

**ARMY TM 9-1015-232-23&P**  
**MARINE CORPS TM 00517A/09922A-23&P**

Supersedes copy dated 4 February 1966.  
See page i for details.

CHANGE 1 1 SEPTEMBER 1994 ■

TECHNICAL MANUAL

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

FOR

**107-MM MORTAR TURNTABLE AND MOUNT**

**(10885903) (EIC:N/A),**

**81-MM MORTAR TURNTABLE AND MOUNT**

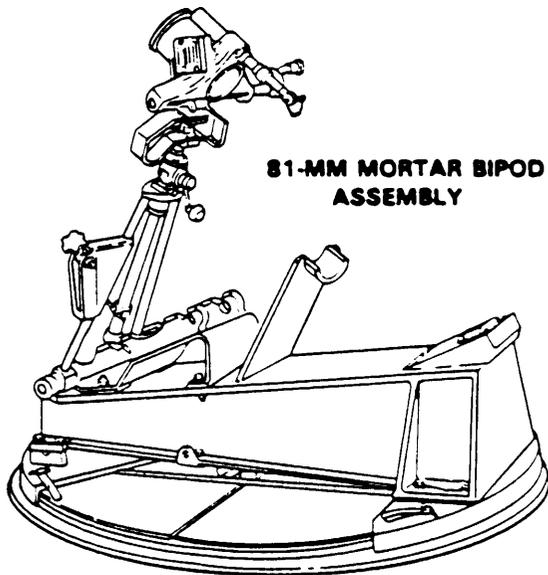
**(10885812) (EIC:N/A),**

**81-MM MORTAR BIPOD ASSEMBLY**

**(10918100) (EIC:N/A), AND**

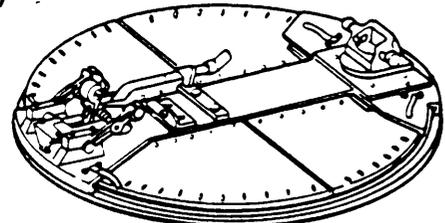
**120-MM MORTAR TURNTABLE AND MOUNT**

**(12901150) (EIC:N/A)**

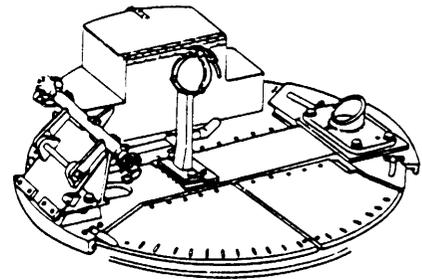


**81-MM MORTAR BIPOD  
ASSEMBLY**

**81-MM MORTAR TURNTABLE AND MOUNT**



**107-MM MORTAR TURNTABLE  
AND MOUNT**



**120-MM MORTAR TURNTABLE  
AND MOUNT**

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**APRIL 1989**

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## WARNING

- Solvent cleaning compound and paint thinners are flammable. Do not use near an open flame or in a smoking area. Use in a well-ventilated area. When used without protective gloves, these chemicals may cause irritation to, or cracking of, the skin. Personnel should wear eye protection and be careful.
- Melted nylon rope can cause severe burns. To avoid personal injury, use extreme care when burning rope ends.
- The turntable is extremely heavy. To avoid personal injury, use four crewmen to remove or install the turntable from/to the carrier.
- Two crewmen are required to remove or install the mortar mount from the turntable.
- Compression helical spring in recoil buffer assembly is under tension. Be careful that spring does not fly off and cause injury during disassembly procedures.
- Avoid injury from flying metal chips. Use a screen and/or proper eye protection.

### Chemical Agent Resistant Coating (CARC) Paint

CARC paint contains Isocyanate, a constituent that can cause respiratory effects during and after the application of the material. During the application of CARC paint, coughing, shortness of breath, pain on respiration, increased sputum, and chest tightness may occur. CARC paint also produces itching and reddening of the skin, a burning sensation of the throat and nose, and watering of the eyes.

An allergic reaction may occur after initial exposure (ranging from a few days to a few months later), producing asthmatic symptoms including coughing, wheezing, tightness in the chest, or shortness of breath.

The following precautions must be observed to ensure the safety of personnel when CARC paint is applied.

- For brush/roller painting in confined spaces, an airline respirator is required, unless an air sampling shows exposure to be below standards. If the air sampling is below standards, either chemical cartridge or airline respirators are required.
- Spot painters applying CARC paint by brush or roller must wear clothing and gloves affording full coverage.
- Do not use water, alcohol, or amine based solvents to thin or remove CARC paints. Use of these solvents with CARC paints can produce chemical reactions resulting in nausea, disease, burns, or severe illness to personnel.
- Do not use paint solvents to remove paint/coating from your skin.
- Mix paint/coating in a well ventilated mixing room or spraying area away from open flames. Personnel mixing paint/coating should wear eye protection.

- Use paint/coating with adequate ventilation.
- Personnel grinding or sanding on painted equipment should use high efficiency air purifying respirators.
- Do not weld or cut CARC-coated metal because substances causing skin or respiratory irritation may be released. Before applying any heat, sand or grind the paint down to bare metal on an area four inches to either side of where the heat is to be applied. Remove paint from the other side of the metal, if it is painted.
- For first aid information, refer to FM 21-11.

CHANGE

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
HEADQUARTERS  
US MARINE CORPS

No. 1

WASHINGTON D.C., 8 February 1995

UNIT AND INTERMEDIATE DIRECT SUPPORT  
MAINTENANCE MANUAL  
(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)  
For  
107-MM MORTAR TURNTABLE AND MOUNT  
(10885903) (EIC:N/A),  
81-MM MORTAR TURNTABLE AND MOUNT  
(10885812) (EIC:N/A),  
81-MM MORTAR BIPOD ASSEMBLY  
(10918100) (EIC:N/A), AND  
120-MM MORTAR TURNTABLE AND MOUNT  
(12901150) (EIC:N/A)

Army TM 9-1015-232-23&P, Marine Corps TM 00517A/09922A-23&P, April 1989, is changed as follows:

1. Remove old pages and insert new pages as indicated below.
2. New or changed material is indicated by vertical bar in the margin of the page.
3. New or changed illustrations are indicated by shading around the illustration or a pointing hand highlighting the change.

Remove Pages	Insert Pages
None	a and b
i thru iii/(iv blank)	i thru iv
None	(v blank)/1-0
1-1 thru 1-5/(1-6 blank)	1-1 thru 1-6
2-1 thru 2-24	2-1 thru 2-24
2-33 and 2-34	2-33 and 2-34
2-39 and 2-40	2-39 and 2-40
2-53 and 2-54	2-53 thru 2-54.18
2-57/(2-58 blank)	2-57/(2-58 blank)
3-1 thru 3-10	3-1 thru 3-10
3-13 and 3-14	3-13 and 3-14
None	3-43 thru 3-54
A-1 and A-2	A-1 and A-2
B-1 thru B-6	B-1 thru B-7/(B-8 blank)

Remove Pages

C-1 and C-2  
C-7 and C-8  
C-2-1 and C-2-2  
C-3-1 thru C-6-2  
C-16-1 thru C-17-1  
Bulk-1  
I-1 thru I-15  
D-1 thru D-3/(D-4 blank)  
Index 1 thru Index 8  
Front cover and warning page

Insert Pages

C-1 and C-2  
C-7 and C-8  
C-2-1 and C-2-2  
C-3-1 thru C-6-2  
C-16-1 thru C-23-1  
Bulk-1  
I-1 thru I-18  
D-1 thru D-3/(D-4 blank)  
Index 1 thru Index 10  
Front cover

File this sheet in the back of the manual for reference purposes.

**By Order of the Secretary of the Army:**

**GORDON R. SULLIVAN**  
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*Chief of Staff*

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*Administrative Assistant to the*  
*Secretary of the Army*

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**DISTRIBUTION:** To be distributed in accordance with DA Form 12-40-E, block 0602 requirements for TM 9-1015-232-23&P.

WASHINGTON, DC 11 April 1989

**Unit and Intermediate Direct Support Maintenance Manual  
(Including Repair Parts and Special Tools List)**

for  
**107-MM MORTAR TURNTABLE AND MOUNT  
(10885903) (EIC:N/A),  
81-MM MORTAR TURNTABLE AND MOUNT  
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120-MM MORTAR TURNTABLE AND MOUNT  
(12901150) (EIC:N/A)**

**Current as of 27 June 1994 for Appendix C**

**REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS**

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to: Director, Armament and Chemical Acquisition and Logistics Activity, ATTN: AMSTA-AC-MAS, Rock Island, IL 61299-7630. A reply will be furnished to you.

Marine Corps personnel submit NAVMC 10772 to: Commanding General, Marine Corps Logistics Base (Code 850), Albany, GA 31704-5000.

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\*This manual supersedes TM 9-1015-232-35, dated 4 February 1966, including all changes and mortar mount and turntable information previously found in TM 9-2300-257-20 dated 3 February 1969 and TM 9-2300-257-20P dated 1 May 1984.

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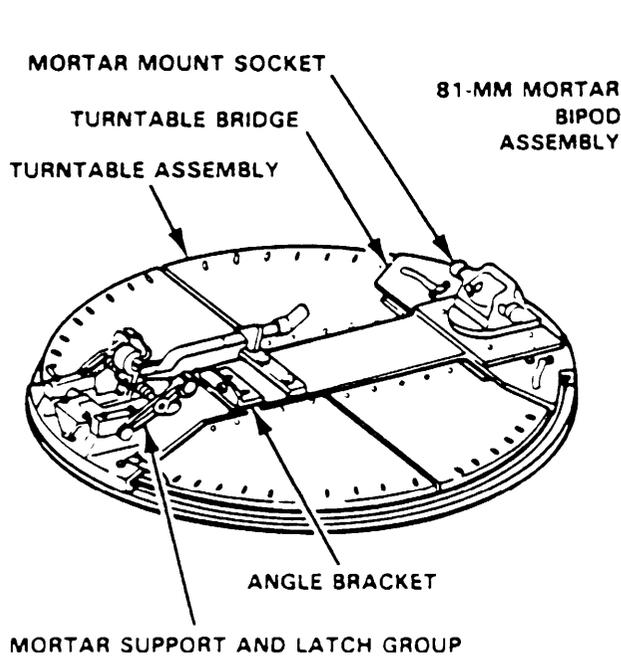
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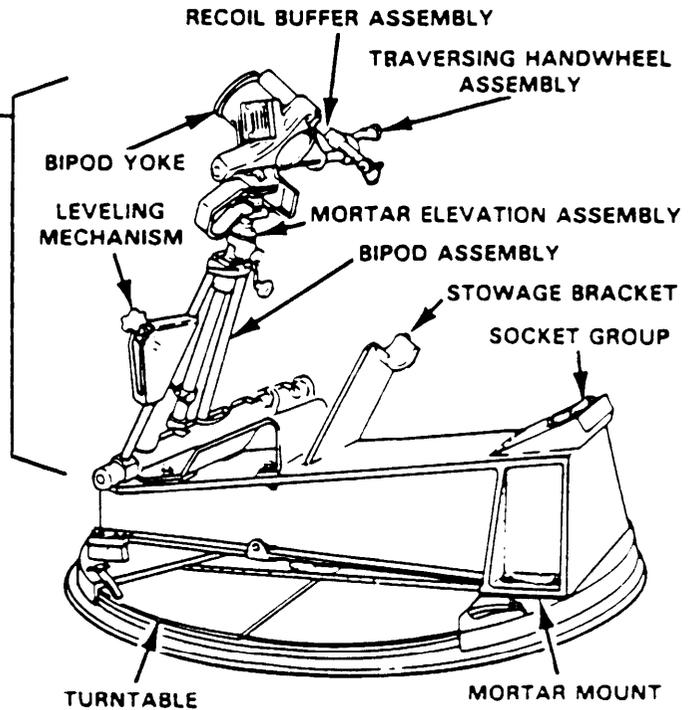
# CHAPTER 1

## INTRODUCTION

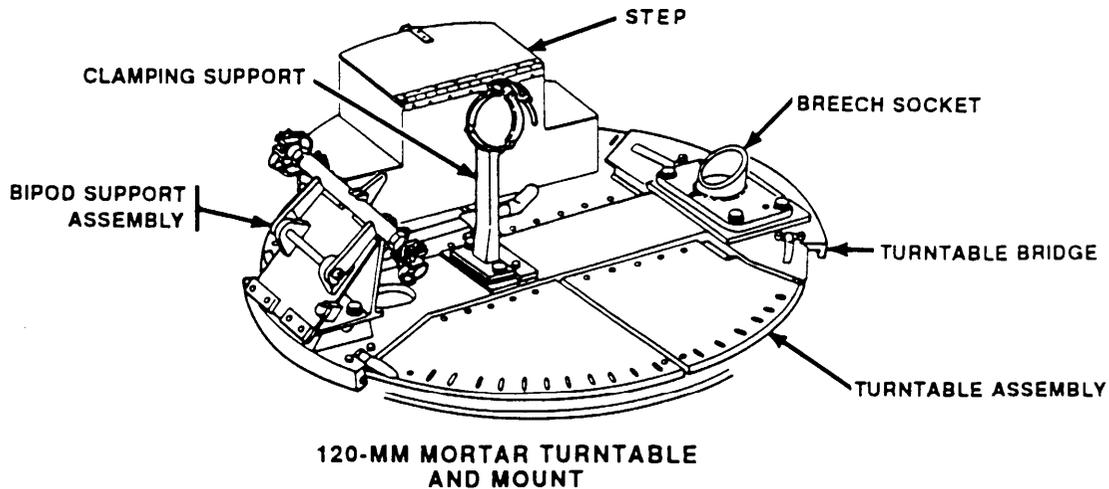
### Section I. GENERAL INFORMATION



107-MM MORTAR TURNTABLE AND MOUNT



81-MM MORTAR TURNTABLE AND MOUNT



120-MM MORTAR TURNTABLE AND MOUNT

**1-1. SCOPE.**

**a. Type of Manual.** Unit and Intermediate direct support maintenance (including repair parts and special tools list (RPSTL)).

**b. Model Number and Equipment Name.** 107-mm mortar turntable and mount, 81-mm mortar turntable and mount, 81-mm mortar bipod assembly, and 120-mm mortar turntable and mount. Maintenance of the sight extension arm assembly is also included.

**c. Purpose of Equipment.** When mounted on a carrier, equipment provides protected solid base for mortar.

**1-2. MAINTENANCE FORMS, RECORDS, AND REPORTS.**

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

**1-3. DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE.**

Refer to TM 750-244-7.

**1-4. PREPARATION FOR STORAGE OR SHIPMENT.**

For Information and procedures for administrative storage of equipment, refer to page 2-57. Marine Corps personnel refer to MCO P4450.7, Warehousing Manual.

**1-5. OFFICIAL NOMENCLATURE, NAMES, AND DESIGNATIONS.**

Nomenclature Cross-Reference List

<b>Common Name</b>	<b>Official Nomenclature</b>
--------------------	------------------------------

Barrel locking pin . . . . .	Headed straight pin
Bipod yoke . . . . .	Yoke assembly

Field maintenance, post, camp and station small arms shop set . . . . .	Small arms shop set: field maintenance, basic
Lock wire . . . . .	Wire, nonelectrical
Mortar bipod assembly . . . . .	81-mm mortar bipod assembly
Spring tension hook clip . . . . .	Actuator hook bracket
Traveling lock assembly . . . . .	Traveling assembly lock
Tread plate . . . . .	Vehicular floor plate
Turntable mount guard . . . . .	Turntable mechanical guard
81-mm mortar . . . . .	M29A1 mortar
81-mm mortar mount . . . . .	81-mm mortar turntable and mount
107-mm mortar . . . . .	4.2-inch, M30 mortar
107-mm mortar mount . . . . .	107-mm mortar turntable and mount
120-mm mortar . . . . .	M121 mortar
120-mm mortar mount . . . . .	120-mm mortar turntable and mount

**1-6. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR).**

If your 107-mm mortar turntable and mount, 81-mm mortar turntable and mount, 81-mm mortar bipod assembly, or 120-mm mortar turntable and mount 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 why you don't like the design. Put it on an SF 368 (Quality Deficiency Report). Mail it to us at Director, Armament and Chemical Acquisition and Logistics Activity, ATTN: AMSTA-AC-QAD, Rock Island, IL 61299-7630. We'll send you a reply. Marine Corps personnel use SF 368 in accordance with MCO 4855.10.

### 1-7. CORROSION PREVENTION AND CONTROL (CPC).

a. Corrosion Prevention and Control (CPC) of Army materiel 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 the future.

b. 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.

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

d. The form should be submitted to: Director, Armament and Chemical Acquisition and Logistics Activity, ATTN: AM STA-AC-QAD/ Customer Feedback Center, Rock Island, IL 61299-7630.

## Section II. EQUIPMENT DESCRIPTION AND DATA

### 1-8. EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES.

#### CHARACTERISTICS

- All mounts are vehicle mounted.
- All mounts allow rapid shifting of fire within traversing limits.

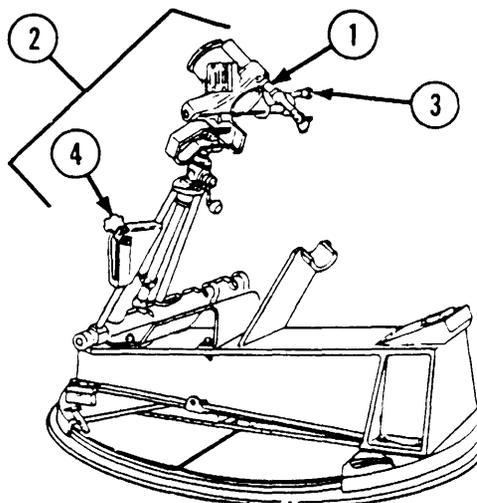
#### CAPABILITIES AND FEATURES

- 81-mm mortar mount has 360 degree traversing capabilities.
- 107-mm mortar mount traverse is limited by stops.
- 120-mm mortar mount traverse is limited by stops.

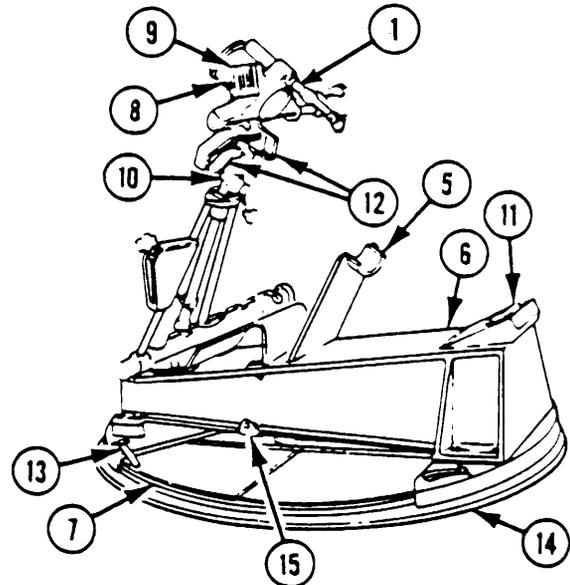
### 1-9. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS.

a. 81-mm Mortar Mount and Mortar Bipod Assembly.

- Recoil Buffer Assembly (1). Acts as a shock absorber in order to stabilize the weapon during firing.
- Mortar Bipod Assembly (2). Serves as a support and provides an elevating, leveling, and traversing mechanism for the weapon.
- Traversing Handwheel Assembly (3). Provides a means of making minor changes in deflection setting.
- Leveling Mechanism (4). Serves as a cant correction, enabling weapon to be leveled when firing from uneven ground.



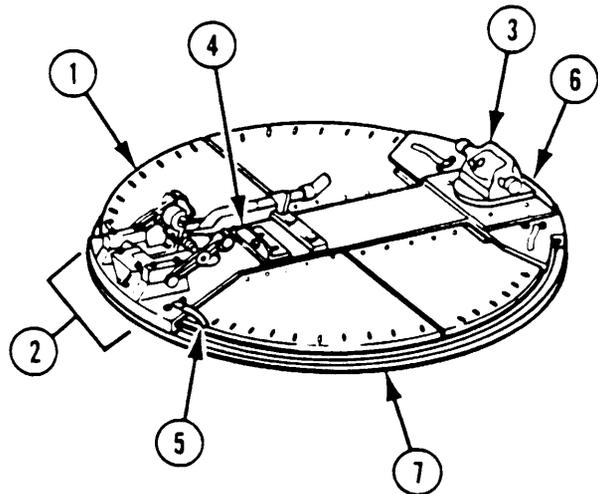
- **Stowage Bracket (5).** Serves as a travel lock to stow the weapon when out of action.
- **Mortar Mount (6).** Supports the weapon and bipod assembly.
- **Turntable (7).** Serves as a rotatable base for 81-mm mortar mount and mortar bipod assembly.
- **Bipod Yoke (8).** Supports the weapon; also provides bracket for support and function of recoil buffer assembly (1); contains sight socket key (9).
- **Mortar Elevation Assembly (10).** Elevates the weapon.
- **Socket Group (11).** Provides a base for the weapon.
- **Spring Set (12).** Allows bipod assembly to absorb shock.
- **Webbing Straps (13).** Four straps provide a handhold for crewmen to use in rotating turntable.



- **Internal Gear (14).** Provides base on which turntable rotates.
- **Eye Pad (15).** Two tiedown brackets to secure weapon in transit.

### b. 107-mm Mortar Mount.

- **Turntable Assembly (1).** Serves as a rotatable base for 107-mm mortar mount.
- **Mortar Support and Latch Group (2).** The mortar support and latch group locks the M24A1 mount assembly to the turntable.
- **Mortar Mount Socket (3).** Provides a base in which weapon rests.
- **Angle Bracket (4).** Provides a tiedown point for weapon in transit.
- **Webbing Straps (5).** Four straps provide a handhold for crewmen to use in rotating the turntable assembly.
- **Turntable Bridge (6).** Provides a platform for assemblies which support weapon.

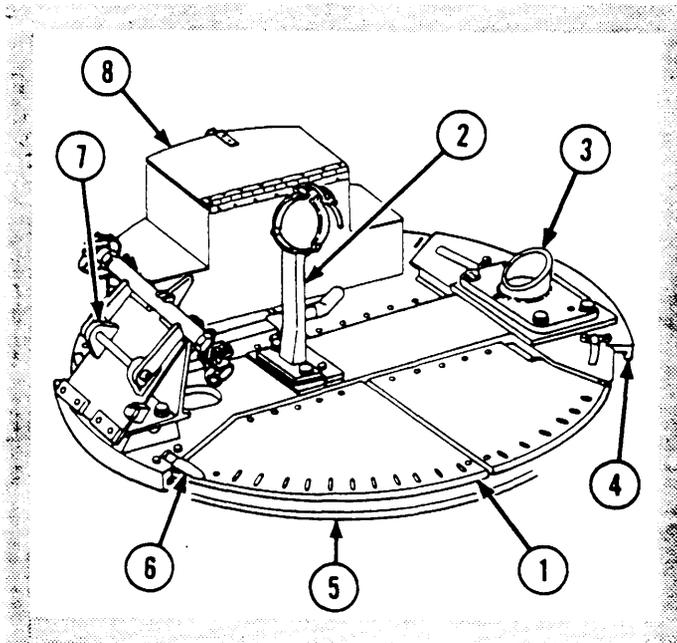


- **Internal Gear (7).** Provides base on which turntable assembly rotates and a positive locking surface for stops.

## 1-9. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS. (c0nt)

### c. 120-mm Motar Mount

- Turntable Assembly (1). Serves as a rotating base for 120-mm mortar mount.
- Clamping Support (2). Provides a secured support for cannon, while in the travel mode.
- Breech Socket (3). Provides a base in which weapon rests.
- Turntable Bridge (4). Provides a platform for assemblies which support weapon.
- Internal Gear (5). Provides base on which turntable assembly rotates and a positive locking surface for stops.
- Webbing Straps (6). Four straps provide a handhold for use in rotating or removing turntable assembly.
- Bipod Support Assembly (7). Provides attachment mounting for the M191 mortar mount.
- Step (8). Provides raised platform for assistant gunner when loading mortar.



## 1-10. DIFFERENCES BETWEEN MODELS.

a. The 107-mm mortar mount incorporates a turntable assembly with stops which limit traverse. It also has a mortar mount socket mounted on the turntable assembly.

b. The 81-mm mortar mount utilizes a mortar bipod assembly which has both elevating and traversing capabilities. The mortar bipod assembly is supported by a raised mortar mount bolted to the turntable. The 81-mm mortar mount has a 360 degree traverse capability and a stowage bracket upon which the weapon rests.

c. The 120-mm mortar mount incorporates a turntable assembly with stops which limit traverse. It also has a breech socket mounted on the turntable assembly.

d. The ring gear and turntable are identical on all systems. Travel stops are attached to the 107-mm and 120-mm system ring gear. The weapon mounting hardware on the turntable is determined by which mortar system is used.

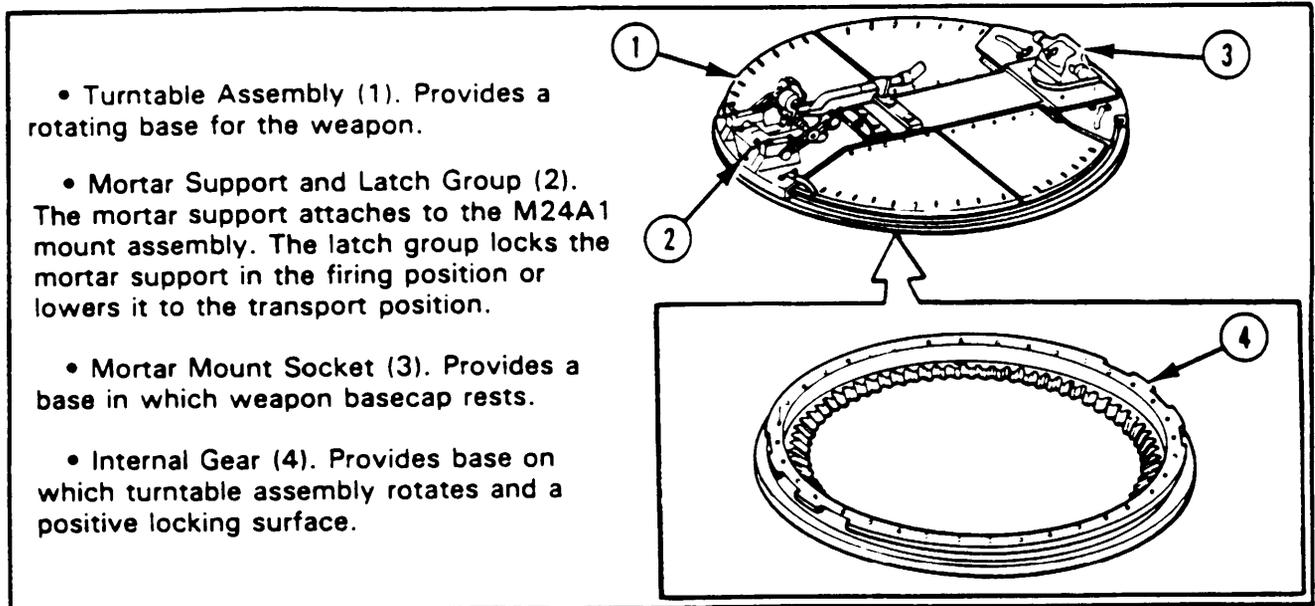
## 1-11. EQUIPMENT DATA.

Not applicable.

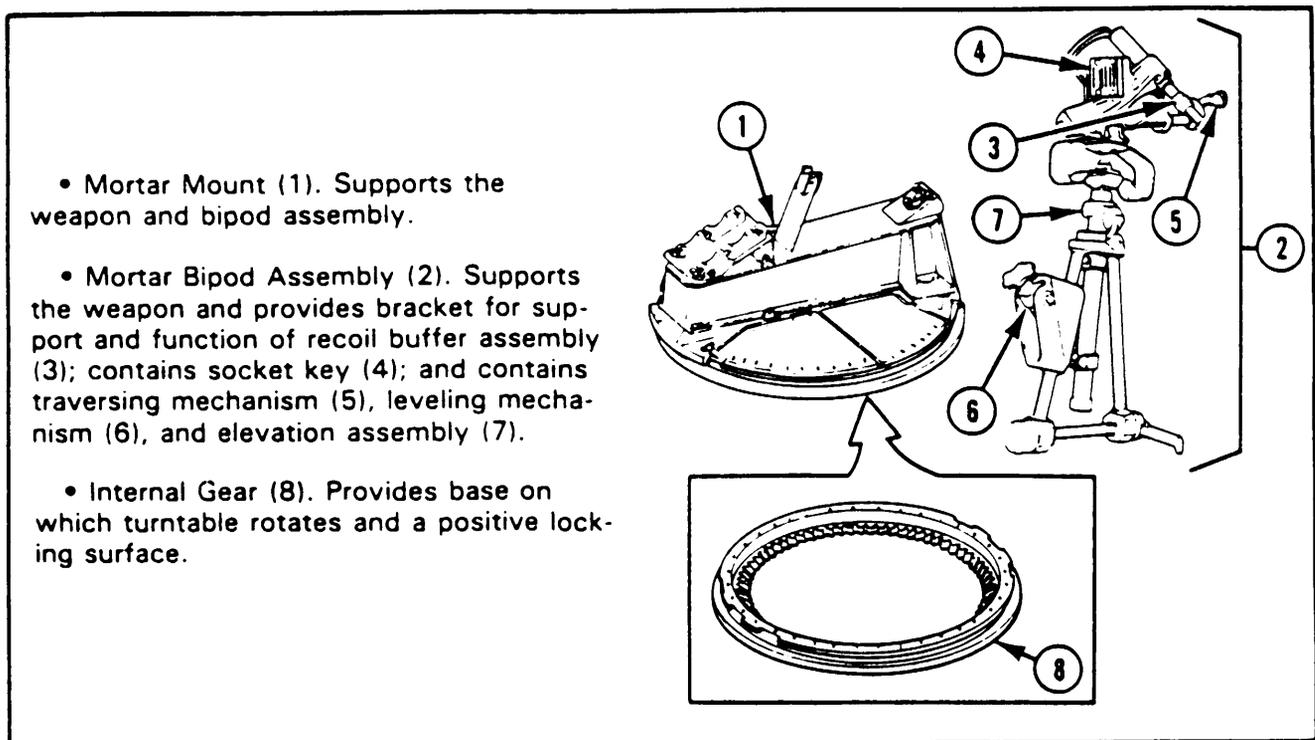
## Section III. PRINCIPLES OF OPERATION

### 1-12. PRINCIPLES OF OPERATION.

#### a. 107-mm Mortar Mount.



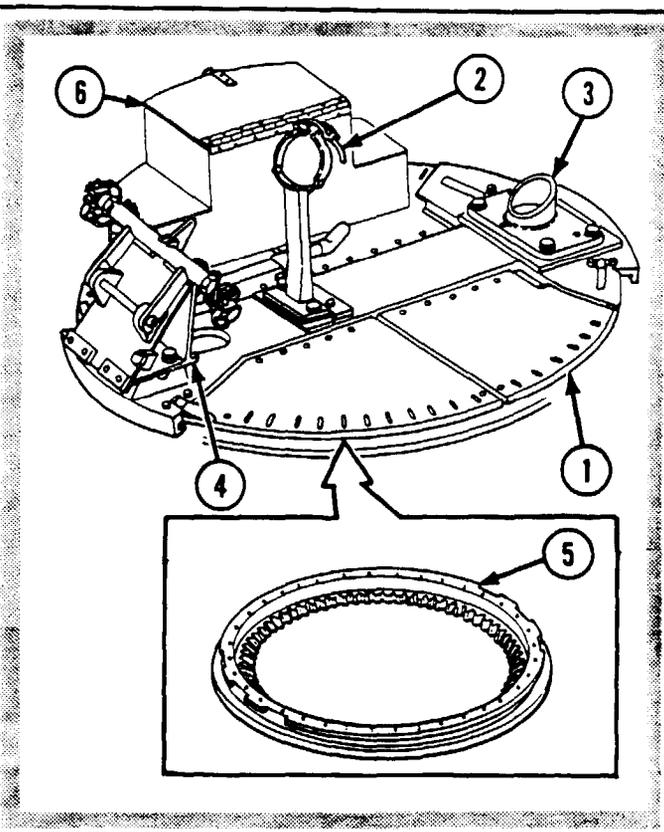
#### b. 81-mm Mortar Mount and Mortar Bipod Assembly.



## 1-12. PRINCIPLES OF OPERATION (cont).

### c. 120-mm Mortar Mount.

- Turntable Assembly (1). Provides a rotating base for weapon.
- Clamping Support (2). Supports and secures 120-mm cannon during system travel/storage.
- Breech Socket (3). Provides a base in which weapon breech cap rests.
- Bipod Support Assembly (4). Mounts attached M191 mortar mount; capable of high or low range elevation selection.
- Internal Gear (5). Provides base on which turntable assembly rotates and a positive locking surface.
- Step (6). Provides raised platform for assistant gunner when loading mortar.



## CHAPTER 2

# UNIT MAINTENANCE INSTRUCTIONS

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### Section I. LUBRICATION INSTRUCTIONS

#### 2-1. GENERAL.

a. Introduction. The lube instructions prescribe cleaning and lube Procedures to be done by unit or intermediate direct support maintenance and the proper materials to be used. The lube location is also included. An overall view showing lube points precedes the detailed notes. These lubrication instructions are mandatory.

#### b. General Lube Instructions.

**(1) Service Interval.** The service interval specified in the lube instructions is for normal operation and where moderate temperature, humidity, and atmospheric conditions prevail. In hot, humid, and dusty areas, or if snow or rain exists, lubricate and clean more frequently. Lubricate more during constant use and less during inactive periods.

**(2) Lubricating Equipment.** Use lubricant carefully to ensure proper distribution. Clean parts with solvent cleaning compound (item 8, app D). Dry before lubricating. DO NOT overlubricate. Wipe off excess lubricant.

**(3) Grease and Oil Points.** Oil holes are shown in the lube instructions. Wipe oil holes and the surrounding surfaces with a wiping rag before lubricant is applied.

#### WARNING

Solvent cleaning compound is flammable. Do not use near an open flame or in a smoking area. Use in a well-ventilated area. When used without protective gloves, this chemical may cause irritation to, or cracking of, the skin. Personnel should wear eye protection and be careful.

## LUBRICATION INSTRUCTIONS

Arrows in the Illustrations for the notes indicate lube points.

### LUBRICATION POINTS

GREASE  
GAA



LUBE  
GPL Oil or PL-S

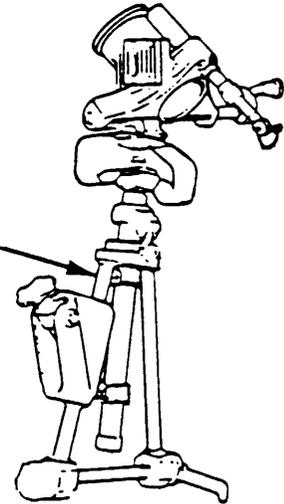
### KEY

LUBRICANTS	REFILL CAPACITY (APP)	EXPECTED TEMPERATURE		
		Above 32°F	+40° F to -10°F	0°F to -65°F
GPL Oil (MIL-L-31 50) -Lubricating 011, General Purpose (item 5, app D)	As Req'd	GPL Oil	PL-S	PL-S
PL-S (VV-L-100) -Lubricating Oil, General purpose (Special) (item 6, app D)	As Req'd			
GAA (MIL-G-0924) -Grease, Automotive and Artillery (item 4, app D)	As Req'd	All Temperatures		

## WEEKLY LUBRICATION

BIPOD ASSEMBLY  
(See note 1.)

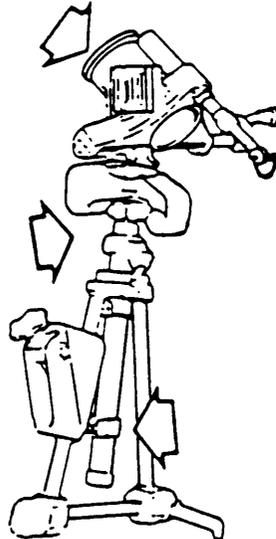
GPL Oil or PL-S (O)



## WEEKLY LUBRICATION NOTES

### NOTE 1

BIPOD ASSEMBLY (O)



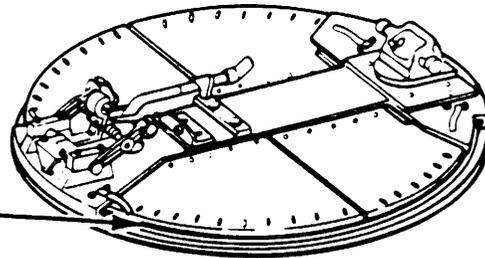
Lubricate with GPL oil or PL-S through flush-type fittings: yoke assembly body; mortar elevation assembly housing; and cover. Clean all moving parts and finished

surfaces with solvent cleaning compound and wipe dry with a clean wiping rag; then wipe with a wiping rag wet with GPL oil or PL-S.

## QUARTERLY LUBRICATION

**INTERNAL GEAR**  
 (See note 2.)

GAA (O)



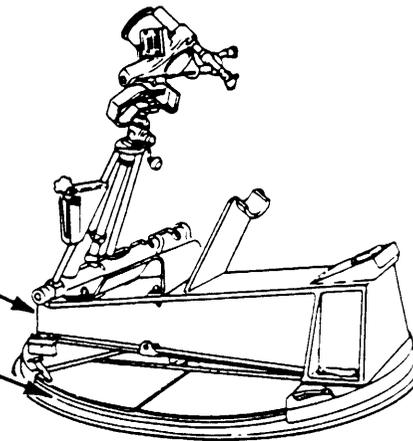
107-MM

**MORTAR MOUNT**  
 (See note 3.)

GAA (O)

**INTERNAL GEAR**  
 (See note 4.)

GAA (O)



81-MM

**CLEVIS ROD ENDS/SUPPORT HINGES**  
 (See note 5)

**AXLE BOLT**  
 (See note 6)

**CLEVIS ROD ENDS**  
 (See note 6)

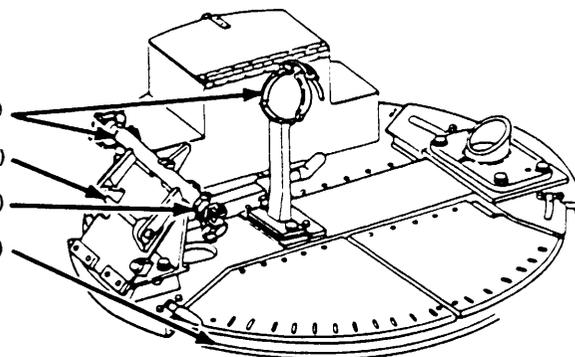
**INTERNAL GEAR**  
 (See note 7)

GPL (O)

GAA (O)

GAA (O)

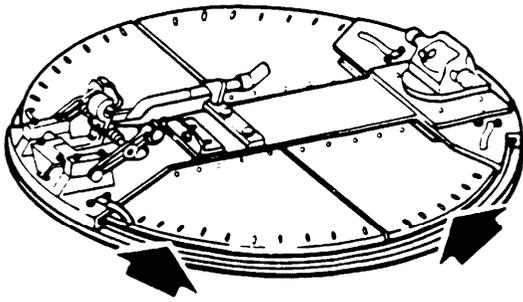
GAA (O)



### QUARTERLY LUBRICATION NOTES

#### NOTE 2

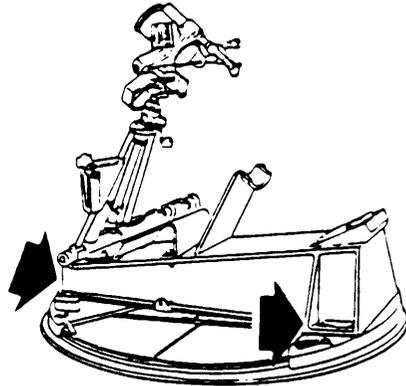
##### INTERNAL GEAR (O)



Apply light coat of GAA to top and inside bearing surfaces.

#### NOTE 3

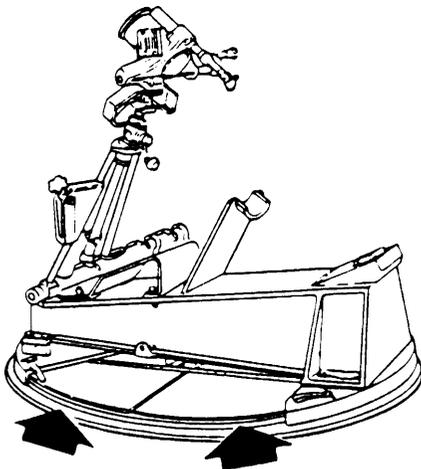
##### MORTAR MOUNT (O)



Grease surfaces of mortar mount that contact turntable bridge.

#### NOTE 4

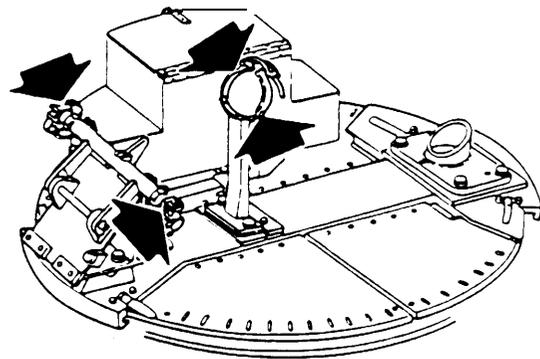
##### INTERNAL GEAR (O)



Apply light coat of GAA to top and inside bearing surfaces.

#### NOTE 5

##### CLEVIS ROD ENDS/SUPPORT HINGES (O)

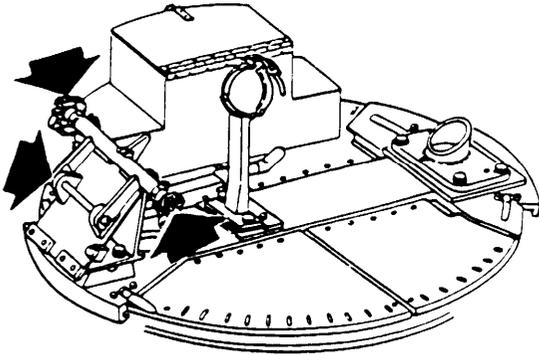


Lube swivel of clevis rod ends and support hinges with GPL.

QUARTERLY LUBRICATION NOTES (cont)

NOTE 6

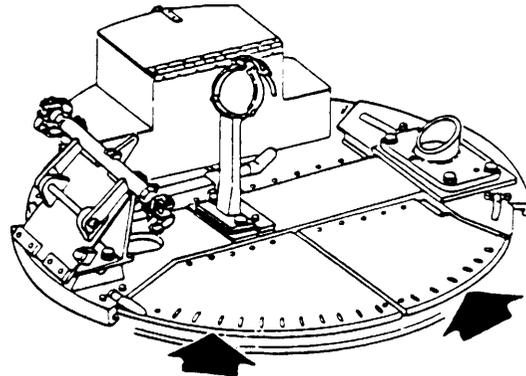
AXLE BOLT (O)



Lube axle bolt grease fitting and clevis rod end grease fittings with GAA.

NOTE 7

INTERNAL GEAR (O)

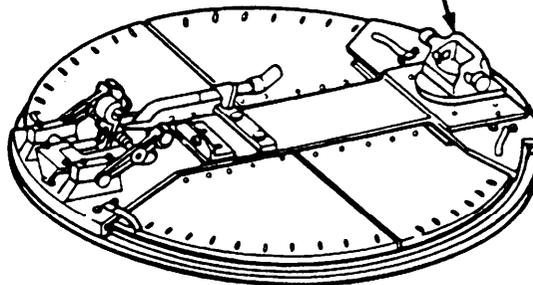


Apply light coat of GAA to top and inside bearing surfaces.

SEMI-ANNUAL LUBRICATION

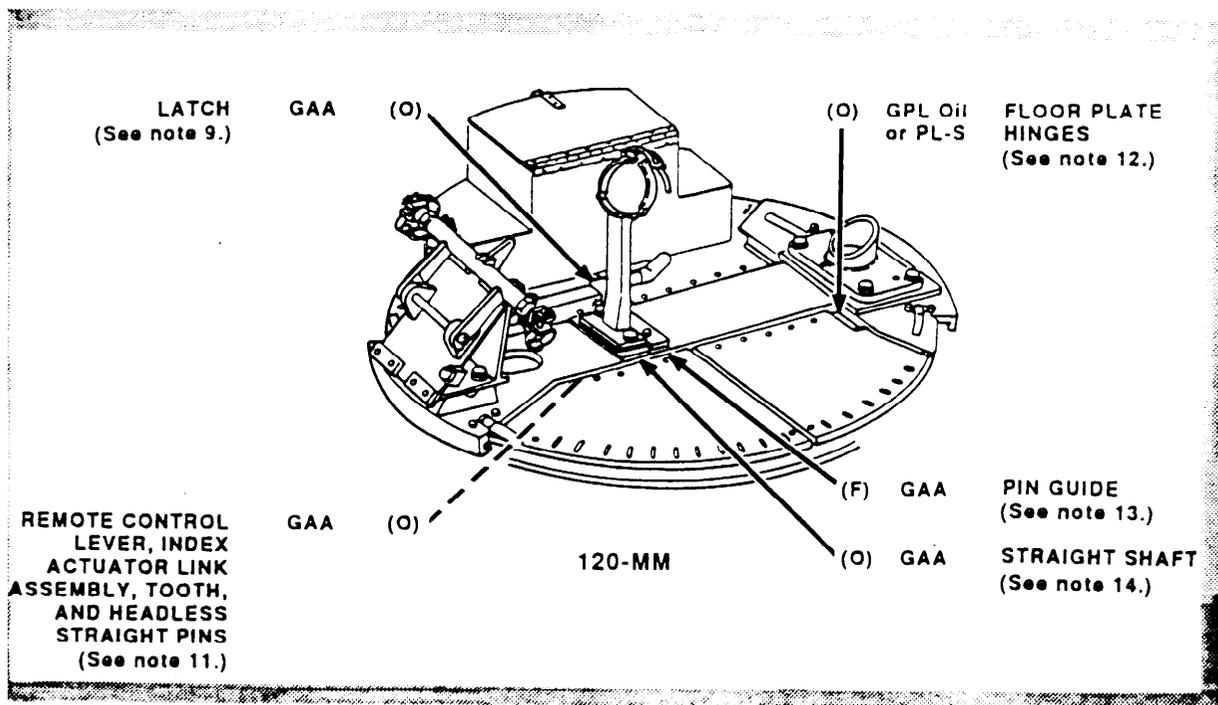
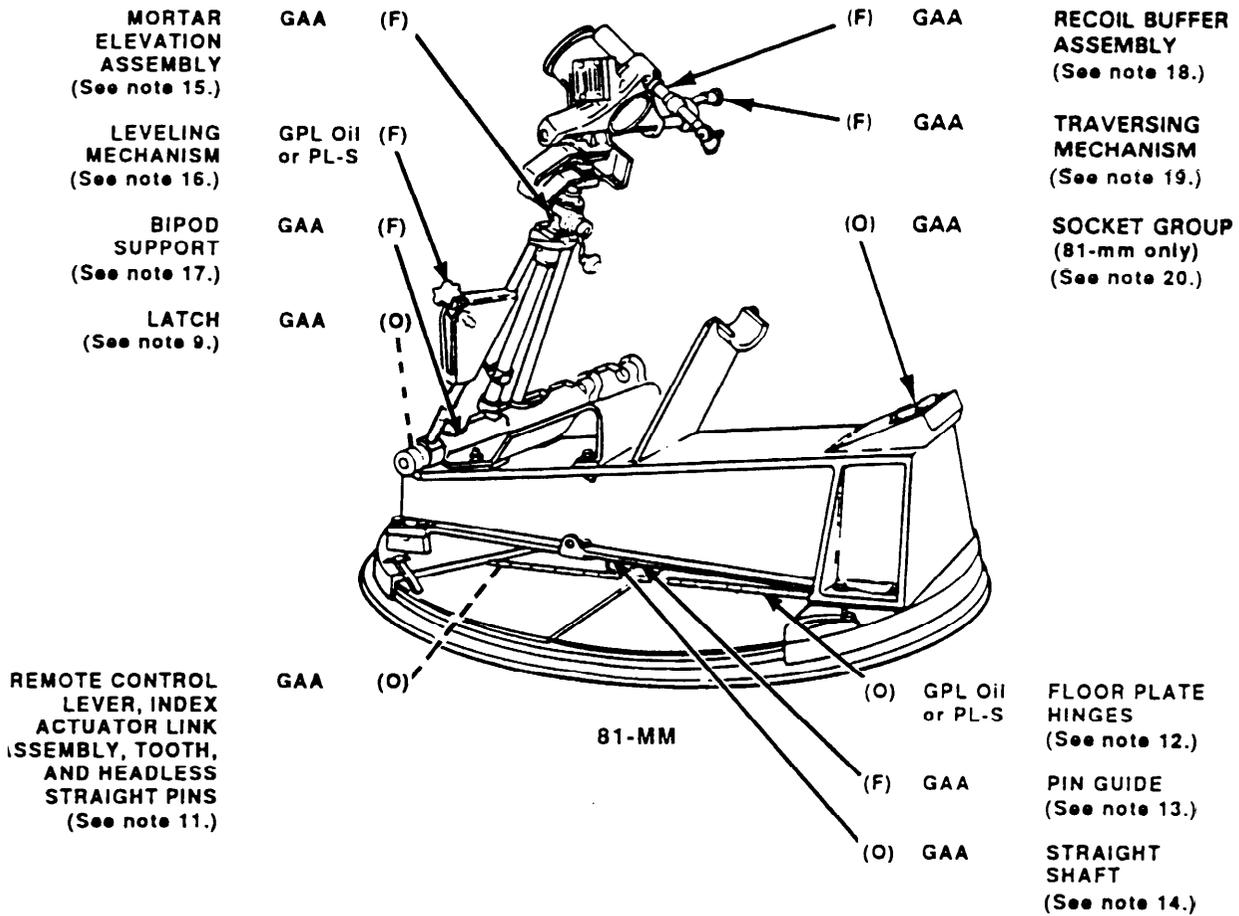
(F) GAA

MORTAR MOUNT  
SOCKET  
(107-mm only)  
(See note 8.)





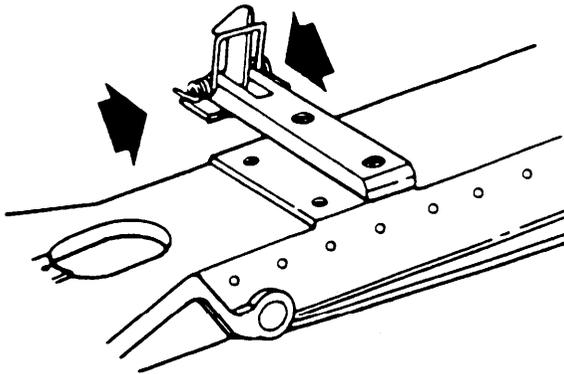
ANNUAL LUBRICATION (cont)



## ANNUAL LUBRICATION NOTES

### NOTE 9

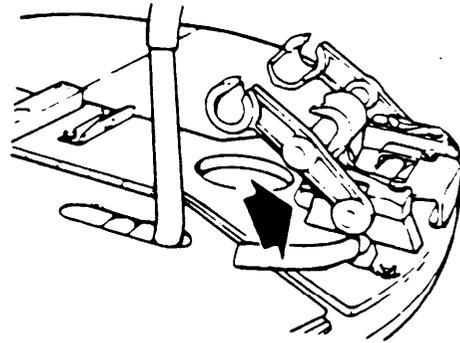
#### LATCH (O)



Remove latch and headless straight pin (p 2-23 and 2-40). Coat headless straight pin with GAA. Install latch and headless straight pin.

### NOTE 10

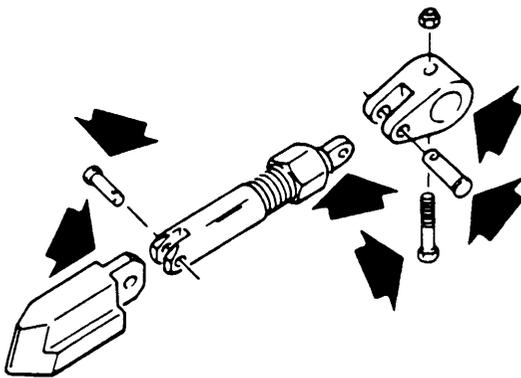
#### FRONT STANDARD SUPPORT CATCH (O) (107-MM ONLY)



Remove headless straight pin (p 2-23) from front standard support catch and coat with GAA. Install headless straight pin.

### NOTE 11

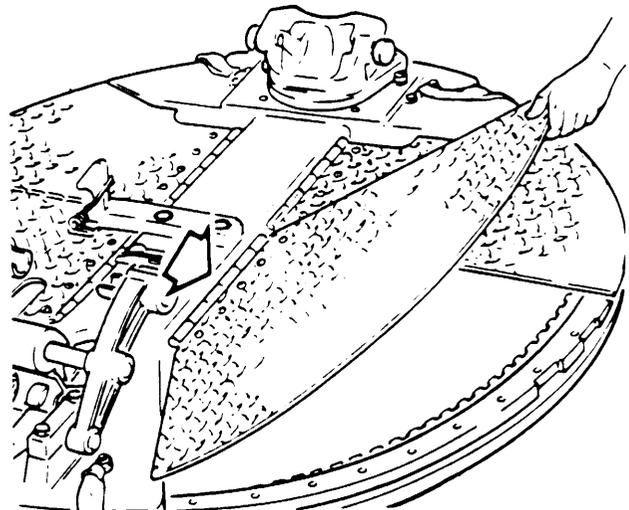
#### REMOTE CONTROL LEVER, INDEX ACTUATOR LINK ASSEMBLY, TOOTH, AND HEADLESS STRAIGHT PINS (O)



Remove headless straight pins, remote control lever, index actuator link assembly, and tooth (p 2-23 and 2-40). Coat with GAA. Install remote control lever, index actuator link assembly, tooth, and headless straight pins.

### NOTE 12

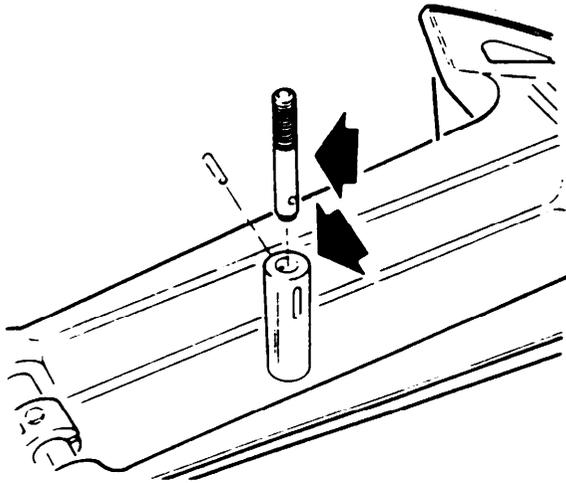
#### FLOOR PLATE HINGES (O)



Lift tread plates to lube floor plate hinges. Lube floor plate hinges with GPL oil or PL-S. Close tread plates.

ANNUAL LUBRICATION NOTES (cont)

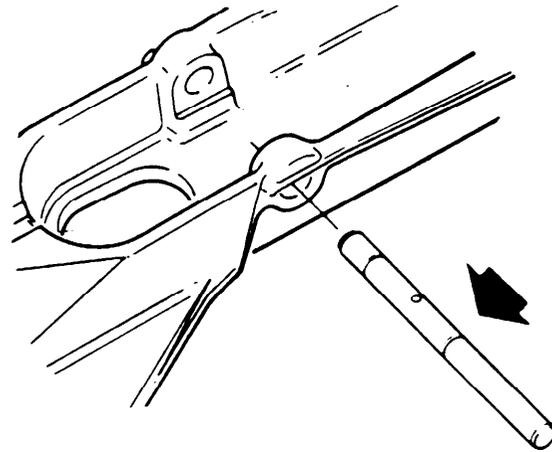
**NOTE 13**  
**PIN GUIDE (F)**



Remove spring pin, threaded straight pin, and pin guide (p 3-9 and 3-15). Coat threaded straight pin and inside of pin guide with GAA. Install spring pin, threaded straight pin, and pin guide.

**NOTE 14**

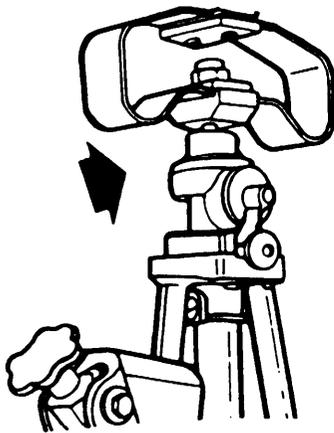
**STRAIGHT SHAFT (O)**



Remove straight shaft (p 2-23 and 2-40). Coat straight shaft with GAA. Install straight shaft.

**NOTE 15**

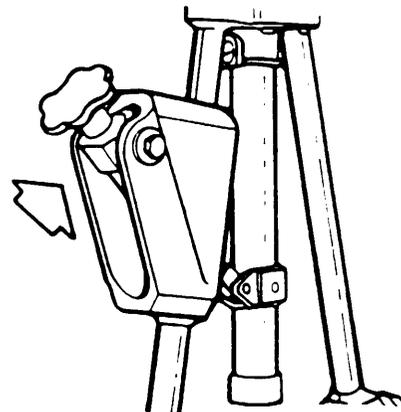
**MORTAR ELEVATION ASSEMBLY (F)**



Remove and disassemble mortar elevation assembly (p 3-19). Lube mortar elevation assembly with GAA. Reassemble and install mortar elevation assembly.

**NOTE 16**

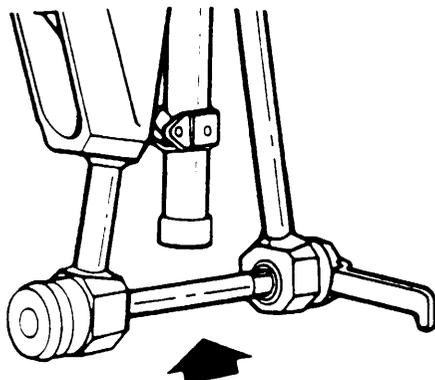
**LEVELING MECHANISM (F)**



Remove leveling mechanism (p 3-19). Lube leveling mechanism with GPL oil or PL-S. Install leveling mechanism.

**NOTE 17**

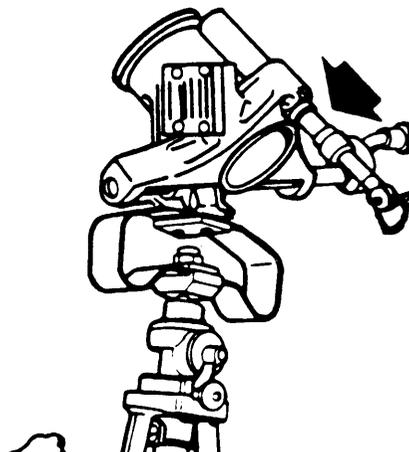
**BIPOD SUPPORT (F)**



Remove bipod assembly (p 3-19). Coat bearing surfaces with GAA. Install bipod assembly.

**NOTE 18**

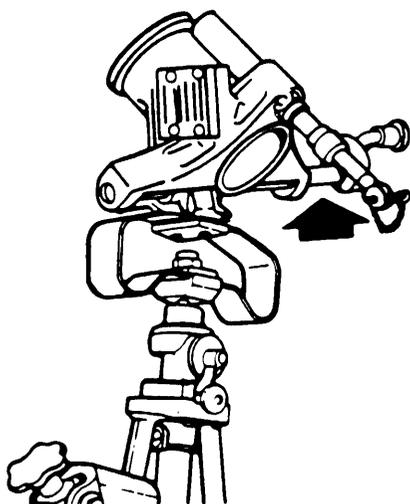
**RECOIL BUFFER ASSEMBLY (F)**



Remove recoil buffer assembly (p 3-19). Lube recoil buffer assembly with GAA. Install recoil buffer assembly.

**NOTE 19**

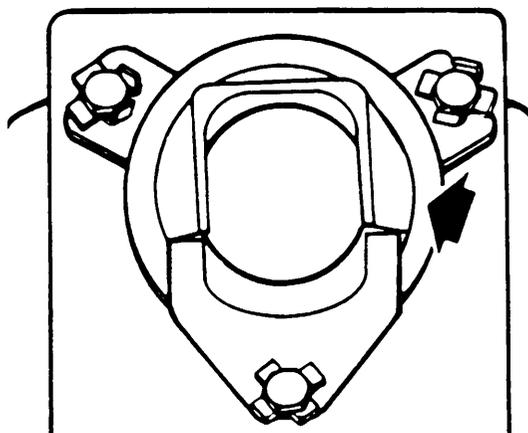
**TRAVERSING MECHANISM (F)**



Remove traversing mechanism (p 3-19). Lube traversing mechanism with GAA. Install traversing mechanism.

**NOTE 20**

**SOCKET GROUP (O)  
(81-MM ONLY)**



Remove and disassemble socket group (p 2-40). Coat socket group with GAA. Reassemble and install socket group.

## Section II. REPAIR PARTS, SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT

### 2-2. COMMON TOOLS AND EQUIPMENT.

For authorized common tools and equipment, refer to the Modified Table of Organization and Equipment (MTOE) applicable to your unit.

### 2-3. SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT.

Tools and test equipment required and authorized for repair of the mortar mounts

are listed in appendix B. Special tools are listed in appendix B.

### 2-4. REPAIR PARTS.

Repair parts are listed and illustrated in appendix C of this manual.

## Section III. SERVICE UPON RECEIPT

### 2-5. GENERAL.

a. When new, used, or reconditioned materiel is first received by the using organization, it is the responsibility of the officer in charge to determine whether the materiel has been properly prepared for service by the supplying organization and to be sure it is in condition to perform its function.

b. Make a record of any missing parts or equipment and of any malfunctions. Correct any deficiencies as quickly as possible.

### 2-6. SERVICE UPON RECEIPT OF MATERIEL.

a. Check general condition of equipment by inspecting condition of paint and checking for cracks, broken welds, rust, and missing or damaged parts.

b. Lubricate in accordance with instructions on page 2-1.

### 2-7. CHECKING UNPACKED EQUIPMENT.

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

b. Check the equipment against the packing slip to see if the shipment is complete. Report all discrepancies in accordance with DA PAM 738-750.

c. Check to see whether the equipment has been modified. Refer to the authorized equipment configuration changes listed in DA PAM 25-30. Marine Corps personnel use MCO P4610.19.

### WARNING

Solvent cleaning compound and paint thinners are flammable. Do not use near an open flame or in a smoking area. Use in a well-ventilated area. When used without protective gloves, these chemicals may cause irritation to, or cracking of, the skin. Personnel should wear eye protection and be careful.

d. Armament parts will be coated with a rust preventive compound when received from storage. Completely remove the compound with solvent cleaning compound (item 8, app D) or paint thinner (item 9, app D). After cleaning, lubricate as specified in the lubrication instructions (p 2-1).

e. Perform PMCS procedures (p 2-11).

## Section IV. PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

### 2-8. GENERAL.

- a. Perform PMCS every 30 days to ensure maximum operational readiness.
- b. During inactive periods, clean and lubricate the turntable assembly quarterly, rotate the turntables, and elevate and traverse the bipod to ensure that the mortar mounts are operationally ready.
- c. If the equipment fails to operate, troubleshoot in accordance with table 2-2. Report any deficiencies using DA Form 2404. (See DA PAM 738-750.) Any deficiencies discovered that are beyond the unit-authorized capability will be referred to the intermediate direct support maintenance unit for correction.

### 2-9. PMCS PROCEDURES.

- a. Item Number Column. Checks and services are numbered in logical order of

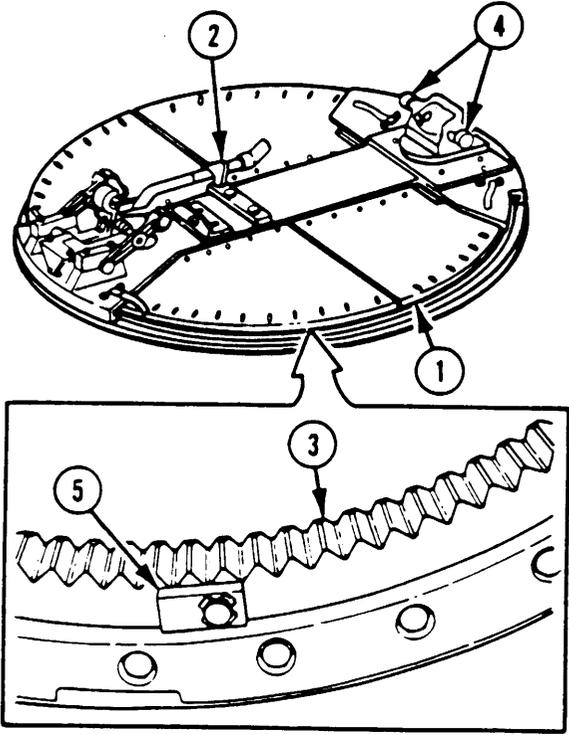
performance. This column will be used as a source of item numbers for the TM Number Column on DA Form 2404, Equipment Inspection and Maintenance Worksheet, in recording results of PMCS.

- b. Item to be Inspected Column. The items listed in this column are divided into groups indicating the portion of the equipment of which they are a part. Under these groupings, the item to be inspected is identified by its common name.

- c. Procedures Column. This column contains a brief description of the procedure by which the check is to be performed. This column contains all the information required to accomplish the checks and services.

2-9. PMCS PROCEDURES. (cont)

Table 2-1. UNIT PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) QUARTERLY SCHEDULE

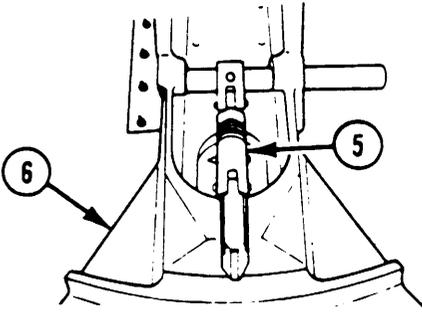
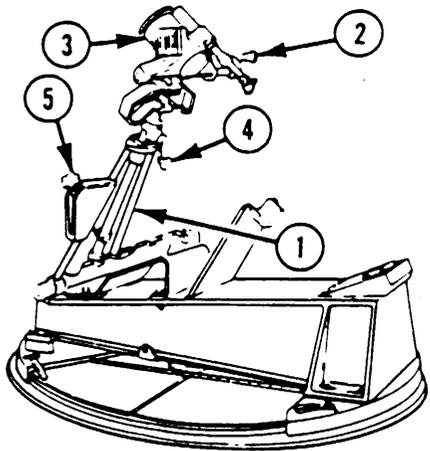
ITEM NO.	ITEM TO BE INSPECTED	PROCEDURES
1	107-mm Mortar Turntable and Mount	 <p>Check 107-mm turntable assembly (1) for proper operation.</p> <p>Release latch (2) and check that turntable assembly (1) rotates freely and smoothly.</p> <p>Engage latch (2) and check that turntable assembly (1) does not rotate.</p> <p>Check that there is no damage to internal gear (3).</p> <p>Check that barrel locking pins (4) are present and lock mortar tube in position.</p> <p>Check that turntable stops (5) are present.</p>

**Table 2-1. UNIT PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)  
QUARTERLY SCHEDULE (cont)**

ITEM NO.	ITEM TO BE INSPECTED	PROCEDURES
2	81-mm Mortar Turntable and Mount	<div data-bbox="860 451 1266 703" data-label="Image"> </div> <p data-bbox="1063 709 1144 741"><b>NOTE</b></p> <p data-bbox="831 741 1380 777">Turntable shown upside down for clarity.</p> <p data-bbox="755 808 1469 871">Check index actuator link assembly (6) for missing or worn pins.</p> <p data-bbox="755 898 1307 934">Check for free movement of link and pins.</p> <p data-bbox="755 961 1063 997">Check locking retention.</p> <p data-bbox="755 1024 1404 1087">Check turntable bridge (7) for cracks and broken welds</p> <div data-bbox="803 1102 1412 1449" data-label="Image"> </div> <p data-bbox="755 1465 1445 1528">Check 81-mm mortar turntable (1) for proper operation.</p> <p data-bbox="755 1556 1453 1619">Release latch (2) and check that mortar turntable (1) rotates freely and smoothly.</p> <p data-bbox="755 1646 1453 1709">Engage latch (2) and check that mortar turntable (1) does not rotate.</p> <p data-bbox="755 1736 1421 1772">Check that there is no damage to internal gear (3).</p> <p data-bbox="755 1799 1469 1862">Check for broken welds and loose or missing parts on mortar mount (4).</p>

2-9. PMCS PROCEDURES. (cont)

Table 2-1. UNIT PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)  
 QUARTERLY SCHEDULE (cont)

ITEM NO.	ITEM TO BE INSPECTED	PROCEDURES
2	81-mm Mortar Turntable and Mount (cont)	 <p style="text-align: center;">NOTE Turntable shown upside down for clarity.</p> <p>Check index actuator link assembly (5) for missing or worn pins.</p> <p>Check for free movement of link and pins.</p> <p>Check locking retention.</p> <p>Check turntable bridge (6) for cracks and broken welds.</p>
3	81-mm Mortar Bipod Assembly	 <p>Inspect bipod assembly (1) for cracks, broken welds, loose, missing, or damaged parts.</p> <p>Check operation of traversing handwheel assembly (2).</p>

**Table 2-1. UNIT PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)  
 QUARTERLY SCHEDULE (cont)**

ITEM NO.	ITEM TO BE INSPECTED	PROCEDURES
4	120-mm Mortar Turntable and Mount	<p>Inspect bipod yoke (3) for cracks or loose, missing, or damaged parts.</p> <p>Check operation of elevation crank assembly (4).</p> <p>Check leveling mechanism (5) for smoothness of operation through entire range of travel.</p> <div data-bbox="747 661 1502 1207" style="border: 1px solid black; padding: 10px; text-align: center;"> </div> <p>Check 120-mm turntable assembly (1) for proper operation.</p> <p>Release latch (2) and check that turntable assembly (1) rotates freely and smoothly.</p> <p>Engage latch (2) and check that turntable assembly (1) does not rotate.</p>

2-9. PMCS PROCEDURES. (cont)

Table 2-1. UNIT PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)  
 QUARTERLY SCHEDULE (cont)

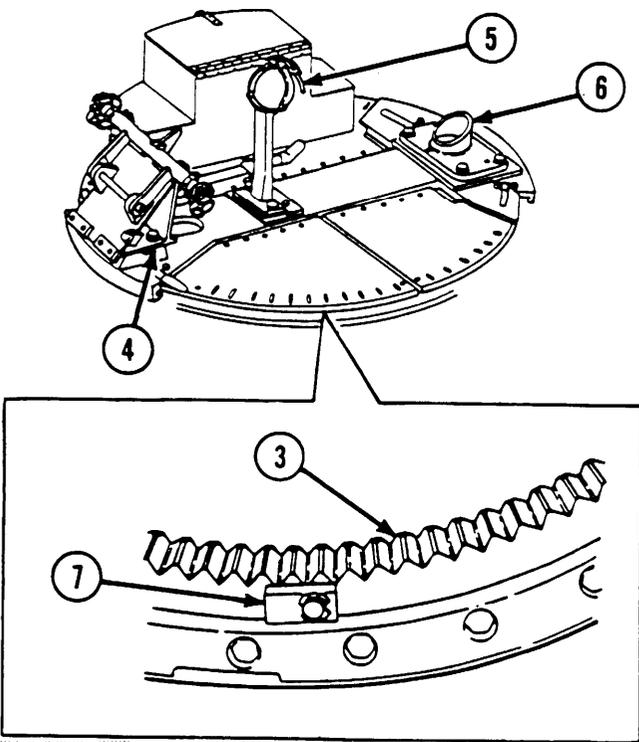
ITEM NO.	ITEM TO BE INSPECTED	PROCEDURES
4	120-mm Mortar Turntable and Mount (cont)	 <p>Check that there is no damage to internal gear (3).</p> <p>Check for broken welds and loose, missing, or damaged parts on bipod support assembly (4), clamping support assembly (5), and breech socket (6).</p> <p>Check that turntable stops (7) are present.</p>

Table 2-1. UNIT PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)  
QUARTERLY SCHEDULE (cont)

ITEM NO.	ITEM TO BE INSPECTED	PROCEDURES
5	Sight Extension Arm Assembly	<div data-bbox="751 436 1469 743" style="text-align: center;"> </div> <p data-bbox="1068 747 1154 772"><b>NOTE</b></p> <p data-bbox="841 777 1385 804">Turntable shown upside down for clarity.</p> <p data-bbox="755 833 1463 898">Check index actuator link assembly (8) for missing or worn pins.</p> <p data-bbox="755 919 1308 953">Check for free movement of link and pins.</p> <p data-bbox="755 980 1073 1014">Check locking retention.</p> <p data-bbox="755 1041 1403 1102">Check turntable bridge (9) for cracks and broken welds.</p> <div data-bbox="760 1163 1446 1493" style="text-align: center;"> </div> <p data-bbox="764 1514 1458 1547"><b>Check operation of sight extension arm assembly (1).</b></p> <p data-bbox="764 1570 1414 1604">Check sight extension arm assembly (1) for burrs.</p> <p data-bbox="764 1631 1414 1724">Check to assure that thumbscrew (2) and sight extension wheel (3) rotate freely and secure sight extension arm assembly (1) in place.</p>

## Section V. TROUBLESHOOTING

### 2-10. GENERAL.

The symptom index can be used as a quick guide to troubleshooting. Common malfunctions are listed in alphabetical order with a page number reference to the troubleshooting table where a test or inspection and corrective action are provided.

found during maintenance of the mortar mounts. 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 action, notify your supervisor.

