TM 9-1005-233-24

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

ORGANIZATIONAL, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST

(INCLUDING DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS)

FOR

MACHINE GUN, 7.62-MM, M73

(1005-869-8816)

MACHINE GUN, 7.62-MM, M73A1

(1005-937-7323)

MACHINE GUN, 7.62-MM, M219

(1005-077-2354)

This copy is a reprint which includes current pages from Changes 1 through 5.
FORMERLY BOUND

HEADQUARTERS, DEPARTMENT OF THE ARMY FEBRUARY 1972

TECHNICAL MANUAL
N 0. 9-1005-233-24

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D. C., 9 February 1972

ORGANIZATIONAL, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (INCLUDING DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS) MACHINE GUN 7.62-MM M73 MACHINE GUN 7.62-MM M73A1

AND

MACHINE GUN 7.62-MM M219

This manual is current as of 28 January 1972

		Paragraph Page	Illust fig
CHAPTER Section	1. I. II.	INTRODUCTION General	5 5
CHAPTER Section	2. I. II. IV. V. VI.	ORGANIZATIONAL MAINTENANCE INSTRUCTIONS Service upon receipt of materiel. 2-1-2-2 Repair parts, special tools, and equipment 2-3 Lubrication instructions 2-4-2-6 Preventive maintenance checks and services 2-7 Troubleshooting 2-8 Organizational maintenance procedues 2-9-2-12	11 14 14 15 16 21
CHAPTER Section	3. I. II. IV.	DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE INSTRUCTIONS Repair parts, special tools and equipment	37 37 39 40
CHAPTER	4.	REPAIR INSTRUCTIONS	41
CHAP'I'ER	5.	FIN AL INSPECTION	53
APPENDIX	A.	REFERENCES	55
APPENDIX Section	B. I. II.	MAINTENANCE ALLOCATION CHART Introduction	57 58

^{*}This manual supersedes TM 9-1005-233-25, 25 May 1967, including all changes.

TM 9-1005-233-24

			Paragraph	Page	Illust fig
A PPENDIX	C .	ORGANIZATIONAL, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST (INCLUDING DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS)			
Section	I.	Introduction	C-1-C-6	59	
	II.	Repair parts list		62	
	III.	Special tools list		63	
	IV.	Repair parts list		65	
		Major Groups and assemblies		80	C-1
		Jacket assembly w/beafing		81	C-2
		Cover assembly		82	C-3
		Feed tray group		83	C-4
		Back plate assemblyw/solenoid		84	C-5
		Breechblock assembly		84	C-6
		Barrel extension assembly		85	C-7
		Carrier assembly		86	C-8 C-9
		Lever assembly		86	
		Rammer assembly		87	C-10
		Charger assembly		88	C-11
		Receiver assembly		89	C-12
		·		90	C-13
	V.	Special tools liar		77	C-14
	VI.	Federal stock number and reference number index		92	

