

# TM 9-1005-223-35

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

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

RIFLE, 7.62-MM: M14, W / E  
(1005-589-1271)

RIFLE, 7.62-MM: M14A1, W / E  
(1005-072-5011)

BIPOD, RIFLE: M2  
(1005-711-6202)

This copy is a reprint which includes current  
pages from Changes 1 and 2.



HEADQUARTERS, DEPARTMENT OF THE ARMY  
JULY 1968

TECHNICAL MANUAL }  
 No. 9-1005-223-35 } \*

HEADQUARTERS  
 DEPARTMENT OF THE ARMY  
 WASHINGTON, D.C., 1 July 1968

**DIRECT SUPPORT, GENERAL SUPPORT AND DEPOT MAINTENANCE  
 INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST**

**RIFLE, 7.62-MM, M14  
 RIFLE, 7.62-MM, M14A1  
 AND BIPOD, RIFLE, M2**

This manual is current as of 15 May 1968

	Paragraphs	Pages
<b>CHAPTER 1. INTRODUCTION</b>		
Section I. General .....	1-1, 1-2	3
II. Description and data .....	1-3, 1-4	3, 4
<b>CHAPTER 2. DIRECT SUPPORT, GENERAL SUPPORT AND DEPOT    MAINTENANCE INSTRUCTIONS</b>		
Section I. Repair parts, special tools, and equipment .....	2-1-2-3	5
II. Troubleshooting .....	2-4	8
III. Inspections .....	2-5-2-7	9
IV. Removal and installation of major groups and assemblies .....	2-8	9
V. Depot maintenance instructions .....	2-9	9
<b>CHAPTER 3. REPAIR INSTRUCTIONS</b>		
Section 1. General maintenance .....	3-1, 3-2	10
II. Maintenance of magazine assembly and hand guard assembly .....	3-3	10
III. Maintenance of firing mechanism .....	3-4, 3-5	11, 12
IV. Maintenance of stock with butt plate assembly (M14 only) .....	3-6, 3-7	13
V. Maintenance of stock assembly (M14A1 Rifle only) .....	3-8	15
VI. Maintenance of operating rod and connector group .....	3-9	15
VII. Maintenance of bolt assembly .....	3-10	15
VIII. Maintenance of stabilizer assembly .....	3-11	18
IX. Maintenance of barrel and receiver group .....	3-12-3-14	19, 25
X. Maintenance of Rifle Bipod M2 .....	3-15	26
XI. Maintenance of Bayonet Knife M6 and Bayonet Knife Scabbard M8A1 .....	3-16	26
XII. Maintenance of Grenade Launcher M78 and Grenade Launcher Sight M15 (M14 Rifle only) .....	3-17	28
XIII. Repair standards for M14 and M14A1 Rifles .....	3-18	30
<b>CHAPTER 4. FINAL INSPECTION</b> .....	4-1-4-3	31
<b>APPENDIX A. REFERENCES</b> .....		32
<b>APPENDIX B. REPAIR PARTS AND SPECIAL TOOL LIST</b>		
Section I. Introduction .....		33
II. Repair parts list .....		36

\*This manual supersedes TM 9-1005-223-35, 16 Aug 65 including all changes.

	<b>Page</b>
<b>Repair Parts For:</b>	
Major groups and assemblies (M14 Rifle) (fig. B-1) .....	36
Major groups and assemblies (M14A1 Rifle) (fig. B-2) .....	36
Firing mechanism 7790195 (fig. B-3) .....	37
Stock assembly with butt plate (M14 Rifle) (fig. B-4) .....	38
Shoulder gun stock assembly (M14A1 Rifle) (fig. B-5) .....	39
Operating rod and connector group (fig. B-6) .....	41
Bolt assembly 7790187 (fig. B-7) .....	41
Stabiliser assembly 11686521 (fig. B-8) .....	41
Barrel and receiver group (fig. B-9) .....	42
Rifle Bipod, M2 7790688 (fig. B-10) .....	44
Combination tool .....	46
Kit, winter trigger .....	46
Wooden stock .....	47
Alternate repair parts for M14 Rifle .....	47
Section III. Special tools list .....	48
IV. Index-Federal stock number and reference number cross-reference to figure and item number .....	63

# CHAPTER 1

## INTRODUCTION

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### Section I. GENERAL

#### 1-1. Scope

These instructions are in accordance with the maintenance allocation chart and are published for the use of direct and general support and depot maintenance personnel maintaining the 7.62-MM Rifle, M14, M14A1 and Rifle Bipod M2.

