TM 9-1005-229-35

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

DIRECT AND GENERAL SUPPORT AND DEPOT MAINTENANCE MANUAL WITH REPAIR PARTS AND SPECIAL TOOL LISTS FOR SUBMACHINE GUNS, CALIBER .45, M3 AND M3A1

HEADQUARTERS, DEPARTMENT OF THE ARMY
DECEMBER 1964

Technical Manual
No. 9-1005-229-35

HEADQUARTERS,
DEPARTMENT OF THE ARMY
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SUBMACHINE GUNS, CALIBER .45, M3 AND M3A1

*This manual supersedes TM 9-2171-1, 25 January 1957 and ORD 8 SNL A58, 1 February 1957, including C1, 24 May 1957 and ORD 9 SNL A58, 1 June 1955.

CHAPTER 1
INTRODUCTION

Section I. GENERAL

1. Scope

a. This manual is published for the information and guidance of personnel responsible for direct and general support and depot maintenance of the caliber .45 submachine guns M3 and M3A1. It contains information on maintenance which is beyond the scope of tools, equipment or supplies normally available to using organizations. This manual does not contain information which is intended primarily for the using organization, since such information is available to maintenance personnel in the pertinent field manual.

b. This manual contains a description of and procedures for removal, disassembly, cleaning, inspection, repair and assembly of components of caliber .45 submachine guns M3 and M3A1. Appendix I contains a list of current references, including supply manuals, technical manuals, and other available publications applicable to the materiel. Appendix II contains a list of repair parts and special tools.

c. The maintenance allocation chart is contained in TM 9-1005-229-12P.

d. Lubricating instructions for this materiel are contained in paragraph 23 of this manual.

e. The direct reporting of errors, omissions and recommendations for improving this equipment manual by the individual user is authorized and encouraged. DA Form 2028 will be used for reporting these improvements. DA Forms 2028 will be completed by the individual using the manual and forwarded direct to:

Commanding General
Headquarters
U.S. Army Weapons Command
Attn: AMSWE-SMM-P
Rock Island Arsenal
Rock Island, Illinois 61202

f. This manual differs from TM 9-2171-1, dated 25 January 1957, as follows:

(1) Adds information on: Major groups, assemblies, and components. Also includes appendix II, direct and general support and depot maintenance repair parts and special tool lists.
(2) Revises information on: Integral repair parts and nomenclature for above named items.
(3) Deletes reference to: Improvised tools and fixtures.

2. Direct, General and Depot Maintenance Allocation

The prescribed maintenance responsibilities are reflected in the maintenance allocation chart which is included in TM 9-1005-229-12P.

3. Forms, Records, and Reports

a. General. Responsibility for the proper execution of forms, records, and reports rests upon the officers of all units maintaining this equipment. However, the value of accurate records must be fully appreciated by all persons responsible for their compilation, maintenance, and use. Records, reports, and authorized forms are normally utilized to indicate the type, quantity, and condition of materiel to be inspected, repaired, or used in repair. Properly executed forms convey authorization and serve as records for repair or replacement of materiel in the hands of troops and for delivery of materiel requiring further repair to Ordnance shops in arsenals, depots, etc. The forms, records, and reports establish the work required, the progress of the work within shops, and the status of the materiel upon completion of its repair.

b. Authorized Forms. The forms generally applicable to units maintaining this materiel are listed in appendix I. For a

listing of these forms, refer to DA Pam 310-2. For instructions on use of these forms, refer to TM 38-750.

c. Field Reports of Accidents.

(1) *Injury to personnel or damage to materiel.* The reports necessary to comply with requirements of the Army safety program are prescribed in detail in AR 385-40. These reports are required whenever accidents involving injury to to personnel or damage to materiel occur.

(2) *Ammunition.* Whenever an accident or malfunction involving the use of ammunition occurs, firing of the lot which malfunctions will be immediately discontinued. In addition to applicable reports required in (1) above, details of the accident or malfunction will be reported in AR 700-1300-8.

d. Report of Unsatisfactory Equipment or Materials. Any deficiencies detected in the equipment covered herein, which occur under the circumstances indicated in AR 750-5, should be reported immediately in accordance with applicable instructions in cited regulations.

Section II. DESCRIPTION AND DATA

4. Description

a. General. The submachine guns, M3 (figs. 1 and 2) and M3A1 (figs. 3 and 4) are air-cooled, blowback-operated, magazine-fed, automatic shoulder weapons. They are light, compact and rugged. The stock is one piece of formed steel rod which can be telescoped for ease of handling and the ends are drilled and tapped for usage as a cleaning rod. The stock can also be used as a disassembly tool or wrench and is made so it can be utilized to load the magazine. There is no provision for semi-automatic fire, however, because of the low cyclic rate of fire the operator can fire single shots through trigger manipulation. Both M3 and M3A1 guns are fed from a magazine which has a capacity of 30 rounds. For convenience of maintenance, the guns are divided into groups and assemblies which consist of magazine, gun stock extension, barrel, bolt and guide rod group, housing group, trigger and sear group, and receiver assembly (figs. 26 and 29).

Note. The key numbers shown below in parentheses refer to figures 26 and 29 except where otherwise indicated.

b. The magazine (1) is located at the bottom front of the receiver and is held in position by the magazine catch (9).

c. The gun stock extension (2) is located at the rear portion of the receiver and is locked into position by the stock catch.

d. The barrel (3) is made up of a collar pinned to a short barrel and is screwed into the receiver assembly (12).

e. The housing group for both M3 and M3A1 guns (4) consists of a trigger guard and housing assembly and is located centrally below the receiver assembly. The housing assembly is locked to the receiver by the trigger guard. The housing assembly for the M3 gun houses the retracting handle, spring, and lever assembly. It has the oiler clip and ejector riveted to the housing. On the M3A1 gun, the ejector is riveted to the housing.

f. The bolt and guide rod group (5) is located in the upper portion of the receiver assembly. It is composed of guide rod, two driving springs and a bolt assembly. The guide rod and springs are secured by means of a plate and a clip. The extractor is contained within the bolt and is secured by the extractor pin.

g. The trigger and sear group (8) is located on the underside of the receiver between the trigger housing group and the pistol grip handle of the receiver. It is composed of a sear, trigger with connector, and spring.

h. The receiver assembly (12) is made of pressed metal parts riveted or welded together. The sling retaining straps are welded to the side of the receiver and the ratchet spring and cover spring are secured to the receiver by rivets. The cover

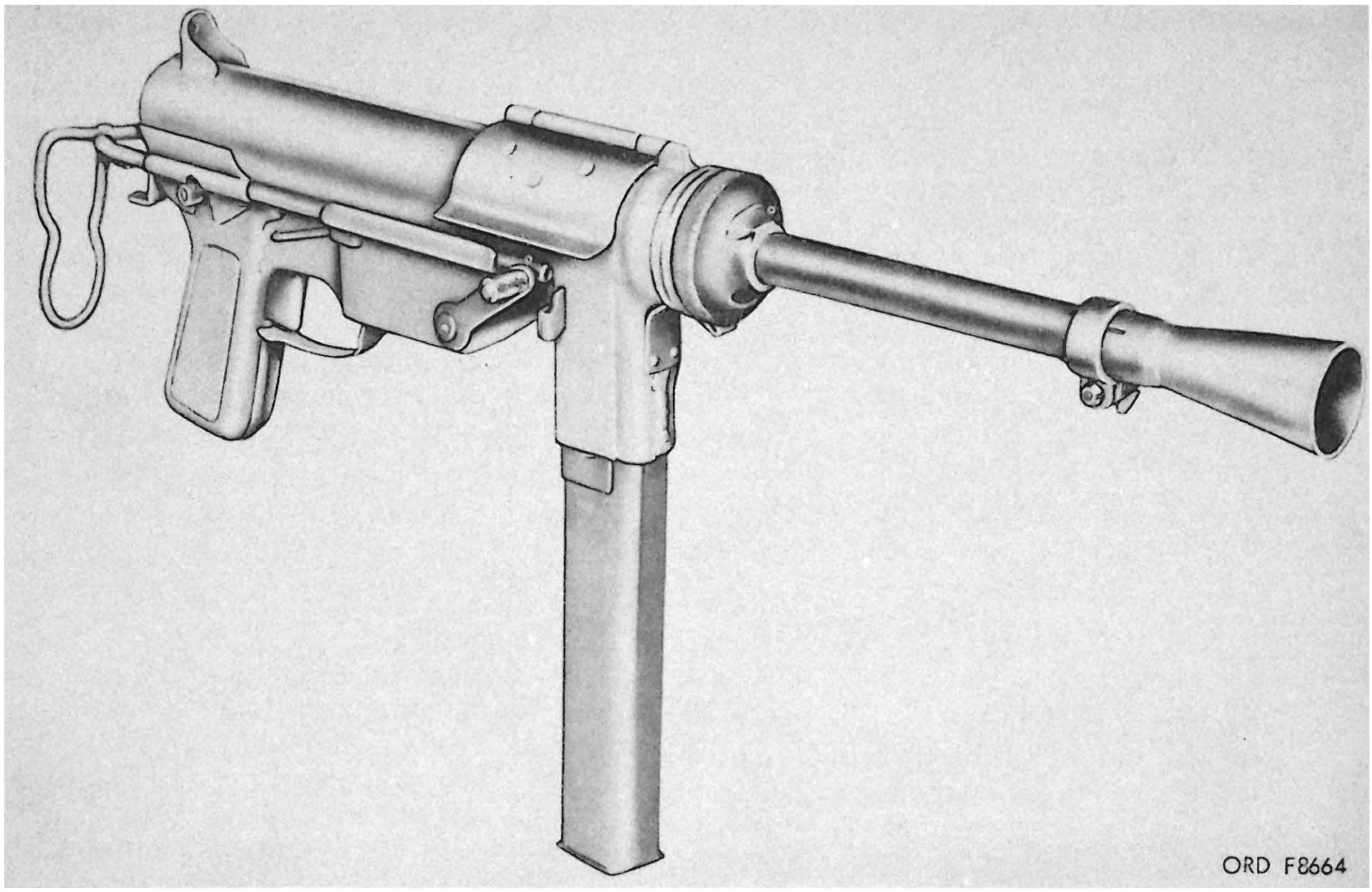


Figure 1. Caliber .45 submachine gun M3 with flash hider assembly M9 – right front view.

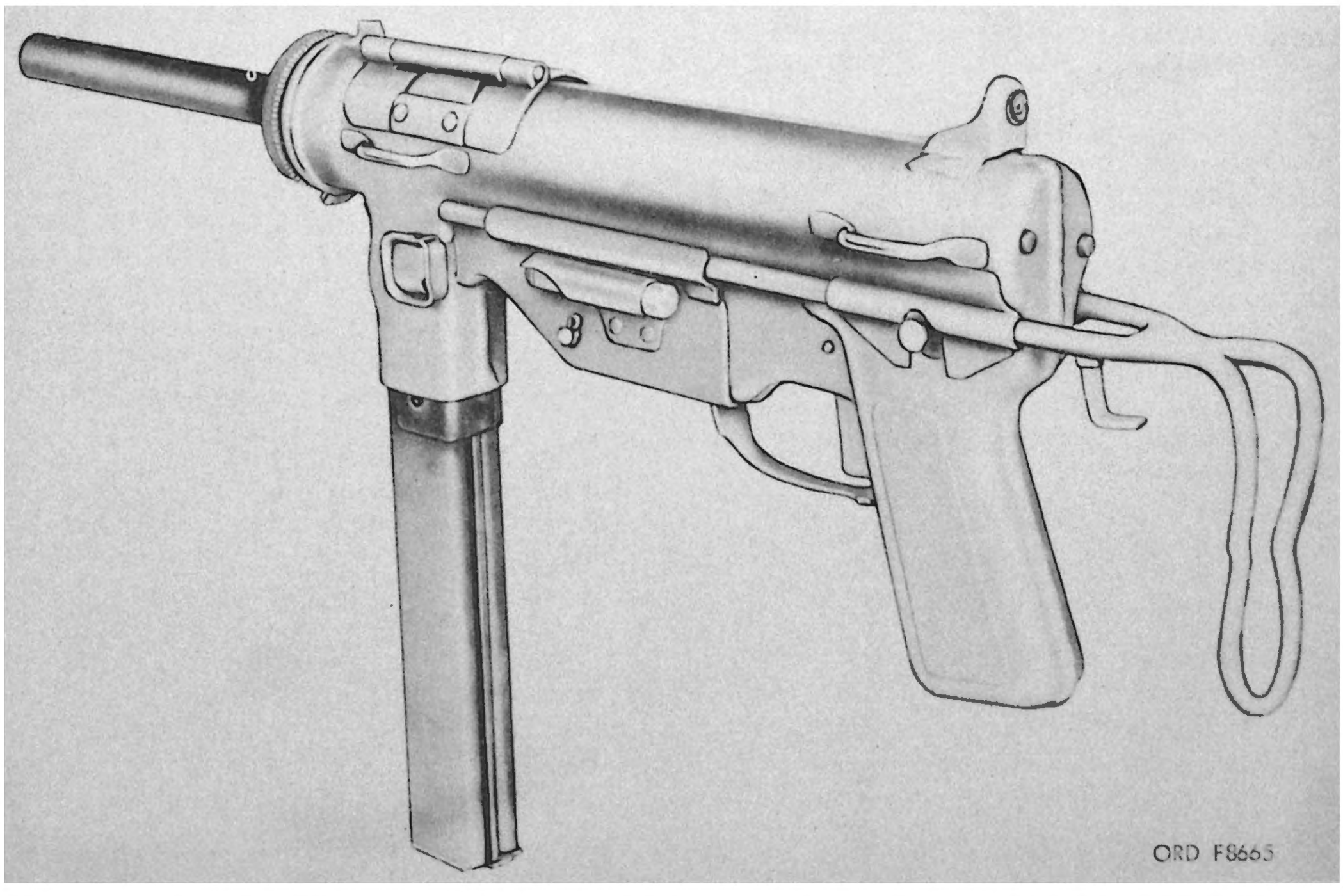


Figure 2. Caliber .45 submachine gun M3 – left rear view.

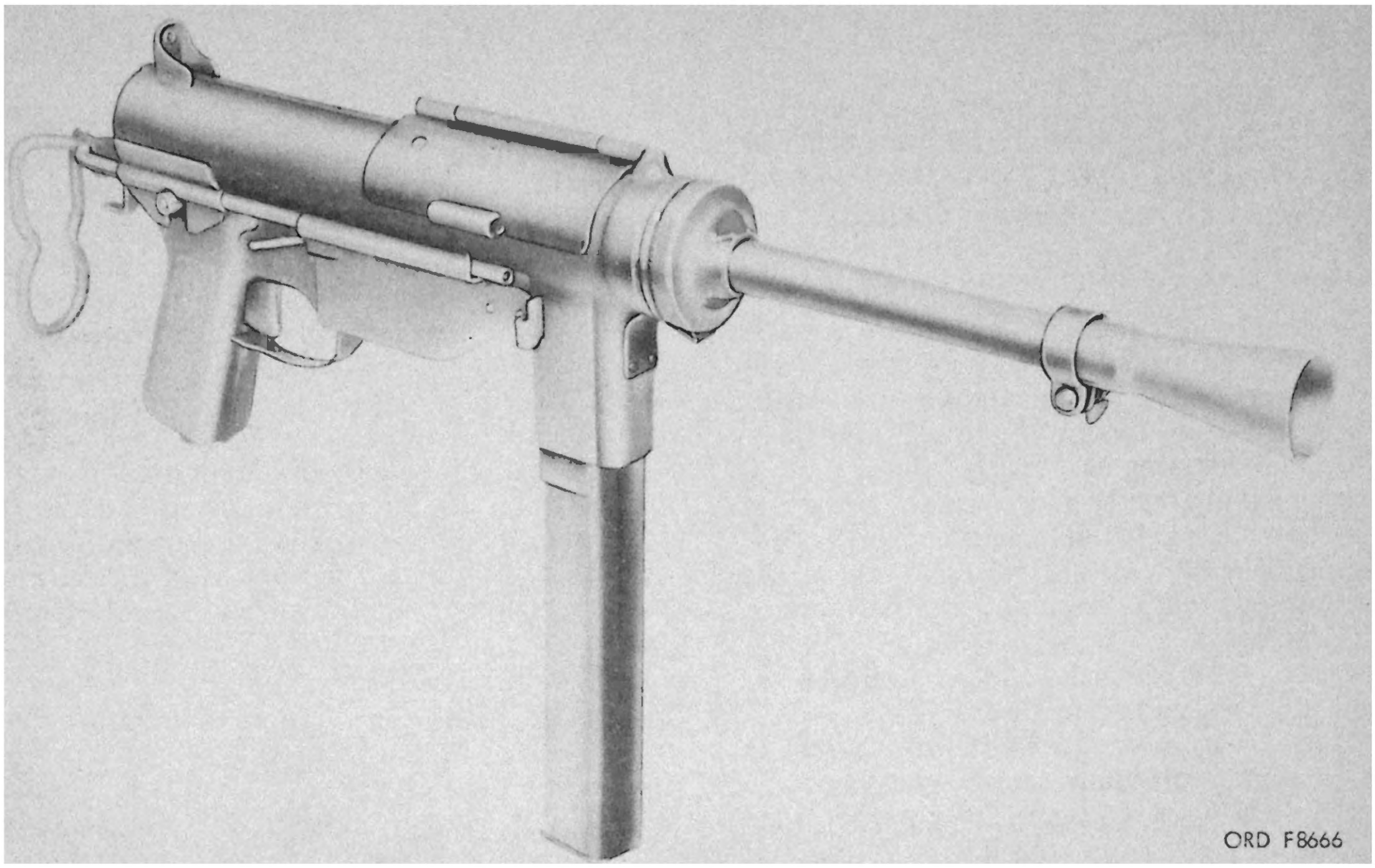


Figure 3. Caliber .45 submachine gun M3A1 with flash hider assembly M9 – right front view.

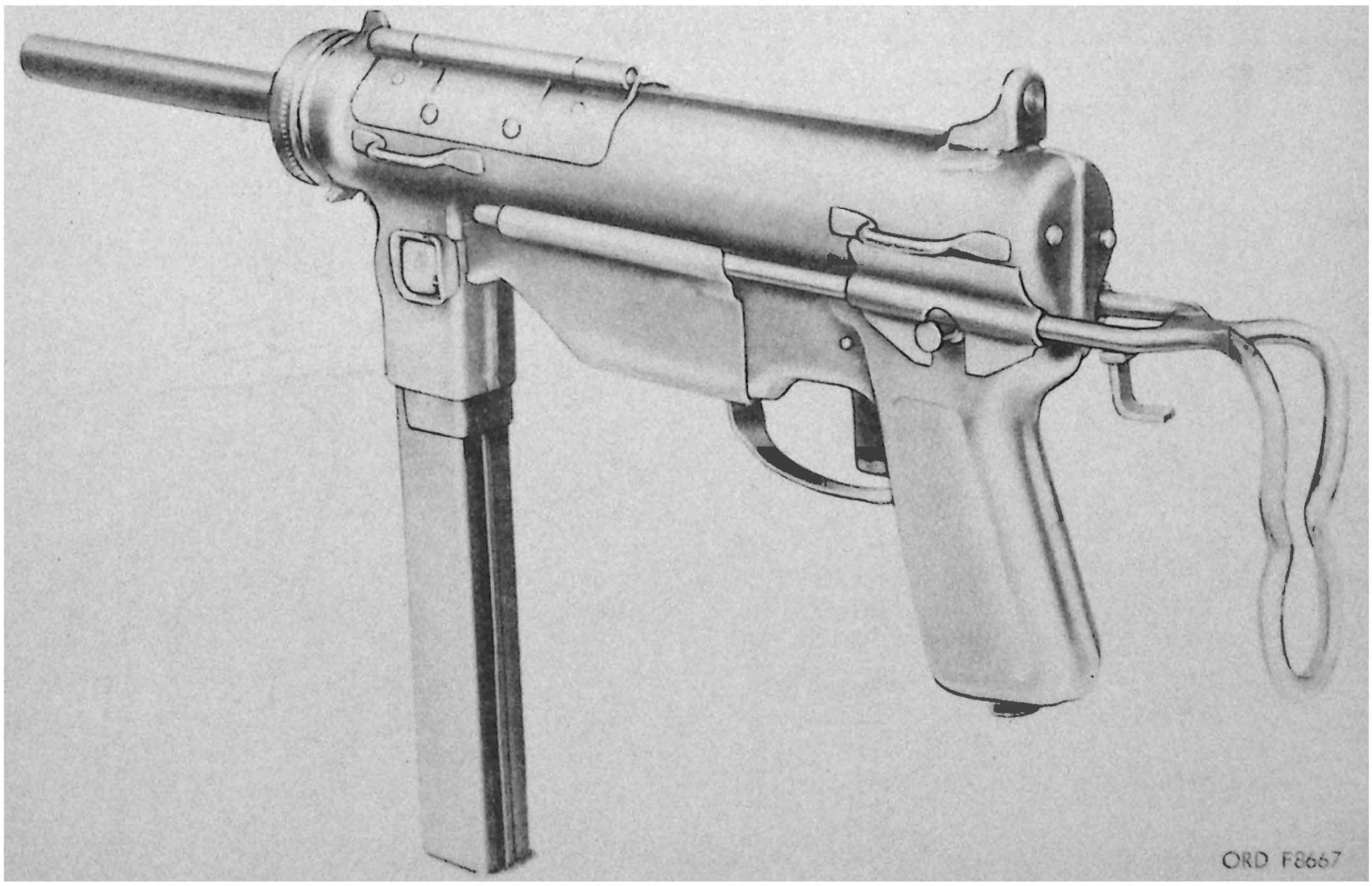


Figure 4. Caliber .45 submachine gun M3A1 – left rear view.

is held in position by a cover pin. The stock catch, spring, and sleeve are also part of the receiver assembly and are located above the pistol grip of the receiver and secured by a retaining pin. The receiver on the M3A1 is designed to contain the oiler (15, fig. 31).

5. Difference Between Models

The submachine gun M3A1 is basically the same as the submachine gun M3; however, the difference in the two models is specified in *a* through *d* below:

a. The housing assembly M3A1 (fig. 5) has been changed in design to eliminate the retracting handle, spring, lever assembly, and oiler clip. It contains the ejector, which is secured to the housing by two rivets.

b. The bolts for the M3 and M3A1 vary in design as shown in figure 6. The M3A1 bolt contains a circular cut which permits the cocking of the weapon by retracting the bolt with the finger. It also contains an ejector groove extending the length of the bolt. This permits the removal of the bolt and guide rod group without necessitating the removal of the trigger guard and housing assembly from the weapon. The retracting lever pawl notch has been eliminated and a cover-hinge-rivet clearance slot has been added.

