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# TANK DESTROYER FIELD MANUAL

## TANK DESTROYER DRILL AND CREW DRILL

3-INCH GUN MOTOR CARRIAGE M10

76-MM GUN MOTOR CARRIAGE T70

3-INCH TOWED GUN (GUN M5 AND CARRIAGE M1)

### CHAPTER 1

#### GENERAL

Paragraphs

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#### SECTION I

#### GENERAL

■ 1. SCOPE.—*a.* The primary purpose of drill is to perfect means and methods for maneuvering and fighting troops on the battlefield. This must be continually kept in mind. The drill prescribed herein may be adapted to any type of tank destroyer unit. Explanations are of a general nature which give sufficient latitude for adaptation to specific units. All concerned should use this manual as a guide to common-sense solution of minor points which are not specifically covered in the text. Discussion over trifles or failure to make appropriate adaptation indicates a failure to grasp the spirit of the regulations. Commanders should encourage subordinates to make minor adjustments without requesting an interpretation. Necessary adaptation should not complicate the drill.

*b.* The diagrams herein are based on a general type of organization. They may be adapted to any type of unit, to changes in tables of organization and strength, and to the maneuver space available.

c. *Drill.*—The procedures, formations, and movements for mounted and dismounted drill and for ceremonies and inspections are prescribed in FM 22-5, and in this manual. Drill for the light armored car M-8 is prescribed in FM 2-6 (when published).

d. Duties of the driver are covered in FM 25-10 and in this manual.

e. Training for placing the destroyer and antiaircraft guns in action is prescribed in this manual.

■ 2. DEFINITIONS.—For definitions see FM 22-5.

## SECTION II

### COMMANDS AND METHODS OF TRANSMISSION

■ 3. COMMANDS.—a. The commands authorized for tank destroyer units and the manner of giving them are prescribed in FM 22-5, FM 25-10, TM 10-460, and in this manual.

b. Commands may be transmitted by the following methods:

- (1) Audible signals (voice, interphone, whistle, trumpet, siren, gunfire).
- (2) Touch signals.
- (3) Visual signals (arm, disk, flag, lights, pyrotechnics).
- (4) Example of the leader.
- (5) Radio.
- (6) Staff officers.
- (7) Messengers.

■ 4. AUDIBLE SIGNALS.—a. *Voice.*—Communication between vehicles by voice is seldom practicable.

b. *Interphone.*—If equipped with interphone, this method of communication between crew members should be used whenever the vehicle is operated.

c. *Whistle.*—The following signals can be made with the whistle, siren, vehicle horn, or trumpet:

- |   |                                       |
|---|---------------------------------------|
| (1) One short blast.....                        | ATTENTION TO ORDERS.                  |
| (2) One long blast.....                         | CEASE FIRING.                         |
| (3) Three blasts repeated<br>several times..... | AIR ATTACK OR MECH-<br>ANIZED ATTACK. |

■ 5. TOUCH SIGNALS.—Touch signals may be used by a destroyer commander to direct the driver. They are given with the foot or hand.

a. *Move forward.*—Several taps between the shoulder blades.

b. *Increase speed.*—Repeat “move forward” signal more rapidly. The taps are continued until the desired speed is attained.

c. *Decrease speed or halt.*—Steady pressure between the shoulder blades. Pressure is continued until the desired reduced speed is attained or the vehicle is halted.

d. *Move in reverse.*—Tap repeatedly on the back of the driver's head (helmet).

e. *Change direction.*—Press on the driver's right (left) shoulder to turn right (left). The driver continues turning until pressure ceases.

■ 6. VISUAL SIGNALS.—a. *Arm and hand signals.*—Arm and hand signals are used for drill, extended order, and control of fire and movement in combat. (See figs. 1 to 8, inclusive.)

(1) Unless otherwise prescribed, signals are given with the right arm and hand.

(2) The recipient of a signal may be required to repeat the signal to show that it is understood. If the return signal is in error, the leader, after signaling “Disregard,” will repeat the correct signal.

(3) All vehicle commanders are responsible for relaying signals to vehicles in *rear* or to a *flank*. Certain types of vehicles are constructed so that the vehicle commander's signals are not readily visible. Under such conditions, the commander may require another member of the crew to relay signals, the commander checking to see that the relay is properly executed.

(4) Commands may be given by combining signals. For example, the command PLATOON COLUMN may be transmitted by signaling “Platoon” followed by “Column.”

