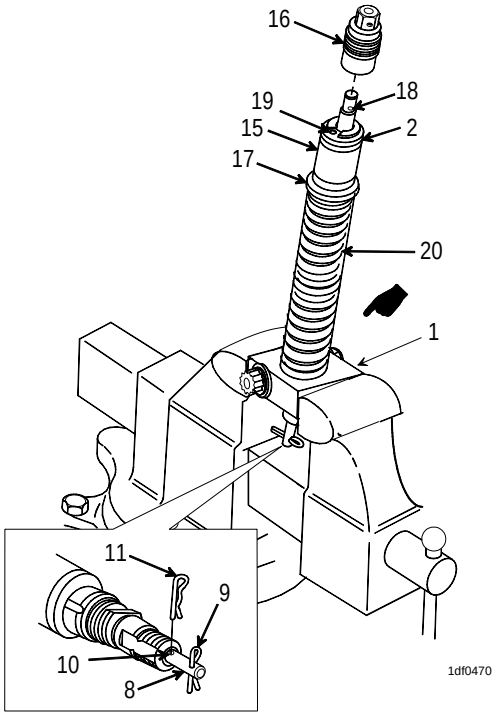
CAUTION

Any damper fluid remaining on spring segments or spacer will affect damping operation, causing possible gun damage.

t. Remove vise holding tool (1) from recoil mechanism (2).

u. Using a clean dry wiping rag, wipe all traces of damper fluid from damper housing cap (15).

v. Check spring assortment segments (20) and recoil spring sleeve spacer (17) for evidence of damper fluid. If needed, use a new clean dry wiping rag to wipe off any remaining fluid.



LUBRICATION

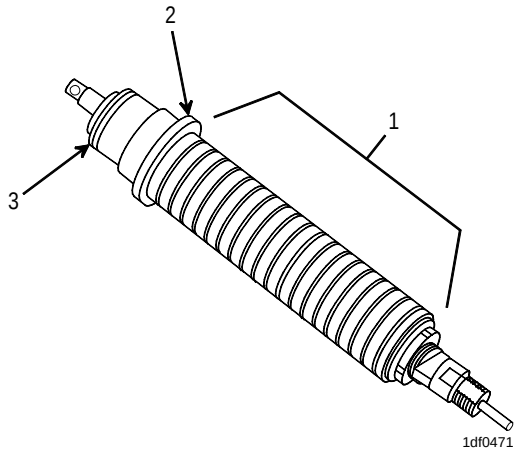
LUBRICATE RECOIL MECHANISM.

CAUTION

Avoid damper fluid contamination. Do not get grease on recoil damper rod, indicator rod, damper housing threads near indicator rod, or filler hole area on damper housing cap.

a. Using acid brush, apply a heavy coat of grease to spring set segments (1) and recoil spring sleeve spacer (2).

b. Using acid brush, apply a light coat of grease to outside diameter of damper housing cap (3).



INSTALLATION

1. INSTALL RECOIL MECHANISM.

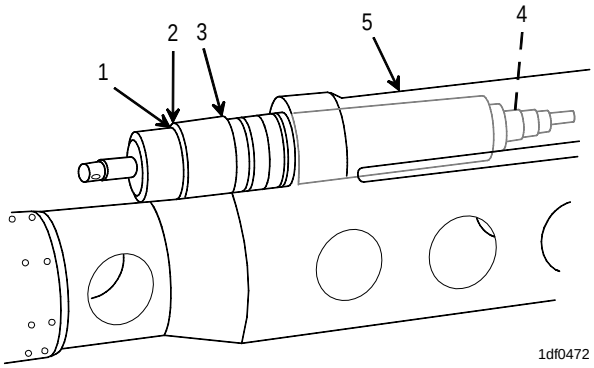
NOTE

The M242 Enhanced Gun may only use recoil mechanism 12524530 and recoil housing cap 12524529. The M242 Standard Gun must use recoil mechanism 12524420, but may use either length recoil housing cap.

a. Install new preformed packing (1) in damper housing cap groove (2).

b. Insert recoil mechanism (3), damper housing assembly (4) end first, into barrel support assembly (5).

c. Position recoil mechanism (3) so that flat side of damper housing assembly (4) faces up.



2. INSTALL DAMPER NUT.

CAUTION

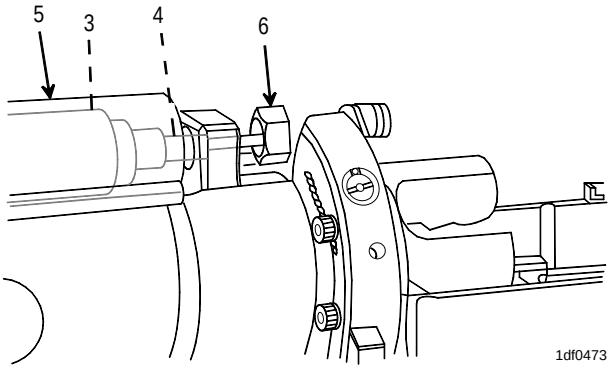
If gun was fired without the barrel locked in the breech, the damper nut must be replaced regardless of visual damage.

NOTE

Damper nut threads, recoil mechanism threads, bearing surface of damper nut, and damper nut bearing surface on breech lug must be free of lubricant.

a. Pull recoil mechanism (3) out of barrel support assembly (5) 1 in. (25.4 mm). Place damper nut (6) over end of damper housing assembly (4). Push recoil mechanism (3) into barrel support assembly (5) again until it stops.

b. Install damper nut (6) halfway on threads of damper housing assembly (4).



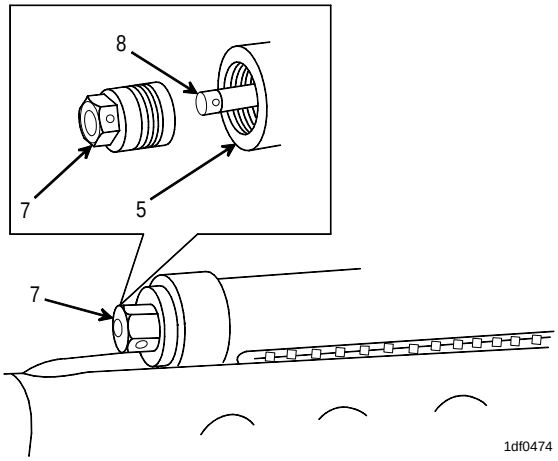
3. INSTALL HOUSING RECOIL CAP.

NOTE

Recoil housing cap threads and recoil housing threads must be free of lubricant.

a. Insert recoil housing cap (7) into front end of barrel support assembly (5).

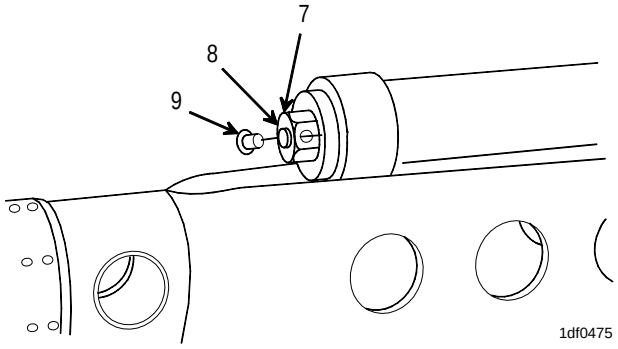
b. Turn recoil housing cap (7) into barrel support assembly (5) until pin holes in cap and recoil damper rod (8) align.



INSTALLATION - Continued

4. INSTALL HEADED STRAIGHT PIN.

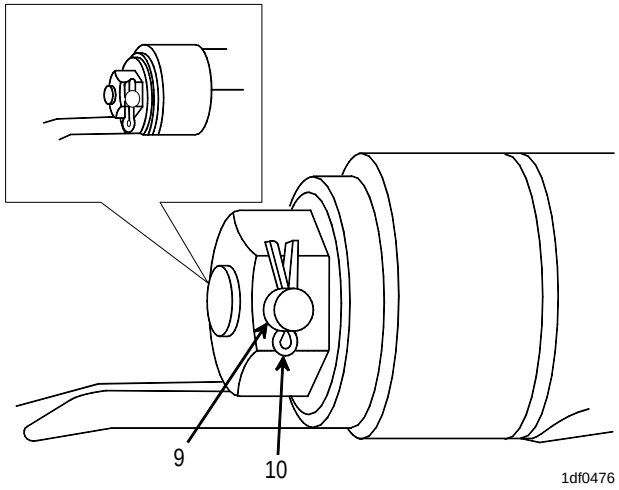
   Insert headed straight pin (9) through holes in recoil housing cap (7) and recoil damper rod (8).



5. INSTALL NEW COTTER PIN.

   a. Insert new cotter pin (10) through hole in headed straight pin (9).

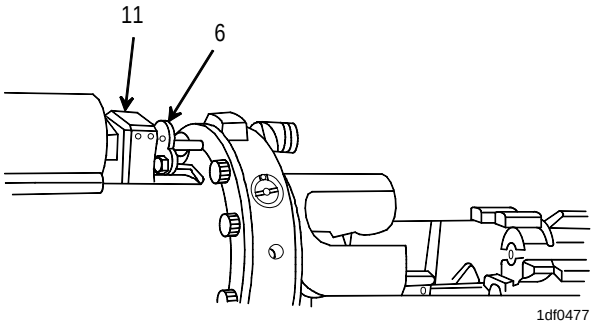
   b. Bend cotter pin (10) ends in opposite directions around headed straight pin (9).



6. TIGHTEN DAMPER NUT.

   a. Finger-tighten damper nut (6) so that it contacts breech tab (11).

   b. Torque damper nut (6) to 108 ft-lb ± 8 ft-lb (146.45 N-m ± 10.85 N-m).



WARNING

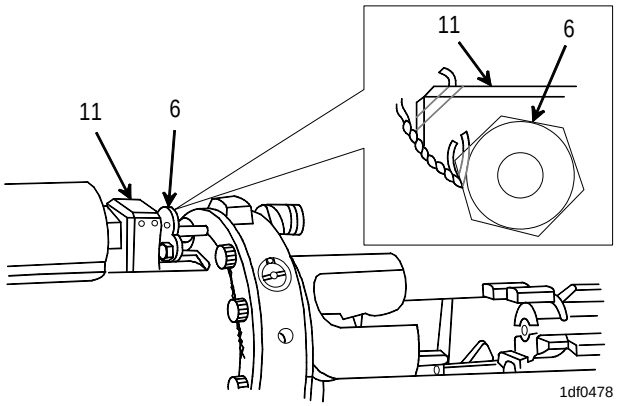
Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

7. INSTALL LOCKWIRE ON DAMPER NUT AND BREECH TAB.

   Lockwire damper nut (6) to breech tab (11).



INSTALLATION - Continued

CAUTION

Do not exceed recoil housing cap torque requirement. Damage to breech, recoil mechanism, and damper nut may result if the recoil housing cap torque is exceeded.

8. TIGHTEN RECOIL HOUSING CAP.

   a. Turn recoil housing cap (7) into barrel support assembly (5) until it bottoms out.

   b. Torque recoil housing cap (7) to 325 in.-lb ± 25 in.-lb (36.73 N-m ± 2.83 N-m).

WARNING

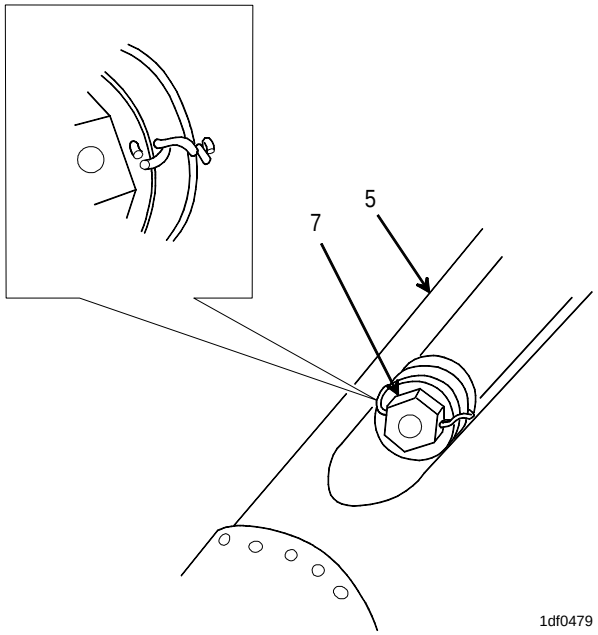
Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

9. INSTALL LOCKWIRE.

   Lockwire recoil housing cap (7) to barrel support assembly (5) at two points.



10. PERFORM AUTO GUN RECEIVER MANUAL CYCLE CHECK (WP 0008 00).

11. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

BARREL SUPPORT ASSEMBLY REMOVAL/INSTALLATION REMOVAL, INSPECTION, LUBRICATION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Electric drill (item 13, WP 0085 00)
Goggles (item 19, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)
1/8-in. twist drill (item 14, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Cotter pin (MS24665-132)
Grease (item 11, WP 0116 00)
Lockwire (item 34, WP 0116 00)
Retaining ring (MS16625-1068)
Wooden block (item 3, WP 0116 00)

Personnel Required
Two

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0049 00 Recoil mechanism removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Auto gun receiver is too heavy for one person to lift. Get help to lift or carry auto gun receiver.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

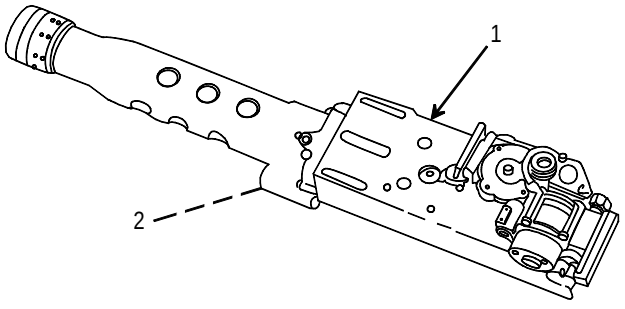
REMOVAL

CAUTION

Use care when positioning receiver assembly. The straight drive shaft could be damaged if in the locked position.

1. PLACE AUTO GUN RECEIVER ON A CLEAN, FLAT SURFACE.

   Position auto gun receiver (1) with breech lug (2) on bottom.



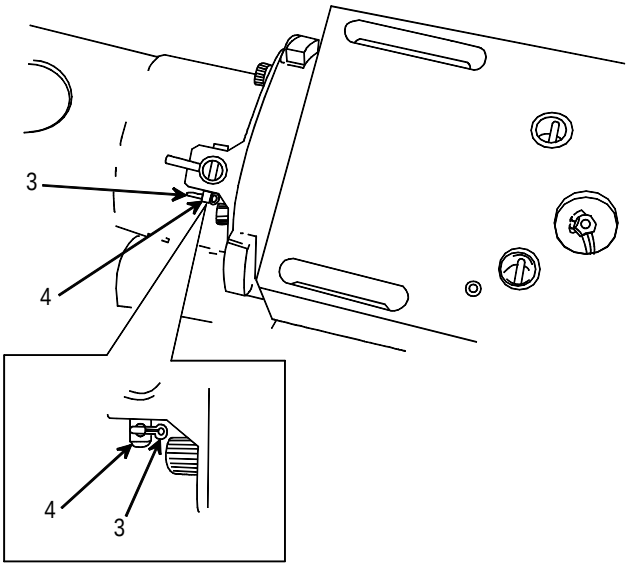
1df0480

WARNING

Wear eye protection when pulling headed straight pin from barrel lock as helical spring will be projected from barrel support. Personnel could be blinded if hit in the eye by helical spring.

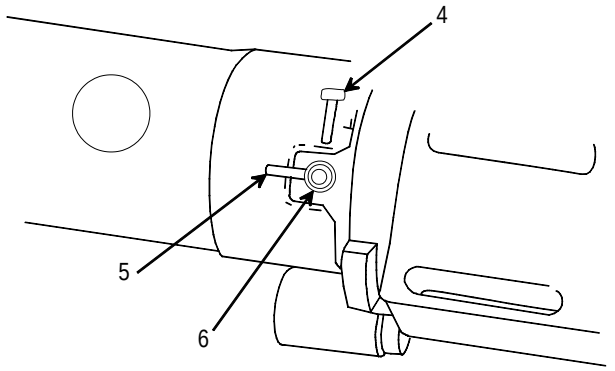
2. REMOVE BARREL LOCK PIN.

   a. Remove cotter pin (3) from headed straight pin (4). Discard cotter pin.



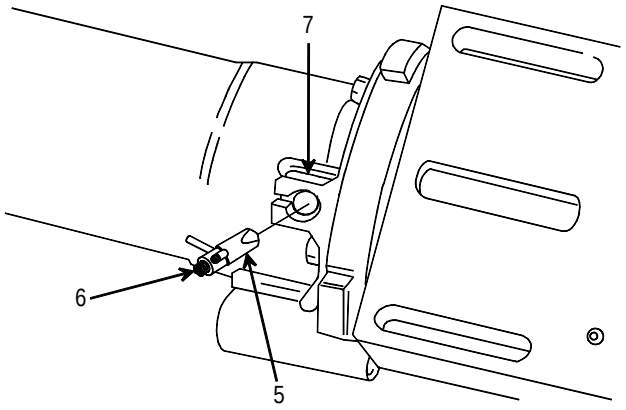
1df0481

b. Hold thumb over top of barrel lock pin (5) to prevent loss of helical spring (6) inside barrel lock pin. Pull headed straight pin (4) out and allow helical spring (6) to expand under thumb.



1df0482

c. Remove barrel lock pin (5) and helical spring (6) from barrel support assembly (7).



1df0483

REMOVAL – Continued

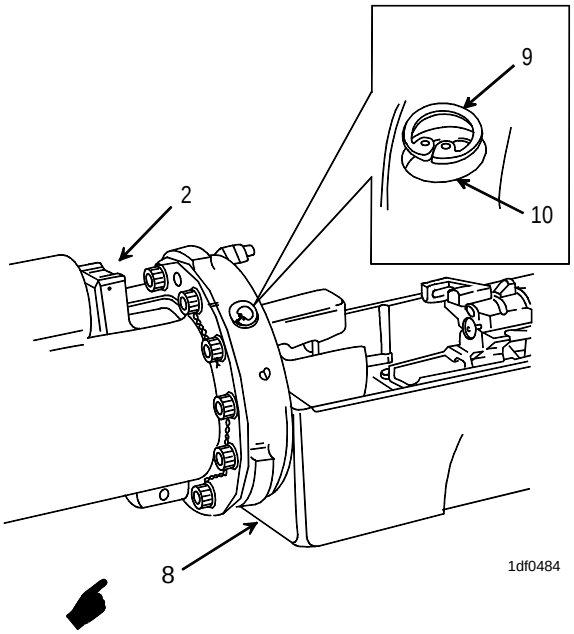
WARNING

Wear eye protection when removing retaining ring. Personnel could be blinded if struck in the eye by retaining ring under spring tension.

3. REMOVE MACHINE KEY.

   a. Position auto gun receiver (8) with breech lug (2) on top.

   b. Remove retaining ring (9) from receiver hole (10). Discard retaining ring.

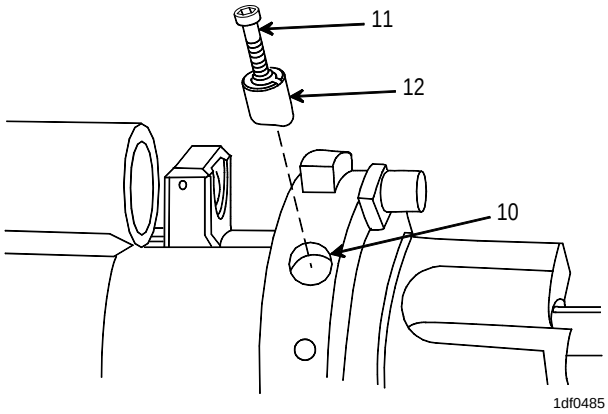


NOTE

To perform the following step, remove one 5-mm capscrew from any part of the gun.

   c. Install 5-mm capscrew (11) in machine key (12) three turns.

   d. Pull 5-mm capscrew (11) and machine key (12) straight out of receiver hole (10). Remove machine key from capscrew and reinstall capscrew in the part of the gun from which it was removed.



WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

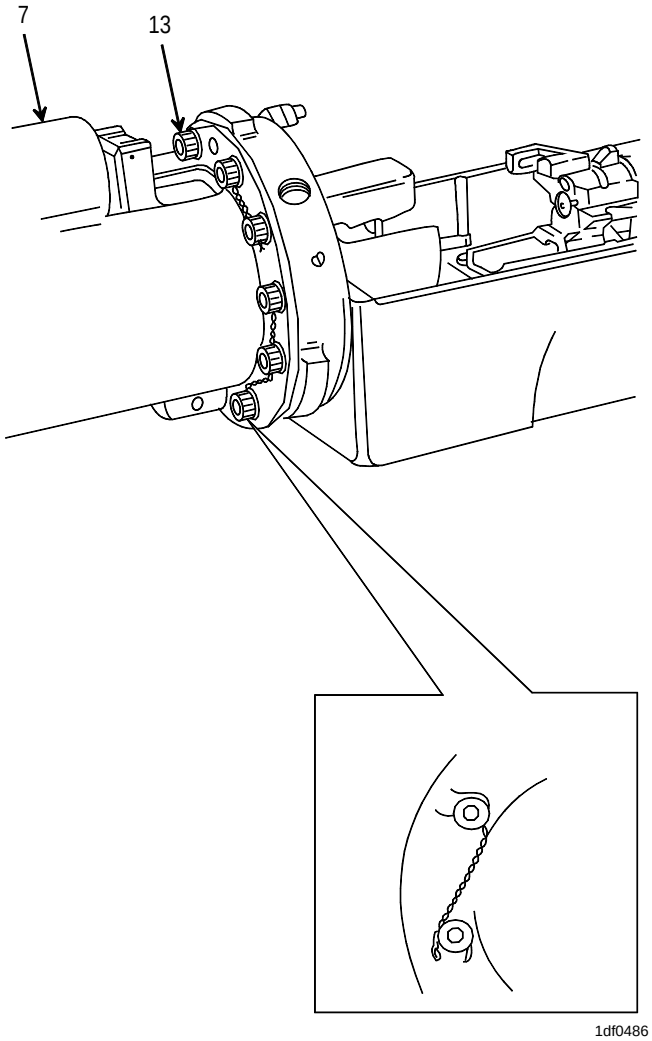
Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

4. REMOVE LOCKWIRE.

   Remove lockwire from nine capscrews (13) on barrel support assembly (7). Discard lockwire.

5. REMOVE CAPSCREWS.

   Remove nine capscrews (13) from flange of barrel support assembly (7).



REMOVAL - Continued

NOTE

A block of wood placed under the front of auto gun receiver will aid in removal of barrel support assembly.

6. REMOVE BARREL SUPPORT ASSEMBLY.

   a. Place wooden block under front of auto gun receiver (8).

WARNING

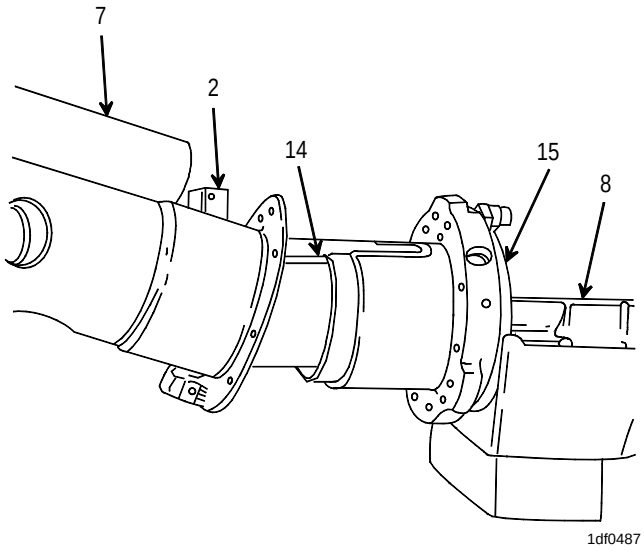
Do not pull breech assembly more than 8 in. (203.2 mm) out of auto gun receiver when removing barrel support assembly or injury may result.

   b. Pull barrel support assembly (7) and breech assembly (14) 6 in. (152.4 mm) away from receiver flange (15).

WARNING

If auto gun receiver is left unattended or will be moved, reinstall machine key to prevent breech from falling out or injury may result.

   c. Lift barrel support assembly (7) over breech lug (2). Remove barrel support assembly (7). Remove wooden block.

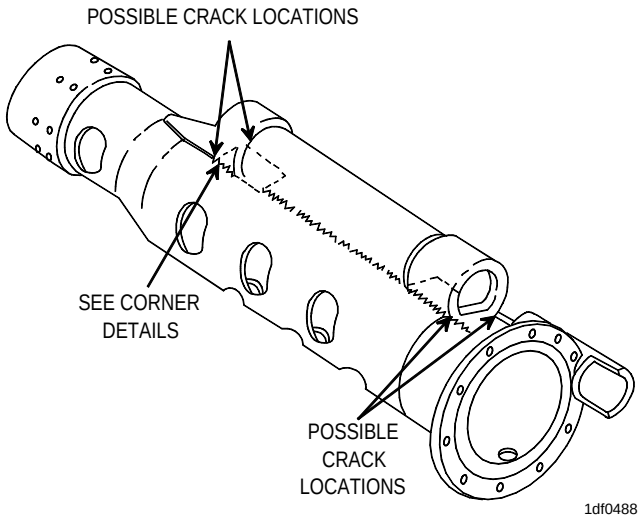


INSPECTION

1. INSPECT BARREL SUPPORT ASSEMBLY.

   a. Visually inspect the barrel support assembly for dents and loose rivets. If dents or loose rivets (six or more) are found, replace barrel support assembly.

   b. Visually inspect barrel support assembly for cracks. If cracks are found, go to step 2.

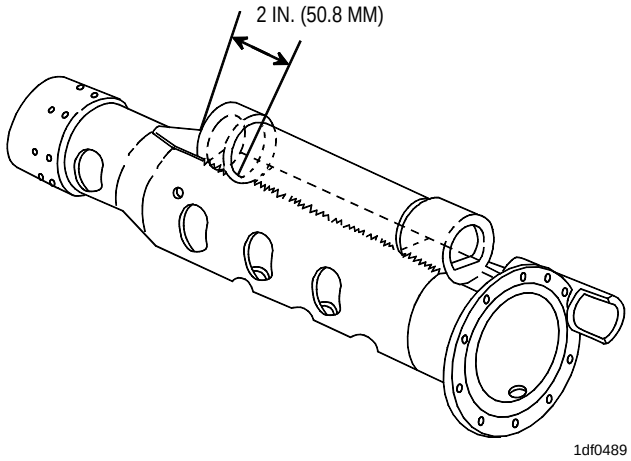


2. MEASURE CRACKS IN WELD JOINT.

NOTE

All four ends may have cracks at the same time.

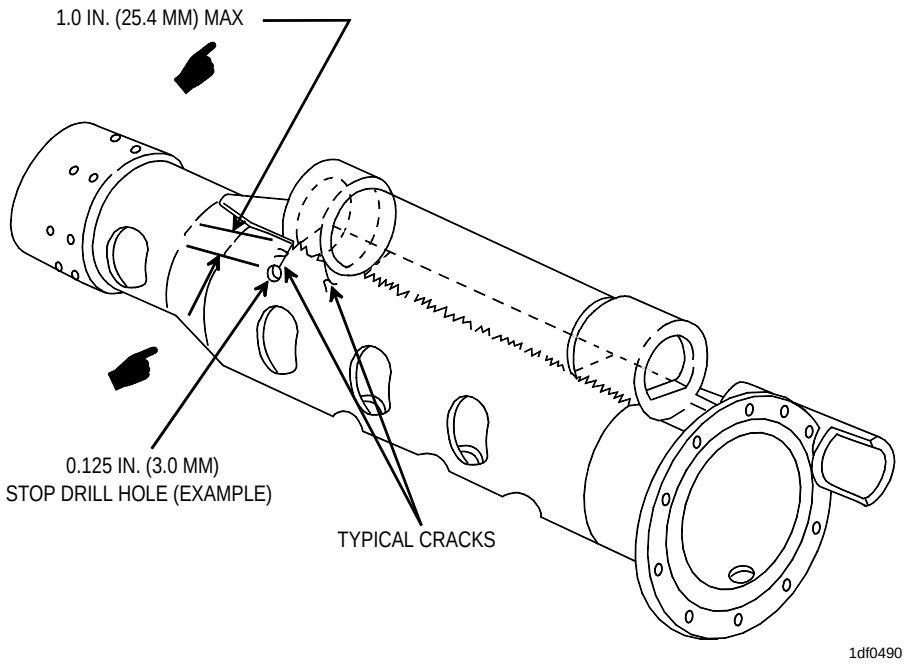
Measure cracks found in weld joint. If any one crack measures longer than 2 in. (50.8 mm), replace barrel support assembly.



INSPECTION - Continued

3. MEASURE CRACKS IN BARREL SUPPORT ASSEMBLY TUBE.

   Measure length of cracks in barrel support assembly tube. If the total length of any crack measures longer than 1 in. (25.4 mm), replace the barrel support assembly. If cracks measure 1 in. (25.4 mm) or less, go to step 4.



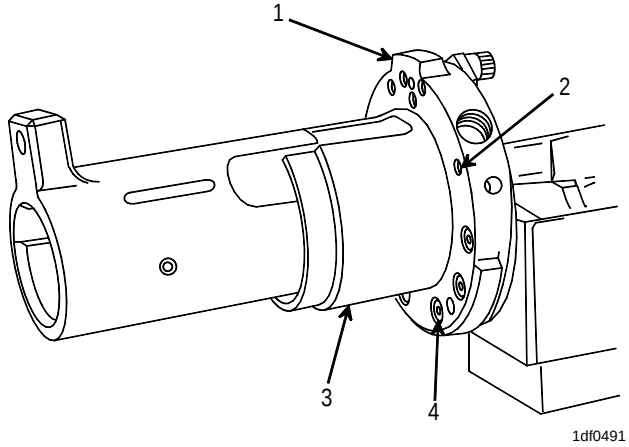
4. STOP CRACKS IN BARREL SUPPORT ASSEMBLY TUBE.

   Stop drill cracks in barrel support assembly tube at their ends by using a 1/8-in. twist drill.

5. INSPECT AUTO GUN RECEIVER.

   a. Inspect screw threaded inserts in receiver flange (1) screw holes (2). If receiver flange inserts are loose or damaged, send auto gun receiver to Direct Support Maintenance for repair.

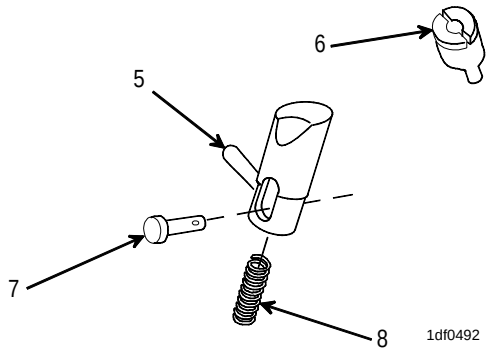
   b. Inspect receiver front housing (3) for cracks, distortion, and loose rivets (4). If any of these conditions are found, replace gun.



6. INSPECT BARREL LOCK PIN AND MACHINE KEY.

   a. Visually inspect barrel lock pin (5), machine key (6), and headed straight pin (7) for cracks, bends, or other damage. If any of these conditions are found, replace defective part.

   b. Check helical spring (8) for proper free length. Helical spring free length should be 1-1/4 in. ± 1/4 in. (31.8 mm ± 6.4 mm). If proper free length is not met, replace helical spring.



LUBRICATION

NOTE

Apply grease to extended surfaces of breech before installing barrel support.

LUBRICATE BARREL SUPPORT ASSEMBLY.

Using acid brush, apply a light coat of grease to rear inside portion of barrel support assembly.

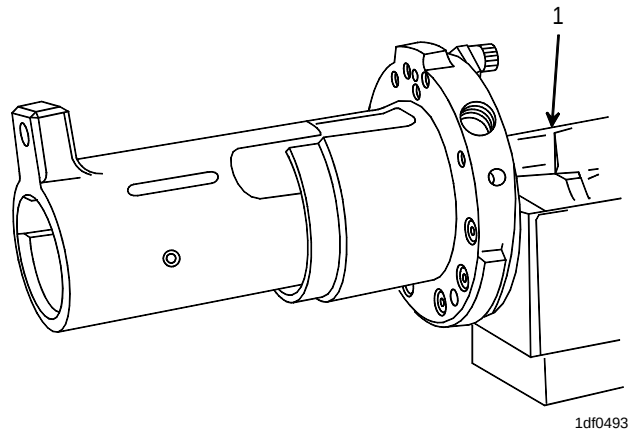
INSTALLATION

NOTE

A block of wood placed under front of auto gun receiver will aid in installation of barrel support assembly.

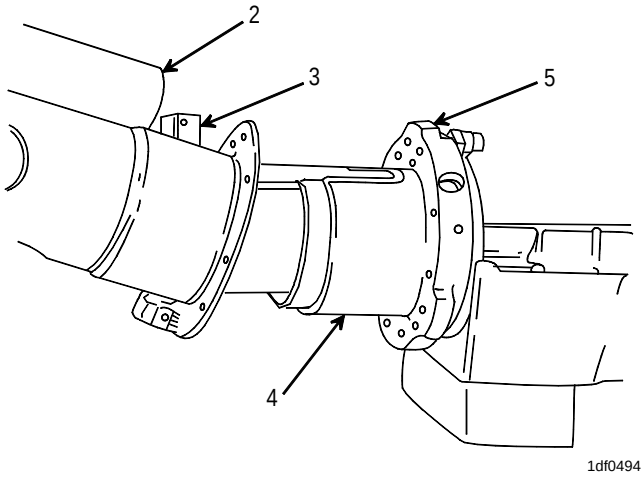
1. INSTALL BARREL SUPPORT ASSEMBLY.

   a. Place wooden block under front of auto gun receiver (1).



   b. Install barrel support assembly (2) over breech lug (3). Slide breech lug (3) out of slot in breech sleeve (4).

   c. Push flange on barrel support assembly (2) against receiver flange (5).



2. INSTALL CAPSCREWS.

   a. Install nine capscrews (6) through flange of barrel support assembly (2) and into receiver flange (5). Tighten capscrews finger-tight.

   b. Torque seven capscrews (6) to 160 in.-lb ± 10 in.-lb (18.08 N-m ± 1.13 N-m). The two capscrews next to receiver flange (5) cannot be torqued due to lack of clearance for torque wrench. Tighten these capscrews with 6-mm hex key.

WARNING

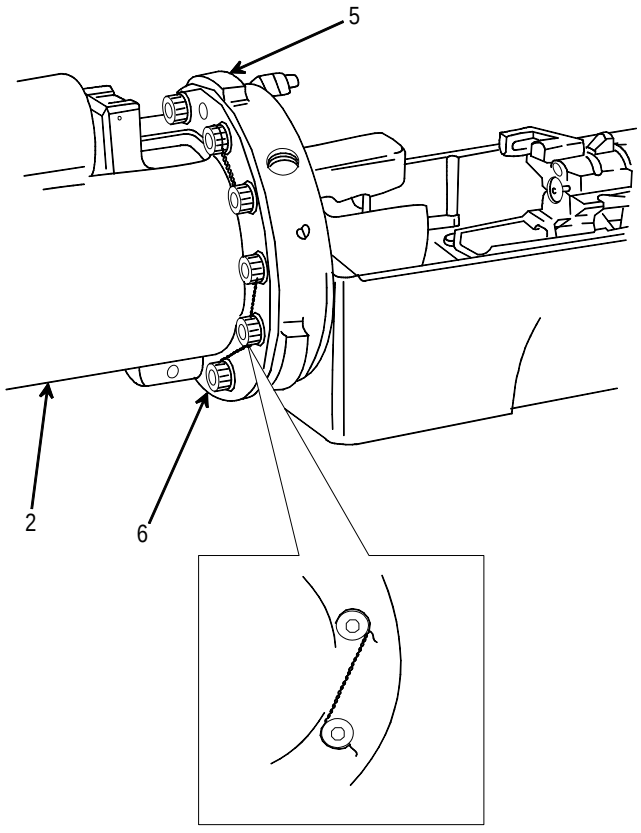
Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

3. INSTALL LOCKWIRE ON CAPSCREWS.

Lockwire three capscrews (6) on bottom and lower left side of barrel support assembly (2). Lockwire other six capscrews (6) in pairs. Remove wooden block.



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INSTALLATION - Continued

4. INSTALL MACHINE KEY.

WARNING

Wear eye protection when installing retaining ring. Personnel could be blinded if struck in the eye by retaining ring under spring tension.

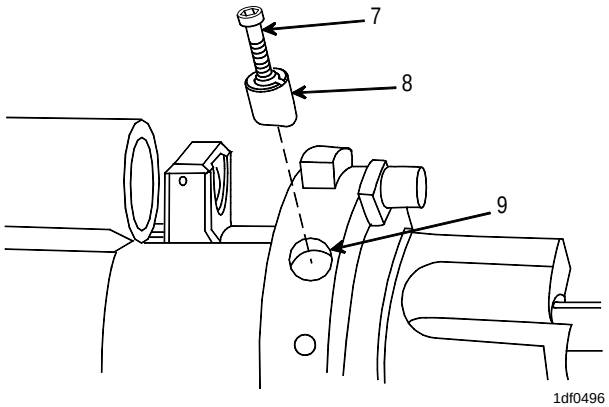
NOTE

To perform steps a and b, remove one 5-mm capscrew from any part of the gun.

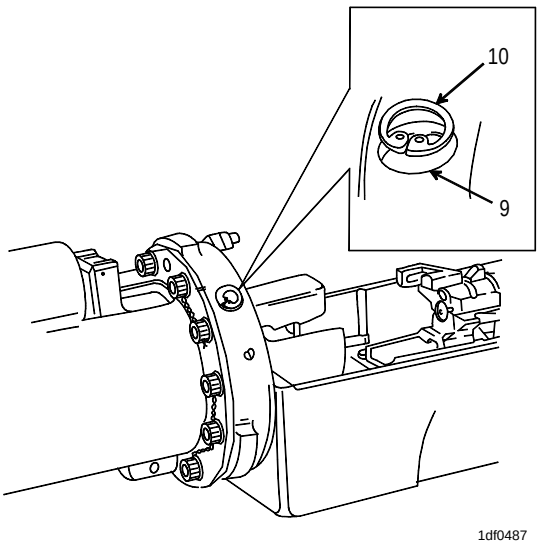
If machine key does not seat, move breech assembly from side to side.

a. Install 5-mm capscrew (7) in machine key (8) three turns and insert machine key into receiver hole (9).

b. Turn machine key (8) until it slides down and sets in breech slot. Remove capscrew and reinstall it in the part of the gun from which it was removed.



c. Install new retaining ring (10) in groove inside receiver hole (9). Make sure retaining ring (10) is seated securely in groove.

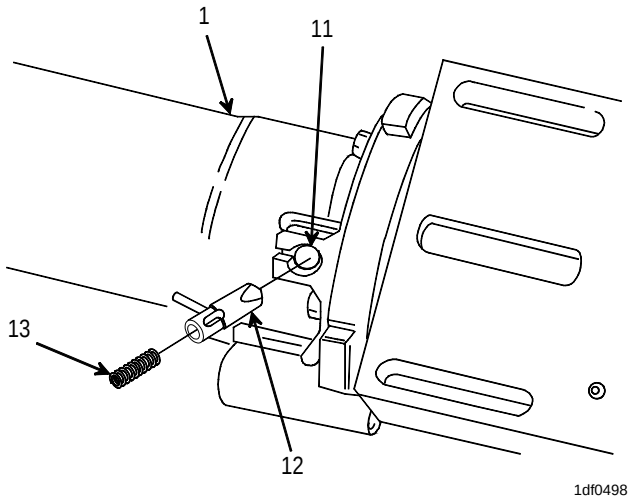


5. INSTALL BARREL LOCK PIN.

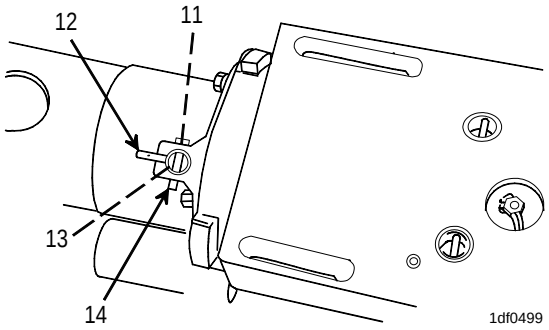
   a. Place auto gun receiver (1) with barrel lock pin hole (11) on top.

   b. Install barrel lock pin (12) and helical spring (13) in barrel lock pin hole (11).

   c. Compress helical spring (13) with drive punch and hold pin compressed throughout step d.



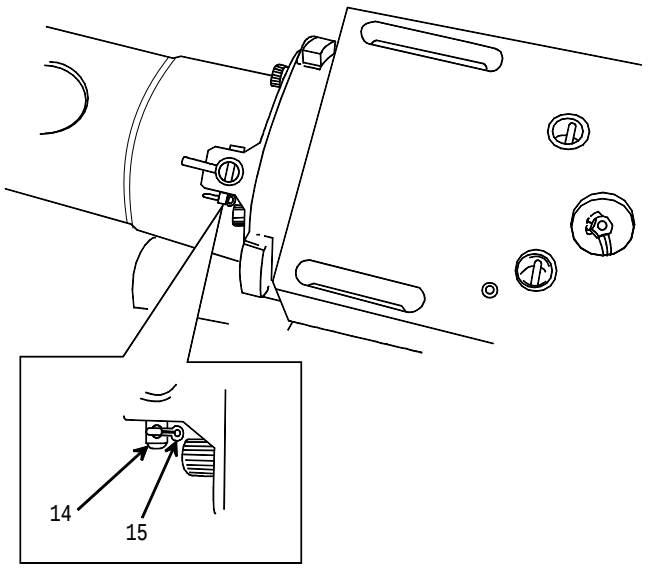
   d. Install headed straight pin (14) through barrel lock pin hole (11), through the barrel lock pin (12) and over the compressed helical spring (13). The barrel lock pin (12) will need to be lifted slightly to align barrel lock pin hole (11) with hole in barrel lock pin (12).



INSTALLATION - Continued

6. INSTALL COTTER PIN.

   Insert new cotter pin (15) through hole in headed straight pin (14). Bend each end of cotter pin (15) around sides of headed straight pin (14).



7. INSTALL RECOIL MECHANISM (WP 0049 00).

8. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

BREECH ASSEMBLY REMOVAL/INSTALLATION REMOVAL, CLEANING, INSPECTION, LUBRICATION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Goggles (item 19, WP 0085)
Magnifying glass (item 17, WP 0085 00)
Rubber gloves (item 18, WP 0085)
Stamping die set (item 12, WP 0085)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
Abrasive cloth (item 5, WP 0116 00)
Acid brush (item 4, WP 0116 00)

Materials/Parts - Continued
Dry cleaning solvent (item 27, WP 0116 00)
Grease (item 11, WP 0116 00)
Lubricating Oil (LAW) (item 15, WP 0116 00)
Wiping rags (item 21, WP 0116 00)

References
DA Form 2408-4
WP 0008 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0049 00 Recoil mechanism removed
WP 0050 00 Barrel support assembly removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Auto gun receiver is too heavy for one person to lift. Get help to lift or carry auto gun receiver.

Do not wear jewelry when working on gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

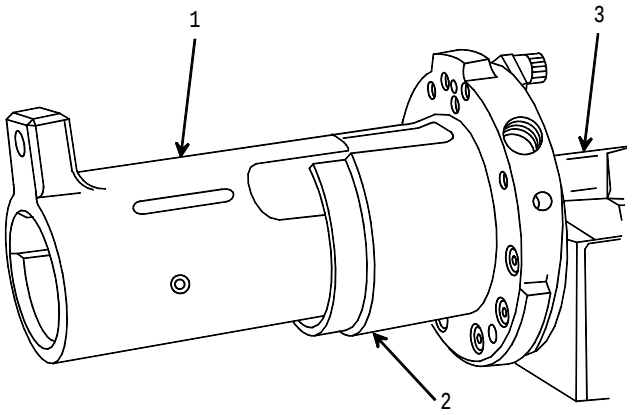
REMOVAL

NOTE

Upon removal of breech, the breech guide pin may fall out.

REMOVE BREECH ASSEMBLY.

Slide breech assembly (1) out of breech sleeve (2) on auto gun receiver (3).



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CLEANING

CLEAN BREECH ASEMBLY.

Using wiping rag dampened with solvent, thoroughly clean outside and inside of breech assembly. Wipe dry with a clean wiping rag.

INSPECTION

1. DETERMINE HOW MANY ROUNDS HAVE BEEN FIRED (USE DA FORM 2408-4).

   a. Standard Gun Only: The breech assembly for the Standard M242 gun (PN 12524370) shall be inspected at 12,500 rounds and every 2,500 rounds thereafter. This breech assembly shall be replaced at 25,000 rounds regardless of visual condition.

   b. Enhanced Gun Only: The breech assembly for the Enhanced M242 gun (PN 12524527) shall be inspected at 25,000 rounds, and every 5,000 rounds thereafter. There is no round count limit where this breech assembly must be replaced.

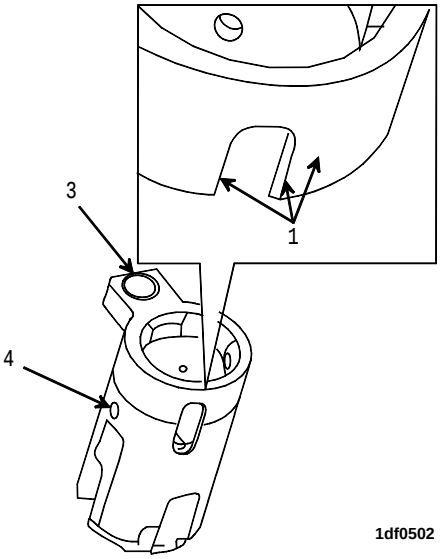
2. INSPECT BREECH ASSEMBLY.

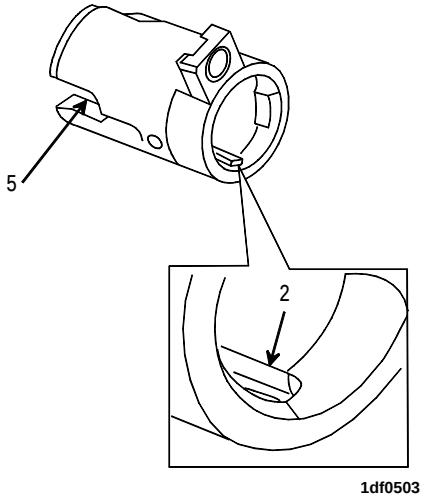
   a. Visually inspect breech assembly using a magnifying glass. Inspect breech for cracks and breaks while paying close attention to areas (1) and (2) in figure. Inspect for cracks and breaks between lugs (5). If any cracks or breaks are found, replace breech assembly.

   b. Visually inspect spring pin (3) to determine if it is loose, missing, or damaged. If any of these conditions are found, replace spring pin.

c. Visually inspect to ensure guide pin (4) is present. It is acceptable for the guide pin to be loose, but care must be taken to ensure guide pin is installed when breech is installed in receiver.

d. Visually inspect lugs (5) for burrs. Use abrasive cloth to remove burrs and rough edges.





3. STAMP BREECH ASSEMBLY (STANDARD GUN ONLY).

NOTE

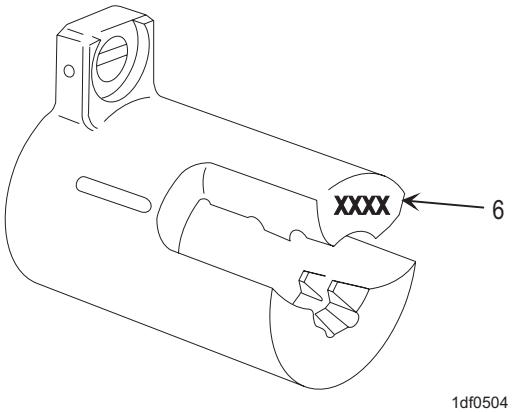
Dry cycle and use of dummy rounds are not counted on the breech or firing pin.

a. Use DA Form 2408-4 to determine how many rounds have been fired. Stamp the breech with an "X" for every 5,000 rounds fired. Use example below:

0--- 4,999 rds = no stamp
5,000--- 9,999 rds = 1 stamps
10,000---14,999 rds = 2 stamps
15,000---19,999 rds = 3 stamps
20,000---24,999 rds = 4 stamps
Replace breech assembly at 25,000 rounds.

b. Stamp appropriate number of "X"s on the face of the breech assembly (6).

c. Using a fine stone, remove all burrs and rough edges.



INSPECTION – Continued

4. INSPECT BREECH ASSEMBLY FOR GUNS WITH MISSING GUN CARD.

   a. Inspect breech in accordance with steps 2a through 2d.

   b. Standard Gun Only: If the breech is found serviceable, record on DA Form 2408-4 and re-inspect breech every 2,500 rounds. After 12,500 rounds have been recorded, replace breech assembly.

   c. Enhanced Gun Only: If the breech is found serviceable, record on DA Form 2408-4 and re-inspect breech every 5,000 rounds.

LUBRICATION

CAUTION

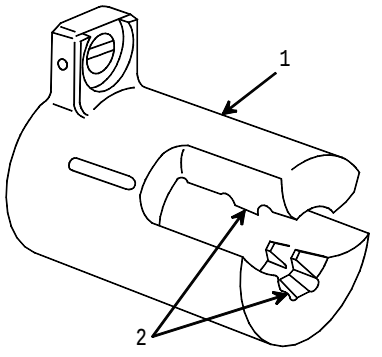
When temperature is below -25°F (-32°C) grease (GMD) can cause breech locking lugs to stick. When temperature is below -25°F (-32°C), use LAW on breech locking lugs.

LUBRICATE BREECH ASSEMBLY.

a. Using acid brush, apply a light coat of grease to outside surfaces of breech assembly (1).

b. If temperature is above -25°F (-32°C), apply a heavy coat of grease to breech locking lugs (2).

c. If temperature is below -25°F (-32°C), apply a heavy coat of LAW to breech locking lugs (2).



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INSTALLATION

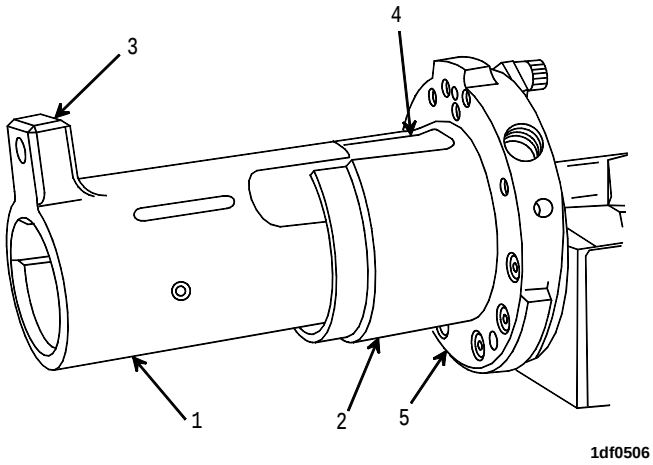
NOTE

The enhanced and standard M242 Gun breech assemblies are NOT interchangeable. The enhanced gun must use the 12524527 breech assembly. The standard gun must use 12524370 breech assembly.

If guide pin was loose during removal, ensure that it is present for installation. A loose breech guide pin will not degrade the function of the gun.

1. INSTALL BREECH ASSEMBLY.

   Slide breech assembly (1) into breech sleeve (2). Pass breech lug (3) into slot (4) in breech sleeve (2). Push breech assembly (1) into breech sleeve (2) until breech lug (3) is 6 in. (152.4 mm) away from receiver wall (5).



2. INSTALL BARREL SUPPORT ASSEMBLY (WP 0050 00).
3. INSTALL RECOIL MECHANISM (WP 0049 00).
4. PERFORM AUTO GUN RECEIVER MANUAL CYCLE CHECK (WP 0008 00).
5. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

ELECTRICAL SEAR SOLENOID REMOVAL/INSTALLATION
REMOVAL, INSPECTION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Goggles (item 19, WP 0085 00)
Multimeter (item 25, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
Abrasive cloth (item 5, WP 0116 00)
Cotter pin (MS24665-132)
Lockwire (item 33, WP 0116 00)

Equipment Conditions
WP 0026 00 Automatic gun feeder removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Auto gun receiver is too heavy for one person to lift. Get help to lift or carry auto gun receiver.

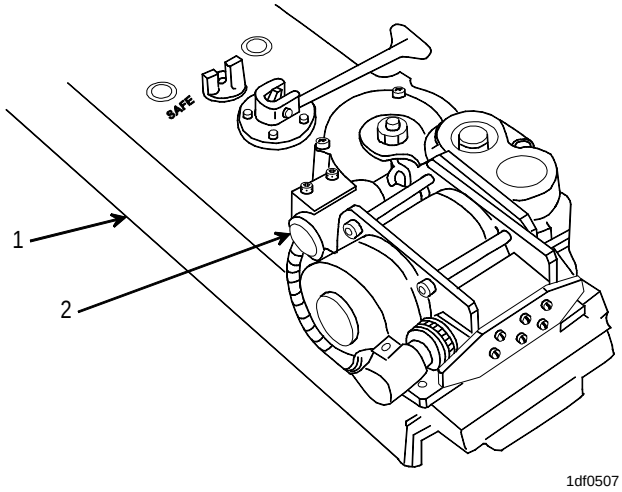
Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

REMOVAL

1. PLACE AUTO GUN RECEIVER ON A CLEAN, FLAT SURFACE.

   Position auto gun receiver (1) with electrical sear solenoid (2) on top.



WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

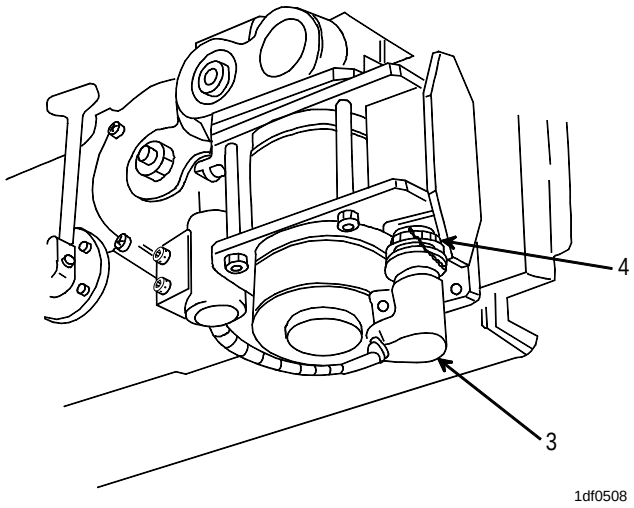
Use care when removing lockwire from connector. Connector may be damaged by pulling lockwire.

NOTE

Do not remove lockwire from upper portion of connector (old configuration only).

2. REMOVE LOCKWIRE FROM ELECTRICAL SEAR SOLENOID CONNECTOR.

   Remove lockwire from between electrical sear solenoid connector (3) and connector lock ring (4).



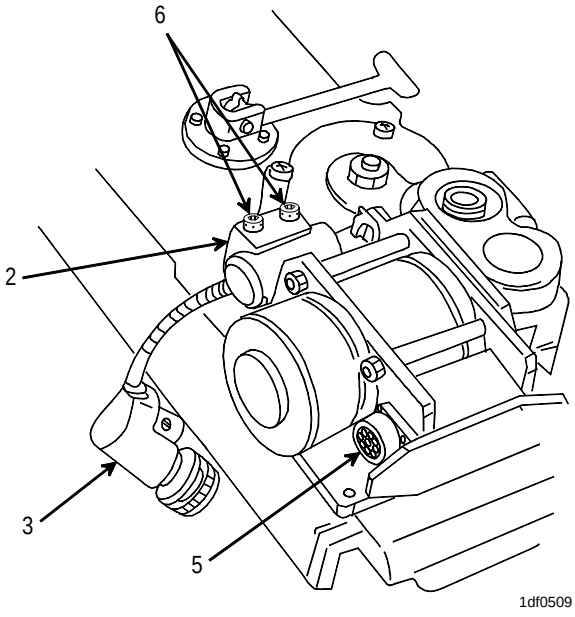
3. DISCONNECT ELECTRICAL SEAR SOLENOID CONNECTOR.

   a. Turn connector lock ring (4) counterclockwise until free.

   b. Pull electrical sear solenoid connector (3) straight out until disconnected from motor/sear plug (5).

4. REMOVE CAPSCREWS.

   Remove two capscrews (6) from electrical sear solenoid (2).



REMOVAL - Continued

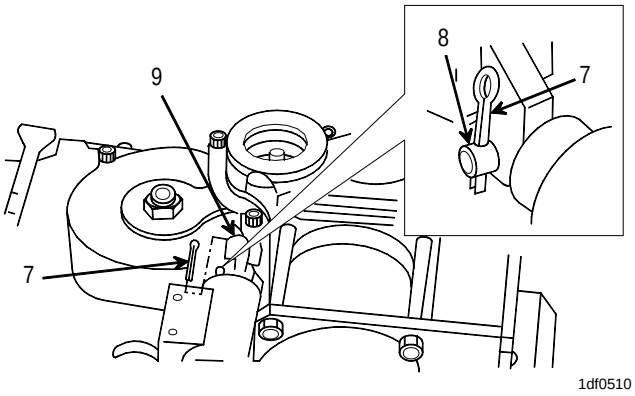
5. REMOVE ELECTRICAL SEAR SOLENOID.

NOTE

Solenoid plunger clevis and spring may fall off of electrical sear solenoid when removed.

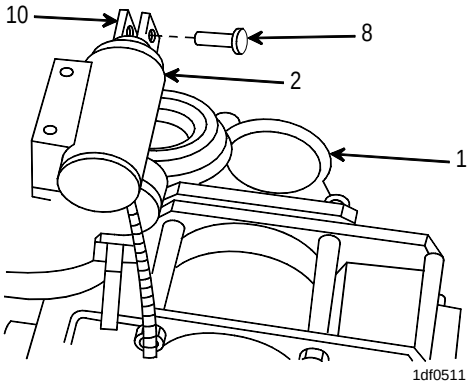
a. Remove cotter pin (7) from headed straight pin (8). Discard cotter pin.

b. Slide headed straight pin (8) out of sear release link (9) until it stops.



c. Lift electrical sear solenoid (2) from auto gun receiver (1).

d. Pull headed straight pin (8) out of solenoid plunger clevis (10).

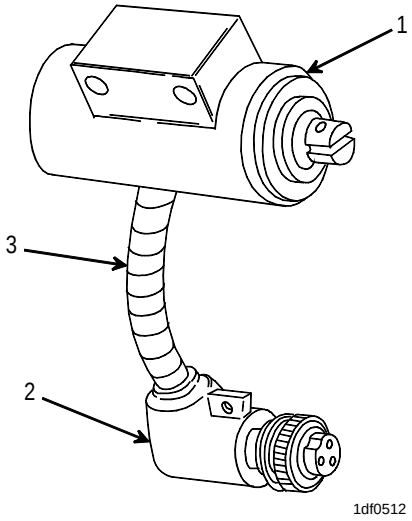


INSPECTION

1. INSPECT ELECTRICAL SEAR SOLENOID.

   a. Visually inspect body (1) for cracks, dents, broken or bent cable connector (2), and damaged cable (3). If any of these conditions are found, replace electrical sear solenoid.

   b. Visually inspect body (1) for corrosion. If corrosion is found, remove with abrasive cloth.



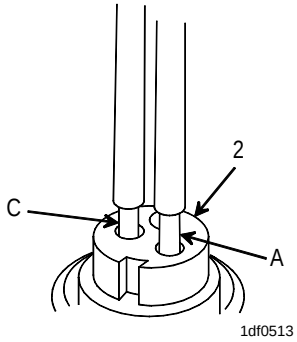
2. PERFORM CONTINUITY CHECK ON ELECTRICAL SEAR SOLENOID.

   a. Place leads of multimeter in pins A and C on cable connector (2).

   b. Check for resistance reading of 1.0 to 4.0 ohms.

   c. Depress solenoid plunger fully and check for resistance reading of 30 to 50 ohms.

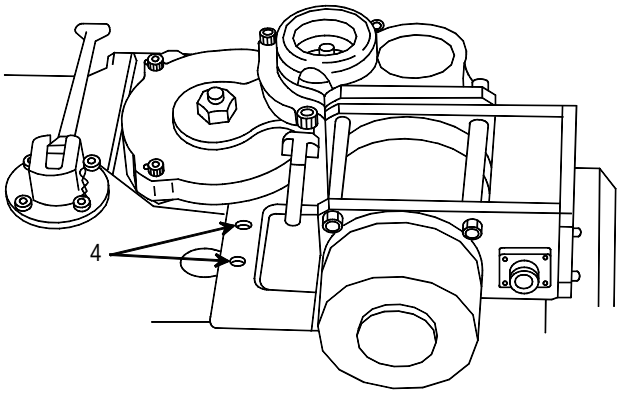
   d. Replace electrical sear solenoid if either reading in step b or c is not within range or if resistance reading intermittently jumps above the limits in steps b and c above.



INSPECTION - Continued

3. INSPECT AUTO GUN RECEIVER.

   Visually inspect electrical sear solenoid screw threaded inserts (4) for looseness and damage. If either of these conditions are found, send gun to Direct Support Maintenance for repair.



INSTALLATION

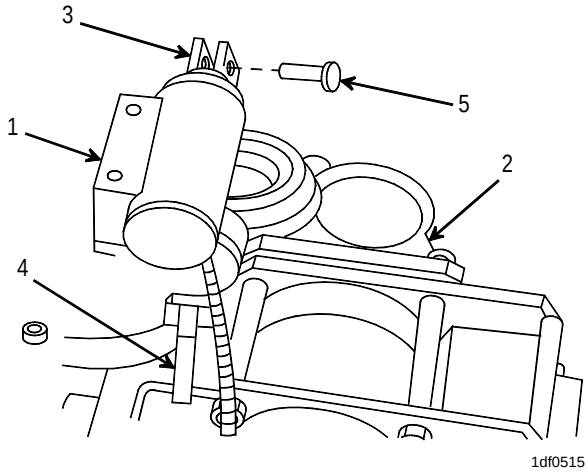
NOTE

Do not apply grease to solenoid plunger or solenoid cavity.

1. INSTALL ELECTRICAL SEAR SOLENOID.

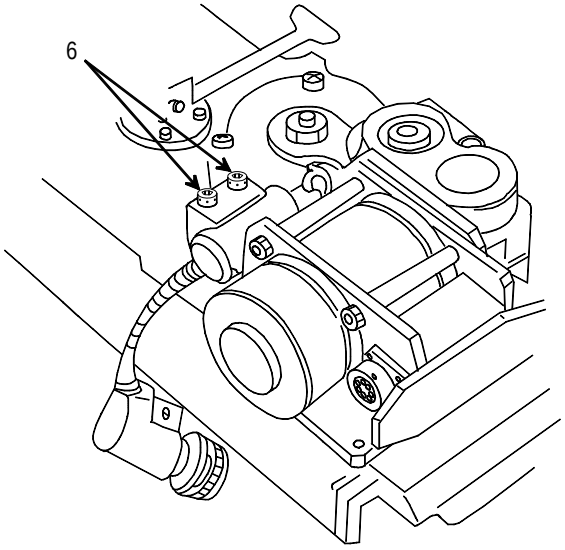
   a. Position solenoid (1) on auto gun receiver (2) with solenoid plunger clevis (3) over sear release link (4).

   b. Push headed straight pin (5) through sear release link (4) and solenoid plunger clevis (3).



2. INSTALL CAPSCREWS.

Install and torque two capscrews (6) to 60 in.-lb ± 5 in.-lb (6.78 N-m ± 0.57 N-m).

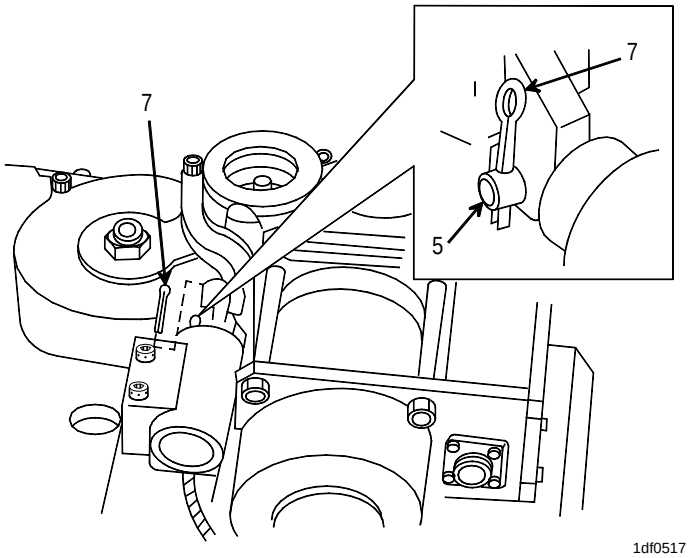


CAUTION

When installing new cotter pin, be careful not to scar or scratch sides of solenoid plunger clevis.

3. INSTALL NEW COTTER PIN.

Install new cotter pin (7) in headed straight pin (5). Bend ends of cotter pin (7) in opposite directions around sides of headed straight pin (5).



INSTALLATION – Continued

4. CONNECT ELECTRICAL SEAR SOLENOID CONNECTOR.

   a. Mate electrical sear solenoid connector (8) with motor/sear plug (9). Push connector in gently until seated.

   b. Push electrical sear solenoid connector (8) into motor/sear plug (9) while turning connector lock ring (10) clockwise. Turn connector lock ring (10) clockwise until snug.

WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

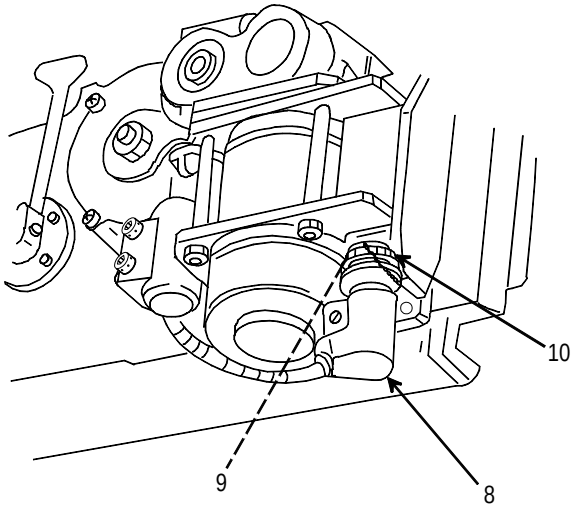
CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

Using larger than 0.020 in. diameter lockwire on sear solenoid connector may cause damage to connector.

5. INSTALL LOCKWIRE ON ELECTRICAL SEAR SOLENOID CONNECTOR.

   Lockwire electrical sear solenoid connector (8) to connector lock ring (10). Discard wire pieces.



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6. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

BOLT AND TRACK ASSEMBLY REMOVAL/INSTALLATION REMOVAL, INSPECTION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

References
WP 0008 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Auto gun receiver is too heavy for one person to lift. Get help to lift or carry auto gun receiver.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

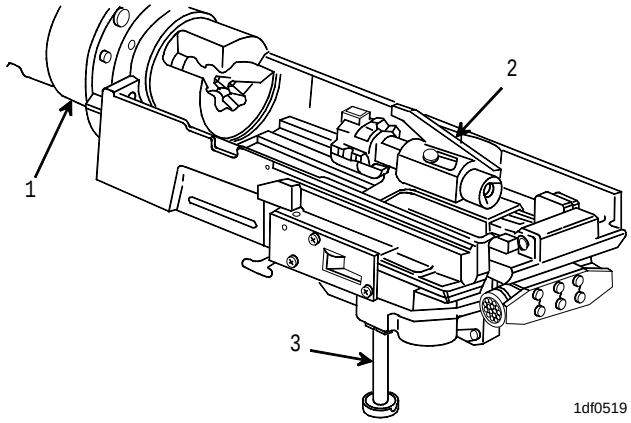
Keep your fingers away from moving parts of gun. Serious injury or death may occur.

REMOVAL

1. PLACE AUTO GUN RECEIVER ON A CLEAN, FLAT SURFACE.

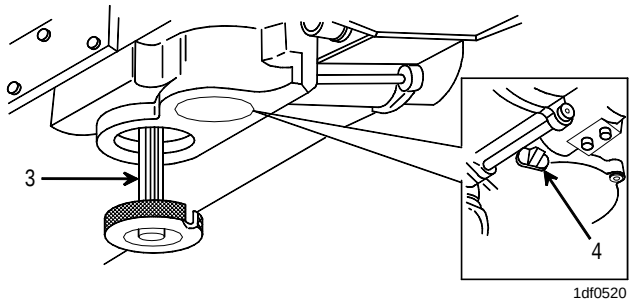
   a. Position auto gun receiver (1) with bolt and track assembly (2) on top.

   b. Verify that straight drive shaft (3) is in the lowered position.

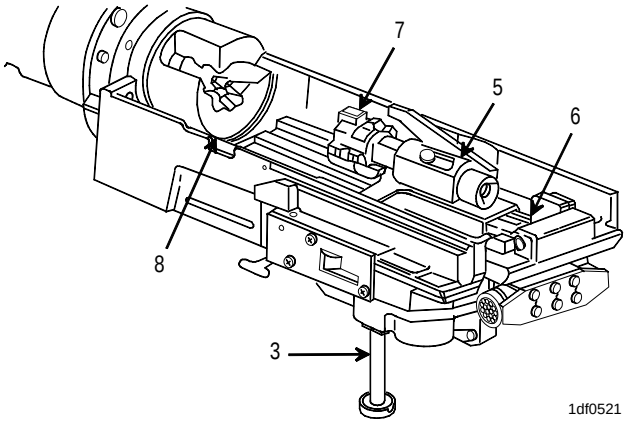


2. POSITION BOLT AND CARRIER ASSEMBLY.

   a. Push in sear release link (4) and rotate straight drive shaft (3) in fire direction. Release sear release link (4).



b. Rotate straight drive shaft (3) until bolt and carrier assembly (5) moves forward and off the rear track (6) and breech bolt (7) remains clear of breech assembly (8).



WARNING

Serious injury can result if fingers or hands are caught between roller chain assembly and drive or idler sprocket wheels.

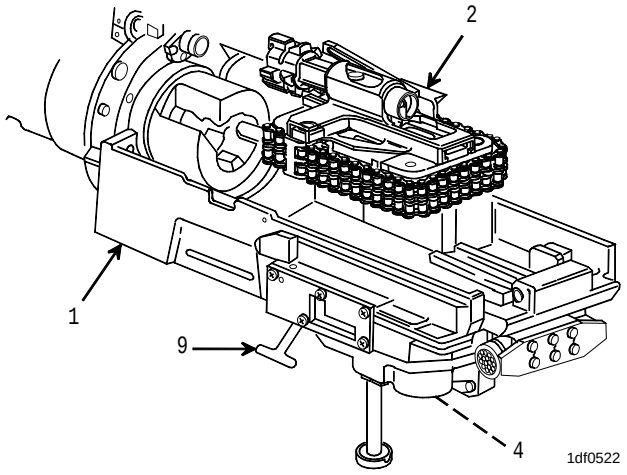
NOTE

Drive sprocket retainer may remain in receiver or fall out of drive sprocket gear when bolt and track assembly is removed.

3. REMOVE BOLT AND TRACK ASSEMBLY.

a. Unlock bolt and track assembly (2) from auto gun receiver (1) by pressing down on track hook latch (9).

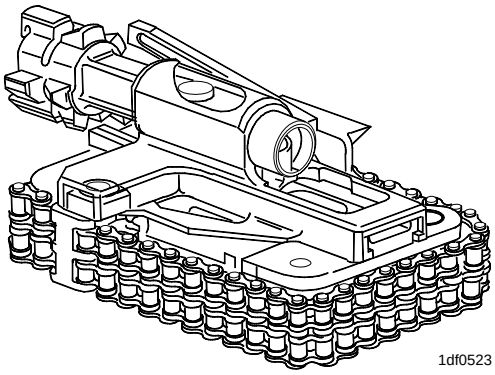
b. Push sear release link (4) and simultaneously lift bolt and track assembly (2) up and out of auto gun receiver (1).



INSPECTION

INSPECT BOLT AND TRACK ASSEMBLY.

Visually inspect bolt and track assembly for bent, broken, cracked, or worn parts. If any of these conditions are found, replace defective part.



INSTALLATION

WARNING

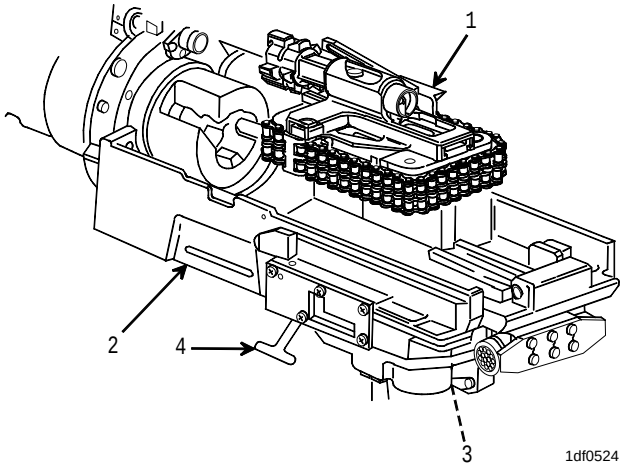
Serious injury can result if fingers or hands are caught between roller chain assembly and drive or idler sprocket wheels.

1. INSTALL BOLT AND TRACK ASSEMBLY.

   a. Align bolt and track assembly (1) with auto gun receiver (2).

   b. While pushing in sear release link (3), lower bolt and track assembly (1) into auto gun receiver (2). Make certain bolt and track assembly (1) is firmly seated in auto gun receiver (2).

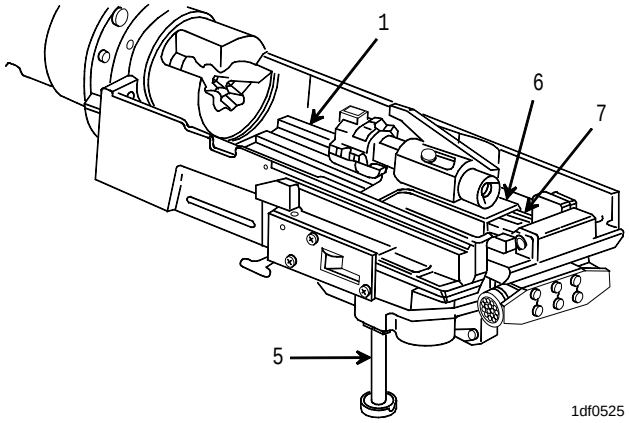
   c. Lock bolt and track assembly (1) into auto gun receiver (2) by lifting up on track hook latch (4) until it stops against bottom of auto gun receiver (2).



2. LOCK BOLT AND TRACK ASSEMBLY IN SEAR POSITION.

   a. Rotate straight drive shaft (5) opposite of the fire direction to move bolt and carrier assembly (6) onto rear track (7).

   b. Continue to rotate straight drive shaft (5) until bolt and track assembly (1) is locked in sear position.



3. PERFORM AUTO GUN RECEIVER MANUAL CYCLE CHECK (WP 0008 00).

4. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

BOLT AND TRACK ASSEMBLY DISASSEMBLY/ASSEMBLY DISASSEMBLY, CLEANING, INSPECTION, LUBRICATION, ASSEMBLY

INITIAL SETUP:

Tools and Special Tools
Goggles (item 19, WP 0085 00)
Rubber gloves (item 18, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Dry cleaning solvent (item 27, WP 0116 00)
Grease (item 11, WP 0116 00)
Lubricating oil (LAW) (item 15, WP 0116 00)
Wiping rags (item 21, WP 0116 00)

References
WP 0008 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0053 00 Bolt and track assembly removed

Special Environmental Conditions
Well-ventilated area required when using dry cleaning solvent.

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on gun. Serious injury or death may occur.

Serious injury can result if fingers or hands are caught between roller chain assembly and drive or idler sprocket wheels.

DISASSEMBLY

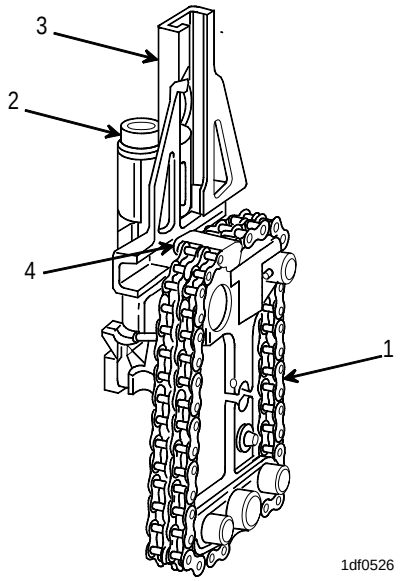
1. POSITION BOLT AND TRACK ASSEMBLY.

   a. Grasp track assembly (1) at bottom.

   b. Grasp top of bolt and carrier assembly (2) with other hand so that rear of carrier assembly (3) is on top.

2. REMOVE BOLT AND CARRIER ASSEMBLY.

   Move master link (4) into center of carrier assembly (3) and lift bolt and carrier assembly (2) from track assembly (1).



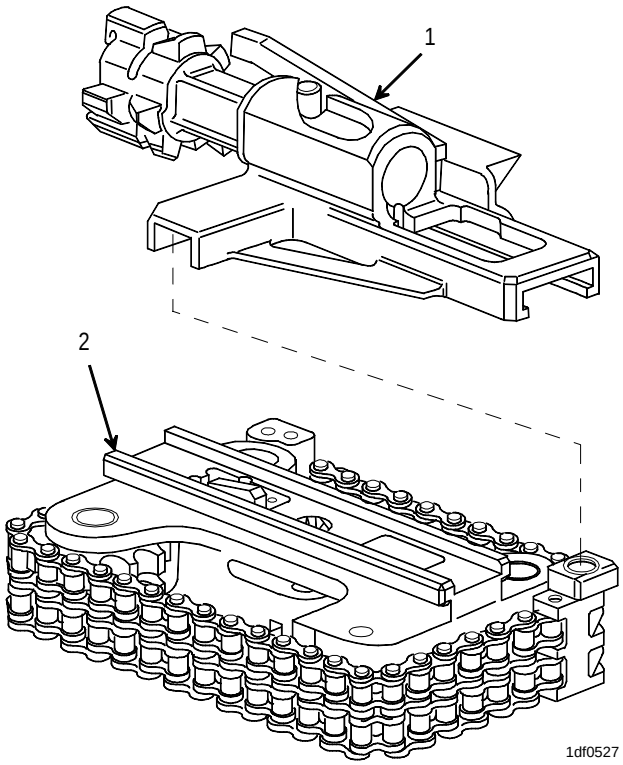
CLEANING

WARNING

Dry cleaning solvent (SD) is flammable and toxic. Use in well-ventilated area away from an open flame or a smoking area. This solvent evaporates quickly and has a drying effect on the skin. It may cause cracks in the skin and, in some cases, mild irritation or inflammation. If solvent comes in contact with eyes or skin, flush with water.

CLEAN BOLT AND TRACK ASSEMBLY.

Using wiping rag dampened in solvent, wipe grease from bolt and carrier assembly (1) and from track assembly (2).



INSPECTION

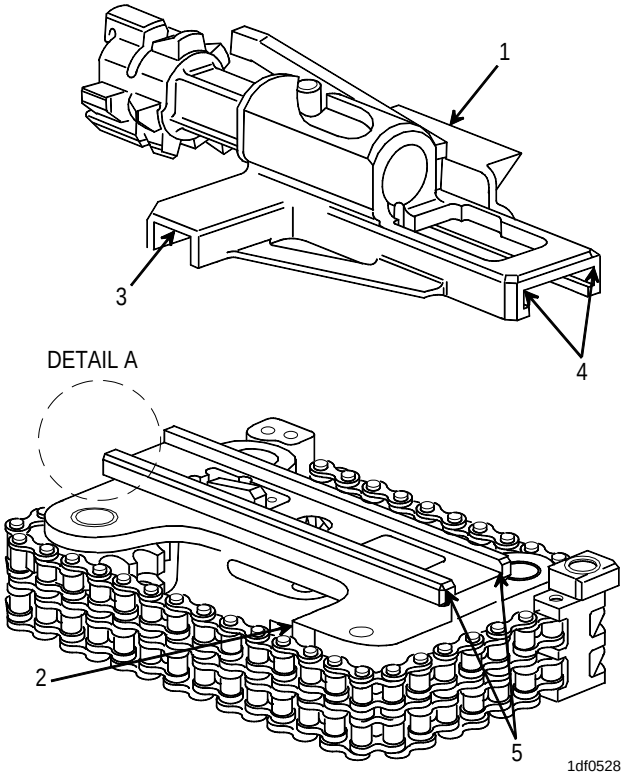
NOTE

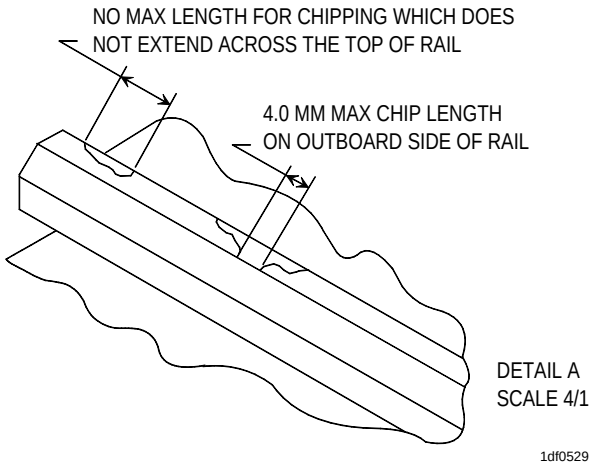
Some chipping and burring of track rails is normal.

INSPECT BOLT AND TRACK ASSEMBLY.

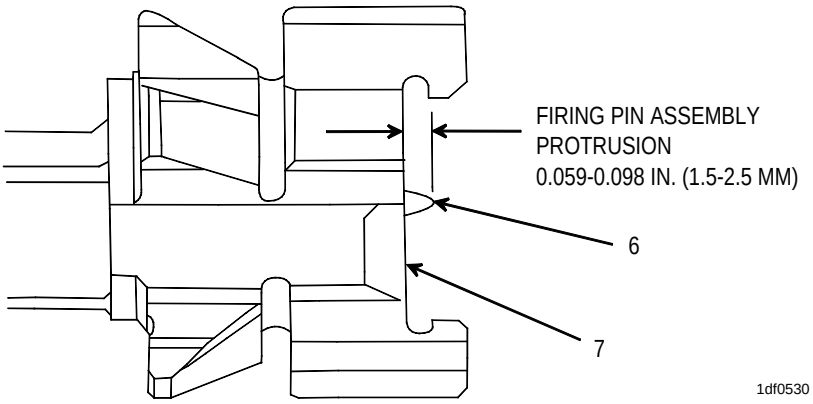
a. Visually inspect bolt and carrier assembly (1) and track assembly (2) for cracked or broken parts. Check slider path (3) and track paths (4) for galls and burrs. If any of these conditions are found, repair or replace defective parts.

b. Inspect track rails (sliding surface) (5) of track assembly (2) for chips. Each track rail may exhibit chipping along the entire rail. If chipping crosses the top of the rail and exceeds 4.0 mm when measured along the outboard of the rail, the track assembly must be replaced.





c. Ensure breech bolt is in the forward dwell position (uncocked) and check firing pin assembly protrusion. The firing pin tip (6) must extend between 0.059 in. (1.5 mm) and 0.098 in. (2.5 mm) past the bolt face (7). If the firing pin protrusion is incorrect, replace firing pin assembly.



LUBRICATION

CAUTION

When temperature is below -25°F (-32°C), grease (GMD) can cause track rails, slider, master link, and chain to stick. When temperature is below -25°F (-32°C), use LAW on track rails, slider, master link, and chain.

Do not apply grease to face of breech bolt. Grease will attract dust and dirt which might stop gun.

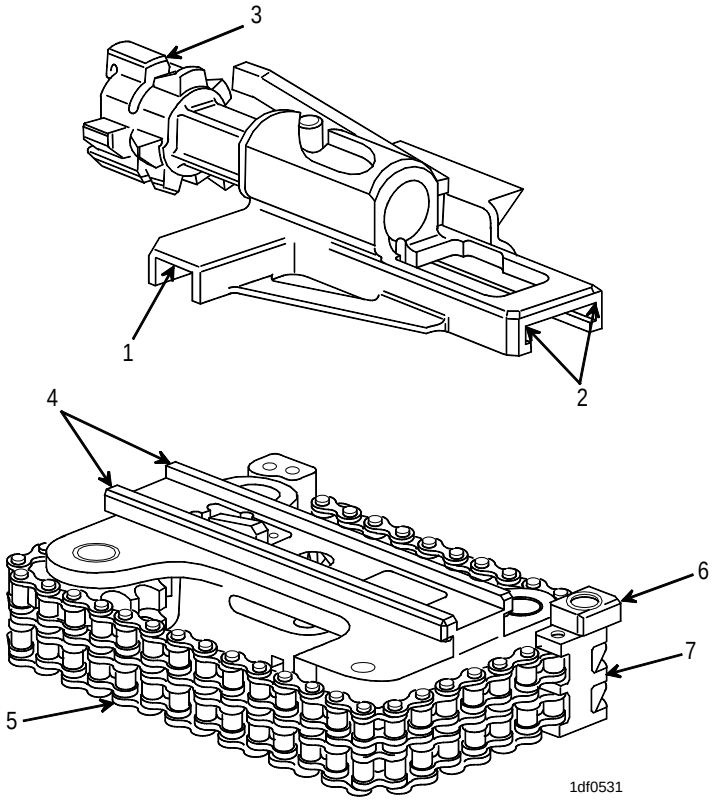
LUBRICATE BOLT AND TRACK ASSEMBLY.

a. If temperature is above -25°F (-32°C), using acid brush, apply a light coat of grease to slider path (1) and track paths (2). Apply a heavy coat of grease to locking lugs of bolt (3).

b. If temperature is below -25°F (-32°C), using acid brush, apply a light coat of LAW to slider path (1) and track path (2). Apply a heavy coat of LAW to locking lugs of bolt (3).

c. If temperature is above -25°F (-32°C), using acid brush, apply a light coat of grease to rails on track assembly (4) and apply a heavy coat of grease to roller assembly chain (5), slider (6), and master link (7).

d. If temperature is below -25°F (-32°C), using acid brush, apply a light coat of LAW to rails on track assembly (4) and apply a heavy coat of LAW to roller chain assembly (5), slider (6), and master link (7).



ASSEMBLY

1. ALIGN BOLT AND CARRIER ASSEMBLY WITH TRACK ASSEMBLY.

   a. Stand track assembly (1) on end with drive sprocket wheel (2) at upper left.

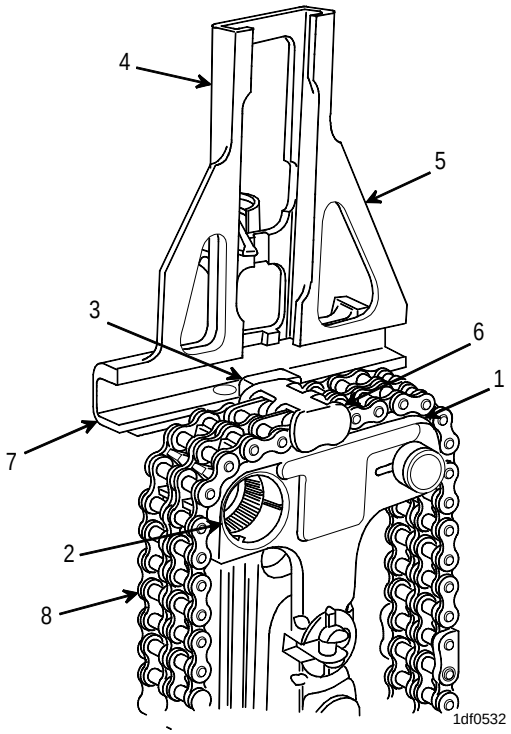
   b. Center slider (3) at rear of track assembly (1).

   c. Align track path (4) of bolt and carrier assembly (5) with track rails and slider (3) of track assembly (1).

2. INSTALL BOLT AND CARRIER ASSEMBLY ON TRACK ASSEMBLY.

   a. Lift master link (6), and position slider (3) on top of two lugs located in slider path (7) of bolt and carrier assembly (5).

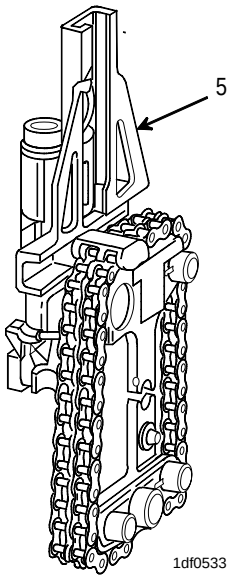
   b. Rotate roller assembly chain (8) to right (clockwise) until bolt and carrier assembly (5) and track assembly (1) are engaged.



NOTE

Binding may be caused by uneven alignment of the two spring pins located under the track rail. Ensure that bolt carrier does not contact spring pins.

c. Slide bolt and carrier assembly (5) across the track rails to make sure it moves freely and does not bind. If binding occurs, replace defective parts.



3. INSTALL BOLT AND TRACK ASSEMBLY (WP 0053 00).

4. PERFORM AUTO GUN RECEIVER MANUAL CYCLE CHECK (WP 0008 00).

5. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

BOLT AND CARRIER ASSEMBLY DISASSEMBLY/ASSEMBLY DISASSEMBLY, CLEANING, INSPECTION, LUBRICATION, ASSEMBLY

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Goggles (item 19, WP 0085 00)
Rubber gloves (item 18, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)
1/8 in. twist drill (item 14, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Dry cleaning solvent (item 27, WP 0116 00)
Grease (item 11, WP 0116 00)
Lubricating oil (LAW) (item 15, WP 0116 00)
Wiping rags (item 21, WP 0116 00)

Personnel Required
Two

References
WP 0008 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0053 00 Bolt and track assembly removed
WP 0054 00 Bolt and carrier assembly removed

Special Environmental Conditions
Well-ventilated area required when using dry cleaning solvent.

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

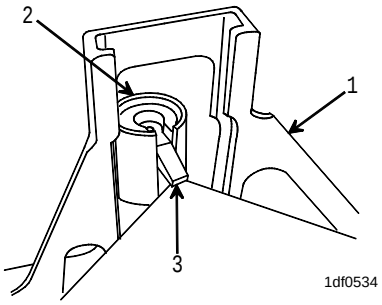
Keep your fingers away from moving parts of gun. Serious injury or death may occur.

DISASSEMBLY

1. UNLOCK BREECH BOLT FROM FORWARD LOCKING POSITION.

   a. Hold carrier assembly (1) with breech bolt (2) pointed downwards and firing pin tang (3) hooked on corner of working surface.

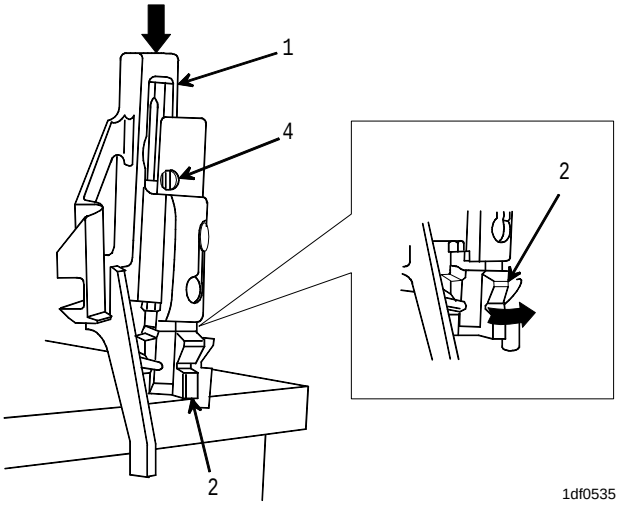
   b. Press down firmly on carrier assembly (1) until firing pin tang (3) unlocks.



2. REMOVE FIRING PIN ASSEMBLY AND FIRING PIN SLEEVE.

   a. Turn face of breech bolt (2) clockwise and place it on a solid surface.

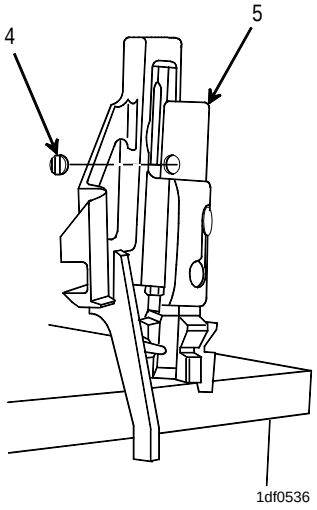
   b. Push down on carrier assembly (1) to unlock breech bolt (2) and to expose firing pin sleeve keeper (4).



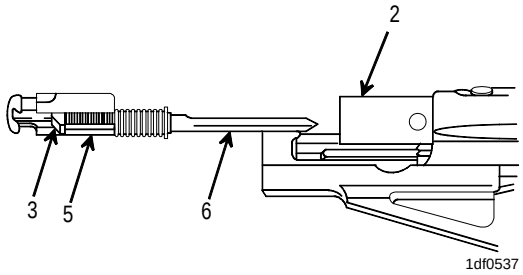
NOTE

An idler sprocket shaft from the track assembly can be used to push down on rear of firing pin sleeve.

c. Press rear of firing pin sleeve (5) down and remove firing pin sleeve keeper (4).

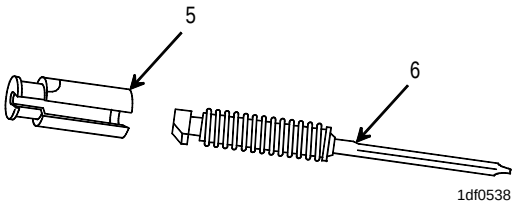


d. Rotate firing pin tang (3) to the side and slide firing pin assembly (6) and firing pin sleeve (5) from rear of breech bolt (2).



3. REMOVE FIRING PIN SLEEVE FROM FIRING PIN ASSEMBLY.

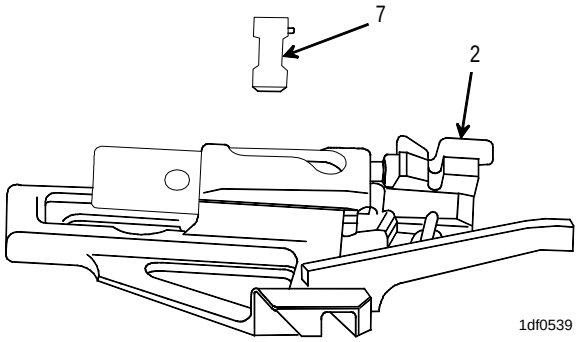
Pull firing pin sleeve (5) from firing pin assembly (6).



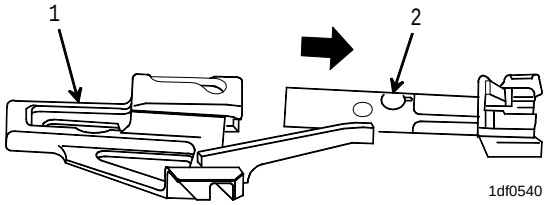
DISASSEMBLY - Continued

4. REMOVE BREECH BOLT.

   a. Pull cam-pin assembly (7) out of breech bolt (2).



   b. Remove breech bolt (2) from carrier assembly (1).



CLEANING

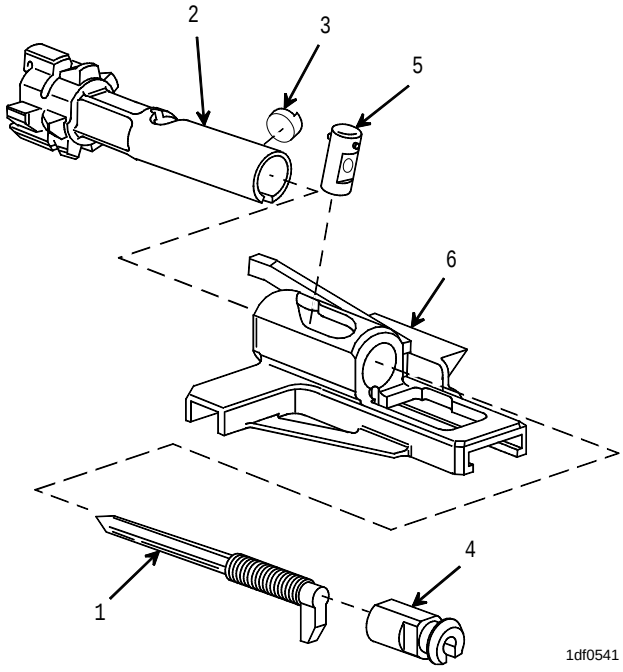
WARNING

Dry cleaning solvent (SD) is flammable and toxic. Use in well-ventilated area away from open flame or a smoking area. This solvent evaporates quickly and has a drying effect on the skin. It may cause cracks in the skin and, in some cases, mild irritation or inflammation. If solvent comes in contact with eyes or skin, flush with water.

CLEAN BOLT AND CARRIER ASSEMBLY PARTS.

a. Using brush and dry cleaning solvent, clean firing pin assembly (1), breech bolt (2), firing pin sleeve keeper (3), firing pin sleeve (4), cam-pin assembly (5), and carrier assembly (6).

b. Dry parts with a clean wiping rag.



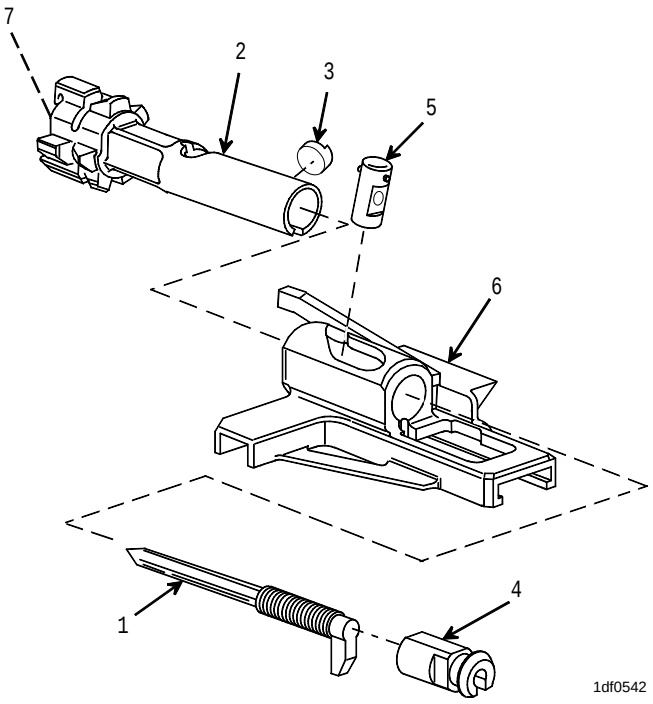
INSPECTION

INSPECT BOLT AND CARRIER ASSEMBLY PARTS.

a. Visually inspect firing pin assembly (1) for broken spring. If spring is broken, replace firing pin assembly.

b. Visually inspect firing pin assembly (1), breech bolt (2), firing pin sleeve keeper (3), firing pin sleeve (4), cam-pin assembly (5) and carrier assembly (6) for cracks and breaks. If either of these conditions are found, replace defective part.

c. Check breech bolt (2) firing pin hole (7). If 0.125 in. drill bit shank fits into the firing pin hole, replace breech bolt.



LUBRICATION

LUBRICATE BOLT AND CARRIER ASSEMBLY.

CAUTION

When temperature is below -25°F (-32°C), grease (GMD) can cause bolt to stick. When temperature is below -25°F (-32°C), use LAW on breech bolt, firing pin, firing pin sleeve, and cam-pin.

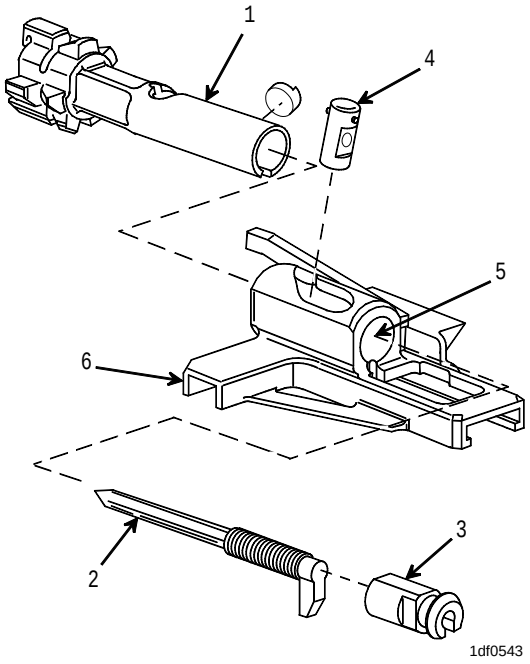
Do not apply grease to face of breech bolt. Grease will attract dust and dirt which might stop gun.

a. If temperature is above -25°F (-32°C), using acid brush, apply a light coat of grease to breech bolt (1), firing pin assembly (2), firing pin sleeve (3), and cam-pin assembly (4).

b. If temperature is below -25°F (-32°C), using acid brush, apply a light coat of LAW to breech bolt (1), firing pin assembly (2), firing pin sleeve (3), and cam-pin assembly (4).

c. If temperature is above -25°F (-32°C), using acid brush, apply a generous coat of grease to bore (5) of carrier assembly (6).

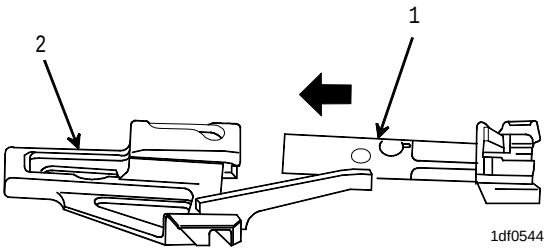
d. If temperature is below -25°F(-32°C), using acid brush, apply a generous coat of LAW to bore (5) of carrier assembly (6).



ASSEMBLY

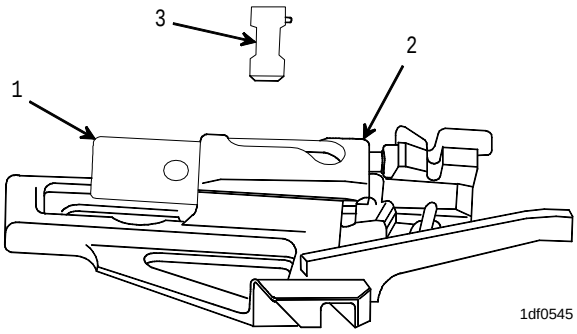
1. INSTALL BREECH BOLT.

   a. Slide rear of breech bolt (1) through front of carrier assembly (2).



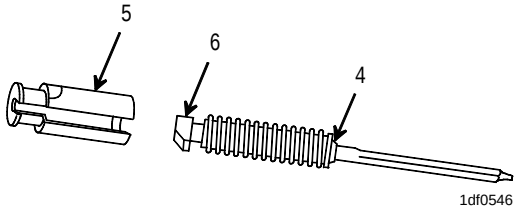
ASSEMBLY - Continued

b. Install cam-pin assembly (3) into breech bolt (1) so that top of cam-pin assembly (3) is flush with carrier assembly (2).

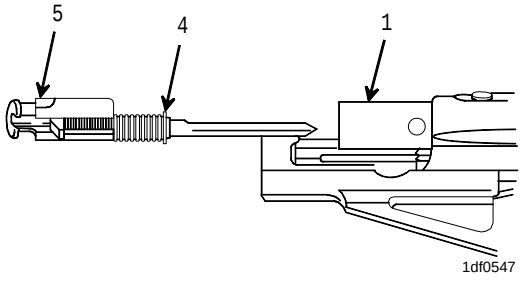


2. INSTALL FIRING PIN ASSEMBLY AND FIRING PIN SLEEVE.

a. Slide rear of firing pin assembly (4) through front of firing pin sleeve (5). Pass firing pin tang (6) along groove in firing pin sleeve (5).



b. Slide firing pin assembly (4) and firing pin sleeve (5) into rear of breech bolt (1).

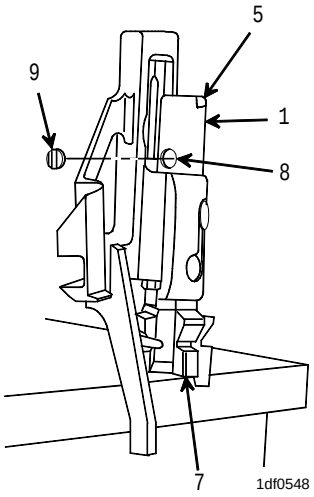


NOTE

An idler sprocket shaft from the track assembly can be used to push on rear of firing pin sleeve.

c. Place breech bolt face (7) on a solid surface so that firing pin sleeve keeper slot (8) is exposed. Push rear of firing pin sleeve (5) down.

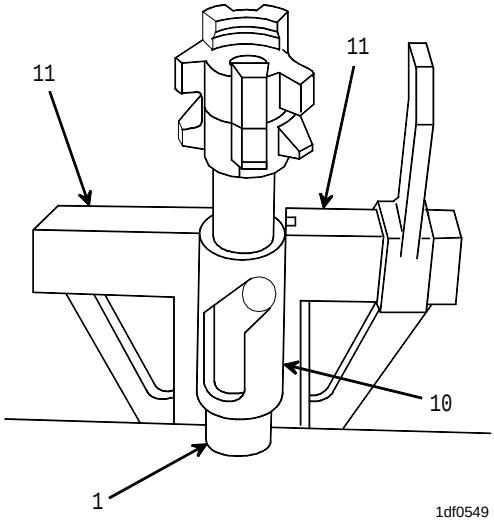
d. Install firing pin sleeve keeper (9) in slot (8) so that it is flush with surface of breech bolt (1).



3. LOCK BREECH BOLT.

   a. Turn bolt and carrier assembly (10) over so that only rear of breech bolt (1) rests on a solid surface.

   b. Place hand on each side of carrier track path (11) and push down until breech bolt (1) locks.



4. INSTALL BOLT AND CARRIER ASSEMBLY (WP 0054 00).

5. INSTALL BOLT AND TRACK ASSEMBLY (WP 0053 00).

6. PERFORM AUTO GUN RECEIVER MANUAL CYCLE CHECK (WP 0008 00).

7. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

TRACK ASSEMBLY DISASSEMBLY/ASSEMBLY DISASSEMBLY, CLEANING, INSPECTION, LUBRICATION, ASSEMBLY

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Goggles (item 19, WP 0085 00)
Rubber gloves (item 18, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Dry cleaning solvent (item 27, WP 0116 00)
Grease (item 11, WP 0116 00)
O-ring (M25988/1-022)
Spring pin (2) (MS16562-66)
Spring pin (12524618-1)
Wiping rags (item 21, WP 0116 00)

Personnel Required
Two

References
WP 0008 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0053 00 Bolt and track assembly removed
WP 0054 00 Bolt and carrier assembly removed

Special Environmental Conditions
Well-ventilated area required when using dry cleaning solvent.

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

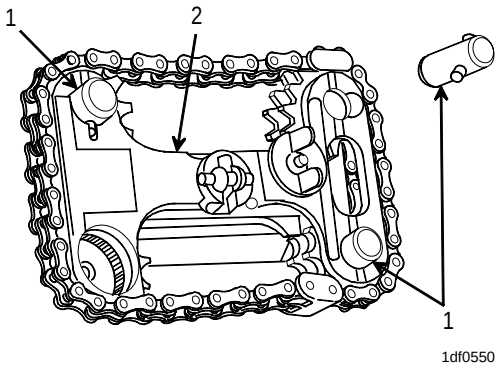
Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

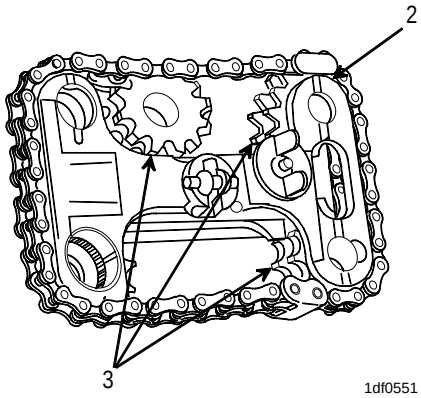
DISASSEMBLY

1. REMOVE CHAIN AND SPROCKET WHEELS.

   a. Pull three idler sprocket shaft assemblies (1) from track (2).



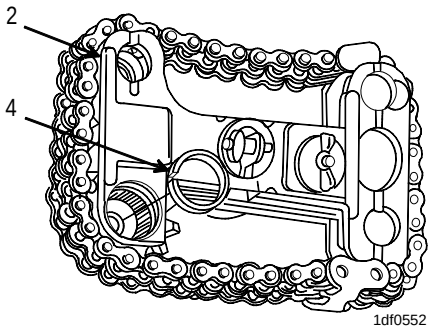
   b. Remove three idler sprocket wheels (3) from track (2).



NOTE

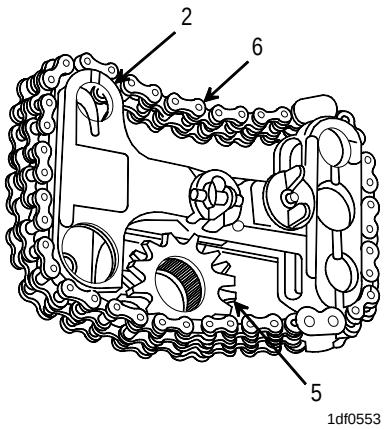
The drive sprocket retainer may have fallen into the receiver assembly. Look on receiver drive gear if the drive sprocket retainer is missing.

   c. Pull drive sprocket retainer (4) from track (2).



d. Remove drive sprocket wheel (5) from track (2).

e. Remove chain (6) from track (2).

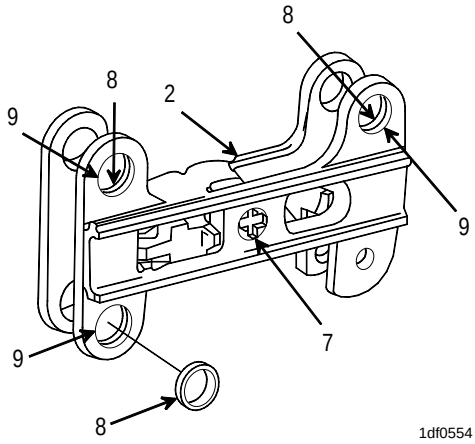


f. Turn track (2) so that clevis nut (7) is visible.

NOTE

Idler sprocket shaft preformed packings are not used as a fluid seal. They are used to retain the idler sprocket shafts during assembly and therefore may be reused.

g. Remove three o-rings (8) from three idler sprocket shaft assembly holes (9) in track (2). Discard preformed packings if torn or frayed.



DISASSEMBLY - Continued

WARNING

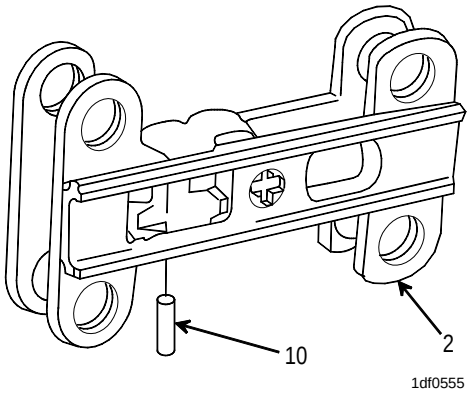
Wear eye protection when removing springs or using striking instruments. You can be blinded if flying springs or chips hit you in the eye.

2. REMOVE SAFETY ASSEMBLY, FIRING PIN PAWL, AND SAFETY ACTUATOR PAWL.

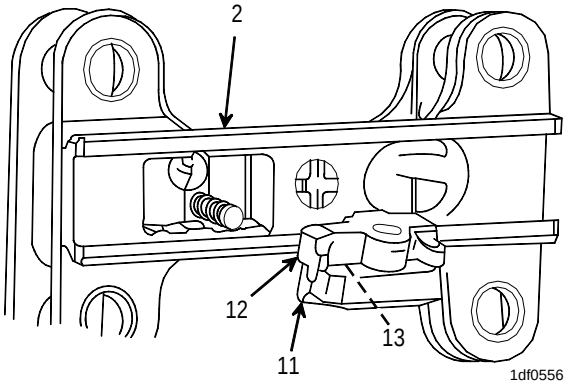
NOTE

Use helper to hold both pawls against spring pressure while removing spring pin.