#### 1-2. Forms and Records

a. *General.* DA Forms and procedures used for equipment maintenance will be only those prescribed in TM 88-750, Army Equipment Record Procedures.

b. *Recommendations for Maintenance Manual Improvements.* 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 DA Publications) and forwarded direct to:

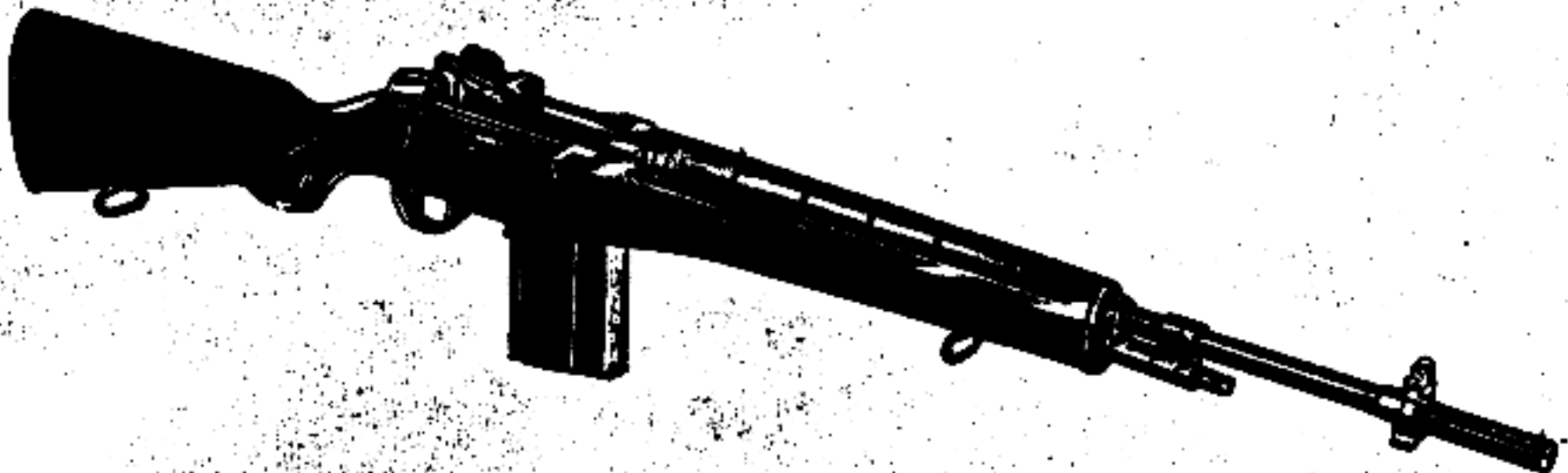
Commanding General  
Headquarters,  
U.S. Army Weapons Command  
ATTN: AMSWE-SMM-P  
Rock Island, Illinois 61201