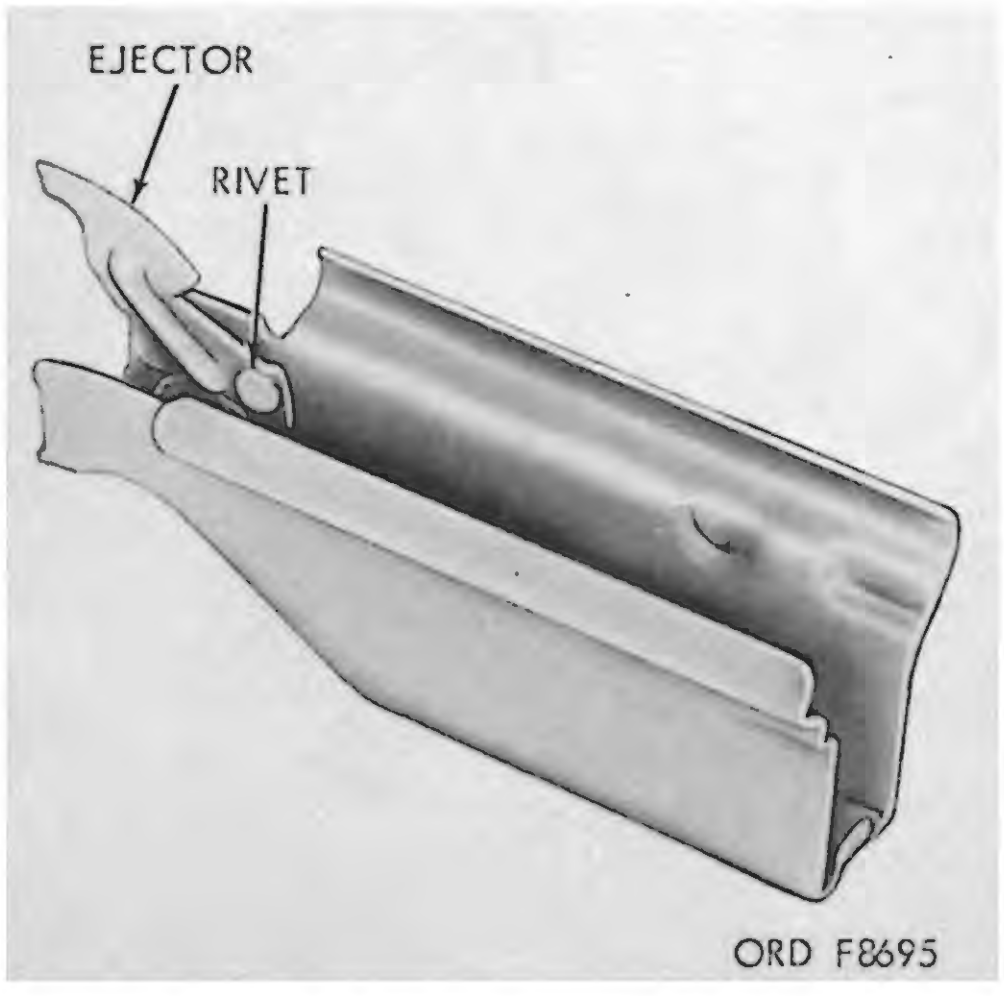


Figure 5. M3A1 housing assembly.

Note. On the guide rods that contain a round plate (early manufacture) it will be necessary to remove the trigger guard and housing assembly before removal of bolt and guide rod group.

c. The gun stock extension previously used on the M3 gun, has been changed in design by adding a bracket at the rear end. (See 2, figs. 26 and 29.) This bracket is utilized as a hand loader for loading ammunition into the magazine and to provide a stop for limiting the entry of the stock into the barrel when the stock is used as a cleaning rod, thereby preventing burring the end of the barrel.

d. The barrel assembly, previously used on the M3 gun, has been changed in design by the addition of two flat cuts on the barrel collar to permit the usage of the stock as a wrench for removal and installation of the barrel assembly.

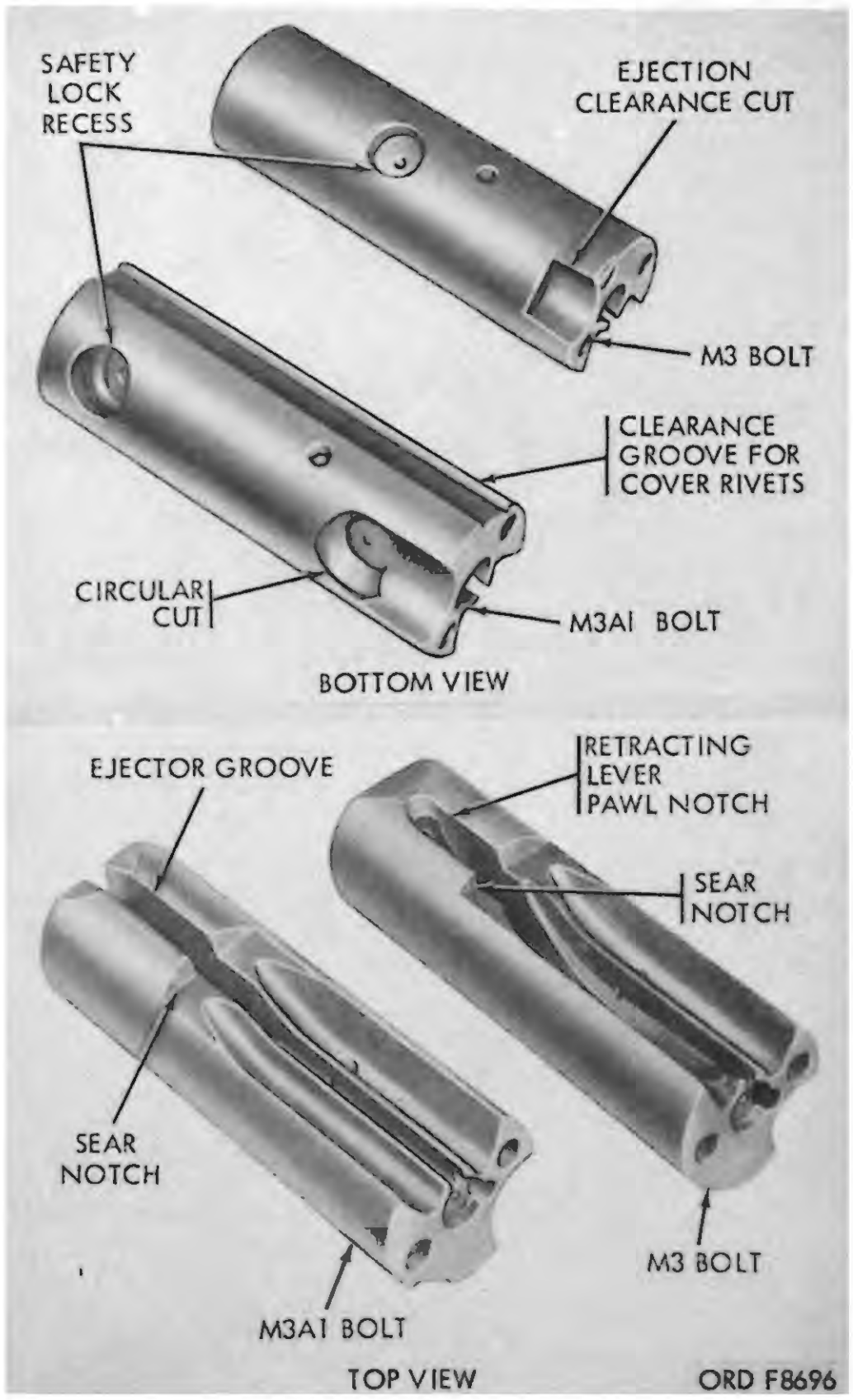


Figure 6. Two types of bolts

6. Tabulated Data

Weight of M3 submachine gun wihout magazine . . . 8.0 lb.
Weight of M3A1 submachine gun without magazine . . . . . 7.8 lb.
Weight of empty magazine 0.75 lb.
Weight of full magazine (30 rds) . . . . . 2.10 lb.
Length of gun with stock extended . . . . . 29.8 in.
Length of gun with stock closed . . . . . 22.8 in.
Length of barrel . . . . . 8.0 in.

Rifling:
Number of lands 4.0
Uniform right-hand twist one turn in . . . . . 16.0 in.
Capacity of magazine . . . . 30.0 rd.
Sight radius . . . . . 10.9 in.
Trigger pull . . . . . 4-1/2 to 7-1/2 lb.
Type of ammunition . . . . . Standard, cal. .45, ball cartridge
Rate of automatic fire . . . . 350 to 450 rds per min
Muzzle velocity . . . . . 920 fps
Maximum range . . . . . 1,760 yds

CHAPTER 2

PARTS, SPECIAL TOOLS, AND EQUIPMENT

7. General

Tools, equipment and repair parts over and above those available to the using organization are supplied to direct and general support and depot maintenance units for maintaining and repairing the materiel.

8. Maintenance Parts

Maintenance parts are listed in appendix II of this manual and is the authority for requisitioning replacements.

9. Common Tools and Equipment

Standard and commonly used tools and equipment having general application to this materiel are listed in appropriate supply catalogs and are authorized for issue by tables of allowances and tables of organization and equipment.

10. Special Tools and Equipment

The special tools and equipment tabulated in table 1 below are listed in appendix II of this manual and are authorized for issue. This tabulation contains only the special tools and equipment necessary to perform the operations described in this manual, is included for information only and is not to be used as a basis for requisitions.

Table 1. Special Tools and Equipment for Field Maintenance.

Item	Identifying No.	Reference		Use
		Fig.	Para.	
BRUSH, CLEANING, SMALL ARMS: M6, chamber.	6108828	35 Item 5	19*c*	To clean chamber of gun.
BRUSH, CLEANING, SMALL ARMS: M5, bore.	5504036	35 Item 8	19*b*	To clean barrel bore.
FIXTURE, MEASURING TRIGGER PULL:	7274758	7	62*b*	To check trigger pull.

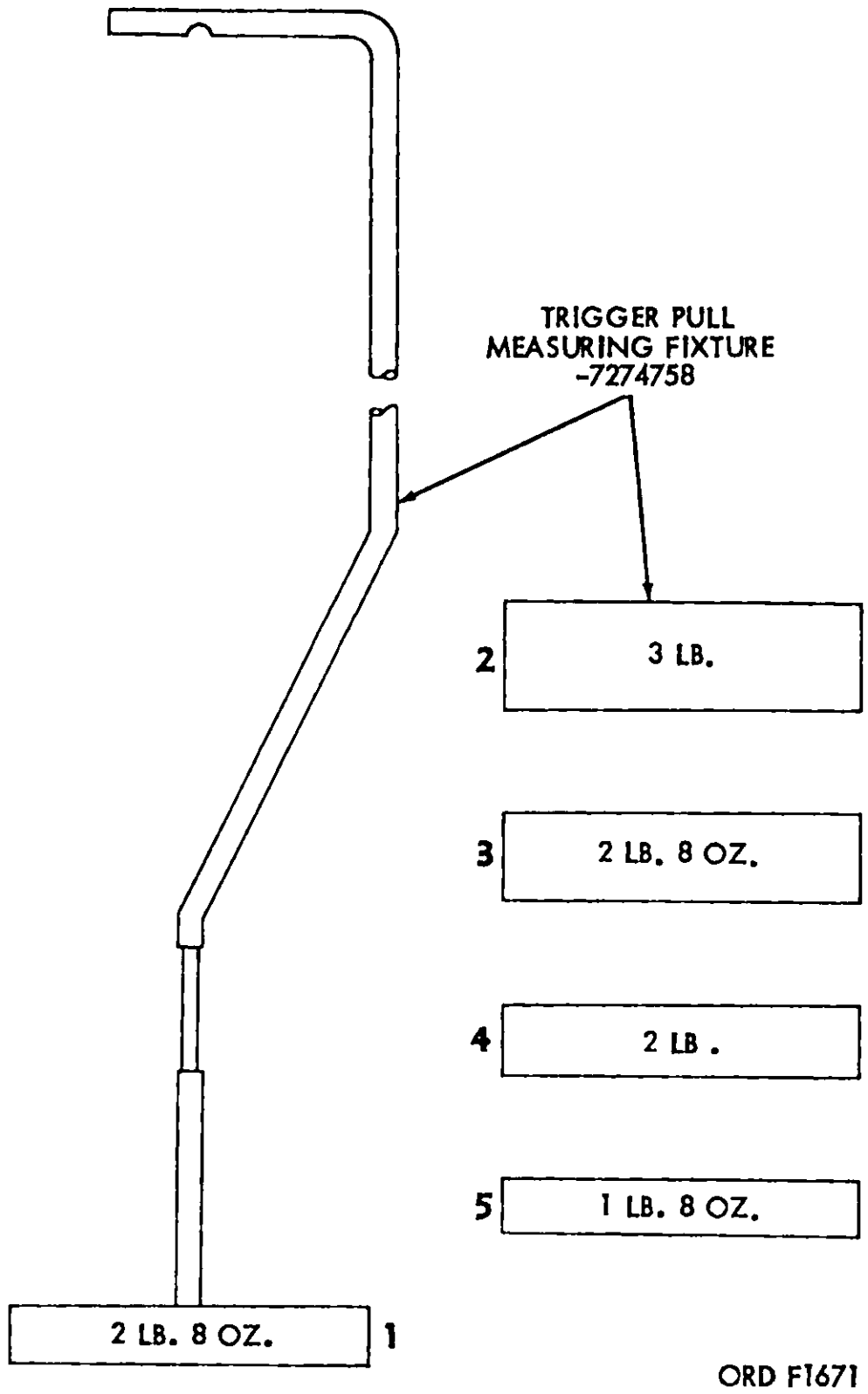


Figure 7. Trigger pull measuring fixture.

CHAPTER 3
INSPECTIONS

Section I. GENERAL

11. Scope

This chapter provides specific instructions for guidance during inspection by maintenance personnel of materiel in the hands of troops in the field, in Ordnance shops, and in alerted units scheduled for oversea duty. Troubleshooting information is incorporated wherever applicable as a normal phase of inspection.

12. Purpose of Inspection

Inspections are made for the purposes of (1) determining the condition of an item as to serviceability, (2) recognizing conditions that would cause failure, (3) assuring proper application of maintenance policies at prescribed levels, and (4) determining the ability of a unit to accomplish its maintenance and supply missions.

13. Categories of Inspection

In general, three categories of inspection are performed by direct and general support maintenance personnel.

a. Inspection of Materiel in the Hands of Troops in the Field.

(1) *Spot check inspection.* This is an inspection performed on a percentage of materiel in order to ascertain the adequacy and effectiveness of organizational maintenance and supply. Included within this scope is inspection of equipment to detect incipient failures before unserviceability occurs; inspection to ascertain the availability and use of technical and supply manuals and lubrication instructions; inspection to determine the accuracy of records, authorized levels of equipment and supplies, practice of supply economy, preservation, and safekeeping, of tools, availability of repair parts and supplies, and knowledge of the proper procedures for requisitioning supplies and equipment and follow-up thereon.

(2) *Command maintenance.* Command maintenance inspection will be performed, at least annually. The purpose of the inspection is to ascertain the serviceability of equipment, to predict maintenance and supply requirements, and to determine the adequacy of facilities and effectiveness of procedures. Information obtained during the inspection should indicate future requirements for depot maintenance and for replacement, as well as disclose immediate needs for maintenance and application of modification work orders. During inspection, correction of deficiencies will be made on the spot, when practical. For additional information relative to these inspections and the forms to be used therewith, refer to AR 750-8.

b. Ordnance Shop Inspection.

(1) *Initial inspection.* This is an inspection of materiel received in Ordnance shops for the purpose of determining the degree of repair and parts requirement. This includes determination of modification work orders to be applied.

(2) *In-process inspection.* This is performed in the process of repairing the materiel, to insure that all parts conform to the prescribed repair standards, that the workmanship is in accordance with approved methods and procedures, and that deficiencies not disclosed by the initial inspection are found and corrected.

(3) *Final inspection.* This is an acceptance inspection performed by a final inspector, after repair has been completed, to insure that the materiel is acceptable for return to user or storage.

c. *Preembarkation Inspection.* This inspection is conducted on materiel in alerted units scheduled for oversea duty to insure that such materiel will not become unserviceable or worn out in a relatively short time. It prescribes a higher percentage of remaining usable life in serviceable materiel to meet a specific need beyond minimum serviceability.

Section II. INSPECTION PROCEDURES

14. General

Warning: **Before starting an inspection, determine that the weapon is pointed in a safe direction, that live rounds or obstructions are NOT present in the bore or chamber, and that the ammunition is NOT in position to be introduced. Do not actuate the trigger until the weapon has been cleared. Avoid having ammunition in the vicinity of the work area.**

a. Check to see that the weapon has been cleaned of all grease, oil, dirt or foreign matter which might interfere with proper functioning or obscure the true condition of the parts.

b. Make an overall inspection of the weapon for general appearance, condition, operation, and manual functioning. Use dummy cartridges.

15. Inspection of Materiel in the Hands of Troops

a. *General.* Refer to AR 750-8 for responsibilities and fundamental duties of inspecting personnel, the necessary notice and preparations to be made, forms to be used, and general procedures and methods to be followed by inspectors. Materiel to be inspected includes organizational spare parts and equipment and the stocks of cleaning and preserving materials. In the course of this inspection, the inspection will accomplish the following:

(1) Determine serviceability, i.e., the degree of serviceability, completeness, and readiness for immediate use, with special reference to safe and proper functioning of the materiel. If the materiel is found unserviceable or incipient failures are disclosed, the deficiencies will be corrected on the spot or advice given as to corrective measures when applicable, or, if necessary, the materiel will be tagged for delivery to, and repair by, Ordnance maintenance personnel.

(2) Determine causes of mechanical and functional difficulties that troops may be experiencing and check for results of lack of knowledge, misinformation, neglect, improper handling and storage, security, and preservation.

(3) See that all authorized modifications have been applied, that no unauthorized alterations have been made, and that no work beyond the authorized scope of the unit is being attempted. Check the index in DA Pam 310-4 and current MWO files for any MWO's printed after this publication.

(4) Instruct the using personnel in proper preventive-maintenance procedures where found inadequate.

(5) Check on completeness of the organizational maintenance allowances and procedures for obtaining replenishments.

(6) Check serial number stamped on weapon for legibility.

(7) Note general appearance. Check exterior of materiel for missing or broken parts.

(8) Check storage conditions of general supplies and ammunition.

(9) Initiate a thorough report on materiel on "deadline" with reasons

therefore, for further appropriate action.

(10) Report to the responsible officer any carelessness, negligence, unauthorized modifications, or tampering. This report should be accomplished by recommendations for correcting the unsatisfactory conditions.

b. Overall Weapon.

(1) Satisfactory metal finishes for weapons range from dense black to medium light gray. Certain small arms weapons are manufactured with an unusual shade of neutral gray finish. Since this finish (gray zinc phosphate) is acceptable these weapons will not be rejected by inspectors or troops for this condition. Rigid restrictions on shiny metal surfaces will not be carried to an extreme. A worn surface is objectionable from the standpoint of visibility when it is capable of reflecting light, somewhat as a mirror does. Check to see that all rear sights have a dull black or gray finish on all surfaces.

(2) Barrels will be free of corrosion and powder fouling. Muzzles will be free of burs. Light pitting of the barrel, even though plainly visible, is not cause for rejecting a weapon. It does not affect the accuracy materially, but is a disadvantage because it interferes with subsequent cleanings. A barrel that is uniformly pitted with the edges of the lands sharp is acceptable. Only those barrels showing developed pits, or pits cutting into the lands, are unsatisfactory. Pits in the chamber, large enough to cause extraction difficulties, will be cause for rejection. Ringed bores or bores ringed sufficiently to bulge the outside surface are cause for rejection.

(3) All weapons must have play between working components to permit them to operate in localities where sand and dust are prevalent. A weapon may be completely useless if its working parts are fitted with insufficient clearance.

(4) Minor defects in metal components do not normally affect their being acceptable. Scratches and tool marks on barrels are ordinarily of no importance.

(5) The weapon should first be inspected as a unit for general appearance and condition, smoothness of operation, and functioning of magazine, extractor, and ejector. The submachine gun M3 should be inspected to see that it has the latest housing assembly (fig. 27). The new style housing assembly has a projecting lug on the ejector, which prevents breakage of the retracting lever. Also inspect for the presence of the magazine catch shield, which prevents accidental depression of the magazine catch and consequent loss of the magazine.

(6) Check to see that bolt slides freely and is returned by spring action.

(7) Check to see that the sear holds the bolt firmly in the cocked position and releases the bolt properly when the trigger is actuated.

(8) With the weapon cocked, determine that the bolt is held back and off the sear by the cover safety lock when the cover is closed.

(9) Move the stock extension forward and rearward to determine that the stock catch operates properly and holds the stock securely in either position.

(10) Work the retracting handle to ascertain that it functions smoothly and cocks the weapon (M3 only).

(11) A magazine containing at least eight dummy cartridges is placed in the weapon in the normal manner and the bolt is allowed to close. While retracting the bolt, see that the extractor has fully engaged the cartridge and that the ejector throws the cartridge from the receiver. Particular attention will be paid to the receiver for dents, bent guide rods that would cause binding

and therefore would produce a short recoil. Also check for binding of ejector in slot of bolt.

c. Specific. The specific groups and assemblies to be inspected for serviceability are listed in TB ORD 587 and are also applicable to preembarkation inspection.

16. Ordnance Shop Inspections

a. Initial Inspection. Inspection procedures outlined in paragraph 15 also apply to initial shop inspection. If materiel received in Ordnance shops is not tagged to indicate the nature of the repair, steps should be taken to determine the cause of unserviceability and the estimate of parts required.

b. Troubleshooting. Table 2 lists malfunctions, probable causes, and corrective actions.

Table 2. Troubleshooting

Malfunction	Probable cause	Corrective action
Failure to feed	Defective magazine	Replace. (Fig. 8).
	Defective magazine catch	Replace. (Fig. 23).
	Defective magazine catch spring	Replace. (Fig. 23).
Failure to fire	Worn or broken firing pin	Replace bolt. (3C or 4C, fig. 32).
	Dirt on face of bolt	Clean. (Para. 19).
	Bent guide rod	Straighten. (Para. 49*c*(4)).
	Weak or broken driving springs	Replace. (6, fig. 32).
Failure to extract	Worn or broken extractor	Replace. (3B and 4B, fig. 32).
	Pitted or dirty chamber	Replace barrel if pitted. Clean. (Para. 19).
Failure to eject	Broken ejector	Replace. (5D, fig. 27 and 2, fig. 30).
	Lack of lubrication	Lubricate. (Para. 23).
	Bent receiver	Repair. (Para. 59c (12)).
Failure to cock	Worn sear notch	Replace bolt. (3C or 4C, fig. 32).
	Chipped or worn sear	Replace sear. (2, fig. 33).
Miscellaneous		
Excessive pull required to extract bolt.	Dented receiver	Repair. (Para. 59c (12)).
	Bent or burred guide rods	Repair rods. (Para. 49*c* (4)). Remove burs (Para. 22*a*).
	Ejector binding in slot of bolt	Repair ejector. (Para. 44*d*(5)).
	Lack of lubrication	Lubricate. (Para. 23).
Magazine catch will not depress	Magazine catch assembled wrong	Remove (fig. 23) and assemble properly.
Difficulty encountered when inserting magazine assembly.	Bent or burred receiver at magazine well.	Remove burs and straighten. (Para. 59*c*(13)).

c. In-Process Inspection. Detailed instructions for in-process inspection of the materiel are contained in chapter 5, together with applicable repair instructions.

d. Final Inspection. Detailed instructions for final inspection of materiel repaired is contained in chapter 6.