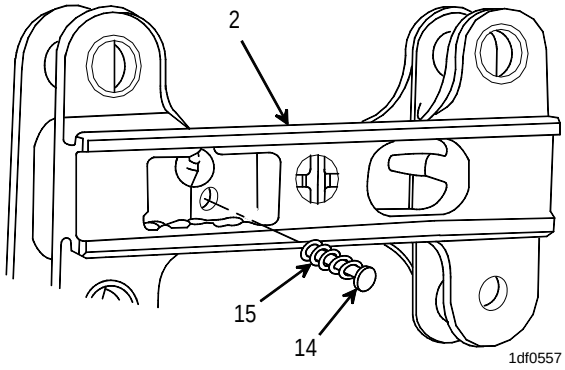
a. Tap spring pin (10) out of track (2). Discard spring pin.



b. Remove firing pin pawl (11), safety pawl (12), and pawl spring (13) from track (2).



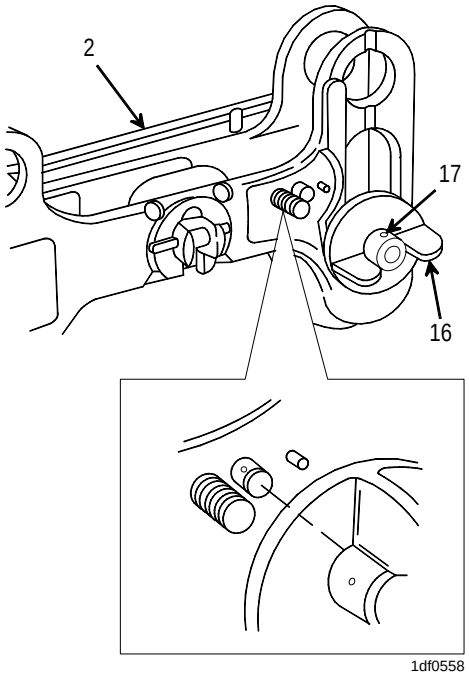
c. Remove headed straight pin (14) and helical spring (15) from track (2).



d. Turn track (2) so that safety handle (16) is visible.

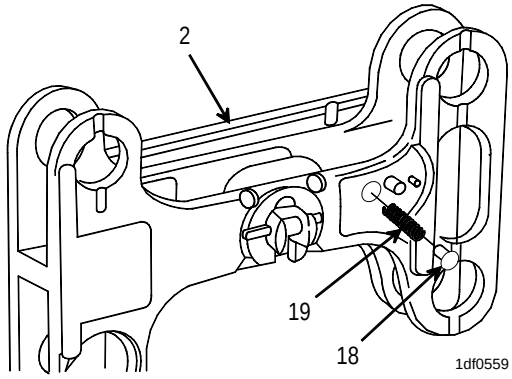
e. Tap spring pin (17) from safety handle (16). Discard spring pin.

f. Remove safety handle (16) from track (2).



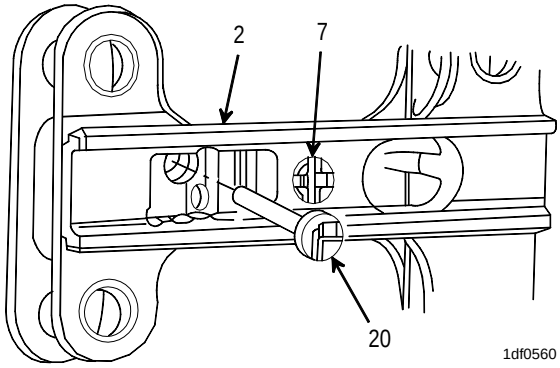
DISASSEMBLY - Continued

g. Pull detent pin (18) and spring (19) from track (2).



h. Turn track (2) so that clevis nut (7) is visible.

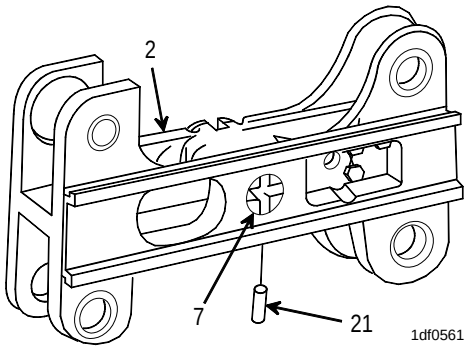
i. Pull safety actuator (20) from track (2).



3. REMOVE CLEVIS ASSEMBLY.

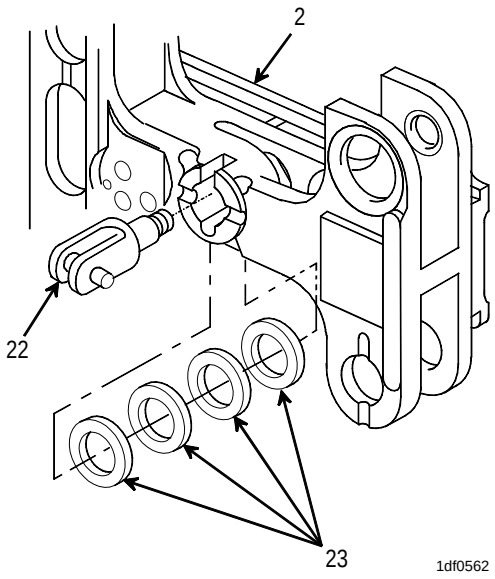
   a. Tap spring pin (21) out of track (2) and clevis nut (7). Discard spring pin.

   b. Remove clevis nut (7).



   c. Turn track (2) so that clevis assembly (22) is visible.

   d. Place open hand under bottom opening in track (2) to catch four spring tension washers (23). Remove clevis assembly (22).



CLEANING

WARNING

Dry cleaning solvent (SD) is flammable and toxic. Use only in well-ventilated areas away from an open flame or a smoking area. This solvent evaporates quickly and has a drying effect on the skin. It may cause cracks in the skin and, in some cases, mild irritation or inflammation. If solvent comes in contact with eyes or skin, flush with water.

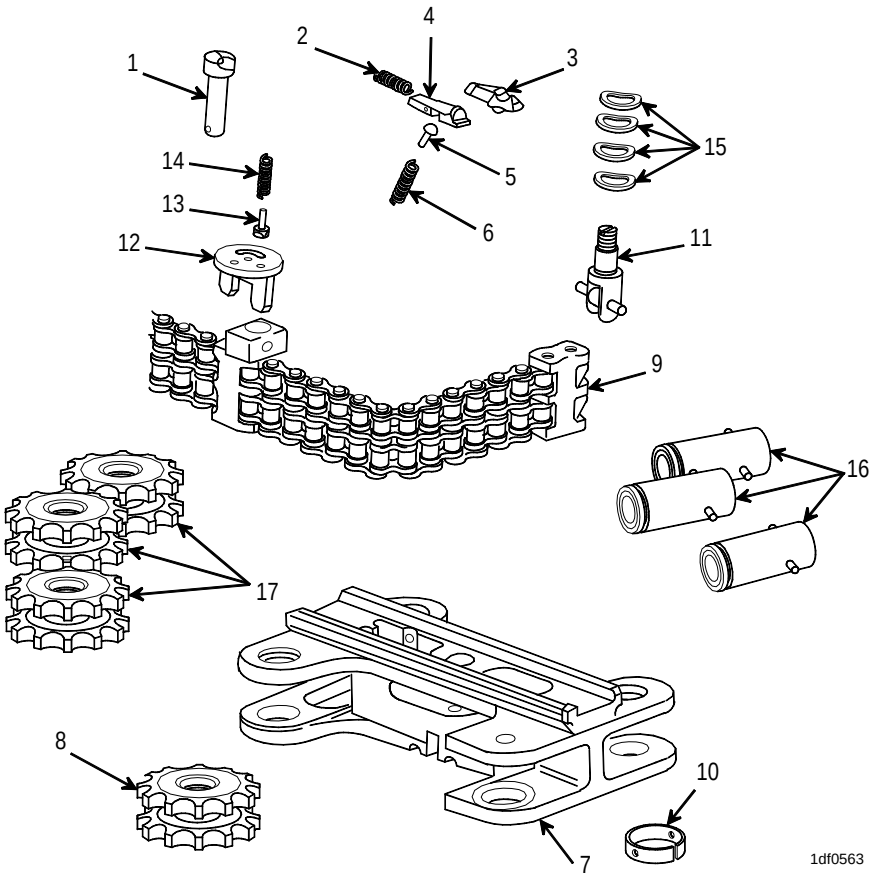
CAUTION

Do not immerse chain in solvent. Solvent will remain in rollers and contaminant grease.

CLEAN TRACK ASSEMBLY PARTS.

a. Using brush and dry cleaning solvent, clean safety actuator (1), pawl spring (2), safety pawl (3), firing pin pawl (4), pin (5), helical spring (6), track (7), drive sprocket wheel (8), chain (9), drive sprocket retainer (10), clevis assembly (11), safety handle (12), headed straight pin (13), helical spring (14), four spring tension washers (15), three idler sprocket shaft assemblies (16), and three idler sprocket wheels (17).

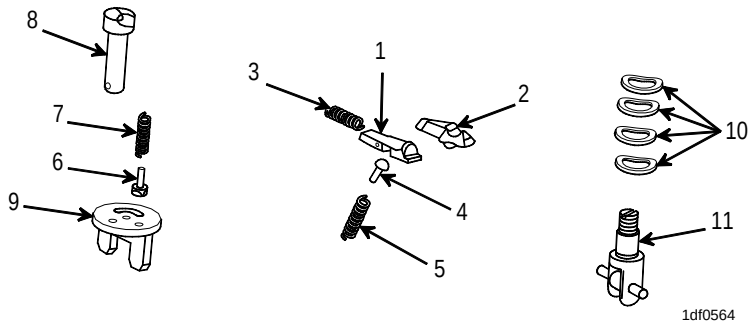
b. Dry parts with a clean wiping rag.



INSPECTION

VISUALLY INSPECT TRACK ASSEMBLY PARTS.

a. Visually inspect firing pin pawl (1), safety pawl (2), pawl spring (3), pin (4), helical spring (5), headed straight pin (6), helical spring (7), safety actuator (8), safety handle (9), four spring tension washers (10), and clevis assembly (11) for cracks, chips, breaks, and other damage. If any of these conditions are found, replace defective part. If either the safety actuator (8) or safety handle (9) must be replaced, refer to NOTE below and go to step b.



NOTE

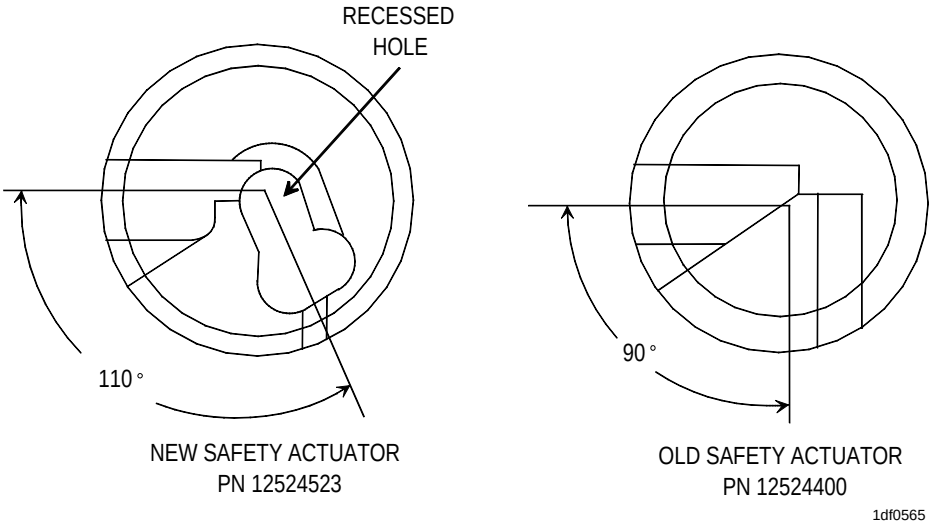
There are two different configurations of safety actuators and safety handles that must be used together. The old configuration actuator and handle are no longer stocked. If either one of these items require replacement, both the actuator and handle must be replaced with new configuration parts.

Table 1. Safety Actuator and Safety Handle Configurations.

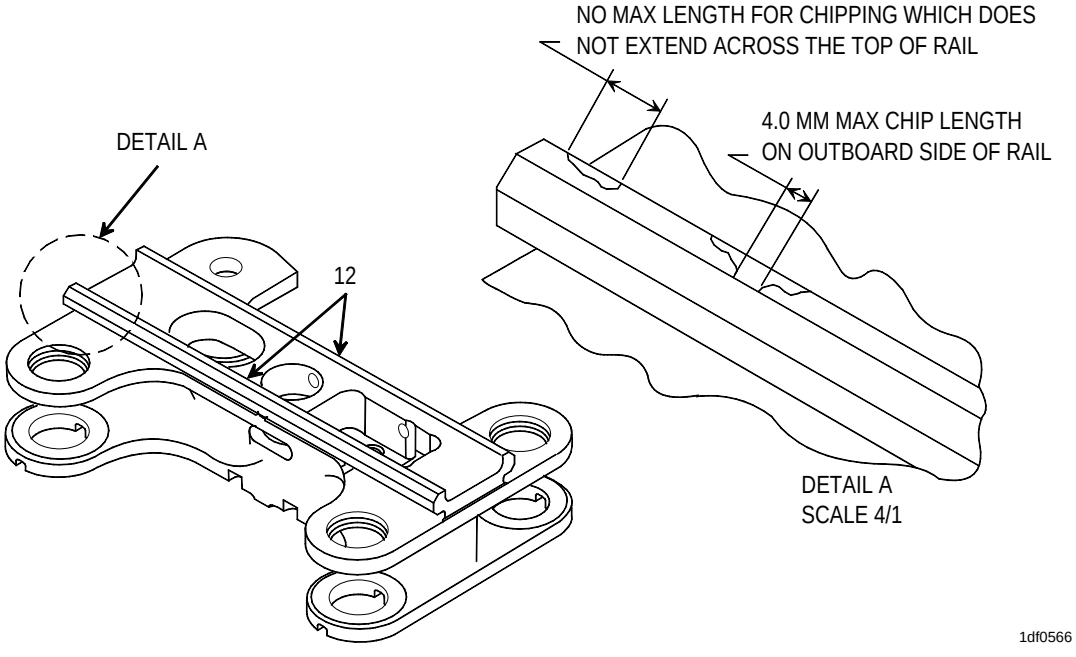
Nomenclature	Old Configuration	New Configuration
Safety Actuator	12524400	12524523
Safety Handle	12524401	12524522

INSPECTION – Continued

b. Visually inspect safety actuator end to determine its configuration. If the safety actuator (8) is the old configuration (PN 12524400), replace both the safety actuator (8) and safety handle (9) with the new configuration parts (12524523 and 12524522). If the safety actuator is the new configuration (12524523), replace only the defective part.



c. Visually inspect track (12) (sliding surfaces) for chips and burrs. Deburr as required. Each track rail may exhibit chipping along the entire rail. If chipping crosses the top of the rail and exceeds 4.0 mm when measured along the outboard of the rail, the track must be replaced. If chips and burrs are excessive or cause binding of bolt carrier on assembly, replace track.

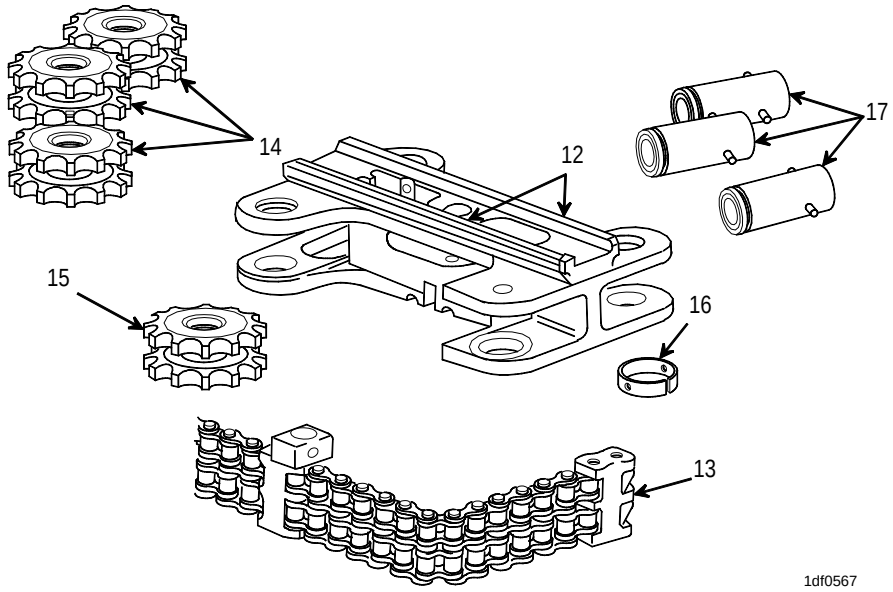


NOTE

Idler sprocket wheels are allowed to have one missing tooth per sprocket.

d. Visually inspect track (12), chain (13), three idler sprocket wheels (14), drive sprocket wheel (15), drive sprocket retainer (16), and three idler sprocket shaft assemblies (17) for cracks, breaks, bends, and galls. Inspect three idler sprocket shaft assemblies for damaged or missing spring pins. If any of these conditions are found, replace defective part.

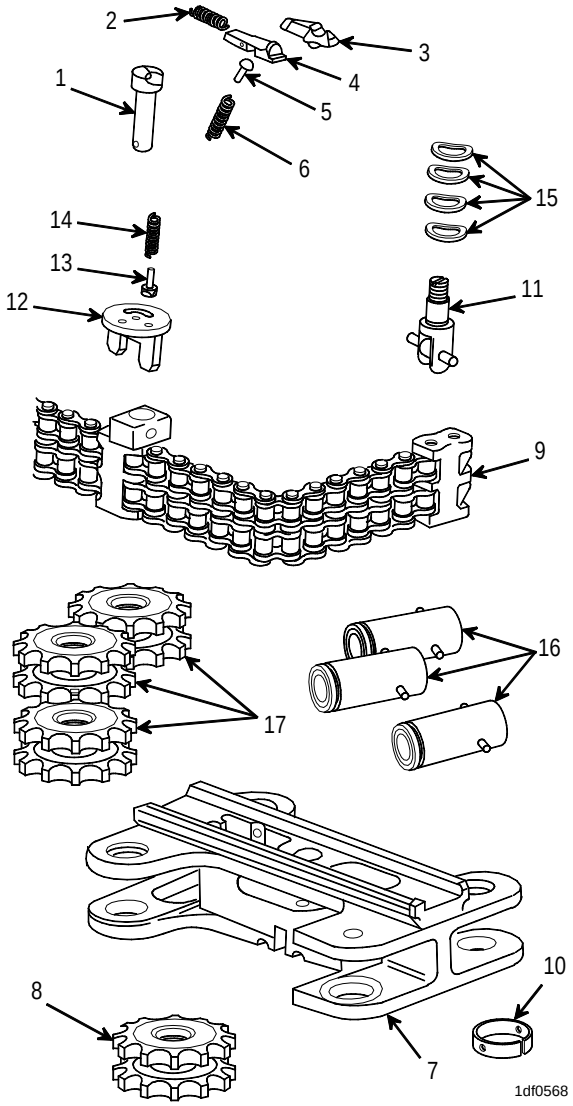
e. Visually inspect drive sprocket wheel (15) for damaged splines. If damage is found, replace drive sprocket wheel.



LUBRICATION

LUBRICATE TRACK ASSEMBLY PARTS.

Using acid brush, apply a light coat of grease to safety actuator (1), pawl spring (2), safety pawl (3), firing pin pawl (4), pin (5), helical spring (6), track (7), drive sprocket wheel (8), chain (9), drive sprocket retainer (10), clevis assembly (11), safety handle (12), headed straight pin (13), helical spring (14), four spring tension washers (15), three idler sprocket shaft assemblies (16), and three idler sprocket wheels (17). Wipe off excess grease.

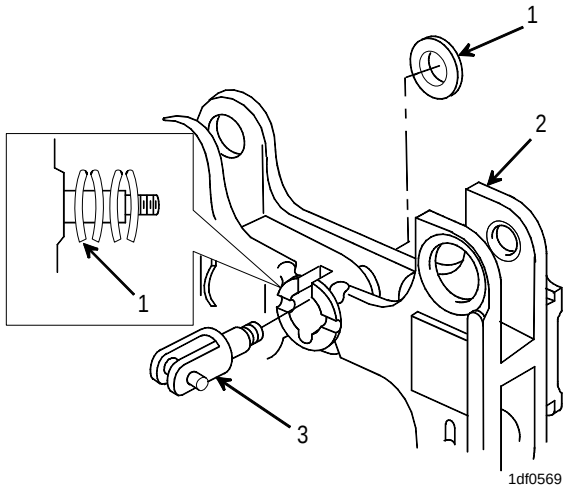


ASSEMBLY

1. INSTALL CLEVIS ASSEMBLY.

   a. Place four spring tension washers (1) in position in track (2) and install clevis assembly (3) through track and spring tension washers.

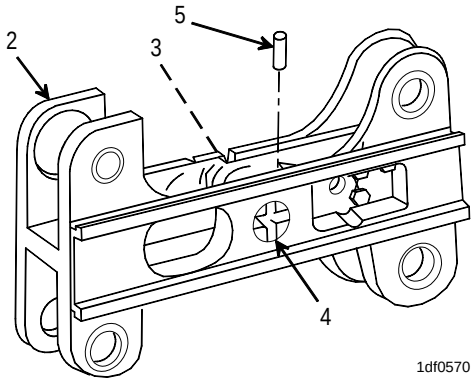
   b. Position track (2) so that clevis assembly (3) is facing away.



   c. Install clevis nut (4). Tighten clevis nut (4) until all play is eliminated. If play cannot be eliminated, replace all four spring tension washers.

   d. Turn clevis nut (4) to align nearest nut slot with pin holes in track (2).

   e. Tap new spring pin (5) through track holes and nut slot until it is equally spaced on both sides of track (2).



ASSEMBLY – Continued

WARNING

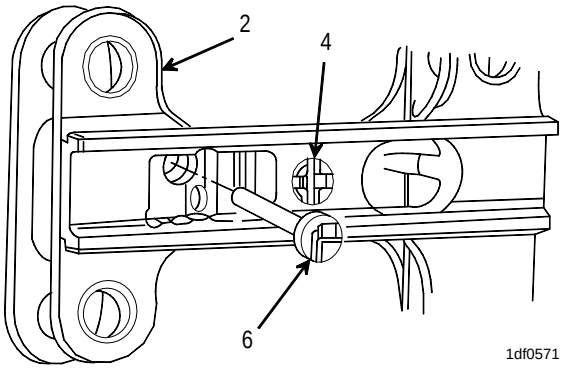
Wear eye protection when installing springs or using striking instruments. You can be blinded if flying springs or chips hit you in the eye.

NOTE

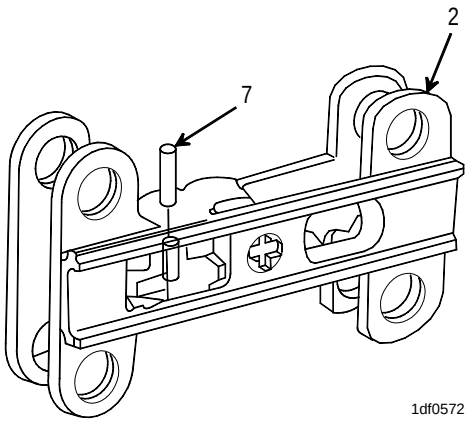
Safety actuator must be positioned as illustrated.

2. INSTALL SAFETY ASSEMBLY.

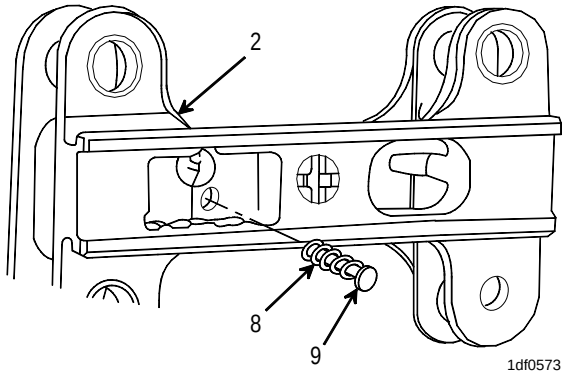
   a. Install safety actuator (6), shaft end first and ramp side facing toward clevis nut (4), into track (2).



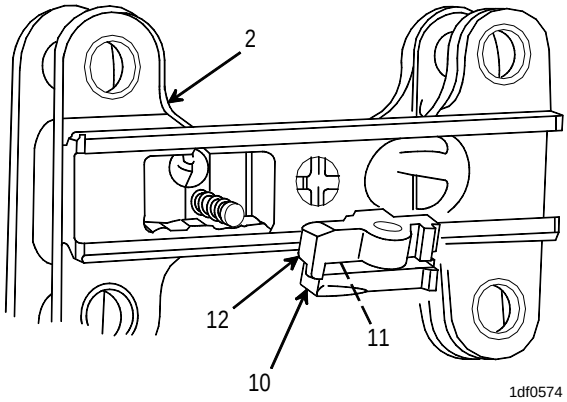
   b. Start spring pin (7) into track (2) from safety pawl side.



c. Install longest helical spring (approximately 2 in. (50 mm)) (8) and headed straight pin (9) in track (2).



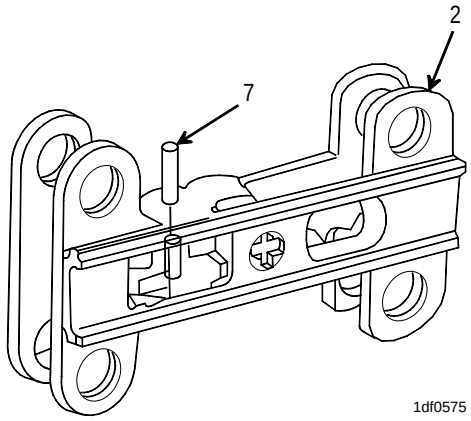
d. Install firing pin pawl (10), pawl spring (11), and safety pawl (12) in track (2).



NOTE

Use punch to hold both pawls against spring pressure and to align hole while spring pin is being installed.

e. Drive new spring pin (7) until it is equally spaced on both sides of track (2).



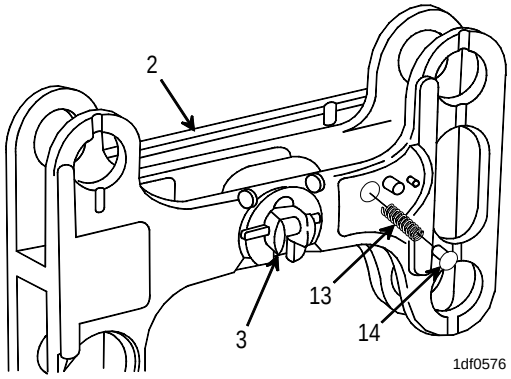
ASSEMBLY - Continued

NOTE

The firing pin pawl and safety pawl must move freely when pressed. If binding occurs, both pawls should be removed, inspected, relubricated, and reinstalled.

f. Turn track (2) so that clevis assembly (3) is visible.

g. Install shorter helical spring (approximately 1-1/2 in. (38 mm)) (13) and detent pin (14) in track (2).



NOTE

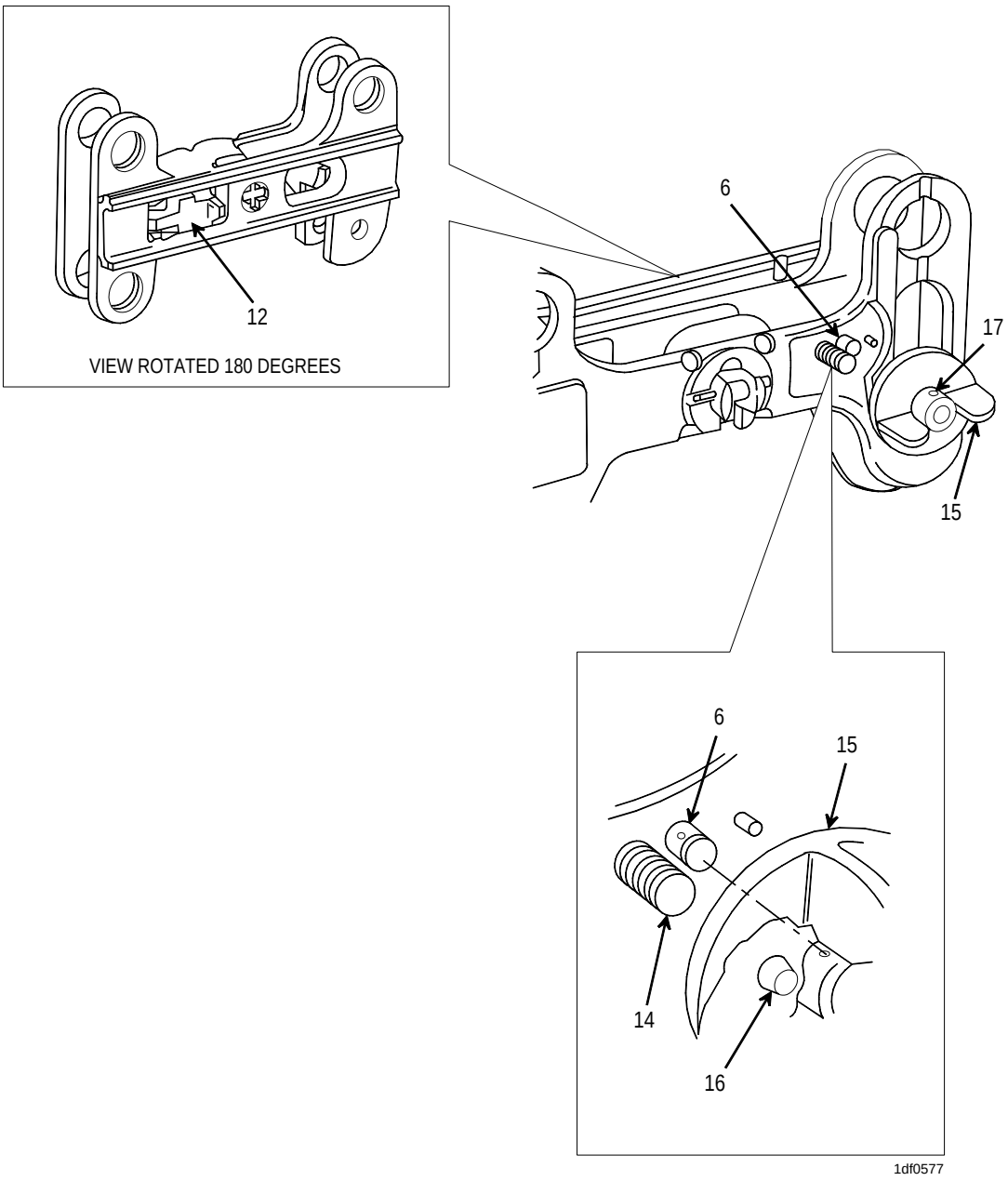
You may need to use a helper to hold safety handle while you install spring pin.

h. Place safety handle (15) on safety actuator (6). Seat detent pin (14) into detent (16) on bottom of safety handle (15).

i. Align spring pin holes in safety actuator (6) and safety handle (15).

j. Install new spring pin (17).

k. Check safety handle (15) to ensure safety pawl (12) falls when bolt carrier assembly is put into FIRE position.


12
VIEW ROTATED 180 DEGREES
6
17
15
6
15
14
16
1df0577

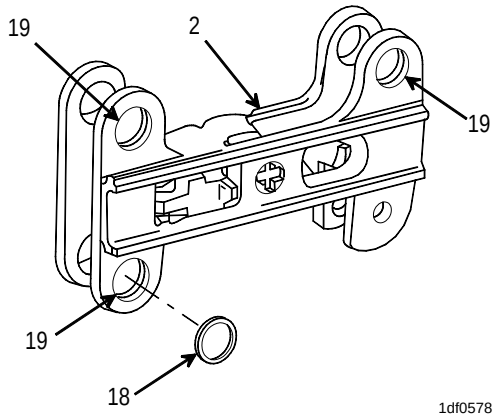
ASSEMBLY - Continued

CAUTION

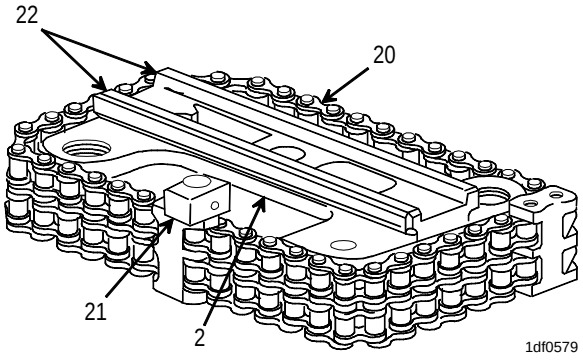
Ensure that spring pins in idler sprocket shafts are fully seated in grooves of track.

3. INSTALL CHAIN AND SPROCKETS.

   a. Install three o-rings (18) in three idler sprocket shaft assembly holes (19) in track (2).

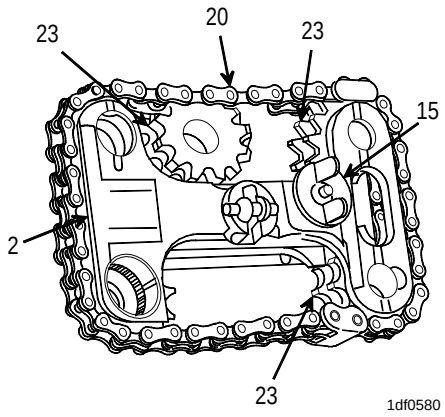


   b. Place chain (20) around track (2) so that slider (21) and track rails (22) are visible.

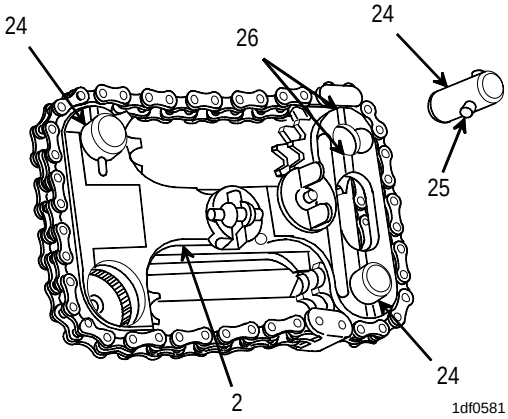


c. Turn track (2) and chain (20) so that safety handle (15) is visible.

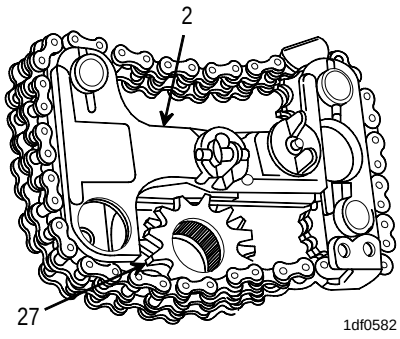
d. Place three idler sprocket wheels (23) in track (2).



e. Align track (2) and idler sprocket wheel holes. Install three idler sprocket shaft assemblies (24), long end first, into track (2). Seat shaft pins (25) into grooves (26) on track (2).

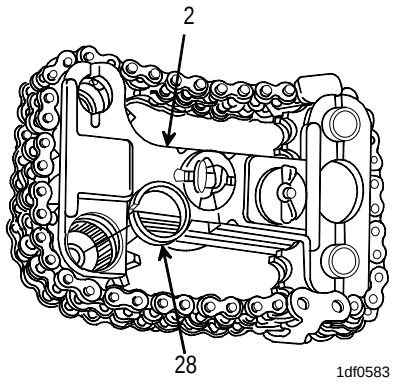


f. Place drive sprocket wheel (27) in track (2) and align track (2) and drive sprocket wheel holes.



ASSEMBLY - Continued

g. Install drive sprocket retainer (28) in track (2).



4. INSTALL BOLT AND CARRIER ASSEMBLY (WP 0054 00).
5. INSTALL BOLT AND TRACK ASSEMBLY (WP 0053 00).
6. PERFORM AUTO GUN RECEIVER MANUAL CYCLE CHECK (WP 0008 00).
7. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

REAR TRACK REMOVAL/INSTALLATION REMOVAL, INSPECTION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Goggles (item 19, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
Abrasive cloth (item 5, WP 0116 00)
Acid brush (item 4, WP 0116 00)
Grease (item 11, WP 0116 00)
Lockwire (item 34, WP 0116 00)

References
WP 0008 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0053 00 Bolt and track assembly removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Auto gun receiver is too heavy for one person to lift. Get help to lift or carry auto gun receiver.

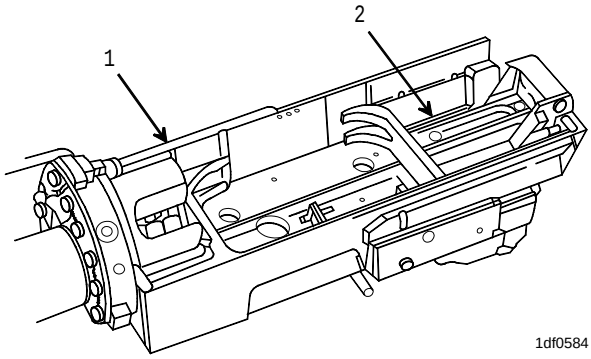
Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

REMOVAL

1. PLACE AUTO GUN RECEIVER ON A CLEAN, FLAT SURFACE.

   Position auto gun receiver (1) with rear track (2) on top.



WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

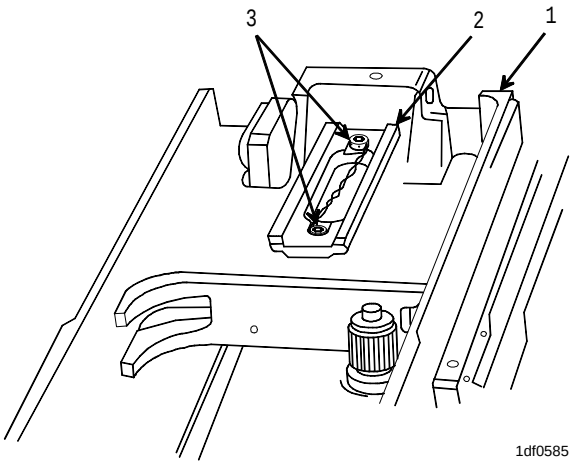
2. REMOVE LOCKWIRE FROM REAR TRACK.

   Remove lockwire from two capscrews (3).

3. REMOVE REAR TRACK.

   a. Remove two capscrews (3) from rear track (2).

   b. Lift rear track (2) from auto gun receiver (1).



INSPECTION

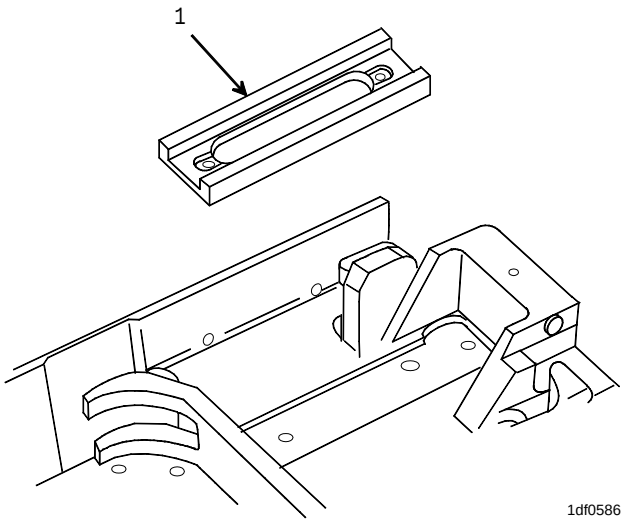
1. INSPECT REAR TRACK.

   a. Visually inspect rear track (1) for cracks, breaks, and bends. If any of these conditions are found, replace rear track.

   b. Visually inspect sliding surfaces of rear track (1) for burrs and chips. If either of these conditions are found, repair with stone or abrasive cloth.

2. INSPECT AUTO GUN RECEIVER.

   Visually inspect auto gun receiver for loose or damaged screw threaded inserts. If either of these conditions are found, send auto gun receiver to Direct Support Maintenance for repair.



INSTALLATION

WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

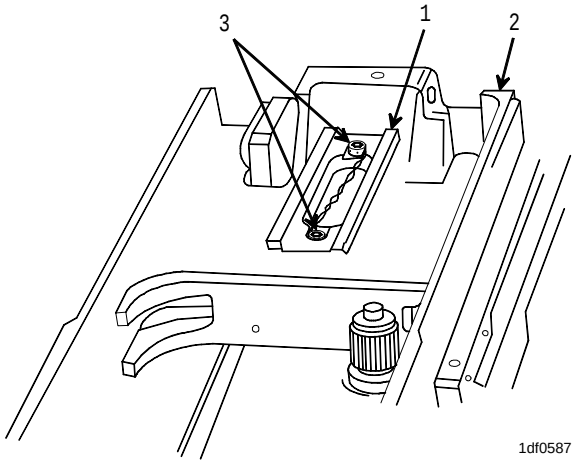
1. INSTALL REAR TRACK.

   a. Place rear track (1) in auto gun receiver (2) and align capscrew holes.

   b. Install and torque two capscrews (3) to 60 in.-lb ± 5 in.-lb (6.78 N-m ± 0.57 N-m).

   c. Install lockwire on two capscrews (3).

   d. Using acid brush, apply a light coat of grease to rails of rear track (1).



2. INSTALL BOLT AND TRACK ASSEMBLY (WP 0053 00).

3. PERFORM AUTO GUN RECEIVER MANUAL CYCLE CHECK (WP 0008 00).

4. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

TRACK HOOK LATCH REMOVAL/INSTALLATION REMOVAL, INSPECTION, LUBRICATION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Cotter pin (MS24665-283)
Grease (item 11, WP 0116 00)

References
WP 0008 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0053 00 Bolt and track assembly removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Auto gun receiver is too heavy for one person to lift. Get help to lift or carry auto gun receiver.

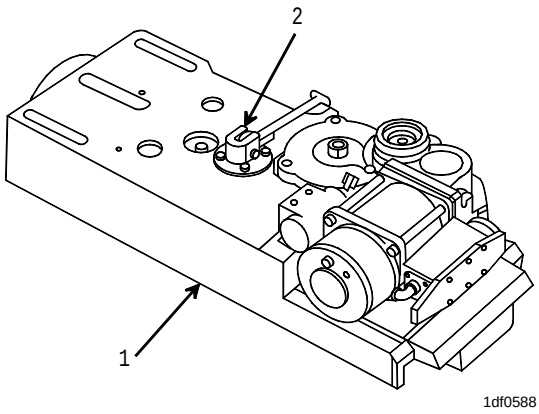
Do not wear jewelry when working on gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

REMOVAL

1. PLACE AUTO GUN RECEIVER ON A CLEAN, FLAT SURFACE.

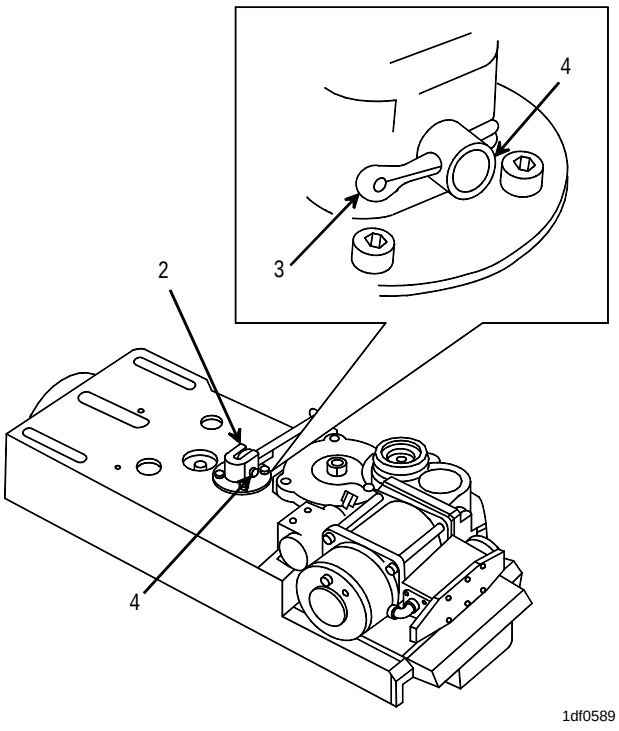
   Position auto gun receiver (1) with latch bracket (2) on top as shown.



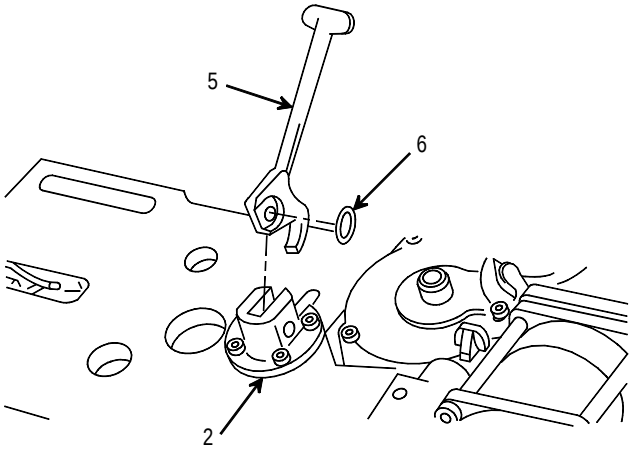
2. REMOVE TRACK HOOK LATCH AND SPRING TENSION WASHER.

   a. Remove cotter pin (3) from headed straight pin (4). Discard cotter pin.

   b. Pull headed straight pin (4) from latch bracket (2).



c. Lift track hook latch (5) and spring tension washer (6) from latch bracket (2).



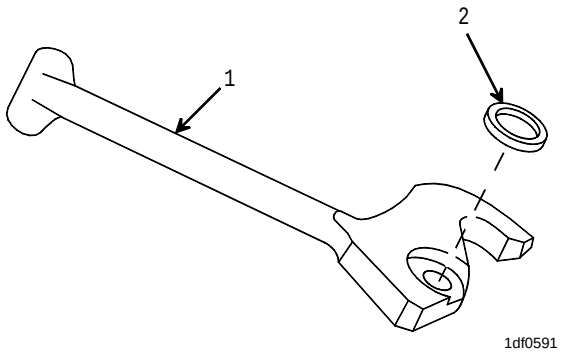
INSPECTION

1. INSPECT TRACK LATCH HOOK.

   Visually inspect track hook latch (1) for cracks, bends, and breaks. If any of these conditions are found, replace track hook latch.

2. INSPECT SPRING TENSION WASHER.

   Visually inspect spring tension washer (2) for cracks, breaks, and excessive spring set. If any of these conditions are found, replace spring tension washer.



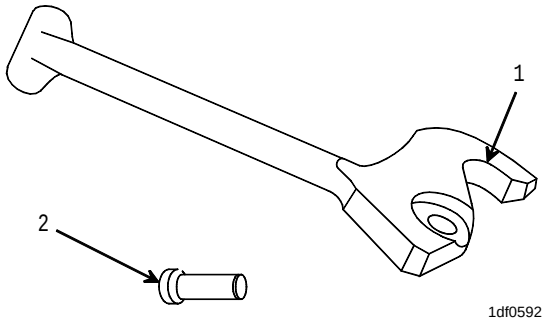
3. INSPECT AUTO GUN RECEIVER.

   Visually inspect auto gun receiver for loose or damaged screw threaded inserts. If either of these conditions are found, send auto gun receiver to Direct Support Maintenance for repair.

LUBRICATION

LUBRICATE TRACK HOOK LATCH AND HEADED STRAIGHT PIN.

Using acid brush, apply a light coat of grease to hook of track hook latch (1) and to headed straight pin (2).

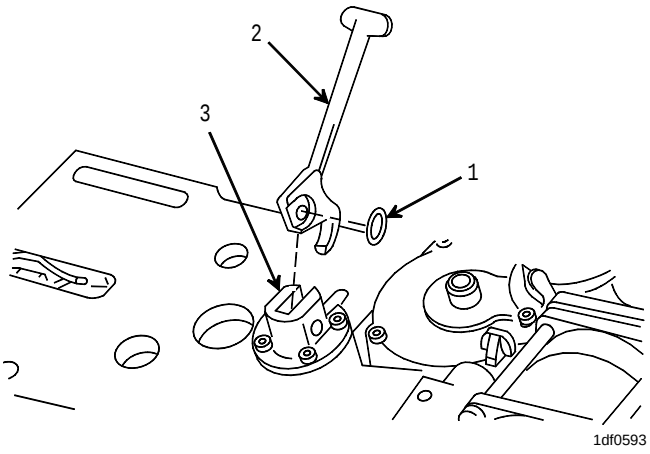


INSTALLATION

1. INSTALL TRACK HOOK LATCH AND SPRING TENSION WASHER.

   a. Place spring tension washer (1), with dome facing out, on track hook latch (2).

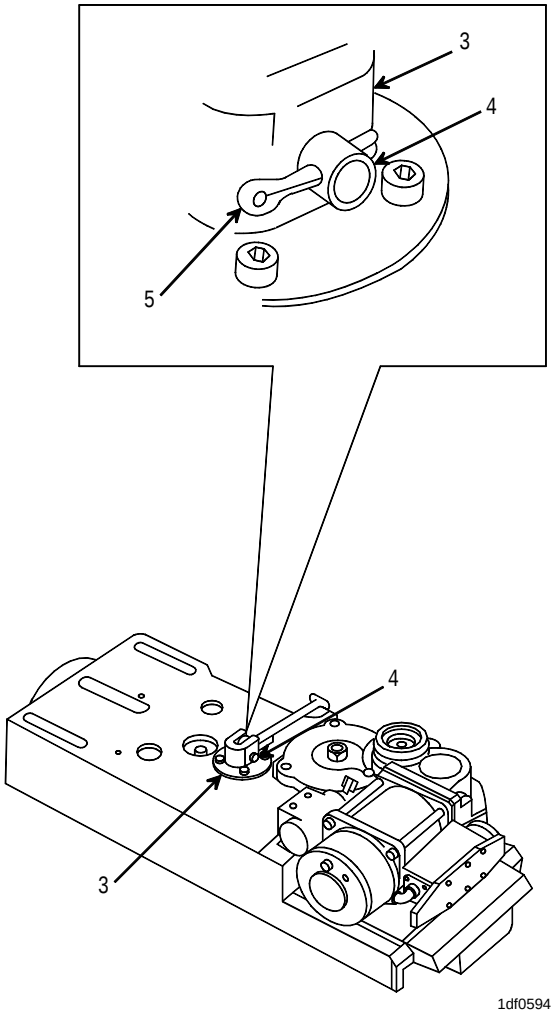
   b. While holding spring tension washer (1) in position, place track hook latch (2) and spring tension washer (1) into latch bracket (3). Align pin holes.



c. Push headed straight pin (4) into latch bracket (3) from direction shown.

d. Install new cotter pin (5) in headed straight pin (4).

e. Bend ends of cotter pin (5) in opposite directions around headed straight pin (4).



2. INSTALL BOLT AND TRACK ASSEMBLY (WP 0053 00).

3 PERFORM AUTO GUN RECEIVER MANUAL CYCLE CHECK (WP 0008 00).

4 INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

LATCH BRACKET REMOVAL/INSTALLATION
REMOVAL, INSPECTION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0053 00 Bolt and track assembly removed
WP 0058 00 Track hook latch removed

References
WP 0008 00

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Auto gun receiver is too heavy for one person to lift. Get help to lift or carry automatic gun receiver.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

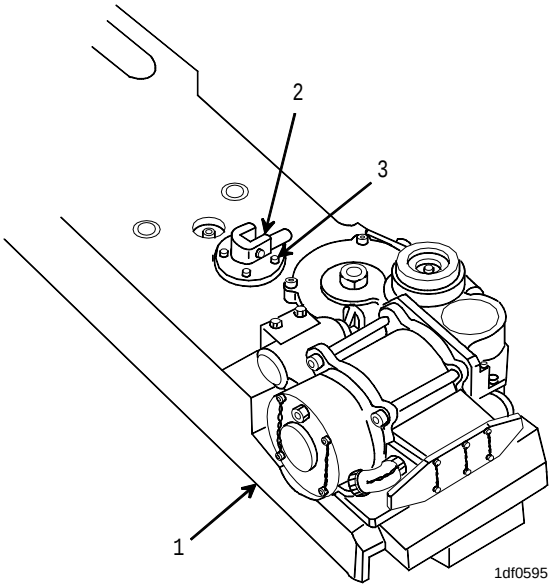
REMOVAL

1. PLACE AUTO GUN RECEIVER ON A CLEAN, FLAT SURFACE.

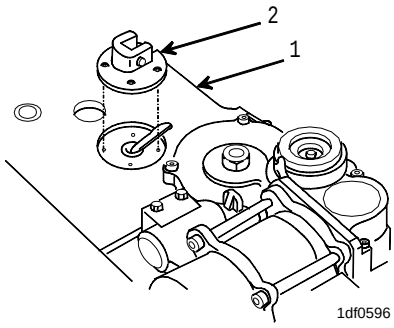
   Position auto gun receiver (1) with latch bracket (2) up as shown.

2. REMOVE LATCH BRACKET.

   a. Remove four capscrews (3) from latch bracket (2).



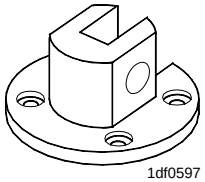
   b. Lift latch bracket (2) from auto gun receiver (1).



INSPECTION

INSPECT LATCH BRACKET.

Visually inspect latch bracket for cracks or breaks. If either of these conditions are found, replace latch bracket.

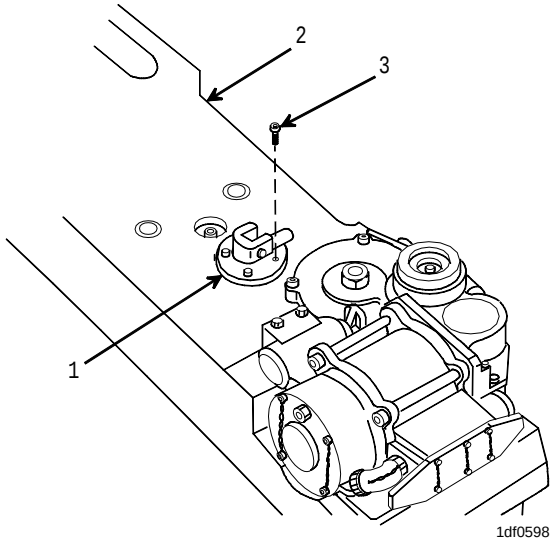


INSTALLATION

1. INSTALL LATCH BRACKET.

   a. Place latch bracket (1) on auto gun receiver (2) and align capscrew holes.

   b. Install and torque four capscrews (3) to 60 in.-lb ± 5 in.-lb (6.78 N-m ± 0.57 N-m).



2. INSTALL TRACK HOOK LATCH (WP 0058 00).

3. INSTALL BOLT AND TRACK ASSEMBLY (WP 0053 00).

4. PERFORM AUTO GUN RECEIVER MANUAL CYCLE CHECK (WP 0008 00).

5. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

STRAIGHT DRIVE SHAFT REMOVAL/INSTALLATION REMOVAL, INSPECTION, LUBRICATION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Goggles (item 19, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Grease (item 11, WP 0116 00)
Retaining ring (M27426-2105D)

Equipment Conditions
WP 0026 00 Automatic gun feeder removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Auto gun receiver is too heavy for one person to lift. Get help to lift or carry auto gun receiver.

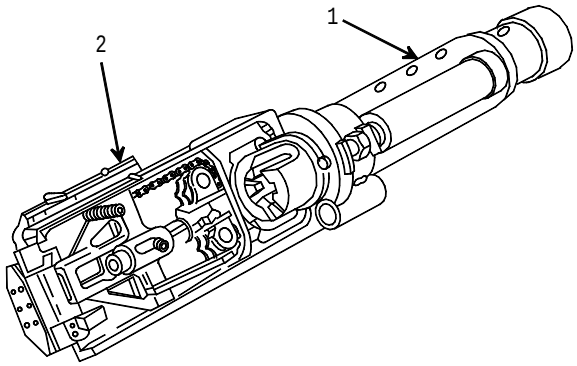
Do not wear jewelry when working on gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

REMOVAL

1. PLACE AUTO GUN RECEIVER ON A CLEAN, FLAT SURFACE.

   Position auto gun receiver (1) with cover assembly (2) on top.



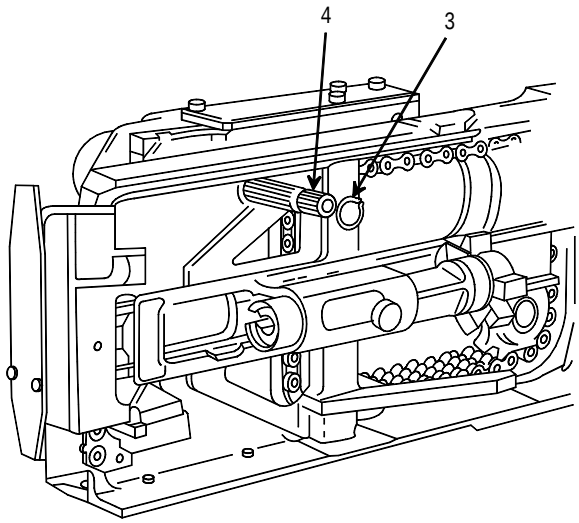
1df0599

WARNING

Wear eye protection when removing retaining ring. Personnel can be blinded if struck in the eye by retaining ring under spring tension.

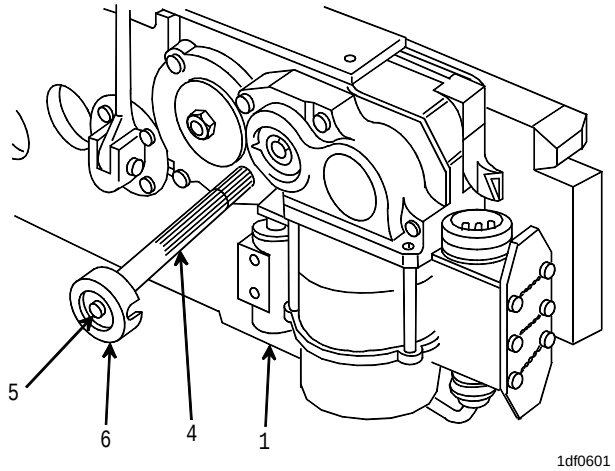
2. REMOVE STRAIGHT DRIVE SHAFT.

   a. Remove retaining ring (3) from straight drive shaft (4). Discard retaining ring.



1df0600

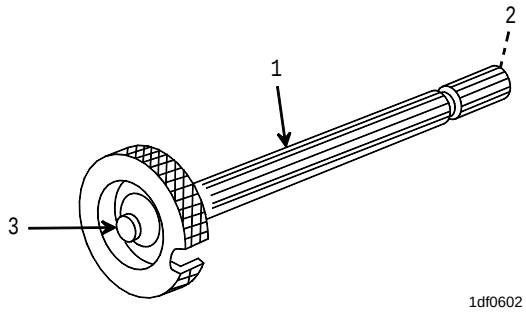
b. Press button (5) in center of straight drive shaft handle (6) and pull straight drive shaft (4) from bottom of auto gun receiver (1).



INSPECTION

INSPECT STRAIGHT DRIVE SHAFT.

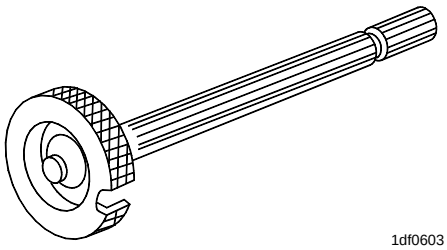
Visually inspect straight drive shaft (1) for bends, cracks, and missing or defective spring (2). Verify that button (3) has not loosened. If any of these conditions are found, replace straight drive shaft.



LUBRICATION

LUBRICATE STRAIGHT DRIVE SHAFT.

Using acid brush, apply a light coat of grease to entire length of straight drive shaft splines.



INSTALLATION

WARNING

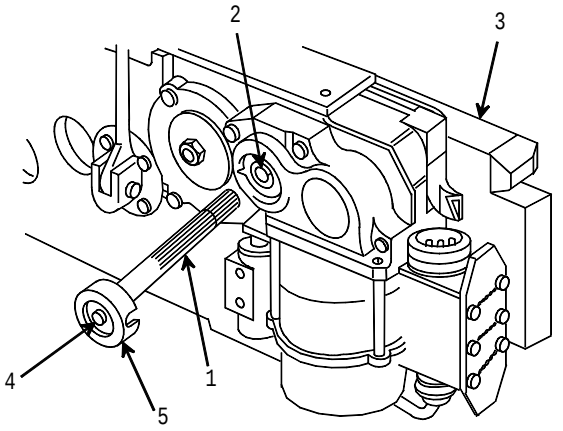
Wear eye protection when removing retaining ring. Personnel can be blinded if struck in the eye by retaining ring.

1. INSTALL STRAIGHT DRIVE SHAFT.

   a. Insert small end of straight drive shaft (1) in opening (2) in bottom of auto gun receiver (3).

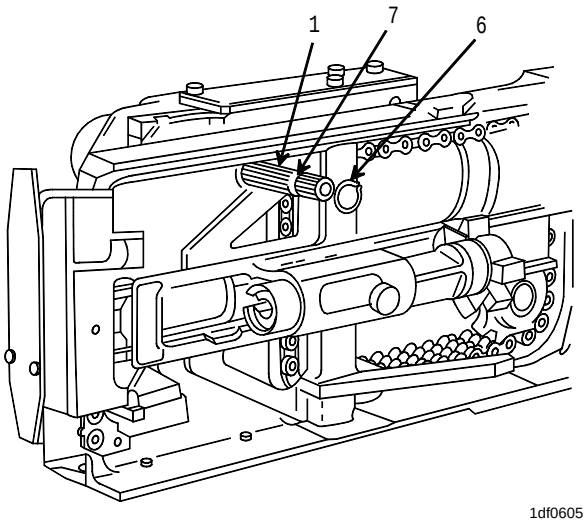
   b. Push button (4) in center of straight drive shaft handle (5), and push straight drive shaft (1) in as far as it will go. Release button (4).

   c. Pull on straight drive shaft handle (5) to make sure that straight drive shaft (1) is locked in place.



1df0604

   d. Install new retaining ring (6) in groove (7) on straight drive shaft (1).



1df0605

2. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

DIRECT CURRENT MOTOR REMOVAL/INSTALLATION REMOVAL, INSPECTION, LUBRICATION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Goggles (item 19, WP 0085 00)
Mechanical puller (outside) (item 27, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Grease (item 11, WP 0116 00)
Lockwire (item 33, WP 0116 00)
Lockwire (item 34, WP 0116 00)
O-ring (AS3551-133)

References
WP 0067 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Auto gun receiver is too heavy for one person to lift. Get help to lift or carry automatic gun receiver.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

NOTE

There are two configurations of direct current motors. The standard gun can use either motor; however, the enhanced gun must use 12524409.

REMOVAL

1. PLACE AUTO GUN RECEIVER ON A CLEAN, FLAT SURFACE.

   Position auto gun receiver (1) on side with direct current motor (2) up.

WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

If upper portion of connector is green, only remove lockwire from lower connector. If upper portion of connector is blank, only one section of connector is lockwired. DO NOT tear lockwire from connector. Damage to connector may result.

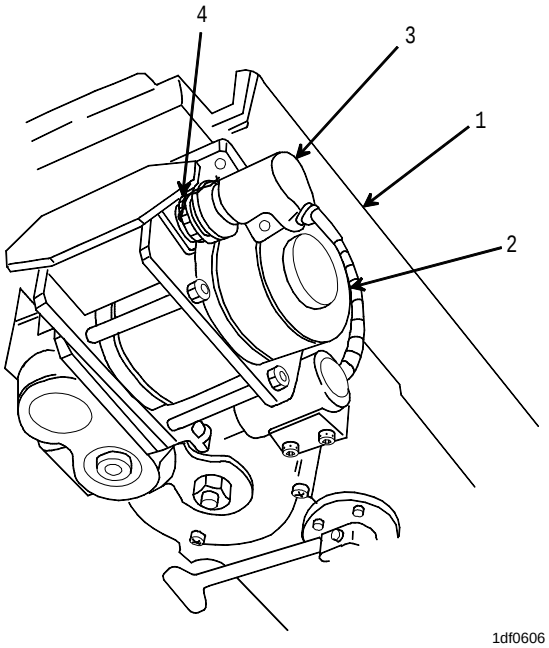
2. REMOVE LOCKWIRE FROM ELECTRICAL CONNECTOR.

   Remove lockwire between electrical sear solenoid connector (3) and connector lock ring (4).

3. DISCONNECT ELECTRICAL CONNECTOR.

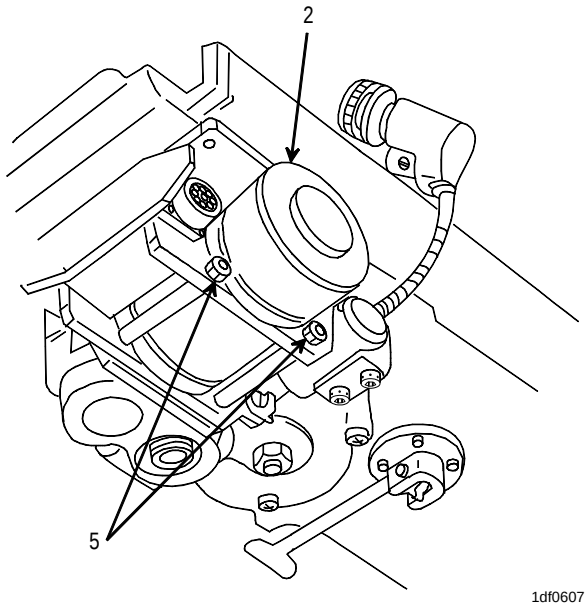
   a. Turn connector lock ring (4) counterclockwise until free.

   b. Pull electrical sear solenoid connector (3) straight out until disconnected from motor/sear plug.



4. REMOVE DIRECT CURRENT MOTOR.

   a. Remove four capscrews (5) from direct current motor (2).

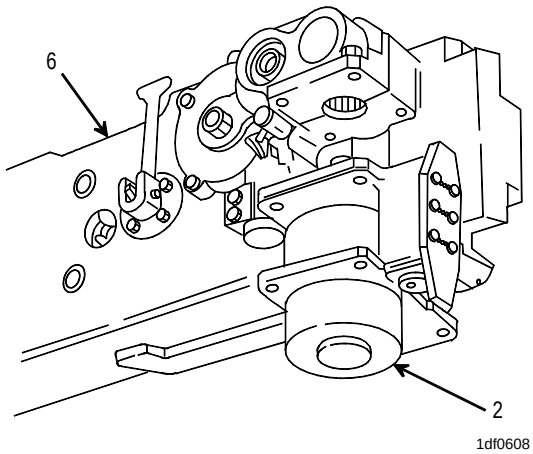


CAUTION

Hold direct current motor to prevent dropping when auto gun receiver is moved.

   b. Rotate auto gun receiver (6) over so that direct current motor (2) is on bottom.

   c. Lower direct current motor (2) and rotate away from auto gun receiver (6). Place direct current motor on a clean, flat surface.

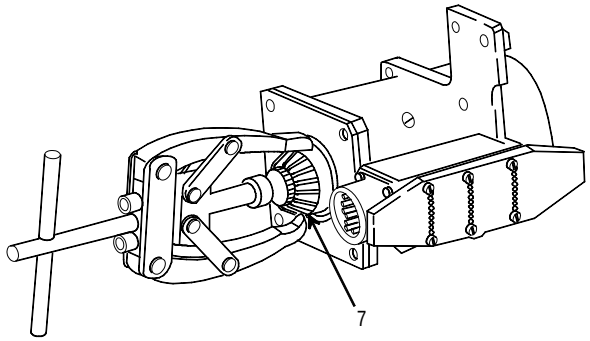


REMOVAL - Continued

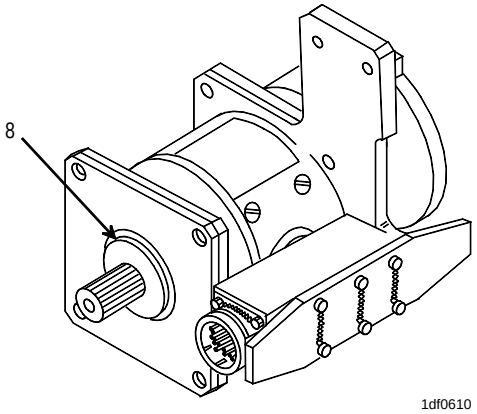
NOTE

Bevel gear may not require use of gear puller if gear is a loose fit.

d. Using mechanical puller, remove bevel gear (7).



e. Remove and discard o-ring (8).



INSPECTION

1. INSPECT DIRECT CURRENT MOTOR AND BEVEL GEAR.

   a. Visually inspect direct current motor (1) for cracks, dents, and broken or bent parts. If any of these conditions are found, replace direct current motor.

   b. Visually inspect direct current motor connectors (2) for bent or damaged connector pins. If connector pins are bent, straighten connector pins. If connector pins are damaged, replace direct current motor.

   c. Visually inspect direct current motor (1) for presence of proper lockwire (3). If wire is missing, replace lockwire.

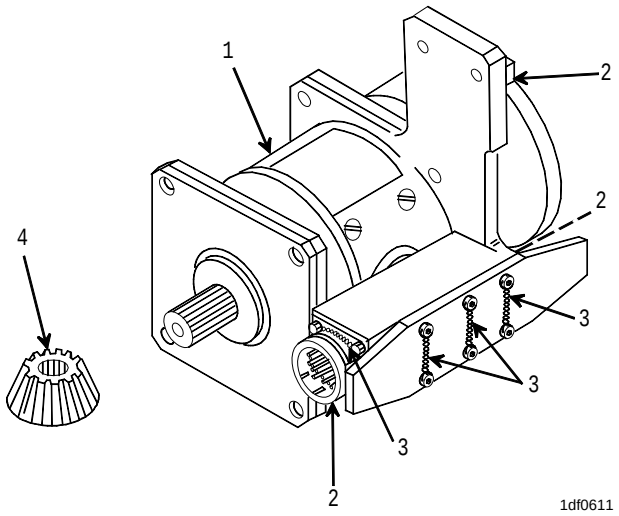
   d. Visually inspect bevel gear (4) for cracked or broken teeth and damaged splines. If any of these conditions are found, replace bevel gear.

NOTE

Bevel gear (motor) and bevel gear (receiver) (WP 0067 00) are parts of a serialized, matched set. Both gears must be replaced if either part is defective.

There are two configurations of matched bevel gear sets. The standard gun must use 12524257 and the enhanced gun must use 12524549.

There are two configurations of direct current motors. The standard gun can use either motor; however, the enhanced gun must use 12524409.



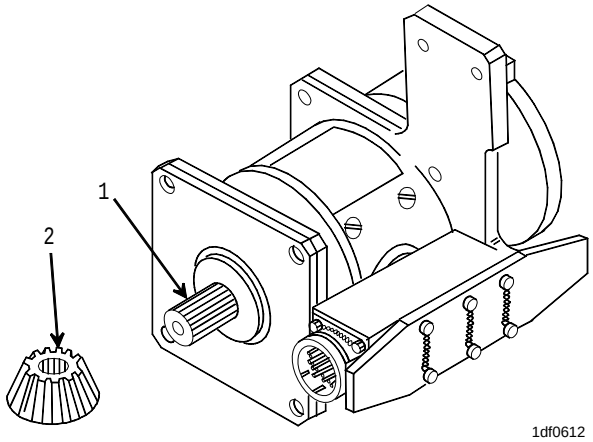
2. INSPECT AUTO GUN RECEIVER.

Visually inspect auto gun receiver for loose or damaged screw threaded inserts. If either of these conditions are found, send auto gun receiver to Direct Support Maintenance for repair.

LUBRICATION

LUBRICATE MOTOR SHAFT SPLINES AND BEVEL GEAR.

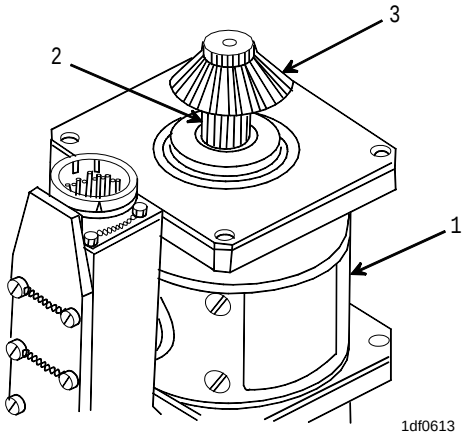
Using acid brush, apply a light coat of grease to motor shaft splines (1) and to bevel gear (2).



INSTALLATION

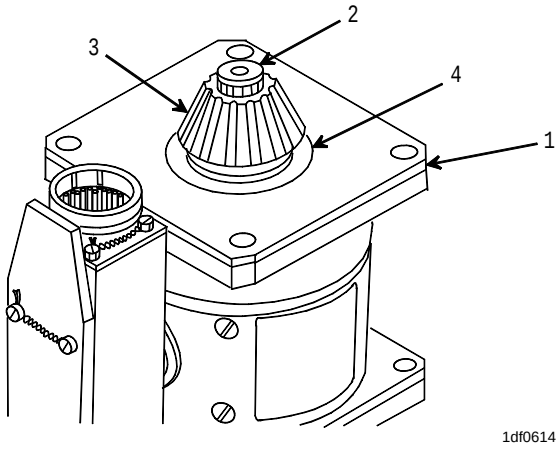
1. INSTALL DIRECT CURRENT MOTOR.

   a. Place direct current motor (1) so that motor shaft splines (2) are on top. Mate splines of bevel gear (3) with motor shaft splines (2).



   b. Gently tap bevel gear (3) on motor shaft splines (2) until it is seated.

   c. Install new o-ring (4) on direct current motor (1).



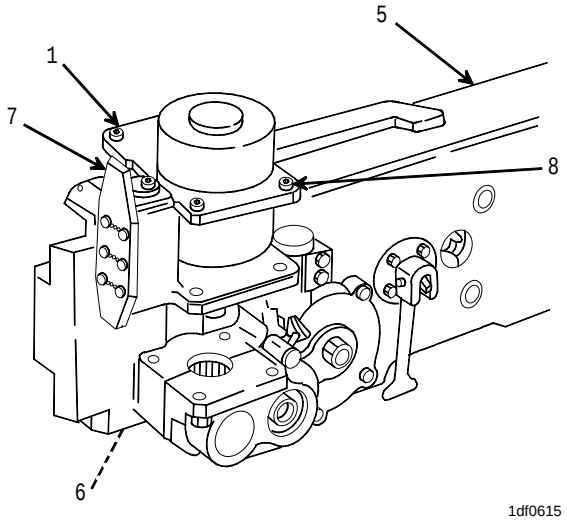
d. Position auto gun receiver (5) so that sear (6) is on bottom.

CAUTION

Hold bevel gear to prevent dropping when motor is lowered into place.

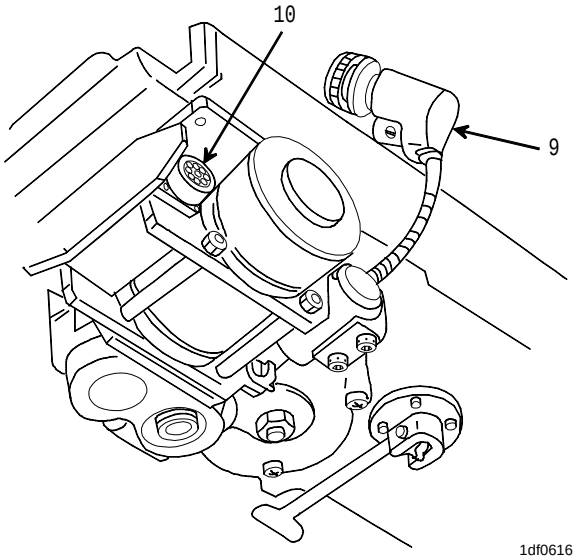
e. Place direct current motor (1) on auto gun receiver (5) with electrical bracket (7) to rear of auto gun receiver. Align mounting holes.

f. Install and torque four capscrews (8) to 160 in.-lb ± 10 in.-lb (18.08 N-m ± 1.13 N-m).



2. CONNECT ELECTRICAL CONNECTOR.

a. Mate electrical sear solenoid connector (9) with motor/sear plug (10). Push connector in gently until seated.



INSTALLATION - Continued

b. Push electrical sear solenoid connector (9) into motor/sear plug (10) while turning connector lock ring (11) clockwise. Turn connector lock ring (11) clockwise until snug.

WARNING

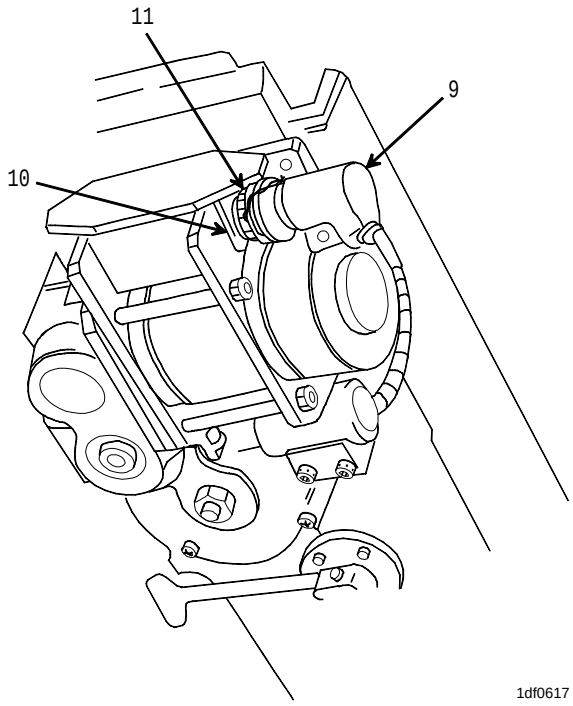
Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

3. INSTALL LOCKWIRE ON ELECTRICAL CONNECTOR.

Lockwire electrical sear solenoid connector (9) to connector lock ring (11). Discard wire pieces.



4. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

HANDLE PIN REMOVAL/INSTALLATION
REMOVAL, INSPECTION, LUBRICATION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Goggles (item 19, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Grease (item 11 WP 0116 00)
Spring pin (12524618-6)
Wooden block (item 3, WP 0116 00)

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0061 00 Direct current motor removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Auto gun receiver is too heavy for one person to lift. Get help to lift or carry auto gun receiver.

Do not wear jewelry when working on gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

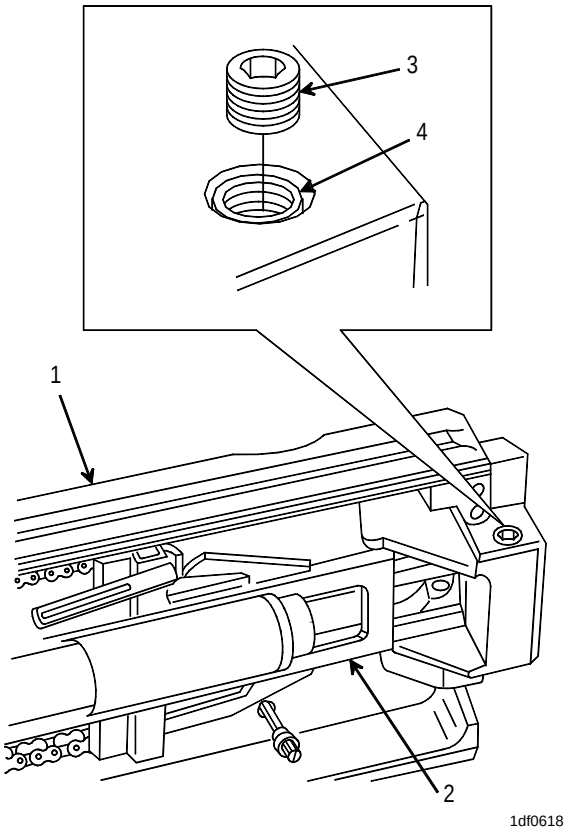
REMOVAL

1. PLACE AUTO GUN RECEIVER ON A CLEAN, FLAT SURFACE.

   Turn auto gun receiver (1) on side with rear track (2) positioned as shown.

2. REMOVE SETSCREW.

   Remove setscrew (3) from handle pin (4).



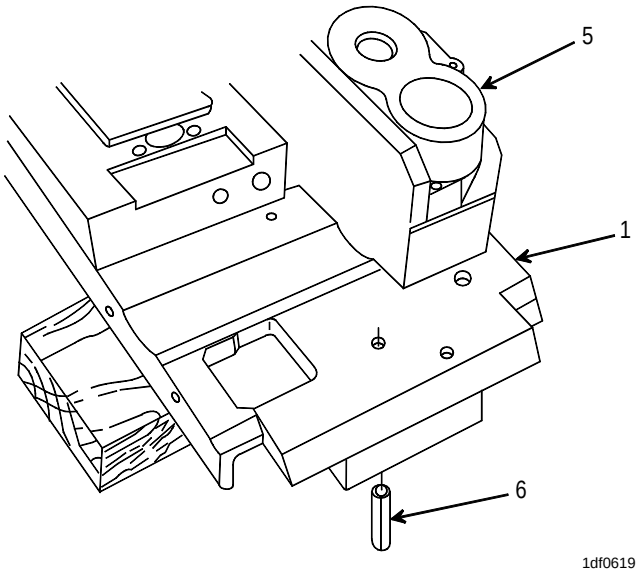
WARNING

Wear eye protection when removing springs or using striking instruments. You can be blinded if springs or flying chips hit you in the eye.

3. REMOVE SPRING PIN.

   a. Position auto gun receiver (1) with mechanical housing (5) on top. Place a flat wooden block under auto gun receiver (1) below mechanical housing (5).

   b. Tap spring pin (6) out of auto gun receiver (1). Discard spring pin.

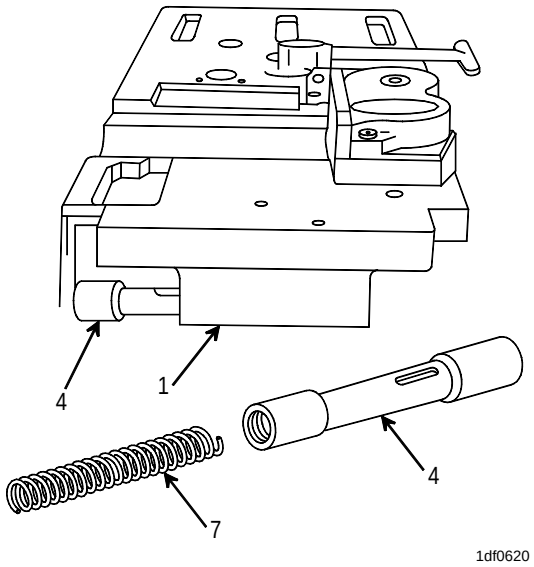


REMOVAL - Continued

4. REMOVE HANDLE PIN.

   a. Push handle pin (4) from auto gun receiver (1).

   b. Remove helical spring (7) from handle pin (4).



INSPECTION

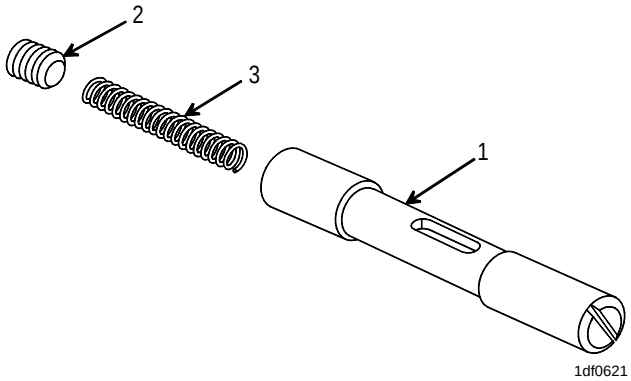
INSPECT HANDLE PIN.

   a. Visually inspect handle pin (1) for cracks, bends, galls, and stripped threads. If any of these conditions are found, replace handle pin.

   b. Visually inspect setscrew (2) for cracks and stripped threads. If either of these conditions are found, replace setscrew.

   c. Visually inspect helical spring (3) for bends and breaks. If either of these conditions are found, replace helical spring.

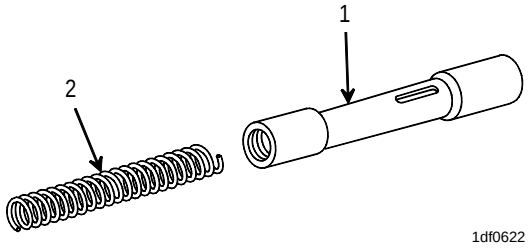
   d. Check helical spring (3) for proper free length of 1-1/2 in. ± 1/4 in. (38.1 mm ± 6.4 mm). If measurement is not met, replace helical spring.



LUBRICATION

LUBRICATE HANDLE PIN ASSEMBLY.

Using acid brush, apply light coat of grease to external surfaces of handle pin (1) and to helical spring (2).



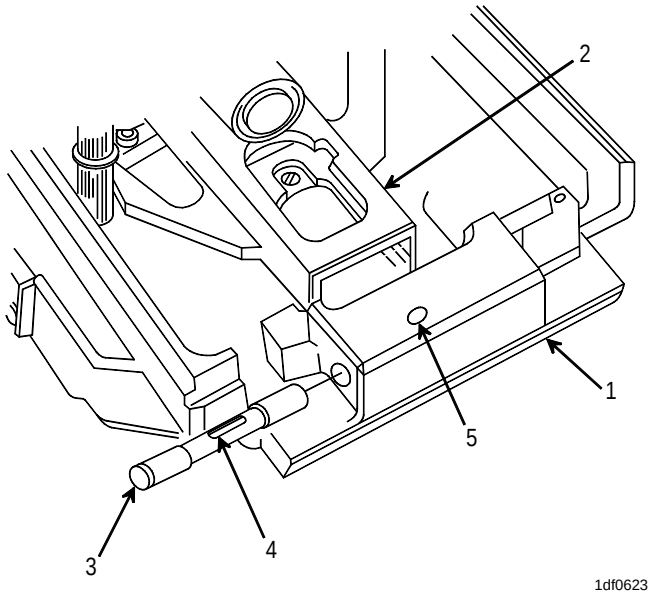
INSTALLATION

1. INSTALL HANDLE PIN.

   a. Position auto gun receiver (1) with bolt and track assembly (2) on top.

   b. Insert open end of handle pin (3) in auto gun receiver (1) from direction shown. Align slot (4) in handle pin (3) with pin hole (5) in top of auto gun receiver (1).

   c. Push handle pin (3) into auto gun receiver (1) until it is flush on both ends.



INSTALLATION - Continued

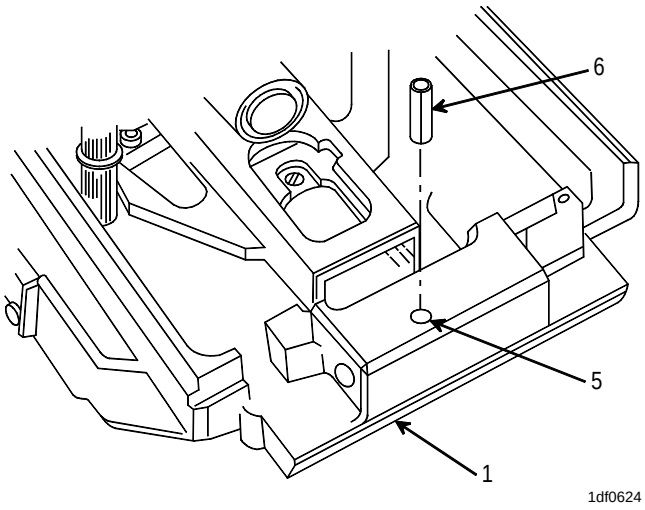
WARNING

Wear eye protection when installing springs or using striking instruments. You can be blinded if springs or flying chips hit you in the eye.

2. INSTALL NEW SPRING PIN.

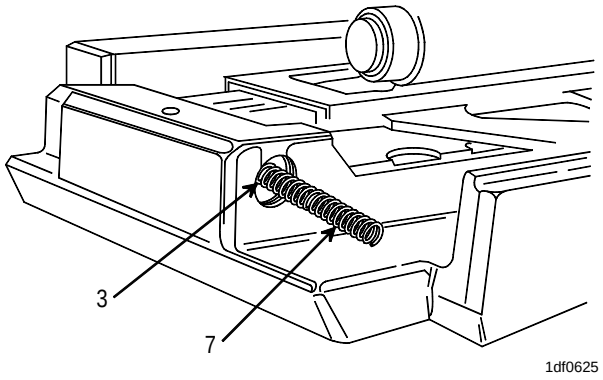
   a. Insert beveled end of new spring pin (6) in pin hole (5).

   b. Tap spring pin (6) into pin hole (5) until spring pin (6) is flush with top of auto gun receiver (1).

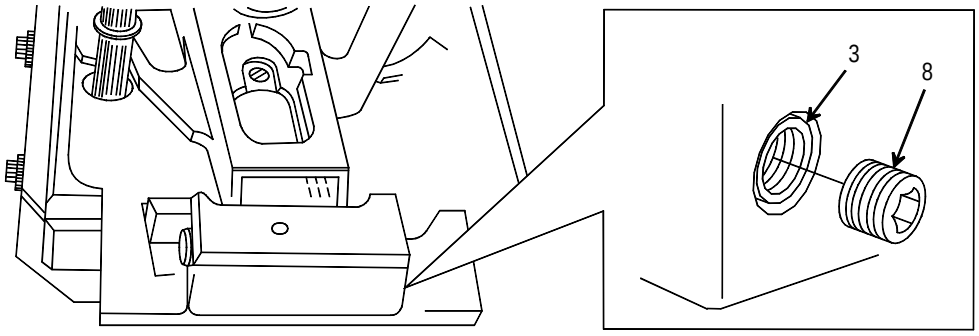


3. INSTALL HELICAL SPRING AND SETSCREW.

   a. Insert helical spring (7) in handle pin (3).



b. Install setscrew (8) in handle pin (3). Torque setscrew (8) to 160 in.-lb ± 10 in.-lb (18.08 N-m ± 1.13 N-m).

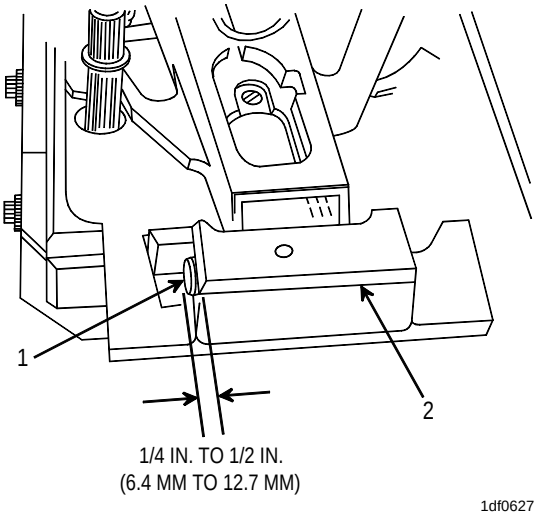


4. CHECK OPERATION OF HANDLE PIN.

a. Push handle pin (1) to left. Handle pin should slide freely and should extend out of left side of auto gun receiver (2) from 1/4 in. to 1/2 in. (6.4 mm to 12.7 mm).

b. Release handle pin (1). It should spring back flush with right side of auto gun receiver (2).

c. If handle pin (1) does not function properly, repeat REMOVAL, INSPECTION, LUBRICATION, and INSTALLATION procedures.



5. INSTALL DIRECT CURRENT MOTOR (WP 0061 00).

6. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

COVER ASSEMBLY AND SEAR RETRACTOR ASSEMBLY REMOVAL/INSTALLATION REMOVAL, INSPECTION, LUBRICATION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Goggles (item 19, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Adhesive (item 1, WP 0116 00)
Grease (item 11, WP 0116 00)
Sealing compound primer (item 20, 0116 00)

References
WP 0008 00

Equipment Conditions
WP 002600 Automatic gun feeder removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Auto gun receiver is too heavy for one person to lift. Get help to lift or carry auto gun receiver.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

REMOVAL

WARNING

Wear eye protection when removing cover assembly. Cover assembly is under spring tension and personnel could be blinded if hit in the eye by flying parts.

NOTE

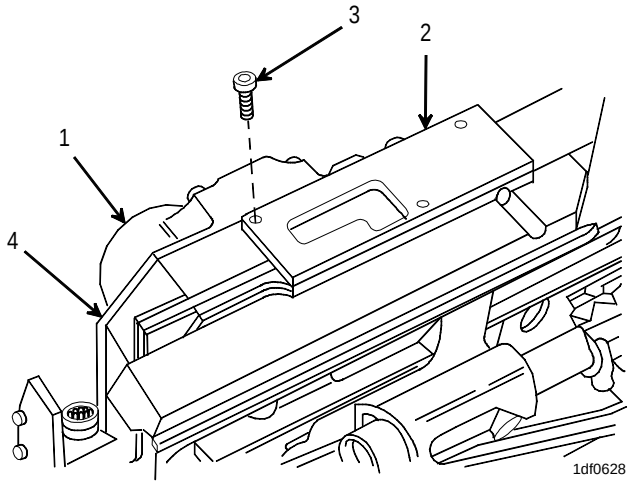
Do not allow sear catch straight headless pin or sear sleeve pivot to fall out while cover assembly is being removed.

1. REMOVE COVER ASSEMBLY.

   a. Position auto gun receiver (1) with cover assembly (2) on top.

   b. Remove three capscrews (3).

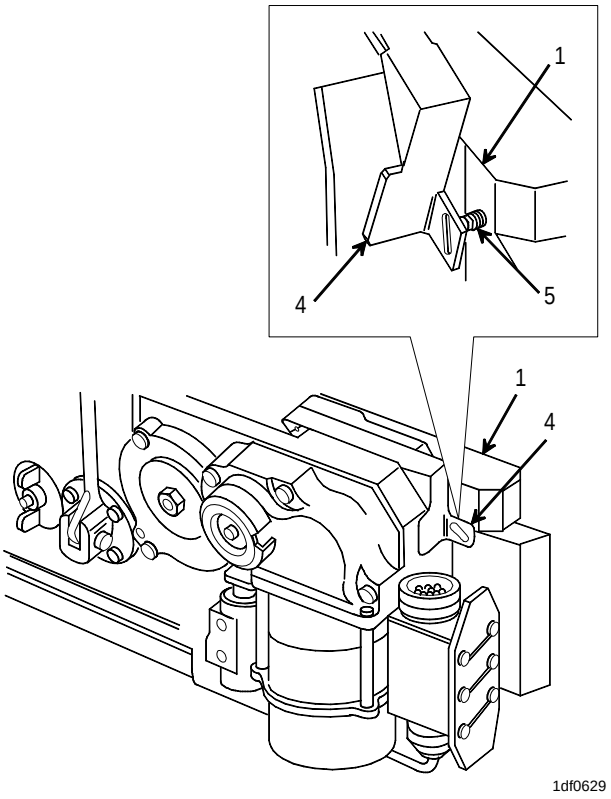
   c. Hold sear retractor assembly (4) in position. Lift cover assembly (2) from auto gun receiver (1). Release sear retractor assembly (4) slowly to relieve spring tension.



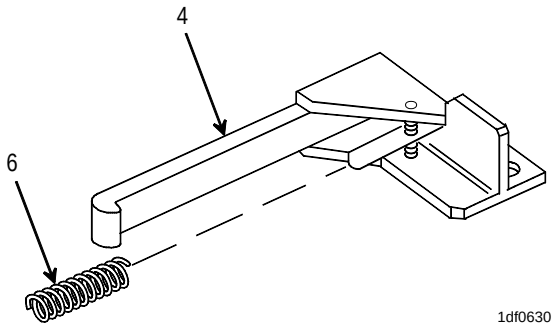
2. REMOVE SEAR RETRACTOR ASSEMBLY.

   a. Swing sear retractor assembly (4) away from auto gun receiver (1). Pull sear retractor assembly (4) from sear retractor pivot (5).

   b. Remove sear retractor assembly (4) from auto gun receiver (1).



   c. Remove helical spring (6) from sear retractor assembly (4).

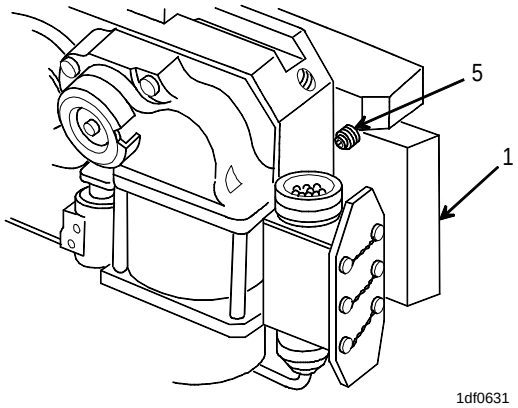


REMOVAL - Continued

NOTE

Sear retractor pivot should only be removed if cracked or bent.

d. Remove sear retractor pivot (5) from auto gun receiver (1).

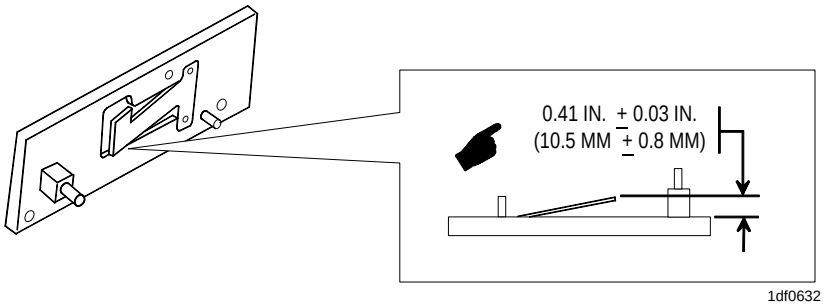


INSPECTION

1. INSPECT COVER ASSEMBLY.

   a. Visually inspect both sides of cover assembly for cracks, breaks, and bends. If any of these conditions are found, replace cover assembly.

   b. Check cover assembly for proper spring height. Height from tip of flat spring to cover should be 0.41 in. ± 0.03 in. (10.5 mm ± 0.8 mm). If measurement is not met, bend spring to proper height or replace cover assembly.



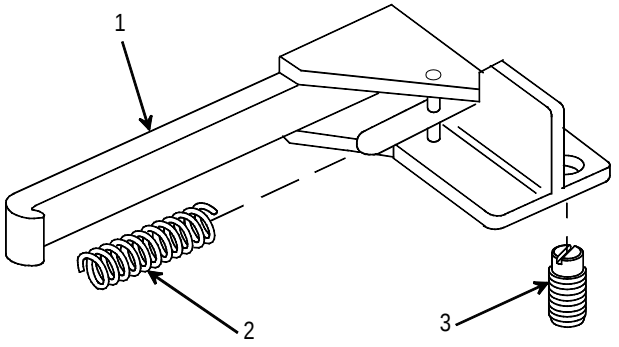
2. INSPECT SEAR RETRACTOR ASSEMBLY.

   a. Visually inspect sear retractor assembly (1) for cracks, breaks, and bends. If any of these conditions are found, replace sear retractor assembly.

   b. Visually inspect helical spring (2) for breaks and bends. If either of these conditions are found, replace helical spring.

   c. Visually inspect sear retractor pivot (3) for cracks or stripped threads. If either of these conditions are found, replace sear retractor pivot.

d. Check helical spring (2) for a free length of 2 in. ± 1/8 in. (50.8 mm ± 3.2 mm). If helical spring is not proper length, replace helical spring.



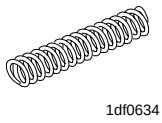
3. INSPECT AUTO GUN RECEIVER.

Visually inspect auto gun receiver for loose or damaged screw threaded inserts. If either of these conditions are found, send auto gun receiver to Direct Support Maintenance for repair.

LUBRICATION

LUBRICATE HELICAL SPRING.

Using acid brush, apply light coat of grease to helical spring.

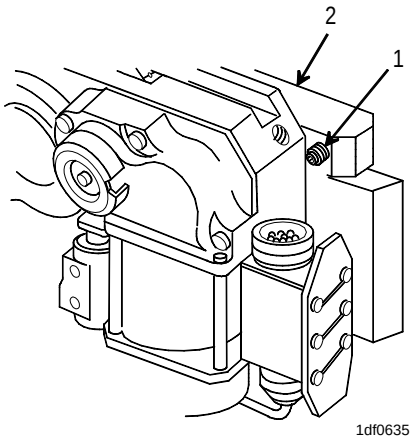


INSTALLATION

1. INSTALL SEAR RETRACTOR ASSEMBLY.

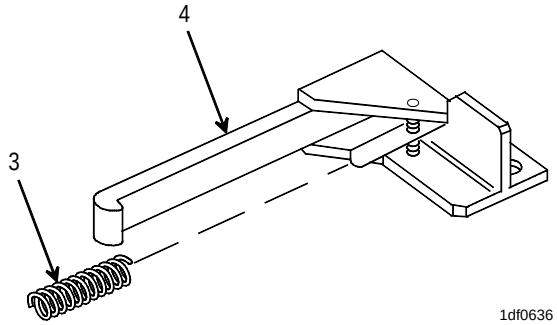
a. Apply sealing compound primer and one drop of adhesive to sear retractor pivot (1).

b. Install sear retractor pivot (1) in auto gun receiver (2).



INSTALLATION – Continued

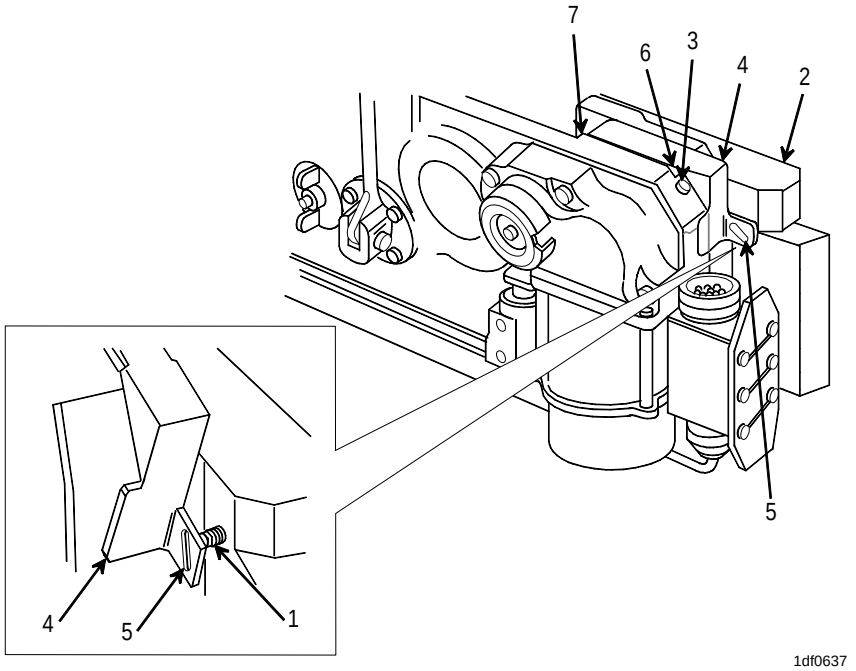
c. Install helical spring (3) on plunger of sear retractor assembly (4).



NOTE

Sear catch straight headless pin or sear sleeve pivot can fall out. Ensure that they remain installed.

d. Position sear retractor assembly (4) with pivot hole (5) on bottom. Install sear retractor assembly (4) so that helical spring (3) is in hole (6) of auto gun receiver (2). Engage pivot hole (5) and sear retractor pivot (1). Align and place sear retractor assembly (4) in receiver slot (7). Push forward and down to engage sear.

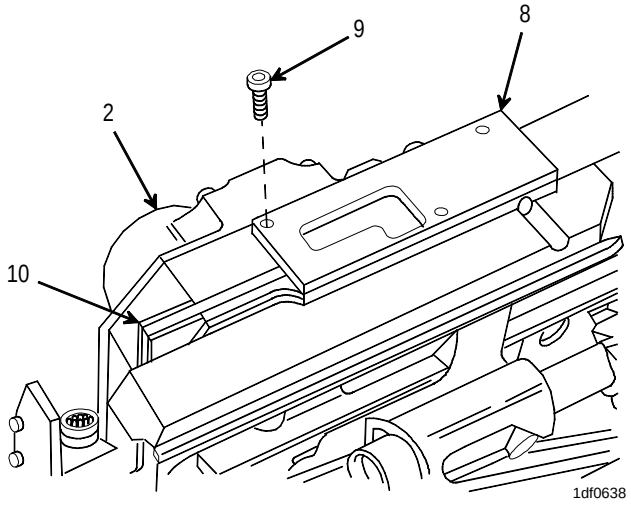


2. INSTALL COVER ASSEMBLY.

   a. Position cover assembly (8) on auto gun receiver (2) and align mounting holes.

   b. Install and torque three capscrews (9) to 60 in.-lb ± 5 in.-lb (6.78 N-m ± 0.57 N-m).

   c. Push sear retractor arm (10) forward to disengage sear.



3. PERFORM AUTO GUN RECEIVER MANUAL CYCLE CHECK (WP 0008 00).

4. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

SEAR CATCH ASSEMBLY REMOVAL/INSTALLATION REMOVAL, INSPECTION, LUBRICATION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Grease (item 11, WP 0116 00)

References
WP 0008 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0063 00 Cover assembly removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

REMOVAL

1. POSITION AUTO GUN RECEIVER.

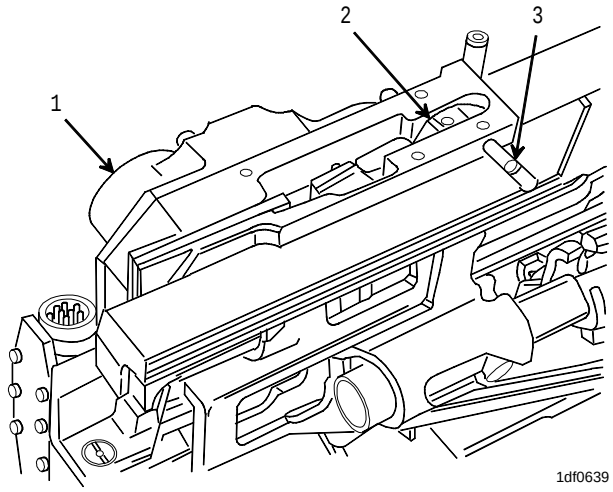
   Position auto gun receiver (1) with sear catch assembly (2) on top.

2. REMOVE SEAR CATCH ASSEMBLY.

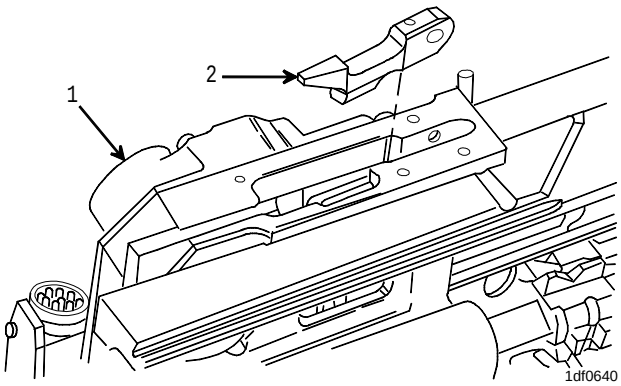
NOTE

Straight headless pin can be removed only one way.

a. Push straight headless pin (3) out of auto gun receiver (1).



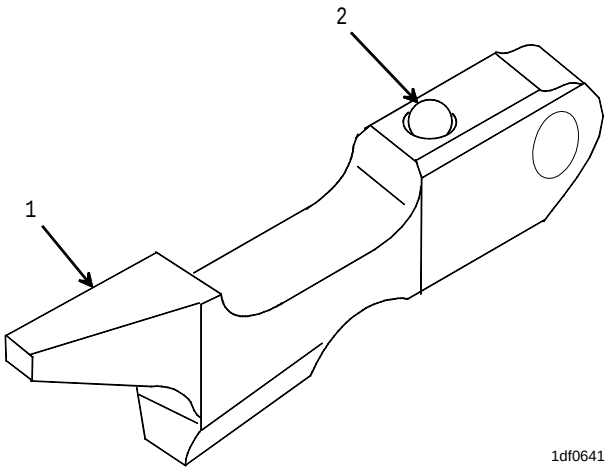
b. Lift sear catch assembly (2) out of auto gun receiver (1).



INSPECTION

INSPECT SEAR CATCH ASSEMBLY.

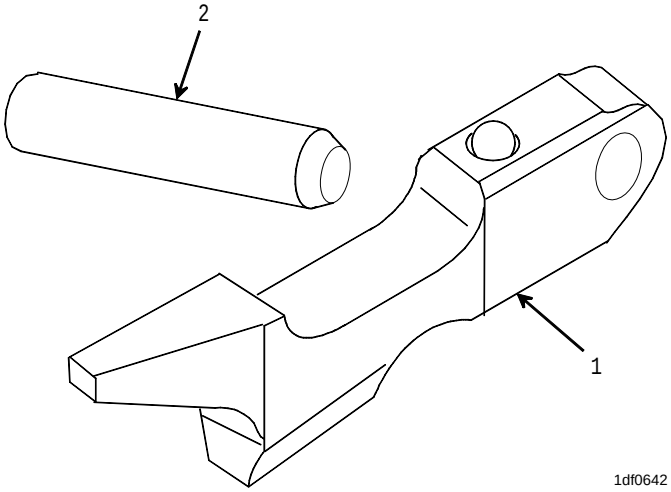
Visually inspect sear catch assembly (1) for cracks, bends, breaks, and missing or loose plunger button (2). If any of these conditions are found, replace sear catch assembly.



LUBRICATION

LUBRICATE SEAR CATCH ASSEMBLY.

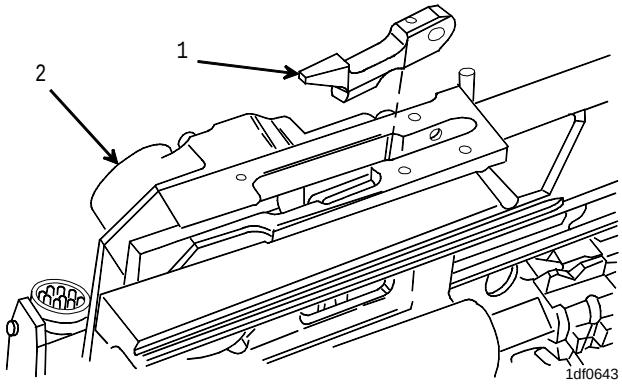
Using acid brush, apply a light coat of grease to outside of sear catch assembly (1) and straight headless pin (2).



INSTALLATION

1. INSTALL SEAR CATCH ASSEMBLY.

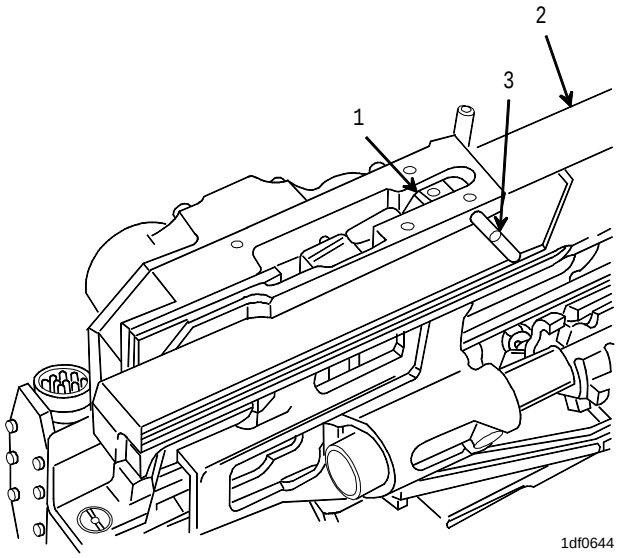
   a. Place sear catch assembly (1) in auto gun receiver (2) and align straight headless pin holes.



NOTE

Straight headless pin can be installed only one way.

   b. Install straight headless pin (3), chamfered end first, into hole in auto gun receiver (2) and through sear catch assembly (1).



2. INSTALL COVER ASSEMBLY (WP 0063 00).

3. PERFORM AUTO GUN RECEIVER MANUAL CYCLE CHECK (WP 0008 00).

4. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

SEAR ASSEMBLY REMOVAL/INSTALLATION
REMOVAL, INSPECTION, LUBRICATION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Grease (item 11, WP 0116 00)

References
WP 0008 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0053 00 Bolt and track assembly removed
WP 0060 00 Straight drive shaft removed
WP 0063 00 Cover assembly and sear retractor assembly removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Auto gun receiver is too heavy for one person to lift. Get help to lift or carry automatic gun receiver.

