TM 9-1005-224-12

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

ORGANIZATIONAL MAINTENANCE MANUAL
INCLUDING REPAIR PARTS AND
SPECIAL TOOL LISTS

MACHINE GUN, 7.62-MM, M60
AND
MOUNT, TRIPOD, MACHINE GUN, M122

HEADQUARTERS, DEPARTMENT OF THE ARMY
SEPTEMBER 1965

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TECHNICAL MANUAL
No. 9-1005-224-12

HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., *24 September 1965*

MACHINE GUN, 7.62-MM, M60 AND MOUNT, TRIPOD, MACHINE GUN, M122

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***This manual supersedes TM 9-1005-224-12, 29 October 1963 including C 1, 2 July 1964; C 2, 23 October 1964; C 3, 8 January 1965; C 4, 11 May 1965; TM 9-1005-224-20P, 7 July 1964, including C 1, 19 October 1964; and that portion of LO 9-1000-228-12, 8 April 1964, pertaining to 7.62-mm machine gun M60 and machine gun tripod mount M122 only.**

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CHAPTER 1
INTRODUCTION

Section I. GENERAL

1–1. Scope

a. This manual contains instructions for operation and organizational maintenance for the 7.62-mm machine gun M60 and machine gun tripod mount M122.

b. The direct reporting by the individual user of errors, omissions, and recommendations for improving this manual is authorized and encouraged. DA Form 2028 (Recommended Changes to DA Publications) will be used for reporting these improvement recommendations. This form will be completed using pencil, pen, or typewriter and forwarded direct to Commanding General, U.S. Army Weapons Command, ATTN: AMSWE–SMM–P, Rock Island Arsenal, Rock Island, Ill. 61202.

1–2. Maintenance Allocation

Refer to appendix C.

1–3. Forms, Records and Reports

a. Authorized Forms. Refer to TM 38–750 and DA Pam 310–2.

b. Reports of Accidents.

(1) *Injury to personnel or damage to materiel.* Refer to AR 385–40.

(2) *Ammunition, accidents and malfunctions.* Refer to AR 700–1300–8.

Section II. DESCRIPTION AND TABULATED DATA

1–4. Description

a. Machine Gun. The 7.62-mm machine gun M60 is illustrated in figure 1–1. Major groups and assemblies are illustrated in figure 1–2.

b. Tripod Mount. The machine gun tripod mount is illustrated in figure 1–3. Major groups are illustrated in figure 1–4.

1–5. Tabulated Data

a. Machine Gun.

Weight	23.16 lb.
Length	43.50 in. (overall)
Range (maximum)	3,200 meters
Rate of fire	550 rd per min (approx)
Capacity of magazine	100 rounds

b. Mount.

Weight	15 lb.
Length:	
Extended	32.5 in.
Folded for transportation	27 in.
Spread of rear legs	30 in.
Height	14 in.
Traversing range:	
Using traversing bar	50 deg.
Free	360 deg (6,400 mils)
Traversing bar, graduated	(875 mils)

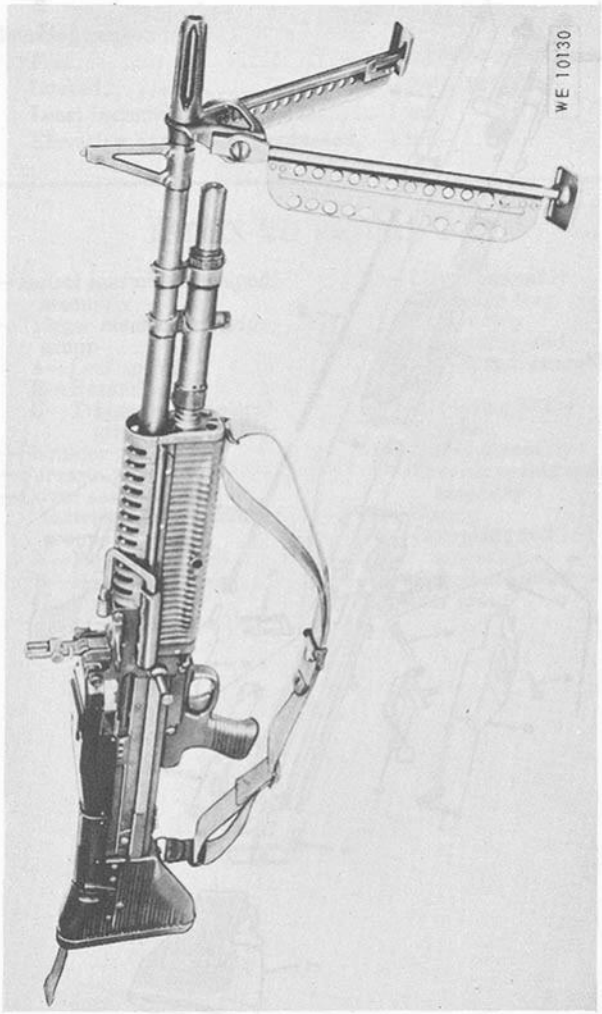


Figure 1–1. 7.62-mm machine gun M60—right front view.

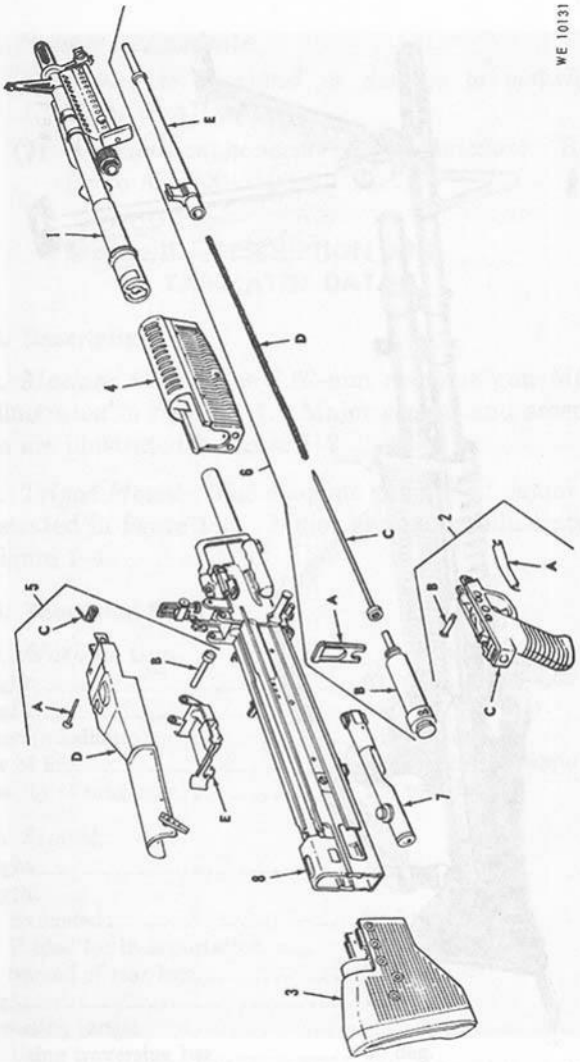


Figure 1–2. Major groups and assemblies of machine gun.

Elevating range:

Free	+28°30′+28°45′
Locked	+14°−12°35′
Least increment	1 mil
Elevating handwheel, graduated	1 mil

INDEX TO FIGURE 1-2

1—Barrel assembly w/bipod assembly
2—Trigger mechanism grip group
- A—Leaf spring
- B—Retaining pin
- C—Trigger mechanism grip assembly

3—Shoulder gun stock
4—Forearm assembly
5—Cover assembly and cartridge tray assembly groups
- A—Hinge pin latch
- B—Hinge cover pin
- C—Spring
- D—Cover assembly
- E—Cartridge tray assembly

6—Buffer assembly and operating rod assembly groups
- A—Retaining buffer yoke
- B—Buffer assembly
- C—Driving spring guide assembly
- D—Spring
- E—Operating rod assembly

7—Breech bolt assembly
8—Receiver group

Figure 1–3. Machine gun tripod mount M122.