CHAPTER 4

GENERAL MAINTENANCE

17. General

This chapter provides the necessary instructions on the general maintenance procedures to follow. The following methods and procedures given in this chapter are to be carefully observed during repair operations. Operating instructions are contained in FM 23-41. This chapter includes the disassembly and assembly procedures, replacement of parts, use of tools, cleaning, general precautions in cleaning, finished surfaces, removal of burs, lubrication, and function firing.

18. General Repair Methods

a. Disassembly and Assembly Procedures.

(1) In disassembling a unit, remove the major assemblies whenever possible. Subassemblies may be disassembled, as necessary, into individual parts.

(2) During assembly, subassemblies should be assembled first and then installed to form a complete unit.

(3) Complete disassembly of a unit is not always necessary in order to make a required repair or replacement. Good judgment should be exercised to keep disassembly and assembly operations to a minimum.

b. Replacement of Parts.

(1) When assembling a unit, replace pins, if damaged. If threads are damaged on oiler nut or oiler, these parts will be replaced.

(2) All springs will be replaced if they are broken, bent, cracked, or fail to function properly.

(3) If a required new part is not available, reconditioning of the old part is required. Such parts should be examined carefully after reconditioning to determine their serviceability.

c. Use of Tools.

(1) Care must be exercised to use tools that fit and are suitable for the task to be performed in order to avoid unnecessary mutilation of parts and/or damage to tools.

(2) Keep tools clean and work with clean parts. Normal rules of good housekeeping must be observed.

19. Cleaning

a. After repair operations and prior to assembly, all parts should be cleaned thoroughly of all grease, oil, water and dirt using dry cleaning solvent (SD). They should be dried thoroughly with clean wiping cloths and coated with lubricant, prescribed in paragraph 23, to prevent rusting.

b. Clean burned powder residues from the barrel bore with solvent cleaning compound (CR) using stock extension 7161812 with cleaning brush 5504036. After cleaning with brush place several cleaning rod patches on end of rod and run through bore of barrel several times to clean and dry thoroughly.

c. Clean the chamber using solvent cleaning compound (CR) and cleaning brush 6108828; wipe dry after cleaning.

d. Apply a light coat of general purpose lubricating oil (PL special) to oil exterior surfaces and the bore to prevent corrosion.

e. On components that contain an accumulation of light rust, use a clean cloth moistened with solvent cleaning compound (CR). If this does not suffice, use crocus cloth. Make certain it does not scratch or alter the finished surfaces. Remove all dirt and residue; oil surfaces before assembling parts.

f. On component parts such as the barrel, bolt and guide rod group, which contain a hard carbon residue it is necessary to clean these items with carbon removing compound P-C-111A, as follows:

Warning. **Avoid skin contact. The compound should be washed off thoroughly with**

running water if it comes in contact with the skin. A good lanolin base cream, after exposure to compound, is helpful. The use of gloves and protective equipment is recommended.

(1) Using a suitable container, fill with fresh compound.

(2) Before soaking a component in compound, remove grease, dirt, and oil. Place parts to be cleaned in container making certain they are completely immersed.

(3) Soak for 2 to 16 hours. Remove parts and allow to drain. Rinse with water, kerosene, or solvent. To effectively remove carbon, brush with stiff bristle brush under running water. Allow to dry, then apply a light coat of general purpose lubricating oil (PL special).

g. New materiel and component parts received from storage for immediate use may have heavy accumulations of grease. Remove this residue with waste or clean wiping cloths saturated with dry cleaning solvent (SD). Dry and lubricate as specified in paragraph 23.

h. For general cleaning instructions on all parts, refer to TM 9-208-1.

20. General Precautions in Cleaning

a. Dry cleaning solvent is flammable and should not be used near an open flame. Fire extinguishers should be readily available when using this material. In addition, this material evaporates quickly and has a drying effect on the skin. When used without rubber gloves, it may cause cracks in the skin, and in the case of some individuals, a mild irritation or inflammation. Use only in well-ventilated places.

b. The use of diesel fuel oil, gasoline or benzene (benzol) for cleaning the weapon is prohibited.

c. Store solvent cleaning compound (CR) in a warm place, if practical. Do not dilute or add antifreeze.

Note: Sandblasting is permissible on nonworking surfaces for removal of dirt and rust.

21. Finished Surfaces

a. All treated surfaces will be refinished to match the appearance of new parts.

b. For detailed information on finished surfaces, refer to TM 9-1861.

22. Removal of Burs From Threads and Working Surfaces

a. During the entire life of the submachine gun, polishing and stoning are necessary to relieve friction and to remove burs caused by usage. Burs on threads and like surfaces should be removed with a fine stone, tap or thread chaser. Burs on such working surfaces as the receiver, guide rods, cam surfaces, and receiver housing area should be removed with a fine stone and polished with crocus cloth.

Caution: **Care should be observed to stone evenly and lightly and not remove more metal than absolutely necessary to maintain correct contours. Critical dimensions of parts or assemblies must not be altered in any way that would affect the functioning or interchangeability of parts.**

b. Rough spots, scores, galling, and gouges will be smoothed to enable the part to operate normally. The finish of the repaired component will be approximate of the original finish.

23. Lubrication

a. Make certain all metal parts are cleaned and dried thoroughly in accordance with instructions prescribed in paragraph 19.

b. All metal parts will be lubricated by applying a light coat of general purpose lubricating oil (PL special).

24. Function Firing

a. Following repair, fire each submachine gun with three rounds automatic fire. If weapons do not function satisfactorily, additional rounds are authorized. Weapons which fail to meet the test are to be corrected by the replacement of defective components or by performing such repair as required.

b. All weapons will be cleaned as soon as possible after all firing tests. Special care should be taken to make certain the bolt faces, breech end of the receivers, and other parts subjected to burned powder

residues are thoroughly cleaned. These parts should be scrubbed with a bristle brush moistened with solvent cleaning compound (CR).

c. The bore and chamber will then be cleaned with the proper brushes dipped in solvent cleaning compound (CR), wiped dry, then oiled lightly.

CHAPTER 5
REPAIR

Section I. MAGAZINE

25. Removal

Remove magazine as shown in figure 8.

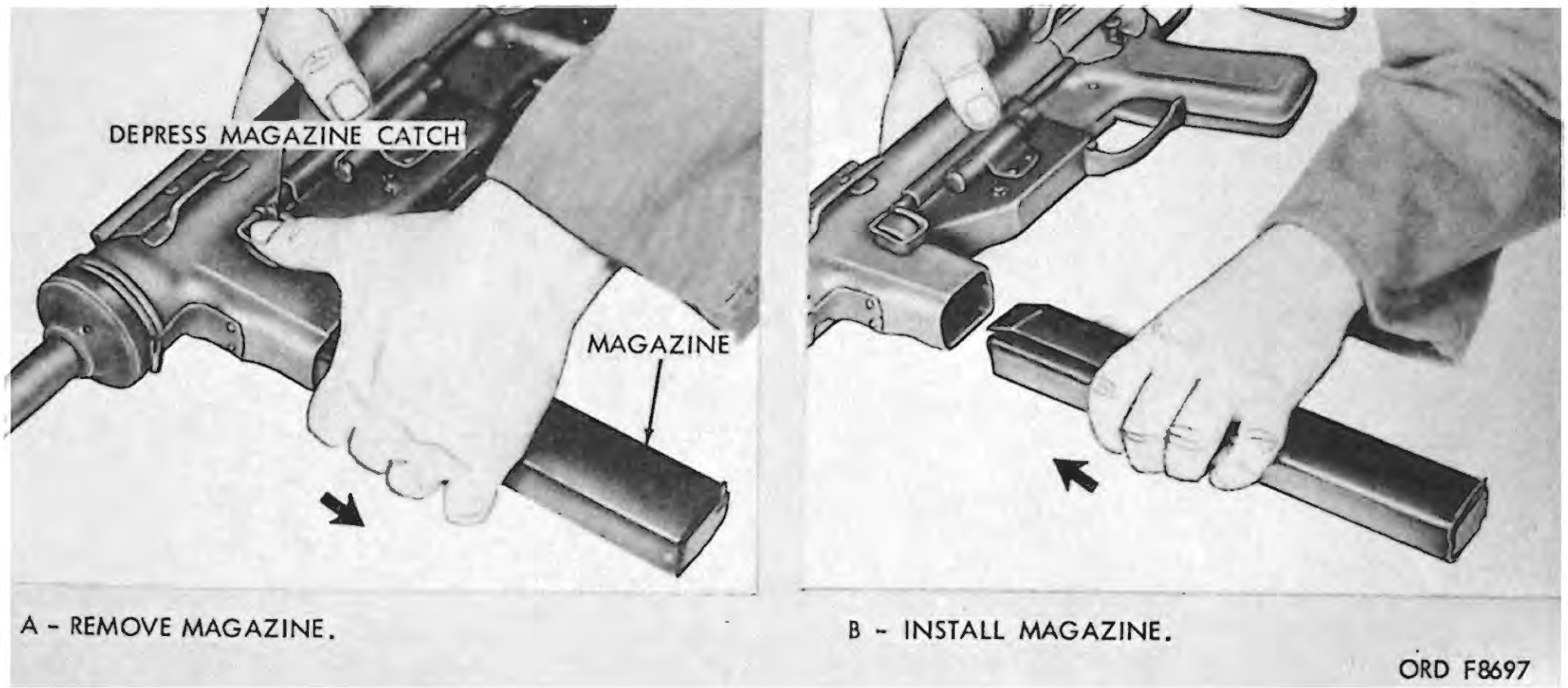


Figure 8 Remove/install magazine.

26. Disassembly

Disassemble the magazine in numerical sequence as shown in figure 9.

27. Cleaning, Inspection, and Repair

a. Cleaning. Refer to paragraph 19 for cleaning instructions.

b. Inspection (fig. 10).

(1) Inspect base for deformation, wear, and burs.
(2) Inspect spring for cracks, weak tension, and set.
(3) Inspect follower for wear and burs.
(4) Inspect the body for dents, cracks, and fit in receiver.

c. Repair (fig. 9).

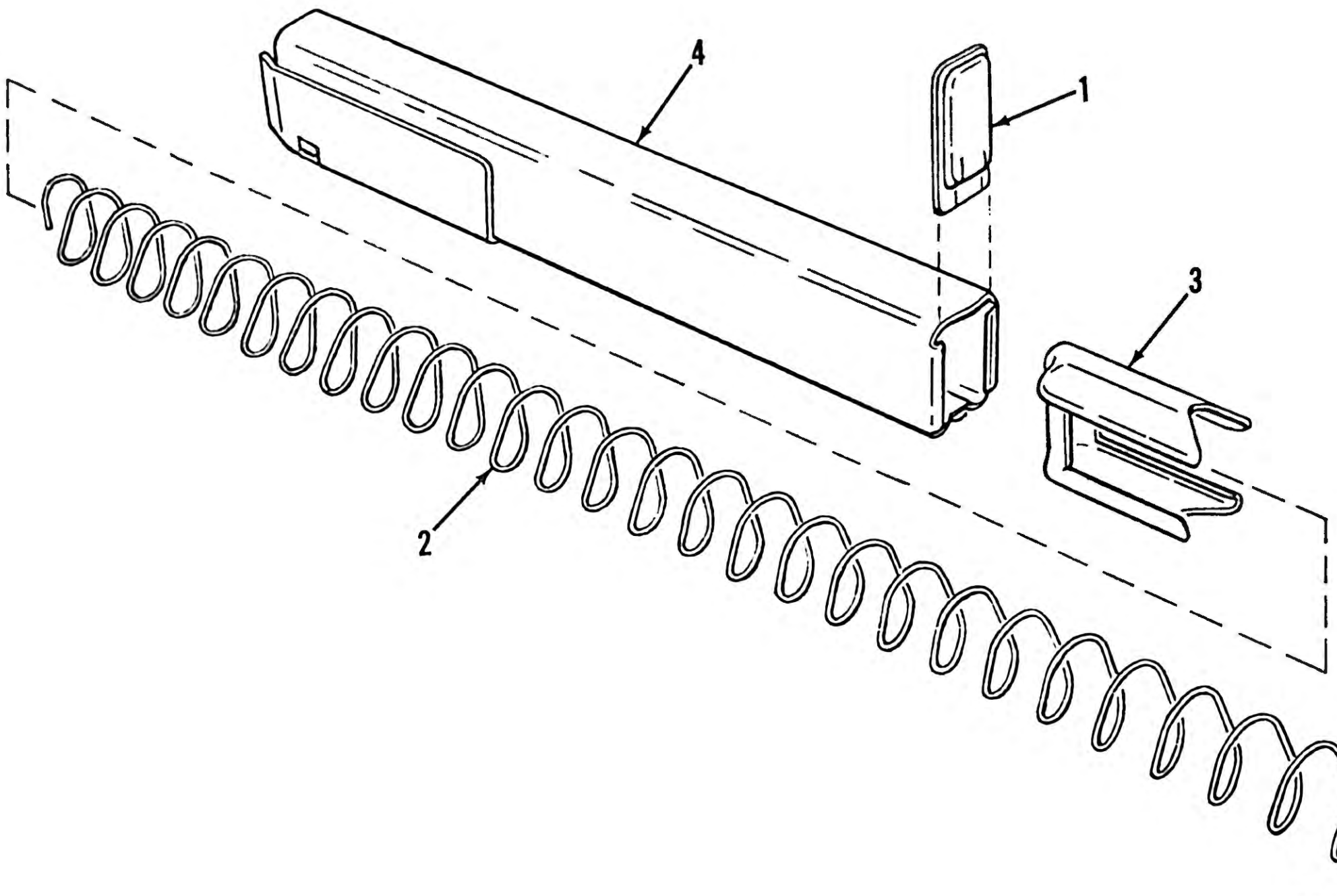
(1) Remove burs as described in paragraph 22.
(2) Replace magazine if components are worn, broken, or damaged.

28. Assembly

Assemble magazine in reverse order of numerical sequence as shown in figure 9.

29. Installation

Install magazine as shown in figure 8.



1–Base 5349934
2–Spring 6301480
3–Follower 5653428
4–Body 5653436

Figure 9. Magazine – exploded view.

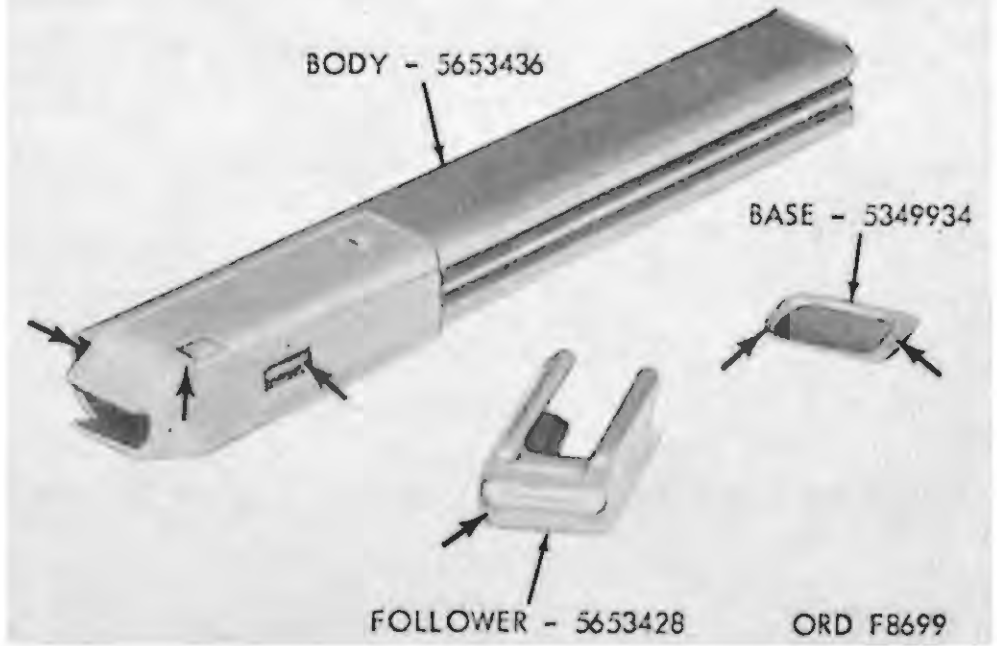


Figure 10. Magazine – inspection points.

Section II. GUN STOCK EXTENSION

30. Removal

Remove the gun stock extension as shown in figure 11.

31. Cleaning, Inspection, and Repair

a. Cleaning. Refer to paragraph 19 for cleaning instructions.

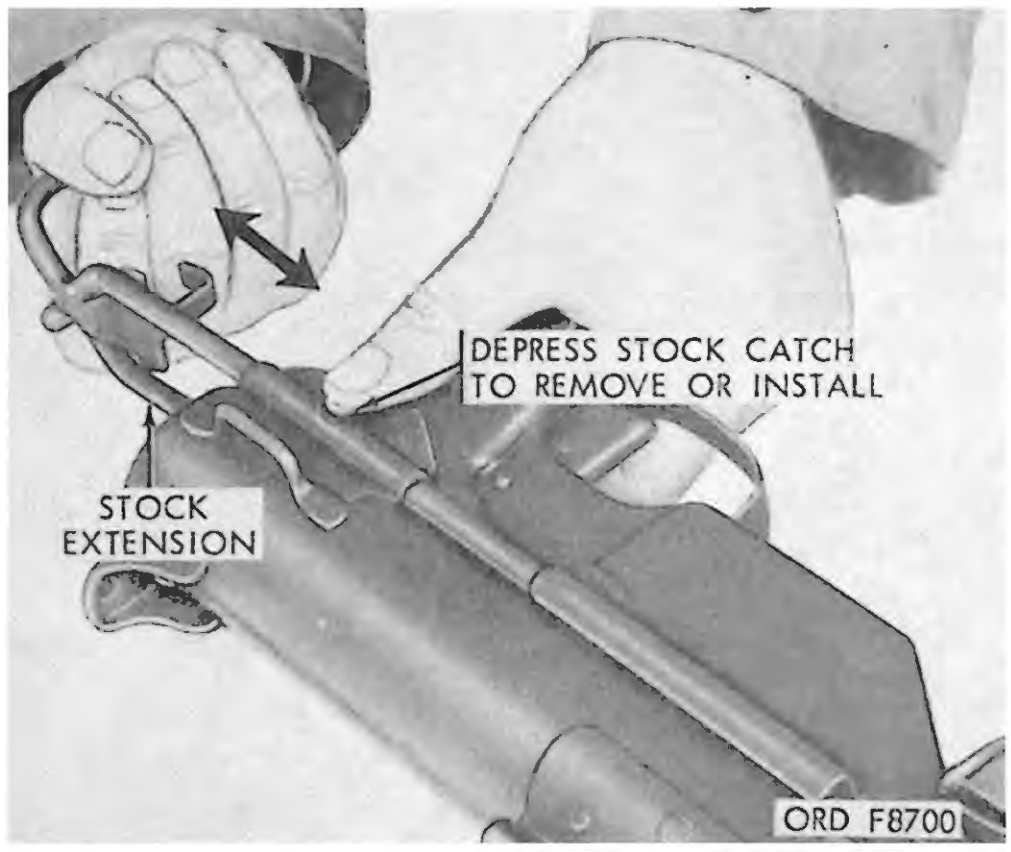


Figure 11. Remove/install gun stock extension.

b. Inspection (fig. 12). Inspect gun stock extension for deformation, wear, and burs.

c. Repair. Straighten gun stock extension (2, fig. 26) if bent and remove burs. Replace, if damaged.

32. Installation

Install the gun stock extension as shown in figure 11.

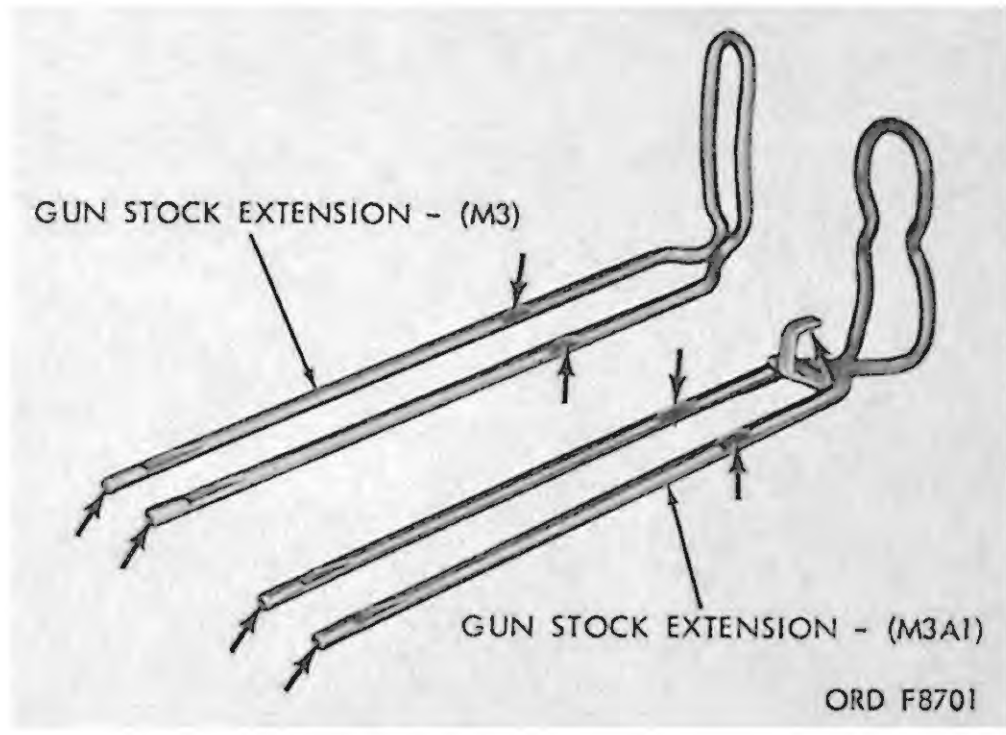


Figure 12. Gun stock extension – inspection points.

Section III. FLASH HIDER ASSEMBLY M9

33. Removal

Remove flash hider assembly as shown in figure 13.

34 Disassembly

Disassemble the flash hider assembly in numerical sequence as shown in figure 34.

35. Cleaning, Inspection, and Repair

a. Cleaning. Refer to paragraph 19 for cleaning instructions.

b. Inspection (fig. 14).

(1) Inspect washer for wear and damage.

(2) Inspect the setscrew for stripped threads, burs, and wear.

(3) Inspect the wing nut for stripped threads and damage.

(4) Inspect the flash hider for dents, deformation, and cracks.

(5) Inspect ring of flash hider; make certain it is welded securely to flash hider.

