URGENT

MWO effective date is 15 January 2006 and completion date is 15 January 2008.

MWO 9-1005-245-30-2

MODIFICATION WORK ORDER

MODIFICATION OF
MOUNT, MACHINE GUN, MK93 MOD 1
(NSN 1010-01-383-2757)
MOUNT, MACHINE GUN, MK93 MOD 2
(NSN 1010-01-502-7547)

HEADQUARTERS, DEPARTMENT OF THE ARMY, WASHINGTON, D.C.

15 JANUARY 2006

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

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1. **PURPOSE.** This MWO prescribes the procedures to synchronize the MK93 MOD 1 Machine Gun Mount (NSN 1010-01-383-2757) and/or MK93 MOD 2 Machine Gun Mount (NSN 1010-01-502-7547) with the Gunners Shield (NSN 2510-01-498-4996).

2. **PRIORITY.** This modification is classified as URGENT.

3. END ITEMS OR SYSTEM TO BE MODIFIED. See Table 1.

Table 1. End Item(s) or System(s) to be Modified.

NOMENCLATURE	NSN	Part No.	CAGEC	LIN
Mount, Machine Gun, MK93 MOD 1	1010-01-383-2757	6650717	53711	M12647
Mount, Machine Gun, MK93 MOD 2	1010-01-502-7547	13001175	19200	M12647

4. MODULES (COMPONENTS, ASSEMBLIES, SUBASSEMBLIES, BOARDS, AND CARDS) TO BE MODIFIED. Not Applicable

5. **PARTS TO BE MODIFIED.** See Table 2.

Table 2. Part(s) to be Modified

NOMENCLATURE	NSN	Part No.	CAGEC
Carriage Assembly (MOD 1)	NSNA	6650725	53711
Carriage Assembly (MOD 2)	1005-01-505-1037	12999574	19200

6. APPLICATION. Total man-hours required for a single application of this MWO is: 0.25 hours.

a. Time Compliance Schedule: MWO effective date is 15 January 2006 and completion date is 15 January 2008.

b. Lowest level of Maintenance Authorized to Apply this MWO: Direct Support Level.

c. Work Force and Man-Hour Requirements for Application of the MWO to a Single Unit, End Item or System:

Work Skills Force	Man-Hours
MOS 45B	0.25 hours

7. TECHNICAL PUBLICATIONS AFFECTED/CHANGED. See Table 3.

Table 3. Technical Publications Affected/Changed.

Publication Number	Date
TM 9-1005-245-13&P	March 2005

8. MWO KIT(S)/PART(S) AND THEIR DISPOSITION:

a. Kit(s)/Parts needed to apply this MWO. See Table 4.

Table 4. Kit(s)/Part(s) needed to apply this MWO

Nomenclature	NSN	Part No.	Qty	CAGEC	Security Classification
MWO Kit, Mount, Machine Gun, consisting of:		13013542	1	19200	U
Bolt	5305-01-533-4918	92620A585	1	39428	U
Nut	5310-01-497-0279	N220N03CAGNN094 NNNPF1	2	05047	U
Nut, Self-locking	5310-00-050-9372	MS21083C10	2	96906	U
Lock-washer	5310-01-523-2980	NASM35338-45	1	80205	U

b. Kit Shipping Data. See Table 5.

Table 5. Kit Shipping Data

Nomenclature	Weight	Dimensions	Cubic Displacement
Modification, Kit, Mount	.20 lbs	4” X 4”X 3/4"	12 cubic inches

c. Bulk and Expendable Material. See Table 6.

Table 6. Expendable/ Durable Items

Nomenclature	NSN	Part No.
Fluid, Cutting	N/A	N/A
Lubricant, Solid Film	9150-01-260-2534	MIL-PRF-690, Type 2

d. Parts Disposition. Parts should be turned in through the normal channels for proper disposal.