### Section II. DESCRIPTION AND DATA

#### 1-3. Description

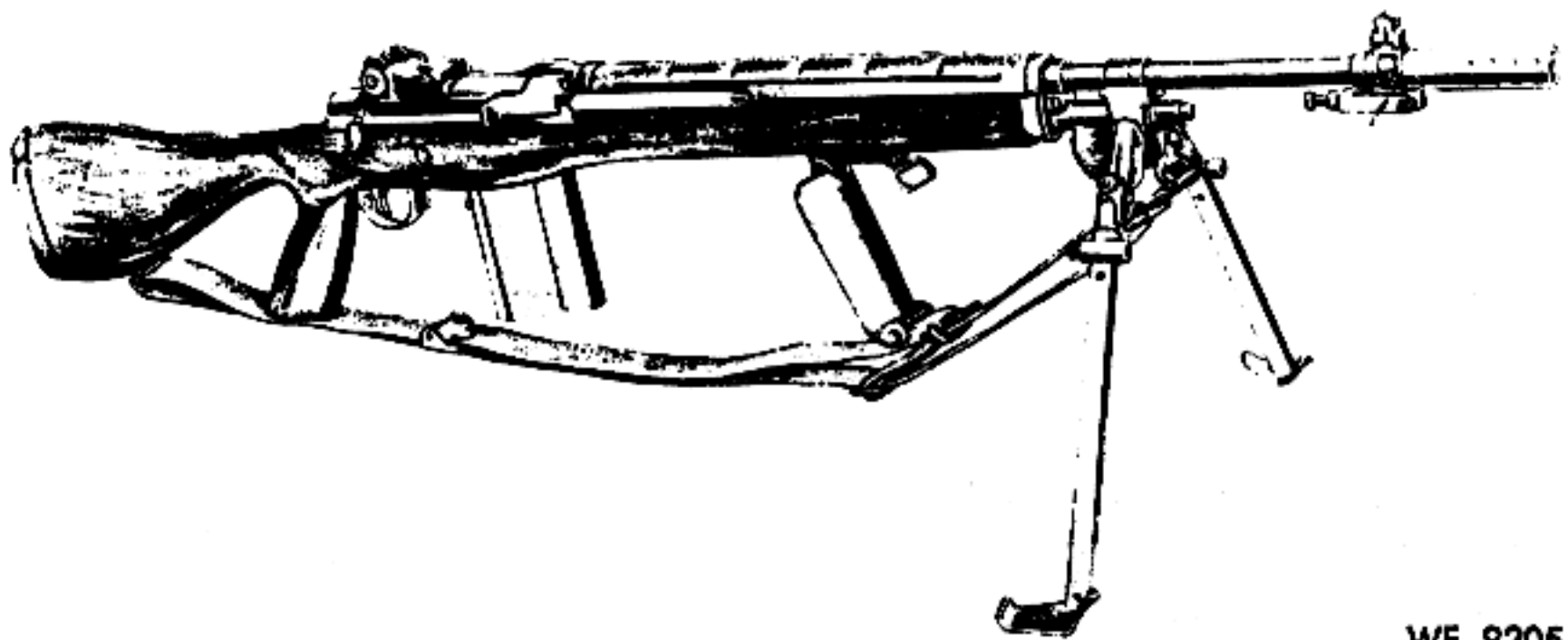
Refer to TM 9-1005-223-20 for description on the rifles. For overall views of the 7.62-MM

Rifle M14 refer to figure 1-1; for the 7.62-MM Rifle M14A1 refer to figure 1-2.



WE 17109

Figure 1-1. 7.62-MM Rifle M14—right front view.



WE 9205

*Figure 1-2. 7.62-MM Rifle M14A1—right front view.*

**1-4. Tabulated Data**

Refer to TM 9-1005-228-20.

## CHAPTER 2

## DIRECT SUPPORT, GENERAL SUPPORT AND DEPOT MAINTENANCE INSTRUCTIONS

## Section I. REPAIR PARTS, SPECIAL TOOLS, AND EQUIPMENT

## 2-1. Special Tools and Equipment

The special tools and equipment in table 2-1 below are listed in appendix B. 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.

## 2-2. Improvised Tools and Equipment

Refer to table 2-2.