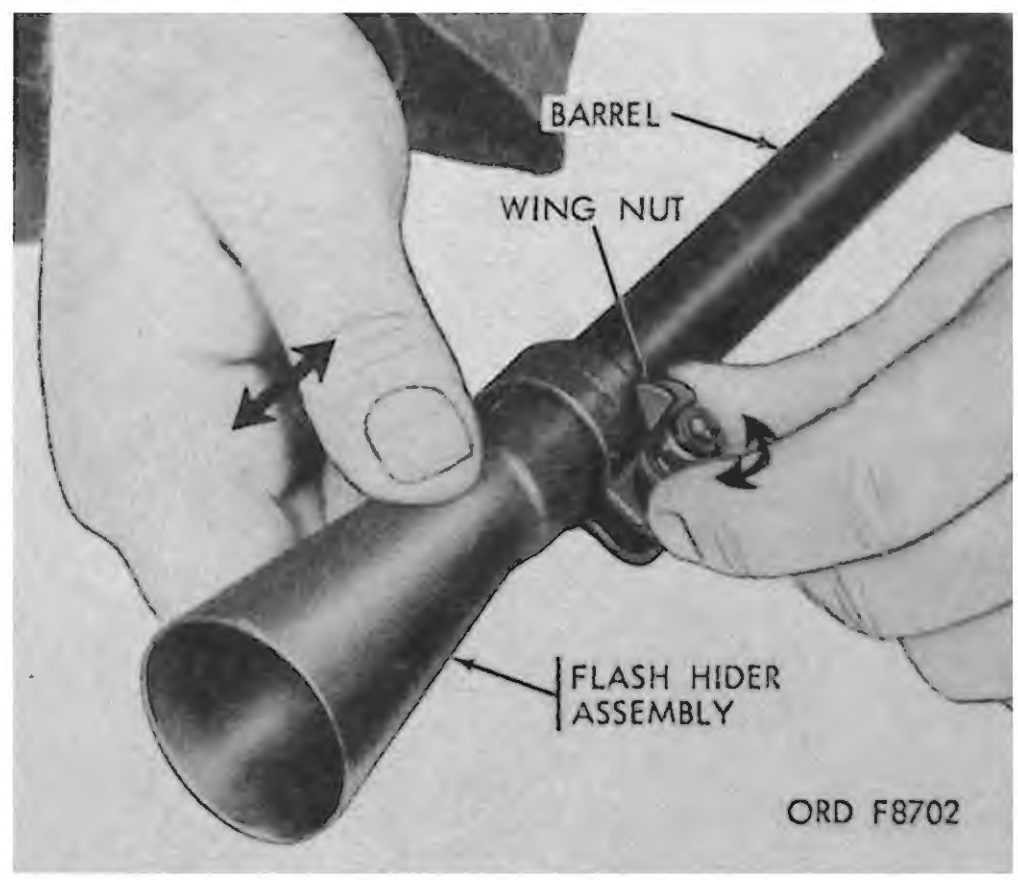


Figure 13. Remove/install flash hider assembly M9.

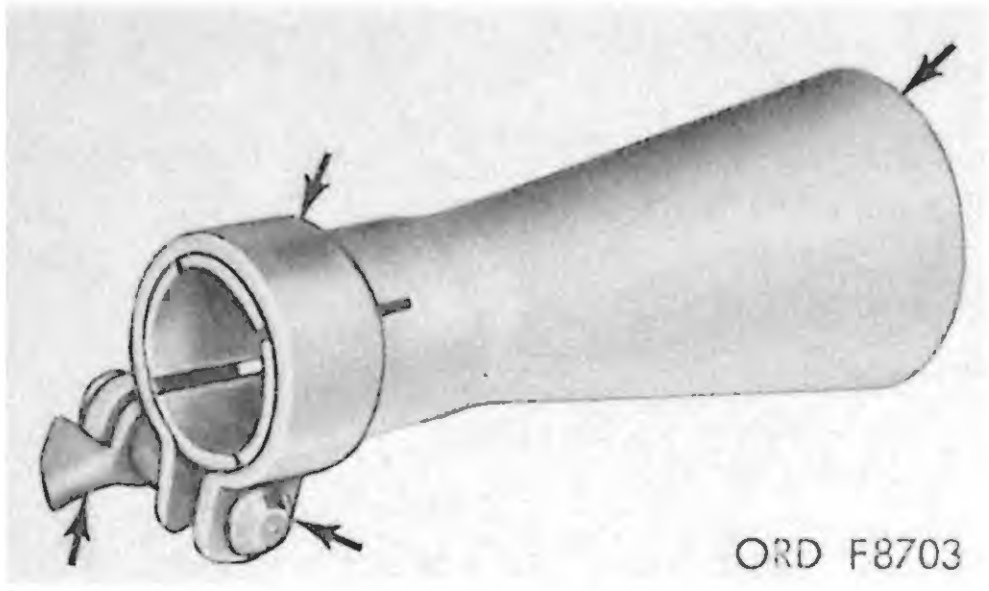


Figure 14. Flash hider assembly M9 – inspection points.

c. Repair (fig. 34).

(1) Replace washer (2) if worn or damaged.

(2) Replace setscrew (3) and wing nut (1) if threads are stripped or damaged.

(3) Replace flash hider assembly if flash hider is cracked or dented or if ring is loose on flash hider.

36. Assembly

Assemble the flash hider assembly in reverse order of numerical sequence as shown in figure 34.

37. Installation

Install the flash hider assembly as shown in figure 13.

Section IV. BARREL

38. Removal

Remove the barrel as shown in figure 15.

39. Disassembly

No further disassembly is authorized.

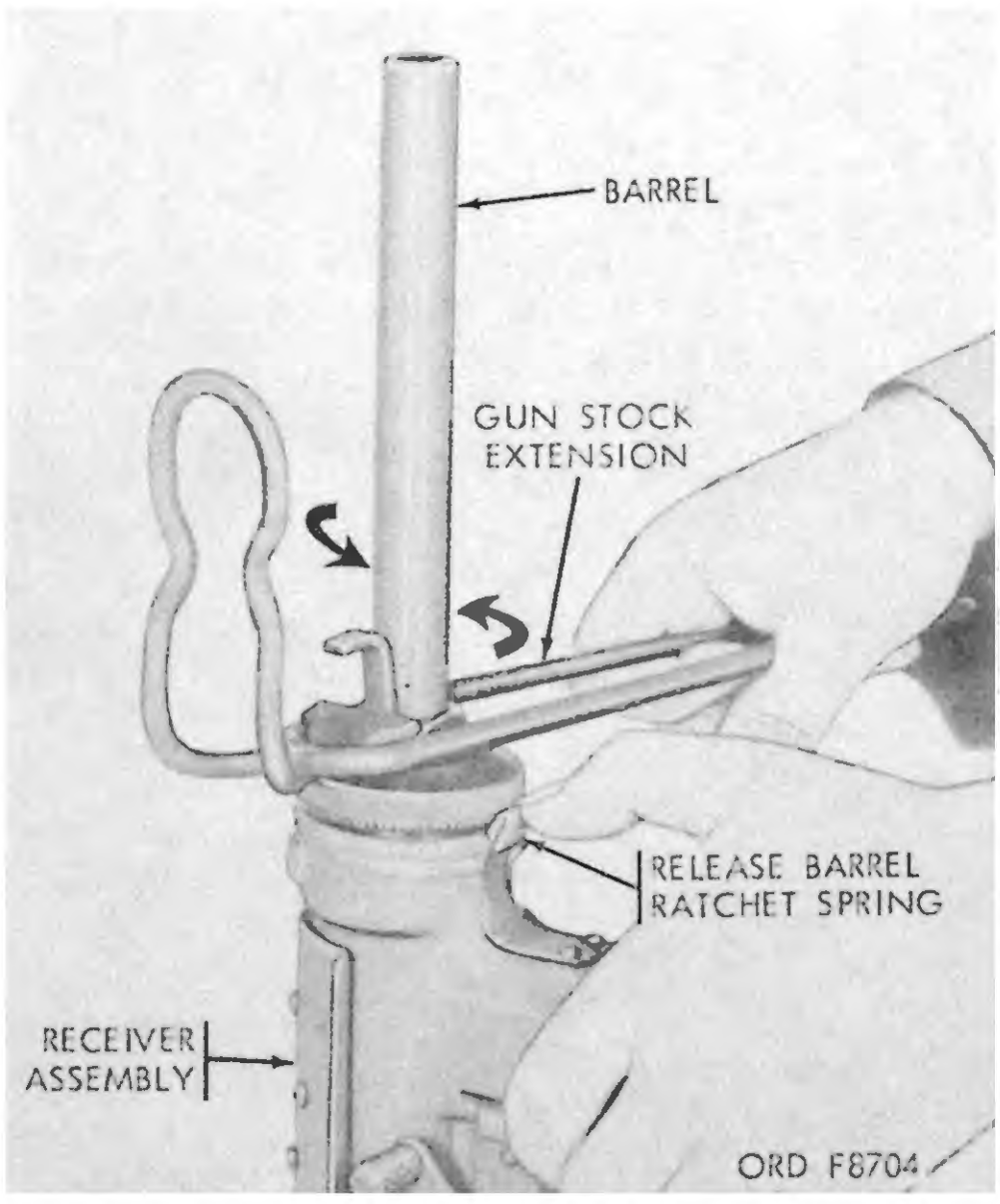


Figure 15. Remove/install barrel.

40. Cleaning, Inspection, and Repair

a. Cleaning. Refer to paragraph 19 for cleaning instructions.

b. Inspection (fig. 16).

(1) Examine barrel bore for wear, pits and bulges.

(2) Check serrations on barrel collar for wear and damage.

(3) Inspect the collar; make certain it is secure to the barrel.

c. Repair.

(1) Replace barrel (3, fig. 26 and fig.

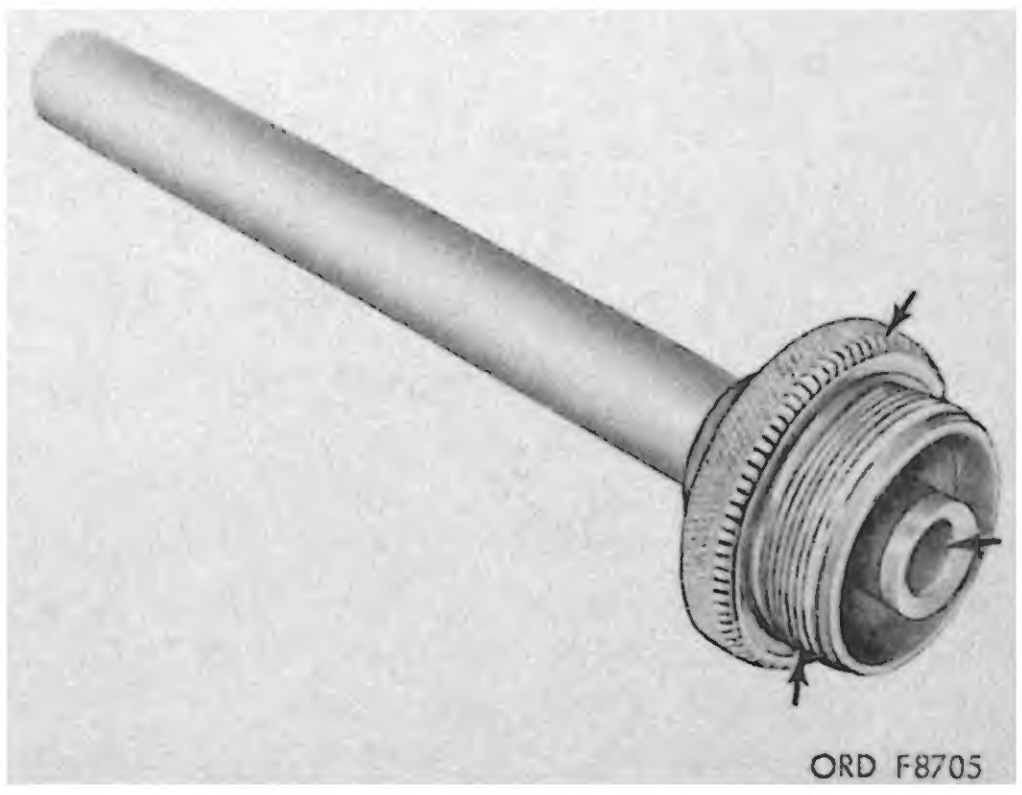


Figure 16. Barrel – inspection points.

29) if pits are as wide as lands or are more than three-eights of an inch long.

(2) Replace barrel if threads are stripped or if serrations are worn affecting the securing of barrel to the receiver.

(3) Replace barrel if lands are worn as to affect the accuracy of the weapon.

(4) Remove burs as indicated in paragraph 22.

41. Installation

Install barrel as shown in figure 15.

Section V. HOUSING GROUP

42. Removal

Remove the housing group as shown in figure 17.

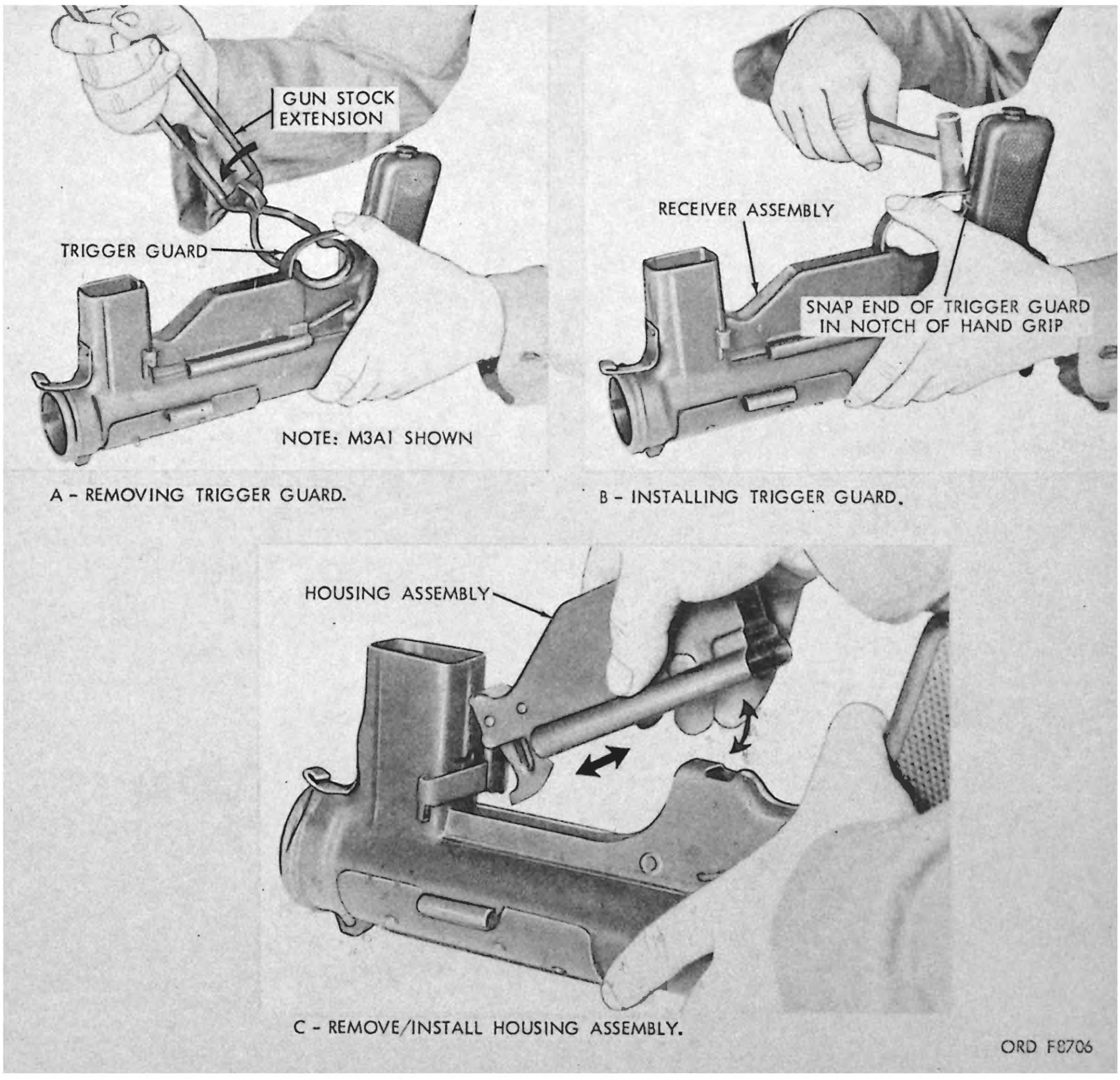


Figure 17. Remove/install housing group.

43. Disassembly

a. Disassemble the housing assembly 5653432 (M3) as shown in figure 27.

b. Disassemble the housing assembly 7161923 (M3A1) as shown in figure 30.

Note. Disassembly of housing assembly 7161923 (M3A1) is authorized only if rivets are loose and ejector needs replacement.

44. Cleaning, Inspection, and Repair

a. Cleaning. Refer to paragraph 19 for cleaning instructions.

b. Inspections (M3) and (M3A1) (fig. 18).

(1) Inspect all parts for damage and wear which might cause malfunction, burs, rust, foreign matter in recesses, deformation and free action with mating parts.

(2) Inspect housings for deformations and dents.

(3) Inspect ejectors for looseness and damage and binding in slot of bolt.

c. Inspections for M3 Submachine Gun Only.

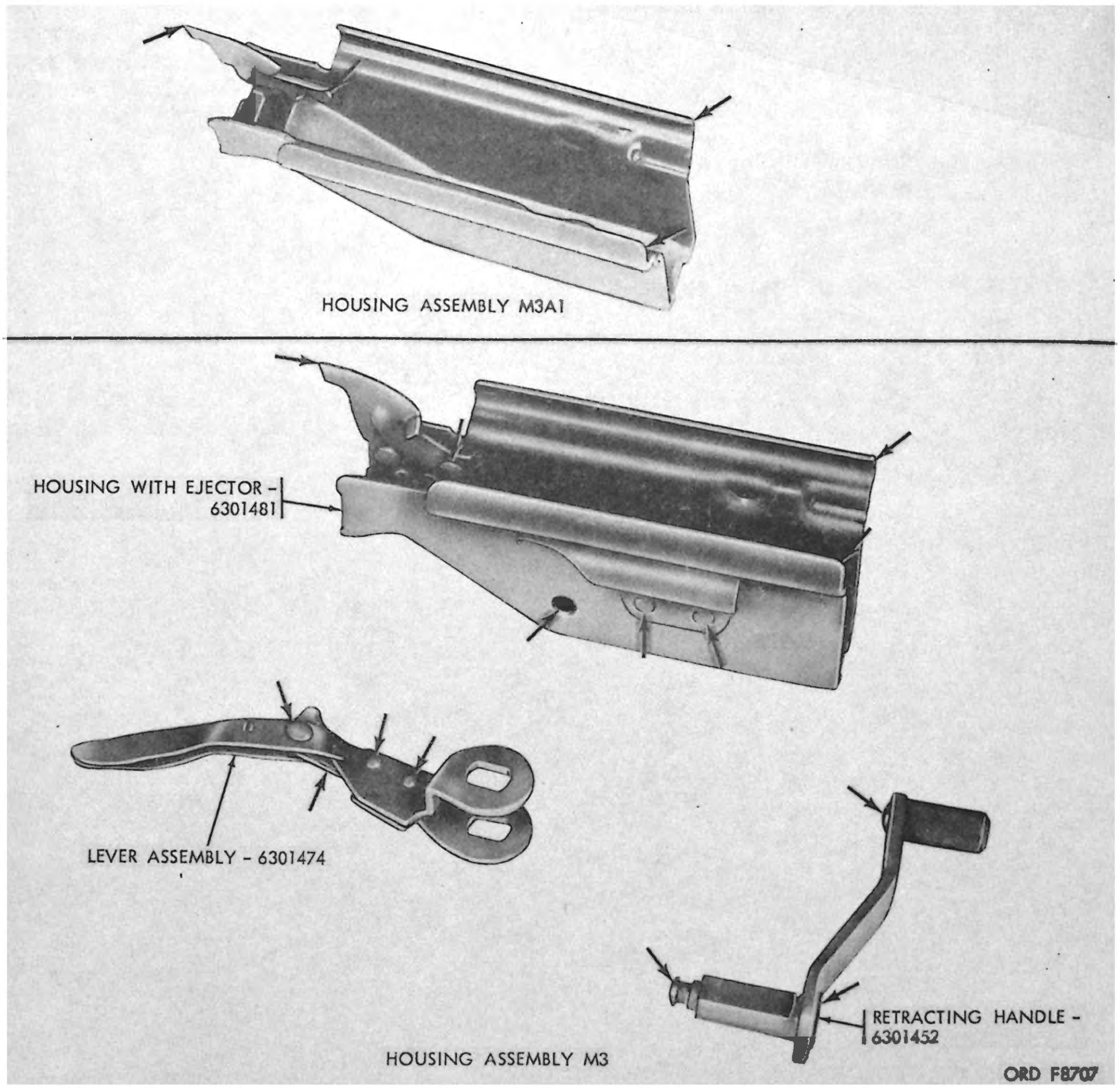


Figure 18. Housing assemblies M3 and M3A1—inspection points.

(1) Inspect the oiler clip of the M3 housing for wear, damage, and looseness on housing.
(2) Function the retracting handle to see that the retracting lever pawl is cammed down and the lever rotated forward is by the action of the retracting lever pawl spring.
(3) Inspect the spring for distortion, set and tension. Check to see that the retracting lever pawl stop is not worn.
(4) Inspect the retracting handle for burs, wear, rust and contacting side of receiver.
(5) Inspect the retracting lever spring for function, fracture and set. Check ends; make certain they are not bent or broken.
(6) Inspect the retracting lever pawl spring for bends and distorition and if it is secure.

d. Repair (figs. 27 and 30).
(1) Replace all broken, worn, and unserviceable parts.
(2) Remove burs and rust as indicated in paragraph 22.
(3) Straighten out dents in housings. Replace, if not repairable.
(4) Replace oiler clip, if damaged.
(5) Straighten point of ejector if ejector is bent and binds in bolt.

45. Assembly

a. Housing M3A1. If ejector has been removed, rivet ejector to housing.

b. Housing M3. Assemble component parts to housing in reverse order of numerical sequence as shown in figure 27.

46. Installation

Install housing group as shown in figure 17.

Section VI. BOLT AND GUIDE ROD GROUP

47. Removal

a. Remove barrel as shown in figure 15.

b. Remove housing group as shown in figure 17.

c. Remove bolt and guide rod group as shown in figure 19.