9. SPECIAL TOOLS; TOOL KITS; JIGS; TEST, MEASUREMENT AND DIAGNOSTIC EQUIPMENT (TMDE); AND FIXTURES REQUIRED. See Table 7.

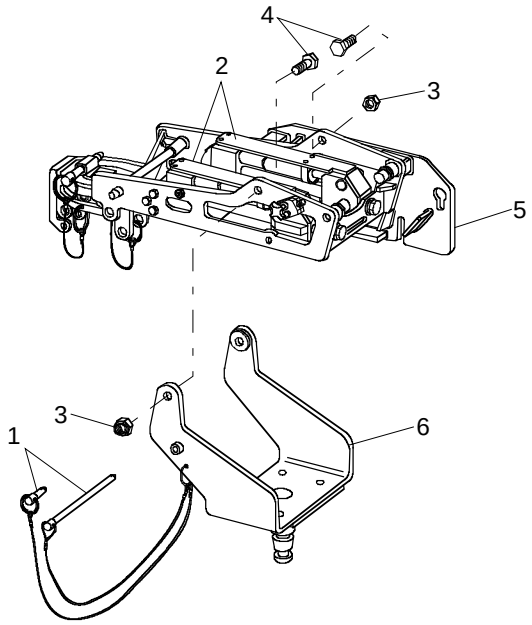
Table 7. Special Tools; Tool Kits; Jigs; Test, Measurement and Diagnostic Equipment (TMDE); and Fixtures

Nomenclature	NSN	Part No.
C-Clamps	N/A	N/A
Drill Bit – 5/16”	N/A	N/A
Fixture, Drilling	N/A	N/A
Jig, Drilling	N/A	N/A
Shop Set, Small Arms, Field Maintenance	4933-00-754-0664	SC4933-95-CL-A11

10. MODIFICATION PROCEDURES.

a. DISASSEMBLY

Pull two quick release pins (1) and rotate shock absorbers (2) down. Remove and discard two self-locking nuts (3). Remove two machine bolts (4) and lift carriage assembly (5) from cradle (6).

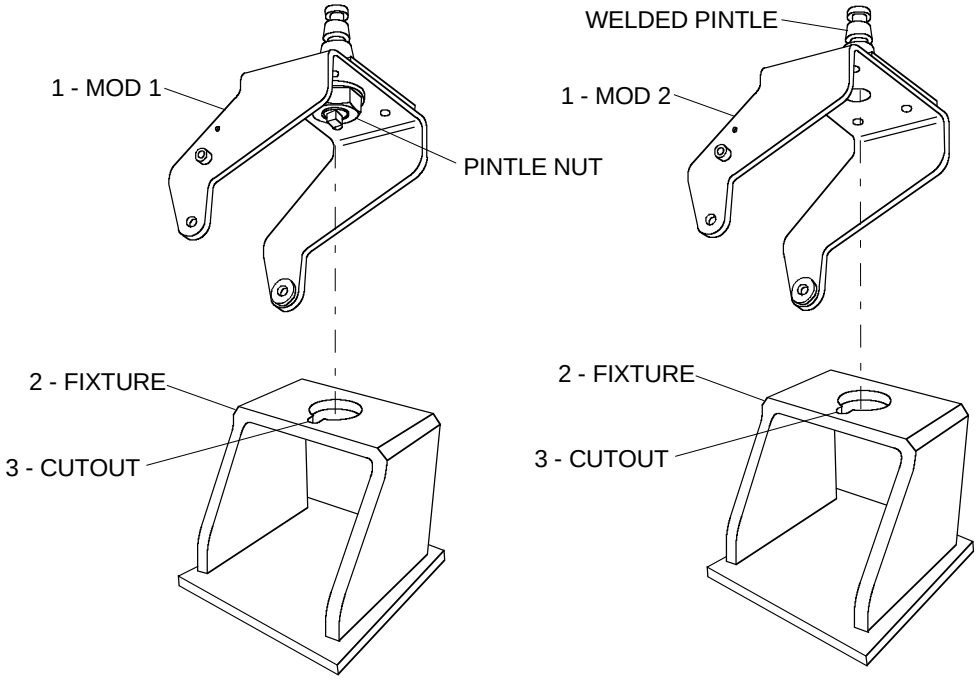


b. MODIFICATION

NOTE

MOD 1 has a pintle nut; MOD 2 has a welded pintle.