(5) Range of visibility of arm signals may be increased by the use of disks. Signal flags are used for control and transmission of commands. Their use is limited to important signals where a positive visual method is desired. They

should be supplemented when practicable by other means such as the radio. Each combat vehicle is equipped with three solid color flags; orange, red, and green. They are displayed vertically from the highest point of the vehicle to indicate the following:

- (a) Enemy in sight—Red.
- (b) All clear, ready, or understood—Green.
- (c) Disregard or vehicle out of action—Orange.
- (d) Assemble or close—Orange and green.
- (e) Extend—Red and orange.
- (f) Disperse—Red and green.
- (g) Gas—Red, orange, and green.

(6) Signals most commonly used by tank destroyer units which are not prescribed herein will be found in FM 22-5, TM 10-460, and FM 29-5. Additional signals are—

(a) *Column*.—Extend the arm vertically, repeatedly swinging arm forward to the horizontal and upward and back beyond the verticle several times.

(b) *Disregard*.—Place the hand against the back at the height of the waist, back of the hand toward the body.

(c) *Echelon right (left)*.—Extend the right (left) arm upward to the side at an angle of 45° above the horizontal, repeating several times.

(d) *Extend*.—Extend the arms vertically overhead, palms together, and swing them downward to the horizontal position. Repeat several times. When a formation possesses both width and depth, extension is made in both directions.

(e) *Irregular column (echelon) (wedge)*.—Extend both arms fully to the front, palms in; move them upward and downward in a chopping motion, swinging the arms together to the right and left; follow with signal for column (echelon) (wedge).

(f) *Line*.—Raise the hand vertically to the full extent of the arm, fingers extended and joined, and wave the arm well down alternately to the right and left several times.

(g) *Close up*.—Extend the arms horizontally sideward, palm of the hands up, and swing them upward to the vertical position overhead until palms meet. Repeat several times.

(h) "V".—Extend arms overhead, forming a large V.

*b. Command signals.*—Commands and information frequently are transmitted by signals. Signals most commonly used by tank destroyer units are shown in figures 1 to 5, inclusive. The signal for the command of execution, if such is necessary, consists in extending the arm vertically and then lowering it sharply to the side.

*c. Driver's arm signals.*—Traffic signals should be made clearly and given in time to afford ample warning to drivers of other vehicles. (See figs. 6 and 7.)

*d. Guide signals.*—See figure 8 for signals for maneuvering vehicles in a confined space and when the driver is unable to see to the rear or to the flank. The vehicle commander or other crew member should place himself within sight of the driver and assist the driver by giving the appropriate signal. Dismounted signals are found in FM 22-5 and TM 10-460. Additional signals are:

(1) *Move in reverse.*—Extend arm and hand, palm toward driver, make pushing motion. Repeat several times until vehicle has moved to desired position.

(2) *Change direction.*—Execute short outward thrust of fist in direction desired until the vehicle has reached the proper direction. This signal is used for either backing or leading a vehicle.

(3) *Close up or caution.*—Extend hands forward, with palms separated to indicate clearance, and bring palms toward each other until they meet at the instant it is desired to stop the vehicle. (Use for gauging distance in confined space.)

*e. Light signals.*—(1) For night traffic control lights, see FM 29-5.

(2) In giving signals described below, face toward those who are to receive the signal. Hold and move the light horizontally. Do not point it upward. When giving light signals under blackout conditions, use a light the lens of which has been covered with suitable colored material. Subordinate leaders repeat signals and pass them along the column.

(3) The following light signals are prescribed for general traffic control:

(a) *Right or left turn.*—Rotate the light in a vertical plane, describing circles about 12 to 18 inches in diameter so that the light, at the top of the circle, travels in the direction of the desired turn. (See FM 29-5.)

(b) *Start engine.*—Rotate light, describing circles to simulate cranking.

(c) *Stop, or stop engine.*—Move light back and forth horizontally and repeat as necessary.

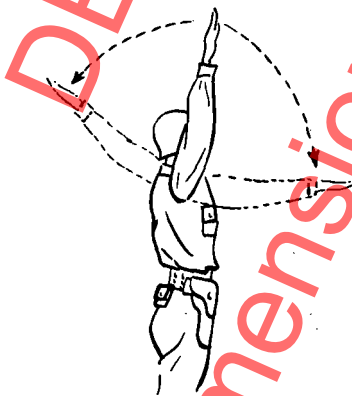
(d) *Forward, move out, go, or increase speed.*—Move the light up and down in a vertical line, repeating as necessary.

(4) The following signals are prescribed when a dismounted man signals to maneuver individual vehicles:

(a) *Move forward, stop, turn, and start or stop engine.*—Same as prescribed in (3) above.