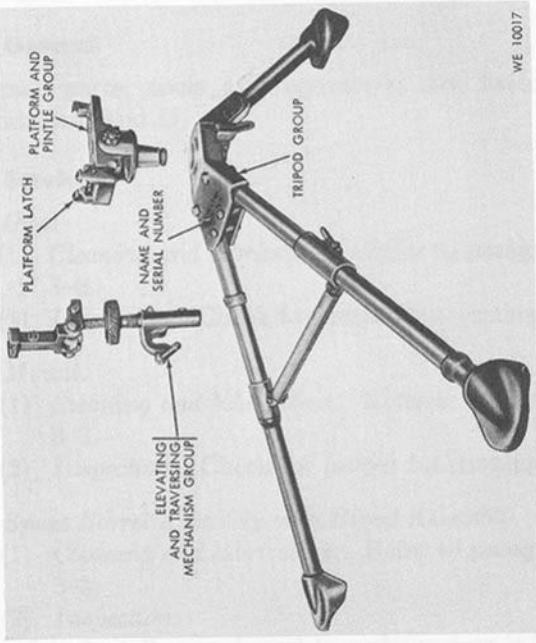


Figure 1–4. Major groups of tripod mount.

CHAPTER 2

OPERATING INSTRUCTIONS

Section I. SERVICE UPON RECEIPT OF MATERIEL

2–1. General

Repair parts, tools and equipment are listed in appendices B and D.

2–2. Services

a. Gun.

(1) *Cleaning and lubrication.* Refer to paragraph 3–3.

(2) *Inspection.* Check for proper functioning.

b. Mount.

(1) *Cleaning and lubrication.* Refer to paragraph 3–3.

(2) *Inspection.* Check for proper functioning.

c. Spare Barrel Assembly with Bipod Assembly.

(1) *Cleaning and lubrication.* Refer to paragraph 3–3.

(2) *Inspection.*

(*a*) Install spare barrel to make certain it locks securely in receiver.

(*b*) Operate bipod legs.

(*c*) Remove spare barrel and place in carrying case (fig. B–7).

Section II. OPERATION

2–3. Blank Ammunition Firing Attachment M13

The blank ammunition firing attachment is used only during training. It is listed in appendix B and requisitioned for instructional purposes. When attached to the weapon (fig. 2–1), make sure the orifice tube is fully seated against the muzzle, that projection on left side is inserted in slot of right side behind the front right post and is secured by the wingnut.

Caution: **Live ammunition must NOT be used in the machine gun while the firing attachment is installed.**

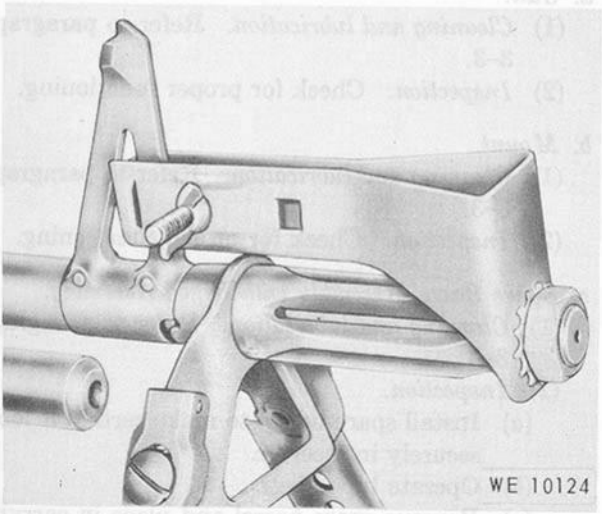


Figure 2–1. 7.62-mm machine gun M60 with blank ammunition firing attachment M13 installed.

2–4. Preparation for Firing

Install weapon on mount. See figure 2–2.

2–5. Loading, Firing and Unloading

See figure 2–3.

2–6. Runaway Gun and Corrective Action

Refer to table 3–1.

Caution: **Hold the fire on the target until feeding is stopped or the ammunition is expended.**

2–7. Ruptured Cartridge Case

a. In some cases of complete rupture of a cartridge case, the forward portion of the case remains in the chamber and extraction is accomplished only on the rear portion. When a rupture of this type occurs a new round will be fed in the chamber. The following can result.

(1) Incomplete chambering since the round being fed into the chamber cannot be seated fully. It may be compressed sufficiently to cause detonation with possible damage to the weapon, injury to personnel, or both.

(2) A round driven into the ruptured case without detonation. Removal of the round will be accomplished as follows:

(*a*) Retract bolt and move safety to S position.

(*b*) Place the cleaning rod into muzzle end of the barrel and tap the rod gently when it touches the cartridge to remove the round.

b. If the ruptured case is still lodged in the chamber, insert the ruptured cartridge case extractor through the case. Insert cleaning rod into muzzle end of barrel and tap the rod lightly to remove case.

Figure 2–2. Installing weapon on mount.

Figure 2–3. Loading, firing, and unloading gun.

2–8. Misfire, Hangfire, and Cook-Off

a. General. All personnel concerned will know the nature of each kind of malfunction described below as well as the proper preventive and corrective procedures in order to avoid injury to personnel or damage to materiel.

Warning: **In the event of a misfire the round will remain locked in the chamber for the prescribed time intervals, the gun trained on the target, and personnel cleared from the area.**

b. Misfire. A misfire is a complete failure to fire. It must be treated as a hangfire until such possibliity has been eliminated.

c. Hangfire. A hangfire is a delay in the functioning of a propelling charge. The time intervals prescribed in paragraph 2–9 should be observed after a failure to fire.

d. Cook-off. A cook-off is the firing of the chambered round due to the heat of the hot barrel. A cook-off may occur from ten seconds to five minutes after the round has been in contact with a hot barrel.

2–9. Immediate Action Procedures for Removing a Live Round in Case of Failure to Fire

a. If a stoppage occurs, wait five seconds, retract cocking handle to rear insuring that the operating rod remains to the rear.

b. If the round *is* ejected, return cocking handle to forward position, relay on the target and attempt to fire. If the weapon does not fire it must be cleared and the weapon and ammunition inspected to determine the cause of stoppage.

c. If the round *is not* ejected, move the safety to S (safe) position. Remove ammunition and links and inspect the receiver, chamber, and extractor.

d. If a round is present in the chamber, close the cover, move the safety to F (fire) position, and attempt to fire. If the weapon fires and ejects, reload, relay on target and continue to fire. If the round does not fire and the barrel is considered hot enough to cause a cook-off (200 rounds fired within two minutes) wait five minutes, with the bolt in the forward position. Remove the round, reload, relay on target and attempt to fire.

Note. Disregard the five minute wait if the weapon is not hot enough to cause a cook-off.

2–10. Double Feed

a. General. A double feed, with subsequent possibility of damage to the gun and injury to personnel, will occur whenever a round is fed into a chambered spent case or live round.

b. Double Feed into "Spent" Case. When the gun fails to extract the "spent" case, the bolt automatically will recoil, strip the next round from the belt, and feed it into the chambered case. The force may compress the round sufficiently to cause detonation, and cause damage to the gun and injury to personnel.

c. Double Feed into Live Round. When a round fails to fire, the bolt remains in the forward or closed position. This causes a stoppage, which must be treated as a hangfire (para 2–8*c*). If the gun is MANUALLY charged and the trigger pulled, the next round will be fed into the primer of the first round causing it to fire.

Warning: **At no time will the bolt be retracted and allowed to go forward if the belted ammunition is on**

the feed tray and a "live" round remains in the chamber of the gun.

2–11. Service After Firing

a. Refer to table 3–1.

b. Refer to TM 9–207 and FM 31–70 for cold-weather operation.

CHAPTER 3

PREVENTIVE MAINTENANCE SERVICES AND LUBRICATION

Section I. PREVENTIVE MAINTENANCE SERVICES

3–1. Specific Procedures for Operator

Refer to table 3–1.

3–2. Specific Procedures for Organizational Maintenance Personnel

Refer to table 3–2.