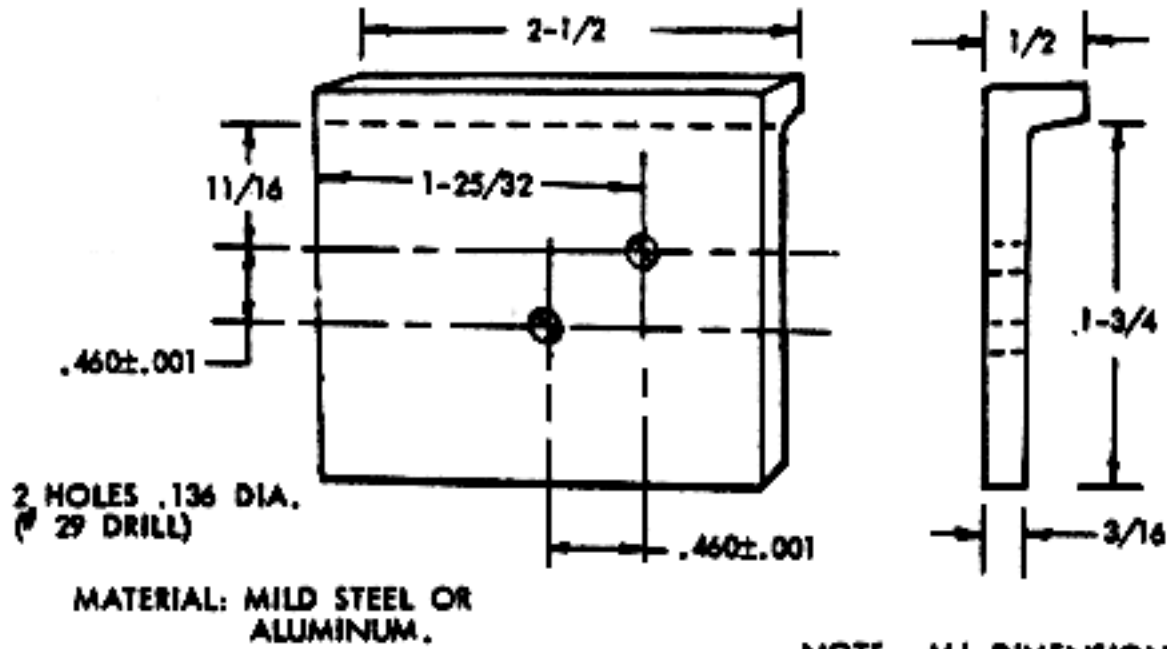
## 2-3. Direct Support, General Support and Depot Maintenance Repair Parts

Direct and general support and depot maintenance repair parts are listed and illustrated in appendix B of this manual.