LIST OF ILLUSTRATIONS

Number	Title	Page
1-1.	7.62-MM Machine Guns, M73, M73A1, and M219—right rearview	6
1-1.	Difference between models-barrel extension assemblies.	8
1-3.	Differences between models	9
2-1.	7.62-MM Machine Gun M73 assembled for right and left hand feed	. 13
2-2.	Removal of ruptured cartridge case, live round, or empty case	. 17
2-3.	Removal /installation of flash hider	. 22
2-4.	Disassembly /assembly of machine gun. (1 of 4)	
2-5.	Disassembly /assembly of machine gun. (2 of 4)	. 26
2-6.	Disassembly /assembly of machine gun. (3 of 4)	. 27
2-7.	Disassembly /assembly of machine gun. (4 of 4)	. 28
2-8.	Disassembly /assembly of cover assembly. (1 of 2)	. 29
2-9.	Disassembly/assembly of cover assembly. (2 of 2)	. 30
2-10. 4-1.	Disassembly /assembly of receiver assembly.	. 31
4-1. 4-2.	Forming nut shield	. 4/
4-2. 4-3.	Replacing trigger safety pin 11013429	48 18
4-4.	Checking height of sear hooks	. 4 0 ./0
4-5.	Repair of shell assembly	. 4 9 50
4-6.	Repair of cover and track assembly	51
C-1.	Machine Guns, 7.62-MM, M73, M73Al, and M219, major groups and	. 51
	assemblies-partial exploded view	80
C-2.	Jacket assembly w/bearing—exploded view.	. 81
C-3.	Cover assembly-exploded view	. 82
C-4.	Feed tray group—exploded view	83
C-5.	Back plate assembly w/solenoid—exploded view	. 84
C-6.	Breechblock assembly—exploded view	
C-7.	Barrel extension assembly-exploded view	. 85
C-8.	Carrier assembly—exploded view	
C-9.	Lever assembly—exploded view	. 86
C-10. C-11.	Rammer assembly-exploded view	
C-11. C-12.	Charger assembly-exploded view	. 00
C-12. C-13.	Receiver assembly (M219 only)—exploded view	. 09
C-13.	Tools and equipment	91
C 14.	10013 tille equipment	. 71
	LIST OF TABLES	
Number		D
Trumoci	Title	Page
1.1	Major Crowns and Assemblies	6
1-1 2-1	Major Groups and Assemblies	11
2-1	Equipment Conversion—Feed Direction	12
2-3	Equipment Conversion—Charger Assembly	13
2-4	Maintenance Supplies and Materials	14
2-5	Organizational Preventive Maintenance Checks and Services	16
2-6	Organizational Troubleshooting	19
2-7	Disassembly /Assembly of Machine Guns	23
2-8	Detailed Cleaning Procedures	31
2-9	Organizational Maintenance Procedures	
3-1	Direct and General Support Troubleshooting	37
3-2	Preembarkation Inspection	40
4-1	Repair Instructions for Machine Gun	
5-1	Final Inspection	53

CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope

This manual contains instructions for organizational, direct support and general support maintenance maintaining the 7.62-mm Machine Guns, M73, M73A1, and M219 as allocated by the Maintenance Allocation Chart (appendix B).

NOTE

The model designation for the 7.62-mm Machine Gun M73E1 was changed to M73A1 and later changed to M219. All M73, M73E1 and M73A1 models will be changed at time of overhaul to the M219 configuration.

NOTE

Where the term "machine gun" is used, all information is applicable to all models. Where information is peculiar to only one model, the model designation, usable on code, etc., will be used for clarification.

1-2. Forms and Records

Maintenance forms, records, and reports which are to be used by maintenance personnel at all

maintenance levels are listed in and prescribed by TM 38-750.

1-3. Equipment Serviceability Criteria

The 7.62-MM Machine Guns M73, M73A1, M219 are used as mounted (fixed) vehicular guns. Equipment serviceability criteria (ESC) for the machine guns are found in the various vehicle ESC manuals, as the guns relate to the overall criteria for the vehicle.

1-4. Destruction of Army Materiel to Prevent Enemy Use

Refer to TM 750-244-7.

1-5. Reporting of Errors

Report of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028, Recommended Changes to Publications and forwarded direct to, Commanding General, US Army Weapons Command, ATTN: AMSWE-MAP, Rock Island, Illinois 61201.

Section II. DESCRIPTION AND DATA

1-6. Description

The 7.62-mm Machine Guns M73, M73A1, and M219 (figure 1-1) are lightweight, air-cooled, metallic link belt fed from either right or left side, designed as a coaxial gun for tanks and 7.62-mm fire power on lighter armored vehicles. All have short receivers, are recoil operated with a gas assist to boost recoil and are designed with a quick

change barrel with fixed headspace. The cycle of operation and functioning is initiated from the retracted (seared) position of the barrel extension assembly. These machine guns can be easily disassembled. Major groups and assemblies are illustrated in figure C-1 and briefly described in table 1-1.