1. Position carriage (1) upside down and place on drill fixture (2) with the carriage legs and cutout (3) facing the same direction.

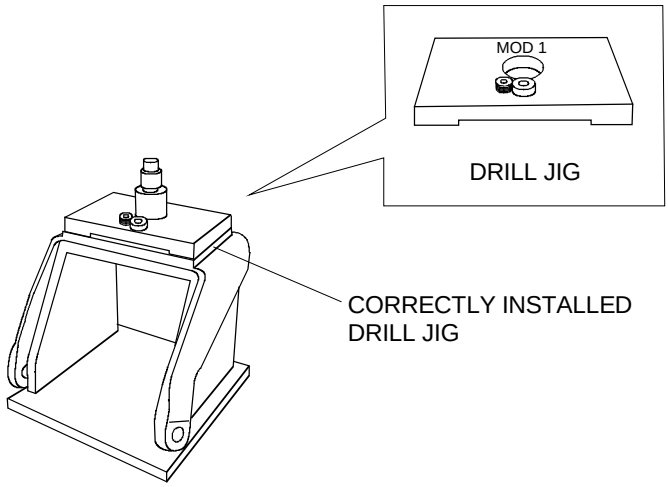


NOTE

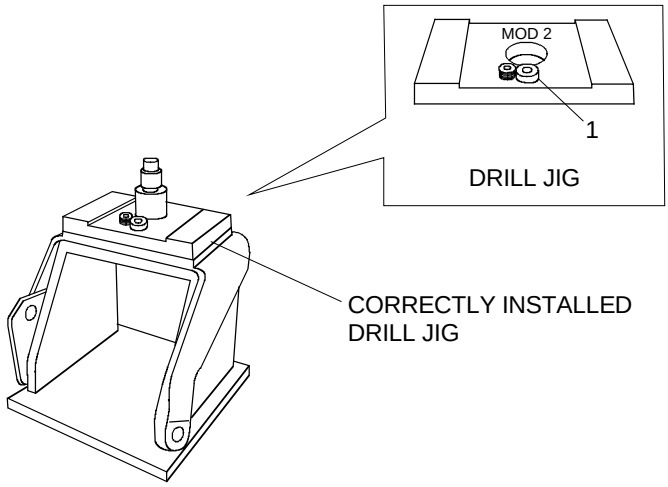
The drill jig is stamped with MOD 1 on one side and MOD 2 on the other. When drilling a MK93 MOD 1 the “MOD 1” should be facing up. When drilling the MK93 MOD 2, the “MOD 2” should be facing up. Whichever side is used, ensure bushing and screw are facing up.

Changing Drill Bushing: Using a flat screwdriver, remove drill-bushing screw. Lift drill bushing out; flip the drill jig so the MOD number (1 or 2) of the cradle to drilled is displayed upward. Place the drill-bushing screw into threaded hole; tighten down the drill-bushing screw so the head of screw aligns with the “half moon” shape in top of drill-bushing, making the drill-bushing secure.

2. **MK93 MOD 1 -** Place the drill jig over the pintle and onto the carriage with the drill bushing facing the rear of the drill fixture. Line up the front and rear edges of the drill jig with the front and rear edge of the carriage and drill fixture.



MK93 MOD 2 - Place the drill jig over the pintle and onto the carriage with the drill bushing facing the rear of the drill fixture. Line up the front and rear edges of the drill jig with the front and rear of the carriage and drill fixture.