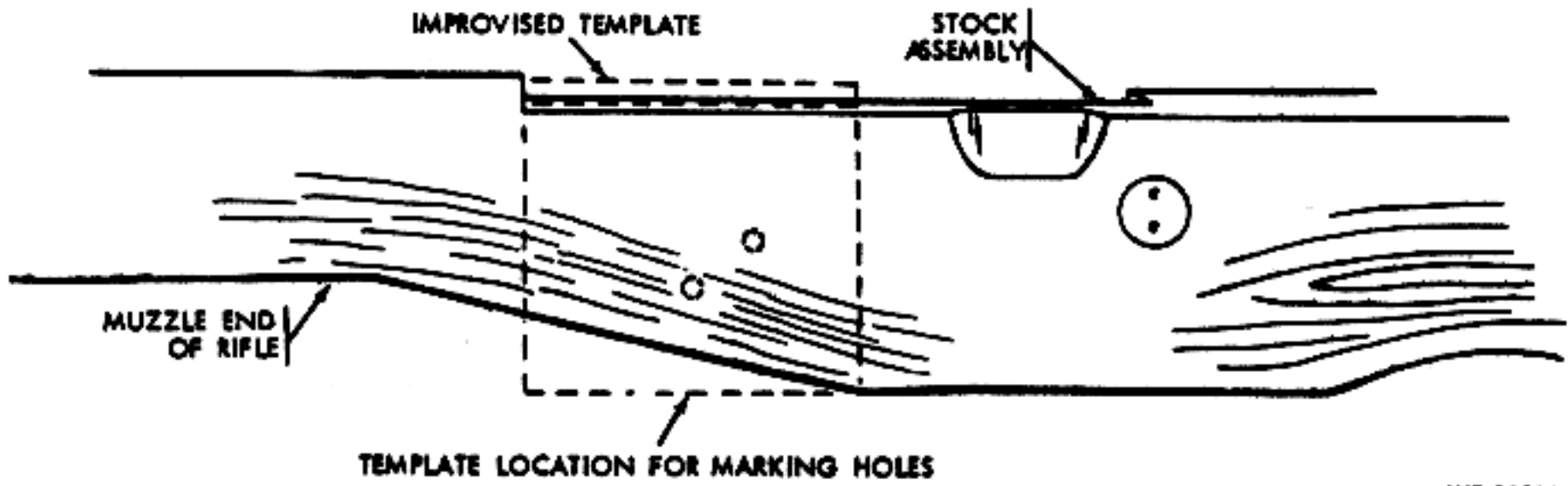
Table 2-1. Special Tools and Equipment

Item	Identifying number	Reference		Use
		Fig.	Par.	
BOLT, FIELD TEST: 0615 right lug, 0.575 left lug.	7274799	4, B-11	3-13	Used in conjunction with headspace gage to determine whether the chamber, bolt, or bolt lug seats in the receiver are worn (fig. 3-16).
FIXTURE, MEASURING, TRIGGER PULL:	7273758	NI	3-5	To check trigger pull (fig. 3-2).
GAGE, BREECHBORE: limit 0.310	7274761	2, B-11	3-12	To determine the wear of the bore at origin of the rifling (fig. 3-10).
GAGE, FIRING PIN PROTRUSION: min 0.044, max 0.060.	7274736	3, B-11	3-10	To determine the wear on the firing pin tip (fig. 3-7).
GAGE, HEADSPACE: limit 1.6455	7274790	8, B-11	3-13	To check the distance between the cartridge and face of bolt (fig. 3-16).
GAGE, PLUG, NOT-GO: 0.5009 dia of piston hole in gas cylinder.	7274755	5, B-11	3-11	To check diameter of piston hole in gas cylinder (fig. 3-13).
GAGE, PLUG, PLAIN CYLINDRICAL: no-go 0.084 dia firing pin hole in bolt face.	7458406	6, B-11	3-10	To check diameter of firing pin hole in bolt face (fig. 3-8).
GAGE, SNAP, NOT-GO:	7274757	7, B-11	3-12	To check diameter of gas piston (fig. 3-14).
PLIERS, LOCK NUT FLASH SUPPRESSOR:	7790493	1, B-11	3-12	To remove and install flash suppressor.
PLIERS, RETAINING RING, BOLT ROLLER:	7799723	B-13	3-10	To install bolt roller on bolt (fig. 3-9).
ALIGNMENT TOOL:	7799705	B-12	3-12	To check alignment of the flash suppressor with the barrel bore (fig. 3-11).
TOOL, RIFLE BOLT: assembly and disassembly	7791607	NI	3-10	To align the cut in the ejector with the extractor hole in the bolt making it possible to install or remove the extractor (fig. 3-5).