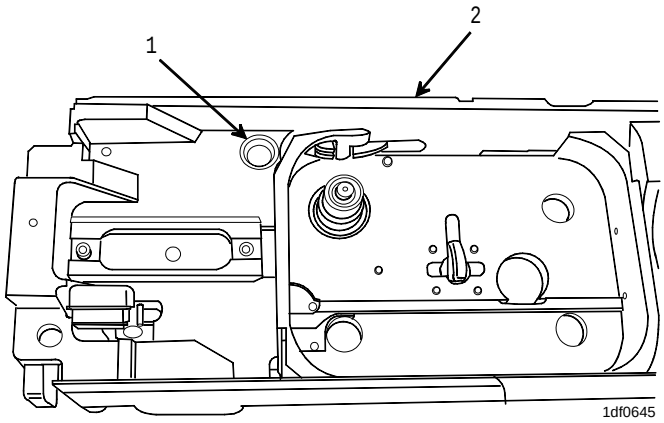
Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

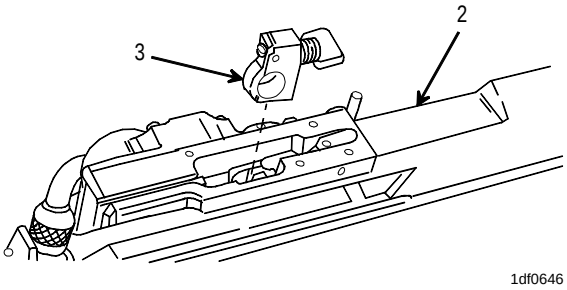
REMOVAL

REMOVE SEAR ASSEMBLY.

a. Pull sear sleeve-pivot (1) from auto gun receiver (2).



b. Lift sear assembly (3) out of auto gun receiver (2).



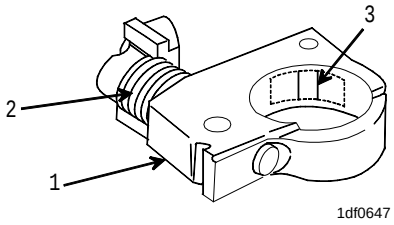
INSPECTION

INSPECT SEAR ASSEMBLY.

a. Visually inspect sear assembly (1) for cracks and loose or broken spring tension washers (2). If any of these conditions are found, replace sear assembly.

b. Using feeler gage, inspect spring tension washers (2) to assure they do not freely slide more than 0.04 in. (1 mm). Spring tension washers may rotate, but maximum gap between any two spring tension washers is 0.04 in. (1 mm). Use feeler gage. If measurement is not met, replace spring tension washers.

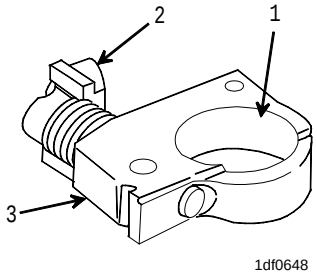
c. Visually inspect spring pin (3) for breaks or bends. If either of these conditions are found, replace spring pin.



LUBRICATION

LUBRICATE SEAR ASSEMBLY.

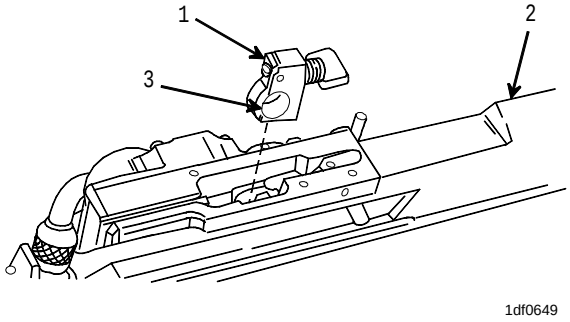
Using acid brush, apply a light coat of grease to pivot hole (1) and notched blade (2) of sear assembly (3).



INSTALLATION

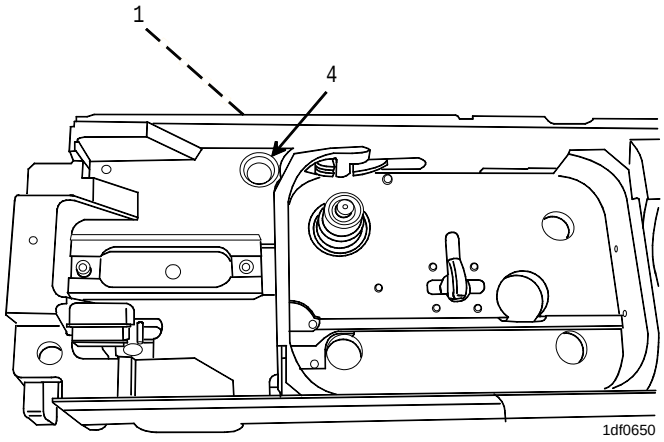
1. INSTALL SEAR ASSEMBLY.

   a. Place sear assembly (1) in auto gun receiver (2) with pivot hole (3) down.



INSTALLATION - Continued

b. While holding sear assembly (1) in position, install sear sleeve-pivot (4). Press in narrow end of sear sleeve-pivot (4) until seated.



2. INSTALL COVER ASSEMBLY AND SEAR RETRACTOR ASSEMBLY (WP 0063 00).
3. INSTALL STRAIGHT DRIVE SHAFT (WP 0060 00).
4. INSTALL BOLT AND TRACK ASSEMBLY (WP 0053 00).
5. PERFORM AUTO GUN RECEIVER MANUAL CYCLE CHECK (WP 0008 00).
6. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

SEAR ASSEMBLY DISASSEMBLY/ASSEMBLY DISASSEMBLY, CLEANING, INSPECTION, ASSEMBLY

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Common #2 shop equipment (item 34, WP 0085 00)
Goggles (item 19, WP 0085 00)
Rubber gloves (item 18, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Dry cleaning solvent (item 27, WP 0116 00)
Grease (item 11, WP 0116 00)
Wiping rags (item 21, WP 0116 00)

Personnel Required
Two

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0053 00 Bolt and track assembly removed
WP 0060 00 Straight drive shaft removed
WP 0063 00 Cover assembly and sear retractor assembly removed
WP 0065 00 Sear removed

Special Environmental Conditions
Well-ventilated area required when using dry cleaning solvent.

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

DISASSEMBLY

WARNING

Wear eye protection when disassembling sear. Spring tension washers could fly apart when headless straight pin is removed. Personnel could be blinded if struck in the eye by flying parts.

DISASSEMBLE SEAR ASSEMBLY.

a. Adjust vise jaws 1/2 in. (12.7 mm) apart.

b. Place sear assembly on top of vise with straight headless pin (1) between jaws.

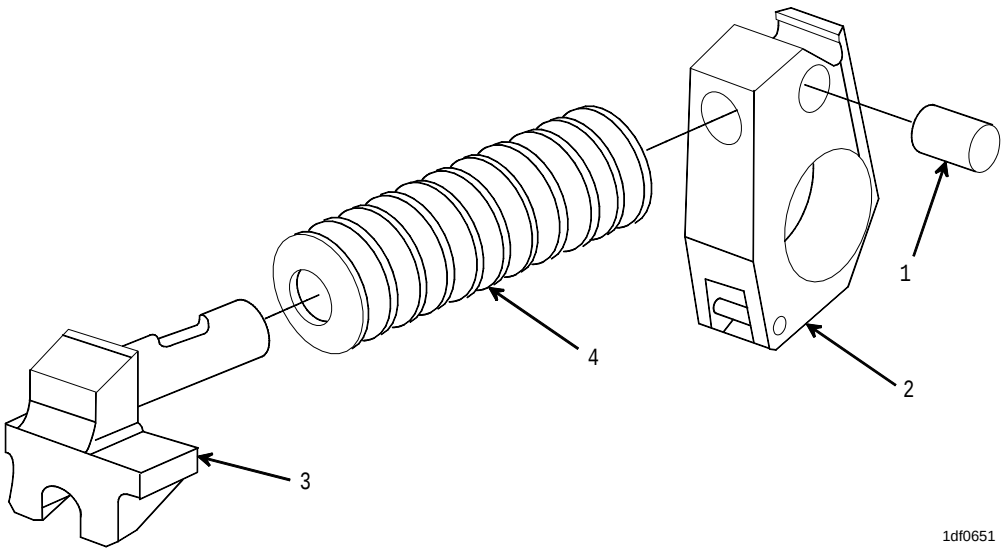
NOTE

Use helper to hold sear assembly in place on top of vise.

c. Using hammer and 5/16 in. drive pin punch, drive straight headless pin (1) from rocker (2).

d. Pull sear arm (3) with spring tension washers (4) straight out of rocker (2).

e. Pull spring tension washers (4) off arm (3).



CLEANING

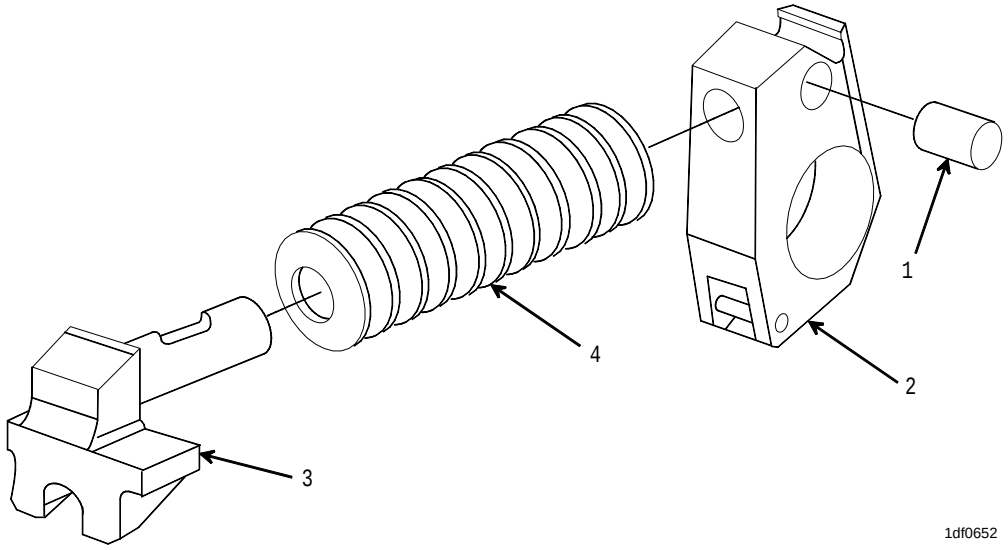
WARNING

Dry cleaning solvent (SD) is flammable and toxic. Use in well-ventilated area away from an open flame or a smoking area. This solvent evaporates quickly and has a drying effect on the skin. It may cause cracks in the skin and, in some cases, mild irritation or inflammation. If solvent comes in contact with eyes or skin, flush with water.

CLEAN SEAR ASSEMBLY PARTS.

a. Using brush and solvent, clean straight headless pin (1), rocker (2), sear arm (3), and spring tension washers (4).

b. Dry components with a clean wiping rag.



INSPECTION

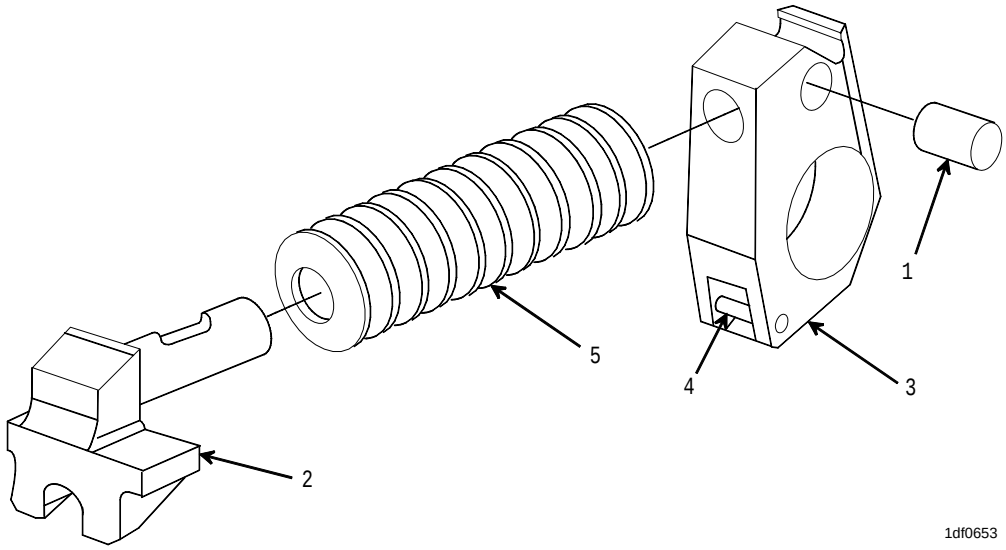
INSPECT SEAR ASSEMBLY PARTS.

a. Visually inspect headless straight pin (1) and sear arm (2) for cracks, breaks, and chips. If any of these conditions are found, replace defective part.

b. Visually inspect rocker (3) for cracks, breaks, or deformation. If any of these conditions are found, replace sear.

c. Visually inspect rocker (3) for bent or broken spring pin (4). If either of these conditions are found, replace spring pin.

d. Visually inspect spring tension washers (5) for cracks, breaks, and hole elongation. If any of these conditions are found, replace spring tension washers.



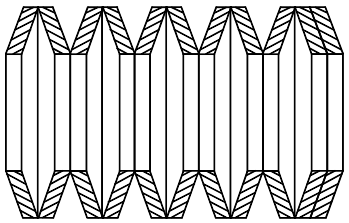
ASSEMBLY

WARNING

Wear eye protection when assembling sear. Spring tension washers could fly apart if not held securely during assembly. Personnel could be blinded if struck in the eye by flying parts.

1. ASSEMBLE SEAR.

   a. Stack eleven spring tension washers (1) in sets so that the concave sides adjoin. The last set has a double washer on the outside.



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b. Install spring tension washers (1) on sear arm (2). The double washer is installed last.

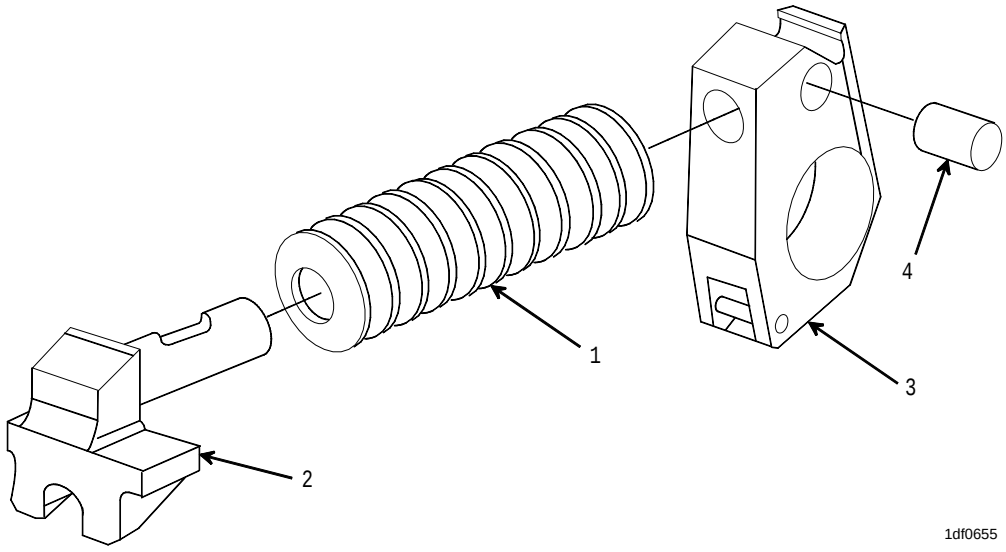
c. Insert sear arm (2) into rocker (3) with arm slot in headless straight pin hole of rocker.

d. Place sear assembly on solid table with headless spring pin hole of rocker (3) up.

NOTE

Use helper to hold sear assembly in place on top of vise.

e. Using hammer and 5/16 in. drive pin punch, install headless straight pin (4), beveled side first, through rocker (3) and sear arm (2).



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2. INSTALL SEAR (WP 0065 00).

3. INSTALL COVER ASSEMBLY AND SEAR RETRACTOR ASSEMBLY (WP 0063 00).

4. INSTALL STRAIGHT DRIVE SHAFT (WP 0060 00).

5. INSTALL BOLT AND TRACK ASSEMBLY (WP 0053 00).

6. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

CLUTCH ASSEMBLY AND AUTO GUN RECEIVER GEARS REMOVAL/INSTALLATION REMOVAL, CLEANING, INSPECTION, LUBRICATION, INSTALLATION

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Common #2 shop equipment (item 34, WP 0085 00)
Goggles (item 19, WP 0085 00)
Mechanical puller (inside) (item 26, WP 0085 00)
Mechanical puller (outside) (item 27, WP 0085 00)
Rubber gloves (item 18, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Dry cleaning solvent (item 27, WP 0116 00)
Grease (item 11, WP 0116 00)
Penetrating oil (item 17, WP 0116 00)
Self-locking nut (12524617-3)
Wiping rags (item 21, WP 0116 00)

References
WP 0008 00
WP 0068 00

Equipment Conditions
WP 0026 00 Automatic gun feeder removed
WP 0053 00 Bolt and track assembly removed
WP 0060 00 Straight drive shaft removed
WP 0061 00 Direct current motor removed
WP 0063 00 Cover assembly and sear retractor assembly removed
WP 0065 00 Sear removed

Special Environmental Conditions
Well-ventilated area required when using dry cleaning solvent.

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Auto gun receiver is too heavy for one person to lift. Get help to lift or carry automatic gun receiver.

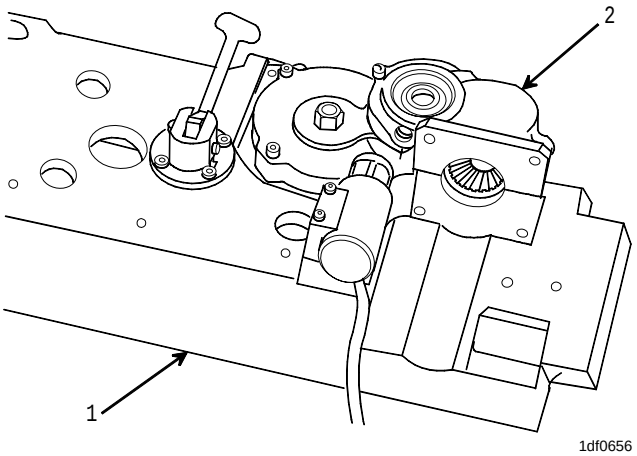
Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep fingers away from moving parts. Serious injury or death may occur.

REMOVAL

1. POSITION AUTO GUN RECEIVER.

   Place auto gun receiver (1) with mechanical housing (2) at top.



NOTE

Mechanical housing can be removed without removing self locking nut.

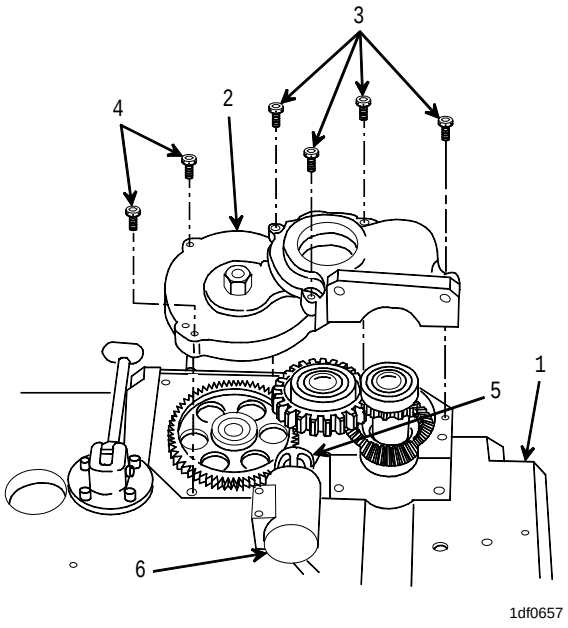
2. REMOVE MECHANICAL HOUSING.

   a. Remove four capscrews (3) and two capscrews (4) from mechanical housing (2).

   b. Press release link (5) on electrical sear solenoid (6) and lift mechanical housing (2) from auto gun receiver (1).

NOTE

Annular ball bearing may stick to mechanical housing during removal.

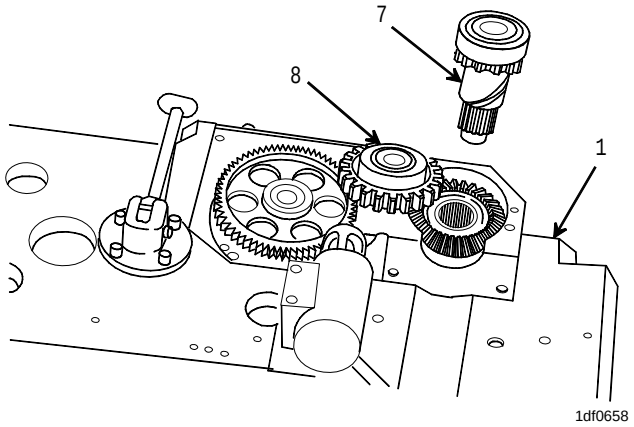


3. REMOVE CLUTCH ASSEMBLY.

NOTE

Clutch assembly may fall apart when pulled out of the auto gun receiver.

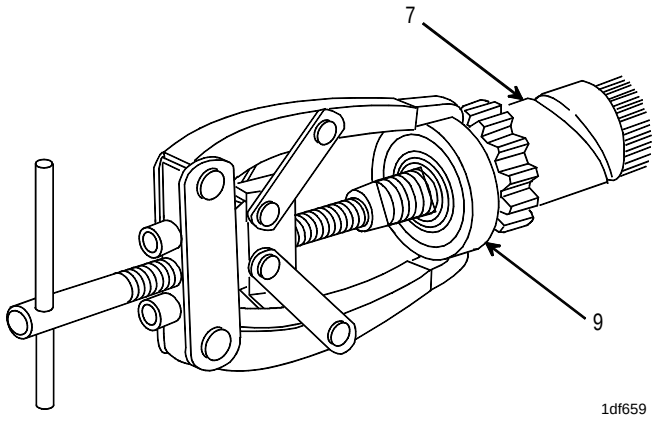
a. Pull clutch assembly (7) and spur gear cluster (8) out of auto gun receiver (1) at the same time.



NOTE

If annular ball bearing for clutch assembly remained in mechanical housing, omit step b.

b. Using outside puller, pull annular ball bearing (9) off clutch assembly (7).



NOTE

If clutch is to be disassembled, go to WP 0067 00.

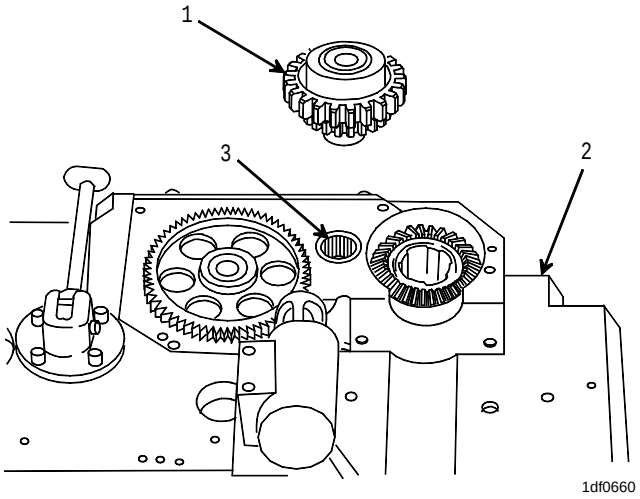
REMOVAL – Continued

4. REMOVE CLUSTER GEAR ASSEMBLY.

   a. Lift spur gear cluster (1) out of auto gun receiver (2) if gear has not already been removed.

   b. Visually inspect needle roller bearing (3) inside auto gun receiver (2) for any breaks, cracks, or bends. Check movement of needle roller bearing for binding. If any of these conditions are found, complete steps c and d.

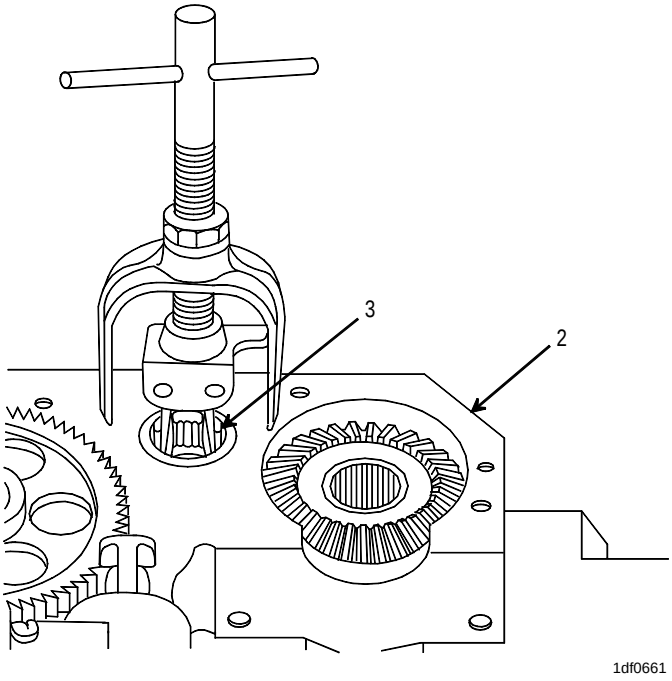
   c. Apply penetrating oil around end of needle roller bearing (3) and wait ten minutes.



CAUTION

Take extreme care to ensure that the puller arms do not hook on the auto gun receiver housing. They could cause severe damage to the auto gun receiver.

   d. Using inside bearing puller, remove needle roller bearing (3) from auto gun receiver (2). Discard needle roller bearing.



NOTE

Annular ball bearing may have remained in mechanical housing during removal.

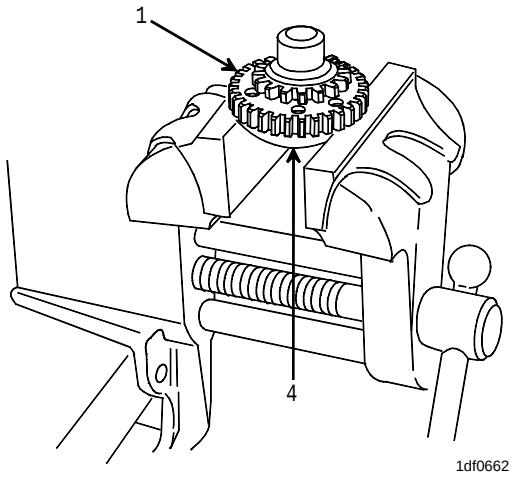
e. If annular ball bearing (4) remains in mechanical housing, use inside bearing puller to remove it, or tap the housing on a table to remove the bearing.

f. Visually inspect annular ball bearing (4) on spur gear cluster (1) for any breaks, cracks, or bends. Check movement of annular ball bearing for binding. If any of these conditions are found, complete steps g through i.

g. Open vise with jaw caps to an opening 1/2 in. (12.7 mm) wider than the annular ball bearing (4) on spur gear cluster (1). Rest spur gear cluster (1) on top of vise jaws with annular ball bearing (4) at bottom between jaws as shown. Allow at least 1/4 in. (6.4 mm) clearance between sides of annular ball bearing (4) and vise jaws.

h. Tap annular ball bearing (4) on bearing race with drive pin punch. Tap lightly on both sides of race until annular ball bearing (4) is free.

i. Remove and discard annular ball bearing.



REMOVAL - Continued

NOTE

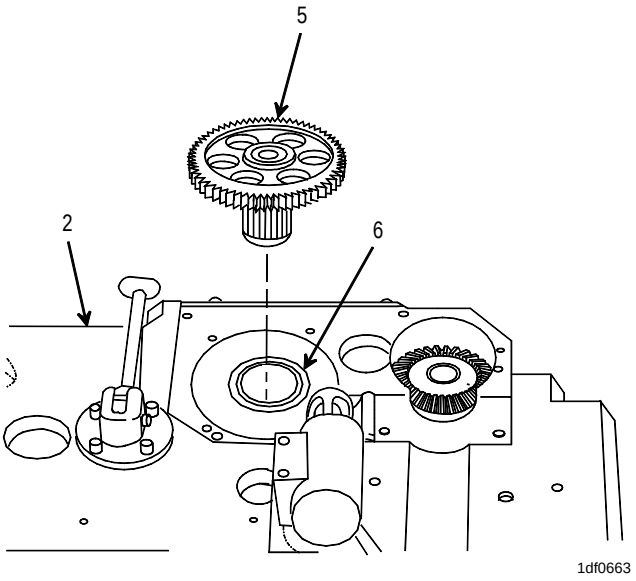
Only remove plain encased seal if it is visibly damaged.

5. REMOVE SPUR ASSEMBLY GEAR.

   a. Lift spur assembly gear (5) out of auto gun receiver (2).

   b. Visually inspect plain encased seal (6) for any breaks, cracks, or bends. If any of these conditions are found, complete step c.

   c. Tap plain encased seal (6) lightly on opposite sides to remove it. Discard plain encased seal.

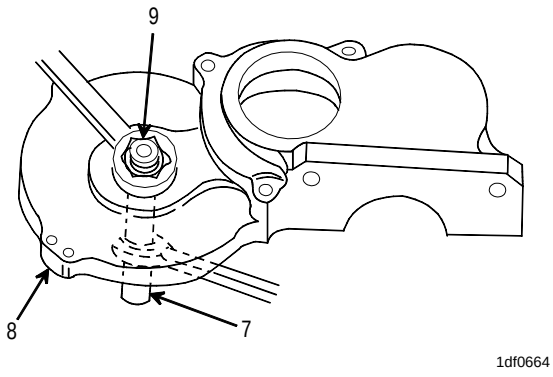


NOTE

Only remove drive sprocket shaft if the shaft and or nut are damaged.

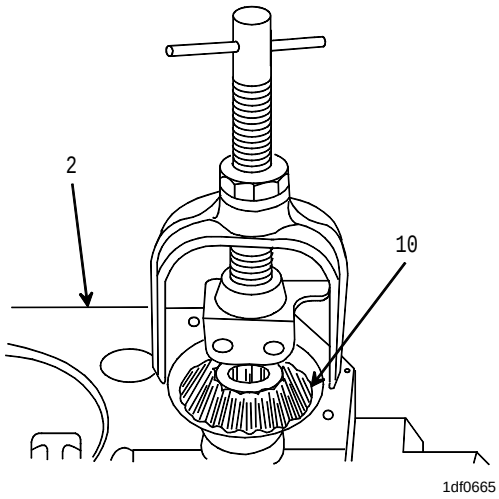
6. REMOVE SHOULDERED DRIVE SPROCKET SHAFT FROM MECHANICAL HOUSING.

   Hold flats of shouldered drive sprocket shaft (7) on mechanical housing (8) and remove self-locking nut (9). Discard self-locking nut.



7. REMOVE BEVEL GEAR AND ANNULAR BALL BEARING.

a. Using inside puller, remove bevel gear (10) from auto gun receiver (2).

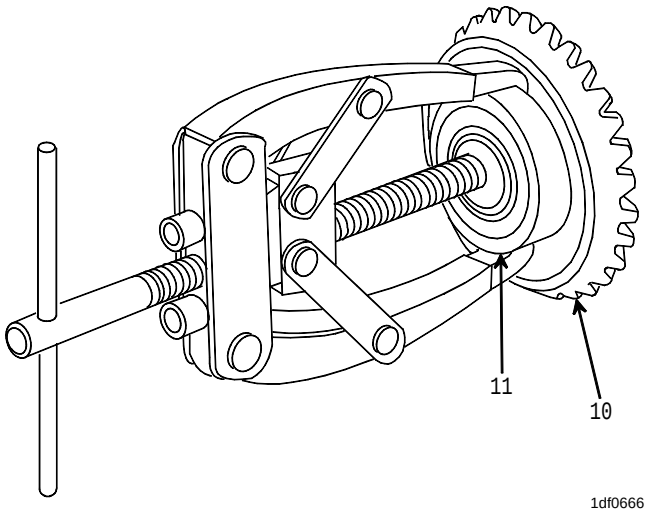


NOTE

Annular ball bearing may come out with bevel gear or remain in auto gun receiver.

b. Visually inspect annular ball bearing (11), in auto gun receiver (2) or on bevel gear (10), for any breaks, cracks, or bends. Check movement of annular ball bearing for binding. If any of these conditions are found, complete step c.

c. Use inside puller to remove annular ball bearing (11) from auto gun receiver (2), or use outside puller, as shown, to remove annular ball bearing (11) from bevel gear (10). Discard annular ball bearing.



CLEANING

WARNING

Dry cleaning solvent (SD) is flammable and toxic. Use in well-ventilated area away from an open flame or a smoking area. This solvent evaporates quickly and has a drying effect on the skin. It may cause cracks in the skin and, in some cases, mild irritation or inflammation. If solvent comes in contact with eyes or skin, flush with water.

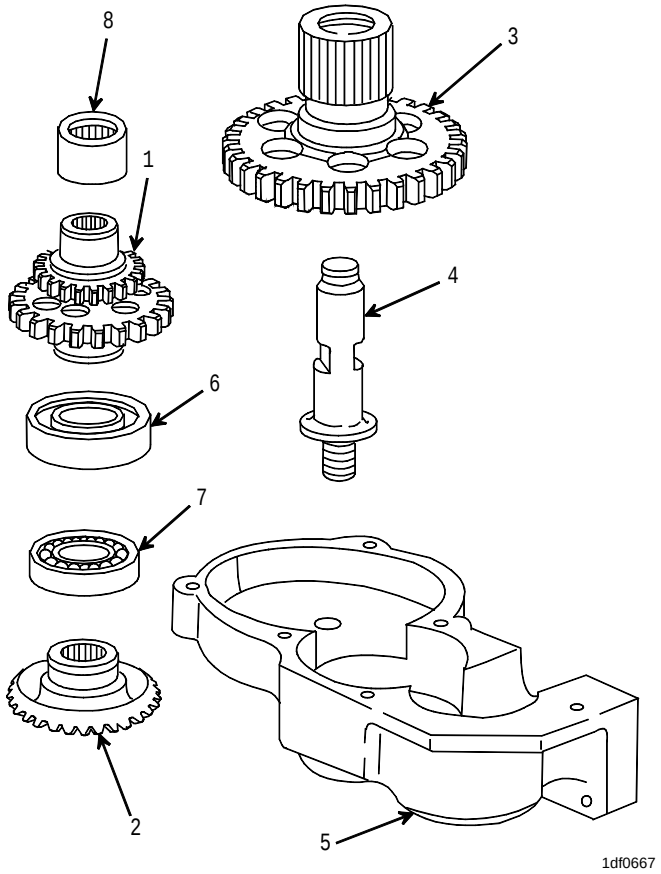
CAUTION

Do not clean bearings in solvent or allow solvent to run into bearings. Solvent will remain in bearing and dissolve lubricant, resulting in excessive wear or damage to bearing.

1. CLEAN AUTO GUN RECEIVER GEARS.

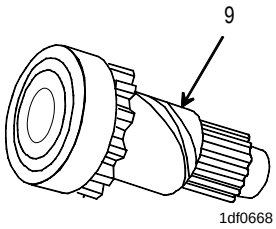
   a. Using brush and dry cleaning solvent, clean spur gear cluster (1), bevel gear (2), spur assembly gear (3), shouldered drive sprocket shaft (4), and mechanical housing (5).

   b. Wipe new annular ball bearings (6) and (7) and new needle roller bearing (8) with clean, dry wiping rag.



2. CLEAN CLUTCH ASSEMBLY.

   Wipe clutch assembly (9) with clean, dry wiping rag.



INSPECTION

1. INSPECT AUTO GUN RECEIVER GEARS.

   a. Visually inspect spur gear cluster (1), bevel gear (2), bevel gear (3), spur assembly gear (4), and shouldered drive sprocket shaft (5) for chipping, breaks, cracks, galls, and broken teeth. If any of these conditions are found, replace defective part.

   b. Check movement of annular ball bearings (6) and (7) and needle roller bearing (8) for binding and roughness. If either of these conditions are found, replace defective part.

NOTE

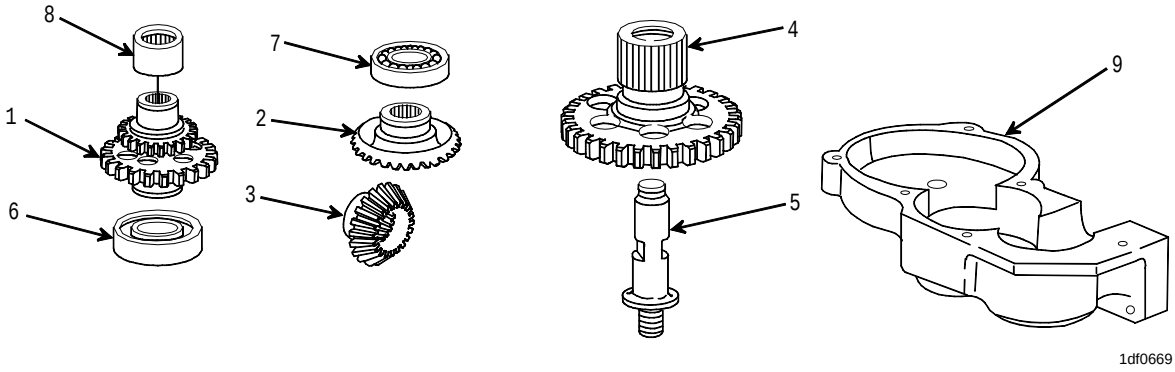
Bevel gear (receiver) and bevel gear (motor) are parts of a serialized, matched set. Both gears must be replaced if either part is defective.

There are two configurations of matched bevel gear sets. The standard gun must use 12524257 and the enhanced gun must use 12524549.

2. INSPECT MECHANICAL HOUSING.

   a. Visually inspect mechanical housing (9) for cracks or breaks. If either of these conditions are found, replace mechanical housing.

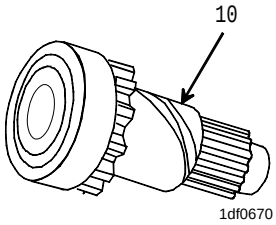
   b. Visually inspect mechanical housing (9) for loose or damaged screw threaded inserts. If either of these conditions are found, send mechanical housing to Direct Support Maintenance for repair.



INSPECTION – Continued

3. INSPECT CLUTCH ASSEMBLY.

   a. Visually inspect clutch assembly (10) for cracks and broken shaft splines or gear teeth. If any of these conditions are found, go to WP 0068 00 and perform DISASSEMBLY/ASSEMBLY procedures.



   b. Test clutch assembly slippage torque (WP 0068 00).

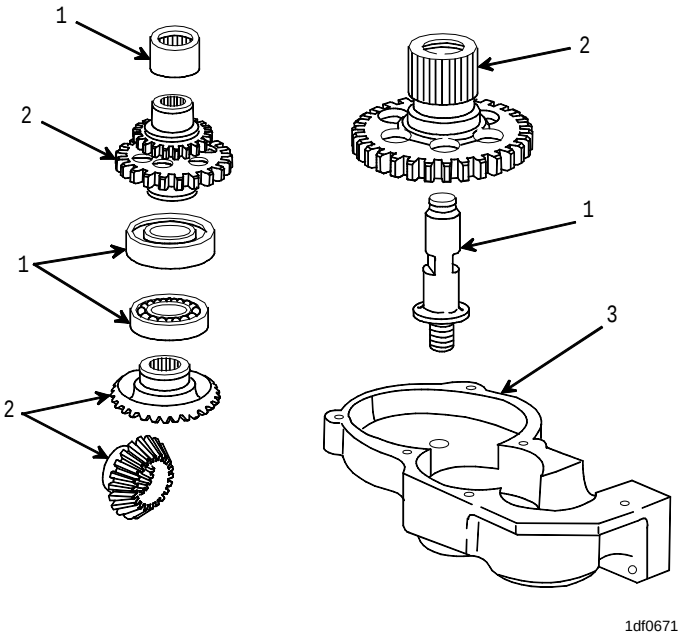
4. INSPECT AUTO GUN RECEIVER.

   Visually inspect auto gun receiver for loose or damaged screw threaded inserts. If either of these conditions are found, send receiver to Direct Support Maintenance for repair.

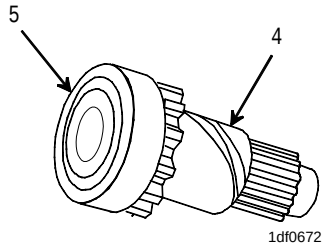
LUBRICATION

LUBRICATE PARTS.

1. Using acid brush, apply light coat of grease to all bearing faces and shafts (1), all gears and splines (2), and inside of mechanical housing (3).



2. Using acid brush, apply a light coat of grease to clutch assembly (4) and annular ball bearing (5).



INSTALLATION

1. INSTALL BEVEL GEAR.

CAUTION

Annular ball bearing can get stuck if seated unevenly while being installed. When this happens, do not force annular ball bearing to seat. It could result in damage to annular ball bearing or bevel gear. Remove annular ball bearing and start over.

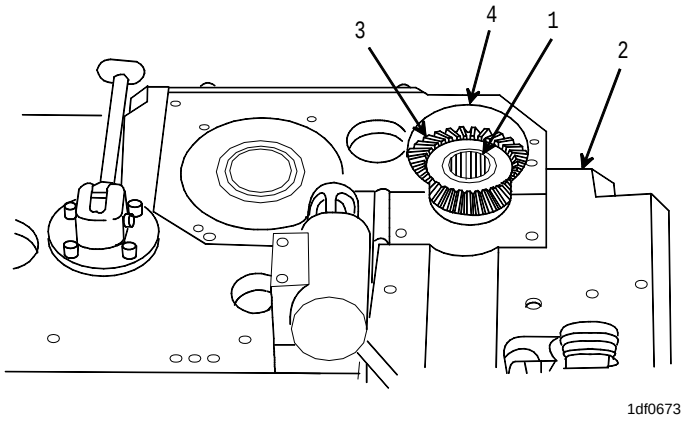
NOTE

Install bearings and gears by hand, if possible.

a. If removed, press annular ball bearing (1) into auto gun receiver (2) until annular ball bearing is seated.

b. Insert bevel gear (3), beveled side out, into hole (4) and annular ball bearing (1).

c. Press bevel gear (3) into auto gun receiver (2) until it is seated.

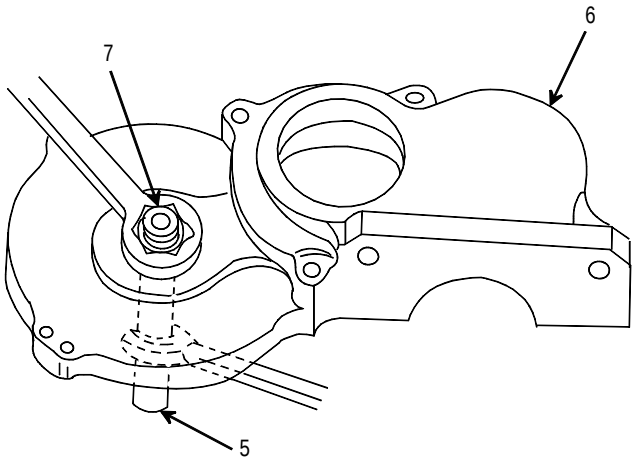


INSTALLATION - Continued

2. INSTALL SHOULDERED DRIVE SPROCKET SHAFT.

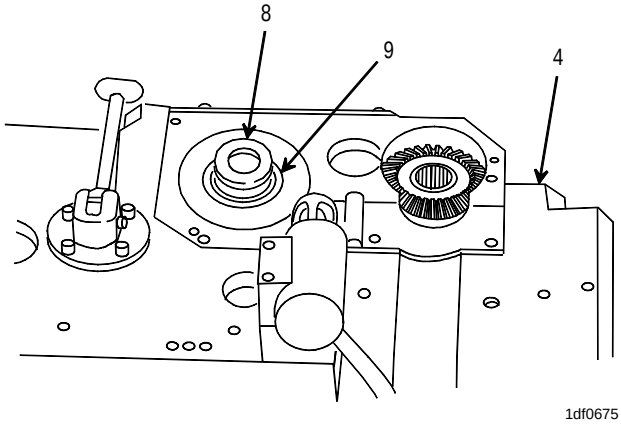
   a. Insert threaded end of shouldered drive sprocket shaft (5) through mechanical housing (6). Install new self-locking nut (7).

   b. Hold shouldered drive sprocket shaft (5) by the flats and torque self-locking nut (7) to 325 in.-lb ± 25 in.-lb (36.73 N-m ± 2.83 N-m).

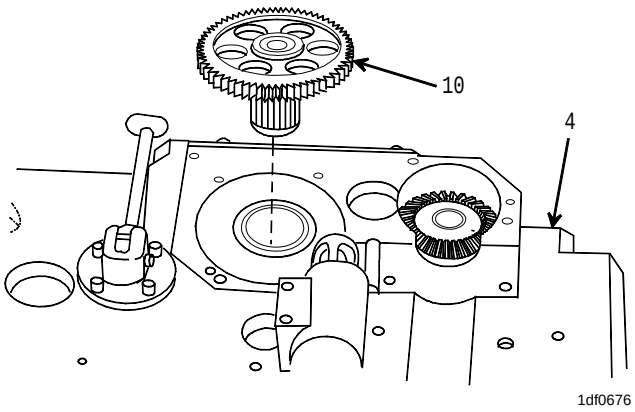


3. INSTALL SPUR ASSEMBLY GEAR.

   a. If removed, install new plain encased seal (8), with metal ends up, evenly into large hole (9) in auto gun receiver (4) until metal end of seal is flush with surface of auto gun receiver.



b. Place splined end of spur assembly gear (10) into auto gun receiver (4).



4. INSTALL SPUR GEAR CLUSTER.

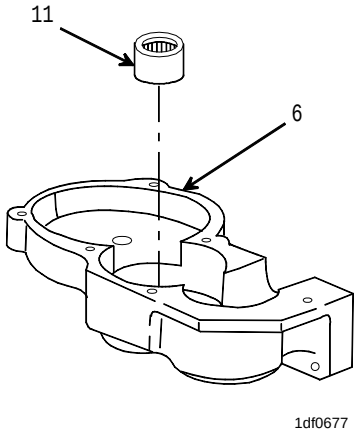
CAUTION

Annular ball bearing can get stuck if seated unevenly while being installed. When this happens, do not force annular ball bearing to seat. It could result in damage to annular ball bearing or gear. Remove annular ball bearing and start over.

NOTE

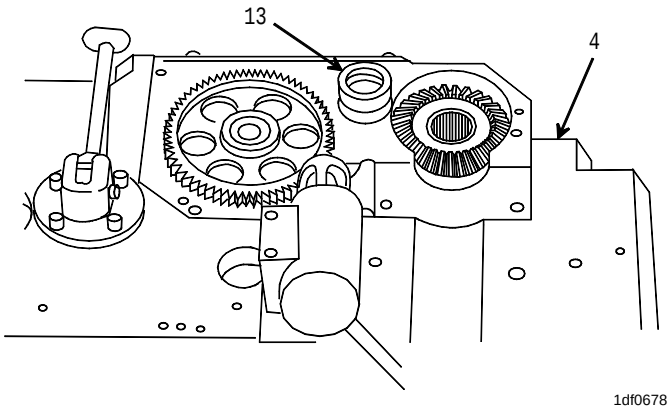
Install bearings and gears by hand, if possible.

a. If removed, press annular ball bearing (11) into mechanical housing (6) until annular ball bearing is seated.



INSTALLATION - Continued

b. If removed, install needle roller bearing (13) into auto gun receiver (4).



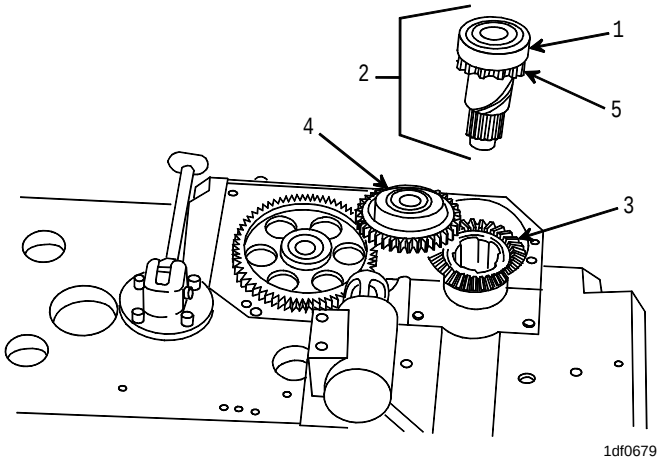
NOTE

Annular ball bearings may have stuck to mechanical housing during removal.

5. INSTALL CLUTCH ASSEMBLY.

a. If not in mechanical housing install annular ball bearing (1) on geared end of clutch assembly (2).

b. Insert splined end of clutch assembly (2) in bevel gear (3). At the same time, install spur gear cluster (4) until it mates with spur clutch gearshaft (5) of clutch assembly (2).



6. INSTALL MECHANICAL HOUSING.

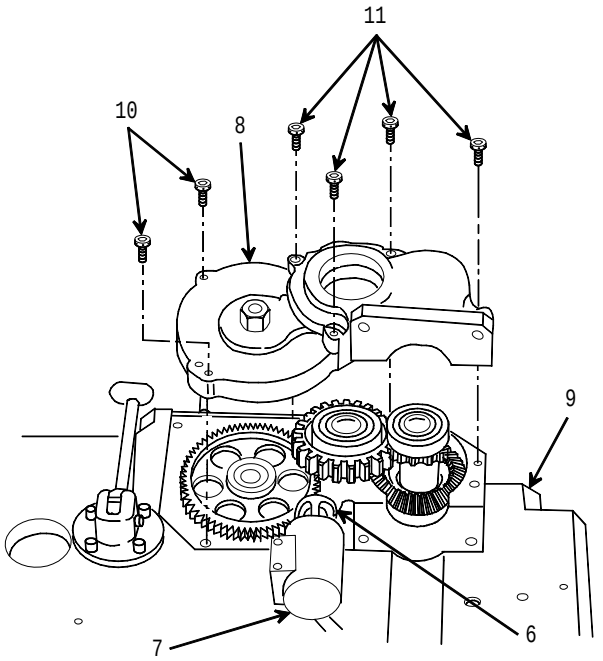
   a. Push release link (6) on electrical sear solenoid (7) and install mechanical housing (8) on auto gun receiver (9).

   b. Tap mechanical housing (8) until seated.

   c. Install the two short capscrews (10) into the large lower part of mechanical housing (8).

   d. Install the four remaining long capscrews (11) in remaining four holes of mechanical housing (8).

   e. Torque six capscrews (10) and (11) to 60 in.-lbs ± 5 in.-lbs (6.78 N-m ± 0.57 N-m).



7. INSTALL SEAR (WP 0065 00).

8. INSTALL COVER ASSEMBLY AND SEAR RETRACTOR ASSEMBLY (WP 0063 00).

9. INSTALL DIRECT CURRENT MOTOR (WP 0061 00).

10. INSTALL STRAIGHT DRIVE SHAFT (WP 0060 00).

11. INSTALL BOLT AND TRACK ASSEMBLY (WP 0053 00).

12. PERFORM AUTO GUN RECEIVER MANUAL CYCLE CHECK (WP 0008 00).

13. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

CLUTCH ASSEMBLY DISASSEMBLY/ASSEMBLY DISASSEMBLY, CLEANING, INSPECTION, LUBRICATION, ASSEMBLY, TESTING

INITIAL SETUP:

Tools and Special Tools
Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
Goggles (item 19, WP 0085 00)
Receiver clutch slippage torque test holder (item 21, WP 0085 00)
Rubber gloves (item 18, WP 0085 00)
Screwdriver bit (item 3, WP 0085 00)
Torque wrench, 0-175 ft-lb (item 52, WP 0085 00)
Turret mechanic's supplemental tool kit (item 44, WP 0085 00)
Vise (item 45, WP 0085 00)
Vise jaw caps (item 5, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Dry cleaning solvent (item 27, WP 0116 00)
Grease (item 11, WP 0116 00)
Wiping rags (item 21, WP 0116 00)

References
WP 0067 00

Special Environmental Conditions
Well-ventilated area required when using dry cleaning solvent.

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

NOTE

There are three different clutch configurations and their components are NOT interchangeable. The Standard M242 uses either the single or double spring clutch. If your single spring clutch requires repair, discard the entire clutch assembly and replace it with a double spring clutch. The Enhanced M242 uses the triple spring clutch.

This task is written for the double spring clutch. The procedures are the same for the triple spring clutch unless noted otherwise.

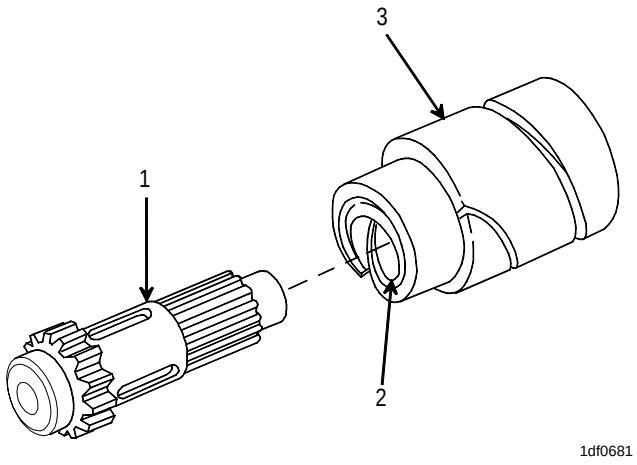
DISASSEMBLY

1. REMOVE TORSION SPIRAL SPRINGS AND CLUTCH ROLLERS FROM DOUBLE SPRING CLUTCH ASSEMBLY.

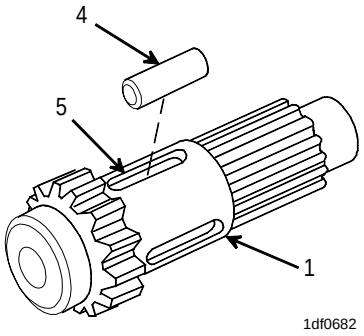
NOTE

If inner and outer clutch springs do not come off together, inner clutch spring will have to be removed from clutch gear separately.

a. While holding spur clutch gearshaft (1), pull and twist off inner and outer torsion spiral springs (2) and (3).

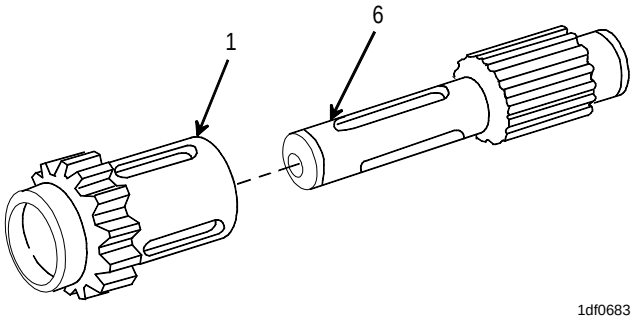


b. Remove three clutch rollers (4) from slots (5) in spur clutch gearshaft (1).



2. REMOVE SHOULDERED CLUTCH SHAFT.

Pull shouldered clutch shaft (6) out of spur clutch gearshaft (1).



CLEANING

WARNING

Dry cleaning solvent (SD) is flammable and toxic. Use in well-ventilated area away from an open flame or a smoking area. This solvent evaporates quickly and has a drying effect on the skin. It may cause cracks in the skin and, in some cases, mild irritation or inflammation. If solvent comes in contact with eyes or skin, flush with water.

CAUTION

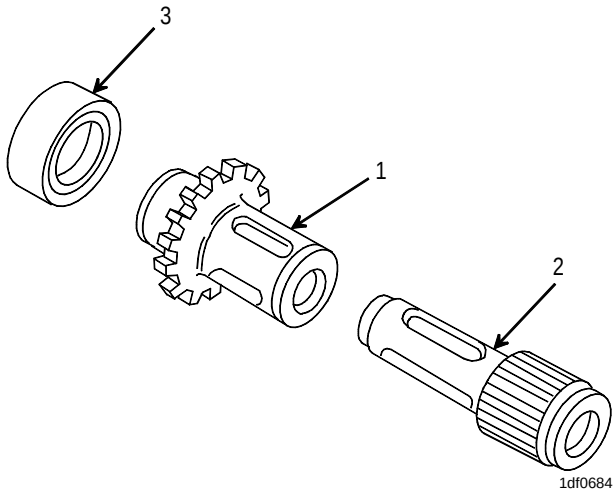
Do not clean annular ball bearings in solvent or allow solvent to run into bearings. Solvent will remain in bearing and dissolve lubricant, resulting in excessive wear or damage to bearing.

CLEANING - Continued

CLEAN CLUTCH ASSEMBLY PARTS.

a. Using brush and dry cleaning solvent, clean spur clutch gearshaft (1) and shouldered clutch shaft (2).

b. Wipe annular ball bearing (3) with clean, dry wiping rag.

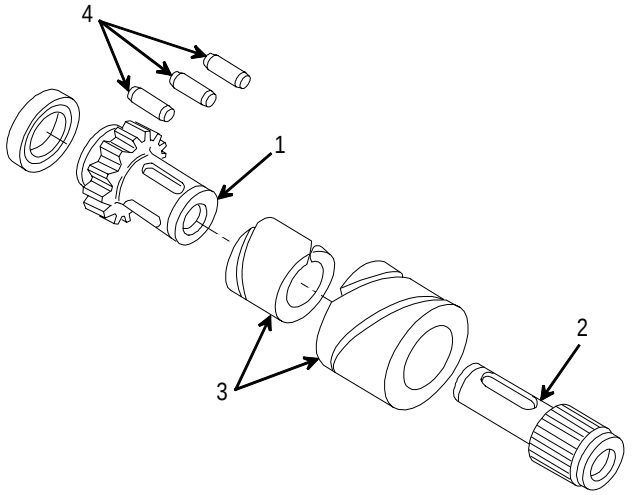


INSPECTION

1. INSPECT CLUTCH ASSEMBLY PARTS.

a. Visually inspect spur clutch gearshaft (1) and shouldered clutch shaft (2) for cracks and broken shaft splines and gear teeth. If any of these conditions are found, replace defective part.

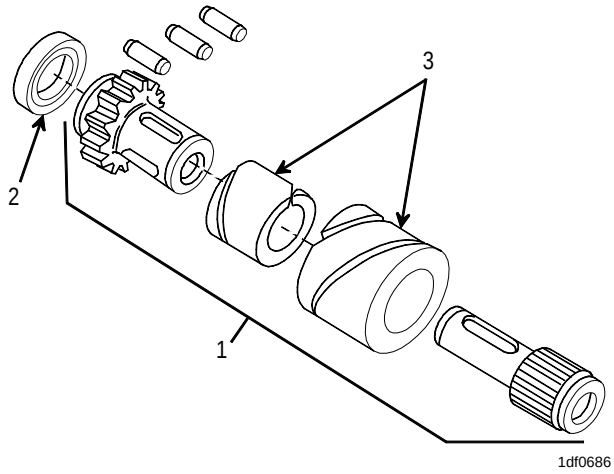
b. Visually inspect torsion spiral springs (3) and clutch rollers (4) for cracks, bends, and galls. If any of these conditions are found, replace defective part. Replace torsion spiral springs (3) as a set, if damaged.



LUBRICATION

LUBRICATE CLUTCH ASSEMBLY PARTS.

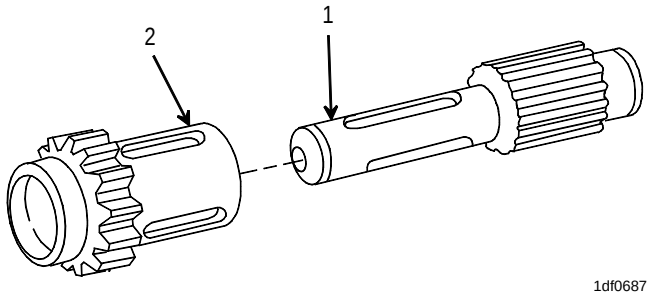
Using acid brush, apply a light coat of grease to clutch assembly components (1), annular ball bearing (2), and inner and outer surface of each torsion spiral spring (3).



ASSEMBLY

1. ASSEMBLE CLUTCH ASSEMBLY.

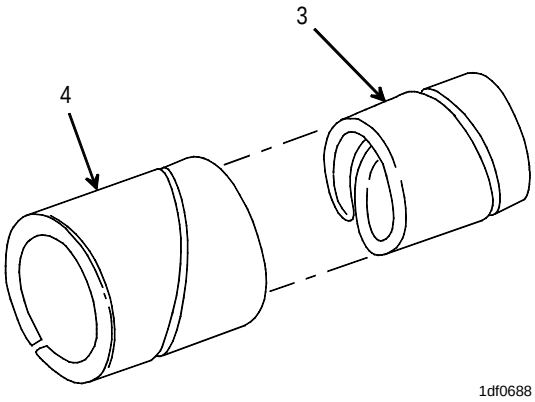
   Insert shouldered clutch shaft (1) in spur clutch gearshaft (2).



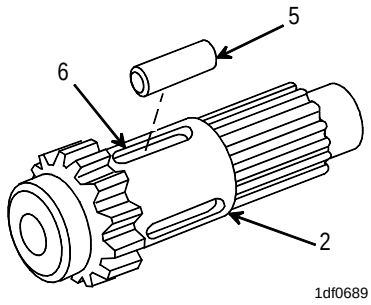
ASSEMBLY - Continued

2. INSTALL CLUTCH ROLLERS AND TORSION SPIRAL SPRINGS ON DOUBLE SPRING CLUTCH ASSEMBLY.

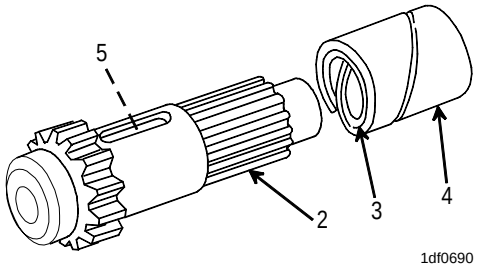
   a. Insert inner torsion spiral spring (3) into outer torsion spiral spring (4). Make certain ends of springs are flush with each other.



   b. Place three clutch rollers (5) into slots (6) in spur gearshaft (2).



   c. Position assembled inner and outer torsion spiral springs (3) and (4) over clutch rollers (5). Slide torsion spiral springs (3) and (4) along clutch rollers (5) until seated firmly against spur clutch gearshaft (2).



TESTING

TEST CLUTCH ASSEMBLY SLIPPAGE TORQUE.

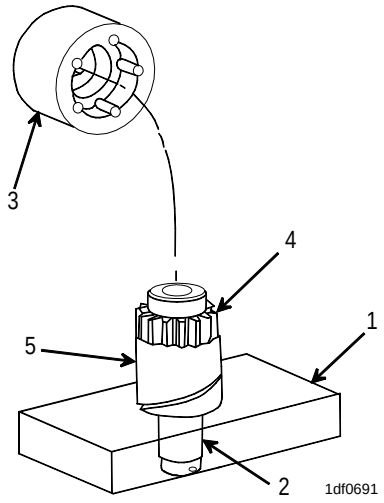
a. Place the base (1) of receiver clutch slippage torque test holder tool in vise.

b. Insert splined gearshaft (2) into tool.

c. Using torque wrench and top piece (3) of torque test tool, torque clutch gear (4) in clockwise direction. Record the highest torque value (slippage torque) at which the torsion spiral springs (5) expand and allow the clutch gear (4) to rotate (slip).

d. Double Spring Clutch Only: Replace torsion spiral springs (5) if slippage torque is not 50 ft-lb ± 12 ft-lb (67.8 N-m ± 16.3 N-m).

e. Triple Spring Clutch Only: Replace torsion spiral springs (5) if slippage torque is not 71 ft-lb ± 21 ft-lb (96.5 N-m ± 27.8 N-m).



NOTE

For clutch assembly INSTALLATION procedures, return to WP 0067 00.

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

CHAIN GUIDES AND MECHANICAL INTERLOCK DISASSEMBLY/ASSEMBLY DISASSEMBLY, CLEANING, INSPECTION, LUBRICATION, ASSEMBLY

INITIAL SETUP:

Tools and Special Tools
- Artillery and turret mechanic's tool kit (item 41, WP 0085 00)
- Goggles (item 19, WP 0085 00)
- Rubber gloves (item 18, WP 0085 00)
- Turret mechanic's supplemental tool kit (item 44, WP 0085 00)

Materials/Parts
- Acid brush (item 4, WP 0116 00)
- Adhesive (item 1, WP 0116 00)
- Cotter pin (MS24665-132)
- Dry cleaning solvent (item 27, WP 0116 00)
- Grease (item 11, WP 0116 00)
- Lockwire (item 34, WP 0116 00)
- Sealing compound primer (item 20, WP 0116 00)
- Spring pin (12524618-1)
- Wiping rags (item 21, WP 0116 00)

References
- WP 0008 00

Equipment Conditions
- WP 0026 00 Automatic gun feeder removed
- WP 0049 00 Recoil mechanism removed if required (see note prior to step 1 in this work package)
- WP 0050 00 Barrel support assembly removed, if required (see note prior to step 1 in this work package)
- WP 0051 00 Breech assembly removed, if required (see note prior to step 1 in this work package)
- WP 0053 00 Bolt and track assembly removed
- WP 0060 00 Straight drive shaft removed
- WP 0061 00 Direct current motor removed
- WP 0063 00 Cover assembly and sear retractor assembly removed
- WP 0064 00 Sear catch assembly removed
- WP 0065 00 Sear removed

Special Environmental Conditions
- Well-ventilated area required when using dry cleaning solvent.

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Auto gun receiver is too heavy for one person to lift. Get help to lift or carry auto gun receiver.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep your fingers away from moving parts of gun. Serious injury or death may occur.

DISASSEMBLY

NOTE

Newer auto gun receivers have a "keyhole" shaped cutout to allow removal of the operating rod without prior removal of the recoil mechanism, barrel support assembly, and breech assembly.

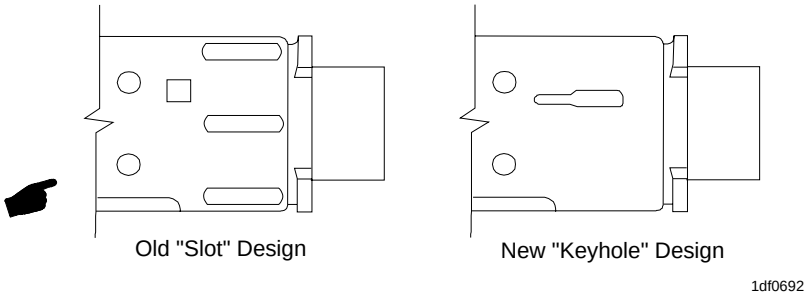


Figure 1. Auto Gun Receiver with Keyhole Slot.

WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

1. REMOVE LOCKWIRE FROM CAPSCREWS AND EXTERNALLY RELIEVED SCREW.

   a. Place auto gun receiver (1) with mechanical housing (2) on top.

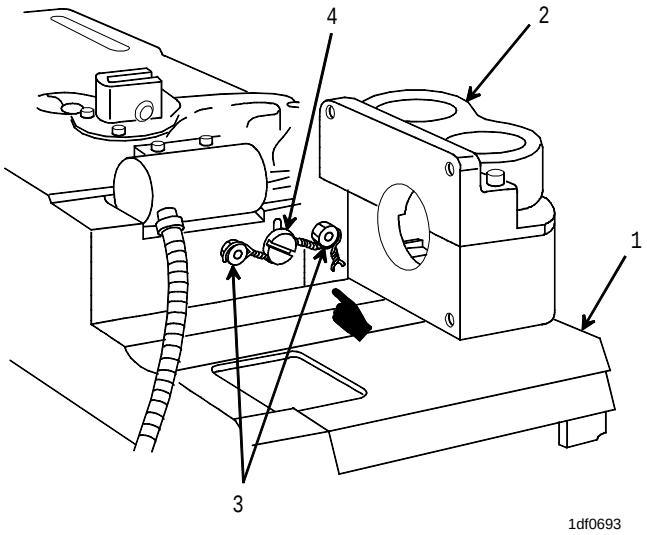
   b. Remove lockwire from two capscrews (3) and externally relieved screw (4).

2. REMOVE REAR CHAIN GUIDE.

NOTE

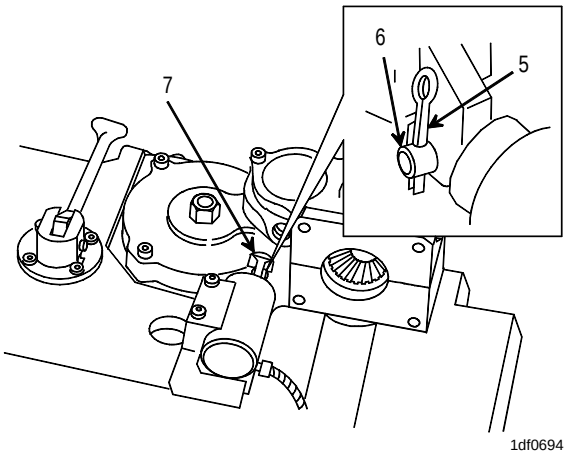
Some rocker assembly parts may remain in the rear chain guide or fall below the auto gun receiver when rear chain guide is removed.

   a. Remove two capscrews (3).



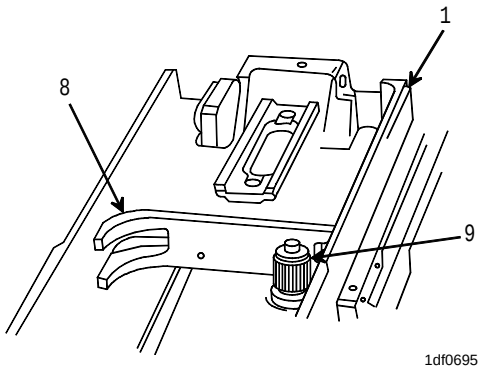
b. Remove cotter pin (5) from headed straight pin (6). Discard cotter pin.

c. Remove headed straight pin (6) from sear release link (7).



d. Place auto gun receiver (1) with rear chain guide (8) on top.

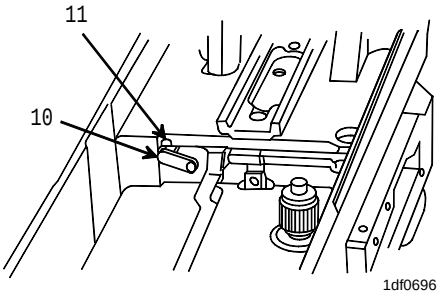
e. Slide rear chain guide (8) about 1/4 in. (6.4 mm) toward spur assembly gear (9). Lift rear chain guide (8) straight up out of auto gun receiver (1).



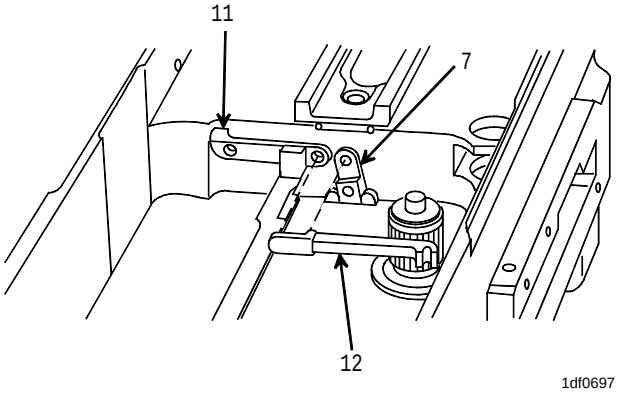
DISASSEMBLY - Continued

3. REMOVE PUSH ROD EXTENSION AND HELICAL SPRING.

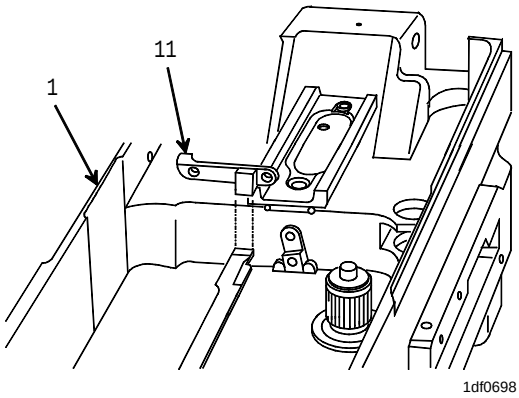
   a. Pull interlock crank (10) from push rod extension (11).



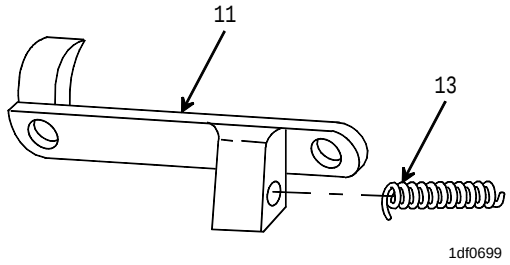
   b. Pull sear push rod (12) from push rod extension (11) and sear release link (7).



   c. Lift push rod extension (11) from auto gun receiver (1).



d. Pull push rod extension spring (13) from push rod extension (11).



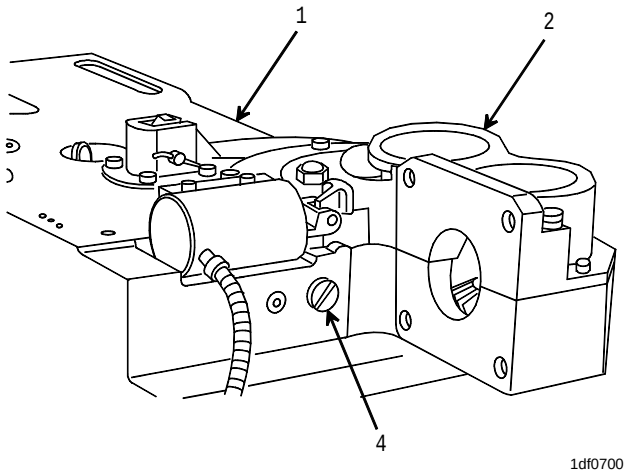
4. REMOVE SEAR RELEASE LINK.

NOTE

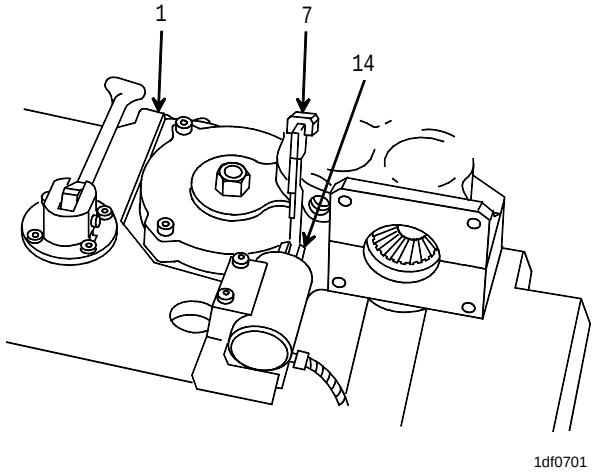
Mechanical interlock system can be serviced without removing sear release link.

a. Place auto gun receiver (1) with mechanical housing (2) on top.

b. Remove externally relieved screw (4).



c. Lift sear release link (7) from auto gun receiver (1) and electrical sear solenoid clevis (14).

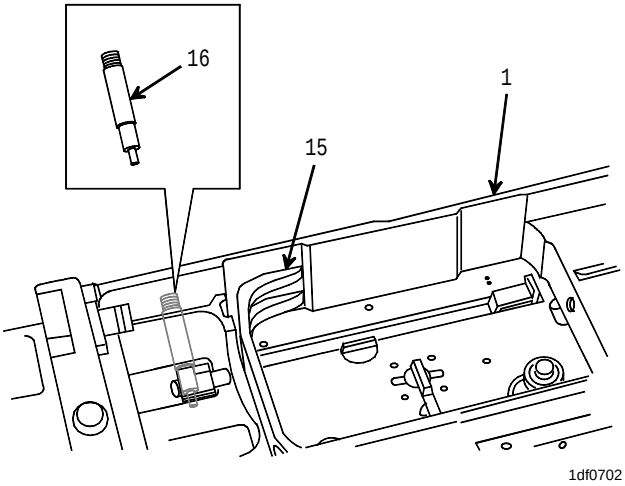


DISASSEMBLY - Continued

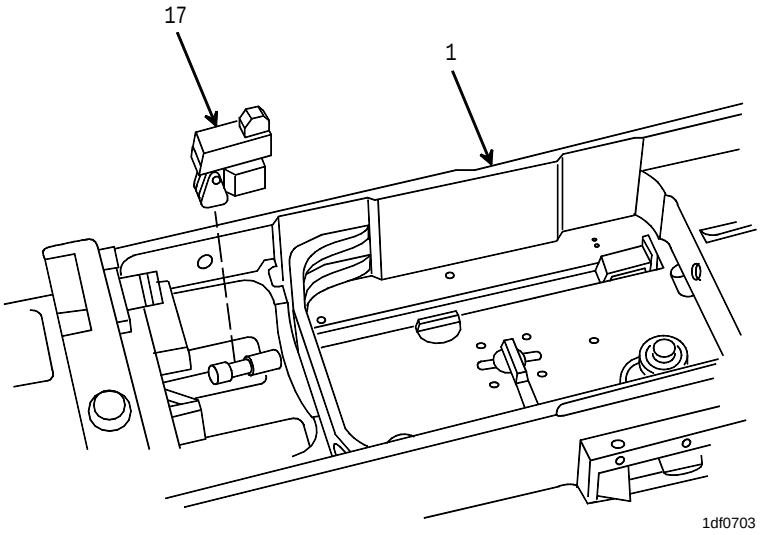
5. REMOVE ROCKER ASSEMBLY.

   a. Place auto gun receiver (1) with front chain guide (15) at top.

   b. Remove rocker support rod (16).



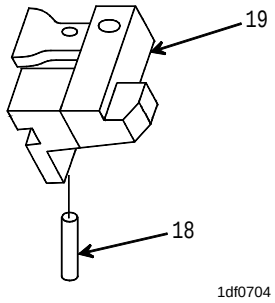
   c. Lift rocker assembly (17) from auto gun receiver (1).



NOTE

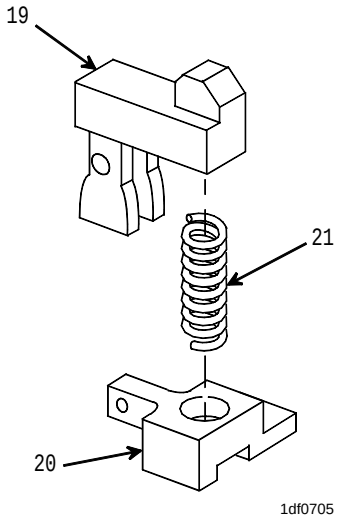
Disassembly is only required if replacing parts of rocker.

d. Remove spring pin (18) from rocker (19). Discard spring pin.



e. Pull rocker (19) from rocker spring housing (20).

f. Pull recoil rocker spring (21) from rocker spring housing (20).



DISASSEMBLY - Continued

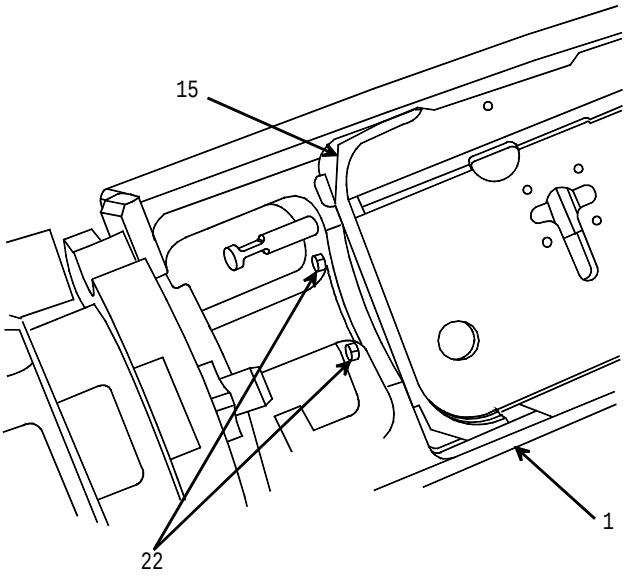
NOTE

Determine which style of receiver you have. The keyhole style receiver does not require removal of the front chain guide when removing operating rod.

6. REMOVE FRONT CHAIN GUIDE.

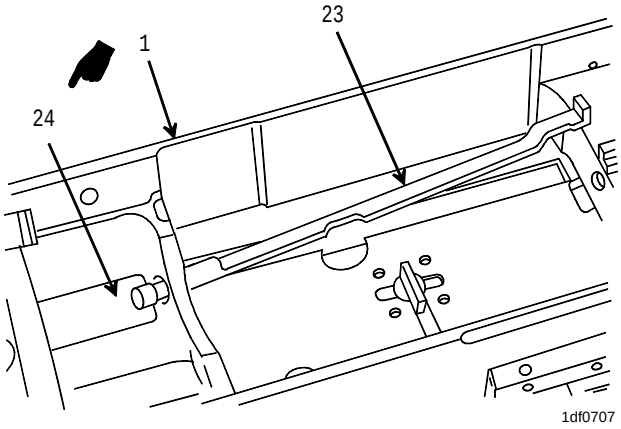
   a. Remove two capscrews (22).

   b. Lift front chain guide (15) straight up and out of auto gun receiver (1).



7. REMOVE OPERATING ROD ASSEMBLY.

Lift operating rod assembly (23) up, slide over to slot (24), and remove from auto gun receiver (1).



CLEANING

WARNING

Dry cleaning solvent (SD) is flammable and toxic. Use in well-ventilated area away from an open flame or a smoking area. This solvent evaporates quickly and has a drying effect on the skin. It may cause cracks in the skin and, in some cases, mild irritation or inflammation. If solvent comes in contact with eyes or skin, flush with water.

CLEAN REMOVED PARTS.

Using a clean wiping rag dampened with dry cleaning solvent, wipe and clean all removed parts.

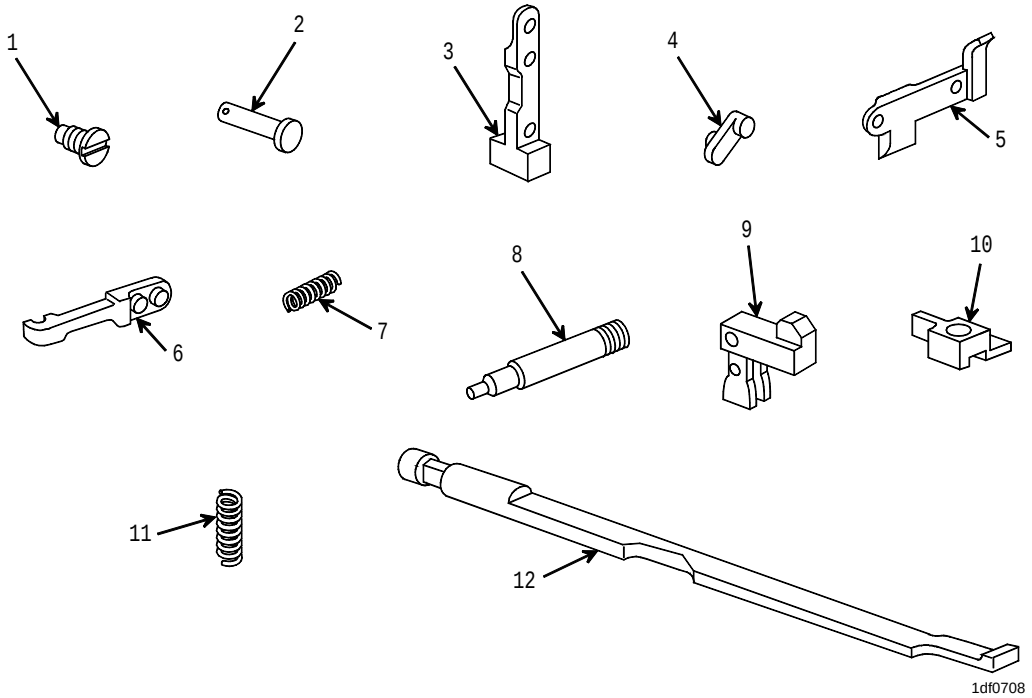
INSPECTION

1. INSPECT CHAIN GUIDES AND ROCKER ASSEMBLY PARTS.

   a. Visually inspect externally relieved screw (1), headed straight pin (2), sear release link (3), interlock crank (4), push rod extension (5), sear push rod (6), push rod extension spring (7), rocker support rod (8), rocker (9), rocker spring housing (10), recoil rocker spring (11), and operating rod assembly (12) for bends, cracks, chips, and breaks. If any of these conditions are found, replace defective part.

   b. Check push rod extension spring (7) for proper free length. Helical spring free length should be 1/2 in. ± 3/32 in. (12.7 mm ± 2.4 mm). If length is incorrect, replace push rod extension spring.

   c. Check recoil rocker spring (11) for proper free length. Helical spring free length should be 1-1/4 in. ± 1/4 in. (31.8 mm ± 6.4 mm). If length is incorrect, replace recoil rocker spring.



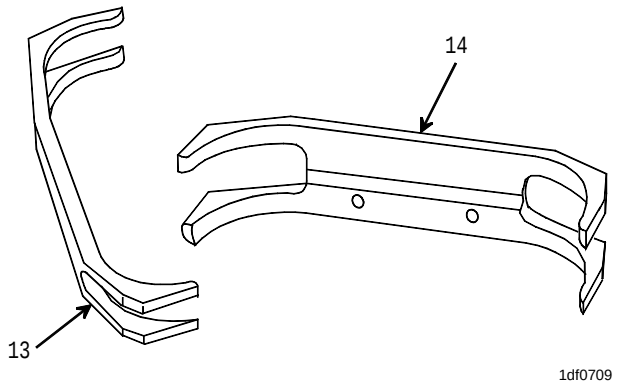
INSPECTION - Continued

NOTE

The rear chain guide (PN 12524085) (less components) can also be used as a front chain guide. The front chain guide (PN 12524109) is not two-way interchangeable.

d. Visually inspect chain guides (13) and (14) for cracks or bends. If either of these conditions is found, replace chain guides.

e. Visually inspect chain guides (13) and (14) for grooved cuts and sharp edges. Grooved cuts in chain guides are normal, but if they cut through the chain guide, replace the chain guide. If sharp edges are found, deburr the sharp edges.



2. INSPECT AUTO GUN RECEIVER.

Visually inspect auto gun receiver for loose or damaged screw threaded inserts. If either of these conditions is found, send auto gun receiver to Direct Support Maintenance for repair.

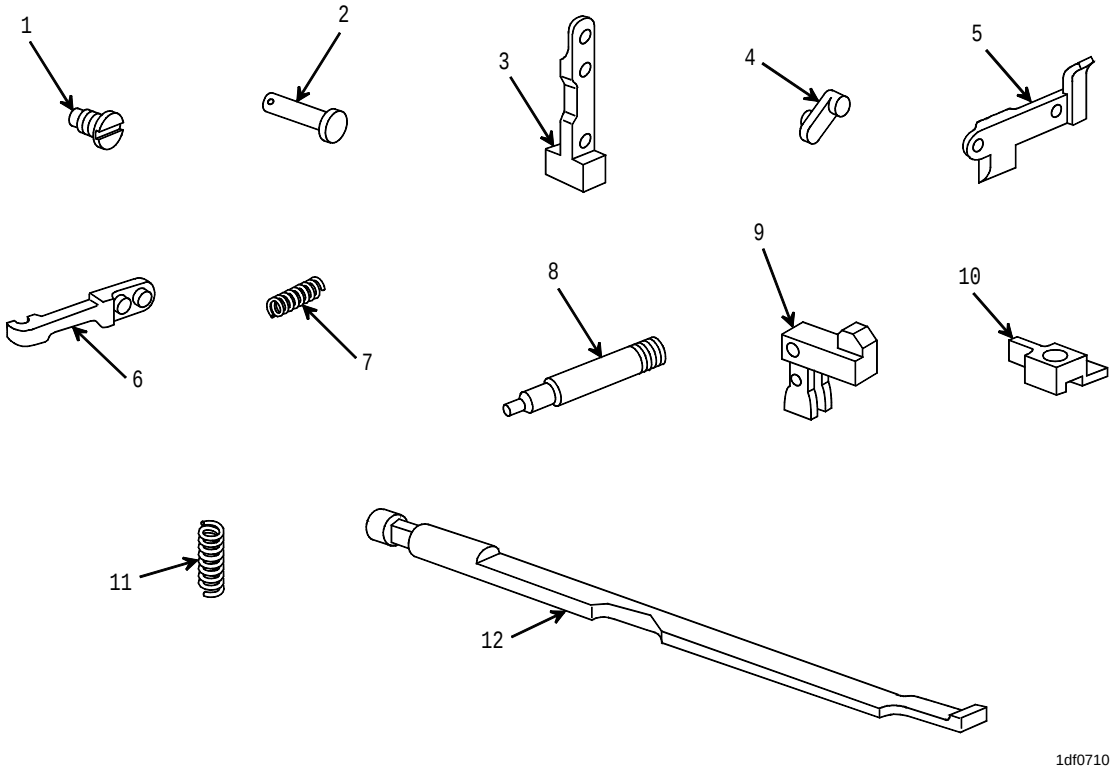
LUBRICATION

LUBRICATE ROCKER ASSEMBLY PARTS.

NOTE

Do not apply grease to threads of rocker support rod.

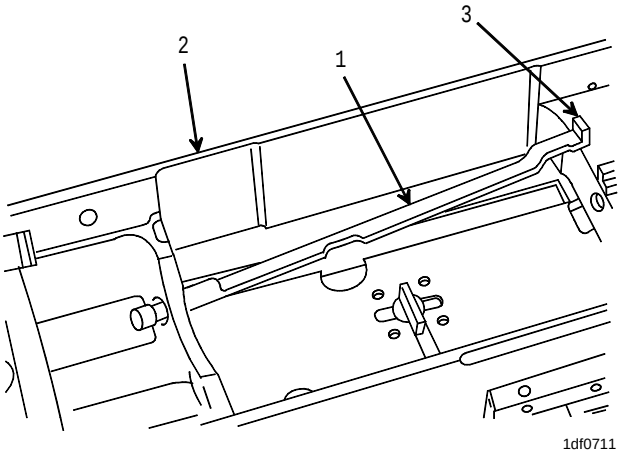
Using acid brush, apply a light coat of grease on externally relieved screw (1), headed straight pin (2), sear release link (3), interlock crank (4), push rod extension (5), sear push rod (6), push rod extension spring (7), rocker support rod (8), rocker (9), rocker spring housing (10), recoil rocker spring (11), and operating rod assembly (12).



ASSEMBLY

1. INSTALL OPERATING ROD ASSEMBLY.

   Place operating rod assembly (1) in auto gun receiver (2) with step-up portion (3) on top.



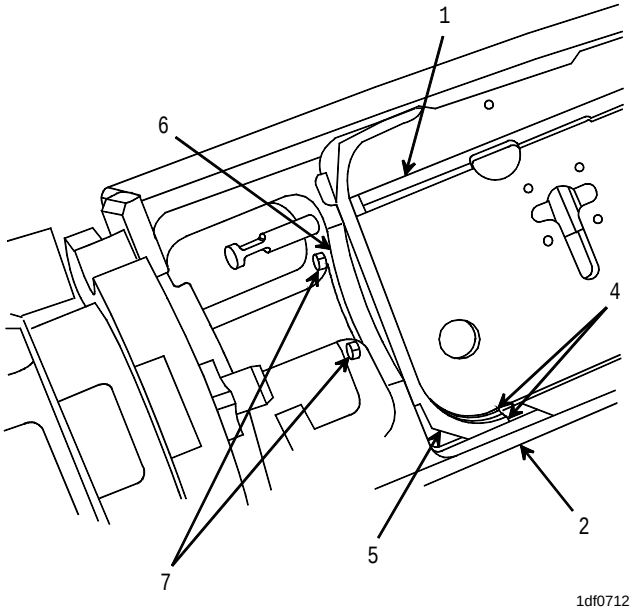
ASSEMBLY - Continued

2. INSTALL FRONT CHAIN GUIDE.

   a. Position short forks (4) of front chain guide (5) to right of operating rod assembly (1) as shown. Lower front chain guide (5) straight down against front wall (6) of auto gun receiver (2) until guide is all the way down.

   b. Apply sealing compound primer and one drop of adhesive to threads of two capscrews (7).

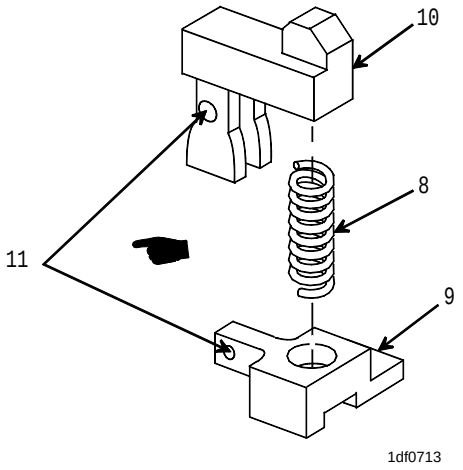
   c. Install and torque two capscrews (7) to 60 in.-lb ± 5 in.-lb (6.78 N-m ± 0.57 N-m).



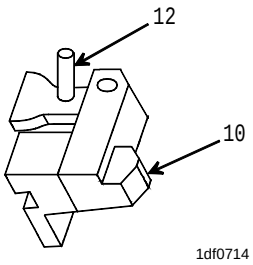
3. INSTALL ROCKER ASSEMBLY.

   a. Place recoil rocker spring (8) in rocker spring housing (9).

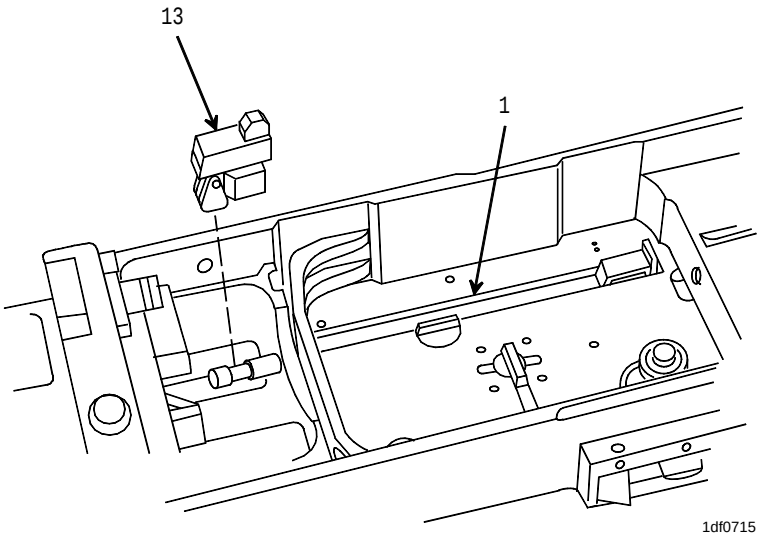
   b. Install rocker (10) on rocker spring housing (9) and align pin holes (11).



c. Install new spring pin (12) in rocker (10).

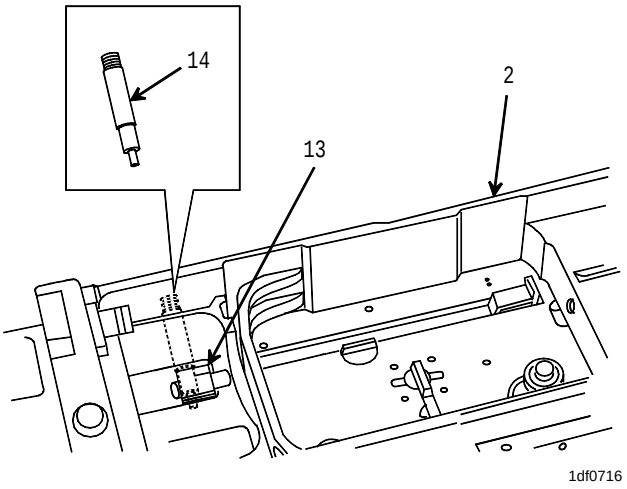


d. Place rocker assembly (13) on operating rod assembly (1).



e. Place rocker support rod (14) through side of auto gun receiver (2) and through rocker assembly (13).

f. Torque rocker support rod (14) to 325 in.-lb ± 25 in.-lb (36.73 N-m ± 2.83 N-m).

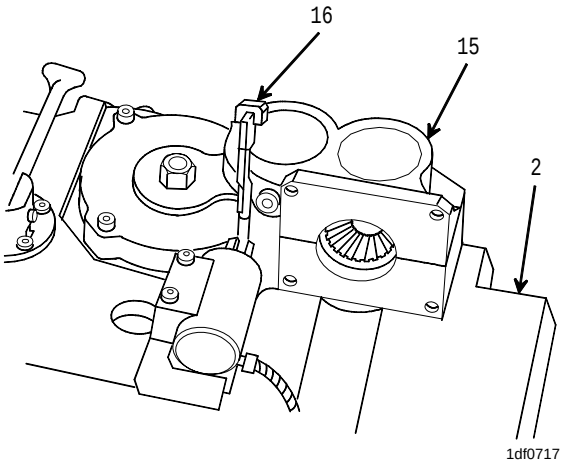


ASSEMBLY - Continued

4. INSTALL SEAR RELEASE LINK.

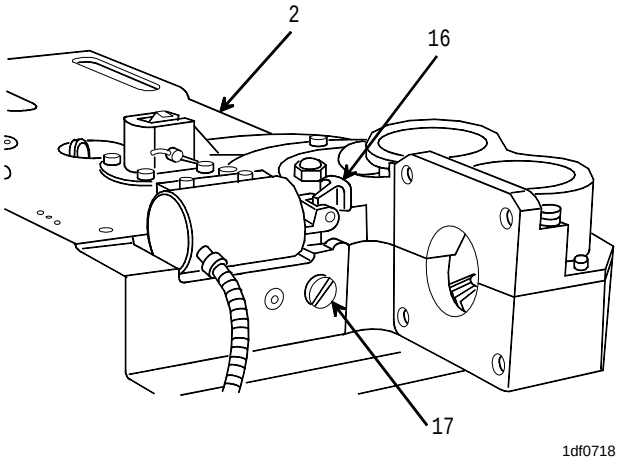
   a. Position auto gun receiver (2) with mechanical housing (15) at top.

   b. Lower sear release link (16) through auto gun receiver (2).



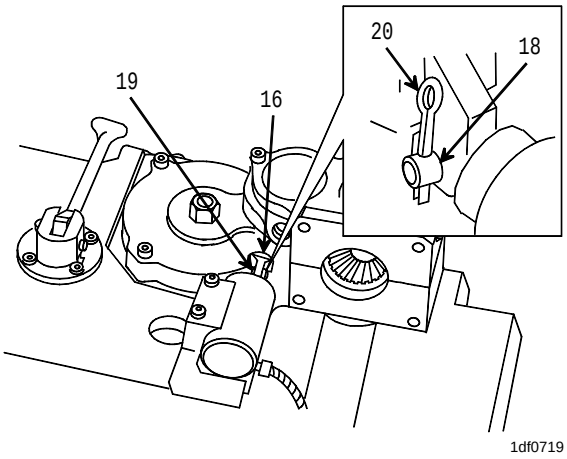
   c. Align pivot pin hole in sear release link (16) middle hole, with sear linkage pin hole in auto gun receiver (2).

   d. Install externally relieved screw (17).



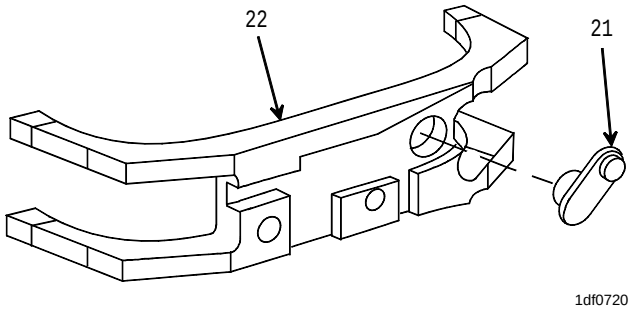
e. Push headed straight pin (18) through sear release link (16) and solenoid plunger clevis (19).

f. Install new cotter pin (20) in headed straight pin (18). Bend ends of cotter pin (20) in opposite directions around sides of headed straight pin (18).

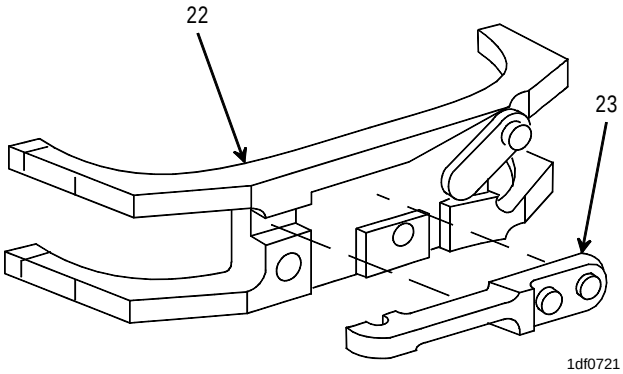


5. INSTALL REAR CHAIN GUIDE.

a. Place interlock crank (21) on rear chain guide (22).

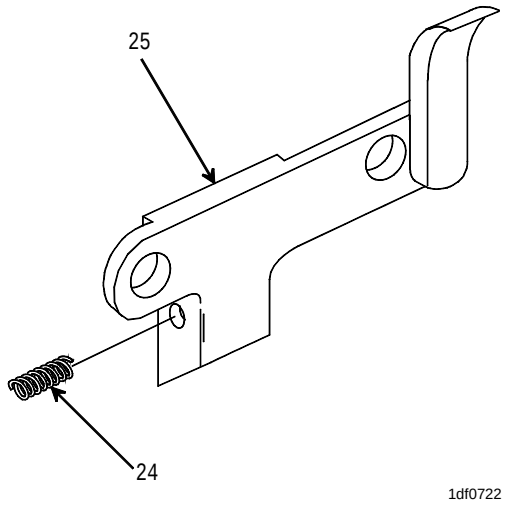


b. Place sear push rod (23) on rear chain guide (22) with pegs facing out.

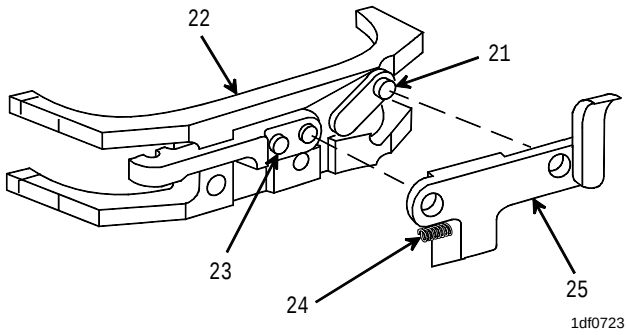


ASSEMBLY - Continued

c. Install push rod extension spring (24) in push rod extension (25).

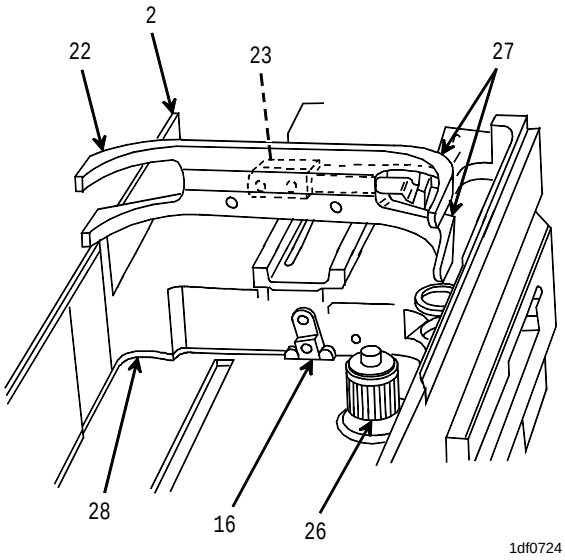


d. Place push rod extension (25) on pegs of sear push rod (23) and interlock crank (21). Compress push rod extension spring (24) to bear against rear chain guide (22).



e. Place auto gun receiver (2) with spur assembly gear (26) up.

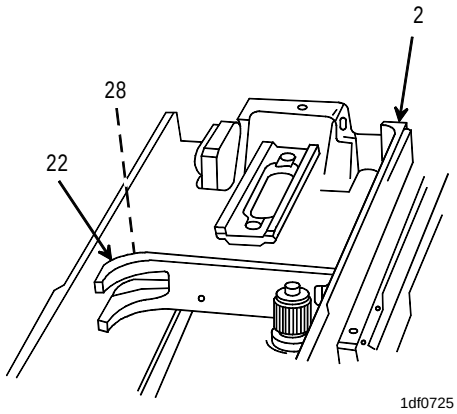
f. Position long forks (27) of rear chain guide (22) closest to spur assembly gear (26). Lower rear chain guide (22) straight down into auto gun receiver (2), keeping it 1/4 in. (6.4 mm) away from rear wall (28) of auto gun receiver (2) to clear sear release link (16). Align sear push rod (23) peg with sear release link (16) by slightly actuating sear release link (16).



NOTE

The sear release link might have to be depressed slightly, from the bottom of the auto gun receiver, in order to slide the rear chain guide flush against the rear wall of the auto gun receiver.

g. With rear chain guide (22) resting on floor of auto gun receiver (2), slide it flush against rear wall (28) of auto gun receiver (2).



ASSEMBLY - Continued

h. Turn auto gun receiver (2) on side so mechanical interlock will not fall out. Finger tighten two capscrews.

i. Turn auto gun receiver (2) over so that mechanical housing (15) is on top.

j. Torque two capscrews (29) to 60 in.- lb ± 5 in.-lb (6.78 N-m ± 0.57 N-m).

WARNING

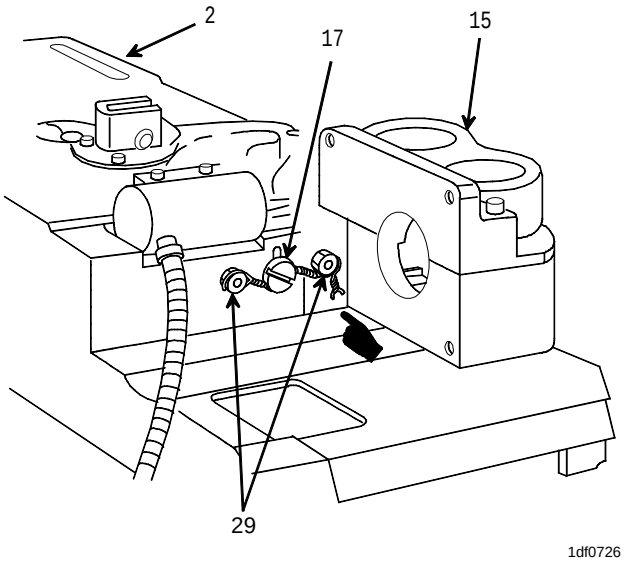
Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

6. INSTALL LOCKWIRE ON CAPSCREWS.

Install lockwire on two capscrews (29) and externally relieved screw (17).



7. INSTALL SEAR (WP 0065 00).

8. INSTALL SEAR CATCH ASSEMBLY (WP 0064 00).

9. INSTALL COVER ASSEMBLY AND SEAR RETRACTOR ASSEMBLY (WP 0063 00).

10. INSTALL DIRECT CURRENT MOTOR (WP 0061 00).

11. INSTALL STRAIGHT DRIVE SHAFT (WP 0060 00).

12. INSTALL BOLT AND TRACK ASSEMBLY (WP 0053 00).

13. INSTALL BREECH ASSEMBLY IF REMOVED (WP 0051 00).
14. INSTALL BARREL SUPPORT ASSEMBLY IF REMOVED (WP 0050 00).
15. INSTALL RECOIL MECHANISM IF REMOVED (WP 0049 00).
16. PERFORM AUTO GUN RECEIVER MANUAL CYCLE CHECK (WP 0008 00).
17. INSTALL AUTOMATIC GUN FEEDER (WP 0026 00).

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

PREPARATION FOR STORAGE OR SHIPMENT OF BARREL ASSEMBLY PRESERVATION OF BARREL ASSEMBLY - LEVEL A; MARKING OF BAGGED BARREL ASSEMBLY; INSTALLATION OF BARREL ASSEMBLY IN CONTAINER; MARKING OF EXTERIOR CONTAINER

INITIAL SETUP:

Tools and Special Tools
Goggles (item 19, WP 0085 00)
Heat sealing machine (item 33, WP 0085 00)
Marking stencil set (item 39, WP 0085 00)
Strapping and sealing kit (item 40, WP 0085 00)

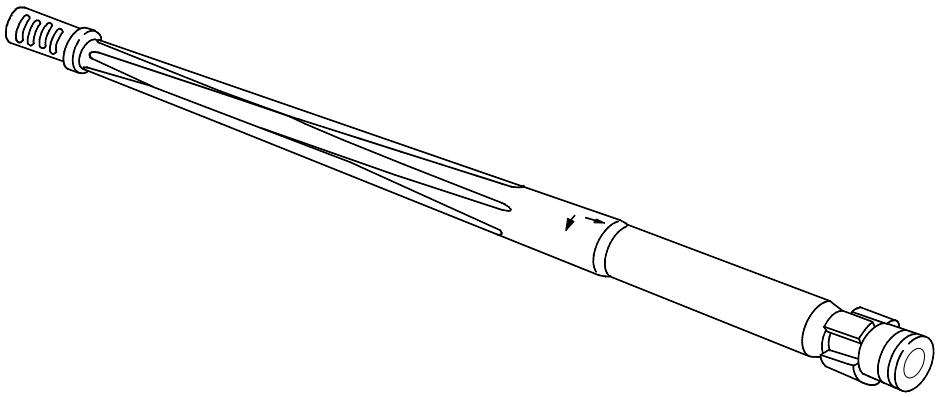
Materials/Parts
Black color lusterless enamel (item 8, WP 0116 00)
Black stencil ink (item 12, WP 0116 00)
Corrosion inhibitor treated volatile paper (item 16, WP 0116 00)
Cushioning material (item 7, WP 0116 00)
General lubricating oil (item 14, WP 0116 00)
Interior packaging sleeve (item 26, WP 0116 00)
Pressure sensitive adhesive tape (item 29, WP 0116 00)
Pressure sensitive adhesive tape (item 31, WP 0116 00)
Sand color lusterless enamel (item 9, WP 0116 00)
Wiping rags (item 21, WP 0116 00)

References
AR 190-11
DA Form 2408-4
MIL-STD-2073-1
TM 9-2350-252-10-2
TM 9-2350-284-10-2
TM 9-2350-284-10-2-1
TM 9-2350-294-10-2

NOTE

Observe security requirements defined in AR 190-11.

PRESERVATION OF BARREL ASSEMBLY - LEVEL A



NOTE

Preservation procedures will meet requirements of MIL-STD-2073-1.

1. CLEAN BARREL ASSEMBLY. Refer to TM 9-2350-252-10-2, TM 9-2350-284-10-2, TM 9-2350-284-10-2-1, or TM 9-2350-294-10-2.

2. PRESERVE BARREL ASSEMBLY.

   Apply general lubricating oil to all internal and external surfaces. Use only P-7 preservative oil; do not use PL-special lube oil or grease.

3. ATTACH SERVICEABILITY TAG TO BARREL.

4. WRAP BARREL WITH VOLATILE PAPER.

NOTE

Labeled side of the volatile paper must be on the outside of the wrap.

   a. Cut a section of volatile paper 14 in. (35.6 cm) wide by 92 in. (233.7 cm) long.

   b. Wrap barrel with the paper. Fold paper over barrel ends.

   c. Secure paper wrap with tape (item 31, WP 0116 00) (3 pieces of 1 x 10).

   d. Pad sharp projections with cushioning (2 pieces of 4 x 8, 2 pieces of 2 x 6). Hold cushioning in place with tape (2 pieces of 2 x 10, 2 pieces of 2 x 6).

5. SEAL WRAPPED BARREL IN INTERIOR PACKAGING SLEEVE.

   a. Cut sleeve to length.

   b. Put wrapped barrel in 10 in. (25.4 cm) wide (seal-to-seal) by 92 in. (233.7 cm) long sleeve.

   c. Using heat sealing machine, seal ends of sleeve.

   d. Apply tape (item 29, WP 0116 00) around sleeve where sleeve contacts saddles (2 pieces of 2 x 10, 2 pieces of 2 x 6).

MARKING OF BAGGED BARREL ASSEMBLY

1. MARK SEALED SLEEVE (LEVEL A).

NOTE

The following data will be legibly marked on the bagged barrel assembly before installing in container.

a. NSN 1005-01-088-4359 (non-ribbed).
NSN 1005-01-350-5264 (ribbed).
NSN 1005-01-433-8405 (chrome).

b. 1 EA.

c. Preservation level (A) and date (MO/YR).

d. Serial number of barrel.

INSTALLATION OF BARREL ASSEMBLY IN CONTAINER

1. INSTALL BAGGED BARREL ASSEMBLY IN CONTAINER.

a. Install lower supports in container.

b. Position bagged barrel in container as shown.

CAUTION

If barrel package is punctured, it will not be protected against moisture corrosion.

c. Pad the bagged barrel to protect from any sharp edges.

d. Install container upper supports as shown.