Table 3-1. Preventive Maintenance Checks and Services

Interval and sequence No.			Operator maintenance category	Daily schedule
Before firing	During firing	After firing	Item to be inspected	Procedure
				MACHINE GUN 7.62-MM, M60
1	------	------	Barrel	Assure that bore is dry and free of obstruction.
2	------	------	Gas cylinder	Check gas cylinder plug to see that it is tight and safety wired on the gas cylinder. Piston must move freely in gas cylinder.
3	------	------	Barrel lock	Check to assure positive retention of barrel.
4	------	------	Cover assembly	Manually operate cover assembly to assure freedom of movement. Test cover latch to assure positive locking action of cover.
		7	Operating rod assembly and sear.	Manually operate machine gun to assure positive retention of rod by the sear.
5	------	------	Machine gun	Assure compliance with pertinent lubrication instructions.
6	------	------	Safety	Place safety in down position (towards the "S"). Attempt to fire weapon.
				MOUNT, TRIPOD, MACHINE GUN, M122

1			Tripod group	Make certain tripod legs can be fully extended. The two rear legs must be snapped into position against a slight pressure. The sleeve latch, when engaged, must secure legs in extended position. Check for positive operation of the pintle lock group assembly.
2			Platform and pintle group	Assure that pintle is positively locked in position when installed in tripod head. Platform must not bind within pintle. Actuate platform latches to determine satisfactory operation.
3			Elevating and traversing mechanism group.	Make certain sleeve is secured to the traversing bar when lock lever is rotated. Upper and lower elevating screw stops must prevent separation of the mechanism. Traversing and elevating handwheels must operate satisfactorily.

Table 3-2. Preventive Maintenance Checks and Services—Organizational Maintenance

Organizational maintenance category		Weekly schedule
Sequence No.	Item to be inspected	Procedure
		MACHINE GUN, 7.62-MM, M60
1	Operating rod assembly	Inspect for and remove rough surfaces with a fine stone. See that roller pin is staked and that roller in guide moves freely. Notify direct support personnel, if defective.
2	Breech bolt assembly	Examine ejector and extractor for proper functioning. Replace defective parts. Rear face of locking lugs will be free of chipping. Check bolt plug installation to assure presence of lock pin.
3	Receiver group	Check to ascertain all rivets are secure. Check buffer assembly for proper assembled position. Check retainer pin hole in housing for elongation.
		MOUNT, TRIPOD, MACHINE GUN M122
1	Tripod group	Make certain rear legs are slightly forced apart by the traversing bar when in firing position. Check for completeness and possible damage.

2	Platform and pintle group	Assure positive function of latches and engagement in tripod.
3	Elevating and traversing mechanism group.	Make an overall check to assure positive functioning of individual components and for completeness.
4	Tripod mount	Assure compliance with lubricating instructions. Replace defective parts if authorized to unit level, or evaluate to direct support personnel.

Section II. LUBRICATION

3–3. Specific Lubrication Instructions

Note. Instructions contained herein are mandatory and are in lieu of LO 9–1000–228–12. Since decals are superseded they will be removed from the weapon. The definitions of abbreviations used in the instructions below are contained in table 3–3.

a. Machine Gun.

***Caution:* The buffer assembly will not be submerged in solvents or other cleaning fluids. Use damp (oily) cloth on exterior surfaces to prevent corrosion.**

(1) All components and surfaces exposed to powder fouling will be cleaned with solvent cleaning compound (CR). Immediately after firing all items with the exception of gas cylinder components will be cleaned. The gas cylinder components will be removed and cleaned only when inspection reveals that the piston will no longer move within the cylinder under its own weight when the barrel is tilted end for end.

(2) Disassemble the gun into its major groups and assemblies (para 4–3).

***Caution:* Care MUST be exercised to avoid getting solvent cleaning compound or oil in the gas cylinder when cleaning the barrel. Hold the barrel with the gas cylinder in the upright position during cleaning.**

(3) Clean the components with dry cleaning solvent (SD).

(4) Wipe dry and oil with general purpose lubricating oil (PL special) or weapons lubricating oil (LAW).

(5) Thereafter, clean and oil as above every 90 days unless inspection reveals shorter intervals are required.

(6) Assemble the major groups and assemblies (para 4–3).

(7) Remove oil from barrel before firing.

b. Application of Semi-Fluid Lubricating Oil (LSA).

(1) Specific points to be lubricated are:

(*a*) *Barrel assembly with bipod assembly.* On bolt locking lug camming surfaces.

(*b*) *Operating rod assembly.* On roller and those surfaces, immediately below the yoke, which ride within the receiver rails.

(*c*) *Cover assembly.* In groove wherein the bolt actuator rides.

(*d*) *Breech bolt assembly.* On the bolt locking lugs, actuator roller and in the camming recess (for the operating rod).

(*e*) *Receiver group.* On the receiver rails.

(2) Apply the lubricant sparingly to the above areas by squeezing a small amount of lubricant from the tube. After lubricating, the components should be cycled by hand as in functioning to allow the oil to spread.

b. Mount M122. Clean all exposed surfaces with SD and wipe dry. Lubricate, as required, with PL special or LAW.

Table 3–3. Cleaning Materials and Lubricants

Abbreviation	Definition
CR	Solvent cleaning compound
LAW	Weapons lubricating oil (below 0° F.)
LSA	Semifluid lubricating oil
P–C–111A	Carbon removing compound
PL special	General purpose lubricating oil (above 0° F.)
SD	Dry-cleaning solvent

CHAPTER 4
OPERATOR'S MAINTENANCE INSTRUCTIONS

Section I. GENERAL

4–1. Repair Parts, Special Tools and Equipment

Refer to appendix B.

Section II. TROUBLESHOOTING

4–2. General

Refer to table 4–1.

Table 4–1. Troubleshooting

Malfunction	Probable cause	Corrective action
Failure to feed	Insufficient gas pressure.	Clean gas port.
	Improper lubrication.	Apply lubricant as required.
	Defective link or ammunition.	Insert new ammunition or link.
	Ammunition belt installed wrong.	Reverse belt with open side of link down.
	Damaged or weak operating rod spring.	Notify organizational maintenance personnel.

Table 4–1 Troubleshooting—Continued

Malfunction	Probable cause	Corrective action
	Obstruction in receiver.	Remove item blocking movements. Clean and lubricate.
Failure to chamber	Ruptured cartridge case.	Remove (para 2–7).
	Carbon build-up in gas cylinder.	Remove carbon (fig. 5–1).
	Carbon build-up in receiver.	Remove carbon.
	Damaged round	Remove and recharge weapon.
	Dirty chamber	Clear and clean or change barrel.
Failure to fire	Faulty ammunition.	Remove ammunition.
	Broken or damaged firing pin.	Notify organizational maintenance personnel.
Failure to extract	Gas piston installed backwards.	Install properly (fig. 4–2).
Failure to eject	Frozen or damaged ejector ejector spring.	Notify organizational maintenance personnel.
Uncontrolled fire	Broken or worn sear.	Notify organizational maintenance personnel.
	Worn sear notch on operating rod.	Notify organizational maintenance personnel.

Section III. MAINTENANCE OF MACHINE GUN

4–3. Disassembly and Assembly of Major Groups and Assemblies

See figures 4–1 through 4–7.

Note. White arrows shown on illustrations indicate disassembly, black arrows indicate assembly.

4–4. Inspection

Refer to table 4–2.

Table 4–2. Inspection

Assembly or group	Inspect for
Barrel assembly with bipod assembly	Cracks or damage to gas piston and cylinder. Gas cylinder plug is tight and safety wired. *Note.* Barrel contains a liner which at visual inspection the expansion gap of the liner junction (approx. 7½ inches from the breech end) will appear as a ring. This ring will NOT be considered cause for rejection.
Trigger mechanism grip group	Proper functioning of safety. Cracks or damage to sear.
Shoulder gun stock	Weak or broken latch spring. Missing or broken swivel.
Forearm assembly	Weak or broken spring. Hissing or broken swivel.
Cover assembly and cartridge feed tray assembly groups	Spring weakness of latch lever. Broken or damaged parts.
Buffer assembly and operating rod assembly groups	Broken or damaged condition. Feedom of movement of roller. Looseness of roller pin.
Breech bolt assembly	Sharp corners or edges on firing pin. Bent or broken firing pin spring.
Receiver group	Loose or damaged rear sight. Ease and operation of retracting slide assembly. Loose rivets.