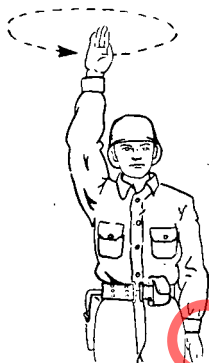
(b) *Move in reverse.*—Steady light held still and pointed toward the driver.

NOTE.—After the movement of a vehicle has started, when the driver cannot see the light, he must stop his vehicle.

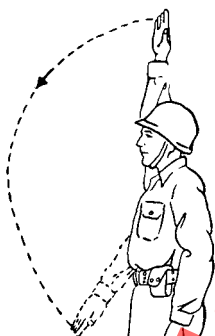


COLUMN

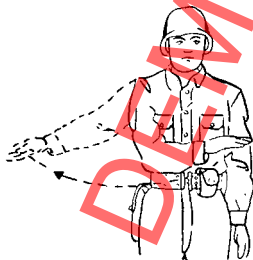
FIGURE 1.—Arm and hand signals.



**ASSEMBLE**



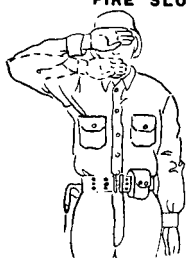
**FIRE  
FIRE ONE ROUND**



**COMMENCE FIRING  
FIRE FASTER  
FIRE SLOWER**



**ARE YOU READY?  
OR, I AM READY**



**CEASE FIRING**



**LEADERS JOIN ME**

**FIGURE 2.—Arm and hand signals.**



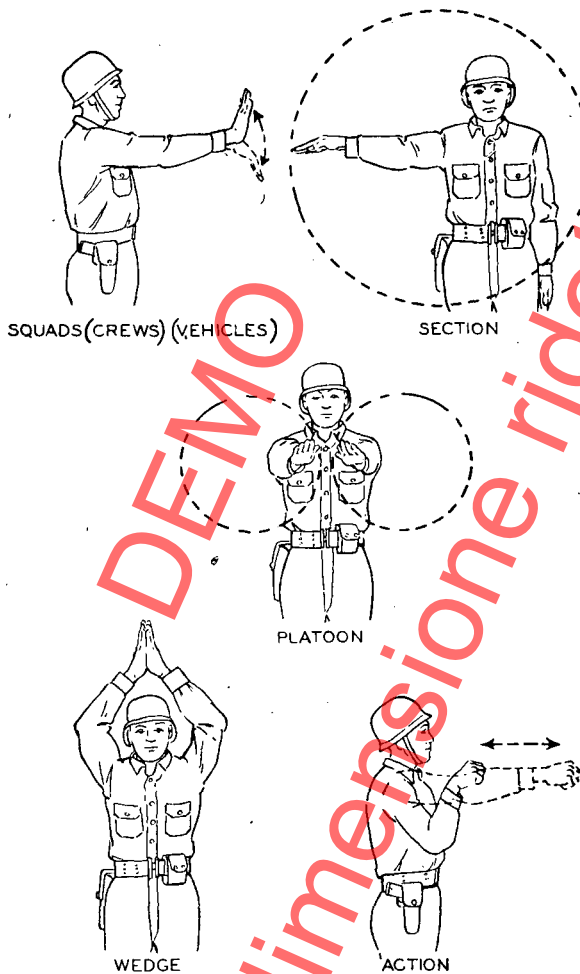


FIGURE 3.—Arm and hand signals.