2. COMPLETE DA FORM 2408-4, WEAPONS RECORD DATA CARD.

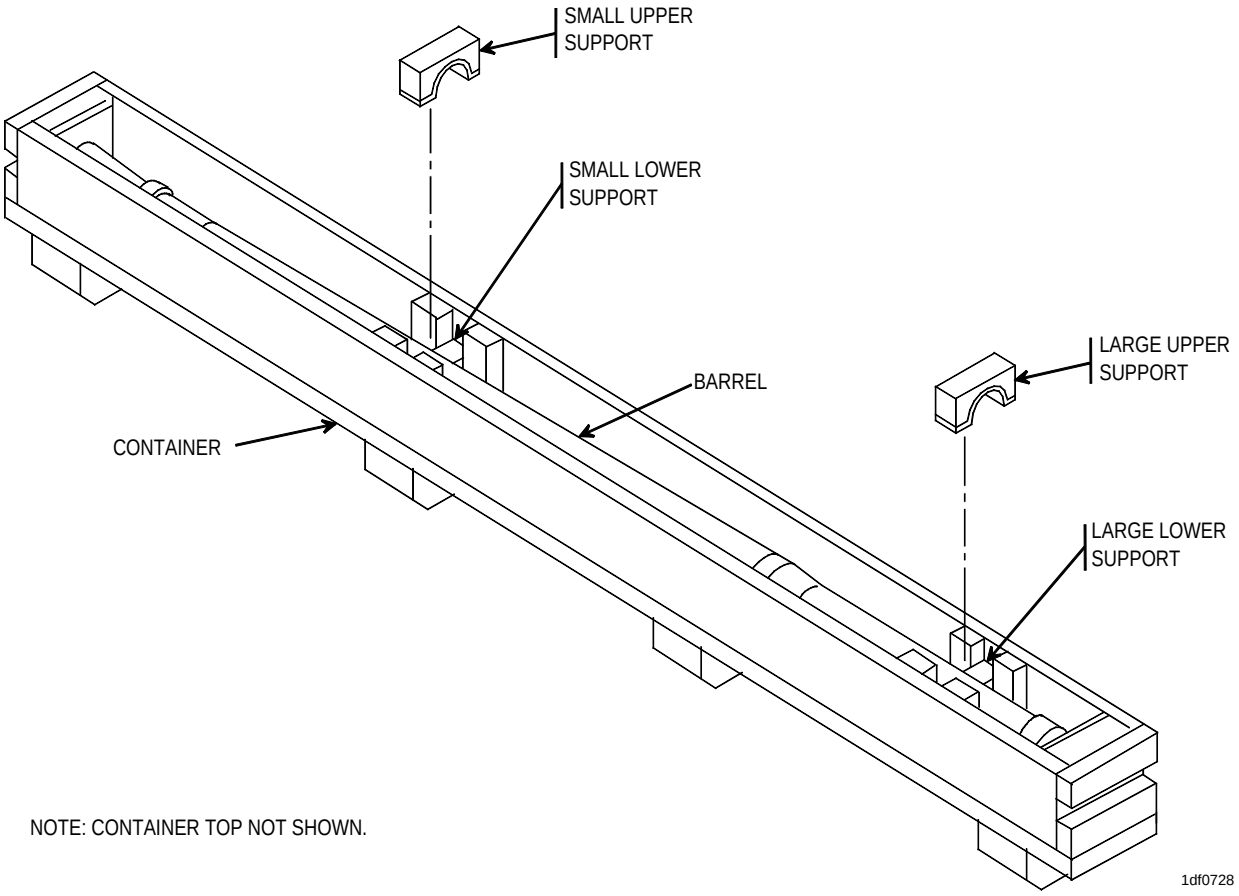
WARNING

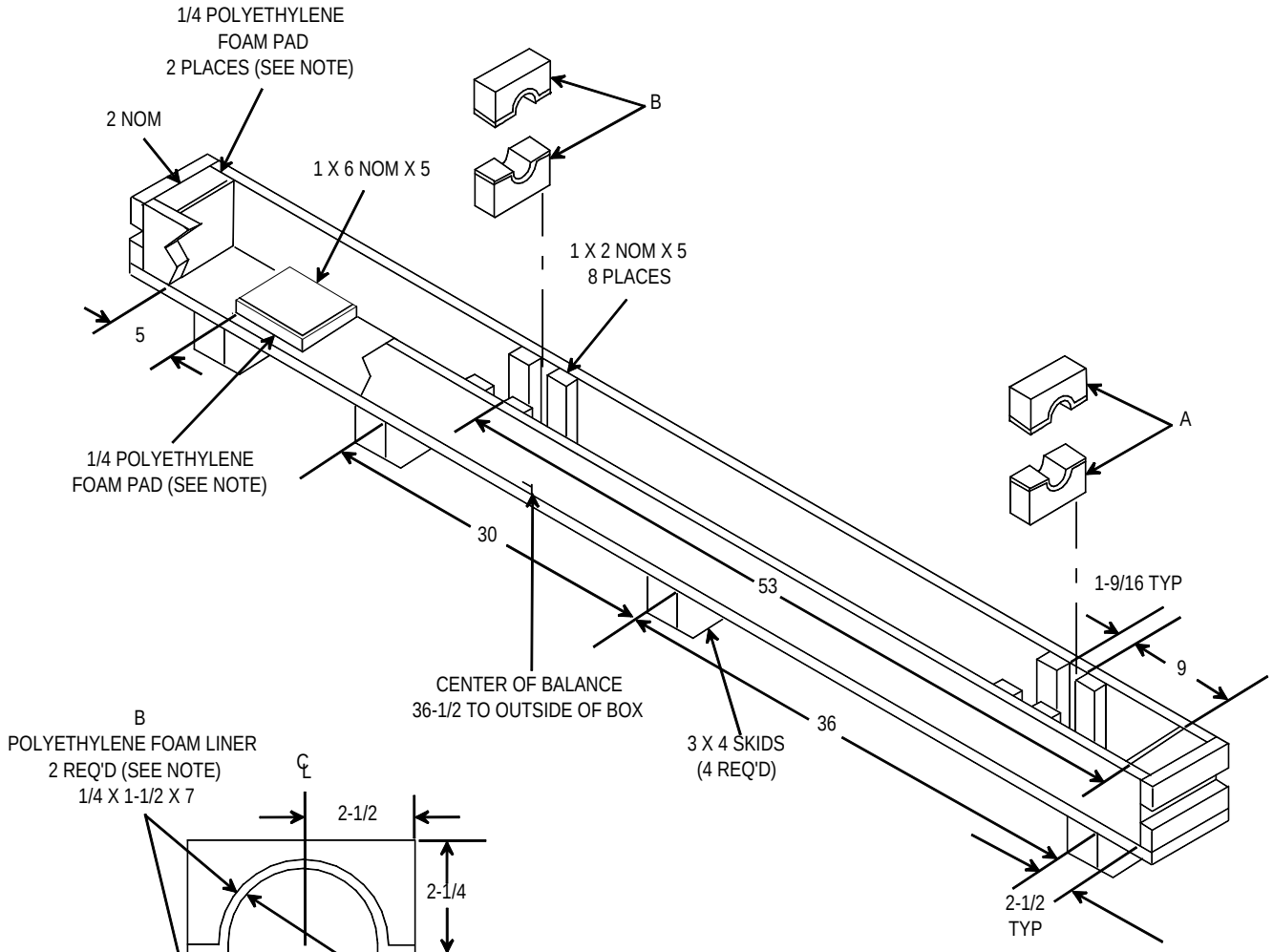
Wear eye protection when nailing or strapping container. You can be blinded if nail or strapping hits you in the eye.

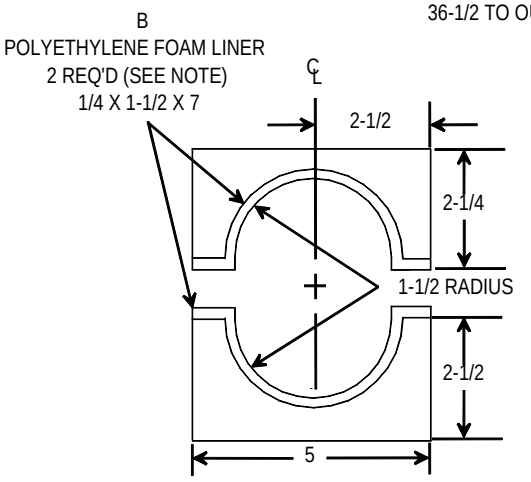
3. POSITION CONTAINER TOP AND NAIL SECURELY.

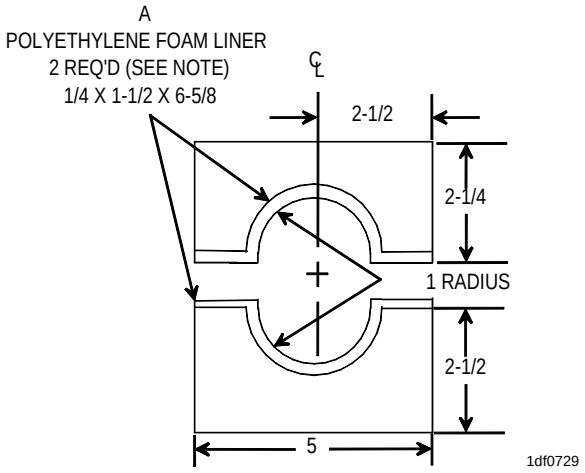
4. USING STRAPPING AND SEALING KIT, SECURELY STRAP CLOSED CONTAINER.

INSTALLATION OF BARREL ASSEMBLY IN CONTAINER – Continued









TYPES OF OVERSEAS CONTAINER:
PPP-B-621, CLASS 1 STYLE 4-1/2
I D 87 X 5 X 5
3 STRAPS REQ'D
NOTE: BOND LINERS TO WOOD WITH MMM-A-121 OR EQUIV
MATERIAL: WOOD
CONTAINER TOP NOT SHOWN
ALL DIMENSIONS ARE IN INCHES

MARKING OF EXTERIOR CONTAINER

NOTE

Exterior container must not be marked with item name.

1. PREPARE CONTAINER FOR MARKING.

   a. Check container exterior for cleanliness, contamination, and previous markings.

   b. Clean and dry container, if necessary.

   c. Cover any previous markings with sand color lusterless enamel.

2. MARK PACKED AND CLOSED CONTAINER (LEVEL A).

NOTE

The following data will be legibly marked on the container by brush-, roll-, or spray-stencil on the same container area with black enamel or stencil ink. If stencil marking is used, letters and numbers must be 3/8 to 1-in. (0.95 to 2.54 cm) high, and the stencil must be sharply cut.

   a. NSN 1005-01-088-4359 (non-ribbed).
   NSN 1005-01-350-5264 (ribbed).
   NSN 1005-01-433-8405 (chrome).

   b. 1 EA.

   c. Preservation level (A) and date packed (MO/YR).

   d. Serial number of barrel.

   e. Wt. _____ cu. _____ .

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

PREPARATION FOR STORAGE OR SHIPMENT OF FEEDER ASSEMBLY
PRESERVATION OF FEEDER ASSEMBLY - LEVEL A; MARKING OF BAGGED FEEDER ASSEMBLY; INSTALLATION OF FEEDER ASSEMBLY IN CONTAINER; MARKING OF EXTERIOR CONTAINER

INITIAL SETUP:

Tools and Special Tools

Goggles (item 19, WP 0085 00)
Heat sealing machine (item 33, WP 0085 00)
Marking stencil set (item 39, WP 0085 00)
Strapping and sealing kit (item 40, WP 0085 00)

Materials/Parts

Black color lusterless enamel (item 8, WP 0116 00)
Black stencil ink (item 12, WP 0116 00)
Corrosion inhibitor treated volatile paper (item 16, WP 0116 00)
Cushioning material (item 7, WP 0116 00)
General lubricating oil (item 14, WP 0116 00)
Interior packaging sleeve (item 25, WP 0116 00)
Pressure sensitive adhesive tape (item 29, WP 0116 00)
Pressure sensitive adhesive tape (item 30, WP 0116 00)
Sand color lusterless enamel (item 9, WP 0116 00)
Wiping rags (item 21, WP 0116 00)

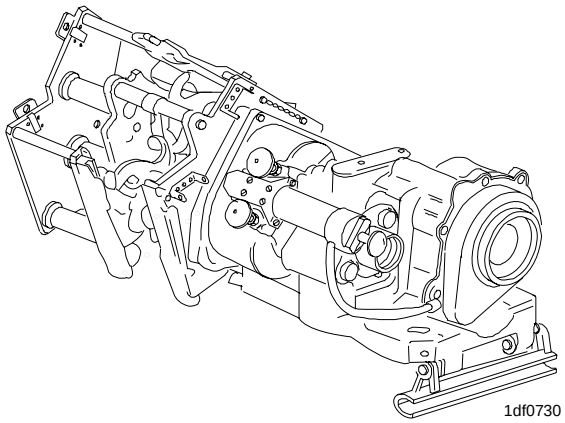
References

AR 190-11
DA Form 2408-4
MIL-STD-2073-1
TM 9-2350-252-10-2
TM 9-2350-284-10-2
TM 9-2350-284-10-2-1
TM 9-2350-294-10-2

NOTE

Observe security requirements defined in AR 190-11.

PRESERVATION OF FEEDER ASSEMBLY - LEVEL A



NOTE

Preservation procedures will meet requirements of MIL-STD-2073-1.

1. CLEAN FEEDER ASSEMBLY. Refer to TM 9-2350-252-10-2, TM 9-2350-284-10-2, TM 9-2350-284-10-2-1, or TM 9-2350-294-10-2.

2. PRESERVE FEEDER ASSEMBLY.

   Apply general lubricating oil to all internal and external ferrous surfaces. Use only P-7 preservative oil; do not use PL-special lube oil or grease.

3. ATTACH SERVICEABILITY TAG TO FEEDER.

NOTE

Connectors shall be covered with snug fitting plastic caps or wrapped with plastic.

4. WRAP FEEDER WITH VOLATILE PAPER.

NOTE

Labeled side of the volatile paper must be on the outside of the wrap.

   a. Cut a section of volatile paper 36 in. (91.4 cm) wide by 42 in. (106.7 cm) long.

   b. Wrap feeder with the paper. Fold paper over ends of feeder.

   c. Secure paper wrap with tape (item 30, WP 0116 00).

   d. Pad sharp projections with cushioning (8 pieces of 3 x 6). Hold cushioning in place with tape (item 30, WP 0116 00) (8 pieces of 2 x 10).

5. SEAL WRAPPED FEEDER IN INTERIOR PACKAGING SLEEVE.

   a. Put wrapped feeder in 26 in. (66 cm) wide (seal-to-seal) by 36 in. (91.4 cm) long sleeve.

   b. Using heat sealing machine, seal ends of sleeve.

   c. Apply tape (item 29, WP 0116 00) around sleeve where sleeve contacts saddles (6 pieces of 2 x 10).

MARKING OF BAGGED FEEDER ASSEMBLY

1. MARK SEALED SLEEVE (LEVEL A).

NOTE

The following data will be legibly marked on the bagged feeder assembly before installing in container.

   a. NSN 1005-01-105-5191 for Standard Feeder Assembly, PN 12524100.
   NSN 1005-01-461-5038 for Enhanced Feeder Assembly, PN 12524100-1

   b. 1 EA.

   c. Preservation level (A).

   d. Serial number of feeder.

INSTALLATION OF FEEDER ASSEMBLY IN CONTAINER

1. INSTALL BAGGED FEEDER ASSEMBLY IN CONTAINER.

   a. Install lower supports in container.

   b. Position bagged feeder in container as shown.

CAUTION

If feeder package is punctured, it will not be protected against moisture corrosion.

   c. Pad the bagged feeder to protect from any sharp edges.

   d. Install container upper supports as shown.

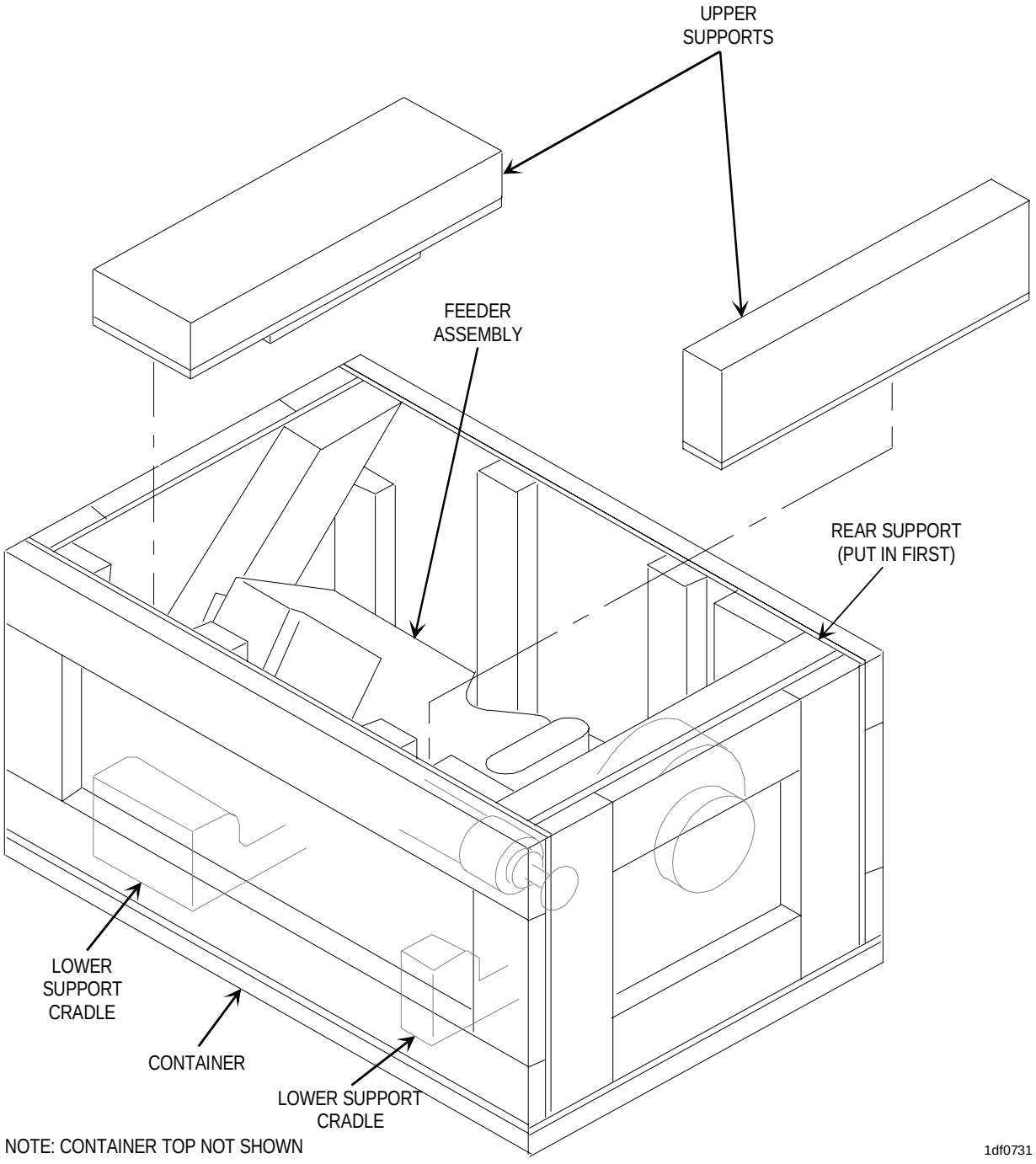
WARNING

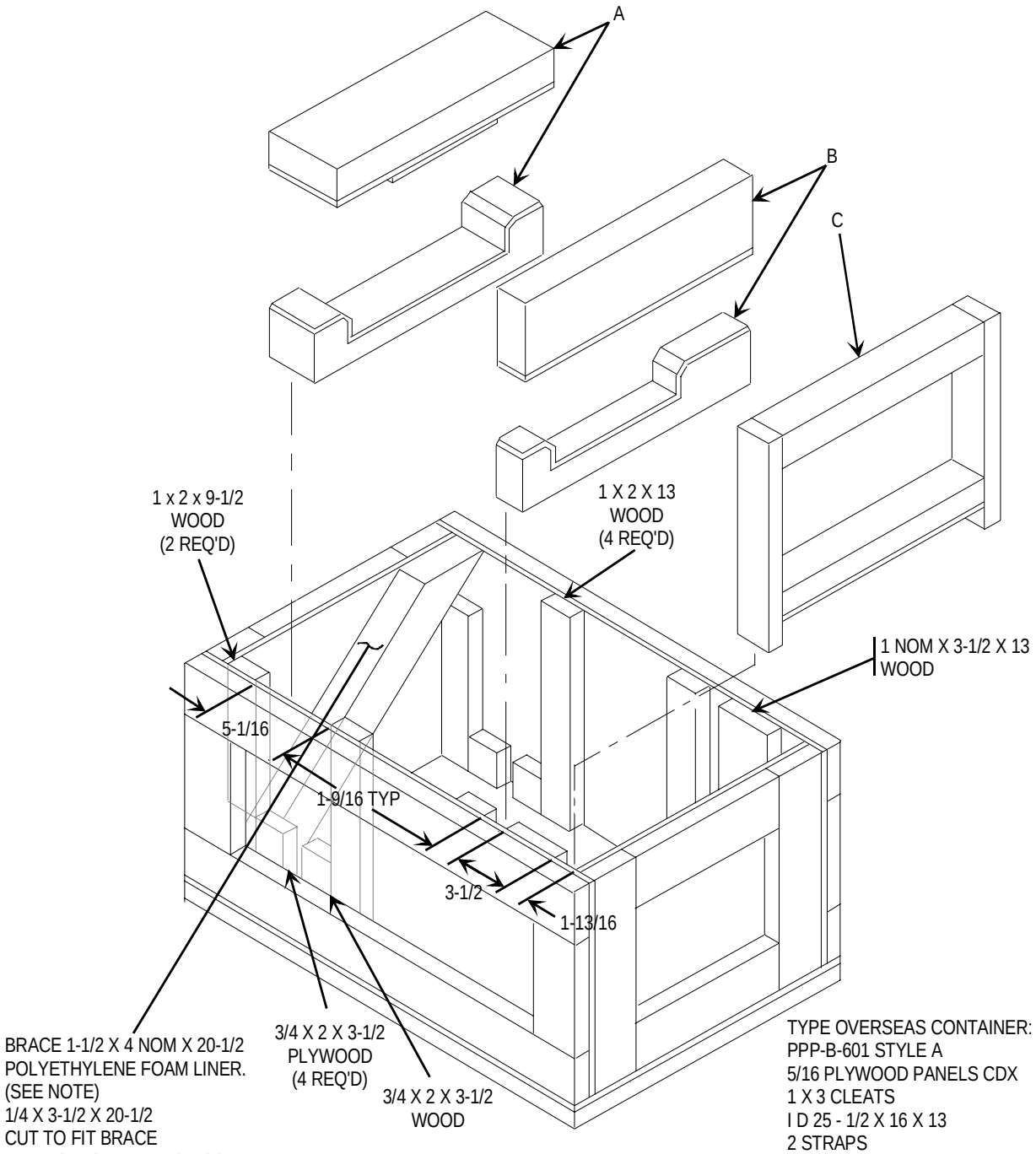
Wear eye protection when nailing or strapping container. You can be blinded if nail or strapping hits you in the eye.

4. POSITION CONTAINER TOP AND NAIL SECURELY.

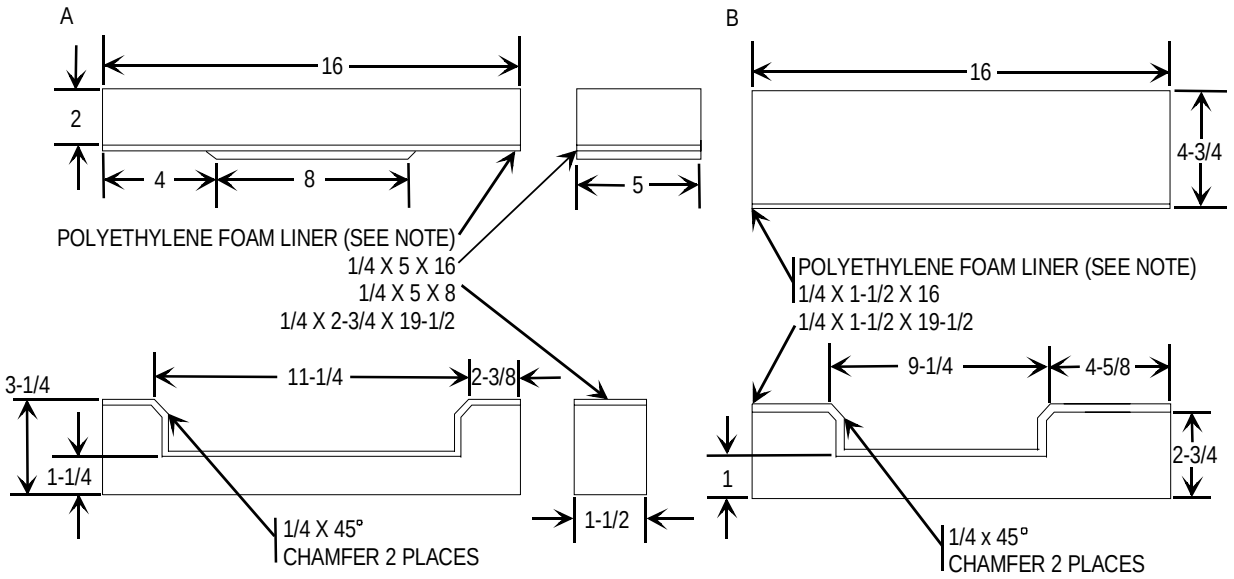
5. USING STRAPPING AND SEALING KIT, SECURELY STRAP CLOSED CONTAINER.

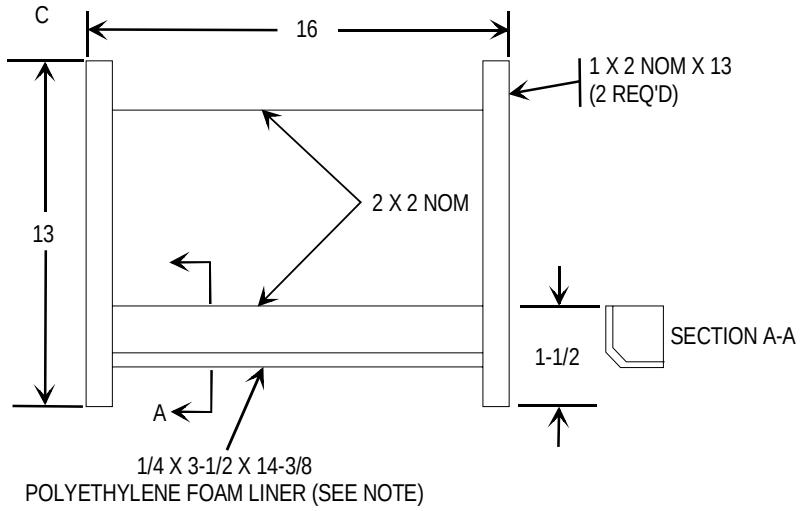
INSTALLATION OF FEEDER ASSEMBLY IN CONTAINER - Continued




A
B
C
1 x 2 x 9-1/2
WOOD
(2 REQ'D)
1 X 2 X 13
WOOD
(4 REQ'D)
1 NOM X 3-1/2 X 13
WOOD
5-1/16
1-9/16 TYP
3-1/2
1-13/16
BRACE 1-1/2 X 4 NOM X 20-1/2
POLYETHYLENE FOAM LINER.
(SEE NOTE)
1/4 X 3-1/2 X 20-1/2
CUT TO FIT BRACE
NAIL TO INSIDE END OF CONTAINER
BRACE MATERIAL: WOOD
NOTE: BOND LINER TO WOOD WITH
MMM-A-121 OR EQUIV
3/4 X 2 X 3-1/2
PLYWOOD
(4 REQ'D)
3/4 X 2 X 3-1/2
WOOD
TYPE OVERSEAS CONTAINER:
PPP-B-601 STYLE A
5/16 PLYWOOD PANELS CDX
1 X 3 CLEATS
I D 25 - 1/2 X 16 X 13
2 STRAPS
DIMENSIONS ARE IN INCHES
1df0732

INSTALLATION OF FEEDER ASSEMBLY IN CONTAINER - Continued





SUPPORT MATERIAL: WOOD 2 X NOM (THICKNESS)
NOTE: BOND LINERS TO WOOD WITH ADHESIVE
MMM-A-121 OR EQUIV

ALL DIMENSIONS ARE IN INCHES

1df0733

MARKING OF EXTERIOR CONTAINER

NOTE

Exterior container must not be marked with item name.

1. PREPARE CONTAINER FOR MARKING.

   a. Check container exterior for cleanliness, contamination, and previous markings.

   b. Clean and dry container, if necessary.

   c. Cover any previous markings with sand color lusterless enamel.

2. MARK PACKED AND CLOSED CONTAINER (LEVEL A).

NOTE

The following data will be legibly marked by brush-, roll-, or spray-stencil on the same container area with black enamel or stencil ink. If stencil marking is used, letters and numbers must be 3/8 to 1 in. (0.95 to 2.54 cm) high, and the stencil must be sharply cut.

   a. NSN 1005-01-105-5191 for Standard Feeder Assembly, PN 12524100.
   NSN 1005-01-461-5038 for Enhanced Feeder Assembly, PN 12524100-1.

   b. 1 EA.

   c. Preservation level (A) and date packed (MO/YR).

   d. Serial number of feeder.

   e. Wt. _____ cu. _____ .

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

PREPARATION FOR STORAGE OR SHIPMENT OF RECEIVER ASSEMBLY PRESERVATION OF RECEIVER ASSEMBLY - LEVEL A; MARKING OF BAGGED RECEIVER ASSEMBLY; INSTALLATION OF RECEIVER ASSEMBLY IN CONTAINER; MARKING OF EXTERIOR CONTAINER

INITIAL SETUP:

Tools and Special Tools
Goggles (item 19, WP 0085 00)
Heat sealing machine (item 33, WP 0085 00)
Marking stencil set (item 39, WP 0085 00)
Strapping and sealing kit (item 40, WP 0085 00)

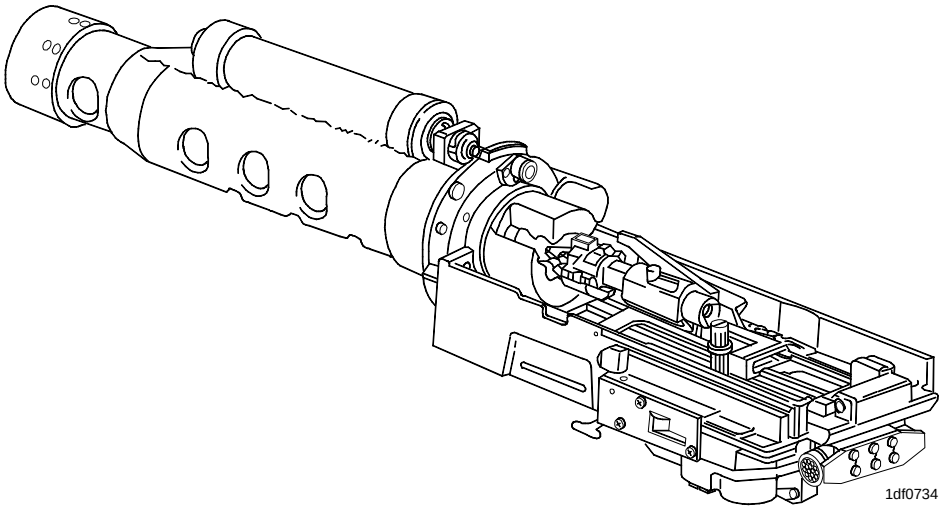
Materials/Parts
Black color lusterless enamel (item 8, WP 0116 00)
Black stencil ink (item 12, WP 0116 00)
Corrosion inhibitor treated volatile paper (item 16, WP 0116 00)
Cushioning material (item 7, WP 0116 00)
General lubricating oil (item 14, WP 0116 00)
Interior packaging sleeve (item 24, WP 0116 00)
Pressure sensitive adhesive tape (item 29, WP 0116 00)
Pressure sensitive adhesive tape (item 30, WP 0116 00)
Sand color lusterless enamel (item 9, WP 0116 00)
Wiping rags (item 21, WP 0116 00)

References
AR 190-11
DA Form 2408-4
MIL-STD-2073-1
TM 9-2350-252-10-2
TM 9-2350-284-10-2
TM 9-2350-284-10-2-1
TM 9-2350-294-10-2

NOTE

Observe security requirements defined in AR 190-11.

PRESERVATION OF RECEIVER ASSEMBLY - LEVEL A



NOTE

Preservation procedures will meet requirements of MIL-STD-2073-1.

1. CLEAN RECEIVER ASSEMBLY. Refer to TM 9-2350-252-10-2, TM 9-2350-284-10-2, TM 9-2350-284-10-2-1, or TM 9-2350-294-10-2.

2. PRESERVE RECEIVER ASSEMBLY.

   Apply general lubricating oil to all internal and external ferrous surfaces. Use only P-7 preservative oil; do not use PL-special lube oil or grease.

3. ATTACH SERVICEABILITY TAG TO RECEIVER.

NOTE

Connectors shall be covered with snug fitting plastic caps or wrapped with plastic.

4. WRAP RECEIVER WITH VOLATILE PAPER.

NOTE

Labeled side of the volatile paper must be on the outside of the wrap.

   a. Cut a section of volatile paper 36 in. (91.4 cm) wide by 64 in. (162.6 cm) long.

   b. Wrap receiver with paper. Fold paper over ends of receiver.

   c. Secure paper wrap with tape (item 30, WP 0116 00).

   d. Pad sharp projections with cushioning (8 pieces of 4 x 8). Hold cushioning in place with tape (item 30, WP 0116 00).

5. SEAL WRAPPED RECEIVER IN INTERIOR PACKAGING SLEEVE.

   a. Put wrapped receiver in 40 in. (101.6 cm) wide (seal-to-seal) by 90 in. (228.6 cm) long sleeve.

   b. Using heat sealing machine, seal ends of sleeve.

   c. Apply tape (item 29, WP 0116 00) around sleeve where sleeve contacts saddles (6 pieces of 2 x 10).

MARKING OF BAGGED RECEIVER ASSEMBLY

1. MARK SEALED SLEEVE (LEVEL A).

NOTE

The following data will be legibly marked on the bagged receiver assembly before installing in container.

   a. PN 12524300 for Standard Receiver Assembly.
   PN 12524301 for Enhanced Receiver Assembly.

   b. 1 EA.

   c. Preservation level (A) and date (MO/YR).

   d. Serial number of receiver.

INSTALLATION OF RECEIVER ASSEMBLY IN CONTAINER

1. INSTALL BAGGED RECEIVER ASSEMBLY IN CONTAINER.

   a. Install lower supports in container.

   b. Position bagged receiver in container as shown.

CAUTION

If receiver package is punctured, it will not be protected against moisture corrosion.

   c. Pad the bagged receiver to protect from any sharp edges.

   d. Install container upper supports as shown.

2. COMPLETE DA FORM 2408-4, WEAPONS RECORD DATA CARD.

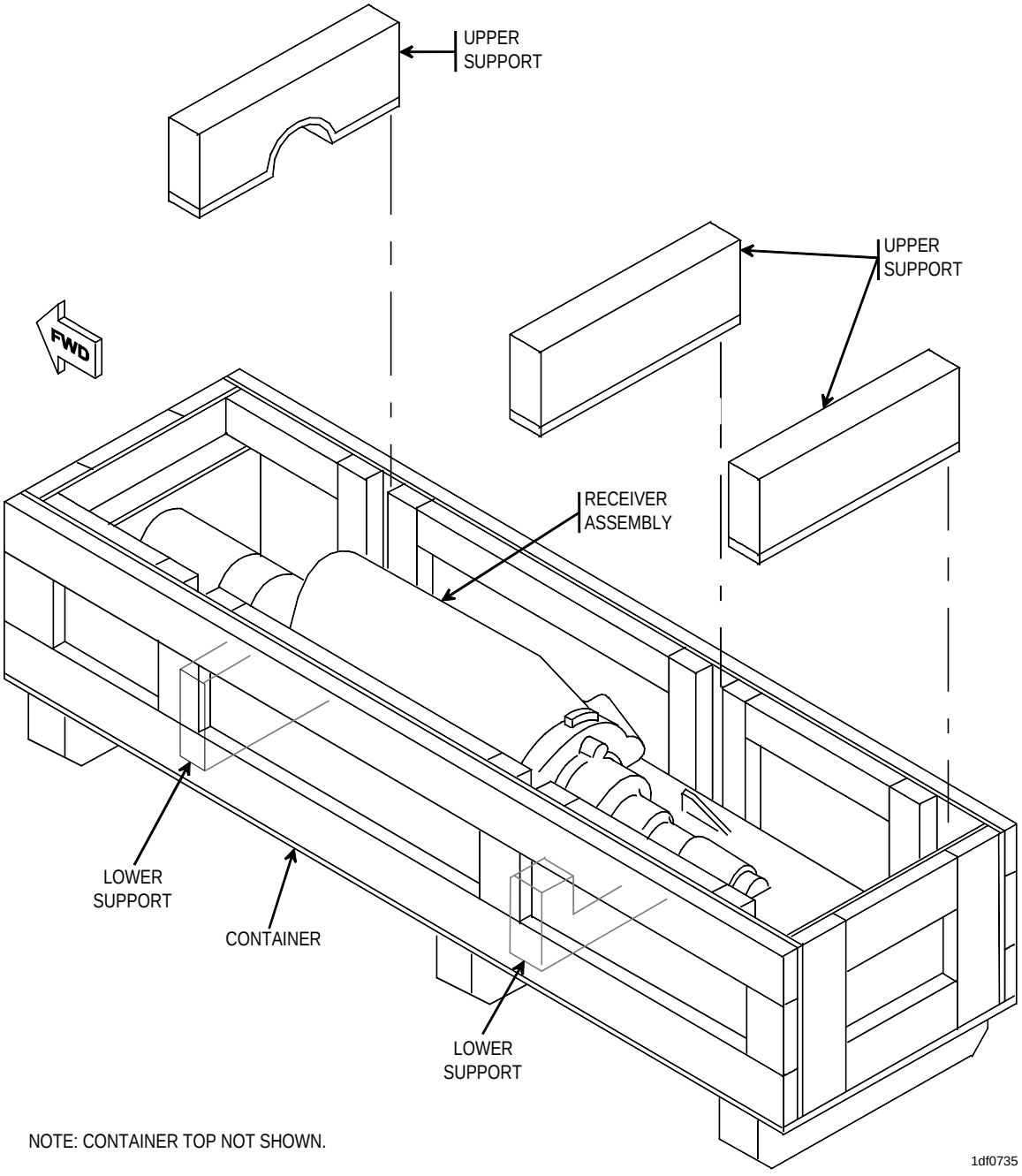
WARNING

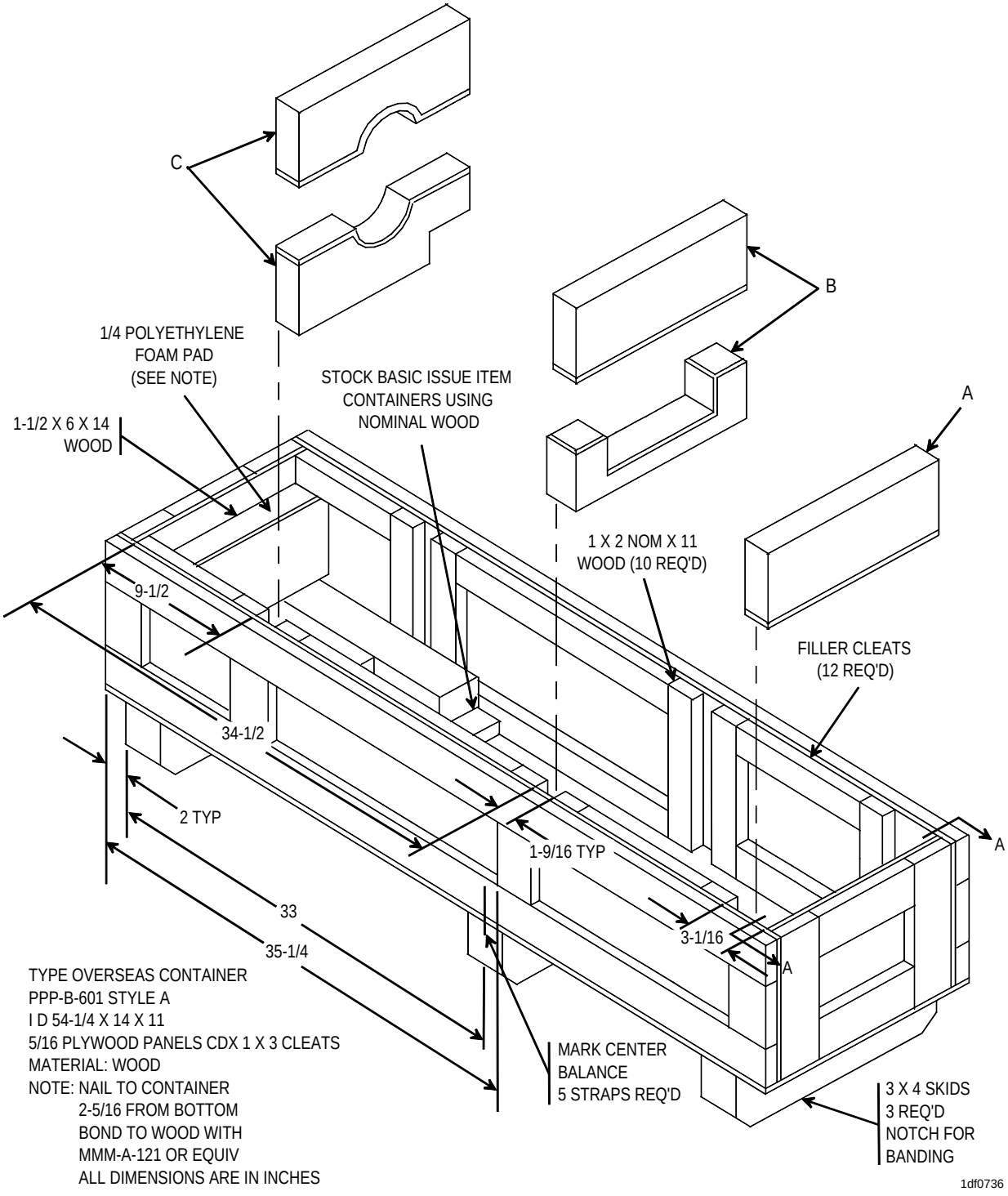
Wear eye protection when nailing or strapping container. You can be blinded if nail or strapping hits you in the eye.

3. POSITION CONTAINER TOP AND NAIL SECURELY.

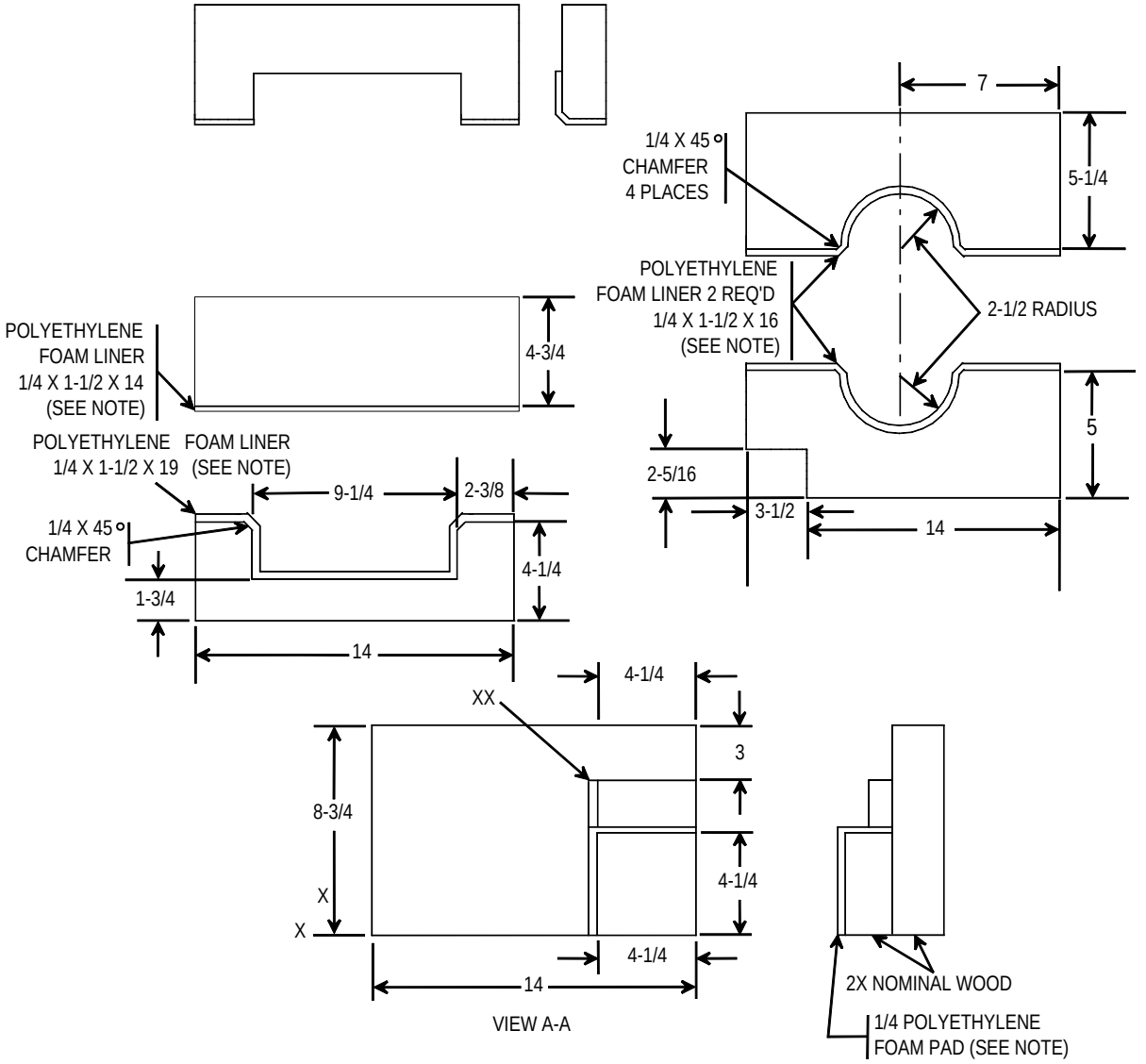
4. USING STRAPPING AND SEALING KIT, SECURELY STRAP CLOSED CONTAINER.

INSTALLATION OF RECEIVER ASSEMBLY IN CONTAINER - Continued




C
B
A
1/4 POLYETHYLENE
FOAM PAD
(SEE NOTE)
STOCK BASIC ISSUE ITEM
CONTAINERS USING
NOMINAL WOOD
1-1/2 X 6 X 14
WOOD
1 X 2 NOM X 11
WOOD (10 REQ'D)
9-1/2
FILLER CLEATS
(12 REQ'D)
34-1/2
2 TYP
1-9/16 TYP
33
35-1/4
3-1/16
TYPE OVERSEAS CONTAINER
PPP-B-601 STYLE A
I D 54-1/4 X 14 X 11
5/16 PLYWOOD PANELS CDX 1 X 3 CLEATS
MATERIAL: WOOD
NOTE: NAIL TO CONTAINER
2-5/16 FROM BOTTOM
BOND TO WOOD WITH
MMM-A-121 OR EQUIV
ALL DIMENSIONS ARE IN INCHES
MARK CENTER
BALANCE
5 STRAPS REQ'D
3 X 4 SKIDS
3 REQ'D
NOTCH FOR
BANDING
1df0736

INSTALLATION OF RECEIVER ASSEMBLY IN CONTAINER - Continued



MATERIAL: WOOD 2 NOM (THICKNESS)
NOTE: BOND LINERS AND PADS TO WOOD
WIITH ADHESIVE MMM-A-121 OR EQUIV
X BOTTOM OF CONTAINER
XX 1 X 2 NOMINAL WOOD BLOCK WITH 1/4 POLYETHYLENE FOAM PAD
ALL DIMENSIONS ARE IN INCHES

1df0737

MARKING OF EXTERIOR CONTAINER

NOTE

Exterior container must not be marked with item name.

1. PREPARE CONTAINER FOR MARKING.

   a. Check container exterior for cleanliness, contamination, and previous markings.

   b. Clean and dry container, if necessary.

   c. Cover any previous markings with sand color lusterless enamel.

2. MARK PACKED AND CLOSED CONTAINER (LEVEL A).

NOTE

The following data will be legibly marked on the container, by brush-, roll-, or spray-stencil on the same container area with black enamel or stencil ink. If stencil marking is used, letters and numbers must be 3/8 to 1 in. (0.95 to 2.54 cm) high, and the stencil must be sharply cut.

   a. PN 12524300 for Standard Receiver Assembly.
   PN 12524301 for Enhanced Receiver Assembly.

   b. 1 EA.

   c. Preservation level (A) and date packed (MO/YR).

   d. Serial number of receiver.

   e. Wt._____ cu._____ .

END OF WORK PACKAGE

CHAPTER 5

DIRECT SUPPORT MAINTENANCE INSTRUCTIONS FOR M242 25-MM AUTOMATIC GUN AND M242 25-MM ENHANCED AUTOMATIC GUN

DIRECT SUPPORT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

FEEDER DRIVE ASSEMBLY AND WORM SHAFT ASSEMBLY DISASSEMBLY/ASSEMBLY DISASSEMBLY, CLEANING, INSPECTION, LUBRICATION, ASSEMBLY

INITIAL SETUP:

Tools and Special Tools
- Goggles (item 19, WP 0085 00)
- Rubber gloves (item 18, WP 0085 00)
- Small arms repairman tool kit (item 43, WP 0085 00)
- Small arms shop set (item 35, WP 0085 00)
- Torque wrench, 0-300 in.-lb (item 50, WP 0085 00)

Materials/Parts
- Acid brush (item, 4 WP 0116 00)
- Dry cleaning solvent (item 27, WP 0116 00)
- Grease (item 11, WP 0116 00)
- Lockwire (item 34, WP 0116 00)
- Preformed packing (2) (AS3551-217)
- Preformed packing (2) (M83248/1-010)
- Wiping rags (item 21, WP 0116 00)

Personnel Required
- Two

References
- WP 0007 00
- WP 0025 00 (Marine Corps only)
- WP 0074 00
- WP 0075 00
- WP 0076 00
- WP 0077 00
- WP 0078 00
- WP 0081 00

Equipment Conditions
- WP 0027 00 Link bridges removed (Standard feeder only)
- WP 0028 00 Link cover assemblies removed (Enhanced feeder only)
- WP 0029 00 Link shield removed
- WP 0031 00 Rear link strippers removed
- WP 0032 00 Ejection chute removed
- WP 0034 00 Forward feed assembly removed
- WP 0036 00 Feeder assembly rotor removed
- WP 0039 00 Upper and lower feed sprocket assemblies removed
- WP 0040 00 Feeder standoff removed
- WP 0041 00 Stepped spacers removed
- WP 0042 00 Upper eject guide removed
- WP 0043 00 Feed shaft stops removed
- WP 0045 00 Electrical feed select solenoid removed (Standard gun only)
- WP 0046 00 Electrical feed select solenoid body removed
- WP 0047 00 Feed select solenoid wiring harness removed

Special Environmental Conditions
- Well-ventilated area required when using dry cleaning solvent.

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Keep fingers away from moving parts of gun. Serious injury or death may occur.

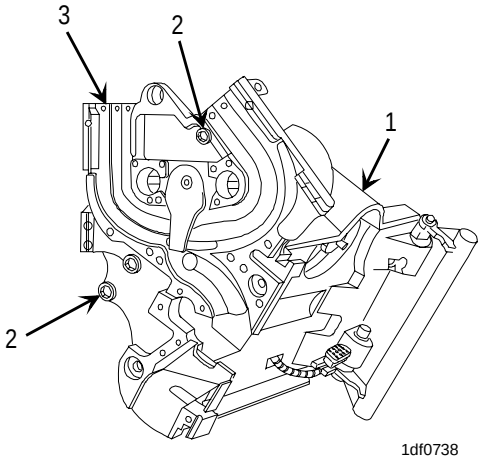
DISASSEMBLY

1. POSITION FEEDER HOUSING ASSEMBLY.

   Place feeder housing assembly (1) on its side as shown.

2. REMOVE CAPSCREWS.

   Remove two capscrews (2) from rear plate assembly (3).

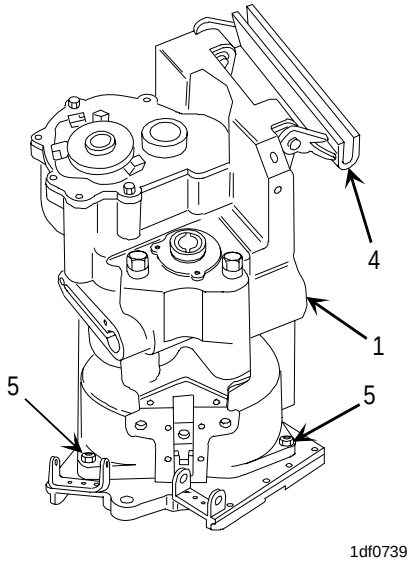


3. POSITION FEEDER HOUSING ASSEMBLY.

   Stand feeder housing assembly (1) on end with feeder handle (4) on top.

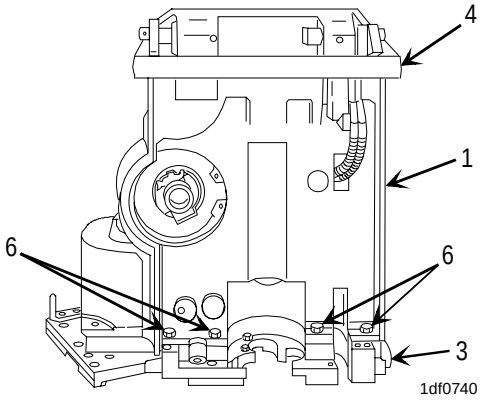
4. REMOVE CAPSCREWS.

   a. Remove two capscrews (5) from feeder housing assembly (1).



b. Turn feeder housing assembly (1) so feeder handle (4) is towards you.

c. Remove four capscrews (6) from rear plate assembly (3).

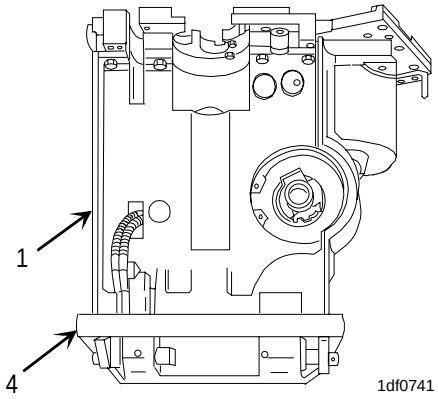


CAUTION

Use helper to hold feeder housing assembly.

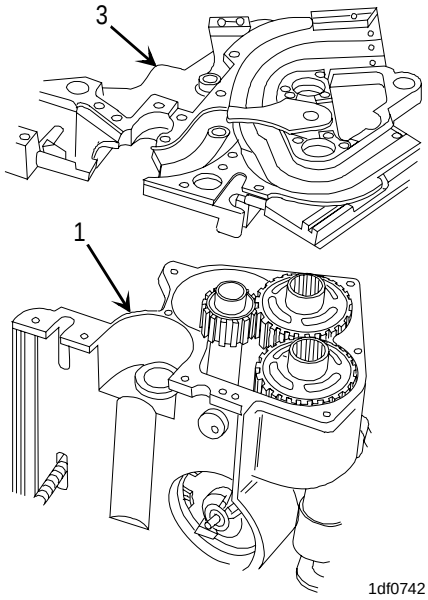
5. REMOVE REAR PLATE ASSEMBLY.

a. Position feeder housing assembly (1) so feeder handle (4) is down.

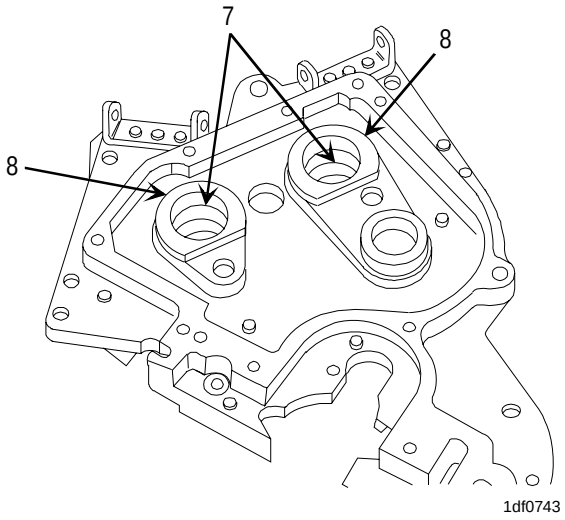


DISASSEMBLY - Continued

b. Remove rear plate assembly (3) from feeder housing assembly (1) by tapping upward.

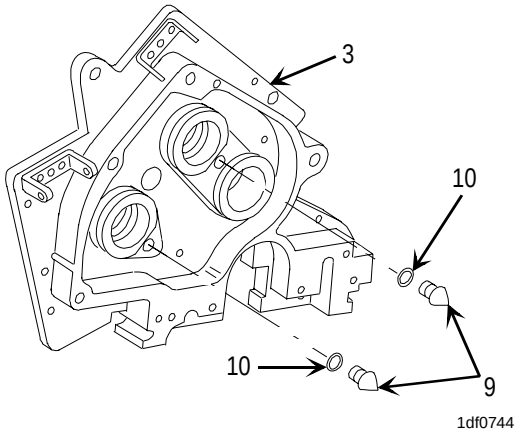


c. Remove two preformed packings (7) from feed shaft flanged sleeve bushings (8). Discard preformed packings.



d. Remove two cartridge stops (9) from rear plate assembly (3).

e. Remove two preformed packings (10) from cartridge stops (9). Discard preformed packings.

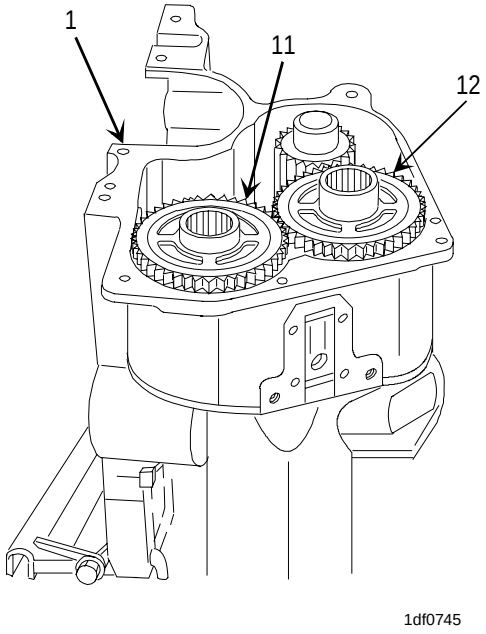


CAUTION

Use helper to hold feeder housing assembly.

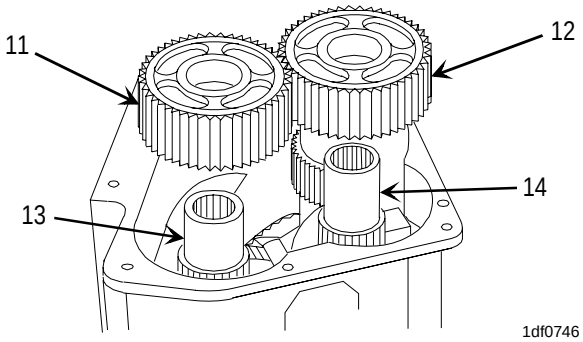
6. REMOVE SPUR GEARS.

a. Stand feeder housing assembly (1) on end with spur gears (11) and (12) on top.



DISASSEMBLY - Continued

b. Pull two spur gears (11) and (12) from shouldered shafts (13) and (14).

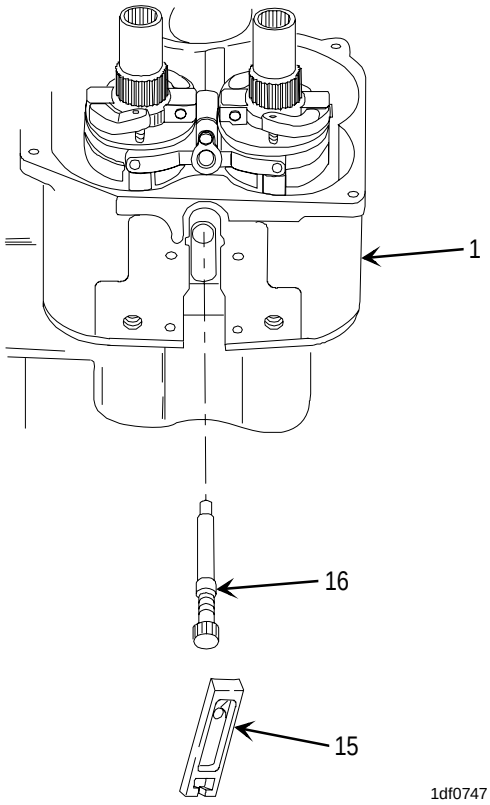


7. REMOVE YOKE ACTUATOR AND FORK SHAFT ASSEMBLY.

a. Slide yoke actuator (15) out of feeder housing assembly (1).

b. Screw 5 mm capscrew into fork shaft assembly (16).

c. Pull fork shaft assembly (16) out of feeder housing assembly (1).



CAUTION

Use helper to hold feeder housing assembly.

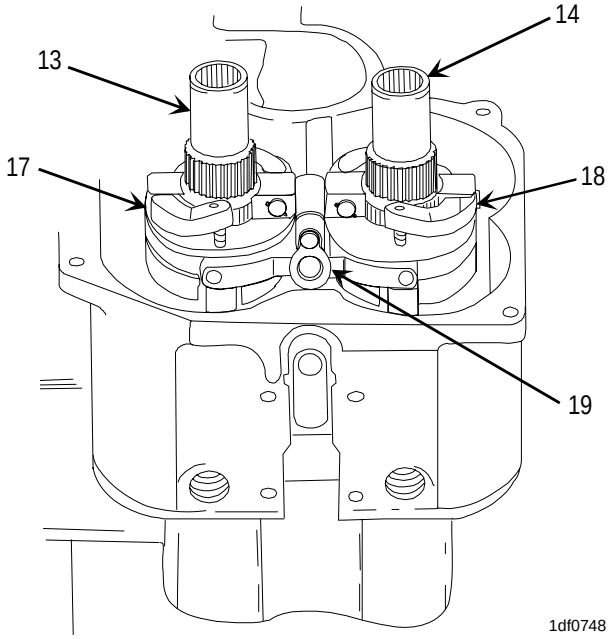
8. REMOVE CLUTCH YOKE ASSEMBLY, SLIDING SLEEVE CLUTCHES, AND SHOULDERED SHAFTS.

NOTE

All assemblies must be removed at the same time.

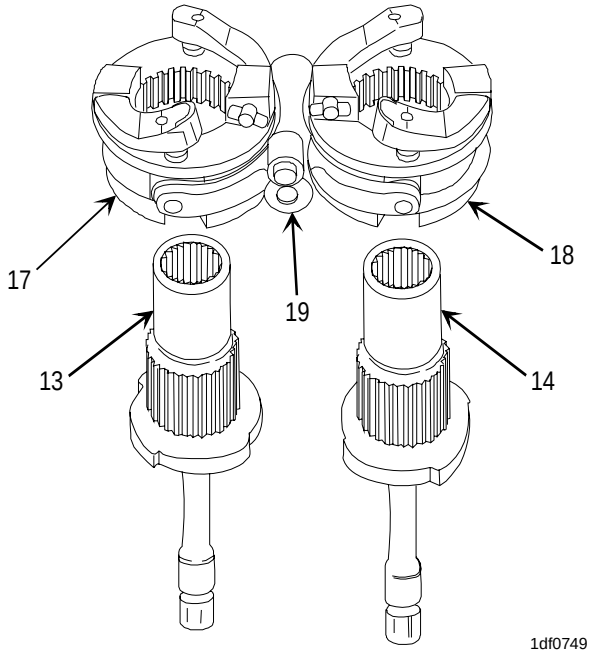
To facilitate removal of shouldered shafts, pull up slightly on gear clutch assembly.

a. Grasp shouldered shafts (13) and (14) and pull up and slightly to the side and remove shouldered shafts with lower and upper sliding sleeve clutches (17) and (18) and clutch yoke assembly (19).

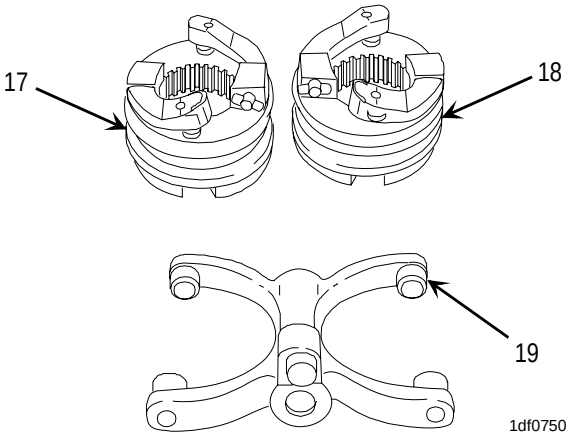


DISASSEMBLY - Continued

b. Slide lower and upper sliding sleeve clutches (17) and (18) and clutch yoke assembly (19) over the top of shouldered shafts (13) and (14).

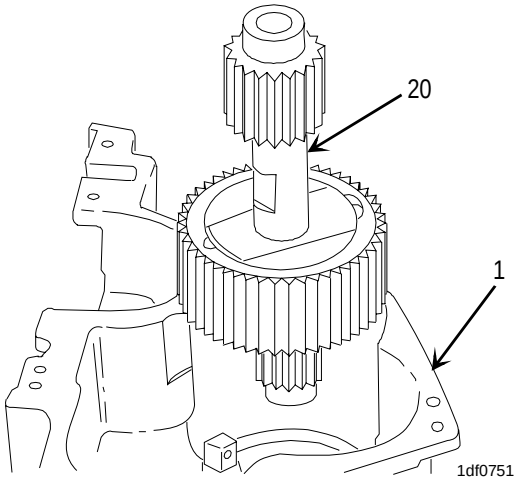


c. Remove lower and upper sliding sleeve clutches (17) and (18) from clutch yoke assembly (19).



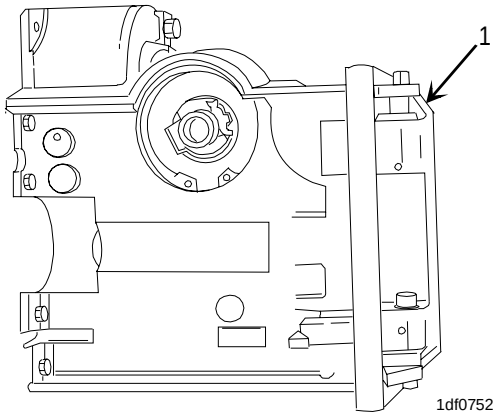
9. REMOVE GEAR CLUTCH ASSEMBLY.

Pull gear clutch assembly (20) out of feeder housing assembly (1).



10. POSITION FEEDER HOUSING ASSEMBLY.

Place feeder housing assembly (1) on its side.



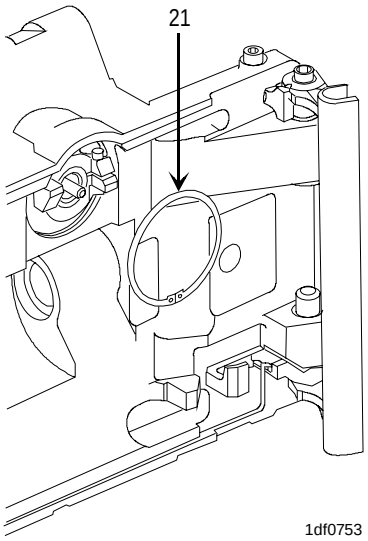
DISASSEMBLY - Continued

WARNING

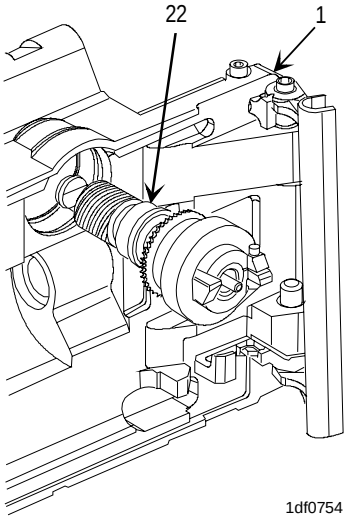
Wear eye protection when removing worm shaft retaining ring. Serious injury may occur if retaining ring hits you in the eye.

11. REMOVE WORM SHAFT ASSEMBLY.

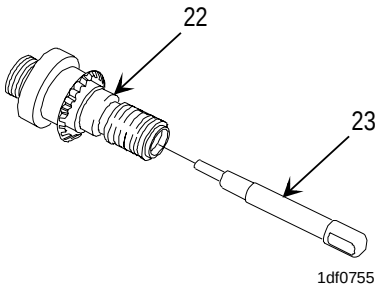
    a. Using large internal retaining ring pliers, remove worm shaft retaining ring (21).



    b. Grasp worm shaft assembly (22) and twist clockwise until it comes out of feeder housing assembly (1).



    c. Pull rod (23) out of worm shaft assembly (22).



WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

12. REMOVE LOCKWIRE.
    a. Place worm shaft assembly (22) in vise with vice jaw caps in place.
    b. Using wire cutter, remove lockwire from capscrew (24) and worm shaft nut (25).

CAUTION

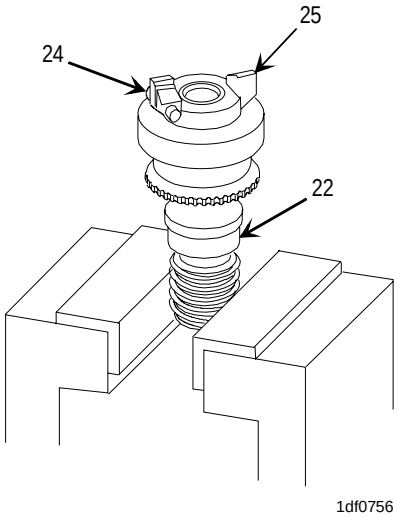
Do not strike split side of worm shaft nut. Strike solid side.

13. REMOVE WORM SHAFT NUT.
    a. Using 5 mm hex head, remove capscrew (24) from worm shaft nut (25).

NOTE

The worm shaft nut has left hand threads.

    b. Using plastic faced hammer and 1/4 in. punch, tap the worm shaft nut (25) clockwise until loose.
    c. Remove worm shaft nut (25).



DISASSEMBLY - Continued

14. DISASSEMBLE WORM SHAFT ASSEMBLY.

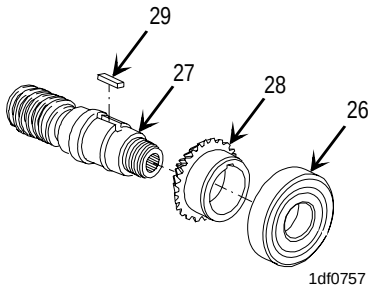
    a. Remove ball bearing (26) from worm shaft (27).

NOTE

If the worm shaft bevel gear sticks, tap lightly to loosen.

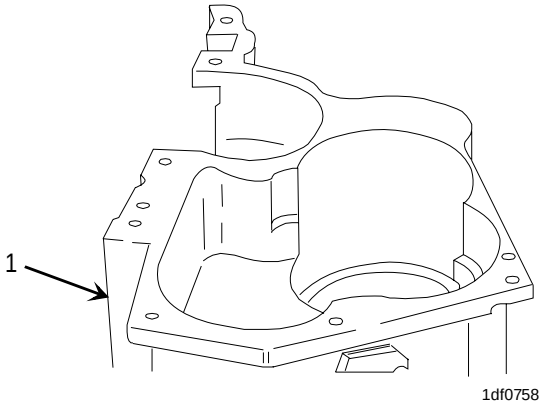
    b. Pull worm shaft bevel gear (28) away from worm shaft (27).

    c. Pull machine key (29) from worm shaft (27).



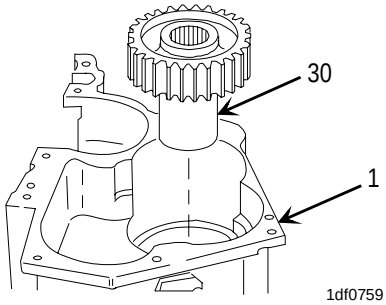
15. POSITION FEEDER HOUSING ASSEMBLY.

    Place feeder housing assembly (1) on end as shown.



16. REMOVE WORM WHEEL GEAR.

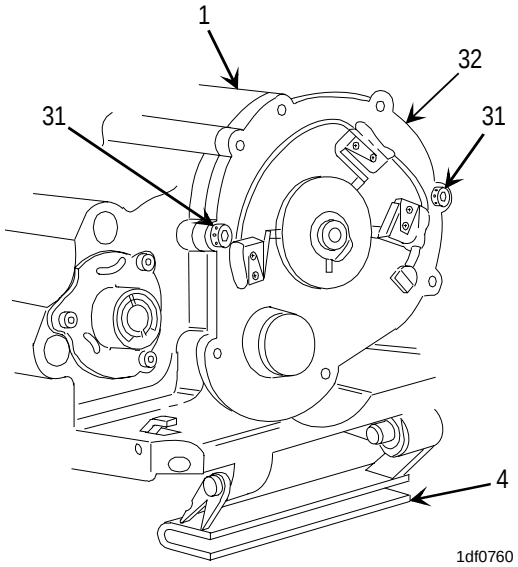
    Pull worm wheel gear (30) out of feeder housing assembly (1).



17. REMOVE TWO CAPSCREWS.

    a. Place feeder housing assembly (1) on a clean, flat surface with feeder handle (4) in down position.

    b. Remove two capscrews (31) that were temporarily installed in index drive cover assembly (32).



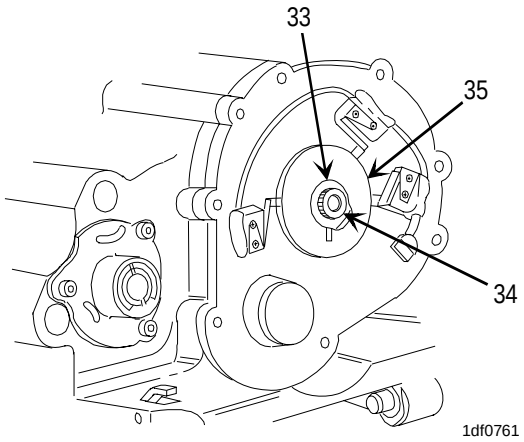
WARNING

Wear eye protection when removing retaining rings. Serious injury may occur if retaining ring hits you in the eye.

18. REMOVE CONTROL CAM.

    a. Remove retaining ring (33) from index drive shaft (34).

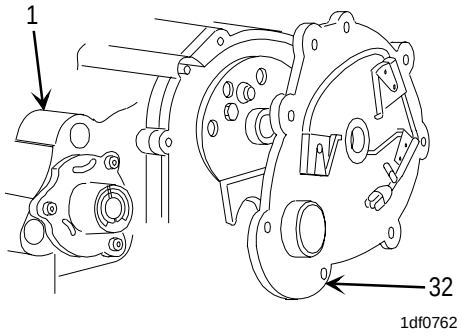
    b. Pull control cam (35) from index drive shaft (34).



DISASSEMBLY - Continued

19. REMOVE INDEX DRIVE COVER ASSEMBLY.

Pull index drive cover assembly (32) from feeder housing assembly (1).

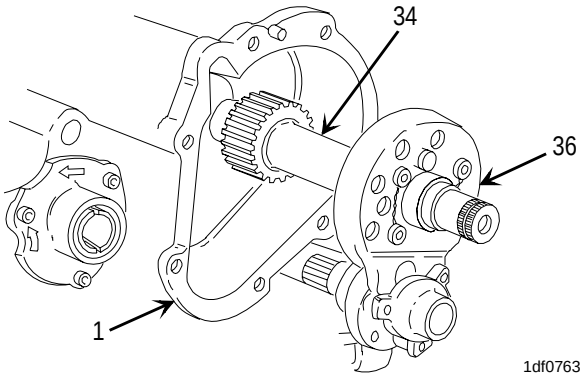


CAUTION

Rotor stub will fall out when removing index drive shaft assembly. Take care to avoid damage to rotor shaft.

20. REMOVE INDEX DRIVE SHAFT ASSEMBLY.

Pull index drive assembly (36) and index drive shaft (34) from feeder housing assembly (1).



WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

CAUTION

Do not drop lockwire pieces into the gun. Wire can get between moving parts and damage the gun.

NOTE

Do not disassemble index drive assembly unless damage is suspected.

21. REMOVE INDEX DRIVE ASSEMBLY.

a. Remove lockwire from four capscrews (37).

NOTE

Place vise jaw caps in place on vise.

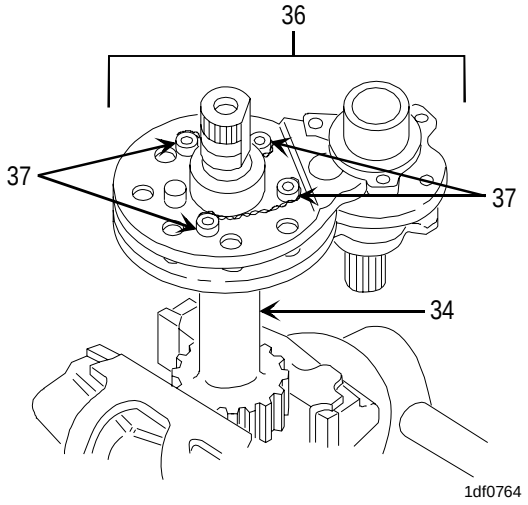
b. Place index drive shaft (34) in vise as shown.

c. Remove four capscrews (37) from index drive assembly (36).

NOTE

If index drive assembly is stuck on index drive shaft, tap lightly to loosen.

d. Grasp index drive shaft (34). Remove index drive assembly (36) from index drive shaft.

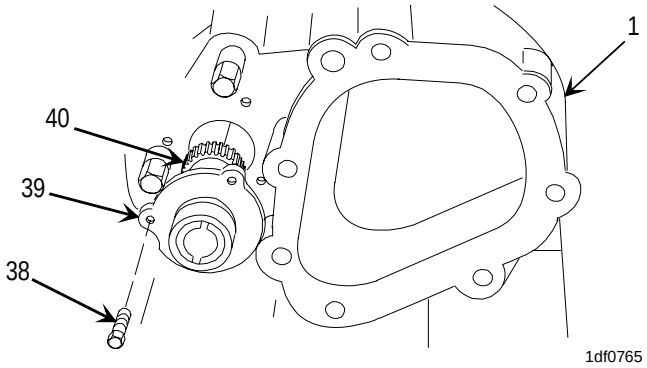


22. REMOVE HUB AND BEVEL GEAR.

a. Remove three capscrews (38) from hub (39).

b. Remove hub (39) and bevel gear (40) from feeder housing assembly (1).

c. Remove bevel gear (40) from hub (39).

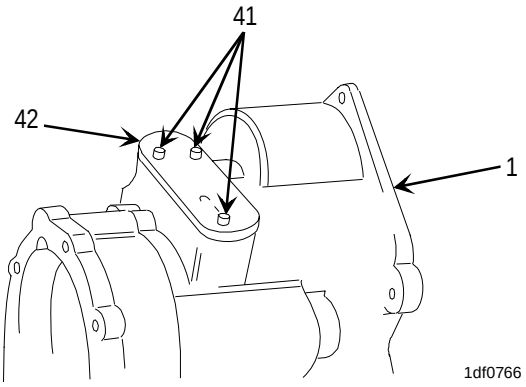


DISASSEMBLY – Continued

23. REMOVE ACCESS COVER.

    a. Remove three capscrews (41) from access cover (42).

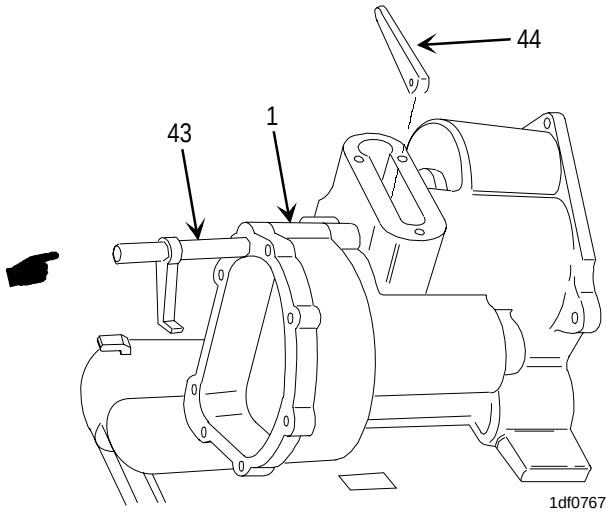
    b. Lift access cover (42) from feeder housing assembly (1).



24. REMOVE PAWL-SHAFT ASSEMBLY AND TIMER LEVER.

    a. Pull pawl-shaft assembly (43) out of feeder housing assembly (1).

    b. Lift timer lever (44) out of feeder housing assembly (1).



CLEANING

WARNING

Dry cleaning solvent (SD) is flammable and toxic. Use in well-ventilated area away from an open flame or a smoking area. This solvent evaporates quickly and has a drying effect on the skin. It may cause cracks in the skin and, in some cases, mild irritation or inflammation. If solvent comes in contact with eyes or skin, flush with water.

CAUTION

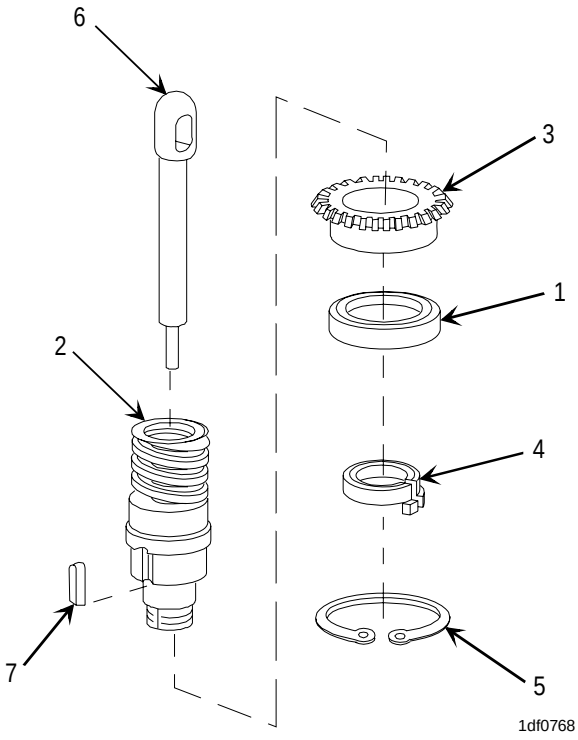
Do not clean bearing in solvent or allow solvent to run into bearing. Solvent will remain in bearing and dissolve lubricant, resulting in excessive wear or damage to bearing.

1. CLEAN WORM SHAFT ASSEMBLY COMPONENTS.

   a. If disassembled, use clean rag to wipe ball bearing (1) clean.

   b. If disassembled, use brush and solvent to clean worm shaft (2), bevel gear (3), worm shaft nut (4), retaining ring (5), rod (6), and machine key (7).

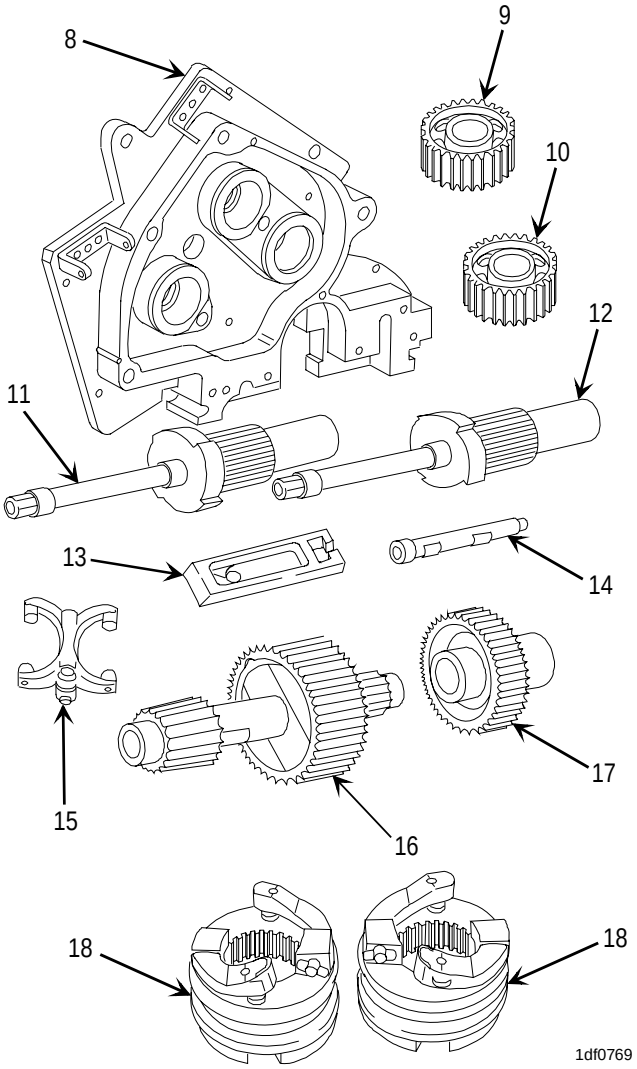
   c. If not disassembled, use clean rag to wipe worm shaft assembly clean.



CLEANING - Continued

2. CLEAN FEED SHAFT SECTION COMPONENTS.

Using brush and solvent, clean rear plate assembly (8), spur gears (9) and (10), shouldered shafts (11) and (12), yoke actuator (13), fork shaft assembly (14), clutch yoke assembly (15), gear clutch assembly (16), worm wheel gear (17), and lower and upper sliding sleeve clutches (18).

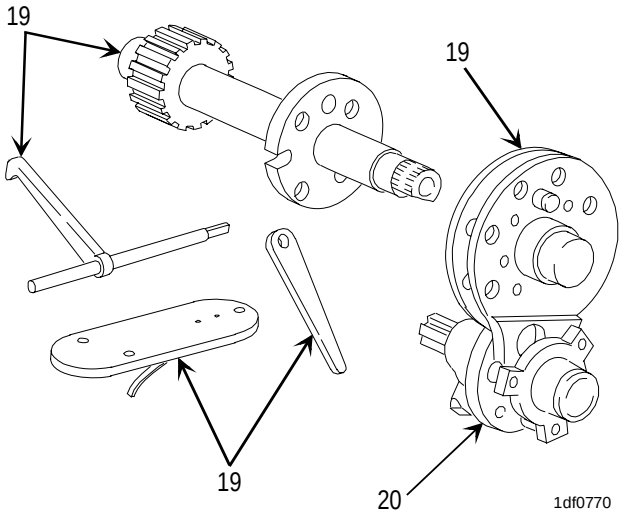


3. CLEAN INDEX DRIVE ASSEMBLY COMPONENTS.

   a. Using brush and solvent, clean index drive parts (19) except rotor stub (20).

   b. Using clean rag, wipe rotor stub (20).

   c. Allow parts to air dry.



INSPECTION

NOTE

Worm shaft gear and bevel gear are parts of a serialized, matched set. Both gears must be replaced if either part is defective.

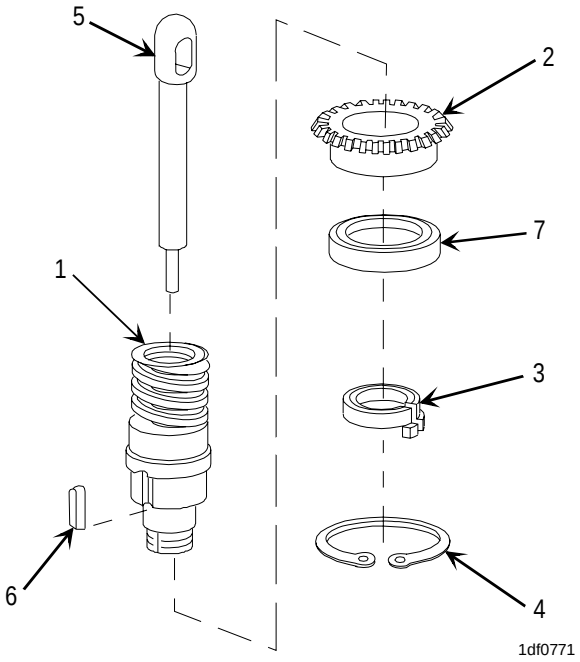
Index drive shaft and index drive assembly are parts of a serialized, matched set. Both parts must be replaced if either part is defective.

1. INSPECT WORM SHAFT ASSEMBLY COMPONENTS.

   a. Visually inspect worm shaft (1) and bevel gear (2) for wear, cracks, broken teeth, and stripped threads. If any of these conditions are found, replace defective part.

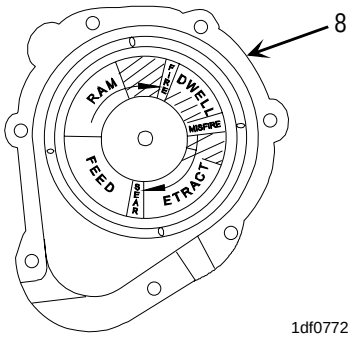
   b. Visually inspect worm shaft nut (3), retaining ring (4), rod (5), and machine key (6) for cracks and breaks. If either of these conditions are found, replace defective part.

   c. Hold ball bearing (7) by outer ring. Rotate inner ring and check for binding and rough movement. If either of these conditions are found, replace defective part.



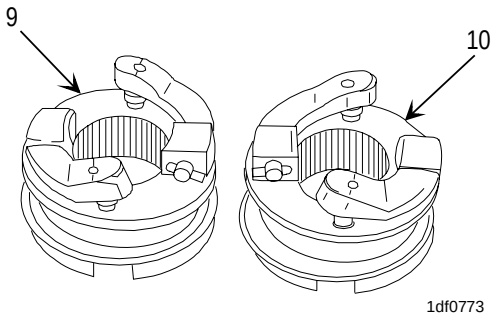
2. INSPECT ACCESS COVER.

   Visually inspect access cover (8) for cracks and breaks. If either of these conditions are found, replace access cover.

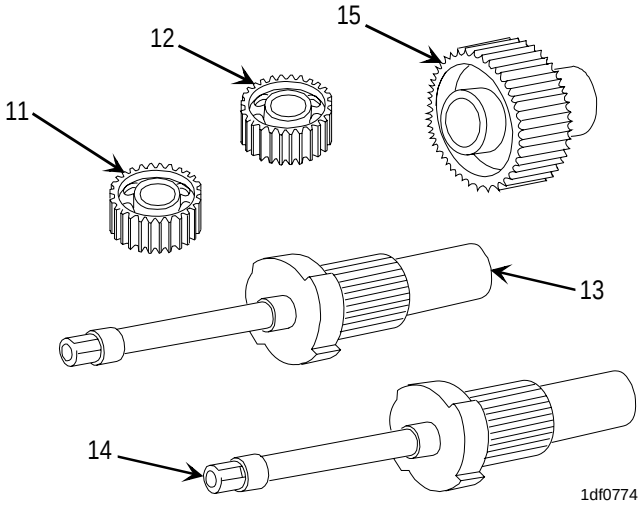


3. INSPECT SHOULDERED SHAFT SECTION COMPONENTS.

   a. Visually inspect lower and upper sliding sleeve clutch assemblies (9) and (10) for broken dog clutches, broken or missing springs, and cracked or chipped clutches. If any of these conditions are found, refer to WP 0075 00.



   b. Visually inspect spur gears (11) and (12), shouldered shafts (13) and (14), and worm wheel gear (15) for broken gear teeth or splines. If either of these conditions are found, replace defective part.



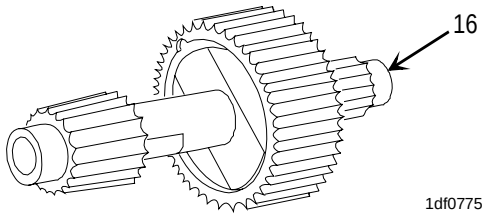
INSPECTION – Continued

c. Visually inspect gear clutch assembly (16) for cracks, broken gear teeth, or damaged splines. If any of these conditions are found, replace gear clutch assembly.

NOTE

If dirt or corrosion is seen or suspected, refer to WP 0076 00.

d. Torque test gear clutch assembly (16). Refer to WP 0076 00.



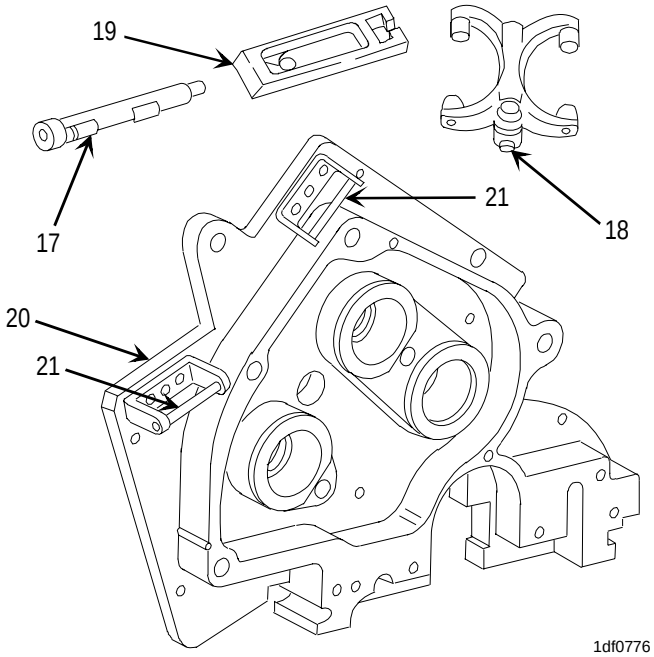
e. Visually inspect fork shaft assembly (17) and clutch yoke assembly (18) for galls and for missing roller. If either of these conditions are found, replace defective part.

f. Visually inspect yoke actuator (19) for galls, chips, and cracks. If any of these conditions are found, replace yoke actuator.

g. Inspect rear plate assembly (20) for cracks and galls on bushings, loose rivets on brackets, stripped or damaged threads, and smooth movement of gate. Swing gate in both directions checking for spring tension when the gate blocks the upper feed path. If any of these conditions are found or if gate does not move smoothly, refer to WP 0074 00.

h. Inspect rear plate assembly (20) for loose or damaged screw threaded inserts. If either of these conditions are found, refer to WP 0081 00.

i. Marine Corps Only: Visually inspect rear plate assembly (20) for damaged or missing feed chute latch pins (21). If feed chute latch pins are damaged or missing, refer to WP 0025 00.



4. INSPECT HOUSING ASSEMBLY.

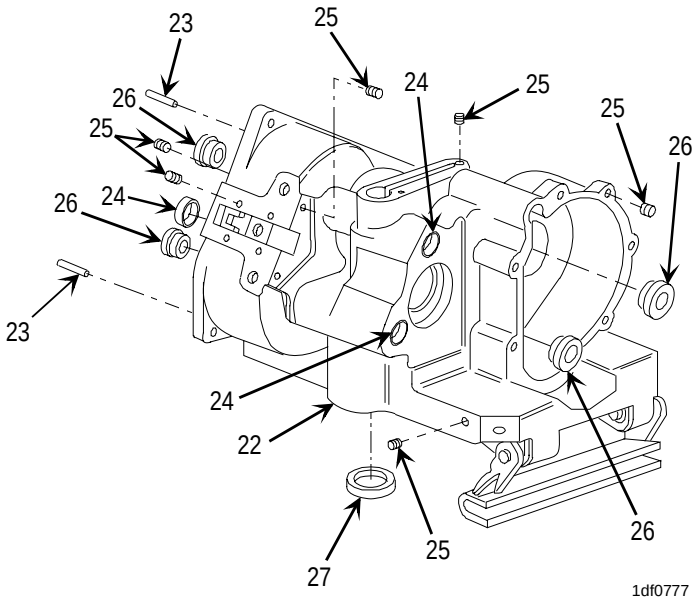
   a. Visually inspect housing (22) for chips, galls, cracks, and loose or missing alignment pins (23). If any of these conditions are found, refer to WP 0077 00.

   b. Visually inspect seals (24) for damage. If any damage is found, refer to WP 0077 00.

   c. Visually inspect screw threaded inserts (25) for damage. If any damage is found, refer to WP 0081 00.

   d. Visually inspect bushings (26) for looseness, galling, and cracks. If any of these conditions are found, refer to WP 0077 00.

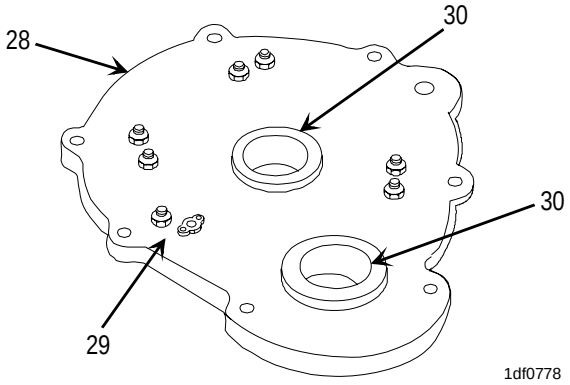
   e. Inspect bearing (27) for binding, galling, cracks, and other damage. If any of these conditions are found, refer to WP 0077 00.



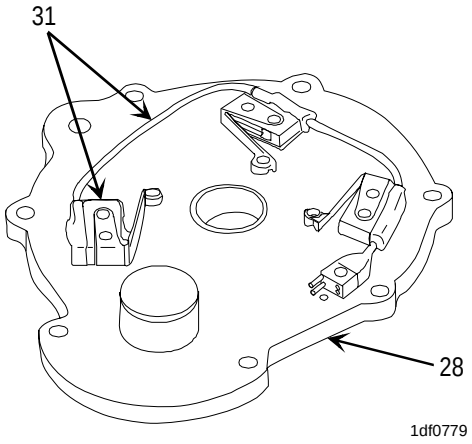
INSPECTION – Continued

5. INSPECT INDEX DRIVE COVER ASSEMBLY.

   a. Visually inspect index drive cover assembly (28) for missing nut plates (29) and damaged bushings (30). If either of these conditions are found, repair index drive cover assembly (28), refer to WP 0078 00.



   b. Visually inspect cable assembly (31) for bent or broken switch arms, damaged connector, and broken or frayed cable. If any of these conditions are found, repair index drive cover assembly (28), refer to WP 0078 00.



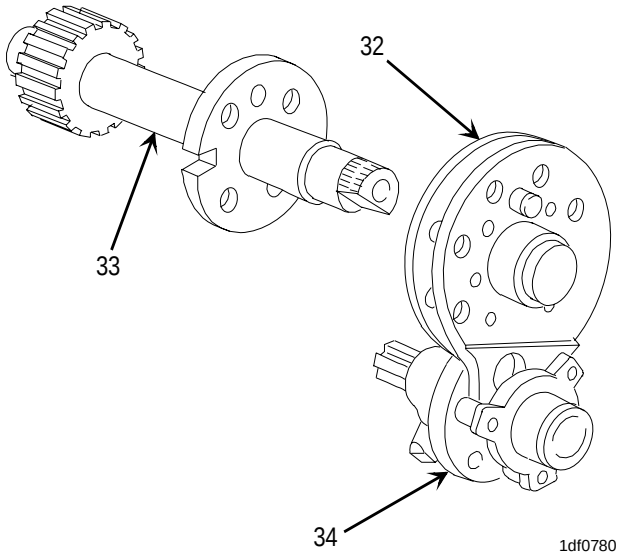
6. INSPECT INDEX DRIVE SHAFT ASSEMBLY.

NOTE

The rotor stub and cam set are a matched set. Replace as a set, if necessary.

   a. Visually inspect cam set (32), and index drive shaft (33) for broken teeth and physical damage. If either of these conditions are found, replace defective part.

   b. Visually inspect rotor stub (34) for damaged splines and binding rollers. If either of these conditions are found, replace rotor stub.

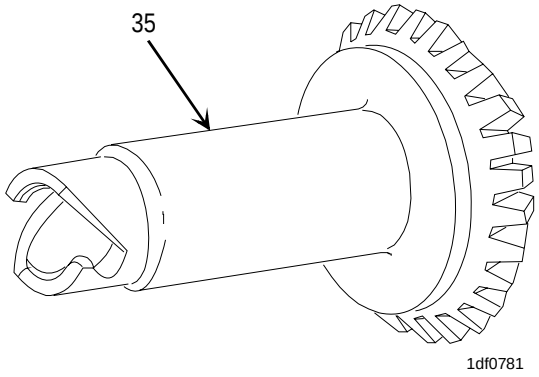


7. INSPECT BEVEL GEAR AND HUB.

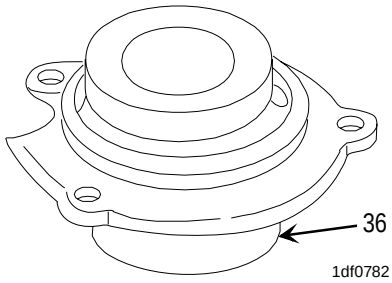
NOTE

Bevel gear and worm shaft bevel gear are parts of a serialized, matched set. Both gears must be replaced if either part is defective.

a. Visually inspect bevel gear (35) for galls, cracked or broken teeth, and broken or cracked lugs. If any of these conditions are found, replace bevel gear.



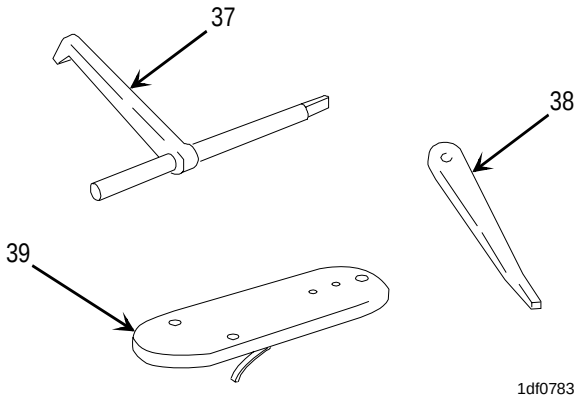
b. Visually inspect hub (36) for cracks or other physical damage. If either of these conditions are found, replace hub.



INSPECTION – Continued

8. INSPECT PAWL-SHAFT ASSEMBLY, TIMER LEVER, AND ACCESS COVER.

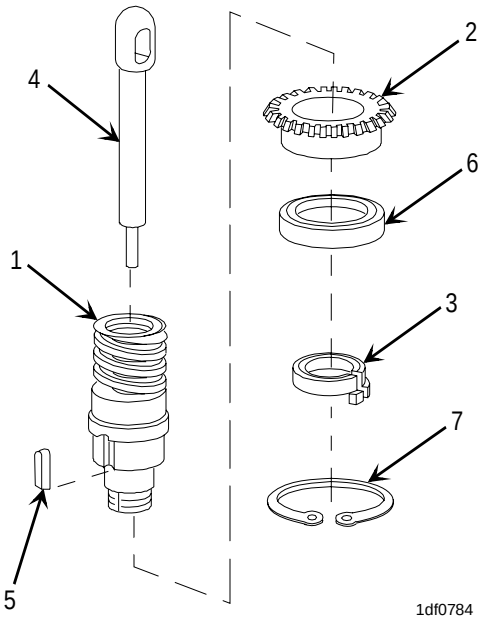
Visually inspect pawl-shaft assembly (37), timer lever (38), and access cover (39) for broken, bent, or missing parts. If any of these conditions are found, replace defective part.



LUBRICATION

1. LUBRICATE WORM SHAFT ASSEMBLY COMPONENTS.

Apply a light coat of grease to worm shaft (1), bevel gear (2), worm shaft nut (3), rod (4), machine key (5), and ball bearing (6). Do not lubricate retaining ring (7).



CAUTION

Do not lubricate external and internal splines of upper and lower sliding sleeve clutch assemblies and shouldered shafts. Lubricant will cause these assemblies to seize in cold weather operations.

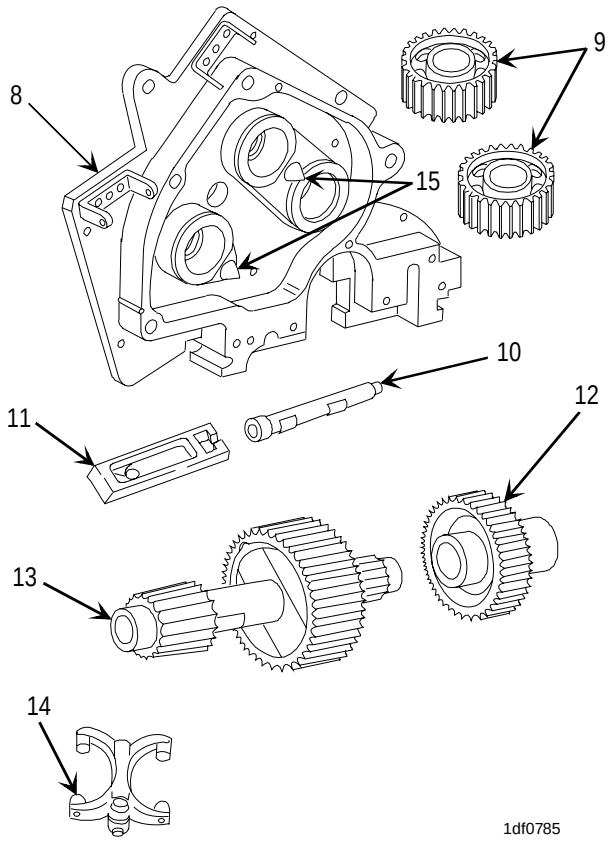
2. LUBRICATE FEED SHAFT SECTION COMPONENTS.

NOTE

Do not apply grease to outside surface of rear plate assembly.

a. Apply a light coat of grease to bearings in rear plate (8), spur gears (9), fork shaft assembly (10), yoke actuator (11), worm wheel gear (12), gear clutch assembly (13), and clutch yoke assembly (14).

b. Apply a generous coat of grease to cartridge stops (15) on rear plate (8).



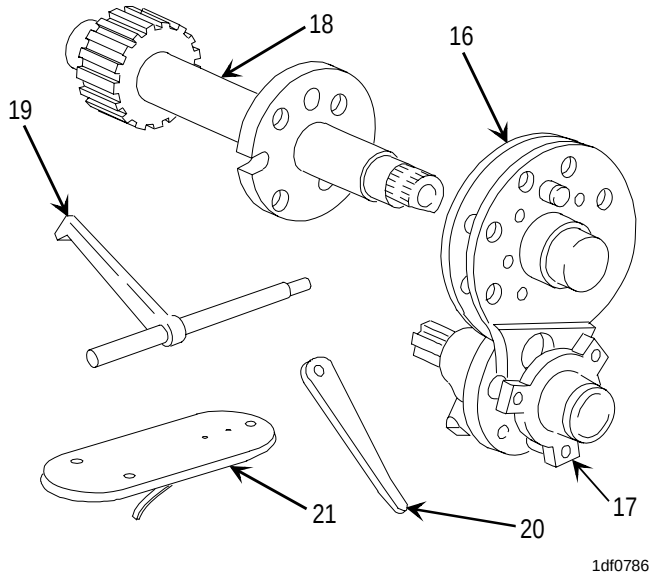
LUBRICATION - Continued

3. LUBRICATE INDEX DRIVE SHAFT ASSEMBLY.

   Apply a light coat of grease to cam set (16), rotor stub (17), and index drive shaft (18).

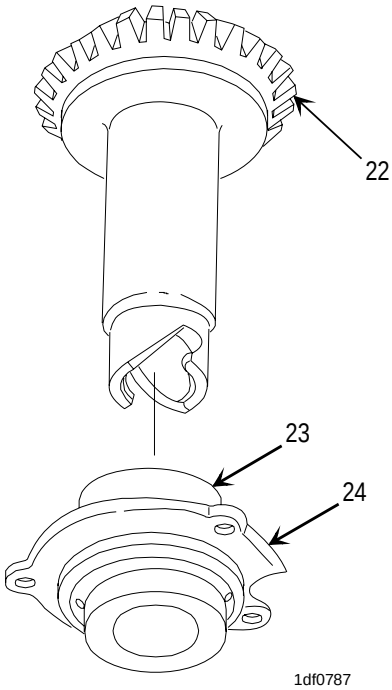
4. LUBRICATE PAWL-SHAFT ASSEMBLY, TIMER LEVER, AND ACCESS COVER.

   Apply a light coat of grease to pawl-shaft assembly (19), timer lever (20), and access cover spring (21).



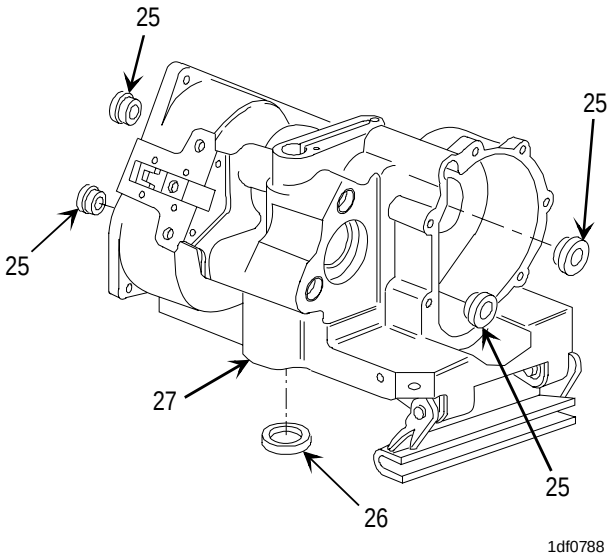
5. LUBRICATE BEVEL GEAR AND HUB.

   Apply a light coat of grease to entire bevel gear (22) and bushing (23) of hub (24).



6. LUBRICATE FEEDER DRIVE HOUSING BUSHINGS AND BEARINGS.

   Apply a light coat of grease to bushings (25) and bearings (26) on feeder drive housing (27).

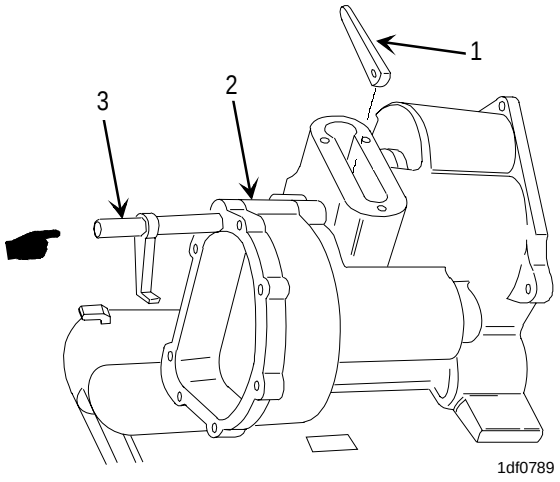


ASSEMBLY

1. INSTALL TIMER LEVER AND PAWL-SHAFT ASSEMBLY.

   a. Place timer lever (1) into recess of feeder housing assembly (2).

   b. Push long end of pawl-shaft assembly (3) into rear of feeder housing assembly (2) and through timer lever (1).



ASSEMBLY – Continued

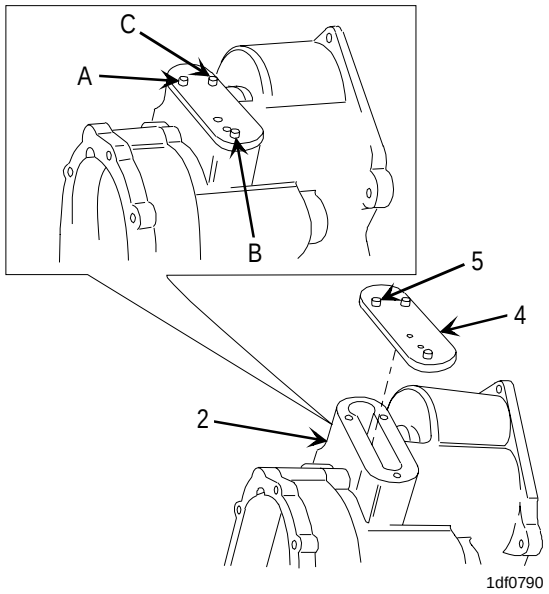
2. INSTALL ACCESS COVER.

   a. Place access cover (4) on feeder housing assembly (2).

NOTE

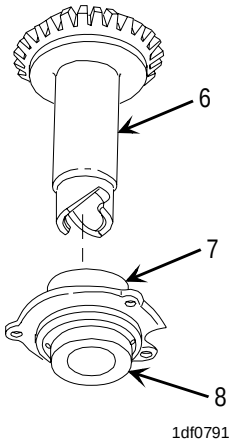
Follow the alphabetical torque pattern to ensure that binding does not occur.

   b. Install and torque three capscrews (5) to 60 in.-lb ± 5.0 in.-lb (6.78 N-m ± 0.57 N-m).