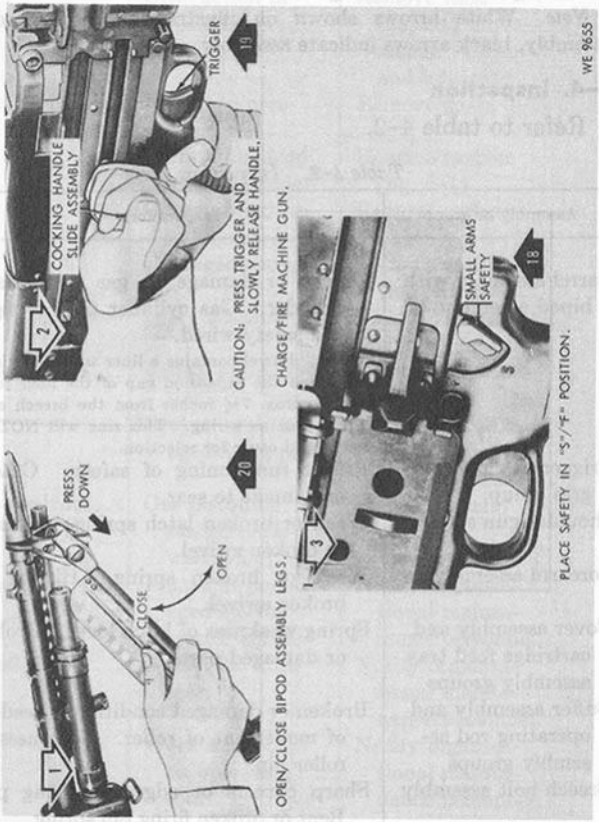


Figure 4–1. Disassembly/assembly of machine gun (sheet 1 of 7).

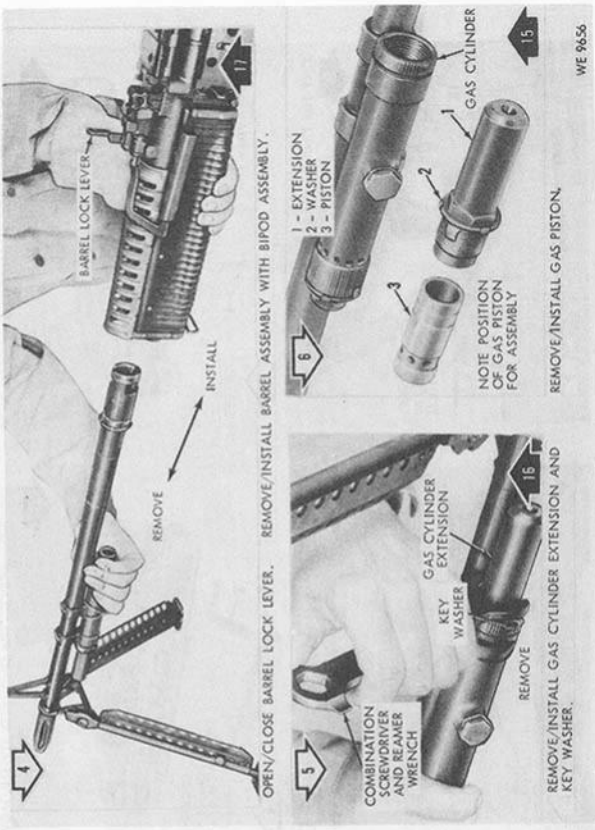


Figure 4–2. Disassembly/assembly of machine gun (sheet 2 of 7).

Figure 4–3. Disassembly/assembly of machine gun (sheet 3 of 7).

Figure 4–4. Disassembly/assembly of machine gun (sheet 4 of 7).

Figure 4–5. Disassembly/assembly of machine gun (sheet 5 of 7).

Figure 4–6. Disassembly/assembly of machine gun (sheet 6 of 7).

Figure 4–7. Disassembly/assembly of machine gun (sheet 7 of 7).

4–5. Replacement of Parts

a. Replace barrel assembly w/bipod assembly, if damaged or unserviceable.

b. No other replacement of parts is authorized to the operator.

Section IV. MAINTENANCE OF MACHINE GUN TRIPOD MOUNT M122

4–6. Disassembly

No disassembly is authorized the operator or crew.

4–7. Inspection

If parts need to be repaired or inspected, return mount to organizational maintenance personnel.

CHAPTER 5
ORGANIZATIONAL MAINTENANCE

Section I. GENERAL

5–1. Repair Parts, Special Tools and Equipment

Refer to appendix D.

5–2. Specific Cleaning Procedures

On component parts which contain a hard carbon residue it may be necessary to clean these parts with carbon removing compound P–C–111A. Depending on the amount of carbon residue, soak 2 to 16 hours and rinse with water or solvent.

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.**

Section II. TROUBLESHOOTING

5–3. Procedures

Refer to table 5–1.

Table 5–1. Troubleshooting

Malfunction	Probable cause	Corrective action
Failure to feed	Feed pawl defective.	Return to direct support maintenance personnel.
	Feed pawl spring defective.	Return to direct support maintenance personnel.
	Front or rear cartridge guide defective.	Return to direct support maintenance personnel.
	Feed lever cam spring defective.	Return to direct support maintenance personnel.
	Bolt cam actuator roller missing.	Replace actuator cam assembly.
	Defective cover latch.	Return to direct support maintenance personnel.
	Damaged or weakened operating rod spring.	Replace.
Failure to fire	Broken or damaged firing pin.	Replace.
	Broken or damaged firing pin spring.	Replace.
	Weak or damaged operating rod spring.	Replace.

Table 5–1. Troubleshooting—Continued

Malfunction	Probable cause	Corrective action
Failure to extract	Broken extractor spring, chipped or broken extractor.	Replace.
Failure to eject	Frozen or damaged ejector or ejector spring.	Clean and/or replace.
Failure to cock	Broken sear	Return to direct support maintenance personnel.
	Deformed operating rod sear notch.	Return to direct support maintenance personnel.
	Broken, defective or missing sear plunger and/or spring.	Return to direct support maintenance personnel.
Uncontrolled fire	Broken or worn sear.	Return to direct support maintenance personnel.
	Worn sear notch on operating rod.	Return to direct support maintenance personnel.

Section III. MAINTENANCE OF MACHINE GUN

5–4. Disassembly and Assembly

Refer to paragraph 4–3 and table 5–2.

5–5. Inspection and Repair

Refer to tables 4–2 and 5–2.

Table 5–2. Organizational Maintenance of Machine Gun

Functional group	Maintenance function			
	Disassemble/assemble	Inspect	Replace	Repair
Barrel assembly with bipod assembly.			Item 1, fig. 1–2.	
Barrel assembly	Fig. 5–1	Figs. 4–2 and 5–1		Figs. 4–2 and 5–1.
Bipod assembly		Fig. 4–2.		
Trigger mechanism grip group	Fig. 5–2	Figs. 4–3 and 5–2		Item 2A, fig. 1–2.
Shoulder gun stock		Item 3, fig. 1–2.		
Forearm assembly		Item 4, fig. 1–2.		
Cover assembly and cartridge tray assembly groups.				
Cover assembly	Figs. 5–3 through 5–5.	Figs. 5–3 through 5–5.		
Cartridge tray assembly		Item 5E, fig. 1–2.		
Buffer assembly and operating rod assembly groups.				
Buffer assembly		Item 6B, fig. 1–2.		
Operating rod assembly		Item 6E, fig. 1–2.		

Breech bolt assembly	Figs. 5–6 and 5–7	Fig. 4–6, 4–7, 5–6, and 5–7.	Item 7, fig. 1–2.	Figs. 4–7 and 5–7.
Receiver group		Item 8, fig. 1–2.		

Figure 5–1. Disassembly/assembly of barrel assembly with bipod assembly.

Figure 5–2. Disassembly/assembly of trigger mechanism grip group.

Figure 5–3. Disassembly/assembly of cover assembly (sheet 1 of 2).