### 2-11. TROUBLESHOOTING TABLE.

a. The troubleshooting table (p 2-17) lists the common malfunctions which may be

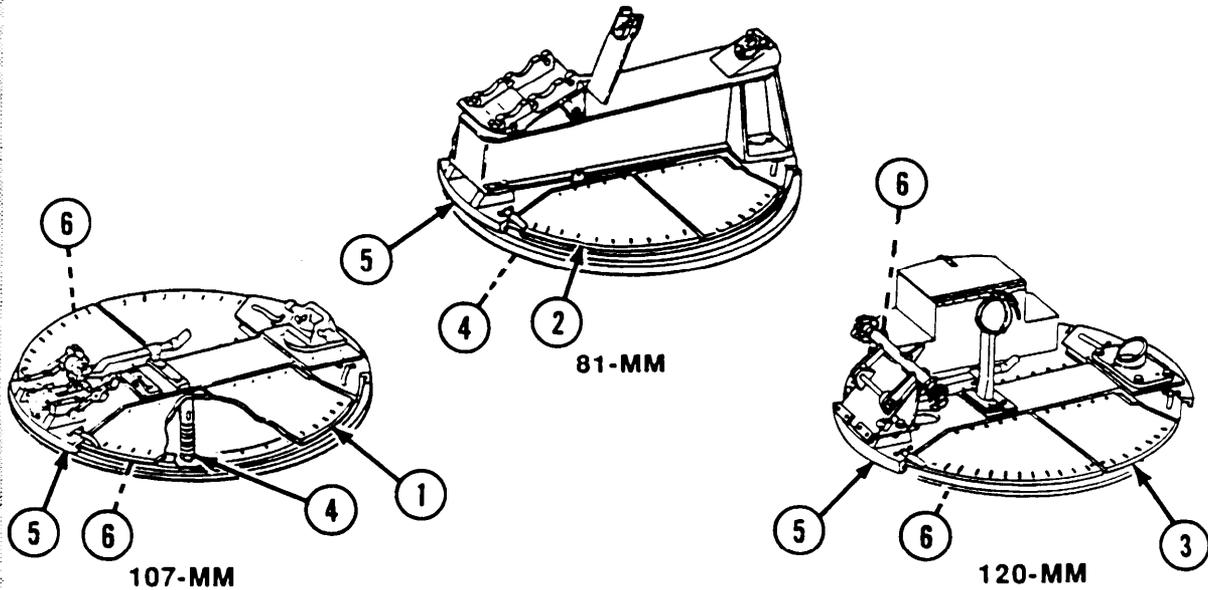
### SYMPTOM INDEX

	Troubleshooting Procedure (Page)
<b>■ 107-MM, 81-MM, AND 120-MM MORTAR MOUNTS</b>	
Latch fails to lock handle . . . . .	2-18
Turntable assembly (107-mm), turntable (81-mm), or turntable assembly (120 -mm) fails to rotate . . . . .	2-17
Turntable assembly (107-mm), turntable (81-mm), or turntable assembly (120-mm) fails to lock with handle in locked position . . . . .	2-18
 <b>81-MM MORTAR BIPOD ASSEMBLY</b>	
Bipod assembly fails to lock in 81-mm mortar mount . . . . .	2-21
Excessive backlash in elevation crank assembly or traversing handwheel assembly . . . . .	2-21
Leveling mechanism fails to level mortar tube . . . . .	2-21
Mortar elevation assembly fails to elevate mortar tube . . . . .	2-21
Recoil buffer assembly fails to operate properly . . . . .	2-20
Sight socket key loose in bipod yoke . . . . .	2-20
Traversing mechanism fails to traverse mortar tube . . . . .	2-21
Weldment on bipod assembly out off line . . . . .	2-21
 <b>SIGHT EXTENSION ARM ASSEMBLY</b>	
Sight extension arm assembly fails to adjust . . . . .	2-22

Table 2-2. TROUBLESHOOTING

MALFUNCTION  
TEST OR INSPECTION  
CORRECTIVE ACTION

107-MM, 81-MM, AND 120-MM MORTAR MOUNTS



TURNTABLE ASSEMBLY (107-MM) (1), TURNTABLE (81-MM) (2), OR TURNTABLE ASSEMBLY (120-MM) (3) FAILS TO ROTATE.

Step 1. Check for obstruction.

Remove obstruction.

Step 2. Check adjustment of mortar mount spring (4) (8 -mm and 107-mm only).

a. Adjust spring tension.

b. Replace mortar mount spring (p 2-23 or 2-40) if adjustment fails correct problem.

Step 3. Check for distorted or cracked turntable bridge (5).

Notify intermediate direct support maintenance.

Step 4. Check turntable assembly (107-mm) (1) and turntable assembly (120-mm) (3) for damaged stops (6).

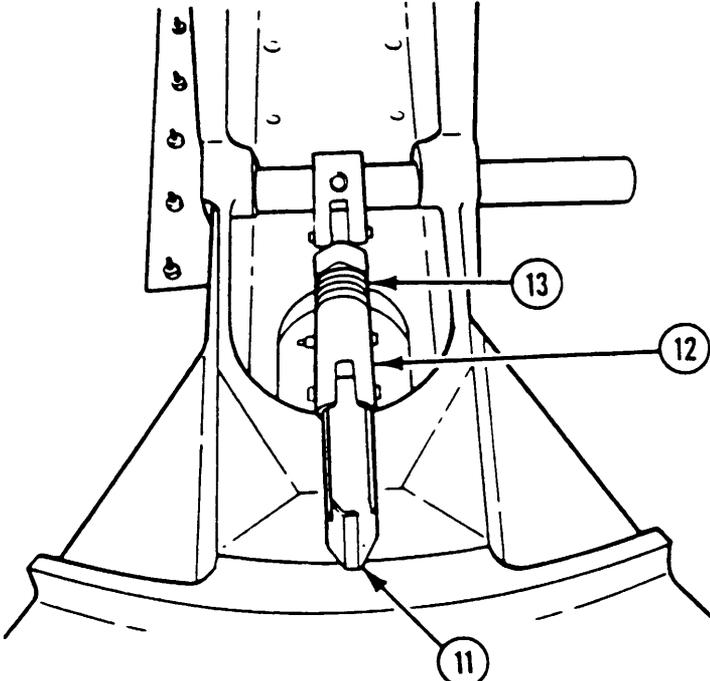
Replace stops (p 2-23 or 2-54).

2-11. TROUBLESHOOTING TABLE. (cont)

Table 2-2. TROUBLESHOOTING (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
<b>107-MM, 81-MM, AND 120-MM MORTAR MOUNTS (cont)</b>		
2. LATCH (7) FAILS TO LOCK HANDLE (8).	Check for broken torsion helical spring (9).	Replace broken torsion helical spring (p 2-23, 2-40, or 2-54).
3. TURNTABLE ASSEMBLY (107-MM) (1), TURNTABLE (81-MM) (2), OR TURNTABLE ASSEMBLY (120-MM) (3) FAILS TO LOCK WITH HANDLE (8) IN LOCKED POSITION	Step 1. Check internal gear (10) for burrs and chipped teeth.	a. Remove burrs with fine cut file. b. Notify intermediate direct support maintenance if teeth are chipped.

Table 2-2. TROUBLESHOOTING (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
 <p>The diagram shows a mechanical assembly, likely a turntable, with three callouts: 11 points to a tooth on a vertical actuator link; 12 points to the link assembly; and 13 points to a plunger within the assembly. The assembly is shown upside down for clarity.</p>		
<b>NOTE</b>		
Turntable shown upside down for clarity.		
Step 2.	Check for broken or burred tooth (11) attached to index actuator link assembly (12).	a. Remove burrs with fine cut file. b. Replace tooth if broken (p 2-23, 2-40, or 2-54).
Step 3.	Check locking retention of turntable assembly (107-mm) (1), turntable (81-mm) (2), or turntable assembly (120-mm) (3).	Notify intermediate direct support maintenance to adjust length of plunger (13) in index actuator link assembly (12) to assure positive locking of turntable assembly (107-mm) (1), turntable (81 -mm) (2), or turntable assembly (120-mm) (3).
Step 4.	Check for broken or missing spring washers in index actuator link assembly (12).	Replace spring washers (p 2-39).

2-11. TROUBLESHOOTING TABLE. (cont)

Table 2-2. TROUBLESHOOTING (cont)

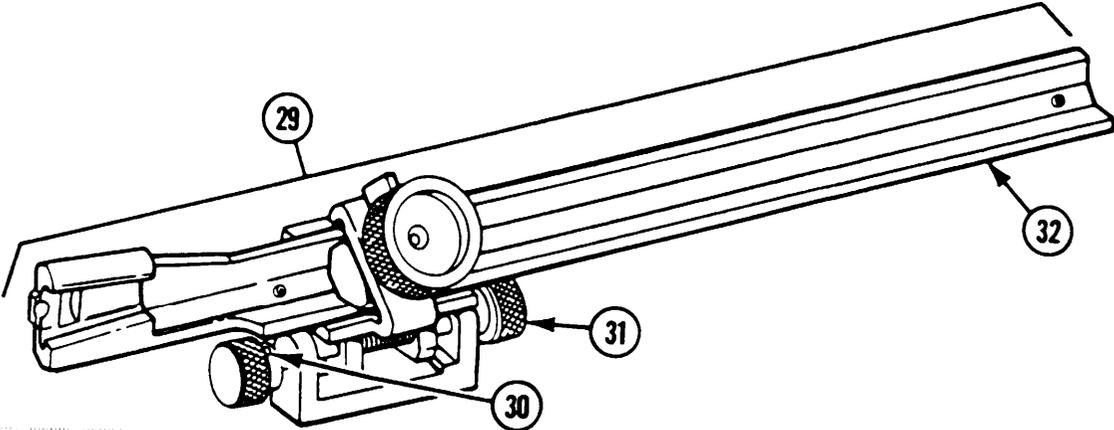
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
81-MM MORTAR BIPOD ASSEMBLY		
4. RECOIL BUFFER ASSEMBLY (14) FAILS TO OPERATE PROPERLY.	Step 1. Check for broken compression helical spring (15).	Notify intermediate direct support maintenance.
■ Step 2. Check for dented recoil buffer tube (16) or damaged threads.	Notify intermediate direct support maintenance.	
■ Step 3. Check for bent clevis and rod (17).	Notify intermediate direct support maintenance.	
■ 5. SIGHT SOCKET KEY (18) LOOSE IN BIPOD YOKE.	Check for missing, loose, or damaged screws or screw thread inserts.	If screws are loose, tighten. If screws or inserts are damaged or missing, notify intermediate direct support maintenance.

Table 2-2. TROUBLESHOOTING (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
6. BIPOD ASSEMBLY (19) FAILS TO LOCK IN 81-MM MORTAR MOUNT.		Check for broken torsion helical spring (20). Notify intermediate direct support maintenance.
7. MORTAR ELEVATION ASSEMBLY (21) FAILS TO ELEVATE MORTAR TUBE.		Turn elevation crank assembly (22) and check for binding or inoperative gears. Notify intermediate direct support maintenance.
8. TRAVERSING MECHANISM (23) FAILS TO TRAVERSE MORTAR TUBE.		Turn traversing handwheel assembly (24) and check for binding or inoperative traversing spindle assembly. Notify intermediate direct support maintenance.
9. LEVELING MECHANISM (25) FAILS TO LEVEL MORTAR TUBE.		Step 1. Turn leveling mechanism (25) and check for binding or stripped threads in leveling mechanism and nut assembly. Notify intermediate direct support maintenance. Step 2. Check for missing headless straight pin (26) through handwheel (27). Notify intermediate direct support maintenance.
10. EXCESSIVE BACKLASH IN ELEVATION CRANK ASSEMBLY (22) OR TRAVERSING HANDWHEEL ASSEMBLY (24).		Check if backlash is greater than one-eighth of a turn (45 degrees). Notify intermediate direct support maintenance.
11. WELDMENT ON BIPOD ASSEMBLY (19) OUT OF LINE.		Check for bent legs (28) or broken welds. Notify intermediate direct support maintenance.

2-11. TROUBLESHOOTING TABLE. (cont)

Table 2-2. TROUBLESHOOTING (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
<b>SIGHT EXTENSION ARM ASSEMBLY</b>		
		
12. SIGHT EXTENSION ARM ASSEMBLY (29) FAILS TO ADJUST.	Step 1. Check for broken or missing spring pin (30) or frozen thumbscrew (31). Replace spring pin or thumbscrew (p 2-54.18).	Step 2. Check for bent sight extension arm (32). Replace entire sight extension arm assembly (app C).

## Section VI. MAINTENANCE PROCEDURES

### 2-12. GENERAL.

a. Marking of the 107-mm, 81-mm, and 120-mm mortar mounts is not required. If marking becomes necessary, no permanent markings should be made. Use of paint, metal tags, or embossed tape is permissible.

b. The ring gear and turntable are identical on all systems. Travel stops are attached to the 107-mm and 120-mm system ring gear. The weapon mounting hardware on the turntable is determined by which mortar system is used.

#### WARNING

Solvent cleaning compound and paint thinners are flammable. Do not use near an open flame or in smoking area. Use in a well-ventilated area. When used without protective gloves, these chemicals may cause irritation to, or cracking of, the skin. Personnel should wear eye protection and be careful.

c. Spot paint all painted surfaces where paint has flaked off using flat forest green

enamel (item 2, app D), brush (item 1, app D), and thinner (item 9, app D).

d. Clean parts with solvent cleaning compound prior to lubrication.

e. Replace all missing or broken pins, safety wire, and straps.

### 2-13. INITIAL SETUP.

a. Tools and Special Tools. Lists tools needed for the procedures.

b. Materials/Parts. Refers to expendable materials and 100 percent replaceable parts.

c. Personnel Required. Listed only if the task requires more than one person.

d. References. Lists other publications needed for the procedures.

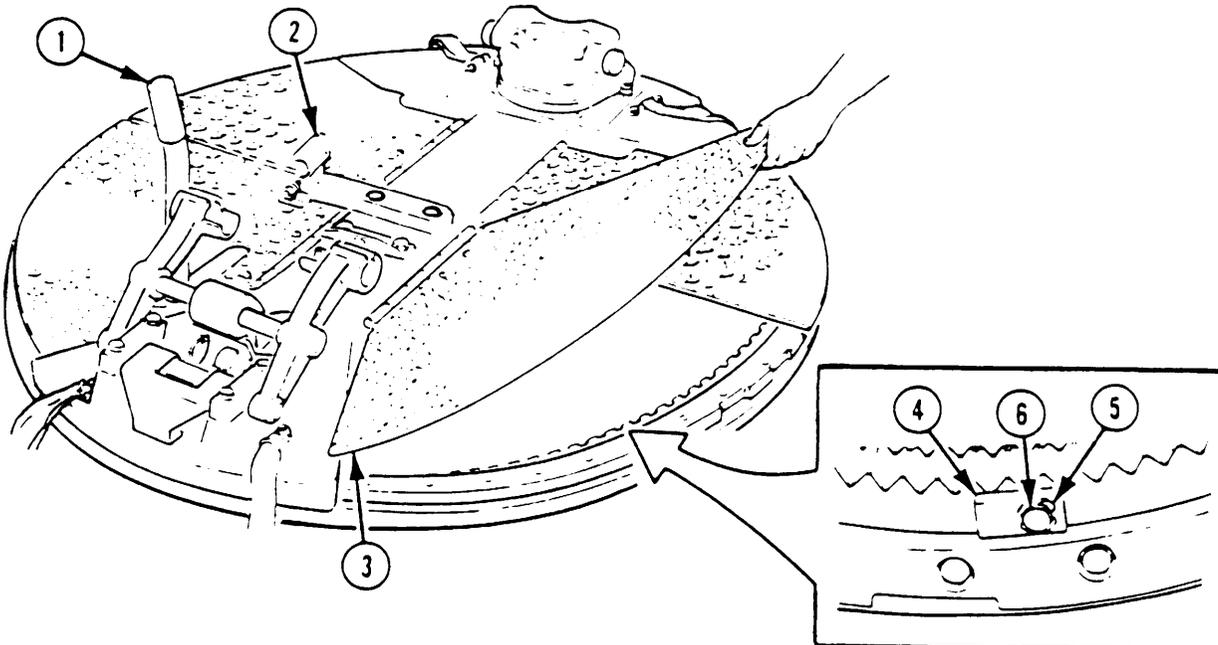
e. Equipment Conditions. Lists conditions to be met before starting the procedure.

### 2-14. 107-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, AND TURNTABLE-MAINTENANCE INSTRUCTIONS.

THIS TASK COVERS:		
a. Removal/disassembly	b. Repair	c. Reassembly/installation
INITIAL SETUP		
Tools and Special Tools General mechanic's automotive tool kit (SC 5180-90-CL-N26)		Key washer (two) (83401 07) Lock wire (item 10, app D) PL-S (item 6, app D) Solvent cleaning compound (item 8, app D) Wiping rag (item 7, app D)
Materials/Parts Cotter pin (four) (MS24665-283) Cotter pin (two) (MS24665-285) GAA (item 4, app D) GPL oil (item 5, app D) Key washer (two) (8340106)		Personnel Required 4 - Crewmen 1 - Mechanic

## 2-14. 107-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, AND TURNTABLE-MAINTENANCE INSTRUCTIONS. (cont)

### REMOVAL/DISASSEMBLY



1 Unlock handle (1 ) by opening latch (2).

2 Open one tread plate (3) to expose stop (4).

3 Bend key washer (5) away from

cap screw (6). Remove cap screw (6) and key washer (5). Discard key washer (5).

4 Remove stop (4).

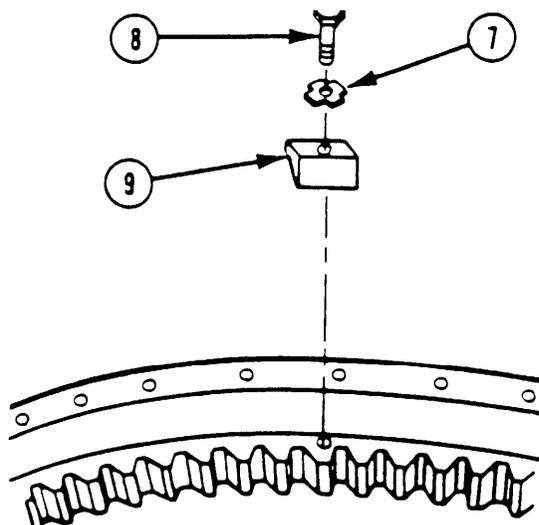
**NOTE**  
Turntable assembly shown removed for clarity.

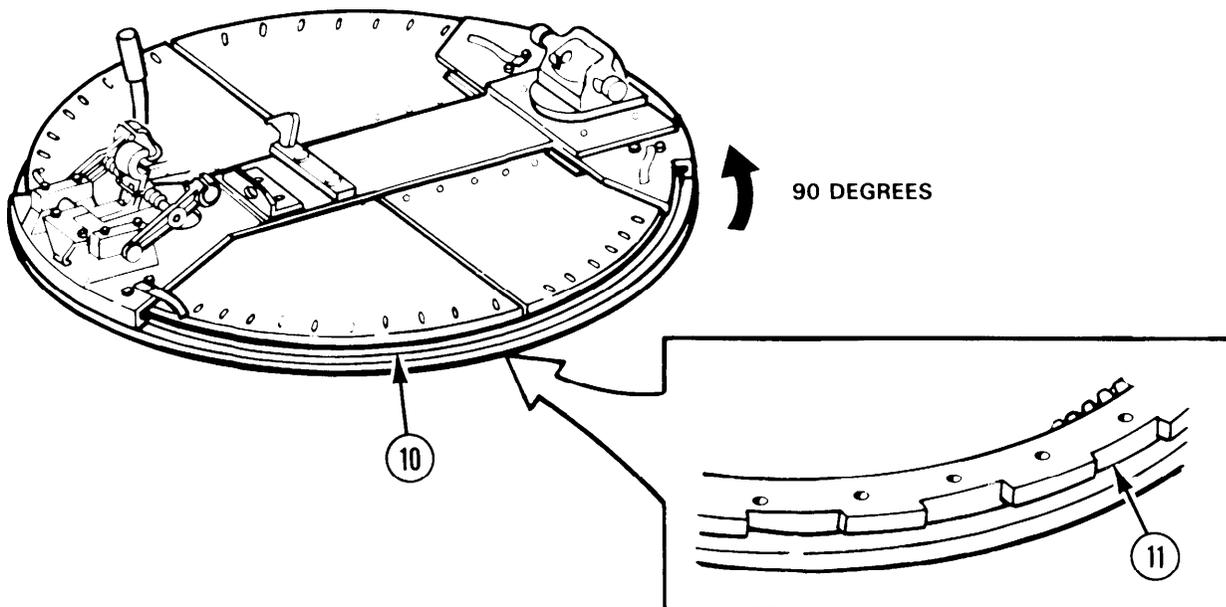
5 Rotate turntable assembly 90 degrees counterclockwise until remaining stop is visible under opposite tread plate.

6 Bend key washer (7) away from cap screw (8).

7 Remove cap screw (8) and key washer (7). Discard key washer (7).

8 Remove stop (9).





9 Rotate turntable assembly (10) 90 degrees from center line of carrier.

10 Align notches in turntable assembly (10) with notches in internal gear (11).

**WARNING**

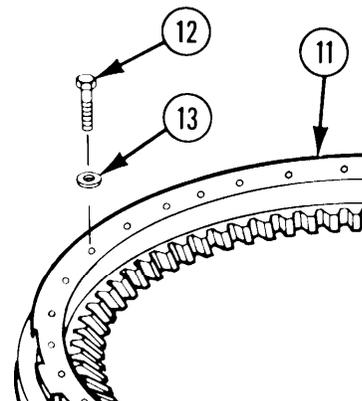
Four crewmen are required to remove the turntable assembly from the carrier because of the weight.

**NOTE**

Before removing turntable assembly from carrier, position blocking to place turntable assembly on for the rest of the maintenance procedures.

11 Using four crewmen, lift turntable assembly (10) from carrier evenly to prevent binding.

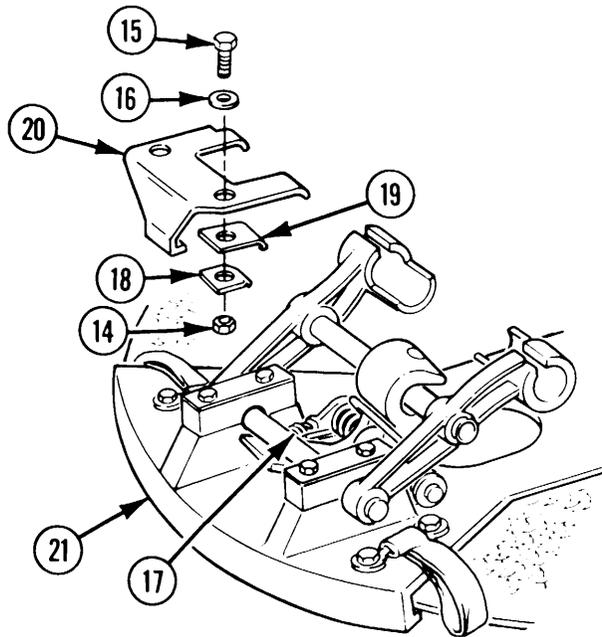
12 Check for any loose, missing, or damaged capscrews (12) and flat washers (13) securing internal gear (11).



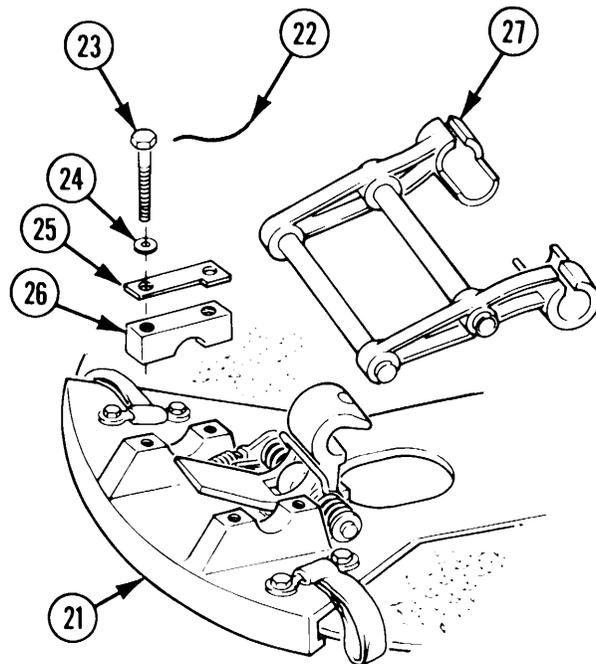
## 2-14. 107-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, AND TURNTABLE-MAINTENANCE INSTRUCTIONS. (cont)

### REMOVAL/DISASSEMBLY (cont)

- 13 Remove two self-locking nuts (14), two capscrews (15), and two flat washers (16).
- 14 Unhook extension helical spring (17) and remove two spring retaining clips (18).
- 15 Remove two catch guard clips (19).
- 16 Remove turntable mount guard (20) from turntable (21).



- 17 Cut lock wire (22) from four capscrews (23); remove four capscrews (23) and four flat washers (24).
- 18 Remove stop (25).
- 19 Remove two shaft support clamps (26).
- 20 Remove mortar standard support (27) from turntable (21).

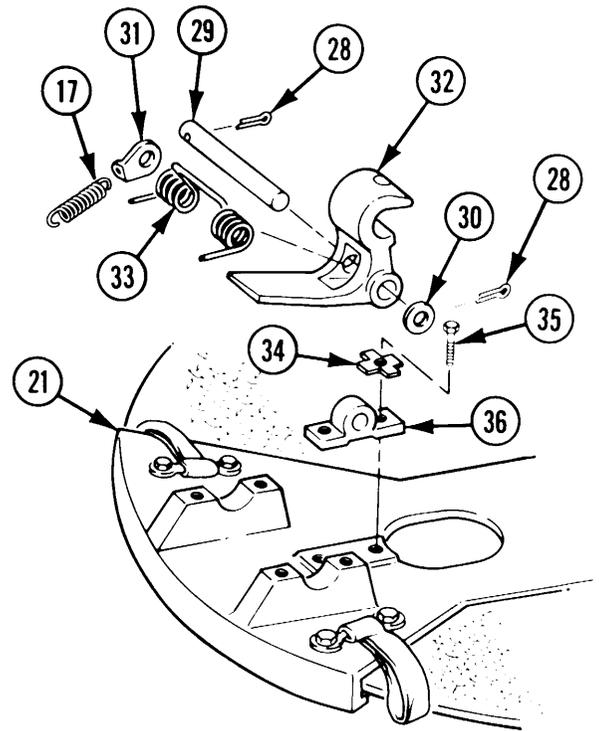


21 Remove two cotter pins (28) from headless straight pin (29), and flat washer (30). Discard cotter pins (28).

22 Remove spring retaining clip (31) and extension helical spring (17). Remove headless straight pin (29).

23 Remove front standard support catch (32) and torsion helical spring (33) from turntable (21).

24 Bend two key washers (34) away from two capscrews (35) and remove two capscrews (35), two key washers (34), and catch support bracket (36). Discard key washers (34).

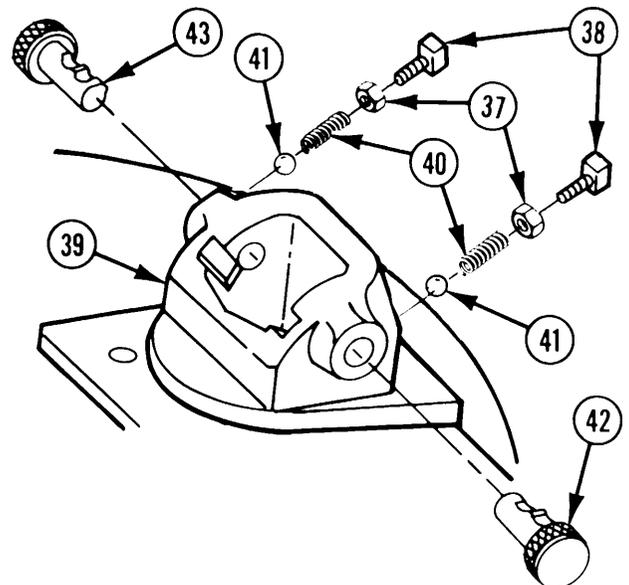


25 Loosen two nuts (37).

26 Remove two setscrews (38) and two nuts (37) from mortar mount socket (39).

27 Remove two compression springs (40) and two ball bearings (41).

28 Remove barrel locking pins (42) and (43).

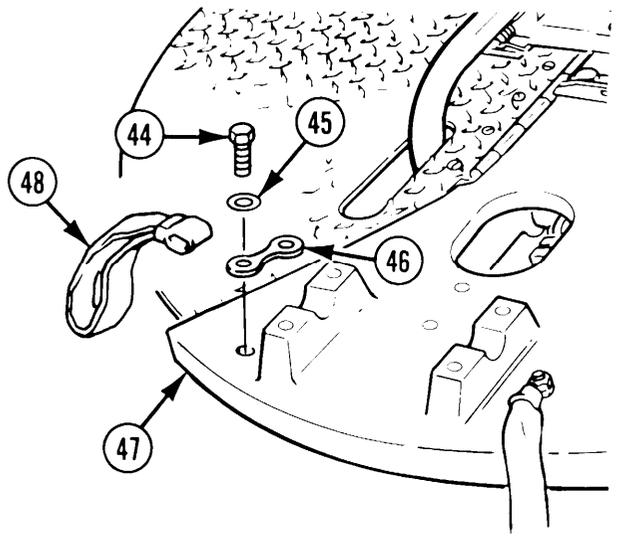


**2-14. 107-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, AND  
TURNTABLE-MAINTENANCE INSTRUCTIONS. (cont)**

**REMOVAL/DISASSEMBLY (cont)**

**29** Remove eight capscrews (44), eight flat washers (45), and four mortar turntable loops (46) from turntable bridge (47).

**30** Remove four webbing straps (48) from turntable bridge (47).

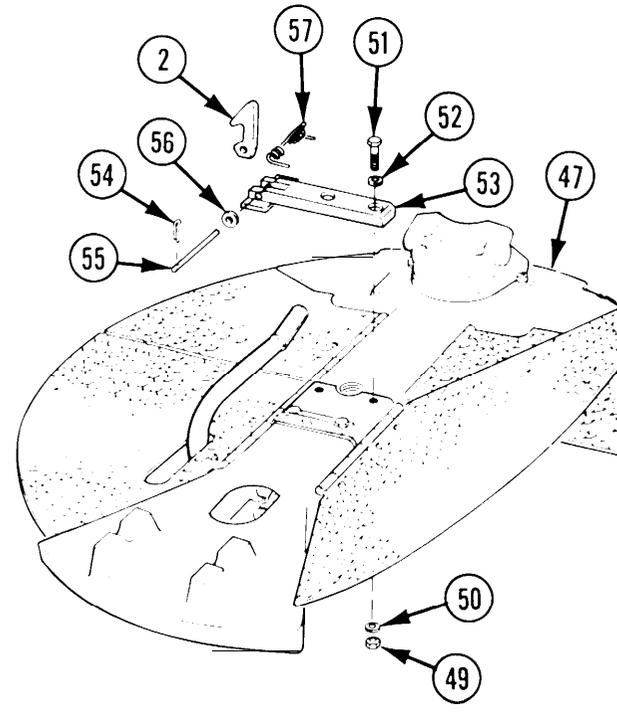


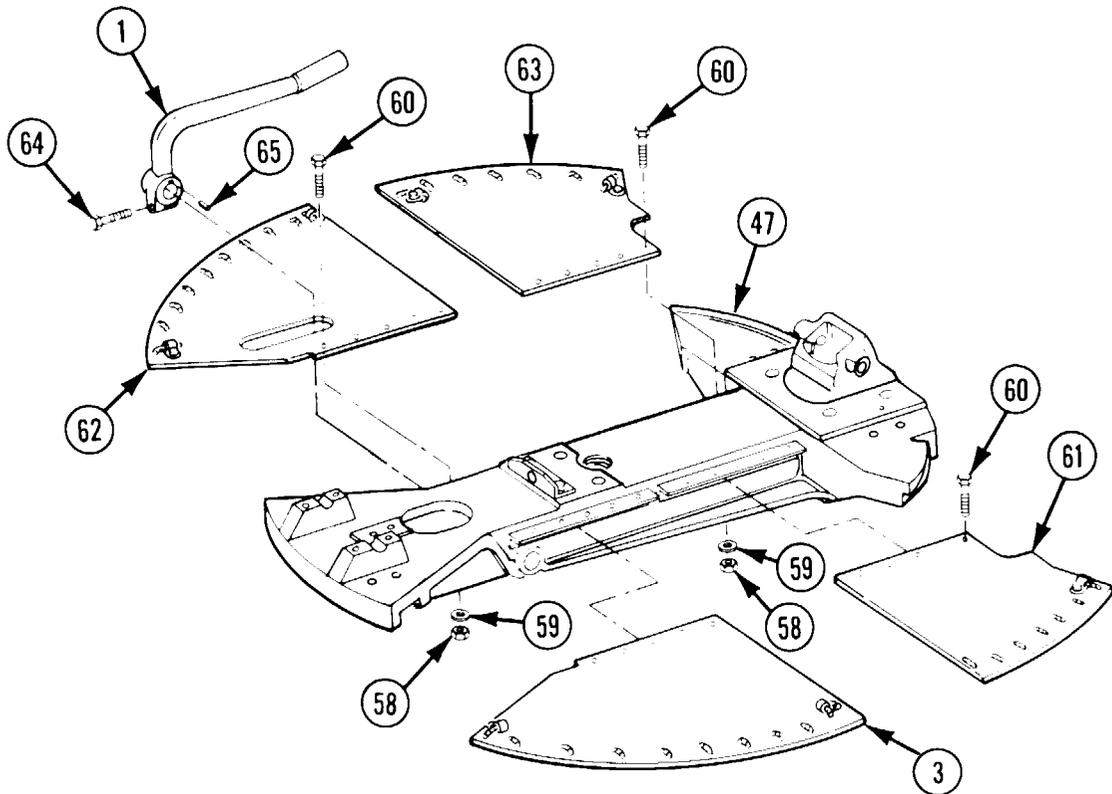
**31** Remove two self-locking nuts (49), two flat washers (50), two capscrews (51), and two flat washers (52).

**32** Remove spring tension hook clip (53) from turntable bridge (47).

**33** Remove two cotter pins (54), headless straight pin (55), and two flat washers (56). Discard cotter pins (54).

**34** Remove torsion helical spring (57) and latch (2) from spring tension hook clip (53).





35 Remove twenty self-locking nuts (58), twenty flat washers (59), and twenty machine screws (60).

36 Remove four tread plates (3, 61, 62, and 63) from turntable bridge (47).

37 Remove cap screw (64) from handle (1).

38 Remove handle (1).

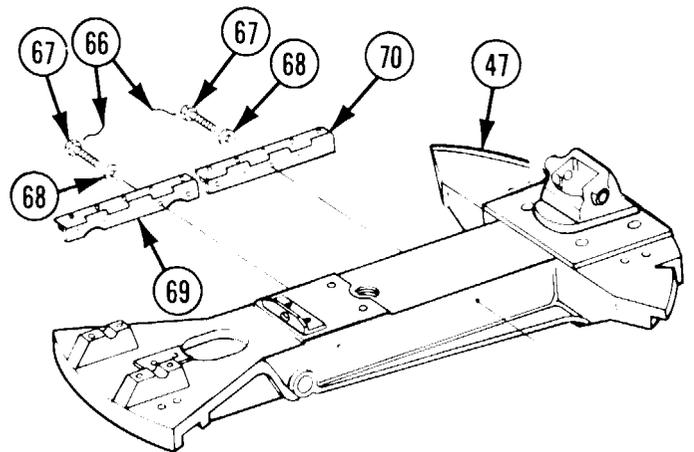
39 Remove machine key (65).

40 Cut lock wire (66) and remove twenty cap screws (67).

41 Remove twenty flat washers (68).

42 Remove two access door hinges (69)

43 Remove two floor plate hinges (70) from turntable bridge (47).



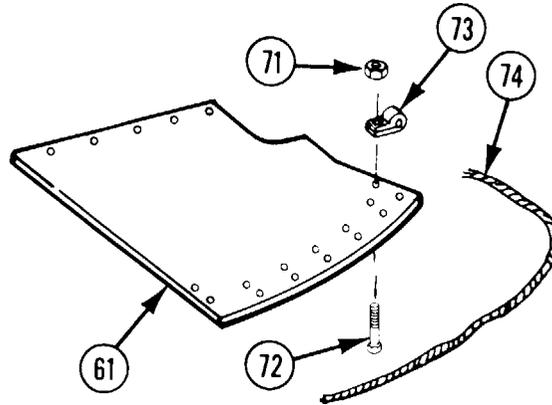
2-14. 107-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, AND  
TURNTABLE-MAINTENANCE INSTRUCTIONS. (cont)

**REMOVAL/DISASSEMBLY (cont)**

**NOTE**

Steps 44 and 45 are written for one tread plate, but apply to all four.

- 44 Remove two self-locking nuts (71) and two machine screws (72) from two loop clamps (73).
- 45 Remove two loop clamps (73) from tread plate (61); untie and remove one length of nylon cushion rope (74).

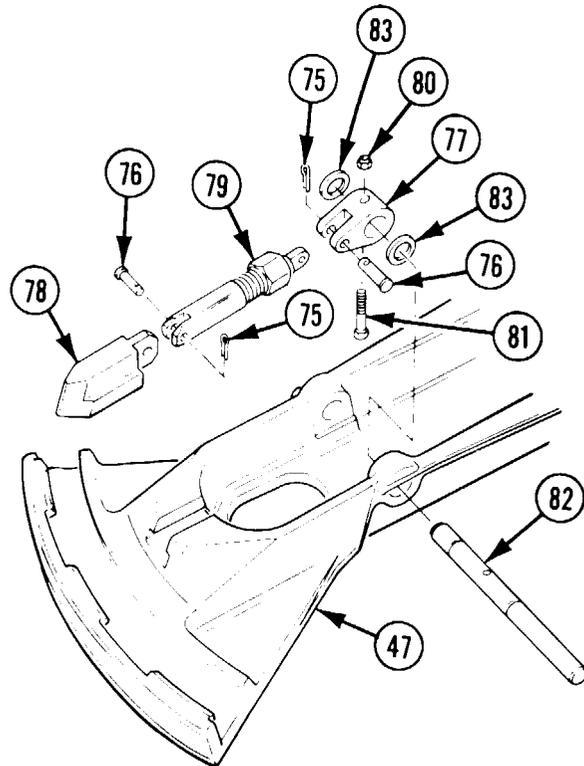


- 46 Remove two cotter pins (75) and two headed straight pins (76) from remote control lever (77) and tooth (78). Discard cotter pins (75).

**NOTE**

Index actuator link assembly (79) is not replaceable at this maintenance level.

- 47 Remove tooth (78) and index actuator link assembly (79).
- 48 Remove self-locking nut (80), capscrew (81), straight shaft (82), two turntable retaining rings (83), and remote control lever (77) from turntable bridge (47).



**NOTE**

Some older models may have two nuts instead of spring pin (84) and nut (85). Have intermediate direct support maintenance replace two nuts with one nut and spring pin.

49 Remove spring pin (84) from nut (85).

**CAUTION**

Mortar mount spring (86) is under tension. Do not remove spring pin (87) until nut (85) is removed or loosened to release spring tension.

**NOTE**

Nut (85) is not replaceable at this maintenance level.

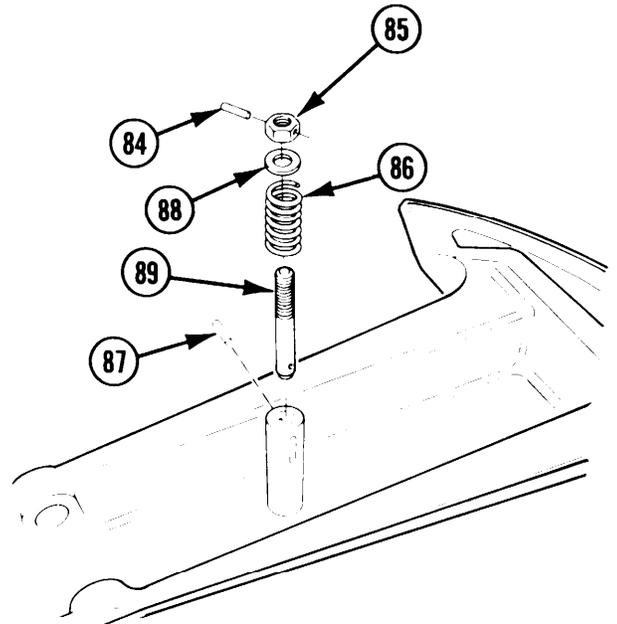
50 Remove nut (85) and flat washer (88).

51 Remove mortar mount spring (86).

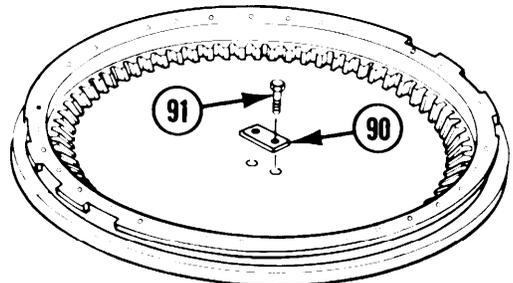
**NOTE**

Threaded straight pin (89) is not replaceable at this maintenance level.

52 If spring pin (87) is damaged, remove spring pin (87) and threaded straight pin (89).



53 If guide pin base (90) on floor of vehicle is worn or damaged, remove two capscrews (91) and guide pin base (90) from vehicle.



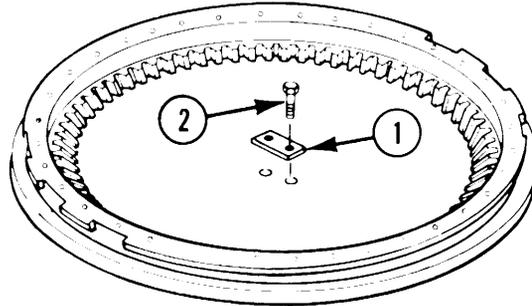
2-14. 107-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, AND  
TURNTABLE-MAINTENANCE INSTRUCTIONS. (cont)

REPAIR

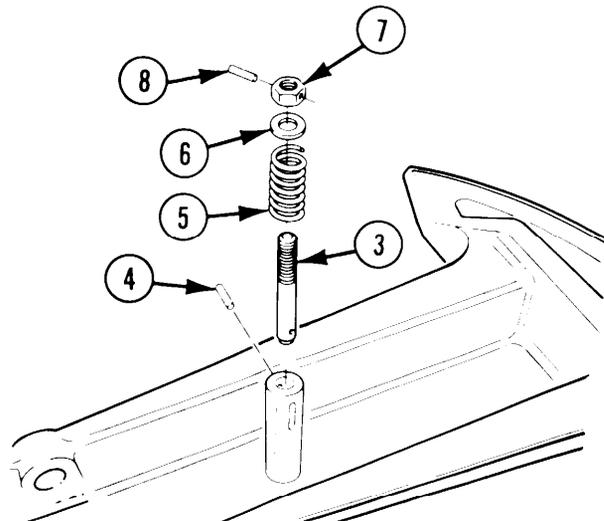
- 1 Check barrel locking pins for burrs. Remove burrs with a fine cut file.
- 2 Use solvent cleaning compound and wiping rags to clean corrosion and foreign matter from parts.
- 3 Check turntable bridge for stripped inserts and warped parts. Notify intermediate direct support maintenance.
- 4 Remove nicks and burrs with a fine cut file.
- 5 Replace any missing, broken, or damaged parts. See appendix C.

REASSEMBLY/INSTALLATION

- 1 Lubricate parts prior to reassembly with light coat of GAA.
- 2 If removed, install guide pin base (1) in vehicle and secure with two capscrews (2).



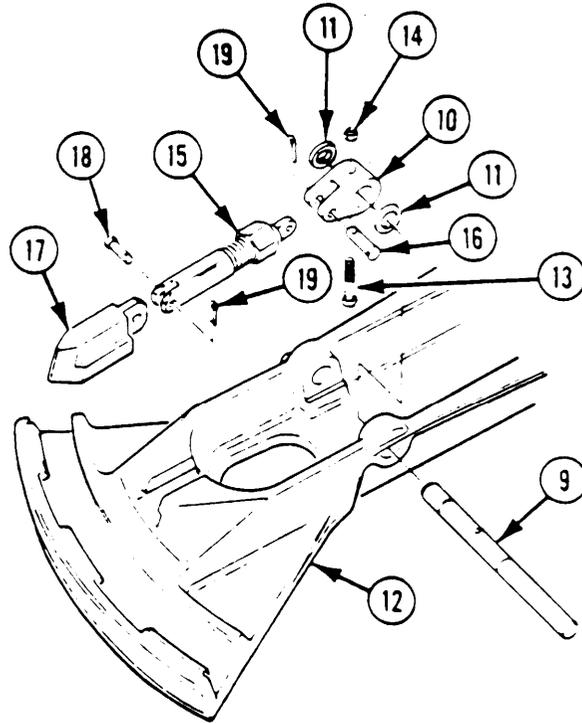
- 3 If removed, install threaded straight pin (3) and spring pin (4).
- 4 Install mortar mount spring (5) and flat washer (6).
- 5 Install nut (7); tighten nut until mortar mount spring compresses 3-9/32 to 3-11/32 inches and holes are alined for spring pin (8).
- 6 Install spring pin (8).



**NOTE**

Straight shaft (9) should be installed with the key on the bottom and on the same side that the handle will be on.

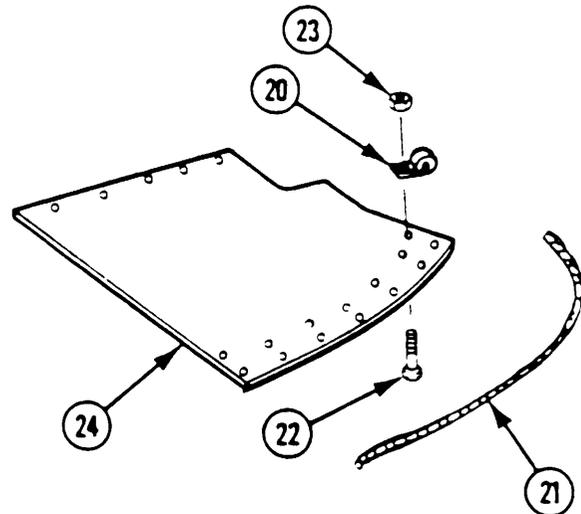
- 7 Install remote control lever (10), straight shaft (9), and two turntable retaining rings (11) in turntable bridge (12).
- 8 Install capscrew (13) and self-locking nut (14).
- 9 Install index actuator link assembly (15) in remote control lever (10) and secure with headed straight pin (16).
- 10 Install tooth (17) in index actuator link assembly (15) and secure with headed straight pin (18).
- 11 Install two new cotter pins (19) in headed straight pins (16) and (18).



**NOTE**

The procedure in steps 12 thru 16 is written for installation of nylon cushion rope into one tread plate, but applies to all four.

- 12 Install loop clamp (20) on end of nylon cushion rope (21).
- 13 Install machine head screw (22) through loop clamp (20), and secure with self-locking nut (23).
- 14 Lace nylon cushion rope (21) through tread plate (24).
- 15 Anchor end of nylon cushion rope (21) with another loop clamp (20) as in steps 12 and 13. Cut off excess.



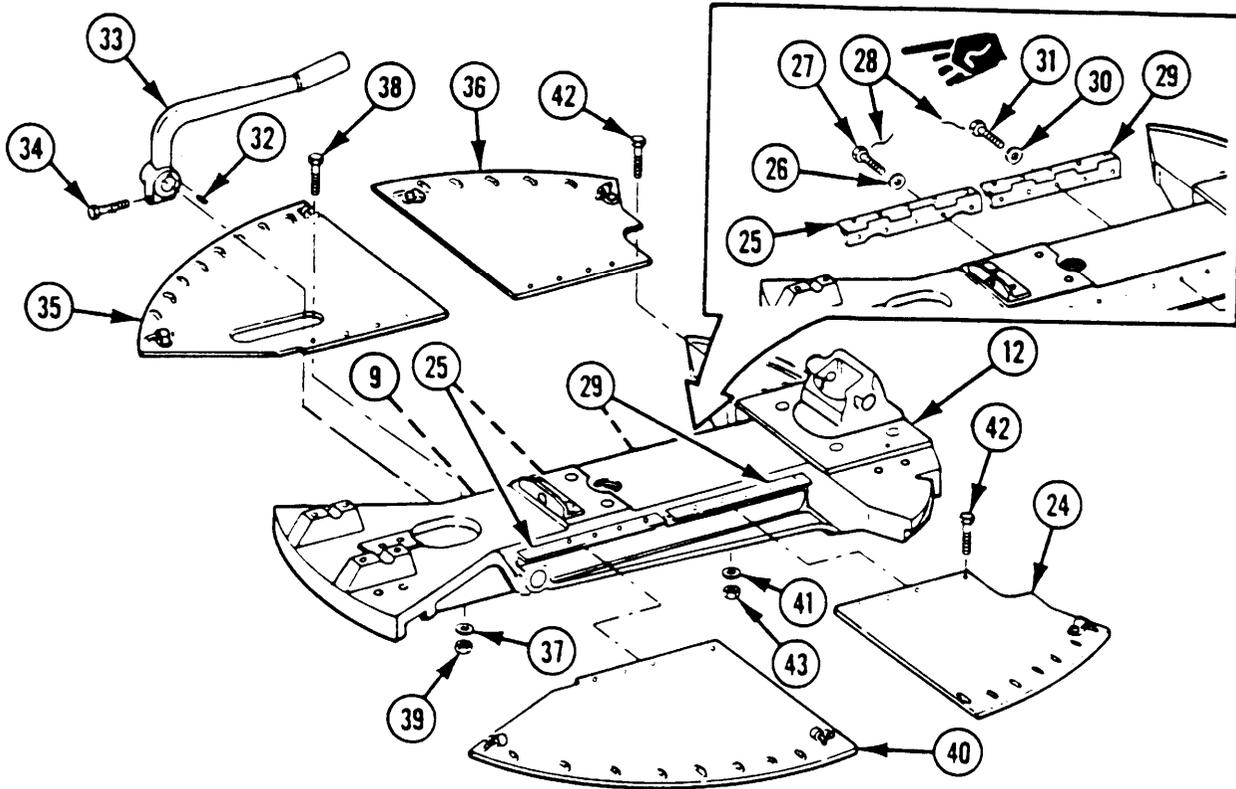
**WARNING**

Melted nylon rope can cause a severe burn.

- 16 Burn the ends of the rope to prevent it from unraveling. Use only enough heat to melt the rope strands together.

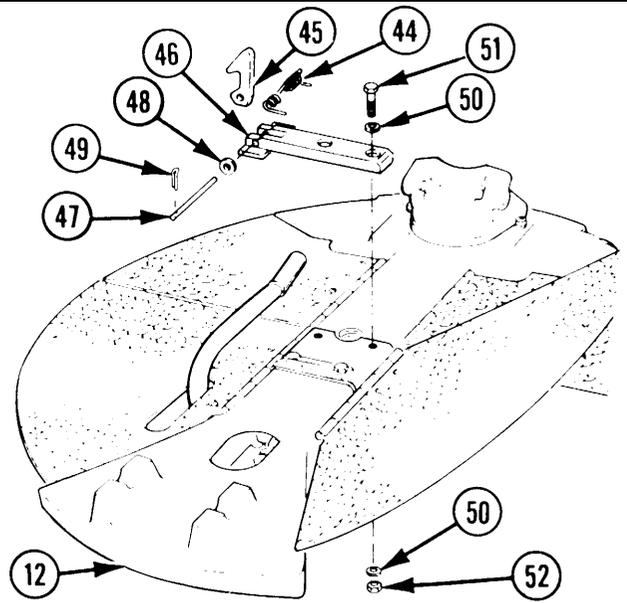
2-14. 107-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, AND TURNTABLE-MAINTENANCE INSTRUCTIONS. (cont)

**REASSEMBLY/INSTALLATION (cont)**

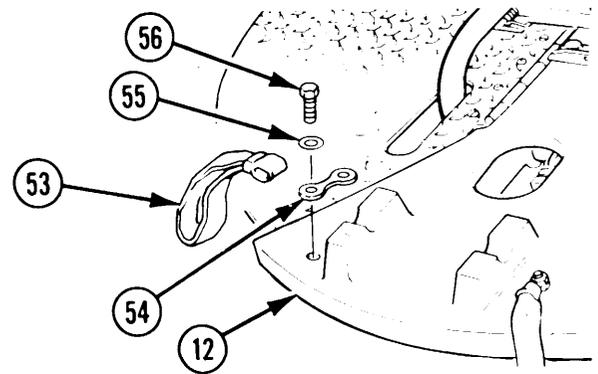


- |   |  |
|---|--|
| <p>17 Position two access door hinges (25) on turntable bridge (12).</p> <p>18 Install ten flat washers (26) and ten capscrews (27).</p> <p>19 Using lock wire (28), lace ten capscrews (27).</p> <p>20 Position two floor plate hinges (29) on turntable bridge (12).</p> <p>21 Install ten flat washers (30) and ten capscrews (31).</p> <p>22 Using lock wire (28), lace ten capscrews (31).</p> <p>23 Install machine key (32) and handle (33) on straight shaft (9).</p> | <p>24 Install capscrew (34). Do not tighten capscrew (34).</p> <p>25 Position tread plates (35 and 36) on access door hinge (25) and floor plate hinge (29). Center handle (33) in tread plate (35) and tighten capscrew (34).</p> <p>26 Install ten flat washers (37), ten machine screws (38), and ten self-locking nuts (39).</p> <p>27 Position tread plates (40 and 24) on access door hinge (25) and floor plate hinge (29).</p> <p>28 Install ten flat washers (41), ten machine screws (42), and ten self-locking nuts (43).</p> |
|---|--|

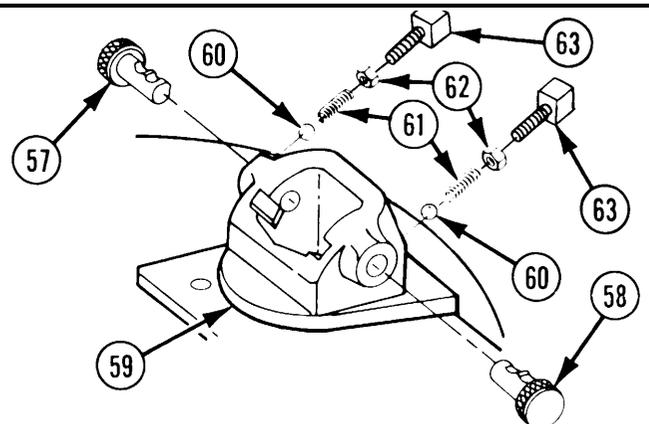
- 29 Position torsion helical spring (44) and latch (45) on spring tension hook clip (46).
- 30 Insert headless straight pin (47) into spring tension hook clip (46), torsion helical spring (44), and latch (45).
- 31 Install two flat washers (48).
- 32 Install two new cotter pins (49).
- 33** Install spring tension hook clip (46) on turntable bridge (12), securing with four flat washers (50), two capscrews (51), and two self-locking nuts (52).



- 34 Install four webbing straps (53), four mortar turntable loops (54), eight flat washers (55), and eight capscrews (56) at four locations on turntable bridge (12).



- 35 Apply GAA to barrel locking pins (57) and (58). Install in mortar mount socket (59) so that pointed side of Pin is facing bottom of socket and detents are facing holes for ball bearings.
- 36 Install two ball bearings (60) and two compression springs (61) in mortar mount socket (59).
- 37 Install two nuts (62) and two setscrews (63).
- 38 Tighten two setscrews (63) until two compression springs (61) are fully compressed and two ball bearings (60) are seated in grooves of barrel locking pins (57) and (58); then unscrew setscrews 1 ½ turns. Barrel locking

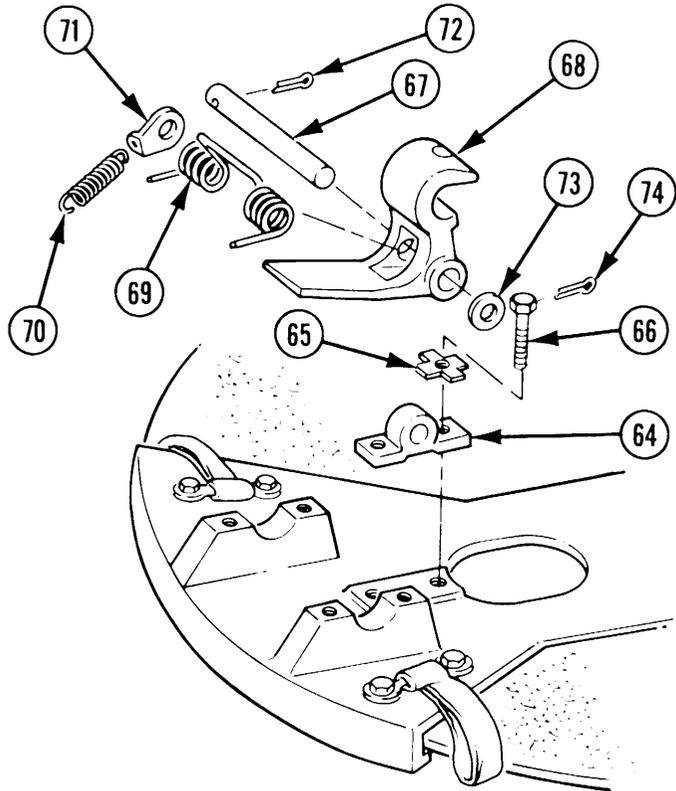


pins (57) and (58) should move between two detents but should not come out of mortar mount socket (59). Hold two setscrews (63) and torque two nuts (62) 60 to 70 ft-lb.

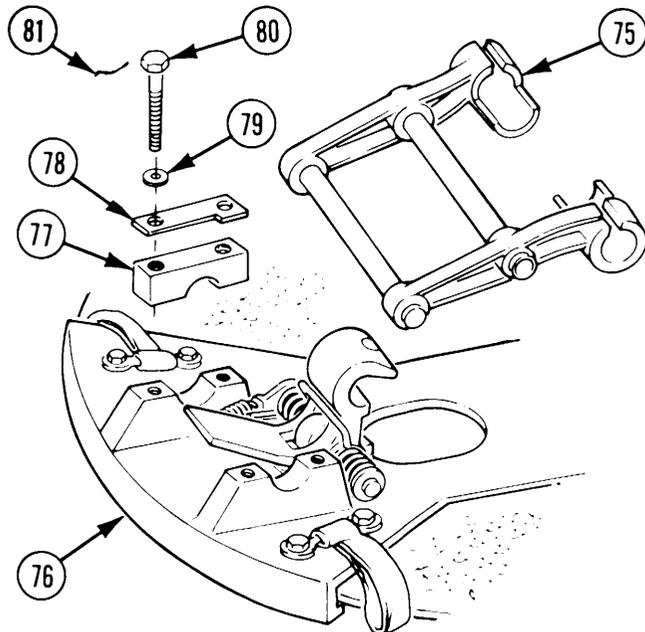
2-14. 107-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, AND TURNTABLE-MAINTENANCE INSTRUCTIONS. (cont)

REASSEMBLY/INSTALLATION (cont)

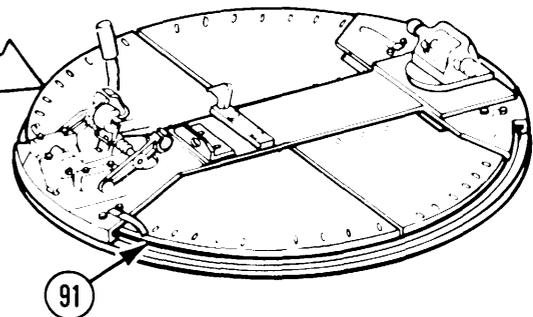
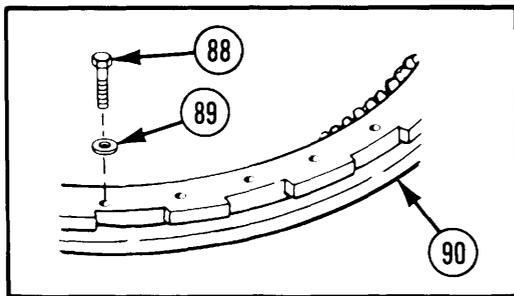
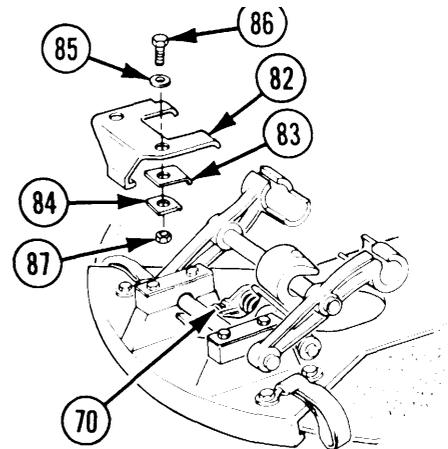
- 39 Install catch support bracket (64) using two new key washers (65) and two capscrews (66). Bend tabs of key washers (65) around heads of capscrews (66).
- 40 Lubricate headless straight pin (67) with GAA.
- 41 Use headless straight pin (67) to install front standard support catch (68) on catch support bracket (64) while compressing torsion helical spring (69).
- 42 Install extension helical spring (70) on spring retaining clip (71). Then place spring retaining clip (71) over headless straight pin (67) and install new cotter pin (72).
- 43 Install flat washer (73) on headless straight pin (67), and install new cotter pin (74).



- 44 Lubricate shaft of mortar standard support (75) with GAA in the area where it will be contacted by the shaft support clamps.
- 45 Position mortar standard support (75) on turntable (76).
- 46 Position two shaft support clamps (77).
- 47 Position stop (78).
- 48 Install four flat washers (79) and four capscrews (80).
- 49 Install lock wire (81) through capscrews (80).



- 50 Install turntable mount guard (82).
- 51 Insert and align two catch guard clips (83) and two retaining spring clips (84) under turntable mount guard (82).
- 52 Install two flat washers (85), two capscrews (86), and two self-locking nuts (87).
- 53 Attach extension helical spring (70) to retaining spring clip (84).



- 54 If any of the thirty-six capscrews (88) and thirty-six flat washers (89) were removed from internal gear (90) in disassembly, clean and lubricate with GPL oil or PL-S as required.
- 55 Install any removed capscrews (88) and flat washers (89) and torque capscrews (88) to  $80 \pm 3$  ft-lb.
- 56 Apply GAA to internal gear if necessary.

**WARNING**

Four crewmen are required to install the turntable assembly in the carrier because of the weight.

- 57 Using four crewmen, align and position turntable assembly (91) 90 degrees from center line on carrier.

- 58 Align notches in turntable assembly (91) with notched openings in internal gear (90).

**NOTE**

It may be necessary to loosen the tension on the mortar mount spring in order to seat the turntable assembly. Be sure to retighten until mortar mount spring compresses 3-9/32 to 3-11/32 inches and reinstall spring pin in nut.

- 59 Rotate turntable assembly (91) on internal gear (90) to check movement of the turntable to ensure smooth and steady movement through its full range of travel.

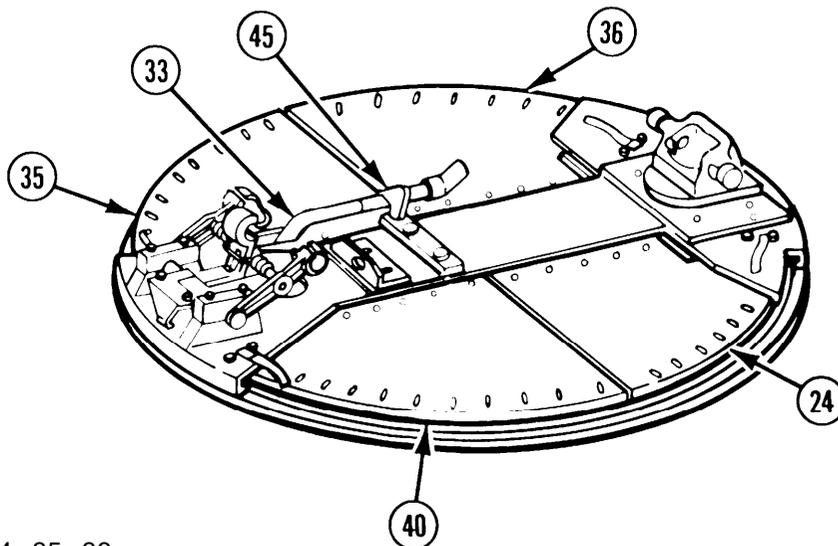
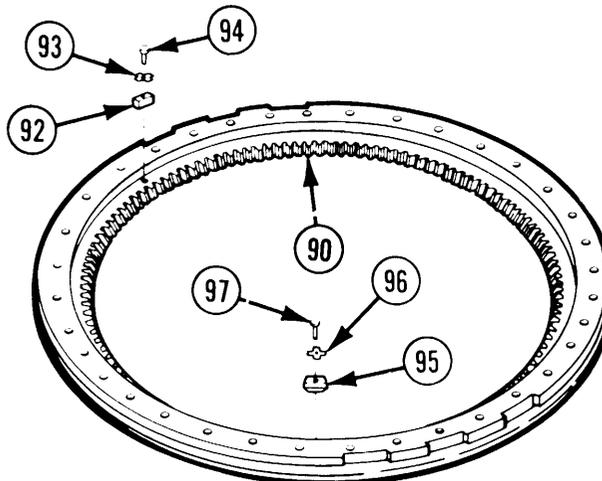
2-14. 107-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, AND  
TURNTABLE-MAINTENANCE INSTRUCTIONS. (cont)

**REASSEMBLY/INSTALLATION (cont)**

**NOTE**

Turntable assembly shown removed for clarity.

- 60 Position stop (92) on internal gear (90).
- 61 Install new key washer (93) and capscrew (94); tighten capscrew and bend key washer up against the capscrew.
- 62 Rotate turntable assembly 90 degrees and install remaining stop (95), key washer (96), and capscrew (97).



- 63 Close four tread plates (24, 35, 36 and 40).
- 64 Lock handle (33) by closing latch (45).

## 2-15. INDEX ACTUATOR LINK ASSEMBLY (107-MM, 81-MM, AND 120-MM)— MAINTENANCE INSTRUCTIONS.

### THIS TASK COVERS:

- a. Inspection                      b. Disassembly                      c. Repair                      d. Reassembly

### INITIAL SETUP

Tools and Special Tools  
General mechanic's automotive tool  
kit (SC 5180-90-CL-N26)

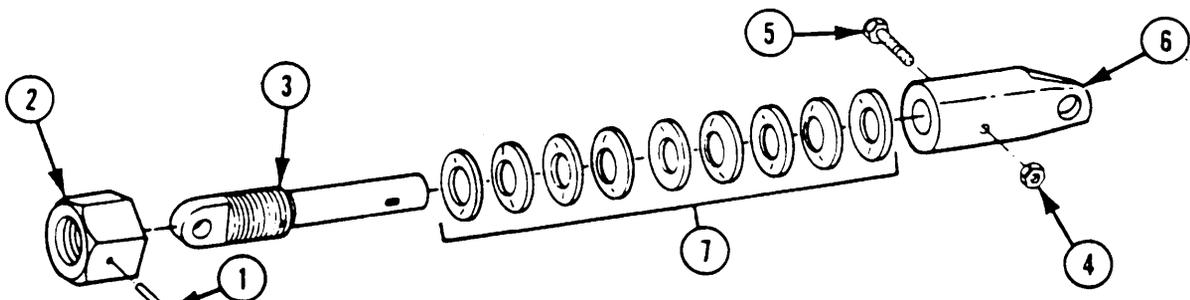
Solvent cleaning compound (item 8,  
app D)  
Wiping rag (item 7, app D)

Materials/Parts  
GAA (item 4, app D)  
GPL oil (item 5, app D)  
PL-S (item 6, app D)

Equipment Conditions  
2-23, Index actuator link assembly  
2-40, removed  
or  
2-54

Check for free movement of link and pins.

### DISASSEMBLY



#### NOTE

Some older models may have two nuts instead of spring pin (1) and nut (2). Have intermediate direct support maintenance replace two nuts with one nut and spring pin.

Nut (2) and plunger (3) are not replaceable at this maintenance level.

- 1 Remove spring pin (1) from nut (2).
- 2 Remove nut (2) from plunger (3).
- 3 Remove self-locking nut (4) and capscrew (5).
- 4 Remove actuator housing (6) from plunger (3).
- 5 Remove nine spring washers (7) from plunger (3).

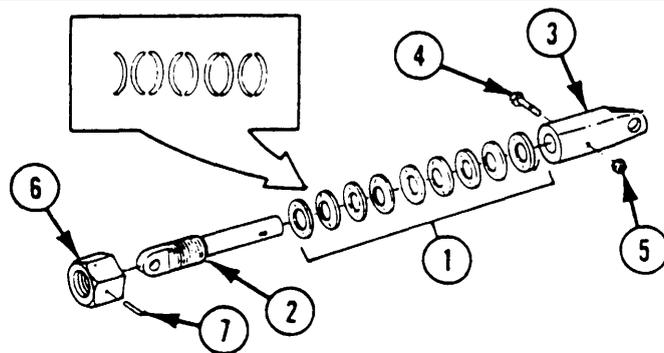
**2-15. INDEX ACTUATOR LINK ASSEMBLY (107-MM, 81-MM, AND 120-MM)—  
 MAINTENANCE INSTRUCTIONS. (cont)**

**REPAIR**

- |   |   |
|---|---|
| <p>1 Check for worn pins.</p> <p>2 Clean corrosion and foreign matter with solvent cleaning compound.</p> | <p>3 Replace missing, broken, or damaged parts. See appendix C.</p> |
|---|---|

**REASSEMBLY**

- 1 Lubricate parts prior to reassembly with light coat of GAA.
- 2 Install nine spring washers (1) on plunger (2) as shown in insert.
- 3 Install plunger (2) in actuator housing (3).
- 4 Install capscrew (4) through actuator housing (3) and secure with self-locking nut (5).
- 5 Install nut (6) on plunger (2) and align pin holes. Check that distance between



nut (6) and housing actuator (3) is 1-3/16 inch.

- 6 Install spring pin (7) in nut (6).

**2-16. 81-MM MORTAR TURNTABLE AND MOUNT AND TURNTABLE—MAINTENANCE INSTRUCTIONS.**

THIS TASK COVERS:

- |                        |           |                            |
|------------------------|-----------|----------------------------|
| a. Removal/disassembly | b. Repair | c. Reassembly/installation |
|------------------------|-----------|----------------------------|

INITIAL SETUP

Tools and Special Tools

General mechanic's automotive tool kit (SC 5180-90-CL-N26)

Materials/Parts

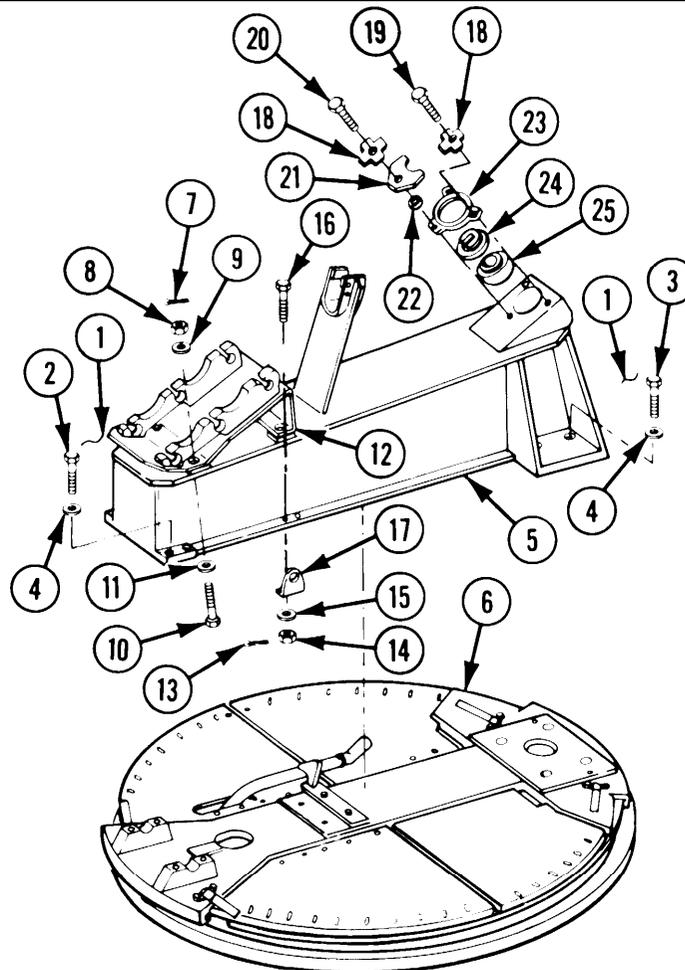
- Cotter pin (four) (MS24665-283)
- Cotter pin (four) (MS24665-287)
- Cotter pin (four) (MS24665-291)
- GAA (item 4, app D)

- GPL oil (item 5, app D)
- Key washer (three) (8340106)
- Lock wire (item 10, app D)
- PL-S (item 6, app D)
- Solvent cleaning compound (item 8, app D)
- Wiping rag (item 7, app D)

Personnel Required

- 4 - Crewmen
- 1 - Mechanic

REMOVAL/DISASSEMBLY



- 1 Cut lock wire (1) from four cap screws (2) and four cap screws (3). Remove four cap screws (2), four cap screws (3), and eight flat washers (4).

**WARNING**

Two crewmen are required to remove the mortar mount from the turntable because of the weight.

**NOTE**

There is a plug on the bottom of the mortar mount (5) that will be a tight fit into a hole on the socket end of the turntable (6).

- 2 Using two crewmen, lift mortar mount (5) from turntable (6).
- 3 Remove four cotter pins (7), four nuts (8), four flat washers (9), four cap screws (10), and four flat washers (11). Lift off bipod support (12). Discard cotter pins (7).
- 4 Remove four cotter pins (13), four nuts (14), four flat washers (15), four cap screws (16), and two eye pads (17). Discard cotter pins (13).
- 5 Bend back three key washers (18). Remove two cap screws (19), one cap screw (20), and three key washers (18). Discard key washers (18).
- 6 Remove ball joint retainer (21), sleeve spacer (22), cap collar (23), cap (24), and socket (25).

## 2-16. 81-MM MORTAR TURNTABLE AND MOUNT AND TURNTABLE-MAINTENANCE INSTRUCTIONS. (cont)

### REMOVAL/DISASSEMBLY (cont)

- 7 Unlock handle (26) by opening latch (27).
- 8 Rotate turntable (6) 90 degrees from center line of carrier.
- 9 Aline notches in turntable (6) with notches in internal gear (28).

#### WARNING

Four crewmen are required to remove the turntable from the carrier because of the weight.

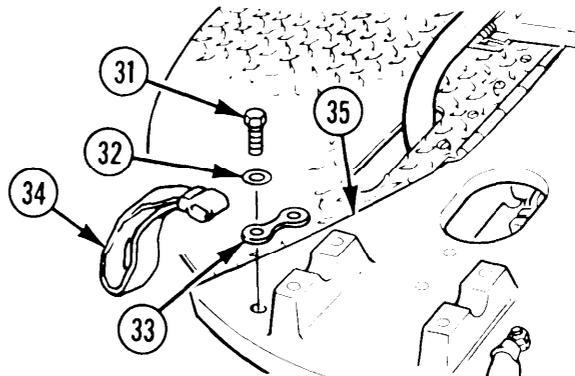
#### NOTE

Before removing turntable from carrier, position blocking to place turntable on for the rest of the maintenance procedures.