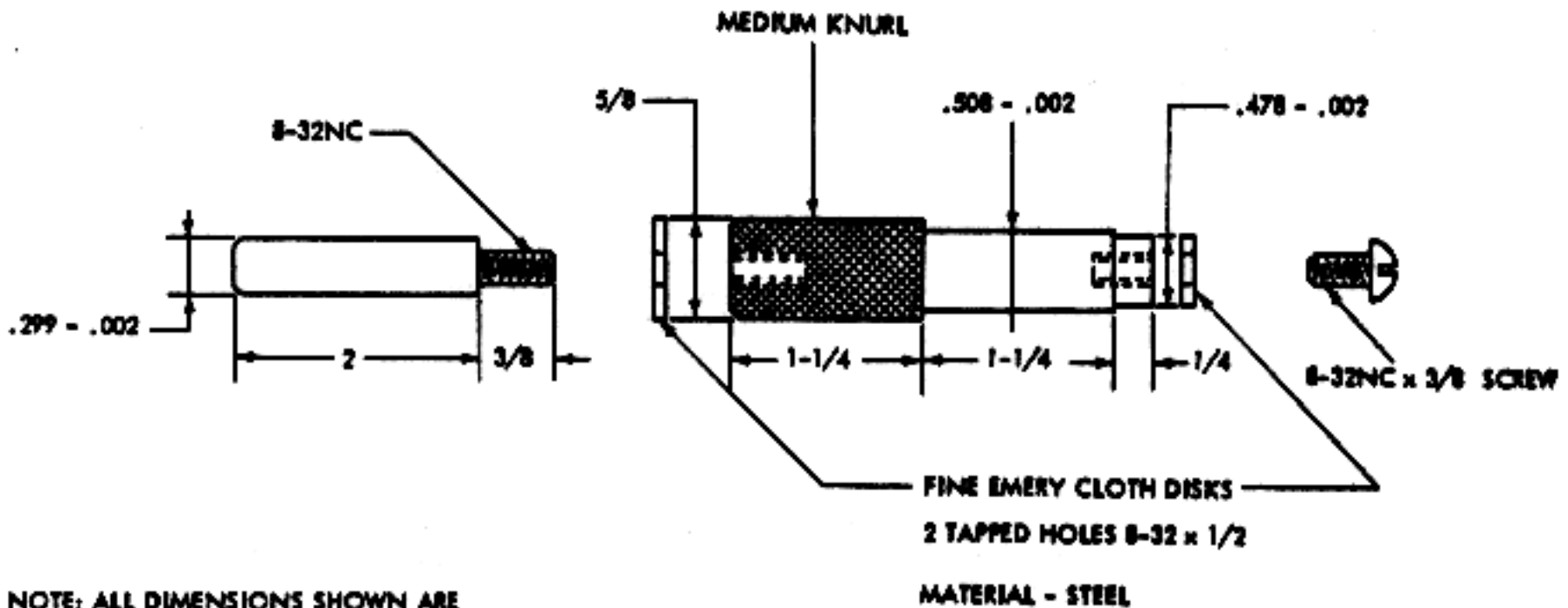


NOTE: ALL DIMENSIONS SHOWN ARE IN INCHES



WE 10098

Figure 2-8. Improvised grenade launcher sight locating template.

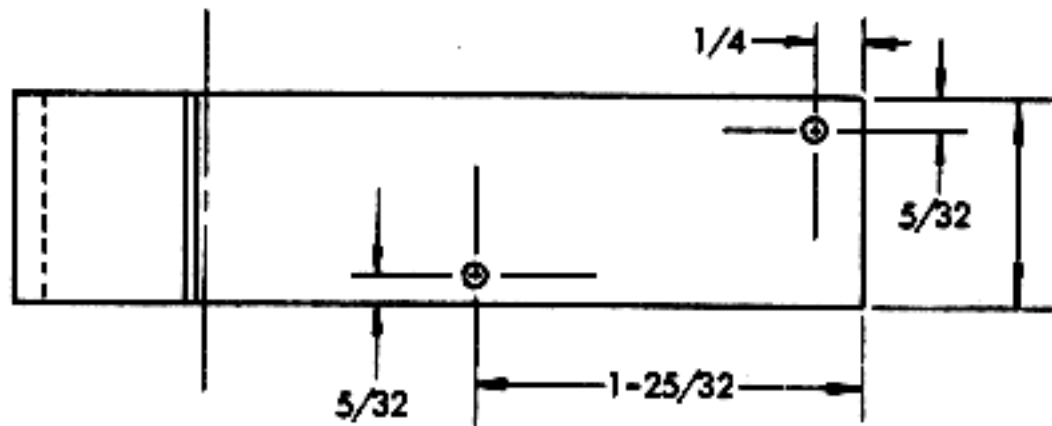


NOTE: ALL DIMENSIONS SHOWN ARE IN INCHES

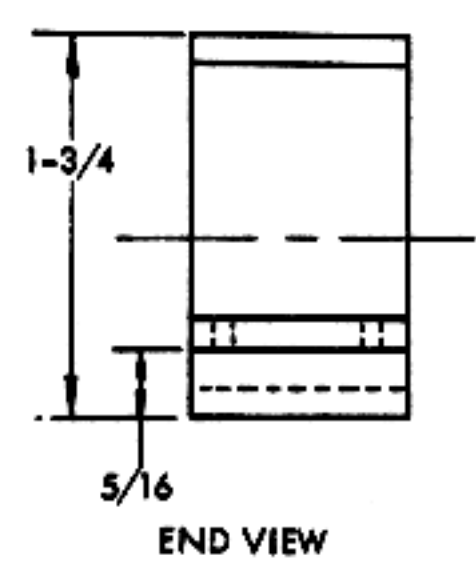
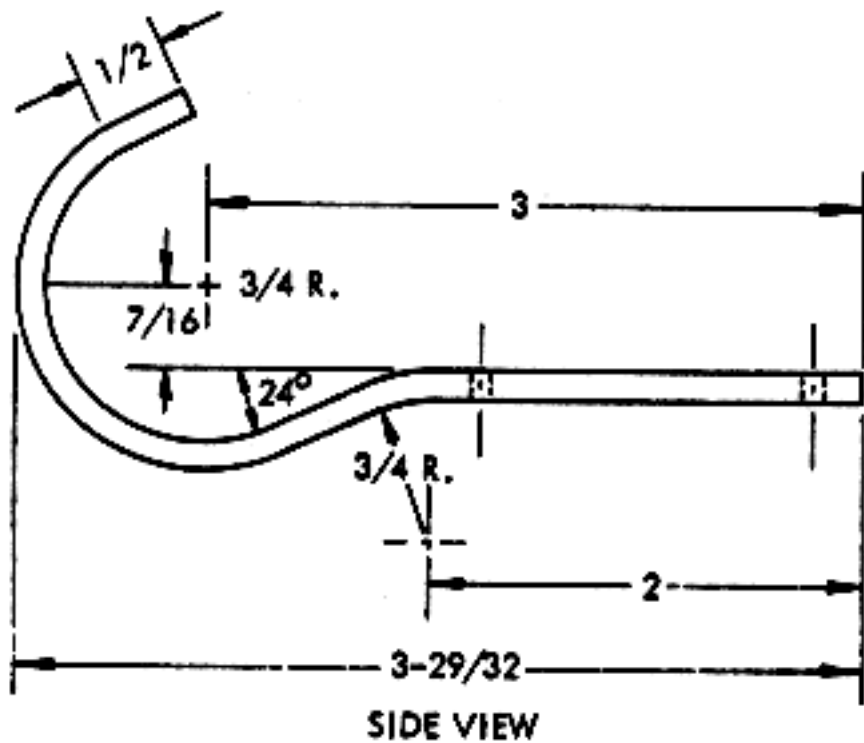
WE 10099