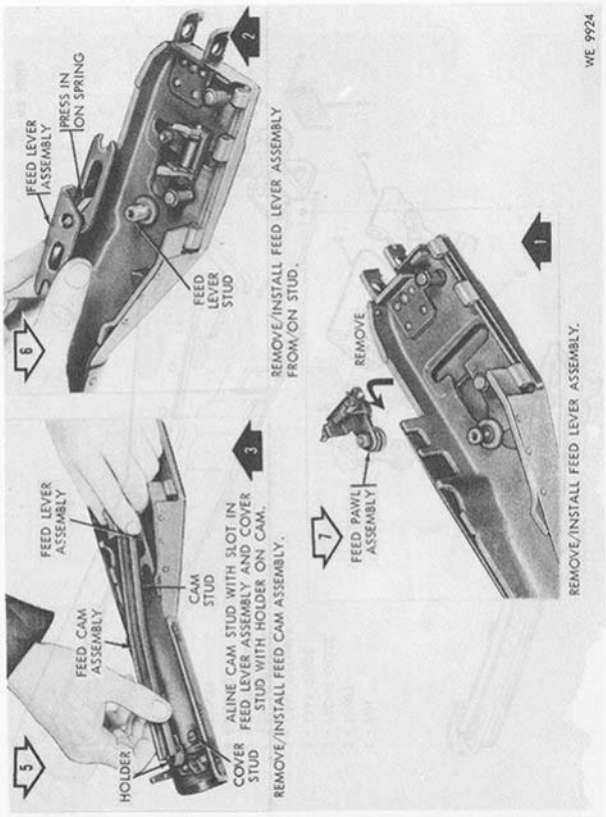


Figure 5–4. Disassembly/assembly of cover assembly (sheet 2 of 2).

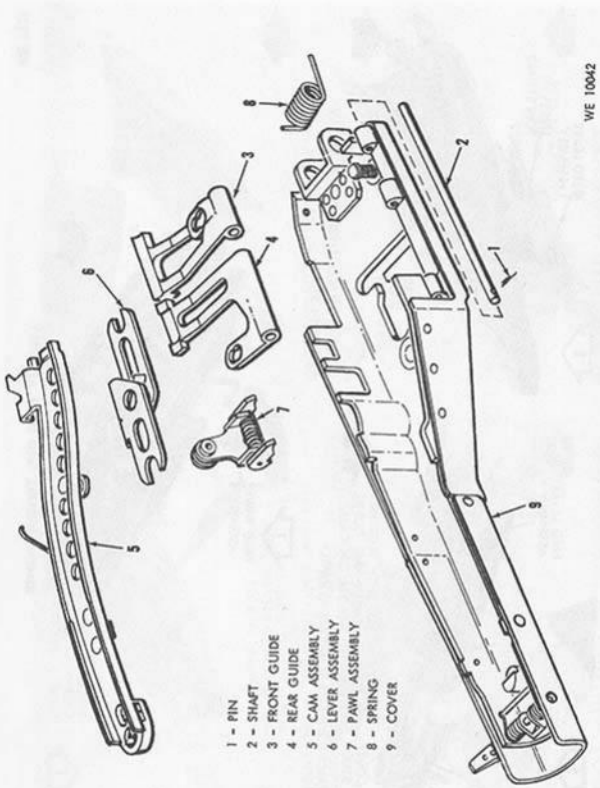


Figure 5–5. Cover assembly—partial exploded view.

Figure 5–6. Disassembly/assembly of breech bolt assembly.

Figure 5–7. Breech bolt assembly—partial exploded view.

Section IV. MAINTENANCE OF MACHINE GUN TRIPOD MOUNT M122

5–6. Disassembly/Assembly

See figure 5–8.

5–7. Inspection and Repair

a. Replace cotter pin (1) and hexagon nut (2), if unserviceable.

b. If other parts need to be repaired or replaced, return mount to direct support maintenance personnel.

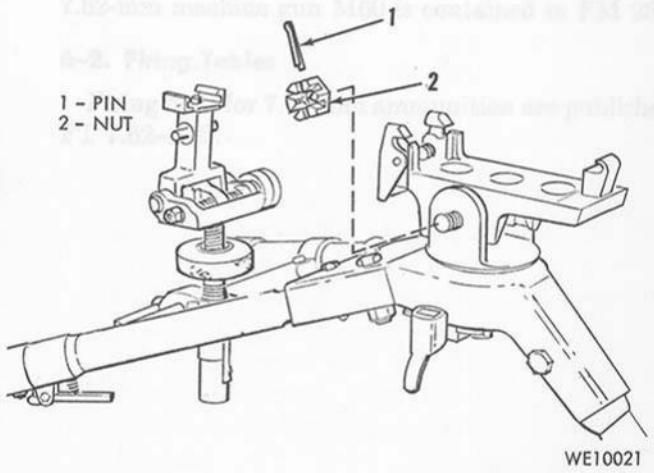


Figure 5–8. Disassembly/assembly of machine gun tripod mount M122.

CHAPTER 6
AMMUNITION

6–1. General

The description of the ammunition to be used for the 7.62-mm machine gun M60 is contained in FM 23–67.

6–2. Firing Tables

Firing data for 7.62-mm ammunition are published in FT 7.62–A–2.

CHAPTER 6
AMMUNITION

6–1. General

The description of the ammunition to be used for the 7.62-mm machine gun M60 is contained in FM 23–67.

6–2. Firing Tables

Firing data for 7.62-mm ammunition are published in FT 7.62–A–2.

APPENDIX A
REFERENCES

A–1. Publication Indexes

Military Publications:

Index of Administrative Publications.	DA Pam 310–1
Index of Doctrinal, Training, and Organizational Publications.	DA Pam 310–3
Index of Army Motion Pictures, Filmstrips, Slides, Tapes, and Phono-recordings.	DA Pam 108–1
Index of Graphic Training Aids and Devices.	DA Pam 310–5
Index of Technical Manuals, Technical Bulletins, Supply Manuals (types 7, 8, and 9), Supply Bulletins, Lubrication Orders, and Modification Work Orders.	DA Pam 310–4

A–2. Supply Manuals

Tool Kit, Armorer's	SM 10–4–5180–A19

A–3. Forms

DA Form 2407, Maintenance Request.

APPENDIX B
BASIC ISSUE ITEMS LIST

Section I. PREFACE

B–1. Explanation of Columns

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

(1) *Source* (col 1*a*).

Code	*Explanation*
P1	Applies to low mortality parts.

(2) *Maintenance level* (col 1*b*).

Code	*Explanation*
O	Organizational Maintenance.

(3) *Recoverability* (col 1*c*).

Code	*Explanation*
R	Items which are economically repairable at direct and general support maintenance activities.

B–2. Abbreviations and Symbols

a. Abbreviations.

Abbreviation	*Explanation*
assy	assembly(ies)
bx	box(es)
ctg	cartridge(s)
ctn	carton
equip	equipment
oz	ounce(s)
wdn	wooden
w/e	with equipment

b. Symbol.

Symbol	*Explanation*
LSA	Semifluid lubricating oil

Section II. BASIC ISSUE ITEMS LIST

(1) Source, maintenance, and recoverability code			(2)	(3)	(4)	(5)	(6) Illustration	
(a) Source	(b) Maintenance level	(c) Recoverability	Federal stock No.	Description	Unit of issue	Quantity authorized	(a) Figure No.	(b) Item No.
				MAJOR ITEMS				
				The following items are requisitioned for initial issue only.				
		R	1005-605-7710	MACHINE GUN, 7.62-MM, M60, W/E: (8413999).	1	------	1-1	------
		R	1005-710-5599	MOUNT, TRIPOD, MACHINE GUN, M122: (7790723).	1	------	1-3	------
				REPAIR PARTS FOR:				
				MACHINE GUN, 7.62-MM, M60				

P1	O	R	1005-608-5001	BARREL ASSEMBLY WITH BIPOD ASSEMBLY (7269027).	1	1	1-2	1
				MOUNT, TRIPOD, MACHINE GUN, M122				
				NONE AUTHORIZED				
				TOOLS AND EQUIPMENT				
			1005-556-4174	BRUSH, CLEANING, SMALL ARMS: bore (5564174).	1	4	B-1	2
			1005-690-3115	BRUSH, CLEANING, SMALL ARMS: chamber (7790452).	1	1	B-1	5
			1005-650-4508	BRUSH, CLEANING, SMALL ARMS: receiver (7790342).	1	1	B-1	3
			1005-791-5420	CASE, CARRYING: barrel assy and equip (7791009).	1	1	B-7	------
			4933-652-9950	EXTRACTOR, RUPTURED CARTRIDGE CASE: (7790352).	1	1	B-3	------
			9150-889-3522	LUBRICATING OIL, SEMIFLUID: (LSA) 4 oz tube (7791359).	1	1	B-1	4
			1005-691-1639	MAGAZINE ASSEMBLY: (7790572).	1	1	B-6	------