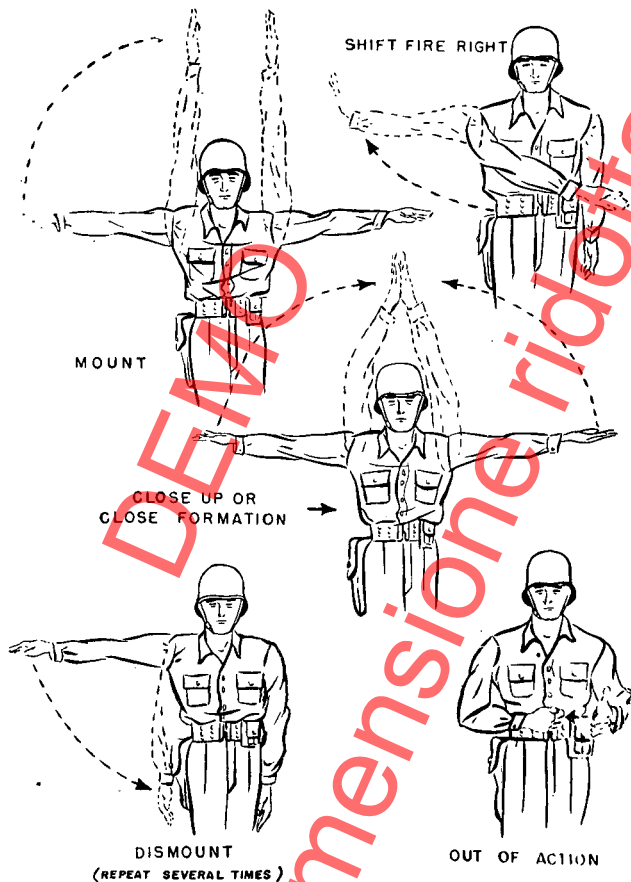


FIGURE 4.—Arm and hand signals.

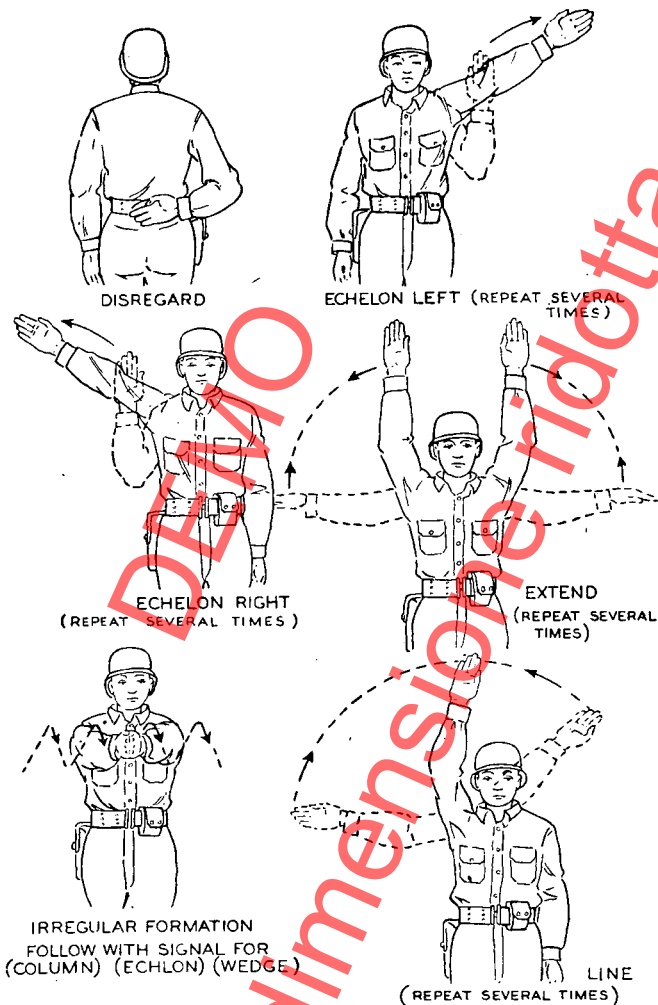


FIGURE 5.—Arm and hand signals.

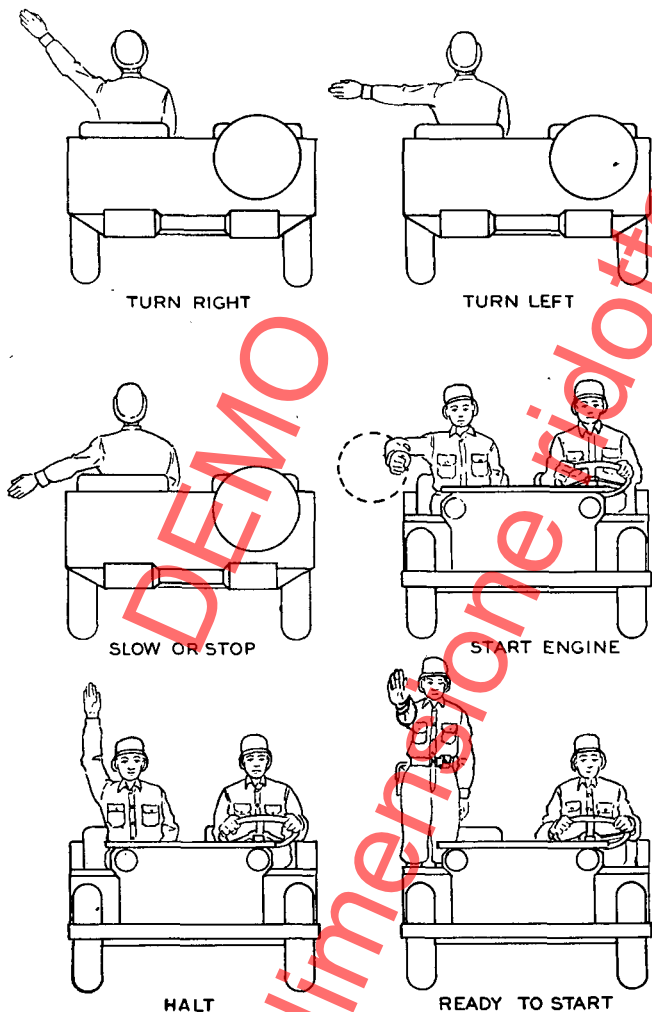
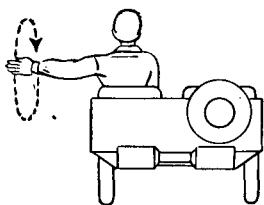
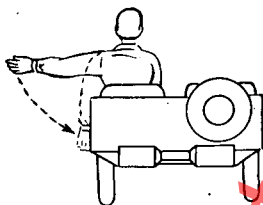