10. MODIFICATION PROCEDURES (cont)

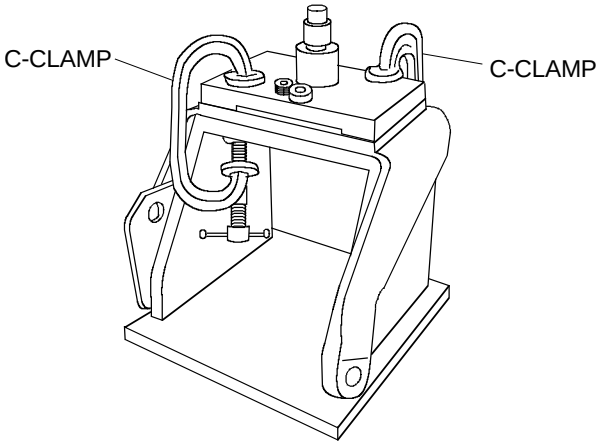
b. MODIFICATION (cont)

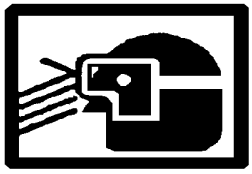
NOTE

Ensure the drill jig, carriage, and drill fixture are all properly aligned with each other before proceeding.

3. Position drill fixture onto a drill press table for drilling.

   Position C-clamps at opposite corners of the drill jig and firmly clamp the drill jig and carriage to the drill fixture.





EYE PROTECTION

WARNING

Eye protection shall be worn during drilling operation.

CAUTION

Be sure drill fixture is firmly secured to the drill press table.

4. Position 5/16” drill into drill press chuck and tighten. Align drill bushing hole with drill and secure drill fixture to drill press table.

5. Place a few drops of cutting fluid into drill bushing and place drill into drill bushing.

6. MOD 1 - Select the slowest drill speed possible (if option is available) and begin drilling.

   MOD 2 – Use speed closest to 300 RPM and begin drilling.

NOTE

MOD 1 - Material is stainless steel; stainless steel requires a lot of pushing force on the drill, with a slow drill speed for maximum cutting performance.

MOD 2 – Apply constant pressure on drill to avoid dulling

7. While drilling, repeatedly lubricate (approximately every 10-20 seconds) with a few drops of cutting fluid. Each time you lubricate, pull the drill out while still turning to allow the “metal shavings” to be cleaned out of the hole.

CAUTION

When hole is almost all the way through, the drill will seem to “tighten”. When this occurs, speed up drill and apply less force to finish the hole. This will avoid breaking drills.

8. Continue repeating step 6 and 7 until the hole is through all layers of material.

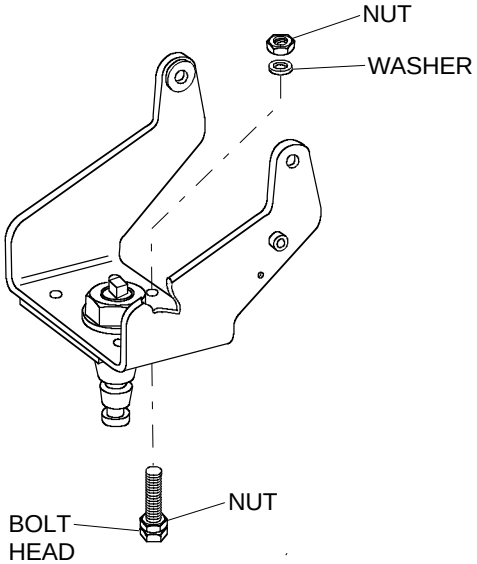
9. When hole is complete, remove drill from hole; turn off drill press; remove both C-clamps and drilling jig. Remove any remaining shavings.

CAUTION

Remove any burrs that have formed during drilling. Apply solid film lubricant to bare surface of hole.

10. Thread a 5/16” nut onto a 5/16 X 1.25 inch bolt completely to the head of the bolt. Do not tighten the nut. Insert bolt into the drilled hole from the bottom of the carriage. Place 5/16” lock washer and 5/16” nut on bolt. Do not tighten the nut.

