

TM 9-313

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

75-mm GUN M6 AND COMBINATION GUN MOUNT M64

DEPARTMENT OF THE ARMY • JANUARY 1948

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DEPARTMENT OF THE ARMY TECHNICAL MANUAL
TM 9-313

This manual supersedes TM 9-313, 11 September 1944, and so much of TB ORD FE 24, 3 February 1945, and TB ORD 340, 26 March 1947, as pertains to the material covered herein.

75-mm GUN M6
AND
COMBINATION
GUN MOUNT M64



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Washington 25, D. C., 27 January 1948

TM 9-313, 75-mm Gun M6 and Combination Gun Mount M64,
is published for the information and guidance of all concerned.
[AG 461 (27 Mar. 46)]

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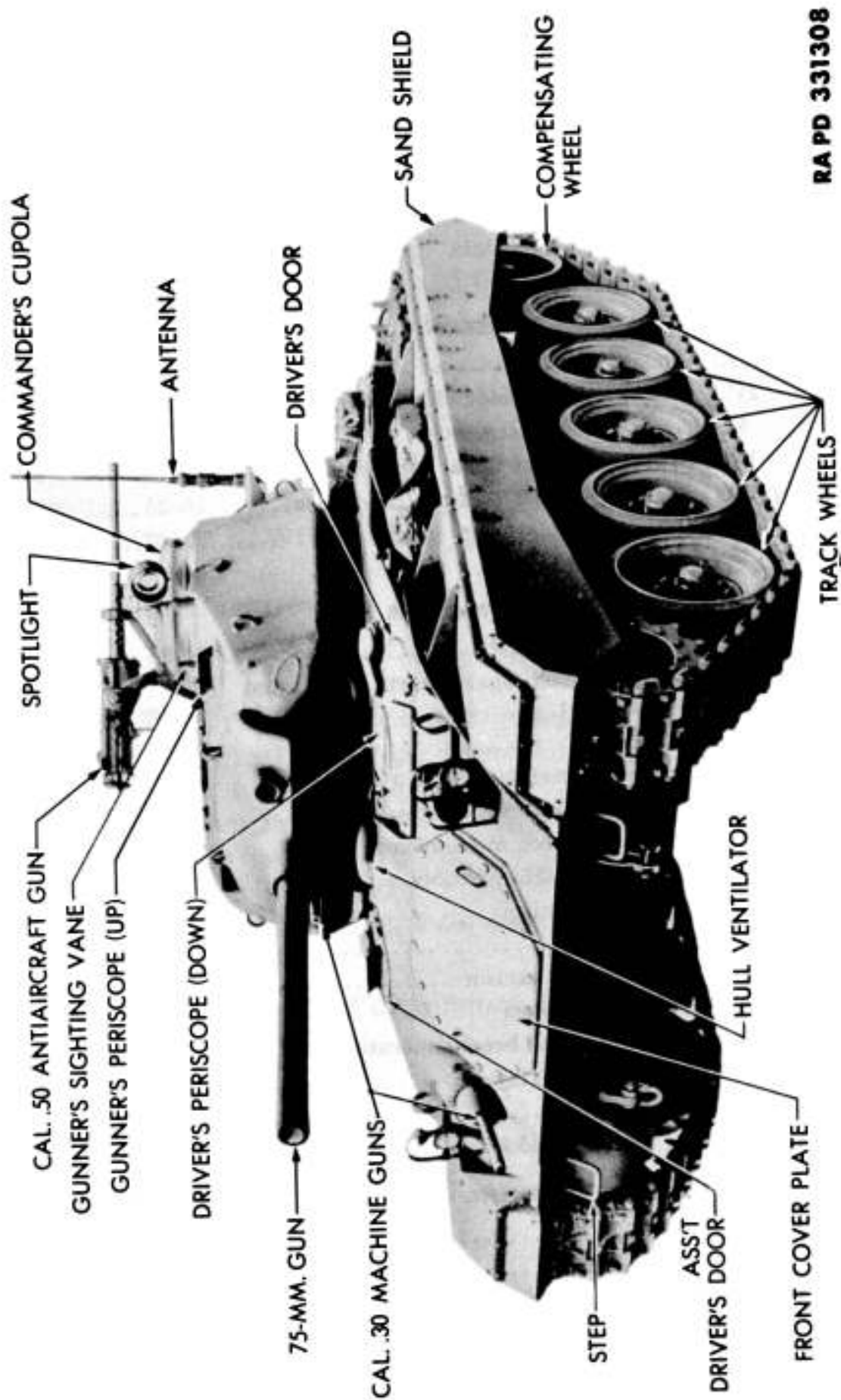
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copy to the following, 9-7; 9-9; 9-37; 9-65; 9-67; 9-76;
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RA PD 331308

Figure 1. Light tank M24.