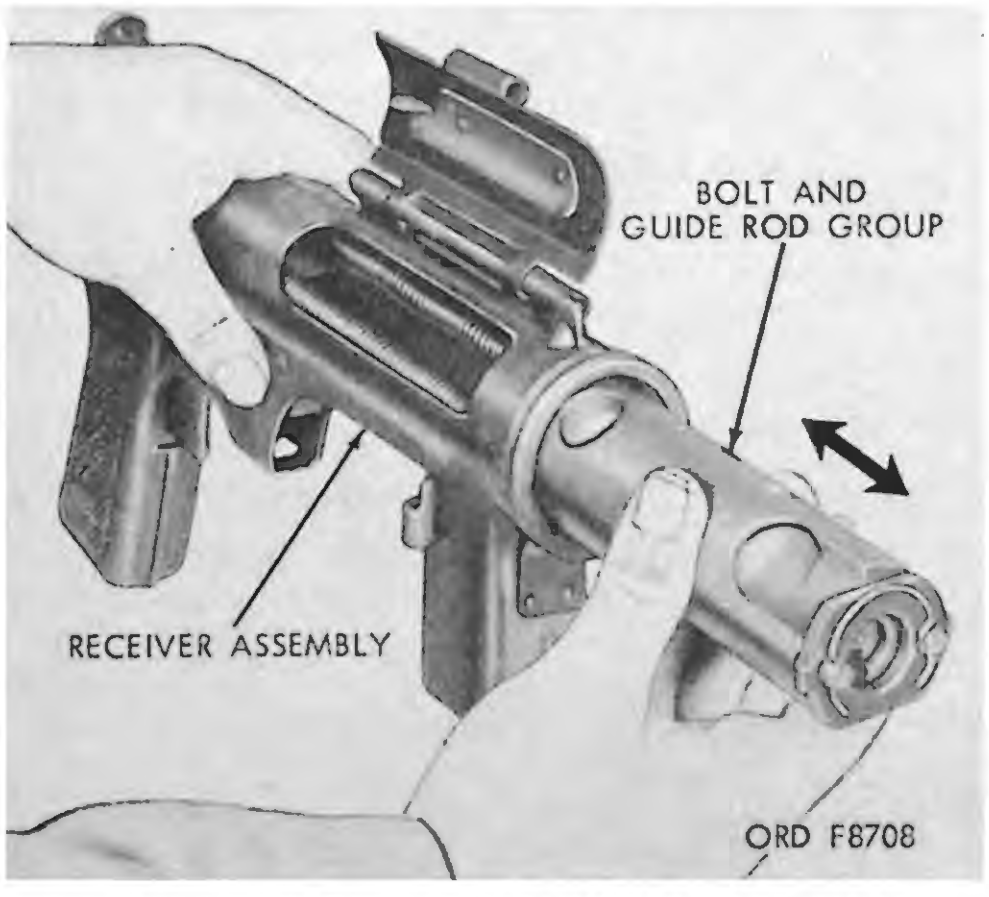


Figure 19. Remove/install bolt and guide rod group.

48. Disassembly

Disassemble the bolt and guide rod group in numerical sequence as shown in figure 32.

49. Cleaning, Inspection, and Repair

a. Cleaning. Refer to paragraph 19 for cleaning instructions.

b. Inspection (fig. 20).

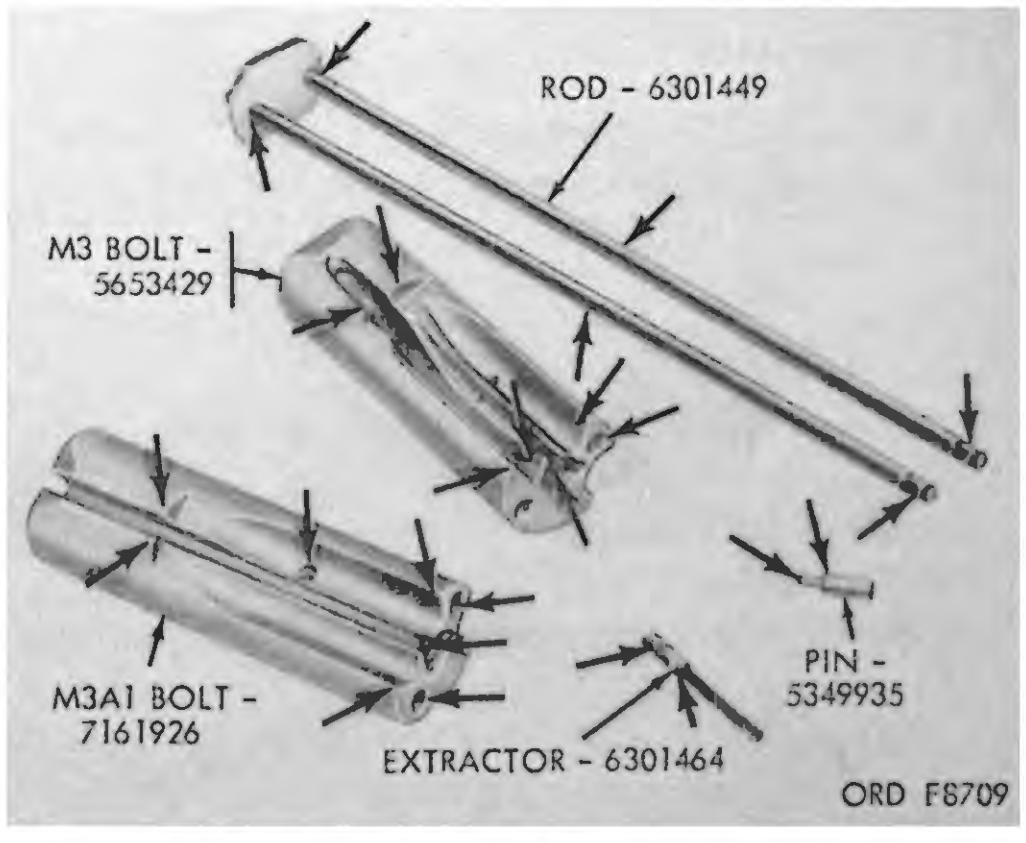


Figure 20. Bolt and guide rod group – inspection points.

(1) Inspect guide rod retaining clip for wear and damage.
(2) Inspect guide rod locating plate; make certain it is not bent or burred at the holes.
(3) Inspect extractor pin for wear and damage.
(4) Check to see that the extractor is clean and free of carbon, is not worn and does not bind in bolt.
(5) Inspect the guide rods to see that they are straight, smooth, and are secured firmly to the locating plate.
(6) Inspect the driving springs for function, cracks and set.
(7) Check the bolt for wear and burs. Check the firing pin point; make certain it is not worn as to cause misfiring.

Note. Some bolts 5653429, for the M3 submachine gun have the letter "H" stamped on the surface indicating they were of early manufacture and were heat treated to increase the hardness. However, all bolts now in use are serviceable, whether or not they have the letter "H" stamped on the surface.

c. Repair (fig. 32).
(1) Replace worn or damaged retaining clip.
(2) Replace worn or bent locating plates.
(3) Replace worn or damaged pin and extractor.
(4) Straighten guide rods, if bent. Replace guide rod if rods are not secure to locating plate.
(5) Replace springs if cracked, weak, or set.
(6) Replace bolts that contain worn firing pin points.
(7) Replace bolt if sear notch is chipped or worn.

50. Assembly

Assemble the bolt and guide rod group in reverse order of numerical sequence as shown in figure 32.

51. Installation

Install bolt and guide rod group as shown in figure 19.

Section VII. TRIGGER AND SEAR GROUP

52. Removal

Note. White arrows shown on illustration indicate removal, black arrows indicate installation.

Remove trigger and sear group as shown in figure 21.

53. Disassembly

Disassemble the trigger and sear group in numerical sequence as shown in figure 33.

54. Cleaning, Inspection, and Repair

a. Cleaning. Refer to paragraph 19 for cleaning instructions.
b. Inspection (fig. 22).
(1) Inspect sear for wear and burs.
(2) Inspect trigger spring for function, cracks and set.
(3) Inspect the trigger and connector for dents, deformation and functioning. Make certain the connector rotates on the rivet.
c. Repair (fig. 33).
(1) Remove burs from sear; replace sear, if worn or cracked.
(2) Replace spring if cracked or set or if tension is weak.
(3) Remove dents from trigger sear connector; replace if damaged or worn.

55. Assembly

Assemble the trigger and sear group in reverse order of numerical sequence as shown in figure 33.

56. Installation

Install the trigger and sear group as shown in in figure 21.

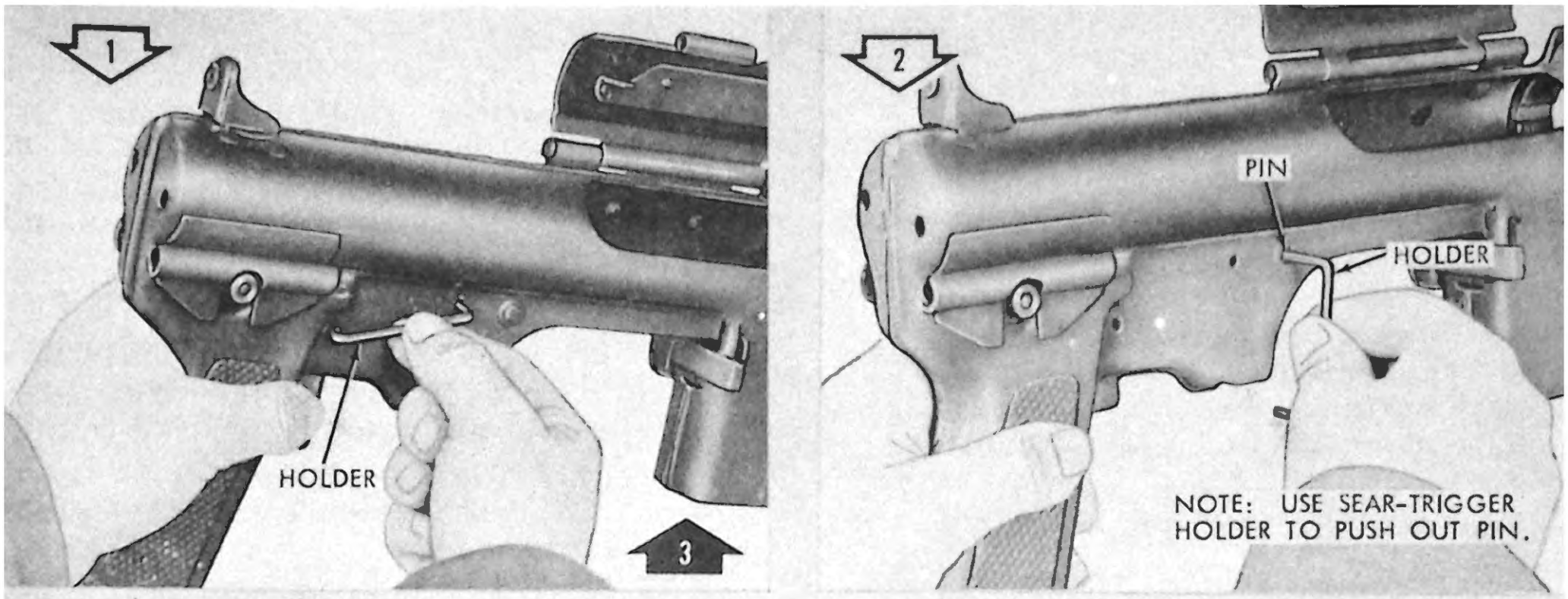


Figure 21. Remove/install trigger and sear group.

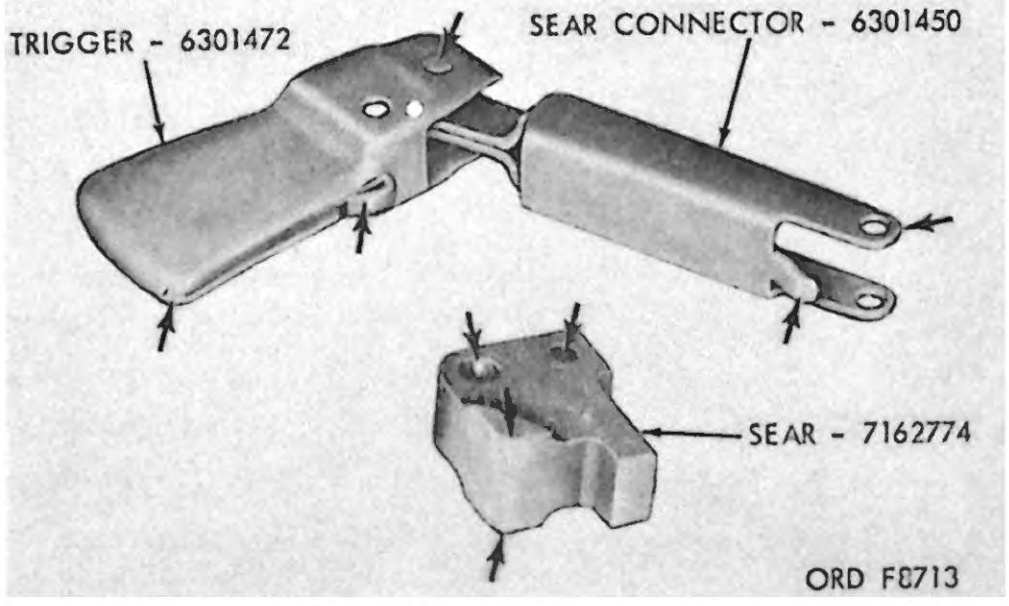


Figure 22. Trigger and sear group – inspection points.

Section VIII. RECEIVER ASSEMBLY

57. Removal

a. Remove the magazine (fig. 8).
b. Remove the gun stock extension (fig. 11).
c. Remove the flash hider assembly M9 (fig. 13).
d. Remove the barrel (fig. 15).
e. Remove the housing group (fig. 17).
f. Remove the bolt and guide rod group (fig. 19).
g. Remove trigger and sear group (fig. 21).
h. Remove magazine catch, spring, and shield (fig. 23).

58. Disassembly

Disassemble the receiver assemblies in numerical sequence as shown in figures 28 and 31.

59. Cleaning, Inspection, and Repair

a. Cleaning. Refer to paragraph 19 for cleaning instructions.
b. Inspection (fig. 24).
(1) Inspect for worn or bent retaining pin.

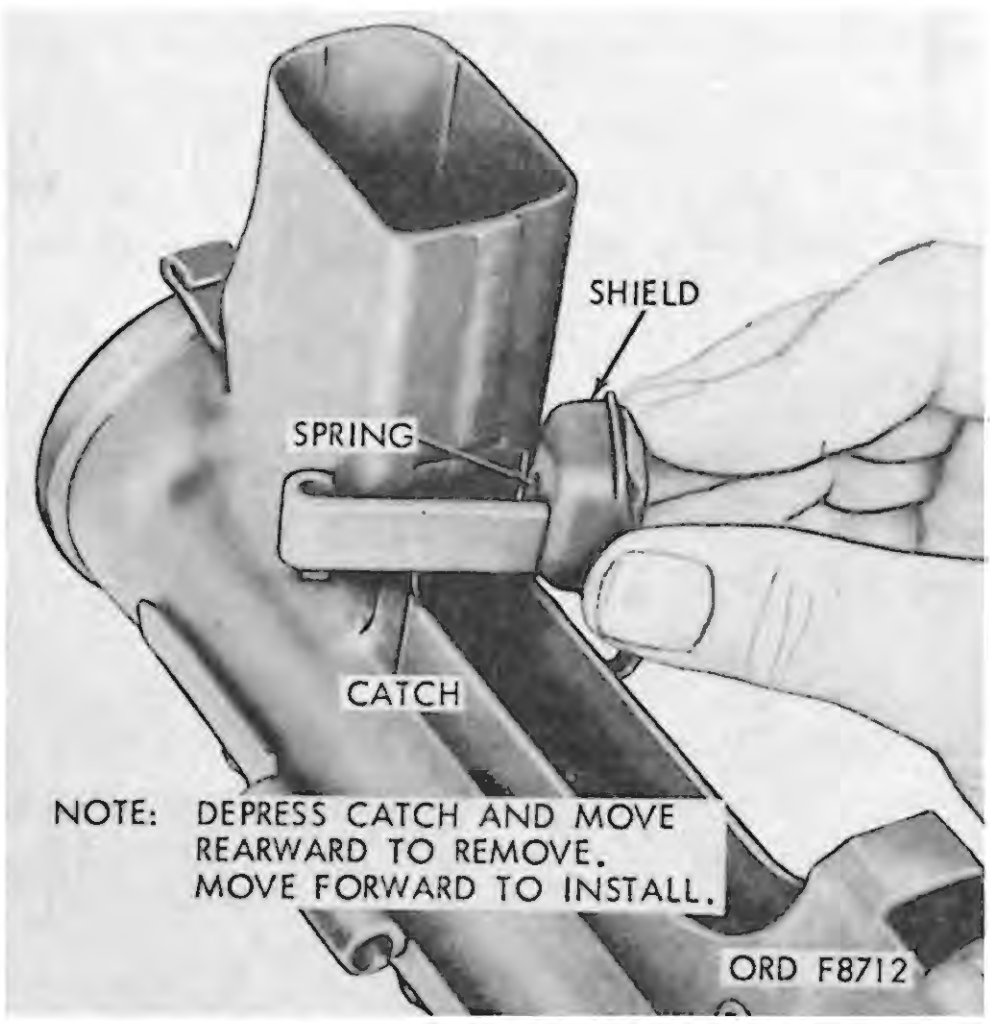


Figure 23. Remove/install magazine catch, spring, and shield.

(2) Inspect the collar for burs and wear.
(3) Inspect the catch for functioning, wear and damage.
(4) Inspect spring for cracks, tension and set.
(5) Inspect the pin for burs and wear.
(6) Inspect the cover to see if it operates freely and is secured firmly to recesses. Inspect for loose rivets and make certain the safety is not worn.
(7) Inspect the cover spring. Make certain it retains the cover and is not worn, burred, and deformed and that it is securely retained by the rivets.
(8) Inspect the ratchet spring (fig. 25) for tension retaining action with barrel and for wear. Check to see that it is riveted securely to the receiver.
(9) Inspect cap and oiler for stripped threads and damage.
(10) Inspect the retaining strap, make certain it is secured to the receiver.
(11) Inspect the barrel bushing for damage or stripped threads.
(12) Inspect the weld inside receiver; make certain it does not interfere with the movement of the bolt.
(13) Inspect the receiver for dents or cracks.
(14) Inspect oiler nut on submachine guns M3A1 for wear or stripped threads and the oiler for evidence of leaks or stripped threads.
(15) Inspect magazine well of receiver for burs or being bent.

c. Repair (figs. 28 and 31).
(1) Replace straight headless pin if bent or worn.
(2) Replace collar if worn.
(3) Replace catch if worn or damaged.
(4) Replace spring if cracked, set or tension is weak.
(5) Remove burs from cover pin; replace if bent or worn.
(6) Replace rivets on cover assembly if loose.

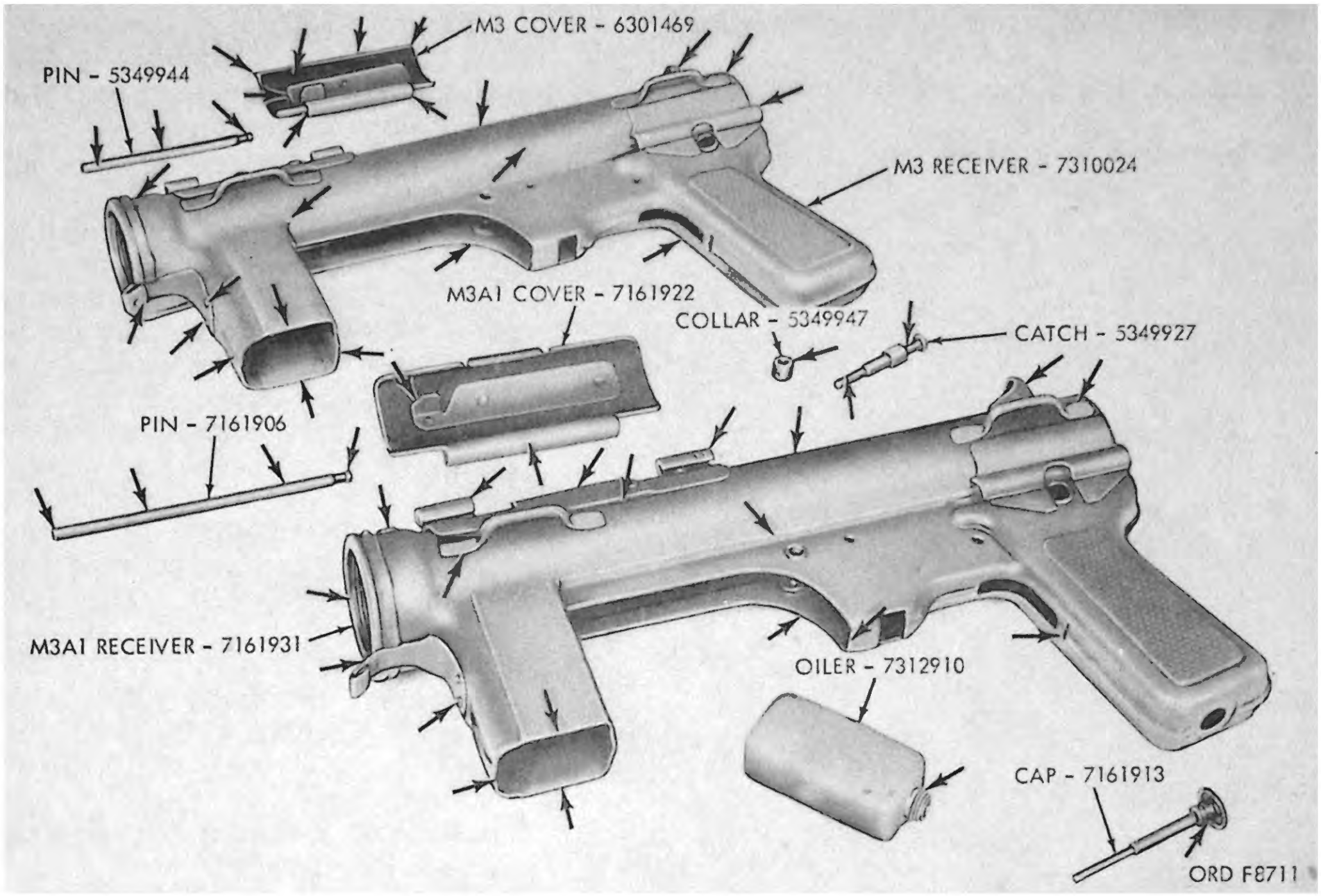


Figure 24. Receiver assembly – inspection points.