(1) Source, maintenance, and recoverability code			(2)	(3)	(4)	(5)	(6) Illustration	
(a) Source	(b) Maintenance level	(c) Recoverability	Federal stock No.	Description	Unit of issue	Quantity authorized	(a) Figure No.	(b) Item No.
			1305–540–5627	CARTRIDGE, 7.62-MM, DUMMY: NATO M63 Packed 20/ctn, 20 ctn (400 ctg)/wdn bx (TA 23–103). The following items WILL NOT BE TAKEN into the field upon permanent change of station or into the theater of operations. Units will turn in all equipment to the Commanding Officer of the station from which it departs. The receiving Officer will make a report to the Army Commander, without delay, showing number, type and condition of item received.	1			

				Basis for authorization is for training purposes only, quantity required is to be determined by local commanders.				
			1005–073–8467	FIRING ATTACHMENT, BLANK AMMUNITION: M13 (11010063).	1			
				GRAPHIC TRAINING AID 9–632.	1			

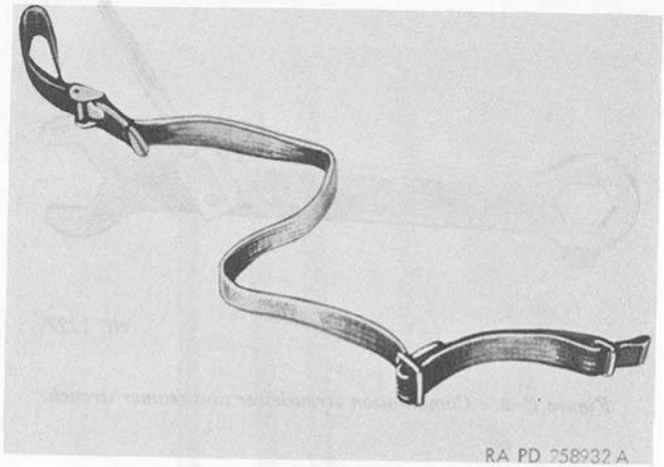


Figure B–4. Gun sling, M1.

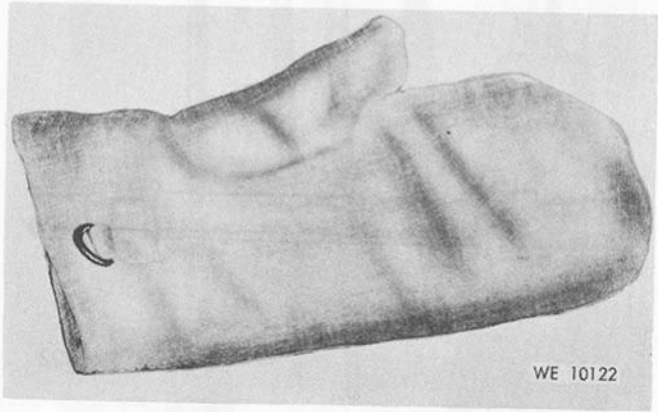


Figure B–5. Asbestos mitten M1942.

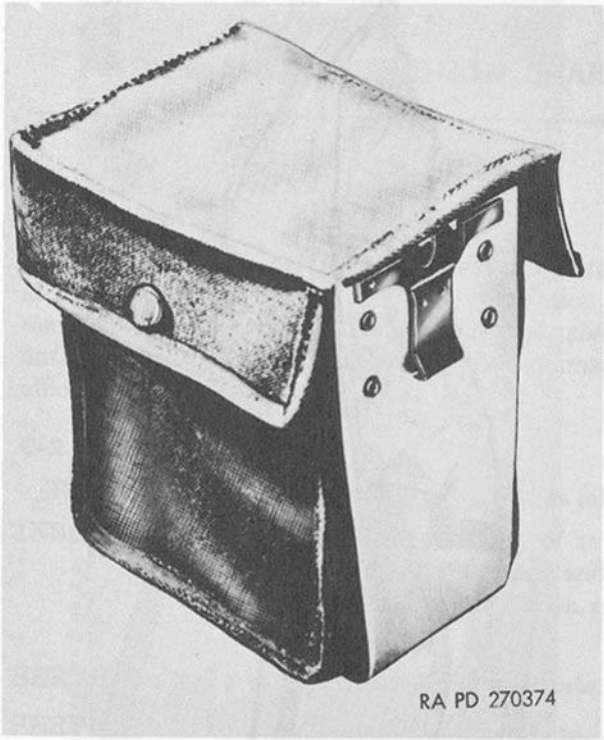


Figure B–6. Magazine assembly.

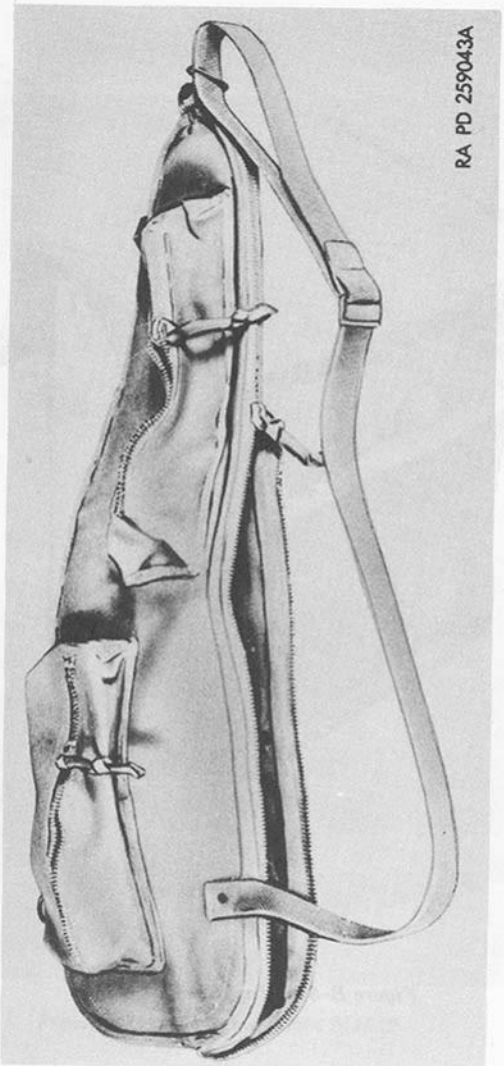


Figure B–7. Carrying case.

APPENDIX C
MAINTENANCE ALLOCATION CHART

Section I. INTRODUCTION

C–1. General

Indicates specific maintenance operations performed at the proper maintenance levels. Deviation from maintenance operations allocated in the chart is authorized only upon approval of the commanding officer.

C–2. Maintenance Functions

These functions are limited to and defined as follows:

INSPECT	To determine serviceability of an item by comparing its physical and mechanical characteristics with established standards.
SERVICE	To clean, preserve and lubricate.
SERVICE	To clean, preserve and lubricate.
INSTALL	To set up for use in an operational environment such as an emplacement, site, or vehicle.
REPLACE	To replace unserviceable items with serviceable assemblies, subassemblies, or parts.

REPAIR — To restore an item to serviceable condition. This includes, but is not limited to inspection, cleaning, preserving, adjusting, replacing, welding, riveting, and strengthening.

OVERHAUL — To restore an item to a completely serviceable condition by disassembling the item to determine the condition of each of its component parts and reassembling it using serviceable or new assemblies, subassemblies, and parts.

C–3. Explanation of Format

a. Column 1, Group Number. Lists group numbers to identify components and assemblies.

b. Column 2, Functional Group. Lists the noun names of groups and assemblies.

c. Column 3, Maintenance Functions. Self-explanatory.

Note. Numbers used in this column are as follows:

Number	*Explanation*
1	Operator or crew
2	Organizational
3	Direct support
4	General support
5	Depot

d. Column 4, Tools and Equipment. Tools and equipment which are required to perform the designated function.

e. Column 5, Remarks. Self-explanatory.