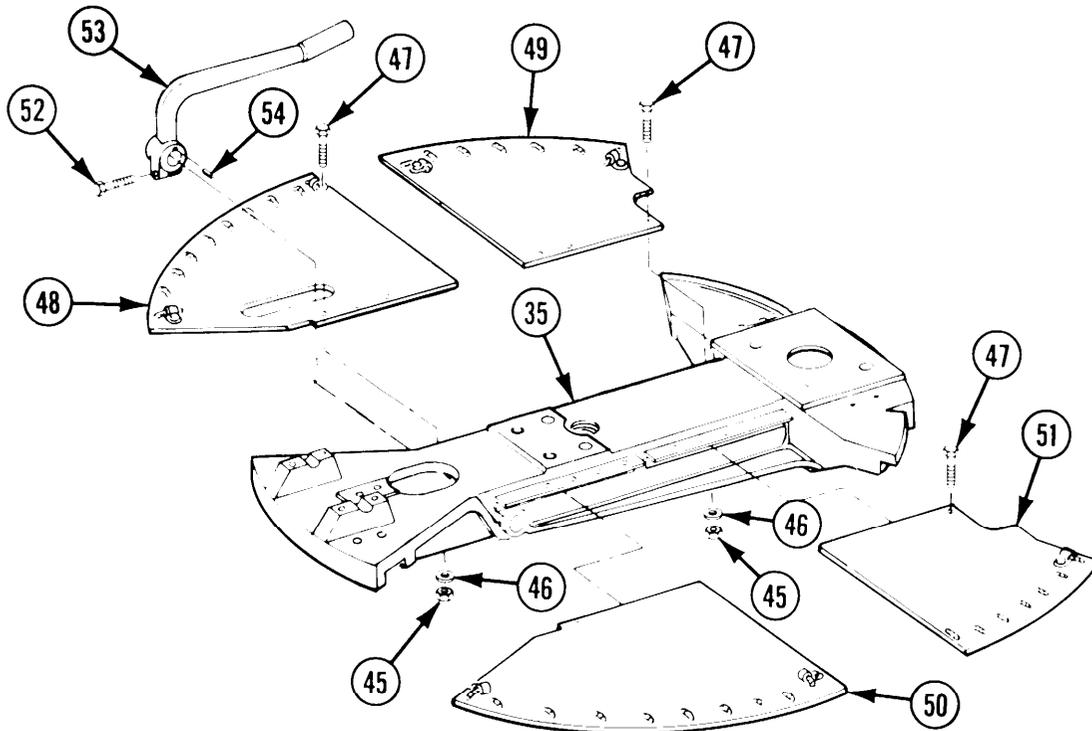
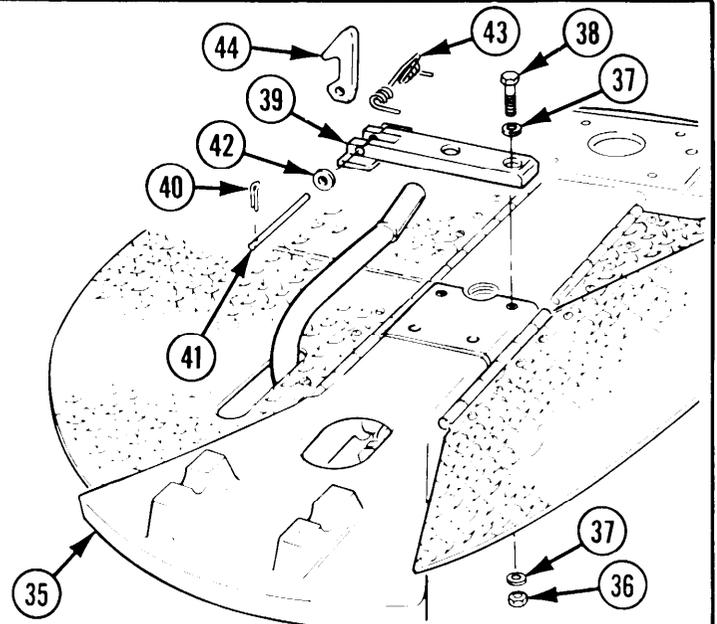
- 10 Using four crewmen, lift turntable (6) evenly from carrier to prevent binding.

- 11 Check for any loose, missing, or damaged capscrews (29) and flat washers (30) securing internal gear (28).

- 12 Remove eight capscrews (31), eight flat washers (32), four mortar turntable loops (33), and four webbing straps (34) from turntable bridge (35).



- 13 Remove two self-locking nuts (36), four flat washers (37), and two capscrews (38).
- 14 Remove spring tension hook clip (39) from turntable bridge (35).
- 15 Remove two cotter pins (40), headless straight pin (41), and two flat washers (42). Discard cotter pins (40).
- 16 Remove torsion helical spring (43) and latch (44) from spring tension hook clip (39).



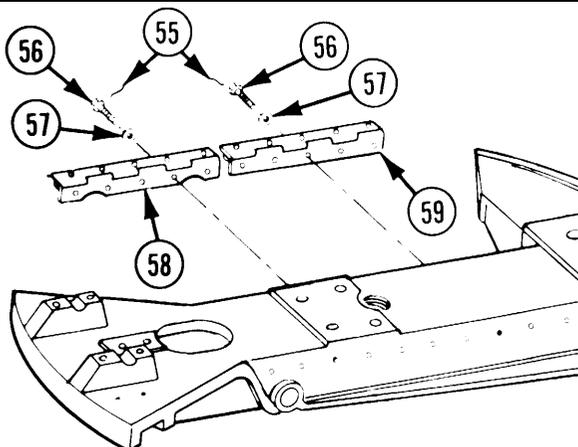
- 17 Remove twenty self-locking nuts (45), twenty flat washers (46), and twenty machine screws (47).
- 18 Remove four tread plates (48, 49, 50, and 51) from turntable bridge (35).
- 19 Remove capscrew (52) from handle (53).
- 20 Remove handle (53).
- 21 Remove machine key (54).

2-16. 81-MM MORTAR TURNTABLE AND MOUNT AND TURNTABLE-MAINTENANCE INSTRUCTIONS. (cont)

22 Cut lock wire (55) and remove twenty capscrews (56) and twenty flat washers (57).

23 Remove two access door hinges (58).

24 Remove two floor plate hinges (59).

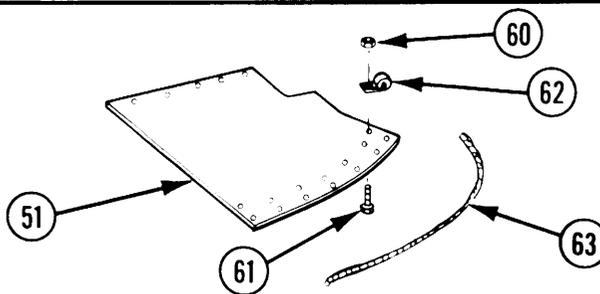


**NOTE**

Steps 25 and 26 are written for one tread plate but apply to all four.

25 Remove two self-locking nuts (60) and two machine screws (61) from two loop clamps (62).

26 Remove two loop clamps (62) from tread plate (51); untie and remove one length of nylon cushion rope (63).



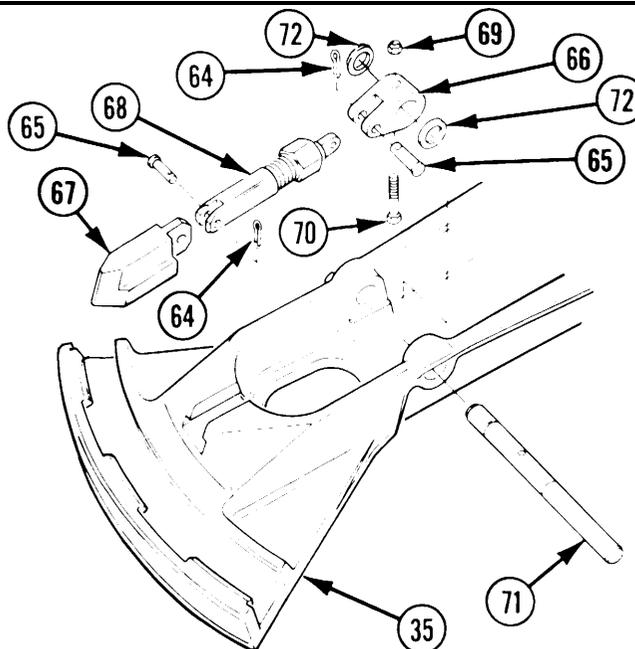
27 Remove two cotter pins (64) and two headed straight pins (65) from remote control lever (66) and tooth (67). Discard cotter pins (64).

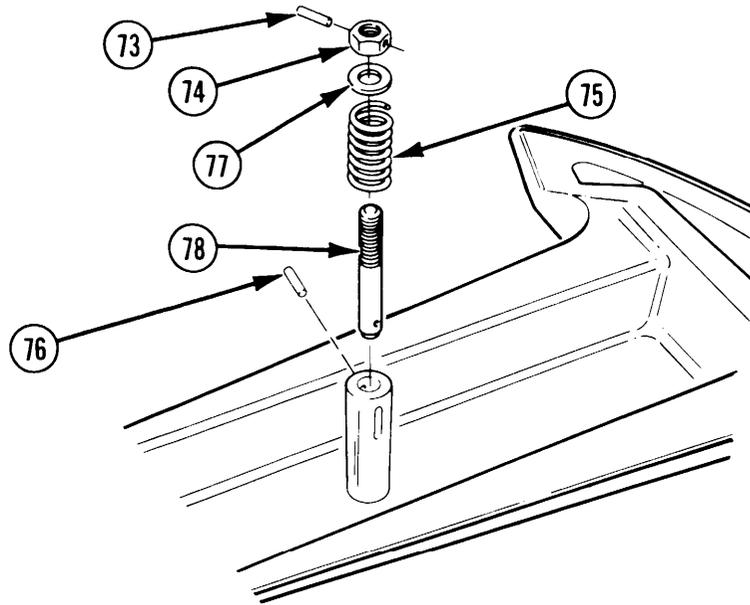
**NOTE**

Index actuator link assembly (68) is not replaceable at this maintenance level.

28 Remove tooth (67) and index actuator link assembly (68).

29 Remove self-locking nut (69), capscrew (70), straight shaft (71), two turntable retaining rings (72), and remote control lever (66) from turntable bridge (35).





**NOTE**

Some older models may have two nuts instead of spring pin (73) and nut (74). Have intermediate direct support maintenance replace two nuts with one nut and spring pin.

30 Remove spring pin (73) from nut (74).

**CAUTION**

Mortar mount spring (75) is under tension. Do not remove spring pin (76) until nut (74) is removed or loosened to release spring tension.

**NOTE**

Nut (74) is not replaceable at this maintenance level.

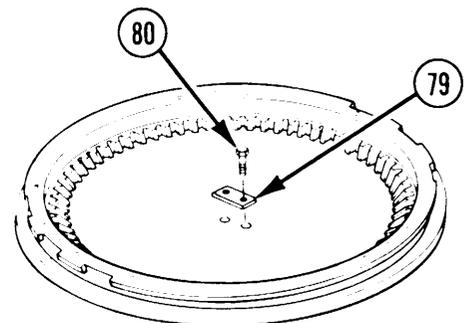
31 Remove nut (74), flat washer (77), and mortar mount spring (75).

**NOTE**

Threaded straight pin (78) is not replaceable at this maintenance level.

32 If spring pin (76) is damaged, remove spring pin (76) and threaded straight pin (78).

33 If guide pin base (79) on floor of vehicle is worn or damaged, remove two capscrews (80) and guide pin base (79) from vehicle.



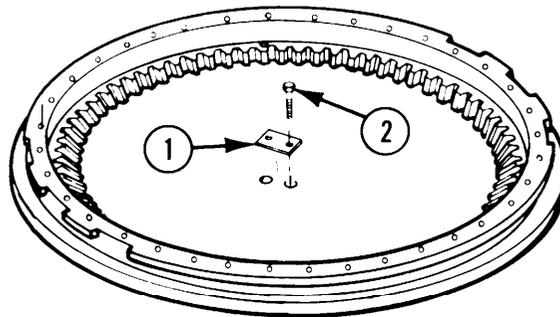
## 2-16. 81-MM MORTAR TURNTABLE AND MOUNT AND TURNTABLE-MAINTENANCE INSTRUCTIONS. (cont)

### REPAIR

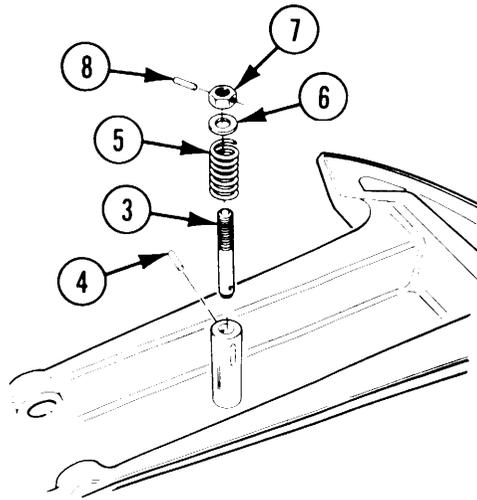
- 1 Use solvent cleaning compound and wiping rag to clean corrosion and foreign matter from parts.
- 2 Check mortar mount and mortar bipod support for cracks.
- 3 Check turntable bridge for stripped inserts and warped parts. Notify intermediate direct support maintenance.
- 4 Remove nicks and burrs with a fine cut file.
- 5 Replace any missing, broken, or damaged parts. See appendix C.

### REASSEMBLY/INSTALLATION

- 1 Lubricate parts prior to reassembly with light coat of GAA.
- 2 If removed, install guide pin base (1) in vehicle and secure with two capscrews (2).



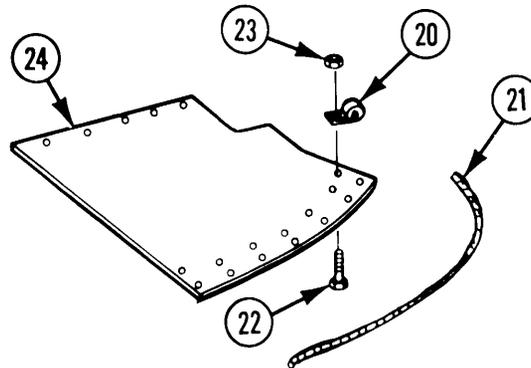
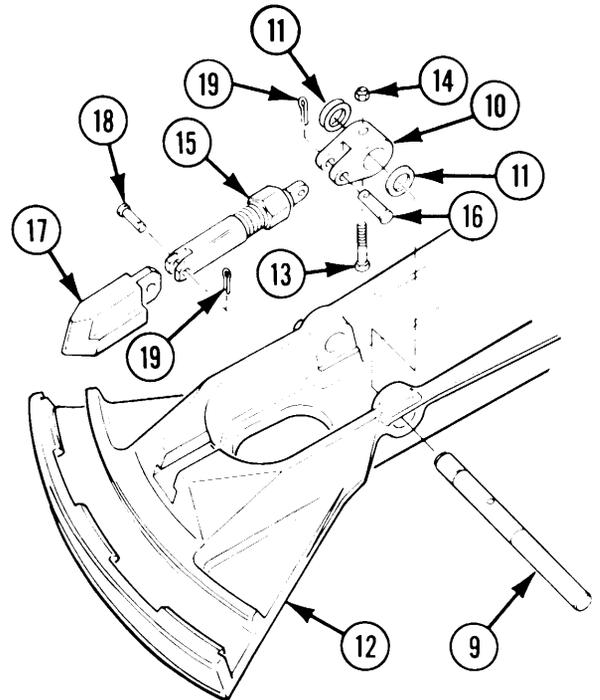
- 3 If removed, install threaded support pin (3) and spring pin (4).
- 4 Install mortar mount spring (5) and flat washer (6).
- 5 Install nut (7); tighten nut until mortar mount spring compresses 3-9/32 to 3-11/32 inches and holes are aligned for spring pin (8).
- 6 Install spring pin (8).



**NOTE**

Straight shaft (9) should be installed with the key on the bottom and on the same side that the handle will be on.

- 7 Install remote control lever (10), straight shaft (9), and two turntable retaining rings (11) in turntable bridge (12).
- 8 Install capscrew (13) and self-locking nut (14).
- 9 Install index actuator link assembly (15) in remote control lever (10) and secure with headed straight pin (16).
- 10 Install tooth (17) in index actuator link assembly (15) and secure with headed straight pin (18).
- 11 Install two new cotter pins (19).



**NOTE**

The procedure in steps 12 thru 16 is written for installation of nylon cushion rope into one tread plate but applies to all four.

- 12 Install loop clamp (20) on end of nylon cushion rope (21).
- 13 Install machine head screw (22) through loop clamp (20), and secure with self-locking nut (23).

- 14 Lace nylon cushion rope (21) through tread plate (24).
- 15 Anchor end of nylon cushion rope (21) with another loop clamp (20) as in steps 12 and 13. Cut off excess.

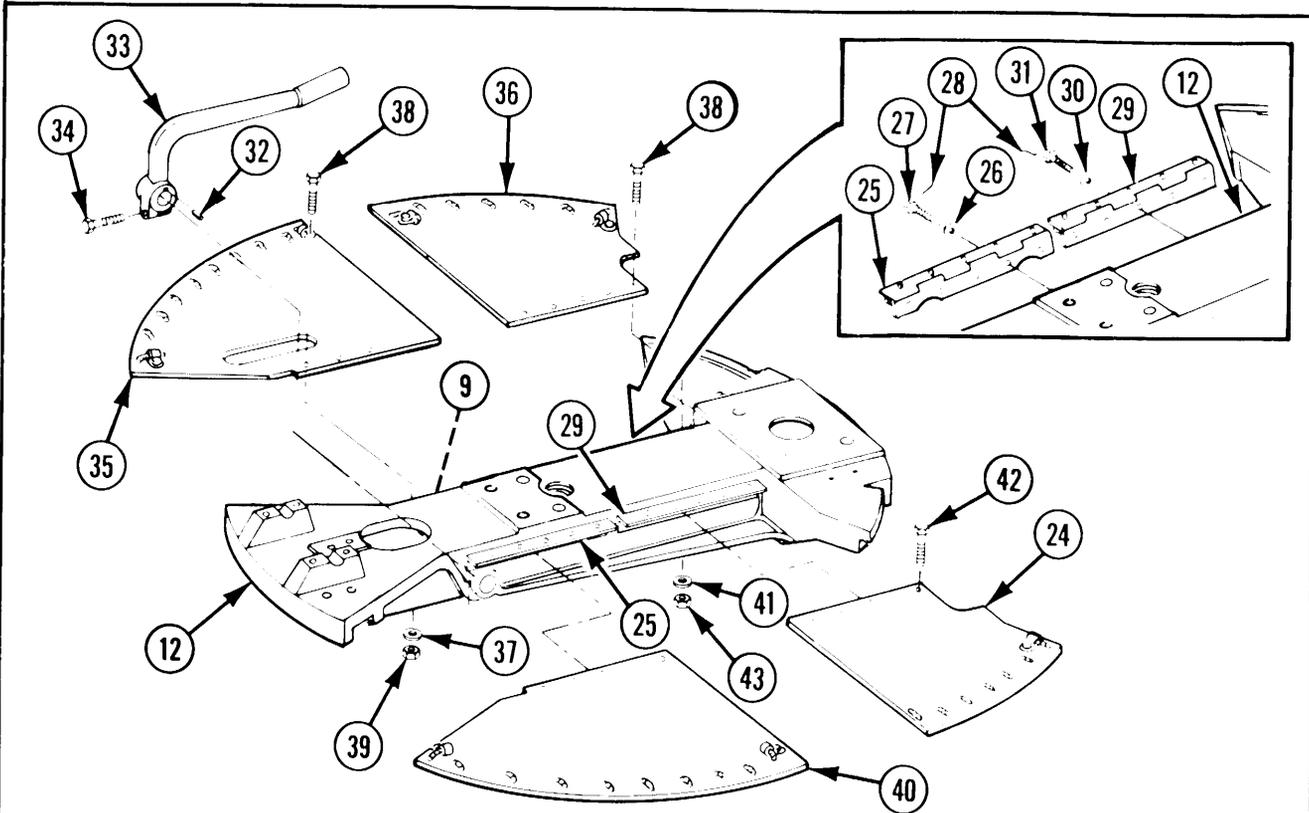
**WARNING**

Melted nylon rope can cause a severe burn.

- 16 Burn the ends of the rope to prevent it from unraveling. Use only enough heat to melt the rope strands together.

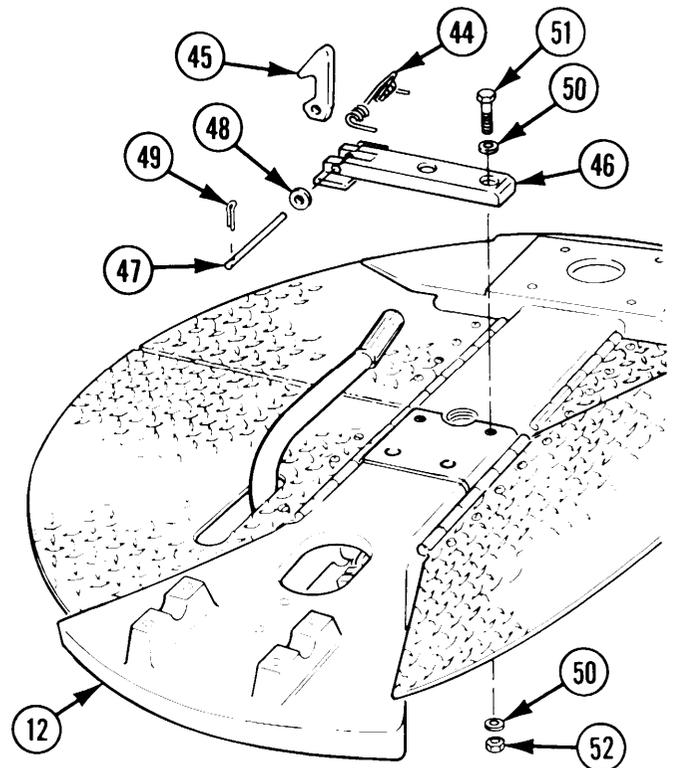
2-16. 81-MM MORTAR TURNTABLE AND MOUNT AND TURNTABLE-MAINTENANCE INSTRUCTIONS. (cont)

REASSEMBLY/INSTALLATION (cont)

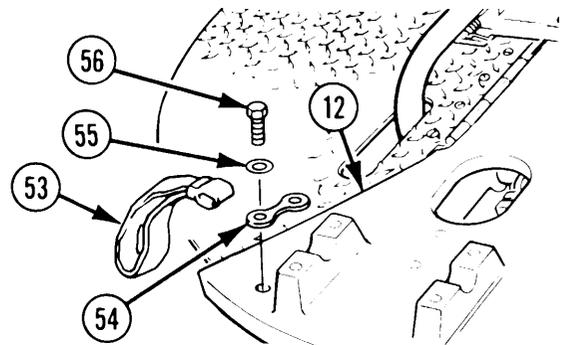


- |   |  |
|---|--|
| <p>17 Position two access door hinges (25) on turntable.</p> <p>18 Install ten flat washers (26) and ten capscrews (27).</p> <p>19 Using lock wire (28), lace ten capscrews (27).</p> <p>20 Position two floor plate hinges (29) on turntable bridge (12).</p> <p>21 Install ten flat washers (30) and ten capscrews (31).</p> <p>22 Using lock wire (28), lace ten capscrews (31).</p> <p>23 Install machine key (32) and handle (33) on straight shaft (9).</p> | <p>24 Install capscrew (34). Do not tighten capscrew (34).</p> <p>25 Position tread plates (35 and 36) on access door hinge (25) and floor plate hinge (29). Center handle (33) in tread plate (35) and tighten capscrew (34),</p> <p>26 Install ten flat washers (37), ten machine screws (38), and ten self-locking nuts (39).</p> <p>27 Position tread plates (40 and 24) on access door hinge (25) and floor plate hinge (29).</p> <p>28 Install ten flat washers (41), ten machine screws (42), and ten self-locking nuts (43).</p> |
|---|--|

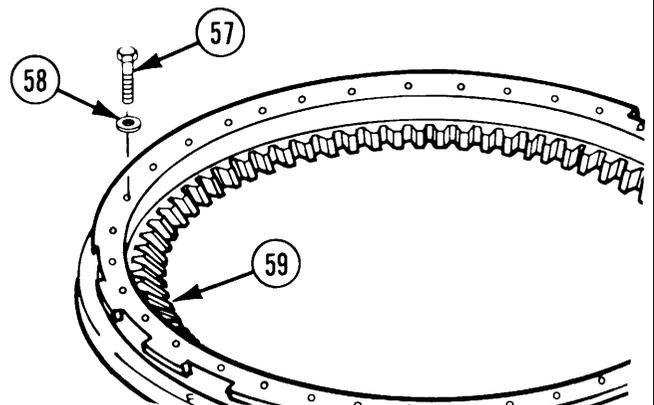
- 29 Position torsion helical spring (44) and latch (45) on spring tension hook clip (46).
- 30 Insert headless straight pin (47) into spring tension hook clip (46), torsion helical spring (44), and latch (45).
- 31 Install two flat washers (48).
- 32 Install two new cotter pins (49).
- 33 Install spring tension hook clip (46) on turntable bridge (12), securing with four flat washers (50), two capscrews (51), and two self-locking nuts (52).



- 34 Install four webbing straps (53), four mortar turntable loops (54), eight flat washers (55), and eight capscrews (56) at four locations on turntable bridge (12).

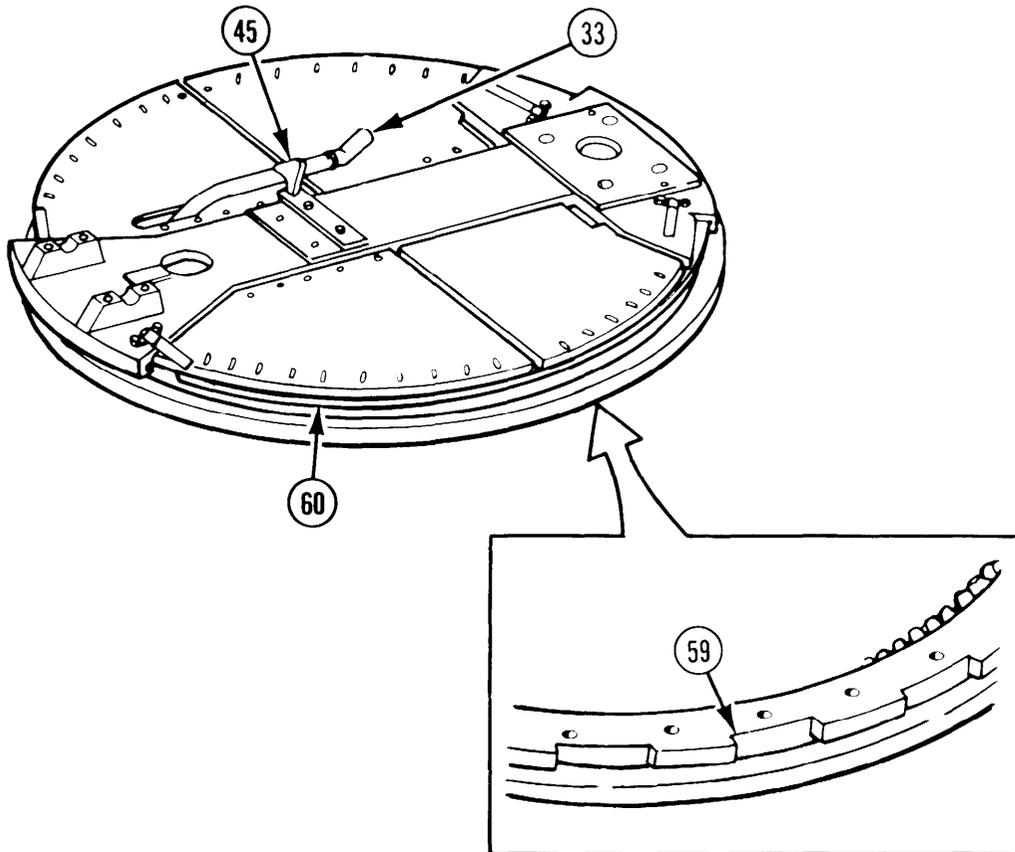


- 35 If any of the thirty-six capscrews (57) and thirty-six flat washers (58) were removed from internal gear (59) in disassembly, clean and lubricate with GPL oil or PL-S as required.
- 36 Install any removed capscrews (57) and flat washers (58) and torque capscrews (57) to  $80 \pm 3$  ft-lb.
- 37 Apply GAA to internal gear (59) if necessary.



## 2-16. 81-MM MORTAR TURNTABLE AND MOUNT AND MOUNT AND TURNTABLE-MAINTENANCE INSTRUCTIONS. (cont)

### REASSEMBLY/INSTALLATION (cont)



#### WARNING

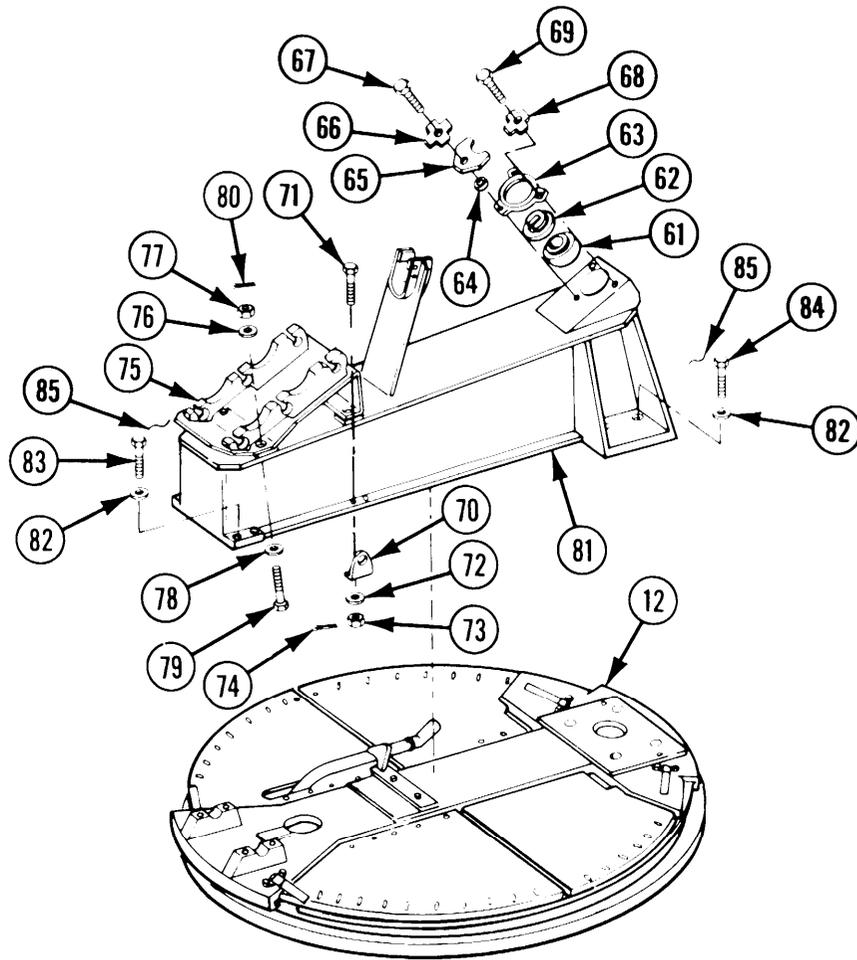
Four crewmen are required to install the turntable in the carrier because of the weight.

- 38 Using four crewmen, align and position turntable (60) 90 degrees from center line on carrier.
- 39 Align notches in turntable (60) with notched openings in internal gear (59).

#### NOTE

It may be necessary to loosen the tension on the mortar mount spring in order to seat the turntable assembly. Be sure to retighten until mortar mount spring compresses 3-9/32 to 3-11/32 inches and reinstall spring pin in nut.

- 40 Rotate turntable (60) on internal gear (59) to check movement of the platform to ensure smooth and steady movement through its full range of travel.
- 41 Lock handle (33) by closing latch (45).



- 42 Install socket (61), cap (62), cap collar (63), and sleeve spacer (64).
- 43 Install retainer (65).
- 44 Install new key washer (66) and longer cap screw (67). Torque to 20±3 ft-lb.
- 45 Install two new key washers (68) and two shorter cap screws (69), and bend three key washers (66 and 68) around heads of cap screws (67 and 69).
- 46 Install two eye pads (70), four cap screws (71), four flat washers (72), four nuts (73), and four new cotter pins (74).
- 47 Position mortar bipod support (75) and install four flat washers (76), four nuts (77), four flat washers (78), four cap screws (79), and four new cotter pins (80).

**WARNING**

Two crewmen are required to lift the mortar mount onto the turntable.

**NOTE**

There is a plug on the bottom of the mortar mount (81) that will be a tight fit into a hole on the socket end of the turntable bridge (12).

- 48 Using two crewmen, lift and position mortar mount (81) onto turntable bridge (12).
- 49 Install eight flat washers (82), four cap screws (83), and four cap screws (84). Torque 50 to 55 ft-lb.
- 50 Lace eight cap screws (83 and 84) with lock wire (85).

## 2-17. 81-MM MORTAR BIPOD ASSEMBLY—MAINTENANCE INSTRUCTIONS.

### THIS TASK COVERS:

Inspection/service

### INITIAL SETUP

#### Tools and Special Tools

General mechanic's automotive tool  
kit (SC 5180-90-CL-N26)

#### Materials/Parts

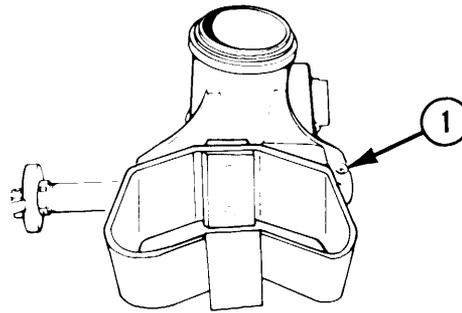
GPL oil (item 5, app D)  
PL-S (item 6, app D)

### INSPECTION/SERVICE

#### NOTE

Oil cup is not replaceable at  
this maintenance level.

- 1 Check oil cup (1) for damage. Make  
sure it will accept lubricant.
- 2 Lubricate with GPL oil or PL-S.



## 2-18. RECOIL BUFFER ASSEMBLY—MAINTENANCE INSTRUCTIONS.

### THIS TASK COVERS:

- a. Disassembly
- b. Repair
- c. Reassembly

### INITIAL SETUP

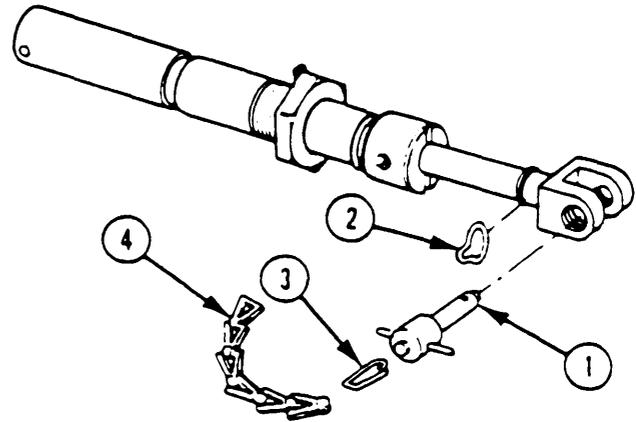
#### Tools and Special Tools

General mechanic's tool kit (SC  
5180-90-CL-N26)

#### Materials/Parts

Solvent cleaning compound (item 8,  
app D)  
Wiping rag (item 7, app D)

Remove quick release pin (1), clip (2), clip (3), and weldless chain (4).

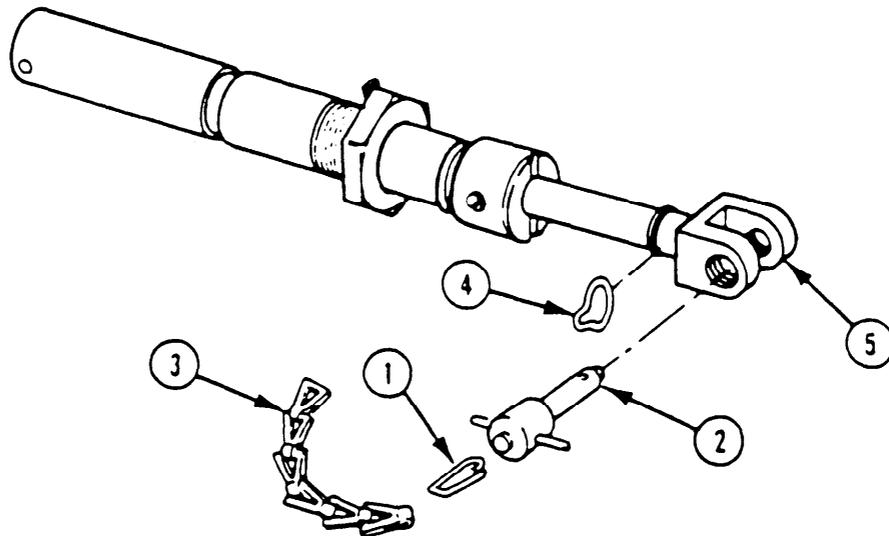


### REPAIR

1 Remove corrosion and foreign matter with solvent cleaning compound.

2 Replace any missing, broken, or damaged parts. See appendix C.

### REASSEMBLY



1 Install clip (1) on quick release pin (2) and weldless chain (3).

3 Install quick release pin (2).

2 Install clip (4) on weldless chain (3) and clevis and rod (5).

## 2-18.1. 120-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, AND TURNTABLE—MAINTENANCE INSTRUCTIONS.

### THIS TASK COVERS:

- a. Removal/disassembly                      b. Repair                      c. Reassembly/installation

### INITIAL SETUP

#### Tools and Special Tools

General mechanic's automotive  
tool kit (SC 5180-90-CL-N26)  
Box wrench (12901138)  
Torque wrench (12901 100)

Self-locking nut (eight) (MS21044N08)  
Self-locking nut (MS21044N6)  
Self-locking nut (twenty)  
(MS51922-17)  
Self-locking nut (two) (MS51922-33)  
Solvent cleaning compound (item  
8, app D)  
Thread locking compound (item 9.1,  
app D)  
Wiping rag (item 7, app D)

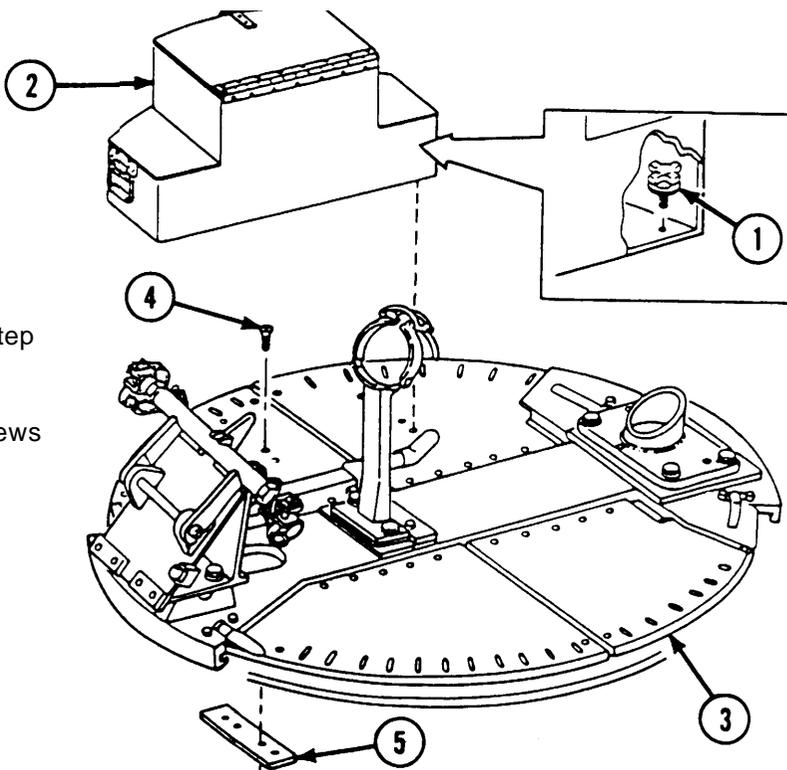
#### Materials/Parts

Cotter pin (four) (MS24665-283)  
GAA (item 4, app D)  
GPL oil (item 5, app D)  
Key washer (two) (83401 07)  
Lockwasher (ten) (MS35338-48)  
Lock wire (item 10, app D)  
PL-S (item 6, app D)

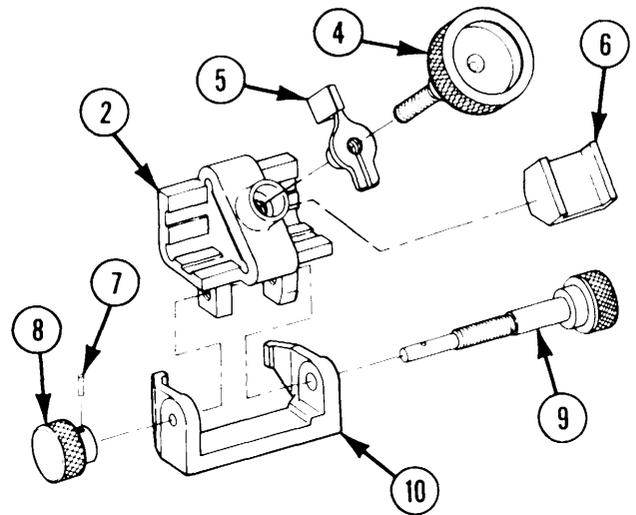
Personnel Required  
4 - Crewmen  
1 - Mechanic

### REMOVAL/DISASSEMBLY

- 1 Remove four knobs (1). Remove step (2) from turntable (3).
- 2 Using key wrench, remove four screws (4) and two plates (5).



- 3 Remove sight extension wheel (4) and sight extension lock (5).
- 4 Remove sight extension arm assembly block (6).
- 5 Remove spring pin (7) from knob (8).
- 6 Remove thumbscrew (9) and sight extension clamp (2) from slide clamp (10).

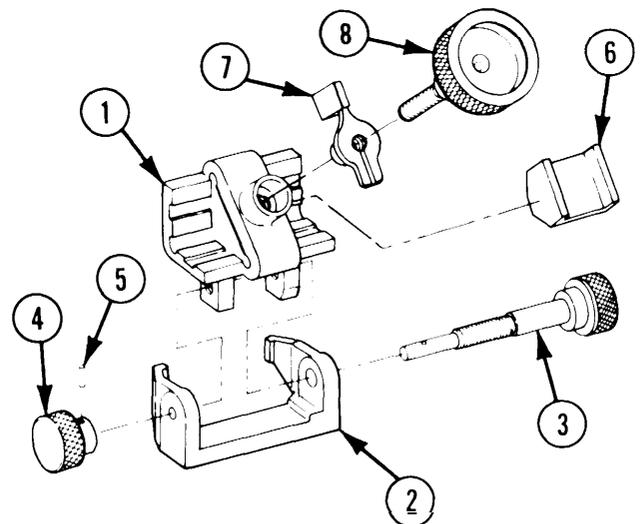


### REPAIR

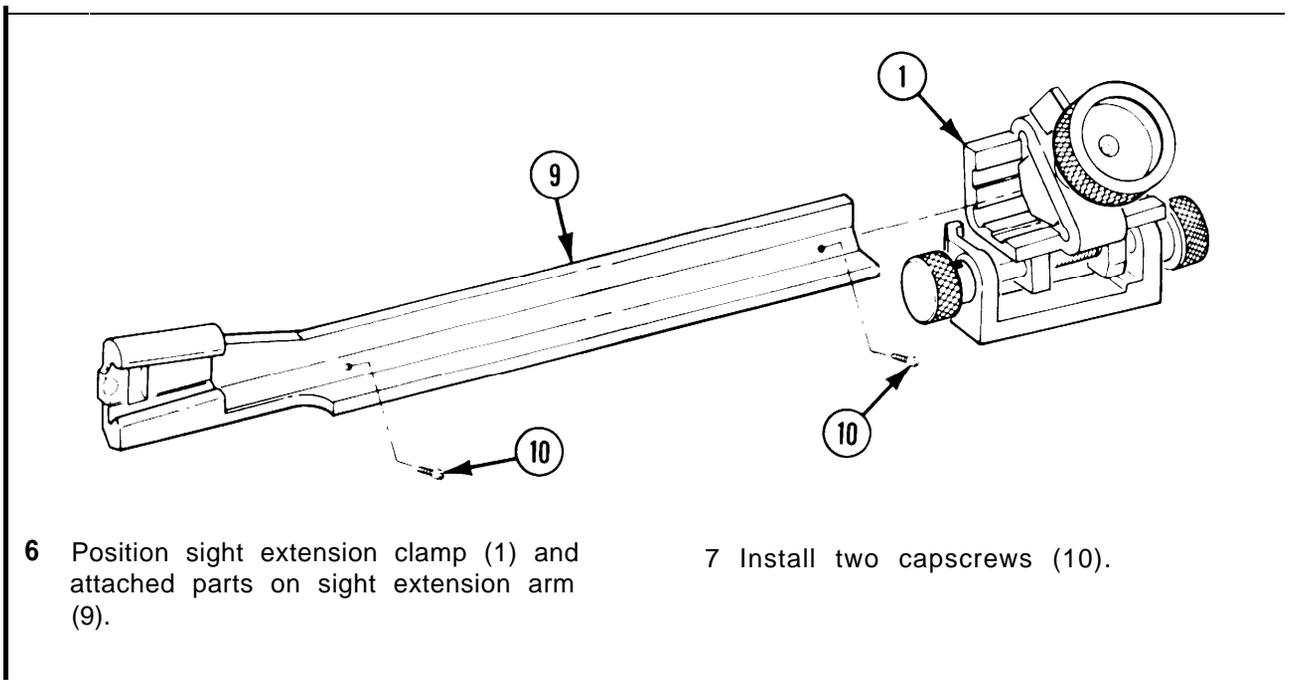
- 1 If sight extension arm is damaged, replace entire sight extension arm assembly.
- 2 Clean corrosion and foreign matter with solvent cleaning compound.
- 3 Replace any other missing, broken, or damaged parts. See appendix C.

### REASSEMBLY

- 1 Lubricate parts prior to reassembly with light coat of GAA.
- 2 Install sight extension clamp (1) in slide clamp (2).
- 3 Install thumbscrew (3) and knob (4).  
Align pin holes and install spring pin (5).
- 4 Install sight extension arm assembly block (6).
- 5 Install sight extension lock (7) and sight extension wheel (8).



## 2-19. SIGHT EXTENSION ARM ASSEMBLY—MAINTENANCE INSTRUCTIONS. (cont)

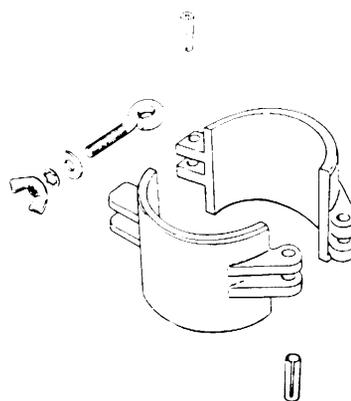


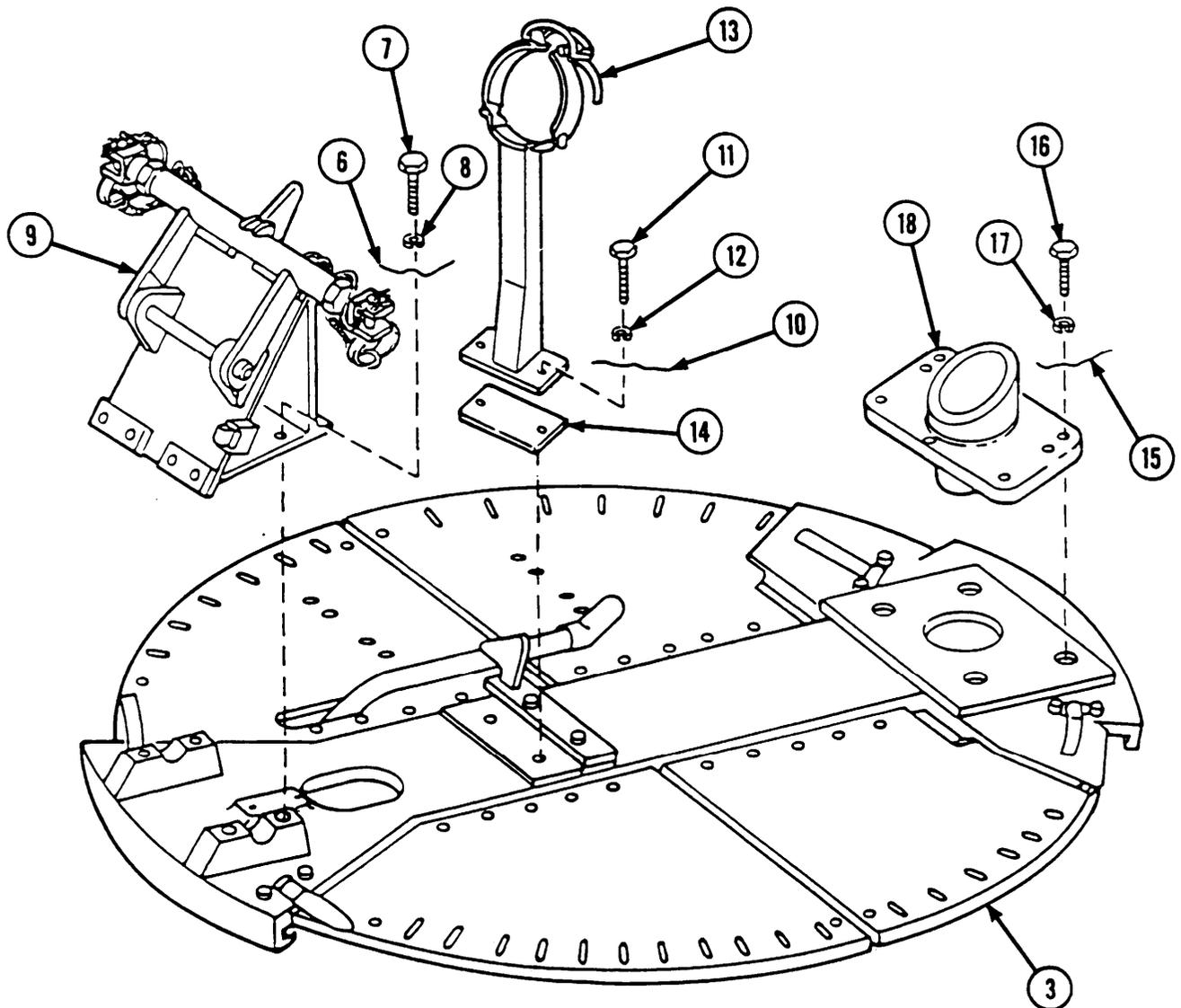
## 2-20. MORTAR SAFETY CLAMP ASSEMBLY - MAINTENANCE INSTRUCTIONS.

### THIS TASK COVERS:

Inspection

If mortar safety clamp assembly is damaged/incomplete, replace entire mortar safety clamp assembly.

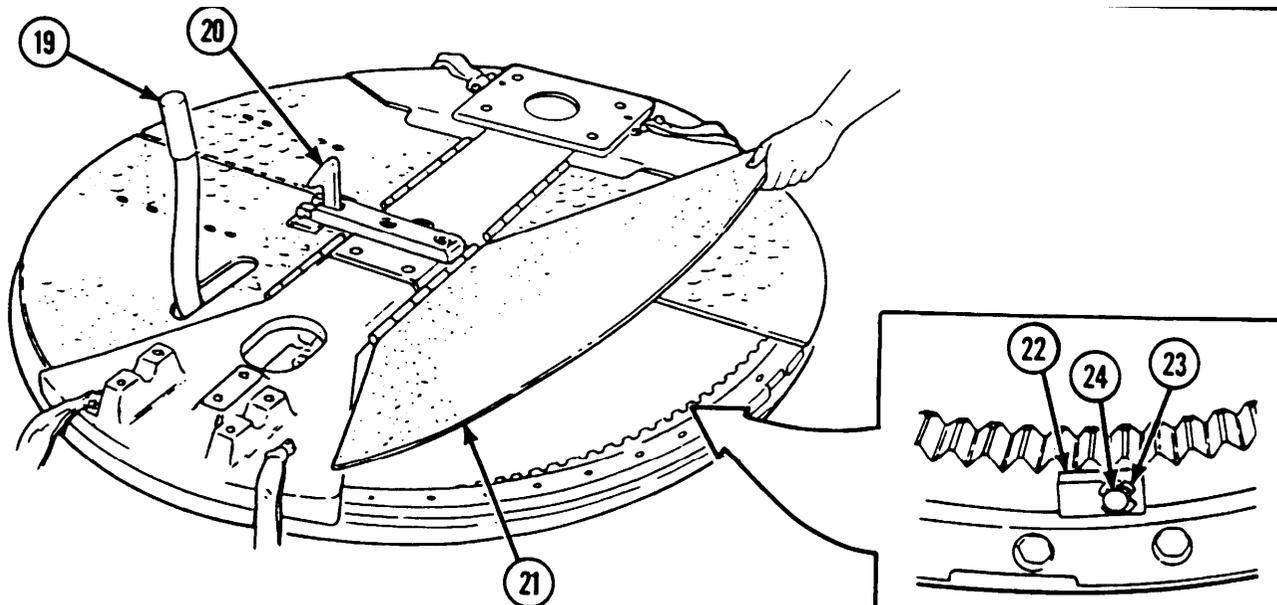




- 3 Remove and discard lock wire (6). Remove four screws (7) and four spring lockwashers (8). Remove bipod support assembly (9) from turntable (3). Discard spring lockwashers (8).
- 4 Remove and discard lock wire (10). Remove two screws (11) and two spring lockwashers (12). Remove traveling assembly lock (13) and spacer plate(s) (14) from turntable (3). Discard spring lockwashers (12).
- 5 Remove and discard lock wire (15). Remove four screws (16) and four spring lockwashers (17). Using three screws (16) in threaded jackscrew holes, remove breech base socket (18) from turntable (3). Discard spring lockwashers (17).

2-18.1. 120-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, AND TURNTABLE—MAINTENANCE INSTRUCTIONS. (cont)

**REMOVAL/DISASSEMBLY (cont)**



- 6 Unlock manual control handle (19) by opening rim latch (20).
- 7 Open one tread plate (21 ) to expose turntable stop (22).
- 8 Bend key washer (23) away from cap-

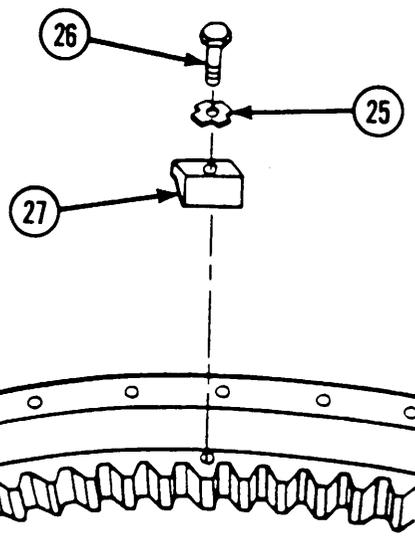
screw (24). Remove capscrew (24) and key washer (23). Discard key washer (23).

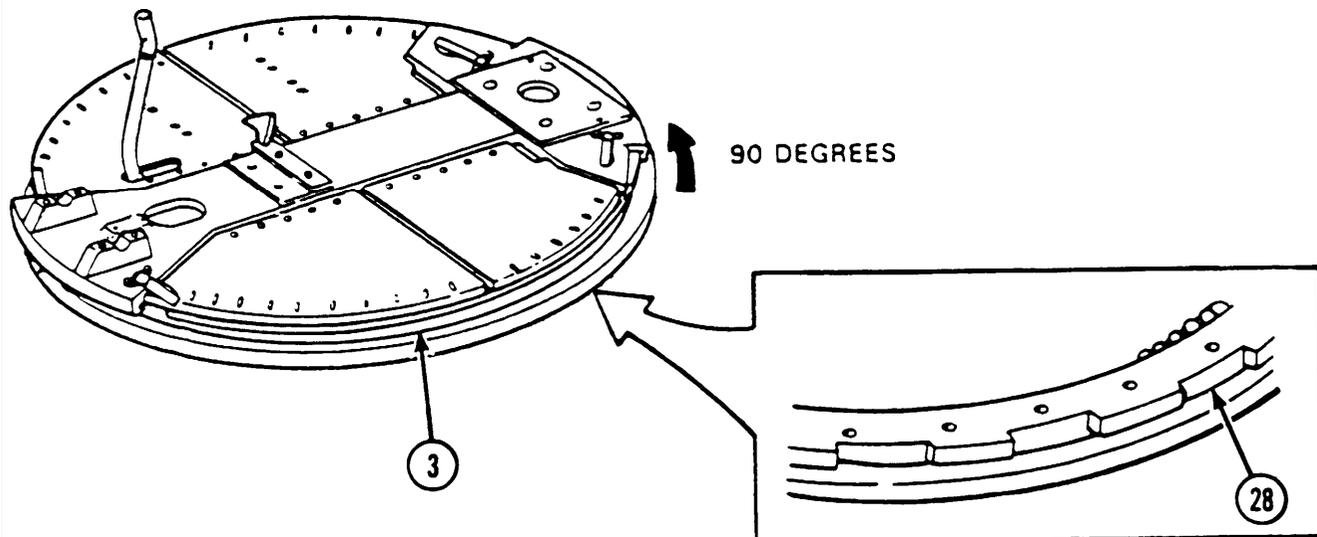
- 9 Remove turntable stop (22).

**NOTE**

Turntable shown removed for clarity.

- 10 Rotate turntable 90 degrees counterclockwise until remaining turntable stop is visible under opposite tread plate.
- 11 Bend key washer (25) away from capscrew (26).
- 12 Remove capscrew (26) and key washer (25). Discard key washer (25).
- 13 Remove turntable stop (27).





14 Rotate turntable (3) 90 degrees from center line of carrier.

15 Aline notches in turntable (3) with notches in internal gear (28).

**WARNING**

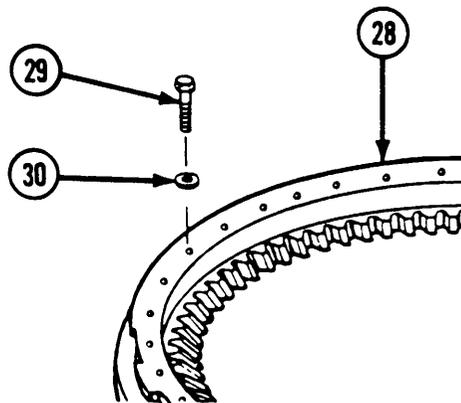
The turntable is extremely heavy. To avoid personal injury, use four crewmen to remove the turntable from the carrier.

**NOTE**

Before removing turntable from carrier, position blocking on which to place turntable for the rest of the maintenance procedures.

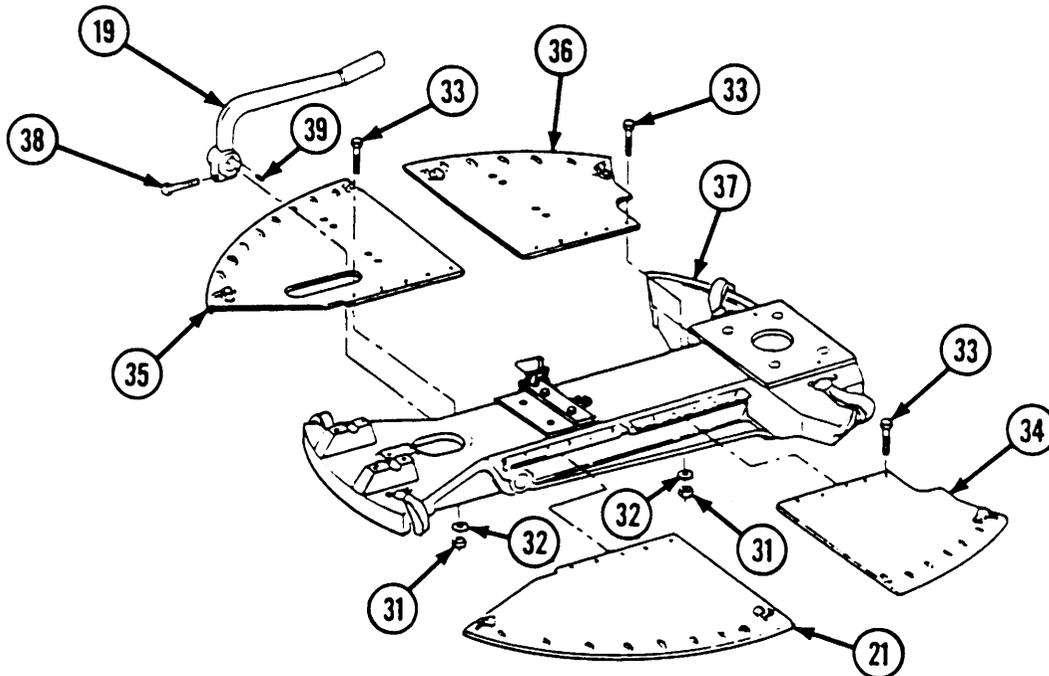
16 Using four crewmen, lift turntable (3) from carrier evenly to prevent binding.

17 Check for any loose, missing, or damaged capscrews (29) and flat washers (30) securing internal gear (28).



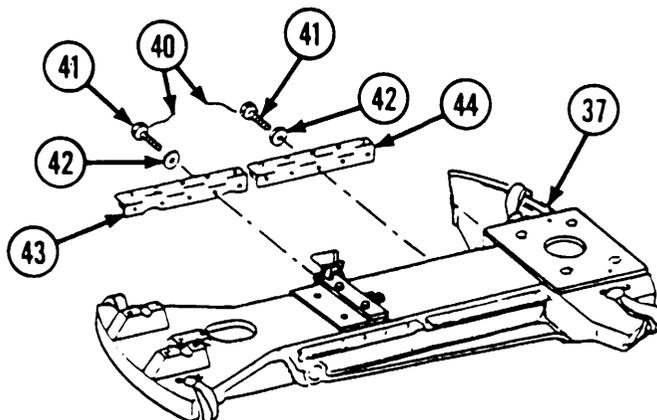
2-18.1. 120-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, AND  
TURNTABLE—MAINTENANCE INSTRUCTIONS. (cont)

REMOVAL/DISASSEMBLY (cont)

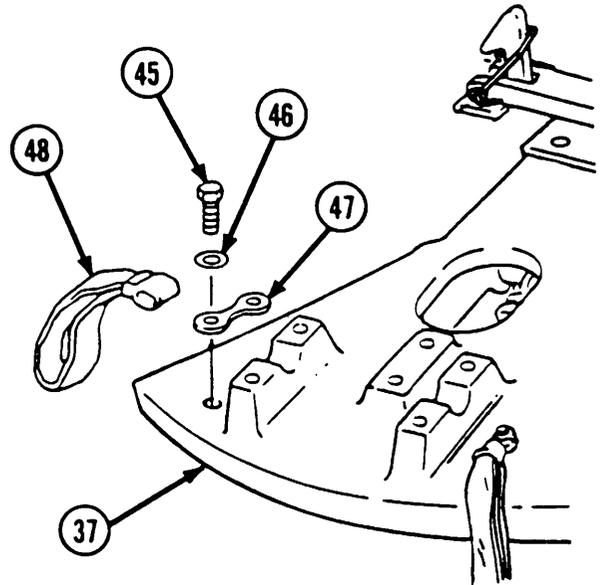


- 18 Remove twenty self-locking nuts (31), twenty flat washers (32), and twenty machine screws (33). Discard self-locking nuts (31).
- 19 Remove four tread plates (21, 34, 35, and 36) from turntable bridge (37).
- 20 Remove capscrew (38) from manual control handle (19).
- 21 Remove manual control handle (19).
- 22 Remove machine key (39).

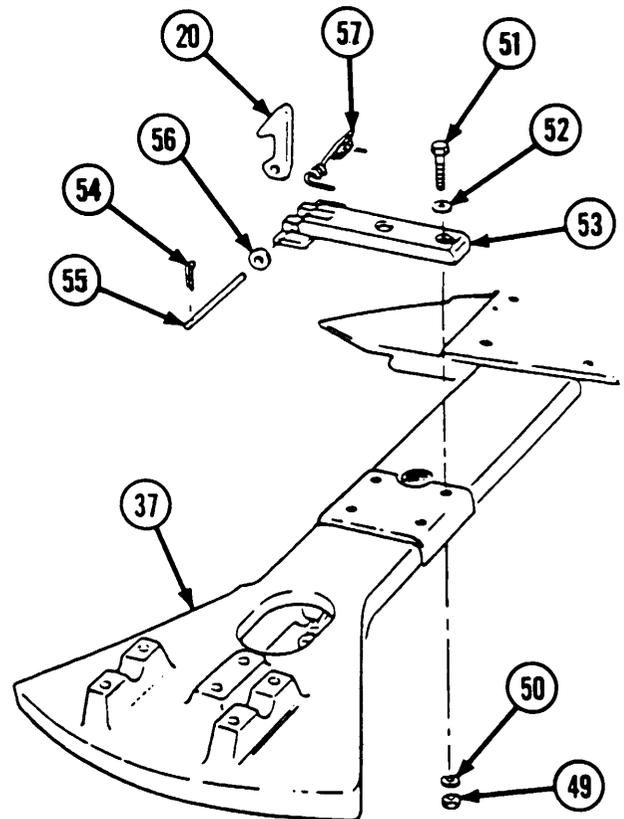
- 23 Remove and discard lock wire (40) and remove twenty capscrews (41).
- 24 Remove twenty flat washers (42).
- 25 Remove two access door hinges (43).
- 26 Remove two floor plate hinges (44) from turntable bridge (37).



- 27 Remove eight capscrews (45), eight flat washers (46), and four mortar turntable loops (47) from turntable bridge (37).
- 28 Remove four webbing straps (48) from turntable bridge (37).



- 29 Remove two self-locking nuts (49), two flat washers (50), two capscrews (51), and two flat washers (52). Discard self-locking nuts (49).
- 30 Remove spring tension hook clip (53) from turntable bridge (37).
- 31 Remove two cotter pins (54), headless straight pin (55), and two flat washers (56). Discard cotter pins (54).
- 32 Remove torsion helical spring (57) and rim latch (20) from spring tension hook clip (53).



2-18.1. 120-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, AND  
TURNTABLE—MAINTENANCE INSTRUCTIONS. (cont)

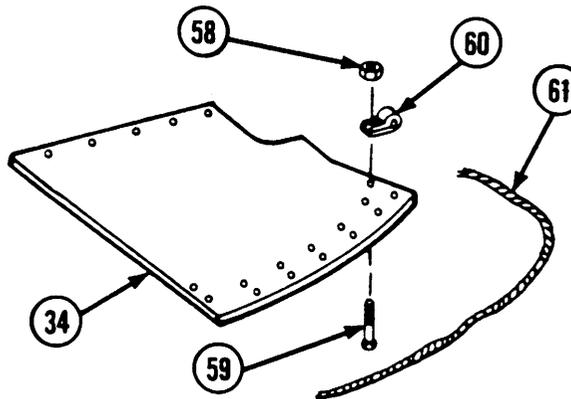
**REMOVAL/ASSEMBLY (cont)**

**NOTE**

Steps 33 and 34 are written for one tread plate, but apply to all four.

33 Remove two self-locking nuts (58) and two machine screws (59) from two loop clamps (60). Discard self-locking nuts (58).

34 Remove two loop clamps (60) from tread plate (34); untie and remove one length of cushion rope (61).



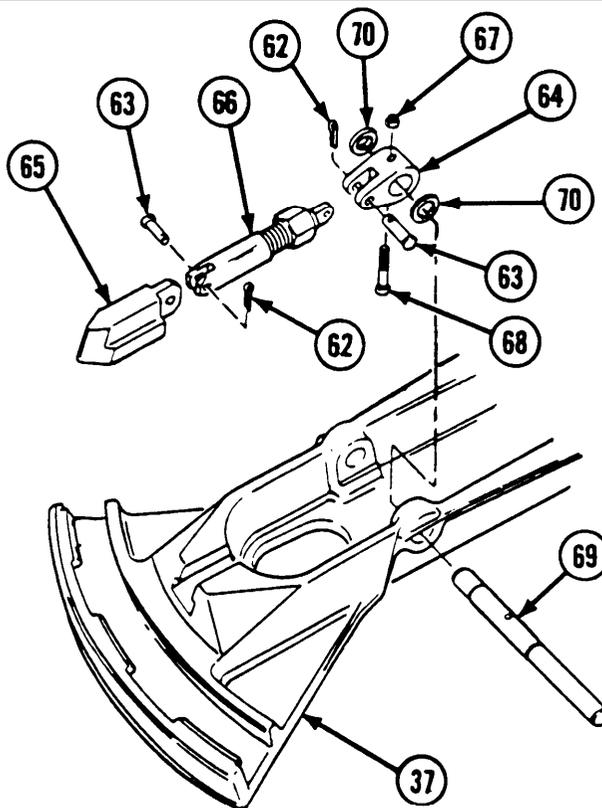
35 Remove two cotter pins (62) and two headed straight pins (63) from remote control lever (64) and tooth (65). Discard cotter pins (62).

**NOTE**

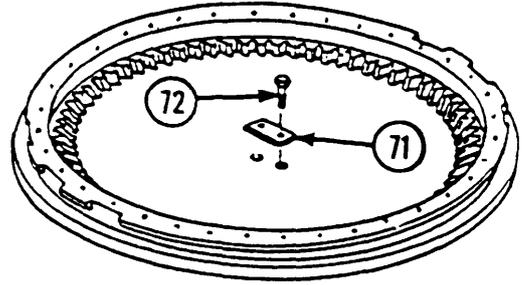
Index actuator link assembly (66) is not replaceable at this maintenance level.

36 Remove tooth (65) and index actuator link assembly (66).

37 Remove self-locking nut (67), capscrew (68), straight shaft (69), two turntable retaining rings (70), and remote control lever (64) from turntable bridge (37). Discard self-locking nut (67).



38 If guide pin base (71) on floor of vehicle is worn or damaged, remove two capscrews (72) and guide pin base (71) from vehicle

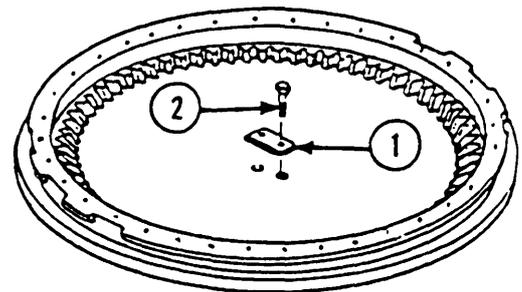


### REPAIR

- 1 Use solvent cleaning compound and wiping rags to clean corrosion and foreign matter from parts.
- 2 Check turntable bridge for stripped inserts and warped parts. Notify intermediate direct support maintenance.
- 3 Remove nicks and burrs with a fine cut file.
- 4 Check all rubber parts for distortion. Replace with new parts.
- 5 Replace any missing, broken, or damaged parts. See appendix C.

### REASSEMBLY/INSTALLATION

- 1 Lubricate parts prior to reassembly with light coat of GAA.
- 2 If removed, install new guide pin base (1) in vehicle and secure with two capscrews (2).



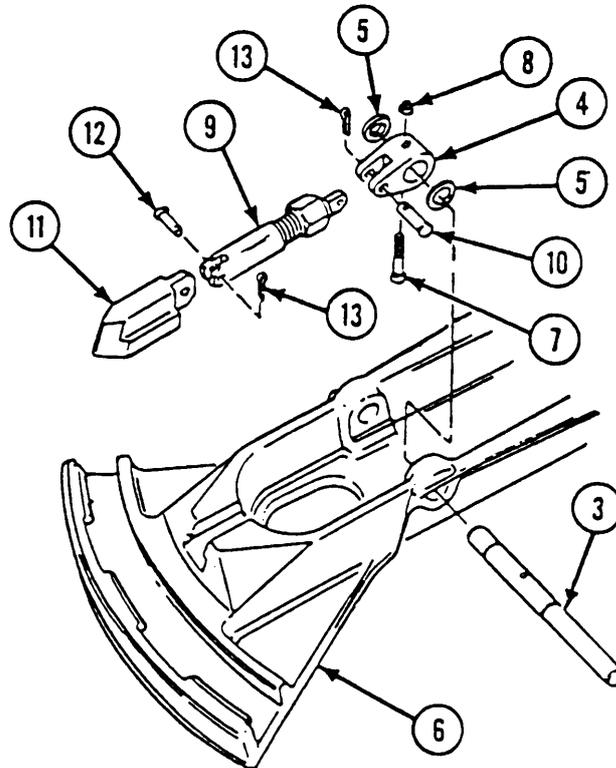
2-18.1. 120-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, AND TURNTABLE—MAINTENANCE INSTRUCTIONS. (cont)

**REASSEMBLY/INSTALLATION (cont)**

**NOTE**

Straight shaft (3) should be installed with the key on the bottom and on the same side that the handle will be on.

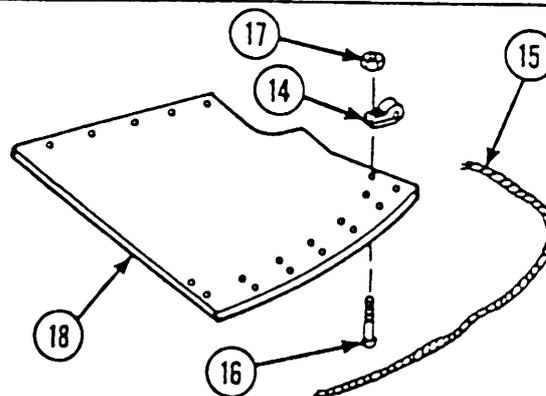
- 3 Install remote control lever (4), straight shaft (3), and two turntable retaining rings (5) in turntable bridge (6).
- 4 Install capscrew (7) and new self-locking nut (8).
- 5 Install index actuator link assembly (9) in remote control lever (4) and secure with headed straight pin (10).
- 6 Install tooth (11) in index actuator link assembly (9) and secure with headed straight pin (12).
- 7 Install two new cotter pins (13) in headed straight pins (10 and 12).



**NOTE**

The procedure in steps 8 thru 12 is written for installation of cushion rope into one tread plate, but applies to all four.

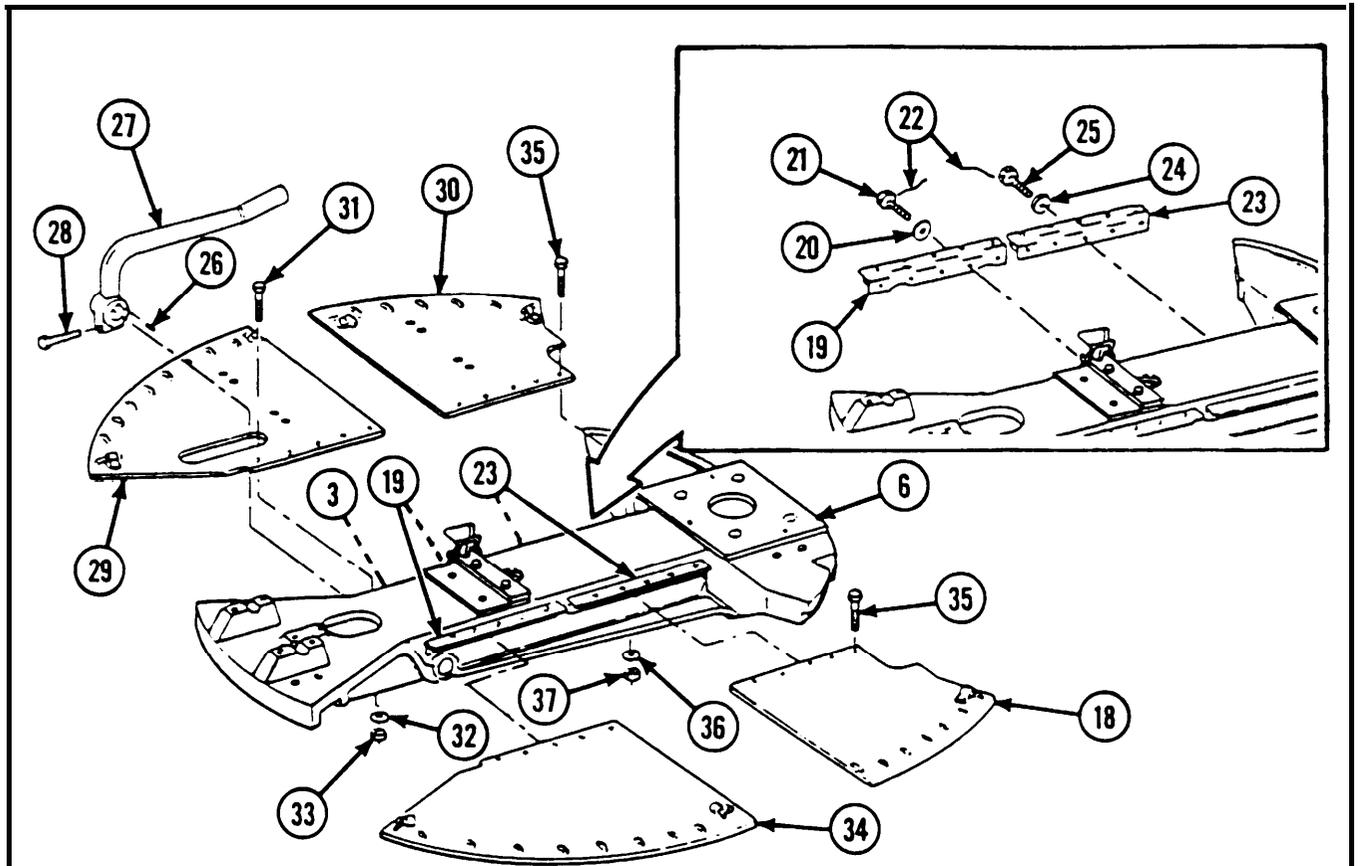
- 8 Install loop clamp (14) on end of cushion rope (15).
- 9 Install machine screw (16) through loop clamp (14), and secure with new self-locking nut (17).
- 10 Lace cushion rope (15) through tread plate (18).
- 11 Anchor end of cushion rope (15) with another loop clamp (14) as in steps 8 and 9. Cut off excess.