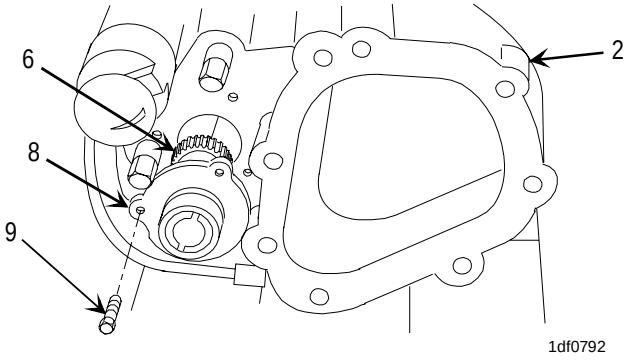
3. INSTALL BEVEL GEAR AND HUB.

   a. Insert bevel gear (6) into bushing (7) of hub (8).



b. Install bevel gear (6) and hub (8) into feeder housing assembly (2).

c. Install and torque three capscrews (9) to 60.0 in.-lb ± 5.0 in.-lb (6.78 N-m ± 0.57 N-m).



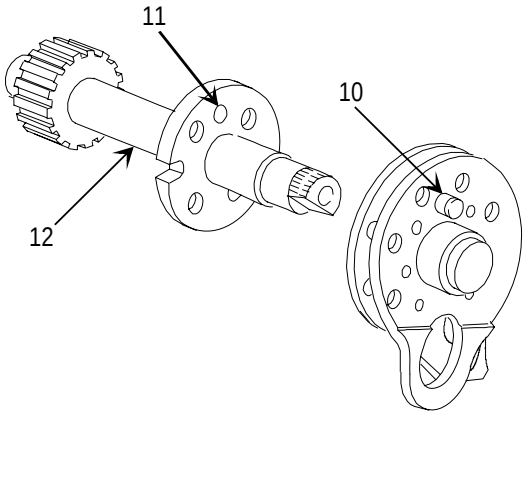
4. INSTALL INDEX DRIVE ASSEMBLY.

a. Align collar on index drive assembly (10) with unthreaded hole (11) on index drive shaft (12).

NOTE

Lightly tap index drive assembly into position, if needed.

b. Install index drive assembly (10) on index drive shaft (12) until index drive assembly (10) is flush with index drive shaft (12).

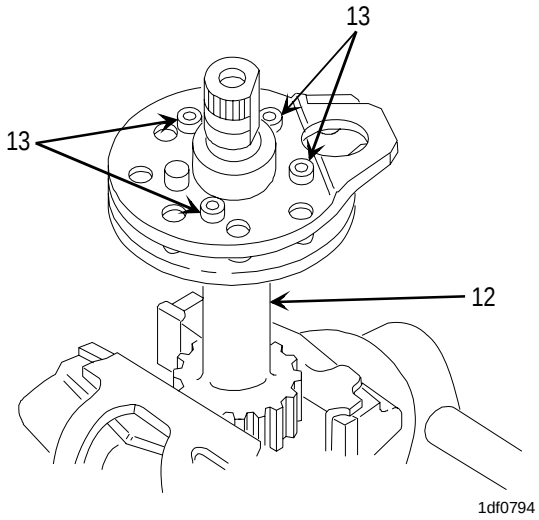


ASSEMBLY – Continued

c. Place index drive shaft (12) in vise with vise jaw caps in place.

d. Install and torque four capscrews (13) to 60 in.-lb ± 5.0 in.-lb (6.78 N-m ± 0.57 N-m).

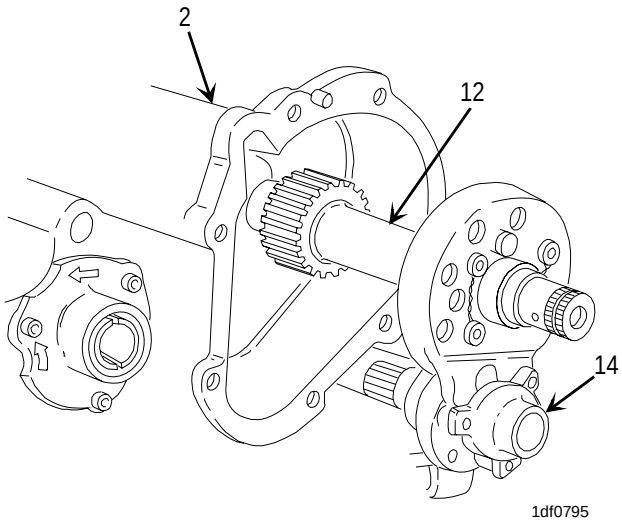
e. Lockwire capscrews (13) in pairs. Remove excess lockwire.



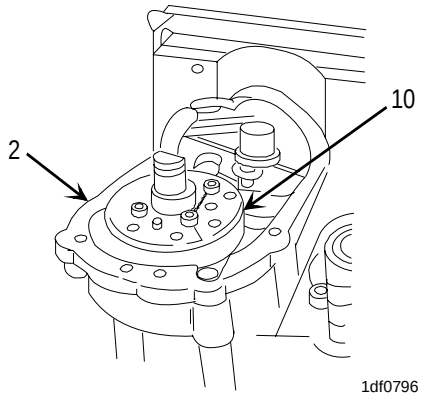
5. INSTALL INDEX DRIVE SHAFT ASSEMBLY.

a. Mate rotor stub (14) with index drive shaft (12).

b. Place gear end of index drive shaft (12) into feeder housing assembly (2).

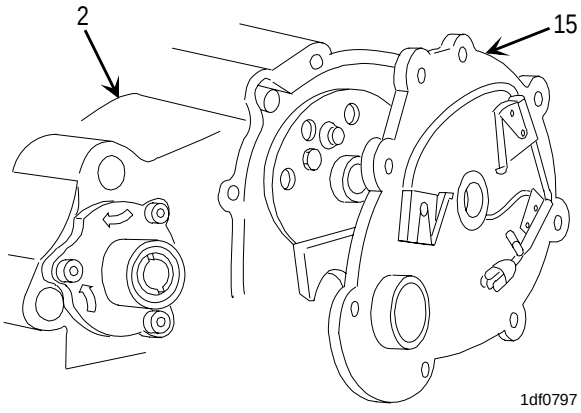


c. Continue installation of index drive assembly (10) and rotate index drive assembly (10) slightly in both directions until it locks and falls into place.



6. INSTALL INDEX DRIVE COVER ASSEMBLY.

Align index drive cover assembly (15) with feeder housing assembly (2) and install index drive cover assembly (15) on feeder housing assembly (2).



ASSEMBLY – Continued

WARNING

Wear eye protection when installing retaining rings. Serious injury may occur if retaining ring hits you in the eye.

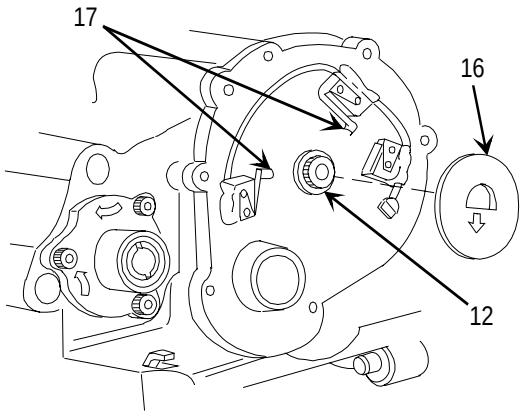
CAUTION

Do not bend switch actuators when installing control cam.

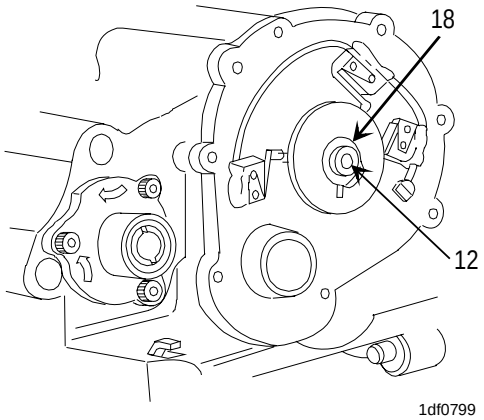
7. INSTALL CONTROL CAM.

   a. Place control cam (16) on index drive shaft (12) with indicator arrow facing out.

   b. Push away switch actuator adapters (17) and slide the control cam (16) into place.



   c. Install retaining ring (18) into slot in index drive shaft (12).

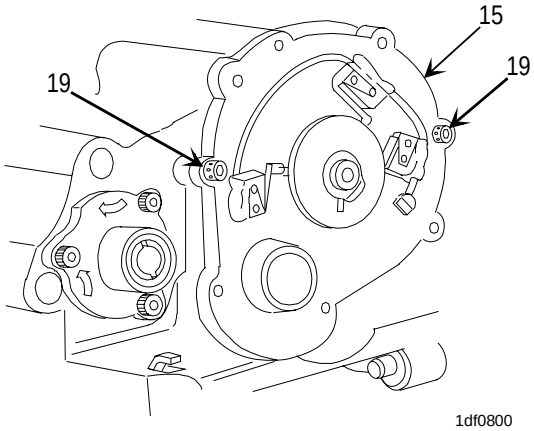


8. INSTALL TWO CAPSCREWS.

Temporarily install two capscrews (19) into index drive cover assembly (15).

NOTE

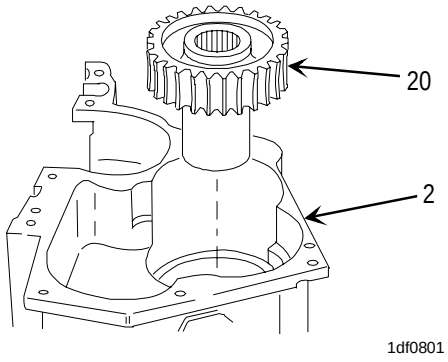
Do not torque access cover capscrews.



9. INSTALL WORM WHEEL GEAR.

a. Position feeder housing assembly (2) as shown.

b. Install worm wheel gear (20) into feeder housing assembly (2).



ASSEMBLY - Continued

10. ASSEMBLE WORM SHAFT ASSEMBLY.

    a. Insert machine key (21) into worm shaft (22).

    b. Align slot in worm shaft bevel gear (23) with machine key (21) and install worm shaft bevel gear (23), gear end first, on worm shaft (22).

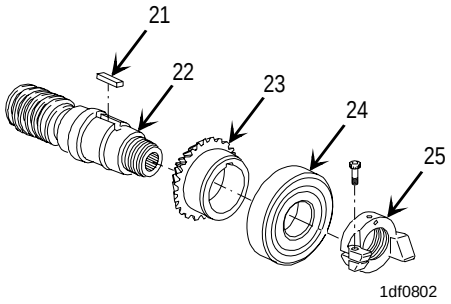
    c. Place ball bearing (24) on worm shaft (22).

    d. Install ball bearing (24) until seated on worm shaft (22).

NOTE

The worm shaft nut has left hand threads.

    e. Thread worm shaft nut (25) counterclockwise onto worm shaft (22). Stop just prior to making contact with ball bearing (24).



    f. Install and tighten capscrew (26) until drag is felt when rotating worm shaft nut (25) on worm shaft (22).

11. TIGHTEN WORM SHAFT NUT.

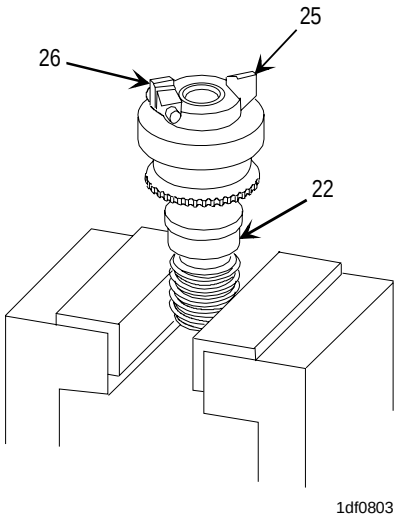
NOTE

The worm shaft nut has left hand threads.

    a. Place worm shaft (22) in vise with vise jaw caps in place.

    b. Using plastic faced hammer and 1/4 in. roll pin punch, lightly tap worm shaft nut (25) counterclockwise on solid lug to fully seat worm shaft nut on shaft.

    c. Using 5 mm hex head, torque capscrew (26) securing worm shaft nut (25) to 60 in.-lb ± 3.0 in.-lb (6.78 N-m ± 0.34 N-m).



WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

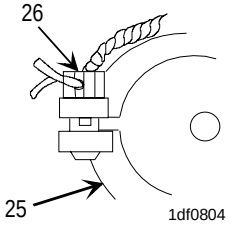
CAUTION

Do not drop lockwire pieces into gun. Wire can get between moving parts and damage gun.

12. INSTALL LOCKWIRE.

    a. Lockwire capscrew (26) to worm shaft nut (25).

    b. Remove excess lockwire and bend lockwire ends into capscrew head (26).



ASSEMBLY - Continued

WARNING

Wear eye protection when installing retaining ring. You can be blinded if ring hits you in the eye.

CAUTION

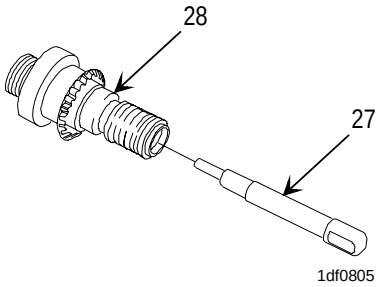
Retaining ring must be installed with bevel side out or damage to parts may result.

NOTE

Ensure retaining ring is fully seated.

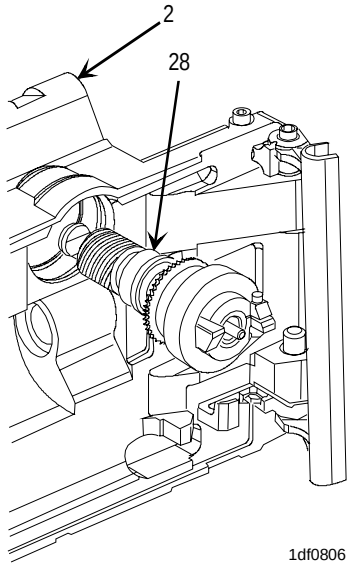
13. INSTALL WORM SHAFT ASSEMBLY.

    a. Insert rod (27) into worm shaft assembly (28).

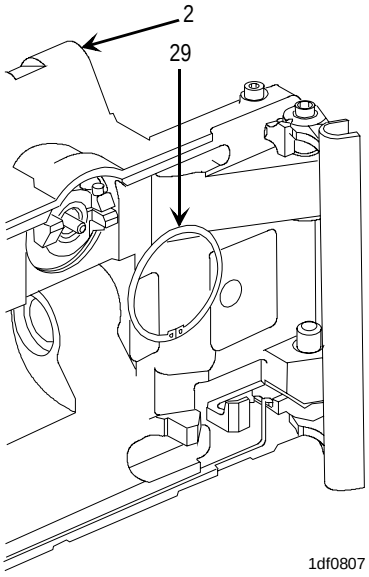


    b. Place worm shaft assembly (28) into feeder housing assembly (2).

    c. Turn worm shaft assembly (28) counterclockwise until it drops into place.



d. Install worm shaft retaining ring (29) inside feeder housing assembly (2).



14. INSTALL GEAR CLUTCH ASSEMBLY.

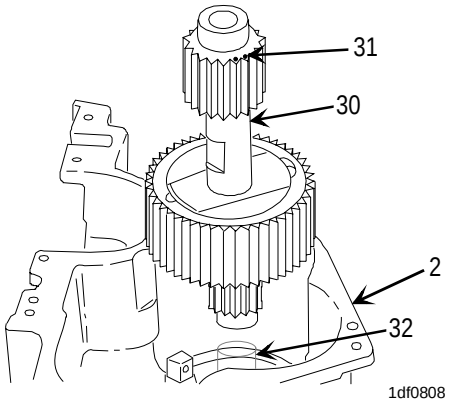
NOTE

Steps a and b are to be done at the same time.

There are two sets of timing marks on larger gear on the gear clutch assembly and one set on the small gear.

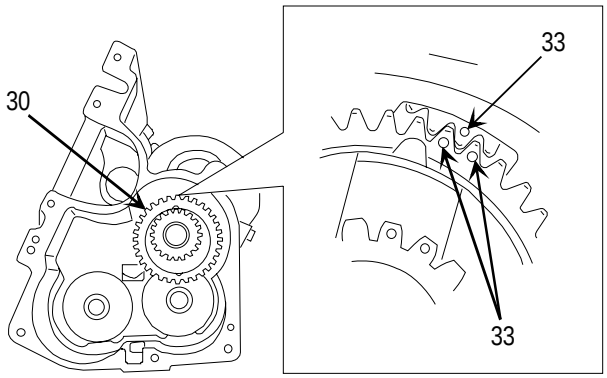
It may be necessary to rotate the worm shaft nut to allow for alignment of timing marks.

a. Place gear clutch assembly (30) into feeder housing assembly (2), with long shaft on top and the timing marks on the small gear (31) pointing towards the upper feed shaft (32).



ASSEMBLY - Continued

b. Time gear clutch assembly (30) by aligning three timing marks (33).

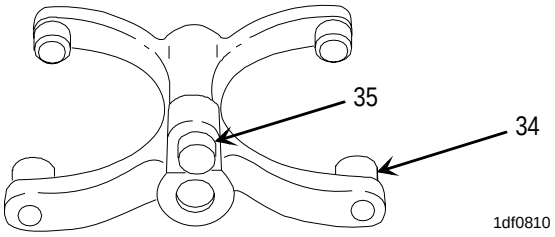


CAUTION

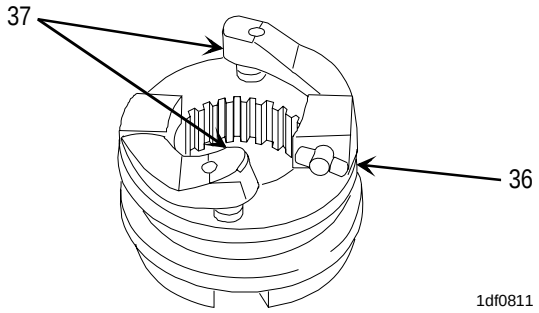
Timing marks must remain aligned through the installation of the rear plate assembly.

15. INSTALL SLIDING SLEEVE CLUTCHES, CLUTCH YOKE ASSEMBLY, AND SHOULDERED SHAFTS.

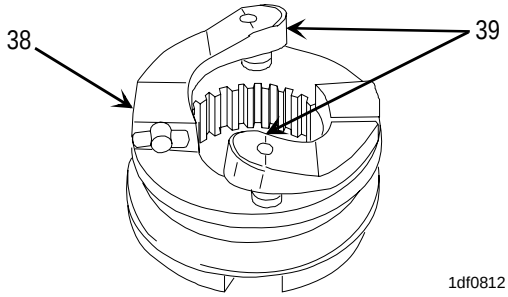
a. Place clutch yoke assembly (34) on work surface with actuator pin (35) towards you.



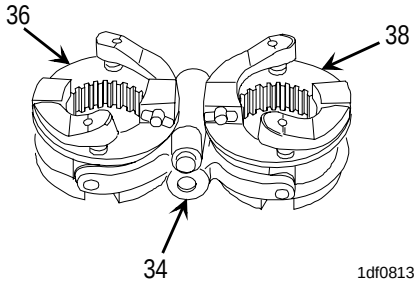
b. Hold lower sliding sleeve clutch (36) in your left hand, with clutch dogs (37) going in the same direction as your thumb.



c. Hold upper sliding sleeve clutch (38) in your right hand, with clutch dogs (39) going in the same direction as your thumb.



d. Install lower and upper sliding sleeve clutches (36) and (38) into clutch yoke assembly (34).



ASSEMBLY - Continued

NOTE

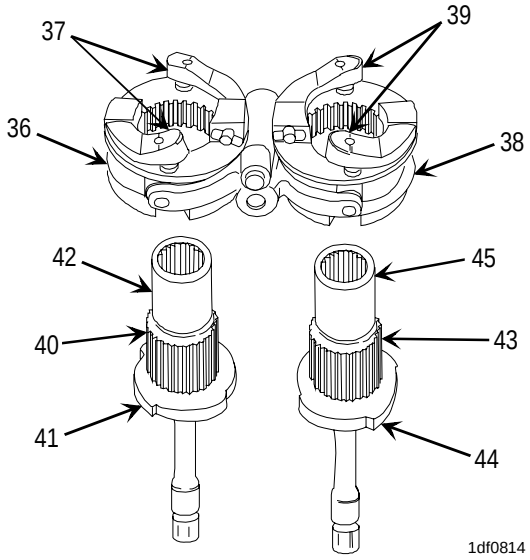
The lugs on each shouldered shaft must be pointing in the same direction as the dogs on the sliding sleeve clutch for that shouldered shaft. Use helper as necessary.

e. Align keyed splines (40) with keyed splines inside lower sliding sleeve clutch (36) and make sure lugs (41) are pointing in the same direction as clutch dogs (37).

f. Install shouldered shaft (42) into lower sliding sleeve clutch (36).

g. Align keyed splines (43) with keyed splines inside upper sliding sleeve clutch (38) and make sure lugs (44) are pointing in the same direction as clutch dogs (39).

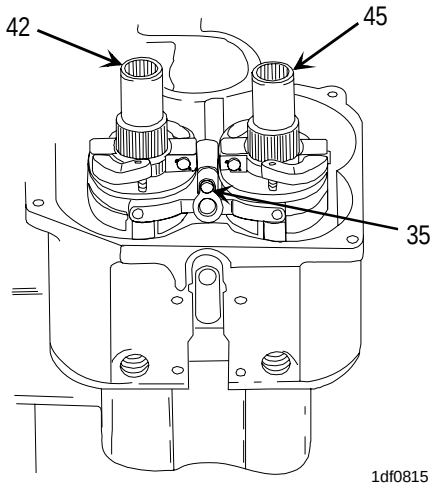
h. Install shouldered shaft (45) into upper sliding sleeve clutch (38).



NOTE

If needed, raise gear clutch assembly for component clearance.

i. Grasp the two shouldered shafts (42) and (45) and install all components at the same time, making sure the actuator pin (35) is in the housing recess.

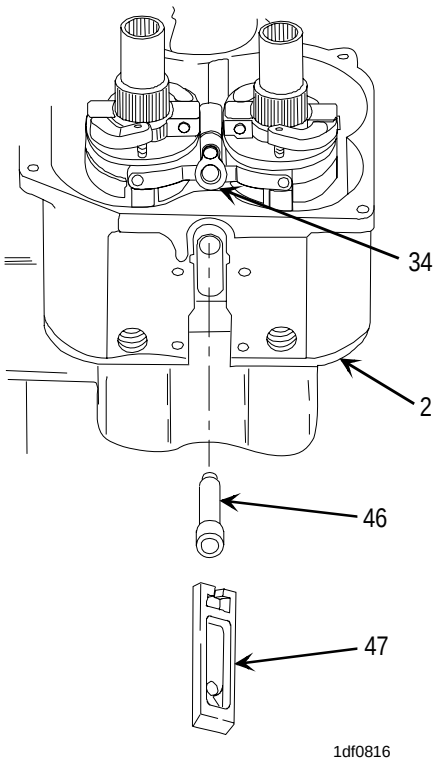


j. Insert fork shaft assembly (46) through feeder housing assembly (2) and into clutch yoke assembly (34) until seated.

NOTE

Slide yoke actuator can fall off until feed select solenoid is installed.

k. Slide yoke actuator (47) in place on feeder housing assembly (2).



ASSEMBLY - Continued

16. INSTALL SPUR GEARS.

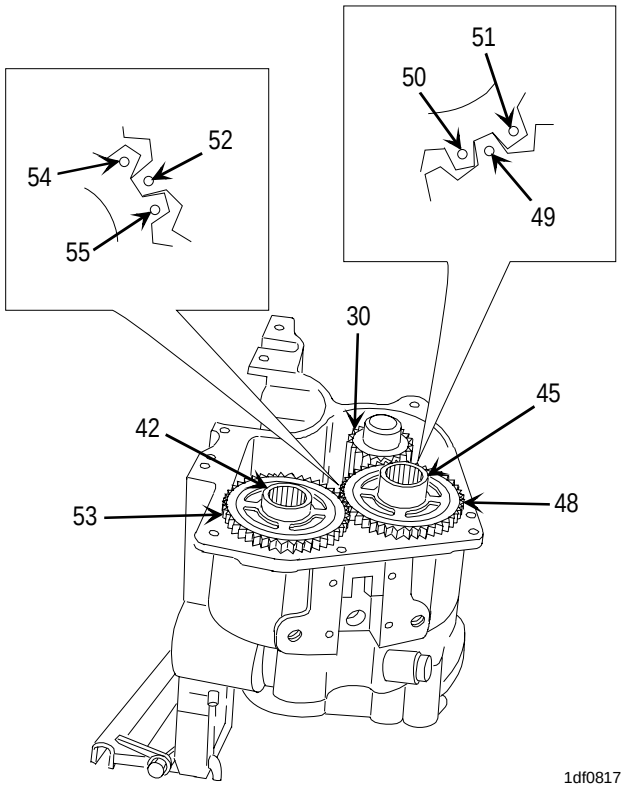
    a. Verify the timing marks on the small gear of the gear clutch assembly (30) face the upper shouldered shaft (45).

    b. Place upper feed shaft spur gear (48) (with two single timing marks, offset 90 degrees) over shouldered shaft (45). Place one timing mark (49) between the two timing marks (50) and (51) on the gear clutch assembly (30). Place the other timing mark (52) towards the lower shouldered shaft (42).

    c. Place lower feed shaft spur gear (53) over lower shouldered shaft (42) so that the single timing mark (52) on the upper feed shaft spur gear (48) is between the two timing marks (54) and (55) on the lower feed shaft spur gear (53).

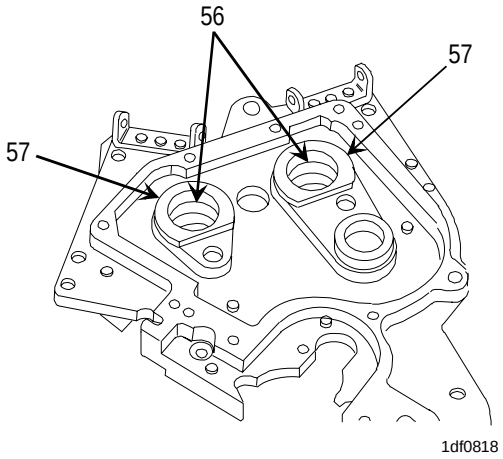
    d. Make sure both spur gears (48) and (53) are fully seated.

    e. Check all timing marks for correct alignment.



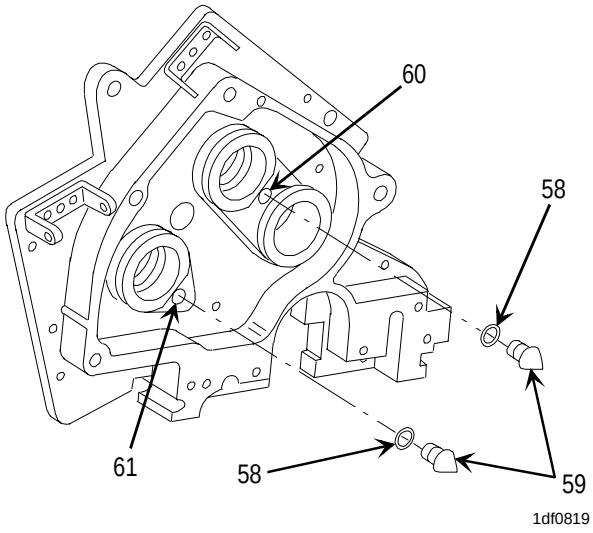
17. INSTALL REAR PLATE ASSEMBLY.

a. Apply a light coat of grease and install two new preformed packings (56) in feed shaft flanged bushings (57).



b. Apply a light coat of grease to two new preformed packings (58) and install new preformed packings into slots in cartridge stops (59).

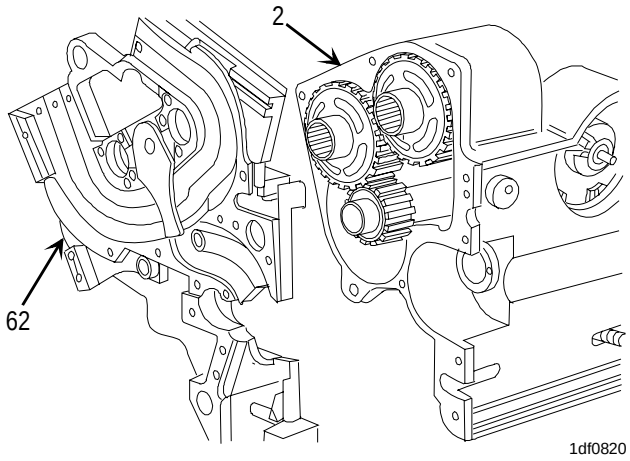
c. Insert cartridge stops (59), with pointed end out, into holes (60) and (61).



ASSEMBLY - Continued

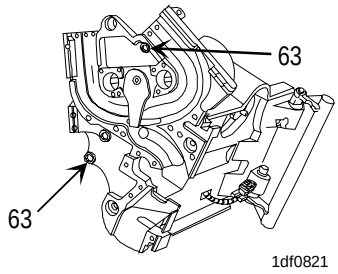
d. Align rear plate assembly (62) with feeder housing assembly (2) and gear shafts.

e. Push rear plate assembly (62) firmly toward feeder housing assembly (2).



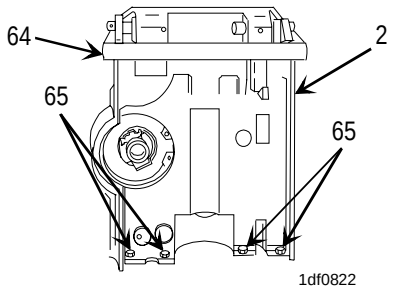
18. INSTALL CAPSCREWS.

a. Install and torque two capscrews (63) to 160 in.-lb ± 10 in.-lb (18.08 N-m ± 1.13 N-m).



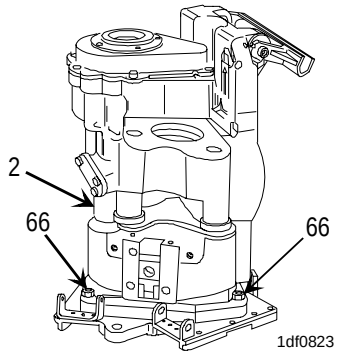
b. Stand feeder housing assembly (2) on end with feeder handle (64) on top.

c. Install and torque four capscrews (65) to 60 in.-lb ± 5 in-lb (6.78 N-m ± 0.57 N-m).



d. Turn feeder housing assembly (2) as shown.

e. Install and torque two capscrews (66) to 60 in.-lb ± 5 in-lb (6.78 N-m ± 0.57 N-m).



19. ADJUST MICROSWITCH ACTUATOR ARM.

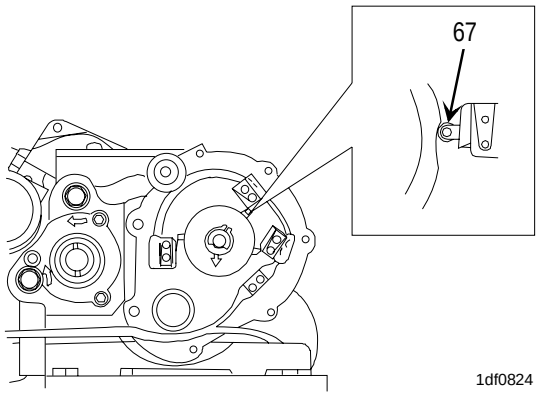
NOTE

Steps a, b, and c must be completed for each microswitch.

a. Cycle drive assembly until the switch actuator arm roller (67) reaches the cutout on the cam as shown. At this point you should hear an audible click from the microswitch. If there is an audible click, proceed to step c.

b. If there is no audible click in step a, adjust the actuator arm. Bend the arm slightly near the switch actuator arm roller (67) to get the audible click noted in step a.

c. Cycle the drive assembly until the actuator arm roller (67) reaches the other side of the cam cutout. At this point the actuator arm resets the microswitch and an audible click is heard. Repeat step b if no click is heard.



ASSEMBLY - Continued

20. INSTALL FEED SHAFT STOPS (WP 0043 00).

21. PERFORM FEEDER DRIVE ASSEMBLY MANUAL CYCLE AND ELECTRICAL CHECK (WP 0018 00).

22. INSTALL ELECTRICAL FEED SELECT SOLENOID FOR STANDARD GUN (WP 0045 00) OR INSTALL FEED SELECT SOLENOID WIRING HARNESS (WP 0047 00) AND FEED SELECT SOLENOID BODY (WP 0046 00).

23. INSTALL UPPER EJECT GUIDE (WP 0042 00).

24. INSTALL STEPPED SPACERS (WP 0041 00).

25. INSTALL FEEDER STANDOFF (WP 0040 00).

26. INSTALL UPPER AND LOWER FEED SPROCKET ASSEMBLIES (WP 0039 00).

27. INSTALL FEEDER ASSEMBLY ROTOR (WP 0036 00).

28. INSTALL FORWARD FEED ASSEMBLY (WP 0034 00).

29. INSTALL EJECTION CHUTE (WP 0032 00).

30. INSTALL REAR LINK STRIPPERS (WP 0031 00).

31. INSTALL LINK SHIELD (WP 0029 00).

32. INSTALL LINK BRIDGES FOR STANDARD FEEDER (WP 0027 00) OR LINK COVER ASSEMBLIES FOR ENHANCED FEEDER (WP 0028 00).

33. PERFORM AUTOMATIC GUN FEEDER MANUAL CYCLE CHECK (WP 0007 00).

END OF WORK PACKAGE

DIRECT SUPPORT

M242 25-MM AUTOMATIC GUN (NSN 1005-01-086-1400) M242 25-MM ENHANCED AUTOMATIC GUN (NSN 1005-01-454-0396)

REAR PLATE ASSEMBLY AND FEED PLATE ASSEMBLY DISASSEMBLY/ASSEMBLY DISASSEMBLY, CLEANING, INSPECTION, ASSEMBLY

INITIAL SETUP:

Tools and Special Tools
- Goggles (item 19, WP 0085 00)
- Rubber gloves (item 18, WP 0085 00)
- Small arms repairman tool kit (item 43, WP 0085 00)
- Small arms shop set (item 35, WP 0085 00)
- Torque wrench, 0-300 in.-lb (item 50, WP 0085 00)

Materials/Parts
- Acid brush (item 4, WP 0116 00)
- Adhesive (item 2, WP 0116 00)
- Dry cleaning solvent (item 27, WP 0116 00)
- Flanged sleeve bushing (2) (12524197)
- Grease (item 11, WP 0116 00)
- O-ring (2) (M83248/1-010)
- Preformed packing (2) (AS3551-217)
- Rivets (6) (MS20427M4-7)
- Rivets (7) (MS20427M4-10)
- Rivets (8) (MS20427M4-12)
- Rivet (MS20427M4-14)
- Sealing compound primer (item 20, WP 0116 00)
- Self-locking nut (12524617-1)
- Zinc chromate primer (item 19, WP 0116 00)

References
- WP 0007 00
- WP 0081 00

Equipment Conditions
- WP 0027 00 Link bridges removed (Standard Feeder only)
- WP 0028 00 Link cover assemblies removed (Enhanced Feeder only)
- WP 0029 00 Link shield removed
- WP 0031 00 Rear link strippers removed
- WP 0032 00 Ejection chute removed
- WP 0034 00 Forward feed assembly removed
- WP 0036 00 Feeder assembly rotor removed
- WP 0039 00 Upper and lower feed sprocket assemblies removed
- WP 0040 00 Feeder standoff removed
- WP 0041 00 Stepped spacers removed
- WP 0042 00 Upper eject guide removed
- WP 0073 00 Rear plate assembly removed

Special Environmental Conditions
- Well-ventilated area required when using dry cleaning solvent.

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

DISASSEMBLY

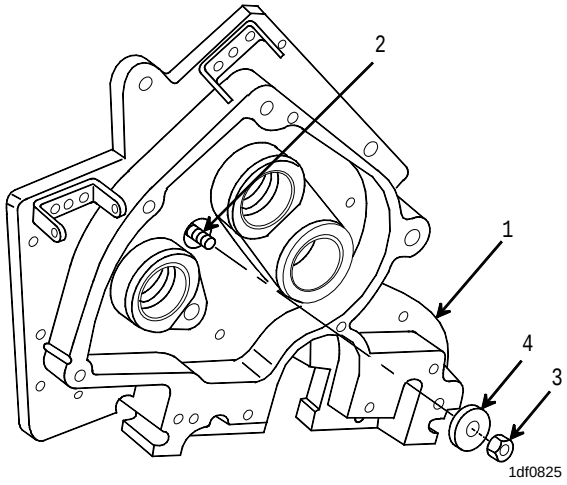
NOTE

If screw threaded inserts are damaged or loose, refer to WP 0081 00.

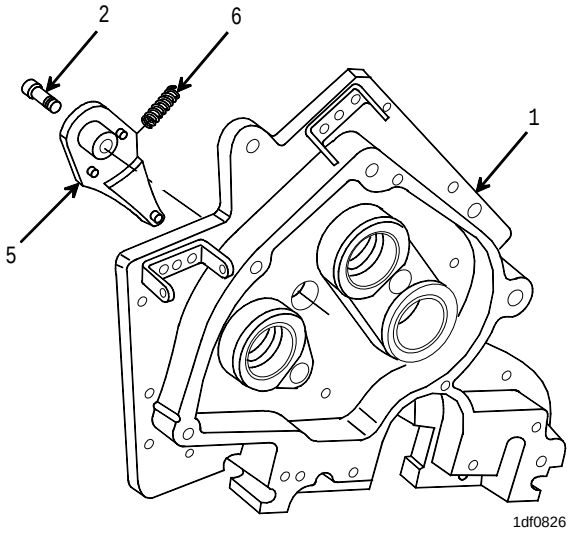
1. REMOVE REAR GATE ASSEMBLY.

   a. Place rear plate assembly (1) on edge.

   b. Hold capscrew (2) and remove self-locking nut (3) and flat washer (4). Discard self-locking nut.



   c. Remove rear gate assembly (5), helical spring (6), and capscrew (2) from rear plate assembly (1).

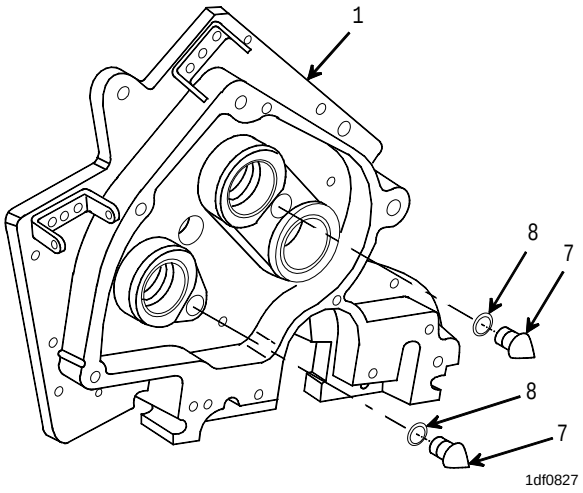


2. REMOVE CARTRIDGE STOPS.

   a. Place rear plate assembly (1) on edge.

   b. Remove two cartridge stops (7) from rear plate assembly (1).

   c. Remove two preformed packings (8) from cartridge stops (7). Discard preformed packings.



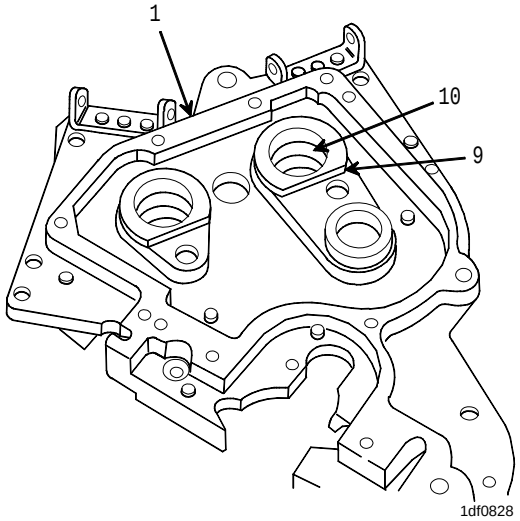
3. REMOVE FLANGED SLEEVE BUSHINGS.

NOTE

The following procedure is written for the upper feed shaft flanged sleeve bushing, but also applies to the lower feed shaft flanged sleeve bushing.

   a. Place a mark on the rear plate assembly (1) along the flat of the upper feed shaft flanged sleeve bushing (9).

   b. Remove preformed packing (10) from upper feed shaft flanged sleeve bushing (9). Discard preformed packing.

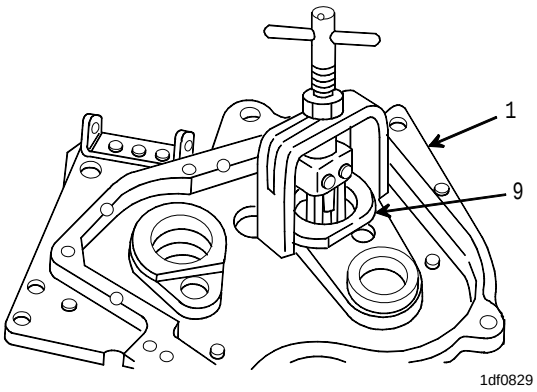


DISASSEMBLY - Continued

NOTE

If the legs of the puller are too short, place a block of wood under each leg.

c. Remove flanged sleeve bushing (9) from rear plate assembly (1). Discard flanged sleeve bushing.



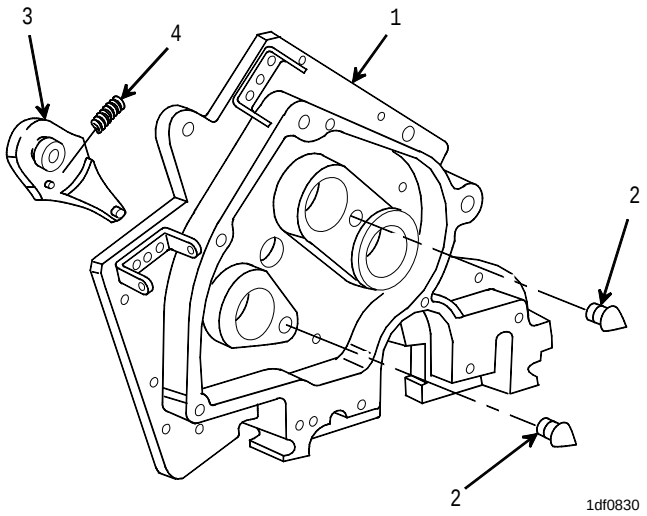
CLEANING

WARNING

Dry cleaning solvent (SD) is flammable and toxic. Use in well-ventilated area away from an open flame or a smoking area. This solvent evaporates quickly and has a drying effect on the skin. It may cause cracks in the skin and, in some cases, mild irritation or inflammation. If solvent comes in contact with eyes or skin, flush with water.

CLEAN REAR PLATE ASSEMBLY AND FEED PLATE ASSEMBLY PARTS.

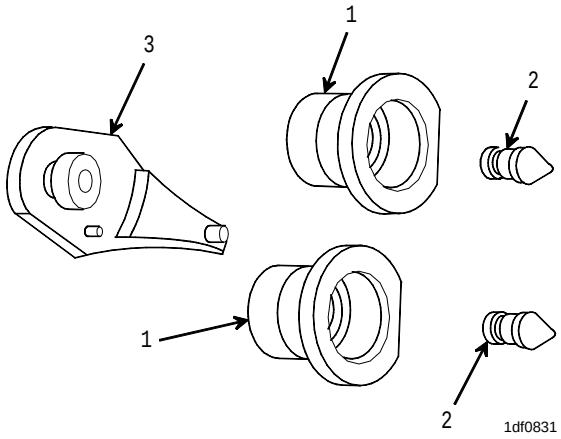
Using brush and dry cleaning solvent, clean rear feed plate (1), cartridge stops (2), rear gate assembly (3), and helical spring (4).



INSPECTION

1. INSPECT FLANGED SLEEVE BUSHINGS, CARTRIDGE STOPS, AND REAR GATE ASSEMBLY.

   Visually inspect new flanged sleeve bushings (1), cartridge stops (2), and rear gate assembly (3) for cracks, chips, galls, and burrs. If any of these conditions are found, replace defective part.



INSPECTION - Continued

2. INSPECT REAR FEED PLATE.

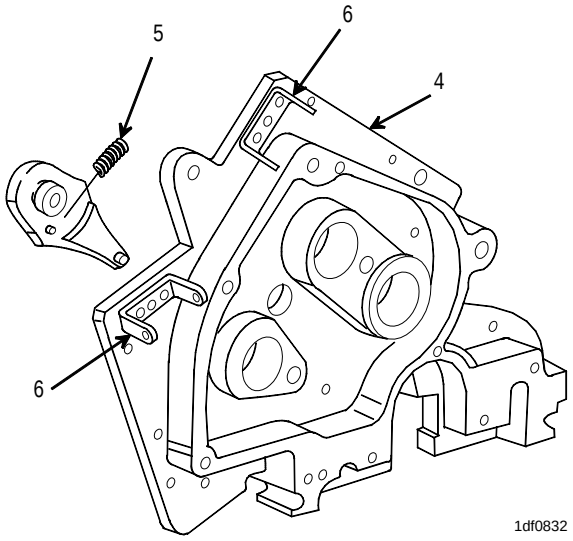
   a. Visually inspect rear feed plate (4) for cracks, chips, or breaks. If any of these conditions are found, replace rear feed plate.

   b. Visually inspect helical spring (5) for bent or broken coil and check for free length of 1-1/32 in. ± 1/16 in. (26.20 mm ± 1.6 mm). If any defects are found, replace helical spring.

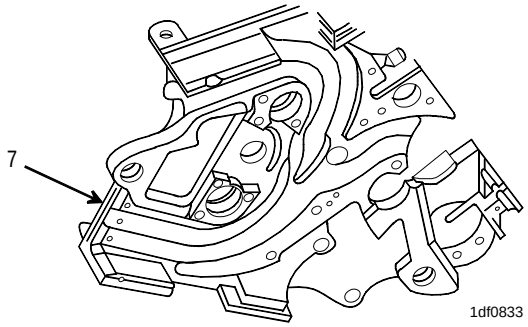
   c. Visually inspect rear feed plate (4) for loose or missing rivets. If either of these conditions are found, replace rivets. If replaced, rivets must be installed wet using zinc chromate primer.

   d. Visually inspect angle brackets (6) for cracks, bends, and deformation. If any of these conditions are found, replace defective angle bracket. If angle brackets are replaced, rivets must be installed wet using zinc chromate primer.

   e. Visually inspect rear feed plate (4) for loose or damaged screw threaded inserts. If either of these conditions are found, go to WP 0081 00 and perform repair procedures.



f. Visually inspect rear feed plate feed path (7) for cracks or breaks. If either of these conditions are found, replace rear feed plate.



ASSEMBLY

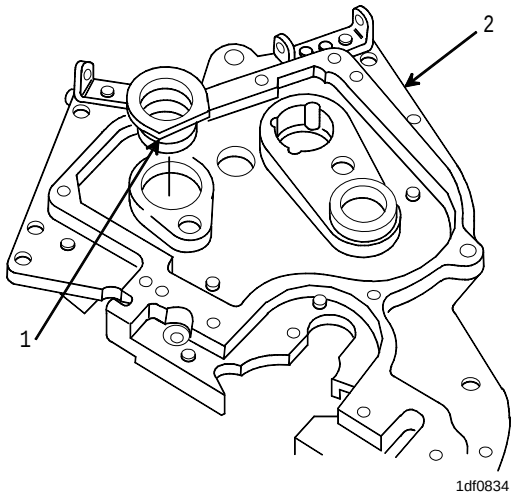
1. INSTALL FLANGED SLEEVE BUSHINGS.

NOTE

The following procedure is written for the lower flanged sleeve bushing, but also applies to the upper flanged sleeve bushing.

The lower and upper feed shaft flanged sleeve bushings are the same. Both have a flat on the flange.

a. Apply sealing compound primer and adhesive to the new flanged sleeve bushing (1) and align the flat of the flanged sleeve bushing (1) with the mark on the rear plate assembly (2).



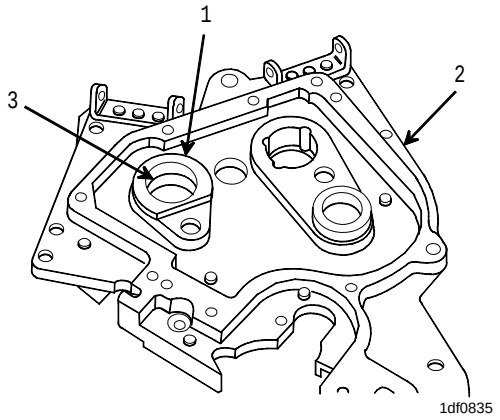
ASSEMBLY - Continued

NOTE

Ensure that flanged sleeve bushing stays aligned with mark on rear feed plate during the next step.

b. Install flanged sleeve bushing (1) into the rear plate assembly (2) until the flange of the bushing is flush with the rear plate assembly (2).

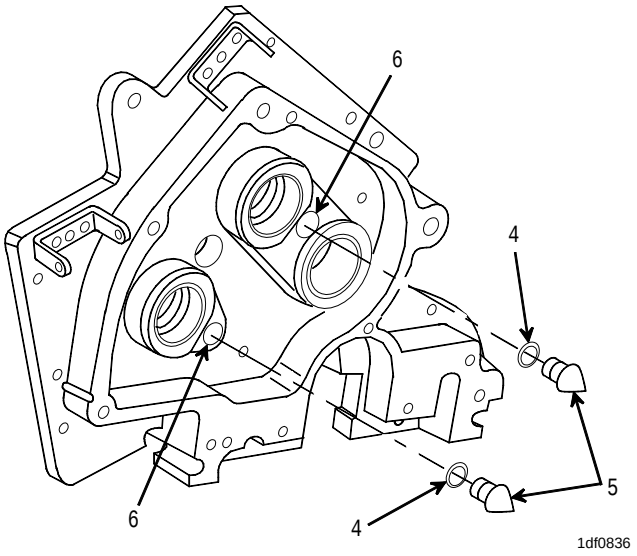
c. Lubricate and install new preformed packing (3) in lower feed shaft flanged sleeve bushing (1).



2. INSTALL CARTRIDGE STOPS.

a. Using acid brush, apply a light coat of grease to two new preformed packings (4) and install new preformed packings into slots in cartridge stops (5).

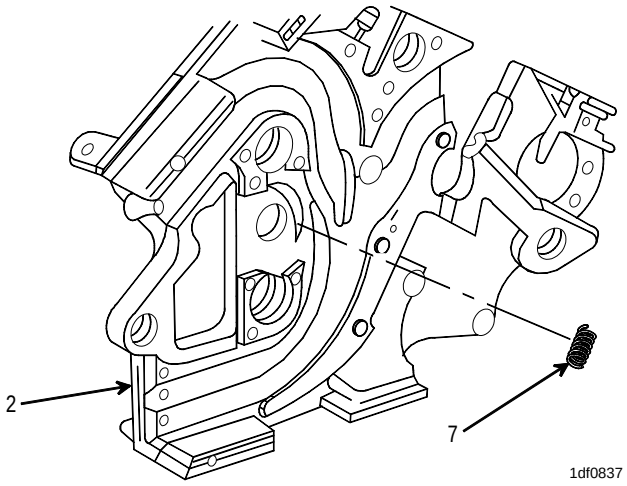
b. Using acid brush, apply a generous coat of grease to cartridge stops (5) and insert cartridge stops (5), with pointed end out, into holes (6).



3. INSTALL REAR GATE ASSEMBLY.

   a. Place rear plate assembly (2) on its edge as shown.

   b. Install helical spring (7) into rear plate assembly (2).

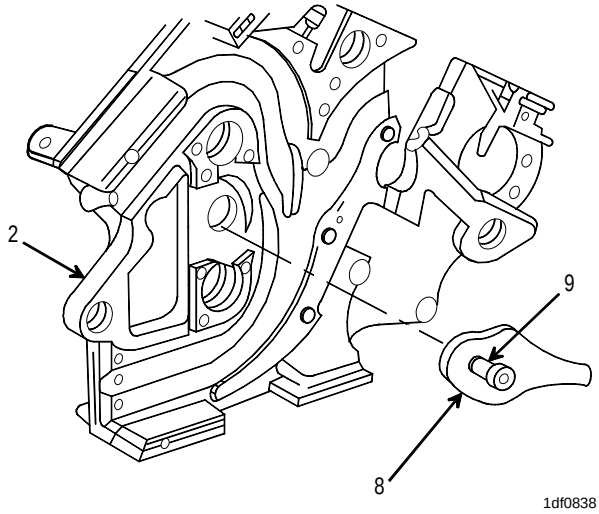


   c. Place rear gate assembly (8) over helical spring on rear plate assembly (2).

NOTE

Make sure rear gate assembly is between rim guide and pivot before installing capscrew.

   d. Insert capscrew (9) through rear gate assembly (8).



ASSEMBLY – Continued

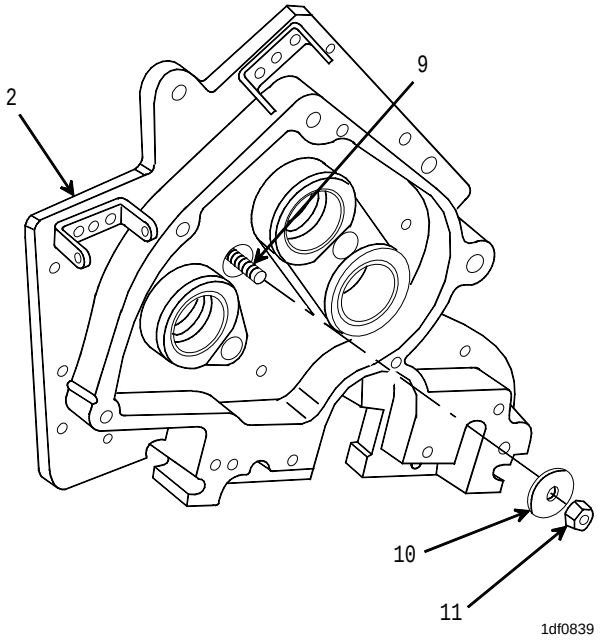
e. Turn rear plate assembly (2) around.

f. Install flat washer (10) and new self-locking nut (11) on threaded end of capscrew (9).

NOTE

Screw, washer, and nut must be free of lubricant when applying torque.

g. Torque self-locking nut (11) to 60 in.-lb ± 5 in.-lb (6.78 N-m ± 0.57 N-m).



4. INSTALL REAR PLATE ASSEMBLY (WP 0073 00).
5. PERFORM FEEDER DRIVE ASSEMBLY MANUAL CYCLE AND ELECTRICAL CHECK (WP 0018 00).
6. INSTALL UPPER EJECT GUIDE (WP 0042 00).
7. INSTALL STEPPED SPACERS (WP 0041 00).
8. INSTALL FEEDER STANDOFF (WP 0040 00).
9. INSTALL UPPER AND LOWER FEED SPROCKET ASSEMBLIES (WP 0039 00).
10. INSTALL FEEDER ASSEMBLY ROTOR (WP 0036 00).
11. INSTALL FORWARD FEED ASSEMBLY (WP 0034 00).
12. INSTALL EJECTION CHUTE (WP 0032 00).
13. INSTALL REAR LINK STRIPPERS (WP 0031 00).

14. INSTALL LINK SHIELD (WP 0029 00).

15. INSTALL LINK BRIDGES FOR STANDARD FEEDER (WP 0027 00) OR LINK COVER ASSEMBLIES FOR ENHANCED FEEDER (WP 0028 00).

16. PERFORM AUTOMATIC GUN FEEDER MANUAL CYCLE CHECK (WP 0007 00).

END OF WORK PACKAGE

DIRECT SUPPORT

M242 25-MM AUTOMATIC GUN (NSN 1005-01-086-1400) M242 25-MM ENHANCED AUTOMATIC GUN (NSN 1005-01-454-0396)

UPPER AND LOWER CLUTCH ASSEMBLIES DISASSEMBLY/ASSEMBLY DISASSEMBLY, CLEANING, INSPECTION, LUBRICATION, ASSEMBLY

INITIAL SETUP:

Tools and Special Tools
Goggles (item 19, WP 0085 00)
Rubber gloves (item 18, WP 0085 00)
Small arms repairman tool kit (item 43, WP 0085 00)
Small arms shop set (item 35, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Dry cleaning solvent (item 27, WP 0116 00)
Grease (item 11, WP 0116 00)
Spring pin (2) (12524618-1)

Equipment Conditions
WP 0073 00 Clutch assemblies removed

Special Environmental Conditions
Well-ventilated area required when using dry cleaning solvent.

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

DISASSEMBLY

WARNING

Wear eye protection when removing spring pin. You can be blinded if spring pin hits you in the eye.

Be careful when removing clutch dogs. Helical spring is under pressure and personnel can be blinded if struck in the eye by flying helical spring.

NOTE

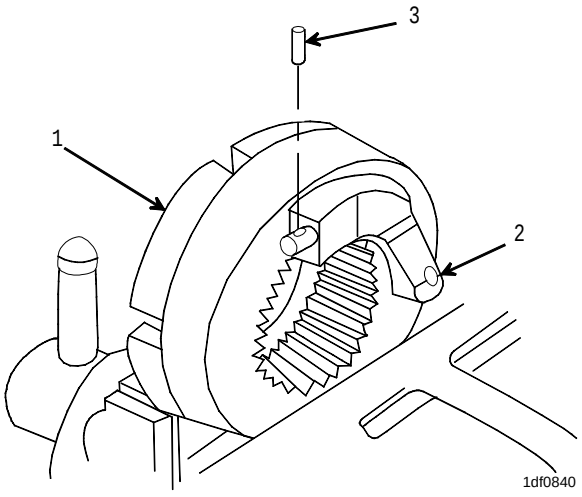
Upper and lower clutch assemblies are identical except that right hand clutch dogs on the upper clutch assembly point in a clockwise direction and left hand clutch dogs on the lower clutch assembly point in a counterclockwise direction.

The following procedure is written for the upper clutch assembly, but also applies to the lower clutch assembly.

DISASSEMBLE UPPER CLUTCH ASSEMBLY.

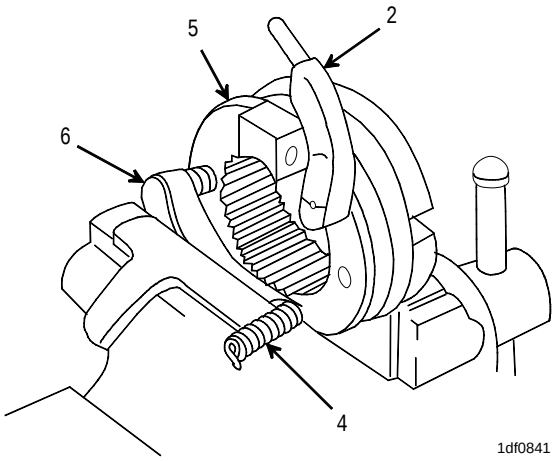
a. Place upper clutch assembly (1) in vise with vise jaw caps with one right hand clutch dog (2) at the top.

b. Tap spring pin (3) out of right hand clutch dog (2). Discard spring pin.



c. Remove right hand clutch dog (2) and helical spring (4) from positive clutch (5).

d. Loosen vise and rotate positive clutch (5) 180 degrees with remaining right hand clutch dog (6) on top.



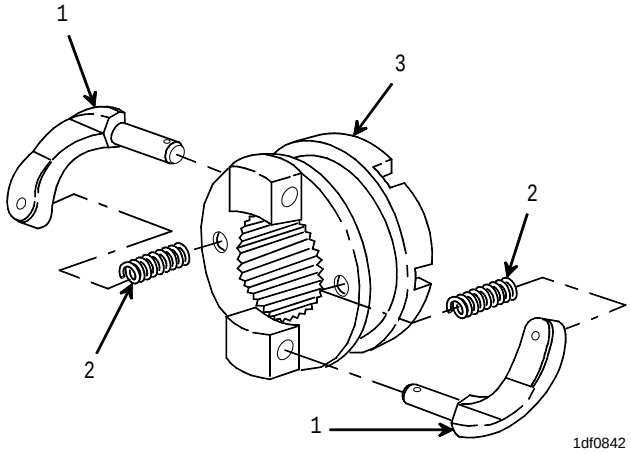
CLEANING

WARNING

Dry cleaning solvent (SD) is flammable and toxic. Use in well-ventilated area away from an open flame or a smoking area. This solvent evaporates quickly and has a drying effect on the skin. It may cause cracks in the skin and, in some cases, mild irritation or inflammation. If solvent comes in contact with eyes or skin, flush with water.

CLEAN UPPER AND LOWER CLUTCH ASSEMBLIES.

Using brush and solvent, clean clutch dogs (1), helical springs (2), and positive clutches (3).

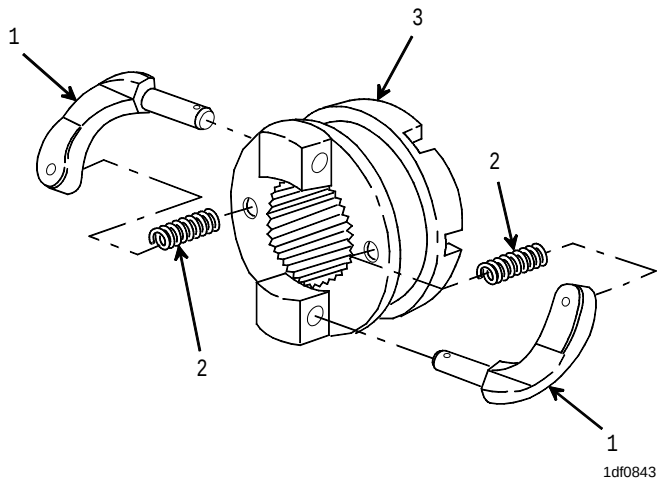


INSPECTION

INSPECT UPPER AND LOWER CLUTCH ASSEMBLIES.

a. Visually inspect clutch assemblies for broken clutch dogs (1) and broken or missing helical springs (2). If any of these conditions are found, replace defective part.

b. Visually inspect clutch assemblies for cracked or chipped positive clutches (3). If positive clutch is damaged, replace entire clutch assembly.



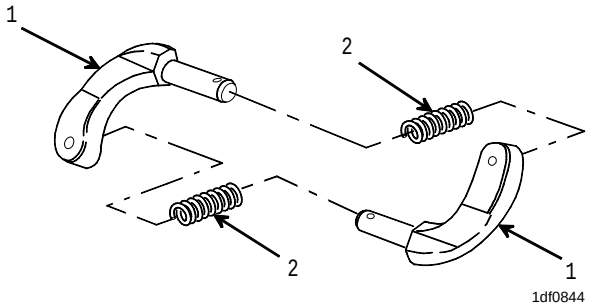
LUBRICATION

CAUTION

Greasing clutch splines may cause cold weather failure.

LUBRICATE UPPER AND LOWER CLUTCH ASSEMBLY.

Using acid brush, apply light coat of grease to entire surface of left hand and right hand clutch dogs (1) and helical springs (2). Do not lubricate clutch splines.



ASSEMBLY

WARNING

Wear eye protection when installing spring pin. You can be blinded if spring pin hits you in the eye.

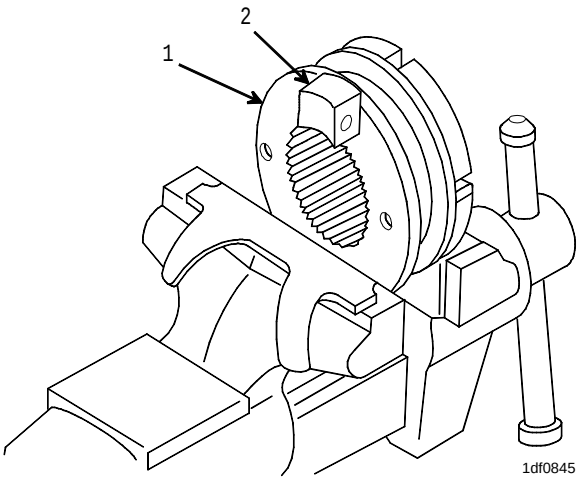
Be careful when installing clutch dogs. Helical spring is under pressure. You can be blinded if flying spring hits you in the eye.

NOTE

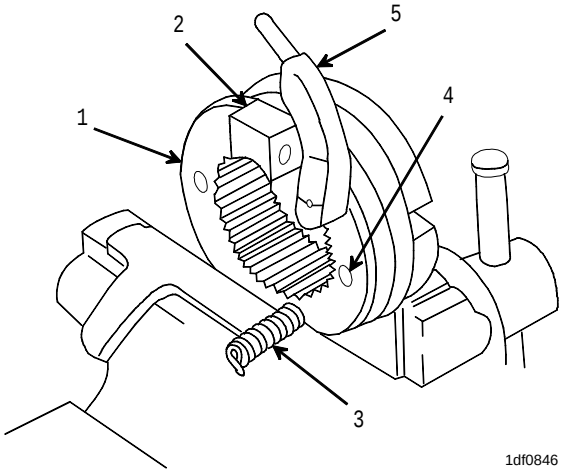
The following procedure is written for the upper clutch assembly, but also applies to the lower clutch assembly.

1. ASSEMBLE UPPER CLUTCH ASSEMBLY.

   a. Place positive clutch (1) in vise with vise jaw caps with one of the clutch lugs (2) at the top.

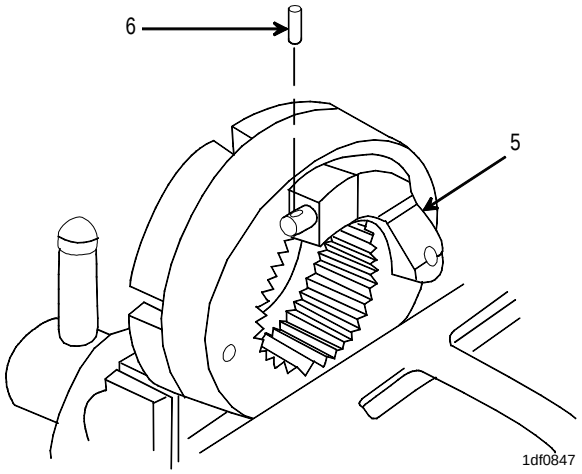


   b. Insert helical spring (3) into clutch dog recess (4) and install round end of right hand clutch dog (5) into clutch lug (2) and place other end of right hand clutch dog (5) over helical spring. Make sure helical spring (3) is in positive clutch (1) and clutch dog recess (4).



ASSEMBLY - Continued

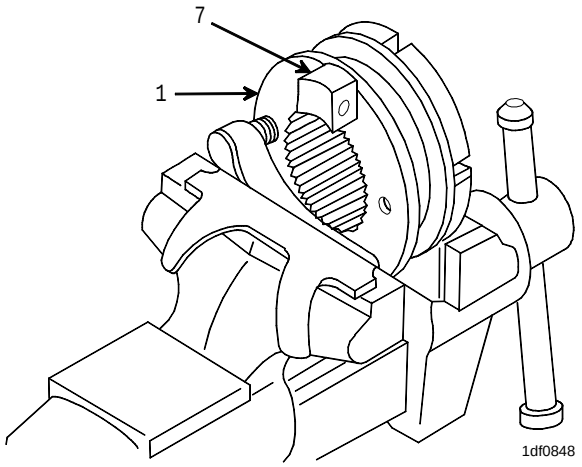
c. Install new spring pin (6) into right hand clutch dog (5).



d. Loosen vise and rotate positive clutch (1) 180 degrees until other clutch lug (7) is on top; repeat steps a through c to install remaining right hand clutch dog and helical spring on clutch.

NOTE

Make sure that right hand clutch dogs on the upper clutch assembly point in a clockwise direction and left hand clutch dogs on the lower clutch assembly point in a counterclockwise direction.



2. INSTALL UPPER AND LOWER CLUTCH ASSEMBLIES (WP 0073 00).

END OF WORK PACKAGE

DIRECT SUPPORT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

GEAR CLUTCH ASSEMBLY DISASSEMBLY/ASSEMBLY DISASSEMBLY, CLEANING, INSPECTION, LUBRICATION, ASSEMBLY

INITIAL SETUP:

Tools and Special Tools
Gear clutch tool (item 22, WP 0085 00)
Goggles (item 19, WP 0085 00)
Rubber gloves (item 18, WP 0085 00)
Small arms repairman tool kit (item 43, WP 0085 00)
Small arms shop set (item 35, WP 0085 00)
22 mm crowfoot wrench (item 8, WP 0085 00)

Materials/Parts
Acid brush (item 4, WP 0116 00)
Dry cleaning solvent (item 27, WP 0116 00)
Grease (item 11, WP 0116 00)
Wiping rags (item 21, WP 0116 00)

Personnel Required
Two

Equipment Conditions
WP 0073 00 Gear clutch assembly removed

Special Environmental Conditions
Well-ventilated area required when using dry cleaning solvent.

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

Wear eye protection when using striking instruments. You can be blinded if flying chips hit you in the eye.

DISASSEMBLY

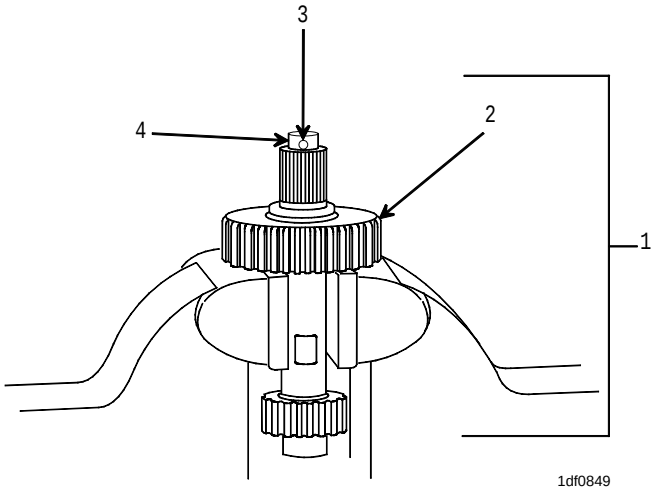
WARNING

Spur gear rollers and rivets contained under spur gear are under spring pressure. Wear eye protection and remove spur gear rollers only when spur gear rollers are expanded into the two troughs under clutch spur gear. Eye injury may result if spur gear rollers and tubular rivets are allowed to shoot out from clutch spur gear.

REMOVE CLUTCH SPUR GEAR.

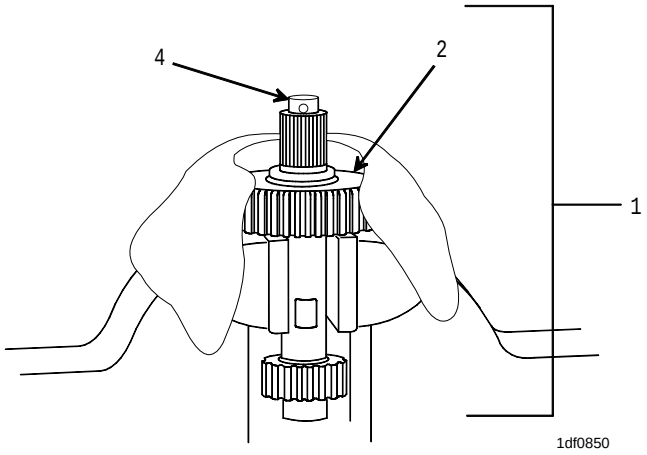
a. Place gear clutch assembly (1) in vise with vise jaw caps with the spur gear (2) up.

b. Remove headless straight pin (3) from spur gearshaft (4).



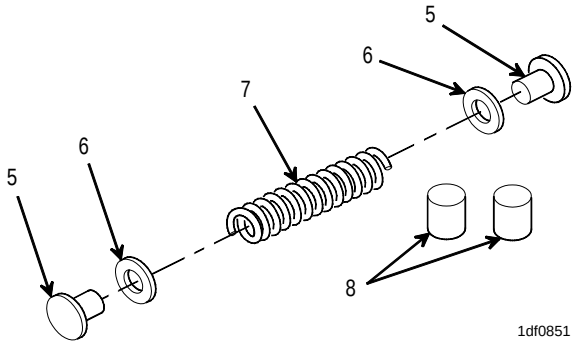
c. Wrap entire gear clutch assembly (1) in several wraps of wiping rags.

d. Pull spur gear (2) off of spur gearshaft (4) allowing spring pressure to expand in wiping rags.



e. Remove tubular rivets (5), two flat washers (6), helical spring (7), and two rollers (8) from wiping rag.

f. Remove spur gearshaft (4) from vise.



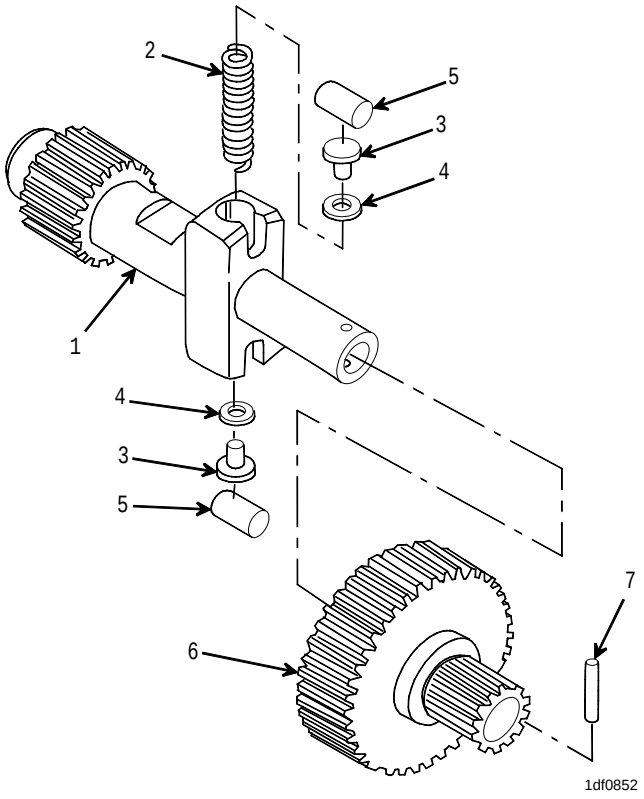
CLEANING

WARNING

Dry cleaning solvent (SD) is flammable and toxic. Use in well-ventilated area away from an open flame or a smoking area. This solvent evaporates quickly and has a drying effect on the skin. It may cause cracks in the skin and, in some cases, mild irritation or inflammation. If solvent comes in contact with eyes or skin, flush with water.

CLEAN GEAR CLUTCH ASSEMBLY.

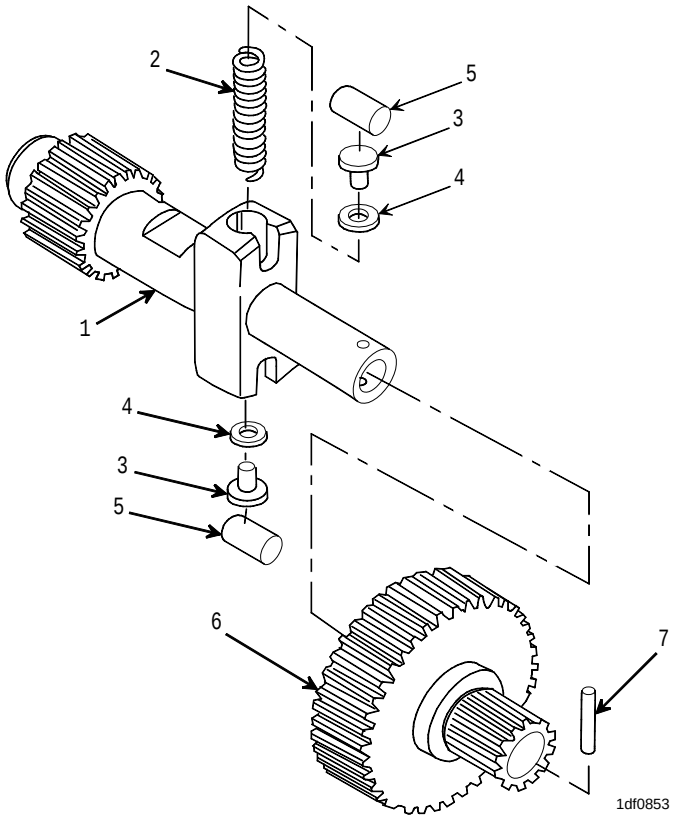
Using brush and dry cleaning solvent, clean spur gear shaft (1), helical spring (2), tubular rivets (3), flat washers (4), spur gear rollers (5), spur gear (6), and headless straight pin (7).



INSPECTION

INSPECT GEAR CLUTCH ASSEMBLY.

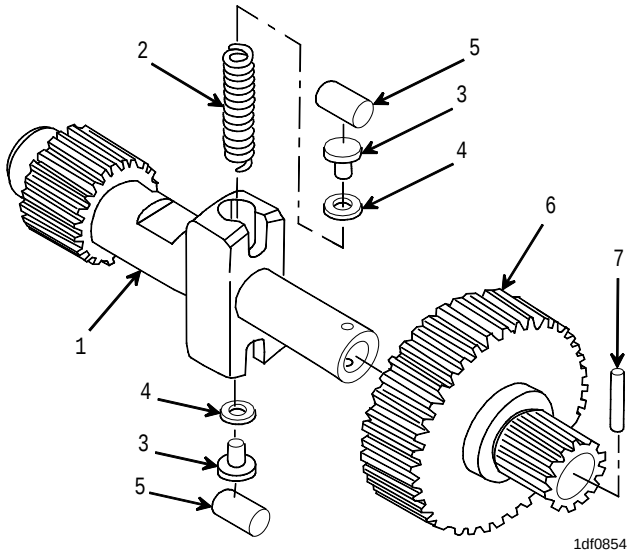
Visually inspect spur gear shaft (1), helical spring (2), tubular rivets (3), flat washers (4), spur gear rollers (5), spur gear (6), and headless straight pin (7) for cracks, chips, breaks, and missing parts. If any of these conditions are found, replace defective part.



LUBRICATION

LUBRICATE GEAR CLUTCH ASSEMBLY.

Using acid brush, apply a light coat of grease to spur gear shaft (1), helical spring (2), tubular rivets (3), flat washers (4), spur gear rollers (5), spur gear (6), and headless straight pin (7).



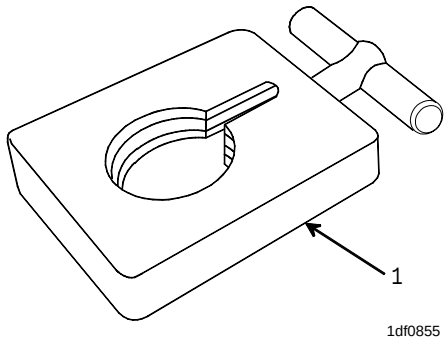
ASSEMBLY

WARNING

Wear eye protection when installing spring. You can be blinded if spring hits you in the eye.

1. ASSEMBLE GEAR CLUTCH PARTS.

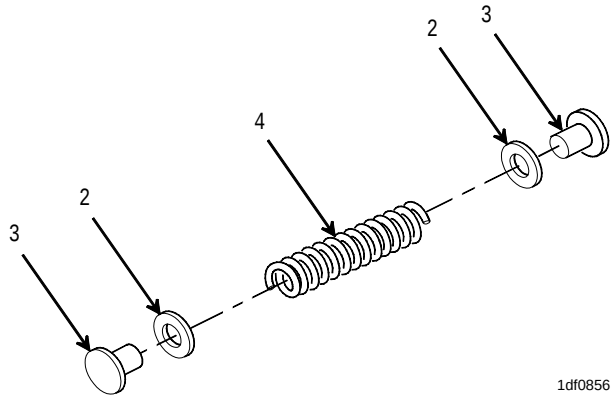
   a. Place gear clutch tool (1) in vise.



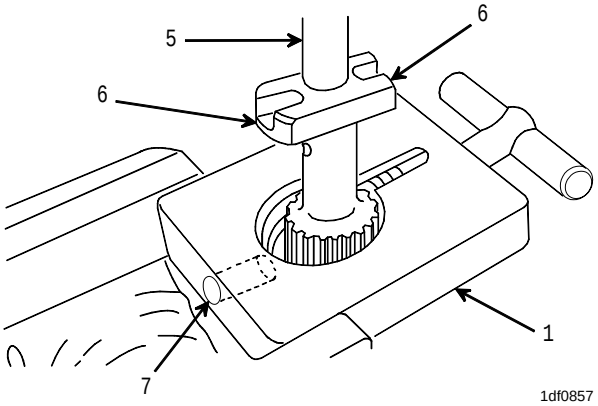
ASSEMBLY - Continued

b. Slide a flat washer (2) on each tubular rivet (3).

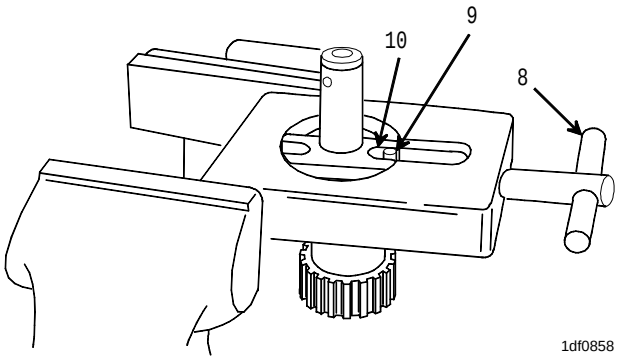
c. Install flat washer (2) and tubular rivet (3) at both ends of helical spring (4).



d. Place spur gearshaft (5) in gear clutch tool (1) with lugs (6) aligned with hole (7) in gear clutch tool.

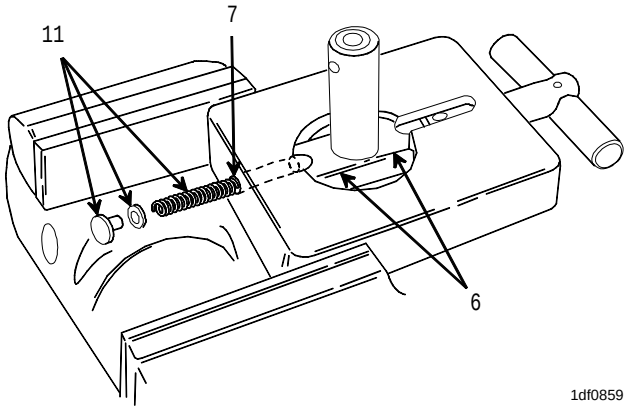


e. Pull out on gear clutch tool handle (8) and place gear spur roller (9) upright in slot (10) next to handle.

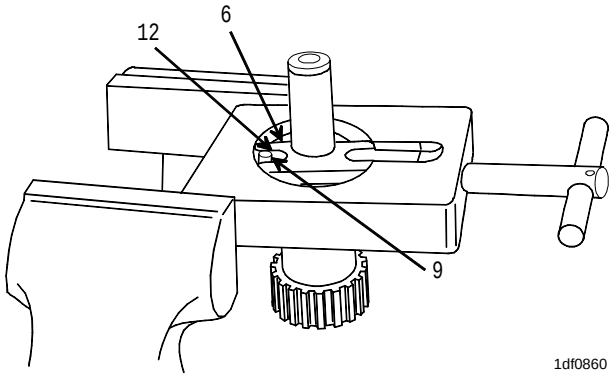


f. Slide flat washer/tubular rivet/helical spring set (11) into hole (7) in tool.

g. Push flat washer/tubular rivet/helical spring set (11) all the way into spur gearshaft lugs (6).



h. Install gear spur roller (9) upright in slot (12) in spur gearshaft lug (6).



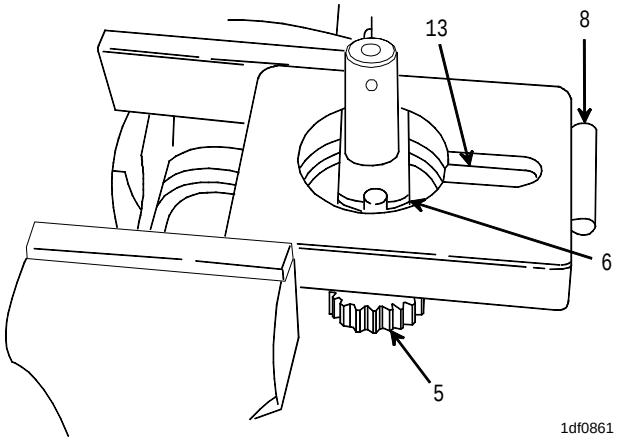
ASSEMBLY - Continued

NOTE

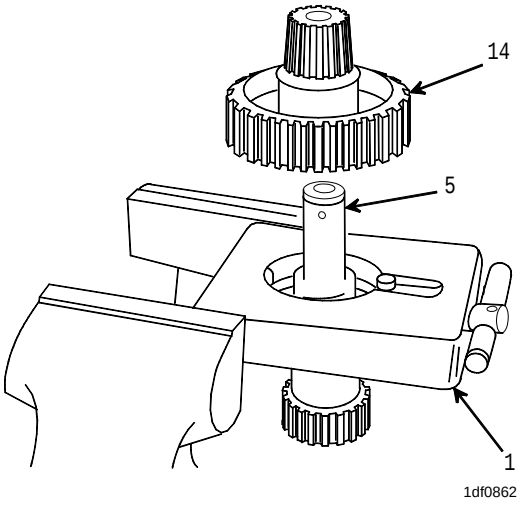
Use helper to turn gear for next step.

i. Push in gear clutch tool handle (8) and hold in place.

j. Grasp gear end of spur gearshaft (5) and turn until lugs (6) are 90 degrees from gear clutch tool handle shaft (13).

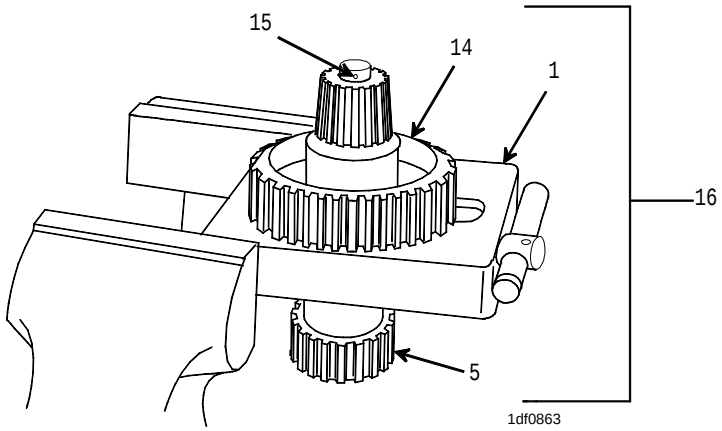


k. Install spur gear (14) on spur gearshaft (5) until bottom of spur gear (14) is flush with top of gear clutch tool (1).



l. Hold spur gear (14) flush with gear clutch tool (1) and push up on gear end of spur gearshaft (5) until hole (15) in end of spur gearshaft (5) is above the spline on the spur gear (14).

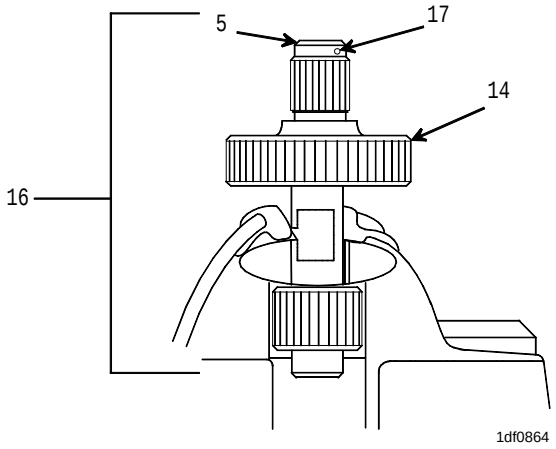
m. Carefully lift gear clutch assembly (16) straight up out of gear clutch tool (1) and remove gear clutch tool (1) from vise.



n. Using vise jaw caps, place gear clutch assembly (16) in vise with spur gear (14) up.

o. Install headless straight pin (17) into spur gearshaft (5).

p. Turn spur gear (14) with force until gear spur rollers snap into notches in wall of spur gear (14).



ASSEMBLY - Continued

2. TORQUE TEST GEAR CLUTCH ASSEMBLY.

NOTE

The gear clutch assembly can be torque tested without disassembling the feeder assembly by measuring torque slippage at the worm shaft nut. Refer to WP 0007 00.

a. Using vise jaw caps, place gear clutch assembly (16) in vise with spur gearshaft (5) up.

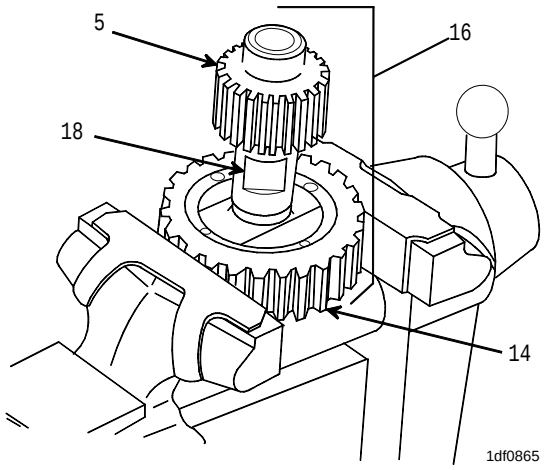
b. Place crowfoot on flats (18) and turn spur gearshaft (5) until spur gearshaft (5) begins to slip from detent position. Record torque reading and repeat torque test in opposite direction.

c. Check that clutch slips when a torque of 32 to 100 ft-lbs (43.4 to 135.6 N-m) is applied.

d. If torque measurement is not within tolerance, use crowfoot and breaker bar to rotate spur gearshaft past detent position at least ten times in both directions. Repeat step b.

e. If torque measurement is not met after performing step d., replace spur gear (14).

f. Remove gear clutch assembly from vise.



3. INSTALL GEAR CLUTCH ASSEMBLY (WP 0073 00).

END OF WORK PACKAGE

DIRECT SUPPORT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

FEEDER HOUSING ASSEMBLY DISASSEMBLY/ASSEMBLY INSPECTION, DISASSEMBLY, INSPECTION, ASSEMBLY

INITIAL SETUP:

Tools and Special Tools
Goggles (item 19, WP 0085 00)
Small arms repairman tool kit (item 43, WP 0085 00)
Small arms shop set (item 35, WP 0085 00)

Materials/Parts
Plain encased seal (MS51001-12-3)
Plain encased seal (2) (12524624-2)
Sleeve bushing (2) (12524213-5)
Sleeve bushing (12524213-9)
Sleeve bushing (12524213-11)
Wooden block (approximately 1/2 in. x 2 in. x 2 in. (12.7 mm x 50.8 mm x 50.8 mm))

References
WP 0081 00

Equipment Conditions
WP 0073 00 Feeder drive assembly disassembled

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on gun. Serious injury or death may occur.

Wear eye protection when using striking instruments. Personnel can be blinded if struck in the eyes by flying chips.

INSPECTION

WARNING

Wear eye protection when using striking instruments. You can be blinded if flying chips hit you in the eye.

NOTE

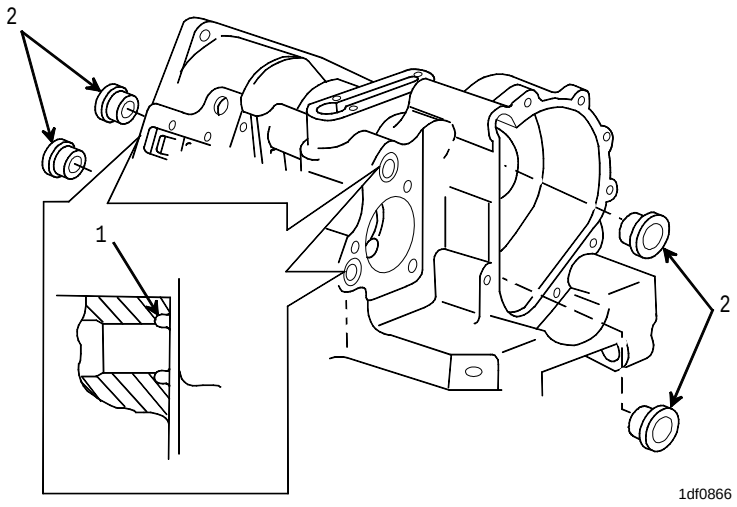
This procedure is typical for shouldered grooves using plain encased seals.

1. INSPECT SEAL.

   Visually inspect inside diameter of three plain encased seals (1) for grooves or other damage. If damage is found, proceed to DISASSEMBLY to replace seal(s).

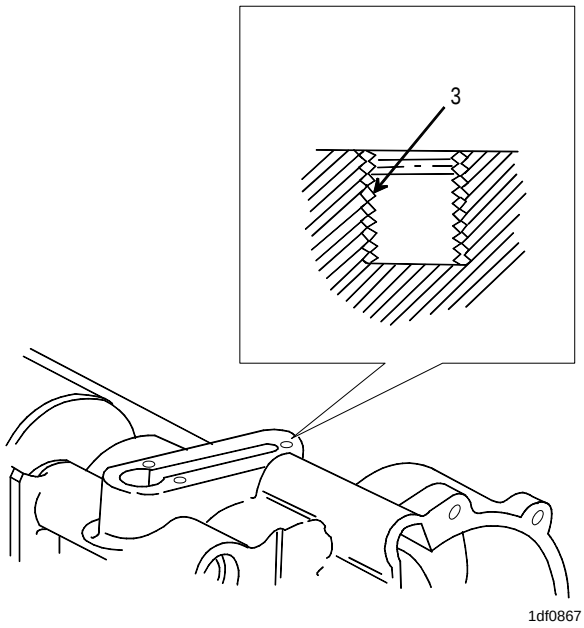
2. VISUALLY INSPECT SLEEVE BUSHINGS.

   Visually inspect sleeve bushings (2) for galling. If galling is found, proceed to DISASSEMBLY to replace sleeve bushing(s).



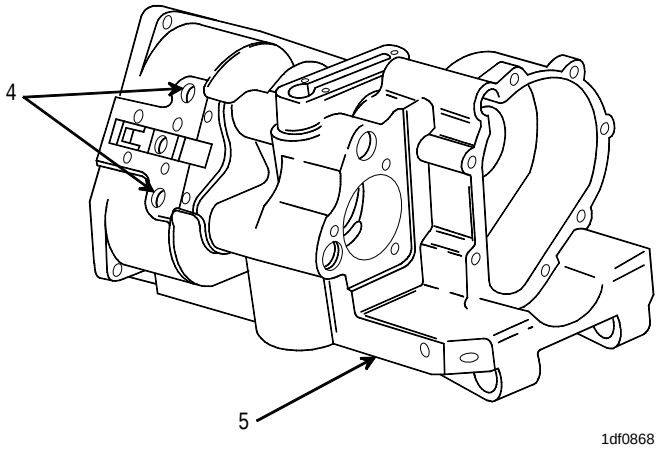
3. INSPECT SCREW THREADED INSERT.

Visually inspect all screw threaded inserts (3) for burrs and broken coils. If either of these conditions are found, proceed to WP 0081 00 to replace screw threaded insert(s).



4. INSPECT THREADED HOLES.

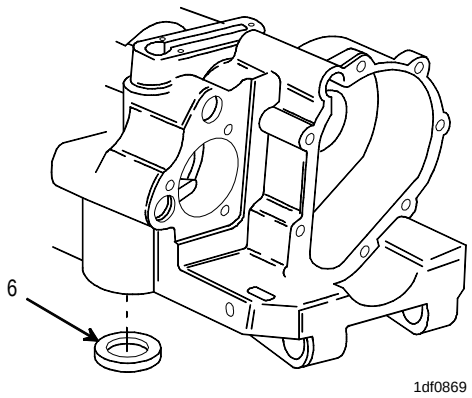
Visually inspect two threaded holes (4) in feeder housing (5) for damage. If damage is found, perform threaded hole repair.



INSPECTION - Continued

5. INSPECT NEEDLE BEARING.

   Inspect needle bearing (6) for binding. If binding occurs, proceed to DISASSEMBLY to replace needle bearing.



DISASSEMBLY

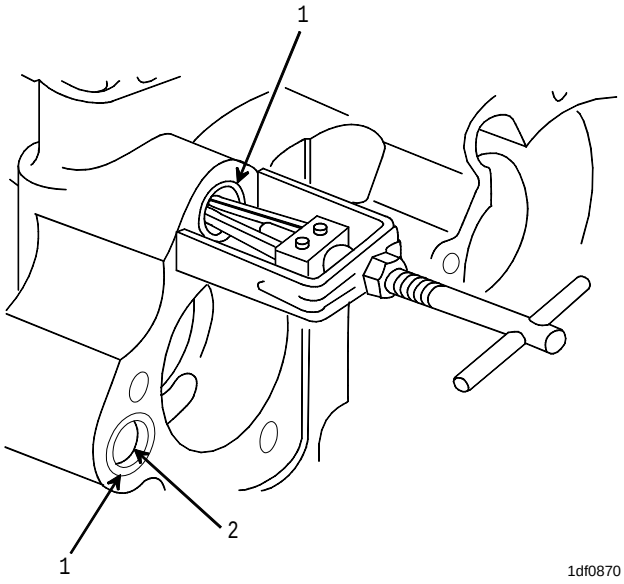
NOTE

This procedure is typical for removal of plain encased seals.

The following procedure is written for one plain encased seal, but applies to all three plain encased seals.

1. REMOVE PLAIN ENCASED SEAL.

   Using inside mechanical puller, remove plain encased seal (1) from housing bore (2). Discard plain encased seal.



2. REMOVE SLEEVE BUSHING.

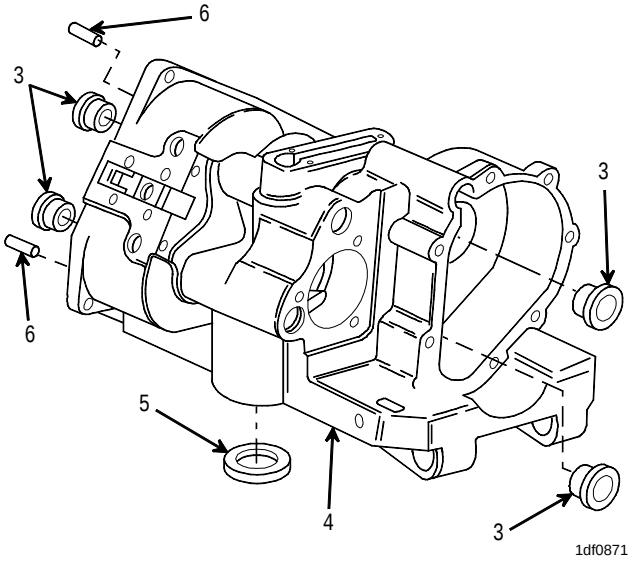
   Remove sleeve bushing (3) from feeder housing (4). Discard sleeve bushing.

3. REMOVE NEEDLE BEARING.

   Remove needle bearing (5) from feeder housing (4).

4. REMOVE STRAIGHT PINS.

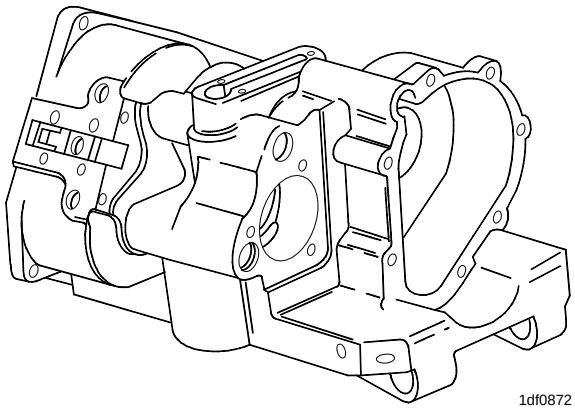
   If damaged, remove two straight pins (6) from feeder housing (4).



INSPECTION

INSPECT FEEDER HOUSING ASSEMBLY.

Inspect feeder housing for cracks. If feeder housing is cracked, replace entire feeder housing assembly.



ASSEMBLY

1. INSTALL STRAIGHT PINS.

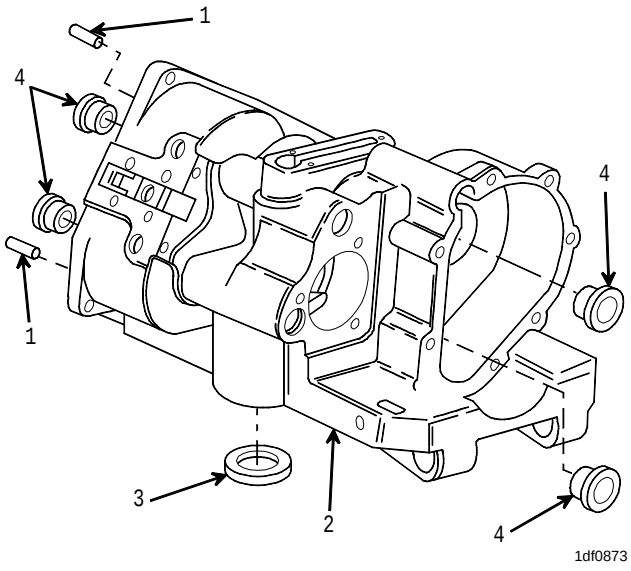
   If removed, install two straight pins (1) into feeder housing (2).

2. INSTALL NEEDLE BEARING.

   Install needle bearing (3) into feeder housing (2).

3. INSTALL SLEEVE BUSHINGS.

   Install four sleeve bushings (4) until each sleeve bushing is seated into feeder housing (2).



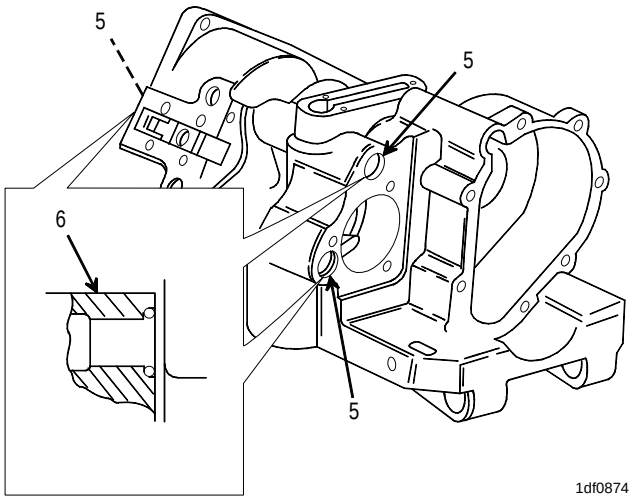
NOTE

This procedure is typical for installing plain encased seals.

The following procedure is written for one plain encased seal, but applies to all three plain encased seals.

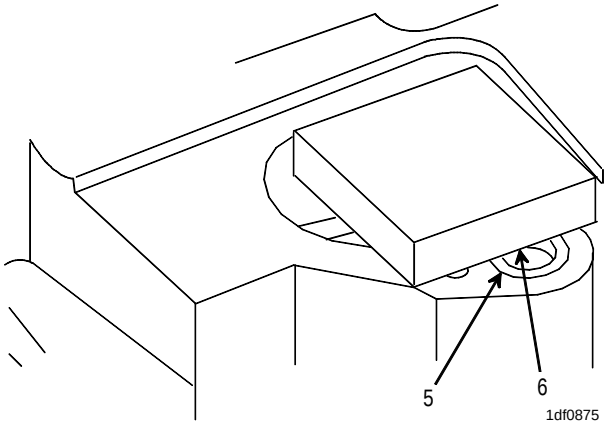
4. INSTALL PLAIN ENCASED SEALS.

   a. Place plain encased seals (5) in end of housing bore (6).



b. Place wood block against plain encased seal (5).

c. Lightly tap on wood block until plain encased seal (5) is seated in housing bore (6).



5. ASSEMBLE FEEDER DRIVE ASSEMBLY (WP 0073 00).

END OF WORK PACKAGE

DIRECT SUPPORT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

INDEX DRIVE COVER ASSEMBLY DISASSEMBLY/ASSEMBLY DISASSEMBLY, INSPECTION, ASSEMBLY

INITIAL SETUP:

Tools and Special Tools
Bit holder (item 20, WP 0085 00)
Cross-tip screwdriver (item 32, WP 0085 00)
Screwdriver bit (item 2, WP 0085 00)
Small arms repairman tool kit (item 43, WP 0085 00)
Thickness gage (item 16, WP 0085 00)
Torque wrench, 0-80 in.-oz (item 51, WP 0085 00)

Materials/Parts
Self-locking nut (7) (MS21042-02)

References
WP0083 00

Equipment Conditions
WP 0073 00 Index drive cover assembly removed

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

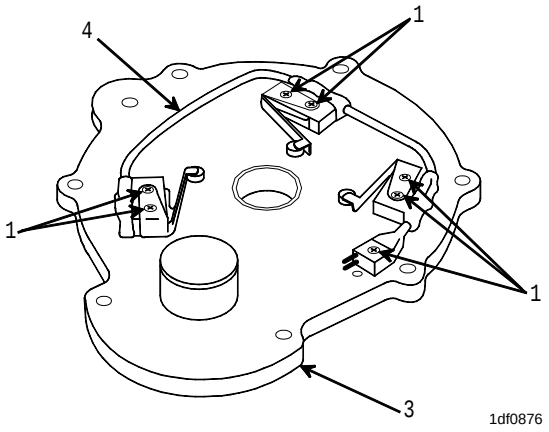
DISASSEMBLY

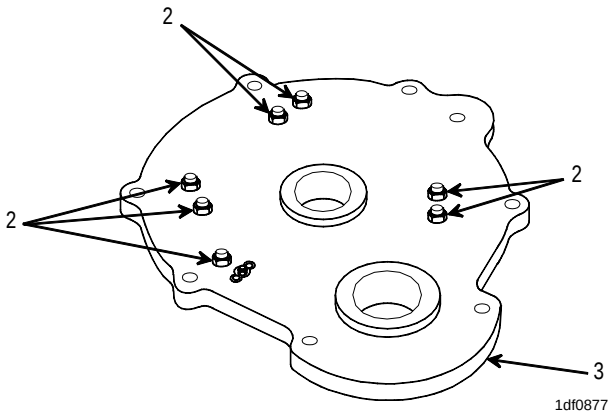
REMOVE CABLE ASSEMBLY.

a. Loosen seven screws (1) and remove seven self-locking nuts (2) from index drive cover (3). Discard self-locking nuts.

b. Turn index drive cover (3) over with cable assembly (4) on top.

c. Remove seven screws (1) from cable assembly (4).



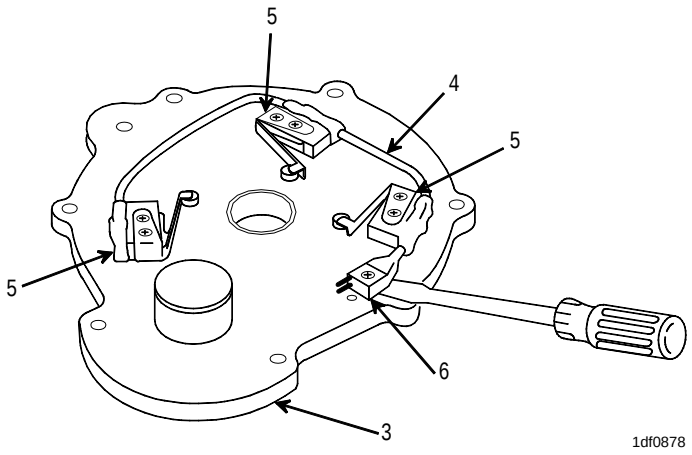


d. Using flat-tip screwdriver, lift three switch actuator adapters (5) and cable assembly connector (6) from index drive cover (3).

NOTE

Shims may be installed under microswitches of cable assembly.

e. Remove cable assembly (4) from index drive cover (3).



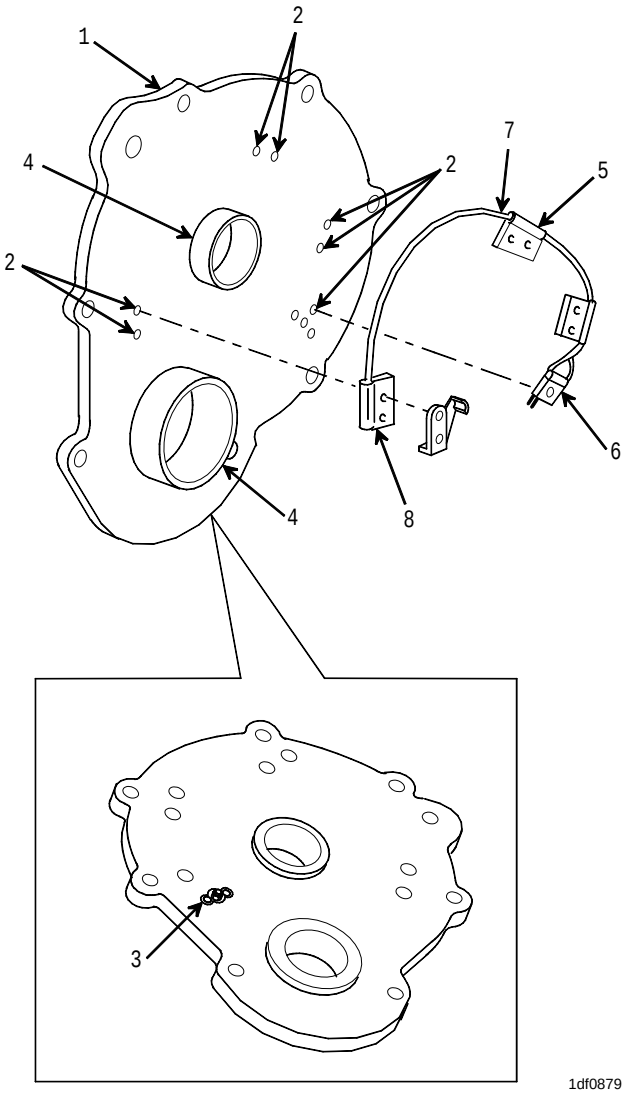
INSPECTION

INSPECT INDEX DRIVE COVER ASSEMBLY.

a. Visually inspect index drive cover (1) for stripped threads (2), missing nutplate (3), and damaged bushings (4). If any of these conditions are found, replace entire index drive cover assembly.

b. Visually inspect cable assembly (5) for damaged connector (6) and broken or frayed cable (7). If any of these conditions are found, replace cable assembly.

c. Visually inspect switch actuator adapters (8) for cracks or damaged rollers. If either of these conditions are found, replace switch actuator adapter.



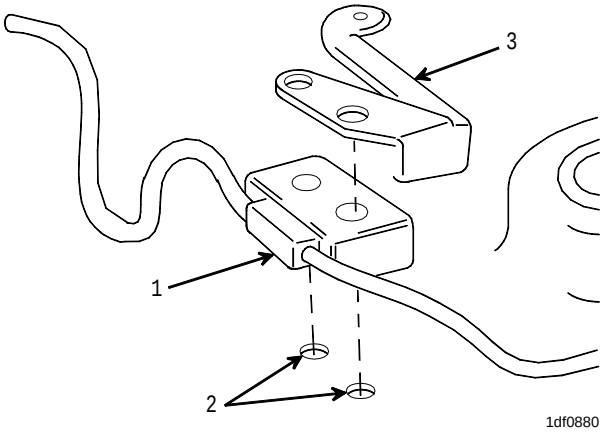
ASSEMBLY

CAUTION

Do not over torque screws and self-locking nuts. Damage to cable assembly switches or back plate could result.

1. INSTALL CABLE ASSEMBLY.

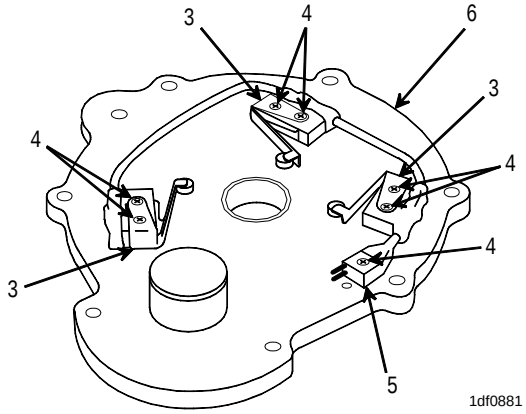
   a. Position cable assembly switches (1) over holes (2) and position three switch actuator adapters (3) over switches (1).



NOTE

There are six pan head screws and one flat head screw. The flat head screw goes through the cable connector.