    Align flats of bottom nut with the flats of bolt head. Ensure the nut and bolt flats stay aligned in order to fit into slot of universal pintle adapter.

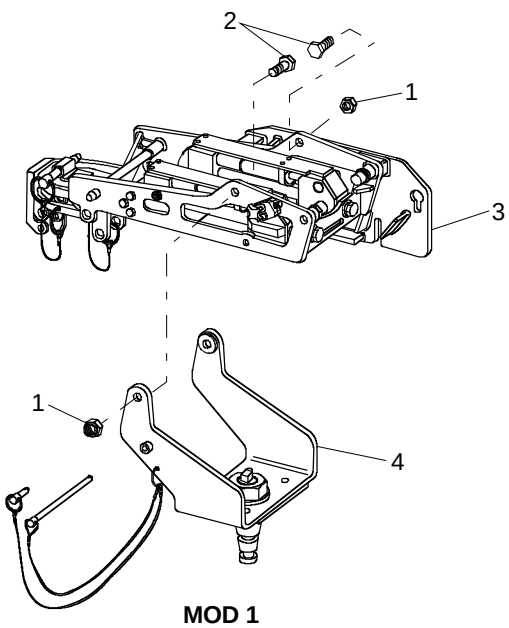


10. MODIFICATION PROCEDURES (cont)

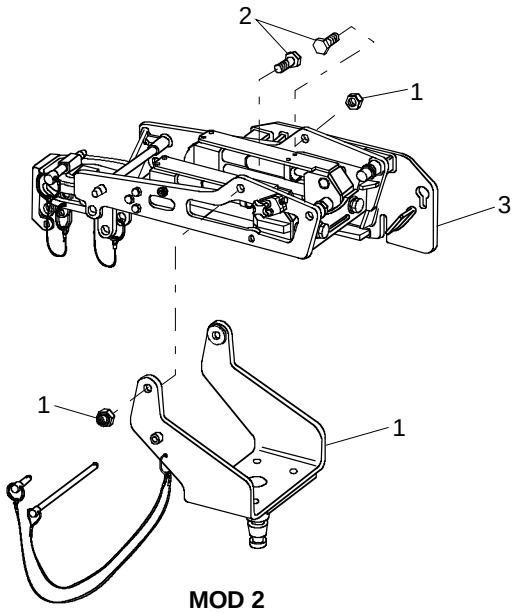
b. MODIFICATION (cont)

NOTE
Gunner shield removed for clarity.

11. Place cradle assembly (3) into carriage (4), insert two machine bolts (2) and install two new self-locking nuts (item 3, Table 5). Tighten nuts (1) until snug. Flip shock absorbers up and insert quick release pins. Touch-up self-locking nuts (1) with solid-film lubricant to eliminate shine.



