

CHAPTER 1

INTRODUCTION

1. General.

a. Purpose and Scope. The purpose of this manual is to provide a source of information to individual soldiers and guidelines to instructors on the Submachineguns, Caliber .45, M3 and M3A1. The material presented for the individual soldier includes mechanical training, marksmanship training, familiarization firing, and other information pertaining to the care and handling of the weapon. The advice to instructors chapter is not intended as a final guidance, but as a starting point for commanders to use in establishing a training program for the submachinegun.

b. Importance of Submachinegun Training. The submachinegun is a secondary individual weapon intended primarily for self-defense in close combat. It is primarily carried by members of tank crews, on combat engineer vehicles, and battalion/squadron maintenance personnel. It is used at close ranges or when a crew must dismount from a disabled vehicle. The soldier must keep his weapon in good working condition and have the utmost confidence in his marksmanship ability. This ability can be acquired only through study and practical training.

2. Changes.

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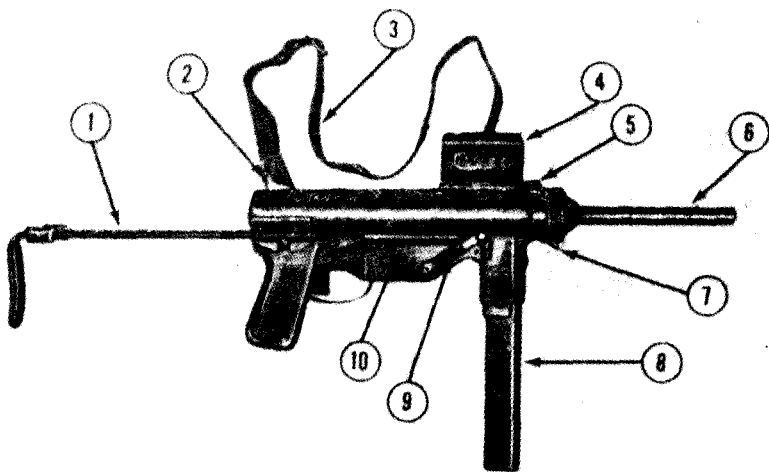
3. General Description.

a. Submachinegun. The Submachineguns, Caliber .45, M3 and M3A1 (hereafter referred to as the M3 or M3A1), are air-cooled,

blowback-operated, magazine-fed, automatic shoulder-fired weapons (fig 1 thru 4). They are light, compact, and rugged. The stock is one piece of formed steel rod which can be telescoped for ease of handling; its ends are drilled and tapped so that it can be used as a cleaning rod. The stock may also be used as a disassembly tool or wrench. The stock of the M3A1 has a hand loader that is used to load the magazine.

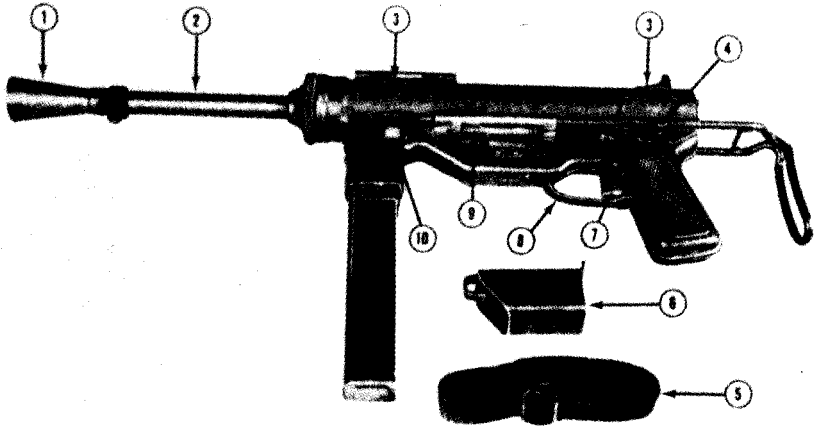
b. Magazine. The magazine (fig 1 thru 4) holds 30 cartridges. The upper cartridge is stripped from the magazine and chambered by the forward movement of the bolt. When the last cartridge from the magazine has been fired, the bolt closes on the empty chamber.

c. Rate of Fire. The automatic rate of fire is limited only by the firers ability to change magazines rapidly, aim and fire. There is no provision for semiautomatic fire; however, because of the low cyclic rate of fire, the firer can fire single shots by proper trigger manipulation.



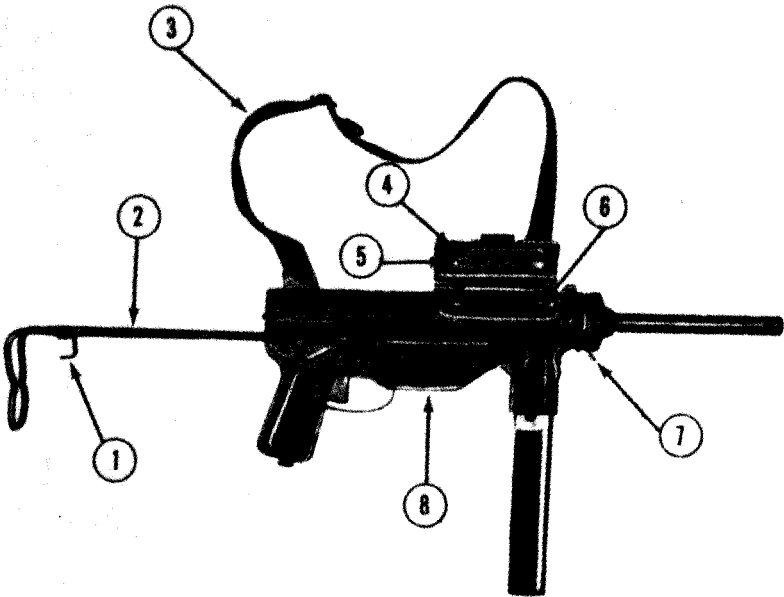
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|----------------|----------------------|
| 1. Stock | 6. Barrel |
| 2. Rear sight | 7. Barrel ratchet |
| 3. Sling | 8. Magazine |
| 4. Cover | 9. Retracting handle |
| 5. Front sight | 10. Housing assembly |