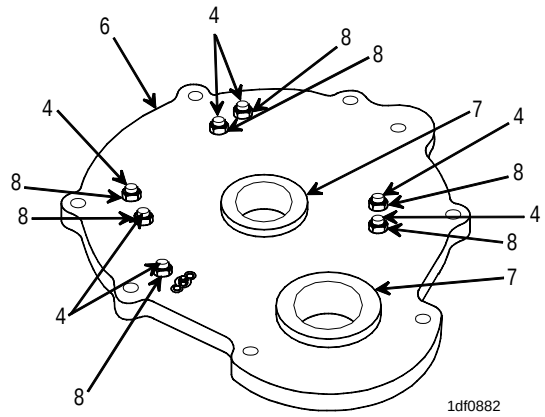
   b. Install seven screws (4) through the three switch actuator adapters (3) and cable connector (5) into index drive cover (6). Torque screws to 36 in.-oz ± 4 in.-oz. (0.254 N-m ± 0.028 N-m).



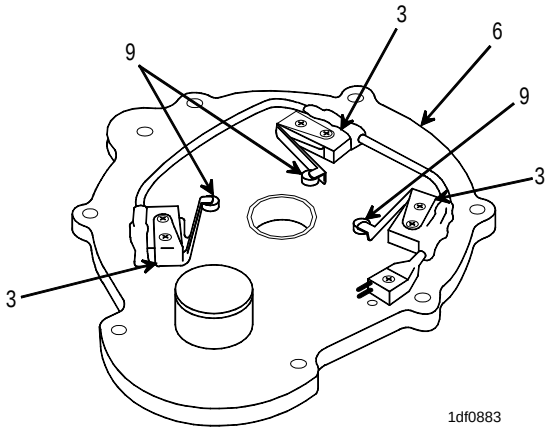
ASSEMBLY - Continued

c. Turn index drive cover (6) over with bushing flanges (7) on top.

d. Install seven new self-locking nuts (8) on screws (4). Torque self-locking nuts to 36 in.-oz ± 4 in.-oz. (0.254 N-m ± 0.028 N-m).



e. Check distance between index drive cover (6) and rollers (9) of three switch actuator adapters (3). If 0.004 in. feeler gage will not pass between index drive cover and roller, install shim. Refer to WP 0083 00 for shim manufacturing instructions.



2. INSTALL INDEX DRIVE COVER ASSEMBLY (WP 0073 00).

END OF WORK PACKAGE

DIRECT SUPPORT

M242 25-MM AUTOMATIC GUN (NSN 1005-01-086-1400) M242 25-MM ENHANCED AUTOMATIC GUN (NSN 1005-01-454-0396)

RECOIL MECHANISM DISASSEMBLY/ASSEMBLY DISASSEMBLY, CLEANING, INSPECTION, LUBRICATION, ASSEMBLY

INITIAL SETUP:

Tools and Special Tools
- Goggles (item 18, WP 0085 00)
- Recoil spring clamp assembly (item 7, WP 0085 00)
- Recoil spring compression tool (item 23, WP 0085 00)
- Rubber gloves (item 18, WP 0085 00)
- Small arms repairman tool kit (item 43, WP 0085 00)
- Small arms shop set (item 35, WP 0085 00)
- Spanner wrench (item 47, WP 0085 00)

Materials/Parts
- Acid brush (item 4, WP 0116 00)
- Dry cleaning solvent (item 27, WP 0116 00)
- Grease (item 11, WP 0116 00)
- Lockwire (item 34, WP 0116 00)
- Wiping rags (item 21, WP 0116 00)

Personnel Required
Two

References
WP 0080 00

Special Environmental Conditions
Well-ventilated area required when using dry cleaning solvent.

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on gun. Serious injury or death may occur.

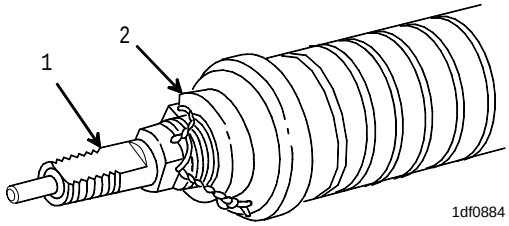
DISASSEMBLY

WARNING

Wear eye protection when cutting lockwire. You can be blinded if wire hits you in the eye.

1. REMOVE LOCKWIRE.

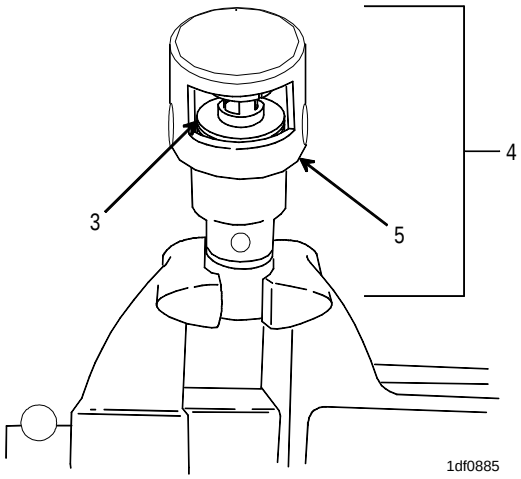
   Remove lockwire connecting damper housing assembly (1) and retaining nut (2).



2. PLACE RECOIL SPRING COMPRESSION TOOL IN VISE.

   a. Place center section (3) of recoil spring compression tool (4) in vise jaws.

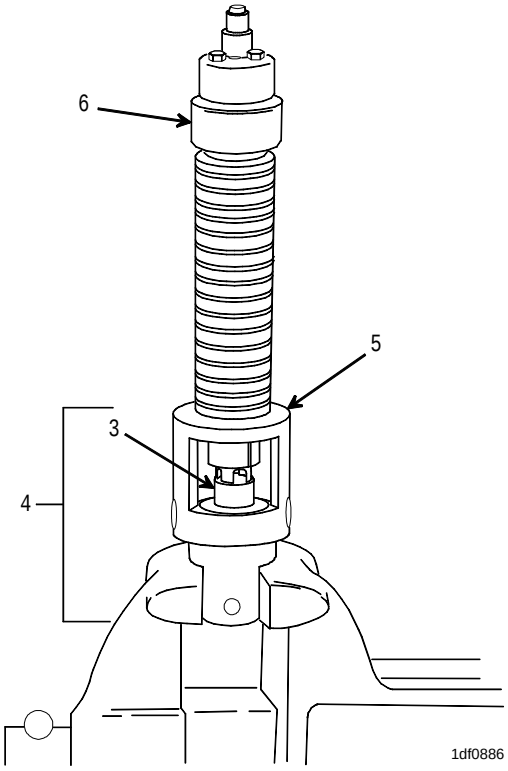
   b. Turn outer section (5) of recoil spring compression tool (4) until flush with center section (3).



3. PLACE RECOIL MECHANISM IN RECOIL SPRING COMPRESSION TOOL.

   a. Place recoil mechanism (6) in outer section (5) of recoil spring compression tool (4).

   b. Screw recoil mechanism (6) into center section (3) of recoil spring compression tool (4).



DISASSEMBLY - Continued

4. RELEASE RECOIL SPRING PRESSURE.

   a. Install handles (7) in outer section (5) of recoil spring compression tool (4).

   b. Turn the outer section (5) of recoil spring compression tool (4) clockwise until tool seats on bottom spacer (8). Continue to turn outer section (5) of recoil spring compression tool (4) up to 1-1/2 turns.

   c. Loosen retaining nut (2).

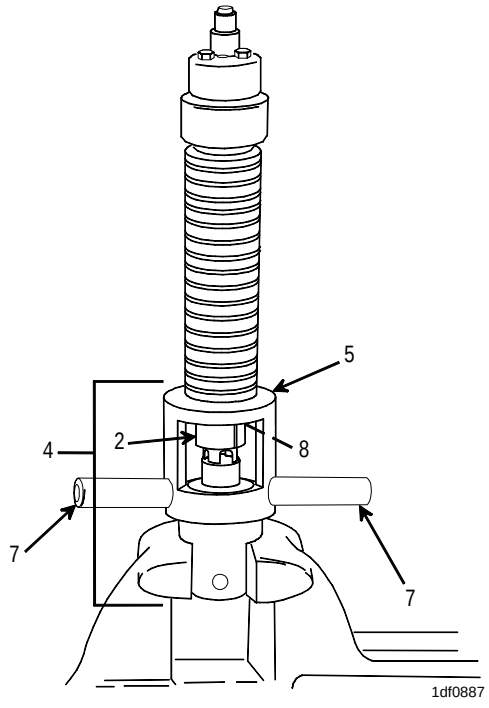
   d. Completely unscrew the retaining nut (2) and reinstall retaining nut (2) back on first two threads.

NOTE

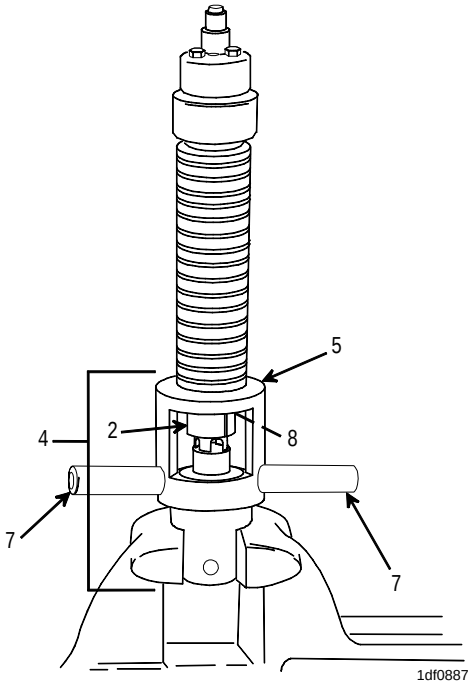
Prevent recoil unit from turning during following step.

   e. Turn the outer section (5) of the recoil spring compression tool (4) counterclockwise until spring pressure is released on tool.

   f. Remove handles (7).

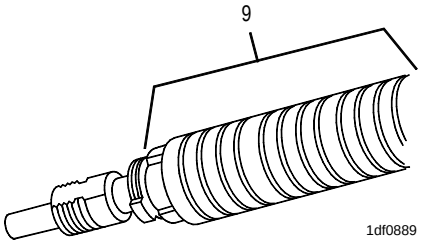


g. Remove recoil mechanism (6) from recoil spring compression tool (4).



5. LOOSEN SPRING SEGMENTS.

Tap each segment of outer spring assortment (9) to ensure that segments are not stuck together.

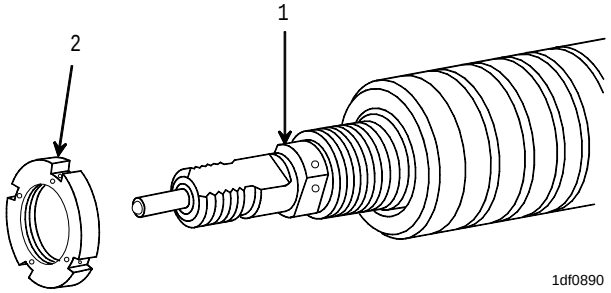


NOTE

Some spring tension may remain on self-locking nut. If tension remains, wrap a clean rag around spring segments and hold segments while removing self-locking nut to ensure spring segments are not removed out of order.

6. REMOVE RETAINING NUT.

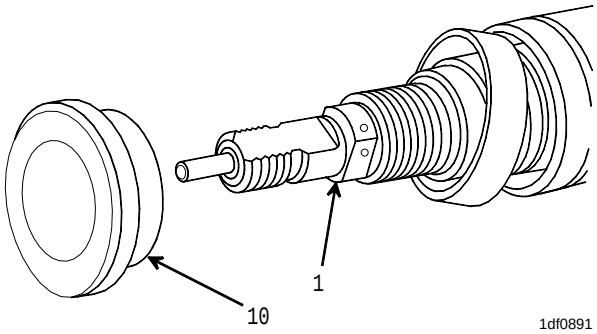
Remove retaining nut (2) from damper housing assembly (1).



DISASSEMBLY - Continued

7. REMOVE SLEEVE SPACER.

   Slide sleeve spacer (10) from damper housing assembly (1).



NOTE

The standard recoil, PN 12524420, spring assortments have one more spring than the enhanced (long) recoil, PN 12524530. Spring assortments used for the standard recoil: 12524426 (outer set) has 17 springs and 12524431 (inner set) has 18 springs. Spring assortments used for the enhanced (long) recoil: 12524531 (outer set) has 16 springs and 12524532 (inner set) has 17 springs.

8. REMOVE SPRING SETS.

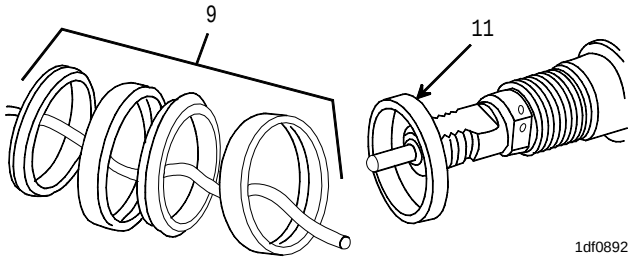
   a. Obtain two 24-inch pieces of lockwire.

NOTE

Keep outer spring assortment segments in order of removal (last one off must be first one on).

   b. Using one piece of wire, slide large outer spring assortment segments (9) over smaller inner spring assortment segments (11) onto wire loop.

   c. Close wire loop.



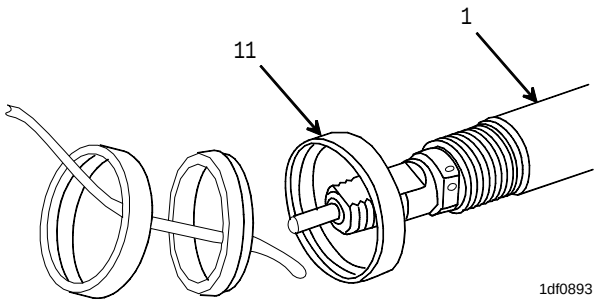
   d. Loosen small inner spring assortment segments (11).

NOTE

Keep inner spring assortment segments in order of removal.

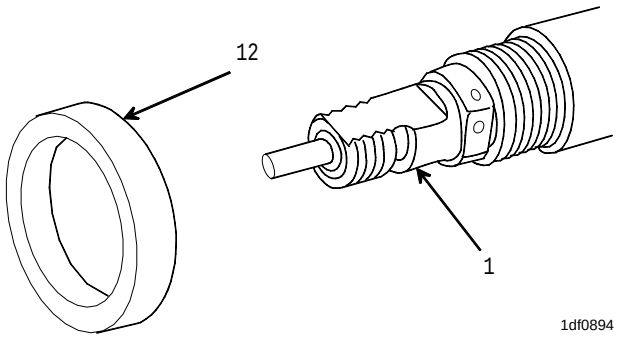
e. Slide small inner spring assortment segments (11) from damper housing assembly (1) onto remaining wire loop.

f. Close wire loop.



9. REMOVE RECOIL SPRING SLEEVE SPACER.

Slide recoil spring sleeve spacer (12) from damper housing assembly (1).



CLEANING

WARNING

Dry cleaning solvent (SD) is flammable and toxic. Use in well-ventilated area away from an open flame or a smoking area. This solvent evaporates quickly and has a drying effect on the skin. It may cause cracks in the skin and, in some cases, mild irritation or inflammation. If solvent comes in contact with eyes or skin, flush with water.

CAUTION

Do not immerse the damper housing assembly into solvent. It will damage packing.

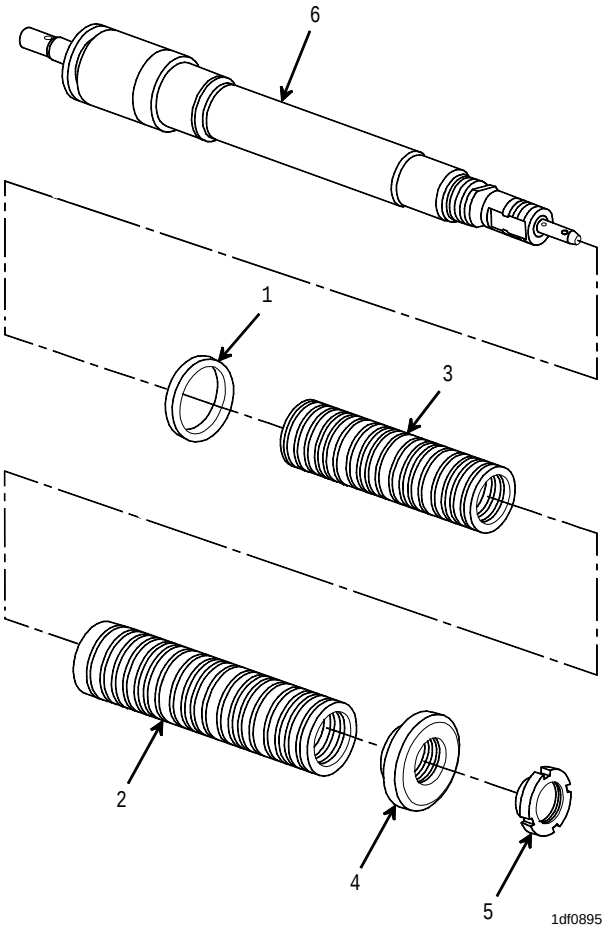
NOTE

Do not remove spring assortment segments from wire loop during cleaning. Inner spring assortment segments and outer spring assortment segments are each a matched set and must be kept in the same order as when originally removed from damper housing assembly.

CLEAN RECOIL MECHANISM COMPONENTS.

a. Using brush and dry cleaning solvent, clean recoil spring sleeve spacer (1), outer spring assortment (2), inner spring assortment (3), sleeve spacer (4), and retaining nut (5).

b. Dip wiping rag in dry cleaning solvent and wipe the damper housing assembly (6) clean of all grease and dirt.



INSPECTION

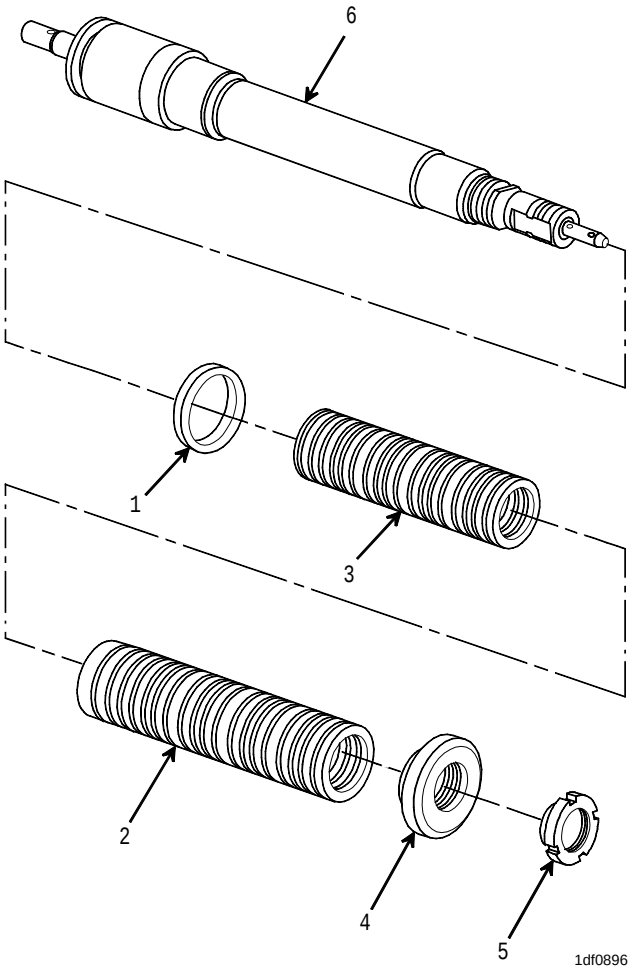
INSPECT RECOIL MECHANISM COMPONENTS.

NOTE

Inner spring assortment and outer spring assortment are only replaced as a set. Each set can be replaced individually.

a. Visually inspect recoil spring sleeve spacer (1), outer spring assortments (2), inner spring assortment (3), sleeve spacer (4), and retaining nut (5) for cracks, chips, galls, breaks, bends, and stripped threads. If any of these conditions are found, replace defective part.

b. Visually inspect damper housing assembly (6) for cracks, chips, galls, breaks, bends, and stripped threads. If any of these conditions are found, refer to WP 0080 00.



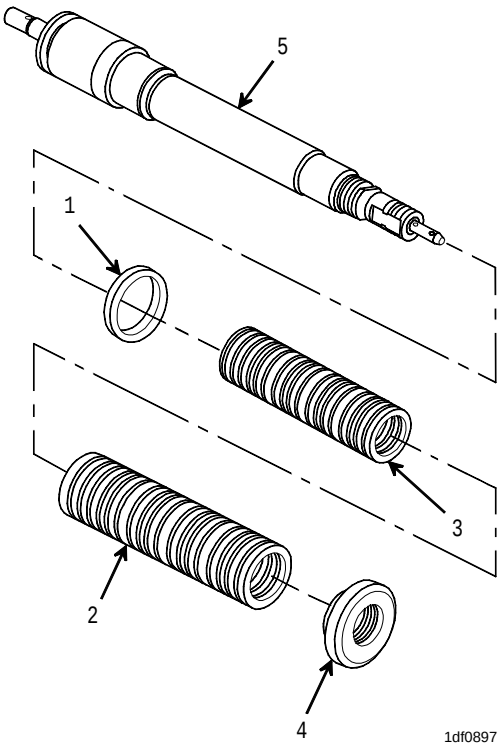
LUBRICATION

LUBRICATE RECOIL MECHANISM COMPONENTS.

NOTE

Do not apply grease to any threads.

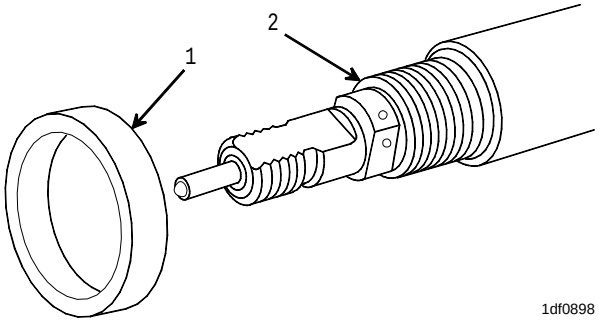
Using acid brush, apply heavy coat of grease to the recoil spring sleeve spacer (1), outer spring assortment (2), inner spring assortment (3), sleeve spacer (4), and part of the damper housing assembly (5) covered by the spring sets.



ASSEMBLY

1. INSTALL RECOIL SPRING SLEEVE SPACER.

   Slide recoil spring sleeve spacer (1) on damper housing assembly (2).



NOTE

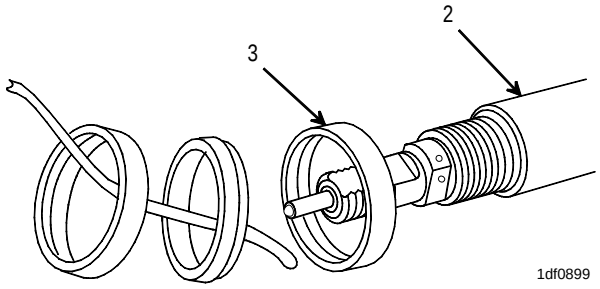
The standard recoil, PN 12524420, spring assortments have one more spring than the enhanced (long) recoil, PN 12524530. Spring assortments used for the standard recoil: 12524426 (outer set) has 17 springs and 12524431 (inner set) has 18 springs. Spring assortments used for the enhanced (long) recoil: 12524531 (outer set) has 16 springs and 12524532 (inner set) has 17 springs.

2. INSTALL SPRING ASSORTMENTS.

NOTE

The first and last small inner spring assortment segment will be an inside bevel.

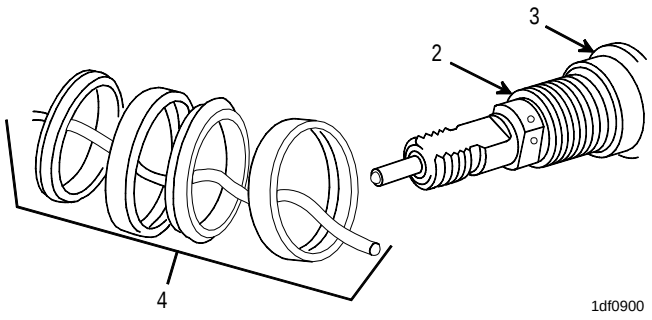
a. Open small inner spring assortment wire loop and slide small inner spring assortment segments (3) onto damper housing assembly (2) in the same order as when removed. Make sure the first segment is an inside bevel, the next an outside bevel, and so forth.



NOTE

The first and last large outer spring assortment segment will be a half ring with an outside bevel.

b. Open large outer spring assortment wire loop and slide the outer spring assortment segments (4) over the small inner spring assortment segments (3) already on damper housing assembly (2). Make sure the first segment is a half ring with outside bevel, the next a full ring with inside bevel, and so forth.



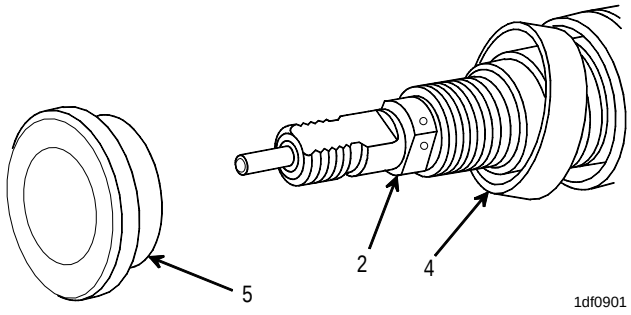
ASSEMBLY – Continued

NOTE

Stack tight and even up spring assortment segments before the next step.

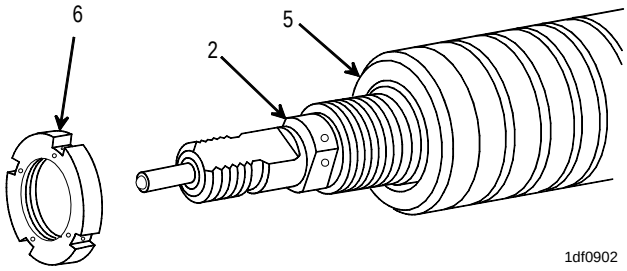
3. INSTALL SLEEVE SPACER.

   Slide small end of sleeve spacer (5) over damper housing assembly (2) and inside outer spring assortment segment (4).



4. INSTALL RETAINING NUT.

   Loosely install retaining nut (6) on damper housing assembly (2), assuring that safety wire holes in retaining nut (6) are facing away from sleeve spacer (5).

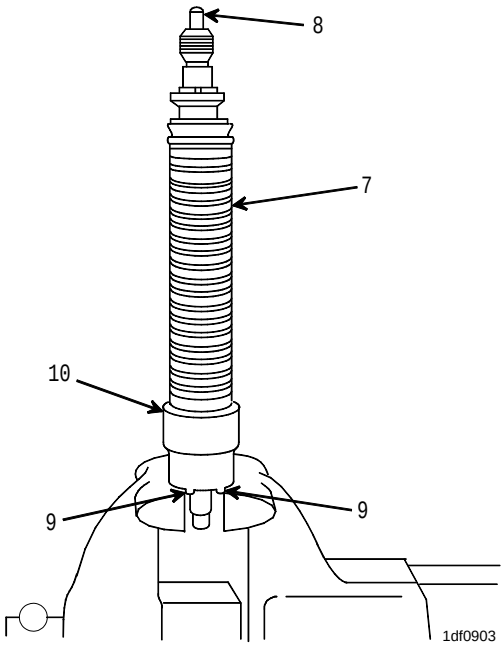


5. PLACE RECOIL MECHANISM IN VISE.

   a. Place recoil mechanism (7) into vise with indicator rod (8) on top.

   b. Before tightening the vise, ensure the vise jaws are mated with the shoulders (9) on the damper housing cap (10).

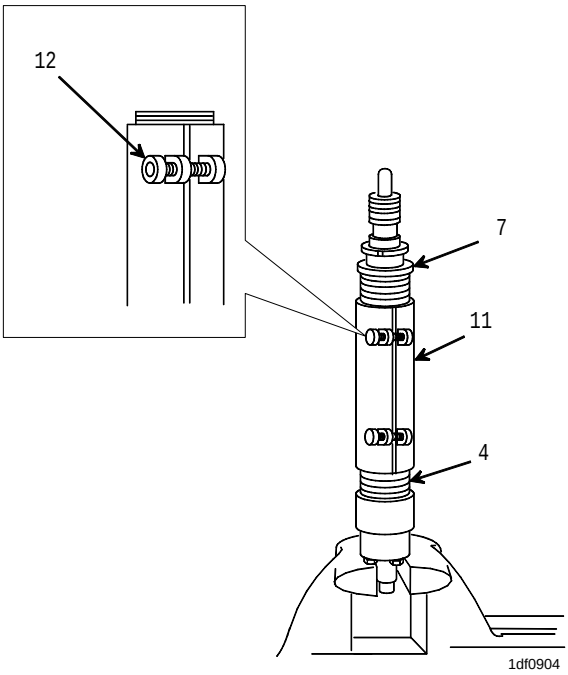
   c. Tighten the vise.



CAUTION

Ensure that recoil spring clamp assembly is clean and free of dirt or damage to equipment may result.

6. INSTALL RECOIL SPRING CLAMP ASSEMBLY.
   a. Open recoil spring clamp assembly (11) by turning two capscrews (12) clockwise.
   b. Slide recoil spring clamp assembly (11) onto recoil mechanism (7) and center over outer spring assortment segments (4).
   c. Close recoil spring clamp assembly (11) by turning two capscrews (12) counterclockwise.



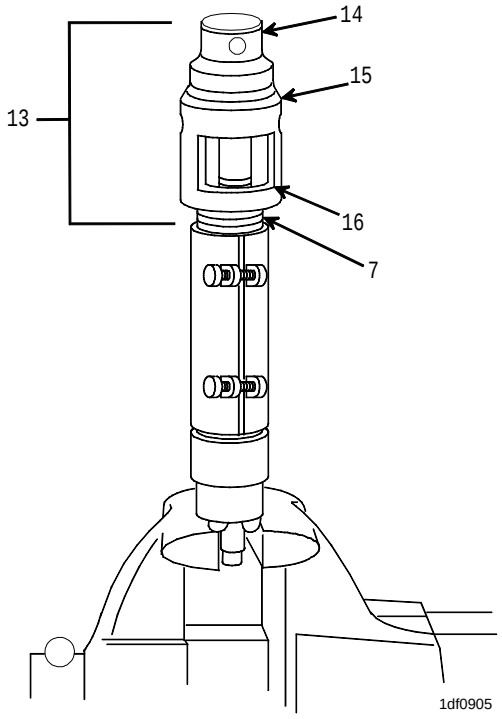
ASSEMBLY – Continued

7. INSTALL RECOIL SPRING COMPRESSION TOOL ONTO RECOIL MECHANISM.

   a. Prepare recoil spring compression tool (13) by holding center section (14) and turn outer section (15) clockwise until six threads can be seen in cutout (16) of tool.

   b. Place the recoil spring compression tool (13) over top of the recoil mechanism (7).

   c. Screw entire recoil spring compression tool (13) clockwise onto threads of recoil mechanism (7) until seated.



8. REPOSITION RECOIL MECHANISM AND RECOIL SPRING COMPRESSION TOOL IN VISE.

   a. Remove recoil mechanism (7) and recoil spring compression tool (13) from vise.

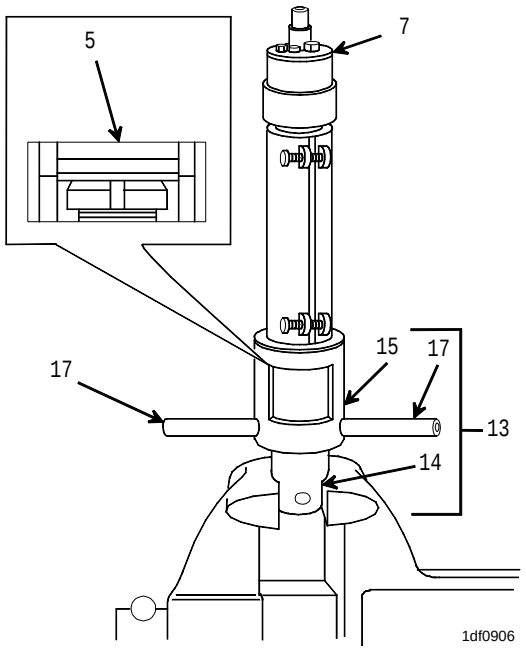
   b. Place center section (14) of recoil spring compression tool (13) in vise.

   c. Install handles (17) into outer section (15) of recoil spring compression tool (13).

NOTE

Ensure that damper housing does not rotate.

   d. Turn outer section (15) clockwise on recoil mechanism (7) until tight against sleeve spacer (5).



ASSEMBLY – Continued

WARNING

Be absolutely sure that recoil mechanism is securely held by recoil spring compression tool or injury to personnel may result.

CAUTION

Compressing the springs more than 2 mm past the shoulder may result in damage to the tool or recoil mechanism.

9. COMPRESS RECOIL SPRING.

NOTE

Use helper to turn outer section of compression tool.

a. Turn the outer section (15) of recoil spring compression tool (13) clockwise until all of the outer spring assortment segments (4) are above the shoulder (18) of the damper housing assembly (2).

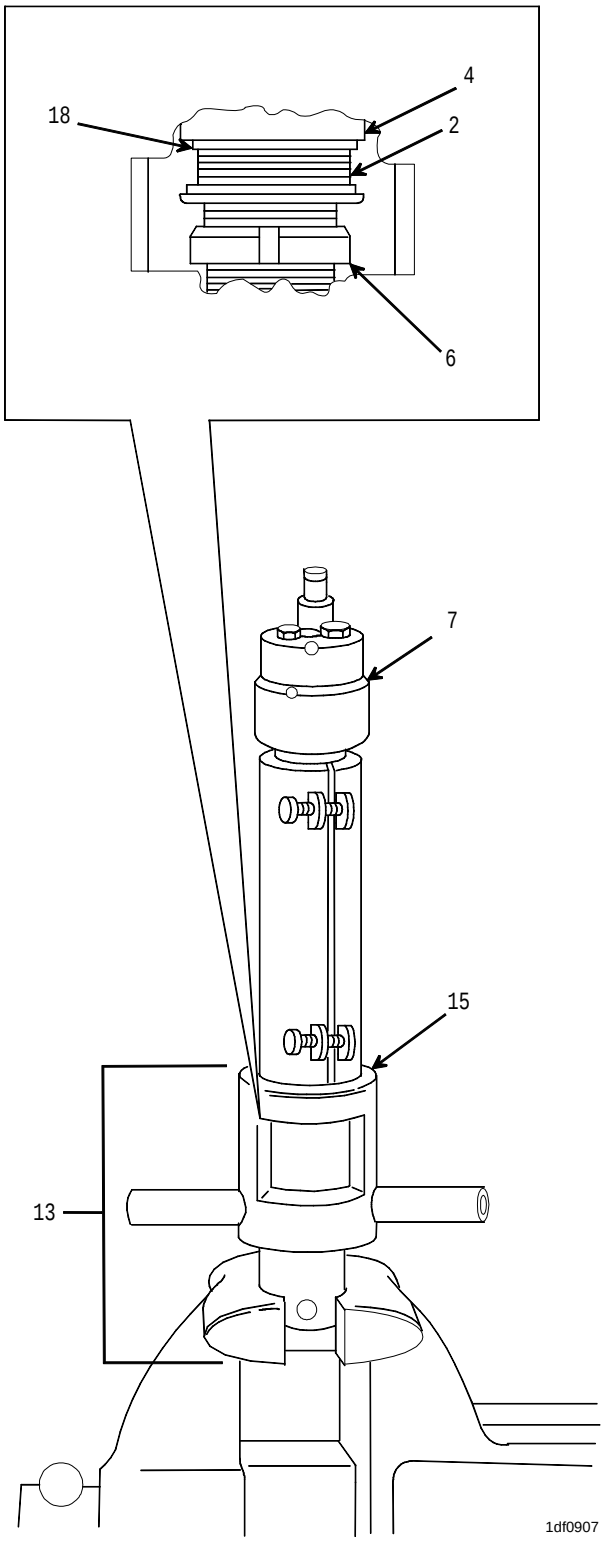
b. Torque retaining nut (6) to 270 in.-lb ± 30 in.-lb (30.51 N-m ± 3.39 N-m).

c. Turn the outer section (15) of recoil spring compression tool (13) counterclockwise until spring pressure is released against retaining nut (6).

10. REMOVE RECOIL SPRING COMPRESSION TOOL.

a. Remove recoil mechanism (7) from recoil spring compression tool (13).

b. Remove recoil spring compression tool (13) from vise.


4
18
2
6
7
15
13
1df0907

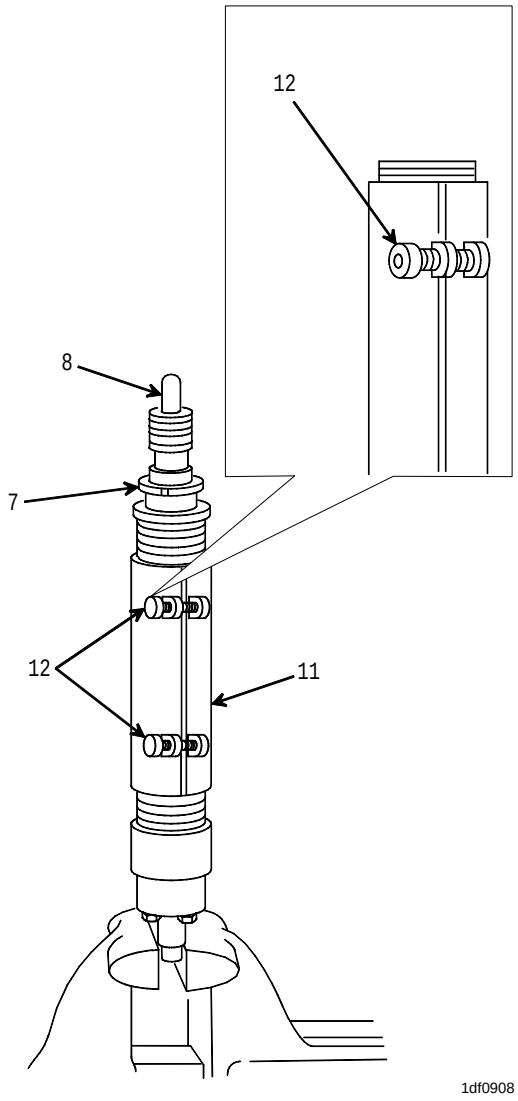
ASSEMBLY - Continued

11. REMOVE RECOIL SPRING CLAMP ASSEMBLY.

    a. Place recoil mechanism (7) in vise with the indicator rod (8) up.

    b. Open recoil spring clamp assembly (11) by turning two capscrews (12) clockwise.

    c. Slide recoil spring clamp assembly (11) up and off recoil mechanism (7).



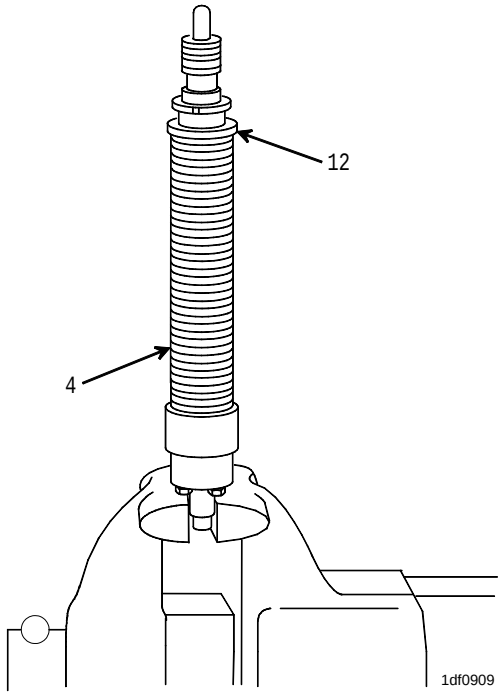
12. CHECK SPRING SET ALIGNMENT.

NOTE

Spacing from first ring to shoulder at each end of recoil mechanism may vary.

Check outer spring assortment segments (4) for cocked segments. No two outer spring segments should be touching. If either of these conditions are found, repeat DISASSEMBLY steps 2 through 4 and ASSEMBLY steps 5 through 11.

13. REMOVE RECOIL MECHANISM (7) FROM VISE.



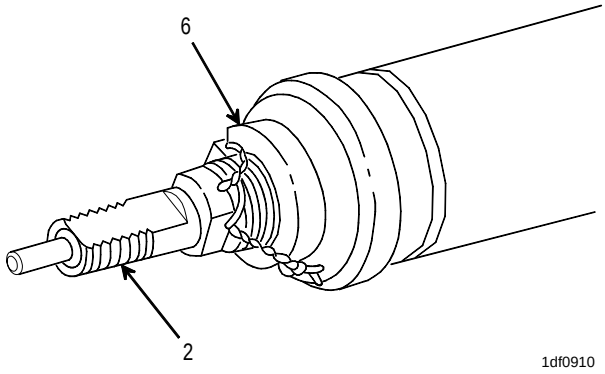
WARNING

Wear eye protection when cutting lockwire. You can be blinded if lockwire hits you in the eye.

14. INSTALL LOCKWIRE.

    a. Lockwire retaining nut (6) to damper housing assembly (2).

    b. Cut off excess lockwire and push pigtail into recess of retaining nut (6).



END OF WORK PACKAGE

DIRECT SUPPORT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

DAMPER HOUSING ASSEMBLY AND FLUID PRESSURE DAMPER DISASSEMBLY/ASSEMBLY DISASSEMBLY, CLEANING, INSPECTION, ASSEMBLY

INITIAL SETUP:

Tools and Special Tools
Damper cap removal tool (item 4, WP 0085 00)
Damper rod tool (item 10, WP 0085 00)
Damper rod tool (item 11, WP 0085 00)
Damper valve tool (item 44.1, WP 0085 00)
Goggles (item 19, WP 0085 00)
Rubber gloves (item 18, WP 0085 00)
Small arms repairman tool kit (item 43, WP 0085 00)
Small arms shop set (item 35, WP 0085 00)
Vise holding tool (item 14.1, WP 0085 00)

Materials/Parts
Adhesive (item 2, WP 0116 00)
Damper assembly repair kit (12524030)
Damper fluid (item 10 WP 0116 00)
Dry cleaning solvent (item 27, WP 0116 00)
Headed straight pin (MS20392-4C41)
Lock pin (2) (item 18, WP 0116 00)
Plastic bottle (item 3.1, WP 0116 00)
Wiping rags (item 21, WP 0116 00)

Personnel Required
Two

References
WP 0082 00

Equipment Conditions
WP 0079 00 Recoil mechanism disassembled

Special Environmental Conditions
Well-ventilated area required when using dry cleaning solvent.

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WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on gun. Serious injury or death may occur.

DISASSEMBLY

NOTE

Lock pins will not fit through opening in vise holding tool. Install lock pins after placing recoil mechanism through vise holding tool.

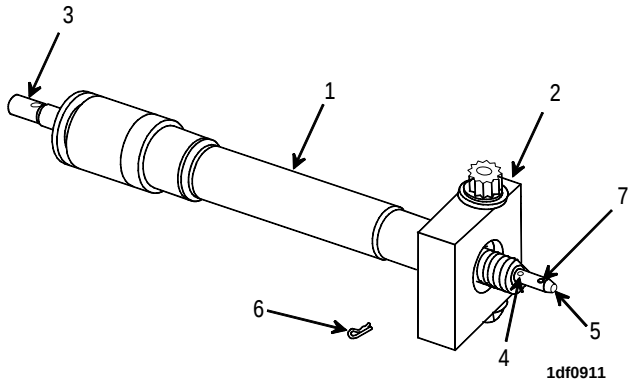
1. REMOVE DAMPER FLUID.

   a. Place damper housing assembly (1) on clean work surface.

   b. Slide vise holding tool (2) on damper housing assembly (1).

   c. Press recoil damper rod (3) until second hole (4) in indicator rod (5) can be seen or insert lock pin (6) in first hole (7) and pull indicator rod (5) out.

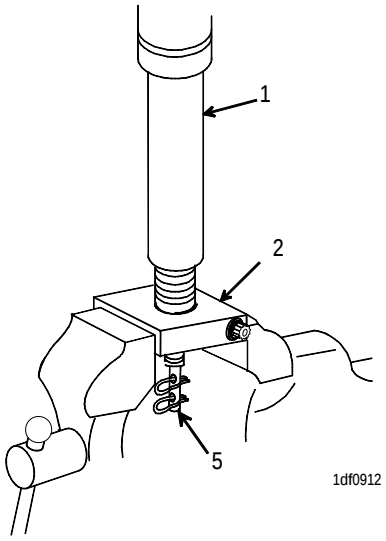
   d. Insert a lock pin (6) in second hole (4) of indicator rod (5).



CAUTION

If vise holding tool is not available, clamp damper housing in vise with jaw caps on support flats. DO NOT clamp vise on spring support threads.

   e. Place vise holding tool (2) and damper housing assembly (1) in vise with indicator rod (5) at bottom.



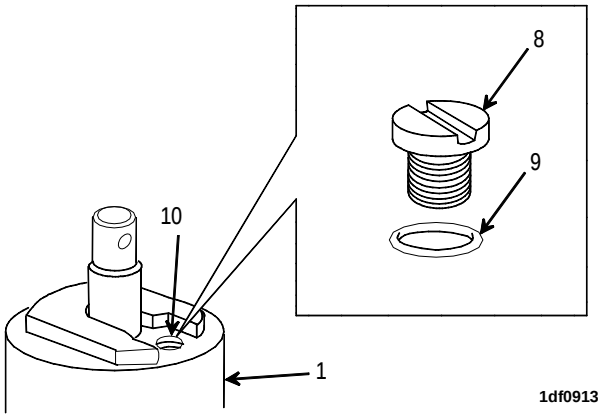
f. Slowly remove damper housing plug (8) and preformed packing (9). Discard packing.

g. Remove damper housing assembly (1) and vise holding tool (2) from vise.

CAUTION

Do not reuse damper fluid. Dispose of damper fluid in waste oil container. Contaminated damper fluid could damage damper assembly.

h. Drain damper fluid from filler hole (10). Discard fluid.

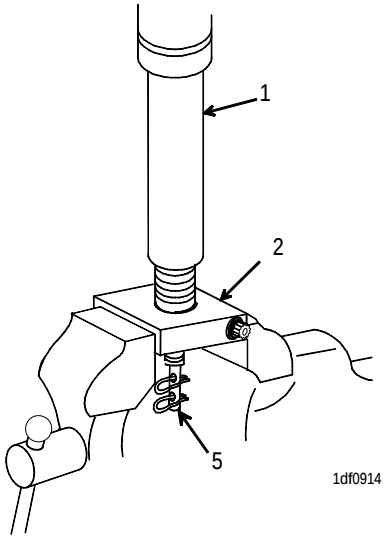


2. REMOVE FLUID PRESSURE DAMPER.

CAUTION

If vise holding tool is not available, clamp damper housing in vise with jaw caps on support flats. DO NOT clamp vise on spring support threads.

a. Place damper housing assembly (1) and vise holding tool (2) in vise with indicator rod (5) at bottom.



DISASSEMBLY - Continued

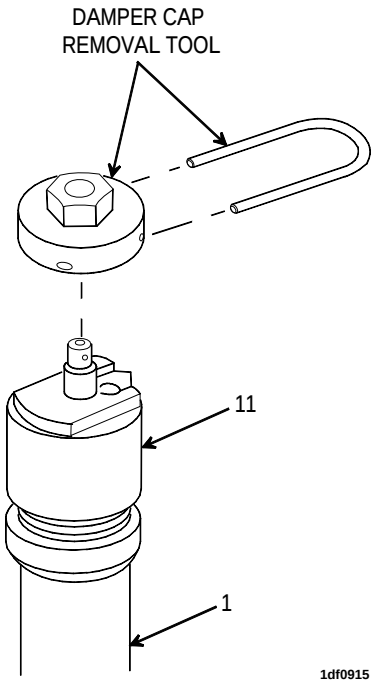
NOTE

Damper cap removal tool should be used.

Use helper to hold damper housing assembly during step b.

b. Unscrew damper housing cap (11) from damper housing assembly (1).

c. Remove damper housing cap (11).



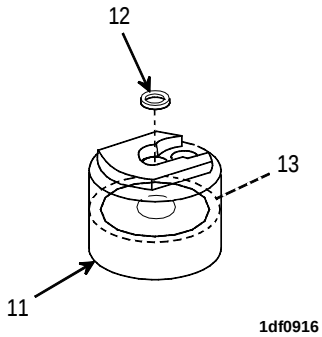
CAUTION

Sharp tools may damage packing grooves. Use only plastic or brass extractor for packing removal.

NOTE

Packings are recessed under damper housing cap.

d. Remove preformed packings (12) and (13) from damper housing cap (11). Discard preformed packings.

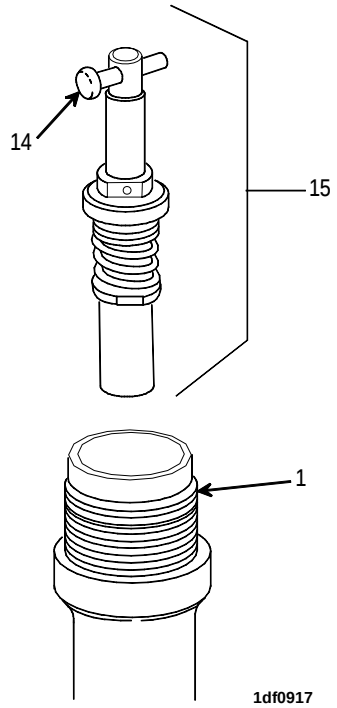


e. Install headed straight pin (14) into hole in fluid pressure damper (15).

f. Using headed straight pin (14), lift straight up on fluid pressure damper (15) to break suction seal.

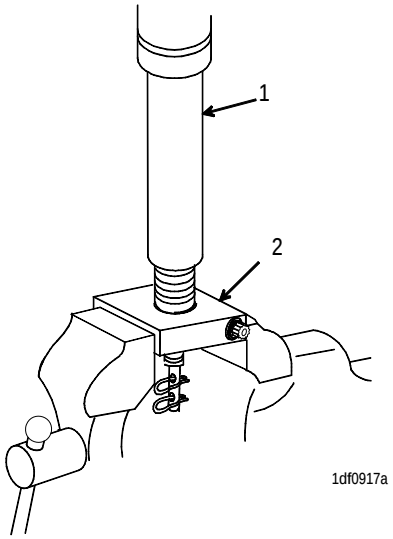
g. Remove fluid pressure damper (15).

h. Remove headed straight pin (14) from fluid pressure damper (15).



i. Remove damper housing assembly (1) and vise holding tool (2) from vise.

j. Drain off and discard any remaining damper fluid.



DISASSEMBLY - Continued

WARNING

Reservoir piston is under spring tension.

CAUTION

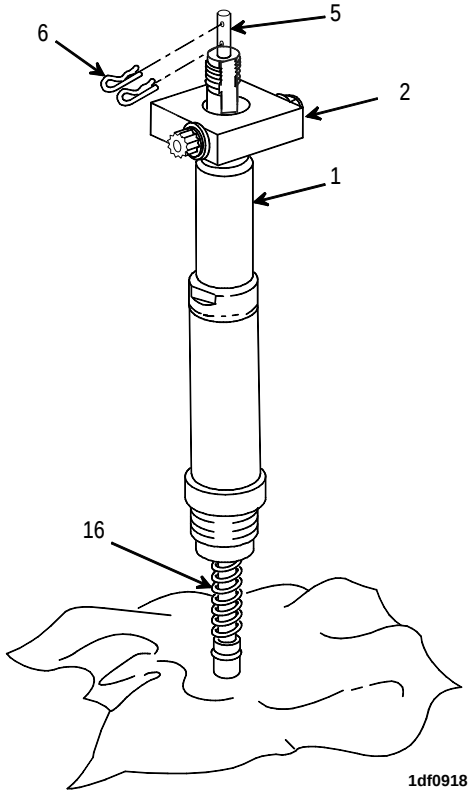
Do not remove retaining ring from indicator rod. Retaining ring and indicator rod groove may be damaged if retaining ring is removed.

3. REMOVE RESERVOIR PISTON.

   a. Place wiping rag on a clean, flat surface and position damper housing assembly (1) on wiping rag with indicator rod (5) at top.

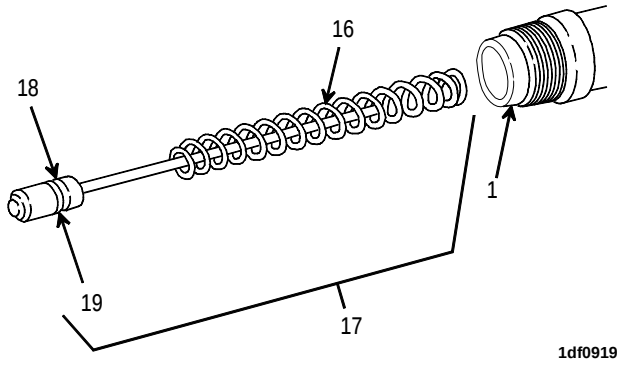
   b. Lift damper housing assembly (1) 6 in. (152.4 mm) above wiping rag and pull lock pin(s) (6) out of indicator rod (5), releasing tension on reservoir piston helical spring (16).

   c. Remove vise holding tool (2) from damper housing assembly (1).



d. Pull reservoir piston (17) from damper housing assembly (1).

e. Remove reservoir piston helical spring (16), packing retainer (18), and preformed packing (19) from reservoir piston (17). Discard packing retainer and preformed packing.



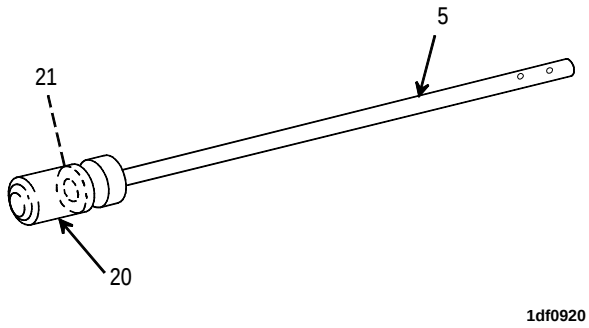
NOTE

There are two configurations of reservoir pistons. The old is a solid type and the new has a retaining ring on the end of the piston rod. Replace old type piston with the new configuration.

Do not remove retaining ring from indicator rod when performing step e.

f. Slide piston (20) from indicator rod (5).

g. Remove preformed packing (21) inside bore of piston (20). Discard preformed packing.



DISASSEMBLY – Continued

CAUTION

Sharp tools may damage packing grooves. Use only plastic or brass extractor for packing removal.

4. REMOVE DAMPER HOUSING PACKING.

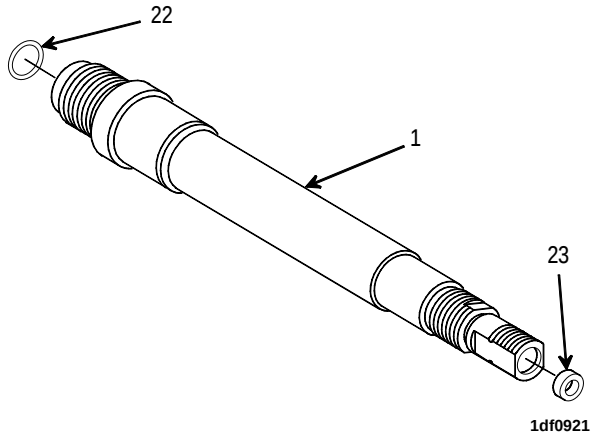
Remove preformed packing (22) from inside damper housing assembly (1). Discard preformed packing.

NOTE

Remove plain encased seal only if damage is evident. This is a dust seal, not a fluid seal.

5. REMOVE PLAIN ENCASED SEAL.

Remove plain encased seal (23) from damper housing assembly (1). Discard plain encased seal.



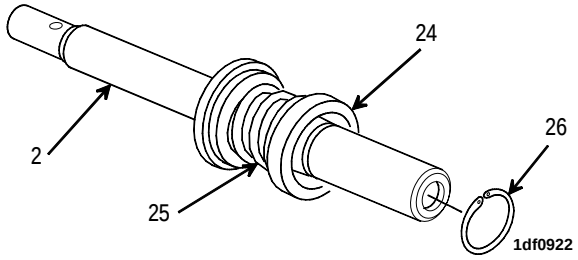
WARNING

Wear eye protection when disassembling the fluid pressure damper. Fluid pressure damper is under spring tension. Use care during disassembly as parts could come loose quickly, causing possible injury to personnel.

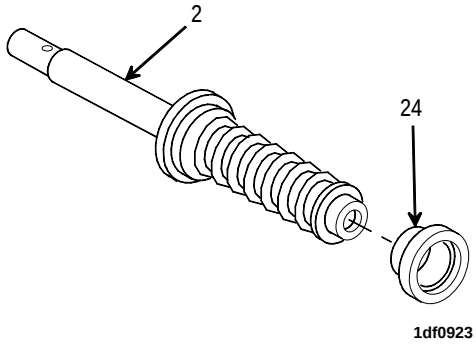
6. DISASSEMBLE FLUID PRESSURE DAMPER.

a. Pull back on damper sleeve spacer (24) to compress helical spring (25) and gain access to retaining ring (26).

b. Remove retaining ring (26) from recoil damper rod (2).

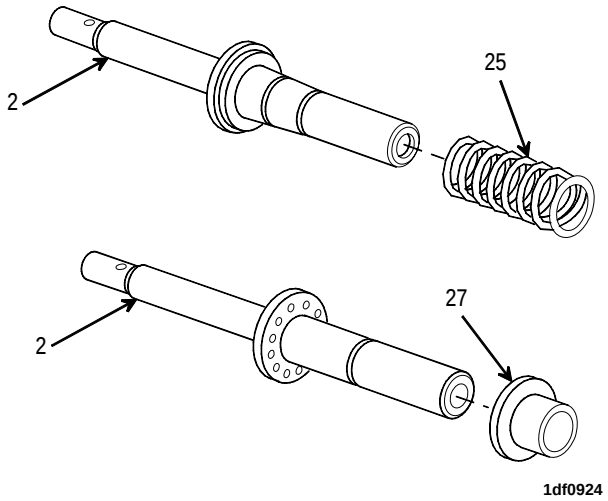


c. Remove damper sleeve spacer (24) from recoil damper rod (2).



d. Remove helical spring (25) from recoil damper rod (2).

e. Remove damper spring valve (27) from recoil damper rod (2).



CLEANING

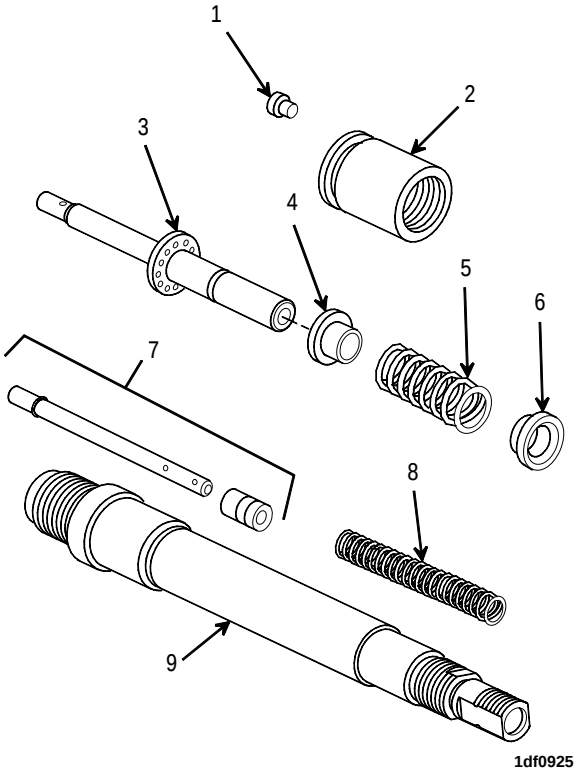
WARNING

Dry cleaning solvent (SD) is flammable and toxic. Use in well-ventilated area away from an open flame or a smoking area. This solvent evaporates quickly and has a drying effect on the skin. It may cause cracks in the skin and, in some cases, mild irritation or inflammation. If solvent comes in contact with eyes or skin, flush with water.

CLEAN DAMPER HOUSING COMPONENTS.

a. Using brush and dry cleaning solvent, clean the damper housing plug (1), housing assembly cap (2), recoil damper rod (3), damper spring valve (4), helical spring (5), damper sleeve spacer (6), reservoir piston (7), reservoir piston helical spring (8), and damper housing (9).

b. Allow parts to air dry.

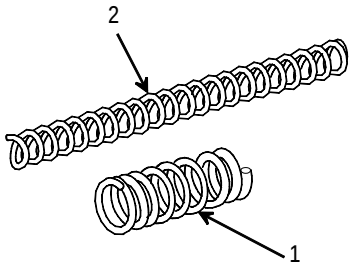


INSPECTION

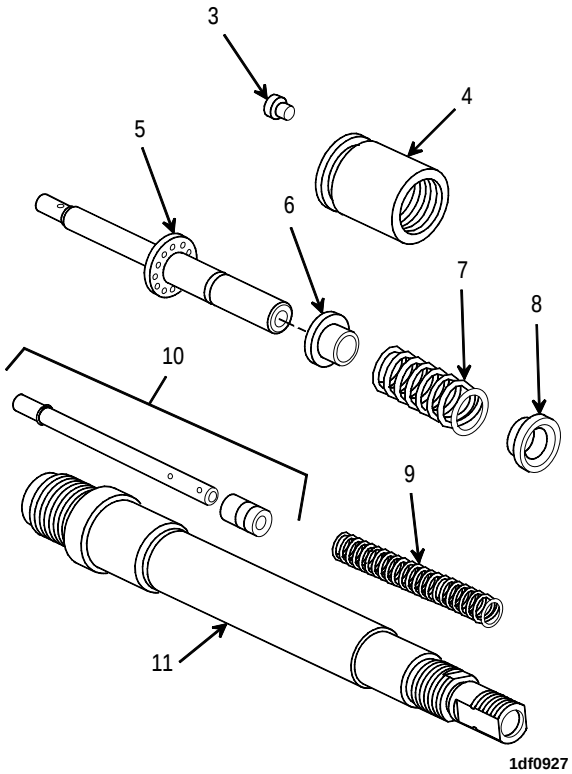
INSPECT DAMPER HOUSING COMPONENTS.

a. Check recoil damper rod spring (1) for free length of 1-3/4 in. ± 11/32 in. (44.5 mm ± 8.7 mm). If length is incorrect, replace recoil damper rod spring.

b. Check reservoir piston helical spring (2) for free length of 6-13/32 in. ± 1-9/32 in. (162.7 mm ± 32.5 mm). If length is incorrect, replace helical spring.



c. Visually inspect damper housing plug (3), damper housing cap (4), recoil damper rod (5), damper spring valve (6), helical spring (7), damper sleeve spacer (8), reservoir piston helical spring (9), reservoir piston (10), and damper housing (11) for cracks, galls, and damaged threads. If any of these conditions are found, replace defective part.



ASSEMBLY

NOTE

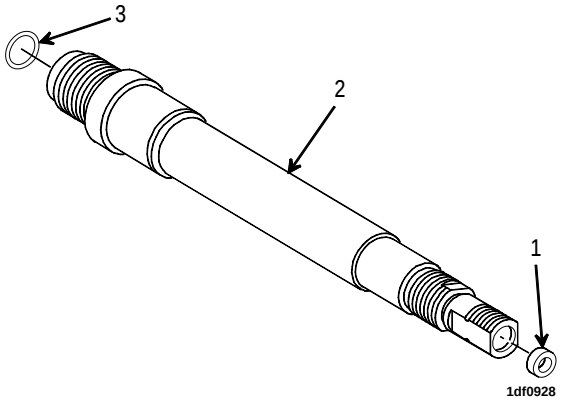
All components of damper assembly repair kit removed during disassembly should be replaced with new parts during reassembly.

1. INSTALL PLAIN ENCASED SEAL.

   Apply one drop of adhesive and insert new plain encased seal (1), flat end first, into tip of damper housing assembly (2).

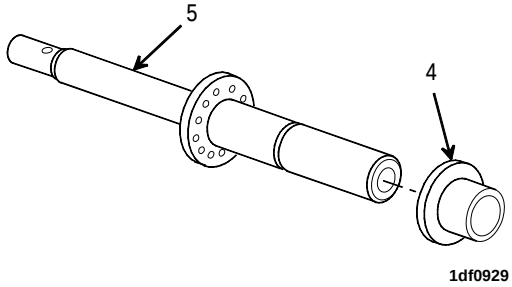
2. INSTALL DAMPER HOUSING PACKING.

   Install new preformed packing (3) into slot inside damper housing assembly (2).

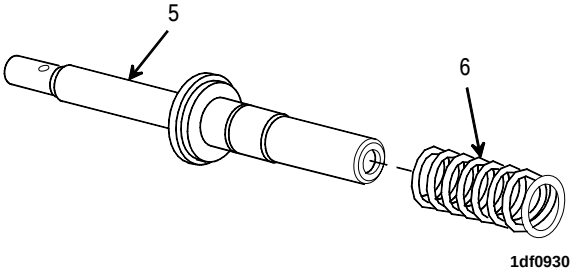


3. ASSEMBLE FLUID PRESSURE DAMPER.

   a. Install damper spring valve (4), large end first, on recoil damper rod (5).

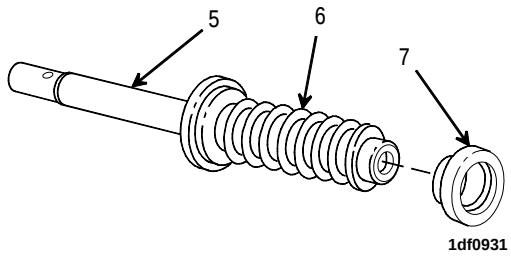


   b. Install helical spring (6) on recoil damper rod (5).

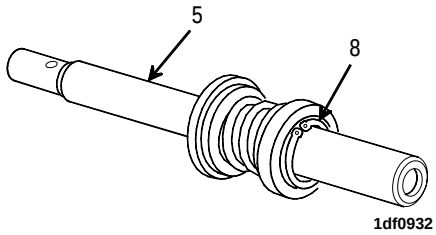


c. Install damper sleeve spacer (7), small end first, on recoil damper rod (5).

d. Pull back on sleeve spacer (7) to compress helical spring (6).



e. Install retaining ring (8) on recoil damper rod (5). Ensure that retaining ring (8) is seated in slot.



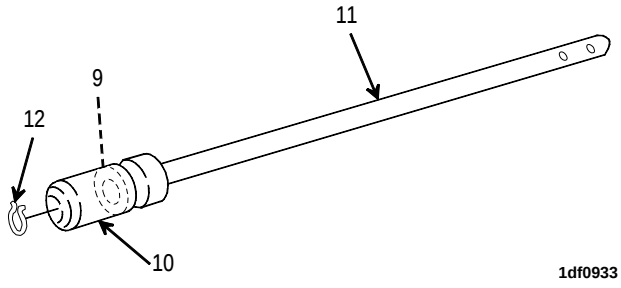
4. ASSEMBLE RESERVOIR PISTON.

a. Using damper fluid, lubricate new preformed packing (9).

b. Install new preformed packing (9) inside bore of piston (10).

c. Slide piston (10) on indicator rod (11).

d. If retaining ring (12) was removed or a new indicator rod (11) is being installed, install new retaining ring (12) on end of indicator rod (11).

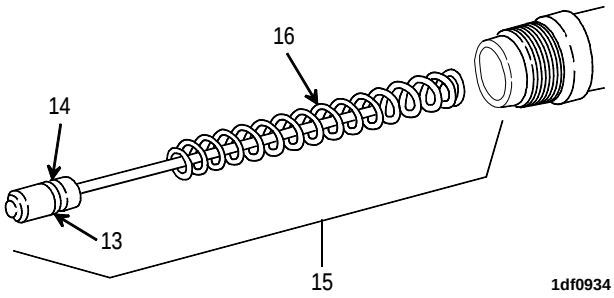


ASSEMBLY – Continued

e. Using damper fluid, lubricate new preformed packing (13).

f. Install new preformed packing (13) and new packing retainer (14) on reservoir piston (15).

g. Install reservoir piston helical spring (16).



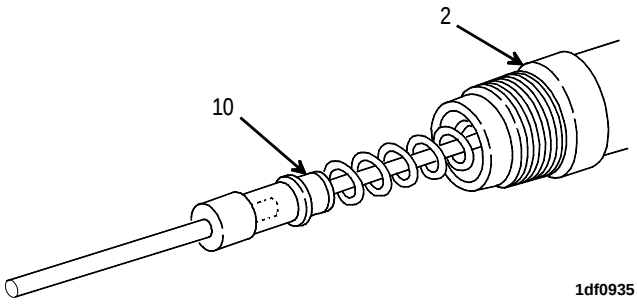
5. INSTALL RESERVOIR PISTON.

a. Insert indicator rod end of reservoir piston (15) into damper housing assembly (2).

NOTE

Use female end of socket wrench extension to compress spring in order to install lock pins.

b. Insert socket wrench extension on end of piston (10).



c. Place wiping rag on clean, flat surface and position damper housing assembly (2) with socket wrench extension at bottom on wiping rag.

d. Slide recoil spring spacer (17) over threaded end of damper housing assembly (2).

e. Slide vise holding tool (18) on damper housing assembly (2).

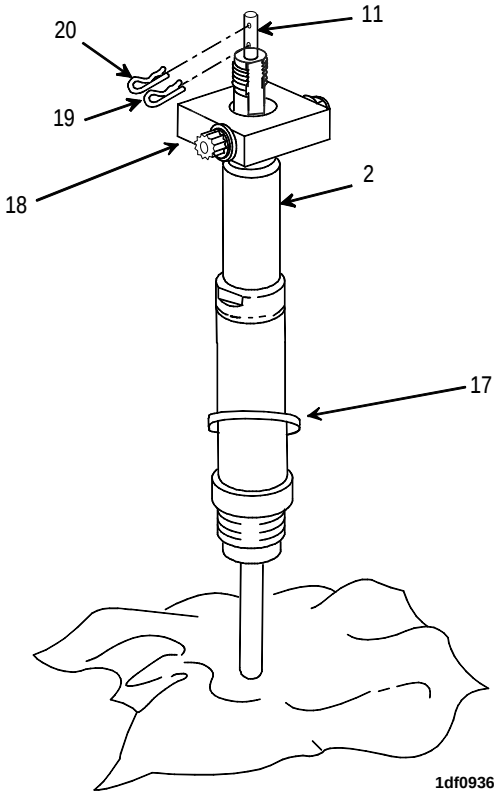
NOTE

Lock pins will not fit through opening in vise holding tool. Install lock pins after placing damper housing through vise holding tool.

f. Push down on damper housing assembly (2) to force indicator rod (11) through top of damper housing assembly (2).

g. Install lock pins (19) and (20) through both holes in rod end of indicator rod (11).

h. Remove socket wrench extension from damper housing assembly (2).

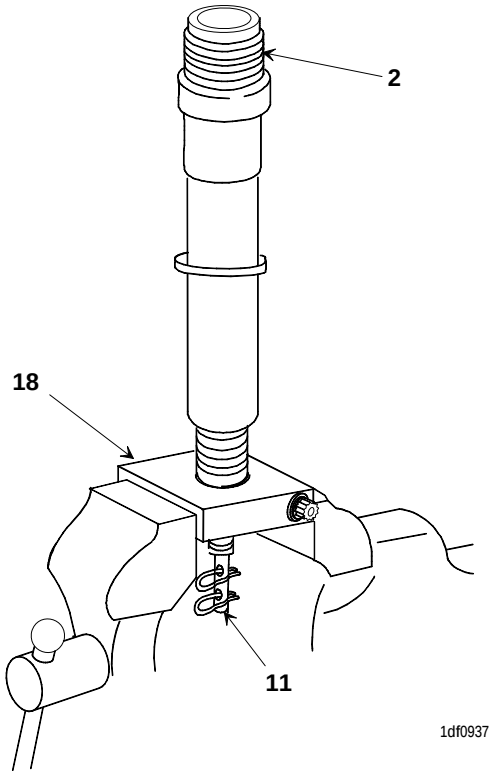


ASSEMBLY - Continued

CAUTION

If vise holding tool is not available, clamp damper housing in vise with jaw caps on support flats. DO NOT clamp vise on spring support threads.

i. Place damper housing assembly (2) with vise holding tool (18), in vise with indicator rod (11) at bottom.

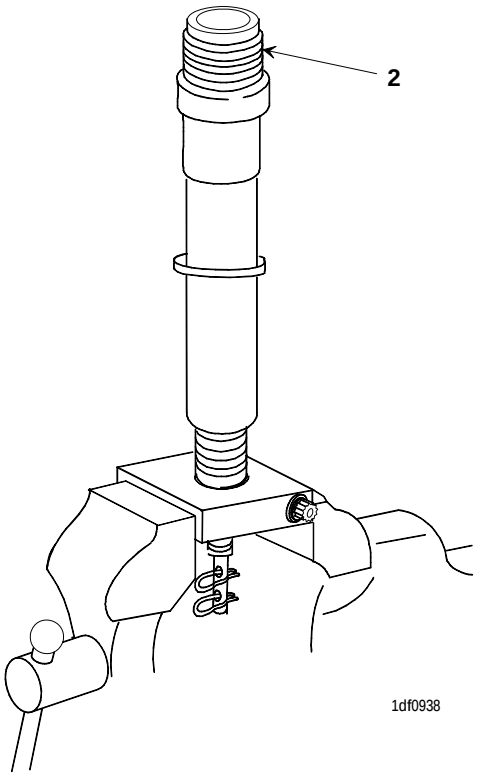


NOTE

Damper housing assembly threads must be kept clean and free of lubricant and damper fluid.

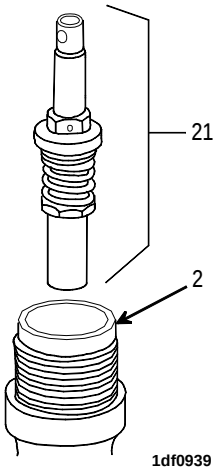
6. FILL DAMPER HOUSING ASSEMBLY RESERVOIR.

   a. Add clean damper fluid until damper housing assembly (2) is half full. Use plastic bottle if needed.



   b. Insert fluid pressure damper (21), with small rod end on top, into damper housing assembly (2).

   c. Add clean damper fluid to 1/8 in. below rim of damper housing assembly (2).



ASSEMBLY - Continued

7. INSTALL DAMPER HOUSING CAP.

   a. Using damper fluid, lubricate new preformed packings (22) and (23).

NOTE

Ensure that packings are seated in their slots.

   b. Insert new small preformed packing (22) into slot in top of damper housing cap (24).

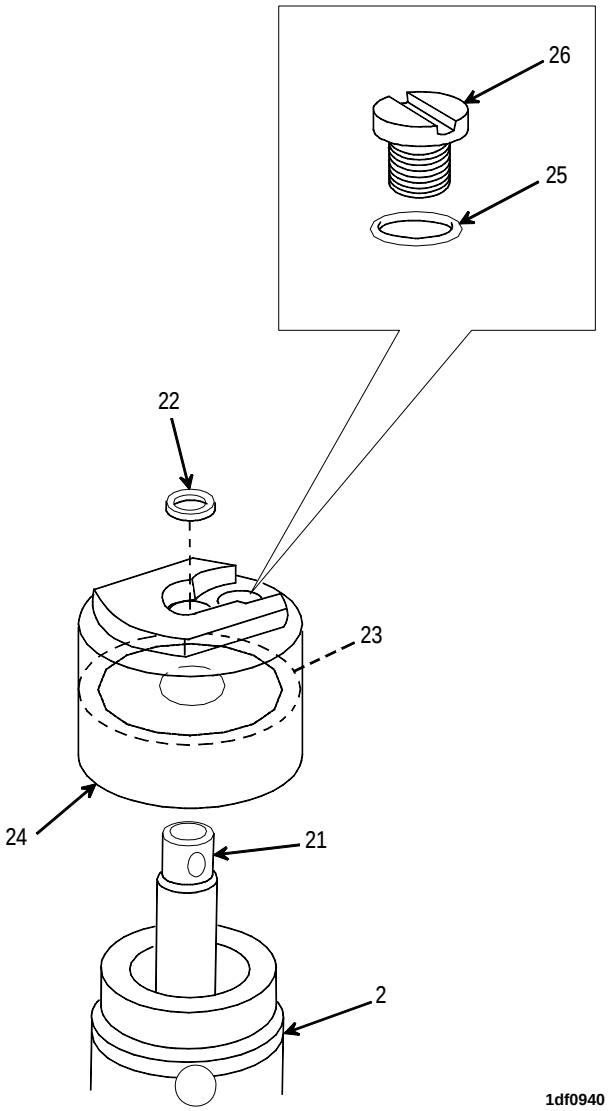
   c. Insert new large preformed packing (23) into slot in damper housing cap (24).

   d. Install new preformed packing (25) on damper housing plug (26).

   e. Using damper fluid, lubricate upper end of fluid pressure damper (21).

   f. Screw damper housing cap (24) onto damper housing assembly (2).

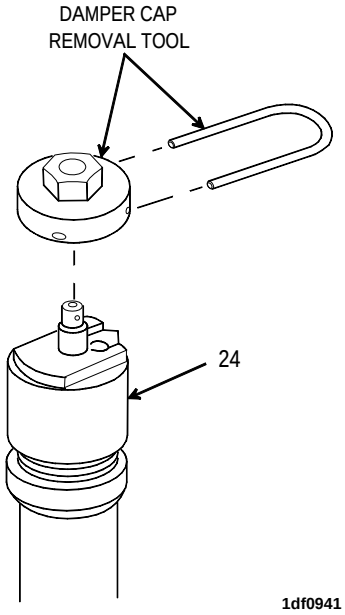
   g. Loosely install damper housing plug (26) into damper housing cap (24).



NOTE

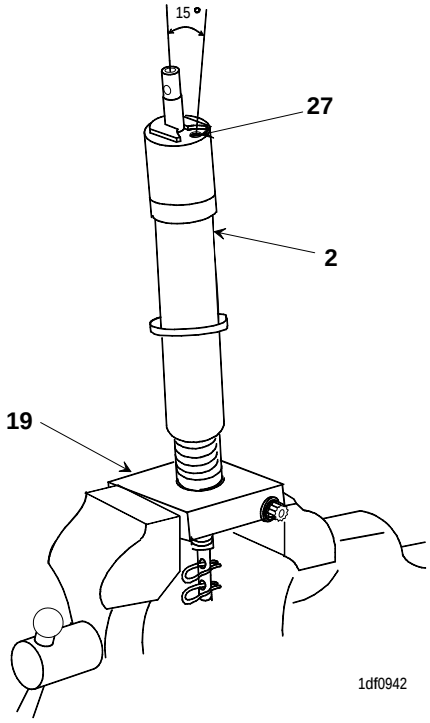
Damper cap removal tool should be used.

h. Torque damper housing cap (24) to 90 ft-lb ± 10 ft-lb (121.5 N-m ± 13.5 N-m).



8. SET RECOIL DAMPER ROD HEIGHT.

a. Place damper housing assembly (2) and vise holding tool (19) in vise at a 15 degree angle with filler hole (27) at highest point.



ASSEMBLY - Continued

NOTE

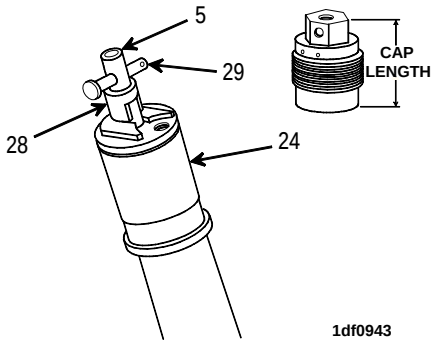
When using locally manufactured damper rod tools (WP 0081 00), perform steps b and c. If not using damper rod tools, proceed to step d.

Use tool CSAL-1 (0.686 in. long) if overall recoil housing cap length is 4.3 in. (109.1 mm). Use tool CSAL-2 (0.880 in. long) if overall cap length is 4.5 in. (114.0 mm).

The M242 enhanced gun will always use 4.3 in. (109.1 mm) recoil housing cap. The M242 standard gun may use either length. If recoil housing cap length is unknown, use tool CSAL-2.

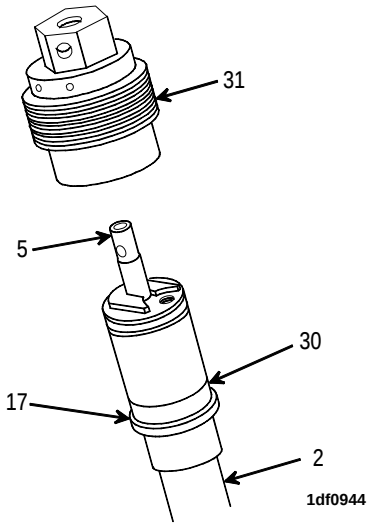
b. Slide damper rod tool (28) over recoil damper rod (5) and install straight headed pin (29).

c. Push recoil damper rod (5) until straight headed pin (29), damper rod tool (28), and damper housing cap (24) are touching. Proceed to step 9 to top off damper fluid reservoir.

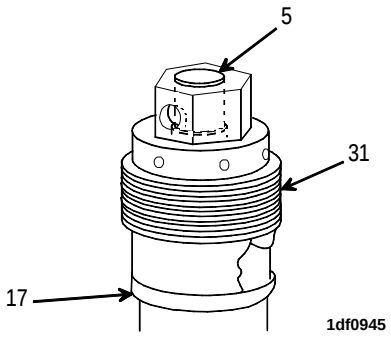


d. Push recoil spring spacer (17) up on damper housing assembly (2) until it seats against shoulder (30).

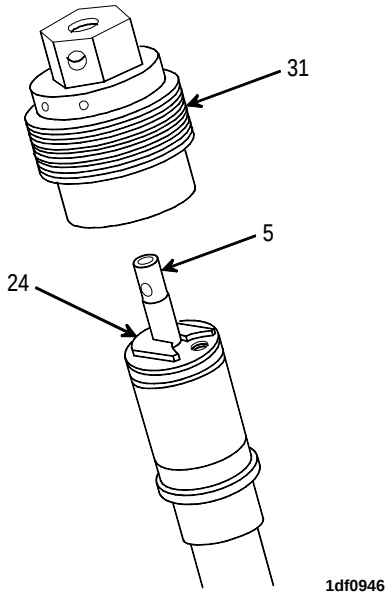
e. Place recoil housing cap (31) over recoil damper rod (5) until seated against recoil spring spacer (17).



f. While holding recoil spring spacer (17) push down on recoil damper rod (5) until hole in recoil damper rod aligns with hole in recoil housing cap (31). Friction will hold recoil damper rod (5) in aligned position.



g. Carefully remove recoil housing cap (31) without moving recoil damper rod (5). Place a mark with a pencil on recoil damper rod (5) flush with damper housing cap (24). The mark is used to maintain damper position while topping-off the fluid reservoir.



ASSEMBLY - Continued

9. TOP-OFF DAMPER FLUID RESERVOIR.

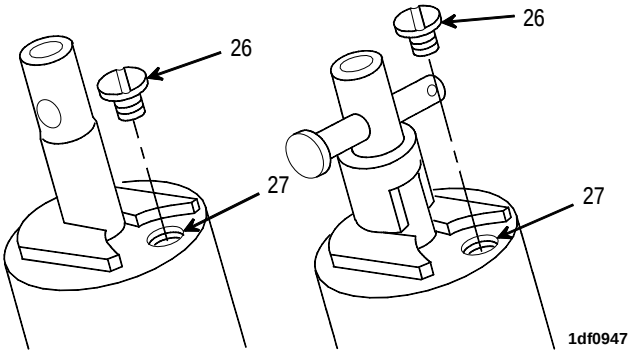
NOTE

Tap side of housing assembly cap during this procedure to remove air bubbles. Hold recoil damper rod with one hand to keep rod position mark in place during steps a through d. If damper rod tool is used, damper rod does not need to be held.

Graphics are provided to show procedure being done with and without using damper rod tool.

a. Remove loosely installed damper housing plug (26).

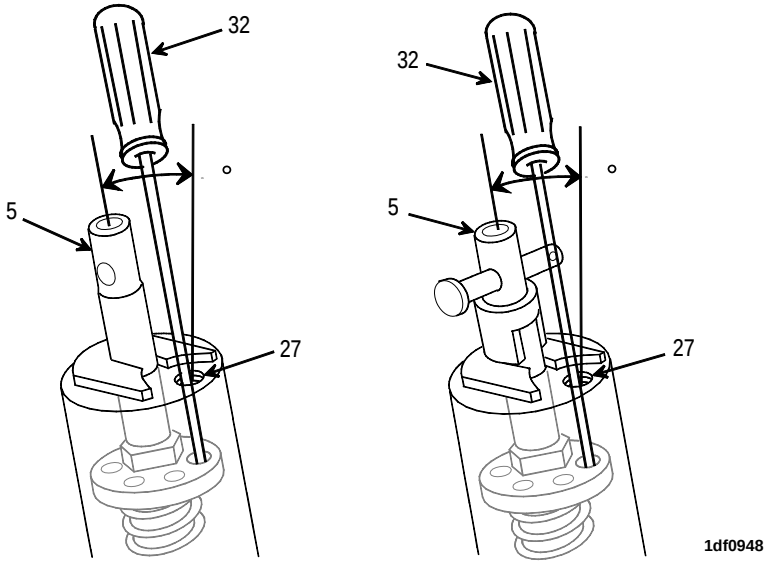
b. Using plastic bottle, fill damper reservoir with clean damper fluid until fluid comes from filler hole (27).



WITHOUT DAMPER ROD TOOL **WITH DAMPER ROD TOOL**

c. Wipe clean and insert the damper valve tool (32) into filler hole (27) and through a flange hole in recoil damper rod (5).

d. While holding recoil damper rod (5) with one hand, gently push down on the damper valve tool (32). Hold for 30 seconds to allow fluid to flow into reservoir.



WITHOUT DAMPER ROD TOOL

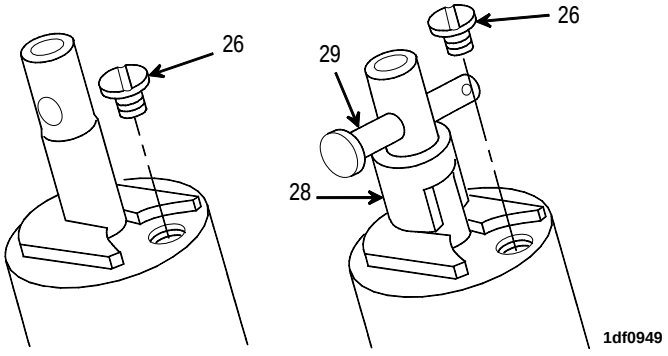
WITH DAMPER ROD TOOL

e. Repeat steps b through d until damper reservoir is full of fluid.

f. Remove damper valve tool (32).

g. Install and tighten damper housing plug (26).

h. If damper rod tool (28) was used, remove straight headed pin (29) and damper rod tool (28).



WITHOUT DAMPER ROD TOOL

WITH DAMPER ROD TOOL

i. Remove damper housing assembly (2) and vise holding tool (18) from vise.

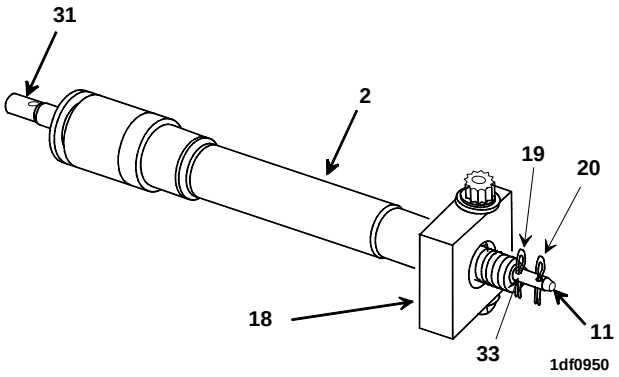
j. Completely wipe all fluid from damper housing assembly (2).

k. Pull out indicator rod (11) and remove second lock pin (19) and slowly release tension on indicator rod (11) until it stops.

l. Check damper rod hole (31) to ensure that hole is in the correct position by verifying pencil mark or damper rod tool, as applicable. If the indicator rod (11) retracted beyond the second hole (33) or if the damper rod hole (31) does not align, reinstall second lock pin (19) and repeat steps 8 and 9.

m. Remove lock pin (20) from indicator rod (11).

n. Remove vise holding tool (18) from damper housing assembly (2).



10. ASSEMBLE RECOIL MECHANISM (WP 0079 00).

END OF WORK PACKAGE

DIRECT SUPPORT

M242 25-MM AUTOMATIC GUN (NSN 1005-01-086-1400) M242 25-MM ENHANCED AUTOMATIC GUN (NSN 1005-01-454-0396)

THREADED INSERT REPLACEMENT INSPECTION, REMOVAL, INSTALLATION

INITIAL SETUP:

Tools and Special Tools

Insert repair kit (item 30, WP 0085 00)
Small arms repairman tool kit (item 43, WP 0085 00)

Materials/Parts

Zinc chromate primer (item 19, WP 0116 00)

WARNING

If weapon has been determined to be contaminated (radioactive), all warnings at the beginning of WP 0022 00 shall be in effect.

Do not wear jewelry when working on the gun. Serious injury or death may occur.

INSPECTION

NOTE

This procedure is typical for screw holes using screw threaded inserts.

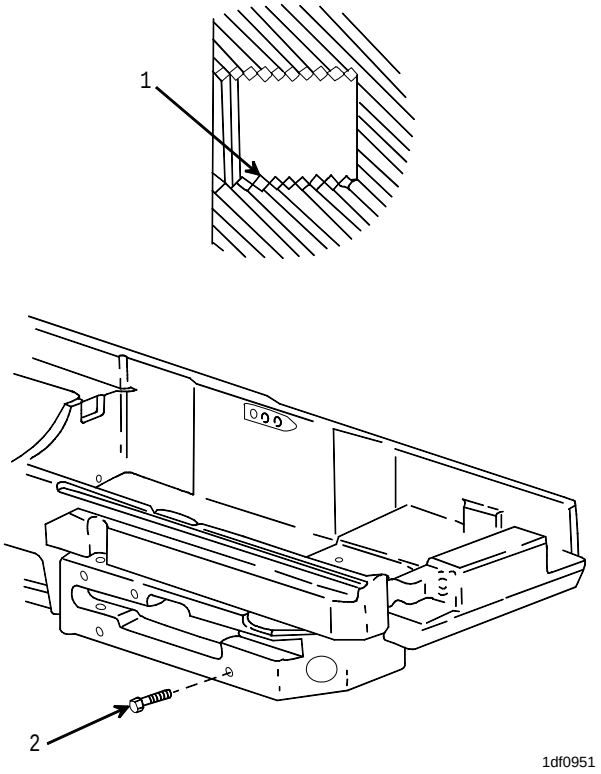
INSPECT SCREW THREADED INSERT.

a. Visually inspect screw threaded insert (1) for burrs and broken coil. If either of these conditions are found, proceed to REMOVAL.

b. Install and tighten capscrew (2).

c. Try to move capscrew (2) from side to side.

d. If screw threaded insert moves when tightening capscrew (2) or if capscrew (2) can be moved from side to side, proceed to REMOVAL.

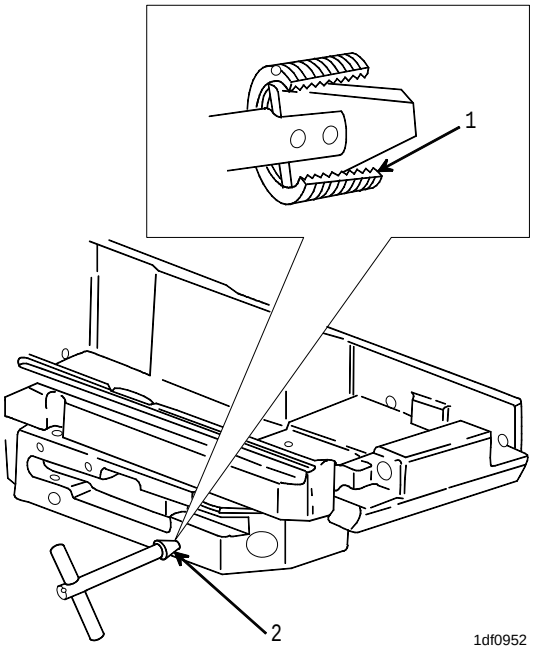


REMOVAL

REMOVE SCREW THREADED INSERTS.

a. Place extracting tool in screw threaded insert (1) and tap tool with hammer until it cuts into screw threaded insert (1).

b. Turn counterclockwise until screw threaded insert is out of hole (2). Discard screw threaded inserts.

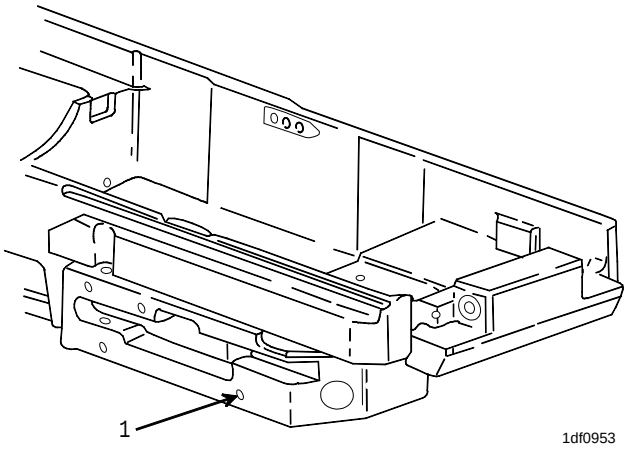


INSTALLATION

1. CLEAN SCREW THREADED INSERT MOUNTING HOLE.

   a. Clean burrs and debris from threads in hole (1).

   b. Remove metal chips from hole (1).



2. INSTALL NEW SCREW THREADED INSERT.

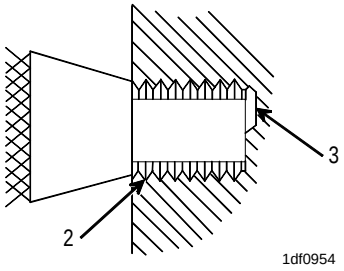
NOTE

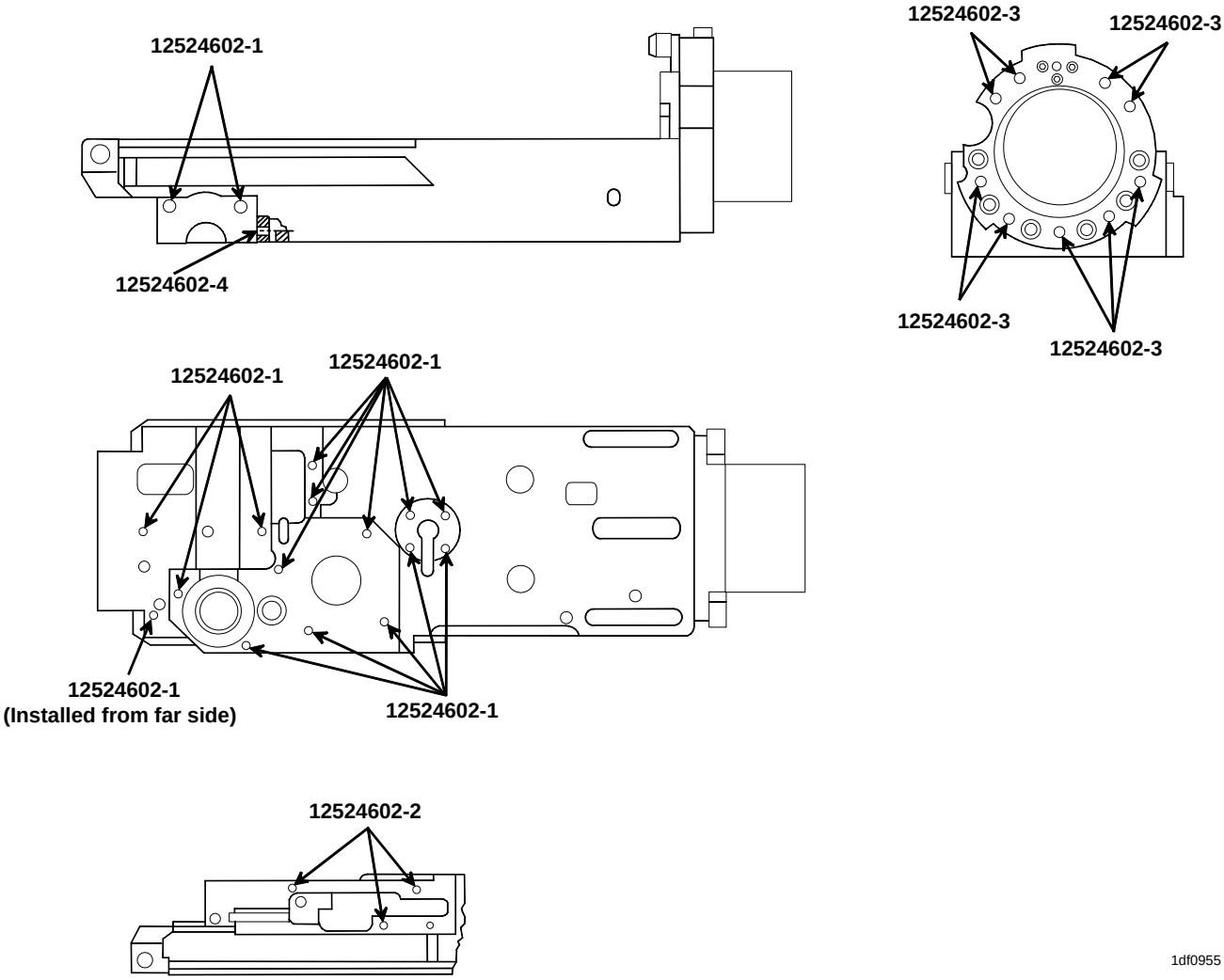
To select correct screw threaded insert, refer to graphic at the end of this work package.

   a. Apply zinc chromate primer to new screw threaded insert (2) and install screw threaded insert.

   b. Break off tang (3).

   c. Turn component with screw hole down, allowing tang (3) to drop out of hole.





END OF WORK PACKAGE

UNIT AND DIRECT SUPPORT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

ILLUSTRATED LIST OF MANUFACTURED ITEMS

INTRODUCTION

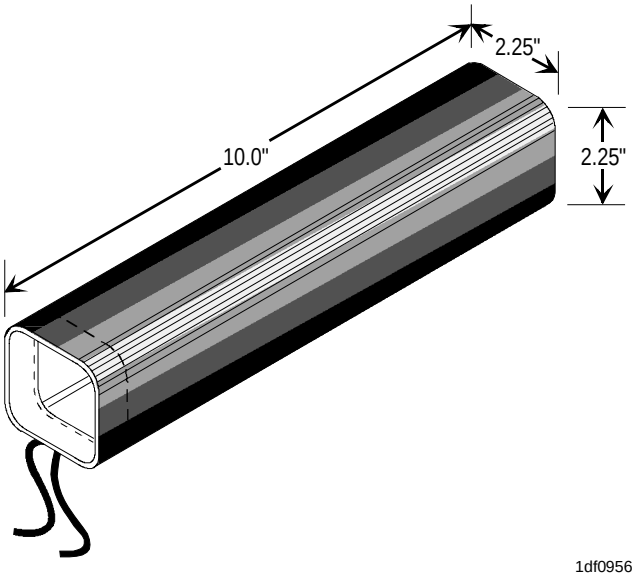
Scope

This work package includes complete instructions for making items authorized to be manufactured or fabricated at the unit and direct support level.

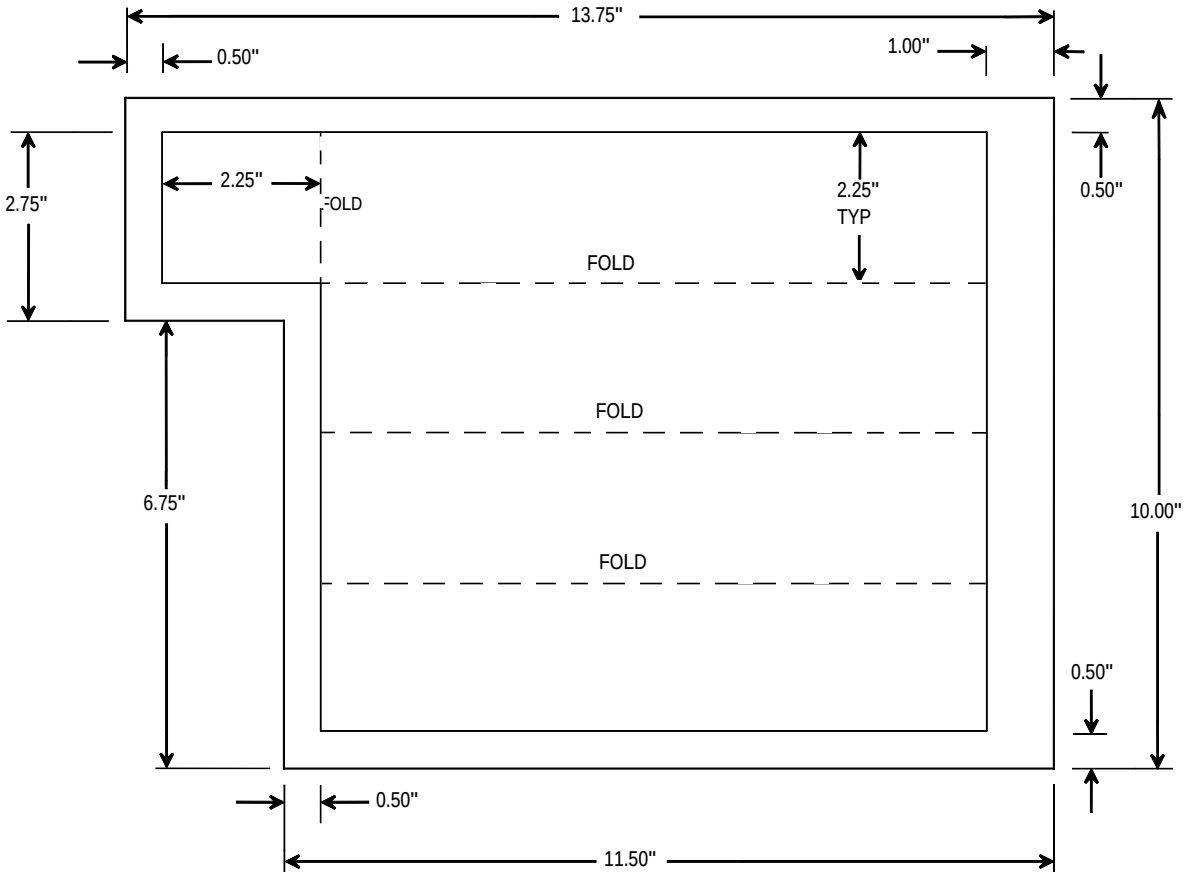
Explanation of the Illustrations of Manufactured Items

All instructions needed by maintenance personnel to manufacture the item are included on the illustrations. All bulk materials needed for manufacture of an item are listed on the illustration.

Manufacture Instructions for M242 Round Barrel Assembly Muzzle Brake Cover



1df0956

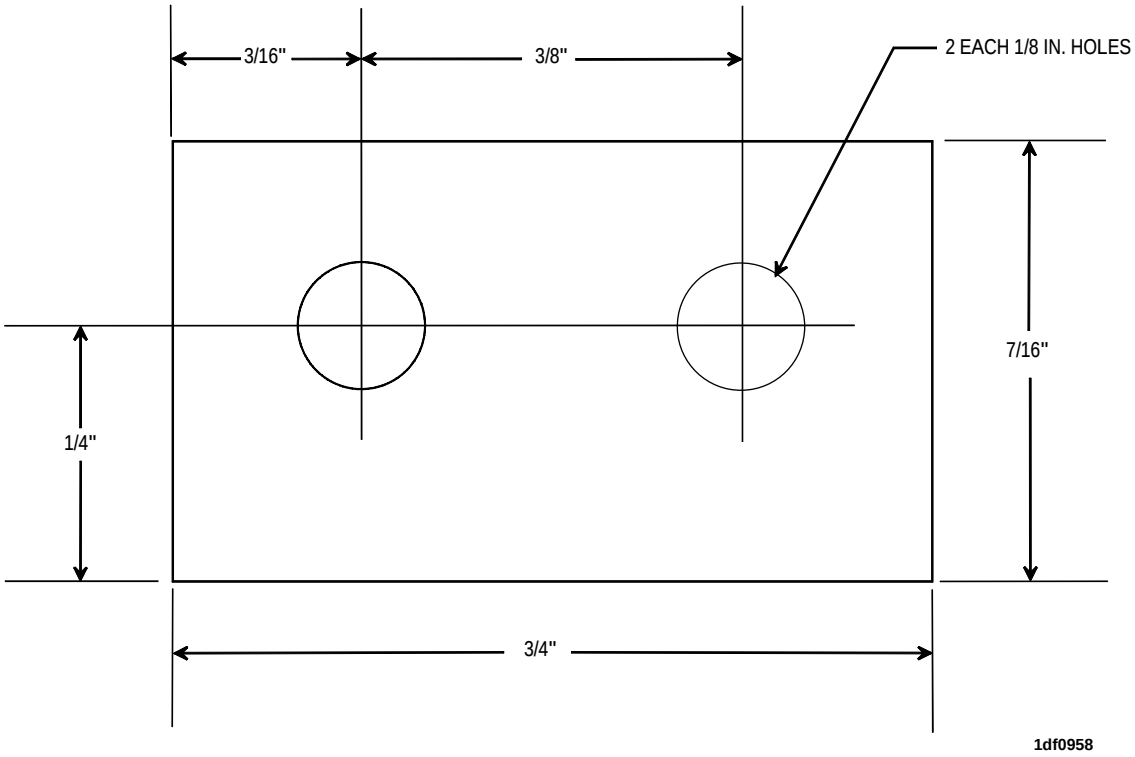


1df0957

NOTES:

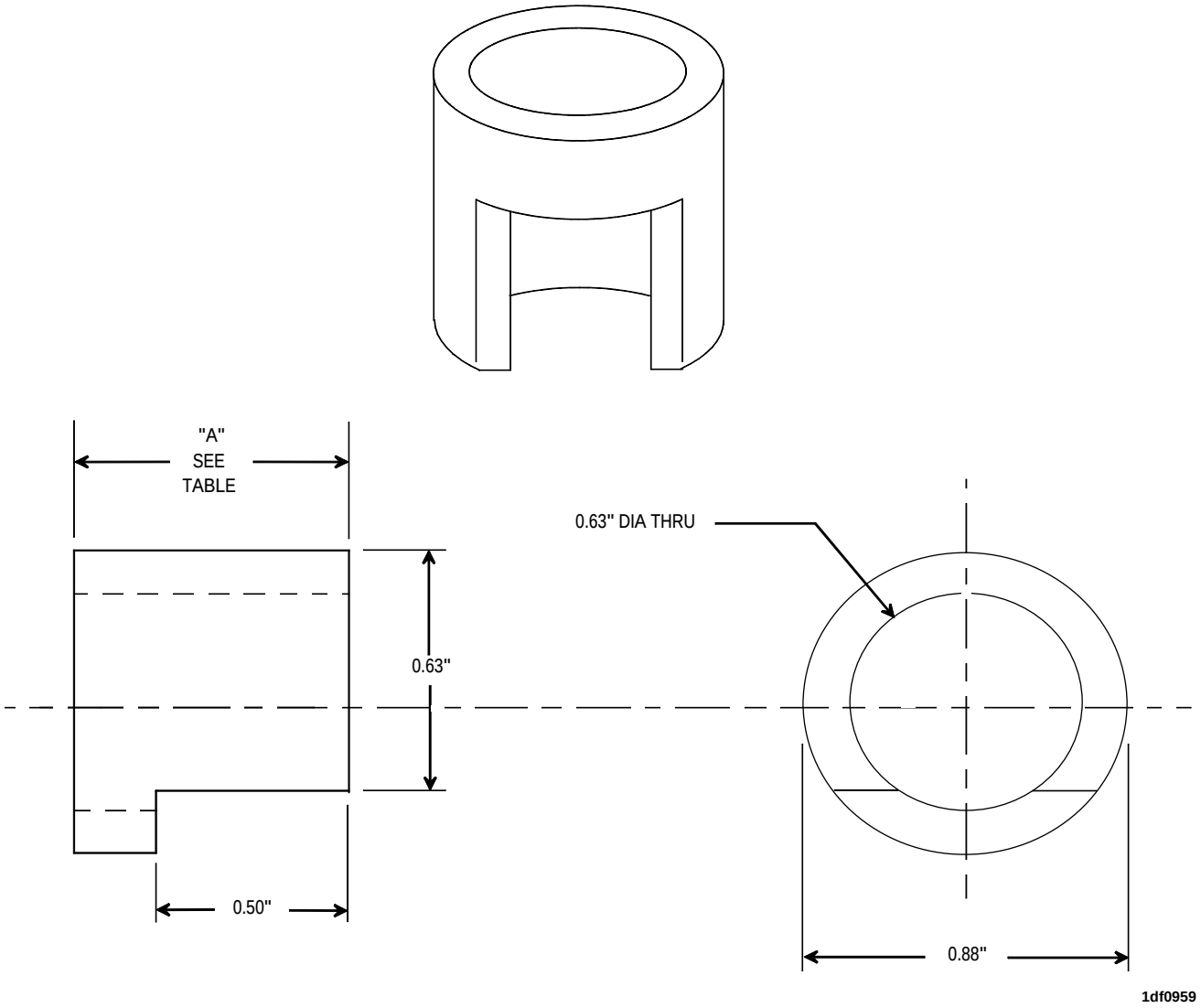
1. Suggested Materials:
   Cloth: MIL-C-20696, Type 1, Class 3, NSN 8305-00-515-4244
   Drawcord: MIL-C-7515, Type 1, NSN 4020-00-113-3896
2. All dimensions are in inches.

Manufacture Instructions for Index Drive Cover Shim



NOTES:
1. Make from 0.020 in. (0.51 mm) shim stock, MS22499/3-005, NSN 9515-00-003-6943.
2. All dimensions are in inches.

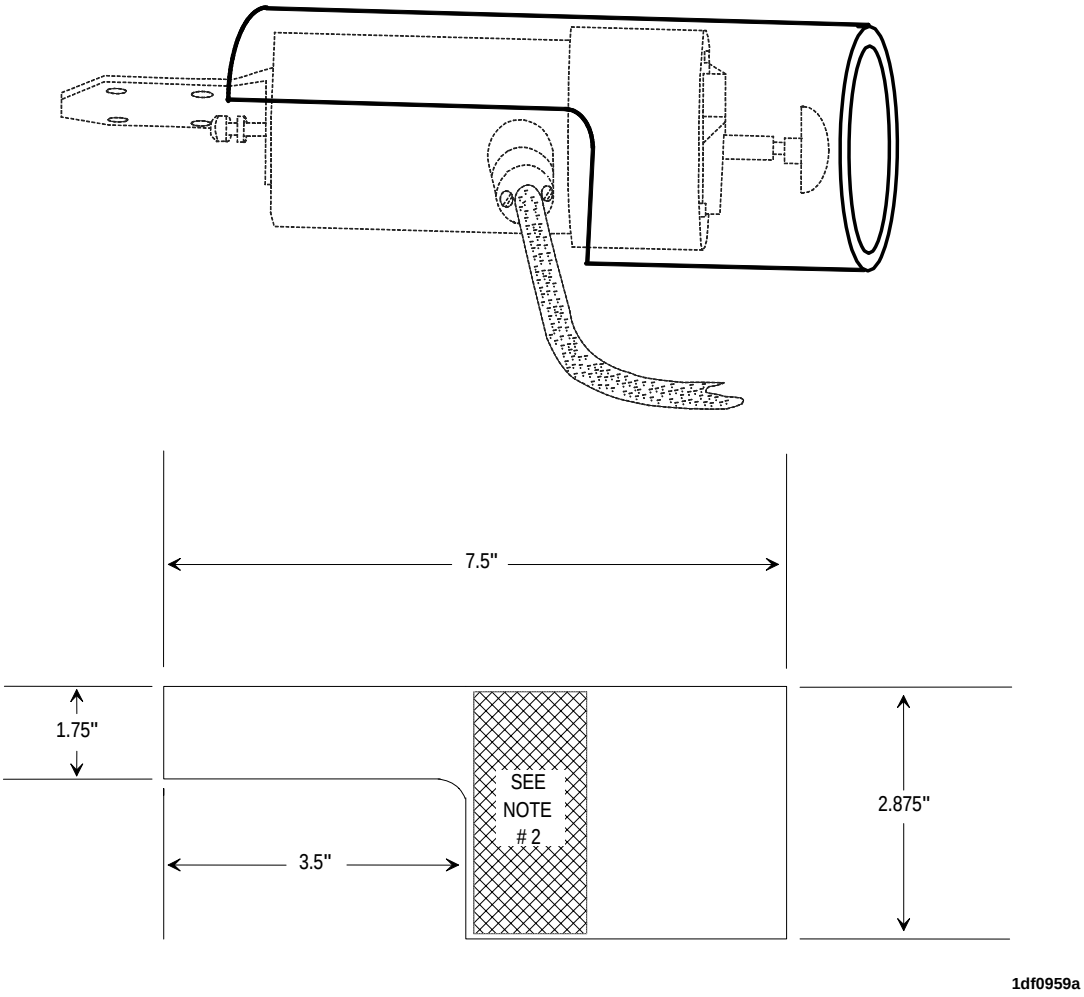
Manufacture Instructions for Recoil Mechanism Damper Rod Tool



Dimension "A"	Use with Recoil Housing Cap Part Number:	Use with Recoil Housing Cap with Overall Height of:
0.875 in. + 0.005 in.	12524422 Revision "B" or Lower	4.5 in. (114.30 mm)
0.685 in. + 0.005 in.	12524422 Revision "C" or Higher and 12524529 All Versions	4.3 in. (109.22 mm)

NOTES:
1. Make from aluminum or cres steel 7/8 in. (22.23 mm) round stock, suggested NSN 9530-00-184-2790.
2. Tolerances are ± 0.03 in. (0.76 mm) unless otherwise stated.