Section II. MAINTENANCE ALLOCATION CHART
FOR
Machine Gun 7.62-mm M60 and Mount Tripod Machine Gun M122

(1) Group No.	(2) Functional group	(3) Maintenance function										(4) Tools and equipment	(5) Remarks
		Inspect	Test	Service	Adjust	Align	Calibrate	Install	Replace	Repair	Overhaul	Rebuild	
	Machine gun, 7.62-mm, M60	1	----	1	----	----	----	1	3	----	5	----	
	Barrel assembly w/bipod assembly.	3	----	----	----	----	----	1	1	2	----	----	
	Barrel assembly	3	----	----	----	----	----	----	3	----	----	----	
	Bipod assembly	----	----	----	----	----	----	----	3	3	----	----	
	Trigger mechanism grip group	----	----	----	----	----	----	----	----	2	----	----	
	Shoulder gun stock	----	----	----	----	----	----	----	3	3	----	----	
	Forearm assembly	----	----	----	----	----	----	----	3	3	----	----	
	Cover assembly and cartridge tray assembly groups.	----	----	----	----	----	----	----	----	2	----	----	
	Buffer assembly and operating rod assembly groups.	----	----	----	----	----	----	----	----	2	----	----	

(1) Group No.	(2) Functional group	(3) Maintenance function											(4) Tools and equipment	(5) Remarks
		Inspect	Test	Service	Adjust	Align	Calibrate	Install	Replace	Repair	Overhaul	Rebuild		
	Breech bolt assembly	----	----	----	----	----	----	----	2	2	----	----		
	Receiver group	----	----	----	----	----	----	----	----	3	----	----		
	Mount, tripod, machine gun, M122.	1	----	1	----	----	----	1	3	2	5	----		
	Elevating and traversing mechanism group.	----	----	----	----	----	----	----	----	3	----	----		
	Platform and pintle group	----	----	----	----	----	----	----	----	2	----	----		
	Tripod group	----	----	----	----	----	----	----	----	3	----	----		

APPENDIX D

ORGANIZATIONAL REPAIR PARTS AND SPECIAL TOOL LISTS

Section I. PREFACE

D–1. Explanation of Columns

a. Refer to appendix B; in addition, Code P in column (1) applies to high mortality parts.

b. 15-Day Maintenance Allowance Per Equipment Density Spread (col. 6).

(1) Indicates allowances which are based on mortality data and are the estimated average quantity required to supply maintenance with supply support for a 15-day period under combat conditions.

Example: If the number of equipments supported is 5, the quantitative allowance would be selected from column 6A (1–6 equipments).

(2) The allowance determined by (1) above constitutes one prescribed load for a 15-day period.

(3) Units authorized additional prescribed loads will multiply the number of equipments supported by the number of prescribed loads, and then use the appropriate equipment allowance column. An exception is made for those

units required to have on hand, boxed or packaged prescribed load(s) pursuant to a special mission assignment. Such load(s) will be computed or selected separately from quantities authorized for stockage at permanent station.

Example: If the number of equipments supported is 5
and the number of prescribed loads is 2
the computation would be 5 x 2 10
The quantitative allowance would be selected from column 6B (7–20 equipments).

(4) When an allowance is inclosed in parentheses, the item is designated as "combat essential item" and must be stocked at all times.

D–2. Abbreviations and Symbols

a. Abbreviations.

Abbreviation	*Explanation*
dia	diameter(s)
gal	gallon(s)
hd	head
id	inside diameter(s)
lb	pound(s)
lg	length (long)
NF	American National Fine Thread
o/a	over-all
od	outside diameter(s)
phos-ctd	phosphate coated
pkg	package(s)
qt	quart(s)
rd	round
S	steel

Abbreviation	*Explanation*
sq	square
stk	stock
thk	thick(ness)
w	wide (width)
x	by (used between dimensions)

b. Symbols.

Symbol	*Explanation*
( )	Allowances inclosed in parentheses are "combat essential items". These items are of a critical nature and must be stocked at all times.
*	Indicates repair parts which may be required to perform authorized maintenance but not authorized for stockage in the prescribed load. The parts are to be requisitioned as required for immediate use only.
AR	Indicates item is to be requisitioned as required.
CR	Solvent cleaning compound
LAW	Weapons lubricating oil
P–C–111A	Carbon removing compound
PL special	General purpose lubricating oil
SD	Dry cleaning solvent

Section II. REPAIR PARTS AND SPECIAL TOOLS

(1) Source, maintenance and recoverability code			(2)	(3)	(4)	(5)	(6) 15 Days maintenance allowance per equipment density spread				(7) Illustration	
Source	Maintenance level	Recoverability	Federal stock No.	Description	Unit of issue	Quantity incorporated in unit	1–6	7–20	21–50	51–100	Figure No.	Item No.
A	B	C					A	B	C	D	A	B
				REPAIR PARTS FOR MACHINE GUN, 7.62-MM, M60								
P1	O	------	1005–608–5037	ACTUATOR ASSEMBLY, CAM: (7269063).		1	(1)	(1)	(1)	(1)	4–7	2
P1	O	R	1005–608–5001	BARREL ASSEMBLY WITH BIPOD ASSEMBLY: (7269027).		1	(1)	(1)	(1)	(1)	1–2	1
P1	O	------	1005–608–5039	BEARING, FIRING PIN: S, 0.400 od, 1.63 lg (7269065).		1	(1)	(1)	(1)	(1)	4–7	4

P1	O	R	1005-763-1863	BOLT ASSEMBLY, BREECH: (11010357)	1	1	(1)	(1)	(1)	(1)	1-2	7
P1	O	R	1005-608-5070	BUFFER ASSEMBLY: (7269096).	1	1	(1)	(1)	(1)	(1)	1-2	6B
P1	O	------	1005-872-4442	EJECTOR: bolt assy, S, 0.186 largest od, 0.840 lg (11010375).	1	1	(1)	(1)	(1)	(1)	5-7	5
P	O	------	1005-779-6030	EXTRACTOR: bolt assy, S, phos-ctd (7790907).	1	1	(1)	(1)	(1)	(2)	5-7	1
P	O	------	1005-872-4443	PIN, FIRING: S, 3.411 over-all lg 11010376).	1	1	(1)	(1)	(1)	(2)	4-7	5
P	O	------	1005-994-9648	PIN, LOCK: (7792920)----	1	1	(1)	(1)	(1)	(2)	4-7	1A
P	O	------	1005-608-5058	PIN, STRAIGHT, HEADED: S, 0.093 shaft dia, 0.560 lg under hd, ejector (7269084).	1	1	(1)	(1)	(1)	(2)	5-7	4
P	O	------	1005-872-4445	PLUG ASSEMBLY, BOLT: (7791523).	1	1	(1)	(1)	(1)	(1)	4-7	1
P	O	------	1005-987-9907	PLUG, GAS CYLINDER: (7792093).	1	1	(1)	(1)	(1)	(2)	5-1	4
P	O	------	1005-608-5057	PLUNGER, EXTRACTOR: bolt assy (7269083).	1	1	(1)	(1)	(1)	(2)	5-7	2

(1) Source, maintenance and recoverability code			(2)	(3)	(4)	(5)	(6) 15 Days maintenance allowance per equipment density spread				(7) Illustration	
Source	Maintenance level	Recoverability	Federal stock No.	Description	Unit of issue	Quantity incorporated in unit	1–6	7–20	21–50	51–100	Figure No.	Item No.
A	B	C					A	B	C	D	A	B
P	O	------	1005–608–5059	SPRING, HELICAL, COMPRESSION: S, 0.040 stk dia, 25 coils, 0.175 free od, 1.413 free o/a lg, ejector (7269085).	1	1	(1)	(1)	(1)	(2)	5–7	6
P	O	------	1005–608–5060	SPRING, HELICAL, COMPRESSION: S, 0.032 stk dia, 25 coils, 0.132 free od, 1.200 free o/a lg, extractor (7269086).	1	1	(1)	(1)	(1)	(2)	5–7	3
P	O	------	1005–608–5061	SPRING, HELICAL, COMPRESSION: S, 0.063 strand dia, 0.310	1	1	(1)	(1)	(1)	(2)	4–7	3

				od, 3.470 lg, 22 coils, firing pin (7269087).								
P	O	------	1005-608-5271	SPRING, HELICAL, COMPRESSION: S, 0.080 strand dia, 0.370 free od, 25.75 free o/a lg, 144 coils, operating rod (7269303).	1	1	(1)	(1)	(1)	(2)	1-2	6D
P1	O	------	1005-975-8595	SPRING, LEAF: (7792398).	1	1	(1)	(1)	(1)	(1)	1-2	2A
P1	O	------	1005-987-9682	TRAY ASSEMBLY, CARTRIDGE: feed (7792096).	1	1	(1)	(1)	(1)	(1)	1-2	5E
P	O	------	1005-608-5009	WASHER, KEY: S, 0.940 id, 0.033 thk, gas cylinder (7269035).	1	2	(1)	(1)	(2)	(3)	4-2 5-1	2 2
P1	O	------	9505-308-3978	WIRE, STEEL, CORROSION RESISTING: annealed, 0.032 dia, 1 lb spool (96906-20995-C32).	1	AR	*	*	*	*	5-1	3