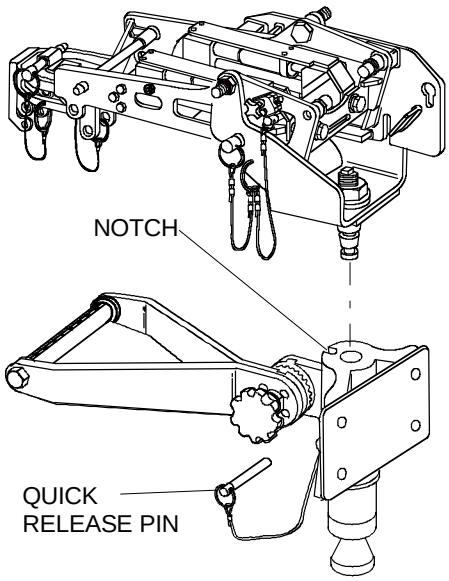
MOD 1

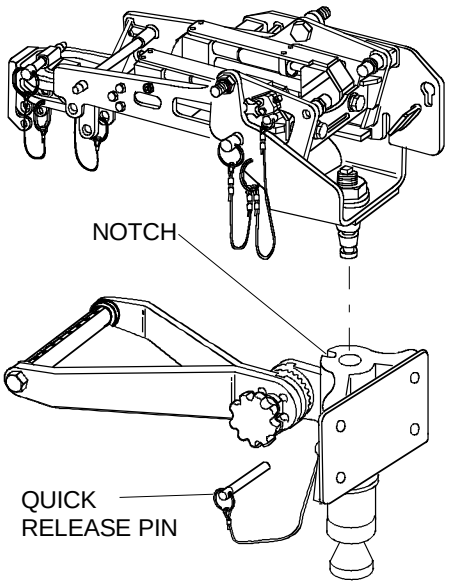


MOD 2

OPERATOR TRAINING

Install MK93 carriage onto pintle adapter of gunner shield while lining up and inserting bolt head with nut into notch of pintle adapter. Insert quick release pin into adapter, and tighten the upper nut. If quick release pin will not install completely, check alignment of nut and bolt flats.





11. CALIBRATION REQUIREMENTS. Not Applicable.

12. WEIGHT AND BALANCE DATA. The weight and balance are not significantly affected.

13. QUALITY ASSURANCE REQUIREMENTS. Not Applicable.

14. RECORDING AND REPORTING OF THE MODIFICATION.

Records and reports. The organization responsible for MWO application will report application information as follows:

(1) Reporting will be accomplished by electronic means. MWO application information can be input directly into the Modification Management Information System (MMIS) over the internet. Entry into the MMIS system is password protected. New users can register online at https://www.mmis.army.mil. Passwords are normally approved and issued within 48 hours.

(2) Submission will be comprised of the nine (9) data elements listed in Table 8. Elements 1, 2, and 6 are given for this MWO. The person reporting the MWO data will acquire the remaining elements (3, 4, 5, 7, 8 and 9) and input all nine elements into the MMIS.

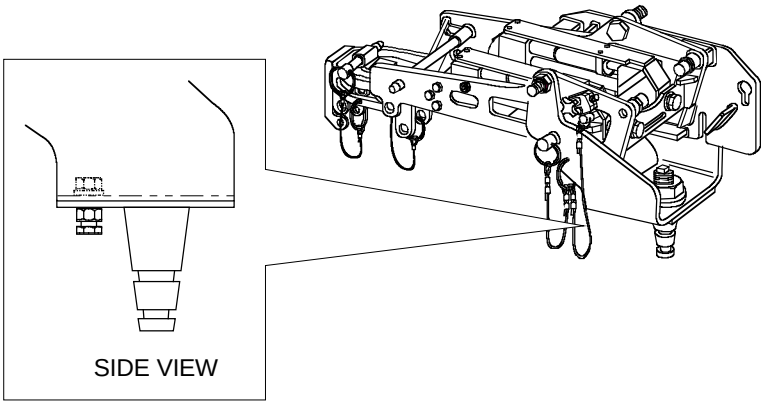
14. RECORDING AND REPORTING OF THE MODIFICATION (cont).

Table 8. Data Elements

DATA ELEMENT	INPUT DATA
1) Materiel Change Number (MCN)	1-06-05-0001
2) MWO Number	9-1005-245-30-2
3) Unit Identification Code (UIC)	
4) Unit Name	
5) Unit Location	
6) NSN of End Item	(1005-01-383-2757 or 1005-01-502-7547)
7) Date of Application	
8) Man-Hours Required for Application	
9) Quantity per UIC	

15. MATERIEL CHANGE (MC) NUMBER. MCN for this MWO is 1-06-05-0001.

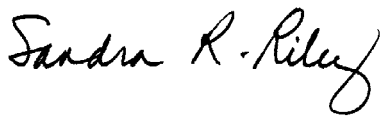
16. MODIFICATION IDENTIFICATION. Visual verification of application can be made as shown in illustration.



By Order of the Secretary of the Army:

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

Official:



SANDRA R. RILEY
Administrative Assistant to the
Secretary of the Army
0600909

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