Manufacture Instructions for Feed Select Solenoid Guard



NOTES:
1. Make from 2.5 in. (63.5 mm) Schedule 40 PVC pipe.
2. Add duct tape in location shown until inside diameter fits snug around solenoid body.
3. Identify guard with text: SOLENOID GUARD. Use permanent marker.
4. All dimensions are in inches.

* All materials should be locally acquired.

END OF WORK PACKAGE

CHAPTER 6

SUPPORTING INFORMATION FOR M242 25-MM AUTOMATIC GUN AND M242 25-MM ENHANCED AUTOMATIC GUN

UNIT AND DIRECT SUPPORT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

REFERENCES

SCOPE

This work package lists all field manuals, forms, technical manuals and miscellaneous publications referenced in this manual.

ARMY REGULATIONS AND PAMPHLETS

AR 11-9	The Army Radiation Safety Program
AR 190-11	Physical Security of Areas, Ammunition and Explosives
AR 735-11-2	Reporting of Item and Packaging Discrepancies
AR 750-1	Army Material Maintenance Policies
DA PAM 738-750	The Army Maintenance Management System (TAMMS)

DEPARTMENT OF THE ARMY FORMS

DA FORM 2028	Recommended Changes to Publications and Blank Forms
DA FORM 2028-2	Recommended Changes to Equipment Technical Publications
DA FORM 2404	Equipment Inspection and Maintenance Worksheet
DA FORM 2408-4	Weapons Record Data Card
SF 364	Report of Discrepancy
SF 368	Product Quality Deficiency Report

FIELD MANUALS

FM 4-25-11	First Aid
FM 5-25	Explosives and Demolitions

MARINE CORPS FORMS AND MANUALS

MCO P4450.7	Marine Corps Warehousing Manual
MCO 4855.10	Quality Deficiency Report

MARINE CORPS FORMS AND MANUALS - Continued

MDC P4610.19	Transportation and Travel Record of Transportation Discrepancies
NAVMC 10772	Recommended Changes to Publications and Blank Forms
TM 08672A-20&P/1	Technical Manual-Organizational Maintenance Manual (Including Repair Parts and Special Tools List) for Gun, Automatic: 25-mm, M242 and Gun, Enhanced Automatic: 25mm, M242
TM 08672A-30&P/2	Technical Manual-Direct Support Maintenance Manual (Including Repair Parts and Special Tools List) for Gun, Automatic: 25-mm, M242 W/Equipment (1005-01-086-1400) and Gun, Enhanced Automatic: 25-mm, M242 W/Equipment (1005-01-454-0396)
TM 4700-15/1	Equipment Record Procedures

TABLE OF ALLOWANCES

CTA 8-100	Army Medical Department Expendable/Durable Items
CTA 50-970	Expendable Items (Except Medical, Class V, Repair Parts, and Heraldic Items)

TECHNICAL MANUALS

TM 9-1005-200-20&P	Technical Manual - Organizational Maintenance Manual (Including Repair Parts and Special Tools List) for Gun, Automatic: 25-mm, M242 and Gun, Enhanced Automatic: 25-mm, 242
TM 9-1005-200-30&P	Technical Manual-Direct Support Maintenance Manual (Including Repair Parts and Special Tools List) for Gun, Automatic: 25-mm, M242 W/ Equipment (1005-01-086-1400) and Gun, Enhanced Automatic: 25-mm, M242 W/ Equipment (1005-01-454-0396)
TM 9-2350-252-10-2	Technical Manual-Operator's Manual, Fighting Vehicle, Infantry and Fighting Vehicle, Cavalry Turret
TM 9-2350-284-10-2	Technical Manual-Operator's Manual, High Survivability Fighting Vehicle, Infantry and Fighting Vehicle, Cavalry Turret
TM 9-2350-284-10-2-1	Technical Manual-Operator's Manual, High Survivability Fighting Vehicle, Infantry, Operation Desert Storm, M2A2 ODS

TM 9-2350-294-10-2	Technical Manual-Operator's Manual for Fighting Vehicle, Infantry M2A3 and Fighting Vehicle, Cavalry M3A3 Turret
TM 11-6665-251-10	Technical Manual-Operator's Manual for Radiac Set AN/VDR-2
TM 11-6665-361-10	Technical Manual-Operator's Manual for Radioactive Test Sample, Krypton 85, Gamma, MX-7338/PDR-27
TM 750-244-7	Procedures for Destruction of Equipment in Federal Supply Classifications 1000, 1005, 1010, 1015, 1020, 1025, 1030, 1055, 1090, and 1095 to Prevent Enemy Use

OTHER

TB 9-1300-278	Guidelines for Safe Response to Handling, Storage, and Transportation Accidents Involving Army Tank Munitions or Armor which Contain Depleted Uranium
MIL-STD-2073-1	Standard Practice for Military Packaging

UNIT

M242 25-MM AUTOMATIC GUN (NSN 1005-01-086-1400) M242 25-MM ENHANCED AUTOMATIC GUN (NSN 1005-01-454-0396) INTRODUCTION FOR STANDARD FORMAT MAINTENANCE ALLOCATION CHART (MAC)

INTRODUCTION

The Army Maintenance System MAC

This introduction provides a general explanation of all maintenance and repair functions authorized at various maintenance levels under the standard Army Maintenance System concept.

The MAC (immediately following the introduction) designates overall authority and responsibility for the performance of maintenance functions on the identified end item or component. The application of the maintenance functions to the end item or component shall be consistent with the capacities and capabilities of the designated maintenance levels, which are shown on the MAC in column (4) as:

Unit - includes two subcolumns, C (operator/crew) and O (unit) maintenance.

Direct Support - includes an F subcolumn.

General Support - includes an H subcolumn.

Depot - includes a D subcolumn.

The tools and test equipment requirements (immediately following the MAC) list the tools and test equipment (both special tools and common tool sets) required for each maintenance function as referenced from the MAC.

The remarks (immediately following the tools and test equipment requirements) contain supplemental instructions and explanatory notes for a particular maintenance function.

Maintenance Functions

Maintenance functions are limited to and defined as follows:

1. Inspect. To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination (e.g., by sight, sound, or feel). This includes scheduled inspection and gagings and evaluation of cannon tubes.

2. Test. To verify serviceability by measuring the mechanical, pneumatic, hydraulic, or electrical characteristics of an item and comparing those characteristics with prescribed standards on a scheduled basis, i.e., load testing of lift devices and hydrostatic testing of pressure hoses.

3. Service. Operations required periodically to keep an item in proper operating condition; e.g., to clean (includes decontaminate, when required), to preserve, to drain, to paint, or to replenish fuel, lubricants, chemical fluids, or gases. This includes scheduled exercising and purging of recoil mechanisms.

4. Adjust. To maintain or regulate, within prescribed limits, by bringing into proper position, or by setting the operating characteristics to specified parameters.

Maintenance Functions - Continued

5. Align. To adjust specified variable elements of an item to bring about optimum or desired performance.

6. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments of test, measuring, and diagnostic equipment used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.

7. Remove/Install. To remove and install the same item when required to perform service or other maintenance functions. Install may be the act of emplacing, seating, or fixing into position a spare, repair part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.

8. Replace. To remove an unserviceable item and install a serviceable counterpart in its place. "Replace" is authorized by the MAC and assigned maintenance level is shown as the third position code of the Source, Maintenance and Recoverability (SMR) code.

9. Repair. The application of maintenance services, including fault location/troubleshooting, removal/installation, and disassembly/assembly procedures, and maintenance actions to identify troubles and restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

NOTE

The following definitions are applicable to the "repair" maintenance function:

Services - Inspect, test, service, adjust, align, calibrate, and/or replace.

Fault location/troubleshooting - The process of investigating and detecting the cause of equipment malfunctioning; the act of isolating a fault within a system or Unit Under Test (UUT).

Disassembly/assembly - The step-by-step breakdown (taking apart) of a spare/functional group coded item to the level of its least component, that is assigned an SMR code for the level of maintenance under consideration (i.e., identified as maintenance significant).

Actions - Welding, grinding, riveting, straightening, facing, machining, and/or resurfacing.

10. Overhaul. That maintenance effort (service/action) prescribed to restore an item to a completely serviceable/operational condition as required by maintenance standards in appropriate technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.

11. Rebuild. Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of materiel maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (e.g., hours/miles) considered in classifying Army equipment/components.

Explanation of Columns in the MAC

Column (1) - Group Number. Column (1) lists functional group code numbers, the purpose of which is to identify maintenance significant components, assemblies, subassemblies, and modules with the Next Higher Assembly (NHA).

Column (2) - Component/Assembly. Column (2) contains the names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

Column (3) - Maintenance Function. Column (3) lists the functions to be performed on the item listed in Column (2). (For a detailed explanation of these functions refer to "Maintenance Functions" outlined above.)

Column (4) - Maintenance Level. Column (4) specifies each level of maintenance authorized to perform each function listed in column (3), by indicating work time required (expressed as manhours in whole hours or decimals) in the appropriate subcolumn. This work time figure represents the active time required to perform that maintenance function at the indicated level of maintenance. If the number or complexity of the tasks within the listed maintenance function varies at different maintenance levels, appropriate work time figures will be shown for each level. The work time figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time (including any necessary disassembly/assembly time), troubleshooting/fault location time, and quality assurance time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the MAC. The symbol designations for the various maintenance levels are as follows:

C - Operator or crew maintenance

O - Unit maintenance

F - Direct support maintenance

L - Specialized repair activity (SRA)

H - General support maintenance

D - Depot maintenance

NOTE

The "L" maintenance level is not included in column (4) of the MAC. Functions to this level of maintenance are identified by a work time figure in the "H" column of column (4), and an associated reference code is used in the REMARKS column (6). The code is keyed to the remarks, and the SRA complete repair application is explained there.

Column (5) - Tools and Equipment Reference Code. Column (5) specifies, by code, those common tool sets (not individual tools), common Test, Measurement and Diagnostic Equipment (TMDE), and special tools, special TMDE and special support equipment required to perform the designated function. Codes are keyed to the entries in the tools and test equipment table.

Column (6) - Remarks Code. When applicable, this column contains a letter code, in alphabetic order, which is keyed to the remarks table entries.

Explanation of Columns in the Tools and Test Equipment Requirements

Column (1) - Tool or Test Equipment Reference Code. The tool or test equipment reference code correlates with a code used in Column (5) of the MAC.

Column (2) - Maintenance Level. The lowest category of maintenance authorized to use the tool or test equipment.

Column (3) - Nomenclature. Name or identification of the tool or test equipment.

Column (4) - National Stock Number (NSN). The NSN of the tool or test equipment.

Column (5) - Tool Number. The manufacturer's part number, model number, or type number.

Explanation of Columns in the Remarks

Column (1) - Reference Code. The code recorded in Column (6) of the MAC.

Column (2) - Remarks. This column lists information pertinent to the maintenance function being performed as indicated in the MAC.

END OF WORK PACKAGE

UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

MAINTENANCE ALLOCATION CHART (MAC)

Table 1. MAC for M242 Automatic Gun.

(1)	(2)	(3)	(4) MAINTENANCE LEVEL					(5)	(6)
			UNIT		DS	GS	DPT	TOOLS AND EQUIPMENT	
GROUP NUMBER	COMPONENT/ASSEMBLY	MAINTENANCE FUNCTION	C	O	F	H	D	REF CODE	REMARKS CODE
00	M242 25-MM Automatic Gun with BII 12524000 (Standard) or 12524600 (Enhanced)	Inspect		0.3	1.7		1.0		
		Test		0.4	0.4		3.0	25,41,44	
		Service	0.9						
		Remove/ Install	0.3						
		Replace		0.6					
001	M242 25-MM Automatic Gun 12524008 (Standard) or 12524008-1 (Enhanced)	Inspect		0.3	1.7		1.0		
		Test		0.4	0.4		3.0	25,41,44	
		Service	0.9						
		Remove/ Install	0.3						
		Replace		0.6					
0011	Barrel Assembly 12524520	Inspect		0.2				15,34,48,49	
		Service	0.1						
		Remove/ Install	0.2					24	
		Replace		0.5				18,19,34,41,48, 49	
		Repair		1.3				18,19,34,41,48, 49	
0012	Automatic Gun Feeder 12524100 (Standard) or 12524100-1 (Enhanced)	Inspect		1.0					
		Test		0.3	0.3			25	
		Service	0.2						
		Remove/ Install	0.1						
		Replace		0.1				19,41	
		Repair		0.7	3.0			19,34,41,44	
00121	Feeder Drive Assembly 12524180	Repair			2.5			18,19,35,43,50	

Table 1. MAC for M242 Automatic Gun - Continued.

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL UNIT C	UNIT O	DS F	GS H	DPT D	(5) TOOLS AND EQUIPMENT REF CODE	(6) REMARKS CODE
0012101	Electrical Solenoid Assembly 12524404	Replace		0.5				2,19,20,32,37,41,44,51	
		Repair		0.3				2,19,20,32,37, 41,44,51	
00121011	Wiring Harness 12524403	Replace		0.3				2,19,20,36,37, 41,44,51	
		Repair		0.1				41,44	
001210111	Connector 12524644	Repair		0.1				37,41,44	
0012102	Rear Plate Assembly 12524575	Replace			0.8			18,19,35,43,50, 52	
		Repair			0.3			18,19,35,43,50, 52	
00121021	Feed Plate Assembly 12524191	Repair			0.2			18,19,35,43,50, 52	
0012103	Worm Shaft Assembly 12524250	Replace			0.6			18,19,35,43,50, 52	
		Repair			0.3			18,19,35,43,50, 52	
0012104	Feed Shaft Stop Assembly 12524170	Replace		0.1				41	
		Repair		0.2				18,19,41,44	
0012105	Sliding Sleeve Lower Clutch 12524083	Replace			0.4			18,19,35,43,50, 52	
		Repair			0.2			18,19,35,43	
0012106	Sliding Sleeve Upper Clutch 12524290	Replace			0.4			18,19,35,43,50, 52	
		Repair			0.2			18,19,35,43	
0012107	Gear Clutch Assembly 12524099	Replace			0.6			18,19,35,43,50, 52	
		Repair			0.3			8,18,19,22,35,43	
0012108	Housing Assembly 12524210	Replace			2.5			18,19,35,43,50, 52	
		Repair			0.8			30,35,43	
0012109	Index Drive Cover Assembly 12524260	Replace			0.2			18,19,35,43,50, 52	
		Repair			0.5			2,16,20,43,51	
00122	Forward Feed Assembly 12524574	Replace		0.8				41,44	
		Repair		0.4				41,44	

Table 1. MAC for M242 Automatic Gun - Continued.

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL UNIT C	UNIT O	DS F	GS H	DPT D	(5) TOOLS AND EQUIPMENT REF CODE	(6) REMARKS CODE
00123	Round Positioner Assembly 12524524	Replace		0.2				38,41,44	
		Repair		0.2				41,44	
00124	Connecting Link 12524576, 12524577, 12524578, 12524579, (Enhanced)	Replace		0.1				41,44	
		Repair		0.1				41,44,53	
0013	Auto Gun Receiver 12524300 (Standard) or 12524301 (Enhanced)	Inspect		0.4					
		Service	0.4						
		Remove/ Install	0.3					9,13,14,18,19, 41,44,46	
		Repair		1.0					
		Test		0.3				25	
00131	Mechanical Housing 12524362	Replace		0.2				18,19,26,27,34, 41,44	
		Repair			0.3			30	
00132	Bolt and Track Assembly 12524340	Inspect		0.3				41	
		Service	0.3						
		Replace		0.1					
		Repair		0.3				18,19,41,44	
0013201	Bolt and Carrier Assembly 12524320	Inspect		0.3				14	
		Service	0.3						
		Replace		0.2					
		Repair		0.1				18,19,41,44	
00132011	Bolt, Breech 12524331	Remove		0.1				18,19,41,44	
		Repair					0.3		
0013202	Track Assembly 12524380	Service	0.3	0.2					
		Replace		0.2					
		Repair		0.3				18,19,29,41,44	
00133	Recoil Mechanism 12524420 (Standard) 12524530 (Enhanced)	Inspect	0.1	0.1					
		Service		0.2				5,9,10,11,14.1, 18,19,41,44,	
		Replace		0.8				44.1,45,46	
		Repair			0.8			9,14.1,18,19,41, 44,44.1,45,46 7,10,11,18,19, 23,35,43,44.1,47	
0013301	Damper Housing Assembly 12524425 (Standard) 12524533 (Enhanced)	Inspect			0.2				
		Repair			0.7			4,10,11,18,19, 35,43	
0013302	Fluid Pressure Damper 12524438	Repair			0.5			4,10,11,18,19, 35,43	

Table 1. MAC for M242 Automatic Gun - Continued.

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL UNIT C	UNIT O	DS F	GS H	DPT D	(5) TOOLS AND EQUIPMENT REF CODE	(6) REMARKS CODE
00134	Rocker Assembly 12524463	Replace Repair		0.2 0.1				18,19,41,44 18,19,41,44	
00135	Clutch Assembly 12524146 (Standard) 12524542 (Enhanced)	Test Replace Repair		0.1 0.2 0.3				5,21,45,52 18,19,26,27,34, 41,44 18,19,41,44	
00136	Sear Assembly 12524089	Inspect Replace Repair		0.1 0.1 0.2				41 41,44 18,19,34,41	
00137	Breech Assembly 12524370 (Standard) or 12524527 (Enhanced)	Inspect Replace Repair		0.1 0.2 0.1				12,17,41 41,44 41,44	
00138	Riveted Receiver 12524360 (Standard) 12524364 (Enhanced)	Inspect Repair		0.2	0.5			30,35,43	
00139	Direct Current Motor 12524409 (1.0) (Standard) 12524494 (1.0) (Enhanced)	Test Replace Repair		0.9			1.0 1.5	19,27,41,44	

Table 2. Tools and Test Equipment Requirements for M242 Automatic Gun.

TOOL OR TEST EQUIPMENT REF CODE	MAINTENANCE LEVEL	NOMENCLATURE	NATIONAL STOCK NUMBER	CAGEG AND TOOL NUMBER
1	O,F	APRON, UTILITY	8415-00-082-6108	80244 A-A-55063
2	O, F	BIT, SCREWDRIVER, CROSS TIP (0 TIP, 1/4 SHANK)	5120-00-957-3653	67179 D1220AA
3	O	BIT, SCREWDRIVER, FLAT TIP (1/2 DRIVE)	5120-00-277-3601	1AR81 5120-00-277-3601
4	F	BUFFER REMOVAL TOOL	4933-01-426-3871	8V613 465-0725
5	O	CAPS, VISE JAW	5120-00-221-1506	58536 A-A-2938
6	O	CARTRIDGE, DUMMY	1305-01-105-4095	19200 12556184
7	F	CLAMP ASSEMBLY, RECOIL SPRING	1005-01-119-7254	19200 12524021

Table 2. Tools and Test Equipment Requirements for M242 Automatic Gun.

TOOL OR TEST EQUIPMENT REF CODE	MAINTENANCE LEVEL	NOMENCLATURE	NATIONAL STOCK NUMBER	CAGEG AND TOOL NUMBER
8	F	CROWFOOT ATTACHMENT, SOCKET WRENCH (22MM)	5120-01-074-7558	55719 FCOM22
9	O	CROWFOOT ATTACHMENT, SOCKET WRENCH (32MM)	5120-01-278-6889	19200 12524176
10	F	DAMPER ROD TOOL		19204 CSAL-1
11	F	DAMPER ROD TOOL		19204 CSAL-2
12	O	DIE SET, STAMPING	5110-00-293-1904	87369 5110-00-293-1904
13	O	DRILL, ELECTRIC	5130-00-293-1849	80244 5130-00-293-1849
14	O	DRILL, TWIST (1/8 IN.)	5133-00-227-9650	OR503 B94.11M
14.1	O, F	FIXTURE, WEAPON COMP (VISE HOLDING TOOL)	4933-01-541-5664	8V613 465-0733
15	O	GAGE, CANNON BORE EROSION	5120-02-329-4860	19200 12535035
16	O, F	GAGE, THICKNESS	5210-00-221-1999	09058 599-647
17	O	GLASS, MAGNIFYING	6650-00-133-7743	19200 11728227
18	O, F	GLOVES, CHEMICAL PROTECTIVE	8415-00-266-8675	81348 ZZ-G-381
19	O, F	GOGGLES, INDUSTRIAL	4240-00-052-3776	58536 A-A-1110
20	O, F	HOLDER, SCREWDRIVER BIT, FEMALE SQ (1/4 DRIVE, 1/4 HEX)	5120-01-380-8979	55719 TMBS8
21	O, F	HOLDER, SLIPPAGE, TORQUE (RECEIVER CLUTCH)	5120-01-452-3355	8V613 465-0724
22	F	INSERTER, GEAR (CLUTCH)	5120-01-153-2794	19200 12524031
23	F	INSERTER AND REMOVER, SPRING (RECOIL)	5120-01-130-5696	19200 12524027
24	O	MITTENS, HEAT	8415-01-092-0039	81349 MIL-M-11199F

Table 2. Tools and Test Equipment Requirements for M242 Automatic Gun.

TOOL OR TEST EQUIPMENT REF CODE	MAINTENANCE LEVEL	NOMENCLATURE	NATIONAL STOCK NUMBER	CAGEG AND TOOL NUMBER
25	O	MULTIMETER	6625-01-265-6000	89536 27/FM W/ACCE
26	O	PULLER, MECHANICAL (INSIDE)	5120-00-449-3769	81348 GGG-P-781
27	O	PULLER, MECHANICAL (OUTSIDE)	5120-00-595-9304	81348 GGG-P-781
28		Deleted		
29		Deleted		
30	F	REPAIR KIT, INSERT	5180-01-153-2795	19200 12524035
31	O, F	RESPIRATOR, AIR FILTERING	4240-00-022-2524	81348 GGG-M-125/6
32	O	SCREWDRIVER, CROSS TIP (SIZE 0)	5120-01-398-9250	OTA44 9-41293
33	O, F	SEALING MACHINE, HEAT	3540-00-293-1389	81349 MILS004461
34	O	SHOP EQUIPMENT, COMMON #2	4910-00-754-0650	SC 4910-95-A72
35	F	SHOP SET, SMALL ARMS	4933-00-754-0664	SC 4933-95-A11
36	O, F	SOCKET, SOCKET WRENCH (1/4 DRIVE, 1/8 IN.)	5120-01-335-0961	55719 TM04
37	O	SOCKET WRENCH ATTACHMENT, 4MM	5120-01-348-9249	55719 TMM4
38	O, F	SOCKET WRENCH ATTACHMENT, 6MM	5120-01-437-3661	55719 FAM6E
39	O, F	STENCIL SET, MARKING	7520-00-298-7043	83421 7520-00-298-7043
40	O, F	STRAPPING AND SEALING KIT	3540-00-565-6241	80244 3540-00-565-6241
41	O	TOOL KIT, ARTILLERY AND TURRET MECHANIC'S	5180-00-357-7727	SC 5180-95-A12
42	O	TOOL KIT, GENERAL MECHANIC'S (MARINE CORPS)	5180-00-606-3566	SL-3-00456A

Table 2. Tools and Test Equipment Requirements for M242 Automatic Gun.

TOOL OR TEST EQUIPMENT REF CODE	MAINTENANCE LEVEL	NOMENCLATURE	NATIONAL STOCK NUMBER	CAGEG AND TOOL NUMBER
43	F	TOOL KIT, REPAIRMAN'S, SMALL ARMS	5180-00-357-7770	SC 5180-95-A07
44	O	TOOL KIT, TURRET MECHANIC'S (SUPPLEMENTAL)	5180-01-115-5351	SC 5180-95-B19
44.1	O, F	TOOL, DAMPER VALVE	5120-01-452-3364	8V613 465-0723
44.2	O, F	TOOL, SLIPPAGE TORQUE	5120-01-445-8503	8V613 465-0728
45	O	VISE, MACHINIST'S	5120-00-293-1439	81348 GGG-V-410
46		DELETED		
47	F	WRENCH, SPANNER (RECOIL)	5120-01-119-7240	19200 12524483
48	O	WRENCH, SPANNER (MUZZLE BRAKE)	5120-01-452-5904	19200 12524402
49	O	WRENCH, STRAP	5120-00-262-8491	81348 GGG-W-651
50	F	WRENCH, TORQUE (0-300 IN.-LBS)	5120-00-776-1841	80204 B107.14M
51	O, F	WRENCH, TORQUE (0-80 IN.-OZ)	5120-01-394-4262	64334 850254
52	O	WRENCH, TORQUE (0-175 FT-LBS)	5120-00-640-6364	80204 B107.14M
53	O	WRENCH, TORQUE (0-200 IN. -LBS)	5120-01-339-0368	55719 QD2R200

END OF WORK PACKAGE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

INTRODUCTION TO REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL)

SCOPE

This RPSTL lists and authorizes spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for performance of unit and direct support maintenance of the M242, 25-mm gun. It authorizes the requisitioning, issue, and disposition of spares, repair parts, and special tools as indicated by the source, maintenance, and recoverability (SMR) codes.

GENERAL

In addition to the Introduction work package, this RPSTL is divided into the following work packages.

1. Repair Parts List Work Packages. Work packages containing lists of spares and repair parts authorized by this RPSTL for use in the performance of maintenance. These work packages also include parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending figure and item number sequence. Sending units, brackets, filters, and bolts are listed with the component they mount on. Bulk materials are listed by item name in FIG. BULK at the end of the work package. Repair parts kits are listed separately in their own functional group and work package. Repair parts for reparable special tools are also listed in a separate work package. Items listed are shown on the associated illustrations.

2. Special Tools List Work Packages. Work packages containing lists of special tools, special TMDE, and special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BOI) information in the DESCRIPTION AND USABLE ON CODE (UOC) column). Tools that are components of common tool sets and/or Class VII are not listed.

3. Cross-Reference Indexes Work Packages. There are two cross-reference indexes work packages in this RPSTL: the National Stock Number (NSN) Index work package and the Part Number Index work package. The National Stock Number Index work package refers you to the figure and item number. The Part Number Index work package refers you to the figure and item number.

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES

ITEM NO. (Column (1)). Indicates the number used to identify items called out in the illustration.

SMR CODE (Column (2)). The SMR code containing supply/requisitioning information, maintenance level authorization criteria, and disposition instruction, as shown in the following breakout:

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES - Continued

Source Code	Maintenance Code		Recoverability Code
___ xx ___	___ xx ___		___ x ___
1st two positions: How to get an item.	3rd position: Who can install, replace, or use the item.	4th position: Who can do complete repair* on the item.	5th position: Who determines disposition action on unserviceable items.

*Complete Repair: Maintenance capacity, capability, and authority to perform all corrective maintenance tasks of the "Repair" function in a use/user environment in order to restore serviceability to a failed item.

Source Code. The source code tells you how to get an item needed for maintenance, repair, or overhaul of an end item/equipment. Explanations of source codes follow:

Source Code	Application/Explanation
PA PB PC PD PE PF PG	Stock items; use the applicable NSN to requisition/request items with these source codes. They are authorized to the level indicated by the code entered in the 3rd position of the SMR code. **NOTE** Items coded PC are subject to deterioration.
KD KF KB	Items with these codes are not to be requested/requisitioned individually. They are part of a kit which is authorized to the maintenance level indicated in the 3rd position of the SMR code. The complete kit must be requisitioned and applied.

MO-	Made at unit/ AVUM level	Items with these codes are not to be requisitioned/requested individually. They must be made from bulk material which is identified by the P/N in the DESCRIPTION AND USABLE ON CODE (UOC) column and listed in the bulk material group work package of the RPSTL. If the item is authorized to you by the 3rd position code of the SMR code, but the source code indicates it is made at higher level, order the item from the higher level of maintenance.
MF-	Made at DS/ AVIM level	
MH-	Made at GS level	
ML-	Made at SRA	
MD-	Made at depot	
AO-	Assembled by unit/AVUM level	Items with these codes are not to be requested/requisitioned individually. The parts that make up the assembled item must be requisitioned or fabricated and assembled at the level of maintenance indicated by the source code. If the 3rd position code of the SMR code authorizes you to replace the item, but the source code indicates the item is assembled at a higher level, order the item from the higher level of maintenance.
AF-	Assembled by DS/AVIM level	
AH-	Assembled by GS level	
AL-	Assembled by SRA	
AD-	Assembled by depot	
XA		Do not requisition an XA-coded item. Order the next higher assembly. (Refer to NOTE below.)
XB		If an item is not available from salvage, order it using the CAGEC and P/N.
XC		Installation drawings, diagrams, instruction sheets, field service drawings; identified by manufacturer's P/N.
XD		Item is not stocked. Order an XD-coded item through normal supply channels using the CAGEC and P/N given, if no NSN is available.

NOTE

Cannibalization or controlled exchange, when authorized, may be used as a source of supply for items with the above source codes, except for those source coded "XA" or those aircraft support items restricted by requirements of AR 750-1.

Maintenance Code. Maintenance codes tell you the level(s) of maintenance authorized to use and repair support items. The maintenance codes are entered in the third and fourth positions of the SMR code as follows:

Third Position. The maintenance code entered in the third position tells you the lowest maintenance level authorized to remove, replace, and use an item. The maintenance code entered in the third position will indicate authorization to the following levels of maintenance:

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES - Continued

Maintenance Code		Application/Explanation
C	-	Crew or operator maintenance done within unit/AVUM maintenance.
O	-	Unit level/AVUM maintenance can remove, replace, and use the item.
F	-	Direct support/AVIM maintenance can remove, replace, and use the item.
H	-	General support maintenance can remove, replace, and use the item.
L	-	Specialized repair activity can remove, replace, and use the item.
D	-	Depot can remove, replace, and use the item.

Fourth Position. The maintenance code entered in the fourth position tells you whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (perform all authorized repair functions).

NOTE

Some limited repair may be done on the item at a lower level of maintenance, if authorized by the Maintenance Allocation Chart (MAC) and SMR codes.

Maintenance Code		Application/Explanation
O	-	Unit/AVUM is the lowest level that can do complete repair of the item.
F	-	Direct support/AVIM is the lowest level that can do complete repair of the item.
H	-	General support is the lowest level that can do complete repair of the item.
L	-	Specialized repair activity is the lowest level that can do complete repair of the item.
D	-	Depot is the lowest level that can do complete repair of the item.
Z	-	Nonreparable. No repair is authorized.
B	-	No repair is authorized. No parts or special tools are authorized for the maintenance of "B" coded item. However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

Recoverability Code. Recoverability codes are assigned to items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the SMR code as follows:

Recoverability Code		Application/Explanation
Z	-	Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in the third position of the SMR code.
O	-	Reparable item. When uneconomically reparable, condemn and dispose of the item at the unit level.
F	-	Reparable item. When uneconomically reparable, condemn and dispose of the item at the direct support level.
H	-	Reparable item. When uneconomically reparable, condemn and dispose of the item at the general support level.
D	-	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item are not authorized below depot level.
L	-	Reparable item. Condemnation and disposal not authorized below Specialized Repair Activity (SRA).
A	-	Item requires special handling or condemnation procedures because of specific reasons (such as precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.

NSN (Column (3)). The NSN for the item is listed in this column.

CAGEC (Column (4)). The Commercial and Government Entity Code (CAGEC) is a five-digit code which is used to identify the manufacturer, distributor, or Government agency/activity that supplies the item.

PART NUMBER (Column (5)). Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications, standards, and inspection requirements to identify an item or range of items.

NOTE

When you use an NSN to requisition an item, the item you receive may have a different P/N from the number listed.

DESCRIPTION AND USABLE ON CODE (UOC) (Column (6)). This column includes the following information:

1. The federal item name and, when required, a minimum description to identify the item.
2. P/Ns of bulk materials are referenced in this column in the line entry to be manufactured or fabricated.
3. Hardness Critical Item (HCI). A support item that provides the equipment with special protection from electromagnetic pulse (EMP) damage during a nuclear attack.
4. The statement END OF FIGURE appears just below the last item description in column (6) for a given figure in both the repair parts list and special tools list work packages.

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES - Continued

QTY (Column (7)). The QTY (quantity per figure) column indicates the quantity of the item used in the breakout shown on the illustration/figure, which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column instead of a quantity indicates that the quantity is variable and quantity may change from application to application.

EXPLANATION OF CROSS-REFERENCE INDEXES WORK PACKAGES FORMAT AND COLUMNS

1. National Stock Number (NSN) Index Work Package.

STOCK NUMBER Column. This column lists the NSN in National item identification number (NIIN) sequence. The NIIN consists of the last nine digits of the NSN.

NSN
(e.g., 5385-01-574-1476).
NIIN

When using this column to locate an item, ignore the first four digits of the NSN. However, the complete NSN should be used when ordering items by stock number.

FIG. Column. This column lists the number of the figure where the item is identified/located. The figures are in numerical order in the repair parts list and special tools list work packages.

ITEM Column. The item number identifies the item associated with the figure listed in the adjacent FIG. column. This item is also identified by the NSN listed on the same line.

2. Part Number (P/N) Index Work Package.

P/Ns in this index are listed in ascending alphanumeric sequence (vertical arrangement of letter and number combinations which places the first letter or digit of each group in order A through Z, followed by the numbers 0 through 9 and each following letter or digit in like order).

PART NUMBER Column. Indicates the P/N assigned to the item.

FIG. Column. This column lists the number of the figure where the item is identified/located in the repair parts list and special tools list work packages.

ITEM Column. The item number is the number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

SPECIAL INFORMATION

Fabrication Instructions. Bulk materials required to manufacture items are listed in the bulk material functional group of this RPSTL. Part numbers for bulk materials are also referenced in the Description Column of the line item entry for the item to be manufactured/fabricated. Detailed fabrication instructions for items source coded to be manufactured or fabricated are found in the appropriate maintenance work packages of this manual.

Index Numbers. Items which have the word BULK in the figure column will have an index number shown in the item number column. This index number is a cross-reference between the NSN / P/N index work packages and the bulk material list in the repair parts list work package.

HOW TO LOCATE REPAIR PARTS

1. When NSN or P/Ns Are Not Known.

First. Using the table of contents, determine the assembly group to which the item belongs. This is necessary since figures are prepared for assembly groups and subassembly groups, and lists are divided into the same groups.

Second. Find the figure covering the functional group or the subfunctional group to which the item belongs.

Third. Identify the item on the figure and note the number(s).

Fourth. Look in the repair parts list work packages for the figure and item numbers. The NSNs and part numbers are on the same line as the associated item numbers.

2. When NSN Is Known.

First. If you have the NSN, look in the STOCK NUMBER column of the NSN index work package. The NSN is arranged in NIIN sequence. Note the figure and item number next to the NSN.

Second. Turn to the figure and locate the item number. Verify that the item is the one you are looking for.

3. When P/N Is Known.

First. If you have the P/N and not the NSN, look in the PART NUMBER column of the P/N index work package. Identify the figure and item number.

Second. Look up the item on the figure in the applicable repair parts list work package.

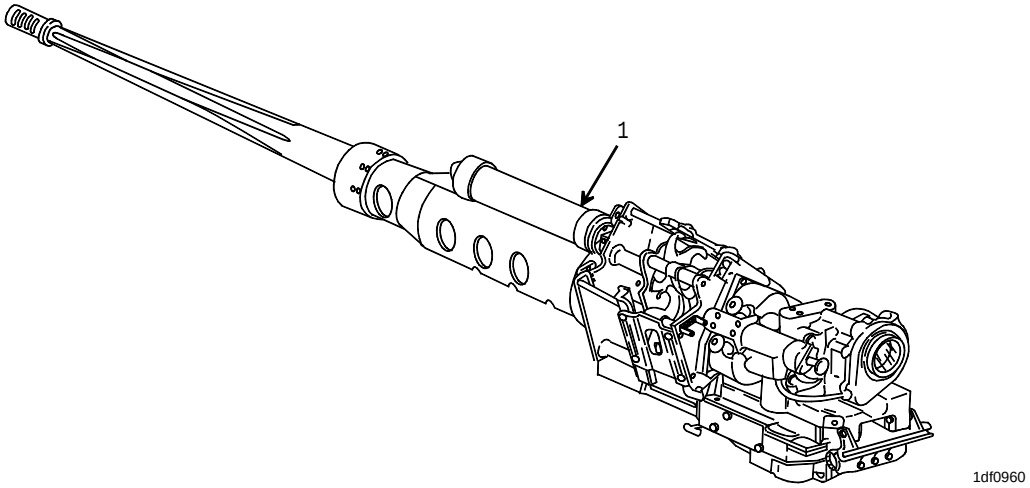
END OF WORK PACKAGE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

M242 25-MM AUTOMATIC GUN WITH BII 12524000 AND M242 25-MM ENHANCED AUTOMATIC GUN WITH BII 12524600

REPAIR PARTS LIST



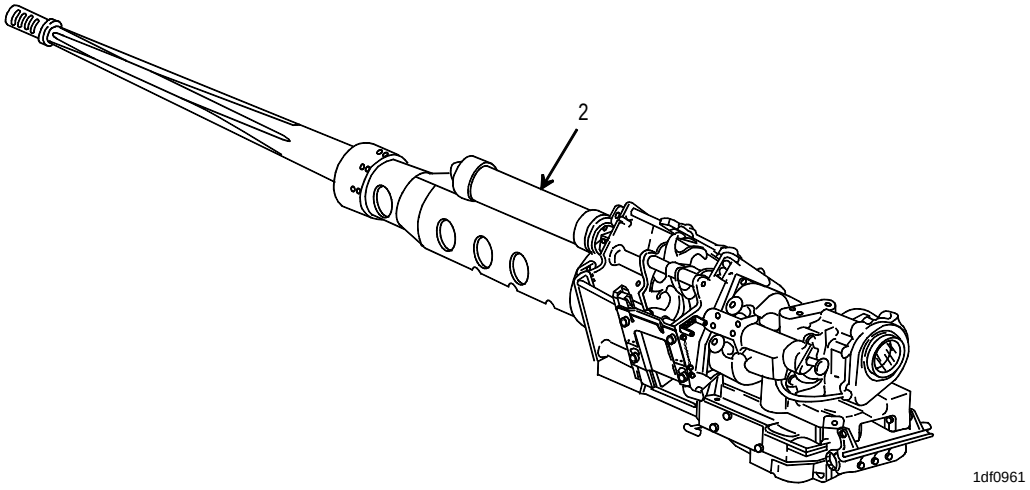


Figure 1. M242 25-MM Automatic Gun with BII 12524000 and M242 25-MM Enhanced Automatic Gun with BII 12524600 (Sheet 1 of 2).

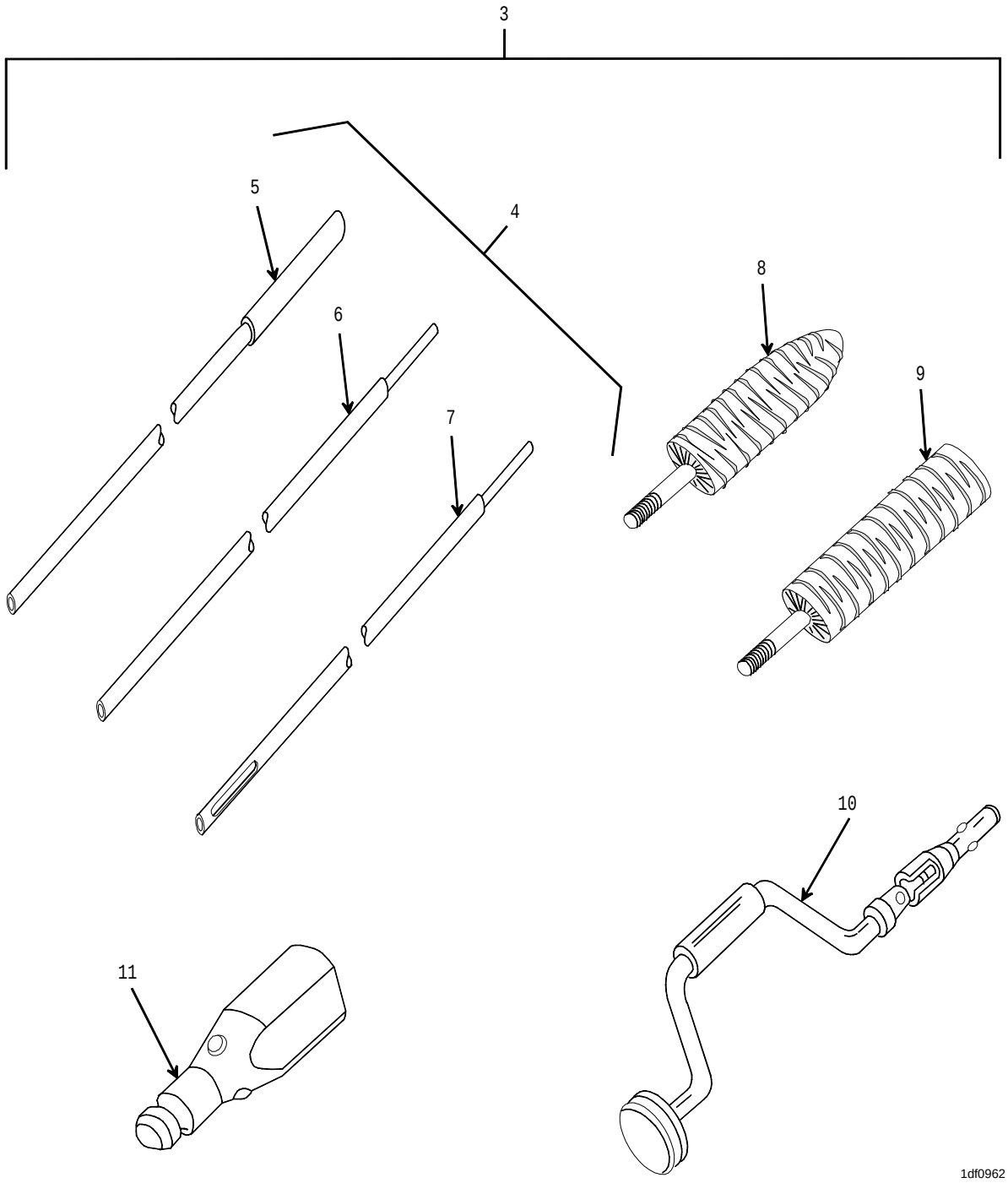


Figure 1. M242 25-MM Automatic Gun with BII 12524000 and M242 25-MM Enhanced Automatic Gun with BII 12524600 (Sheet 2 of 2).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 00 FIG. 1 M242 25-MM AUTOMATIC GUN WITH BASIC ISSUE ITEMS (BII) 12524000 (STANDARD) 12524600 (ENHANCED)	
1	PDODD	1005014653466	19200	12524008	GUN,AUTOMATIC,25MM M242 (SEE FIG. 2 FOR BKDN)	1
2	PDODD	1005014649432	19200	12524008-1	GUN,AUTOMATIC,25MM, M242 (SEE FIG. 2 FOR BKDN)	1
3	ADDDA		19200	12524498	BASIC ISSUE ITEMS	1
4	AOOOO		19200	12524020	.ROD, SECTION, CLEANING	1
5	PAOZZ	1005011200447	19200	12524476	..HANDLE ASSEMBLY	1
6	PAOZZ	1005011197867	19200	12524482	..ROD SECTION, CLEANING	2
7	PAOZZ	1005011197866	19200	12524481	..ROD SECTION, CLEANING	1
8	PAOZZ	1005011212390	19200	12524013	.BRUSH, CLEANING,SMALL	1
9	PAOZZ	1005011212391	19200	12524014	.BRUSH, CLEANING,SMALL	1
10	PAOZZ	5340013486604	19200	12524519	.CRANK, HAND	1
11	PAOZZ	5340013709476	19200	12524508	.PLUG, PROTECTIVE,DUST	1

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

M242 25-MM AUTOMATIC GUN 12524008 AND M242 25-MM ENHANCED AUTOMATIC GUN 12524008-1

REPAIR PARTS LIST

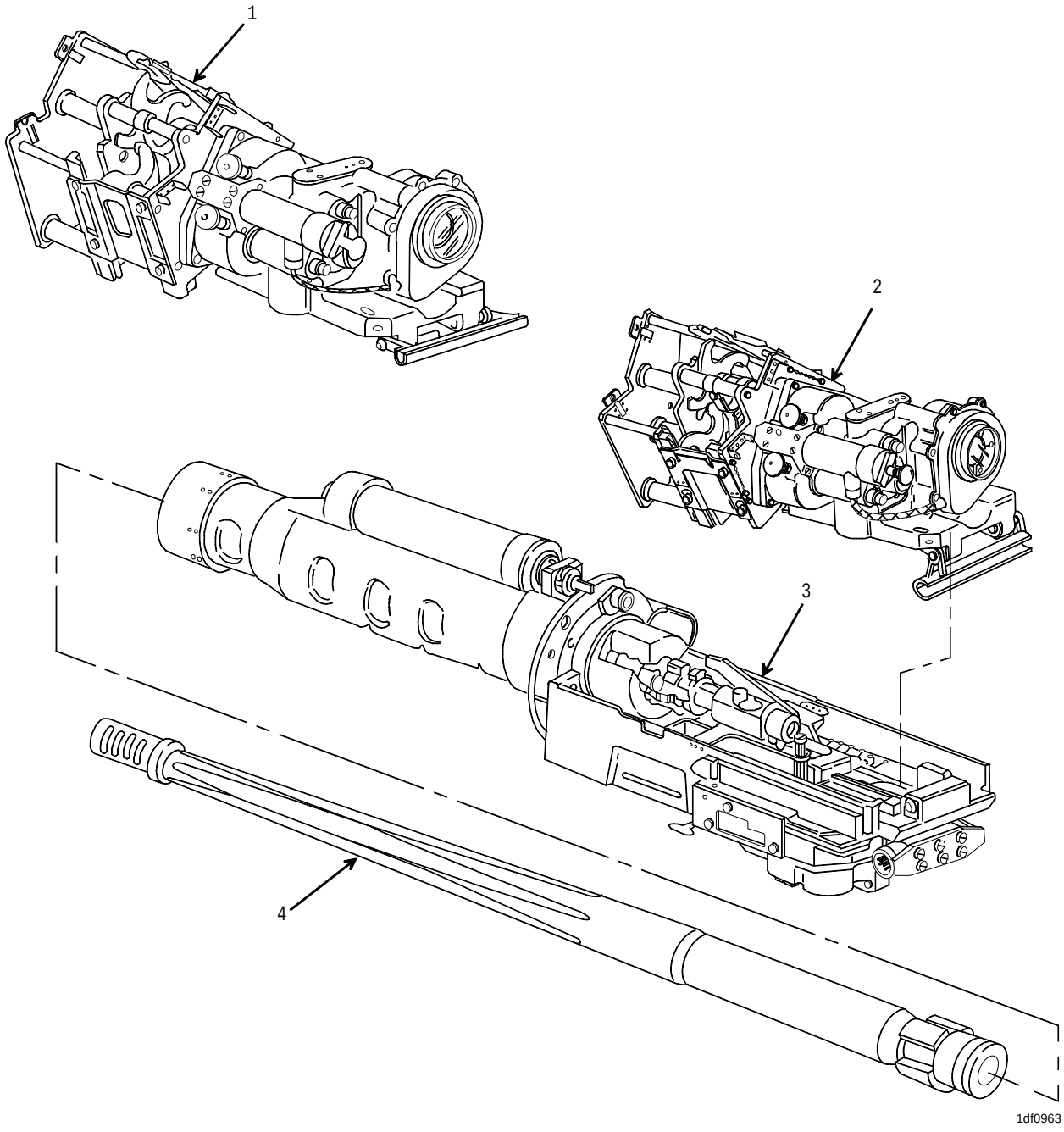


Figure 2. M242 25-MM Automatic Gun 12524008 and
M242 25-MM Enhanced Automatic Gun 12524008-1.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 001 FIG. 2 M242 25-MM AUTOMATIC GUN 12524008 (STANDARD) 12524008-1 (ENHANCED) (SEE FIG. 1 FOR NHA)	
1	PAOFF	1005011055191	19200	12524100	FEEDER, AUTOMATIC GUN (SEE FIG. 4 FOR BKDN)	1
2	PAOFF	1005014615038	19200	12524100-1	FEEDER, AUTOMATIC GUN ENHANCED (SEE FIG. 4 FOR BKDN)	1
3	XAODD		19200	12524300	RECEIVER, AUTO GUN (SEE FIG. 17 FOR BKDN)	1
3	XAODD		19200	12524301	RECEIVER, AUTO GUN, ENHANCED (SEE FIG. 17 FOR BKDN)	1
4	PAOOO	1005014338405	19200	12524520	BARREL, MACHINE GUN (SEE FIG. 3 FOR BKDN)	1

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

BARREL ASSEMBLY 12524520

REPAIR PARTS LIST

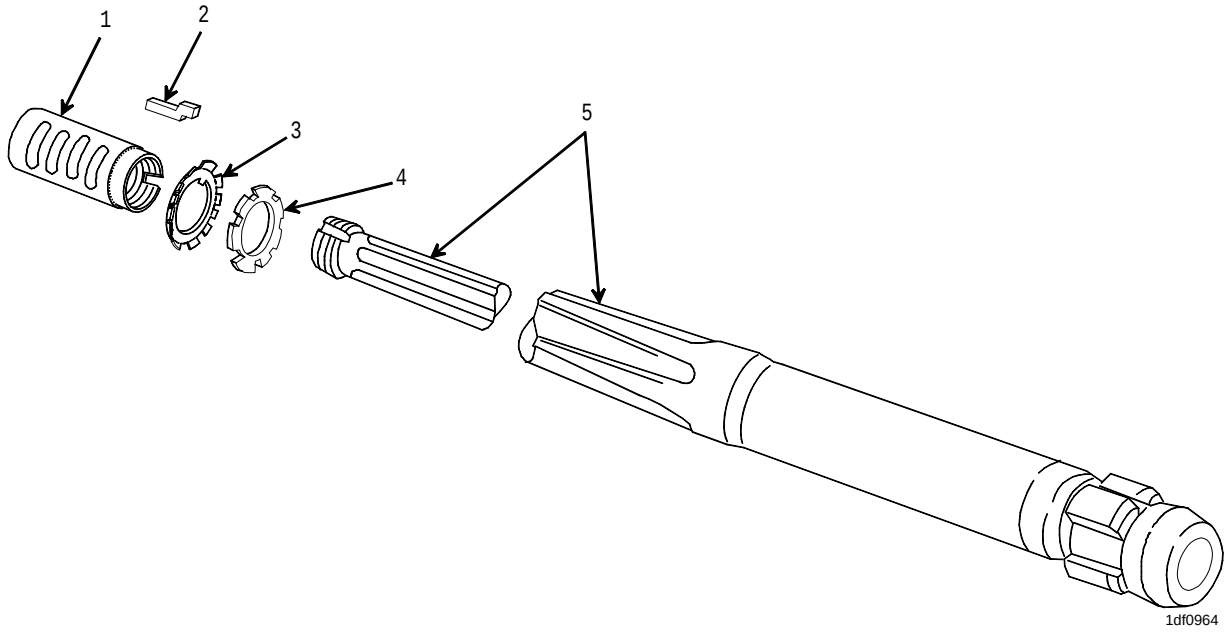


Figure 3. Barrel Assembly 12524520.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 0011	
					FIG. 3 BARREL ASSEMBLY 12524520	
					(SEE FIG. 2 FOR NHA)	
1	PAOZZ	1005013507957	19200	12524491	BRAKE, MUZZLE	1
2	PAOZZ	5315012158515	19200	12524493	KEY, MACHINE	1
3	PAOZZ	5310001503963	96906	MS19070-093	WASHER, KEY	1
4	PAOZZ	5310013485776	19200	12524492	NUT, PLAIN, ROUND	1
5	XAOZZ		19200	12524509	BARREL, AUTOMATIC GUN	1

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

AUTOMATIC GUN FEEDER 12524100 AND ENHANCED AUTOMATIC GUN FEEDER 12524100-1

REPAIR PARTS LIST

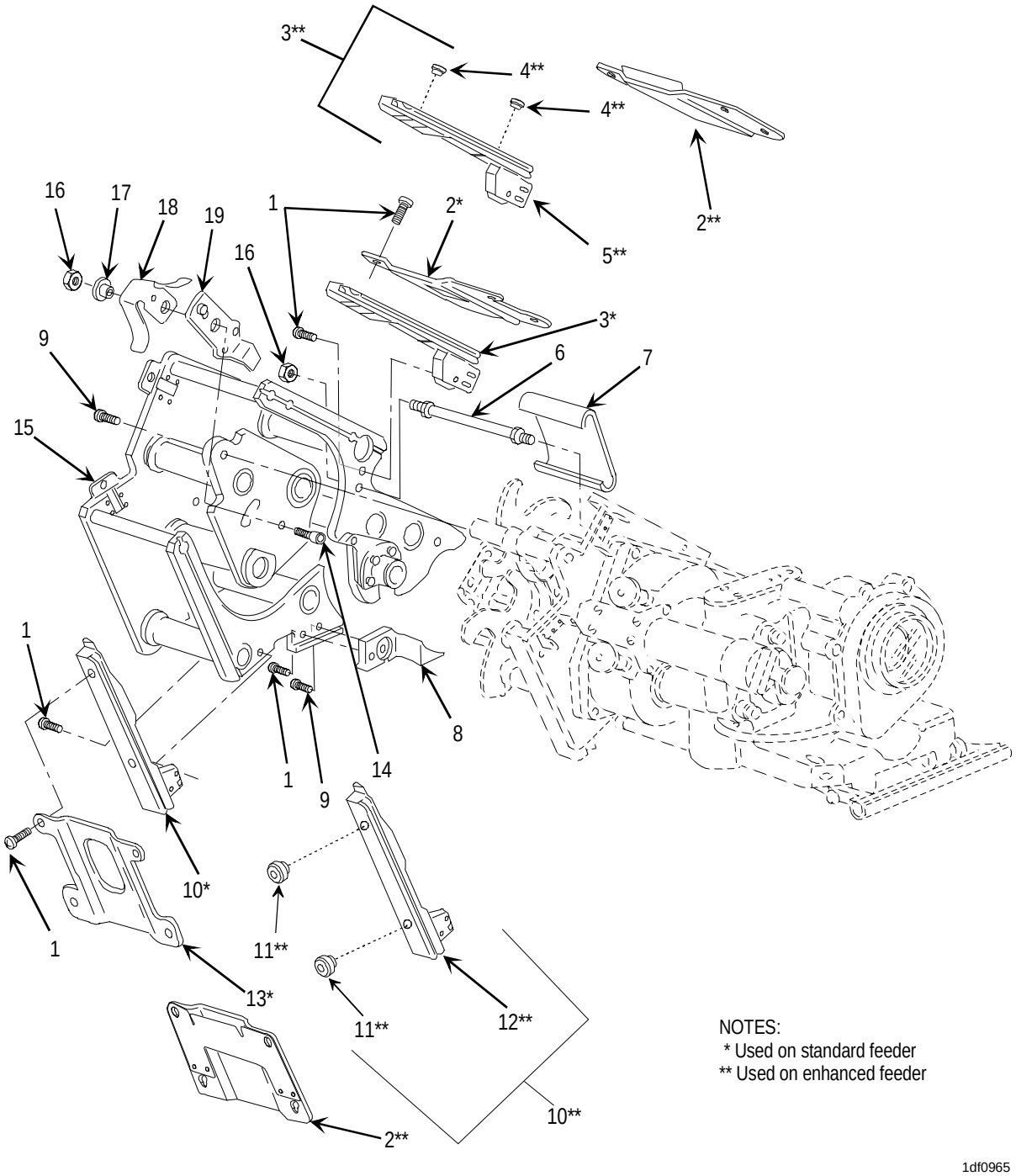


Figure 4. Automatic Gun Feeder 12524100 and Enhanced Automatic Gun Feeder 12524100-1 (Sheet 1 of 3).

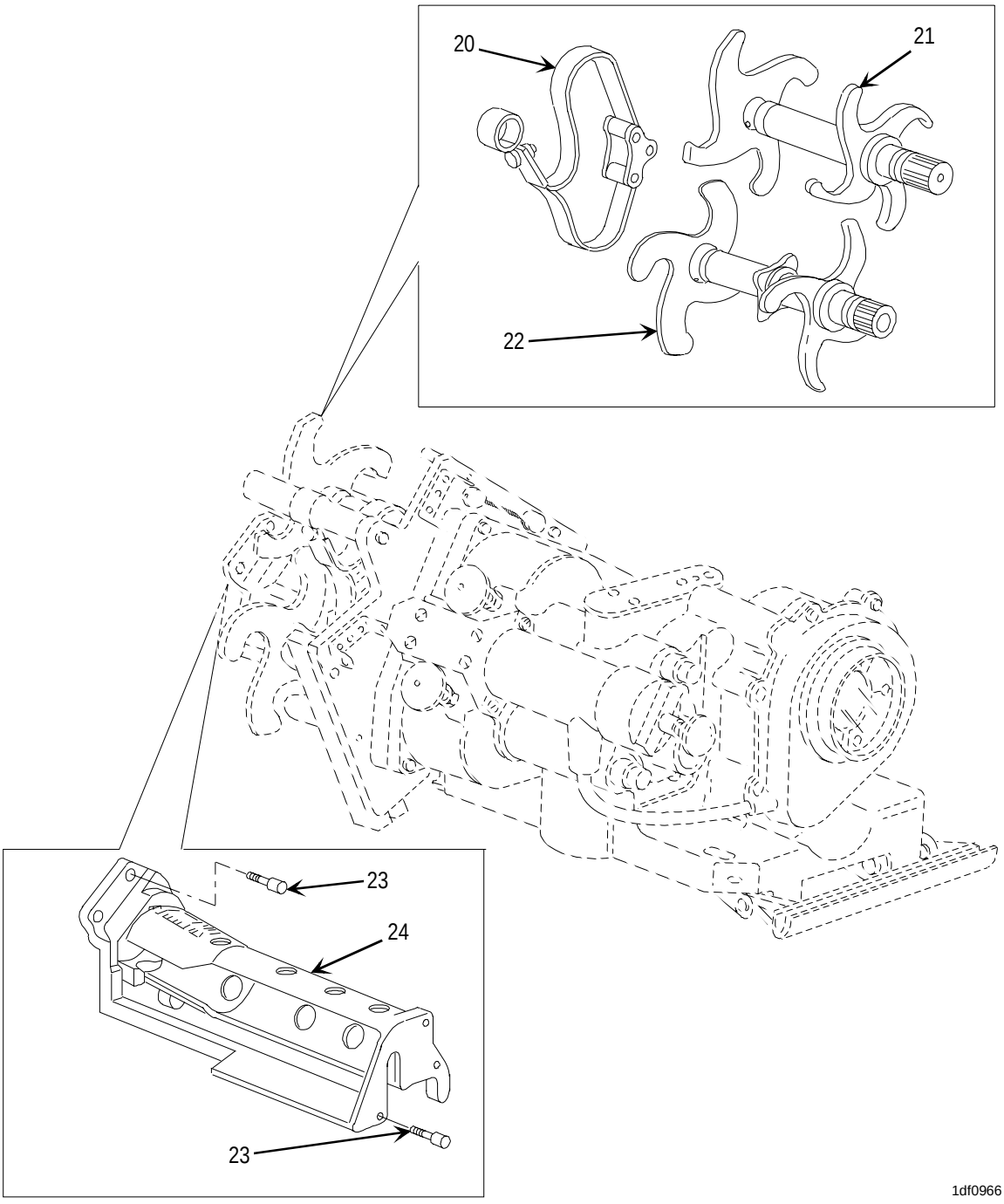
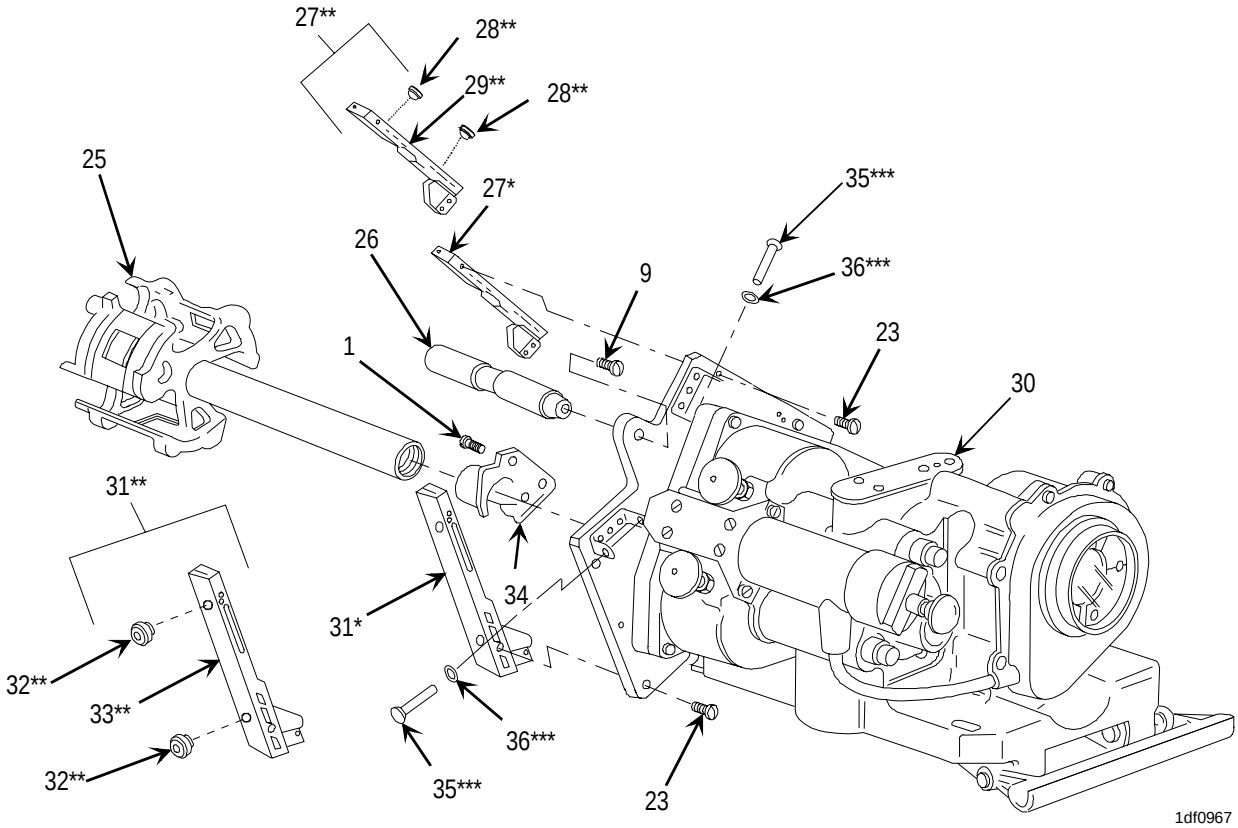


Figure 4. Automatic Gun Feeder 12524100 and
Enhanced Automatic Gun Feeder 12524100-1 (Sheet 2 of 3).



NOTES:
* Used on standard feeder
** Used on enhanced feeder
*** Marine Corps Only

Figure 4. Automatic Gun Feeder 12524100 and Enhanced Automatic Gun Feeder 12524100-1 (Sheet 3 of 3).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 0012, 00124	
					FIG. 4 AUTOMATIC GUN FEEDER	
					12524100 (STANDARD)	
					12524100-1 (ENHANCED)	
					(SEE FIG. 2 FOR NHA)	
					AND CONNECTING LINK	
					12524576, 12524577, 12524578, 12524579	
1	PAOZZ	5305011229633	56878	B18-3-1AH060012D	SCREW, CAP, SOCKET HEAD	15
2	PAOZZ	5340012986735	19200	12524489	BRACKET, MOUNTING (USED ON 12524100)	1
2	PAOZZ	1005014569098	19200	12524584	COVER ASSEMBLY,MACH (USED ON 12524100-1)	2
3	PAOZZ	3040013026790	19200	12524485	CONNECTING LINK (USED ON 12524100)	1
3	PAOOO	3040014564507	19200	12524578	CONNECTING LINK (USED ON 12524100-1)	1
4	PAOZZ	1005015237487	19200	12524586	.BUTTON, LINK STRIP	2
5	XAOZZ		19200	12524582	.STRIPPER (FORWARD UPPER)	1
6	PAOZZ	1005010884361	19200	12524115	STANDOFF, FEEDER	1
7	PAOZZ	1005011179819	19200	12524103	SHIELD, LINK	1
8	PAOZZ	1005010897870	19200	12524102	GUIDE, CARTRIDGE SMALL	1
9	PAOZZ	5305011229635	56878	B18-3-1AH080030D	SCREW, CAP, SOCKET, HEAD	6
10	PAOZZ	3040013003155	19200	12524486	CONNECTING LINK (USED ON 12524100)	1
10	PAOOO	3040014564504	19200	12524579	CONNECTING LINK (USED ON 12524100-1)	1
11	PAOZZ	1005015237487	19200	12524586	.BUTTON, LINK STRIP	2
12	XAOZZ		19200	12524583	.STRIPPER (FORWARD LOWER)	1
13	PAOZZ	5340013046592	19200	12524488	BRACKET, MOUNTING (USED ON 12524100)	1
14	PAOZZ	5305011247057	56878	B18-3-1AH060025D	SCREW, CAP, SOCKET, HEAD	1
15	PBOOO	1005014564513	19200	12524574	FEEDER, AUTOMATIC GUN (SEE FIG. 15 FOR BKDN)	1
16	PAOZZ	5310011150756	19200	12524617-1	NUT, SELF-LOCKING,HE	2
17	PAOZZ	5365011285675	19200	12524137	SPACER, SLEEVE	1
18	PAOZZ	5360011143080	19200	12524138	SPRING, SPECIAL	1
19	PAOZZ	1005010884363	19200	12524134	GATE, FEEDER, FORWARD	1
20	AOOOO		19200	12524524	POSITIONER ASSEMBLY (SEE FIG. 16 FOR BKDN)	1
21	PAOZZ	1005010884366	19200	12524155	SPROCKET ASSEMBLY (UPPER)	1
22	PAOZZ	3020012305774	19200	12524159	SPROCKET ASSEMBLY (LOWER)	1
23	PAOZZ	5305011229634	56878	B18-3-1AH060020D	SCREW, CAP, SOCKET, HEAD	17
24	PAOZZ	1005010897856	19200	12524110	CHUTE, EJECTION	1
25	PAOZZ	4320014362802	19200	12524539	ROTOR, FEEDER ASSEMBLY	1
26	PAOZZ	5365010897779	19200	12524136	SPACER, STEPPED	3
27	PAOZZ	3040013028461	19200	12524484	CONNECTING LINK (USED ON 12524100)	1
27	PAOOO	3040014564515	19200	12524576	CONNECTING LINK (USED ON 12524100-1)	1
28	PAOZZ	1005015237487	19200	12524586	.BUTTON, LINK STRIP	2
29	XAOZZ		19200	12524580	.STRIPPER (AFT UPPER)	1
30	XAOFF		19200	12524180	DRIVE ASSY, FEEDER (SEE FIG. 5 FOR BKDN)	1
31	PAOZZ	3040013003156	19200	12524487	CONNECTING LINK (USED ON 12524100)	1
31	PAOOO	3040014564503	19200	12524577	CONNECTING LINK (USED ON 12524100-1)	1
32	PAOZZ	1005015237487	19200	12524586	.BUTTON, LINK STRIP	2
33	XAOZZ		19200	12524581	.STRIPPER (AFT LOWER)	1
34	PAOZZ	1005010884362	19200	12524116	GUIDE, EJECT, UPPER	1
35	PAOZZ	5315014809189	19200	12524258	PIN, STRAIGHT, HEADED (MARINE CORPS ONLY)	2
36	PAOZZ	5325006821762	96906	MS16633-1031	RING, RETAINING (MARINE CORPS ONLY)	2

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

FEEDER DRIVE ASSEMBLY 12524180 AND ELECTRICAL SOLENOID ASSEMBLY 12524404

REPAIR PARTS LIST

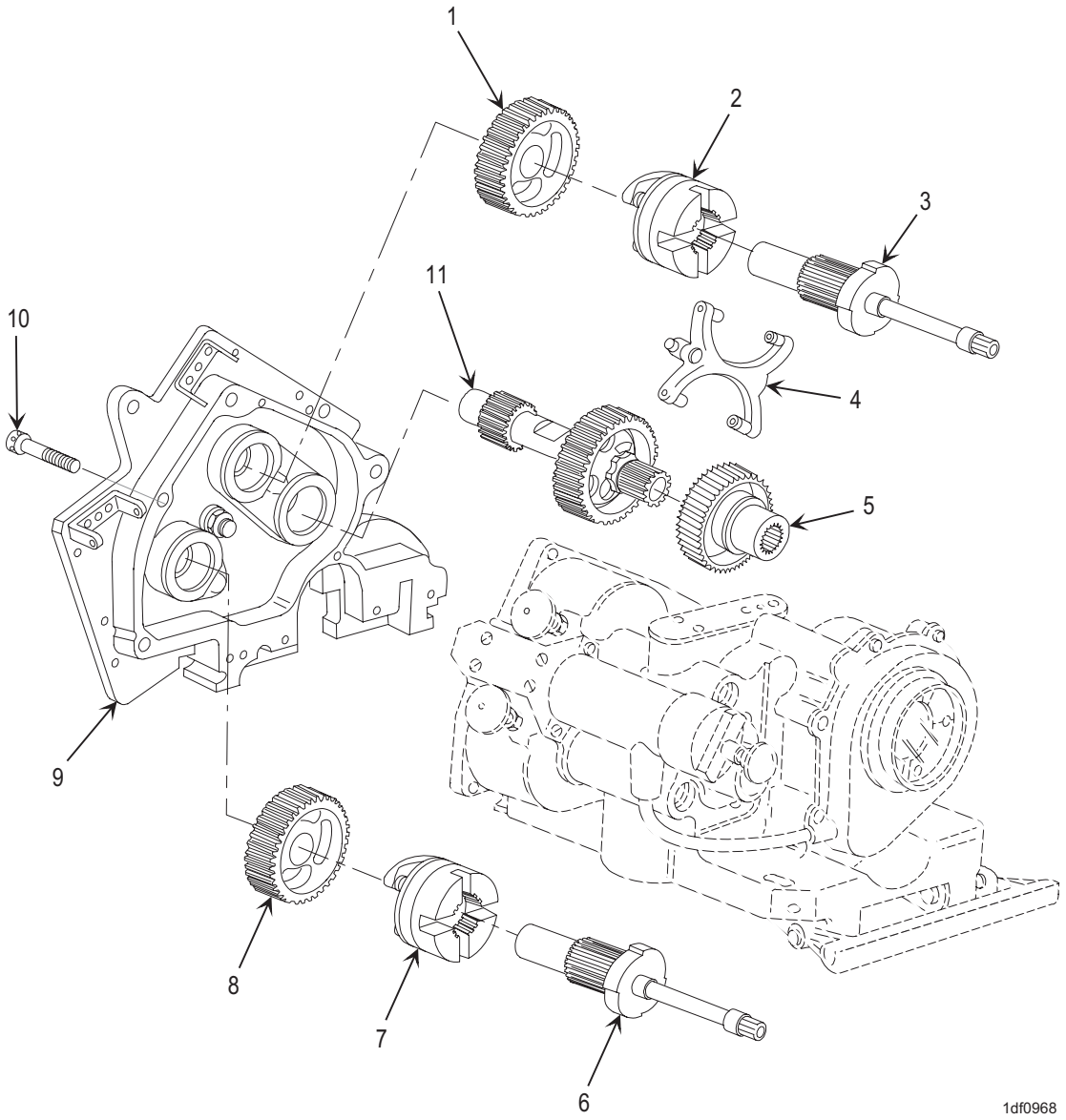


Figure 5. Feeder Drive Assembly 12524180 and Electrical Solenoid Assembly 12524404 (Sheet 1 of 3).

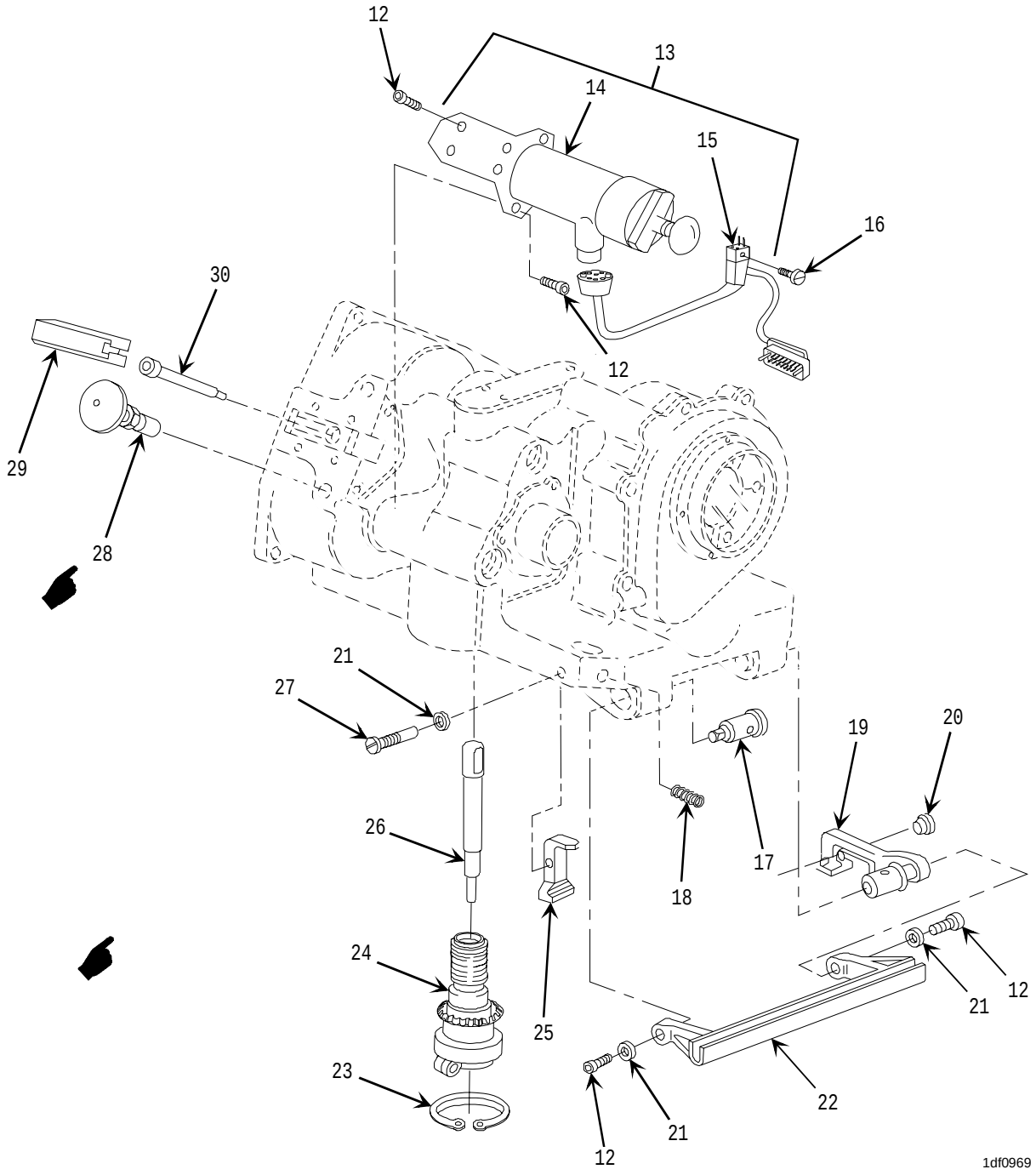


Figure 5. Feeder Drive Assembly 12524180 and Electrical Solenoid Assembly 12524404 (Sheet 2 of 3).

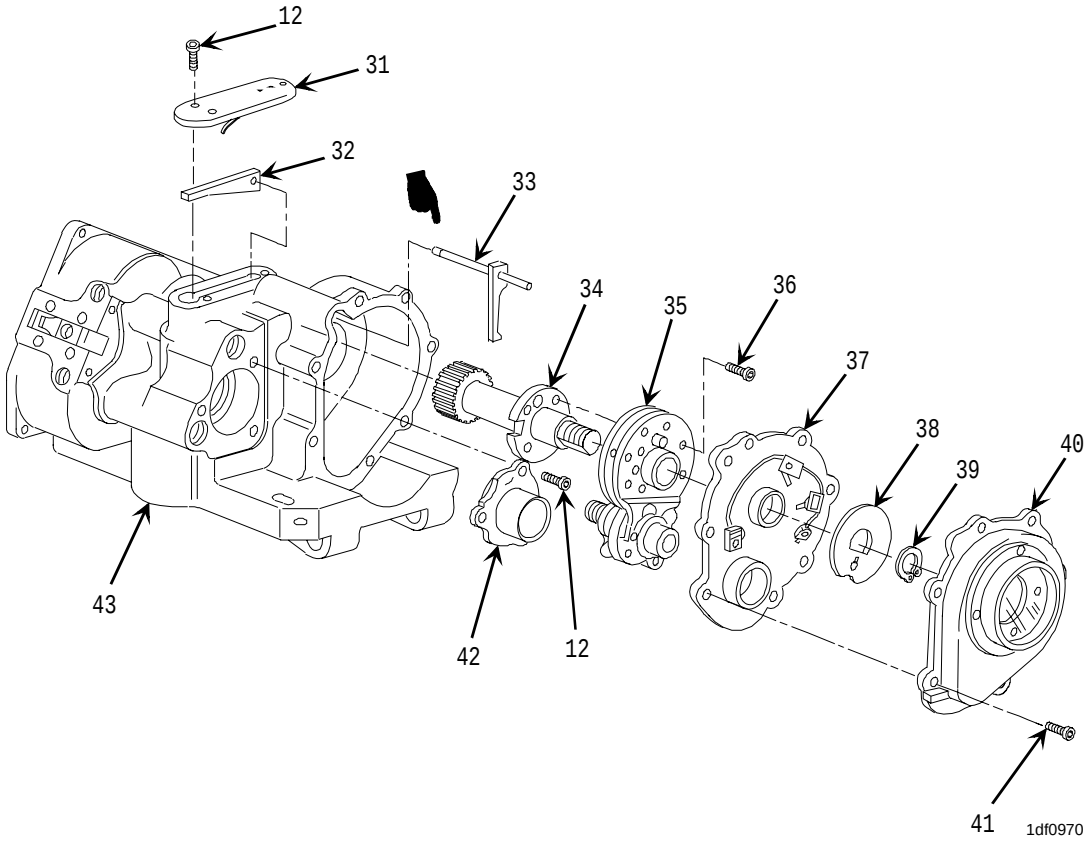


Figure 5. Feeder Drive Assembly 12524180 and Electrical Solenoid Assembly 12524404 (Sheet 3 of 3).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 00121, 0012101 FIG. 5 FEEDER DRIVE ASSEMBLY 12524180 AND ELECTRICAL SOLENOID ASSEMBLY 12524404 (SEE FIG 4. FOR NHA)	
1	PAFZZ	3020011678318	19200	12524071	GEAR, SPUR (UPPER)	1
2	PAFFF	3010010897751	19200	12524290	CLUTCH, SLIDING SLEEVE, UPPER (SEE FIG. 11 FOR BKDN)	1
3	PAFZZ	3040011714858	19200	12524073	SHAFT, SHOULDERED	1
4	PAFZZ	1005010905264	19200	12524230	YOKE ASSEMBLY, CLUTCH	1
5	PAFZZ	3020010897714	19200	12524224	GEAR, WORM WHEEL	1
6	PAFZZ	3040011678327	19200	12524074	SHAFT, SHOULDERED	1
7	PAFFF	3010011678322	19200	12524083	CLUTCH, SLIDING SLEEVE, LOWER (SEE FIG. 11 FOR BKDN)	1
8	PAFZZ	3020011678319	19200	12524072	GEAR, SPUR (LOWER)	1
9	PAFFF	5340014562556	19200	12524575	PLATE, MOUNTING (SEE FIG. 7 FOR BKDN)	1
10	PAFZZ	5305011229635	56878	B18-3-1AH080030D	SCREW, CAP, SOCKET, HEAD	2
11	AFFFF		19200	12524099	CLUTCH ASSY GEAR (SEE FIG. 12 FOR BKDN)	1
12	PAOZZ	5305011229633	56878	B18-3-1AH060012D	SCREW, CAP, SOCKET HEAD	14
13	AOOOO		19200	12524404	SOLENOID, ELECTRICAL	1
14	PAOZZ	5945014605121	19200	12524174	.SOLENOID SUBASSEMBLY	1
15	PAOOO	6150014362306	19200	12524403	.WIRING HARNESS (SEE FIG. 6 FOR BKDN)	1
16	PAOZZ	5305007633965	96906	MS51959-8	SCREW, MACHINE	1
17	PAOZZ	1005010884401	19200	12524275	BUSHING-CAM ASSEMBLY	1
18	PAOZZ	5360004078538	96906	MS24585-1136	SPRING, HELICAL,COMP	1
19	PAOZZ	1005010884402	19200	12524280	BUSHING-BRACKET ASSEMBLY	1
20	PAOZZ	5365010897735	19200	12524474	SPACER, SLEEVE	2
21	PAOZZ	5310002090027	96906	MS20002-4	WASHER, FLAT	3
22	PAOZZ	1005010884395	19200	12524208	HANDLE, FEEDER	1
23	PAFZZ	5325002756097	96906	MS16631-1244	RING, RETAINING	1
24	AFFFF		19200	12524250	SHAFT ASSY, WORM (SEE FIG. 9 FOR BKDN)	1
25	PAOZZ	5342010884375	19200	12524228	LATCH, FEEDER HANDLE	1
26	PAFZZ	1005011143083	19200	12524253	ROD	1
27	PAOZZ	5315010897718	19200	12524189	PIVOT PIN, LATCH	1
28	PAOOO	1005014413114	19200	12524170	STOP, GUN, AUTOMATIC (SEE FIG. 10 FOR BKDN)	2
29	PAFZZ	3010010897771	19200	12524075	ACTUATOR, MECHANICAL	1
30	PAFZZ	1005010884398	19200	12524206	SHAFT ASSEMBLY, FORK	1
31	PAFZZ	5340010897803	19200	12524199	COVER, ACCESS	1
32	PAFZZ	3040010897772	19200	12524218	LEVER,REMOTE CONTROL	1
33	PAFZZ	3040011894369	19200	12524076	PAWL-SHAFT ASSEMBLY	1
34	PAFZZ	3040011678309	19200	12524079	GEARSHAFT, SPUR	1
35	PAFZZ	1005010976465	19200	12524242	INDEX DRIVE ASSEMBLY	1
36	PAFZZ	5305011247057	56878	B18-3-1AH060025D	SCREW, CAP, SOCKET HEAD	4
37	PAFFF	1005010884400	19200	12524260	COVER ASSEMBLY, INDEX (SEE FIG. 14 FOR BKDN)	1
38	PAFZZ	3040010897855	19200	12524263	CAM CONTROL	1
39	PAFZZ	5325011359617	96906	MS3217-1066	RING, RETAINING	1
40	PAOZZ	5340010897804	19200	12524235	COVER, ACCESS	1
41	PAOZZ	5305011229634	56878	B18-3-1AH060020D	SCREW, CAP, SOCKET HEAD	7
42	PAFZZ	1005011143081	19200	12524209	HUB ASSEMBLY,MANUAL	1
43	PAFFF	1005011143082	19200	12524210	HOUSING ASSEMBLY (SEE FIG. 13 FOR BKDN)	1

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

WIRING HARNESS 12524403 AND CONNECTOR 12524644

REPAIR PARTS LIST

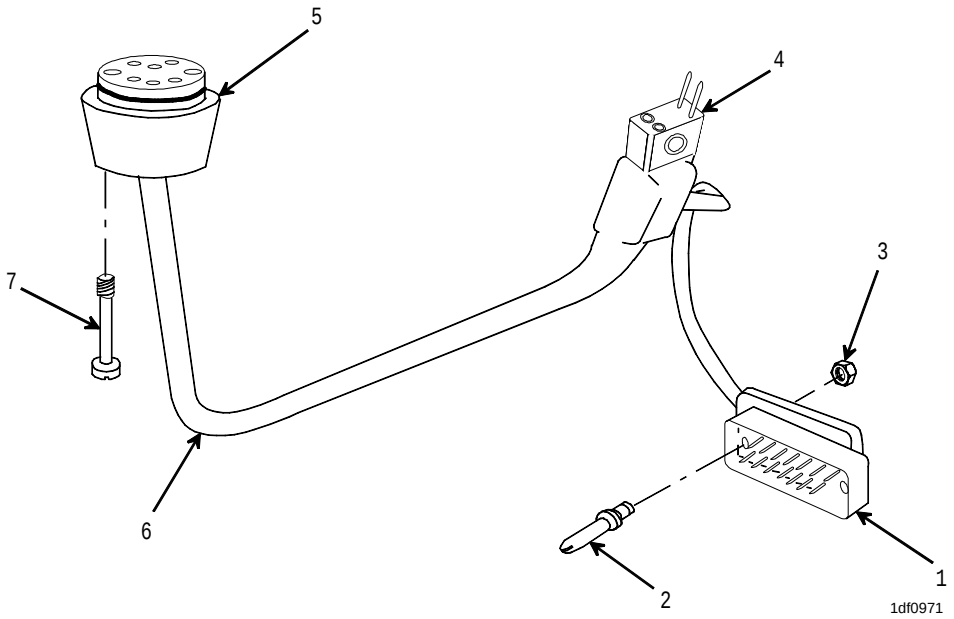


Figure 6. Wiring Harness 12524403 and Connector 12524644.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 00121011, 001210111 FIG. 6 WIRING HARNESS 12524403 AND CONNECTOR 12524644 (SEE FIG. 5 FOR NHA)	
1	XAOOO		19200	12524644	CONNECTOR	1
2	PAOZZ	5315013707212	19200	12524604	.PIN,SHOULDER,HEADLE	2
3	PAOZZ	5310008116419	80205	MS21042-04	.NUT,SELF-LOCKING,EX	2
4	XAOZZ		19200	12524639	CONNECTOR	1
5	XAOZZ		19200	12524403-8	CONNECTOR	1
6	XAOZZ		19200	12524403-7	HARNESS	1
7	PAOZZ	5305014687068	19200	12524403-1	SCREW,SHOULDERED	2

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

REAR PLATE ASSEMBLY 12524575

REPAIR PARTS LIST

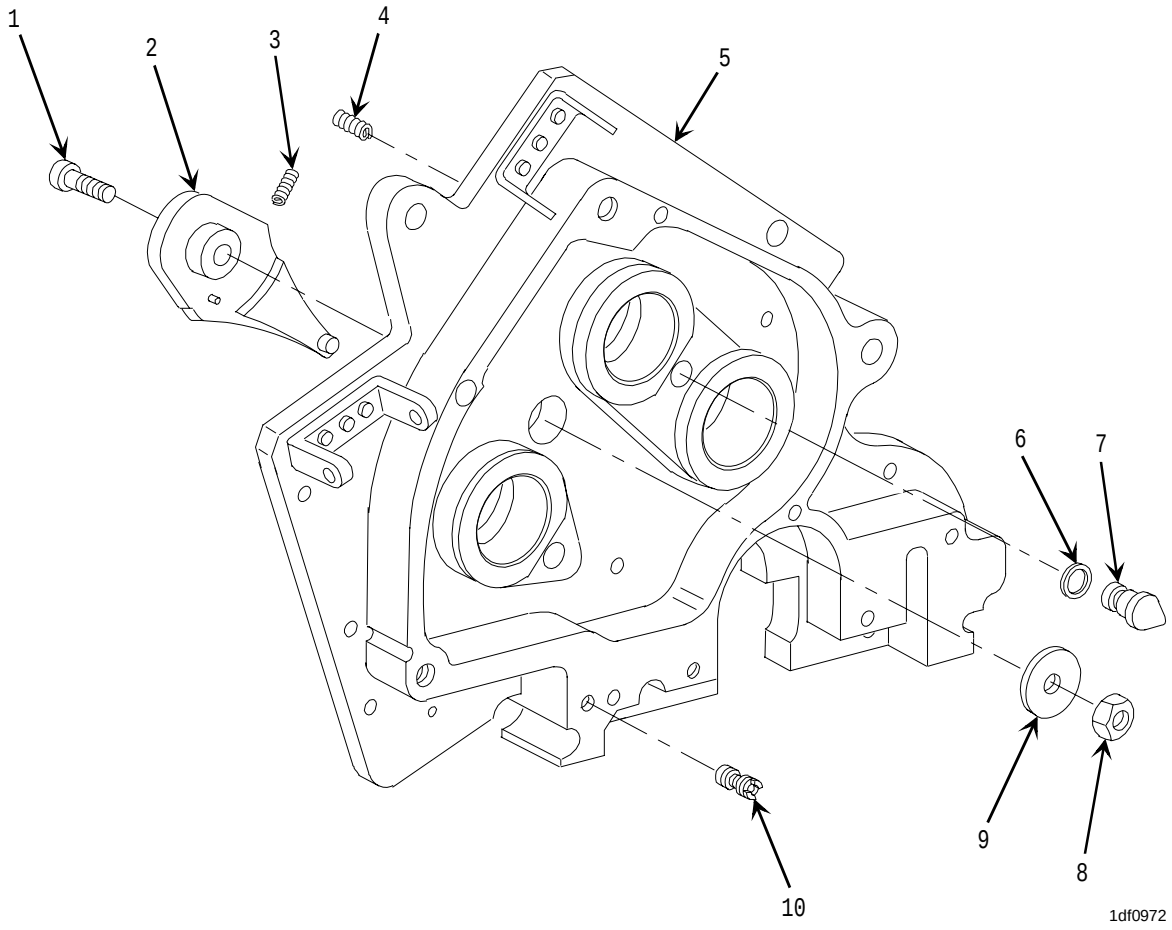


Figure 7. Rear Plate Assembly 12524575.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 0012102 FIG. 7 REAR PLATE ASSEMBLY 12524575 (SEE FIG. 5 FOR NHA)	
1	PAFZZ	5305011229634	56878	B18-3-1AH060020D	SCREW, CAP, SOCKET HEAD	1
2	PAFZZ	1005011155446	19200	12524207	GATE ASSEMBLY, REAR	1
3	PAFZZ	5360004078538	96906	MS24585-1136	SPRING, HELICAL,COMP	1
4	PAFZZ	5325010897724	19200	12524602-3	INSERT, SCREW THREAD	1
5	XAFFF		19200	12524191	PLATE ASSEMBLY, FEED (SEE FIG. 8 FOR BKDN)	1
6	PAFZZ	5331001660969	81349	M83248/1-010	O-RING	2
7	PAFZZ	1005011170329	19200	12524169	STOP, CARTRIDGE	2
8	PAFZZ	5310011150756	19200	12524617-1	NUT, SELF-LOCKING,HE	1
9	PAFZZ	5310011164839	19200	12524631-2	WASHER, FLAT	1
10	PAFZZ	5325010889361	19200	12524602-2	INSERT, SCREW THREAD	9

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

FEED PLATE ASSEMBLY 12524191

REPAIR PARTS LIST

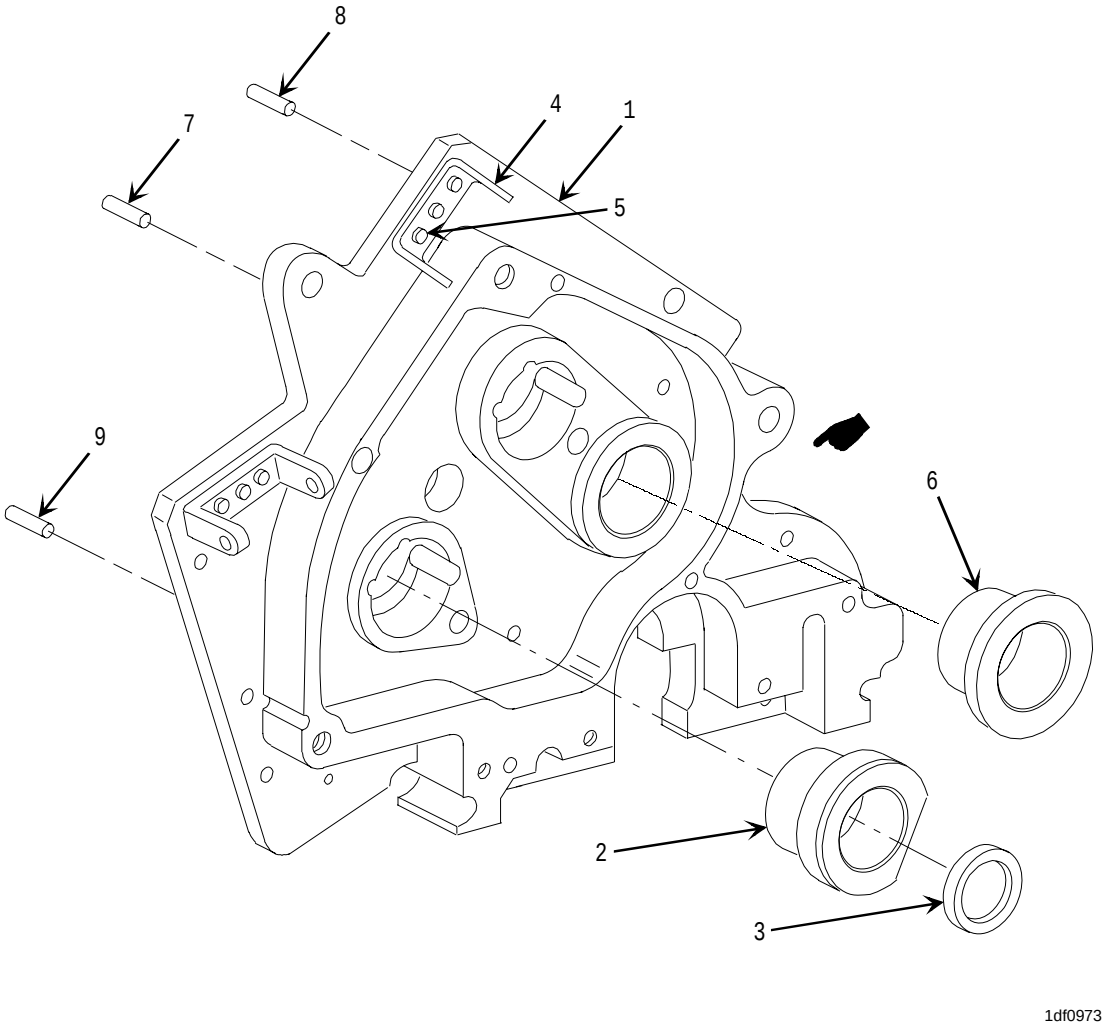


Figure 8. Feed Plate Assembly 12524191.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 00121021 FIG. 8 FEED PLATE ASSEMBLY 12524191 (SEE FIG. 7 FOR NHA)	
1	XAFZZ		19200	12524196	PLATE, FEED, REAR	1
2	PAFZZ	3120011153779	19200	12524197	BUSHING, SLEEVE (FLAT FLANGED)	2
3	PAFZZ	5330011565457	81343	AS3551-217	PACKING, PREFORMED	2
4	PAFZZ	5340014493776	19200	12524198	BRACKET, ANGLE	2
5	PAFZZ	5320002561945	96906	MS20427M4-7	RIVET, SOLID	6
6	PAFZZ	3120014484094	19200	12524213-7	BUSHING, SLEEVE (ROUND FLANGED)	1
7	PAFZZ	5320001196852	96906	MS20427M4-10	RIVET,SOLID	7
8	PAFZZ	5320001182008	96906	MS20427M4-12	RIVET,SOLID	8
9	PAFZZ	5320002561930	96906	MS20427M4-14	RIVET,SOLID	1

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

WORM SHAFT ASSEMBLY 12524250

REPAIR PARTS LIST

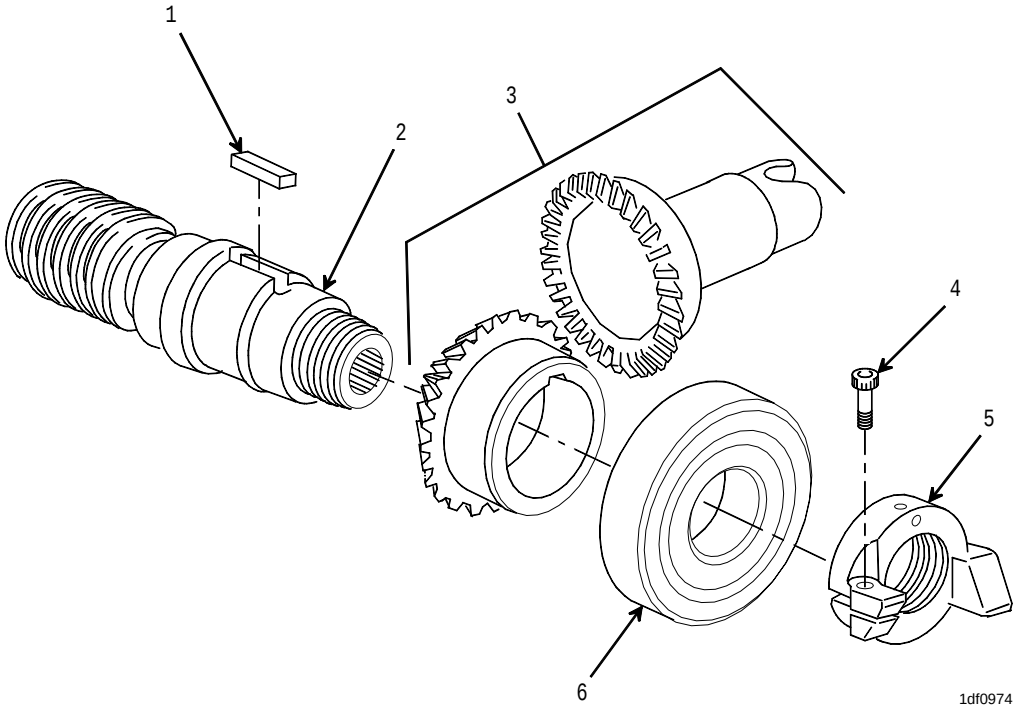


Figure 9. Worm Shaft Assembly 12524250.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 0012103 FIG. 9 WORM SHAFT ASSEMBLY 12524250 (SEE FIG. 5 FOR NHA)	
1	PAFZZ	5315008253524	96906	MS20066-249	KEY, MACHINE	1
2	PAFZZ	3040010897755	19200	12524251	WORM SHAFT	1
3	PAFZZ	3020011678310	19200	12524256	GEAR SET, BEVEL, MATCHED SET	1
4	PAFZZ	5305011229634	56878	B18-3-1AH060020D	SCREW, CAP, SOCKET HEAD	1
5	PAFZZ	5310010884399	19200	12524254	NUT, PLAIN, ROUND WORM	1
6	PAFZZ	3110001091180	19204	8436800-14	BEARING, BALL, ANNULAR	1

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

FEED SHAFT STOP ASSEMBLY (SHORT) 12524170

REPAIR PARTS LIST

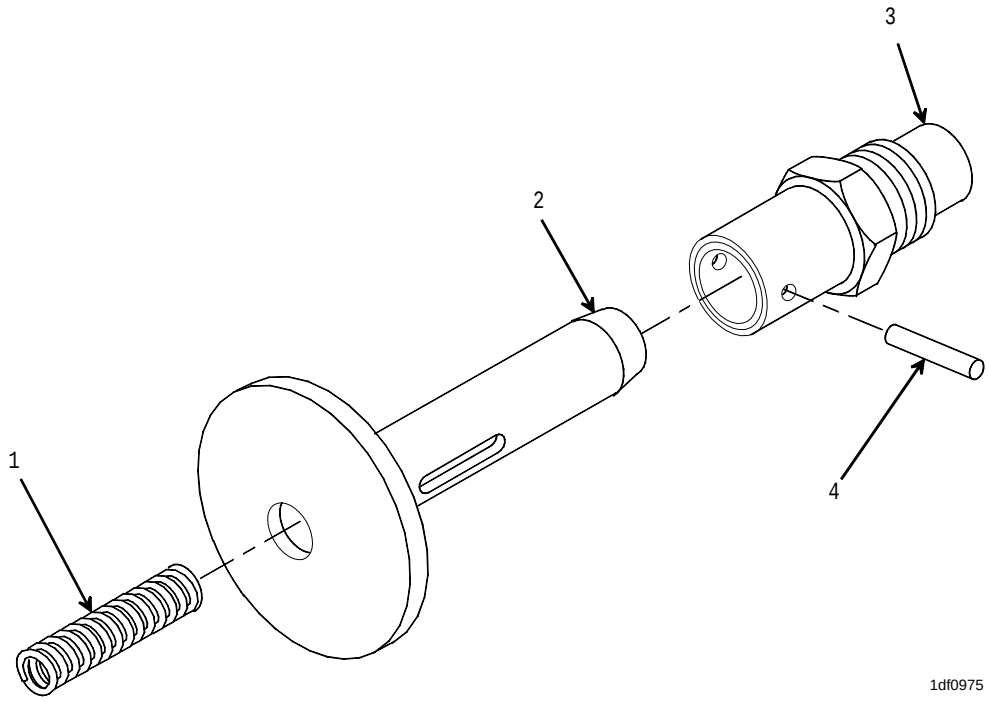


Figure 10. Feed Shaft Stop Assembly (Short) 12524170.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 0012104	
					FIG. 10 FEED SHAFT STOP ASSEMBLY (SHORT) 12524170 (SEE FIG. 5 FOR NHA)	
1	PAOZZ	5360010729716	96906	MS24585-1139	SPRING, HELICAL, COMP	1
2	XAOZZ		19200	12524164	BUTTON, FEED SHAFT, STOP	1
3	XAOZZ		19200	12524187	SLV, FEED SHAFT STOP	1
4	PAOZZ	5315011285623	19200	12524618-2	PIN, SPRING	1

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

SLIDING SLEEVE LOWER CLUTCH 12524083 AND SLIDING SLEEVE UPPER CLUTCH 12524290

REPAIR PARTS LIST

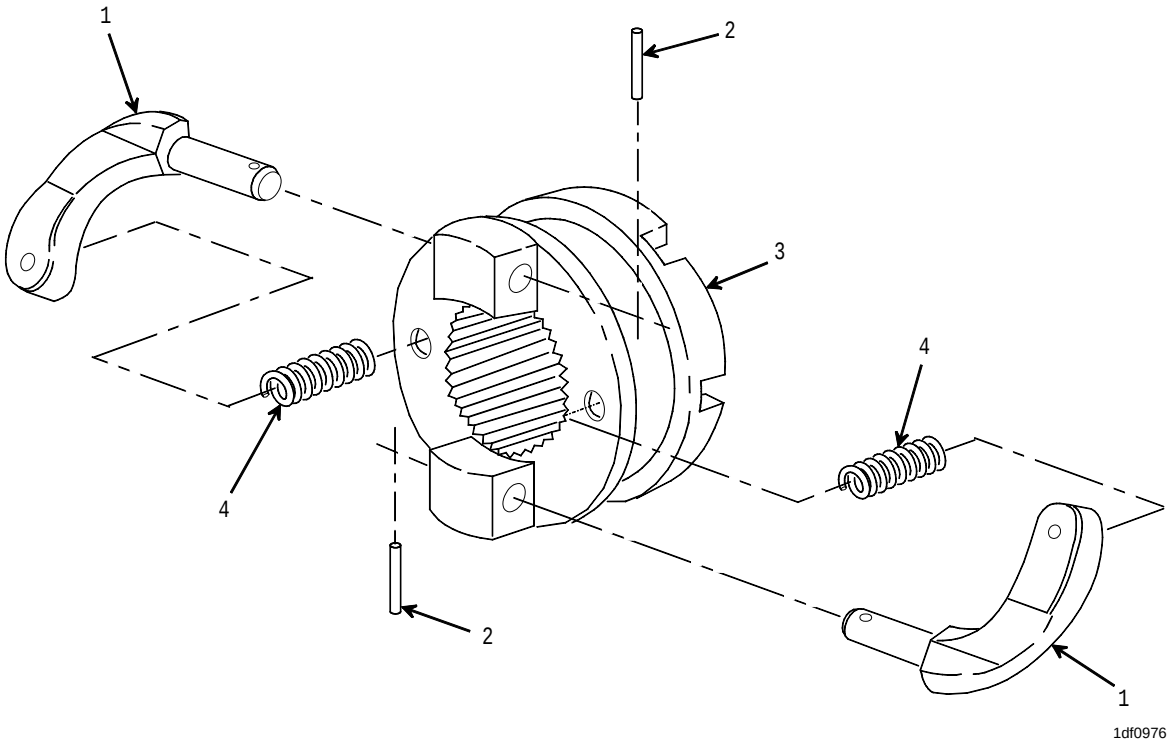


Figure 11. Sliding Sleeve Lower Clutch 12524083 and Sliding Sleeve Upper Clutch 12524290.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 0012105, 0012106 FIG. 11 SLIDING SLEEVE LOWER CLUTCH 12524083 AND SLIDING SLEEVE UPPER CLUTCH 12524290 (SEE FIG. 5 FOR NHA)	
1	PBFZZ	1005010884403	19200	12524084	DOG, CLUTCH, RIGHT HAND (USED ON LOWER CLUTCH ASSY 12524083)	2
1	PBFZZ	1005010884404	19200	12524291	DOG, CLUTCH, LEFT HAND (USED ON UPPER CLUTCH ASSY 12524290)	2
2	PAFZZ	5315011150899	19200	12524618-1	PIN, SPRING	2
3	XAFZZ		19200	12524288	CLUTCH, POSITIVE	1
4	PAFZZ	5360010897681	19200	12524628-10	SPRING, HELICAL, COMP	2

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

GEAR CLUTCH ASSEMBLY 12524099

REPAIR PARTS LIST

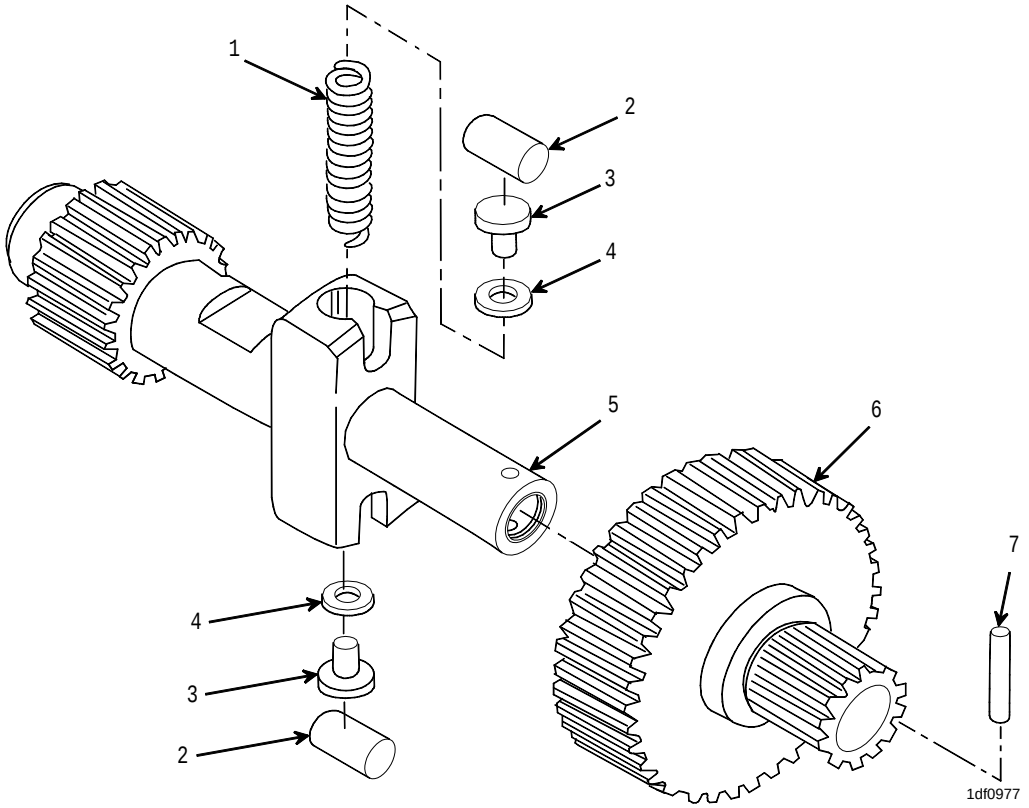


Figure 12. Gear Clutch Assembly 12524099.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 0012107	
					FIG. 12 GEAR CLUTCH ASSEMBLY	
					12524099	
					(SEE FIG. 5 FOR NHA)	
1	PAFZZ	5360011176557	19200	12524611	SPRING, HELICAL, COMP	1
2	PAFZZ	1005011170164	19200	12524096	ROLLER, GEAR SPUR	2
3	PAFZZ	5320000589895	96906	MS16536-238	RIVET, TUBULAR	2
4	PAFZZ	5310006557219	80205	NAS620-416	WASHER, FLAT	2
5	PAFZZ	3040011170311	19200	12524098	GEARSHAFT, SPUR	1
6	PAFZZ	3020011192287	19200	12524097	GEAR, SPUR	1
7	PAFZZ	5315011529899	19200	12524619-8	PIN, STRAIGHT, HEADLE	1

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

HOUSING ASSEMBLY 12524210

REPAIR PARTS LIST

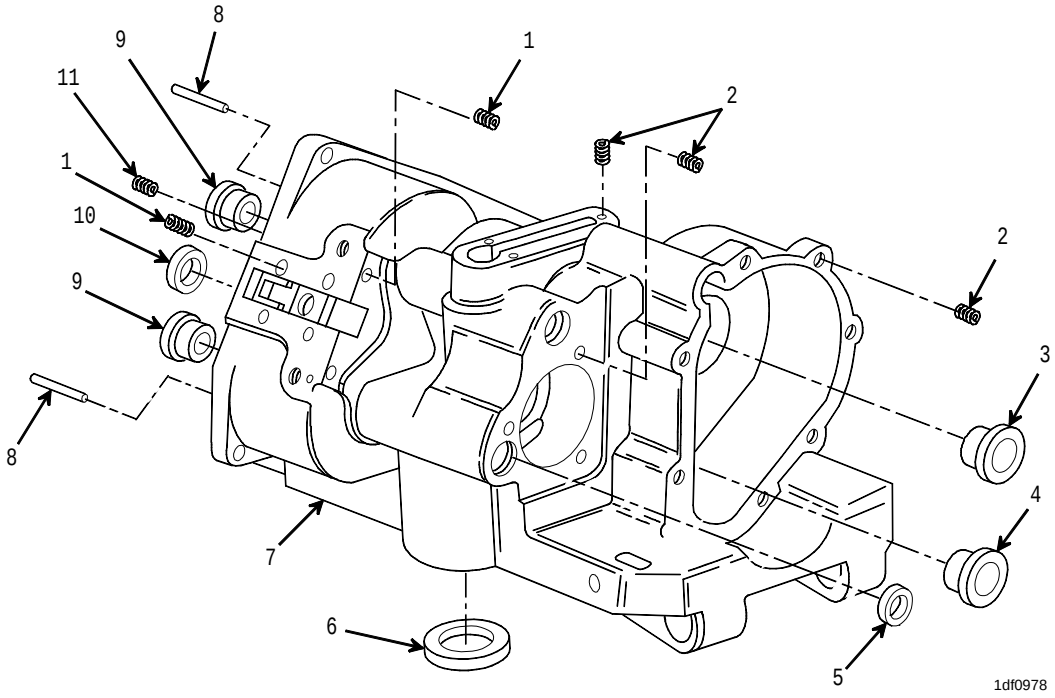


Figure 13. Housing Assembly 12524210.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 0012108	
					FIG. 13 HOUSING ASSEMBLY 12524210 (SEE FIG. 5 FOR NHA)	
1	PAFZZ	5325010897725	19200	12524602-1	INSERT, SCREW THREAD	6
2	PAFZZ	5325010889361	19200	12524602-2	INSERT, SCREW THREAD	13
3	PAFZZ	3120011153781	19200	12524213-9	BUSHING, SLEEVE	1
4	PAFZZ	3120011153782	19200	12524213-11	BUSHING, SLEEVE	1
5	PAFZZ	5330011164841	19200	12524624-2	SEAL, PLAIN ENCASED	2
6	PAFZZ	3110011150790	19200	12524632	BEARING, ROLLER, NEED	1
7	XAFZZ		19200	12524211	HOUSING, FEEDER	1
8	PAFZZ	5315013783181	19200	12524619-2	PIN, STRAIGHT, HEADLE	2
9	PAFZZ	3120010897728	19200	12524213-5	BUSHING, SLEEVE	2
10	PAFZZ	5330007814525	96906	MS51001-12-3	SEAL, PLAIN ENCASED	1
11	PAFZZ	5325010897724	19200	12524602-3	INSERT, SCREW THREAD	2