Figure 2-9. Improvised barrel facing and flash suppressor muzzle seat tool.

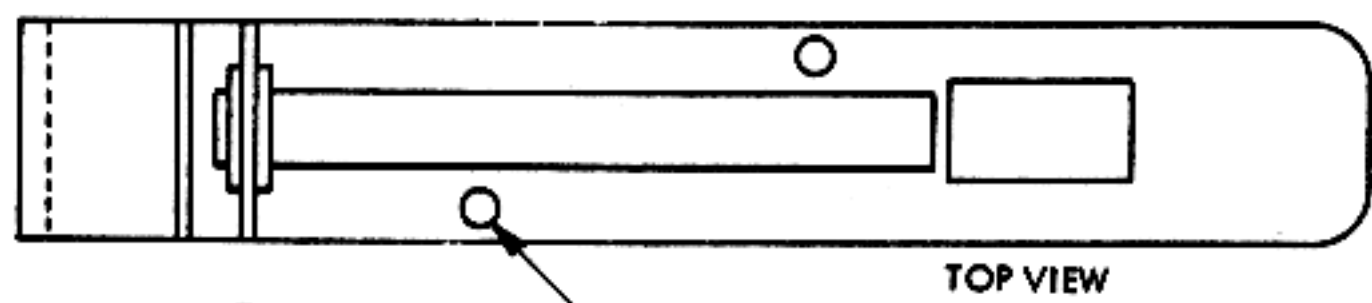




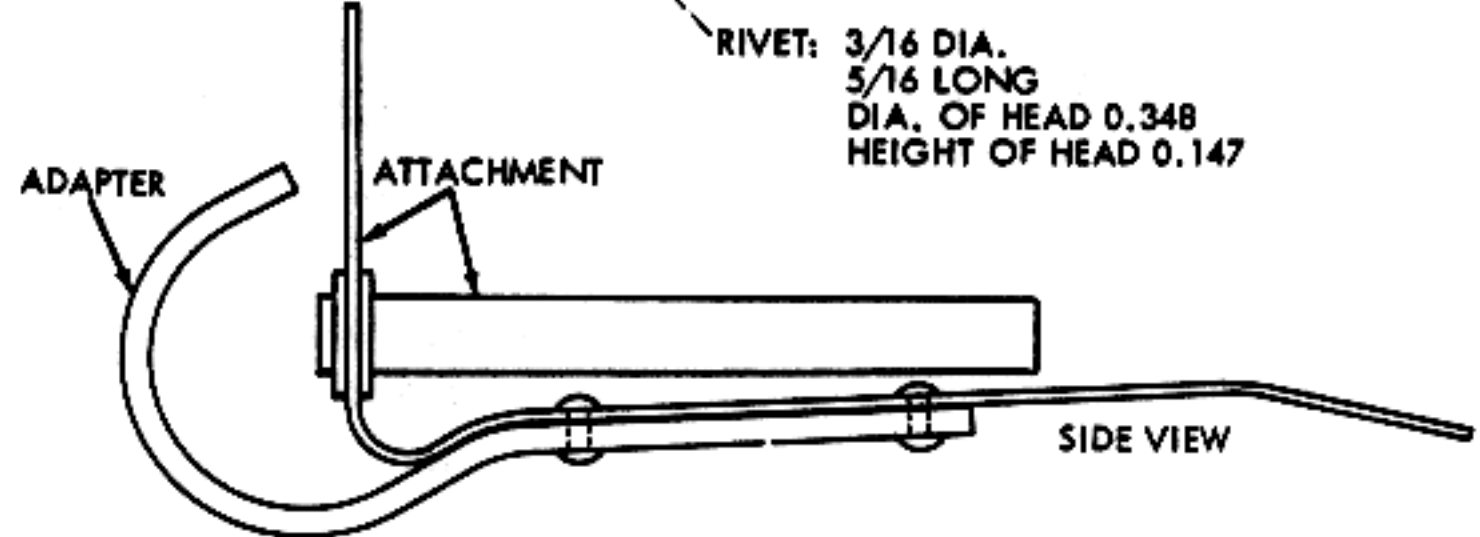
NOTES:  
 OVERALL LENGTH OF  
 1/8 INCH STEEL PIECE  
 IS 5-5/8 INCHES  
 BEFORE BENDING.  
 ALL DIMENSIONS SHOWN  
 ARE IN INCHES.



