D E P A R T M E N T O F T H E A R M Y T E C H N I C A L M A N U A L

OPERATOR AND ORGANIZATIONAL

MAINTENANCE MANUAL

ARMAMENT SUBSYSTEM, HELICOPTER,

7.62 MILLIMETER MACHINE GUN:

HIGH RATE, XM27E1

(1005-933-6242)

(USED ON OH-6A HELICOPTER)

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

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TECHNICAL MANUAL
No. 9-1005-298-12

HEADQUARTERS
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OPERATOR AND ORGANIZATIONAL MAINTENANCE MANUAL

ARMAMENT SUBSYSTEM, HELICOPTER, 7.62 MILLIMETER

MACHINE GUN: HIGH RATE, XM27E1 (1005-933-6242)

(USED ON OH-6A HELICOPTER)

This manual is current as of 24 February 1969

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***This manual supersedes TM 9-1005-298-12, May 1967**

CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope

a. This manual contains information and instructions for operator and organizational maintenance of high rate 7.62 millimeter machine gun helicopter armament subsystem XM27E1.

b. Maintenance responsibilities will apply as reflected in the maintenance allocation chart and by allocation of repair parts and special tools.

1-2. Forms and Records

a. Authorized Forms. DA Forms and procedures used for equipment maintenance will be only those prescribed in TM 38-750, Army Equipment Record Procedures. Refer to DA Pam 310-2 for listing of all forms.

Note. List the serial numbers of both the housing and rotor when completing DA Form 2408-4. The true serial number of the weapon, preceded by SN, is impression stamped on rotor face (not the chamfered edge). Serial numbers on earlier models were electrically penciled and may not be preceded by SN.

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

1-3. Equipment Serviceability, Storage, and Destruction

a. Equipment Serviceability Criteria. Refer to TM 9-1005-298-ESC for armament subsystem serviceability criteria.

b. Administrative Storage. Refer to Chapter 5 of this manual for storage instructions.

c. Destruction to Prevent Enemy Use. Refer to Chapter 5 of this manual for instructions concerning degree of destruction, priorities, and methods.

Section II. DESCRIPTION AND DATA

1-4. Description

The high rate 7.62 millimeter machine gun helicopter armament subsystem XM27E1 is used on the OH-6A helicopter. The gun is located on the left side of the aircraft, attached to the external portion of the mount assembly (fig. 1-1 and 1-2). See table 1-1 for a listing of main components of the subsystem.

a. Gun Assembly. The main components of the gun assembly (fig. 1-2) are the 7.62 millimeter machine gun M134, delinking feeder MAU-56/A, gun electric drive assembly, sensing unit and the cable assembly, ejection chutes, and two gun mounting adapters.

(1) *7.62 millimeter machine gun M134.* The components of the 7.62 millimeter machine gun M134 (fig. 1-3) are the rotor assembly, six bolt assemblies, six removable bolt tracks, gun housing assembly, rear gun support, six barrels, barrel clamp assembly, safing sector, housing cover, and two quick release pins. As the rotor turns within the stationary housing cover, the bolt assembly rollers follow the main cam path of the housing cover, causing the bolt assemblies to move along the accommodating tracks. Each barrel is mounted in the ,barrel clamp assembly, in a fixed position, in alignment with a bolt assembly.

(a) *Rotor assembly and removable bolt tracks*. The rotor assembly (fig. 1-4) is supported in the gun housing by ball bearings. Six bolt tracks are spaced equally around the rotor surface. Each bolt track is composed of front and center portions, which are grooves cut into the rotor, and a removable bolt track (fig. 1-5). The removable bolt tracks are attached to ribs along the rotor and are removed for installation or removal of bolt assemblies. An S-shape triggering cam, machined into the bottom of each bolt track, cocks and releases bolt firing pins.