**WARNING**

Melted nylon rope can cause severe burns. To avoid personal injury, use extreme care when burning rope ends.

- 12 Burn the ends of the rope to prevent it from unraveling. Use only enough heat to melt the rope strands together.



13 Position two access door hinges (19) on turntable bridge (6).

14 Install ten flat washers (20) and ten capscrews (21).

15 Using new lock wire (22), lace ten capscrews (21).

16 Position two floor plate hinges (23) on turntable bridge (6).

17 Install ten flat washers (24) and ten capscrews (25).

18 Using new lock wire (22), lace ten capscrews (25).

19 Install machine key (26) and manual control handle (27) on straight shaft (3).

20 Install capscrew (28). Do not tighten capscrew (28).

21 Position tread plates (29 and 30) on access door hinge (19) and floor plate hinge (23). Center manual control handle (27) in tread plate (29) and tighten capscrew (28).

22 Install ten machine screws (31), ten flat washers (32), and ten new self-locking nuts (33).

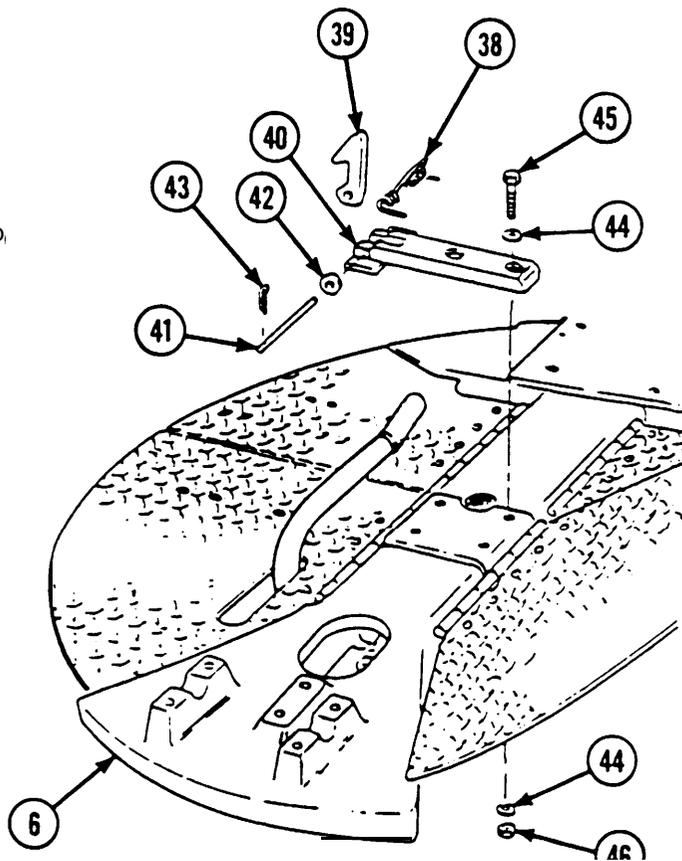
23 Position tread plates (34 and 18) on access door hinge (19) and floor plate hinge (23).

24 Install ten machine screws (35), ten flat washers (36), and ten new self-locking nuts (37).

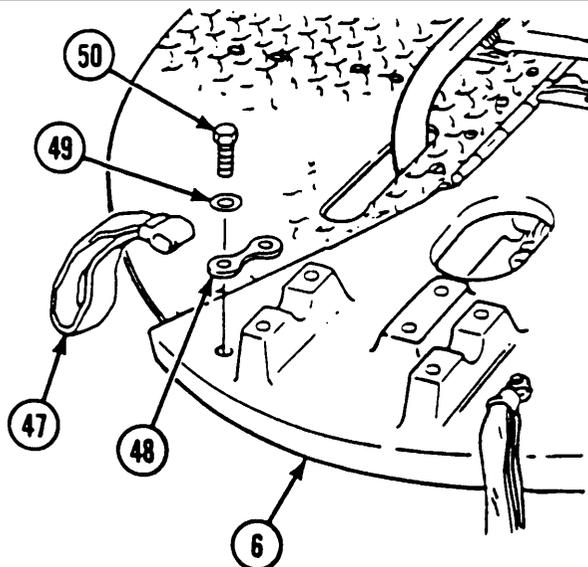
2-18.1. 120-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, AND  
TURNTABLE—MAINTENANCE INSTRUCTIONS. (cont)

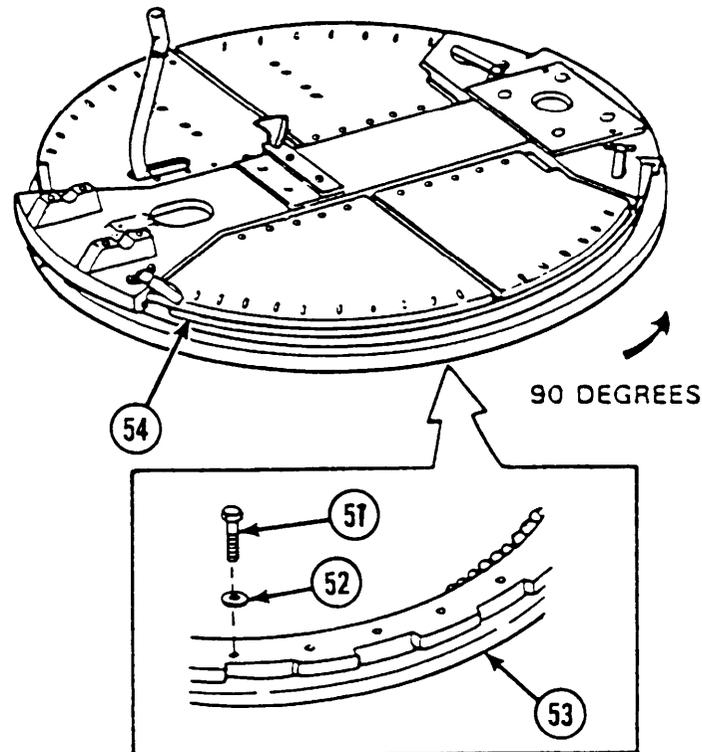
**REASSEMBLY/INSTALLATION (cont)**

- 25 Position torsion helical spring (38) and rim latch (39) on spring tension hook clip (40).
- 26 Insert headless straight pin (41) into spring tension hook clip (40), torsion helical spring (38), and rim latch (39).
- 27 Install two flat washers (42).
- 28 Install two new cotter pins (43).
- 29 Install spring tension hook clip (40) on turntable bridge (6), securing with four flat washers (44), two capscrews (45), and two new self-locking nuts (46).



- 30 Install four webbing straps (47), four mortar turntable loops (48), eight flat washers (49), and eight capscrews (50) at four locations on turntable bridge (6).





- 31 If any of the thirty-six capscrews (51) and thirty-six flat washers (52) were removed from internal gear (53) in disassembly, clean and lubricate with GPL oil or PL-S as required.
- 32 Install any removed capscrews (51) and flat washers (52) and torque capscrews (51) to  $80 \pm 3$  ft-lb.
- 33 Apply GAA to internal gear if necessary.

**WARNING**

The turntable is extremely heavy. To avoid personal injury, use four crewmen to install the turntable in the carrier.

- 34 Using four crewmen, align and position turntable (54) 90 degrees from center line on carrier.

- 35 Align notches in turntable (54) with notched openings in internal gear (53).

**NOTE**

It may be necessary to loosen the tension on the mortar mount spring in order to seat the turntable. Be sure to retighten until mortar mount spring compresses  $3-9/32$  to  $3-1 \frac{1}{32}$  inches and reinstall spring pin in nut.

- 36 Rotate turntable (54) on internal gear (53) to check movement of the turntable to ensure smooth and steady movement through its full range of travel.

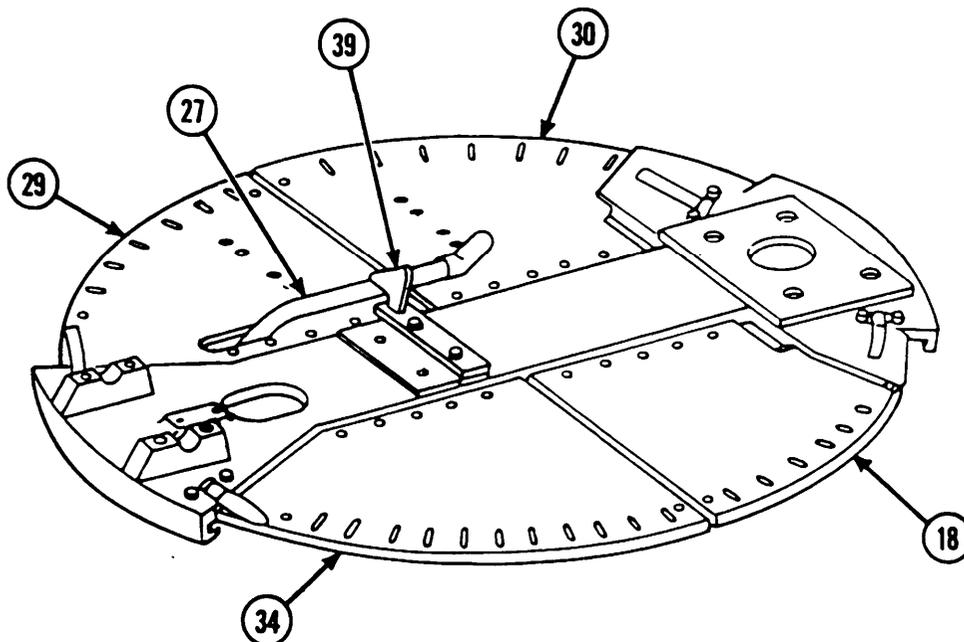
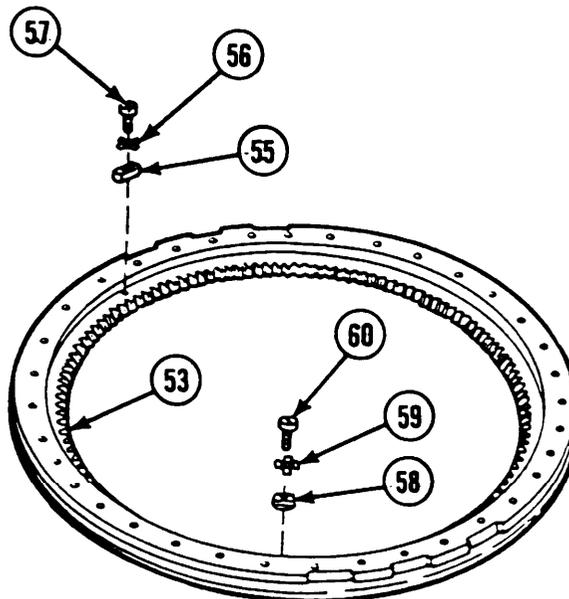
2-18.1. 120-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, AND  
TURNTABLE—MAINTENANCE INSTRUCTIONS. (cont)

**REASSEMBLY/INSTALLATION (cont)**

**NOTE**

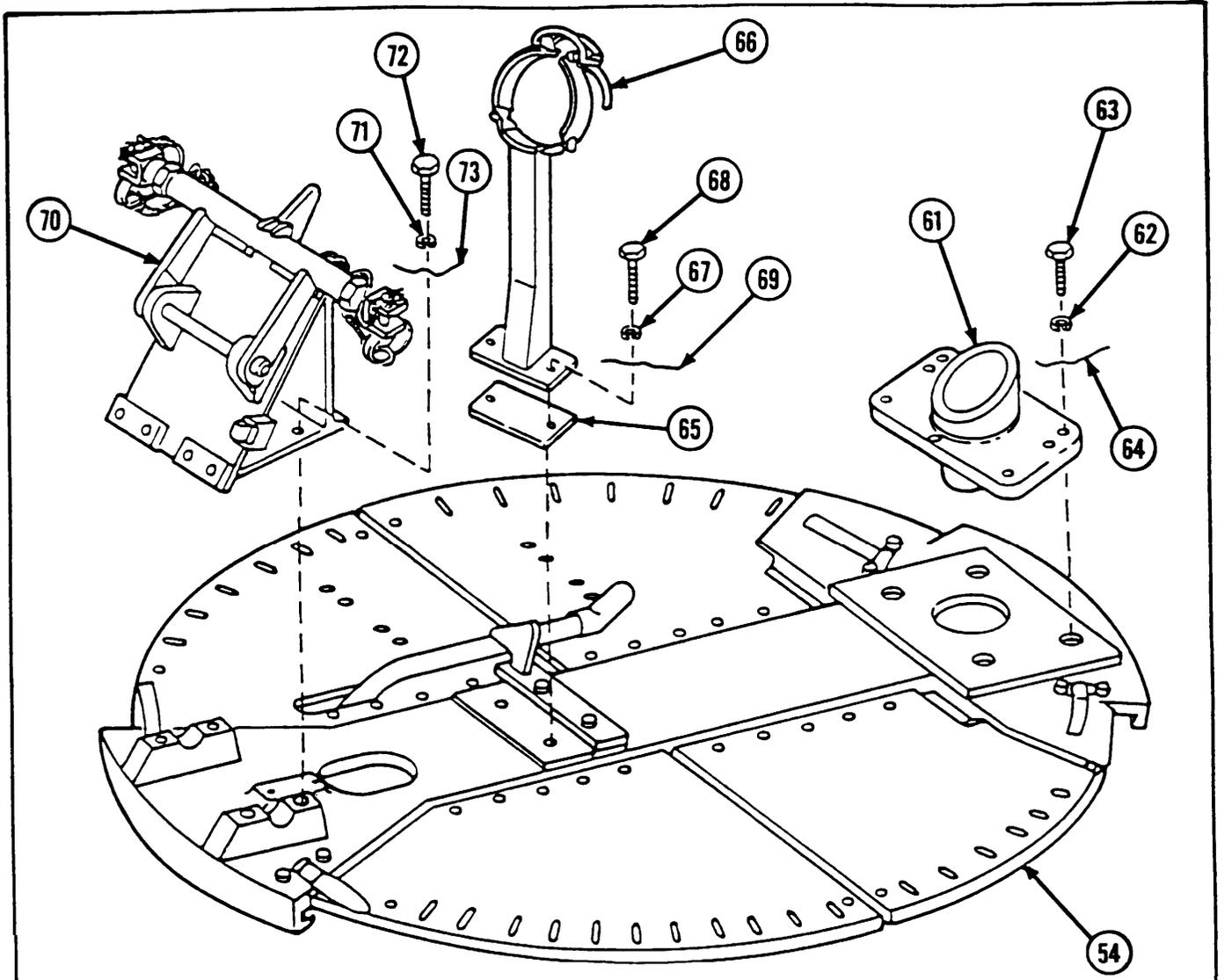
Turntable shown removed for clarity.

- 37 Position turntable stop (55) on internal gear (53).
- 38 Install new key washer (56) and capscrew (57), tighten capscrew, and bend key washer up against the capscrew.
- 39 Rotate turntable 90 degrees and install remaining turntable stop (58), new key washer (59), and capscrew (60).



- 40 Close four tread plates (18, 29, 30, and 34).

- 41 Lock manual control handle (27) by closing rim latch (39).



42 Install breech base socket (61) on turntable (54). Secure with four new spring lockwashers (62) and four screws (63). Torque screws to  $80 \pm 5$  ft-lb.

43 Using new lock wire (64), lace four screws (63).

**NOTE**

Install the same number of spacer plates as were removed.

44 Install spacer plate(s) (65) and traveling assembly lock (66) on turntable (54).

Secure with two new spring lockwashers (67) and two screws (68). Torque screws to  $80 \pm 5$  ft-lb.

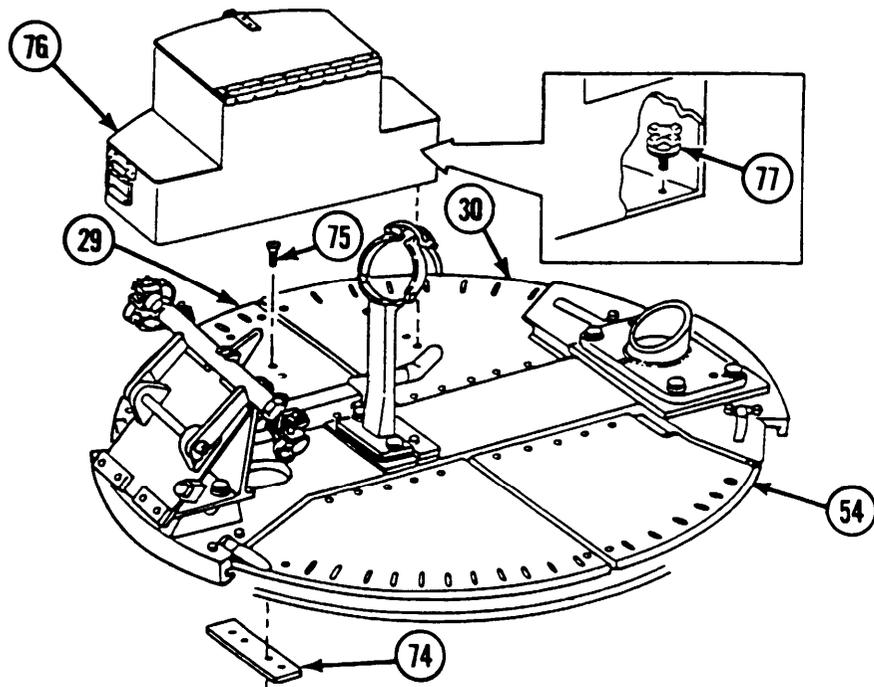
45 Using new lock wire (69), lace two screws (68).

46 Install bipod support assembly (70) on turntable (54). Secure with four new spring lockwashers (71) and four screws (72). Torque screws to  $80 \pm 5$  ft-lb.

47 Using new lock wire (73), lace four screws (72).

2-18.1. 120-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, AND TURNTABLE—MAINTENANCE INSTRUCTIONS. (cont)

**REASSEMBLY/INSTALLATION (cont)**



48 Install two plates (74) on the underside of tread plates (29 and 30), using four screws (75). Apply thread locking compound and tighten screws (75).

49 Install step (76) on turntable (54). Secure with four knobs (77).

2-18.2. BIPOD SUPPORT ASSEMBLY—MAINTENANCE INSTRUCTIONS.

THIS TASK COVERS:

- a. Removal/disassembly
- b. Repair
- c. Reassembly/installation

INITIAL SETUP

Tools and Special Tools  
 General mechanic's automotive tool kit (SC 5180-90-CL-N26)

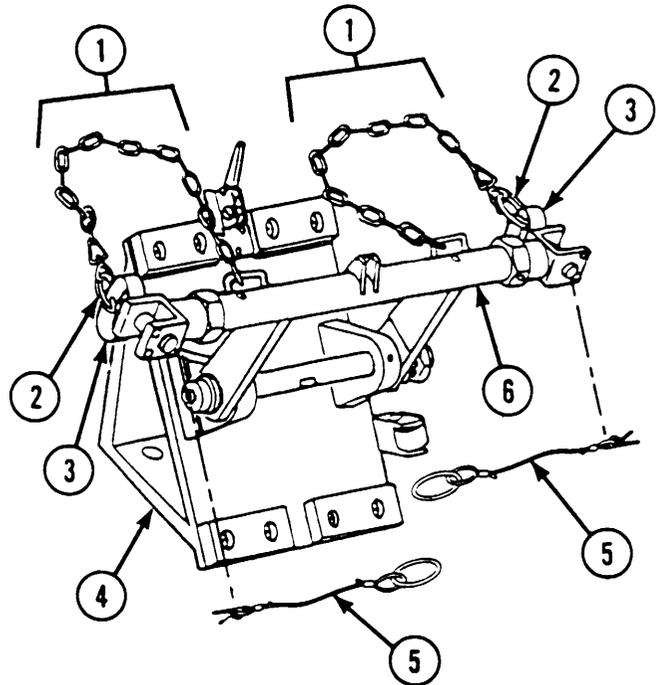
Materials/Parts  
 GAA (item 4, app D)  
 Lockwasher (three) (93-32)  
 Solvent cleaning compound (item 8, app D)

References  
 TM 9-1015-250-10

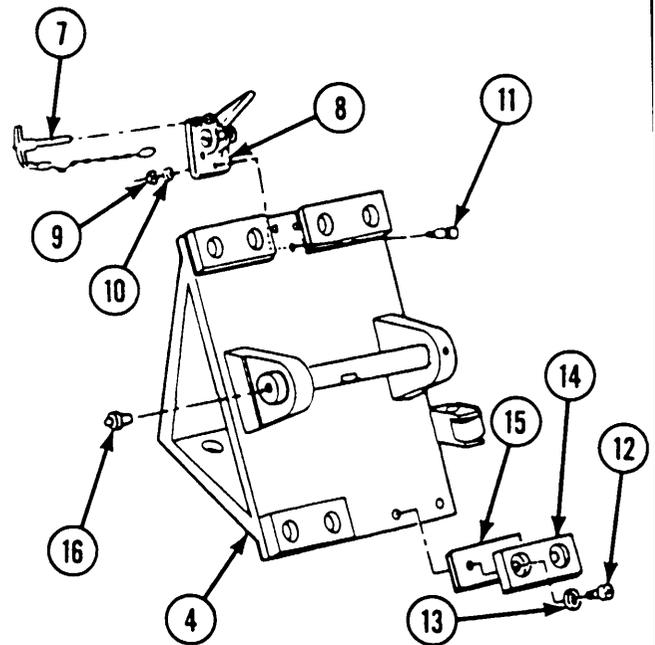
Equipment Conditions  
 Mortar removed from turntable (TM 9-1015-250-10)  
 2-54 Bipod support assembly removed

**REMOVAL/DISASSEMBLY**

- 1 If damaged, remove two chain assemblies (1) or four connecting rings (2) and two manual handles (3) from bipod support assembly (4).
- 2 Remove two safety pin assemblies (5) from two manual handles (3) and elevating support (6).



- 3 Remove quick release pin (7) from catch assembly (8).
- 4 Remove three hexagon plain nuts (9), three lockwashers (10), three hexagon capscrews (11), and catch assembly (8) from bipod support assembly (4). Discard lockwashers (10).
- 5 Remove eight machine screws (12), eight flat washers (13), four cushioning pads (14), and plate spacers (15) from bipod support assembly (4).
- 6 If damaged, remove lubrication fitting (16).



NOTE  
ELEVATING SUPPORT SHOWN  
REMOVED FOR CLARITY

2-18.2. BIPOD SUPPORT ASSEMBLY—MAINTENANCE INSTRUCTIONS. (cont)

**REPAIR**

- 1 Remove corrosion and foreign matter with solvent cleaning compound.
- 2 For further disassembly of catch assembly, notify intermediate direct support maintenance.
- 3 Lubricate bipod support assembly with GAA as required. See TM 9-1015-250-10.
- 4 Replace any missing, broken, or damaged parts. See appendix C.

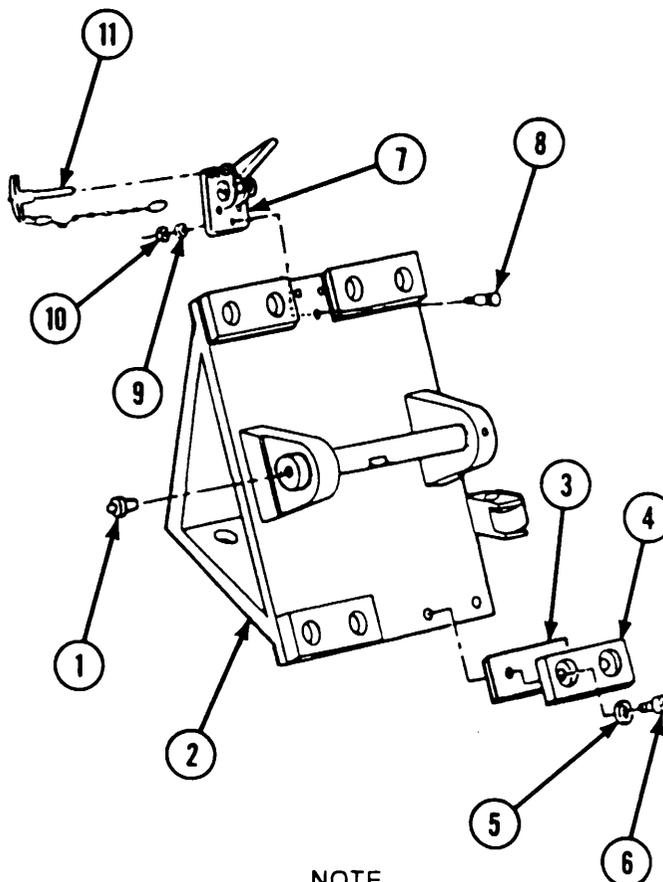
**REASSEMBLY/INSTALLATION**

- 1 If removed, install new lubrication fitting (1) into bipod support assembly (2).

**NOTE**

Install same number of plate spacers as were removed.

- 2 Secure plate spacers (3) and four cushioning pads (4) to bipod support assembly (2) with eight flat washers (5) and eight machine screws (6).
- 3 Install catch assembly (7) on bipod support assembly (2) with three hexagon capscrews (8), three new lockwashers (9), and three hexagon plain nuts (10).
- 4 Install quick release pin (11) in catch assembly (7).

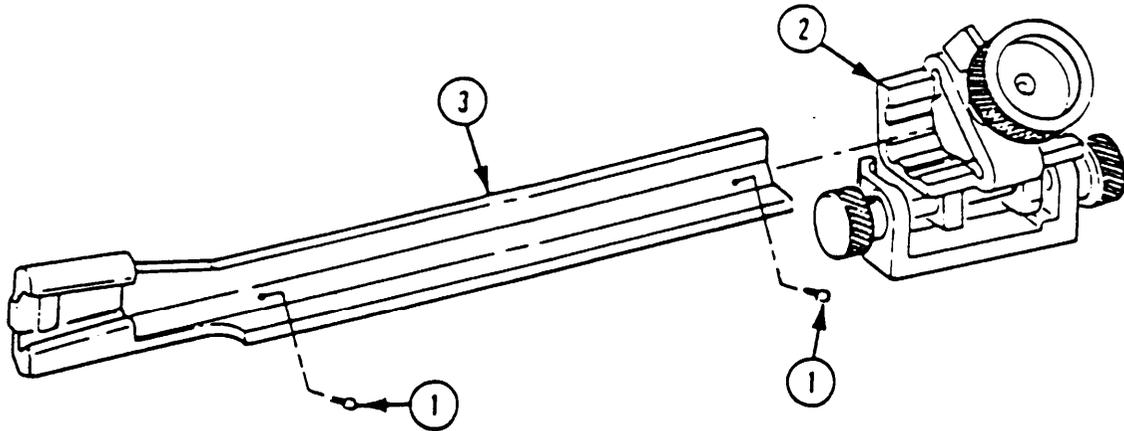


**NOTE**  
ELEVATING SUPPORT SHOWN  
REMOVED FOR CLARITY



2-19. SIGHT EXTENSION ARM ASSEMBLY -MAINTENANCE INSTRUCTIONS. (cont)

**DISASSEMBLY**



- 1 Remove two Capscrews (1).
- 2 Remove sight extension clamp (2) and attached parts from sight extension arm (3).

## Section VII. PREPARATION FOR STORAGE OR SHIPMENT

### 2-21. ADMINISTRATIVE STORAGE OF EQUIPMENT.

a. The placement of equipment in administrative storage can be done for short periods of time when an organization lacks operating funds, personnel, other resources, or normal usage of its organic materiel. Materiel which exceeds the capability of the owning organization to operate or maintain must be retained by that organization for contingency or other valid reasons.

b. Installation or organization commanders may authorize the administrative storage of their materiel within guidance furnished by MACOM commanders and AR 750-1. The materiel should be ready for use within the time factors determined by the directing authority.

c. Before equipment is placed in administrative storage, current maintenance services should be performed, deficiencies

should be corrected, and all modification work orders (MWOs) should be applied. Materiel should be inspected, cleaned and lubricated in accordance with this TM. Touch up paint as required. Equipment should then be coated with a rust preventive compound.

d. Store equipment so as to provide maximum protection from the elements and to provide access for inspection, maintenance, and exercising. Anticipate removal or deployment problems and take suitable precautions.

e. Perform service upon receipt procedures contained in this TM to remove the equipment from storage.

f. Records and reports to be maintained for equipment in administrative storage are those prescribed by DA PAM 738-750 for equipment in use.



## CHAPTER 3

# INTERMEDIATE DIRECT SUPPORT MAINTENANCE INSTRUCTIONS

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### Section I. REPAIR PARTS, SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT

#### 3-1. COMMON TOOLS AND EQUIPMENT.

For authorized common tools and equipment, refer to the Modified Table of Organization and Equipment (MTOE) applicable to your unit.

#### 3-2. SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT.

Tools and test equipment required and authorized for repair of the mortar mounts

are listed in appendix B. There are no special tools or TMDE authorized.

#### 3-3. REPAIR PARTS.

Repair parts are listed and illustrated in appendix C of this manual.

### Section II. TROUBLESHOOTING

#### 3-4. GENERAL.

The symptom index can be used as a quick guide to troubleshooting. Common malfunctions are listed in alphabetical order with a page number reference to the troubleshooting table where a test or inspection and corrective action are provided.

#### 3-5. TROUBLESHOOTING TABLE.

a. The troubleshooting table (p 3-3) lists the common malfunctions which may be

found during maintenance of the mortar mounts. Perform the tests/inspections and corrective action 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 action, notify your supervisor.

**3-5. TROUBLESHOOTING TABLE. (cont)**

**SYMPTOM INDEX**

Troubleshooting  
 Procedure  
 (Page)

**107-MM, 81-MM, AND 120-MM MORTAR MOUNTS**

Turntable assembly (107-mm), turntable (81-mm), or turntable assembly (120-mm) fails to lock with handle in locked position . . . . .	3-4
Turntable assembly (107-mm), turntable (81-mm), or turntable assembly (120 -mm) fails to rotate . . . . .	3-3

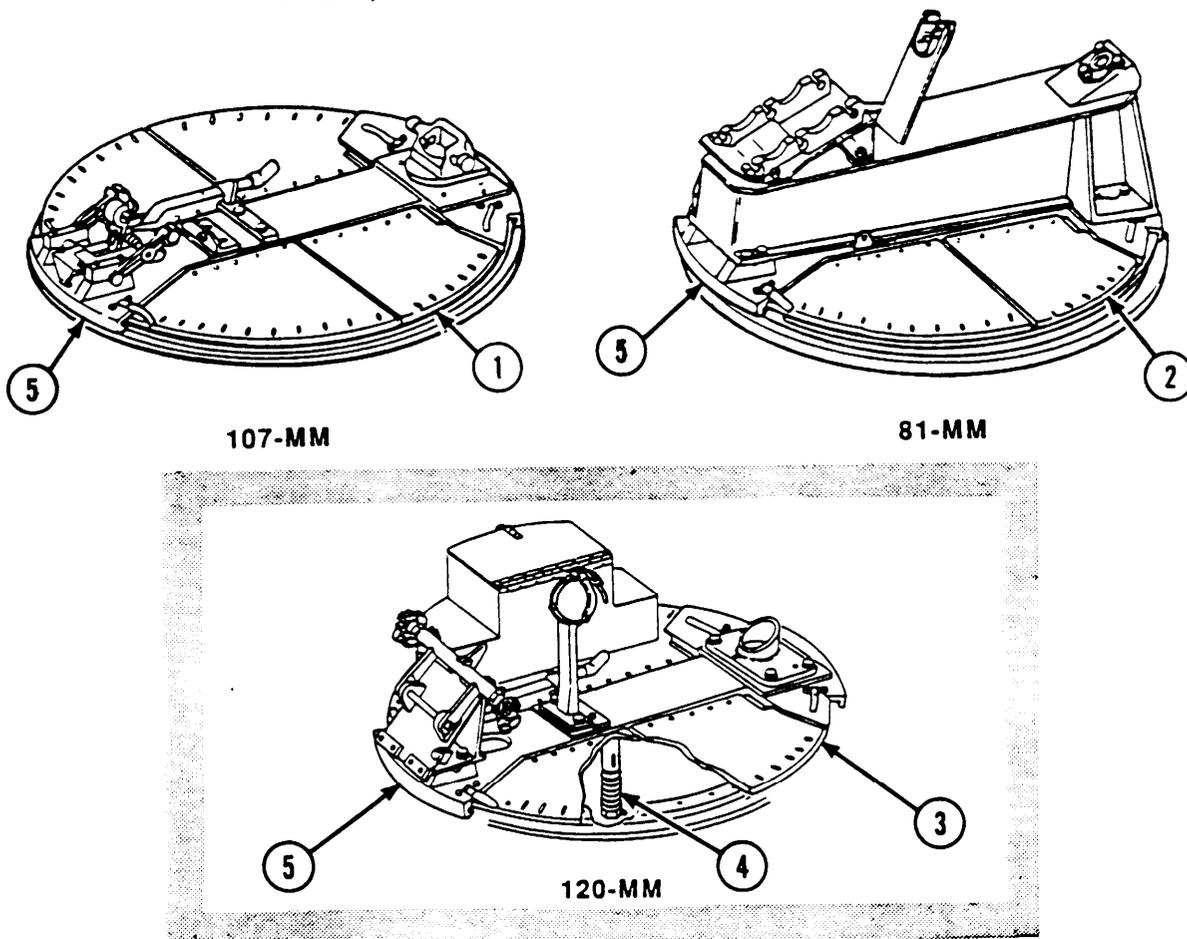
**81-MM MORTAR BIPOD ASSEMBLY**

Bipod assembly fails to lock in 81-mm mortar mount . . . . .	3-7
Excessive backlash in elevation crank assembly or traversing handwheel assembly . . . . .	3-8
Leveling mechanism fails to level mortar tube . . . . .	3-8
Mortar elevation assembly fails to elevate mortar tube . . . . .	3-7
Recoil buffer assembly fails to operate properly . . . . .	3-5
Sight socket key loose in bipod yoke . . . . .	3-6
Traversing mechanism fails to traverse mortar tube . . . . .	3-7
Weldment on bipod assembly out of line . . . . .	3-8

Table 3-1. TROUBLESHOOTING

MALFUNCTION  
TEST OR INSPECTION  
CORRECTIVE ACTION

107-MM, 81-MM, AND 120-MM MORTAR MOUNTS



1. TURNTABLE ASSEMBLY (107-MM) (1), TURNTABLE (81-MM) (2), OR TURNTABLE ASSEMBLY (120-MM) (3) FAILS TO ROTATE.

Step 1. Check adjustment of mortar mount spring (4) (120-mm only).

- a. Adjust spring tension.
- b. Replace mortar mount spring (p 3-43) if adjustment fails to correct problem.

Step 2. Check for distorted or cracked turntable bridge (5).

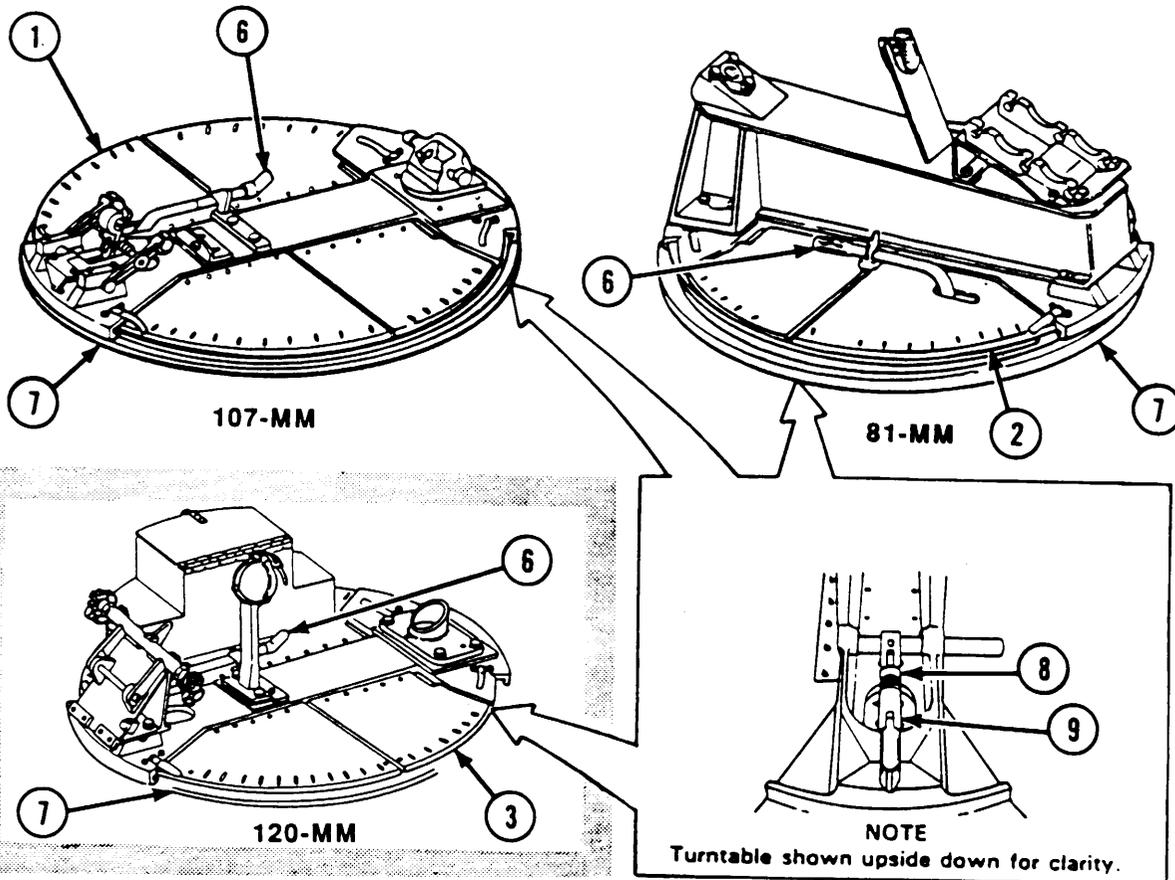
Replace turntable bridge (p 3-9, 3-16, or 3-43).

3-5. TROUBLESHOOTING TABLE. (cont)

Table 3-1. TROUBLESHOOTING (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
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107-MM, 81-MM, AND 120-MM MORTAR MOUNTS (cont)



2. TURNTABLE ASSEMBLY (107-MM) (1), TURNTABLE (81-MM) (2), OR TURNTABLE ASSEMBLY (120-MM) (3) FAILS TO LOCK WITH HANDLE (6) IN LOCKED POSITION.

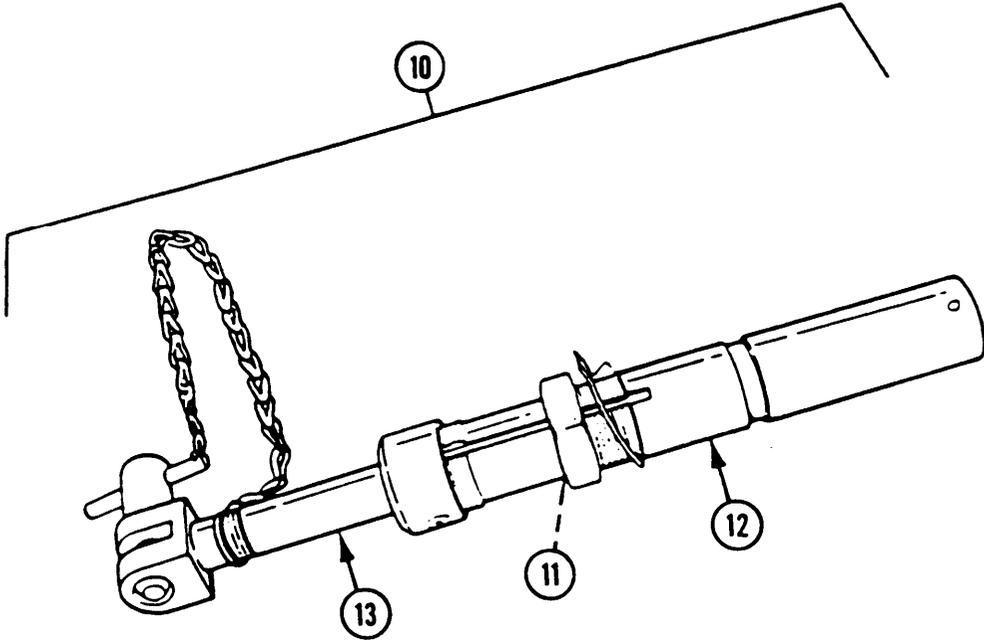
Step 1. Check internal gear (7) for chipped teeth.

Replace internal gear (p 3-9, 3-16, or 3-43).

Step 2. Check locking retention of turntable assembly (107-mm) (1), turntable (81-mm) (2), or turntable assembly (120-mm) (3).

Adjust length of plunger (8) in index actuator link assembly (9) to assure positive locking of turntable assembly (107-mm) (1), turntable (81-mm) (2), or turntable assembly (120-mm) (3).

Table 3-1. TROUBLESHOOTING (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
81-MM MORTAR BIPOD ASSEMBLY		
 A technical line drawing of an 81-mm mortar bipod assembly. The drawing shows the main body of the mortar, which is a long cylinder with a handle at the front. A chain is attached to the handle. The bipod legs are shown as a long, thin rod extending from the handle. Callout 10 points to the main body of the mortar. Callout 11 points to a compression helical spring located inside the main body. Callout 12 points to the recoil buffer tube at the rear of the main body. Callout 13 points to the clevis and rod assembly at the front of the main body.		
3. RECOIL BUFFER ASSEMBLY (10) FAILS TO OPERATE PROPERLY.		
	Step 1. Check for broken compression helical spring (11).	Replace compression helical spring (p 3-30).
	Step 2. Check for dented recoil buffer tube (12) (p 3-30).	Replace recoil buffer tube (p 3-30).
	Step 3. Check for bent clevis and rod (13).	Replace clevis and rod (p 3-30).

3-5 TROUBLESHOOTING TABLE (cont)

Table 3-1. TROUBLESHOOTING (cont)

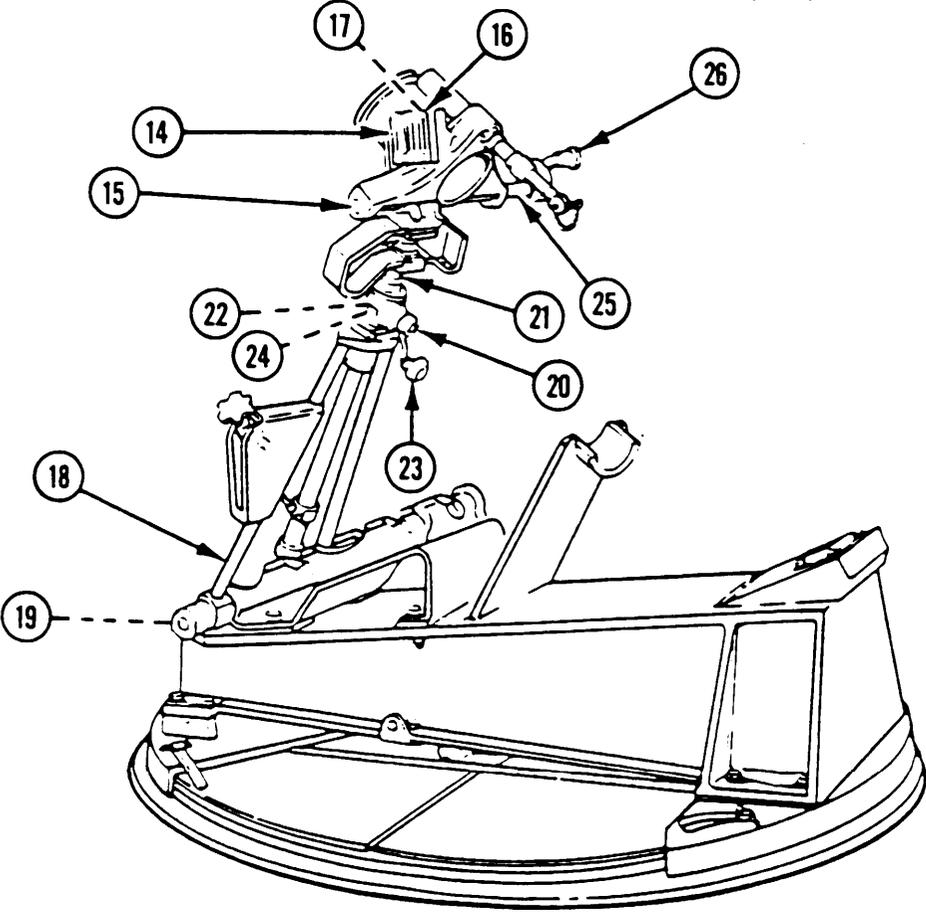
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
	81-MM MORTAR BIPOD ASSEMBLY (cont)	
		
4	SIGHT SOCKET KEY (14) LOOSE IN BIPOD YOKE.	<p>Step 1. Check for worn bipod yoke (15).</p> <p style="padding-left: 40px;">Repair bipod yoke (p 3-33).</p> <p>Step 2. Check for missing or damaged cap screws (16) or screw thread inserts (17).</p> <p style="padding-left: 40px;">Replace missing or damaged cap screws (p 3-19) or screw thread inserts (p 3-33).</p>

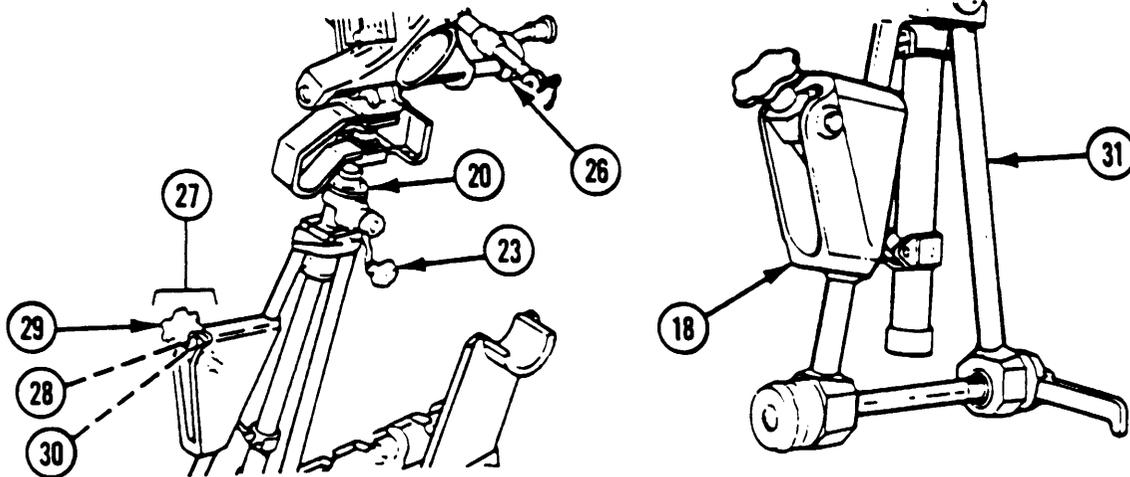
Table 3-1. TROUBLESHOOTING (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
5. BIPOD ASSEMBLY (18) FAILS TO LOCK IN 81-MM MORTAR MOUNT.		
	Check for broken torsion helical spring (19).	
		Replace torsion helical spring (p 3-19).
6. MORTAR ELEVATION ASSEMBLY (20) FAILS TO ELEVATE MORTAR TUBE.		
Step 1.	Check for bent elevating spindle tube (21).	
		Replace elevating spindle tube (p 3-35).
Step 2.	Check for bent elevating spindle (22).	
		Replace elevating spindle (p 3-35).
Step 3.	Check that elevation crank assembly (23) elevates bipod yoke (15).	
		Replace defective headless straight pin in elevation crank assembly (P 3-35).
Step 4.	Check bevel pinion (24), elevating spindle (22), and elevating spindle tube (21) for burred gear teeth.	
		Remove burrs with a fine cut file.
7. TRAVERSING MECHANISM FAILS TO TRAVERSE MORTAR TUBE.		
Step 1.	Check for bent traversing spindle assembly (25).	
		Repair traversing spindle assembly (p 3-26).
Step 2.	Check that traversing handwheel assembly (26) traverses bipod yoke (15).	
		Replace defective headless straight pin in traversing handwheel assembly (p 3-25).

3-5. TROUBLESHOOTING TABLE. (cont)

Table 3-1. TROUBLESHOOTING (cont)

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
<b>81-MM MORTAR BIPOD ASSEMBLY (cont)</b>		
<p>8. LEVELING MECHANISM (27) FAILS TO LEVEL MORTAR TUBE.</p>	<p>Step 1. Check for bent worm shaft (28).</p>	<p>Replace worm shaft (p 3-38).</p>
	<p>Step 2. Check that handwheel (29) moves mortar elevation assembly (20) laterally.</p>	<p>Replace defective headless straight pin in screw end (p 3-38).</p>
	<p>Step 3. Check for damaged leveling mechanism cylinder (30).</p>	<p>Replace leveling mechanism cylinder (p 3-38).</p>
<p>9. EXCESSIVE BACKLASH IN ELEVATION CRANK ASSEMBLY (23) OR TRAVERSING HANDWHEEL ASSEMBLY (26).</p>	<p>Check if backlash is greater than one-eighth of a turn (45 degrees).</p>	<p>Replace worn or damaged parts (p 3-25, 3-26, or 3-35).</p>
	<p>10. WELDMENT ON BIPOD ASSEMBLY (18) OUT OF LINE OR WELDS BROKEN.</p>	<p>Check for bent legs (31).</p>



### Section III. MAINTENANCE PROCEDURES

#### 3-6. GENERAL.

a. Marking of the 107-mm, 81-mm, and 120-mm mortar mounts is not required. If marking becomes necessary, no permanent markings should be made. Use of paint, metal tags, or embossed tape is permissible.

c. Clean parts with solvent cleaning compound prior to lubrication.

d. Replace all missing or broken pins, safety wire, and straps.

#### WARNING

Solvent cleaning compound and paint thinners are flammable. Do not use near an open flame or in a smoking area. Use in a well-ventilated area. When used without protective gloves, these chemicals may cause irritation to, or cracking of, the skin. Personnel should wear eye protection and be careful.

b. Spot paint all painted surfaces where paint has flaked off using flat forest green enamel (item 2, app D), brush (item 1, app D), and thinner (item 9, app D).

#### 3-7. INITIAL SETUP.

a. Tools and Special Tools. Lists tools needed for the procedures.

b. Materials/Parts. Refers to expendable materials and 100 percent replaceable parts.

c. Personnel Required. Listed if the task requires more than one person.

d. References. Lists other publications needed for the procedures.

e. Equipment Conditions. Lists conditions to be met before starting the procedure.

#### 3-8. 107-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, TURNTABLE, AND TURNTABLE BRIDGE—MAINTENANCE INSTRUCTIONS.

##### THIS TASK COVERS:

a. Removal/disassembly

b. Repair

c. Reassembly/installation

##### INITIAL SETUP

###### Tools and Special Tools

Helicoil insert and tool kit  
(4131-04-1)

Small arms repairman tool kit (SC  
5180-95-CL-A07)

Small arms shop set: field maintenance, basic (SC 4933-95-CL-A11)

###### Materials/Parts

GAA (item 4, app D)  
GPL oil (item 5, app D)  
Lock wire (item 10, app D)  
PL-S (item 6, app D)  
Solvent cleaning compound (item 8,  
app D)

Wiping rag (item 7, app D)

References  
TM 9-254

Equipment conditions  
2-23 Turntable assembly removed  
and unit maintenance level  
parts disassembled

Personnel Required  
Two

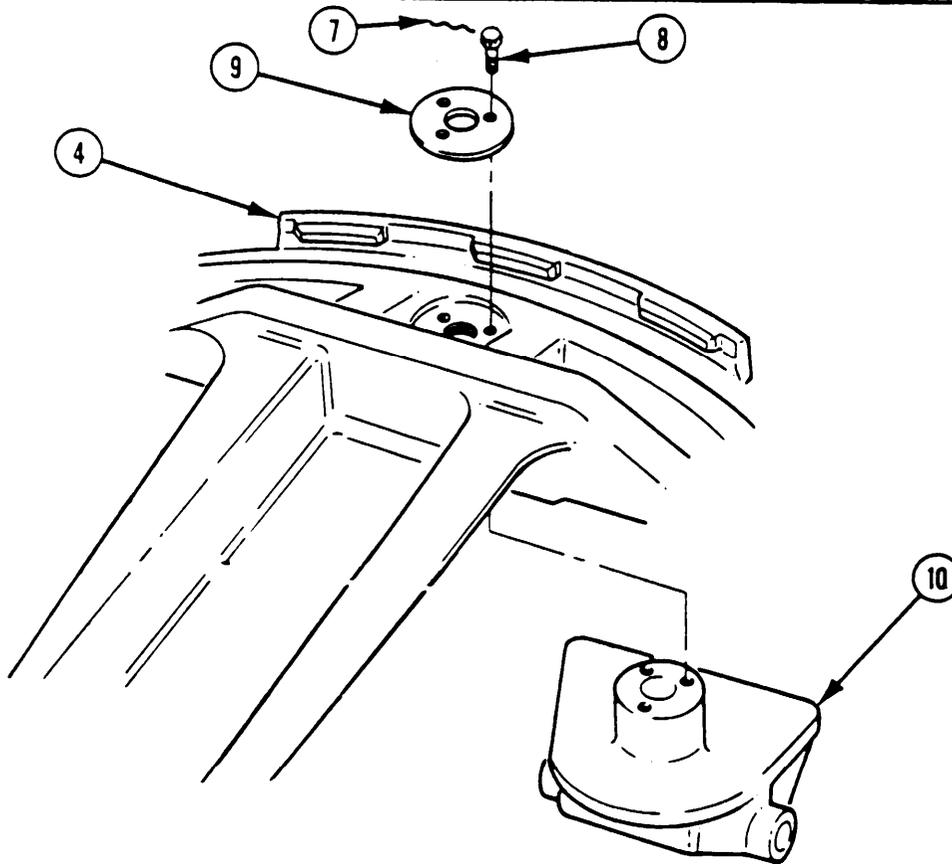
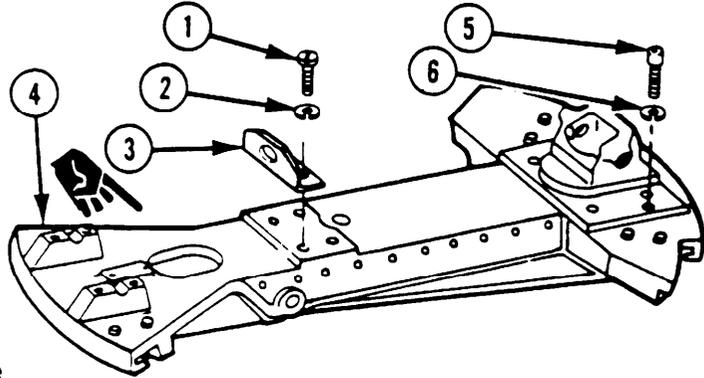
3-8. 107-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, TURN-  
TABLE, AND TURNTABLE BRIDGE—MAINTENANCE INSTRUCTIONS. (cont)

**REMOVAL/DISASSEMBLY**

**NOTE**

Index actuator link assembly  
was removed when turntable  
assembly was disassembled  
(p 2-23).

- 1 Remove two capscrews (1), two lockwashers (2), and angle bracket (3) from turntable bridge (4).
- 2 If damaged, remove two capscrews (5) and two lockwashers (6) from turntable bridge (4).



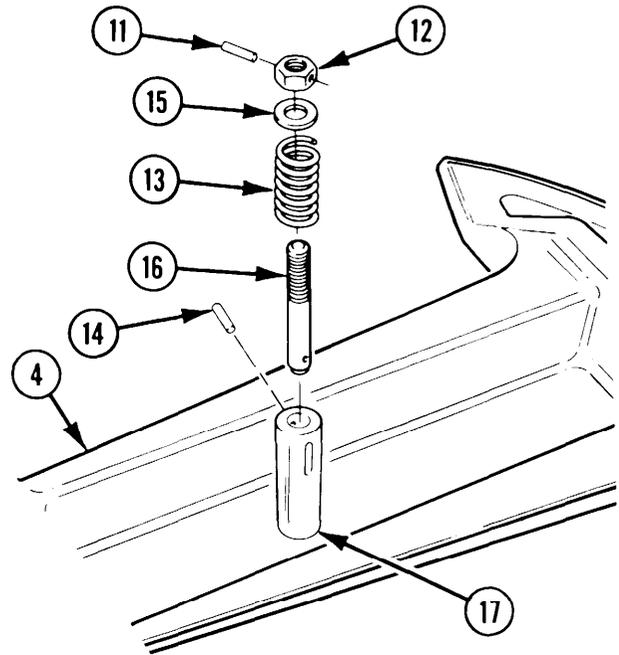
- 3 Remove lock wire (7), three cap screws (8), and socket retaining plate (9).
- 4 Remove mortar mount socket (10) from turntable bridge (4).

- 5 Remove spring pin (11) from nut (12).

**CAUTION**

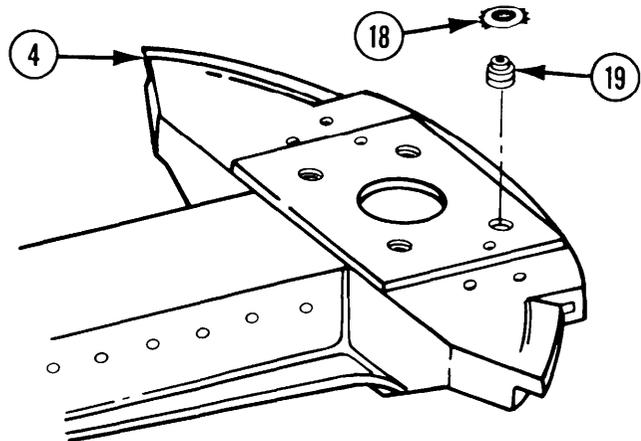
Mortar mount spring (13) is under tension. Do not remove spring pin (14) until nut (12) is removed or loosened to release spring tension.

- 6 If nut (12) is damaged, remove nut (12), flat washer (15), and mortar mount spring (13).
- 7 If threaded straight pin (16) is damaged, remove spring pin (14) and threaded straight pin (16).
- 8 If damaged, remove pin guide (17) from turntable bridge (4).



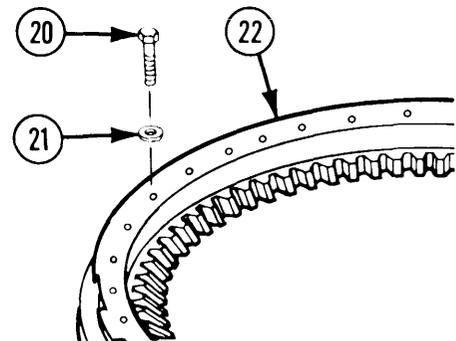
- 9 Inspect turntable bridge (4) for cracks around hole for mortar mount socket (10), and check for elongation of the hole. If cracks are found or hole is found to exceed 1/32" (.031") out of round, replace turntable bridge (4).

- 10 If damaged, remove four serrated lock rings (18) and four screw thread inserts (19) from turntable bridge (4). See TM 9-254.



- 11 Remove thirty-six capscrews (20) and thirty-six flat washers (21) from internal gear (22).

- 12 Remove internal gear (22) from carrier.



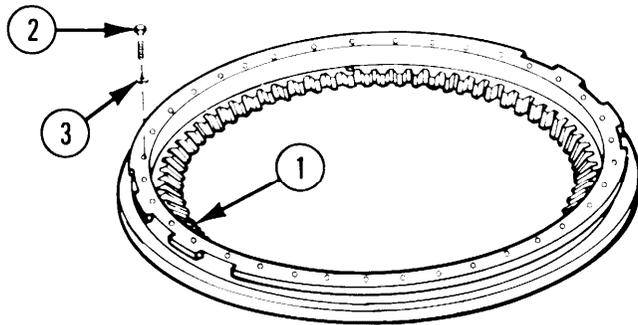
3-8. 107-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, TURN-  
TABLE, AND TURNTABLE BRIDGE—MAINTENANCE INSTRUCTIONS. (cont)

**REPAIR**

- 1 Check capscrews for burrs or stripped threads. Remove burrs with a fine cut file.
- 2 Check pin guide for cracks.
- 3 Check internal gear for chipped or broken teeth.
- 4 Clean corrosion and foreign matter with solvent cleaning compound.
- 5 Using solvent cleaning compound, clean surface of vehicle where internal gear will rest and lubricate with GAA.
- 6 Replace any other missing, broken, or damaged parts. See appendix C.

**REASSEMBLY/INSTALLATION**

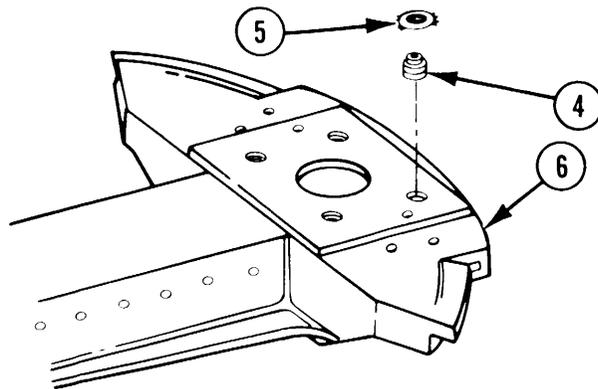
- 1 Lubricate parts prior to reassembly with light coat of GAA.
- 2 Position internal gear (1) in carrier so that drilled and tapped holes for travel stops are located 45 degrees each side of center rear of vehicle. Aline holes.
- 3 Apply GAA to internal gear (1).
- 4 Apply GPL oil or PL-S to threads of thirty-six capscrews (2).
- 5 Install thirty-six flat washers (3) and thirty-six capscrews (2); torque capscrews to  $80 \pm 3$  ft-lb.



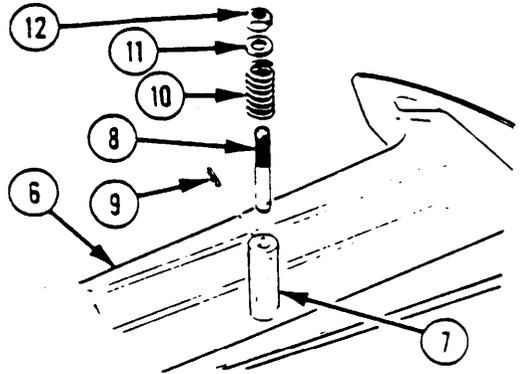
**CAUTION**

Do not drive serrated lock rings below surface of turntable bridge.

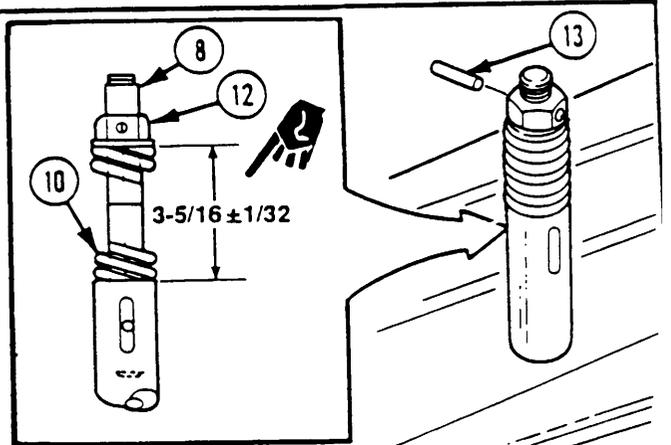
- 6 If removed, install four screw thread inserts (4) and four serrated lock rings (5) in turntable bridge (6). See TM 9-254.



- 7 If removed, install pin guide (7) in turntable bridge (6); stake in three places.
- 8 If removed, install threaded straight pin (8) and spring pin (9).
- 9 Install mortar mount spring (10) and flat
- 10 If removed, install nut (12).

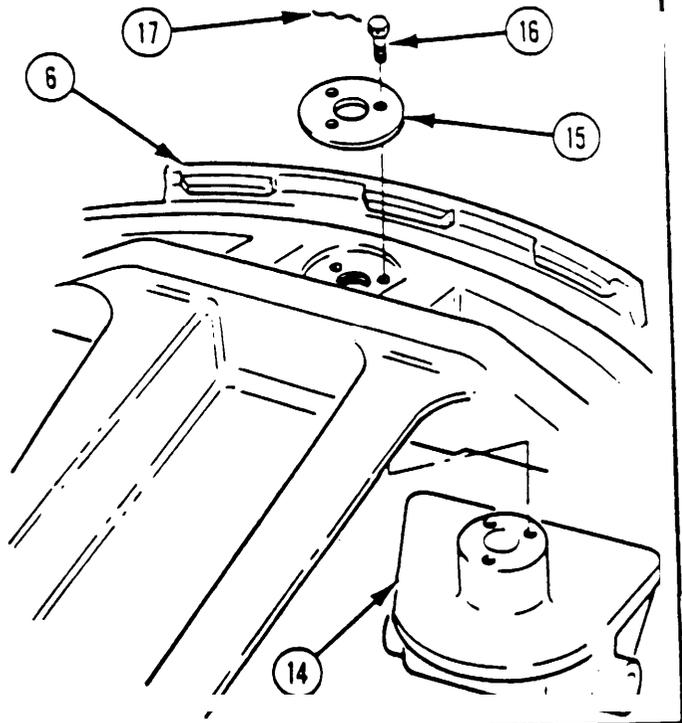


- 11 Tighten nut (12) until mortar mount spring (10) compresses 3-9/32 to 3-11/32 inches.
- 12 When a new nut (12) or threaded straight pin (8) is being installed and desired spring compression is gained, drill 3/16-inch diameter hole through nut (12) and threaded straight pin (8).



- 13 Install spring pin (13).

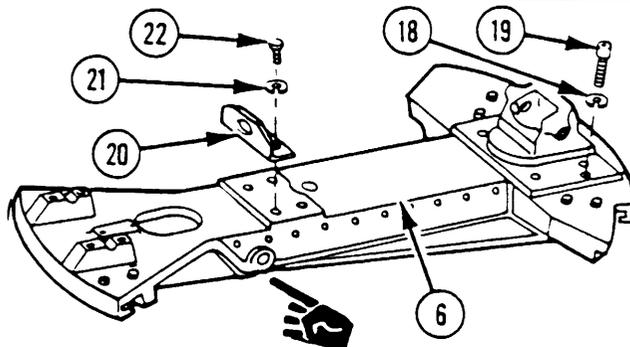
- 14 Apply GAA to lower part of mortar mount socket (14) and install in turntable bridge (6).
- 15 Install socket retaining plate (15) and three capscrews (16). Torque capscrews 60 to 70 ft-lb.
- 16 Install lock wire (17) in three capscrews (16) using double twist method.



**3-8. 107-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, TURNTABLE, AND TURNTABLE BRIDGE—MAINTENANCE INSTRUCTIONS. (cont)**

**REASSEMBLY/INSTALLATION (cont)**

- 17 If removed, install two lockwashers (18) and two capscrews (19) in turntable bridge (6).
- 18 Install angle bracket (20), two lockwashers (21), and two capscrews (22) on turntable bridge (6).
- 19 See page 2-32 for reassembly of remaining parts.



**3-9. INDEX ACTUATOR LINK ASSEMBLY (107-MM, 81-MM, AND 120-MM)—MAINTENANCE INSTRUCTIONS.**

**THIS TASK COVERS:**

- a. Disassembly
- b. Repair
- c. Reassembly

**INITIAL SETUP**

**Tools and Special Tools**

- Small arms repairman tool kit (SC 5180-95-CL-A07)
- Small arms shop set: field maintenance, basic (SC 4933-95-CL-A11)

**Materials/Parts**

- GPL oil (item 5, app D)
- PL-S (item 6, app D)

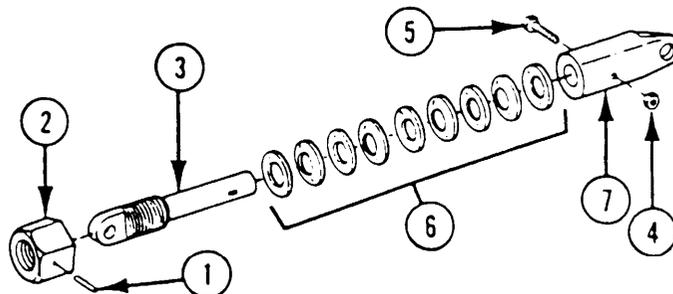
- Solvent cleaning compound (item 8, app D)
- Wiping rag (item 7, app D)

**Equipment Conditions**

- 2-23, Index actuator link assembly
- 2-40, removed
- or
- 2-54

**DISASSEMBLY**

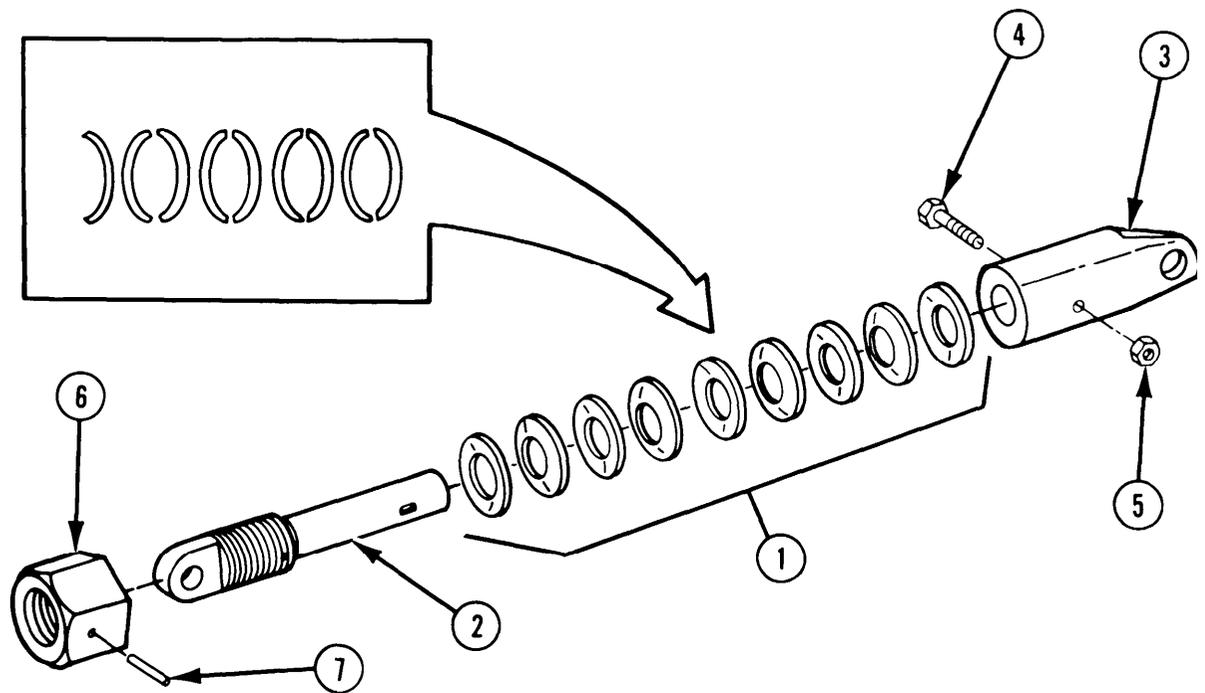
- 1 Remove spring pin (1) and nut (2) from plunger (3).
- 2 Remove self-locking nut (4) and capscrew (5).
- 3 Remove plunger (3) and nine spring washers (6) from housing actuator (7).



**REPAIR**

- 1 Check plunger for straightness and damaged threads.
- 2 Clean corrosion and foreign matter with solvent cleaning compound.
- 3 Replace any missing, broken, or damaged parts. See appendix C.

**REASSEMBLY**



- 1 Lubricate parts prior to reassembly with GPL oil or PL-S.
- 2 Install nine spring washers (1) on plunger (2) as shown in inset and install plunger in housing actuator (3).
- 3 Install cap screw (4) and self-locking nut (5).

**NOTE**

If a new plunger (2) or nut (6) is to be installed, refer to step 5.

- 4 Install nut (6) and spring pin (7).
- 5 Tighten nut (6) until distance between nut (6) and housing actuator (3) is 1-3/16 inch. Drill a 0.125-inch diameter hole through nut (6) and plunger (2). Install spring pin (7).

### 3-10. 81-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE, AND TURNTABLE BRIDGE—MAINTENANCE INSTRUCTIONS.

#### THIS TASK COVERS:

- a. Removal/disassembly                      b. Repair                      c. Reassembly/installation

#### INITIAL SETUP

##### Tools and Special Tools

Field maintenance, post, camp and station small arms shop set (SC 4933-95-CL-A11)

Helicoil insert and tool kit (4131-04-1)

Small arms repairman tool kit (SC 5180-95-CL-A07)

##### Materials/Parts

GAA (item 4, app D)

GPL oil (item 5, app D)

PL-S (item 6, app D)

Solvent cleaning compound (item 8, app D)

Wiping rag (item 7, app D)

##### References

TM 9-254

##### Equipment Conditions

2-40 Turntable removed and unit maintenance level parts disassembled

#### REMOVAL/DISASSEMBLY

##### NOTE

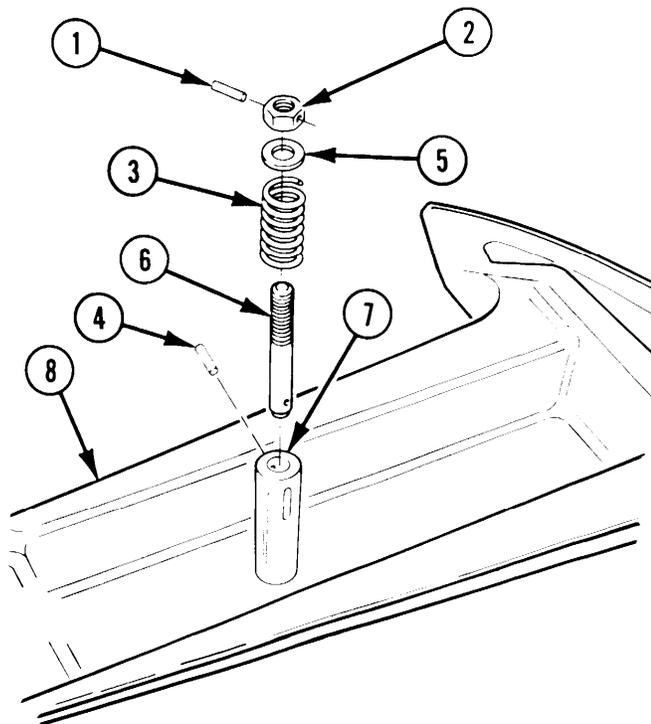
The index actuator link assembly was removed when the turntable was disassembled (p 2-40).

- 1 Remove spring pin (1) from nut (2).