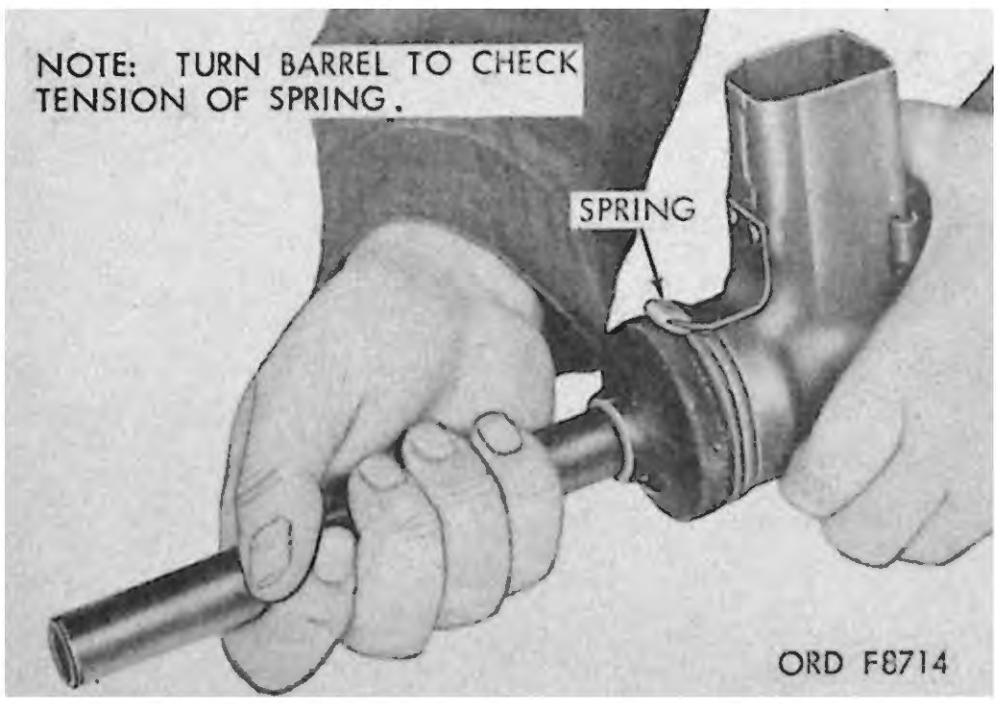


Figure 25. Checking spring action of ratchet spring.

(7) Replace covers if bent or damaged and cover spring if weak or loose on receiver.
(8) Replace ratchet spring if cracked or tension is weak. Replace rivets if loose.
(9) Replace cap, oiler and nut if threads are stripped.
(10) Replace retaining strap if loose, broken or missing.
(11) Replace receiver assembly if barrel bushing has stripped threads or if welds interfere with movement of bolt or if cracked.
(12) If receiver is bent or dented so as to restrict the movement of the bolt, it will be declared unserviceable.
(13) Remove burs in receiver well.

60. Assembly

Assemble the receiver assemblies in reverse order of numerical sequence as shown in figures 28 and 31.

61. Installation

a. Install magazine catch, spring and shield (fig. 23).

b. Install trigger and sear group (fig. 21).
c. Install bolt and guide rod group (fig. 19).
d. Install housing group (fig. 17).
e. Install barrel (fig. 15).
f. Install flash hider assembly (fig. 13).
g. Install gun stock extension (fig. 11).
h. Install magazine (fig. 8).

CHAPTER 6

FINAL INSPECTION

62. General

Final inspection is performed on the materiel, after repair has been completed, to determine that the weapon meets serviceability requirements prescribed in the repair chapter 5. In performing final inspection, the inspector will make certain that all repairs have been completed and that the weapon is intact and that all components and assemblies are secure and function properly. Listed below are specific inspection procedures to be followed during this inspection.

a. Visual Inspection Procedures.

(1) Inspect the magazine, make certain it is retained securely to the gun.
(2) Inspect the barrel, see that it is secured tightly to the receiver.
(3) Inspect the housing group, make certain it is secure to the receiver.
(4) Check the trigger pin and sear pin, see that they are retaining the trigger and sear group within receiver.
(5) Inspect front and rear sights, make certain they are not bent or distorted.
(6) Check over-all appearance of the gun. The metal finish should range from a dense black to a medium light gray. Bright sights are cause for rejection on guns for overseas usage. Sights must have a dull black or gray finish.

b. Functional Inspection.

(1) Actuate magazine catch, see that it functions properly.
(2) Check functioning of trigger.
(3) Actuate stock catch, make certain it works in conjunction with stock.
(4) Function cover assembly, see that it snaps in closed position on receiver and safety holds bolt in locked position.
(5) Check trigger pull with trigger pull measuring fixture 7274758 (fig. 7). When using 4-pound weights (minimum) the trigger should not fire. When using the 7-1/2 pound weights the trigger should fire.

Caution: **A slow and steady lift should be used to assure a true and accurate check.**

(6) Trigger pull can be corrected by the selective assembly of related parts.

CHAPTER 7

PREPARATION AND SHIPPING INSTRUCTIONS

63. Preparation

a. Cleaning. All metal parts shall be thoroughly cleaned (para. 19). Surfaces of parts subjected to burned powder residue will be cleaned with solvent cleaning compound (CR).

b. Preservation. All metal surfaces shall be coated with a preservative oil.

c. Packaging. Each submachine gun will be individually wrapped in heavy duty grease proof paper. Make certain all protruding edges are cushioned, using several thicknesses of paper, prior to wrapping.

d. Packing. Pack one submachine gun in the original box, container, or a suitable wooden box. Make certain box is adequately blocked to prevent movement during handling and shipping. After closure apply 2 steel straps around the box.

64. Marking Instructions

Standard and precautional markings will be applied to boxes as prescribed in TM 9-200.

65. Shipping Instructions

a. Responsibility. When shipping the submachine gun, the officer-in-charge of preparing the shipment will be responsible for properly processing the materiel for shipment, including the preparation of Army shipping documents.

b. Army Shipping Documents. Prepare all Army shipping documents in accordance with AR 725-50.

CHAPTER 8

DEPOT MAINTENANCE PROCEDURES

66. General

Depot maintenance procedures are similar to those pertaining to direct and general support maintenance which are contained in chapter 4. However further details on depot maintenance of this materiel will be furnished by contacting, Commanding General, Headquarters, U.S. Army Weapons Command, ATTN: AMSWE-SMM-SA, Rock Island Arsenal, Rock Island, Illinois 61202.

APPENDIX I

REFERENCES

1. Publication Indexes

The following indexes should be consulted frequently for the latest changes or revisions of references given in this appendix and for new publications relating to materiel covered in this technical manual.

Index of Army Motion Pictures, Film Strips, Slides and Phono-recordings. — DA Pam 108-1

Military Publications:

- Index of Administrative Publications . . . . . DA Pam 310-1
- Index of Blank Forms . . . . . DA Pam 310-2
- Index of Graphic Training Aids and Devices . . . . . DA Pam 310-5
- Index of Supply Manuals . . . . . DA Pam 310-29
- Index of Technical Manuals, Technical Bulletins, Supply Manuals (types 4, 6, 7, 8 and 9), Supply Bulletins, Lubrication Orders, and Modification Work Orders. — DA Pam 310-4
- Index of Doctrinal, Training, and Organizational Publications. — DA Pam 310-3

2. Supply Manuals

The following supply manuals of the Department of the Army supply manuals pertain to this materiel.

Shop Set, Field Maintenance: Small Arms (4933-754-0664) (Line item 440682). — SM 9-4-4933-A13

Tool Kit, Small Arms Repairman's: (4933-357-7770) (Line item 453995). — SM 9-4-4933-A07

Tool Kit, Direct and General Support Maintenance, Basic Small Arms. — SM 9-4-4933-E04

Operator and Organizational Maintenance Repair Parts and Special Tool Lists for Submachine Guns, Caliber .45, M3 and M3A1. — TM 9-1005-229-12P

3. Forms

The following form pertains to the materiel.

DA Form 2028, Recommended Changes to DA Technical Manual, Parts List or Supply Manual, 7, 8 or 9.

4. Other Publications

a. General. The following explanatory publications contain information pertinent to this materiel and associated equipment.

Logistics (General):

- Malfunctions Involving Ammunition and Explosives . . . . . AR 700-1300-8
- Army Equipment Record Procedures . . . . . TM 38-750

Military Terms, Abbreviations, and Symbols:

- Authorized Abbreviations and Brevity Codes . . . . . AR 320-50
- Dictionary of United States Army Terms . . . . . AR 320-5

Military Symbols . . . . . FM 21-30
Military Training . . . . . FM 21-5
Safety: Accident reporting and records . . . . . AR 385-40
Submachine guns, caliber .45, M3 and M3A1 . . . . . FM 23-41
Techniques of Military Instructions . . . . . FM 21-6

b. Inspection and Maintenance.

Command Maintenance Management Inspection . . . . . AR 750-8
Field Inspection and Serviceability Standards for Small Arms Materiel. TB ORD 587
Issue of Supplies and Equipment:
  Requisitioning, Receipts, and Issue System . . . . . AR 725-50
Maintenance of Supplies and Equipment:
  Organization, policies and responsibilities for maintenance operations. AR 750-5
Ordnance Maintenance:
  Cleaning and Black Finishing of Ferrous Metals . . . . . TM 9-1861
  Cleaning of Ordnance Materiel . . . . . TM 9-208-1
  General Packaging Instructions for Ordnance General Supplies . . . . . TM 9-200

APPENDIX II

DIRECT AND GENERAL SUPPORT AND DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOL LISTS

SECTION I
PREFACE

1. General

a. This appendix contains a list of:

(1) Items authorized for initial stockage at direct and general support maintenance and supply support activities. Also listed are additional repair parts which may be required for performing authorized direct and general support maintenance but are to be requisitioned as required.

(2) Repair parts recommended for the overhaul of one hundred components or major items of equipment. Also listed are additional repair parts, which may be required for performing authorized depot maintenance but are to be requisitioned, when required, if not obtainable from reclamation, controlled cannibalization, fabrication, or local procurement.

b. For prices of items listed herein, see appropriate supply catalog of ML series. Prices of items that are the responsibility of commodity commands may be obtained from the appropriate ML supply catalogs for those services.

2. Requisition Notes

a. When requisitioning an item, the requisitioning agency will order the *listed* item. However, the commodity command will take the necessary action to issue the exhaust stock item until the stock is exhausted, whether it be an individual item, kit, set or assembly.

b. Requisitions for replacement of items that are the responsibility of commodity commands will be submitted to the commodity commands, identified by their code number as indicated in column 1(*a*).

c. If the exact item requisitioned is not furnished or if other action is necessary, the exact nature of the action taken by the supplying agency will be indicated by standard symbols on prescribed forms.

3. Explanation of Columns

a. Source, Maintenance, and Recoverability Code (Col. 1).

(1) *Materiel numerical code (col. 1a).* This column indicates the materiel code of commodity commands, other than Ordnance, assigned supply responsibility for the listed item. When no code is indicated the item is considered Ordnance.

(2) *Source (col. 1b).* This column indicates the selection status and source for the listed item. Source codes used in this list are:

Code	*Explanation*
P	Requisition from the depot system of the responsible commodity command (applies to high mortality parts).
P1	Requisition from the depot system of the responsible commodity command (applies to low mortality parts).

(3) *Maintenance level (col. 1c).* This column indicates the lowest category of maintenance authorized to install the listed item. Maintenance level codes used in this list are:

Code	*Explanation*
O	Organizational maintenance.
F	Direct support maintenance.
D	Depot maintenance.

(4) *Recoverability (col. 1d).* This column indicates whether unserviceable items hould be returned for recovery or salvage. When no code is indicated, the item will be considered expendable. Recoverability code used in this list is:

Code	*Explanation*
R	Items which are economically repairable at direct and general maintenance activities and are normally furnished by supply on an exchange basis.

b. Federal Stock Number (Col. 2). This column indicates the Federal stock number which has been assigned by the Cataloging Division, Defense Logistics Services Center.

c. Description (Col. 3). This column indicates the Federal item name (shown in capital letters) and any additional description required for supply operations. The commodity command or manufacturer's part number is also included for reference.

d. Unit of Issue (Col. 4). This column indicates the quantity to be requisitioned. Refer to AR 725-50 for requisitioning procedures.

e. Quantity Incorporated in Unit (Col. 5). This column indicates the number of times the listed item is used in the functional unit.

f. 15-Day Maintenance Allowance (Col. 6).

(1) *Direct and general support maintenance per 100 equipments.* This column indicates repair parts allowance factors for direct and general support maintenance. These factors represent the estimated average quantities required to provide maintenance and, where applicable, supply support for 100 equipments for 15-day period under combat conditions. The exact quantity authorized must be computed as instructed in (2) below.

(a) When an allowance factor is inclosed in parentheses, the item is designated as a "combat essential item of a critical nature" and must be stocked at all times, regardless of demand.

(b) Additional repair parts which may be required for performing authorized maintenance but are not authorized for stockage in in the prescribed load, are indicated by an asterisk (*). These items are to be requisitioned as as required.

(c) When no quantity is shown, reference should be made to the first appearance of the item as indicated in the description column.

Note. The 15-day level is not applicable to tools for direct and general support, and depot maintenance.

(2) *Computation of authorized quantities.* To compute the exact quantities authorized using allowance factors, multiply the number of

equipments supported by the allowance factor. Then divide by 100.

Example 1:

No. of equipments	*Allowance factor*	
30	x	1.9 divided by 100 = .570

Since the resulting fractional value is *.5 or larger,* it will be rounded off to the next higher whole number or a quantity of 1.

Example 2:

No. of equipments	*Allowance factor*	
89	x	3.4 divided by 100 = 3.026

Since the resulting fractional value is less than 3.5 the support would be authorized a quantity of 3.

g. Depot Maintenance Guide Per 100 Equipments (Col. 7).

(1) This column indicates repair part allowance factors for depot maintenance. These factors represent recommended quantities required to overhaul 100 end items of equipment.

(2) The exact quantity authorized must be computed as instructed in *f* (2) above. Where no quantity is shown, reference should be made to the first appearance of the item as indicated in the "description" column.

Note. The 15-day level is not applicable to tools and equipment.

h. Illustration (Col. 8).

(1) This column indicates the figure number of the illustration that depicts the listed item. When more than one item appears on an illustration, the item number is also indicated.

(2) Items that appear on the illustrations and in the legends of the illustrations but which are not listed in the tabular listing are nonsupply parts and are not authorized.

4. Special Information

The basic issue list items, organizational maintenance repair parts and special tool lists and maintenance allocation chart for cal. .45 submachine guns M3 and M3A1 are listed in TM 9-1005-229-12P.

5. Abbreviations and Symbols

a. Abbreviations.

Abbreviation	*Explanation*
anld	annealed
carb	carbon
ck	countersunk
dia	diameter
dld	drilled
fl-hd	flat head
in.	inch(es)
lg	length (long)
max	maximum
min	minimum
NC	American National Coarse Thread
NF	American National Fine Thread
no.	number(s)
oval-hd	oval head
phos-ctd	phosphate coated
pkg	package(s)
rd	round
S	steel
shk	shank
sq	square
thd	thread(s) (ed)
thk	thick(ness)
x	by (used between dimensions)

b. Symbols.

Symbol	*Explanation*
*	Indicates repair parts which may be required to perform authorized maintenance but not authorized for stockage in the prescribed load. These parts are to be requisitioned, as required, for immediate use only.
( )	Allowances inclosed in parentheses are "combat essential items". These items are of a critical nature and *mus'* be stocked at all times.

6. Suggestions and Recommendations

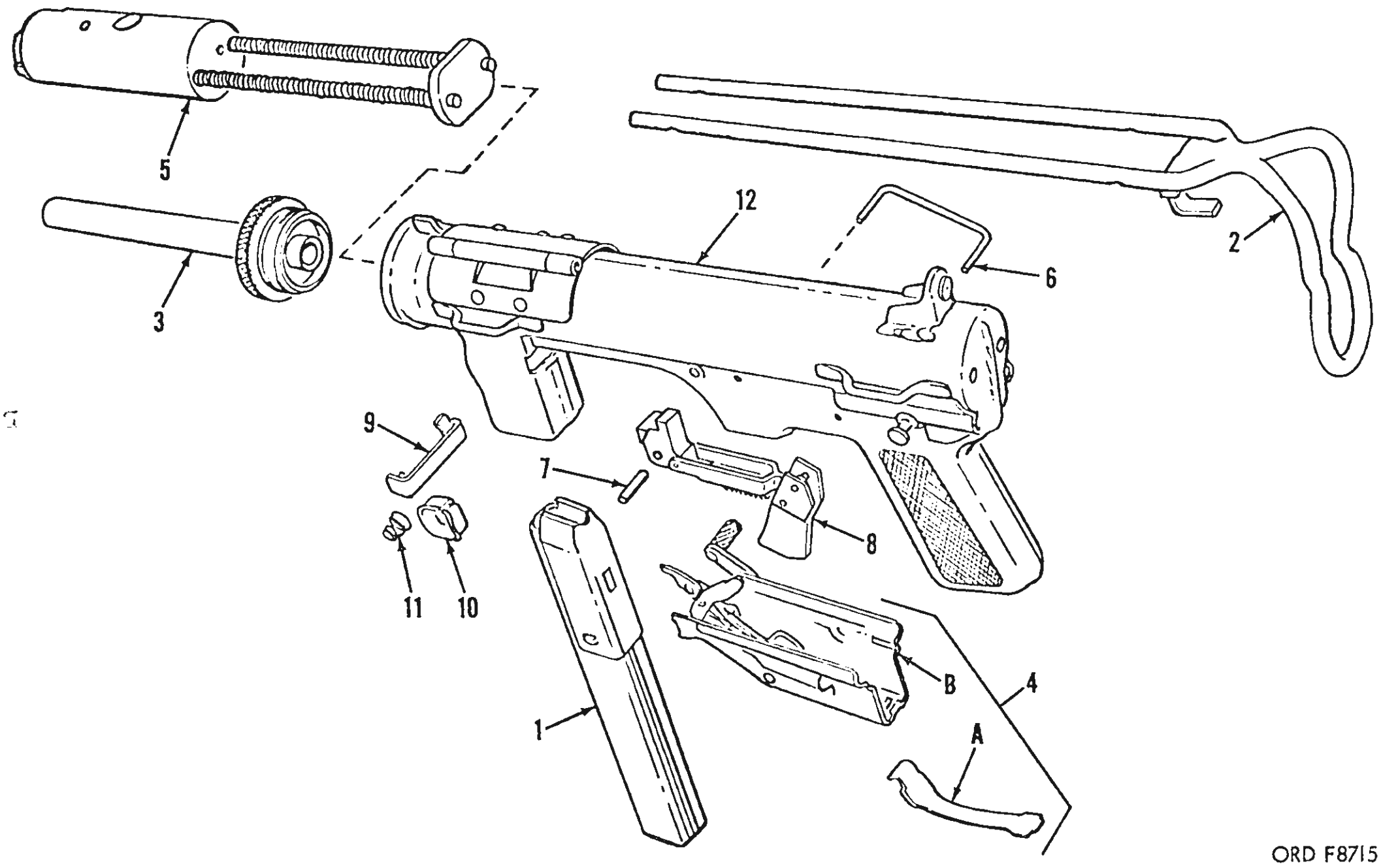
The direct reporting of errors, omissions and recommendations for improving this equipment manual by the individual user is authorized and encouraged. DA Form 2028 will be used for reporting these improvements. This form may be completed using pencil, pen, or typewriter. DA Forms 2028 will be completed by the

individual using the manual and forwarded direct to:

Commanding General
Headquarters
U.S. Army Weapons Command
Attn: AMSWE-SMM-P
Rock Island Arsenal
Rock Island, Illinois 61202

Section II. REPAIR PARTS AND SPECIAL TOOLS

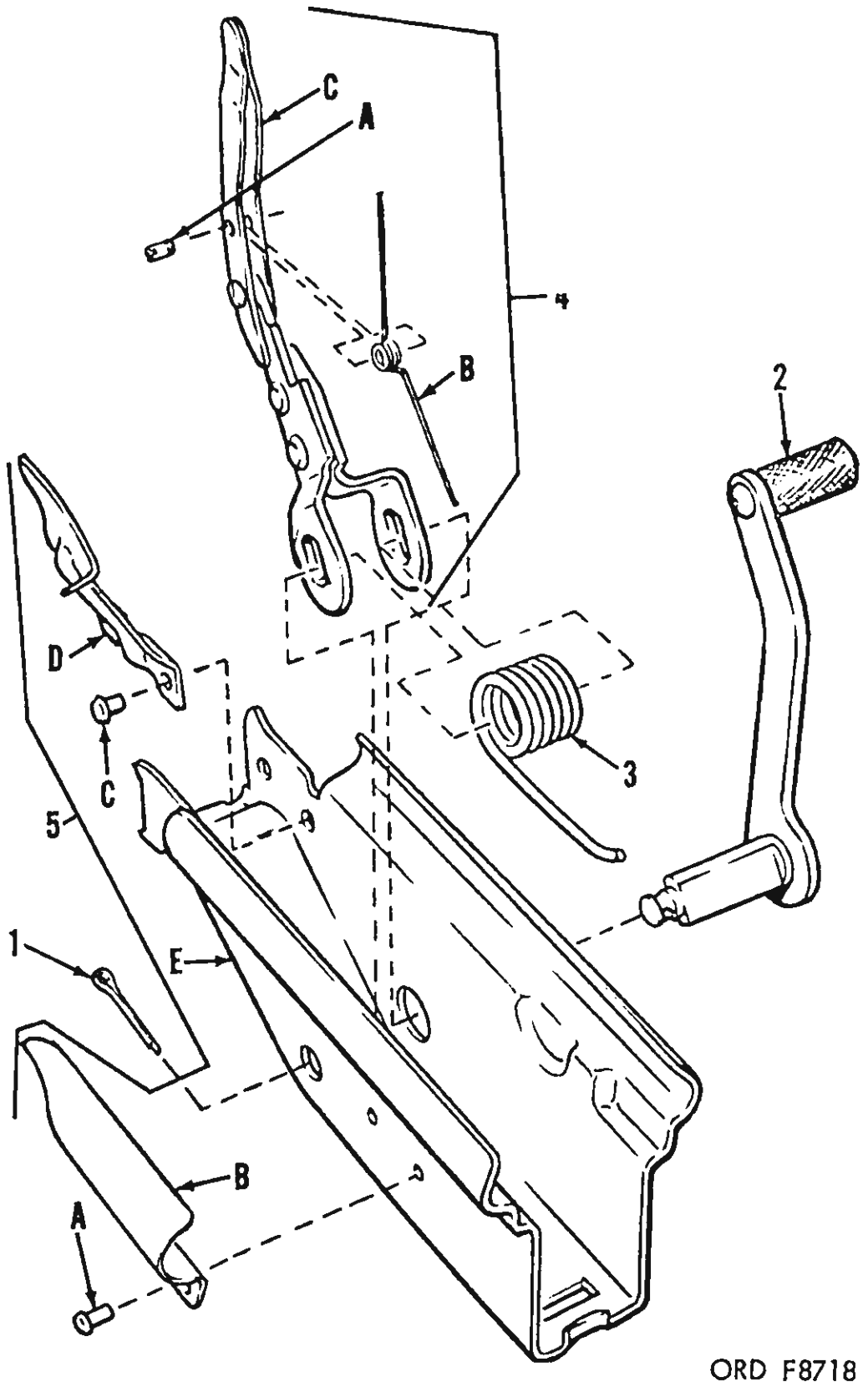
(1) Source, maintenance, and recoverability code				(2)	(3)	(4)	(5)	(6) 15-Day maintenance allowance per 100 equipments		(7)	(8) Illustration	
(a) Materiel numerical code	(b) Source	(c) Maintenance level	(d) Recoverability	Federal stock No.	Description	Unit of issue	Quantity incorporated in unit	(a) Direct support	(b) Heavy support	Depot maintenance guide per 100 equipments	(a) Figure No.	(b) Item No.
					REPAIR PARTS FOR: SUBMACHINE GUN, CAL. .45, M3 Major Groups Assemblies, And Components							
	P1	F	---	1005-986-0261	BARREL, SUBMACHINE GUN: (7791433).	1	1	(0.7)	(0.3)	20	26	3
	P	O	---	1005-630-1453	CATCH, MAGAZINE: (6301453)	10	1	(1.2)	(0.3)	15	26	9
	P	O	---	1005-630-1456	GUARD, TRIGGER: (6301456)	10	1	(1.2)	(0.3)	25	26	4A
	P1	F	---	1005-534-9942	HOLDER, SEAR—TRIGGER SPRING: (5349942).	10	1	(0.1)	(0.1)	10	26	6
	P1	F	---	1005-565-3432	HOUSING ASSEMBLY: (5653432)	1	1	(0.1)	(0.1)	25	26	4B
	P	O	---	1005-565-3427	MAGAZINE, CARTRIDGE: (5653427).	1	1	(5.0)	(1.7)	100	26	1
	P1	F	---	5315-535-1190	PIN, STRAIGHT, HEADLESS: S, phos-ctd, 0.218 in. min dia, 0.220 in. max dia (5351190).	10	1	(0.1)	(0.1)	12	26	7
	P	O	---	1005-716-0997	SHIELD: (7160997) ----------	10	1	(1.0)	(1.0)	75	26	10
	P	O	---	1005-200-5864	SPRING, HELICAL, COMPRESSION: (7160998).	10	1	(1.0)	(1.0)	50	26	11
	P1	F	---	1005-716-1812	STOCK EXTENSION, GUN: (7161812).	10	1	(0.2)	(0.1)	10	26	2



4–Housing group
5–Bolt and guide rod group
8–Trigger and sear group
12–Receiver assembly 6573936

Figure 26. Submachine gun, caliber .45, M3 – major groups, assemblies, and components.