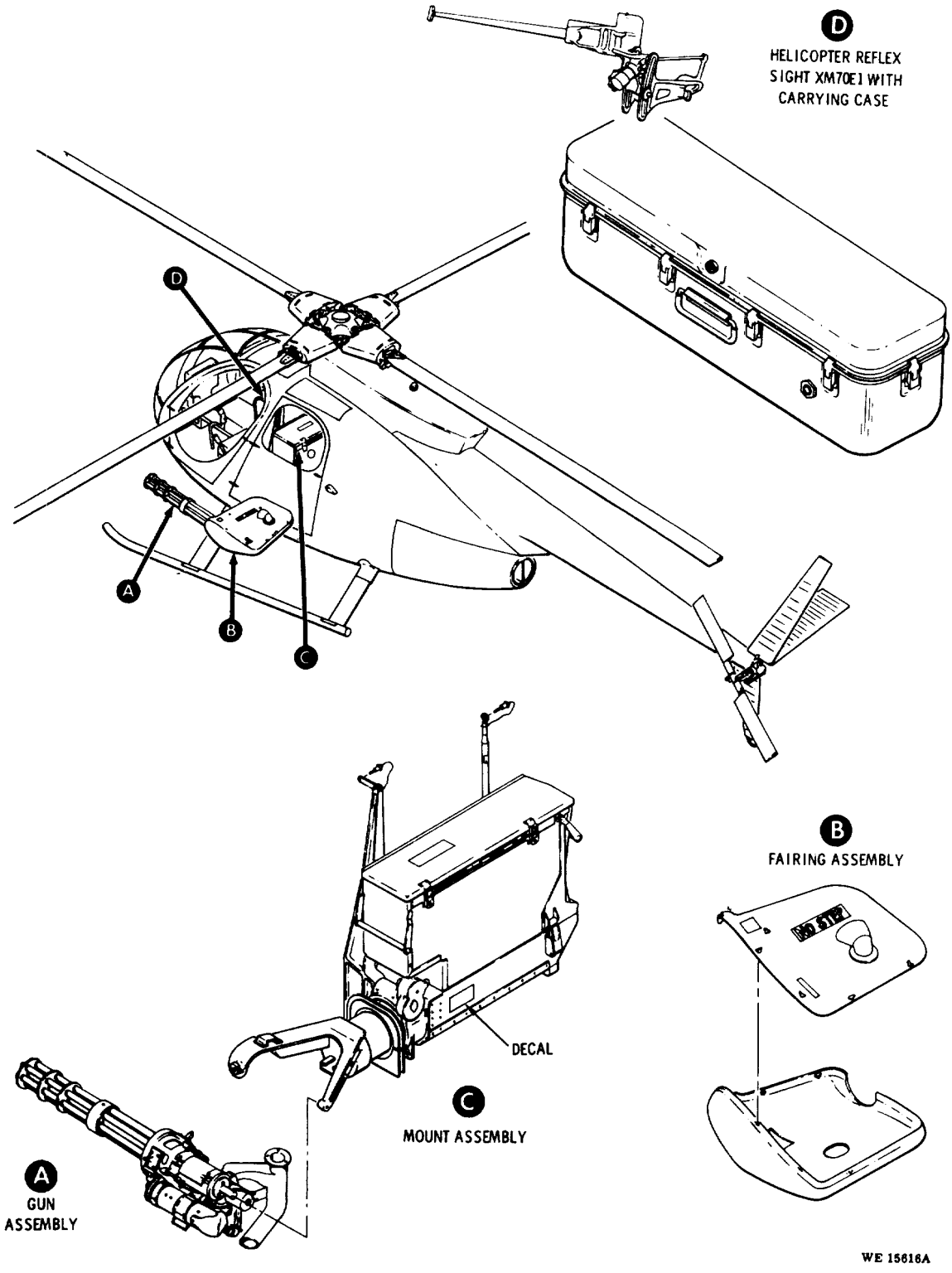

Figure 1-1. Components of armament subsystem XM27E1.