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PART ONE

INTRODUCTION

Section I. GENERAL

1. Scope

a. This manual contains technical information required for the identification, use, and care of the 75-mm gun M6 and combination gun mount M64, ammunition, and accessory equipment.

b. When the nature of the repair, modifications, or adjustment is beyond the scope or facilities of the unit, the responsible ordnance service should be informed so that trained personnel with suitable tools and equipment may be provided, or proper instructions issued.

2. Records

a. ARTILLERY GUN BOOK. (1) The Artillery Gun Book (O.O. Form 5825) is used for the purpose of keeping an accurate record of the matériel. It must always remain with the matériel regardless of where the matériel may be sent. The book is divided as follows: Record of assignment; battery commander's daily gun record; and inspector's record of examination. This book should be in the possession of the organization at all times, and the completeness of its records and its whereabouts are the responsibility of the battery commander. It must also contain date of issuance of the matériel, by whom used, and the place where issued. If a new gun is installed in the mount, all data recorded in the old book with reference to sights, mounts, etc., must be copied into the new book before the old book is relinquished.

Note. Record of assignment data must be removed and destroyed prior to entering combat.

(2) When a gun book for a weapon has been lost and every effort to locate it has been to no avail, the supporting ordnance maintenance unit will prepare a new gun book, listing such information as they may be able to obtain from any source and estimating the number of rounds fired from the weapon. The number of rounds entered in the new gun book should be clearly indicated as estimated number of rounds fired. Inquiries concerning lost gun books should also be forwarded to the Office, Chief of Ord-

nance, Field Service, Maintenance Division, Artillery Branch, Washington 25, D. C.

(3) When an Artillery Gun Book has become separated from the weapon to which it pertains, and efforts to locate the weapon have failed, the gun book should be forwarded immediately to the Office, Chief of Ordnance, Field Service, Maintenance Division, Artillery Branch, Washington 25, D. C.

(4) Complete instructions on how to make entries in the Artillery Gun Book are contained therein. It is absolutely essential that the gun book entries be kept complete and up-to-date. In order to facilitate proper maintenance of the gun and its related matériel (that is mount, recoil mechanism, and associated fire control equipment), and to avoid unnecessary duplication of repairs and maintenance, the following additional entries are to be made in the gun book:

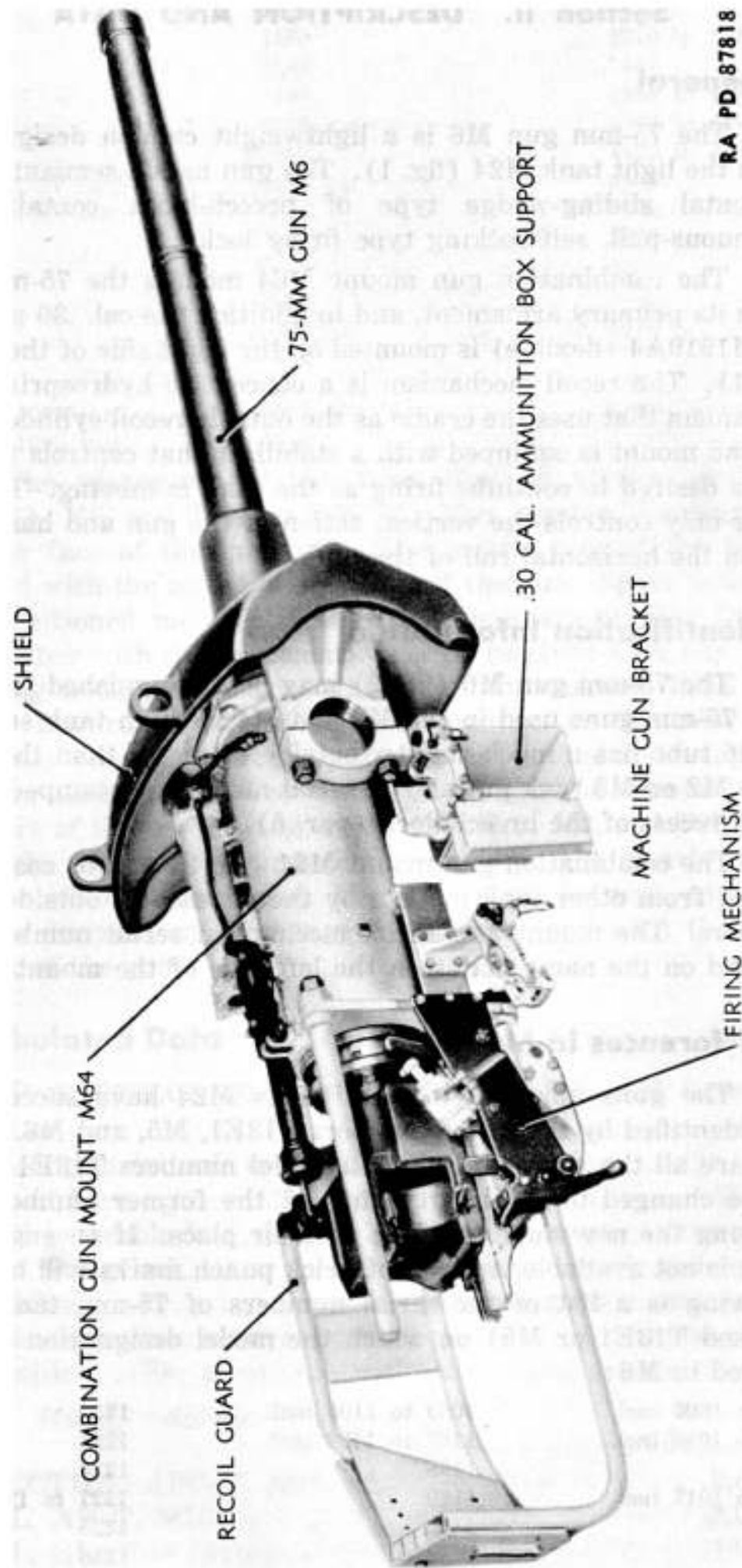
(a) A record of completed modification work orders showing the date completed, and bearing the signature of the officer or mechanic responsible for completion of the modification.