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

INDEX DRIVE COVER ASSEMBLY 12524260

REPAIR PARTS LIST

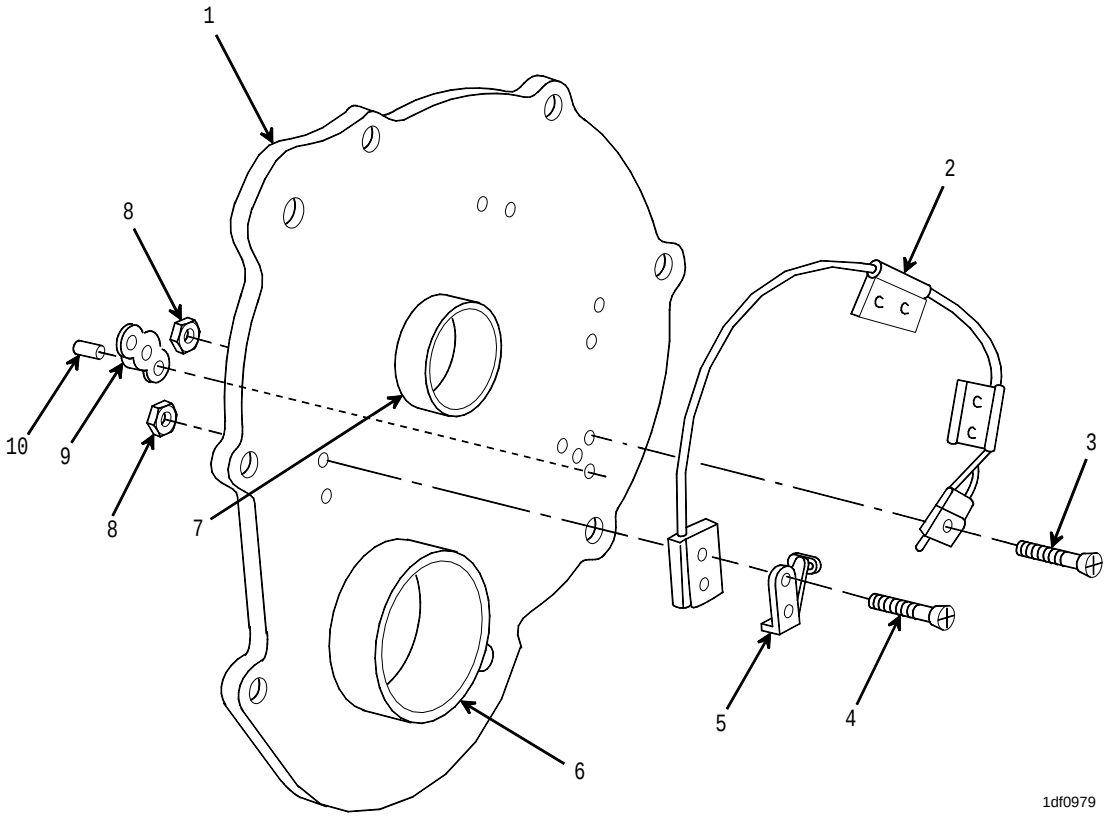


Figure 14. Index Drive Cover Assembly 12524260.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 0012109	
					FIG. 14 INDEX DRIVE COVER ASSEMBLY 12524260 (SEE FIG. 5 FOR NHA)	
1	XAFZZ		19200	12524262	COVER, INDEX DRIVE	1
2	PAFZZ	5995011203361	19200	12524261	CABLE ASSEMBLY, SPEC	1
3	PAFZZ	5305007633965	96906	MS51959-8	SCREW, MACHINE	1
4	PAFZZ	5305000545642	96906	MS51957-8	SCREW, MACHINE	6
5	PAFZZ	5930011151087	19200	12524603	ADAPTER, SWITCH ACTU	3
6	PAFZZ	3120014682925	19200	12524216	BUSHING, SLEEVE	1
7	XAFZZ		19200	12524213-3	BUSHING	1
8	PAFZZ	5310000581823	80205	MS21042-02	NUT, SELF-LOCKING, EX	7
9	PAFZZ	5310007287712	80205	MS21069L02	NUT, SELF-LOCKING,PL	1
10	PAFZZ	5320001176931	80205	MS20426AD2-6	RIVET,SOLID	2

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

FORWARD FEED ASSEMBLY 12524574

REPAIR PARTS LIST

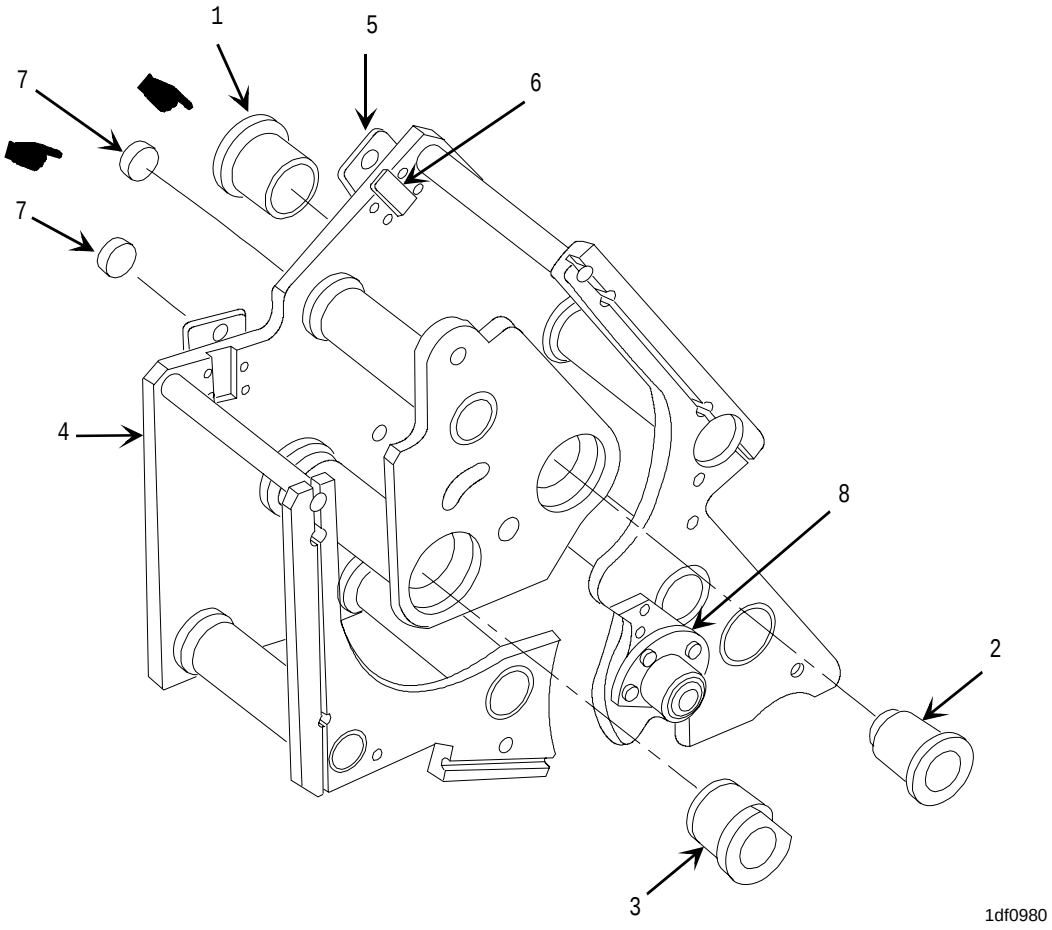


Figure 15. Forward Feed Assembly 12524574.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 00122	
					FIG. 15 FORWARD FEED ASSEMBLY 12524574 (SEE FIG. 4 FOR NHA)	
1	PAOZZ	3120011164861	19200	12524215	BUSHING, SLEEVE (ROUND FLANGED)	1
2	PAOZZ	3120010897729	19200	12524213-15	BUSHING, SLEEVE (ROUND FLANGED)	1
3	PAOZZ	3120011197226	19200	12524212	BUSHING, SLEEVE (FLAT FLANGED)	1
4	XAOZZ		19200	12524269	FEEDER, FORWARD	1
5	PAOZZ	5340014493778	19200	12524122	BRACKET, MOUNTING	2
6	PAOZZ	5320008080813	96906	MS20615-4M9	RIVET, SOLID	8
7	PAOZZ	5340010908909	96906	MS9176-20	PLUG, EXPANSION	2
8	XAOZZ		19200	12524268	SUPPORT	1

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

ROUND POSITIONER ASSEMBLY 12524524

REPAIR PARTS LIST

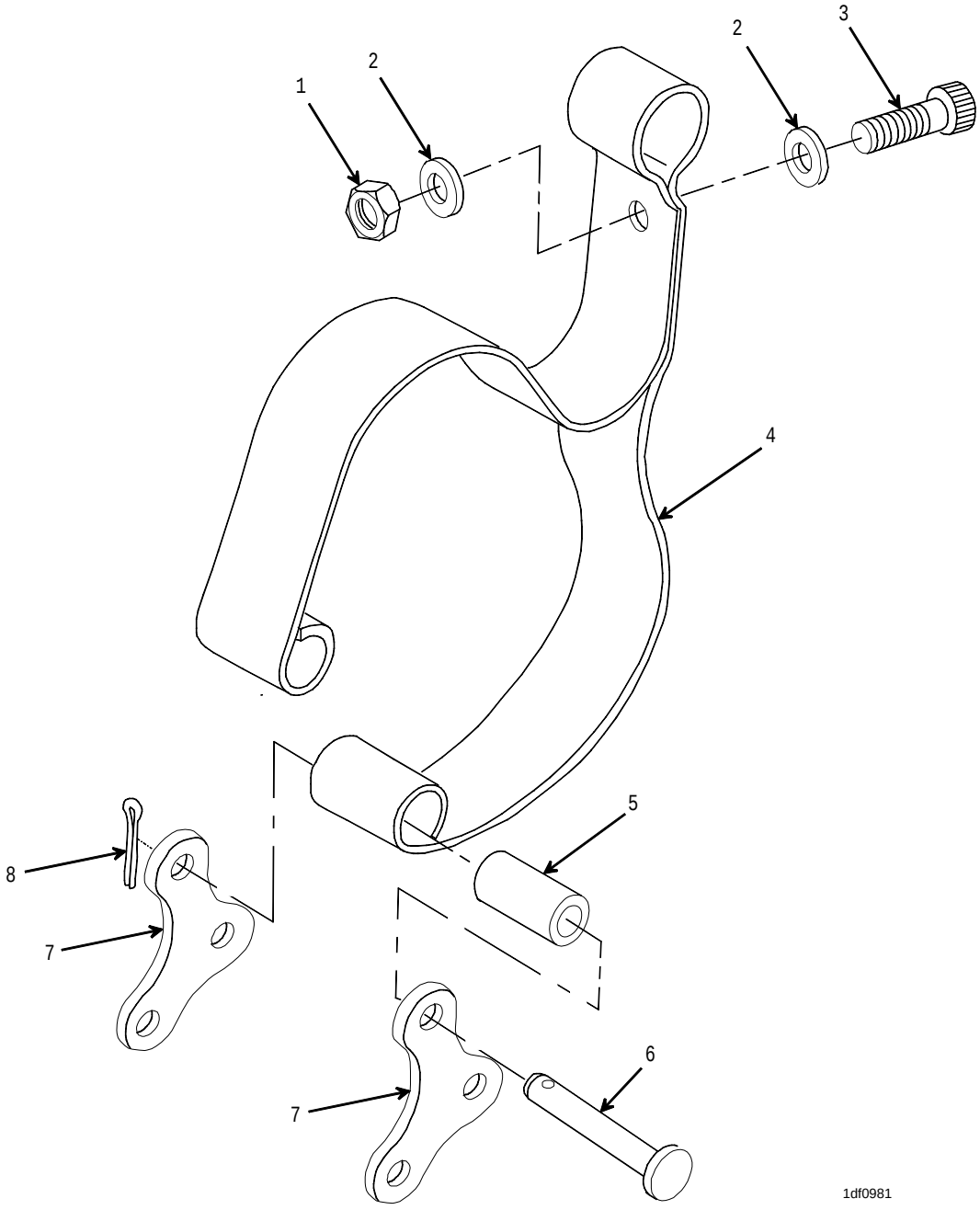


Figure 16. Round Positioner Assembly 12524524.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 00123 FIG. 16 ROUND POSITIONER ASSEMBLY 12524524 (SEE FIG. 4 FOR NHA)	
1	PAOZZ	5310011150756	19200	12524617-1	NUT, SELF-LOCKING,HE	1
2	PAOZZ	5310002090027	96906	MS20002-4	WASHER, FLAT	2
3	PAOZZ	5305011229633	56878	B18-3-1AH060012D	SCREW, CAP, SOCKET HE	1
4	PAOZZ	5360013714630	19200	12524525	SPRING, FLAT	1
5	PAOZZ	3120013830084	19200	12524526	BUSHING, SLEEVE	3
6	PAOZZ	5315007709181	96906	MS20392-3C39	PIN, STRAIGHT, HEADED	3
7	PAOZZ	1005013687904	19200	12524172	POSITIONER, PLATE	2
8	PAOZZ	5315008392325	80205	MS24665-132	PIN, COTTER	3

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

AUTO GUN RECEIVER 12524300, ENHANCED AUTO GUN RECEIVER 12524301, MECHANICAL HOUSING 12524362, AND ROCKER ASSEMBLY 12524463

REPAIR PARTS LIST

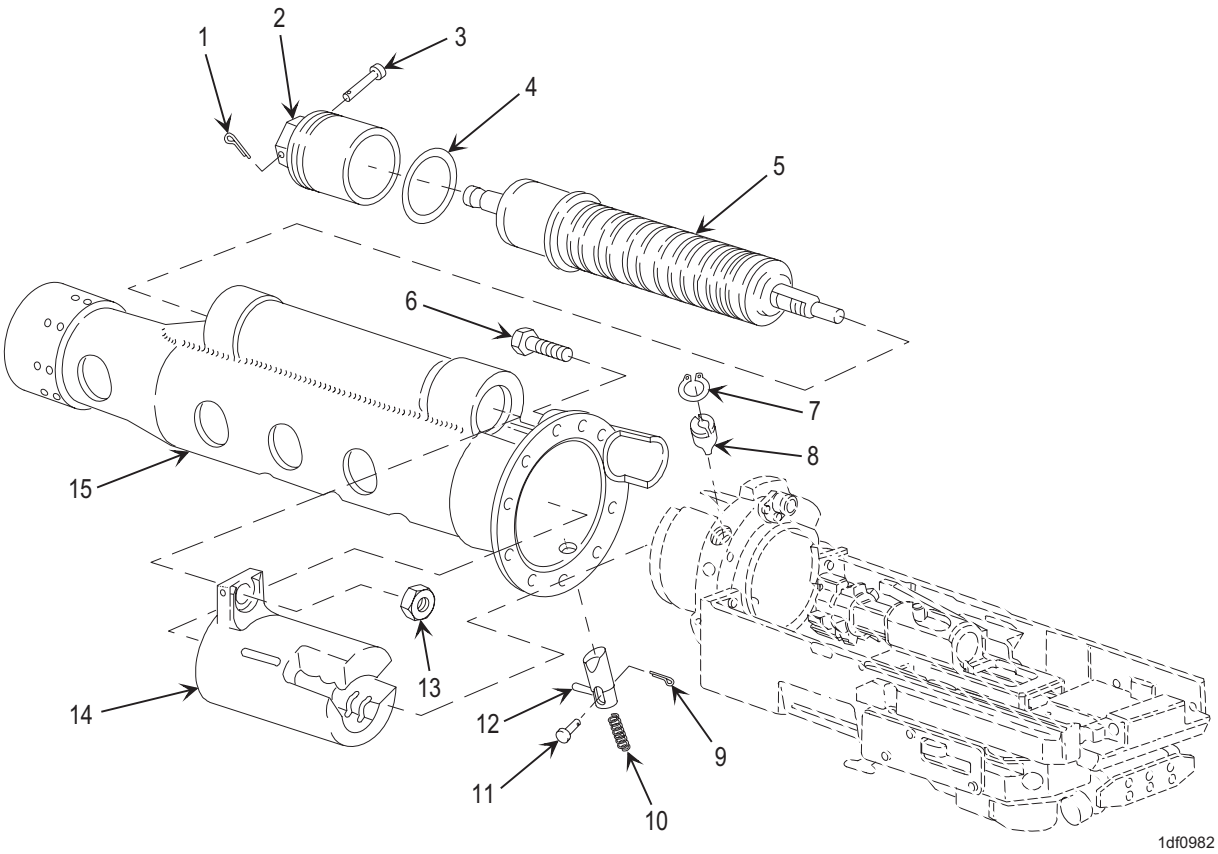


Figure 17. Auto Gun Receiver 12524300, Enhanced Auto Gun Receiver 12524301, Mechanical Housing 12524362, and Rocker Assembly 12524463 (Sheet 1 of 4).

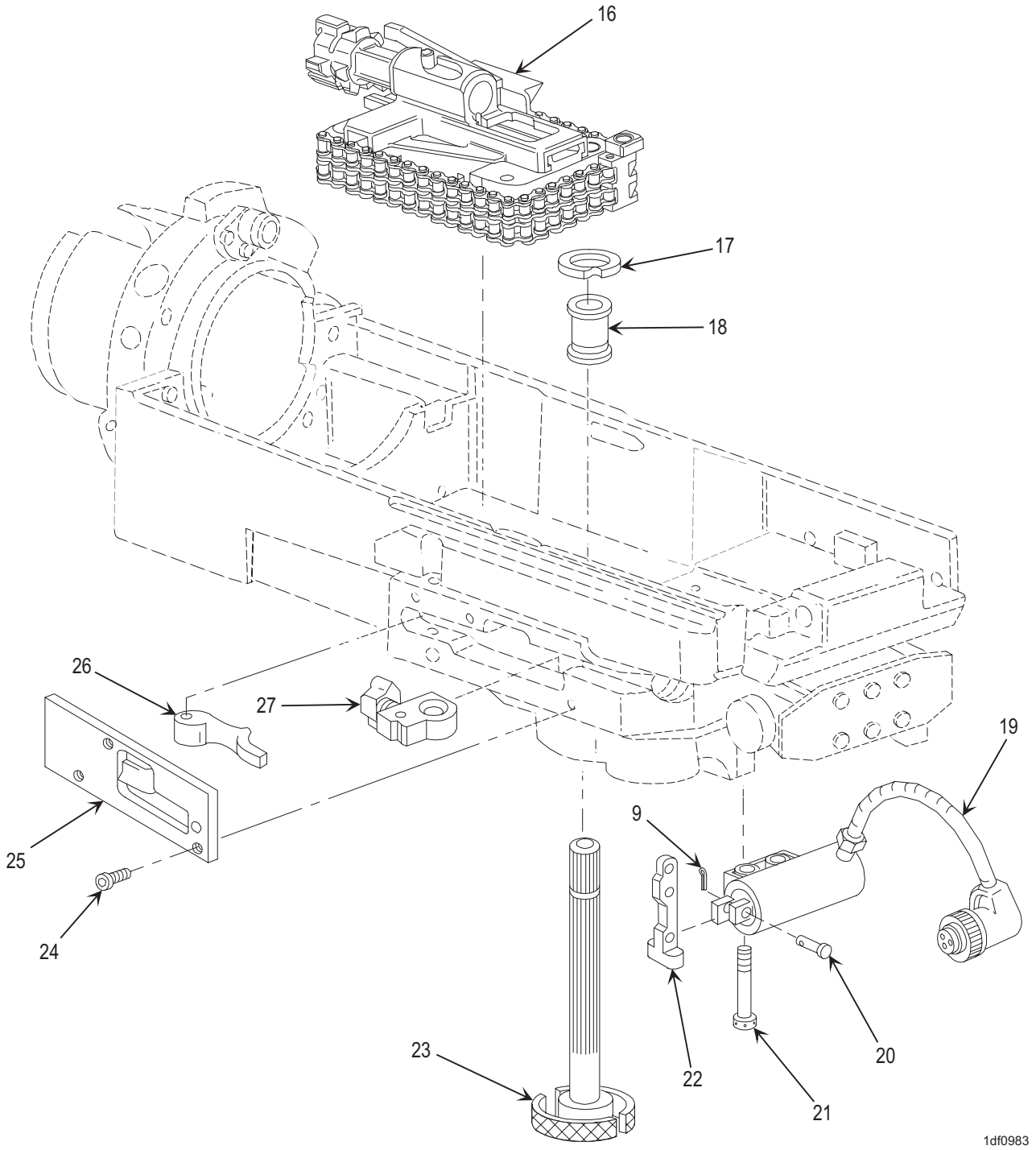


Figure 17. Auto Gun Receiver 12524300, Enhanced Auto Gun Receiver 12524301, Mechanical Housing 12524362, and Rocker Assembly 12524463 (Sheet 2 of 4).

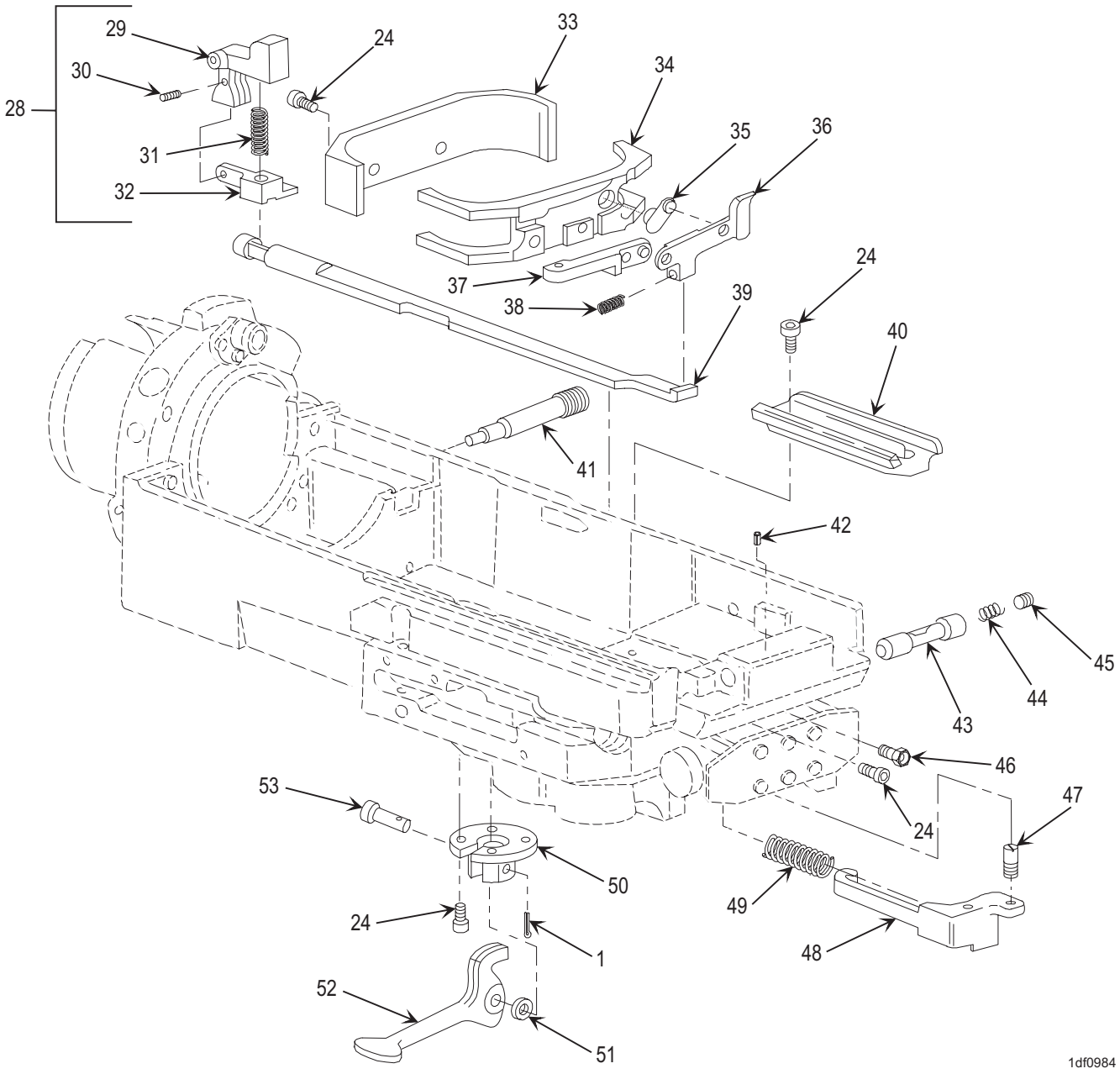


Figure 17. Auto Gun Receiver 12524300, Enhanced Auto Gun Receiver 12524301, Mechanical Housing 12524362, and Rocker Assembly 12524463 (Sheet 3 of 4).

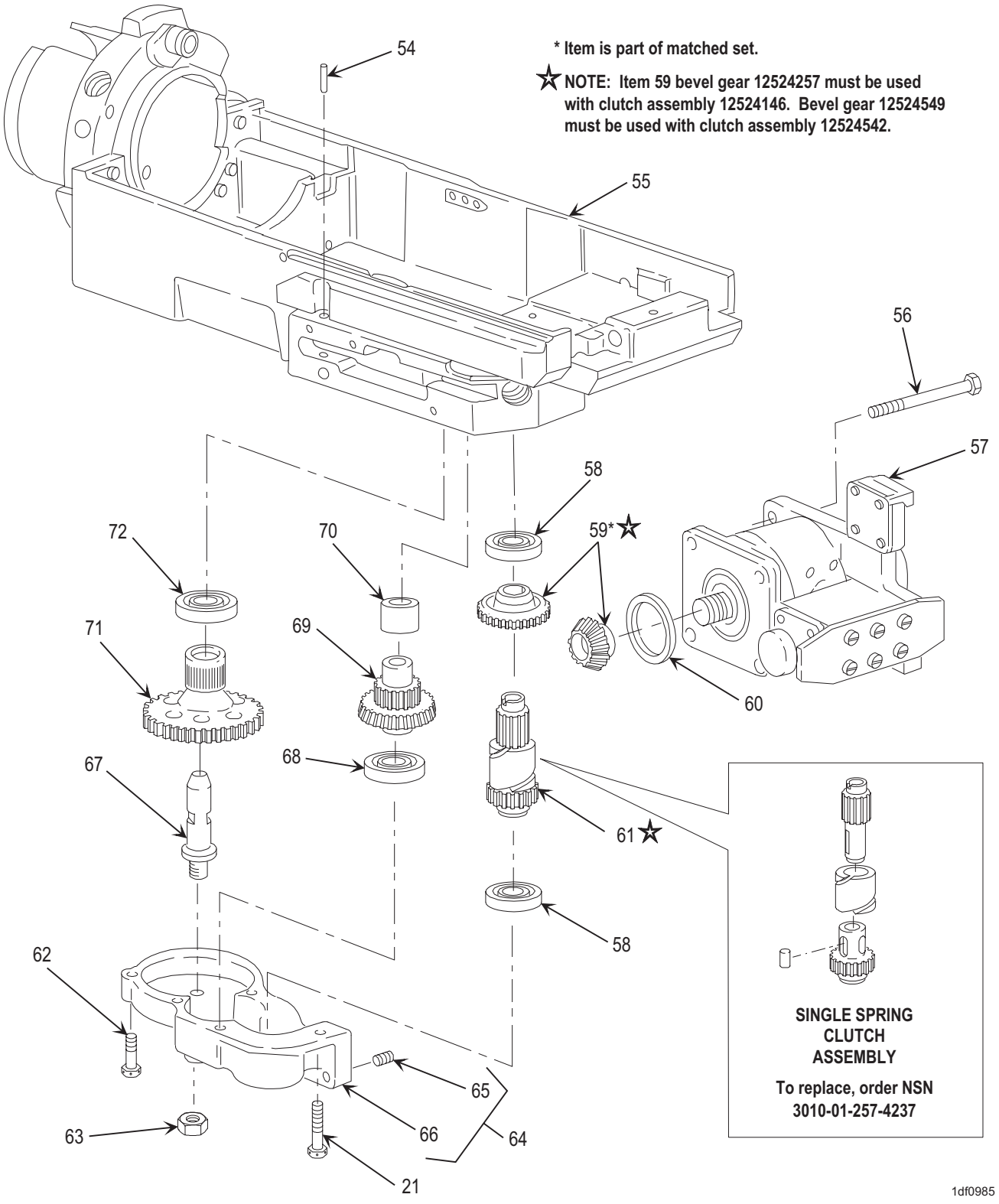


Figure 17. Auto Gun Receiver 12524300, Enhanced Auto Gun Receiver 12524301, Mechanical Housing 12524362, and Rocker Assembly 12524463 (Sheet 4 of 4).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 0013, 00131, 00134, FIG. 17 AUTO GUN RECEIVER 12524300 (STANDARD), 12524301 (ENHANCED), MECHANICAL HOUSING 12524362, AND ROCKER ASSEMBLY 12524463 (SEE FIG. 2 FOR NHA)	
1	PAOZZ	5315008423044	80205	MS24665-283	PIN, COTTER	2
2	PAOZZ	1005014552117	19200	12524529	CAP, RECOIL, SPRING	1
3	PAOZZ	5315009035944	96906	MS20392-4C41	PIN, STRAIGHT, HEADED	1
4	PAOZZ	5331011563765	80205	NAS1611-326	O-RING	1
5	PAOFF	1005010884387	19200	12524420	RECOIL MECHANISM (USED ON 12524300) (SEE FIG. 21 FOR BKDN)	1
5	PAOFF	1005014548489	19200	12524530	RECOIL MECHANISM (USED ON 12524301) (SEE FIG. 21 FOR BKDN)	1
6	PAOZZ	5305011229635	56878	B18-3-1AH080030D	SCREW, CAP, SOCKET HEAD	9
7	PAOZZ	5325008077968	96906	MS16625-1068	RING, RETAINING	1
8	PAOZZ	5315010897672	19200	12524305	KEY, MACHINE	1
9	PAOZZ	5315008392325	80205	MS24665-132	PIN, COTTER	2
10	PAOZZ	5360001829953	96906	MS24585-1281	SPRING, HELICAL, COMP	1
11	PAOZZ	5315007709181	96906	MS20392-3C39	PIN, STRAIGHT, HEADED	1
12	PAOZZ	5315010897770	19200	12524343	PIN, BARREL LOCK	1
13	PAOZZ	5310010913309	19200	12524379	NUT, PLAIN, HEXAGON	1
14	PAOOO	1005011140080	19200	12524370	BREECH ASSEMBLY (USED ON 12524300) (SEE FIG. 25 FOR BKDN)	1
14	PAOOO	1005014540398	19200	12524527	BREECHBLOCK (USED ON 12524301) (SEE FIG. 25 FOR BKDN)	1
15	PAOZZ	1005011140081	19200	12524350	BARREL SUPPORT ASSEMBLY	1
16	AOOOO		19200	12524340	BOLT & TRACK ASSEMBLY (SEE FIG. 18 FOR BKDN)	1
17	PAOZZ	5325011394490	81349	M2742620105D	RING, RETAINING	1
18	PAOZZ	3120010970252	19200	12524359	BUSHING, SLEEVE	1
19	PAOZZ	5945010897649	19200	12524419	SOLENOID, ELECTRICAL SEAR	1
20	PAOZZ	5315009901338	96906	MS20392-2C19	PIN, STRAIGHT, HEADED	1
21	PAOZZ	5305011229637	56878	B18-3-1AH060035D	SCREW, CAP, SOCKET HEAD	6
22	PAOZZ	3040012037819	19200	12524166	LINK, RELEASE, SEAR	1
23	PAOZZ	3040010897789	19200	12524302	SHAFT, STRAIGHT DRIVE	1
24	PAOZZ	5305011229633	56878	B18-3-1AH060012D	SCREW, CAP, SOCKET HEAD	13
25	PAOZZ	1005010884382	19200	12524107	COVER ASSEMBLY	1
26	PAOZZ	1005011678311	19200	12524070	CATCH ASSEMBLY, SEAR	1
27	PAOOO	1005011701982	19200	12524089	SEAR ASSEMBLY (SEE FIG. 24 FOR BKDN)	1
28	AOOOO		19200	12524463	ROCKER ASSEMBLY	1
29	PAOZZ	1005011197253	19200	12524466	.ROCKER	1
30	PAOZZ	5315011150899	19200	12524618-1	.PIN, SPRING	1
31	PAOZZ	5360011140185	19200	12524628-7	.SPRING, HELICAL, COMP	1
32	PAOZZ	1005011197252	19200	12524465	.ROCKER SPRING HOUSI	1
33	PAOZZ	1005013004233	19200	12524109	GUIDE, CHAIN, FORWARD	1
34	PAOZZ	1005011702185	19200	12524085	GUIDE, CHAIN, REAR	1
35	PAOZZ	5342011140082	19200	12524461	CRANK, INTERLOCK	1
36	PAOZZ	1005011140083	19200	12524433	EXTENSION, PUSH ROD	1
37	PAOZZ	1005012037818	19200	12524165	PUSH ROD, SEAR	1
38	PAOZZ	5360000388942	96906	MS24585-1061	SPRING, HELICAL, COMP	1
39	PAOZZ	1005011140115	19200	12524460	ROD ASSEMBLY, OPERAT	1

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
40	PAOZZ	1005010884416	19200	12524470	TRACK, REAR	1
41	PAOZZ	1005011179818	19200	12524464	ROD ROCKER SUPPORT	1
42	PAOZZ	5315011340604	19200	12524618-6	PIN, SPRING	1
43	PAOZZ	5315010884380	19200	12524346	PIN, HANDLE	1
44	PAOZZ	5360011285644	19200	12524628-4	SPRING, HELICAL, COMP	1
45	PAOZZ	5305014732755	80204	B1836A100100FNH	SETSCREW	1
46	PAOZZ	5305010897667	19200	12524358	SCREW, EXTERNALLY RE	1
47	PAOZZ	1005011140079	19200	12524292	PIVOT, SEAR RETRACTOR	1
48	PAOZZ	1005011140053	19200	12524295	SEAR RETRACTOR ASSEMBLY	1
49	PAOZZ	5360010897680	19200	12524628-8	SPRING,HELICAL,COMP	1
50	PAOZZ	5342010884405	19200	12524306	BRACKET, LATCH	1
51	PAOZZ	5310011185693	19200	12524630-2	WASHER, SPRING TENSION	1
52	PAOZZ	1005010884406	19200	12524308	HOOK LATCH, TRACK	1
53	PAOZZ	5315010571490	96906	MS9466-19	PIN, STRAIGHT, HEADED	1
54	PAOZZ	5315011573064	19200	12524619-6	PIN, STRAIGHT, HEADLE	1
55	PBDDD	1005014462912	19200	12524360	RECEIVER, AUTO GUN (USED ON 12524300) (SEE FIG. 26 FOR BKDN)	1
55	PBDDD	1005014710097	19200	12524364	RECEIVER, AUTO GUN (USED ON 12524301) (SEE FIG. 26 FOR BKDN)	1
56	PAOZZ	5305012089826	56878	B18-3-1AH080100D	SCREW, CAP, SOCKET HEAD	4
57	PAODD	6105014438388	19200	12524409	MOTOR, DIRECT CURRENT	1
58	PAOZZ	3110010897638	19200	12524605	BEARING, BALL, ANNULAR	2
59	PAOZZ	3020011701852	19200	12524257	GEAR, BEVEL (USED ON 12524300)	1
59	PAOZZ	3020014565352	19200	12524549	GEAR, BEVEL (USED ON 12524301)	1
60	PAOZZ	5331000615471	81343	AS3551-133	O-RING	1
61	PAOOO	3010012574237	19200	12524146	CLUTCH ASSEMBLY, FRI (USED ON 12524300) (SEE FIG. 23 FOR BKDN)	1
61	PAOOO	3010014565351	19200	12524542	CLUTCH ASSEMBLY, FRI (USED ON 12524301) (SEE FIG. 23 FOR BKDN)	1
62	PAOZZ	5305011247057	56878	B18-3-1AH060025D	SCREW, CAP, SOCKET HEAD	2
63	PAOZZ	5310011150755	19200	12524617-3	NUT, SELF-LOCKING, HE	1
64	PAOFF	1005014540397	19200	12524362	COVER ASSEMBLY,MACH	1
65	PAFZZ	5325010897724	19200	12524602-3	.INSERT, SCREW THREAD	2
66	XAFZZ		19200	12524363	.HOUSING,MECHANICAL	1
67	PAOZZ	3040010897790	19200	12524303	SHAFT, SHOULDERED DRIVE SPROCKET	1
68	PAOZZ	3110001091183	19200	12524606	BEARING, BALL, ANNULAR	1
69	PAOZZ	3020010897783	19200	12524459	GEAR CLUSTER	1
70	PAOZZ	3110011191129	19200	12524607	BEARING, ROLLER, NEED	1
71	PAOZZ	3020010897713	19200	12524450	GEAR, SPUR	1
72	PAOZZ	5330011267320	19200	12524623	SEAL, PLAIN ENCASED	1

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

BOLT AND TRACK ASSEMBLY 12524340

REPAIR PARTS LIST

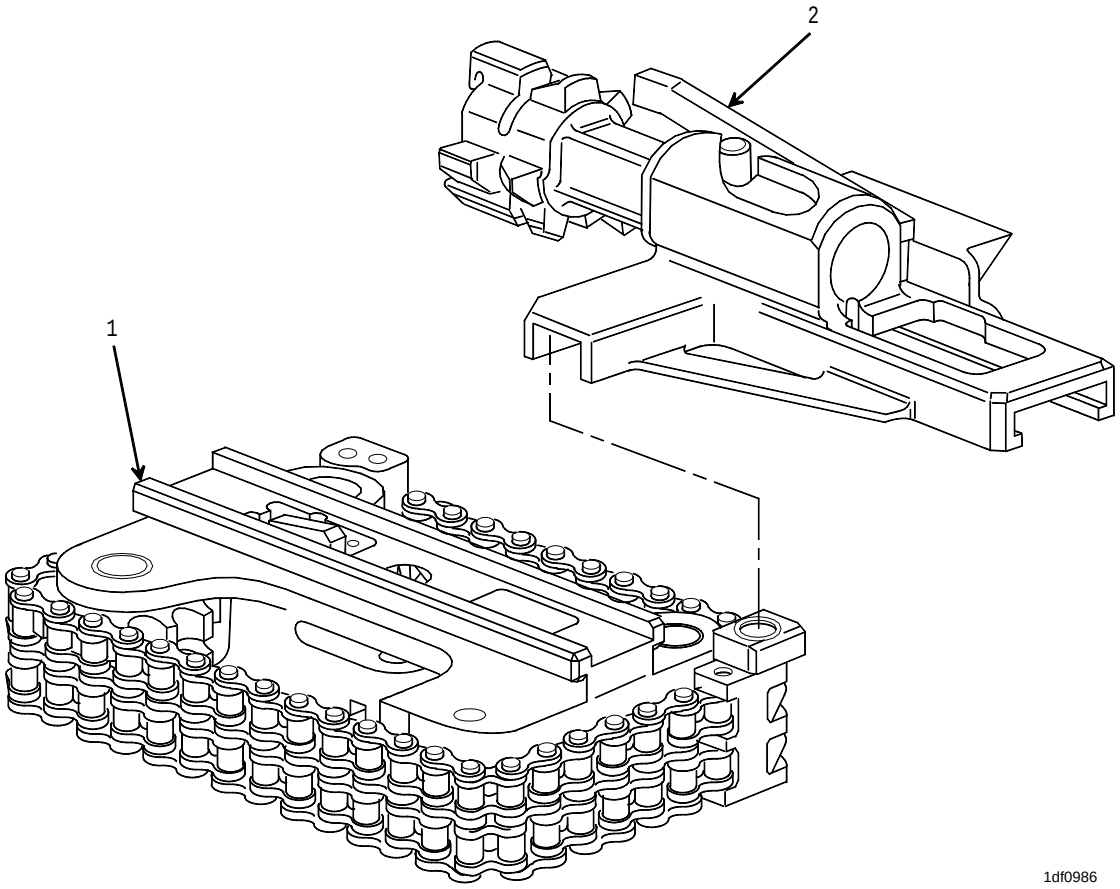


Figure 18. Bolt and Track Assembly 12524340.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 00132	
					FIG. 18 BOLT AND TRACK ASSEMBLY	
					12524340	
					(SEE FIG. 17 FOR NHA)	
1	AOOOO		19200	12524380	TRACK ASSY (SEE FIG. 20 FOR BKDN).....	1
2	AOOOO		19200	12524320	BOLT & CARRIER ASSY	
					(SEE FIG. 19 FOR BKDN)	1

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

BOLT AND CARRIER ASSEMBLY 12524320

REPAIR PARTS LIST

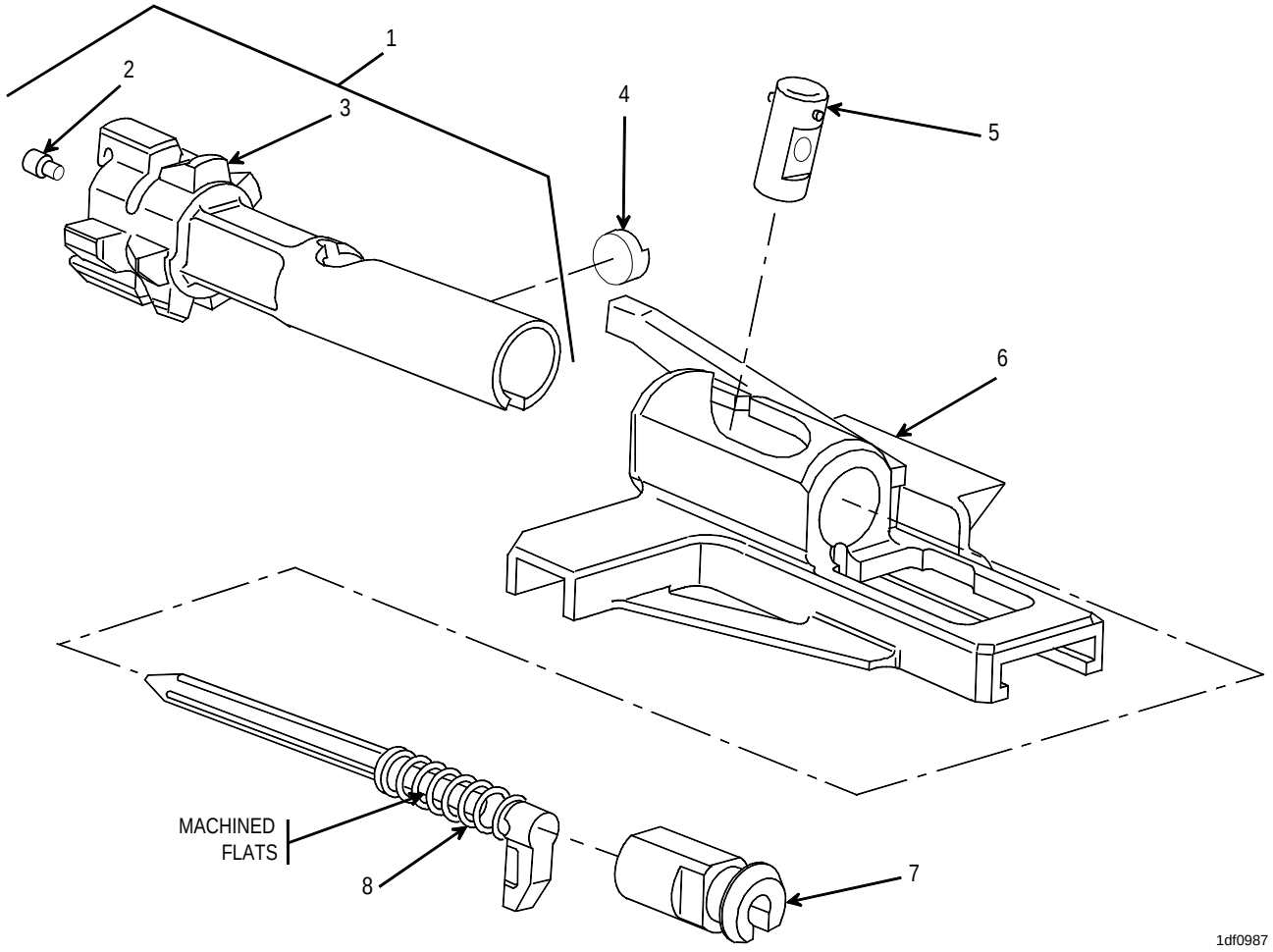


Figure 19. Bolt and Carrier Assembly 12524320.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 0013201, 00132011	
					FIG. 19 BOLT AND CARRIER ASSEMBLY 12524320 AND BREECH BOLT 12524331 (SEE FIG. 18 FOR NHA)	
1	PAODD	1005010897778	19200	12524331	BOLT, BREECH	1
2	PADZZ	1005014308942	19200	12524333	.INSERT, BOLT	1
3	XADZZ		19200	12524332	.BOLT	1
4	PAOZZ	1005010897738	19200	12524321	KEEPER, FIRING PIN SLEEVE	1
5	PAOZZ	1005010884378	19200	12524335	CAM-PIN ASSEMBLY	1
6	PAOZZ	1005010884379	19200	12524338	CARRIER ASSEMBLY	1
7	PAOZZ	1005010889128	19200	12524323	SLEEVE, FIRING PIN	1
8	PAOZZ	1005013688280	19200	12524512	PIN ASSEMBLY, FIRING (12000 RND LIFE)	1

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

TRACK ASSEMBLY 12524380

REPAIR PARTS LIST

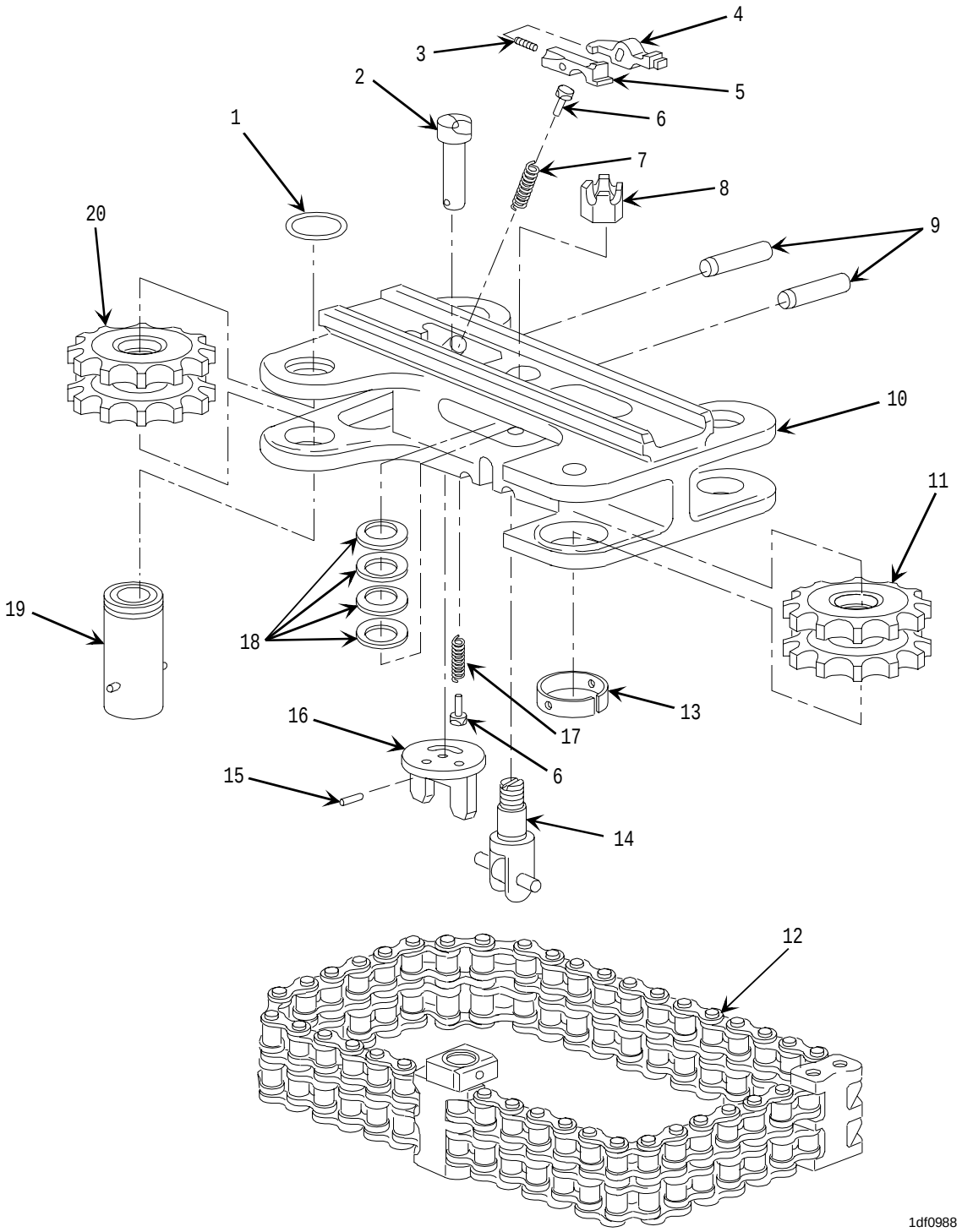


Figure 20. Track Assembly 12524380.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 0013202	
					FIG. 20 TRACK ASSEMBLY 12524380	
					(SEE FIG. 18 FOR NHA)	
1	PAOZZ	5331002799309	81349	M25988/1-022	O-RING	3
2	PAOZZ	3040013696635	19200	12524523	PAWL, SAFETY ACTUATOR	1
3	PAOZZ	5360013374716	96906	MS24585-1117	SPRING, HELICAL, COMP	1
4	PAOZZ	3040011678326	19200	12524384	PAWL, SAFETY	1
5	PAOZZ	3040010897774	19200	12524381	PAWL, FIRING PIN	1
6	PAOZZ	5315010897675	19200	12524398	PIN, STRAIGHT, HEADED	2
7	PAOZZ	5360010897680	19200	12524628-8	SPRING, HELICAL, COMP	1
8	PAOZZ	5310010897747	19200	12524389	NUT, PLAIN, ROUND	1
9	PAOZZ	5315008384584	80205	MS16562-66	PIN, SPRING	2
10	PAOZZ	1005010884385	19200	12524390	TRACK, CHAIN, ROLLER	1
11	PAOZZ	3020010897692	19200	12524393	SPROCKET WHEEL	1
12	PAOZZ	3020014555635	19200	12524407	CHAIN, ROLLER	1
13	PAOZZ	1005010884386	19200	12524392	RETAINER, SPROCKET	1
14	PAOZZ	5340010884384	19200	12524385	CLEVIS, ROD END	1
15	PAOZZ	5315011150899	19200	12524618-1	PIN, SPRING	1
16	PAOZZ	5340013697282	19200	12524522	HANDLE, MANUAL CONTR	1
17	PAOZZ	5360010897682	19200	12524628-1	SPRING, HELICAL, COMP	1
18	PAOZZ	5310011150771	19200	12524610-1	WASHER, SPRING TENSION	4
19	PAOZZ	1005010897788	19200	12524395	SHAFT ASSEMBLY, SPRO	3
20	PAOZZ	3020010897693	19200	12524394	SPROCKET WHEEL	3

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

RECOIL MECHANISM 12524420 AND ENHANCED RECOIL MECHANISM 12524530

REPAIR PARTS LIST

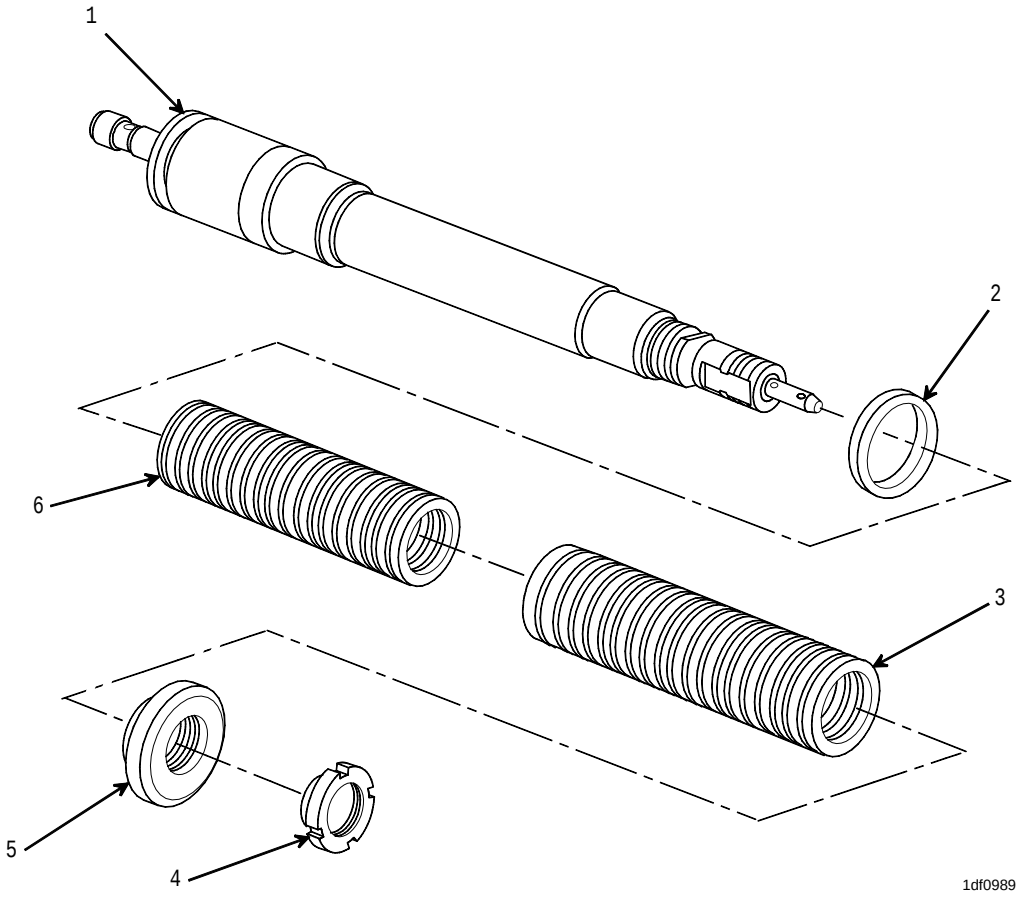


Figure 21. Recoil Mechanism 12524420 and Enhanced Recoil Mechanism 12524530.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 00133	
					FIG. 21 RECOIL MECHANISM	
					12524420 (STANDARD)	
					12524530 (ENHANCED)	
					(SEE FIG. 17 FOR NHA)	
1	AFFFF		19200	12524425	DAMPER HOUSING ASSY (USED ON 12524420) (SEE FIG. 22 FOR BKDN)	1
1	AFFFF		19200	12524533	DAMPER HOUSING ASSY (USED ON 12524530) (SEE FIG. 22 FOR BKDN)	1
2	PAFZZ	5365010897733	19200	12524430	SPACER, SLEEVE RECOIL SPRING.....	1
3	PAFZZ	5360010884389	19200	12524426	SPRING ASSORTMENT (OUTER SET OF 17) (USED ON 12524420).....	1
3	PAFZZ	5360014541628	19200	12524531	SPRING ASSORTMENT (OUTER SET OF 16) (USED ON 12524530).....	1
4	PAFZZ	5310010897748	19200	12524434	NUT, SELF-LOCKING, RO	1
5	PAFZZ	5365010897734	19200	12524436	SPACER, SLEEVE.....	1
6	PAFZZ	5360010884407	19200	12524431	SPRING ASSORTMENT (INNER SET OF 18) (USED ON 12524420).....	1
6	PAFZZ	5360014546321	19200	12524532	SPRING ASSORTMENT (INNER SET OF 17) (USED ON 12524530).....	1

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

DAMPER HOUSING ASSEMBLY 12524425, ENHANCED DAMPER HOUSING ASSEMBLY 12524533, AND FLUID PRESSURE DAMPER 12524438

REPAIR PARTS LIST

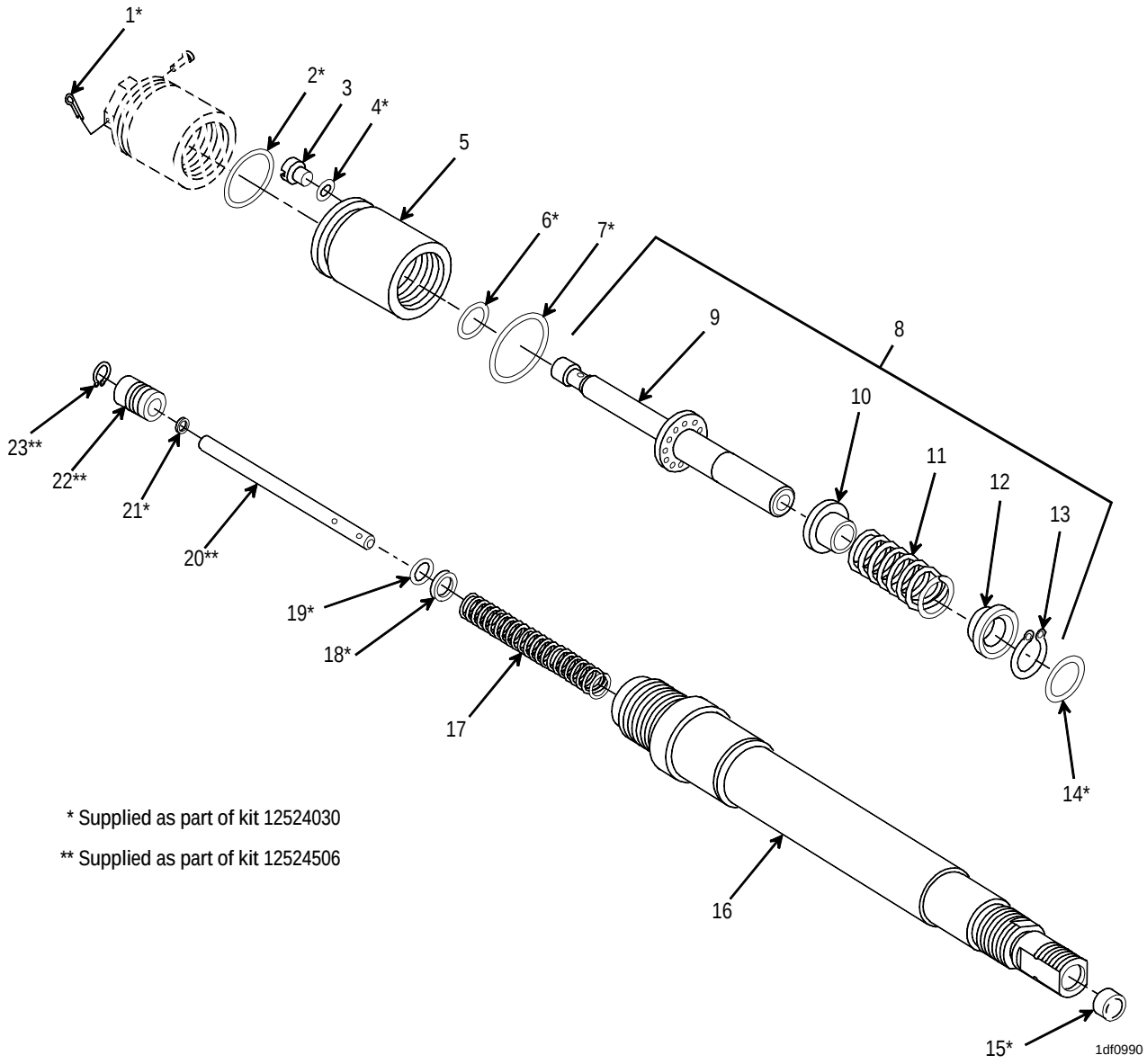


Figure 22. Damper Housing Assembly 12524425, Enhanced Damper Housing Assembly 12524533, and Fluid Pressure Damper 12524438.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 0013301, 0013302 FIG. 22 DAMPER HOUSING ASSEMBLY 12524425 (STANDARD), 12524533 (ENHANCED), AND FLUID PRESSURE DAMPER 12524438 (SEE FIG. 21 FOR NHA)	
1	KFFZZ		80205	MS24665-283	PIN,COTTER PART OF KIT P/N 12524030	1
2	KFFZZ		80205	NAS1611-326	O-RING PART OF KIT P/N 12524030	1
3	PAOZZ	5365010897679	19200	12524424	PLUG, MACHINE THREAD	1
4	KFFZZ		81349	M83248/1-902	O-RING PART OF KIT P/N 12524030	1
5	PAFZZ	1005010884409	19200	12524437	CAP, HOUSING ASSEMBLY	1
6	KFFZZ		81349	M83248/1-113	PACKING, PREFORMED PART OF KIT P/N 12524030	1
7	KFFZZ		81349	M83248/1-130	PACKING, PREFORMED PART OF KIT P/N 12524030	1
8	AFFFF		19200	12524438	VALVE ASSEMBLY PRESSURE	1
9	PAFZZ	1005010884411	19200	12524441	.ROD, RECOIL DAMPER	1
10	PAFZZ	1005010884410	19200	12524440	.VALVE, DAMPER SPRING HELICAL	1
11	PAFZZ	5360010897683	19200	12524628-3	.SPRING, HELICAL,COMP	1
12	PAFZZ	5365010884412	19200	12524442	.SPACER, SLEEVE DAMPER	1
13	PAFZZ	5325002613918	96906	MS3217-1075	.RING, RETAINING	1
14	KFFZZ		81349	M83248/1-211	PACKING, PREFORMED PART OF KIT P/N 12524030	1
15	KFFZZ		19200	12524624-1	SEAL, PLAIN ENCASED PART OF KIT P/N 12524030	1
16	PAFZZ	5340010884408	19200	12524435	HOLDER, SPRING RECOIL MECHANISM ADAPTER, SPECIAL (USED ON 12524425)	1
16	PAFZZ	5340014546324	19200	12524534	HOLDER, SPRING (USED ON 12524533)	1
17	PAFZZ	5360011181736	19200	12524628-9	SPRING, HELICAL, COMP	1
18	KFFZZ		96906	MS28774-112	RETAINER, PACKING PART OF KIT P/N 12524030	1
19	KFFZZ		81349	M83248/1-112	PACKING, PREFORMED PART OF KIT P/N 12524030	1
20	KFFZZ		19200	12524471	INDICATOR PART OF KIT P/N 12524506	1
21	KFFZZ		80205	M83248/1-010	PACKING, PREFORMED PART OF KIT P/N 12524030	1
22	KFFZZ		19200	12524469	PISTON PART OF KIT P/N 12524506	1
23	KFFZZ		96906	MS16624-1025	RING, RETAINING PART OF KIT P/N 12524506	1
	PAFZZ	1005010884372	19200	12524030	REPAIR KIT	1
					O-RING (1) 22-4 O-RING (1) 22-2 PACKING, PREFORMED (1) 22-19 PACKING, PREFORMED (1) 22-6 PACKING, PREFORMED (1) 22-7 PACKING, PREFORMED (1) 22-14 PACKING, PREFORMED (1) 22-21 PIN,COTTER (1) 22-1 RETAINER, PACKING (1) 22-18 SEAL, PLAIN, ENCASED (1) 22-15	
	PAFZZ	1005013397358	19200	12524506	PARTS KIT, GUN	1
					INDICATOR (1) 22-20 PISTON (1) 22-22 RING, RETAINING (1) 22-23	

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

CLUTCH ASSEMBLY (DOUBLE SPRING) 12524146 AND ENHANCED CLUTCH ASSEMBLY (TRIPLE SPRING) 12524542

REPAIR PARTS LIST

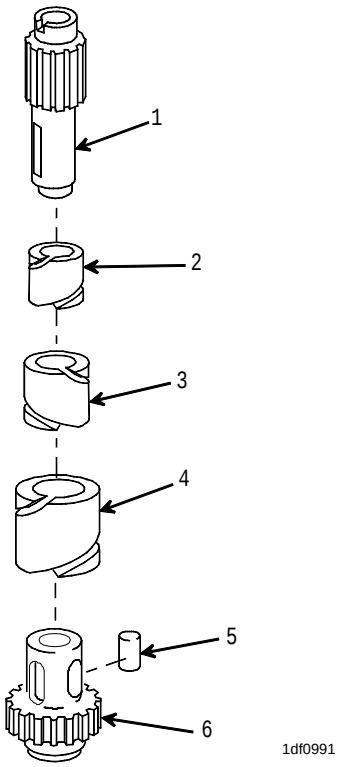


Figure 23. Clutch Assembly (Double Spring) 12524146 and Enhanced Clutch Assembly (Triple Spring) 12524542.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 00135	
					FIG. 23 CLUTCH ASSEMBLY (DOUBLE SPRING) 12524146 (STANDARD) CLUTCH ASSEMBLY (TRIPLE SPRING) 12524542 (ENHANCED) (SEE FIG. 17 FOR NHA)	
1	XAOZZ		19200	12524312	SHAFT, SHOULDERED (USED ON 12524146)	1
1	XAOZZ		19200	12524545	SHAFT, SHOULDERED (USED ON 12524542)	1
2	PAOZZ	5360012305828	19200	12524147-1	SPRING, HELICAL, COMP (USED ON 12524146)	1
2	PAOZZ	5360014565356	19200	12524543-1	SPRING, SPIRAL, TORSI (USED ON 12524542)	1
3	PAOZZ	5360012305829	19200	12524147-2	SPRING, HELICAL, COMP (USED ON 12524146)	1
3	PAOZZ	5360014565355	19200	12524543-2	SPRING, SPIRAL TORSI (USED ON 12524542)	1
4	PAOZZ	5360014565357	19200	12524543-3	SPRING, SPIRAL TORSI (USED ON 12524542)	1
5	PAOZZ	5315010897640	19200	12524313	ROLLER, CLUTCH (USED ON 12524146)	3
5	PAOZZ	1005014565353	19200	12524546	ROLLER, CLUTCH (USED ON 12524542)	3
6	PAOZZ	3040012305850	19200	12524148	GEARSHAFT, SPUR (USED ON 12524146)	1
6	PAOZZ	3020014565354	19200	12524544	GEAR, CLUTCH (USED ON 12524542)	1

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

SEAR ASSEMBLY 12524089

REPAIR PARTS LIST

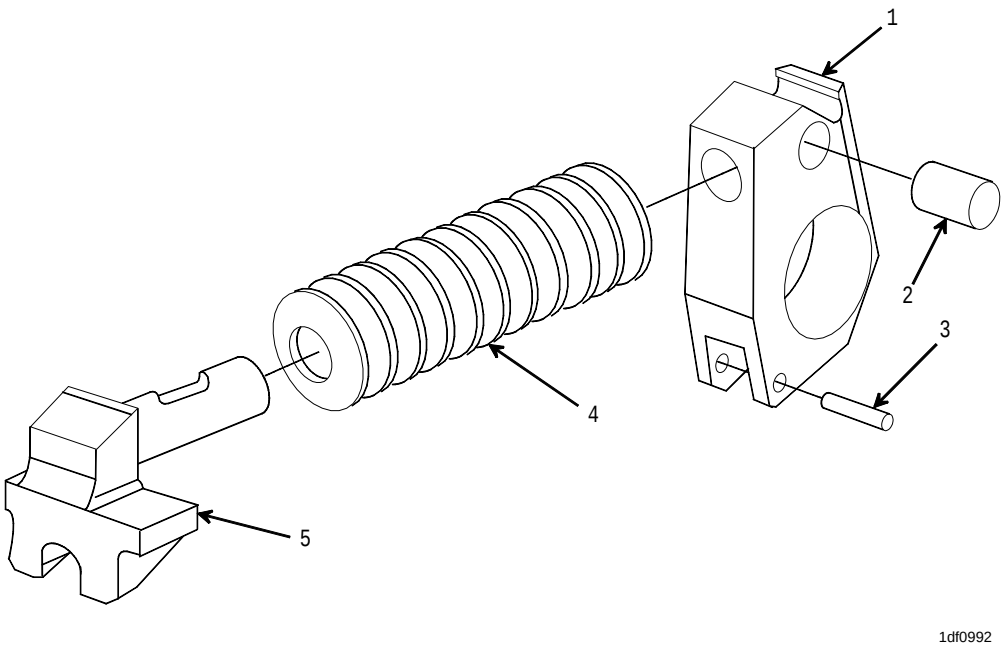


Figure 24. Sear Assembly 12524089.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 00136	
					FIG. 24 SEAR ASSEMBLY 12524089	
					(SEE FIG. 17 FOR NHA)	
1	XAOZZ		19200	12524092	ROCKER, SEAR	1
2	PAOZZ	5315011150900	19200	12524619-5	PIN, STRAIGHT, HEADLESS	1
3	PAOZZ	5315011285623	19200	12524618-2	PIN, SPRING	1
4	PAOZZ	5310011894452	19200	12524610-2	WASHER, SPRING TENSION	11
5	PAOZZ	3040011678313	19200	12524090	ARM, CHAIN SEAR	1

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

BREECH ASSEMBLY 1254370 AND ENHANCED BREECH ASSEMBLY 12524527

REPAIR PARTS LIST

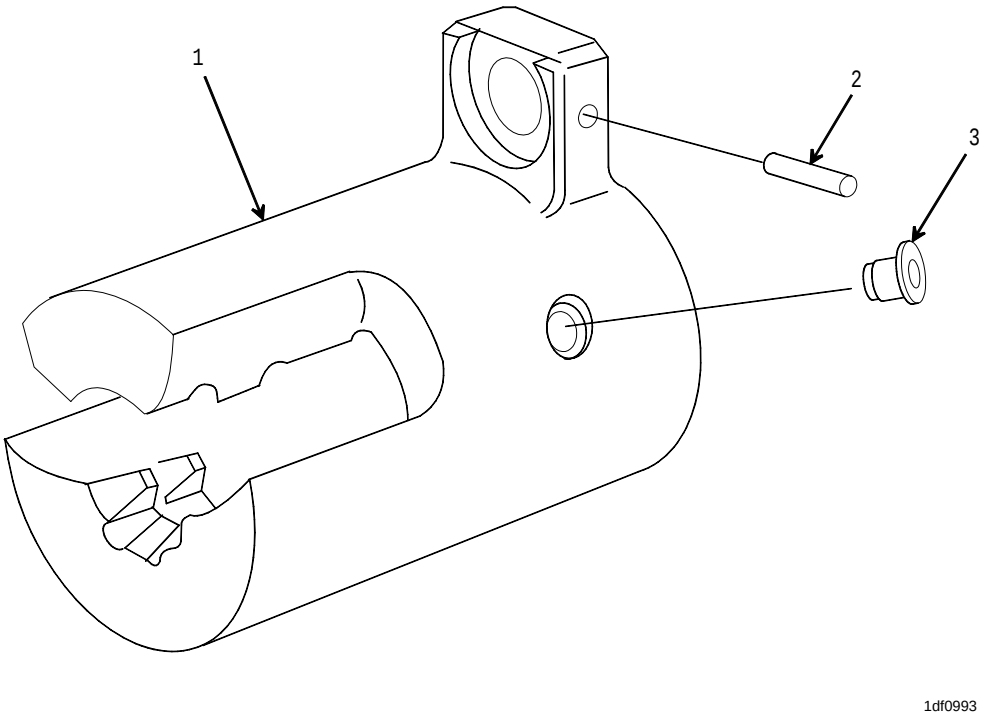


Figure 25. Breech Assembly 12524370
and Enhanced Breech Assembly 12524527.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 00137	
					FIG. 25 BREECH ASSEMBLY	
					12524370 (STANDARD)	
					12524527 (ENHANCED)	
					(SEE FIG. 17 FOR NHA)	
1	XAOZZ		19200	12524372	BREECH (USED ON 12524370)	1
1	XAOZZ		19200	12524528	BREECH (USED ON 12524527)	1
2	PAOZZ	5315008384584	80205	MS16562-66	PIN, SPRING	1
3	PAOZZ	5315014604916	19200	12524371	PIN, BREECH	1

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

RIVETED RECEIVER 12524360 AND ENHANCED RIVETED RECEIVER 12524364

REPAIR PARTS LIST

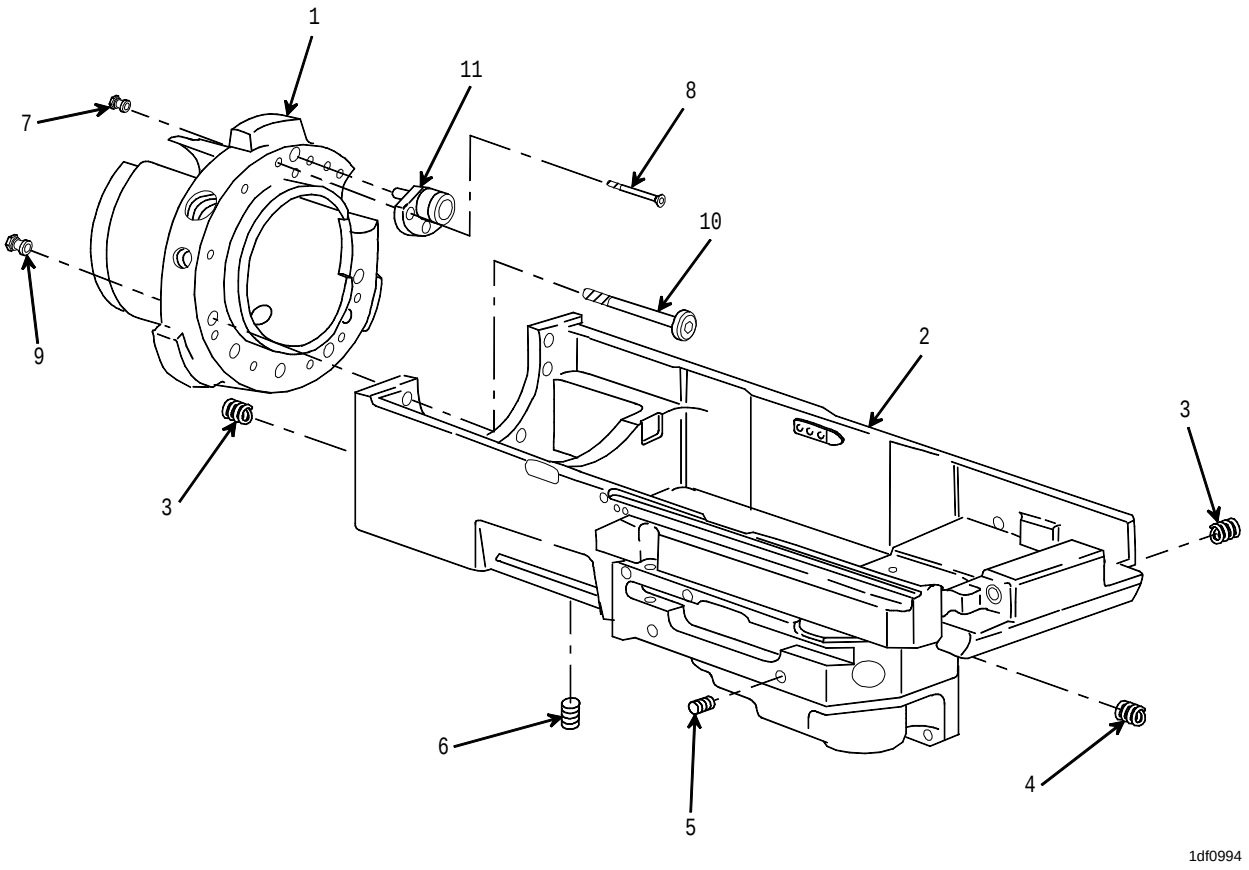


Figure 26. Riveted Receiver 12524360 and Enhanced Riveted Receiver 12524364.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 00138	
					FIG. 26 RIVETED RECEIVER	
					12524360 (STANDARD)	
					12524364 (ENHANCED)	
					(SEE FIG. 17 FOR NHA)	
1	XADZZ		19200	12524366	HOUSING, FRONT (USED ON 12524360)	1
1	XADZZ		19200	12524365	HOUSING, FRONT (USED ON 12524364)	1
2	XADZZ		19200	12524361	HOUSING, MACHINE GUN	1
3	PAFZZ	5325010897724	19200	12524602-3	INSERT, SCREW THREAD	11
4	PAFZZ	5325010897726	19200	12524602-4	INSERT, SCREW THREAD	1
5	PAFZZ	5325010889361	19200	12524602-2	INSERT, SCREW THREAD	3
6	PAFZZ	5325010897725	19200	12524602-1	INSERT, SCREW THREAD	15
7	PADZZ	5320009484213	19200	12524612-1	COLLAR, PIN-RIVET	3
8	PADZZ	5320007575518	19200	12524613	PIN-RIVET, THREADED	3
9	PADZZ	5320008821254	19200	12524612-2	COLLAR, PIN-RIVET	6
10	PADZZ	5320010146197	19200	12524614-1	PIN-RIVET, THREADED	6
10	PADZZ	5320014689764	19200	12524614-3	PIN-RIVET, THREADED	1
11	PADZZ	5340014682673	19200	12524368	BRACKET, MOUNTING	1

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

SPECIAL TOOLS

REPAIR PARTS LIST

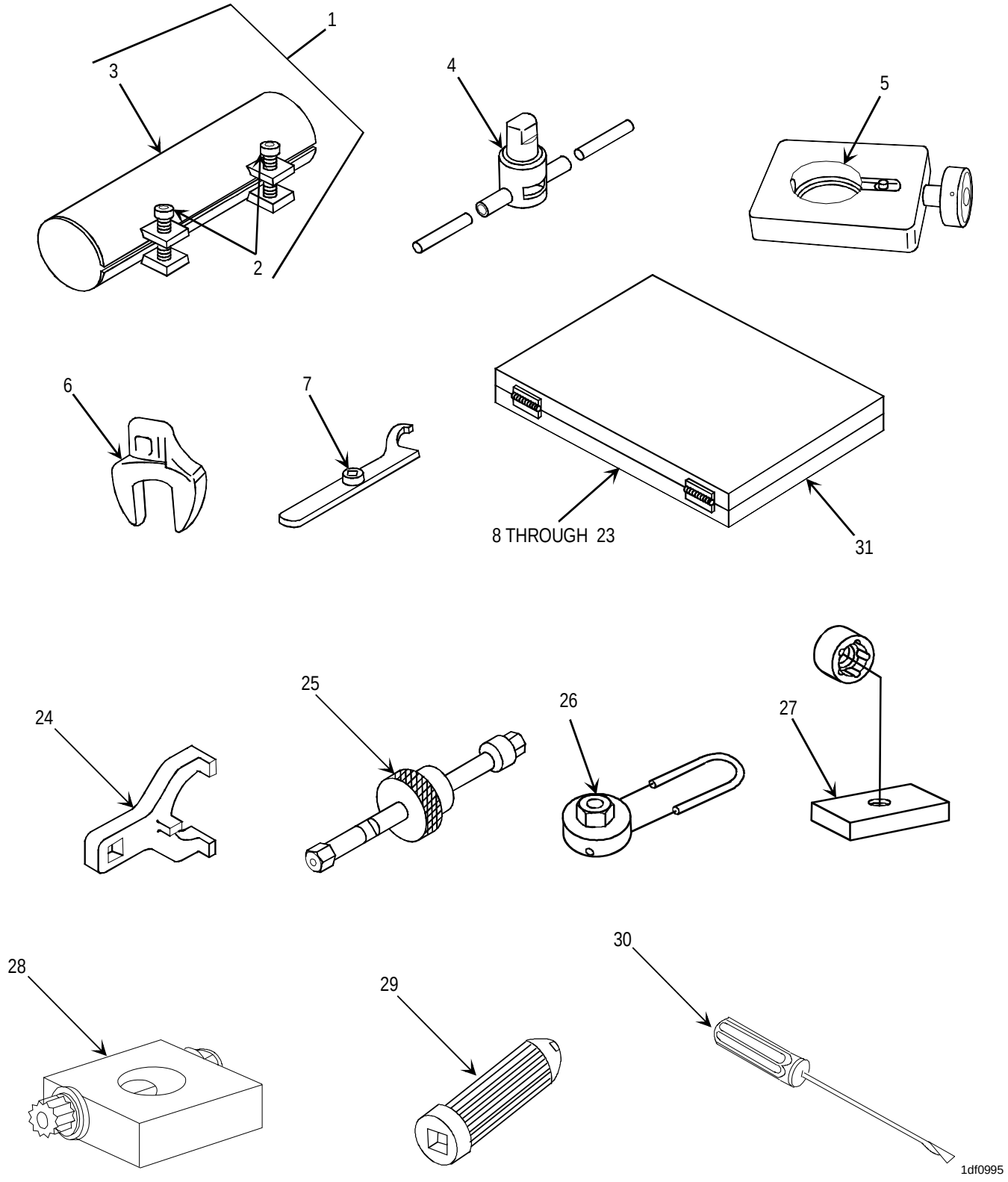


Figure 27. Special Tools.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
					GROUP 9500 FIG. 27 SPECIAL TOOLS	
1	PAFFF	1005011197254	19200	12524021	CLAMP ASSEMBLY, RECO	1
2	PAFZZ	5305011229637	56878	B18-3-1AH060035D	.SCREW, CAP, SOCKET HEAD	1
3	XAFZZ		19200	12524021-1	.TUBE	1
4	PAFZZ	5120011305696	19200	12524027	INSERTER AND REMOVER	1
5	PAFZZ	5120011532794	19200	12524031	INSERTER, GEAR	1
6	PAOZZ	5120012786889	19200	12524176	CROWFOOT ATTACHMENT	1
7	PAFZZ	5120011197240	19200	12524483	WRENCH, SPANNER	1
8	KFFZZ		01556	4693-10	TAP, THREAD CUTTING PART OF KIT P/N 12524035	1
9	KFFZZ		01556	4693-8	TAP, THREAD CUTTING PART OF KIT P/N 12524035	1
10	KFFZZ		01556	4693-6	TAP, FINISHING PART OF KIT P/N 12524035	1
11	KFFZZ		01556	1227-6	EXTRACTOR, SCREW THR PART OF KIT P/N 12524035	1
12	KFFZZ		01556	4342-10	TOOL, TANG BREAKOFF PART OF KIT P/N 12524035	1
13	KFFZZ		01556	4342-6	TOOL, TANG BREAKOFF PART OF KIT P/N 12524035	1
14	KFFZZ		01556	4342-8	TOOL, TANG BREAKOFF PART OF KIT P/N 12524035	1
15	KFFZZ		01556	7751-10	INSERTER, SCREW THRE PART OF KIT P/N 12524035	1
16	KFFZZ		01556	7751-6	INSERTER, SCREW THRE PART OF KIT P/N 12524035	1
17	KFFZZ		01556	7751-8	INSERTER, SCREW THRE PART OF KIT P/N 12524035	1
18	KFFZZ		01556	5601-332	WRENCH, TAP PART OF KIT P/N 12524035	1
19	KFFZZ		01556	4184-6CNW 0090	INSERT, HELICAL, COIL PART OF KIT P/N 12524035	1
20	KFFZZ		01556	4184-8CNW 0120	INSERT, HELICAL, COIL PART OF KIT P/N 12524035	1
21	KFFZZ		01556	4184-6CNW 0060	INSERT, HELICAL, COIL PART OF KIT P/N 12524035	1
22	KFFZZ		01556	4184-10CNW 0150	INSERT, HELICAL, COIL PART OF KIT P/N 12524035	1
23	KFFZZ		01556	8599-3	BOX PART OF KIT P/N 12524035	1
24	PAOZZ	5120014525904	19200	12524402	WRENCH, SPANNER	1
25	PAOZZ	5210013294860	19200	12535035	GAGE, CANNON BORE ER	1
26	PAFZZ	4933014263871	1YQE8	465-0725	BUFFER REMOVAL TOOL	1
27	PAOZZ	5120014523355	8V613	465-0724	HOLDER,SLIPPAGE TORQUE TEST (RECEIVER CLUTCH)	1
28	PAOZZ	4933015105664	8V613	465-0733	FIXTURE, WEAPON COMP (VISE HOLDING TOOL)	1
29	PAOZZ	5120014458503	8V613	465-0728	TOOL SLIPPAGE TORQUE	1
30	PAOZZ	5120014523364	8V613	465-0723	TOOL, DAMPER VALVE	1

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODES (UOC)	(7) QTY
31	PAFFF	5180011532795	19200	12524035	TOOL KIT, SCREW THRE	1
					BOX (1) 27-23	
					EXTRACTOR, SCREW THR (1) 27-11	
					INSERT, HELICAL, COIL (1) 27-19	
					INSERT, HELICAL, COIL (1) 27-20	
					INSERT, HELICAL, COIL (1) 27-21	
					INSERT, HELICAL, COIL (1) 27-22	
					INSERTER, SCREW, THRE (1) 27-15	
					INSERTER, SCREW, THRE (1) 27-16	
					INSERTER, SCREW, THRE (1) 27-17	
					TAP, FINISHING (1) 27-10	
					TAP, THREAD CUTTING (1) 27-8	
					TAP, THREAD CUTTING (1) 27-9	
					TOOL, TANG BREAKOFF (1) 27-12	
					TOOL, TANG BREAKOFF (1) 27-13	
					TOOL, TANG BREAKOFF (1) 27-14	
					WRENCH, TAP (1) 27-18	

END OF FIGURE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM
5360-00-038-8942	17	38
5305-00-054-5642	14	4
5310-00-058-1823	14	8
5320-00-058-9895	12	3
5331-00-061-5471	17	60
3110-00-109-1180	9	6
3110-00-109-1183	17	68
5320-00-117-6931	14	10
5320-00-118-2008	8	8
5320-00-119-6852	8	7
5310-00-150-3963	3	3
5331-00-166-0969	7	6
5360-00-182-9953	17	10
5310-00-209-0027	5	21
5310-00-209-0027	16	2
5320-00-256-1930	8	9
5320-00-256-1945	8	5
5325-00-261-3918	22	13
5325-00-275-6097	5	23
5331-00-279-9309	20	1
5360-00-407-8538	5	18
5360-00-407-8538	7	3
5310-00-655-7219	12	4
5325-00-682-1762	4	36
5310-00-728-7712	14	9
5320-00-757-5518	26	8
5305-00-763-3965	5	16
5305-00-763-3965	14	3
5315-00-770-9181	16	6
5315-00-770-9181	17	11
5330-00-781-4525	13	10
5325-00-807-7968	17	7
5320-00-808-0813	15	6
5310-00-811-6419	6	3
5315-00-825-3524	9	1
5315-00-838-4584	20	9
5315-00-838-4584	25	2
5315-00-839-2325	16	8
5315-00-839-2325	17	9
5315-00-842-3044	17	1
5320-00-882-1254	26	9
5315-00-903-5944	17	3
5320-00-948-4213	26	7
5315-00-990-1338	17	20
5320-01-014-6197	26	10
5315-01-057-1490	17	53
5360-01-072-9716	10	1
1005-01-088-4361	4	6
1005-01-088-4362	4	34
1005-01-088-4363	4	19
1005-01-088-4366	4	21
1005-01-088-4372	22	
5342-01-088-4375	5	25
1005-01-088-4378	19	5
1005-01-088-4379	19	6
5315-01-088-4380	17	43
1005-01-088-4382	17	25
5340-01-088-4384	20	14
1005-01-088-4385	20	10
1005-01-088-4386	20	13
1005-01-088-4387	17	5
5360-01-088-4389	21	3
1005-01-088-4395	5	22
1005-01-088-4398	5	30
5310-01-088-4399	9	5
1005-01-088-4400	5	37
1005-01-088-4401	5	17
1005-01-088-4402	5	19
1005-01-088-4403	11	1
1005-01-088-4404	11	1
5342-01-088-4405	17	50
1005-01-088-4406	17	52
5360-01-088-4407	21	6
5340-01-088-4408	22	16
1005-01-088-4409	22	5
1005-01-088-4410	22	10
1005-01-088-4411	22	9
5365-01-088-4412	22	12
1005-01-088-4416	17	40
1005-01-088-9128	19	7
5325-01-088-9361	7	10
5325-01-088-9361	13	2
5325-01-088-9361	26	5
3110-01-089-7638	17	58
5315-01-089-7640	23	5
5945-01-089-7649	17	19
5305-01-089-7667	17	46
5315-01-089-7672	17	8
5315-01-089-7675	20	6
5365-01-089-7679	22	3
5360-01-089-7680	17	49
5360-01-089-7680	20	7
5360-01-089-7681	11	4
5360-01-089-7682	20	17
5360-01-089-7683	22	11
3020-01-089-7692	20	11
3020-01-089-7693	20	20
3020-01-089-7713	17	71
3020-01-089-7714	5	5
5315-01-089-7718	5	27

STOCK NUMBER	FIG.	ITEM
5325-01-089-7724	7	4
5325-01-089-7724	13	11
5325-01-089-7724	17	65
5325-01-089-7724	26	3
5325-01-089-7725	13	1
5325-01-089-7725	26	6
5325-01-089-7726	26	4
3120-01-089-7728	13	9
3120-01-089-7729	15	2
5365-01-089-7733	21	2
5365-01-089-7734	21	5
5365-01-089-7735	5	20
1005-01-089-7738	19	4
5310-01-089-7747	20	8
5310-01-089-7748	21	4
3010-01-089-7751	5	2
3040-01-089-7755	9	2
5315-01-089-7770	17	12
3010-01-089-7771	5	29
3040-01-089-7772	5	32
3040-01-089-7774	20	5
1005-01-089-7778	19	1
5365-01-089-7779	4	26
3020-01-089-7783	17	69
1005-01-089-7788	20	19
3040-01-089-7789	17	23
3040-01-089-7790	17	67
5340-01-089-7803	5	31
5340-01-089-7804	5	40
3040-01-089-7855	5	38
1005-01-089-7856	4	24
1005-01-089-7870	4	8
1005-01-090-5264	5	4
5340-01-090-8909	15	7
5310-01-091-3309	17	13
3120-01-097-0252	17	18
1005-01-097-6465	5	35
1005-01-105-5191	2	1
1005-01-114-0053	17	48
1005-01-114-0079	17	47
1005-01-114-0080	17	14
1005-01-114-0081	17	15
5342-01-114-0082	17	35
1005-01-114-0083	17	36
1005-01-114-0115	17	39
5360-01-114-0185	17	31
5360-01-114-3080	4	18
1005-01-114-3081	5	42
1005-01-114-3082	5	43
1005-01-114-3083	5	26
5310-01-115-0755	17	63
5310-01-115-0756	4	16
5310-01-115-0756	7	8
5310-01-115-0756	16	1
5310-01-115-0771	20	18
3110-01-115-0790	13	6
5315-01-115-0899	11	2
5315-01-115-0899	17	30
5315-01-115-0899	20	15
5315-01-115-0900	24	2

STOCK NUMBER	FIG.	ITEM
5930-01-115-1087	14	5
3120-01-115-3779	8	2
3120-01-115-3781	13	3
3120-01-115-3782	13	4
1005-01-115-5446	7	2
5310-01-116-4839	7	9
5330-01-116-4841	13	5
3120-01-116-4861	15	1
1005-01-117-0164	12	2
3040-01-117-0311	12	5
1005-01-117-0329	7	7
5360-01-117-6557	12	1
1005-01-117-9818	17	41
1005-01-117-9819	4	7
5360-01-118-1736	22	17
5310-01-118-5693	17	51
3110-01-119-1129	17	70
3020-01-119-2287	12	6
3120-01-119-7226	15	3
5120-01-119-7240	27	7
1005-01-119-7252	17	32
1005-01-119-7253	17	29
1005-01-119-7254	27	1
1005-01-119-7866	1	7
1005-01-119-7867	1	6
1005-01-120-0447	1	5
5995-01-120-3361	14	2
1005-01-121-2390	1	8
1005-01-121-2391	1	9
5305-01-122-9633	4	1
5305-01-122-9633	5	12
5305-01-122-9633	16	3
5305-01-122-9633	17	24
5305-01-122-9634	4	23
5305-01-122-9634	5	41
5305-01-122-9634	7	1
5305-01-122-9634	9	4
5305-01-122-9635	4	9
5305-01-122-9635	5	10
5305-01-122-9635	17	6
5305-01-122-9637	17	21
5305-01-122-9637	27	2
5305-01-124-7057	4	14
5305-01-124-7057	5	36
5305-01-124-7057	17	62
5330-01-126-7320	17	72
5315-01-128-5623	10	4
5315-01-128-5623	24	3
5360-01-128-5644	17	44
5365-01-128-5675	4	17
5120-01-130-5696	27	4
5315-01-134-0604	17	42
5325-01-135-9617	5	39
5325-01-139-4490	17	17
5315-01-152-9899	12	7
5120-01-153-2794	27	5
5180-01-153-2795	27	28
5331-01-156-3765	17	4
5330-01-156-5457	8	3
5315-01-157-3064	17	54

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3040-01-167-8309	5	34
3020-01-167-8310	9	3
1005-01-167-8311	17	26
3040-01-167-8313	24	5
3020-01-167-8318	5	1
3020-01-167-8319	5	8
3010-01-167-8322	5	7
3040-01-167-8326	20	4
3040-01-167-8327	5	6
3020-01-170-1852	17	59
1005-01-170-1982	17	27
1005-01-170-2185	17	34
3040-01-171-4858	5	3
3040-01-189-4369	5	33
5310-01-189-4452	24	4
1005-01-203-7464	5	28
1005-01-203-7818	17	37
3040-01-203-7819	17	22
5305-01-208-9826	17	56
5315-01-215-8515	3	2
3020-01-230-5774	4	22
5360-01-230-5828	23	2
5360-01-230-5829	23	3
3040-01-230-5850	23	6
3010-01-257-4237	17	61
5120-01-278-6889	27	6
5340-01-298-6735	4	2
3040-01-300-3155	4	10
3040-01-300-3156	4	31
1005-01-300-4233	17	33
3040-01-302-6790	4	3
3040-01-302-8461	4	27
5340-01-304-6592	4	13
5210-01-329-4860	27	25
5360-01-337-4716	20	3
1005-01-339-7358	22	
5310-01-348-5776	3	4
5340-01-348-6604	1	10
1005-01-350-7957	3	1
1005-01-368-7904	16	7
1005-01-368-8280	19	8
3040-01-369-6635	20	2
5340-01-369-7282	20	16
5315-01-370-7212	6	2
5340-01-370-9476	1	11
5360-01-371-4630	16	4
5315-01-378-3181	13	8
3120-01-383-0084	16	5
1005-01-430-8942	19	2
1005-01-433-8405	2	4
6150-01-436-2306	5	15
4320-01-436-2802	4	25
1005-01-441-3114	5	28
6105-01-443-8388	17	57
5120-01-445-8503	27	29
1005-01-446-2912	17	55

STOCK NUMBER	FIG.	ITEM
3120-01-448-4094	8	6
5340-01-449-3776	8	4
5340-01-449-3778	15	5
5120-01-452-3364	27	30
5120-01-452-5904	27	24
1005-01-454-0397	17	64
1005-01-454-0398	17	14
5360-01-454-1628	21	3
5360-01-454-6321	21	6
5340-01-454-6324	22	16
1005-01-454-8489	17	5
1005-01-455-2117	17	2
3020-01-455-5635	20	12
5340-01-456-2556	5	9
3040-01-456-4503	4	31
3040-01-456-4504	4	10
3040-01-456-4507	4	3
1005-01-456-4513	4	15
3040-01-456-4515	4	27
3010-01-456-5351	17	61
3020-01-456-5352	17	59
1005-01-456-5353	23	5
3020-01-456-5354	23	6
5360-01-456-5355	23	3
5360-01-456-5356	23	2
5360-01-456-5357	23	4
1005-01-456-9098	4	2
5315-01-460-4916	25	3
5945-01-460-5121	5	14
1005-01-461-5038	2	2
1005-01-464-9432	1	2
1005-01-465-3466	1	1
5340-01-468-2673	26	11
3120-01-468-2925	14	6
5305-01-468-7068	6	7
5320-01-468-9764	26	10
1005-01-471-0097	17	55
5305-01-473-2755	17	45
5315-01-480-9189	4	35
4933-01-510-5664	27	28
1005-01-523-7487	4	4
1005-01-523-7487	4	11
1005-01-523-7487	4	28
1005-01-523-7487	4	32

END OF WORK PACKAGE

UNIT AND DIRECT SUPPORT MAINTENANCE

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

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	5	12
	16	3
	17	24
B18-3-1AH060020D	4	23
	5	41
	7	1
	9	4
B18-3-1AH060025D	4	14
	5	36
	17	62
B18-3-1AH060035D	17	21
	27	2
B18-3-1AH080030D	4	9
	5	10
	17	6
B18-3-1AH080100D	17	56
B1836A100100FNH	17	45
MS16536-238	12	3
MS16562-66	20	9
	25	2
MS16624-1025	22	23
MS16625-1068	17	7
MS16631-1244	5	23
MS16633-1031	4	36
MS19070-093	3	3
MS20002-4	5	21
	16	2
MS20066-249	9	1
MS20392-2C19	17	20
MS20392-3C39	16	6
	17	11
MS20392-4C41	17	3
MS20426AD2-6	14	10
MS20427M4-10	8	7
MS20427M4-12	8	8
MS20427M4-14	8	9
MS20427M4-7	8	5
MS20615-4M9	15	6
MS21042-02	14	8
MS21042-04	6	3
MS21069L02	14	9
MS24585-1061	17	38
MS24585-1117	20	3
MS24585-1136	5	18
	7	3
MS24585-1139	10	1
MS24585-1281	17	10
MS24665-132	16	8
	17	9
MS24665-283	17	1
	22	1
MS28774-112	22	18
MS3217-1066	5	39
MS3217-1075	22	13
MS51001-12-3	13	10
MS51957-8	14	4
MS51959-8	5	16
	14	3
MS9176-20	15	7
MS9466-19	17	53
M25988/1-022	20	1
M2742620105D	17	17
M83248/1-010	7	6
	22	21
M83248/1-112	22	19
M83248/1-113	22	6
M83248/1-130	22	7
M83248/1-211	22	14
M83248/1-902	22	4
NAS1611-326	17	4
	22	2
NAS620-416	12	4
1227-6	27	11
12524008	1	1
12524008-1	1	2
12524013	1	8
12524014	1	9
12524020	1	4
12524021	27	1
12524021-1	27	3
12524027	27	4
12524030	22	
12524031	27	5
12524035	27	
12524070	17	26
12524071	5	1
12524072	5	8
12524073	5	3
12524074	5	6
12524075	5	29
12524076	5	33
12524079	5	34
12524080	5	28
12524083	5	7
12524084	11	1

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12524085	17	34
12524089	17	27
12524090	24	5
12524092	24	1
12524096	12	2
12524097	12	6
12524098	12	5
12524099	5	11
12524100	2	1
12524100-1	2	2
12524102	4	8
12524103	4	7
12524107	17	25
12524109	17	33
12524110	4	24
12524115	4	6
12524116	4	34
12524122	15	5
12524134	4	19
12524136	4	26
12524137	4	17
12524138	4	18
12524146	17	61
12524147-1	23	2
12524147-2	23	3
12524148	23	6
12524155	4	21
12524159	4	22
12524164	10	2
12524165	17	37
12524166	17	22
12524169	7	7
12524170	5	28
12524172	16	7
12524174	5	14
12524176	27	6
12524180	4	30
12524187	10	3
12524189	5	27
12524191	7	5
12524196	8	1
12524197	8	2
12524198	8	4
12524199	5	31
12524206	5	30
12524207	7	2
12524208	5	22
12524209	5	42
12524210	5	43
12524211	13	7
12524212	15	3
12524213-11	13	4
12524213-15	15	2
12524213-3	14	7
12524213-5	13	9
12524213-7	8	6
12524213-9	13	3
12524215	15	1
12524216	14	6
12524218	5	32
12524224	5	5
12524228	5	25
12524230	5	4
12524235	5	40
12524242	5	35
12524250	5	24
12524251	9	2
12524253	5	26
12524254	9	5
12524256	9	3
12524257	17	59
12524258	4	35
12524260	5	37
12524261	14	2
12524262	14	1
12524263	5	38
12524268	15	8
12524269	15	4
12524275	5	17
12524280	5	19
12524288	11	3
12524290	5	2
12524291	11	1
12524292	17	47
12524295	17	48
12524300	2	3
12524301	2	3
12524302	17	23
12524303	17	67
12524305	17	8
12524306	17	50
12524308	17	52
12524312	23	1
12524313	23	5
12524320	18	2
12524321	19	4
12524323	19	7
12524331	19	1
12524332	19	3
12524333	19	2
12524335	19	5
12524338	19	6
12524340	17	16
12524343	17	12
12524346	17	43
12524350	17	15
12524358	17	46
12524359	17	18
12524360	17	55
12524361	26	2
12524362	17	64
12524363	17	66
12524364	17	55
12524365	26	1
12524366	26	1
12524368	26	11
12524370	17	14
12524371	25	3
12524372	25	1
12524379	17	13

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12524380	18	1
12524381	20	5
12524384	20	4
12524385	20	14
12524389	20	8
12524390	20	10
12524392	20	13
12524393	20	11
12524394	20	20
12524395	20	19
12524398	20	6
12524402	27	24
12524403	5	15
12524403-1	6	7
12524403-7	6	6
12524403-8	6	5
12524404	5	13
12524407	20	12
12524409	17	57
12524419	17	19
12524420	17	5
12524424	22	3
12524425	21	1
12524426	21	3
12524430	21	2
12524431	21	6
12524433	17	36
12524434	21	4
12524435	22	16
12524436	21	5
12524437	22	5
12524438	22	8
12524440	22	10
12524441	22	9
12524442	22	12
12524450	17	71
12524459	17	69
12524460	17	39
12524461	17	35
12524463	17	28
12524464	17	41
12524465	17	32
12524466	17	29
12524469	22	22
12524470	17	40
12524471	22	20
12524474	5	20
12524476	1	5
12524481	1	7
12524482	1	6
12524483	27	7
12524484	4	27
12524485	4	3
12524486	4	10
12524487	4	31
12524488	4	13
12524489	4	2
12524491	3	1
12524492	3	4
12524493	3	2

PART NUMBER	FIG.	ITEM
12524498	1	3
12524506	22	
12524508	1	11
12524509	3	5
12524512	19	8
12524519	1	10
12524520	2	4
12524522	20	16
12524523	20	2
12524524	4	20
12524525	16	4
12524526	16	5
12524527	17	14
12524528	25	1
12524529	17	2
12524530	17	5
12524531	21	3
12524532	21	6
12524533	21	1
12524534	22	16
12524539	4	25
12524542	17	61
12524543-1	23	2
12524543-2	23	3
12524543-3	23	4
12524544	23	6
12524545	23	1
12524546	23	5
12524549	17	59
12524574	4	15
12524575	5	9
12524576	4	27
12524577	4	31
12524578	4	3
12524579	4	10
12524580	4	29
12524581	4	33
12524582	4	5
12524583	4	12
12524584	4	2
12524586	4	4
12524586	4	11
12524586	4	28
12524586	4	32
12524602-1	13	1
12524602-1	26	6
12524602-2	7	10
12524602-2	13	2
12524602-2	26	5
12524602-3	7	4
12524602-3	13	11
12524602-3	17	65
12524602-3	26	3
12524602-4	26	4
12524603	14	5
12524604	6	2
12524605	17	58
12524606	17	68
12524607	17	70
12524610-1	20	18

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12524610-2	24	4
12524611	12	1
12524612-1	26	7
12524612-2	26	9
12524613	26	8
12524614-1	26	10
12524614-3	26	10
12524617-1	4	16
12524617-1	7	8
12524617-1	16	1
12524617-3	17	63
12524618-1	11	2
12524618-1	17	30
12524618-1	20	15
12524618-2	10	4
12524618-2	24	3
12524618-6	17	42
12524619-2	13	8
12524619-5	24	2
12524619-6	17	54
12524619-8	12	7
12524623	17	72
12524624-1	22	15
12524624-2	13	5
12524628-1	20	17
12524628-10	11	4
12524628-3	22	11
12524628-4	17	44
12524628-7	17	31
12524628-8	17	49
12524628-8	20	7
12524628-9	22	17
12524630-2	17	51
12524631-2	7	9
12524632	13	6
12524639	6	4
12524644	6	1
12535035	27	25
4184-10CNW 0150	27	22
4184-6CNW 0060	27	21
4184-6CNW 0090	27	19
4184-8CNW 0120	27	20
4342-10	27	12
4342-6	27	13
4342-8	27	14
465-0728	27	29
465-0733	27	28
465-0723	27	30
4693-10	27	8
4693-6	27	10
4693-8	27	9
5601-332	27	18
7751-10	27	15
7751-6	27	16
7751-8	27	17
8436800-14	9	6
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UNIT

M242 25-MM AUTOMATIC GUN
(NSN 1005-01-086-1400)
M242 25-MM ENHANCED AUTOMATIC GUN
(NSN 1005-01-454-0396)

EXPENDABLE AND DURABLE ITEMS LIST

This work package lists expendable and durable items that you will need to operate and maintain the M242 automatic gun. This list is for information only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-970, Expendable/Durable Items (Except Medical, Class V Repair Parts, and Heraldic Items), or CTA 8-100, Army Medical Department Expendable/Durable Items.

Explanation of Columns in the Expendable/Durable Items List

Column (1)-Item Number. This number is assigned to the entry in the list and is referenced in the set-up table to identify the item (e.g., Damper Fluid (item 18, WP 0116 00)).

Column (2)-Level. This column identifies the lowest level of maintenance that requires the listed item (O-Unit Maintenance).

Column (3)-National Stock Number (NSN). This is the NSN assigned to the item which you can use to requisition it.

Column (4)-Item Name, Description, Commercial and Government Entity Code (CAGEC), and Part Number (P/N). This column provides the other information you need to identify the item.

Column (5)-Unit of Measure (U/M). This code shows the physical measurement or count of an item, such as gallon, dozen, gross, etc.

Table 1. Expendable and Durable Items List

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) ITEM NAME, DESCRIPTION, CAGEC,PART NUMBER	(5) U/M
1	O	8030-00-180-6222	Adhesive 80244 MIL-R-46082 TY 1 50cc bottle	CC
2	F	8040-01-121-8088	Adhesive 80244 A-A-3097 TY 1CL1 4 oz tube	OZ
3	O	N/A	Block, Wooden	EA
3.1	O,F	8125-01-134-5409	Bottle, Applicator 05668, 06053-61	EA
4	O,F	7920-00-514-2417	Brush, Acid Swabbing 80244 7920-00-514-2417 Gross	EA
5	O,F	5350-00-246-0330	Cloth, Abrasive Grit 320 Alum Oxide 80204 ANSI B74.18, 50 pg	EA
6	O	8030-00-059-2761	Compound, Antiseize 81349 MIL-A-907 0.25 lb can	LB
7	O,F	8135-01-286-6449	Cushioning Material, Packaging 81348 PPP-C-1797 225 inch roll	IN
8	O,F	8010-00-297-0547	Enamel, Black Color Lusterless 58536 A-A-2962A 1 gal can	GL
9	O,F	8010-00-598-5460	Enamel, Sand Color Lusterless 58536 A-A-2962A 1 gal can	GL
10	O,F	9150-01-056-7346	Fluid, Damper 71984 DC510-100CS,8LB 8 lb container	LB
11	O,F	9150-00-223-4004	Grease, Molybdenum Disulfide 81349 MIL-G-21164 6.5 lb can	LB
12	O,F	7510-00-469-7910	Ink, Black Stencil 58536 A-A-208, 1 pt can	PT
13	O	9150-01-360-1906	Lubricant, Solid Film 81349 MIL-L-46147 16 oz can	OZ

Table 1. Expendable and Durable Items List - Continued

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) ITEM NAME, DESCRIPTION, CAGEC, PART NUMBER	(5) U/M
14	O	9150-00-231-2361	Lubricating Oil, General 81349 M3150-02-PL-M 1 qt can	QT
15	O	9150-00-292-9689	Lubricating Oil (LAW) 79550 BRAYC0855 1 qt can	QT
16	O,F	8135-00-985-7242	Paper, Volatile, Corrosion Inhibitor Treated 81349 MIL-P-3420 100 ft roll	FT
17	O	9150-00-261-7899	Penetrating Oil 81348 A-A-50493 1 pt can	PT
18	O	5315-00-194-2455	Pin, Lock 58536 AA55487-2 100 pk	EA
19	F	8010-00-899-8825	Primer, Coating, Zinc Chromate TT-P-1757 1 pt can	PT`
20	O	8030-00-900-2373	Primer, Sealing Compound Grn ASTMD5363 (81346) 4 oz bottle	OZ
21	O,F	7920-00-205-1711	Rag, Wiping 80244 7920-00-205-1711 50 lb bale	LB
22		Deleted		
23	F	9515-00-003-6943	Shim Stock, Laminated 81349 MS22499/3-005 1 sheet (4 ft x 20 in.)	SH
24	O,F	8105-01-235-5478	Sleeve, Interior Packaging 81349 MIL-B-117 90x40 in. - (receiver)	EA
25	O,F	8105-01-235-2685	Sleeve, Interior Packaging 81349 MIL-B-117 26x36 in. – (feeder)	EA

Table 1. Expendable and Durable Items List - Continued

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) ITEM NAME, DESCRIPTION, CAGEC, PART NUMBER	(5) U/M
26	O,F	8105-00-840-5111	Sleeve, Interior Packaging 81349 MIL-B-117 10x7200 in. roll – (barrel)	IN
27	O	6850-00-281-1985	Solvent, Dry Cleaning 58536 A-A-711 1 gal can	GL
28	O	1005-00-288-3565	Swab, Small Arms 19204 5019316 1000 package	EA
29	O,F	7510-00-074-5160	Tape, Pressure Sensitive Adhesive 81348 PPP-T-60 60 yd roll	YD
30	O,F	7510-00-266-6694	Tape, Pressure Sensitive Adhesive 58536 A-A-883 60 yd roll	YD
31	O,F	7510-00-802-8311	Tape, Pressure Sensitive Adhesive 81346 ASTM D 5330/D 5330M 60 yd roll	YD
32	O	4710-00-203-7789	Tube, Metallic (Alum Alloy 8 x 5/8 in.) 81348 WW-T-700-6 1 tube (120 to 144 inches)	FT
33	O	9505-00-221-2650	Wire, Nonelectrical Cres, 0.020 in. 96906 MS20995C20 1 spool	LB
34	O	9505-00-293-4208	Wire, Nonelectrical Cres, 0.032 in. 00624 900010-32C 1 spool	LB

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By Order of the Secretary of the Army:

ERIC K. SHINSEKI
General, United States Army
Chief of Staff

Official:

JOEL B. HUDSON
Administrative Assistant to the
Secretary of the Army
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PART I - ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS

PUBLICATION/FORM NUMBER	DATE	TITLE
TM 9-1005-200-23&P	11 June 2001	Unit and Direct Maintenance Manual for Gun, Automatic: 25-MM M242 & Gun, Enhanced Automatic: 25-MM, M242

ITEM	PAGE	PARA	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON
1.	0077 00-1					Change Primer to Sealing Compound in set up table and throughout task where applicable. Steps are out of order. Steps 5 and 6 need to be reversed.
2.	0080 00-6					

SAMPLE

** Reference to line numbers within the paragraph or subparagraph.*

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samPART II - REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS

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TM 9-1005-200-23&P	11 June 2001	

PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBERE	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION

SAMPLE

PART III – REMARKS *(Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)*

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ITEM	**PAGE**	**PARA**	**LINE**	**FIGURE NO.**	**TABLE**	**RECOMMENDED CHANGES AND REASON**

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