(1) Source, maintenance and recoverability code			(2)	(3)	(4)	(5)	(6) 15 Days maintenance allowance per equipment density spread				(7) Illustration	
Source	Maintenance level	Recoverability	Federal stock No.	Description	Unit of issue	Quantity incorporated in unit	1–6	7–20	21–50	51–100	Figure No.	Item No.
A	B	C					A	B	C	D	A	B
				MOUNT, TRIPOD, MACHINE GUN, M122								
P	O	------	5310–513–9964	NUT, SLOTTED, HEXAGON: S, phos-ctd, 9/16–18NF–2B, 7/8 w across flats, 25/64 thk (5139964).	1	1	(1)	(1)	(1)	(1)	5–9	2
P1	O	------	5315–013–7195	PIN, COTTER: S, phos-ctd, 1/8 x 1 1/4 lg (137195).	1	1	(1)	(1)	(1)	(1)	5–9	1
				ROD, CLEANING, SMALL ARMS, M1								

P1	O	------	1005-601-7660	SWAB HOLDER SECTION, SMALL ARMS CLEANING ROD: (6017660).	1	1	*	*	*	*	B-1	1A
				TOOLS AND EQUIPMENT AUTHORIZED FOR UNIT REPLACEMENT								
				MACHINE GUN, 7.62-MM, M60								
			1005-556-4174	BRUSH, CLEANING, SMALL ARMS: bore (5564174).	1	------	(1)	(1)	(2)	(4)	B-1	2
			1005-690-3115	BRUSH, CLEANING, SMALL ARMS: chamber (7790452).	1	------	(1)	(1)	(1)	(2)	B-1	5
			1005-650-4508	BRUSH, CLEANING, SMALL ARMS: receiver (7790342).	1	------	(1)	(1)	(1)	(1)	B-1	3

(1) Source, maintenance and recoverability code			(2)	(3)	(4)	(5)	(6) 15 Days maintenance allowance per equipment density spread				(7) Illustration	
Source	Maintenance level	Recoverability	Federal stock No.	Description	Unit of issue	Quantity incorporated in unit	1–6	7–20	21–50	51–100	Figure No.	Item No.
A	B	C					A	B	C	D	A	B
			1005–791–5420	CASE, CARRYING: barrel assy and equip (7791009).	1	------	(1)	(1)	(1)	(1)	B–7	----
			4933–652–9950	EXTRACTOR, RUPTURED CARTRIDGE CASE: (7790352).	1	------	(1)	(1)	(1)	(1)	B–3	----
			9150–889–3522	LUBRICATING OIL, SEMIFLUID: (LSA) 4 oz tube (7791359).	1	------	(1)	(1)	(2)	(3)	B–1	4
			1005–691–1639	MAGAZINE ASSEMBLY: (7790572).	1	------	(1)	(1)	(1)	(1)	B–6	----
			8415–266–8843	MITTEN, CLOTH: work type, mens, asbestos, plain cuff, 1 sheath ex-	1	------	(1)	(1)	(1)	(1)	B–5	----

					cluding thumb M1942, MILM11199 (37M394).								
			1005-650-8237	ROD, CLEANING, SMALL ARMS: M1, 3 sections (6508237).	1	------	(1)	(1)	(1)	(1)	B-1	1
			1005-654-4058	SLING, SMALL ARMS: M1 webbing (6544058).	1	------	1	1	1	2	B-4	----
			1005-288-3565	SWAB, SMALL ARMS CLEANING: cotton, 2½ sq (1,000 in pkg) (5019316).	1	------	(1)	(1)	(1)	(1)	----	----
		R	1005-690-3766	WRENCH, SCREW-DRIVER AND REAMER, COMBINATION: (7790680).	1	------	(1)	(1)	(1)	(1)	B-2	----
				MOUNT, TRIPOD, MACHINE GUN, M122								
				NONE AUTHORIZED								

(1) Source, maintenance and recoverability code			(2)	(3)	(4)	(5)	(6) 15 Days maintenance allowance per equipment density spread				(7) Illustration	
Source	Maintenance level	Recoverability	Federal stock No.	Description	Unit of issue	Quantity incorporated in unit	1-6	7-20	21-50	51-100	Figure No.	Item No.
A	B	C					A	B	C	D	A	B
				CLEANING AND PRESERVING MATERIALS								
				The following items are requisitioned as required:								
			8020-244-0153	BRUSH, ARTISTS: metal, ferrule, flat, chisel edges, 5/16 w, 1 1/8 lg exposed bristle (96906-16840).	1							
			7920-205-2401	BRUSH, CLEANING, TOOL AND PARTS: rd, 100 percent tampico fiber, 1 1/16 at ferrule brush.	1							

				dia, 2⅞ clear of block brush lg (96906–16746–29).									
			6850–620–0610	CARBON REMOVING COMPOUND: (P–C–111A) (5 gal can).	1								
				CLEANING COMPOUND, SOLVENT: small arms bore cleaner, solution type (CR) (MILC372):									
			6850–224–6656	2 oz can	1								
			6850–224–6657	6 oz can	1								
			6850–224–6658	1 qt can	1								
			6850–224–6663	1 gal can	1								
			5350–221–0872	CLOTH, ABRASIVE: crocus, ferric oxide and quartz, jean-cloth-backing, closed coating, 9 w, 11 lg (42–C–20420–50).	1								
			6850–281–1985	DRY CLEANING SOLVENT: (SD) (1 gal can).	1								

(1) Source, maintenance and recoverability code			(2)	(3)	(4)	(5)	(6) 15 Days maintenance allowance per equipment density spread				(7) Illustration	
Source	Maintenance level	Recoverability	Federal stock No.	Description	Unit of issue	Quantity incorporated in unit	1–6	7–20	21–50	51–100	Figure No.	Item No.
A	B	C					A	B	C	D	A	B
				LUBRICATING OIL, GENERAL PURPOSE: (PL special):								
			9150–273–2389	4 oz can	1							
			9150–231–6689	1 qt can	1							
			9150–292–9689	LUBRICATING OIL, WEAPONS: (LAW) for below zero operations (1 qt can).	1							
			7920–205–1711	RAG, WIPING: cotton, designed for general purpose use (50 lb bale) (96906–16746–131).	1							

By Order of the Secretary of the Army:

HAROLD K. JOHNSON,
General, United States Army,
Chief of Staff.

Official:

J. C. LAMBERT,
Major General, United States Army,
The Adjutant General.

Distribution:

Active Army:

USASA (2)
DCSLOG (1)
CNGB (1)
OCC–E (1)
CofEngrs (1)
TSG (1)
OS Maj Comd (3)
LOGCOMD (2)
USCONARC (3)
USAMC (5)
ARADCOM (2)
ARADCOM Rgn (2)
USAWECOM (80)
USAMICOM (2)
USAMUCOM (2)
USAECOM (2)
USAMOCOM (2)
USASMC (2)
USATECOM (2)
USACDCEC (10)
USACDCOA (2)
MDW (2)
Armies (3)
Corps (2)
USAC (2)
Div (2)
Bde (2)
Regt/Gp/Bat Gp (2)
Bn (2)
Co/Btry (2) except
  Ord Co (2)
Instl (1) except
  Ft Meade (3)
GENDEP (1)
Army Dep (2) except
  LBAD (5)
  TEAD (12)
Ord Dep (2)
Ord Sec, GENDEP (1)
Svc Colleges (2)
Br Svc Sch (2) except
  USAOC&S (50)
USA Tml Comd (2)
Army Tml (2)
POE (2)
Springfield Armory (2)
Arsenals (5)
Proc Dist (2)
PG (10)
Cen (2)
Mil Msn (1)
USA Tng Cen (3)
USAATC (2)

NG: State AG (3) units same as active Army except allowance is one copy each unit.

USAR: Same as active Army except allowance is one copy each unit.

For explanation of abbreviations used, see AR 320–50.

☆ U.S. Government Printing Office: 1965—200528