(b) A record of seasonal changes of lubricants and recoil oil in sufficient detail to prevent duplication and afford proper identification by the inspector.

(5) The tube in the 75-mm gun M6 is in some cases susceptible to progressive stress damage before actual loss of accuracy. The condemnation limit for the tube used in this weapon is established at 1,000 rounds, which is well within an allowable margin of safety.

b. FIELD REPORT OF ACCIDENTS. When an accident involving ammunition occurs during practice, the incident will be reported as prescribed in AR 750-10 by the ordnance officer under whose supervision the ammunition is maintained or issued. Where practicable, reports covering malfunction in combat will be made to the Chief of Ordnance, giving the type of malfunction, the type of ammunition, the lot number of the complete rounds or separate loading components, and the condition under which fired.

c. UNSATISFACTORY EQUIPMENT REPORT. Suggestions for improvement in design, maintenance, safety, and efficiency of operation prompted by chronic failure or malfunction of the weapon, spare parts, or equipment should be reported on WD AGO Form 468 (Unsatisfactory Equipment Report) with all pertinent information necessary to initiate corrective action. The report should be forwarded to the Office, Chief of Ordnance, Field Service Division, Maintenance Branch, Washington 25, D. C., through command channels, in accordance with instruction 7 on the form. Such suggestions are encouraged in order that other organizations may benefit.



RA PD 87818

Figure 2. 75-mm gun M6 and combination gun mount M64.

Section II. DESCRIPTION AND DATA

3. General

a. The 75-mm gun M6 is a lightweight cannon designed for use in the light tank M24 (fig. 1). The gun uses a semiautomatic, horizontal sliding-wedge type of breech-block containing a continuous-pull, self-cocking type firing lock.

b. The combination gun mount M64 mounts the 75-mm gun M6 as its primary armament, and in addition the cal. .30 machine gun M1919A4 (flexible) is mounted on the right side of the cradle (fig. 1). The recoil mechanism is a concentric hydrospring type mechanism that uses the cradle as the outside recoil cylinder. The gun and mount is equipped with a stabilizer that controls the gun if it is desired to continue firing as the tank is moving. The stabilizer only controls the vertical action of the gun and has no effect on the horizontal roll of the tank.

4. Identification Information

a. The 75-mm gun M6 (fig. 2) may be distinguished from the other 75-mm guns used in the M3 and M4 medium tank series as the M6 tube has a much smaller outside diameter than the tubes of the M2 or M3 tank guns. The serial number is stamped in the breech recess of the breechblock (par. 5).

b. The combination gun mount M64 (fig. 2) can be easily recognized from other tank mounts by the absence of outside recoil cylinders. The mount and recoil mechanism serial numbers are stamped on the name plates on the left side of the mount.

5. Differences in Models

a. The guns mounted in light tanks M24 have successively been identified by the model numbers T13E1, M5, and M6. These guns are all the same, and the old model numbers T13E1 or M5 will be changed to M6 by grinding off the former numbers and stamping the new number (M6) in their place. If an engraving stamp is not available, a series of prick punch marks will be used. Following is a list of the serial numbers of 75-mm tank guns (marked T13E1 or M5) on which the model designation will be changed to M6:

986 to 1000 incl.	1099 to 1105 incl.	1220
1002 to 1010 incl.	1107 to 1126 incl.	1221
1012	1128	1224
1014 to 1017 incl.	1129	1227 to 1232 incl.
1019	1130	1235
1022	1152	1236