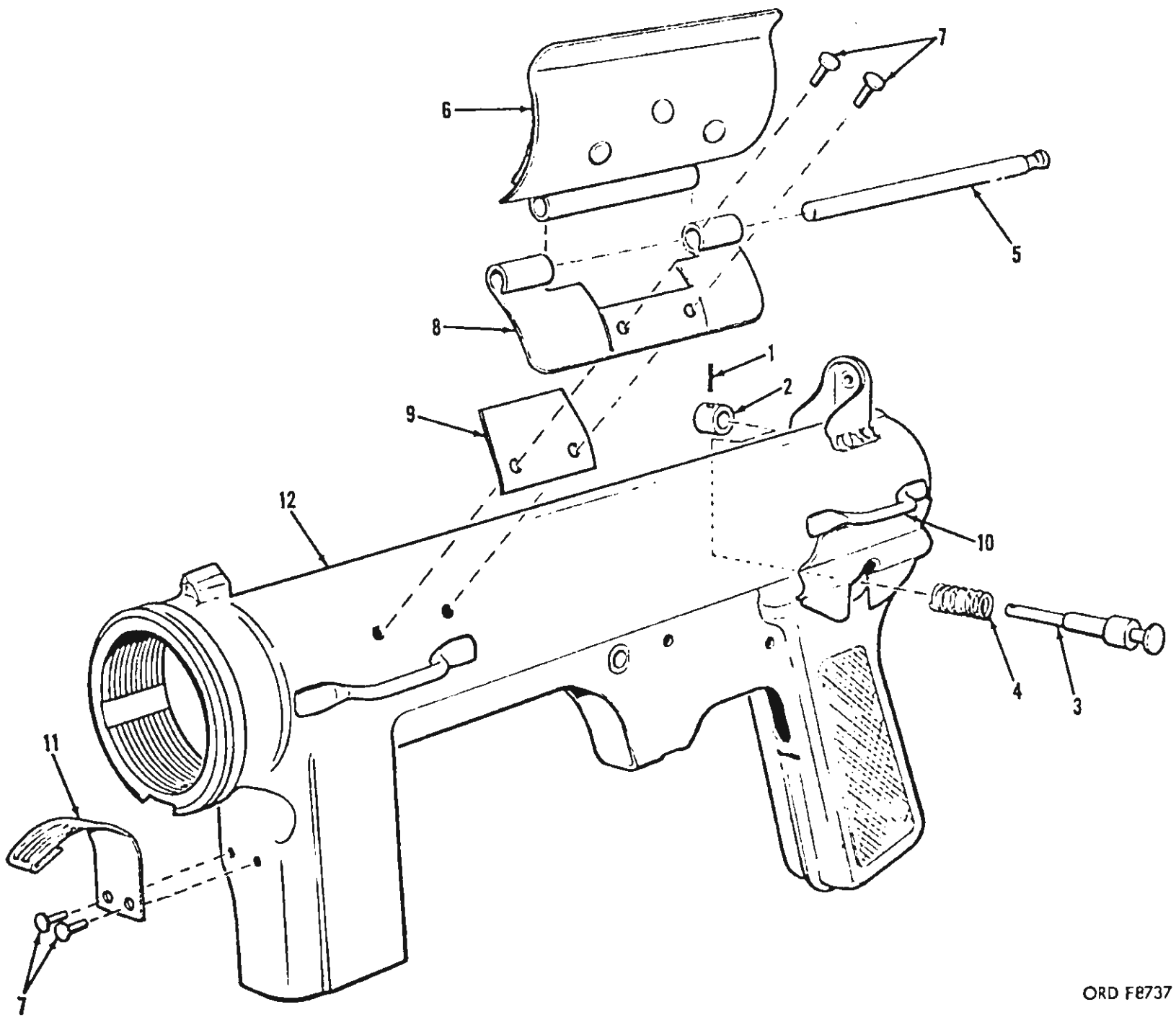
(1) Source, maintenance, and recoverability code				(2)	(3)	(4)	(5)	(6) 15-Day maintenance allowance per 100 equipments		(7)	(8) Illustration	
(a) Materiel numerical code	(b) Source	(c) Maintenance level	(d) Recoverability	Federal stock No.	Description	Unit of issue	Quantity incorporated in unit	(a) Direct support	(b) Heavy support	Depot maintenance guide per 100 equipments	(a) Figure No.	(b) Item No.
					REPAIR PARTS FOR—Continued Housing Assembly 5653432							
	P1	F	---	1005-535-1210	CLIP: (5351210)----------	10	1	*	*	11	27	5B
	P1	F	---	1005-630-1452	HANDLE: (6301452) ----------	10	1	(0.1)	(0.1)	10	27	2
	P1	F	---	1005-630-1474	LEVEL ASSEMBLY: (6301474)	10	1	(0.5)	(0.1)	20	27	4
	P1	F	---	5315-013-7155	PIN, COTTER: S, phos-ctd, 3/32 dia, 1/2 lg (137155).	100	1	(0.5)	(0.2)	100	27	1
	P	F	---	5315-534-9921	PIN, STRAIGHT, THREADED: S, no. 5 (0.125)-40-NC-2, 0.060 in. x 0.15 lg thd (5349921).	20	1	(1.4)	(0.6)	50	27	4A
	P1	F	---	5320-011-8047	RIVET, SOLID: fl-hd, S, anld, 1/8 x 3/16 (118047).	100	2	(0.7)	(0.3)	25	27	5C
	P1	F	---	5320-011-1872	RIVET, TUBULAR: oval-hd, S, 1/8 x 3/16 (1/16 dld shk) (111872).	100	2	(0.7)	(0.3)	25	27	5A
	P	F	---	1005-534-9925	SPRING, HELICAL, TORSION: (5349925).	10	1	(0.1)	(0.1)	50	27	3
	P	F	---	1005-535-1191	SPRING, HELICAL, TORSION: (5351191).	10	1	(0.5)	(0.5)	10	27	4B



4C–Lever 5351198
5 –Housing w/ejector assembly 6301481
5D–Ejector 6301482
5E–Housing 5653433

Figure 27. Housing assembly 6663432, M3 – exploded view.

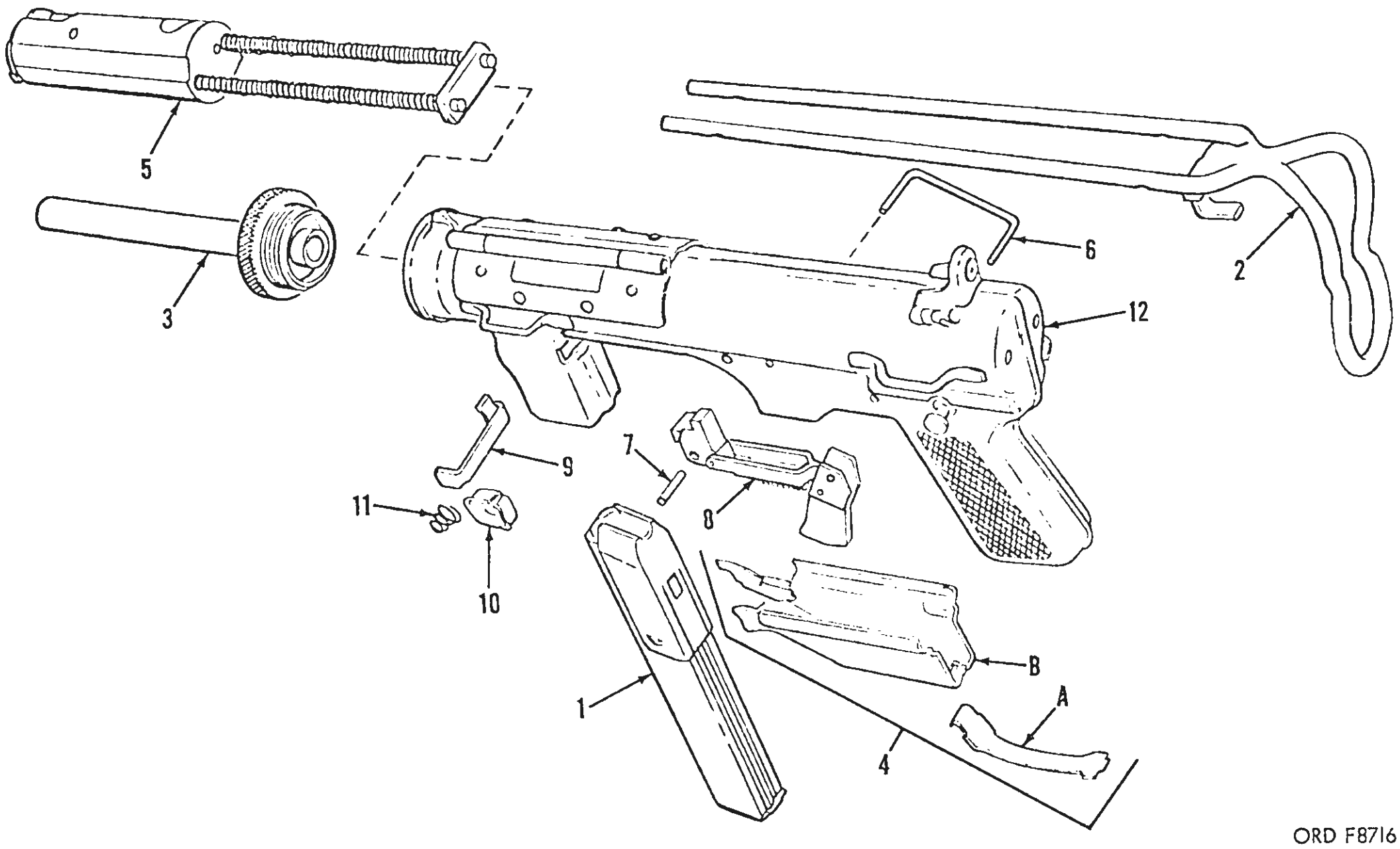
(1) Source, maintenance, and recoverability code				(2)	(3)	(4)	(5)	(6) 15-Day maintenance allowance per 100 equipments		(7)	(8) Illustration	
(a) Materiel numerical code	(b) Source	(c) Maintenance level	(d) Recoverability	Federal stock No.	Description	Unit of issue	Quantity incorporated in unit	(a) Direct support	(b) Heavy support	Depot maintenance guide per 100 equipments	(a) Figure No.	(b) Item No.
					REPAIR PARTS FOR — Continued							
					Receiver Assembly 6573936							
	P1	F	---	1005-534-9927	CATCH: (5349927)----------	10	1	(0.2)	(0.1)	16	28	3
	P1	F	---	1005-534-9947	COLLAR, SHAFT: (5349947) ---	10	1	0.1	0.1	10	28	2
	P1	F	---	1005-630-1469	COVER, RECEIVER: (6301469)	10	1	(0.4)	(0.1)	15	28	6
	P1	F	---	5315-534-9944	PIN, GROOVED, HEADLESS: S, 0.177 in. min dia, 0.187 in. max dia, 3.312 in. lg (5349944).	10	1	(0.1)	(0.1)	15	28	5
	P1	F	---	5315-534-9948	PIN, STRAIGHT, HEADED: S, rd, ck, 0.057 in. min dia, 0.060 in. max dia (5349948).	10	1	(0.1)	(0.1)	18	28	1
	P1	F	---	5320-011-8047	RIVET, SOLID: fl-hd, S, anld, 1/8 x 3/16 (118047) (For authorized allowances, see this item under Housing Assembly).	---	4	---	---	---	28	7
	P	F	---	1005-534-9932	SPRING, COVER: (5349932) ----	10	1	0.1	0.1	20	28	9
	P	F	---	1005-209-9755	SPRING, HELICAL, COMPRESSION: (5351194).	10	1	0.1	0.1	25	28	4
	P	F	---	1005-716-1935	SPRING: (7161935)----------	10	1	(0.1)	(0.1)	5	28	11
	P1	D	---	5340-535-1209	STRAP, RETAINING: (5351209)	10	2	---	---	10	28	10



8–Hinge 6301473 12–Receiver 7310024

Figure 28. Receiver assembly 6573936, M3 – exploded view.

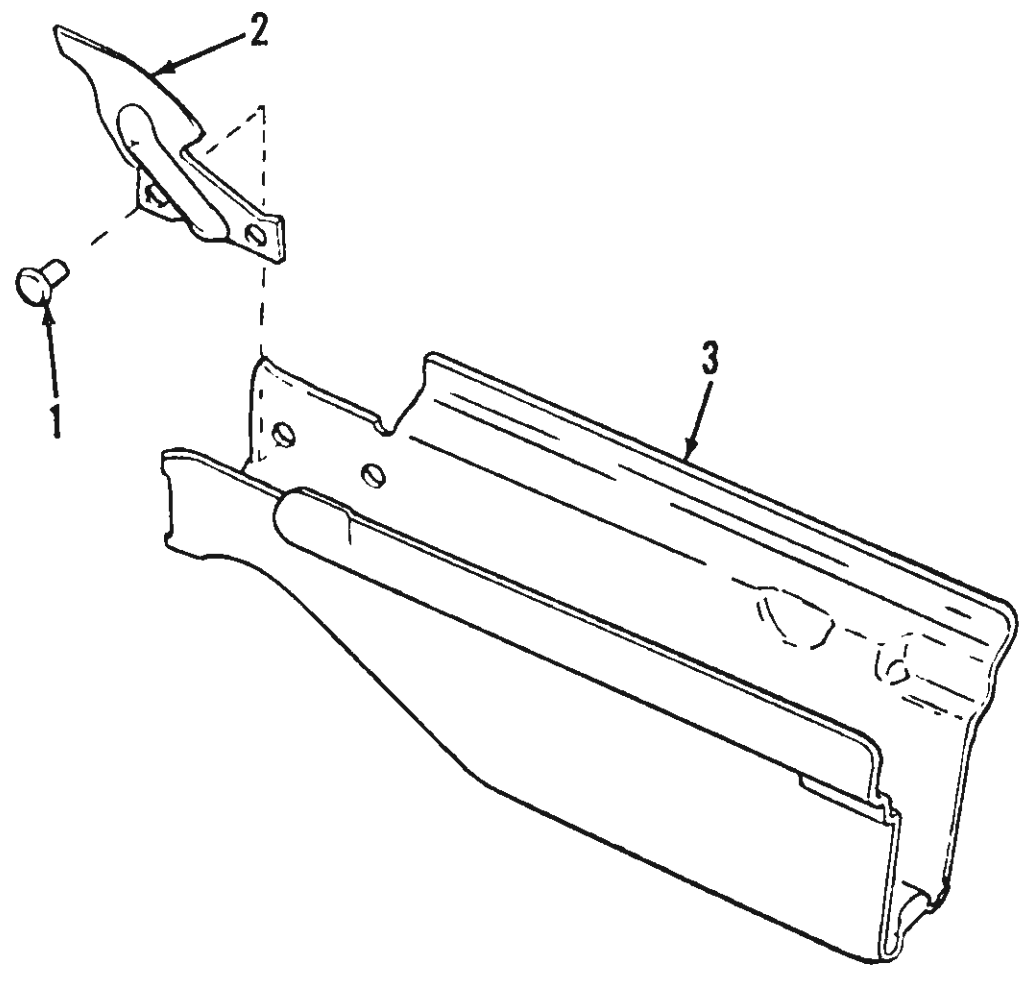
(1) Source, maintenance, and recoverability code				(2)	(3)	(4)	(5)	(6) 15-Day maintenance allowance per 100 equipments		(7)	(8) Illustration	
(a) Materiel numerical code	(b) Source	(c) Maintenance level	(d) Recoverability	Federal stock No.	Description	Unit of issue	Quantity incorporated in unit	(a) Direct support	(b) Heavy support	Depot maintenance guide per 100 equipments	(a) Figure No.	(b) Item No.
					REPAIR PARTS FOR: **SUBMACHINE GUN, CAL. .45, M3A1** **Major Groups, Assemblies, And Components**							
P1	F	---		1005-986-0261	BARREL, SUBMACHINE GUN: (7791433).	1	1	(0.7)	(0.3)	20	29	3
P	O	---		1005-630-1453	CATCH, MAGAZINE: (6301453)	10	1	(1.2)	(0.3)	15	29	9
P	O	---		1005-630-1456	GUARD, TRIGGER: (6301456)	1	1	(1.2)	(0.3)	25	29	4A
P1	F	---		1005-534-9942	HOLDER, SEAR-TRIGGER SPRING: (5349942).	10	1	(0.1)	(0.1)	10	29	6
P1	F	---		1005-716-1923	HOUSING ASSEMBLY: (7161923).	10	1	(0.4)	(0.1)	12	29	4B
P	O	---		1005-565-3427	MAGAZINE, CARTRIDGE: (5653427).	1	1	(5.0)	(1.7)	100	29	1
P1	F	---		5315-535-1190	PIN, STRAIGHT, HEADLESS: S, phos-ctd, 0.218 in. min dia, 0.220 in. max dia (5351190).	10	1	(0.1)	(0.1)	12	29	7
P	O	---		1005-716-0997	SHIELD: (7160997) ----------	10	1	(1.0)	(1.0)	75	29	10
P	O	---		1005-200-5864	SPRING, HELICAL, COMPRESSION: (7160998).	10	1	(1.0)	(1.0)	50	29	11
P1	F	---		1005-716-1812	STOCK EXTENSION, GUN: (7161812).	10	1	(0.2)	(0.1)	10	29	2



4–Housing group
5–Bolt and guide rod group
8–Trigger and sear group
12–Receiver assembly 7161930

Figure 29. Submachine gun, caliber .45, M3A1 – major groups, assemblies, and components.

(1) Source, maintenance, and recoverability code				(2)	(3)	(4)	(5)	(6) 15-Day maintenance allowance per 100 equipments		(7)	(8) Illustration	
(a) Materiel numerical code	(b) Source	(c) Maintenance level	(d) Recoverability	Federal stock No.	Description	Unit of issue	Quantity incorporated in unit	(a) Direct support	(b) Heavy support	Depot maintenance guide per 100 equipments	(a) Figure No.	(b) Item No.
					REPAIR PARTS FOR — Continued							
					Housing Assembly 7161923							
	P1	F	---	5320-011-8047	RIVET, SOLID: fl-hd, S, anld, 1/8 x 3/16 (118047).	100	2	(0.7)	(0.3)	25	30	1



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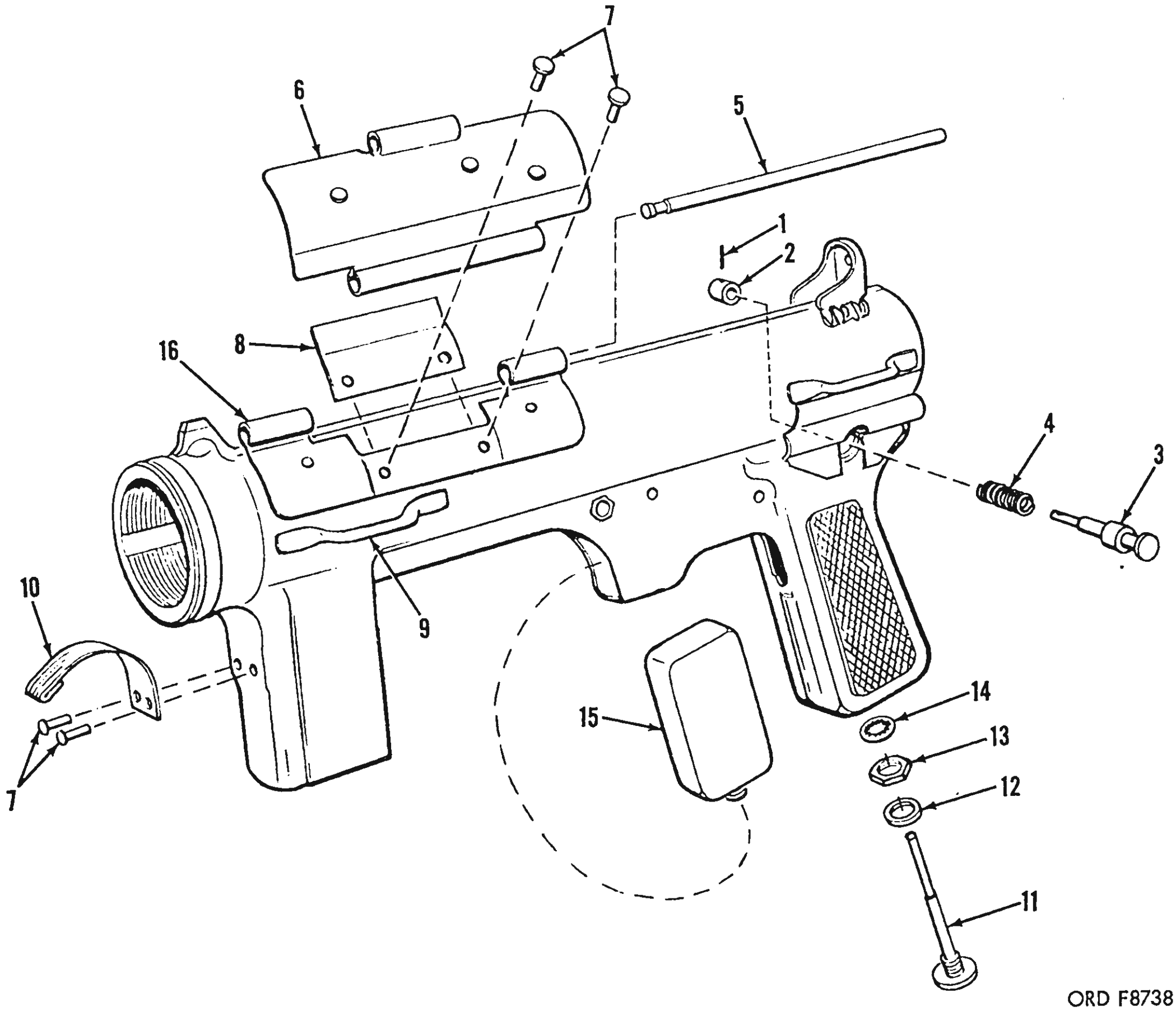
2—Ejector 7161918
3—Housing 7161927

Figure 30. Housing assembly 7161923, M3A1 — exploded view.