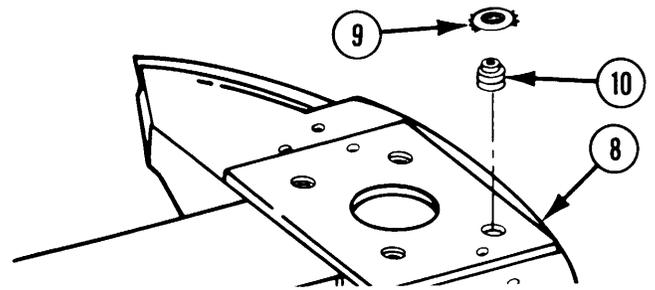
##### CAUTION

Mortar mount spring (3) is under tension. Do not remove spring pin (4) until nut (2) is removed or loosened to release spring tension.

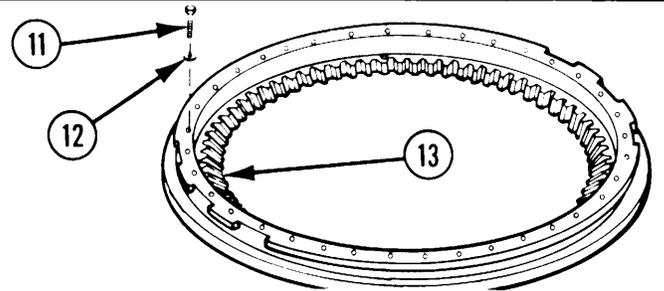
- 2 If nut (2) is damaged, remove nut (2), flat washer (5), and mortar mount spring (3).
- 3 If threaded straight pin (6) is damaged, remove spring pin (4) and threaded straight pin (6).
- 4 If damaged, remove pin guide (7) from turntable bridge (8).



- 5 If damaged, remove four serrated lock rings (9) and four screw thread inserts (10) from turntable bridge (8). See TM 9-254.



- 6 Remove thirty-six capscrews (11) and thirty-six flat washers (12) from internal gear (13).



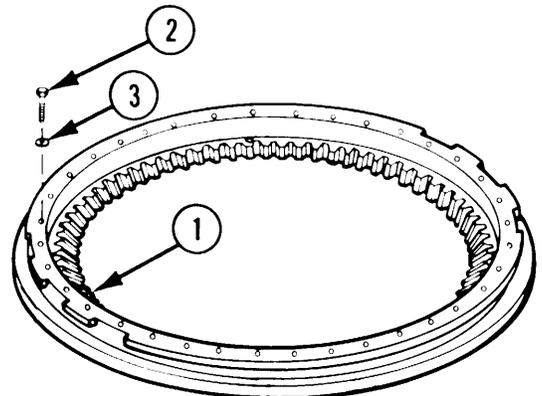
- 7 Remove internal gear (13) from carrier.

### REPAIR

- |   |  |
|---|--|
| <p>1 Check capscrews for burrs or stripped threads. Remove burrs with a fine cut file.</p> <p>2 Check pin guide for cracks.</p> <p>3 Check internal gear for chipped or broken teeth.</p> | <p>4 Clean corrosion and foreign matter with solvent cleaning compound.</p> <p>5 Using solvent cleaning compound, clean surface of vehicle where internal gear will rest and lubricate with GAA.</p> <p>6 Replace any missing, broken, or damaged parts. See appendix C.</p> |
|---|--|

### REASSEMBLY/INSTALLATION

- 1 Lubricate parts prior to reassembly with light coat of GAA.
- 2 Position internal gear (1) in carrier and align holes.
- 3 Apply GAA to internal gear (1).
- 4 Apply GPL oil or PL-S to threads of thirty-six capscrews (2).
- 5 Install thirty-six flat washers (3) and thirty-six capscrews (2); torque capscrews to  $80 \pm 3$  ft-lb.



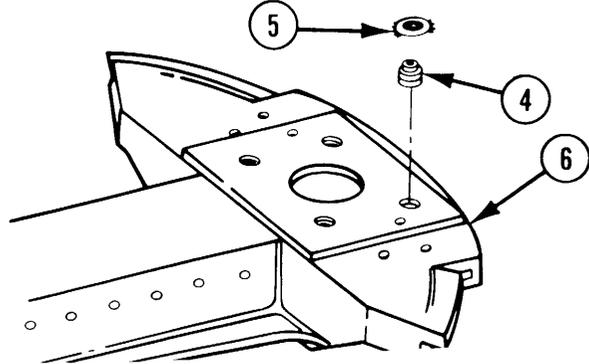
3-10. 81-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE, AND TURNTABLE  
BRIDGE—MAINTENANCE INSTRUCTIONS. (cont)

REASSEMBLY/INSTALLATION (cont)

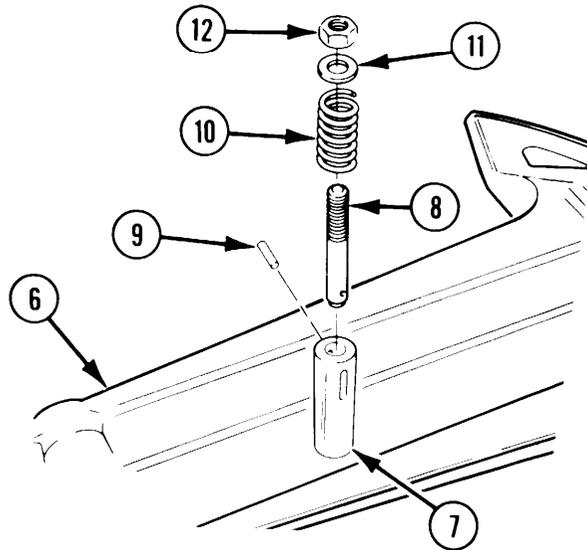
**CAUTION**

Do not drive serrated lock rings below surface of turntable bridge.

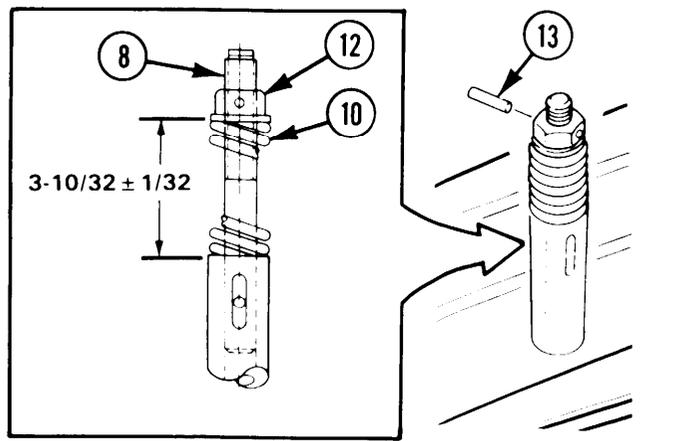
- 6 If removed, install four screw thread inserts (4) and four serrated lock rings (5) in turntable bridge (6). See TM 9-254.



- 7 If removed, install pin guide (7) in turntable bridge (6); stake in three places.
- 8 If removed, install threaded straight pin (8) and spring pin (9).
- 9 Install mortar mount spring (10) and flat washer (11).
- 10 If removed, install nut (12).



- 11 Tighten nut (12) until mortar mount spring (10) compresses 3-9/32 to 3-11/32 inches.
- 12 When a new nut (12) or threaded straight pin (8) is being installed and desired spring compression is gained, drill 0.187 + 0.005 inch-diameter hole through nut (12) and threaded straight pin (8).
- 13 Install spring pin (13).
- 14 See page 2-46 for reassembly of remaining parts.

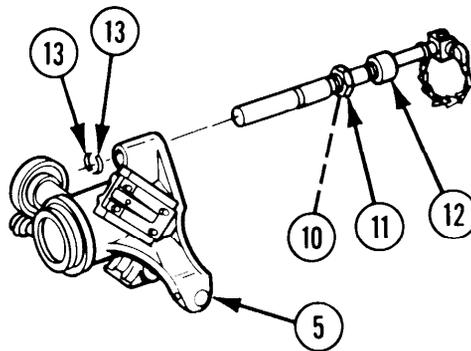




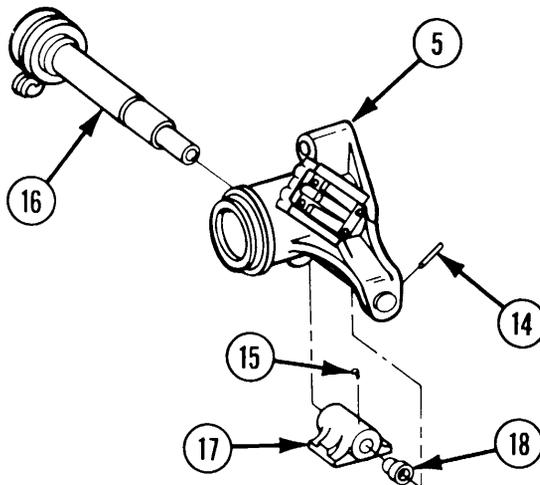
3-11. 81-MM MORTAR BIPOD ASSEMBLY-MAINTENANCE INSTRUCTIONS. (cont)

**DISASSEMBLY (cont)**

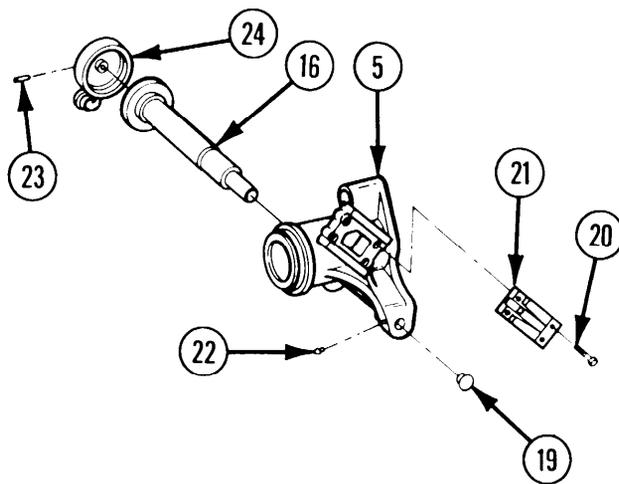
- 4 Bend tabs up on key washer (10) and loosen nut (11).
- 5 Push recoil buffer assembly (12) against bipod yoke (5) and remove two segment rings (13).
- 6 Remove recoil buffer assembly (12).



- 7 Remove yoke assembly pin (14) and machine screw (15).
- 8 Unscrew and remove traversing spindle assembly (16) while holding spring mounting block (17) and bipod yoke (5).
- 9 Remove traversing bearing assembly (18) from spring mounting block (17).



- 10 If damaged, remove expansion plug (19).
- 11 Remove four capscrews (20) and sight socket key (21) from bipod yoke (5).
- 12 If damaged, remove oil cup (22).
- 13 Remove headless straight pin (23) and traversing handwheel assembly (24) from traversing spindle assembly (16).

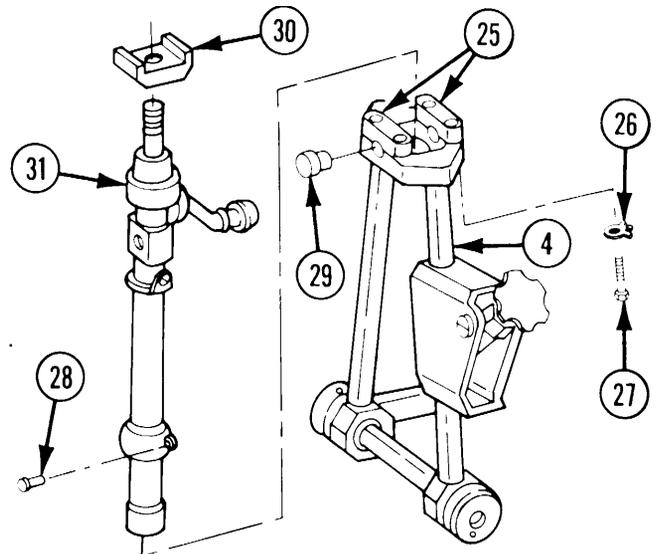


**NOTE**

Mark retaining blocks (25) before removing so that they can be replaced on the correct side.

If necessary for replacement, bend tabs down on four key washers (26); remove four capscrews (27) and four key washers (26). Remove two retaining blocks (25). Discard key washers (26).

- 15 Remove shoulder screw (28) and two headless shoulder pins (29).
- 16 Remove spring mounting block (30) and mortar elevation assembly (31) from bipod assembly (4).



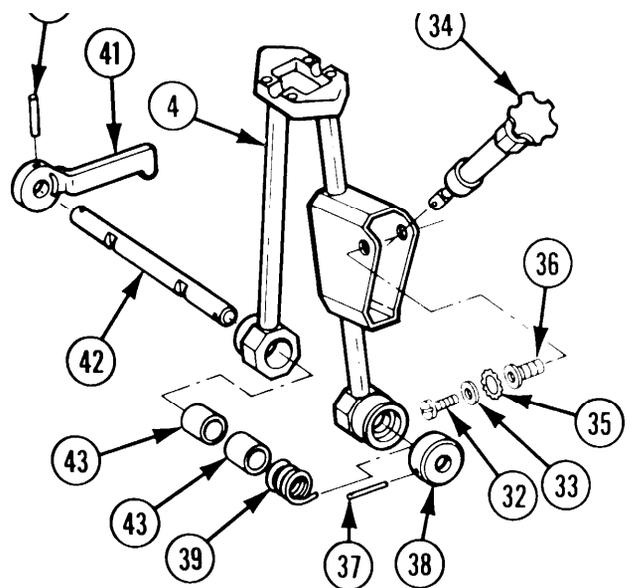
- 17 Remove two externally relieved body bolts (32), two flat washers (33), and leveling mechanism (34).

- 18 If damaged, remove two serrated lock rings (35) and two screw thread inserts (36) from bipod assembly (4). See TM 9-254.

- 19 Scribe a line and remove headless straight pin (37), shaft collar (38), and torsion helical spring (39).

- 20 Scribe a line and remove headless straight pin (40), bipod assembly handle (41), and straight shouldered shaft (42) from bipod assembly (4).

- 21 If damaged, remove two shaft mounts (43).



**REPAIR**

**NOTE**

Springs under the bipod yoke must be replaced in pairs.

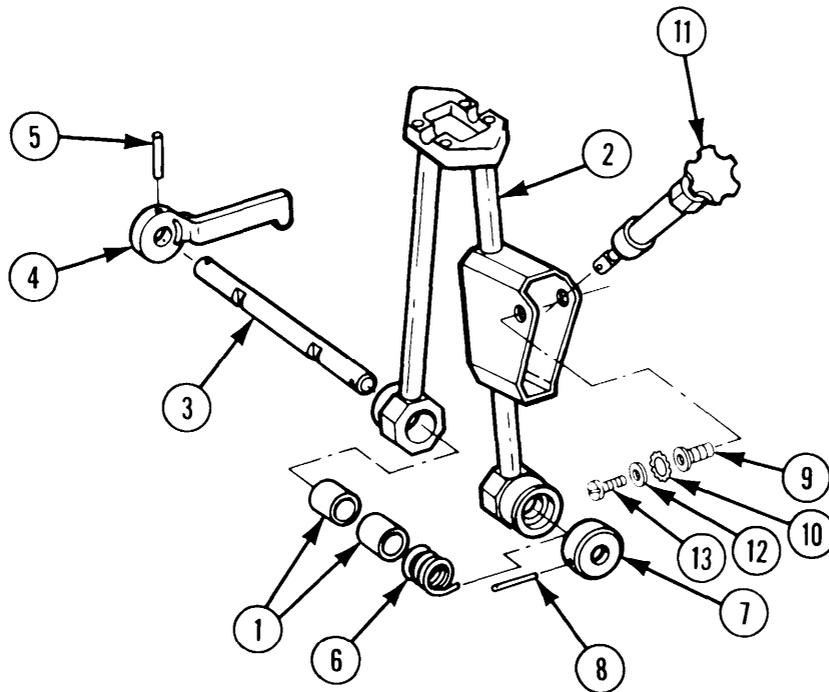
- 1 Check springs for distortion and cracks.
- 2 Check all parts for burrs. Remove burrs with a fine cut file.

- 3 Remove corrosion and foreign matter with solvent cleaning compound.

- 4 Replace any missing, broken, or damaged parts. See appendix C.

3-11. 81-MM MORTAR BIPOD ASSEMBLY—MAINTENANCE INSTRUCTIONS. (cont)

REASSEMBLY



- 1 Lubricate parts prior to reassembly with light coat of GAA.
- 2 If removed, install two shaft mounts (1) in bipod assembly (2); install straight shouldered shaft (3).
- 3 Install bipod assembly handle (4) and headless straight pin (5).
- 4 Install torsion helical spring (6) and shaft collar (7); turn torsion helical spring 60 degrees counterclockwise to preload.
- 5 Install headless straight pin (8).
- 6 Check that handle (4) is under spring tension. When moved, it should spring back to position.

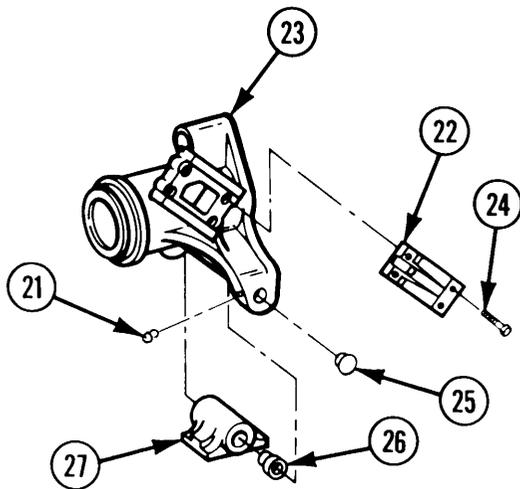
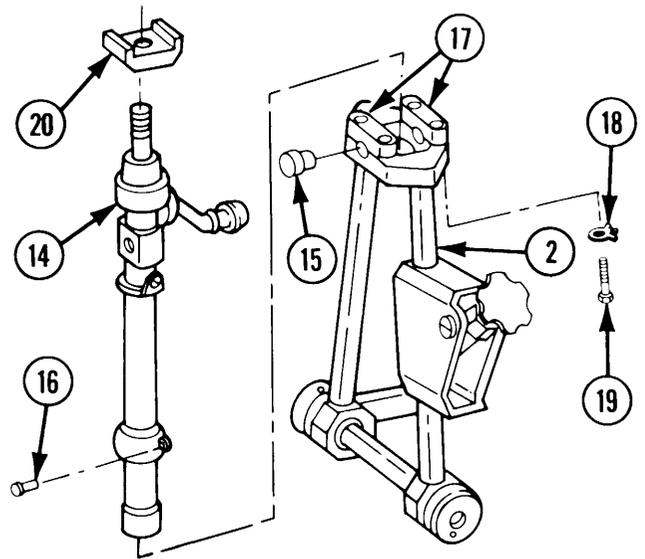
- 7 Stake headless straight pins (5) and (8) in two places.

**CAUTION**

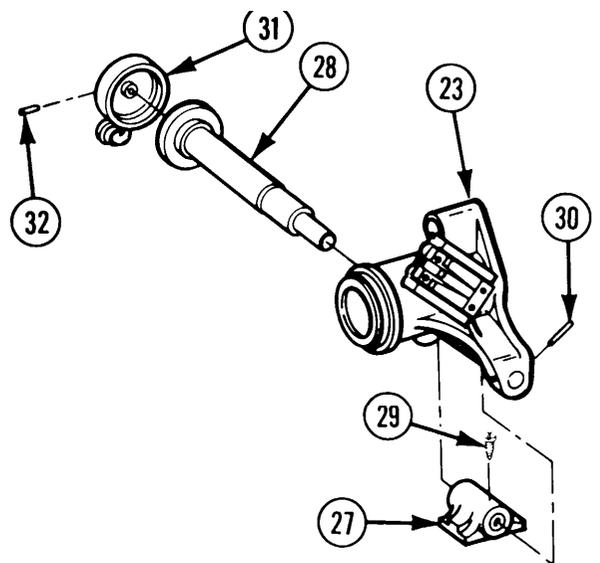
Serrated lock rings should not be driven below top of screw thread inserts.

- 8 If removed, install two screw thread inserts (9) and two serrated lock rings (10) in bipod assembly (2). See TM 9-254.
- 9 Install leveling mechanism (11), two flat washers (12), and externally relieved body bolts (13). Torque externally relieved body bolts 60 to 65 ft-lb.

- 10 Install mortar elevation assembly (14), two headless shoulder pins (15), and shoulder screw (16) in bipod assembly (2); stake shoulder screw in three places.
- 11 If removed, install two retaining blocks (17), four new key washers (18), and four capscrews (19). Bend down tabs on key washers.
- 12 Install spring mounting block (20).



- 13 If removed, install oil cup (21).
- 14 Position sight socket key (22) on bipod yoke (23) and install four capscrews (24). Torque capscrews  $23 \pm 2$  ft-lb.
- 15 If removed, install expansion plug (25).
- 16 Install traversing bearing assembly (26) in spring mounting block (27).



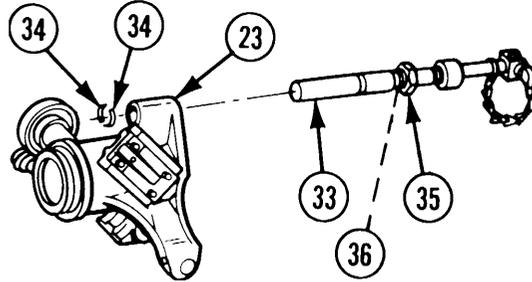
- 17 Install traversing spindle assembly (28) through bipod yoke (23).
- 18 Install spring mounting block (27) on traversing spindle assembly (28).
- 19 Install machine screw (29), yoke assembly pin (30), traversing hand-wheel assembly (31), and headless straight pin (32). Stake both pins in three places.

3-11. 81-MM MORTAR BIPOD ASSEMBLY-MAINTENANCE INSTRUCTIONS. (cont)

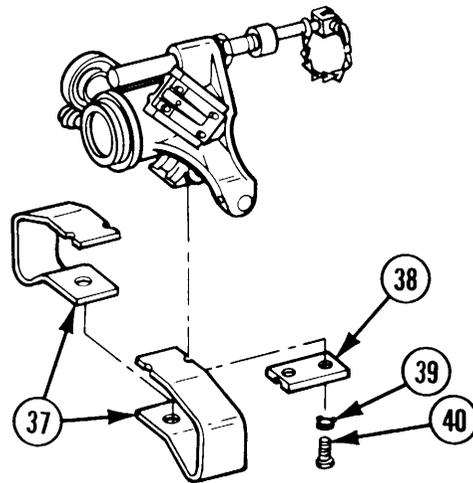
REASSEMBLY (cont)

20 Install recoil buffer assembly (33); push recoil buffer assembly against bipod yoke (23) and install two segment rings (34).

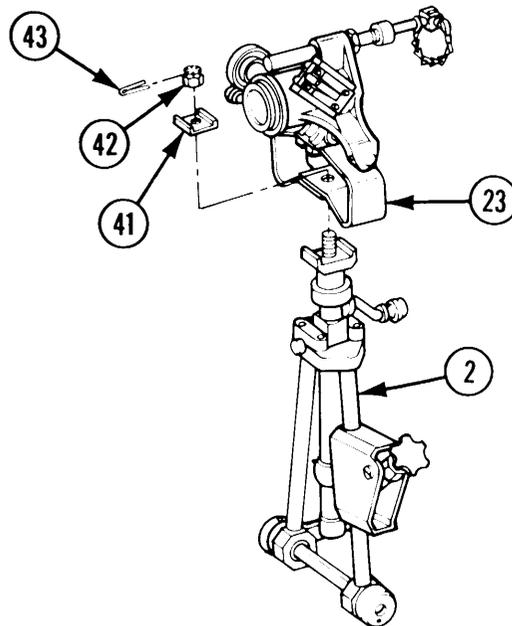
21 Tighten nut (35) and bend down tab on key washer (36).



22 Install two springs (37), connector clamp (38), two new key washers (39), and two capscrews (40). Bend up tabs on key washers.



23 Position bipod yoke (23) on bipod assembly (2) and install connector clamp (41), nut (42), and new cotter pin (43).



### 3-12. TRAVERSING HANDWHEEL ASSEMBLY—MAINTENANCE INSTRUCTIONS.

THIS TASK COVERS:

- a. Inspection                      b. Disassembly                      c. Repair                      d. Reassembly

#### INITIAL SETUP

##### Tools and Special Tools

Field maintenance, post, camp and station small arms shop set (SC 4933-95-CL-A11)

Small arms repairman tool kit (SC 5180-95-CL-A07)

##### Materials/Parts

GPL oil (item 5, app D)

PL-S (item 6, app D)

Solvent cleaning compound (item 8, app D)

Wiping rag (item 7, app D)

##### Equipment Conditions

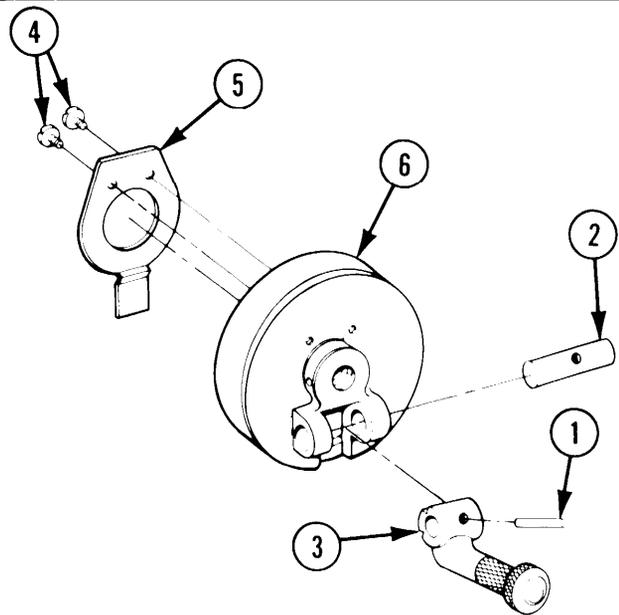
3-19 Traversing handwheel assembly removed

#### INSPECTION

Check that detent holds crank in closed and opened positions.

#### DISASSEMBLY

- 1 Remove headless straight pin (1), headless straight pin (2), and crank (3).
- 2 Remove two machine screws (4) and detent (5) from handwheel body (6).



**3-12. TRAVERSING HANDWHEEL ASSEMBLY—MAINTENANCE INSTRUCTIONS. (cont)**

**REPAIR**

- |  |   |
|--|---|
| <p>1 If handwheel body is damaged, replace entire traversing handwheel assembly.</p> <p>2 Clean corrosion and foreign matter with solvent cleaning compound.</p> | <p>3 Replace any other missing, broken, or damaged parts. See appendix C.</p> |
|--|---|

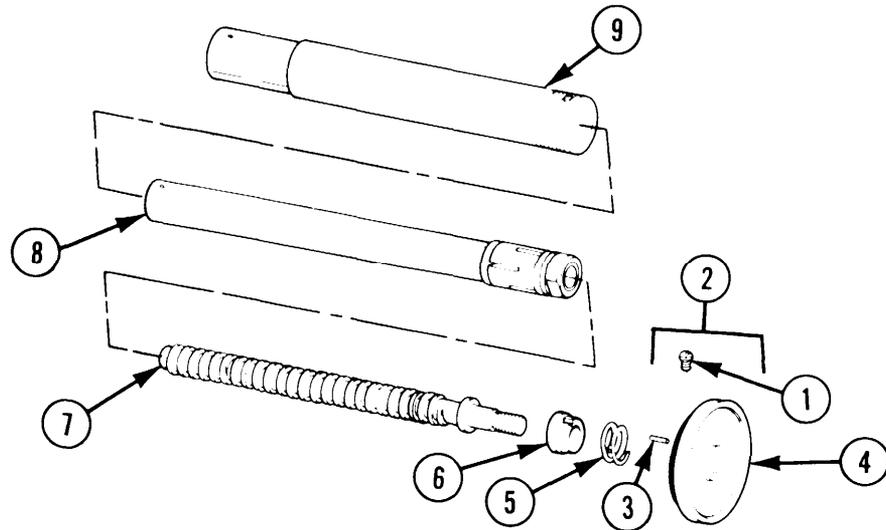
**REASSEMBLY**

<p>1 Lubricate parts prior to reassembly with light coat of GAA.</p> <p>2 Position crank (1) in handwheel body (2) and install headless straight pin (3).</p> <p>3 Install headless straight pin (4) and stake both ends in three places.</p> <p>4 Position detent (5) on handwheel body (2) and install two machine screws (6).</p>	
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**3-13. TRAVERSING SPINDLE ASSEMBLY AND CAP ASSEMBLY—MAINTENANCE INSTRUCTIONS.**

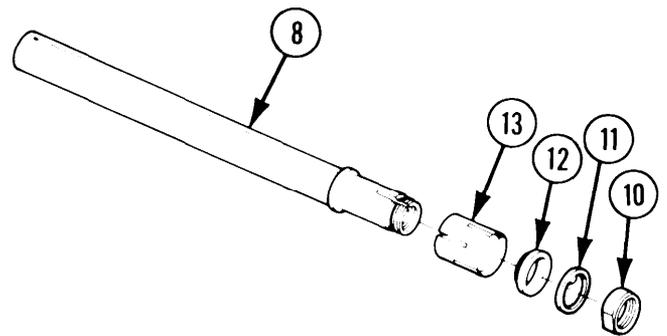
THIS TASK COVERS:	
a. Disassembly	b. Repair
	c. Reassembly
INITIAL SETUP	
<p>Tools and Special Tools</p> <p>Field maintenance, post, camp and station small arms shop set (SC 4933-95-CL-A11)</p> <p>Small arms repairman tool kit (SC 5180-95-CL-A07)</p> <p>Materials/Parts</p> <p>GAA (item 4, app D)</p>	<p>Key washer (7236598)</p> <p>Solvent cleaning compound (item 8, app D)</p> <p>Wiping rag (item 7, app D)</p> <p>Equipment Conditions</p> <p>3-19 Traversing spindle assembly removed</p>

**DISASSEMBLY**



- 1 Remove machine screw (1) and cap assembly (2).
- 2 If damaged, remove spring pin (3) from traversing assembly flange (4).
- 3 Remove compression helical spring (5), sleeve bearing (6), and traversing spindle screw (7) together with traversing screw spindle nut (8) from mechanical spindle housing (9).
- 4 Remove traversing spindle screw (7) from traversing screw spindle nut (8).

- 5 Remove nut (10), key washer (11), ring spacer (12), and sleeve bearing (13) from traversing screw spindle nut (8). Discard key washer (11).



**REPAIR**

- 1 Check all threaded parts for burrs. Remove burrs with a fine cut file.
- 2 Check traversing screw spindle nut and mechanical spindle housing for dents.
- 3 Check compression helical spring for distortion.
- 4 If mechanical spindle housing or traversing flange assembly is damaged, replace complete traversing spindle assembly.

**3-13. TRAVERSING SPINDLE ASSEMBLY AND CAP ASSEMBLY –MAINTENANCE INSTRUCTIONS. (cont)**

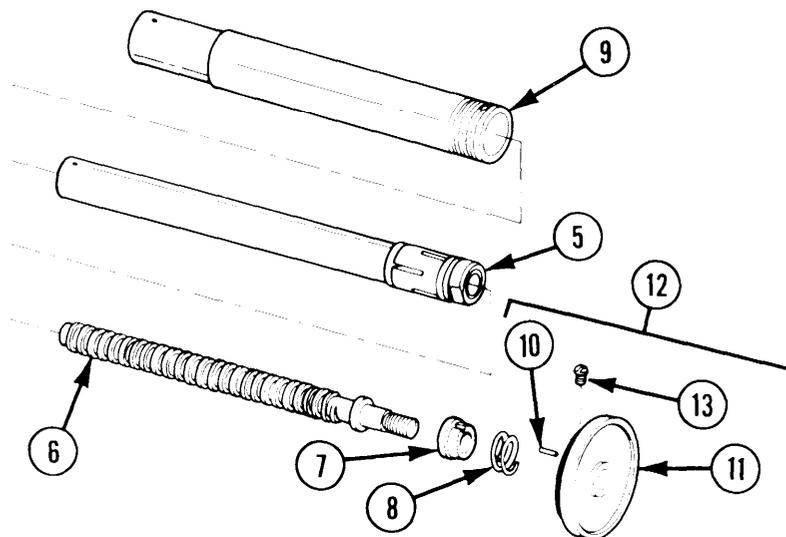
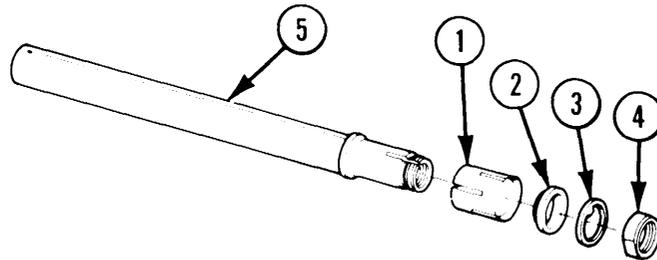
**REPAIR (cont)**

5 Remove corrosion and foreign matter with solvent cleaning compound.

6 Replace any other missing, broken, or damaged parts. See appendix C.

**REASSEMBLY**

- 1 Lubricate all internal parts with GAA.
- 2 Install sleeve bearing (1), ring spacer (2), new key washer (3), and nut (4) on traversing screw spindle nut (5).



- 3 Install traversing spindle screw (6) in traversing screw spindle nut (5).
- 4 Install traversing spindle screw (6) and traversing screw spindle nut (5), sleeve bearing (7), and compression helical spring (8) in mechanical spindle housing (9).
- 5 If removed, install new spring pin (10) in traversing assembly flange (11).

Spring pin (10) should not protrude through back of traversing assembly flange (11) since it can interfere with the operation of the traversing handwheel.

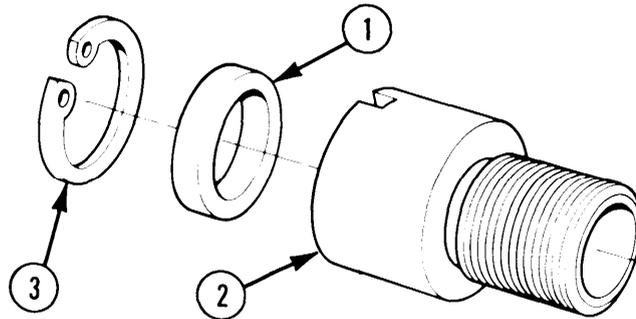
- 6 Install cap assembly (12) on traversing spindle screw (6).
- 7 Install machine screw (13).



3-14. TRAVERSING BEARING ASSEMBLY—MAINTENANCE INSTRUCTIONS. (cont)

**REASSEMBLY**

Install new preformed packing (1) in sleeve bearing (2) and install retaining ring (3).



3-15. RECOIL BUFFER ASSEMBLY —MAINTENANCE INSTRUCTIONS.

THIS TASK COVERS:

a. Disassembly

b. Repair

c. Reassembly

INITIAL SETUP

Tools and Special Tools

Field maintenance, post, camp and station small arms shop set (SC 4933-95-CL-A11)

Small arms repairman tool kit (SC 5180-95-CL-A07)

Materials/Parts

Flat washer (10933109)  
Preformed packing (10933110)

GPL oil (item 5, app D)

Key washer (10949760)

PL-S (item 6, app D)

Solvent cleaning compound (item 8, app D)

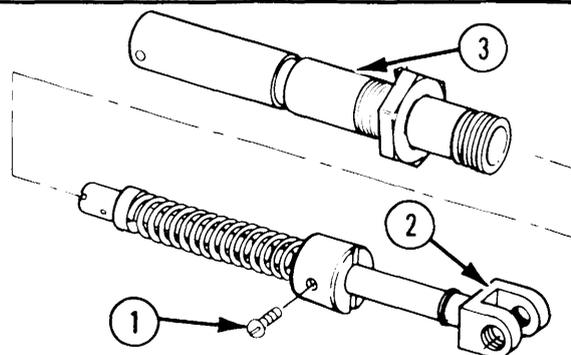
Wiping rag (item 7, app D)

Equipment Conditions

3-19 Recoil buffer assembly removed

**DISASSEMBLY**

- 1 Remove machine screw (1).
- 2 Remove clevis and rod (2) from recoil buffer tube (3).



**WARNING**  
Compression helical spring (4) is under tension. Be careful that spring does not fly off and cause injury during disassembly procedures.

**3** Remove headless straight pin (5), sleeve nut (6), sleeve bearing (7), and compression helical spring (4).

**4** Remove sleeve bearing (8), flat washer (9), and preformed packing (10). Discard preformed packing (10).

**5** Remove linear actuating cylinder cap (11) from clevis and rod (2).

**6** Remove nut (12) and key washer (13). Discard key washer (13).

**7** Remove machine screw (14).

**8** Remove machine threaded plug (15), preformed packing (16), and flat washer (17). Discard preformed packing (16).

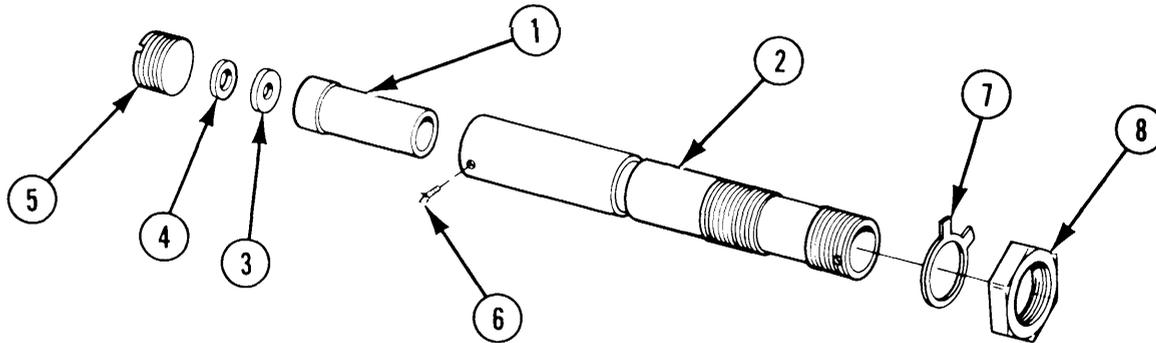
**9** Remove recoil buffer retainer (18) from recoil buffer tube (3).

### REPAIR

- 1 Check recoil buffer tube for dents and damaged threads.
- 2 Check compression helical spring for distortion.
- 3 Check that clevis and rod is straight.
- 4 Remove corrosion and foreign matter with solvent cleaning compound.
- 5 Replace any missing, broken, or damaged parts. See appendix C.

3-15. RECOIL BUFFER ASSEMBLY—MAINTENANCE INSTRUCTIONS. (cont)

**REASSEMBLY**



- 1 Lubricate bearing surfaces and compression helical spring with a light coat of GPL oil or PL-S.
- 2 Install recoil buffer retainer (1) in recoil buffer tube (2).
- 3 Install flat washer (3), new preformed packing (4), and machine threaded plug (5).

- 4 Install machine screw (6).
- 5 Install new key washer (7) and nut (8).

**NOTE**

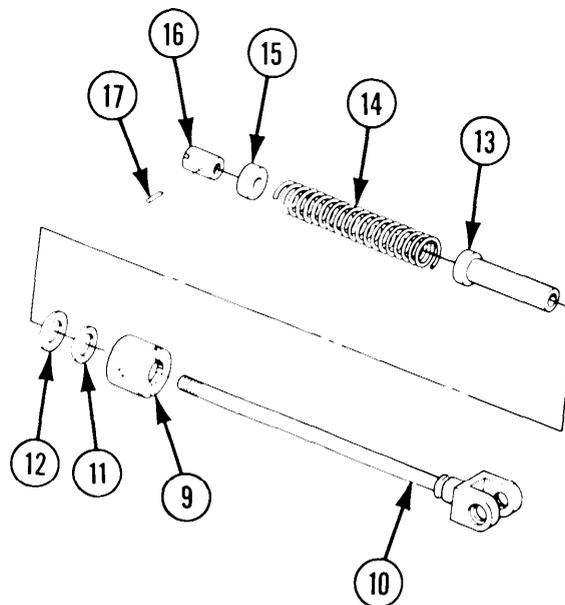
Tabs of key washer (7) will be bent around nut (8) after recoil buffer assembly is installed in bipod yoke (p 3-22).

- 6 Install linear actuating cylinder cap (9) on clevis and rod (10).
- 7 Install new preformed packing (11), flat washer (12), and sleeve bearing (13).

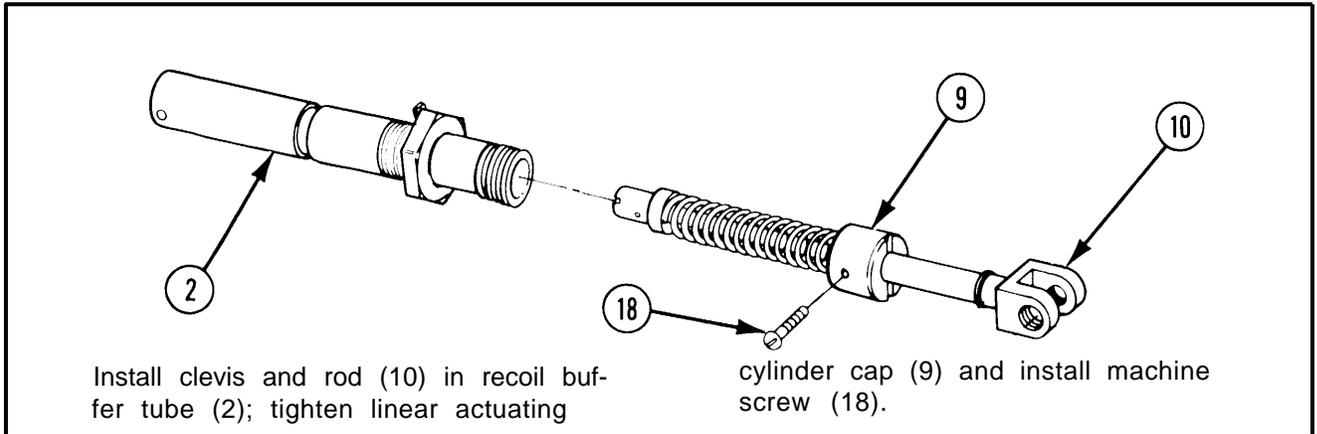
**NOTE**

If new sleeve nut or clevis and rod is to be installed, go to step 9.

- 8 Install compression helical spring (14), sleeve bearing (15), and sleeve nut (16).
- 9 Tighten new sleeve nut until there is no end play between sleeve nut (16) and new clevis and rod (10). Drill 0.0927-inch hole 1/4-inch from unslotted end through sleeve nut (16) and clevis and rod (10).



- 10 Install headless straight pin (17) and stake both ends.



### 3-16. BIPOD YOKE—MAINTENANCE INSTRUCTIONS.

THIS TASK COVERS:		
a. Disassembly	b. Repair	c. Reassembly
INITIAL SETUP		
<p><b>Tools and Special Tools</b>                  Field maintenance, post, camp and station small arms shop set (SC 4933-95-CL-A11)                  Helicoil insert and tool kit (4131-04-1)                  Small arms repairman tool kit (SC 5180-95-CL-A07)</p> <p><b>Materials/Parts</b>                  GAA (item 4, app D)                  GPL oil (item 5, app D)</p>	<p>PL-S (item 6, app D)                  Solvent cleaning compound (item 8, app D)                  Wiping rag (item 7, app D)</p> <p><b>References</b>                  TM 9-254</p> <p><b>Equipment Conditions</b>                  3-19 Bipod yoke removed</p>	

#### DISASSEMBLY

**CAUTION**  
Do not separate yoke assembly bushing (1) from yoke assembly body (2), or damage to equipment will result.

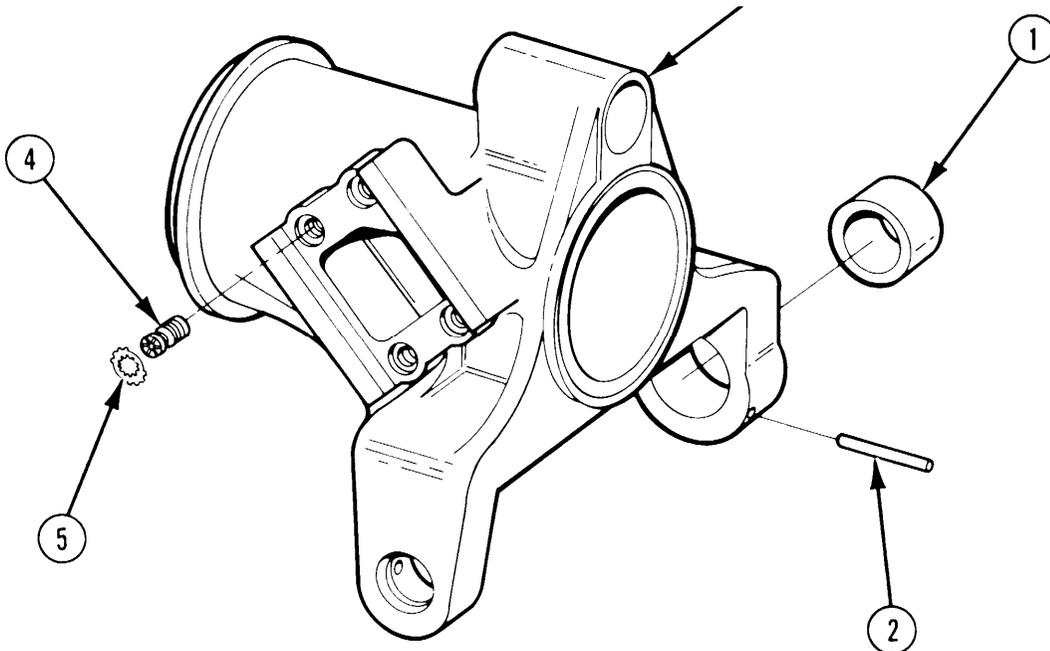
- 1 If damaged, remove headless straight pin (3) and sleeve assembly bushing (4).
- 2 If damaged, remove four serrated lock rings (5) and four screw thread inserts (6). See TM 9-254.

### 3-16. BIPOD YOKE—MAINTENANCE INSTRUCTIONS. (cont)

#### REPAIR

- 1 Check sleeve assembly bushing for burrs. Remove burrs with a fine cut file.
- 2 If yoke assembly bushing or yoke assembly body is damaged, replace entire bipod yoke.
- 3 Remove corrosion and foreign matter with solvent cleaning compound.
- 4 Replace any other missing, broken, or damaged parts. See appendix C.

#### REASSEMBLY



- 1 Lubricate parts prior to reassembly with light coat of GAA.
- 2 If removed, install sleeve assembly bushing (1) and headless straight pin (2) in yoke assembly body (3). If sleeve assembly bushing (1) is replaced, use a 0.125-inch diameter drill to cut a channel in bushing to allow headless straight pin (2) to secure bushing.

#### CAUTION

Serrated lock rings should not be driven below top of screw thread inserts.

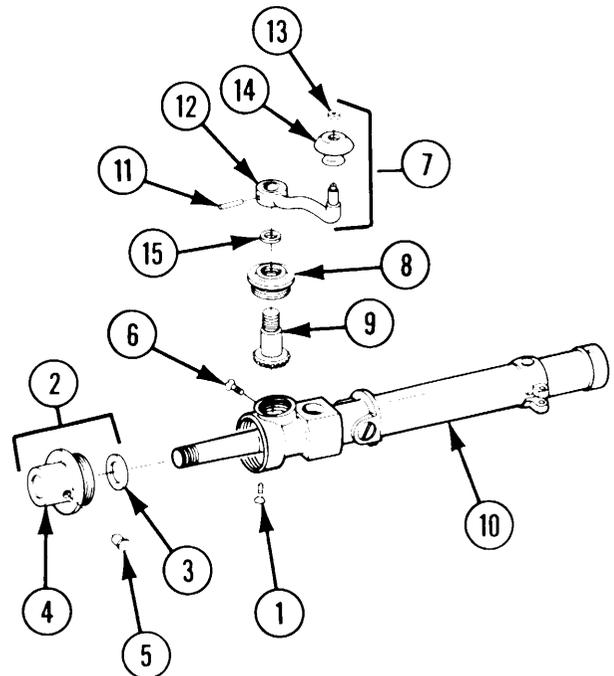
- 3 If removed, install four screw thread inserts (4) and four serrated lock rings (5). See TM 9-254,

**3-17. MORTAR ELEVATION ASSEMBLY, MORTAR ELEVATION ASSEMBLY HOUSING, COVER, AND ELEVATION CRANK ASSEMBLY—MAINTENANCE INSTRUCTIONS.**

THIS TASK COVERS:		
a. Disassembly	b. Repair	c. Reassembly
INITIAL SETUP		
<p><b>Tools and Special Tools</b> Field maintenance, post, camp and station small arms shop set (SC 4933-95-CL-A11) Small arms repairman tool kit (SC 5180-95-CL-A07)</p> <p><b>Materials/Parts</b> Felt washer (7235900) GAA (item 4, app D)</p>	<p>Solvent cleaning compound (item 8, app D) Wiping rag (item 7, app D)</p> <p><b>Equipment Conditions</b> 3-19 Mortar elevation assembly removed</p>	

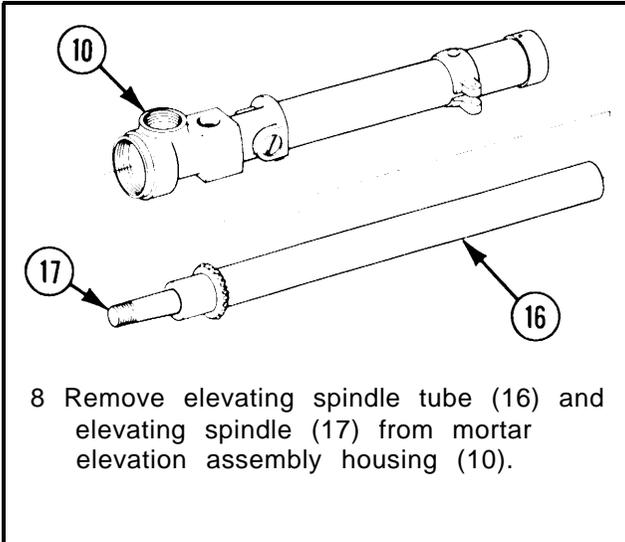
**DISASSEMBLY**

- 1 Remove machine screw (1) and cover (2).
- 2 Remove felt washer (3) from body (4). If damaged, remove lubricating oil cup (5) from body (4). Discard felt washer (3).
- 3 Remove machine screw (6).
- 4 Remove elevation crank assembly (7), cover (8), and bevel pinion (9) from mortar elevation assembly housing (10).
- 5 Remove headless straight pin (11) from crank (12) and turn crank (12) clockwise to remove it from bevel pinion (9).
- 6 If damaged, remove recessed washer (13) and knob (14) from crank (12).
- 7 If damaged, remove felt washer (15) from cover (8).

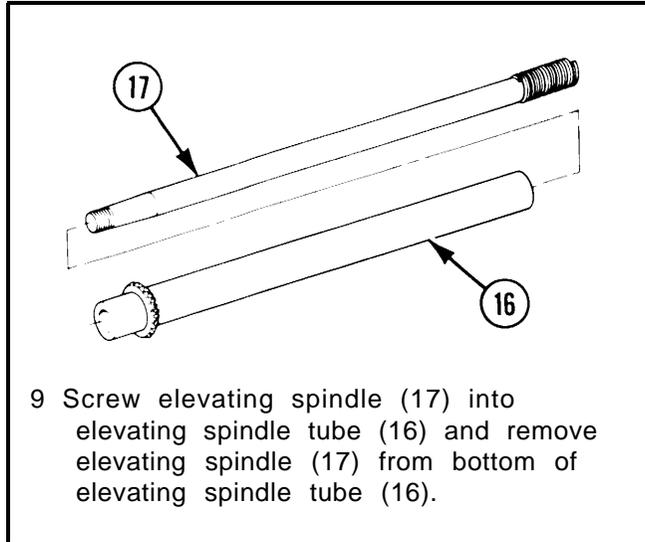


**3-17. MORTAR ELEVATION ASSEMBLY, MORTAR ELEVATION ASSEMBLY HOUSING, COVER, AND ELEVATION CRANK ASSEMBLY—MAINTENANCE INSTRUCTIONS.**  
 (cont)

**DISASSEMBLY (cont)**



8 Remove elevating spindle tube (16) and elevating spindle (17) from mortar elevation assembly housing (10).



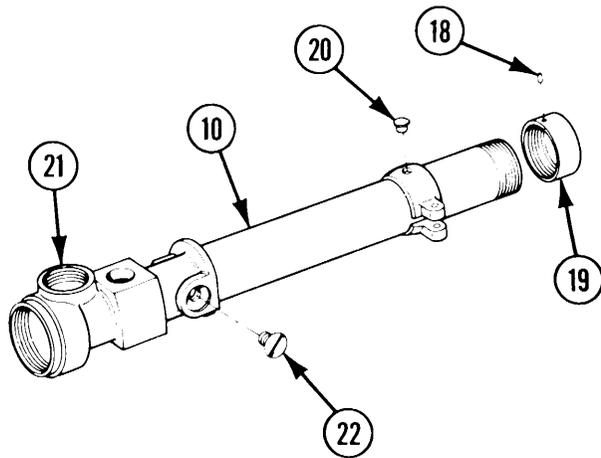
9 Screw elevating spindle (17) into elevating spindle tube (16) and remove elevating spindle (17) from bottom of elevating spindle tube (16).

10 Remove setscrew (18) and mortar cap (19) from mortar elevation assembly housing (10).

11 If damaged, remove lubricating oil cup (20) from mortar elevation assembly housing (10).

**CAUTION**  
 Do not remove gear case (21) from mortar elevation assembly housing (10).

12 If damaged, remove two machine screws (22) from mortar elevation assembly housing (10).



**REPAIR**

- |   |  |
|---|--|
| <p>1 Check all threaded parts for burrs. Remove burrs with a fine cut file.</p>       | <p>gear teeth or threads. Remove burrs with a fine cut file.</p>       |
| <p>2 Check bevel pinion, elevating spindle, and elevating spindle tube for burred</p> | <p>3 If crank is damaged, replace entire elevation crank assembly.</p> |

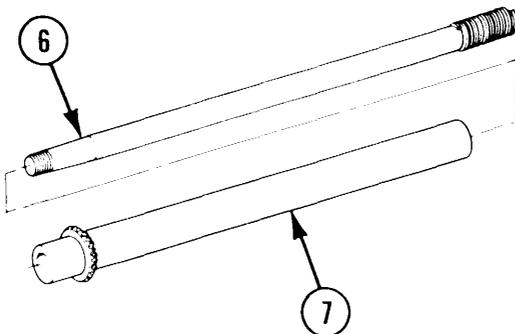
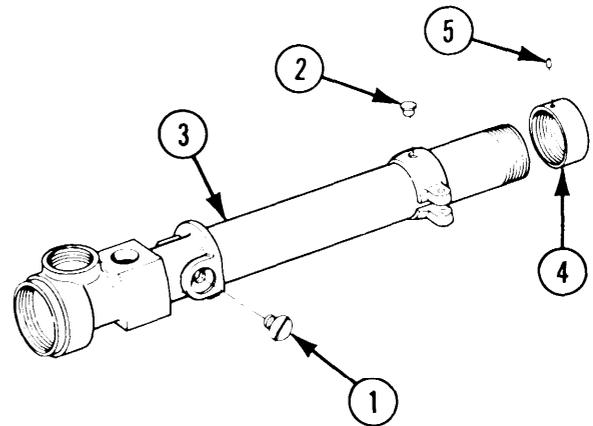
4 Check elevating spindle tube for broken solder joint between gear case and rest of tube. If broken, replace entire mortar elevation assembly housing.

5 Remove corrosion and foreign matter with solvent cleaning compound.

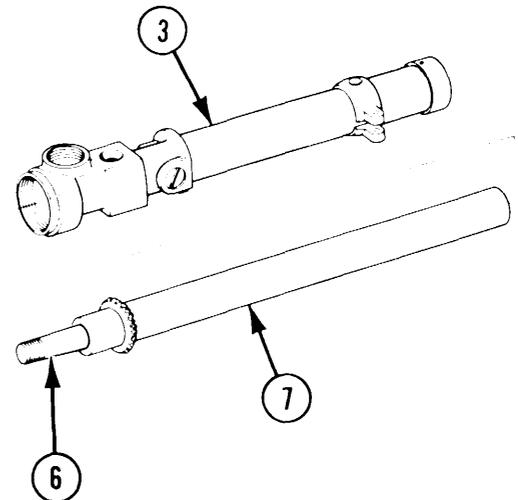
6 Replace any other missing, broken, or damaged parts. See appendix C.

### REASSEMBLY

- 1 Apply a light coat of GAA with a wiping rag to all internal parts prior to reassembly.
- 2 If removed, install two machine screws (1).
- 3 If removed, install lubricating oil cup (2) in mortar elevation assembly housing (3).
- 4 Install mortar cap (4) on mortar elevation assembly housing (3); install and stake setscrew (5).



5 Screw elevating spindle (6) into elevating spindle tube (7).

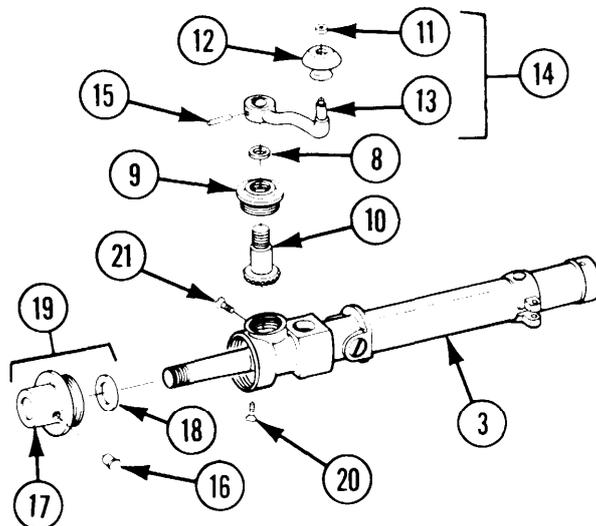


6 Install elevating spindle (6) and elevating spindle tube (7) in mortar elevation assembly housing (3).

**3-17. MORTAR ELEVATION ASSEMBLY, MORTAR ELEVATION ASSEMBLY HOUSING, COVER, AND ELEVATION CRANK ASSEMBLY—MAINTENANCE INSTRUCTIONS. (cont)**

**REASSEMBLY (cont)**

- 7 If removed, install new felt washer (8) in cover (9). Install cover (9) over shaft of bevel pinion (10).
- 8 If removed, install new recessed washer (11) in knob (12) and install knob (12) on crank (13).
- 9 Install elevation crank assembly (14) on shaft of bevel pinion (10) by turning counterclockwise. Install headless straight pin (15).
- 10 Install bevel pinion (10) and attached parts in mortar elevation assembly housing (3).
- 11 If removed, install lubricating oil cup (16) in body (17).
- 12 Install new felt washer (18) in body (17).
- 13 Install cover (19) in mortar elevation assembly housing (3).



- 14 Install machine screw (20) in mortar elevation assembly housing (3) and stake machine screw (20).
- 15 Install machine screw (21) and stake.

**3-18. LEVELING MECHANISM—MAINTENANCE INSTRUCTIONS.**

THIS TASK COVERS:

- a. Disassembly
- b. Repair
- c. Reassembly

INITIAL SETUP

Tools and Special Tools

- Field maintenance, post, camp and station small arms shop set (SC 4933-95-CL-A11)
- Small arms repairman tool kit (SC 5180-95-CL-A07)

Materials/Parts

- Felt washer (two) (10918075)
- GPL oil (item 5, app D)

PL-S (item 6, app D)

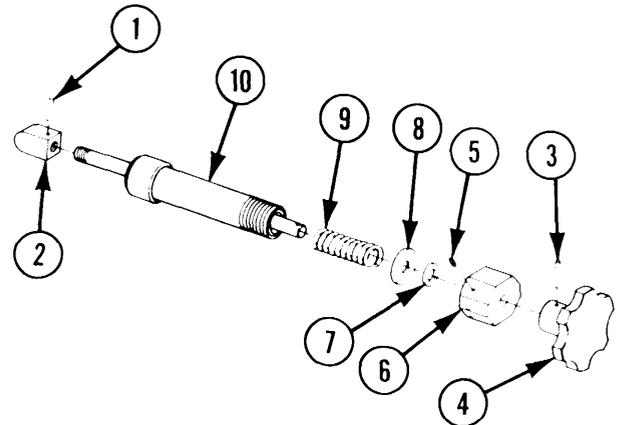
- Solvent cleaning compound (item 8, app D)
- Wiping rag (item 7, app D)

Equipment Conditions

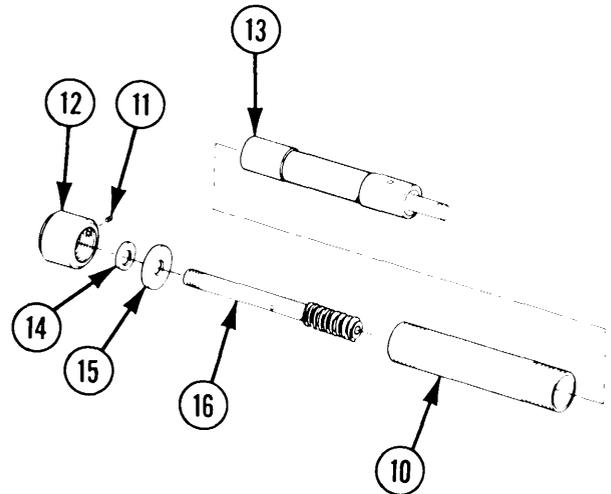
3-19 Leveling mechanism removed

**DISASSEMBLY**

- 1 Remove headless straight pin (1) and screw end (2).
- 2 Remove headless straight pin (3) and handwheel (4).
- 3 Remove two setscrews (5) and leveling mechanism nut (6).
- 4 Remove felt washer (7), fiat washer (8), and compression helical spring (9) from leveling mechanism cylinder (10). Discard felt washer (7).



- 5 Remove two setscrews (11) and leveling mechanism nut (12).
- 6 Remove nut assembly (13) from leveling mechanism cylinder (10).
- 7 Remove felt washer (14), flat washer (15), and worm shaft (16). Discard felt washer (14).

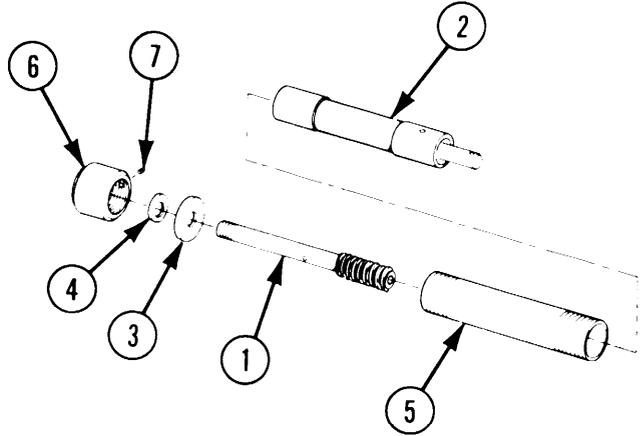


**REPAIR**

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1 Check compression helical spring for cracks or distortion.</li> <li>2 Check worm shaft for straightness.</li> <li>3 Check all threaded parts for burrs; remove burrs with a fine cut file.</li> </ol> | <ol style="list-style-type: none"> <li>4 Check leveling mechanism cylinder for dents.</li> <li>5 Remove corrosion and foreign matter with solvent cleaning compound.</li> <li>6 Replace any other missing, broken, or damaged parts. See appendix C.</li> </ol> |
|--|---|

3-18. LEVELING MECHANISM—MAINTENANCE INSTRUCTIONS. (cont)

**REASSEMBLY**



- 1 Lubricate all internal parts with GPL oil or PL-S prior to reassembly.
- 2 Install worm shaft (1), flat washer (3), and new felt washer (4) in leveling mechanism cylinder (5).
- 3 Install nut assembly (2) on leveling mechanism cylinder (5).
- 4 Install leveling mechanism nut (6) and two setscrews (7).

**NOTE**

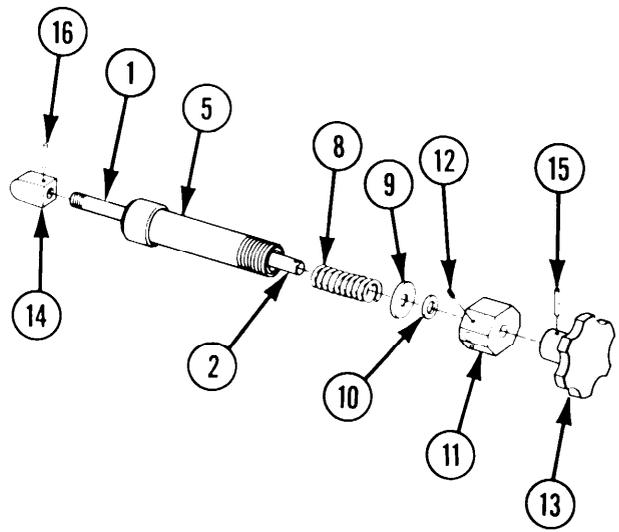
If a new worm shaft (1) or nut assembly (2) is required, refer to step 9.

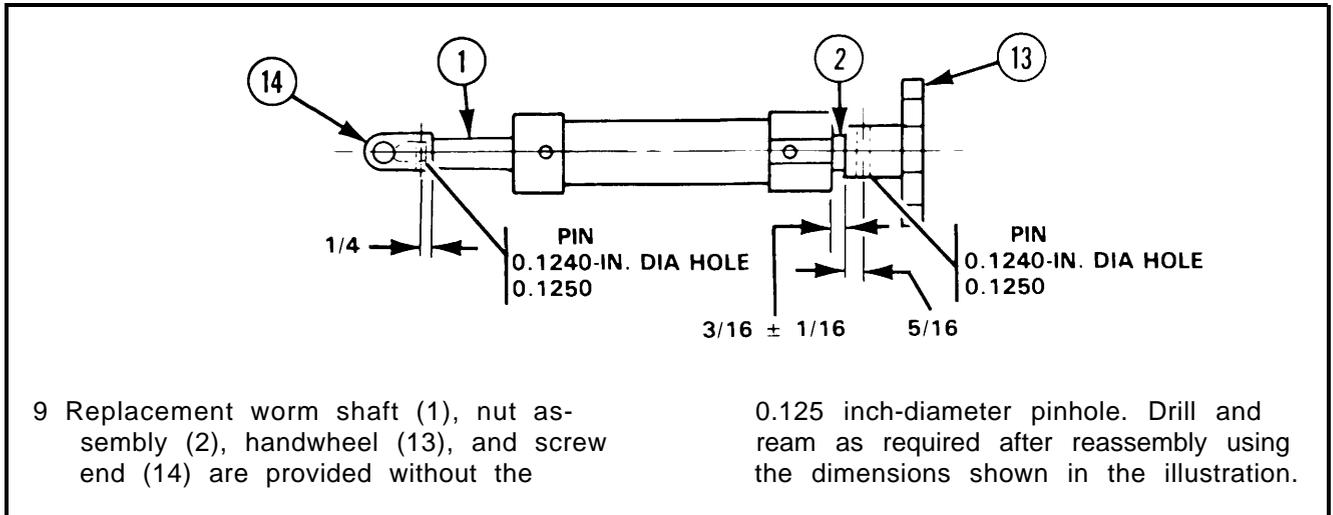
- 5 Install compression helical spring (8), flat washer (9), and new felt washer (10) in leveling mechanism cylinder (5).
- 6 Install leveling mechanism nut (11) and two setscrews (12); stake setscrews (12).

**NOTE**

If a new handwheel (13), nut assembly (2), worm shaft (1), or screw end (14) is required, refer to step 9.

- 7 Install handwheel (13) and headless straight pin (15).
- 8 Install screw end (14) and headless straight pin (16); stake headless straight pin (16).





**3-19. BIPOD ASSEMBLY-MAINTENANCE INSTRUCTIONS.**

THIS TASK COVERS:		
a. Disassembly	b. Repair	cm Reassembly
INITIAL SETUP		
Tools and Special Tools Field maintenance, post, camp and station small arms shop set (SC 4933-95-CL-A11) Small arms repairman tool kit (SC 5180-95-CL-A07)	Solvent cleaning compound (item 8, app D) Wiping rag (item 7, app D)	Equipment Conditions 3-19 Bipod assembly removed
Materials/Parts GAA (item 4, app D)		

**DISASSEMBLY**

**NOTE**  
The two retaining blocks were removed when 81-mm mortar bipod assembly was disassembled on page 3-19.

1 If damaged, remove sleeve bushing (1) from bipod (2).

2 If damaged, remove headless straight pin (3).

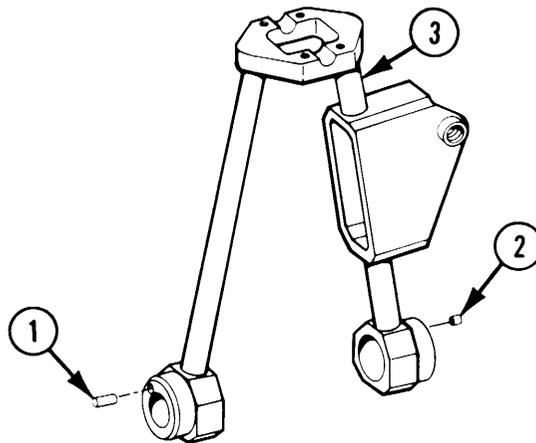
### 3-19. BIPOD ASSEMBLY—MAINTENANCE INSTRUCTIONS. (cont)

#### REPAIR

- |  |  |
|--|--|
| 1 Check sleeve bushing for burrs. Remove burrs with a fine cut file.   | 3 Remove corrosion and foreign matter with solvent cleaning compound.  |
| 2 Check for bent or damaged bipod legs. Replace entire bipod assembly. | 4 Replace any other missing, broken, or damaged parts. See appendix C. |

#### REASSEMBLY

- 1 Lubricate bearing surfaces with GAA prior to reassembly.
- 2 If removed, install headless straight pin (1).
- 3 If removed, install sleeve bushing (2) in bipod (3).



**3-20. 120-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY, TURNTABLE, AND TURNTABLE BRIDGE—MAINTENANCE INSTRUCTIONS.**

THIS TASK COVERS:

- a. Removal/disassembly                      b. Repair                      c. Reassembly/installation

INITIAL SETUP

- Tools and Special Tools  
Helicoil insert and tool kit  
(4131-04-1)  
Small arms repairman tool kit (SC  
5180-95-CL-A07)  
Small arms shop set: field  
maintenance, basic (SC 4933-  
95-CL-A11)

- Materials/Parts  
GAA (item 4, app D)  
GPL oil (item 5, app D)  
PL-S (item 6, app D)  
Solvent cleaning compound (item  
8, app D)  
Spring pin (MS16562-51)  
Wiping rag (item 7, app D)

References  
TM 9-254

Equipment Conditions  
2-54 Turntable assembly removed  
and unit maintenance level  
parts disassembled

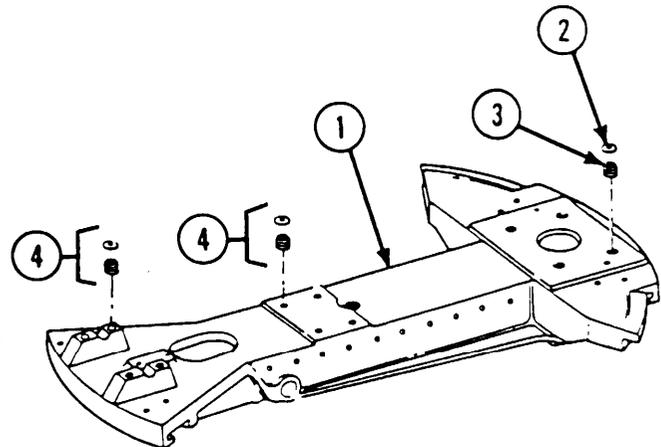
Personnel Required  
Two

**REMOVAL/DISASSEMBLY**

**NOTE**

Index actuator link assembly  
was removed when turntable  
assembly was disassembled  
(p 2-54).

- 1 Inspect turntable bridge (1) for cracks. if  
cracks are found, replace turntable bridge  
(1).
- 2 If damaged, remove four serrated lock  
rings (2) and four screw thread inserts (3)  
from turntable bridge (1). See TM 9-254.
- 3 If damaged, remove six screw thread  
inserts (4) from turntable bridge (1).



3-20. 120-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY,  
TURNTABLE, AND TURNTABLE BRIDGE—MAINTENANCE INSTRUCTIONS.  
(cont)

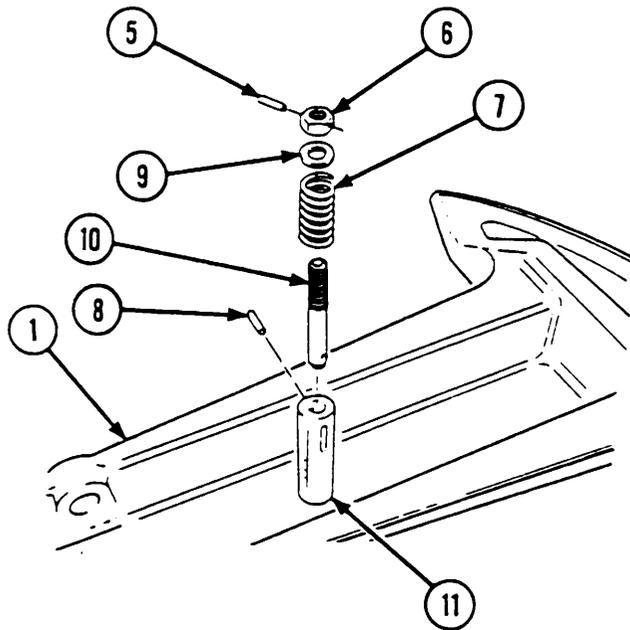
**REMOVAL/DISASSEMBLY (cont)**

- 4 Remove spring pin (5) from hexagon plain nut (6). Discard spring pin (5).

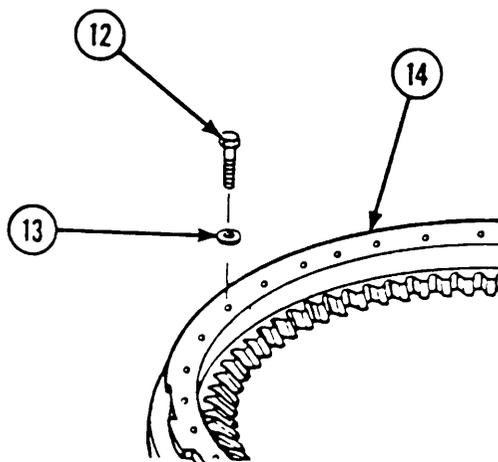
**CAUTION**

Mortar mount spring (7) is under tension. Do not remove spring pin (8) until hexagon plain nut (6) is removed or loosened to release spring tension.

- 5 If hexagon plain nut (6) is damaged, remove hexagon plain nut (6), flat washer (9), and mortar mount spring (7).
- 6 If threaded straight pin (10) is damaged, remove spring pin (8) and threaded straight pin (10).
- 7 If damaged, remove pin guide (11) from turntable bridge (1).



- 8 Remove thirty-six capscrews (12) and thirty-six flat washers (13) from internal gear (14).
- 9 Remove internal gear (14) from carrier.