Figure 1. Submachinegun, M3, right side, stock extended.



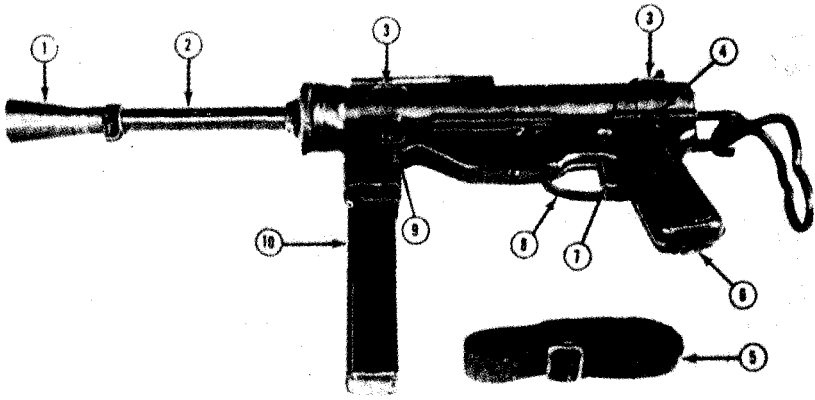
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| 1. Flash hider (accessory) | 6. Magazine loader (accessory) |
| 2. Barrel | 7. Trigger |
| 3. Sling loop | 8. Trigger guard |
| 4. Stock catch | 9. Oiler |
| 5. Sling | 10. Magazine catch |

Figure 2. Submachinegun, M3, left side, stock telescoped, sling removed, with flash hider.



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| 1. Hand loader and cleaning rod stop | 5. Safety lock |
| 2. Stock | 6. Cocking slot |
| 3. Sling | 7. Barrel ratchet |
| 4. Cover | 8. Housing assembly |

Figure 3. Submachinegun, M3A1, right side, stock extended.



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|----------------------------|-------------------|
| 1. Flash hider (accessory) | 6. Oiler cap |
| 2. Barrel | 7. Trigger |
| 3. Sling loop | 8. Trigger guard |
| 4. Stock catch | 9. Magazine catch |
| 5. Sling | 10. Magazine |

Figure 4. Submachinegun, M3A1, left side, stock telescoped, sling removed, with flash hider.

4. General Data.

a Barrel.

Diameter of bore	0.45 inch
Number of grooves	4
Twist in firing	Uniform, right, 1 turn in 16 inches
Length of barrel	8 inches

b. Gun.

Length, overall with stock extended	29.8 inches
Distance between sights	10.875 inches
Weight without magazine (approx)	8.15 pounds
Weight with 30 rounds in magazine (approx)	10.25 pounds
Weight of 30-round magazine (empty)	.75 pound
Weight of 30-round magazine (loaded)	2.10 pounds

c. Miscellaneous.

Chamber pressure (approx)	12,000 to 16,000 pounds per square inch
Muzzle velocity (approx)	900 feet per second
Cyclic rate of fire	450 rounds per minute
Sights	100 yards, fixed peep
Maximum range (approx)	1,500 meters
Maximum effective range (approx)	90 meters
Trigger pull (approx)	5 to 7 pounds
Pull to cock weapon—M3	18 to 23 pounds
M3A1	10 to 12 pounds

5. Differences in Models.

The M3 and the M3A1 are basically alike. However, though most of the parts are interchangeable, the bolt, the housing assembly, and the receiver are not. The M3A1, developed from the M3, was modified as follows:

a. The retracting handle assembly, retracting lever assembly, retracting lever spring, and oiler clip have been eliminated.

b. A cocking slot has been cut into the top front portion of the bolt, so that the firer can retract the bolt with his finger. There is an ejector groove on the bottom of the bolt, extending the entire length of the bolt, to permit removal of the bolt and guide rod group without removing the housing assembly. The retracting pawl notch has been eliminated, and a clearance slot for the cover hinge rivets has been added.

c. The ejection opening and the cover assembly are longer. This allows the bolt to be drawn back far enough to be engaged by the sear. The safety lock is located farther to the rear on the cover.

d. An oil reservoir and oiler have been placed in the pistol grip of the receiver assembly. The stylus on the oiler cap may be used as a drift to remove the extractor pin. The barrel ratchet has been redesigned to provide a longer depressing level for easier disengagement from the barrel collar.

e. A bracket has been welded at the rear end of the stock. This bracket is used as a hand loader for loading ammunition into the magazine; it also serves as a cleaning rod stop.

f. The barrel collar has two flat cuts to permit the use of the stock as a wrench to unscrew a tight barrel assembly.