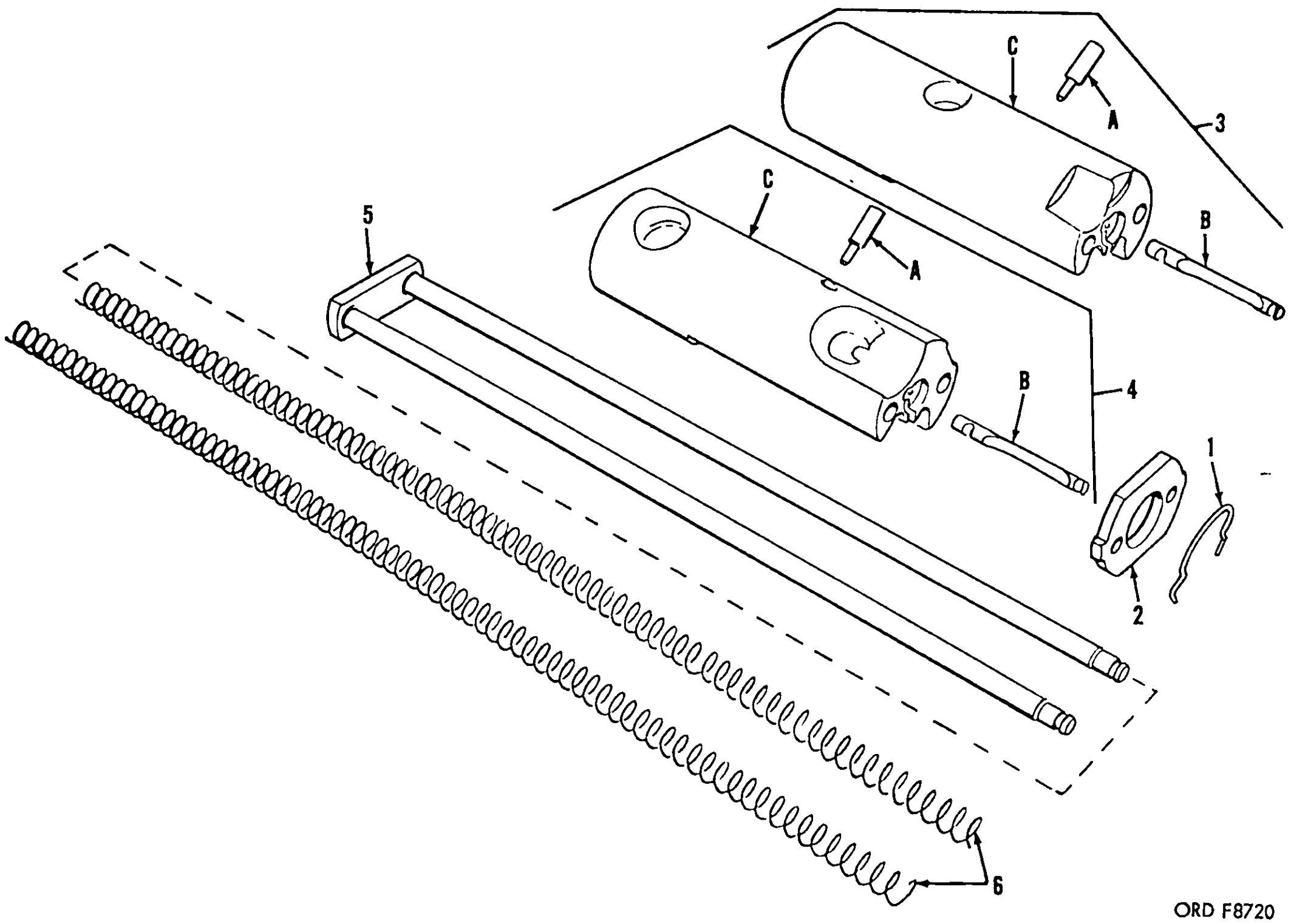
(1) Source, maintenance, and recoverability code				(2)	(3)	(4)	(5)	(6) 15-Day maintenance allowance per 100 equipments		(7)	(8) Illustration	
(a) Materiel numerical code	(b) Source	(c) Maintenance level	(d) Recoverability	Federal stock No.	Description	Unit of issue	Quantity incorporated in unit	(a) Direct support	(b) Heavy support	Depot maintenance guide per 100 equipments	(a) Figure No.	(b) Item No.
					REPAIR PARTS FOR — Continued							
					Receiver Assembly 7161930							
	P1	F	---	1005-716-1913	CAP: (7161913) ----------	---	1	*	*	10	31	11
	P1	F	---	1005-534-9927	CATCH: (5349927)----------	---	1	(0.2)	(0.1)	16	31	3
	P1	F	---	1005-534-9947	COLLAR, SHAFT: (5349947)	10	1	0.1	0.1	10	31	2
	P1	F	---	1005-716-1922	COVER, RECEIVER: (7161922)	10	1	(0.1)	(0.1)	15	31	6
	P	O	---	1005-716-1911	GASKET: (7161911)----------	10	1	1.5	0.5	100	31	12
	P1	F	---	5310-716-1905	NUT, PLAIN, ROUND: S, phos-ctd, 7/16 (0.437)-20NF-2, 0.090 in. thk (7161905).	10	1	*	*	10	31	13
	P1	F	---	1005-731-2910	OILER: (7312910) ----------	10	1	0.3	0.1	10	31	15
	P1	F	---	5315-716-1906	PIN, GROOVED, HEADLESS: S, phos-ctd, 0.216 in. min dia, 0.220 in. max dia (7161906).	10	1	(0.1)	(0.1)	15	31	5
	P1	F	---	5315-534-9948	PIN, STRAIGHT, HEADED: S, rd, ck, 0.057 in. min dia, 0.060 in. max dia (5349948).	10	1	(0.1)	(0.1)	18	31	1
	P1	F	---	5320-011-8047	RIVET, SOLID: fl-hd, S, anld, 1/8 x 3/16 (118047) (For authorized allowances see this item under Housing Assembly).	---	4	---	---	---	31	7
	P	F	---	1005-716-1910	SPRING, COVER: (7161910)--	10	1	0.1	0.1	20	31	8
	P	F	---	1005-209-9755	SPRING, HELICAL, COMPRESSION: (5351194).	10	1	0.1	0.1	25	31	4
	P	F	---	1005-716-1935	SPRING: (7161935) ----------	10	1	(0.1)	(0.1)	5	31	10
	P1	D	---	5340-535-1209	STRAP, RETAINING: (5351209)	10	2	---	---	10	31	9
	P	F	---	5310-261-7161	WASHER, LOCK: (7162076) --	10	1	0.3	0.2	15	31	14



16—Receiver 7161931

Figure 31. Receiver assembly 7161930, M3A1 – exploded view.

(1) Source, maintenance, and recoverability code				(2)	(3)	(4)	(5)	(6) 15-Day maintenance allowance per 100 equipments		(7)	(8) Illustration	
(a) Materiel numerical code	(b) Source	(c) Maintenance level	(d) Recoverability	Federal stock No.	Description	Unit of issue	Quantity incorporated in unit	(a) Direct support	(b) Heavy support	Depot maintenance guide per 100 equipments	(a) Figure No.	(b) Item No.
					REPAIR PARTS FOR:							
					SUBMACHINE GUN, CAL. 45, M3 AND M3A1							
					Bolt And Guide Rod Group							
	P1	F	---	1005-565-3429	BOLT, BREECH: (5653429) (M3 only).	1	1	(0.1)	(0.1)	10	32	3C
	P1	F	---	1005-716-1926	BOLT, BREECH: (7161926) (M3A1 only).	1	1	(0.1)	(0.1)	.10	32	4C
	P	O	---	1005-534-9931	CLIP, RETAINING: (5349931)	10	1	(1.5)	(0.5)	100	32	1
	P	O	---	1005-630-1464	EXTRACTOR, SMALL ARMS CARTRIDGE: (6301464).	10	1	(0.8)	(0.2)	10	32	3B 4B
	P1	F	---	5315-534-9935	PIN, SHOULDER, HEADLESS: S, carb, 0.895 in.	10	1	(0.1)	(0.1)	15	32	3A 4A
	P1	F	---	1005-535-1195	PLATE, LOCATING: (5351195)	10	2	(0.7)	(0.3)	25	32	2
	P1	F	---	1005-630-1449	ROD: (6301449) ----------	10	1	(0.1)	(0.1)	12	32	5
	P1	O	---	1005-716-0999	SPRING, HELICAL, COMPRESSION: (7160999).	10	2	(1.0)	(0.5)	25	32	6



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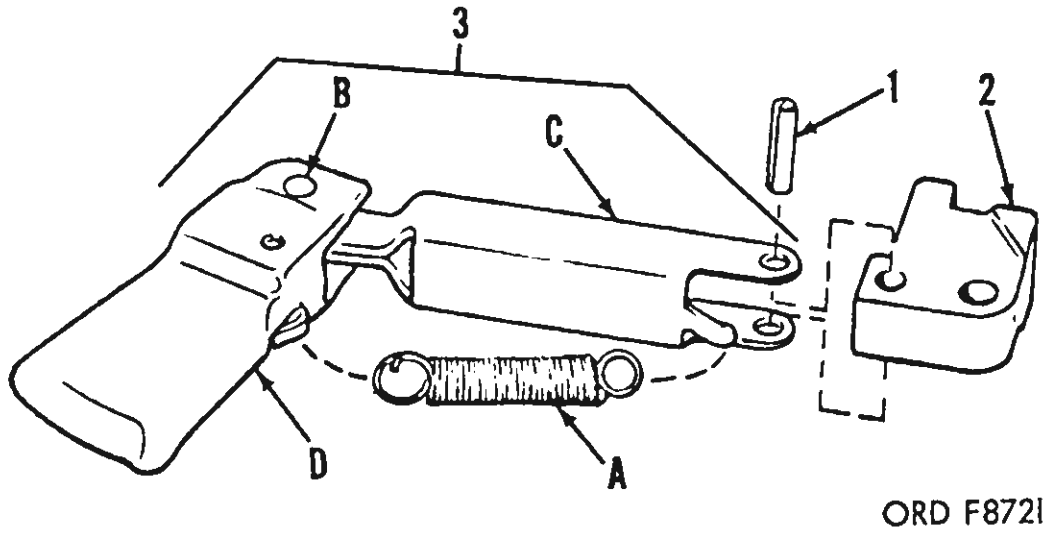
3—Bolt assembly (M3 only) (6301470)

4—Bolt assembly (M3A1 only) (7161921)

Figure 32. Bolt and guide rod group, M3 and M3A1 – exploded view.

(1) Source, maintenance, and recoverability code				(2)	(3)	(4)	(5)	(6) 15-Day maintenance allowance per 100 equipments		(7)	(8) Illustration	
(a) Materiel numerical code	(b) Source	(c) Maintenance level	(d) Recoverability	Federal stock No.	Description	Unit of issue	Quantity incorporated in unit	(a) Direct support	(b) Heavy support	Depot maintenance guide per 100 equipments	(a) Figure No.	(b) Item No.
					REPAIR PARTS FOR — Continued							
					TRIGGER AND SEAR GROUP							
	P1	F	---	5315-534-9938	PIN, STRAIGHT, HEADLESS: S, phos-ctd, 0.1545 in. min dia, 0.1575 in. max dia (5349938).	10	1	(0.1)	(0.1)	20	33	1
	P1	O	---	1005-716-2774	SEAR, TRIGGER: (7162774)---	10	1	(0.4)	(0.2)	15	33	2
	P	F	---	1005-535-1196	SPRING, HELICAL, EXTENSION: (5351196).	10	1	(0.3)	(0.3)	60	33	3A
	P1	F	---	1005-630-1448	TRIGGER ASSEMBLY: (6301448).	10	1	(0.1)	(0.1)	20	33	3



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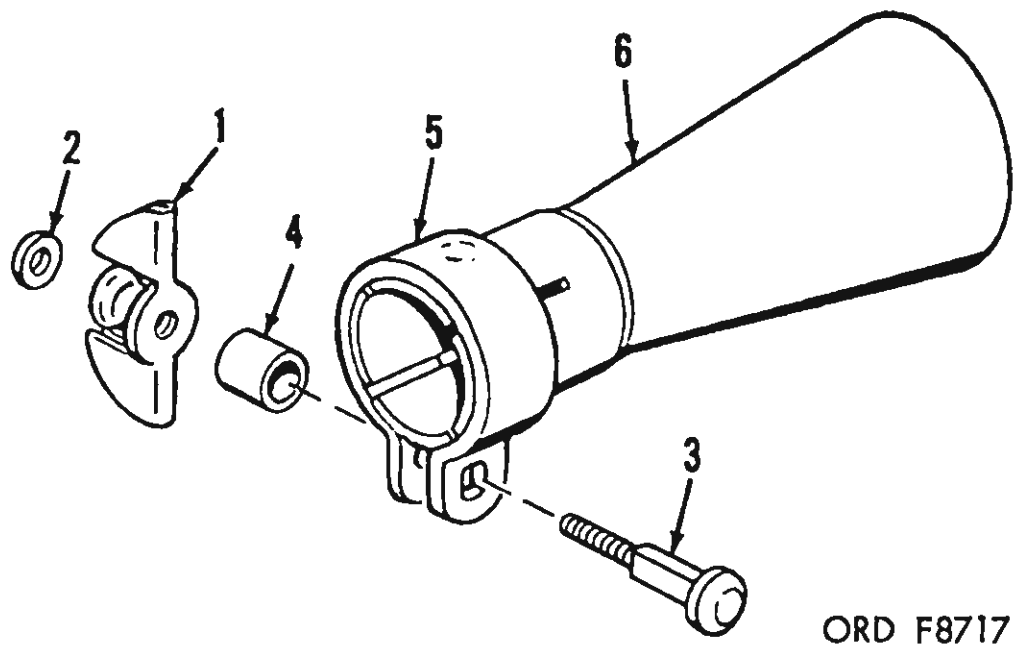
3B—Rivet 5349943
3C—Sear connector 6301450
3D—Trigger—6301472

Figure 33. Trigger and sear group, M3 and M3A1— exploded view.

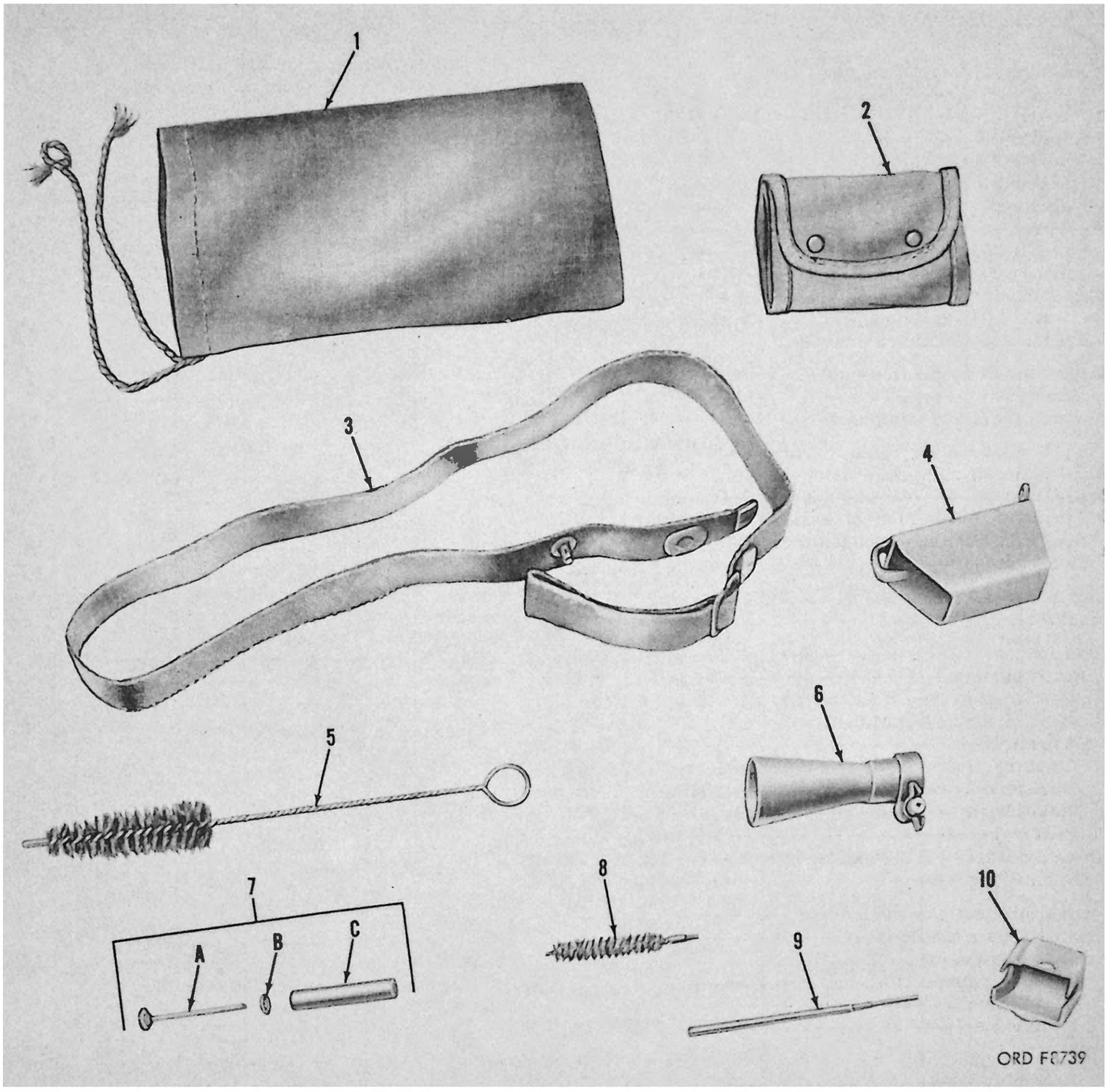
(1) Source, maintenance, and recoverability code				(2)	(3)	(4)	(5)	(6) 15-Day maintenance allowance per 100 equipments		(7)	(8) Illustration	
(a) Materiel numerical code	(b) Source	(c) Maintenance level	(d) Recoverability	Federal stock No.	Description	Unit of issue	Quantity incorporated in unit	(a) Direct support	(b) Heavy support	Depot maintenance guide per 100 equipments	(a) Figure No.	(b) Item No.
					REPAIR PARTS FOR — Continued							
					Flash Hider Assembly M9							
	P1	F	---	1005-726-5970	NUT, SELF-LOCKING, WING: (7265970).	10	1	*	*	8	34	1
	P1	F	---	1005-726-5632	SETSCREW: (7265632) --------	10	1	0.1	0.1	5	34	3
	P1	F	---	5310-726-5634	WASHER, FLAT: (7265634) ---	20	1	0.1	0.1	5	34	2



4—Spacer 7265633
5—Ring 7265631
6—Hider w/ring 7265629

Figure 34. Flash hider assembly M9 — exploded view.

(1) Source, maintenance, and recoverability code				(2)	(3)	(4)	(5)	(6) 15-Day maintenance allowance per 100 equipments		(7)	(8) Illustration	
(a) Materiel numerical code	(b) Source	(c) Maintenance level	(d) Recoverability	Federal stock No.	Description	Unit of issue	Quantity incorporated in unit	(a) Direct support	(b) Heavy support	Depot maintenance guide per 100 equipments	(a) Figure No.	(b) Item No.
					REPAIR PARTS FOR:							
					OILER, CARBINE (M3 only)							
	P	O	---	1005-519-6456	GASKET: (5196456) ----------	1	1	(2.4)	(0.7)	8	35	7B
					TOOLS AND EQUIPMENT AUTHORIZED FOR UNIT REPLACEMENT							
					SUBMACHINE GUN, CAL. .45, M3 AND M3A1							
				1005-555-9738	BAG: canvas, spare parts (5559738).	1	---	---	---	---	35	1
				1005-550-4036	BRUSH, CLEANING, SMALL ARMS: M5, bore (5504036).	10	---	---	---	---	35	8
				1005-610-8828	BRUSH, CLEANING, SMALL ARMS: M6, chamber (6108828).	10	---	---	---	---	35	5
				1005-726-5879	CAP, MAGAZINE: (7265879) --	100	---	---	---	---	35	10
				1005-722-8907	ENVELOPE: frabric, 2 button, 4-7/8 x 3 (7228907).	10	---	---	---	---	35	2
				1005-565-3431	FILLER, MAGAZINE: M1 (5653431) (M3 only).	1	---	---	---	---	35	4
				1005-726-5628	FLASH HIDER ASSEMBLY: M9 (7265628).	1	---	---	---	---	35	6
				1005-556-4364	OILER, CARBINE: (5564364) (M3 only).	10	---	---	---	---	35	7
				1005-555-7152	SLING, SMALL ARMS: (5557152).	10	---	---	---	---	35	3
				1005-288-3565	SWAB, SMALL ARMS CLEANING: cotton, 2-1/2 sq (1000 in pkg) (5019316).	200	---	---	---	---	-	-
				4933-726-6175	TOOL, REMOVER, EXTRACTOR PIN: (7266175).	1	---	---	---	---	35	9
					TOOLS AND EQUIPMENT							
					The 15-day level does not apply.							
					The following tool kit is authorized and may be requisitioned by organizations authorized Field Maintenance Small Arms shop set 4933-754-0664-A13.							
		R		4933-775-0366	TOOL KIT DIRECT AND GENERAL SUPPORT MAINTENANCE, BASIC SMALL ARMS: (8426358). *Note:* See SM 9-4-4933-EO4 for components.	1	---	*	*	*	-	-



7A—Cap 5196480 7C—Tube 5196481

Figure 35. Tools and equipment.

INDEX

By Order of Secretary of the Army:

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NG: State AG (3).
USAR: Units – Same as Active Army except allowance is one copy for each unit.
For explanation of abbreviations used, see AR 320-50.