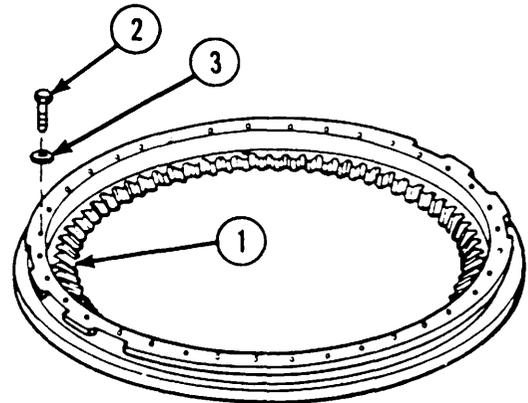


**REPAIR**

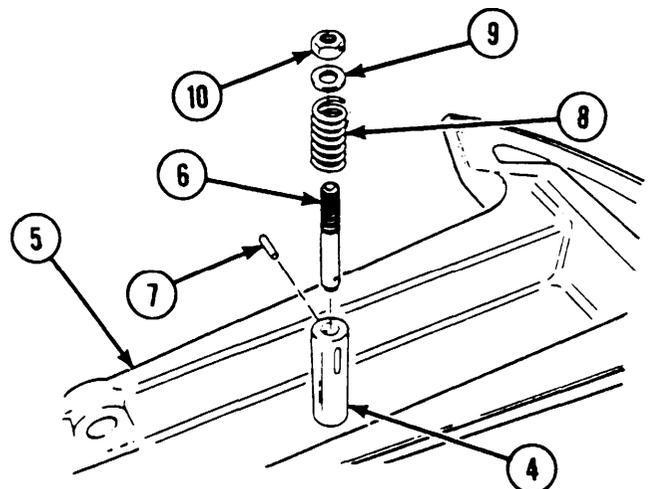
- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1 Check capscrews for burrs or stripped threads. Remove burrs with a fine cut file.</li> <li>2 Check pin guide for cracks.</li> <li>3 Check internal gear for chipped or broken teeth.</li> <li>4 Clean corrosion and foreign matter with solvent cleaning compound.</li> </ol> | <ol style="list-style-type: none"> <li>5 Using solvent cleaning compound, clean surface of vehicle where internal gear will rest and lubricate with GAA.</li> <li>6 Replace any other missing, broken, or damaged parts. See appendix C.</li> </ol> |
|--|---|

**REASSEMBLY/INSTALLATION**

- 1 Lubricate parts prior to reassembly with light coat of GAA.
- 2 Position internal gear (1) in carrier so that drilled and tapped holes for travel stops are located 45 degrees each side of center rear of vehicle. Aline holes.
- 3 Apply GAA to internal gear (1).
- 4 Apply GPL oil or PL-S to threads of thirty-six capscrews (2).
- 5 Install thirty-six flat washers (3) and thirty-six capscrews (2); torque capscrews to  $80 \pm 3$  ft-lb.

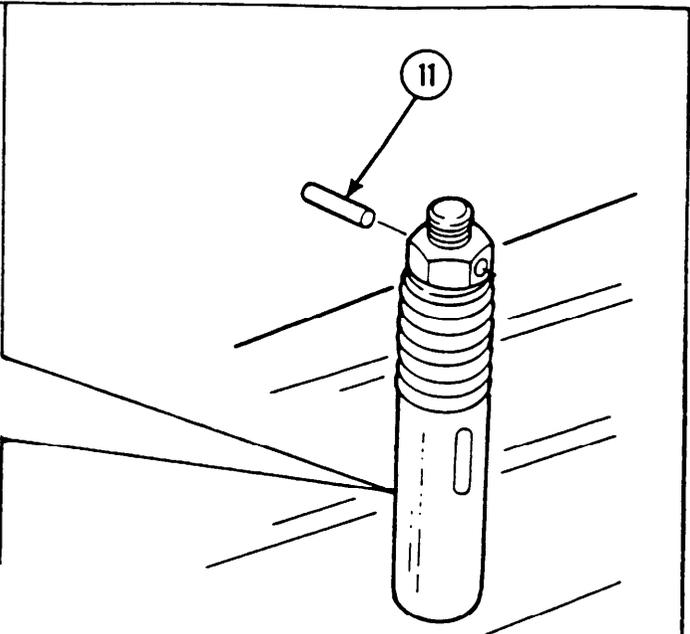
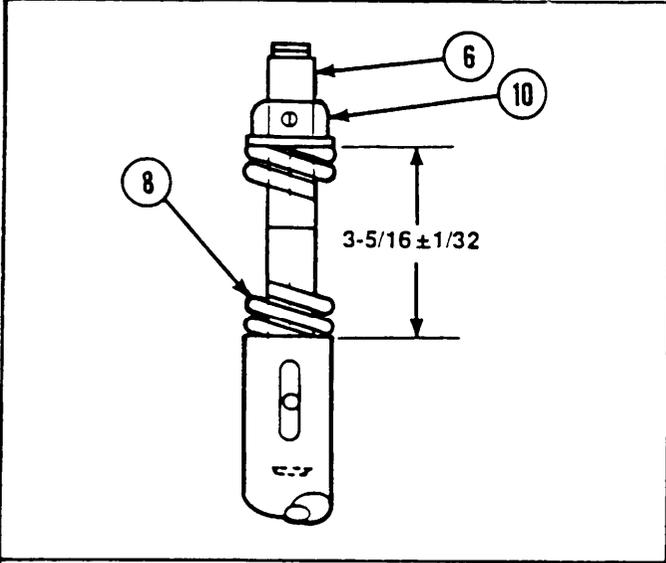


- 6 If removed, install new pin guide (4) in turntable bridge (5); stake in three places.
- 7 If removed, install threaded straight pin (6) and new spring pin (7).
- 8 Install mortar mount spring (8) and flat washer (9).
- 9 If removed, install new hexagon plain nut (10).



3-20. 120-MM MORTAR TURNTABLE AND MOUNT, TURNTABLE ASSEMBLY,  
TURNTABLE, AND TURNTABLE BRIDGE—MAINTENANCE INSTRUCTIONS.  
(cont)

**REASSEMBLY/INSTALLATION (cont)**



- 10 Tighten hexagon plain nut (10) until mortar mount spring (8) compresses 3-9/32 to 3-11/32 inches.
- 11 When a new hexagon plain nut (10) or threaded straight pin (6) is being installed and desired spring compression is gained, drill new 3/16 inch-diameter hole through hexagon plain nut (10) and threaded straight pin (6).

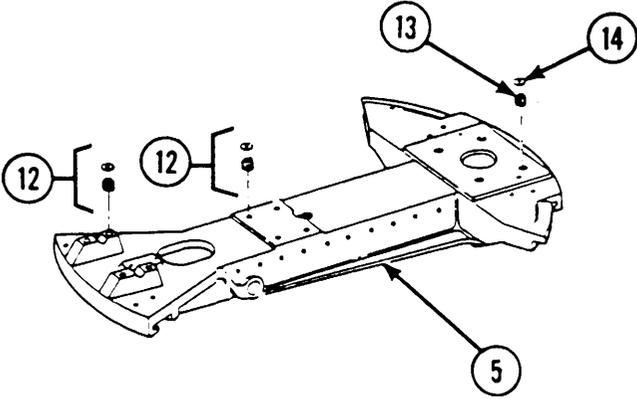
- 12 Install new spring pin (11).

- 13 If removed, install six new screw thread inserts (12) in turntable bridge (5).

**CAUTION**

To avoid damage to serrated lock rings, do not drive serrated lock rings below surface of turntable bridge.

- 14 If removed, install four new screw thread inserts (13) and four new serrated lock rings (14) in turntable bridge (5). See TM 9-254.
- 15 See page 2-54 for reassembly of remaining parts.



### 3-21. BIPOD SUPPORT ASSEMBLY—MAINTENANCE INSTRUCTIONS.

**THIS TASK COVERS:**

- a. Disassembly      b. Inspection/Repair      c. Reassembly      d. Test

**INITIAL SETUP**

**Tools and Special Tools**

Small arms repairman tool kit (SC  
5180-95-CL-A07)

**Equipment Conditions**

2-54 Bipod support assembly  
removed from turntable

**Materials/Parts**

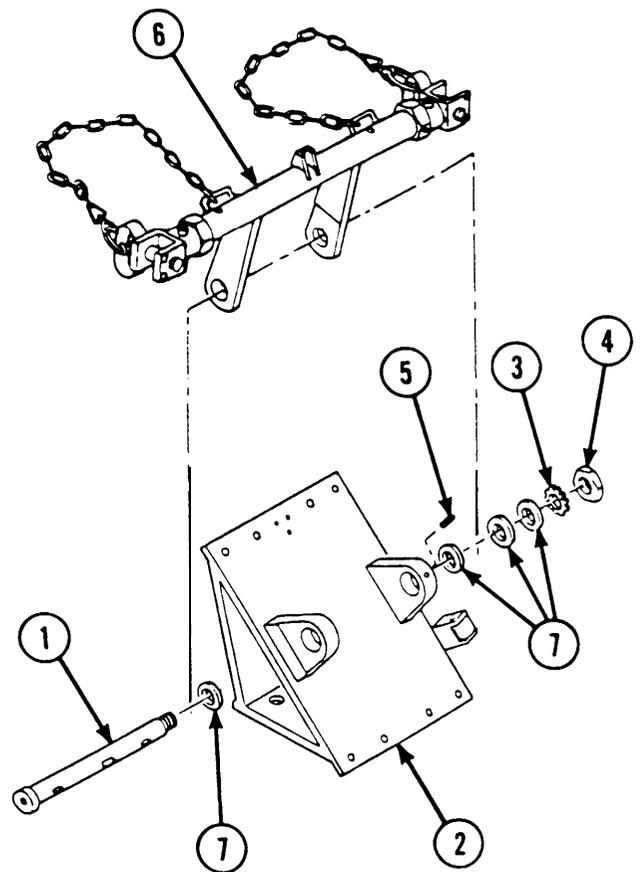
Cotter pin (93-1 62)  
Lockwasher (12901005)  
Lockwasher (four) (93-30)

**DISASSEMBLY**

**NOTE**

- Parts were drilled for straight pins and setscrews when they were assembled. To line up holes for pins or screws, parts must be put back exactly as they were assembled. Mark before disassembly.
- Parts were drilled and reamed for tapered pins when they were assembled. To line up holes in proper order, parts must be put back exactly as they were assembled. Mark before disassembly. See general maintenance instructions (p 3-9).
- Suddenly released springs may cause lost parts.

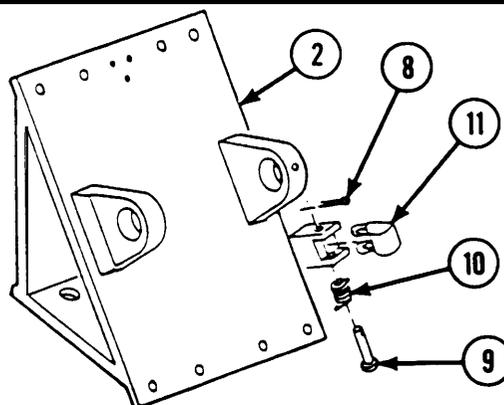
- 1 Mark position of shouldered axle (1) relative to bipod support mounting base (2). Unlock lockwasher (3). Hold shouldered axle (1) and remove round plain nut (4) and lockwasher (3). Discard lockwasher (3). Loosen setscrew (5) and remove shouldered axle (1), elevating support (6), and four flat washers (7).



3-21. BIPOD SUPPORT ASSEMBLY—MAINTENANCE INSTRUCTIONS. (cont)

**DISASSEMBLY (cont)**

- 2 Remove cotter pin (8), headed straight pin (9), torsion helical spring (10), and lock-release lever (11) from bipod support mounting base (2). Discard cotter pin (8).



**NOTE**

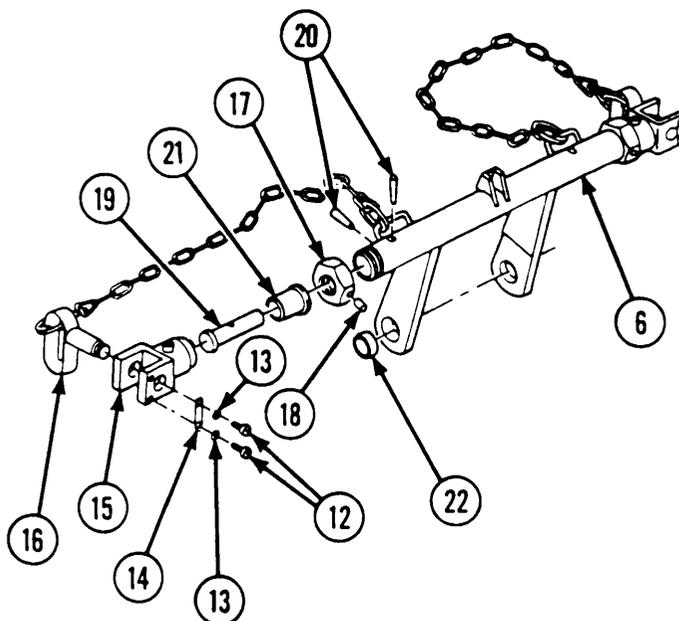
Steps 3 thru 6 are written and illustrated for one end of elevating support but apply to both.

- 3 Remove two hexagon capscrews (12), two lockwashers (13), and plate spacer (14) from rod end clevis (15). Remove manual handle (16). Discard lockwashers (13).
- 4 Mark position of hexagon plain nut (17) relative to rod end clevis (15). Loosen setscrew (18). Remove hexagon plain nut (17) and rod end clevis (15).

**WARNING**

Avoid injury from flying metal chips. Use a screen and/or proper eye protection.

- 5 Mark position of headed straight pin (19) relative to elevating support (6). Remove two spring tubular pins (20) from elevating support (6) and remove headed straight pin (19) and sleeve bushing (21).
- 6 Press out and remove sleeve spacer (22) from elevating support (6).



## INSPECTION/REPAIR

- 1 Check for burrs and worn or damaged parts. Remove burrs and replace defective parts.
- 2 Check all threaded parts for damaged or stripped threads. Restore threads or replace defective parts.
- 3 Check shouldered axle and sleeve spacer for free movement of shouldered axle in sleeve spacer.
- 4 Replace missing, broken, or damaged parts. See appendix C.

## REASSEMBLY

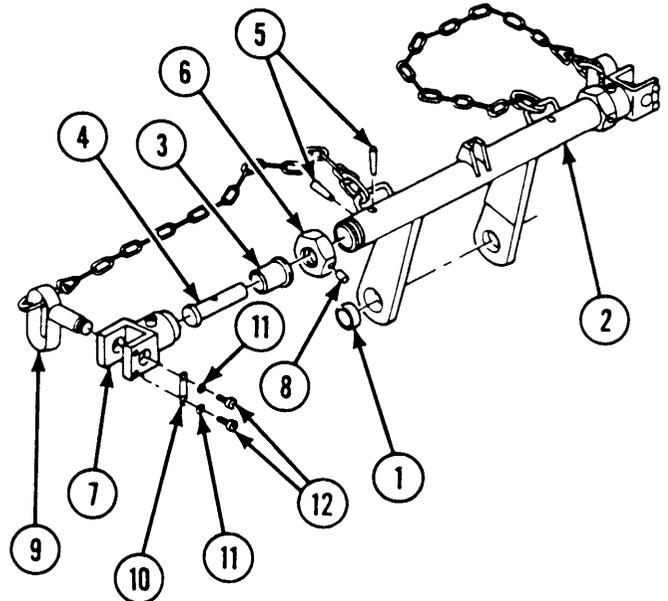
### WARNING

Avoid injury from flying metal chips. Use a screen and/or proper eye protection.

### NOTE

Steps 1 thru 4 are written and illustrated for one end of elevating support but apply to both.

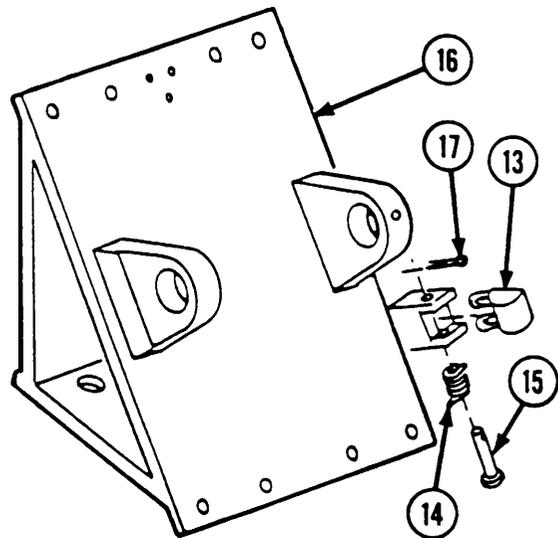
- 1 Install sleeve spacer (1) to elevating support (2).
- 2 Install sleeve bushing (3) and headed straight pin (4) to elevating support (2) and insert two spring tubular pins (5).
- 3 Install hexagon plain nut (6) and rod end clevis (7). Tighten setscrew (8).
- 4 Insert manual handle (9) in rod end clevis (7). Install plate spacer (10) on rod end clevis (7) and secure with two new lockwashers (11) and two hexagon capscrews (12).



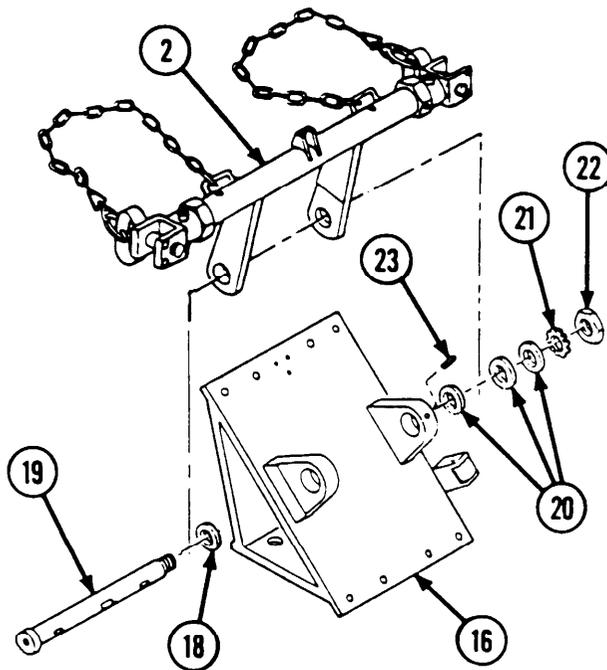
3-21. BIPOD SUPPORT ASSEMBLY—MAINTENANCE INSTRUCTIONS. (cont)

**REASSEMBLY (cont)**

5 Install lock-release lever (13), torsion helical spring (14), and headed straight pin (15) on bipod support mounting base (16). Secure with new cotter pin (17).



6 Install elevating support (2) to bipod support mounting base (16). Install flat washer (18) on shouldered axle (19). Insert shouldered axle (19) to bipod support mounting base (16). Install three flat washers (20), new lockwasher (21), and round plain nut (22). Tighten round plain nut (22) and setscrew (23). Lock lockwasher (21).



**TEST**

1 Check free movement of the elevating support in both low and high positions.

2 Check locking position of the elevating support in both lower and higher positions.

### 3-22. CATCH ASSEMBLY—MAINTENANCE INSTRUCTIONS.

THIS TASK COVERS:

- a. Disassembly
- b. Inspection/repair
- c. Reassembly

#### INITIAL SETUP

##### Tools and Special Tools

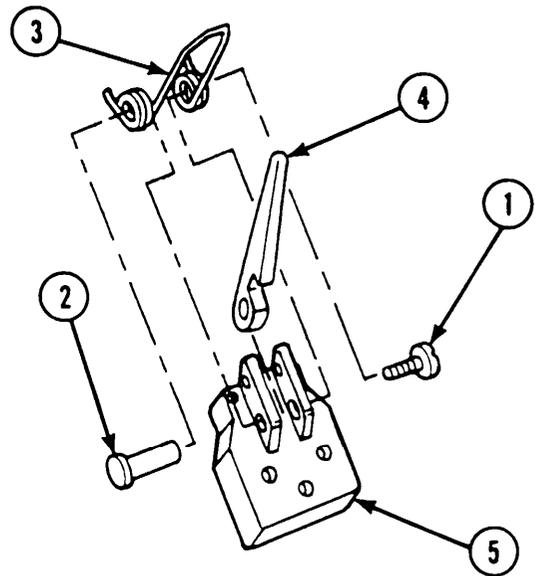
Small arms repairman tool kit  
(SC5180-95-CL-A07)

##### Equipment Conditions

2-54.16 Catch assembly removed  
from bipod support assembly

#### DISASSEMBLY

Remove machine screw (1), headed straight pin (2), torsion helical spring (3), and lock release lever (4) from mounting bracket (5).



#### INSPECTION/REPAIR

1 Inspect for burrs and worn or damaged parts. Repair by removing burrs and by replacing defective parts.

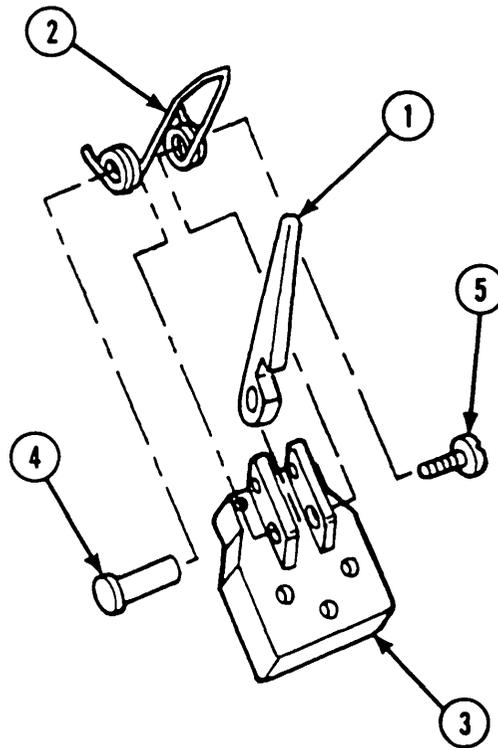
2 Repair of mounting bracket is by replacement of next higher assembly.

3 Replace missing, broken, or damaged parts. See appendix C.

3-22. CATCH ASSEMBLY—MAINTENANCE INSTRUCTIONS. (cont)

**REASSEMBLY**

Install lock release lever (1) and torsion helical spring (2) in mounting bracket (3) and secure with headed straight pin (4) and machine screw (5).



3-23. TRAVELING ASSEMBLY LOCK—MAINTENANCE INSTRUCTIONS.

THIS TASK COVERS:

- a. Disassembly
- b. Inspection/repair
- c. Reassembly

INITIAL SETUP

Tools and Special Tools

Small arms repairman tool kit  
(SC5180-95-CL-A07)

Equipment Conditions

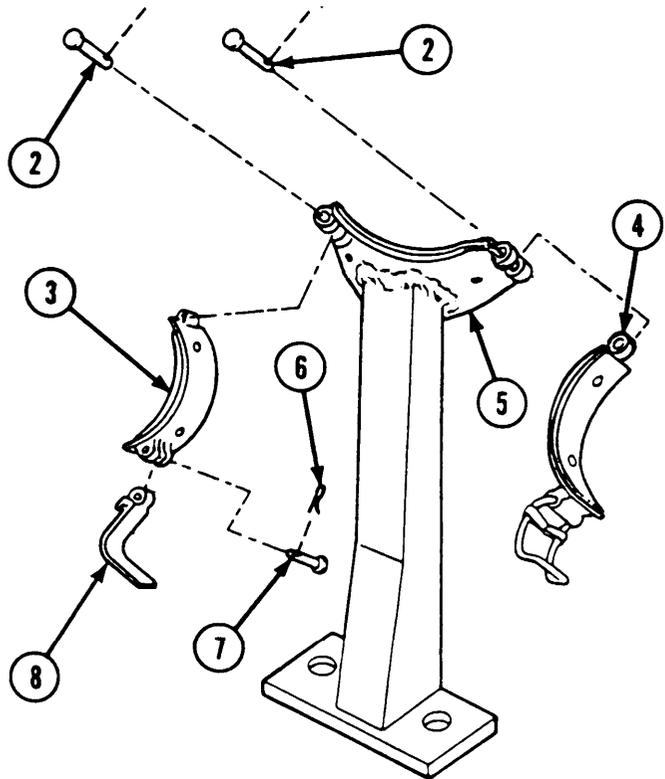
Mortar removed from turntable  
(TM 9-1015-250-10)

Materials/Parts

Cotter pin (three) (DIN94-1.6-X14-ST-B2D)  
Solvent cleaning compound (item 8, app D)

## DISASSEMBLY

- 1 Remove two cotter pins (1) from two headed straight pins (2).
- 2 Remove two headed straight pins (2) and two collar sections (3 and 4) from support base (5).
- 3 Remove cotter pin (6), headed straight pin (7), and lock-release lever (8) from collar section (3).



## INSPECTION/REPAIR

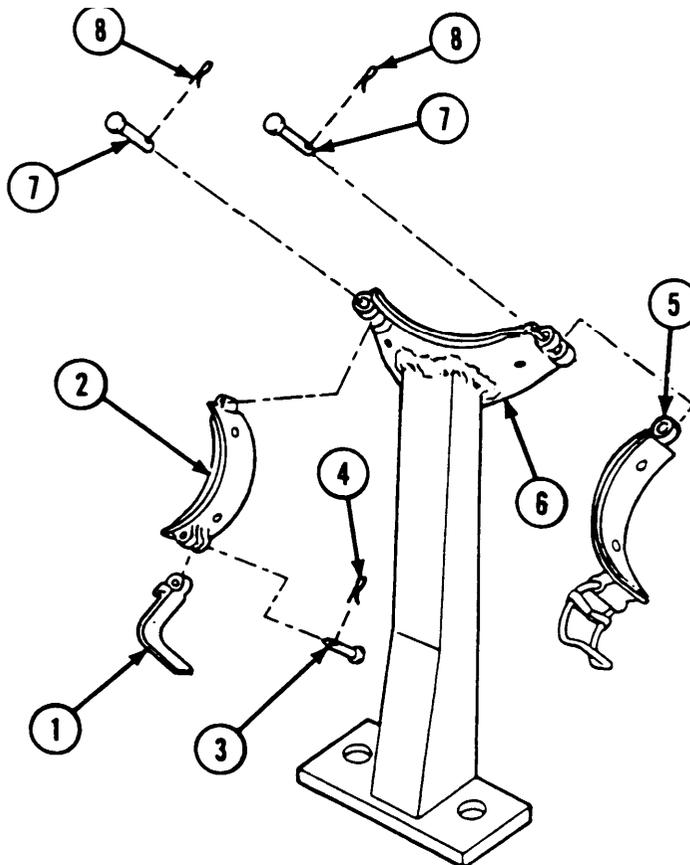
- 1 Check all parts for burrs. Remove burrs with a fine cut file.
- 2 Remove corrosion and foreign matter with solvent cleaning compound.
- 3 Replace any missing, broken, or damaged parts. See appendix C.

3-23. TRAVELING ASSEMBLY LOCK—MAINTENANCE INSTRUCTIONS. (cont)

**REASSEMBLY**

1 Install lock-release lever (1) on collar section (2) with headed straight pin (3). Insert new cotter pin (4) into headed straight pin (3).

2 install two collar sections (2 and 5) onto support base (6) and secure with two headed straight pins (7). Insert two new cotter pins (8) into headed straight pins (7).



## APPENDIX A

### REFERENCES

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A-1. SCOPE.

This appendix lists all forms, supply catalogs, technical manuals, and miscellaneous publications referenced in this manual.

A-2. FORMS.

DA Form 2028 . . . . . Recommended Changes to Publications and Blank Forms

DA Form 2028-2 . . . . . Recommended Changes to Equipment Technical Publications and Blank Forms

DA Form 2404 . . . . . Equipment inspection and Maintenance Worksheet

SF 364 . . . . . Report of Discrepancy (ROD)

SF 368 . . . . . Quality Deficiency Report

A-3. TECHNICAL MANUALS.

TM 9-254 . . . . . General Maintenance Procedures for Fire Control Materiel

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

A-4. SUPPLY CATALOGS.

SC 4933-95-CL-A11 . . . Shop Set, Small Arms: Field Maintenance, Basic

SC 5180-90-CL-N26 . . . Tool Kit, General Mechanic's: Automotive

SC 5180-95-CL-A07 . . . Small Arms Repairman Tool Kit

A-5. MARINE CORPS PUBLICATIONS AND FORMS.

MCO P4450.7 . . . . . Marine Corps Warehousing Manual

**ARMY TM 9-1015-232-23&P**  
**MARINE CORPS TM 00517A/09922A-23&P**

A-5. MARINE CORPS PUBLICATIONS AND FORMS. (cont)		CTA 50-970 . . .	Expendable Items (Except Medical, Class V, Repair Parts, and Heraldic Items)
MCO P4610.19 . . . . .	Transportation and Travel, Report of Transportation Discrepancies	DA PAM 25-30 .	Consolidated index of Army Publications and Blank Forms
MCO 4855.10 . . . . .	Quality Deficiency Report	DA PAM 738-750	The Army Maintenance Management System (TAMMS)
NAVMC 10772 . . . . .	Recommended Changes to Technical Publications	FM 9-207 . . . . .	Operation and Maintenance of Ordnance Materiel in Cold Weather (0 Deg to Minus 65 Deg F)
TM 4700-15/1 . . . . .	Marine Corps Equipment Record Procedures	FM 21-11 . . . . .	First Aid for Soldiers
A-6. MISCELLANEOUS PUBLICATIONS.			
AR 750-1 . . . . .	Army Materiel Maintenance Procedures		
CTA 8-100 . . . . .	Army Medical Department Expendable/Durable Items		

## APPENDIX B

# MAINTENANCE ALLOCATION CHART

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### Section I. INTRODUCTION

#### B-1. GENERAL.

a. This section provides a general explanation of all maintenance and repair functions authorized at various maintenance levels.

b. The Maintenance Allocation Chart (MAC) in section II 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 will be consistent with the capacities and capabilities of the designated maintenance levels.

c. Section III lists the special tools and test equipment required for each maintenance function as referenced from section II.

d. Section IV contains supplemental instructions and explanatory notes for a particular maintenance function.

#### B-2. MAINTENANCE FUNCTIONS.

Maintenance functions will be limited to and defined as follows: (except for ammunition MAC<sup>1</sup>)

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<sup>1</sup>Exception is authorized for ammunition MAC to permit the redesignation/redefinition of maintenance function headings to more adequately identify ammunition maintenance functions. The heading designations and definitions will be included in the appropriate technical manual for each category of ammunition.

a. 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).

b. Test. To verify serviceability by measuring the mechanical, pneumatic, hydraulic, or electrical characteristics of an item and comparing those characteristics with prescribed standards.

c. Service. Operations required periodically to keep an item in proper operating condition, i.e., to clean (includes decontaminate, when required), to preserve, to drain, to paint, or to replenish fuel, lubricants, chemical fluids, or gases.

d. Adjust. To maintain or regulate, within prescribed limits, by bringing into proper or exact position or by setting the operating characteristics to specified parameters.

e. Aline. To adjust specified variable elements of an item to bring about optimum or desired performance.

f. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments or test, measuring, and diagnostic equipments 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.

g. 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.

B-2. MAINTENANCE FUNCTIONS. (cont)

h. Replace. To remove an unserviceable item and install a serviceable counterpart in its place. "Replace" is authorized by the MAC and is shown as the 3d position code of the SMR code.

i. Repair. The application of maintenance services<sup>2</sup>, including fault location/troubleshooting<sup>3</sup>, removal/installation, and disassembly/assembly<sup>4</sup>, procedures and maintenance actions<sup>5</sup> to 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.

j. 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 (i. e., DMWR). Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.

k. 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 (hours, miles, etc.) considered in classifying Army equipment/components.

B-3. EXPLANATION OF COLUMNS IN THE MAC, SECTION II.

a. 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. End item group number shall be "00."

b. Column 2, Component/Assembly. Column 2 contains the names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

c. Column 3, Maintenance Function. Column 3 lists the functions to be performed on the item listed in column 2. (For detailed explanation of these functions, see paragraph B-2.)

d. Column 4, Maintenance Level. Column 4 specifies, by the listing of a work time figure in the appropriate subcolumn(s), the level of maintenance authorized to perform the function listed in column 3. This 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 category. 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/quality control time in addition to the time required to perform the

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<sup>2</sup>Services—inspect, test, service, adjust, align, calibrate, and/or replace.

<sup>3</sup>Fault locate/troubleshoot—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).

<sup>4</sup>Disassemble/assemble—encompasses the step-by-step taking apart (or breakdown) of a spare/functional group coded item to the level of its least componentry identified as maintenance significant (i.e., assigned an SMR code) for the category of maintenance under consideration.

<sup>5</sup>Actions—welding, grinding, riveting, straightening, facing, remachining, and/or resurfacing.

specific tasks identified for the maintenance functions authorized in the maintenance allocation chart. The symbol designations for the various maintenance categories are as follows:

- C . . . . . Operator or crew
- O . . . . . Unit maintenance
- F . . . . . Intermediate direct support maintenance
- D . . . . . Depot maintenance

e. Column 5, Tools and Equipment. Column 5 specifies, by code, those common tool sets (not individual tools) and special tools, TMDE, and support equipment required to perform the designated function.

f. Column 6, Remarks. This column shall, when applicable, contain a letter code, in alphabetic order, which shall be keyed to the remarks contained in section IV.

#### B-4. EXPLANATION OF COLUMNS IN TOOL AND TEST EQUIPMENT REQUIREMENTS, SECTION III.

a. Column 1, Reference Code. The tool and test equipment reference code correlates

with a code used in the MAC, section II, column 5.

b. Column 2, Maintenance Level. The lowest level of maintenance authorized to use the tool or test equipment.

c. Column 3, Nomenclature. Name or identification of the tool or test equipment.

d. Column 4, National Stock Number. The National stock number of the tool or test equipment.

e. Column 5, Tool Number. The manufacturer's part number.

#### B-5. EXPLANATION OF COLUMNS IN REMARKS, SECTION IV

a. Column 1, Reference Code. The code recorded in column 6, section II.

b. Column 2, Remarks. This column lists information pertinent to the maintenance function being performed as indicated in the MAC, section II.

**Section II. MAINTENANCE ALLOCATION CHART  
 FOR  
 107-MM MORTAR TURNTABLE AND MOUNT,  
 81-MM MORTAR TURNTABLE AND MOUNT,  
 81-MM MORTAR BIPOD ASSEMBLY, AND  
 120-MM MORTAR TURNTABLE AND MOUNT**

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL					(5) TOOLS AND EQPT	(6) REMARKS	
			UNIT		INTERMEDIATE		DEPOT			
			C	O	F	H	D			
01	107-MM MORTAR TURN- TABLE AND MOUNT	Inspect Service Replace Repair	0.5	0.5 0.1 2.0 4.0		4.0			3 1,3	
0101	TURNTABLE AS- SEMBLY	Inspect Replace Repair		0.2 1.0		6.0 15.0			3 3	
010101	TURNTABLE	Inspect Replace Repair		0.2 6.0 1.5		2.0			3 3	
01010101	INDEX ACTUA- TOR LINK AS- SEMBLY	Inspect Replace Repair		0.1 0.3		0.5 0.5			3 3	
01010102	TURNTABLE BRIDGE	Inspect Replace Repair		0.2		3.0 1.0			1,3 1,3	
02	81-MM MORTAR TURNTABLE AND MOUNT	Inspect Replace Repair		0.1 0.5 2.0		0.5			2,4 2,4	
0201	TURNTABLE	Inspect Replace Repair		0.2 6.0 1.5		2.0			2,4 2,4	
020101	INDEX ACTUA- TOR LINK AS- SEMBLY	Inspect Replace Repair		0.1 0.3		0.5 0.5			2,4 2,4	
020102	TURNTABLE BRIDGE	Inspect Replace Repair		0.2		3.0 1.0			2,4 2,4	

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL					(5) TOOLS AND EQPT	(6) REMARKS
			UNIT		INTERMEDIATE	DEPOT			
			C	O	F	H	D		
03	81-MM MORTAR BIPOD ASSEM- BLY	Inspect Service Replace Repair	0.1 0.1	0.2 0.1 0.5		10.0		2,4 1,2,4	
0301	TRAVERSING HANDWHEEL ASSEMBLY	Inspect Replace Repair	0.1	0.1		0.5 0.3		2,4 2,4	
0302	TRAVERSING SPINDLE ASSEMBLY	Replace Repair				1.0 0.5		2,4 2,4	
030201	CAP ASSEMBLY	Replace Repair				1.0 0.1		2,4 2,4	
0303	TRAVERSING BEARING ASSEMBLY	Replace Repair				1.0 0.1		2,4 2,4	
0304	RECOIL BUFFER ASSEMBLY	Replace Repair		0.1		0.5 1.0		2,4 2,4	
0305	YOKE ASSEM- BLY	Inspect Replace Repair		0.1		1.0 0.5		2,4 1,2,4	
0306	MORTAR ELEVATION ASSEMBLY	Replace Repair				1.0 0.5		2,4 2,4	
030601	MORTAR ELEVA- TION ASSEMBLY HOUSING	Inspect Replace Repair		0.1		1.0 0.1		2,4 2,4	
030602	COVER	Inspect Replace Repair		0.1		0.5 0.3		2,4 2,4	
030603	ELEVATION CRANK ASSEMBLY	Inspect Replace Repair		0.1		0.5 0.5		2,4 2,4	
0307	LEVELING MECHANISM	Inspect Replace Repair		0.1		0.5 0.3		2,4 2,4	
0308	BIPOD ASSEM- BLY	Inspect Replace Repair		0.1		0.5 10.0		2,4 2,4	

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL					(5) TOOLS AND EQPT	(6) REMARKS
			UNIT		INTERMEDIATE	DEPOT			
			C	O	F	H	D		
04	120-MM MOR- TAR TURN- TABLE AND MOUNT	Inspect Service Replace Repair	0.5	0.5 0.1 2.0 4.0		4.0			3,5,6 1,3
0401	TURNTABLE ASSEMBLY	Inspect Replace Repair		0.2 4.0 6.0					3 3
040101	TURNTABLE	Inspect Replace Repair		0.2 6.0 1.5		2.0			3 3
040101- 01	INDEX ACTUA- TOR LINK AS- SEMBLY	Inspect Replace Repair		0.1 0.5 0.3		0.5 0.5			2,4 2,4
040101- 02	TURNTABLE BRIDGE	Inspect Replace Repair		0.2		3.0 1.0			1,3 1,3
040102	BIPOD SUP- PORT ASSEM- BLY	Inspect Service Replace Repair Test		0.2 0.2 1.0 1.5		2.0 0.1			2 2,4
040102- 01	CATCH ASSEM- BLY	Inspect Replace Repair		0.1 0.3		0.5			2
040103	TRAVELING AS- SEMBLY LOCK	Inspect Replace Repair		0.1 0.5		1.0			2
05	SIGHT EXTEN- SION ARM AS- SEMBLY	Inspect Replace Repair	0.1	0.1 0.1 0.3					2 2 2

SECTION III. TOOL AND TEST EQUIPMENT REQUIREMENTS  
 FOR  
 107-MM MORTAR TURNTABLE AND MOUNT,  
 81-MM MORTAR TURNTABLE AND MOUNT,  
 81-MM MORTAR BIPOD ASSEMBLY, AND  
 120-MM MORTAR TURNTABLE AND MOUNT

TOOL OR TEST EQUIPMENT REF CODE	MAINTENANCE LEVEL	NOMENCLATURE	NATIONAL/ NATO STOCK NUMBER	TOOL NUMBER
1	F	HELICOL INSERT AND TOOL KIT	5180-00-054-7506	4131-04-1
2	O	SMALL ARMS REPAIRMAN TOOL KIT	5180-00-357-7770	SC 5180-95- CL-A07
3	O	TOOL KIT, GENERAL MECHANIC'S AUTOMO- TIVE	5180-00-177-7033	SC 5180-90- CL-N26
4	F	SHOP SET, SMALL ARMS: FIELD MAINTENANCE, BASIC	4933-00-754-0664	SC 4933-95- CL-A11
5	O	WRENCH, TORQUE	5120-01-355-1736	12901100
6	O	WRENCH, BOX	5120-01-388-8351	12901138

SECTION IV. REMARKS

NOT APPLICABLE.



## APPENDIX C

# UNIT AND INTERMEDIATE DIRECT SUPPORT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST

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### Section I. INTRODUCTION

#### C-1. 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 intermediate direct support maintenance of the 107-mm mortar turntable and mount, 81-mm mortar turntable and mount, 120-mm mortar turntable and mount, and 81-mm mortar bipod assembly. It authorizes the requisitioning, issue, and disposition of spares, repair parts, and special tools as indicated by the source, maintenance, and recoverability (SMR) codes.

#### C-2. GENERAL.

In addition to section I, Introduction, this Repair Parts and Special Tools List is divided into the following sections;

a. Section II - Repair Parts List. A list of spares and repair parts authorized by this RPSTL for use in the performance of maintenance. The list also includes 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. Bulk materials are listed by item name in FIG BULK at the end of the section. Repair parts kits or sets are

listed separately in their own functional group within section II. Repair parts for repairable special tools are also listed in the section.

b. Section III - Special Tools List. A list of special tools, special TM DE, and other special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BOI) information in DESCRIPTION AND USABLE ON CODE (UOC) column) for the performance of maintenance.

c. Section IV - Cross-reference Indexes. A list, in National item identification number (NIIN) sequence, of all National stock numbered items appearing in the listings, followed by a list in alphanumeric sequence of all part numbers appearing in the listing. National stock numbers and part numbers are cross-referenced to each illustration figure and item number appearance. The figure and item number index lists figure and item numbers in alphanumeric sequence and cross-references NSN, FSCM and part number.

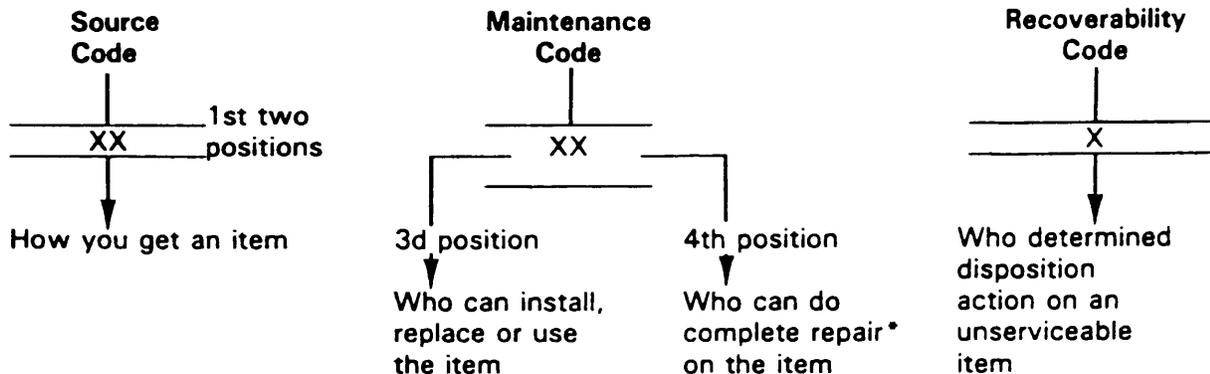
#### C-3. EXPLANATION OF COLUMNS (SECTIONS II AND III).

a. ITEM NO. (Column (1)). Indicates the number used to identify items called out in the illustration.

C-3. EXPLANATION OF COLUMNS (SECTIONS II AND III). (cont)

b. SMR CODE (Column (2)). The Source, Maintenance, and Recoverability (SMR) code is a 5-position code containing supply/requi-

sitioning information, maintenance level authorization criteria, and disposition instruction, as shown in the following breakout:



\*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.

(1) Source Code. The source code tells you how you get an item needed for maintenance, repair, or overhaul of an end item/equipment. Explanations of source codes follow:

Code

Explanation

PA  
 PB  
 PC\*\*  
 PD  
 PE  
 PF  
 PG

Stock items; use the applicable NSN to request/requisition items with these source codes. They are authorized to the level indicated by the code entered in the 3d 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 3d position of the SMR code. The complete kit must be requisitioned and applied.

Code	Explanation
MO- (Made at unit/ AVUM Level) MF- (Made at inter- mediate DS/AVIM Level) MH- (Made at inter- mediate GS Level) ML- (Made at Spe- cialized Repair Act. (SRA)) MD- (Made at Depot)	Items with these codes are not to be requested/requisitioned individually. They must be made from bulk material which is identified by the part number in the DESCRIPTION AND USABLE ON CODE (UOC) column and listed in the Bulk Material group in the repair parts list in this RPSTL. If the item is authorized to you by the 3d position code of the SMR code, but the source code indicates it is made at a higher level, order the item from the higher level of maintenance.

AO- (Assembled by unit/AVUM Level) AF- (Assembled by in- termediate DS/ AVIM Level) AH- (Assembled by in- termediate GS Level) AL- (Assembled by SRA) AD- (Assembled by Depot)	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 3d 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.
---	--

- XA - Do not requisition an "XA"-coded item. Order its next higher assembly. (Also, refer to the NOTE below. )
- XB - If an "XB" item is not available from salvage, order it using the FSCM and part number given.
- XC - Installation drawing, diagram, instruction sheet, field service drawing, that is identified by manufacturer's part number.
- XD - Item is not stocked. Order an "XD"-coded item through normal supply channels using the FSCM and part number 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 700-42.

C-3. EXPLANATION OF COLUMNS (SECTIONS II AND III). (cont)

(2) Maintenance Codes. 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:

maintenance level authorized to remove, replace, and use an item. The maintenance code entered in the third position will indicate authorization to one of the following levels of maintenance:

(a) The maintenance code entered in the third position tells you the lowest

Code	Application/Explanation
C	-Crew or operator maintenance done within unit or aviation unit maintenance.
O	-Unit or aviation unit level can remove, replace, and use the item.
F	-Intermediate direct support or aviation intermediate level can remove, replace, and use the item.
H	-Intermediate general support level can remove, replace, and use the item.
L	-Specialized repair activity can remove, replace, and use the item.
D	-Depot level can remove, replace, and use the item.

(b) The maintenance code entered in the fourth position tells whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (i. e., 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. ) This position will contain one of the following maintenance codes.

Code	Application/Explanation
O	-Unit or aviation unit is the lowest level that can do complete repair of the item.
F	-Intermediate direct support or aviation intermediate is the lowest level that can do complete repair of the item.
H	-Intermediate general support is the lowest level that can do complete repair of the item.

Code	Application/Explanation
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.

(3) 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 Codes	Application/Explanation
Z	-Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in 3d position of SMR Code.
O	-Reparable item. When uneconomically repairable, condemn and dispose of the item at unit or aviation unit level.
F	-Reparable item. When uneconomically repairable, condemn and dispose of the item at the intermediate direct support or aviation intermediate level.
H	-Reparable item. When uneconomically repairable, condemn and dispose of the item at the intermediate general support level.
D	-Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item 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 (e. g., precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/ directives for specific instructions.

## C-3. EXPLANATION OF COLUMNS (SECTIONS II AND III). (cont)

c. FSCM (Column (3)). The Federal Supply Code for Manufacturer (FSCM) is a 5-digit numeric code which is used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

d. PART NUMBER (Column (4)). 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 a NSN to requisition an item, the item you receive may have a different part number from the part ordered.

e. DESCRIPTION AND USUABLE ON CODE (UOC) (Column (5)). This column includes the following information:

(1) The Federal item name and, when required, a minimum description to identify the item.

(2) The physical security classification of the item is indicated by the parenthetical entry which is a physical security classification abbreviation, e.g., Phy Sec Cl (C) - Confidential, Phy Sec Cl (S) - Secret, Phy Sec Cl (T) Top Secret.

(3) Items that are included in kits and sets are listed below the name of the kit or set

(4) Spare/repair parts that make up an assembled item are listed immediately following the assembled item line entry.

(5) Part numbers for bulk materials are referenced in this column in the line item entry for the item to be manufactured/fabricated.

(6) When the item is not used with all serial numbers of the same model, the effective serial numbers are shown on the last line(s) of the description (before UOC).

(7) The usable on code, when applicable (see paragraph 6, Special Information).

(8) In the special tools list section, the basis of issue (BOI) appears as the last line(s) in the entry for each special tool, special TM DE, and other special support equipment. When density of equipments supported exceeds density spread indicated in the basis of issue, the total organization is increased proportionately.

(9) The statement "END OF FIGURE" appears just below the last item description in column 5 for a given figure in both section II and section III.

f. QTY (Column (6)). 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 in lieu of a quantity indicates that the quantity is variable and the quantity may vary from application to application.

## C-4. EXPLANATION OF COLUMNS (SECTION IV).

## NATIONAL STOCK NUMBER (NSN) INDEX.

(1) STOCK NUMBER Column. This column lists the NSN by National item identification number (NIIN) sequence. The NIIN consists of the last nine digits of the NSN

NSN

(i. e., 5305-01-674-1467). When using this

NIIN

column to locate an item, ignore the first 4 digits of the NSN. However, the complete NSN should be used when ordering items by stock number.

(2) FIG. column. This column lists the number of the figure where the item is identified/located. The figures are in numerical order in section II and section III.

(3) 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.

b. **PART NUMBER INDEX.** part numbers in this index are listed by part number in ascending alphanumeric sequence (i.e., vertical arrangement of letter and number combination which places the first letter or digit of each group in order A thru Z, followed by the numbers 0 thru 9 and each following letter or digit in like order).

(1) **FSCM column.** The Federal Supply Code for Manufacturer (FSCM) is a 5-digit numeric code used to identify the manufacturer, distributor, or Government agency, etc., that supplies the items.

(2) **PART NUMBER column.** Indicates the primary number used by the manufacturer (individual, 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.

(3) **STOCK NUMBER column.** This column lists the NSN for the associated part number and manufacturer identified in the PART NUMBER and FSCM columns to the left.

(4) **FIG. column.** This column lists the number of the figure where the item is identified/located in section II and III.

(5) **ITEM column.** The item number is that number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

**c. FIGURE AND ITEM NUMBER INDEX.**

(1) **FIG. column.** This column lists the number of the figure where the item is identified/located in section II and III.

(2) **ITEM column.** The item number is that number assigned to the item as it appears in the figure referenced in the adjacent figure number column,

(3) **STOCK NUMBER column.** This column lists the NSN for the item.

(4) **FSCM column.** The Federal Supply Code for Manufacturer (FSCM) is a 5-digit

numeric code used to identify the manufacturer, distributor, or Government agency, etc., that supplies the item.

(5) **PART NUMBER column.** Indicates the primary number used by the manufacturer (individual, 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.

**C-5. SPECIAL INFORMATION.**

a. **USABLE ON CODE.** The usable on code appears in the lower left corner of the Description column heading. Usable on codes are shown as "UOC: . . ." in the Description Column (justified left) on the first line applicable item description/nomenclature. Uncoded items are applicable to all models. Identification of the usable on codes used in the RPSTL are:

Code	Used On
M71	107-mm mortar mount
M72	81 -mm mortar mount
M73	81-mm mortar bipod assembly
AJ9	120-mm mortar mount

b. **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 paragraphs of this manual.

c. **ASSEMBLY INSTRUCTIONS.** Detailed assembly instructions for items source coded to be assembled from component spare/repair parts are found in the appropriate maintenance paragraph of this manual. Items that make up the assembly are listed immediately following the assembly item entry or reference is made to an applicable figure.

C-5. SPECIAL INFORMATION. (cont)

d. 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 National Stock Number/Part Number Index and the bulk material list in section II.

C-6. HOW TO LOCATE REPAIR PARTS.

a. When National Stock Number or Part Number is Not Known.

(1) First. Using the table of contents, determine the assembly group or subassembly group to which the item belongs. This is necessary since figures are prepared for assembly groups and subassembly groups, and listings are divided into the same groups.

(2) Second. Find the figure covering the assembly group or subassembly group to which the item belongs.

(3) Third. Identify the item on the figure and use the Figure and Item Number Index to find the NSN.

b. When National Stock Number or Part Number is Known.

(1) First. Using the National Stock Number or the Part Number Index, find the pertinent National stock number or part number. The NSN index is in National Item Identification Number (NIIN) sequence (see C-4.a.(1)). The part numbers in the Part Number index are listed in ascending alphanumeric sequence (see C-4.b.) Both indexes cross-reference you to the illustration/ figure and item number of the item you are looking for.

(2) Second. Turn to the figure and item number, verify that the item is the one you're looking for, then locate the item number in the repair parts list for the figure.

C-7 ABBREVIATIONS.

Not applicable.



SECTION II. REPAIR PARTS LIST

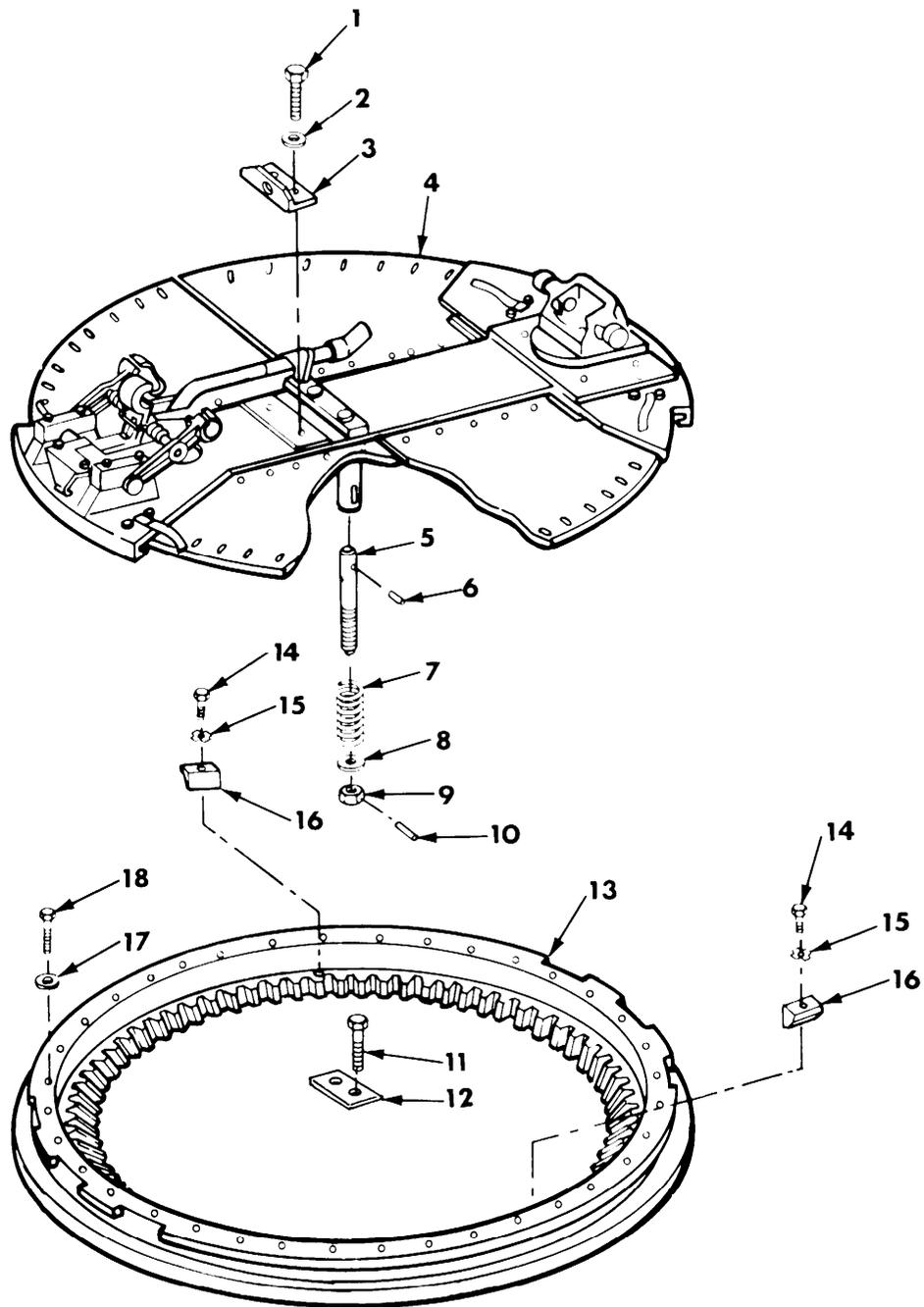


Figure C-1. 107-mm Mortar Turntable and Mount 10885903.

## SECTION II

ARMY TM9-1015-232-23&amp;P

MARINE CORPS TM00517A/0992A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 01 107-MM MORTAR TURNTABLE AND MOUNT 10885903	
				FIG. C-1 107-MM MORTAR TURNTABLE AND MOUNT 10885903	
1	PAFZZ	96906	MS90725-109	"SCREW,CAP,HEXAGON HEAD" UOC:M71	2
2	PAFZZ	96906	MS35333-44	"WASHER,LOCK" UOC:M71	2
3	PAFZZ	19207	10890776	"BRACKET,ANGLE" UOC:M71	1
4	AFFFF	19207	10885823	TURNTABLE ASSEMBLY(SEE FIG.C-2 FOR ASSY BKDN) UOC:M71	1
5	PAFZZ	19207	10890400	"PIN,STRAIGHT, THREADED" UOC:M71	1
6	PAOZZ	96906	MS16562-66	"PIN,SPRING" UOC:M71	1
7	PAOZZ	19207	10886030	"SPRING,MORTAR MOUNT" UOC:M71	1
8	PAOZZ	96906	MS27183-23	"WASHER,FLAT" UOC:M71	1
9	PAFZZ	96906	MS51967-23	"NUT,PLAIN,HEXAGON" UOC:M71	1
10	PAOZZ	96906	MS16562-51	"PIN,SPRING" UOC:M71	1
11	PAOZZ	96906	MS18154-58	"SCREW,CAP,HEXAGON HEAD" UOC:M71	2
12	PAOZZ	19207	10890398	"BASE,GUIDE PIN" UOC:M71	1
13	PAFZZ	19207	10885996	"GEAR,INTERNAL" UOC:M71	1
14	PAOZZ	96906	MS90728-114	"SCREW,CAP,HEXAGON HEAD" UOC:M71	2
15	PAOZZ	19207	8340107	"WASHER,KEY" UOC:M71	2
16	PAOZZ	19207	10890306	"STOP,TURNTABLE" UOC:M71	2
17	PAOZZ	19207	10918058	"WASHER,FLAT" UOC:M71	36
18	PAOZZ	96906	MS90728-119	"SCREW,CAP,HEXAGON HEAD" UOC:M71	36

END OF FIGURE

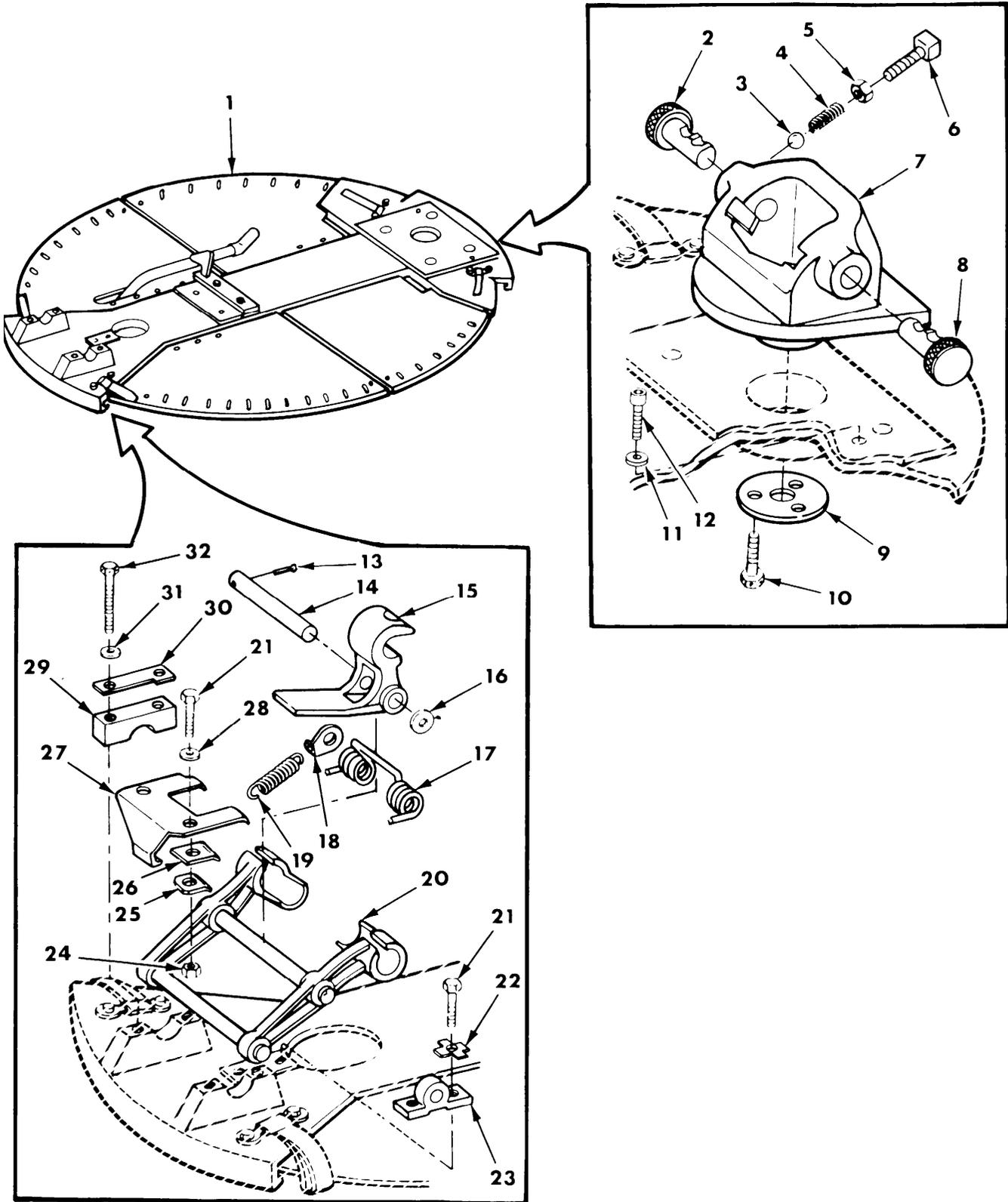


Figure C-2. Turntable Assembly 10885823.

## SECTION II

ARMY TM9-1015-232-23&amp;P C01

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				FIG. C-2 GROUP 0101 TURNTABLE ASSEMBLY, P/N 10885823	
1	AFOFF	19207	10885822	TURNTABLE (SEE FIG.C.3 FOR ASSY BKDN)	1
2	PAOZZ	19207	8731238	UOC:AJ9,M71 PIN, STRAIGHT, HEADED	1
3	PAOZZ	96906	MS19059-2422	UOC:M71 BALL, BEARING	2
4	PAOZZ	96906	MS24585-1378	UOC:M71 SPRING, HELICAL, COMP COMPRESSION	2
5	PAOZZ	96906	MS35691-49	UOC:M71 NUT, PLAIN, HEXAGON	2
6	PAOZZ	21450	110116	UOC:M71 SETSCREW	2
7	PAFZZ	19207	10885950	UOC:M71 SOCKET, MORTAR MOUNT	1
8	PAOZZ	19207	10890304	UOC:M71 PIN, LOCKING, BARREL	1
9	PAFZZ	19207	10885970	UOC:M71 PLATE, RETAINING, SHA SOCKET	1
10	PAFZZ	96906	MS51095-412	UOC:M71 SCREW, CAP, HEXAGON H HEAD	3
11	PAFZZ	96906	MS35338-48	UOC:M71 WASHER, LOCK	2
12	PAFZZ	96906	MS16997-141	UOC:M71 SCREW, CAP, SOCKET HE HEAD	2
13	PAOZZ	96906	MS24665-285	UOC:M71 PIN, COTTER	2
14	PAOZZ	19207	10886655	UOC:M71 PIN, STRAIGHT, HEADLE HEADLESS	1
15	PAOZZ	19207	12313606	UOC:AJ9,M71 CATCH, FRONT STANDAR STANDARD SUPPORT	1
16	PAOZZ	19207	8704923	UOC:M71 WASHER, FLAT	1
17	PAOZZ	19207	10886654	UOC:M71 SPRING, HELICAL, TORS TORSION, LEFT AND RIGHT	1
18	PAOZZ	19207	10932399	UOC:M71 CLIP, SPRING RETAINT RETAINING	1
19	PAOZZ	19207	10932401	UOC:M71 SPRING, HELICAL, EXTE EXTENSION	1
20	PAOZZ	19207	10886649	UOC:M71 SUPPORT, MORTAR STAN STANDARD	1
21	PAOZZ	96906	MS90728-62	UOC:AJ9,M71 SCREW, CAP, HEXAGON H HEAD	4
22	PAOZZ	19207	8340106	UOC:M71 WASHER, KEY	2
23	PAOZZ	19207	10886653	UOC:M71 BRACKET, CATCH SUPPO SUPPORT	1

## SECTION II

ARMY TM9-1015-232-23&amp;P

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
24	PAOZZ	96906	MS51922-17	UOC:M71 NUT, SELF-LOCKING, HE	2
25	PAOZZ	19207	10932398	UOC:M71 CLIP, SPRING RETAINI RETAINING	1
26	PAOZZ	19207	10917966	UOC:M71 CLIP, CATCH GUARD	2
27	PAOZZ	19207	10917965	UOC:AJ9, M71 GUARD, MECHANICAL DR TURNTABLE	1
28	PAOZZ	96906	MS27183-14	UOC:AJ9, M71 WASHER, FLAT	2
29	PAOZZ	19207	10885975	UOC:AJ9, M71 CLAMP, SHAFT, SUPPORT	2
31	PAOZZ	96906	MS27183-18	UOC:M71 WASHER, FLAT	4
32	PAOZZ	96906	MS51095-416	UOC:M71 SCREW, CAP, HEXAGON H HEAD	4

END OF FIGURE



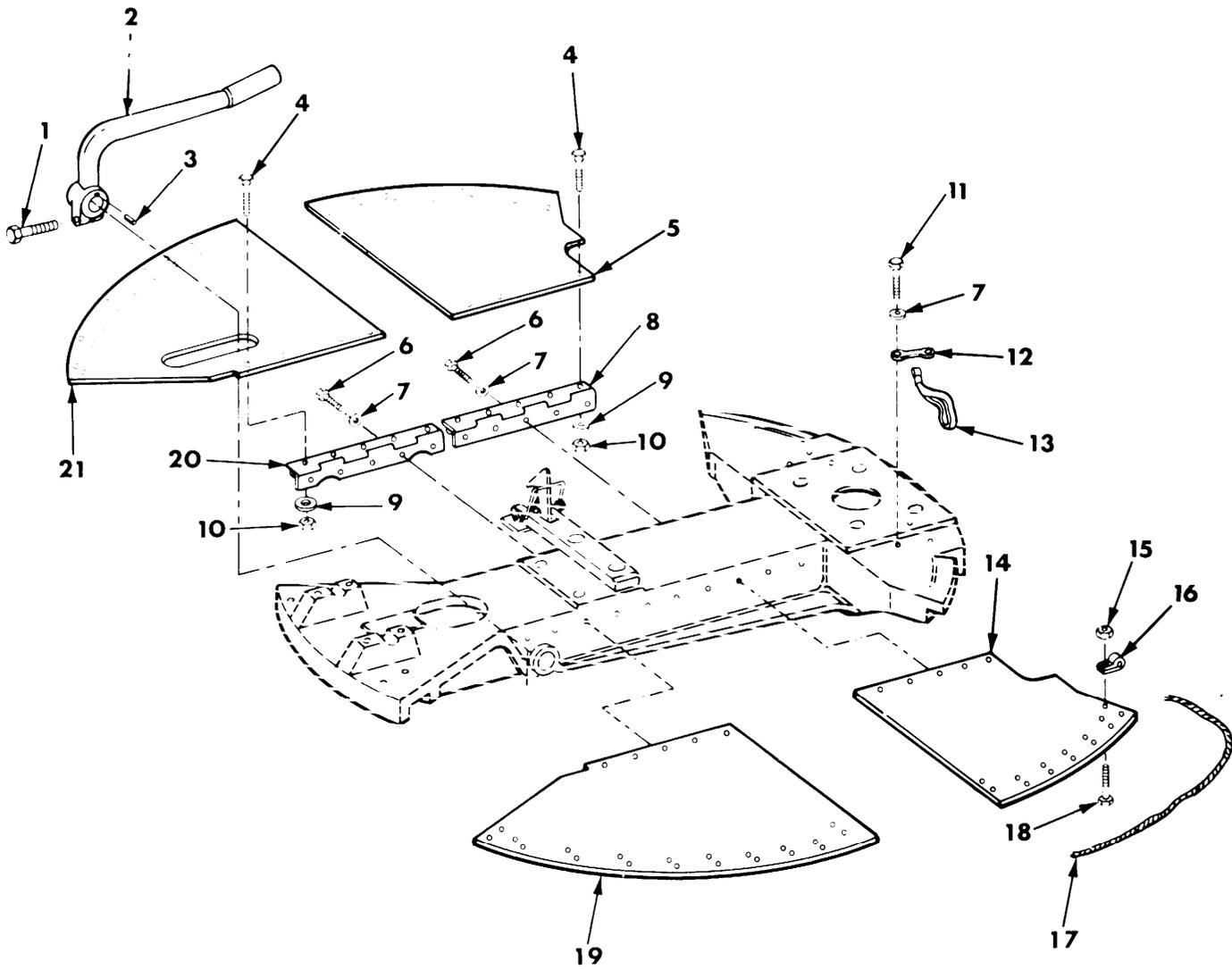


Figure C-3. Turntable 10885822.

## SECTION II

ARMY TM9-1015-232-23&P C01  
MARINE CORPS TM00517A/0922A-23&P

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				FIG. C-3 GROUP 010101,0201 AND 040101 TURNTABLE, P/N 10885822	
1	PAOZZ	96906	MS90728-66	SCREW,CAP,HEXAGON H HEAD UOC:AJ9,M71,M72	1
2	PAOZZ	19207	10885962	HANDLE,MANUAL CONTR UOC:AJ9,M71,M72	1
3	PAOZZ	96906	MS20066-210	KEY,MACHINE UOC:AJ9,M71,M72	1
4	PAOZZ	96906	MS35206-283	SCREW,MACHINE HEAD UOC:AJ9,M71,M72	20
5	PAOZZ	19207	11647655-2	PLATE,FLOOR,METAL VEHICULAR UOC:AJ9,M71,M72	1
6	PAOZZ	96906	MS51095-358	SCREW,CAP,HEXAGON H HEAD UOC:AJ9,M71,M72	20
7	PAOZZ	96906	MS27183-14	WASHER,FLAT UOC:AJ9,M71,M72	28
8	PAOZZ	19207	10917654	HINGE,FLOOR PLATE UOC:AJ9,M71,M72	2
9	PAOZZ	96906	MS27183-10	WASHER,FLAT UOC:AJ9,M71,M72	20
10	PAOZZ	96906	MS51922-17	NUT,SELF-LOCKING,HE UOC:AJ9,M71,M72	20
11	PAOZZ	96906	MS18154-60	SCREW,CAP,HEXAGON H HEAD UOC:AJ9,M71,72	8
12	PAOZZ	19207	10886192	LOOP,MORTAR TURNTAB TURNTABLE UOC:AJ9,M71,M72	4
13	PAOZZ	19207	8763238	STRAP,WEBBING UOC:AJ9,M71,M72	4
14	PAOZZ	19207	11647655-1	PLATE,FLOOR,VEHICUL VEHICULAR UOC:AJ9,M71,M72	1
15	PAOZZ	96906	MS21044N08	NUT,SELF-LOCKING,HE UOC:AJ9,M71,M72	8
16	PAOZZ	88044	AN742-4	CLAMP,LOOP UOC:AJ9,M71,M72	8
17	MOOZZ	81349	MIL-R-17343	ROPE,CUSION,ROTATO FROM NSN 4020- 00-523-9641 UOC:AJ9,M71,M72	4
18	PAOZZ	96906	MS35206-245	SCREW,MACHINE HEAD UOC:AJ9,M71,M72	8
19	PAOZZ	19207	11647656	PLATE,FLOOR,VEHICUL VEHICULAR UOC:AJ9,M71,M72	1
20	PAOZZ	19207	10917655	HINGE,ACCESS DOOR UOC:AJ9,M71,M72	2
21	PAOZZ	19207	11647657	PLATE,FLOOR,METAL VEHICULAR UOC:AJ9,M71,M72	1

END OF FIGURE

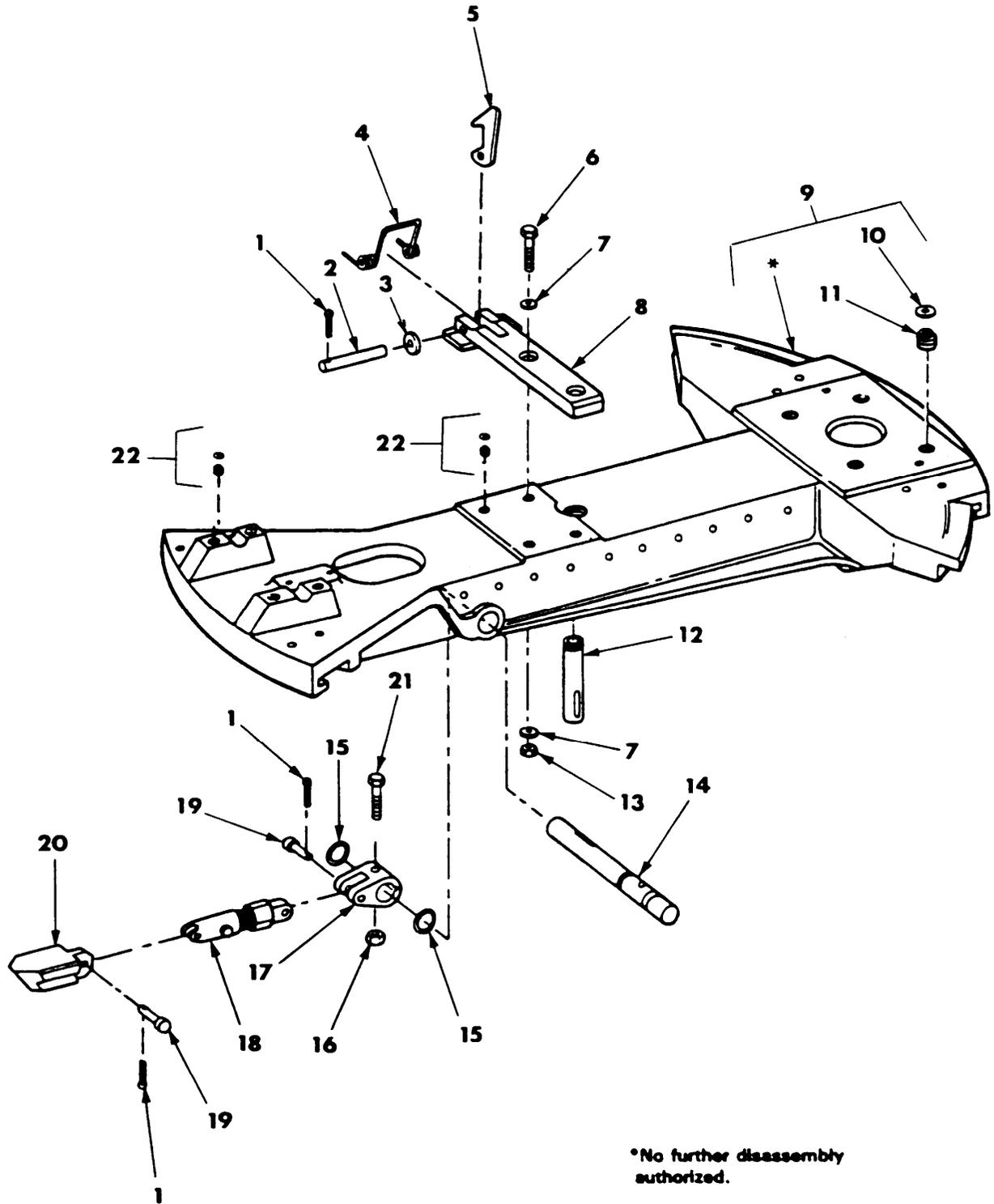


Figure C-4. Turntable 10885822 and Turntable Bridge 10885911.