IMPROVISED ADAPTER



RIVET: 3/16 DIA.  
 5/16 LONG  
 DIA. OF HEAD 0.348  
 HEIGHT OF HEAD 0.147



BLANK AMMUNITION FIRING ATTACHMENT W/ADAPTER MOUNTED

WE 65454 |

Figure 2-4. Improvised adapter for blank ammunition firing attachment.

## Section II. TROUBLESHOOTING

## 2-4. General

Refer to TM 9-1005-223-20 and table 2-3.

Table 2-3. Troubleshooting

<i>Malfunction (symptom)</i>	<i>Probable causes</i>	<i>Corrective action</i>
	<b>RIFLE M14 and M14A1</b>	
Magazine inserts with difficulty .....	Bent or deformed magazine. Damage to or restricted movement of magazine latch.	Replacing magazine, or magazine latch.
Short recoil .....	Undersized or damaged gas piston. Gas cylinder oversize. Bent operating rod. Damaged operating rod guide. Bolt binding.  Burs, foreign matter, and improper lubrication. Restricted movement of operation rod. Cartridge clip guide pin restricting bolt movement.	Replace. Replace. Replace. Replace Clean or repair bolt and/or receiver as required. Clean, repair and oil as required.  Repair or replace component interfering with movement of operating rod. Drive pin up from receiver.
Bolt fails to close .....	Extractor does not open enough to pass over rim of cartridge. Operating rod binding.  Weak or broken operating rod spring. Damaged or blocked ejector.  Damaged or deformed bolt. Insufficient headspace.	Clean, repair, or replace extractor and/or extractor spring. Clean, repair, or replace component interfering with movement of operating rod. Replace.  Repair or replace. Inspect bolt face for damage Repair or replace bolt assembly. Replace bolt.
Failure to feed.....	Short recoil Cartridge improperly placed in magazine. Damaged magazines. Gas cylinder, gas port not aligned with gas port of barrel.	See "Short recoil." Reload magazine.  Replace magazine. Tighten gas cylinder lock.
Failure to extract cartridge case .....	Excessive headspace or ruptured cartridge. Pitted or dirty chamber. Spindle closed. Broken extractor. Sheared rim on cartridge.  Restricted movement of operating rod.	Check headspace, or remove ruptured cartridge. Clean chamber or replace weapon. Open spindle. Replace extractor. Use cleaning rod to remove cartridge. Clean chamber and ammunition. Repair or replace component interfering with movement of operating rod.
Failure to eject cartridge case .....	Weak, missing, or frozed ejector spring. Damaged or blocked ejector. Restricted movement of operating rod.	Replace ejector.  Repair or replace. Repair or replace component interfering with movement of operating rod.
Failure of bolt to open after fire .....	Gas cylinder spindle closed, gas cylinder plug missing, gas piston	Open spindle. Install gas cylinder plug. Repair and/or install gas