## SECTION II

ARMY TM9-1015-232-23&amp;P C01

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				FIG. C-4 GROUP 010101,0201 AND 04010 1 TURNTABLE P/N 10885822 AND GROUP 01010102,020102 AND 04010102 TURNTAB LE BRIDGE P/N 10885911	
1	PAOZZ	96906	MS24665-283	PIN,COTTER UOC:AJ9,M71,M72	4
2	PAOZZ	19207	10908251	PIN,STRAIGHT,HEADLE HEADLESS UOC:AJ9,M71,M72	1
3	PAOZZ	96906	MS27183-14	WASHER,FLAT UOC:AJ9,M71,M72	2
4	PAOZZ	19207	10908261	SPRING,HELICAL,TORS TORSION UOC:AJ9,M71,M72	1
5	PAOZZ	19207	10908241	LATCH,RIM UOC:AJ9,M71,M72	1
6	PAOZZ	96906	MS90728-118	SCREW,CAP,HEXAGON H HEAD UOC:AJ9,M71,M72	2
7	PAOZZ	96906	MS27183-18	WASHER,FLAT UOC:AJ9,M71,M72	4
8	PAOZZ	19207	10908126	BRACKET,ACTUATOR HO HOOK UOC:AJ9,M71,M72	1
9	PAFDD	19207	10885911	BRIDGE,TURNTABLE UOC:AJ9,M71,M72	1
10	PAFZZ	19207	7539736	RING,LOCK,SERRATED UOC:AJ9,M71,M72	4
11	PAFZZ	19207	8763461	INSERT,SCREW THREAD UOC:AJ9,M71,M72	4
12	PAFZZ	19207	10890399	GUIDE,PIN UOC:AJ9,M71,M72	1
13	PAOZZ	96906	MS51922-33	NUT,SELF-LOCKING,HE HEXAGON UOC:AJ9,M71,M72	2
14	PAOZZ	19207	10885968	SHAFT,STRAIGHT UOC:AJ9,M71,M72	1
15	PAOZZ	19207	8743047	RING,RETAINING TURNTABLE UOC:AJ9,M71,M72	2
16	PAOZZ	96906	MS21044N6	NUT,SELF-LOCKING,HE UOC:AJ9,M71,M72	1
17	PAOZZ	19207	10885965	LEVER,REMOTE CONTRO CONTROL UOC:AJ9,M71,M72	1
18	AFFFF	19207	10885964	LINK ASSEMBLY INDEX ACTUATOR (SEE FIG.C-5 FOR ASSY BKDN) UOC:AJ9,M71,M72	1
19	PAOZZ	96906	MS20392-7C51	PIN,STRAIGHT,HEADED UOC:AJ9,M71,M72	2
20	PAOZZ	19207	10885969	TOOTH UOC:AJ9,M71,M72	1
21	PAOZZ	96906	MS90727-68	SCREW,CAP,HEXAGON H HEAD UOC:AJ9,M71,M72	1
22	PAFZZ	19207	10947291-12	INSERT,SCREW THREAD WITH RING UOC:AJ9	6

END OF FIGURE

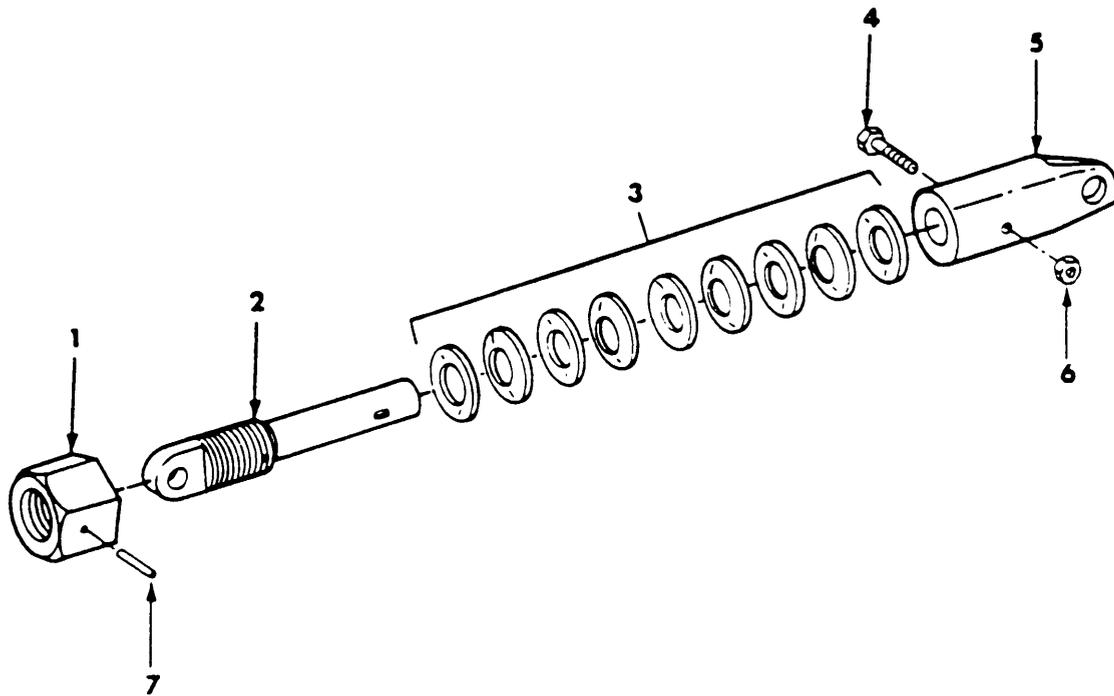


Figure C-5. Index Actuator Link Assembly 10885964.

## SECTION II

ARMY TM9-1015-232-23&amp;P C01

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				FIG. 5 GROUP 01010101, 020101 AND 04010101 INDEX ACTUATOR LINK ASSEMBLY, P/N 10885964	
1	PAFZZ	96906	MS51968-29	NUT, PLAIN, HEXAGON UOC:AJ9, M71, M72	1
2	PAFZZ	19207	10885967	PLUNGER, QUICK RELEA UOC:AJ9, M71, M72	1
3	PAOZZ	19207	8387678	WASHER, SPRING TENSI TENSION UOC:AJ9, M71, M72	9
4	PAOZZ	96906	MS90727-14	SCREW, CAP, HEXAGON H HEAD UOC:AJ9, M71, M72	1
5	PAOZZ	19207	10885966	HOUSING UOC:AJ9, M71, M72	1
6	PAOZZ	96906	MS21044N4	NUT, SELF-LOCKING, HE UOC:AJ9, M71, M72	1
7	PAOZZ	96906	MS9048-112	PIN, SPRING UOC:AJ9, M71, M72	1
				END OF FIGURE	

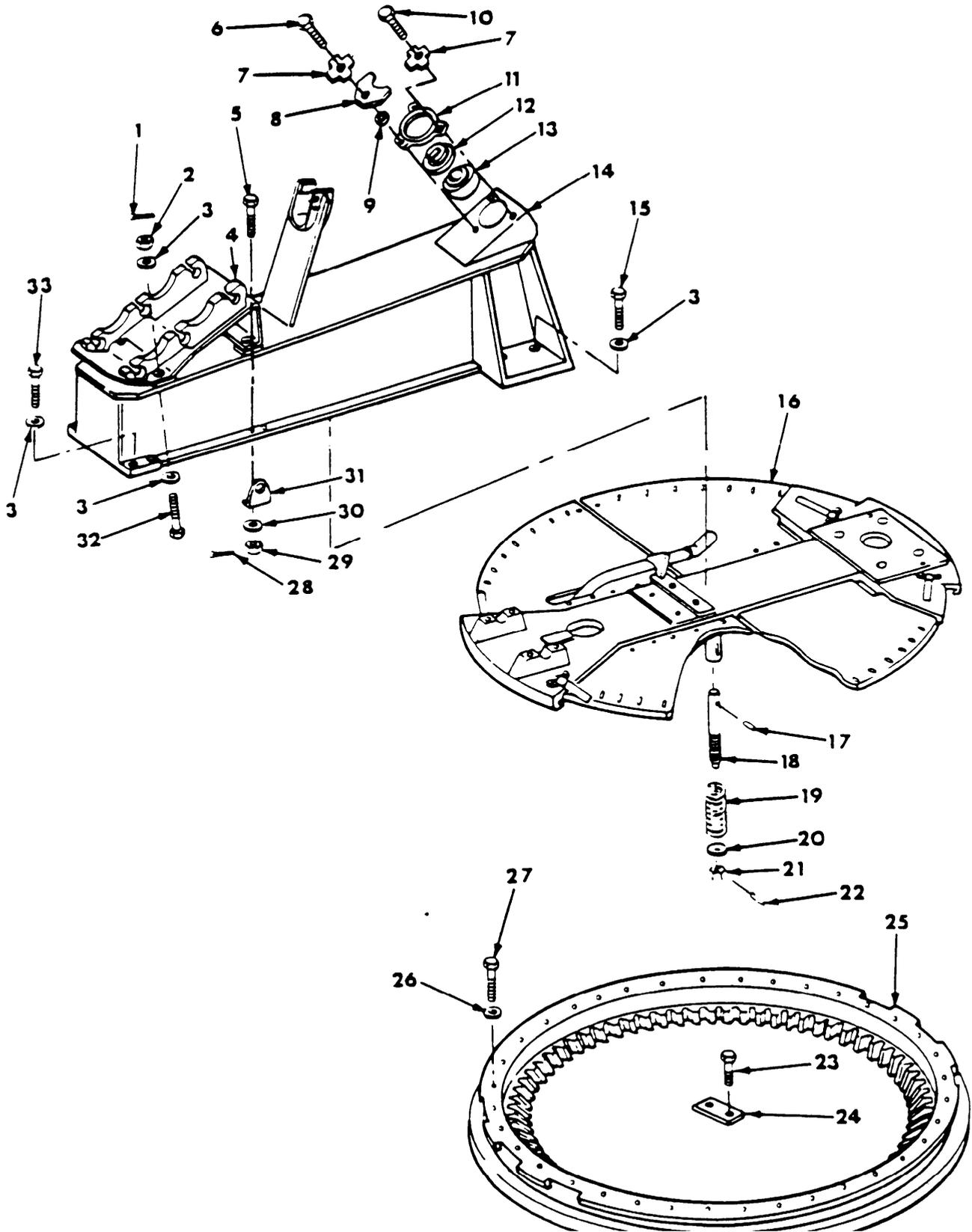


Figure C-6. 81-mm Mortar Turntable and Mount 10885812.

## SECTION II

ARMY TM9-1015-232-23&amp;P C01

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				FIG. C-6 GROUP 02 MORTAR TURNTABLE AND MOUNT, 81-MM, P/N 10885812	
1	PAOZZ	96906	MS24665-291	PIN,COTTER UOC:M72	4
2	PAOZZ	96906	MS35692-33	NUT,PLAIN,SLOTTED,H HEXAGON UOC:M72	4
3	PAOZZ	96906	MS27183-18	WASHER,FLAT A MINIMUM OF 16 WASHER'S PER ASSEMBLY REQUIRED UOC:M72	V
4	PAOZZ	19207	10933141	SUPPORT, BIPOD, MOR MORTAR UOC:M72	1
5	PAOZZ	96906	MS51105-361	SCREW,CAP,HEXAGON H HEAD UOC:M72	4
6	PAOZZ	96906	MS90728-64	SCREW,CAP,HEXAGON H HEAD UOC:M72	1
7	PAOZZ	19207	8340106	WASHER,KEY UOC:M72	3
8	PAOZZ	19207	10933140	RETAINER,BALL JOINT UOC:M72	1
9	PAOZZ	19207	10918101	SPACER,SLEEVE UOC:M72	1
10	PAOZZ	96906	MS90728-62	SCREW,CAP,HEXAGON H HEAD UOC:M72	2
11	PAOZZ	19206	7230707	COLLAR,BASEPLATE CAP UOC:M72	1
12	PAOZZ	19206	7230706	CAP,BASEPLATE UOC:M72	1
13	PAOZZ	19207	10885882	SOCKET,MORTAR BARRE BARREL UOC:M72	1
14	PAOZZ	19207	10932942	MOUNT,MORTAR UOC:M72	1
15	PAOZZ	96906	MS18153-114	SCREW,CAP,HEXAGON H HEAD UOC:M72	4
16	AFOFF	19207	10885822	TURNTABLE,MORTAR (SEE FIG.C-3 FOR ASSY BKDN) UOC:AJ9,M72	1
17	PAOZZ	96906	MS16562-66	PIN,SPRING UOC:AJ9.M72	1
18	PAFZZ	19207	10890400	PIN,STRAIGHT,THREAD THREADED UOC:M72	1
19	PAOZZ	19207	10886030	SPRING,MORTAR MOUNT HELICAL COMPRESSION UOC:AJ9,M72	1
20	PAOZZ	96906	MS27183-23	WASHER,FLAT UOC:AJ9,M72	1
21	PAFZZ	96906	MS51967-23	NUT,PLAIN,HEXAGON UOC:AJ9,M72	1
22	PAFZZ	96906	MS16562-51	PIN,SPRING UOC:AJ9,M72	1
23	PAOZZ	96906	MS18154-58	SCREW,CAP,HEXAGON H HEAD	2

## SECTION II

ARMY TM9-1015-232-23&amp;P

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
24	PAOZZ	19207	10890398	UOC:AJ9,M72 BASE,GUADE PIN	1
25	PAFZZ	19207	10885996	UOC:AJ9,M72 GEAR,INTERNAL	1
26	PAOZZ	19207	10918058	UOC:M72 WASHER,FLAT	36
27	PAOZZ	96906	MS90728-119	UOC:M72 SCREW,CAP,HEXAGON H HEAD	36
28	PAOZZ	96906	MS24665-287	UOC:M72 PIN,COTTER	4
29	PAOZZ	96906	MS35692-17	UOC:M72 NUT,PLAIN,SLOTTED,H HEXAGON	4
30	PAOZZ	96906	MS27183-14	UOC:M72 WASHER,FLAT	4
31	PAOZZ	19207	10918093	UOC:M72 PAD EYE,MORTAR MOUN MOUNT	2
32	PAOZZ	96906	MS51105-415	UOC:M72 SCREW,CAP,HEXAGON H HEAD	4
33	PAOZZ	96906	MS51095-416	UOC:M72 SCREW,CAP,HEXAGON H HEAD	4

END OF FIGURE



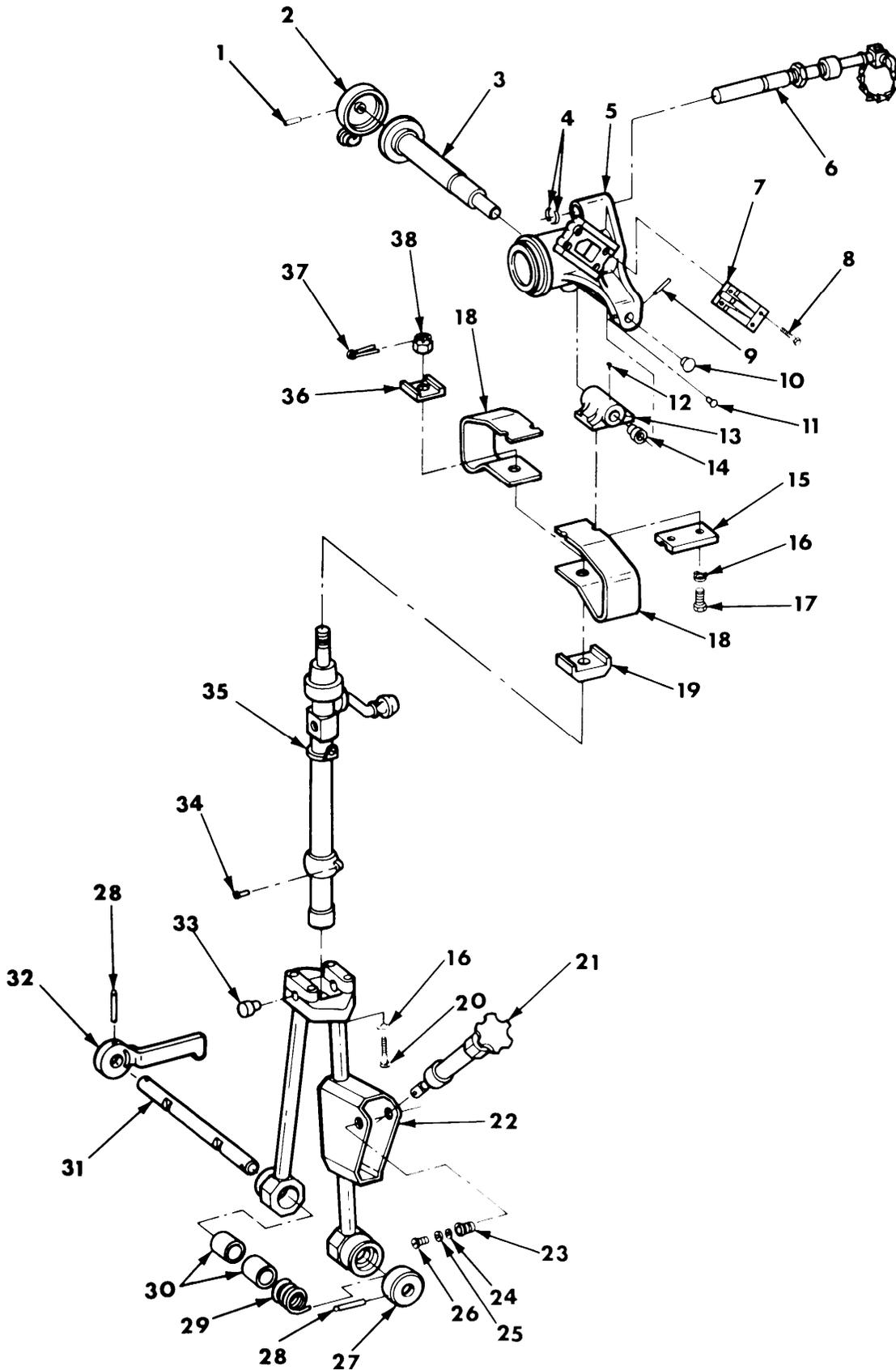


Figure C-7. 81-mm Mortar Bipod Assembly 10978700.

## SECTION II

ARMY TM9-1015-232-23&amp;P

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 03 81-MM MORTAR BIPOD ASSEMBLY 10918000	
				FIG. C-7 81-MM MORTAR BIPOD ASSEMBLY 10918100	
1	PAFZZ	88044	AN150264	PIN, STRAIGHT, HEADLESS UOC:M73	1
2	PAFFF	19206	7308276	HANDWHEEL ASSEMBLY, TRAVERSING (SEE FIG.C-8 FOR ASSY BKDN) UOC:M73	1
3	PAFFF	19206	7308532	SPINDLE ASSEMBLY, TRAVERSING(SEE FIG.C-9 FOR ASSY BKDN) UOC:M73	1
4	PAFZZ	19207	10933132	RING, SEGMENT UOC:M73	2
5	PAFFF	19207	10932710	YOKE ASSEMBLY(SEE FIG.C-12 FOR ASSY BKDN) UOC:M73	1
6	AFFFF	19207	10933106	BUFFER ASSEMBLY, RECOIL(SEE FIG.C- 11 FOR ASSY BKDN) UOC:M73	1
7	PAFZZ	19207	10933131	KEY, SIGHT SOCKET UOC:M73	1
8	PAFZZ	96906	MS90728-61	SCREW, CAP, HEXAGON HEAD UOC:M73	4
9	PAFZZ	19207	10106891-2	PIN, YOKE ASSEMBLY UOC:M73	1
10	PAFZZ	96906	MS9380-14	PLUG, EXPANSION UOC:M73	1
11	PAFZZ	96906	MS35755-1	CUP, OIL, LUBRICATING UOC:M73	1
12	PAFZZ	96906	MS35191-270	SCREW, MACHINE UOC:M73	1
13	PAFZZ	19207	10933135	BLOCK MOUNTING, SPRING UOC:M73	1
14	AFFFF	19206	7236591	BEARING ASSEMBLY, TRAVERSING(SEE FIG.C-10 FOR ASSY BKDN) UOC:M73	1
15	PAFZZ	19207	10933134	CLAMP, CONNECTOR UOC:M73	1
16	PAFZZ	19207	10863380	WASHER, KEY UOC:M73	6
17	PAFZZ	96906	MS90728-62	SCREW, CAP, HEXAGON HEAD UOC:M73	2
18	PAFZZ	19207	10933138	SPRING UOC:M73	2
19	PAFZZ	19207	10933137	BLOCK, MOUNTING, SPRING UOC:M73	1
20	PAFZZ	96906	MS90728-66	SCREW, CAP, HEXAGON HEAD UOC:M73	4

## SECTION II

ARMY TM9-1015-232-23&amp;P

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
21	AFFFF	19207	10918074	LEVELING MECHANISM(SEE FIG.C-15 FOR ASSY BKDN) UOC:M73	1
22	PAFFF	19207	10943016	BIPOD ASSEMBLY UOC:M73	1
23	PAFZZ	19207	8763461	INSERT,SCREW THREAD UOC:M73	2
24	PAFZZ	19207	7539736	RING,LOCK,SERRATED UOC:M73	2
25	PAFZZ	96906	MS27183-19	WASHER,FLAT UOC:73	2
26	PAFZZ	19207	10918097	BOLT,EXTERNALLY RELIEVED BODY UOC:M73	2
27	PAFZZ	19207	10918096	COLLAR,SHAFT UOC:M73	1
28	PAFZZ	19207	11589336	PIN,STRAIGHT,HEADLESS UOC:M73	2
29	PAFZZ	19207	10918099	SPRING,HELICAL, TORSION UOC:M73	1
30	PAFZZ	19207	8738118	MOUNT,SHAFT UOC:M73	2
31	PAFZZ	19207	10933133	SHAFT,STRAIGHT SHOULDERED UOC:M73	1
32	PAFZZ	19207	10918089	HANDLE,BIPOD ASSEMBLY UOC:M73	1
33	PAFZZ	19207	10933139	PIN,SHOULDER,HEADLESS UOC:M73	2
34	PAFZZ	19206	7236709	SCREW,SHOULDER UOC:M73	1
35	AFFFF	19207	10932755	ELEVATION ASSEMBLY,MORTAR(SEE FIG.C-13 FOR ASSY BKDN) UOC:M73	1
36	PAFZZ	19207	10933136	CLAMP,CONNECTOR UOC:M73	1
37	PAFZZ	96906	MS24665-357	PIN,COTTER UOC:M73	1
38	PAFZZ	96906	MS35692-69	NUT,PLAIN,SLOTTED,HEAD UOC:M73	1

END OF FIGURE



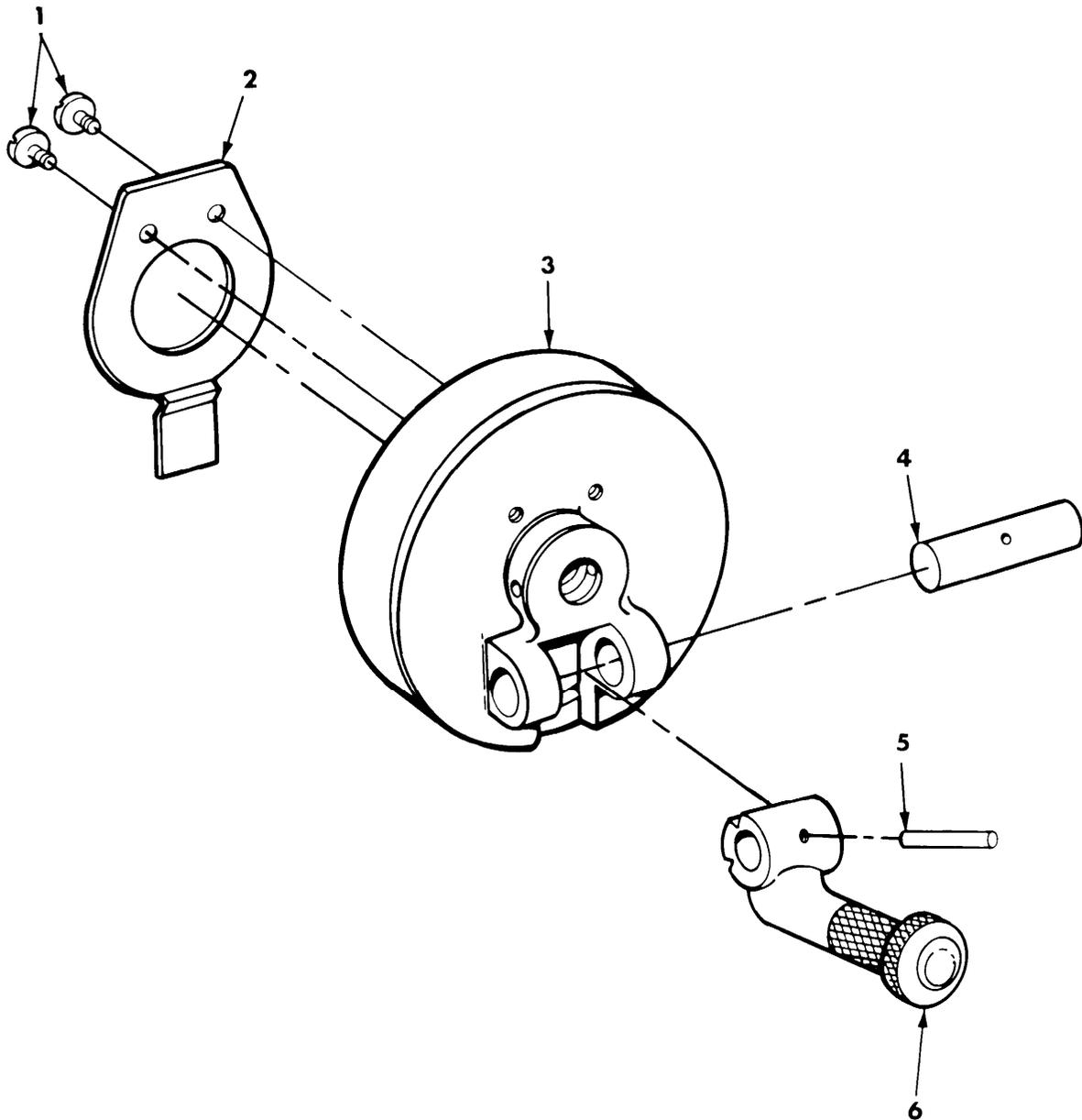


Figure C-8. Traversing Handwheel Assembly 7308276.

## SECTION II

ARMY TM9-1015-232-23&amp;P

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 0301 TRAVERSING HANDWHEEL ASSEMBLY 7308276	
				FIG. C-8 TRAVERSING HANDWHEEL ASSEMBLY 7308276	
1	PAFZZ	96906	MS35207-240	SCREW,MACHINE PAN HEAD UOC:M73	2
2	PAFZZ	19206	5012975	DETENT UOC:M73	1
3	XAFZZ	19206	7308275	BODY,HANDWHEEL UOC:M73	1
4	PAFZZ	19206	7236047	PIN,STRAIGHT,HEADLESS UOC:M73	1
5	PAFZZ	96906	MS9105-09	PIN,STRAIGHT,HEADLESS UOC:M73	1
6	PAFZZ	19206	7235927	CRANK UOC:M73	1
				END OF FIGURE	

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MARINE CORPS TM 00517A/09922A-23&P

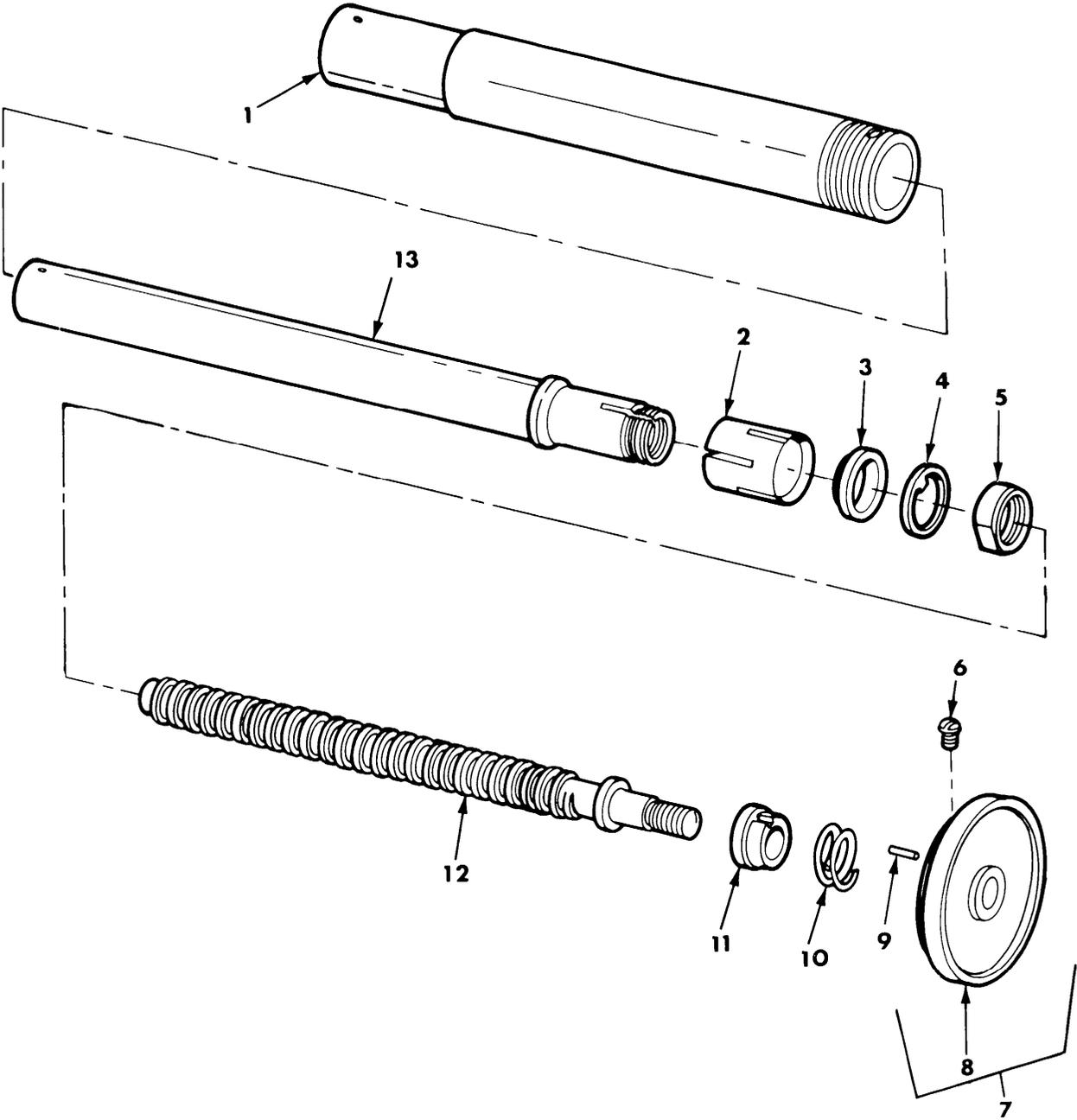


Figure C-9. Traversing Spindle Assembly 7308532 and Cap Assembly 7308278.

## SECTION II

ARMY TM9-1015-232-23&amp;P

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 0302 TRAVERSING SPINDLE ASSEMBLY 7308532 AND GROUP 030201 CAP ASSEMBLY 7308278	
				FIG. C-9 TRAVERSING SPINDLE ASSEMBLY 7308532 AND CAP ASSEMBLY 7308278	
1	XAFZZ	19206	7235971	HOUSING MECHANICAL SPINDLE UOC:M73	1
2	PAFZZ	19206	7236596	BEARING,SLEEVE UOC:M73	1
3	PAFZZ	19206	7236599	SPACER,RING UOC:M73	1
4	PAFZZ	19206	7236598	WASHER,KEY UOC:M73	1
5	PAFZZ	19206	7236597	NUT,PLAIN,ROUND UOC:M73	1
6	PAFZZ	19204	5025228	SCREW,MACHINE UOC:M73	1
7	XAFFF	19206	7308278	CAP ASSEMBLY UOC:M73	1
8	XAFZZ	19206	7308274	FLANGE, TRAVERSING ASSEMBLY UOC:M73	1
9	PAFZZ	96906	MS16562-97	PIN,SPRING UOC:M73	1
10	PAFZZ	19206	7236594	SPRING,HELICAL,COMPRESSION UOC:M73	1
11	PAFZZ	19206	7236595	BEARING,SLEEVE UOC:M73	1
12	PAFZZ	19206	7236713	SCREW,SPINDLE, TRAVERSING UOC:M73	1
13	PAFZZ	19206	7236592	NUT,SPINDLE, TRAVERSING SCREW UOC:M73	1

END OF FIGURE

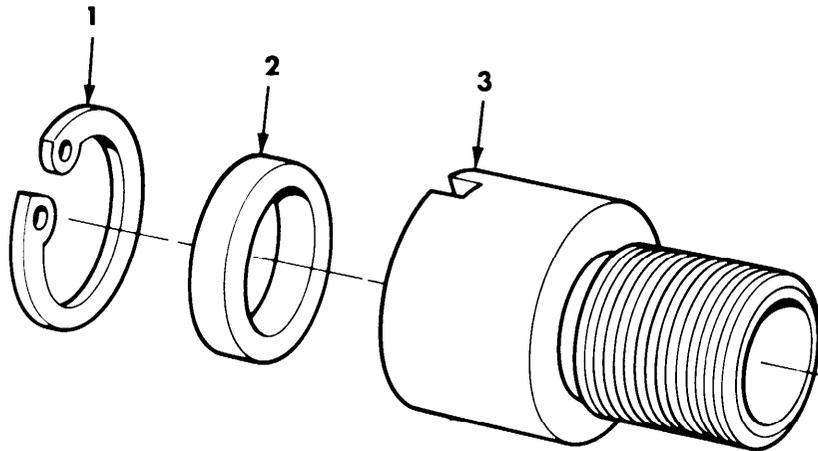


Figure C-10. Traversing Bearing Assembly 7236591.

## SECTION II

ARMY TM9-1015-232-23&amp;P

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 0303 TRAVERSING BEARING ASSEMBLY 7236591	
				FIG. C-10 TRAVERSING BEARING ASSEMBLY 7236591	
1	PAFZZ	80205	NAS50-118	RING,RETAINING UOC:M73	1
2	PAFZZ	19206	7236589	PACKING,PREFORMED UOC:M73	1
3	PAFZZ	19206	7236590	BEARING,SLEEVE UOC:M73	1
				END OF FIGURE	

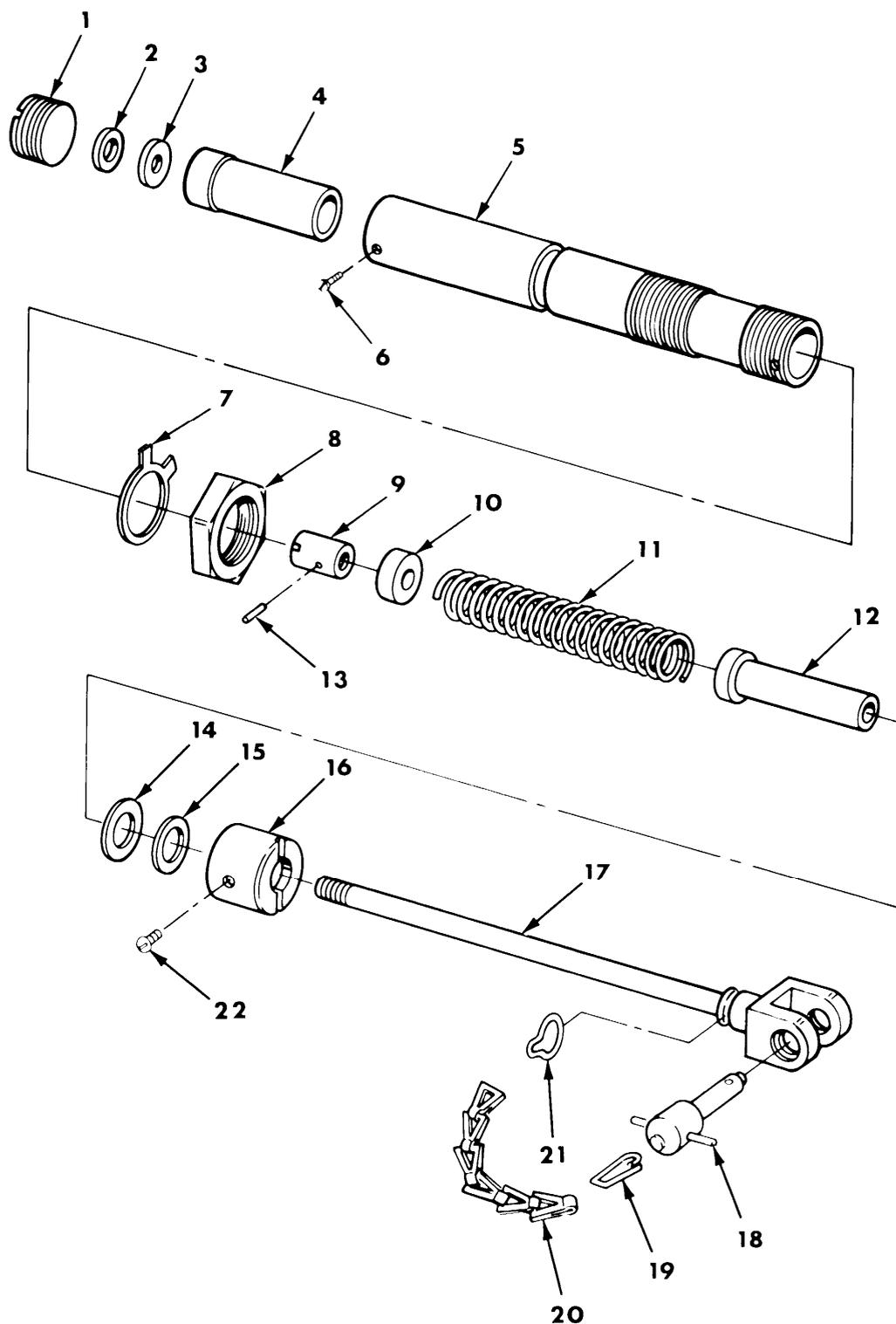


Figure C-11. Recoil Buffer Assembly 10933106.

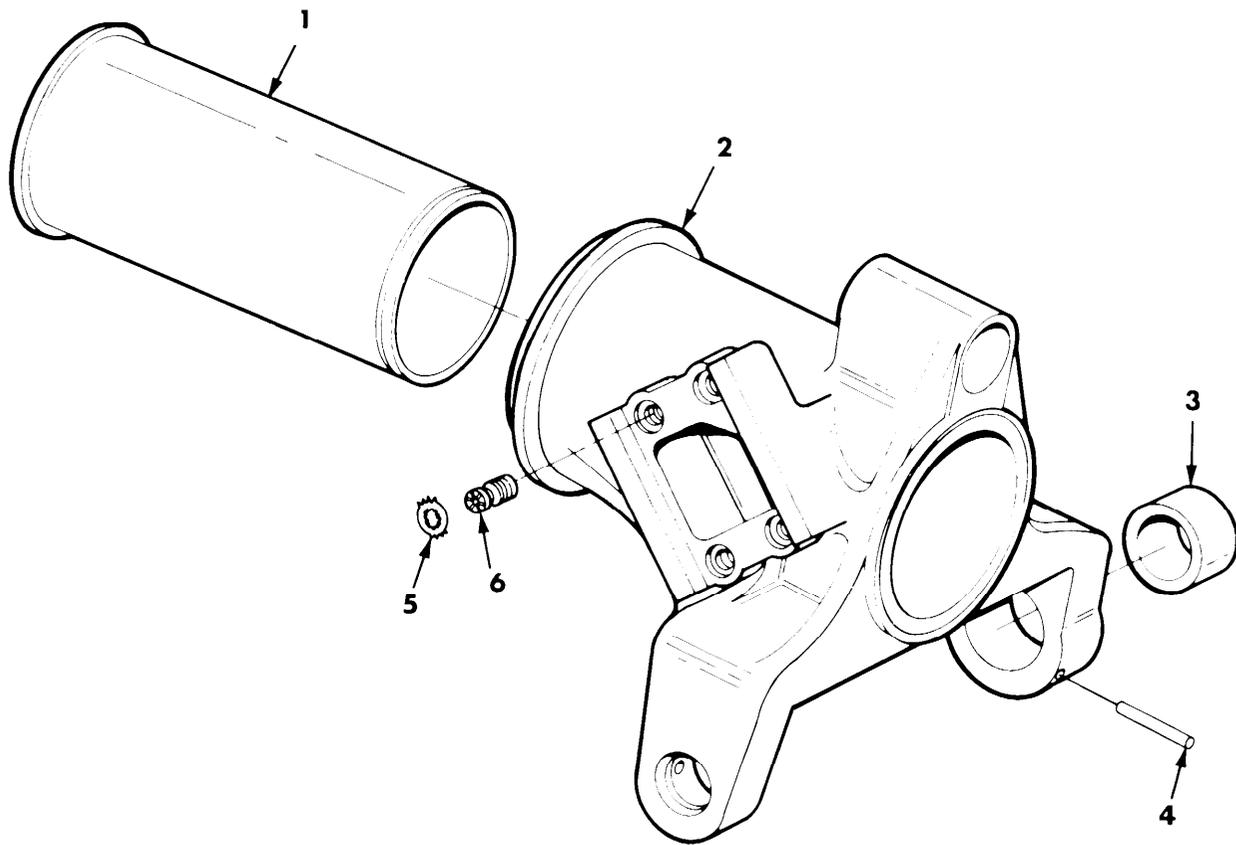
## SECTION II

ARMY TM9-1015-232-23&amp;P

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 0304 RECOIL BUFFER ASSEMBLY 10933106	
				FIG. C-11 RECOIL BUFFER ASSEMBLY 10933106	
1	PAFZZ	19207	10933108	PLUG,MACHINE THREADED UOC:M73	1
2	PAFZZ	19207	10933110	PACKING,PREFORMED UOC:M73	1
3	PAFZZ	19207	10933111	WASHER,FLAT UOC:M73	1
4	PAFZZ	19207	10933117	RETAINER,RECOIL BUFFER UOC:M73	1
5	PAFZZ	19207	10933107	TUBE,RECOIL BUFFER UOC:M73	1
6	PAFZZ	96906	MS35199-3	SCREW,MACHINE UOC:M73	1
7	PAFZZ	19207	10949760	WASHER,KEY UOC:M73	1
8	PAFZZ	88044	AN924-16	NUT,PLAIN,HEXAGON UOC:M73	1
9	PAFZZ	19207	10933118	NUT,SLEEVE UOC:M73	1
10	PAFZZ	19207	10933116	BEARING,SLEEVE UOC:M73	1
11	PAFZZ	19206	7235982	SPRING,HELICAL, COMPRESSION UOC:M73	1
12	PAFZZ	19207	10933115	BEARING,SLEEVE UOC:M73	1
13	PAFZZ	21450	505477	PIN,STRAIGHT,HEADLESS UOC:M73	1
14	PAFZZ	19207	10933112	WASHER,FLAT UOC:M73	1
15	PAFZZ	19207	10933109	PACKING,PREFORMED UOC:M73	1
16	PAFZZ	19207	10933113	CAP,LINEAR ACTUATING CYLINDER UOC:M73	1
17	PAFZZ	19207	10949332	CLEVIS AND ROD UOC:M73	1
18	PAOZZ	19206	11578050	PIN,QUICK RELEASE UOC:M73	1
19	PAOZZ	19206	7305183	CLIP UOC:M73	1
20	PAOZZ	19206	7229585	CHAIN,WELDLESS UOC:M73	1
21	PAOZZ	19206	7305184	CLIP UOC:M73	1
22	PAFZZ	96906	MS35246-67	SCREW,MACHINE UOC:M73	1

END OF FIGURE



**NOTE**  
Removal of yoke assembly bushing  
(1) from yoke assembly body (2) is  
not authorized.

Figure C-12. Yoke Assembly 10932710.

## SECTION II

ARMY TM9-1015-232-23&amp;P

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 0605 YOKE ASSEMBLY 10932710	
				FIG. C-12 YOKE ASSEMBLY 10932710	
1	XAFZZ	19207	10932710-2	BUSHING, YOKE ASSEMBLY UOC:M73	1
2	XAFZZ	19207	10932710-1	BODY, YOKE ASSEMBLY UOC:M73	1
3	PAFZZ	19206	7236715	BUSING, SLEEVE ASSEMBLY UOC:M73	1
4	PAFZZ	21450	505566	PIN, STRAIGHT, HEADLESS UOC:M73	1
5	PAFZZ	19207	7767395	RING, LOCK, SERRATED UOC:M73	4
6	PAFZZ	19207	8763460	INSERT, SCREW THREAD UOC:M73	4

END OF FIGURE

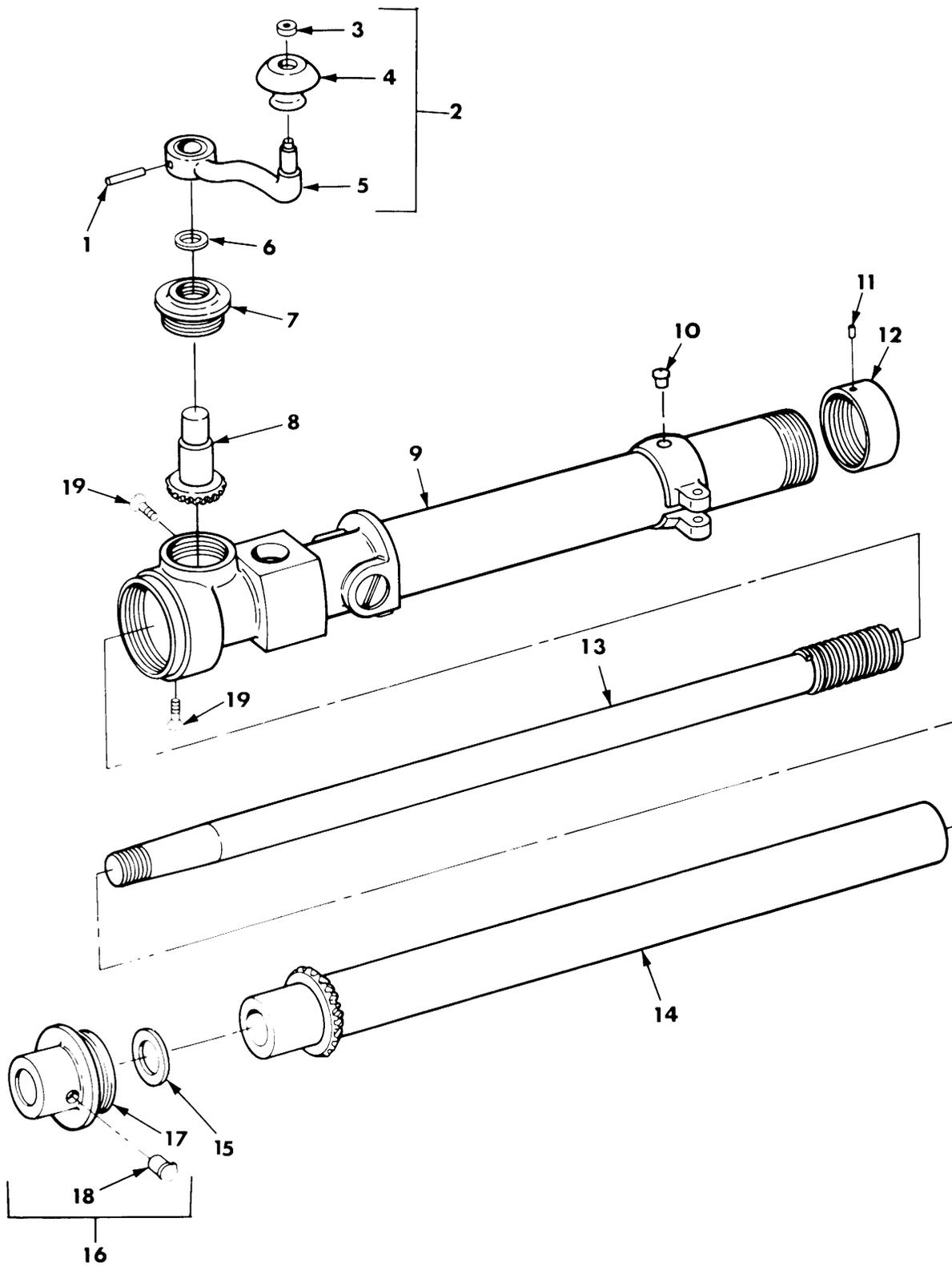


Figure C-13. Mortar Elevation Assembly 10932755, Cover 7237799, and Elevation Crank Assembly 10918087.

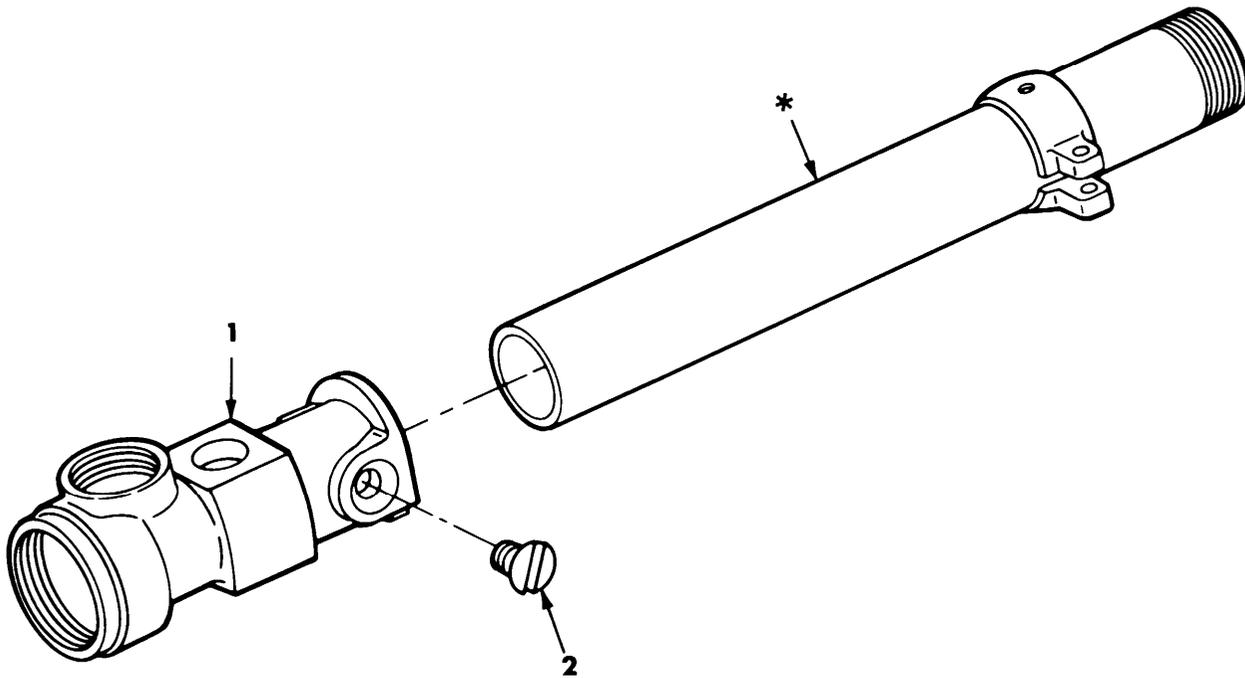
## SECTION II

ARMY TM9-1015-232-23&amp;P

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 0306 MORTAR ELEVATION ASSEMBLY 10932755, GROUP 030602 COVER 7237799, AND GROUP 030603 ELEVATION CRANK ASSEMBLY 109118087	
				FIG. C-13 MORTAR ELEVATION ASSEMBLY 10932755, COVER 7237799, AND ELEVATION CRANK ASSEMBLY 109118087	
1	PAFZZ	96906	MS16555-331	PIN, STRAIGHT, HEADLESS UOC:M73	1
2	PAFFF	19207	10918087	CRANK ASSEMBLY, ELEVATION UOC:M73	1
3	PAFZZ	19207	7236048	WASHER, RECESSED UOC:M73	1
4	PAFZZ	19207	11588781	KNOB UOC:M73	1
5	XAFZZ	19207	10918086	CRANK UOC:M73	1
6	PAFZZ	19206	7236578	WASHER, FELT UOC:M73	1
7	PAFZZ	19206	7236575	COVER UOC:M73	1
8	PAFZZ	19206	7236573	PINION, BEVEL UOC:M73	1
9	PAFFF	19207	10932756	HOUSING, MORTAR ELEVATION ASSEMBLY UOC:M73	1
10	PAFZZ	96906	MS35755-1	CUP, OIL, LUBRICATING UOC:M73	1
11	PAFZZ	96906	MS51038-48	SETSCREW UOC:M73	1
12	PAFZZ	19206	7235995	CAP, MORTAR UOC:M73	1
13	PAFZZ	19206	7305156	SPINDLE, ELEVATING UOC:M73	1
14	PAFZZ	19206	7305155	TUBE, ELEVATING SPINDLE UOC:M73	1
15	PAFZZ	19206	7235900	WASHER, FELT UOC:M73	1
16	PAFFF	19206	7237799	COVER UOC:M73	1
17	XAFZZ	19207	7236576	BODY UOC:M73	1
18	PAFZZ	96906	MS35755-1	CUP, OIL, LUBRICATING UOC:M73	1
19	PAFZZ	96906	MS35190-271	SCREW, MACHINE UOC:M73	2

END OF FIGURE



**\*Removal of elevating  
assembly housing body  
from gear case (1)  
is not authorized.**

Figure C-14. Mortar Elevation Assembly Housing 10932756.

## SECTION II

ARMY TM9-1015-232-23&amp;P

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 030601 MORTAR ELEVATION ASSEMBLY HOUSING 10932756	
				FIG. C-14 MORTAR ELEVATION ASSEMBLY HOUSING 10932756	
1	XAFZZ	19207	10932757	GEAR CASE UOC:M73	1
2	PAFZZ	96906	MS35190-315	SCREW,MACHINE UOC:M73	2

END OF FIGURE

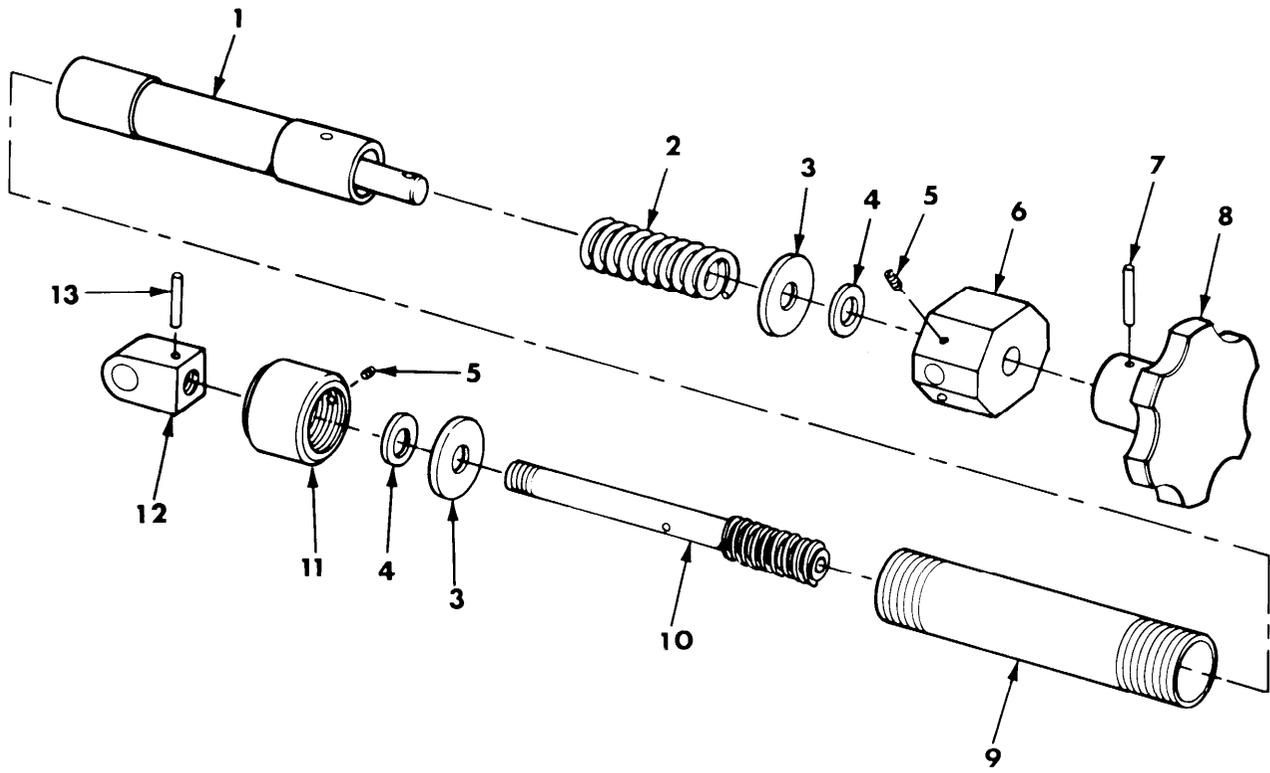


Figure C-15. Leveling Mechanism 10918074 and Nut Assembly 10918082.

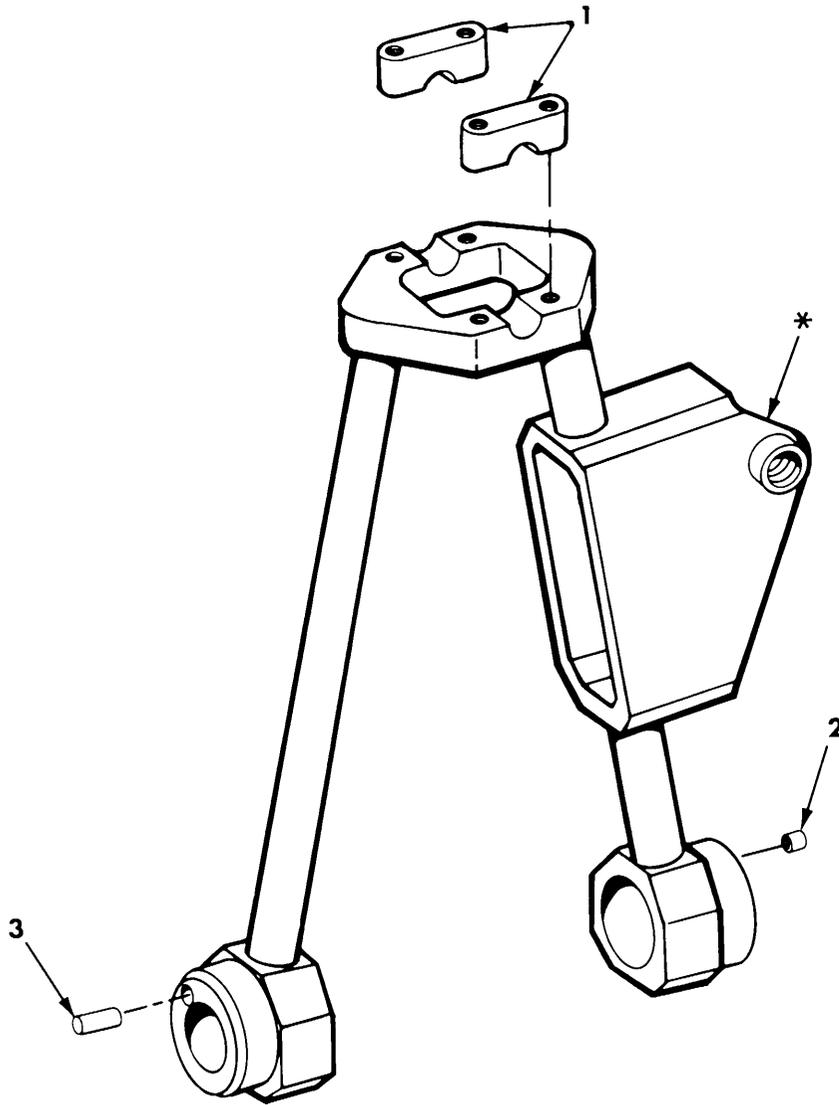
## SECTION II

ARMY TM9-1015-232-23&amp;P

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) FSCM	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				GROUP 0307 LEVELING MECHANISM 10918074	
				FIG. C-15 LEVELING MECHANISM 10918074	
1	PAFZZ	19207	10918082	NUT ASSEMBLY UOC:M73	1
2	PAFZZ	19207	10918076	SPRING, HELICAL, COMPRESSION UOC:M73	1
3	PAFZZ	19207	10918077	WASHER, FLAT UOC:M73	2
4	PAFZZ	19207	10918075	WASHER, FELT UOC:M73	2
5	PAFZZ	96906	MS51963-33	SETSCREW UOC:M73	4
6	PAFZZ	19207	10918081	NUT, LEVELING MECHANISM UOC:M73	1
7	PAFZZ	96906	MS16555-631	PIN, STRAIGHT, HEADLESS UOC:M73	1
8	PAFZZ	19207	10918079	HANDWHEEL UOC:M73	1
9	XAFZZ	19207	10918083	CYLINDER, LEVELING MECHANISM UOC:M73	1
10	PAFZZ	19207	10918084	WORM SHAFT UOC:M73	1
11	PAFZZ	19207	10918078	NUT, LEVELING MECHANISM UOC:M73	1
12	PAFZZ	19207	10918080	SCREW END UOC:M73	1
13	PAFZZ	96906	MS16555-629	PIN, STRAIGHT, HEADLESS UOC:M73	1

END OF FIGURE



**\*No further disassembly  
authorized.**

*Figure C-16. Bipod Assembly 70943076.*

## SECTION II

ARMY TM9-1015-232-23&amp;P

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				FIG. C-16 GROUP 0308 BIPOD ASSEMBLY, P/N 10943016	
1	XAFZZ	19207	10933127	BLOCK,RETAINING UOC:M73	2
2	PAFZZ	19207	10933124	BUSHING,SLEEVE UOC:M73	1
3	PAFZZ	19207	10933125	PIN,STRAIGHT,HEADLE HEADLESS UOC:M73	
				END OF FIGURE	

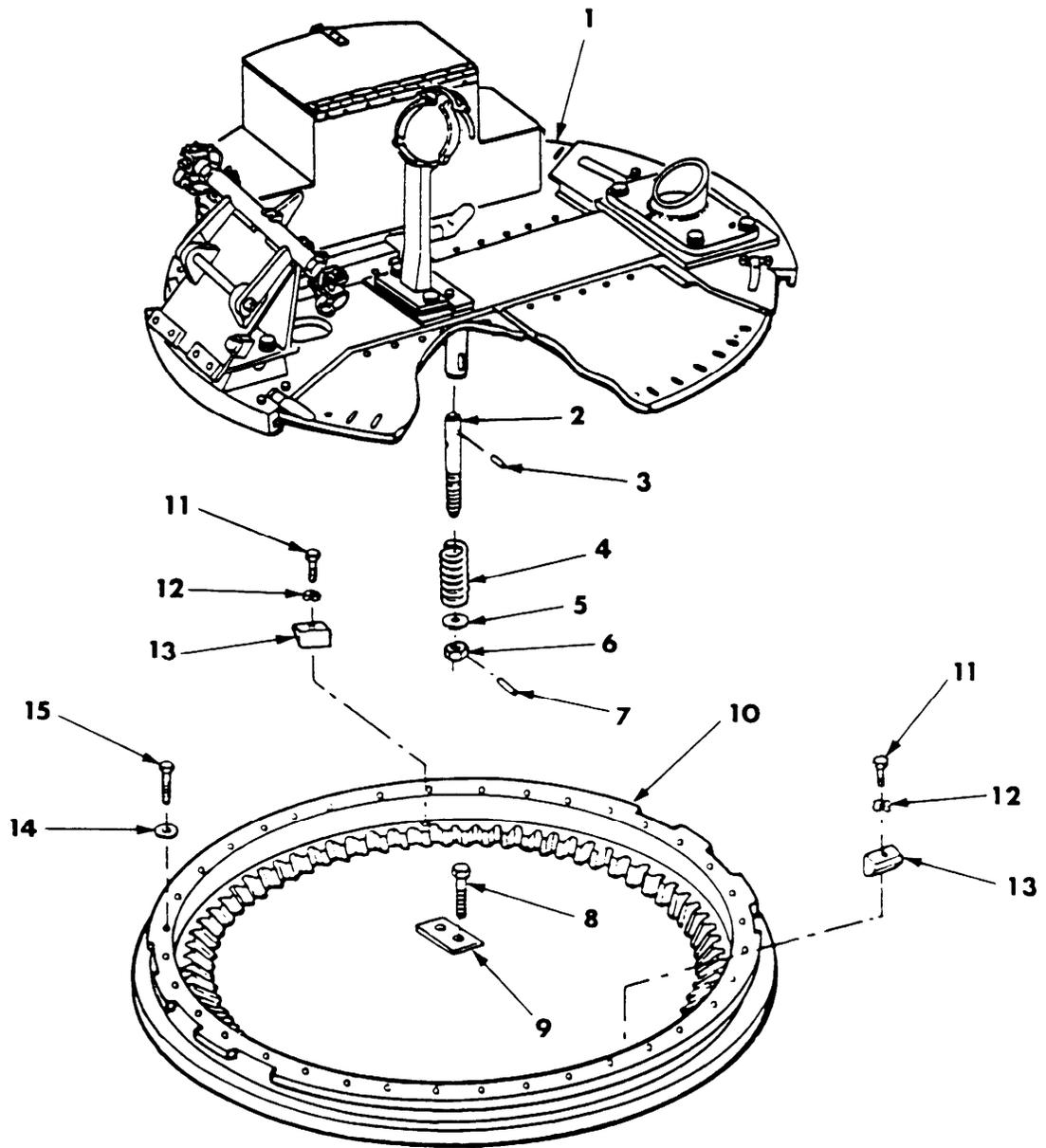


Figure C-17. 120-mm Mortar Turntable and Mount 12901150.

## SECTION II

ARMY TM9-1015-232-23&amp;P C01

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				FIG. C-17 GROUP 04 MORTAR TURNTABLE AND MOUNT, 120MM, P/N 12901150	
1	A0000	19206	12901002	TURNTABLE ASSEMBLY (SEE FIG. C-18 FOR ASSEMBLY BREAKDOWN) UOC:AJ9	1
2	PAFZZ	19207	10890400	PIN, STRAIGHT, THREAD ED UOC:AJ9	1
3	PAFZZ	96906	MS16562-66	PIN, SPRING UOC:AJ9	1
4	PAFZZ	19207	10886030	SPRING, MORTAR MOUNT UOC:AJ9	1
5	PAFZZ	96906	MS27183-23	WASHER, FLAT UOC:AJ9	1
6	PAFZZ	96906	MS51967-23	NUT, PLAIN, HEXAGON UOC:AJ9	1
7	PAFZZ	96906	MS16562-51	PIN, SPRING UOC:AJ9	1
8	PAOZZ	96906	MS18154-58	SCREW, CAP, HEXAGON HEAD UOC:AJ9	2
9	PAOZZ	19207	10890398	BASE, GUIDE PIN UOC:AJ9	1
10	PAFZZ	19207	10885996	GEAR, INTERNAL UOC:AJ9	1
11	PAOZZ	96906	MS90728-114	SCREW, CAP, HEXAGON HEAD UOC:AJ9	2
12	PAOZZ	19207	8340107	WASHER, KEY UOC:AJ9	2
13	PAOZZ	19207	10890306	STOP, TURNTABLE UOC:AJ9	2
14	PAFZZ	19207	10918058	WASHER, FLAT UOC:AJ9	36
15	PAFZZ	96906	MS90728-119	SCREW, CAP, HEXAGON HEAD UOC:AJ9	36

END OF FIGURE

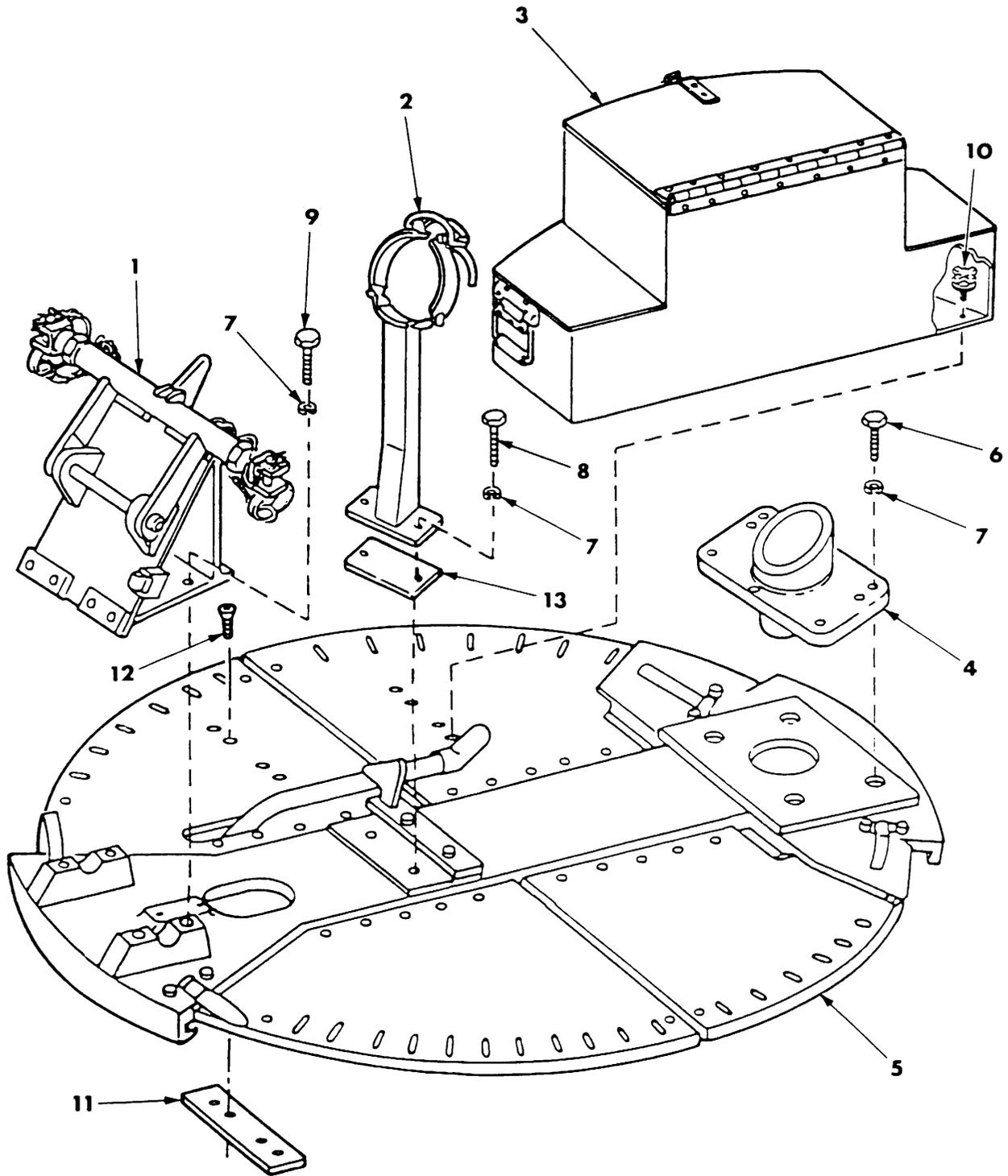


Figure C-18. Turntable Assembly 12901002.

## SECTION II

ARMY TM9-1015-232-23&amp;P C01

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				FIG. C-18 GROUP 0401 TURNABLE ASSEMBLY P/N 12901002	
1	PAOFF	19200	12900936	BIPOD SUPPORT ASSEMBLY (FOR ASSEMBLY BREAKDOWN, SEE FIG. C-19) UOC:AJ9	1
2	PAOFF	19206	12901096	LOCK, TRAVELING ASSEMBLY (FOR ASSEMBLY BREAKDOWN, SEE FIG. C-21) UOC:AJ9	1
3	PAOFF	19206	12901121	STEP UOC:AJ9	1
4	PAOZZ	19200	12900935	BRECH BASE, SOCKET UOC:AJ9	1
5	AFOFF	19207	10885822	TURNABLE (SEE FIG. C-3 FOR ASSEMBLY BREAKDOWN) UOC:AJ9	1
6	PAOZZ	19206	12901093	SCREW UOC:AJ9	4
7	PAOZZ	96906	MS35338-48	WASHER, LOCK, SPRING UOC:AJ9	10
8	PAOZZ	19206	12901094	SCREW UOC:AJ9	2
9	PAOZZ	19206	12901095	SCREW UOC:AJ9	4
10	PAOZZ	19206	12901125	KNOB UOC:AJ9	4
11	PAOZZ	19206	12901099	PLATE UOC:AJ9	2
12	PAOZZ	80204	B1835A08020N	SCREW UOC:AJ9	4
13	PAOZZ	09206	12900934	PLATE, SPACER UOC:AJ9	5

END OF FIGURE

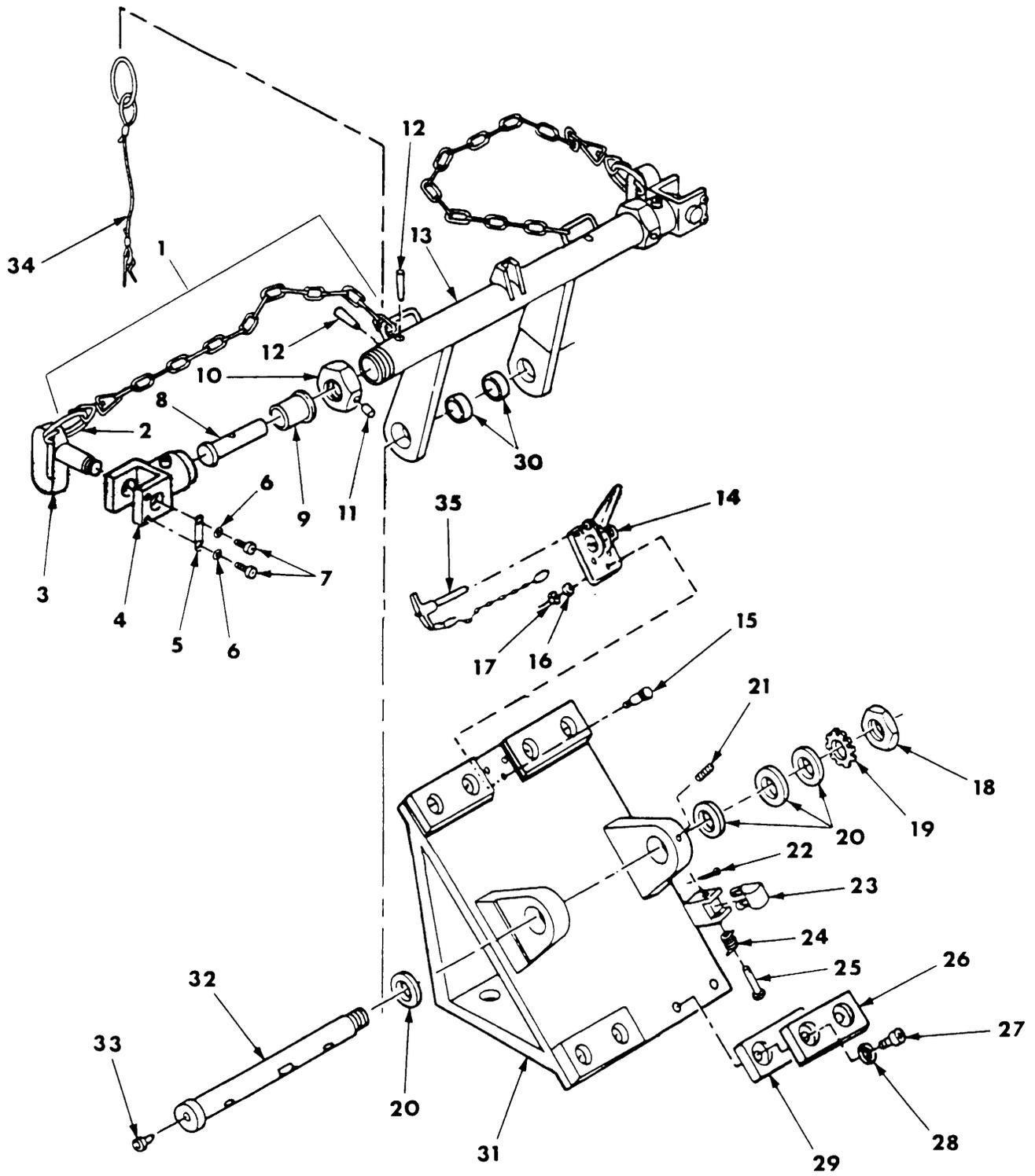


Figure C-19. Bipod Support Assembly 12900936.

## SECTION II

ARMY TM9-1015-232-23&amp;P C01

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				FIG. C-19 GROUP 040102 BIPOD SUPPORT ASSEMBLY, P/N 12900936	
1	POAZZ	19200	12900937	CHAIN ASSEMBLY UOC:AJ9	2
2	PAOZZ	19200	12900910	RING,CONNECTING,RO UND UOC:AJ9	2
3	PAOZZ	19200	12900957	HANDLE, MANUAL UOC:AJ9	2
4	PAFZZ	19200	12900955	CLEVIS, ROD END UOC:AJ9	2
5	PAFZZ	19200	12900956	SPACER, PLATE UOC:AJ9	2
6	PAFZZ	S3151	DIN127-A6-B2B	WASHER, LOCK UOC:AJ9	4
7	PAFZZ	S3151	DIN912M6X16-10.9	SCREW,CAP,HEXAGON UOC:AJ9	4
8	PAFZZ	19200	12900962	PIN, STRAIFHT, HEAD ED UOC:AJ9	2
9	PAFZZ	19200	12900961	BUSHING, SLEEVE UOC:AJ9	2
10	PAFZZ	19206	12901105	NUT, PLAIN, HEXAGON UOC:AJ9	2
11	PAFZZ	19200	93-1694	SETSCREW UOC:AJ9	2
12	PAFZZ	S3151	D63477/9-199	PIN,SPRING TUBULAR UOC:AJ9	4
13	PAFZZ	19200	12900950	SUPPORT, ELEVATING UOC:AJ9	1
14	PAOFF	19200	12900964	CATCH ASSEMBLY (FOR ASSEMBLY BREAKDOWN, SEE FIG. C-20) UOC:AJ9	1
15	PAOZZ	S3151	93-112	SCREW,CAP,HEXAGON UOC:AJ9	3
16	PAOZZ	S3151	93-32	WASHER,LOCK UOC:AJ9	3
17	POAZZ	S3151	93-193	NUT, PLAIN, HEXAGON UOC:AJ9	3
18	PAFZZ	19200	12901004	NUT, PLAIN, ROUND UOC:AJ9	1
19	PAFZZ	19200	12901005	WASHER,LOCK UOC:AJ9	1
20	PAFZZ	19200	12900942	WASHER, FLAT UOC:AJ9	4
21	PAFZZ	96906	MS51963-67	SETSCREW UOC:AJ9	1
22	PAFZZ	S3151	DIN9401.6X16	PIN, COTTER UOC:AJ9	1
23	PAFZZ	19200	12900940	LEVER, LOCK-RELEASE UOC:AJ9	1
24	PAFZZ	19200	12901001	SPRING,HELICAL,TRS	1

## SECTION II

ARMY TM9-1015-232-23&amp;P C01

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
25	PAFZZ	19200	12900960	UOC:AJ9 PIN, STRAIGHT, HD	1
26	PCOZZ	19200	12900939	UOC:AJ9 PAD, CUSHIONING	4
27	PAOZZ	80204	ANSI-B18.2.1	UOC:AJ9 SCREW, MACHINE	8
28	PAOZZ	80204	ANSI-B18.22.1	UOC:AJ9 WASHER, FLAT	8
29	PAOZZ	19200	12900943	UOC:AJ9 SPACER, PLATE	V
30	PAFZZ	19200	12900941	UOC:AJ9 SPACER, SLEEVE	2
31	XAFZZ	19200	12900944	UOC:AJ9 MOUNTING BASE,BIPOD	1
32	PAFZZ	19200	12900963	UOC:AJ9 AXLE,SHOULDERED	1
33	PAOZZ	96906	MS15001-1	UOC:AJ9 FITTING, LUBRICATI ON	1
34	PAOZZ	19206	12901109	UOC:AJ9 SAFETY PIN ASSEMBLY	2
35	PAOZZ	19206	12901104	UOC:AJ9 PIN,QUICK RELEASE	1

END OF FIGURE



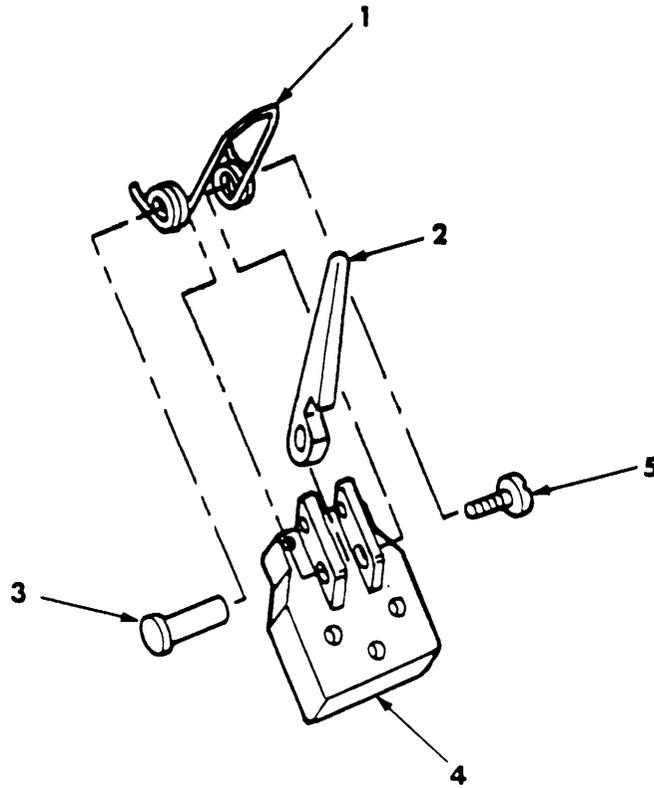


Figure C-20. Catch Assembly 12900964.

## SECTION II

ARMY TM9-1015-232-23&amp;P C01

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				FIG. C-20 GROUP 04010201 CATCH ASSEMBLY, P/N 12900964	
1	PAFZZ	19200	12900965	SPRING, HELICAL, TORSION UOC:AJ9	1
2	PAFZZ	19200	12900971	LEVER, LOCK RELEASE UOC:AJ9	1
3	PAFZZ	19200	12900966	PIN, STRAIGHT, HEAD UOC:AJ9	1
4	XAFZZ	19200	12900967	BRACKET, MOUNTING UOC:AJ9	1
5	PAFZZ	S3151	DIN921-M6-1X16-5	SCREW, MACHINE UOC:AJ9	1
				END OF FIGURE	

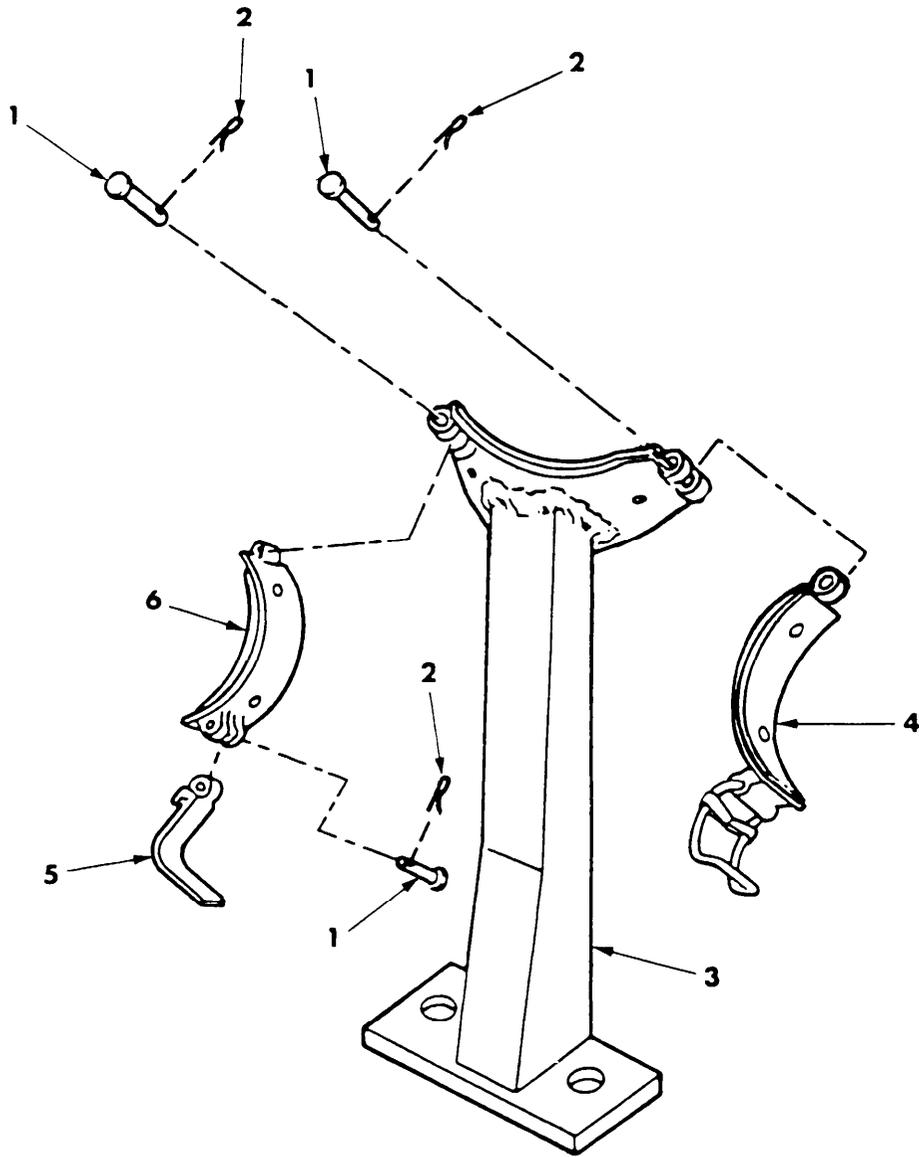


Figure C-21. Traveling Assembly Lock 12901096.

## SECTION II

ARMY TM9-1015-232-23&amp;P C01

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				FIG. C-21 GROUP 040103 LOCK, TRAVELING ASSEMBLY, P/N 12901096	
1	PAFZZ	D8286	DIN1435-8HX11X35	PIN, STRAIGHT, HEAD UOC:AJ9	3
2	PAFZZ	D8286	DIN94-1.6-X14-ST	PIN, COTTER UOC:AJ9	3
3	PAFZZ	19206	12901097	BASE, SUPPORT UOC:AJ9	1
4	PAFZZ	19200	12900924	COLLAR, SECTION BARR EL UOC:AJ9	1
5	PAFZZ	19200	12900929	LEVER, LOCK-RELEASE UOC:AJ9	1
6	PAFZZ	19200	12900928	COLLAR, SECTION BARR EL UOC:AJ9	1

END OF FIGURE

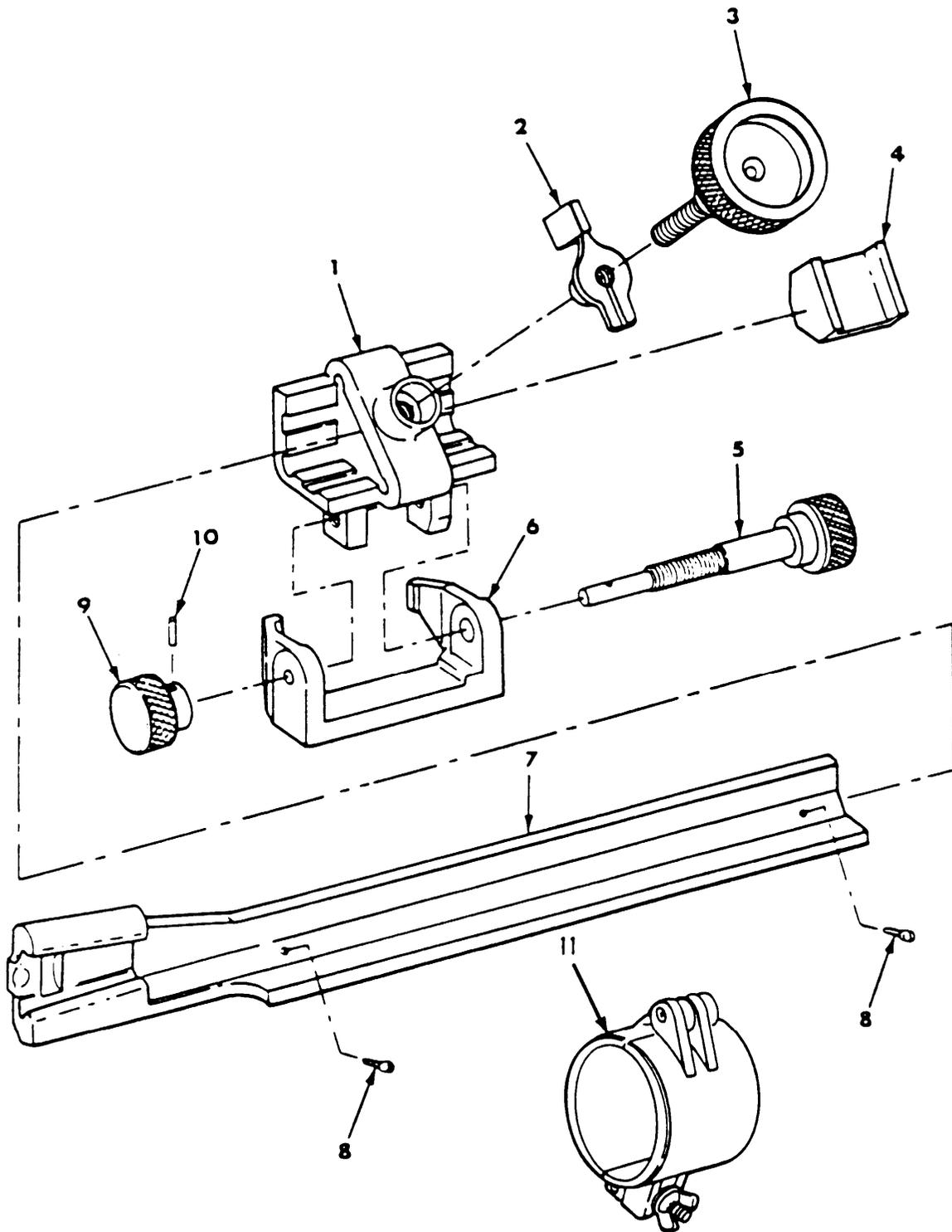


Figure C-22. Sight Extension Arm Assembly 10932389.

## SECTION II

ARMY TM9-1015-232-23&amp;P C01

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				FIG. C-22 GROUP 05 SIGHT EXTENSION ARM ASSEMBLY P/N 10932389	
1	PAOZZ	19207	10932392	CLAMP,SIGHT EXTENSI ON UOC:AJ9,M71,M72	1
2	PAOZZ	19207	8731447	LOCK,SIGHT EXTENSIO N UOC:AJ9,M71,M72	1
3	PAOZZ	19207	8731587	WHEEL,SIGHT EXTENSI ON UOC:AJ9,M71,M72	1
4	PAOZZ	19207	8731592	BLOCK,ARM ASSEMBLY, SIGHT EXTENSION UOC:AJ9,M71,M72	1
5	PAOZZ	19207	10932391	THUMBSCREW UOC:AJ9,M71,M72	1
6	PAOZZ	19207	10932395	CLAMP,SLIDE UOC:AJ9,M71,M72	1
7	XAOZZ	19207	10932390	ARM,SIGHT EXTENSION UOC:AJ9,M71,M72	1
8	PAOZZ	96906	MS16997-57	SCREW,CP,SOCKET HE AD UOC:AJ9,M71,M72	2
9	POAZZ	19207	10932394	KNOB UOC:AJ9,M71,M72	1
10	PAOZZ	96906	MS16562-36	PIN,SPRING UOC:AJ9,M71,M72	1
11	PAOZZ	19207	8731426	CLAMP,ASSY,MORTAR SAFETY UOC:M71	1

END OF FIGURE

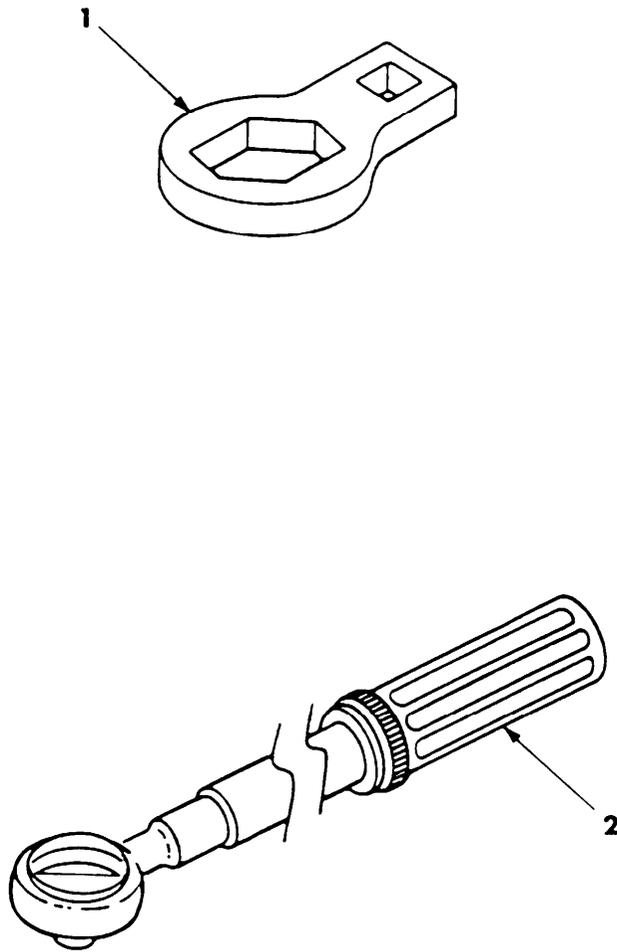


Figure C-23. Special Tools.

## SECTION III

ARMY TM9-1015-232-23&amp;P C01

MARINE CORPS TM00517A/09922A-23&amp;P

(1)	(2)	(3)	(4)	(5)	(6)
ITEM	SMR		PART		
NO	CODE	CAGEC	NUMBER	DESCRIPTION AND USABLE ON CODES(UOC)	QTY
				FIG. C-23 GROUP 9500 SPECIAL TOOLS	
1	PAOZZ	19206	12901138	WRENCH,BOX UOC:AJ9	1
2	PAOZZ	19206	12901100	WRENCH,TORQUE UOC:AJ9	1
				END OF FIGURE	

## SECTION III

ARMY TM9-1015-232-23&amp;P C01

MARINE CORPS TM00517A/09922A-23&amp;P

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODES(UOC)	(6) QTY
				BULK GROUP 9999	
1	PAOZZ	81349	MILR17343	ROPE,FIBROUS UOC:AJ9,M71,M72	V
2	PAOZZ	81349	MIL-S-46163	THD LOCKING COMPOUN D UOC:AJ9,M71,M72	V

END OF FIGURE

## CROSS-REFERENCE INDEXES

## NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5310-00-003-4094	C-18	7	5315-00-298-1481	C-7	37
5315-00-011-9120	C-6	28	5340-00-298-9475	C-3	16
5315-00-019-0777	C-6	1	5340-00-300-5339	C-9	7
5315-00-023-6662	C-11	18	5310-00-333-7385	C-1	15
5360-00-034-4839	C-2	17		C-17	12
5315-00-034-4840	C-2	8	5340-00-342-1098	C-7	2
5315-00-034-4841	C-1	5	5365-00-382-6607	C-12	5
	C-6	18	3040-00-401-8345	C-4	17
	C-17	2	1015-00-403-6846	C-4	9
5360-00-034-4845	C-4	4	5360-00-403-6848	C-1	7
5365-00-034-4867	C-4	15		C-6	19
5305-00-044-4153	C-1	1		C-17	4
4730-00-050-4203	C-19	33	1015-00-403-6849	C-2	7
5315-00-050-5477	C-11	13	3020-00-403-6851	C-1	13
5360-00-055-2435	C-2	4		C-6	25
5305-00-057-2601	C-13	11		C-17	10
5315-00-058-6672	C-9	9	9535-00-409-7963	C-3	5
5305-00-068-0511	C-2	21	9535-00-409-7964	C-3	14
	C-6	10	3040-00-411-2565	C-4	14
	C-7	17	3040-00-411-2566	C-2	9
5305-00-071-2070	C-1	14	3040-00-411-2567	C-2	23
	C-17	11	1015-00-411-2568	C-1	16
5305-00-071-2074	C-4	6		C-17	13
5305-00-071-2075	C-1	18	5315-00-411-2569	C-4	12
	C-6	27	5340-00-411-2570	C-4	8
	C-17	15	2510-00-435-7645	C-6	4
5310-00-080-6004	C-2	28	1015-00-436-4857	C-6	14
	C-3	7	5315-00-438-0623	C-7	7
	C-4	3	5315-00-479-4962	C-13	1
	C-6	30	1015-00-484-5466	C-6	13
5315-00-081-7723	C-4	19	5315-00-484-5468	C-4	2
5305-00-082-1621	C-2	6	1015-00-490-4148	C-11	5
5310-00-087-4652	C-2	24	3040-00-498-3906	C-11	16
	C-3	10	5305-00-498-8776	C-11	22
3110-00-100-6158	C-2	3	1015-00-498-9396	C-13	9
5305-00-115-9526	C-1	11	3040-00-501-2975	C-8	2
	C-6	23	5305-00-502-5228	C-9	6
	C-17	8	5315-00-508-0166	C-2	2
5305-00-142-4043	C-6	32	5340-00-508-0175	C-22	11
5340-00-177-4013	C-7	10	1015-00-508-0178	C-22	2
5340-00-177-4224	C-4	11	1015-00-508-0185	C-22	3
	C-7	23	1015-00-508-0188	C-22	4
5310-00-194-1483	C-1	2	4020-00-523-9641	BULK	1
5310-00-225-6993	C-4	13	5365-00-530-6777	C-10	1
1015-00-235-4940	C-11	17	5305-00-543-2419	C-7	8
5340-00-239-0998	C-1	3	5340-00-559-8031	C-12	6
5305-00-267-8958	C-5	4	5310-00-569-8455	C-2	22
5305-00-269-3244	C-4	21		C-6	7
5315-00-276-6750	C-7	1	5310-00-584-5272	C-2	11
5310-00-282-7830	C-11	8	5315-00-584-9221	C-5	7

## CROSS-REFERENCE INDEXES

## NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5310-00-655-9668	C-7	16	5360-00-780-4333	C-2	19
4730-00-707-3068	C-7	11	5315-00-780-8475	C-3	3
	C-13	10	5305-00-781-2076	C-8	1
	C-13	18	5305-00-782-9489	C-3	1
5305-00-719-5336	C-15	5		C-7	20
1015-00-723-0706	C-6	12	5310-00-809-3079	C-7	25
1015-00-723-0707	C-6	11	5310-00-809-4058	C-3	9
5330-00-723-5900	C-13	15	5310-00-809-5998	C-2	31
3040-00-723-5971	C-9	1		C-4	7
5360-00-723-5982	C-11	11		C-6	3
1015-00-723-5995	C-13	12	5310-00-809-8533	C-1	8
5315-00-723-6047	C-8	4		C-6	20
3020-00-723-6573	C-13	8		C-17	5
5340-00-723-6575	C-13	7	5315-00-809-8786	C-1	10
5330-00-723-6578	C-13	6		C-6	22
3040-00-723-6592	C-9	13		C-17	7
5360-00-723-6594	C-9	10	5315-00-810-3701	C-22	10
3120-00-723-6595	C-9	11	5310-00-811-3494	C-3	15
3120-00-723-6596	C-9	2	5315-00-812-9425	C-8	5
5310-00-723-6597	C-9	5	5315-00-816-1794	C-2	13
5310-00-723-6598	C-9	4	5340-00-831-6949	C-3	13
5365-00-723-6599	C-9	3	5315-00-834-0745	C-15	7
5305-00-723-6709	C-7	34	5310-00-835-2140	C-7	38
5305-00-723-6713	C-9	12	5315-00-838-4584	C-1	6
3040-00-723-7799	C-13	16		C-6	17
5305-00-723-9383	C-19	21		C-17	3
5305-00-725-2317	C-6	6	5310-00-841-2041	C-6	2
1015-00-730-5155	C-13	14	5310-00-842-1211	C-6	29
5305-00-730-5156	C-13	13	5315-00-842-3044	C-4	1
5340-00-730-5183	C-11	19	5315-00-847-5751	C-15	13
5365-00-730-5184	C-11	21	5310-00-851-2677	C-2	5
5365-00-753-9736	C-4	10	5315-00-868-8021	C-7	9
	C-7	24	5310-00-868-8023	C-15	4
5340-00-755-4856	C-3	12	5310-00-868-8024	C-15	3
5305-00-758-4908	C-22	5	4730-00-868-8025	C-15	11
1015-00-758-4909	C-22	1	5340-00-868-8026	C-15	8
5355-00-758-4910	C-22	9	5340-00-868-8027	C-15	12
1015-00-758-4911	C-22	6	1015-00-868-8028	C-15	6
5365-00-762-4693	C-11	1	5340-00-868-8031	C-13	2
5310-00-762-6239	C-5	1	5340-00-868-8032	C-7	32
3020-00-763-7485	C-2	27	1015-00-868-8033	C-6	31
5310-00-763-8921	C-1	9	3040-00-868-8034	C-7	27
	C-6	21	1015-00-868-8035	C-7	5
	C-17	6	5330-00-868-8036	C-11	15
5365-00-780-4329	C-1	12	5310-00-868-8037	C-11	2
	C-6	24	5310-00-868-8038	C-11	3
	C-17	9	3120-00-868-8039	C-11	12
1015-00-780-4330	C-2	26	3120-00-868-8040	C-11	10
2510-00-780-4331	C-2	25	3120-00-868-8041	C-11	4
1015-00-780-4332	C-2	18	5310-00-868-8042	C-11	9

## CROSS-REFERENCE INDEXES

## NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
3120-00-868-8043	C-16	2	5340-01-093-5525	C-4	22
5315-00-868-8044	C-16	3	1015-01-100-4468	C-15	1
1015-00-868-8045	C-7	4	3120-01-150-3122	C-10	3
3040-00-868-8046	C-7	31	3120-01-150-3123	C-12	3
1015-00-868-8047	C-7	15	5310-01-150-7564	C-13	3
1015-00-868-8048	C-7	13	5355-01-152-5054	C-13	4
1015-00-868-8049	C-7	36	5330-01-172-9543	C-10	2
1015-00-868-8050	C-7	19	1015-01-281-5424	C-7	22
5315-00-868-8051	C-7	33	5360-01-285-0114	C-19	24
1015-00-868-8052	C-6	8	5340-01-285-0115	C-19	23
4010-00-868-8063	C-11	20	5365-01-285-0122	C-19	30
5360-00-869-0543	C-15	2	5310-01-285-0126	C-19	19
5360-00-869-0544	C-7	29	5310-01-285-0127	C-19	16
5365-00-869-0545	C-6	9	5310-01-285-0129	C-19	18
5310-00-869-0546	C-11	14	5305-01-285-0132	C-19	15
3040-00-872-0906	C-15	10	1015-01-285-0617	C-19	13
5310-00-877-5796	C-5	6	1015-01-285-0620	C-21	6
5305-00-904-8309	C-11	6	5365-01-285-3068	C-19	5
5305-00-906-3710	C-7	26	5315-01-285-3083	C-19	25
5305-00-910-8146	C-6	5	1015-01-285-3084	C-18	4
5305-00-914-6129	C-3	6	1015-01-285-3085	C-18	1
5305-00-914-6135	C-6	15	5340-01-285-3086	C-19	14
5315-00-915-8052	C-7	28	5310-01-285-6420	C-19	20
5340-00-918-3006	C-2	15	4010-01-285-6421	C-19	1
5340-00-918-6225	C-2	29	5340-01-285-7451	C-19	3
1015-00-918-6226	C-2	20	5360-01-285-7506	C-20	1
5315-00-918-6227	C-2	14	5340-01-285-7511	C-21	5
5305-00-942-2196	C-3	11	1015-01-286-0434	C-21	4
5310-00-950-0039	C-4	16	5340-01-286-0481	C-19	4
5305-00-954-3487	C-13	19	5310-01-286-6304	C-19	17
5305-00-958-5257	C-14	2	5365-01-292-7762	C-19	29
5305-00-964-0575	C-2	10	5315-01-292-7768	C-20	3
5305-00-964-0589	C-2	32	5365-01-299-8872	C-19	2
	C-6	33	5315-01-303-7844	C-19	8
5340-00-975-8588	C-3	8	3120-01-304-6088	C-19	9
5340-00-975-8589	C-3	20	5340-01-307-3951	C-19	26
5305-00-978-9377	C-22	8	3040-01-312-6327	C-19	32
5305-00-983-7460	C-2	12	9535-01-328-0618	C-3	21
5305-00-984-6193	C-3	18	5120-01-355-1736	C-23	2
5305-00-984-7361	C-7	12	5305-01-381-8755	C-18	6
5305-00-988-1727	C-3	4	5305-01-383-0166	C-18	9
5310-00-994-3089	C-1	17	5305-01-383-2943	C-18	8
	C-6	26	5440-01-387-0584	C-18	3
	C-17	14	1015-01-387-0596	C-18	2
5340-00-999-2101	C-3	2	5315-01-387-6845	C-19	12
2590-00-999-2102	C-5	5	5315-01-387-8909	C-19	34
5340-00-999-2103	C-5	2	5315-01-387-8911	C-19	35
5340-00-999-2116	C-4	5	5310-01-387-9378	C-19	6
5310-00-999-2301	C-5	3	5310-01-388-0804	C-19	10
5360-00-999-2320	C-7	18	5340-01-388-7447	C-18	11

SECTION IV

ARMY TM9-1015-232-23&P C01  
MARINE CORPS TM00517A/09922A-23&P

CROSS-REFERENCE INDEXES

NATIONAL STOCK NUMBER INDEX

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5120-01-388-8351	C-23	1			
1015-01-388-8352	C-21	3			
5355-01-389-3374	C-18	10			

## CROSS-REFERENCE INDEXES

CAGEC	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
80204	ANSI-B18.2.1		C-19	27
80204	ANSI-B18.22.1		C-19	28
88044	AN150264	5315-00-276-6750	C-7	1
88044	AN742-4	5340-00-298-9475	C-3	16
88044	AN924-16	5310-00-282-7830	C-11	8
80204	B1835A08020N		C-18	12
S3151	DIN127-A6-B2B	5310-01-387-9378	C-19	6
D8286	DIN1435-8HX11X35		C-21	1
S3151	DIN912M6X16-10.9		C-19	7
S3151	DIN921-M6-1X16-5		C-20	5
D8286	DON94-1.6-X14-ST		C-21	2
S3151	DIN9401-6X16		C-19	22
S3151	D63477/9-199	5315-01-387-6845	C-19	12
81349	MIL-R-17343		C-3	17
81349	MIL-S-46163		BULK	2
81349	MILR17343	4020-00-523-9641	BULK	1
96906	MS15001-1	4730-00-050-4203	C-19	33
96906	MS16555-331	5315-00-479-4962	C-13	1
96906	MS16555-629	5315-00-847-5751	C-15	13
96906	MS16555-631	5315-00-834-0745	C-15	7
96906	MS16562-36	5315-00-810-3701	C-22	10
96906	MS16562-51	5315-00-809-8786	C-1	10
			C-6	22
			C-17	7
96906	MS16562-66	5315-00-838-4584	C-1	6
			C-6	17
			C-17	3
96906	MS16562-97	5315-00-058-6672	C-9	9
96906	MS16997-141	5305-00-983-7460	C-2	12
96906	MS16997-57	5305-00-978-9377	C-22	8
96906	MS18153-114	5305-00-914-6135	C-6	15
96906	MS18154-58	5305-00-115-9526	C-1	11
			C-6	23
			C-17	8
96906	MS18154-60	5305-00-942-2196	C-3	1
96906	MS19059-2422	3110-00-100-6158	C-2	3
96906	MS20066-210	5315-00-780-8475	C-3	3
96906	MS20392-7C51	5315-00-081-7723	C-4	19
96906	MS21044N08	5310-00-811-3494	C-3	15
96906	MS21044N4	5310-00-877-5796	C-5	6
96906	MS21044N6	5310-00-950-0039	C-4	16
96906	MS24585-1378	5360-00-055-2435	C-2	4
96906	MS24665-283	5315-00-842-3044	C-4	1
96906	MS24665-285	5315-00-816-1794	C-2	13
96906	MS24665-287	5315-00-011-9120	C-6	28
96906	MS24665-291	5315-00-019-0777	C-6	1
96906	MS24665-357	5315-00-298-1481	C-7	37
96906	MS27183-10	5310-00-809-4058	C-3	9
96906	MS27183-14	5310-00-080-6004	C-2	28
			C-3	7
			C-4	3

## CROSS-REFERENCE INDEXES

CAGEC	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
96906	MS27183-14	5310-00-080-6004	C-6	30
96906	MS27183-18	5310-00-809-5998	C-2	31
			C-4	7
			C-6	3
96906	MS27183-19	5310-00-809-3079	C-7	25
96906	MS27183-23	5310-00-809-8533	C-1	8
			C-6	20
			C-17	5
96906	MS35190-271	5305-00-954-3487	C-13	19
96906	MS35190-315	5305-00-958-5257	C-14	2
96906	MS35191-270	5305-00-984-7361	C-7	12
96906	MS35199-3	5305-00-904-8309	C-11	6
96906	MS35206-245	5305-00-984-6193	C-3	18
96906	MS35206-283	5305-00-988-1727	C-3	4
96906	MS35207-240	5305-00-781-2076	C-8	1
96906	MS35246-67	5305-00-498-8776	C-11	2
96906	MS35333-44	5310-00-194-1483	C-1	2
96906	MS35338-48	5310-00-584-5272	C-2	11
		5310-00-003-4094	C-18	7
96906	MS35691-49	5310-00-851-2677	C-2	5
96906	MS35692-17	5310-00-842-1211	C-6	29
96906	MS35692-33	5310-00-841-041	C-6	2
96906	MS35692-69	5310-00-835-2140	C-7	38
96906	MS35755-1	4730-00-707-3068	C-7	11
			C-13	10
			C-13	18
96906	MS51038-48	5305-00-057-2601	C-13	11
96906	MS51095-358	5305-00-914-6129	C-3	6
96906	MS51095-412	5305-00-964-0575	C-2	10
96906	MS51095-416	5305-00-964-0589	C-2	32
			C-6	33
96906	MS51105-361	5305-00-910-8146	C-6	5
96906	MS51105-415	5305-00-142-4043	C-6	32
96906	MS51922-17	5310-00-087-4652	C-2	24
			C-3	10
96906	MS51922-33	5310-00-225-6993	C-4	13
96906	MS51963-33	5305-00-719-5336	C-15	5
96906	MS51963-67	5305-00-723-9383	C-19	21
96906	MS51967-23	5310-00-763-8921	C-1	9
			C-6	21
			C-17	6
96906	MS51968-29	5310-00-762-6239	C-5	1
6906	MS9048-112	5315-00-584-9221	C-5	7
96906	MS90725-109	5305-00-044-4153	C-1	1
96906	MS90727-14	5305-00-267-8958	C-5	4
96906	MS90727-68	5305-00-269-3244	C-4	21
96906	MS90728-114	5305-00-071-2070	C-1	14
			C-17	11
96906	MS90728-118	5305-00-071-2074	C-4	6
96906	MS90728-119	5305-00-071-2075	C-1	18
			C-6	27

## CROSS-REFERENCE INDEXES

CAGEC	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
96906	MS90728-119	5305-00-071-2075	C-17	15
96906	MS90728-61	5305-00-543-2419	C-7	8
96906	MS90728-62	5305-00-068-0511	C-2	21
			C-6	10
			C-7	17
96906	MS90728-64	5305-00-725-2317	C-6	6
96906	MS90728-66	5305-00-782-9489	C-3	1
			C-7	20
96906	MS9105-09	5315-00-812-9425	C-8	5
96906	MS9380-14	5340-00-177-4013	C-7	10
80205	NAS50-118	5365-00-530-6777	C-10	1
19207	10106891-2	5315-00-868-8021	C-7	9
19207	10863380	5310-00-655-9668	C-7	16
			C-2	1
			C-6	16
			C-18	5
19207	10885823		C-1	4
19207	10885882	1015-00-484-5466	C-6	13
19207	10885911	1015-00-403-6846	C-4	9
19207	10885950	1015-00-403-6849	C-2	7
19207	10885962	5340-00-999-2101	C-3	2
19207	10885964		C-4	18
19207	10885965	3040-00-401-8345	C-4	17
19207	10885966	2590-00-999-2102	C-5	5
19207	10885967	5340-00-999-2103	C-5	2
19207	10885968	3040-00-411-2565	C-4	14
19207	10885969		C-4	20
19207	10885970	3040-00-411-2566	C-2	9
19207	10885975	5340-00-918-6225	C-2	29
19207	10885996	3020-00-403-6851	C-1	13
			C-6	25
			C-17	10
19207	10886030	5360-00-403-6848	C-1	7
			C-6	19
			C-17	4
19207	10886192	5340-00-755-4856	C-3	12
19207	10886649	1015-00-918-6226	C-2	20
19207	10886653	3040-00-411-2567	C-2	23
19207	10886654	5360-00-034-4839	C-2	17
19207	10886655	5315-00-918-6227	C-2	14
19207	10890304	5315-00-034-4840	C-2	8
19207	10890306	1015-00-411-2568	C-1	16
			C-17	13
19207	10890398	5365-00-780-4329	C-1	12
			C-6	24
			C-17	9
19207	10890399	5315-00-411-2569	C-4	12
19207	10890400	5315-00-034-4841	C-1	5
			C-6	18
			C-17	2
19207	10890776	5340-00-239-0998	C-1	3

## CROSS-REFERENCE INDEXES

CAGEC	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
19207	10908126	5340-00-411-2570	C-4	8
19207	10908241	5340-00-999-2116	C-4	5
19207	10908251	5315-00-484-5468	C-4	2
19207	10908261	5360-00-034-4845	C-4	4
19207	10917654	5340-00-975-8588	C-3	8
19207	10917655	5340-00-975-8589	C-3	20
19207	10917965	3020-00-763-7485	C-2	27
19207	10917966	1015-00-780-4330	C-2	26
19207	10918058	5310-00-994-3089	C-1	17
			C-6	26
			C-17	14
19207	10918074		C-7	21
19207	10918075	5310-00-868-8023	C-15	4
19207	10918076	5360-00-869-0543	C-15	2
19207	10918077	5310-00-868-8024	C-15	3
19207	10918078	4730-00-868-8025	C-15	11
19207	10918079	5340-00-868-8026	C-15	8
19207	10918080	5340-00-868-8027	C-15	12
19207	10918081	1015-00-868-8028	C-15	6
19207	10918082	1015-01-100-4468	C-15	1
19207	10918083		C-15	9
19207	10918084	3040-00-872-0906	C-15	10
19207	10918086		C-13	5
19207	10918087	5340-00-868-8031	C-13	2
19207	10918089	5340-00-868-8032	C-7	32
19207	10918093	1015-00-868-8033	C-6	31
19207	10918096	3040-00-868-8034	C-7	27
19207	10918097	5305-00-906-3710	C-7	26
19207	10918099	5360-00-869-0544	C-7	29
19207	10918101	5365-00-869-0545	C-6	9
19207	10932390		C-22	7
19207	10932391	5305-00-758-4908	C-22	5
19207	10932392	1015-00-758-4909	C-22	1
19207	10932394	5355-00-758-4910	C-22	9
19207	10932395	1015-00-758-4911	C-22	6
19207	10932398	2510-00-780-4331	C-2	25
19207	10932399	1015-00-780-4332	C-2	18
19207	10932401	5360-00-780-4333	C-2	19
19207	10932710	1015-00-868-8035	C-7	5
19207	10932710-1		C-12	2
19207	10932710-2		C-12	1
19207	10932755		C-7	35
19207	10932756	1015-00-498-9396	C-13	9
19207	10932757		C-14	1
19207	10932942	1015-00-436-4857	C-6	14
19207	10933106		C-7	6
19207	10933107	1015-00-490-4148	C-11	5
19207	10933108	5365-00-762-4693	C-11	1
19207	10933109	5330-00-868-8036	C-11	15
19207	10933110	5310-00-868-8037	C-11	2
19207	10933111	5310-00-868-8038	C-11	3

## CROSS-REFERENCE INDEXES

CAGEC	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
19207	10933112	5310-00-869-0546	C-11	14
19207	10933113	3040-00-498-3906	C-11	16
19207	10933115	3120-00-868-8039	C-11	12
19207	10933116	3120-00-868-8040	C-11	10
19207	10933117	3120-00-868-8041	C-11	4
19207	10933118	5310-00-868-8042	C-11	9
19207	10933124	3120-00-868-8043	C-16	2
19207	10933125	5315-00-868-8044	C-16	3
19207	10933127		C-16	1
19207	10933131	5315-00-438-0623	C-7	7
19207	10933132	1015-00-868-8045	C-7	4
19207	10933133	3040-00-868-8046	C-7	31
19207	10933134	1015-00-868-8047	C-7	15
19207	10933135	1015-00-868-8048	C-7	13
19207	10933136	1015-00-868-8049	C-7	36
19207	10933137	1015-00-868-8050	C-7	19
19207	10933138	5360-00-999-2320	C-7	18
19207	10933139	5315-00-868-8051	C-7	33
19207	10933140	1015-00-868-8052	C-6	8
19207	10933141	2510-00-435-7645	C-6	4
19207	10943016	1015-01-281-5424	C-7	22
19207	10947291-12	5340-01-093-5525	C-4	22
19207	10949332	1015-00-235-4940	C-11	17
19207	10949760		C-11	7
21450	110116	5305-00-082-1621	C-2	6
19206	11578050	5315-00-023-6662	C-11	18
19207	11588781	5355-01-152-5054	C-13	4
19207	11589336	5315-00-915-8052	C-7	28
19207	11647655-1	9535-00-409-7964	C-3	14
19207	11647655-2	9535-00-409-7963	C-3	5
19207	11647656		C-3	19
19207	11647657	9535-01-328-0618	C-3	21
19207	12313606	5340-00-918-3006	C-2	15
19200	12900910	5365-01-299-8872	C-19	2
19200	12900924	1015-01-286-0434	C-21	4
19200	12900928	1015-01-285-0620	C-21	6
19200	12900929	5340-01-285-7511	C-21	5
19206	129000934		C-18	13
19200	12900935	1015-01-285-3084	C-18	4
19200	12900936	1015-01-285-3085	C-18	1
19200	12900937	4010-01-285-6421	C-19	1
19200	12900939	5340-01-307-3951	C-19	26
19200	12900940	5340-01-285-0115	C-19	23
19200	12900941	5365-01-285-0122	C-19	30
19200	12900942	5310-01-285-6420	C-19	20
19200	12900943	5365-01-292-7762	C-19	29
19200	12900944		C-19	31
19200	12900950	1015-01-285-0617	C-19	13
19200	12900955	5340-01-286-0481	C-19	4
19200	12900956	5365-01-285-3068	C-19	5
19200	12900957	5340-01-285-7451	C-19	3

## CROSS-REFERENCE INDEXES

CAGEC	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
19200	12900960	5315-01-285-3083	C-19	25
19200	12900961	3120-01-304-6088	C-19	9
19200	12900962	5315-01-303-7844	C-19	8
19200	12900963	3040-01-312-6327	C-19	32
19200	12900964	5340-01-285-3086	C-19	14
19200	12900965	5360-01-285-7506	C-20	1
19200	12900966	5315-01-292-7768	C-20	3
19200	12900967		C-20	4
19200	12900971		C-20	2
19200	12901001	5360-01-285-0114	C-19	24
19206	12901002		C-17	1
19200	12901004	5310-01-285-0129	C-19	18
19200	12901005	5310-01-285-0126	C-19	19
19206	12901093	5305-01-381-8755	C-18	6
19206	12901094	5305-01-383-2943	C-18	8
19206	12901095	5305-01-383-0166	C-18	9
19206	12901096	1015-01-387-0596	C-18	2
19206	12901097	1015-01-388-8352	C-21	3
19206	12901099	5340-01-388-7447	C-18	11
19206	12901100	5120-01-355-1736	C-23	2
19206	12901104	5315-01-387-8911	C-19	35
19206	12901105	5310-01-388-0804	C-19	10
19206	12901109	5315-01-387-8909	C-19	34
19206	12901121	5440-01-387-0584	C-18	3
19206	12901125	5355-01-389-3374	C-14	10
19206	12901138	5120-01-388-8351	C-23	1
19206	5012975	3040-00-501-2975	C-8	2
19204	5025228	5305-00-502-5228	C-9	6
21450	505477	5315-00-050-5477	C-11	13
21450	505566		C-12	4
19206	7229585	4010-00-868-8063	C-11	20
19206	7230706	1015-00-723-0706	C-6	12
19206	7230707	1015-00-723-0707	C-6	11
19206	7235900	5330-00-723-5900	C-13	15
19206	7235927		C-8	6
19206	7235971	3040-00-723-5971	C-9	1
19206	7235982	5360-00-723-5982	C-11	11
19206	7235995	1015-00-723-5995	C-13	12
19206	7236047	5315-00-723-6047	C-8	4
19207	7236048	5310-01-150-7564	C-13	3
19206	7236573	3020-00-723-6573	C-13	8
19206	7236575	5340-00-723-6575	C-13	7
19207	7236576		C-13	17
19206	7236578	5330-00-723-6578	C-13	6
19206	7236589	5330-01-172-9543	C-10	2
19206	7236590	3120-01-150-3122	C-10	3
19206	7236591		C-7	14
19206	7236592	3040-00-723-6592	C-9	13
19206	7236594	5360-000-723-6594	C-9	10
19206	7236595	3120-00-723-6595	C-9	11
19206	7236596	3120-00-723-6596	C-9	2

## CROSS-REFERENCE INDEXES

CAGEC	PART NUMBER	PART NUMBER INDEX STOCK NUMBER	FIG.	ITEM
19206	7236597	5310-00-723-6597	C-9	5
19206	7236598	5310-00-723-6598	C-9	4
19206	7236599	5365-00-723-6599	C-9	3
19206	7236709	5305-00-723-6709	C-7	34
19206	72396713	5305-00-723-6713	C-9	12
19206	7236715	3120-01-150-3123	C-12	3
19206	7237799	3040-00-723-7799	C-13	16
19206	7305155	1015-00-730-5155	C-13	14
19206	7305156	5305-00-730-5156	C-13	13
19206	7305183	5340-00-730-5183	C-11	19
19206	7305184	5365-00-730-5184	C-11	21
19206	7308274		C-9	8
19206	7308275		C-8	3
19206	7308276	5340-00-342-1098	C-7	2
19206	7308278	5340-00-300-5339	C-9	7
19206	7308532		C-7	3
19207	7539736	5365-00-753-9736	C-4	10
			C-7	24
19207	7767395	5365-00-382-6607	C-12	5
19207	8340106	5310-00-569-8455	C-2	22
			C-6	7
19207	8340107	5310-00-333-7385	C-1	15
			C-17	12
19207	8387678	5310-00-999-2301	C-5	3
19207	8704923		C-2	16
19207	8731238	5315-00-508-0166	C-2	2
19207	8731426	5340-00-508-0175	C-22	11
19207	8731447	1015-00-508-0178	C-22	2
19207	8731587	1015-00-508-0185	C-22	3
19207	8731592	1015-00-508-0188	C-22	4
19207	8738118		C-7	30
19207	8743047	5365-00-034-4867	C-4	15
19207	8763238	5340-00-831-6949	C-3	13
19207	8763460	5340-00-559-8031	C-12	6
19207	8763461	5340-00-177-4224	C-4	11
			C-7	23
S3151	93-112	5305-01-285-0132	C-19	15
19200	93-1694		C-19	11
S3151	93-193	5310-01-286-6304	C-19	17
S3151	93-32	5310-01-285-0127	C-19	16

## CROSS-REFERENCE INDEXES

FIG.	ITEM	FIGURE AND ITEM NUMBER INDEX STOCK NUMBER	CAGEC	PART NUMBER
BULK	1	4020-00-523-9641	81349	MIL7343
BULK	2		81349	MIL-S-46163
C-1	1	5305-00-044-4153	96906	MS90725-109
C-1	2	5310-00-194-1483	96906	MS35333-44
C-1	3	5340-00-239-0998	19207	10890776
C-1	4		19207	10885823
C-1	5	5315-00-034-4841	19207	10890400
C-1	6	5315-00-838-4584	96906	MS16562-66
C-1	7	5360-00-403-6848	19207	10886030
C-1	8	5310-00-809-8533	96906	MS27183-23
C-1	9	5310-00-763-8921	96906	MS51967-23
C-1	10	5315-00-809-8786	96906	MS16562-51
C-1	11	5305-00-115-9526	96906	MS18154-58
C-1	12	5365-00-780-4329	19207	10890398
C-1	13	3020-00-403-6851	19207	10885996
C-1	14	5305-00-071-2070	96906	MS90728-114
C-1	15	5310-00-333-7385	19207	8340107
C-1	16	1015-00-411-2568	19207	10890306
C-1	17	5310-00-994-3089	19207	10918058
C-1	18	5305-00-071-2075	96906	MS90728-119
C-2	1		19207	10885822
C-2	2	5315-00-508-0166	19207	8731238
C-2	3	3110-00-100-6158	96906	MS19059-2422
C-2	4	5360-00-055-2435	96906	MS24585-1378
C-2	5	5310-00-851-2677	96906	MS35691-49
C-2	6	5305-00-082-1621	21450	110116
C-2	7	1015-00-403-6849	19207	10885950
C-2	8	5315-00-034-4840	19207	10890304
C-2	9	3040-00-411-2566	19207	10885970
C-2	10	5305-00-964-0575	96906	MS51095-412
C-2	11	5310-00-584-5272	96906	MS35338-48
C-2	12	5305-00-983-7460	96906	MS16997-141
C-2	13	5315-00-816-1794	96906	MS24665-285
C-2	14	5315-00-918-6227	19207	10886655
C-2	15	5340-00-918-3006	19207	12313606
C-2	16		19207	8704923
C-2	17	5360-00-034-4839	19207	10886654
C-2	18	1015-00-780-4332	19207	10932399
C-2	19	5360-00-780-4333	19207	10932401
C-2	20	1015-00-918-6226	19207	10886649
C-2	21	5305-00-068-0511	96906	MS90728-62
C-2	22	5310-00-569-8455	19207	8340106
C-2	23	3040-00-411-2567	19207	10886653
C-2	24	5310-00-087-4652	96906	MS51922-17
C-2	25	2510-00-780-4331	19207	10932398
C-2	26	1015-00-780-4330	19207	10917966
C-2	27	3020-00-763-7485	19207	10917965
C-2	28	5310-00-080-6004	96906	MS27183-14
C-2	29	5340-00-918-6225	19207	10885975
C-2	31	5310-00-809-5998	96906	MS27183-18
C-2	32	5305-00-964-0589	96906	MS51095-416

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FIG.	ITEM	FIGURE AND ITEM NUMBER INDEX STOCK NUMBER	CAGEC	PART NUMBER
C-3	1	5305-00-782-9489	96906	MS90728-66
C-3	2	5340-00-999-2101	19207	10885962
C-3	3	5315-00-780-8475	96906	MS20066-210
C-3	4	5305-00-988-1727	96906	MS35206-283
C-3	5	9535-00-409-7963	19207	11647655-2
C-3	6	5305-00-914-6129	96906	MS51095-358
C-3	7	5310-00-080-6004	96906	MS27183-14
C-3	8	5340-00-975-8588	19207	10917654
C-3	9	5310-00-809-4058	96906	MS27183-10
C-3	10	5310-00-087-4652	96906	MS51922-17
C-3	11	5305-00-942-2196	96906	MS18154-60
C-3	12	5340-00-755-4856	19207	10886192
C-3	13	5340-00-831-6949	19207	8763238
C-3	14	9535-00-409-7964	19207	11647655-1
C-3	15	5310-00-811-3494	96906	MS21044N08
C-3	16	5340-00-298-9475	88044	AN742-4
C-3	17		81349	MIL-R-17343
C-3	18	5305-00-984-6193	96906	MS35206-245
C-3	19		19207	11647656
C-3	20	5340-00-975-8589	19207	10917655
C-3	21	9535-01-328-0618	19207	11647657
C-4	1	5315-00-842-3044	96906	MS24665-283
C-4	2	5315-00-484-5468	19207	10908251
C-4	3	5310-00-080-6004	96906	MS27183-14
C-4	4	5360-00-034-4845	19207	10908261
C-4	5	5340-00-999-2116	19207	10908241
C-4	6	5305-00-071-2074	96906	MS90728-118
C-4	7	5310-00-809-5998	96906	MS27183-18
C-4	8	5340-00-411-2570	19207	10908126
C-4	9	1015-00-403-6846	19207	10885911
C-4	10	5365-00-753-9736	19207	7539736
C-4	11	5340-00-177-4224	19207	8763461
C-4	12	5315-00-411-2569	19207	10890399
C-4	13	5310-00-225-6993	96906	MS51922-33
C-4	14	3040-00-411-2565	19207	10885968
C-4	15	5365-00-034-4867	19207	8743047
C-4	16	5310-00-950-0039	96906	MS21044N6
C-4	17	3040-00-401-8345	19207	10885965
C-4	18		19207	10885964
C-4	19	5315-00-081-7723	96906	MS20392-7C51
C-4	20		19207	10885969
C-4	21	5305-00-269-3244	96906	MS90727-68
C-4	22	5340-01-093-5525	19207	10947291-12
C-5	1	5310-00-762-6239	96906	MS51968-29
C-5	2	5340-00-999-2103	19207	10885967
C-5	3	5310-00-999-2301	19207	8387678
C-5	4	5305-00-267-8958	96906	MS90727-14
C-5	5	2590-00-999-2102	19207	10885966
C-5	6	5310-00-877-5796	96906	MS21044N4
C-5	7	5315-00-584-9221	96906	MS9048-112
C-6	1	5315-00-019-0777	96906	MS24665-291

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FIG.	ITEM	FIGURE AND ITEM NUMBER INDEX STOCK NUMBER	CAGEC	PART NUMBER
C-6	2	5310-00-841-2041	96906	MS35692-33
C-6	3	5310-00-809-5998	96906	MS27183-18
C-6	4	2510-00-435-7645	19207	10933141
C-6	5	5305-00-910-8146	96906	MS51105-361
C-6	6	5305-00-725-2317	96906	MS90728-64
C-6	7	5310-00-569-8455	19207	8340106
C-6	8	1015-00-868-8052	19207	10933140
C-6	9	5365-00-869-0545	19207	10918101
C-6	10	5305-00-068-0511	96906	MS90728-62
C-6	11	1015-00-723-0707	19206	7230707
C-6	12	1015-00-723-0706	19206	7230706
C-6	13	1015-00-484-5466	19207	10885882
C-6	14	1015-00-436-4857	19207	10932942
C-6	15	5305-00-914-6135	96906	MS18153-114
C-6	16		19207	10885822
C-6	17	5315-00-838-4584	96906	MS16562-66
C-6	18	5315-00-034-4841	19207	10890400
C-6	19	5360-00-403-6848	19207	10886030
C-6	20	5310-00-809-8533	96906	MS27183-23
C-6	21	5310-00-763-8921	96906	MS51967-23
C-6	22	5315-00-809-8786	96906	MS16562-51
C-6	23	5305-00-115-9526	96906	MS18154-58
C-6	24	5365-00-780-4329	19207	10890398
C-6	25	3020-00-403-6851	19207	10885996
C-6	26	5310-00-994-3089	19207	10918058
C-6	27	5305-00-071-2075	96906	MS90728-119
C-6	28	5315-00-011-9120	96906	MS24665-287
C-6	29	5310-00-842-1211	96906	MS35692-17
C-6	30	5310-00-080-6004	96906	MS27183-14
C-6	31	1015-00-868-8033	19207	10918093
C-6	32	5305-00-142-4043	96906	MS51105-415
C-6	33	5305-00-964-0589	96906	MS51095-416
C-7	1	5315-00-276-6750	88044	AN150264
C-7	2	5340-00-342-1098	19206	7308276
C-7	3		19206	7308532
C-7	4	1015-00-868-8045	19207	10933132
C-7	5	1015-00-868-8035	19207	10932710
C-7	6		19207	10933106
C-7	7	5315-00-438-0623	19207	10933131
C-7	8	5305-00-543-2419	96906	MS90728-61
C-7	9	5315-00-868-8021	19207	10106891-2
C-7	10	5340-00-177-4013	96906	MS9380-14
C-7	11	4730-00-707-3068	96906	MS35755-1
C-7	12	5305-00-984-7361	96906	MS35191-270
C-7	13	1015-00-868-8048	19207	10933135
C-7	14		19206	7236591
C-7	15	1015-00-868-8047	19207	10933134
C-7	16	5310-00-655-9668	19207	10863380
C-7	17	5305-00-068-0511	96906	MS90728-62
C-7	18	5360-00-999-2320	19207	10933138
C-7	19	1015-00-868-8050	19207	10933137

## CROSS-REFERENCE INDEXES

FIG.	ITEM	FIGURE AND ITEM NUMBER INDEX STOCK NUMBER	CAGEC	PART NUMBER
C-7	20	5305-00-782-9489	96906	MS90728-66
C-7	21		19207	10918074
C-7	22	1015-01-281-5424	19207	10943016
C-7	23	5340-00-177-4224	19207	8763461
C-7	24	5365-00-753-9736	19207	7539736
C-7	25	5310-00-809-3079	96906	MS27183-19
C-7	26	5305-00-906-3710	19207	10918097
C-7	27	3040-00-868-8034	19207	10918096
C-7	28	5315-00-915-8052	19207	11589336
C-7	29	5360-00-869-0544	19207	10918099
C-7	30		19207	8738118
C-7	31	3040-00-868-8046	19207	10933133
C-7	32	5340-00-868-8032	19207	10918089
C-7	33	5315-00-868-8051	19207	10933139
C-7	34	5305-00-723-6709	19206	7236709
C-7	35		19207	10932755
C-7	36	1015-00-868-8049	19207	10933136
C-7	37	5315-00-298-1481	96906	MS24665-357
C-7	38	5310-00-835-2140	96906	MS35692-69
C-8	1	5305-00-781-2076	96906	MS35207-240
C-8	2	3040-00-501-2975	19206	5012975
C-8	3		19206	7308275
C-8	4	5315-00-723-6047	19206	7236047
C-8	5	5315-00-812-9425	96906	MS9105-09
C-8	6		19206	7235927
C-9	1	3040-00-723-5971	19206	7235971
C-9	2	3120-00-723-6596	19206	7236596
C-9	3	5365-00-723-6599	19206	7236599
C-9	4	5310-00-723-6598	19206	7236598
C-9	5	5310-00-723-6597	19206	7236597
C-9	6	5305-00-502-5228	19204	5025228
C-9	7	5340-00-300-5339	19206	7308278
C-9	8		19206	7308274
C-9	9	5315-00-058-6672	96906	MS16562-97
C-9	10	5360-00-723-6594	19206	7236594
C-9	11	3120-00-723-6595	19206	7236595
C-9	12	5305-00-723-6713	19206	7236713
C-9	13	3040-00-723-6592	19206	7236592
C-10	1	5365-00-530-6777	80205	NAS50-118
C-10	2	5330-01-172-9543	19206	7236589
C-10	3	3120-01-150-3122	19206	7236590
C-11	1	5365-00-762-4693	19207	10933108
C-11	2	5310-00-868-8037	19207	10933110
C-11	3	5310-00-868-8038	19207	10933111
C-11	4	3120-00-868-8041	19207	10933117
C-11	5	1015-00-490-4148	19207	10933107
C-11	6	5305-00-904-8309	96906	MS35199-3
C-11	7		19207	10949760
C-11	8	5310-00-282-7830	88044	AN924-16
C-11	9	5310-00-868-8042	19207	10933118
C-11	10	3120-00-868-8040	19207	10933116

## CROSS-REFERENCE INDEXES

FIG.	ITEM	FIGURE AND ITEM NUMBER INDEX STOCK NUMBER	CAGEC	PART NUMBER
C-11	11	5360-00-723-5982	19206	7235982
C-11	12	3120-00-868-8039	19207	10933115
C-11	13	5315-00-050-5477	21450	505477
C-11	14	5310-00-869-0546	19207	10933112
C-11	15	5330-00-868-8036	19207	10933109
C-11	16	3040-00-498-3906	19207	10933113
C-11	17	1015-00-235-4940	19207	10949332
C-11	18	5315-00-023-6662	19206	11578050
C-11	19	5340-00-730-5183	19206	7305183
C-11	20	4010-00-868-8063	19206	7229585
C-11	21	5365-00-730-5184	19206	7305184
C-11	22	5305-00-498-8776	96906	MS35246-67
C-12	1		19207	10932710-2
C-12	2		19207	10932710-1
C-12	3	3120-01-150-3123	19206	7236715
C-12	4		21450	505566
C-12	5	5365-00-382-6607	19207	7767395
C-12	6	5340-00-559-8031	19207	8763460
C-13	1	5315-00-479-4962	96906	MS16555-331
C-13	2	5340-00-868-8031	19207	10918087
C-13	3	5310-01-150-7564	19207	7236048
C-13	4	5355-01-152-5054	19207	11588781
C-13	5		19207	10918086
C-13	6	5330-00-723-6578	19206	7236578
C-13	7	5340-00-723-6575	19206	7236575
C-13	8	3020-00-723-6573	19206	7236573
C-13	9	1015-00-498-9396	19207	10932756
C-13	10	4730-00-707-3068	96906	MS35755-1
C-13	11	5305-00-057-2601	96906	MS51038-48
C-13	12	1015-00-723-5995	19206	7235995
C-13	13	5305-00-730-5156	19206	7305156
C-13	14	1015-00-730-5155	19206	7305155
C-13	15	5330-00-723-5900	19206	7235900
C-13	16	3040-00-723-7799	19206	7237799
C-13	17		19207	7236576
C-13	18	4730-00-707-3068	96906	MS35755-1
C-13	19	5305-00-954-3487	96906	MS35190-271
C-14	1		19207	10932757
C-14	2	5305-00-958-5257	96906	MS35190-315
C-15	1	1015-01-100-4468	19207	10918082
C-15	2	5360-00-869-0543	19207	10918076
C-15	3	5310-00-868-8024	19207	10918077
C-15	4	5310-00-868-8023	19207	10918075
C-15	5	5305-00-719-5336	96906	MS51963-33
C-15	6	1015-00-868-8028	19207	10918081
C-15	7	5315-00-834-0745	96906	MS16555-631
C-15	8	5340-00-868-8026	19207	10918079
C-15	9		19207	10918083
C-15	10	3040-00-872-0906	19207	10918084
C-15	11	4730-00-868-8025	19207	10918078
C-15	12	5340-00-868-8027	19207	10918080

## CROSS-REFERENCE INDEXES

FIG.	ITEM	FIGURE AND ITEM NUMBER INDEX STOCK NUMBER	CAGEC	PART NUMBER
C-15	13	5315-00-847-5751	96906	MS16555-629
C-16	1		19207	10933127
C-16	2	3120-00-868-8043	19207	10933124
C-16	3	5315-00-868-8044	19207	10933125
C-17	1		19206	12901002
C-17	2	5315-00-034-4841	19207	10890400
C-17	3	5315-00-838-4584	96906	MS16562-66
C-17	4	5360-00-403-6848	19207	10886030
C-17	5	5310-00-809-8533	96906	MS27183-23
C-17	6	5310-00-763-8921	96906	MS51967-23
C-17	7	5315-00-809-8786	96906	MS16562-51
C-17	8	5305-00-115-9526	96906	MS18154-58
C-17	9	5365-00-780-4329	19207	10890398
C-17	10	3020-00-403-6851	19207	10885996
C-17	11	5305-00-071-2070	96906	MS90728-114
C-17	12	5310-00-333-7385	19207	8340107
C-17	13	1015-00-411-2568	19207	10890306
C-17	14	5310-00-994-3089	19207	10918058
C-17	15	5305-00-071-2075	96906	MS90728-119
C-18	1	1015-01-285-3085	19200	12900936
C-18	2	1015-01-387-0596	19206	12901096
C-18	3	5440-01-387-0584	19206	12901121
C-18	4	1015-01-285-3084	19200	12900935
C-18	5		19207	10885822
C-18	6	5305-01-381-8755	19206	12901093
C-18	7	5310-00-003-4094	96906	MS35338-48
C-18	8	5305-01-383-2943	19206	12901094
C-18	9	5305-01-383-0166	19206	12901095
C-18	10	5355-01-389-3374	19206	12901125
C-18	11	5340-01-388-7447	19206	12901099
C-18	12		80204	B1835A08020N
C-18	13		19206	12900934
C-19	1	4010-01-285-6421	19200	12900937
C-19	2	5365-01-299-8872	19200	12900910
C-19	3	5340-01-285-7451	19200	12900957
C-19	4	5340-01-286-0481	19200	12900955
C-19	5	5365-01-285-3068	19200	12900956
C-19	6	5310-01-387-9378	53151	DIN127-A6-B2B
C-19	7		S3151	DIN912M6X16-10.9
C-19	8	5315-01-303-7844	19200	12900962
C-19	9	3120-01-304-6088	19200	12900961
C-19	10	5310-01-388-0804	19206	12901105
C-19	11		19200	93-1694
C-19	12	5315-01-387-6845	S3151	D63477/9-199
C-19	13	1015-01-285-0617	19200	12900950
C-19	14	5340-01-285-3086	19200	12900964
C-19	15	5305-01-285-0132	S3151	93-112
C-19	16	5310-01-285-0127	S3151	93-32
C-19	17	5310-01-286-6304	S3151	93-193
C-19	18	5310-01-285-0129	19200	12901004
C-19	19	5310-01-285-0126	19200	12901005

## CROSS-REFERENCE INDEXES

FIG.	ITEM	FIGURE AND ITEM NUMBER INDEX STOCK NUMBER	CAGEC	PART NUMBER
C-19	20	5310-01-285-6420	19200	12900942
C-19	21	5305-00-723-9383	96906	MS51963-67
C-19	22		S3151	DIN9401.6X16
C-19	23	5340-01-285-0115	19200	12900940
C-19	24	5360-01-285-0114	19200	12901001
C-19	25	5315-01-285-3083	19200	12900960
C-19	26	5340-01-307-3951	19200	12900939
C-19	27		80204	ANSI-B18.2.1
C-19	28		80204	ANSI-B18.22.1
C-19	29	5365-01-292-7762	19200	12900943
C-19	30	5365-01-285-0122	19200	12900941
C-19	31		19200	12900944
C-19	32	3040-01-312-6327	19200	12900963
C-19	33	4730-00-050-4203	96906	MS15001-1
C-19	34	5315-01-387-8909	19206	12901109
C-19	35	5315-01-387-8911	19206	12901104
C-20	1	5360-01-285-7506	19200	12900965
C-20	2		19200	12900971
C-20	3	5315-01-292-7768	19200	12900966
C-20	4		19200	12900967
C-20	5		S3151	DIN921-M6-1X16-5
C-21	1		D8286	DIN1435-8HX11X35
C-21	2		D8286	DIN94-1.6-X14-ST
C-21	3	1015-01-388-8352	19206	12901097
C-21	4	1015-01-286-0434	19200	12900924
C-21	5	5340-01-285-7511	19200	12900929
C-21	6	1015-01-285-0620	19200	12900928
C-22	1	1015-00-758-4909	19207	10932392
C-22	2	1015-00-508-0178	19207	8731447
C-22	3	1015-00-508-0185	19207	8731587
C-22	4	1015-00-508-0188	19207	8731592
C-22	5	5305-00-758-4908	19207	10932391
C-22	6	1015-00-758-4911	19207	10932395
C-22	7		19207	10932390
C-22	8	5305-00-978-9377	96906	MS16997-57
C-22	9	5355-00-758-4910	19207	10932394
C-22	10	5315-00-810-3701	96906	MS16562-36
C-22	11	5340-00-508-0175	19207	8731426
C-23	1	5120-01-388-8351	19206	12901138
C-23	2	5120-01-355-1736	19206	12901100

## APPENDIX D

# EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

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### Section I. INTRODUCTION

#### D-1. SCOPE.

This appendix lists expendable/durable supplies and materials you will need to operate and maintain the 107-mm mortar turntable and mount, 81-mm mortar turntable and mount, 120-mm mortar turntable and mount, and 81-mm mortar bipod assembly. This list is for informational purposes 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.

#### D-2. EXPLANATION OF COLUMNS.

a. Column (1)—Item number. This number is assigned to the entry in the listing and is referenced in the narrative instructions to identify the material (e. g., "Use cleaning compound, item 5, app D").

b. Column (2)—Level. This column identifies the lowest level of maintenance that requires the listed item.

O-Unit Maintenance  
F-Intermediate Direct Support  
Maintenance

c. Column (3)—National Stock Number. This is the National stock number assigned to the item; use it to request or requisition the item.

d. Column (4) — Description. Indicates the Federal item name and, if required, a description to identify the item. The last line for each item indicates the Federal Supply Code for Manufacturer (FSCM) in parentheses followed by the part number.

e. Column (5)—Unit of Measure (U/M). Indicates the measure used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e. g., ea, in, pr). If the unit of measure differs from the unit of issue, requisition the lowest unit of issue that will satisfy your requirements.

SECTION II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

(1)	(2)	(3)	(4)	(5)
ITEM NUMBER	LEVEL	NATIONAL STOCK NUMBER	DESCRIPTION	U/M
1	O	8020-00-242-7266	BRUSH, PAINT (96906) MS16866	EA
2	O	8010-01-015-1620	FOREST GREEN ENAMEL 1-GAL. (3.8-1) (81348) MIL-E-52835	GL
3	O	8415-00-823-7457	GLOVES, CHEMICAL AND SOLVENT RESISTANT (81348) ZZ-G-381	PR
4			GREASE, AUTOMOTIVE AND ARTILLERY (GAA) -65° TO +225°F (-54° TO 107°C) EFFECTIVE	
	O	9150-00-190-0905	6.5-LB (2.27-KG) CAN	LB
	O	9150-00-190-0907	35-LB (15.88-KG) CAN (81349) MIL-G-10924	LB
5			LUBRICATING OIL, PRESERVATIVE, GENERAL PURPOSE (GPL)	
	O	9150-00-231-2360	2-OZ (59.1-ML) CAN	OZ
	O	9150-00-231-2361	1-QT (0.95-1) CAN	OZ
	O	9150-00-231-2356	5-GAL. (18.9-I) CAN (81348) MIL-L-3150	OZ
6			LUBRICATING OIL, PRESERVATIVE, GENERAL PURPOSE (PL-S)	
	O	9150-00-273-2389	4-OZ (118-ML) CAN	OZ
	O	9150-00-458-0075	16-OZ (0.47-I) CAN (81348) VV-L-800	OZ
7	O	7920-00-205-1711	RAG, WIPING, COTTON, UNBLEACHED, MIXTURE OF WHITE OR COLORED, DESIGNED FOR GENERAL PURPOSE USE, 50-LB (22.68 KG) BALE (81348) A-A-531	EA

ARMY TM9-1015-232-23&P  
 MARINE CORPS TM00517A/09922A-23&P

(1)	(2)	(3)	(4)	(5)
ITEM NUMBER	LEVEL	NATIONAL STOCK NUMBER	DESCRIPTION	U/M
8	O	6850-00-597-9765	CLEANING COMPOUND, SOLVENT 1-GAL. (3.8-I) CAN (81348) O-C-1889	GL
9	O	8010-00-160-5791	THINNER, SYNTHETIC 1-PT (473.18-ML) CAN	CN
	O	8010-00-087-1953	1-QT (946.38-ML) CAN	CN
	O	8010-00-160-5794	1-GAL. (3.79-I) CAN	CN
9.1	O	8030-00-111-2763	THREAD LOCKING COMPOUND TYPE II, GRADE M (81349) MIL-S-46163	BT
10	O	9505-00-331-3275	WIRE, NONELECTRICAL STEEL, QQ-W-423B, COMP 302 OR STEEL, QQ-W-423B, COMP 304 (81348) MIL-E-52835	FT



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\*O-Unit maintenance

\*\*D-Intermediate direct support maintenance

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\*O-Unit maintenance  
 \*\*D-Intermediate direct support maintenance

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\*O-Unit maintenance  
 \*\*D-Intermediate direct support maintenance

O\*            DS\*\*

O

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\*O-Unlt maintenance  
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\*O-Unit maintenance  
\*\*D-intermediate direct support maintenance

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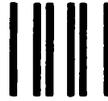
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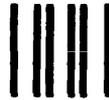
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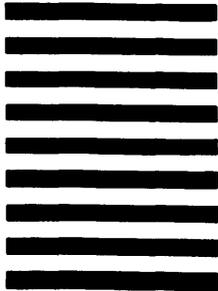
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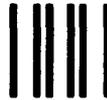
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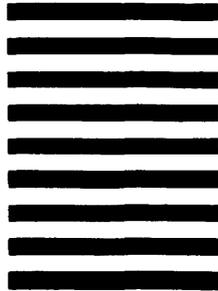
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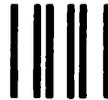
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# METRIC CHART

When units of length, distance, temperature, weight, torque, or volume are used in this manual, US customary units are shown. Units of time and angle are the same for US customary and metric systems. When units identify weapons or ammunition, they stand

alone. Also, when units describe tools or parts which are not interchangeable, only one kind of unit is used. The list below shows the difference between US customary and metric units. It also shows the symbols used for the units.

## US CUSTOMARY

## METRIC

### LENGTH AND DISTANCE

inch: 1 in. . . . . 2.54 cm: centimeters  
foot: 1 ft . . . . . 0.3048 m: meter  
yard: 1 yd . . . . . 0.9144 m: meter

### TEMPERATURE

degree Fahrenheit: °F . . . . .  $(F^{\circ} - 32^{\circ}) \times 5/9 =$  °C: degree Celsius

### WEIGHT

pound: 1 lb . . . . . 0.4536 kg: kilogram

### TORQUE

inch-pound: 1 in.-lb . . . . . 0.113 N-m: Newton/meter  
foot-pound: 1 ft-lb . . . . . 1.356 N-m: Newton/meters

### VOLUME

ounce: 1 oz . . . . . 0.02957 l: liter  
pint: 1 pt . . . . . 0.4732 l: liter  
quart: 1 qt . . . . . 0.9463 l: liter  
gallon: 1 gal. . . . . 3.785 l: liters