FIGURE 6.—Driver's arm signals.



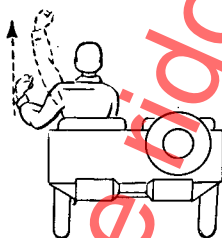
CLOSE UP



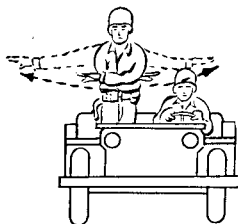
OPEN UP



PASS AND KEEP GOING



INCREASE SPEED



STOP ENGINE

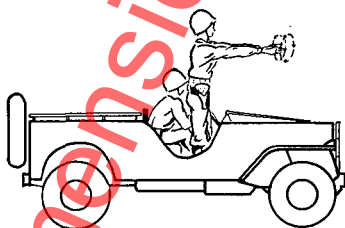
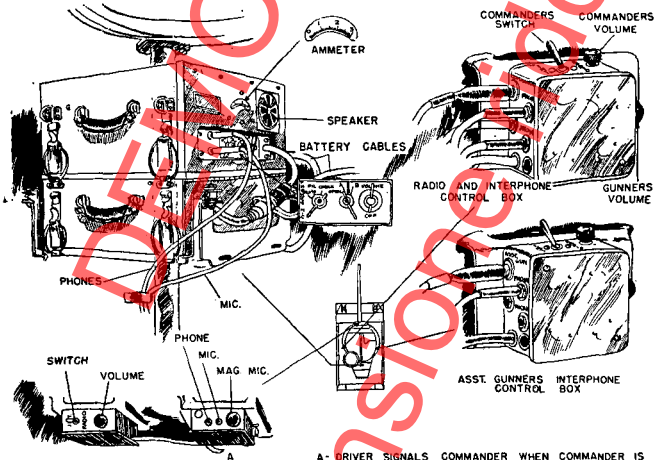
DRIVER TURN AROUND  
SIMULTANEOUSLY

FIGURE 7.—Driver's arm signals.

To stop engine----- DRIVER CUT EN-  
GINE.  
To proceed in a specific range. DRIVER THIRD  
RANGE.  
To proceed at same speed----- DRIVER STEADY.

(3) *Commands for control of turret.*

To traverse turret----- GUNNER TRAVERSE  
LEFT (RIGHT)  
(REAR).  
To stop turret traverse----- GUNNER STEADY-  
Y-Y-Y, ON.



A- DRIVER SIGNALS COMMANDER WHEN COMMANDER IS OPERATING RADIO. DRIVER CAN SIGNAL HIM BY THROWING SWITCH TO INT. AND PRESSING MICROPHONE SWITCH. THIS PUTS TONE IN COMMANDERS HEADSET.

INTERPHONE CONTROL BOXES  
HABITUALLY SWITCHED TO  
RADIO POSITION.

FIGURE 9.—Details of radio and interphone control boxes.

(4) *Miscellaneous.*

To dismount.....	DISMOUNT.
To dismount and fight on foot.....	FIGHT ON FOOT.
To dismount and abandon vehicle.	ABANDON VEHICLE.
To indicate action.....	ACTION RIGHT (LEFT) (FRONT).
To go out of action.....	OUT OF ACTION.
To close vehicle hatches.....	CLOSE HATCHES.
To abandon and destroy equipment.	ABANDON AND DESTROY GUN (VEHICLE).
To give fire alarm.....	ENGINE FIRE (HULL FIRE).



FIGURE 10.—Details of personal equipment for interphone and radio.

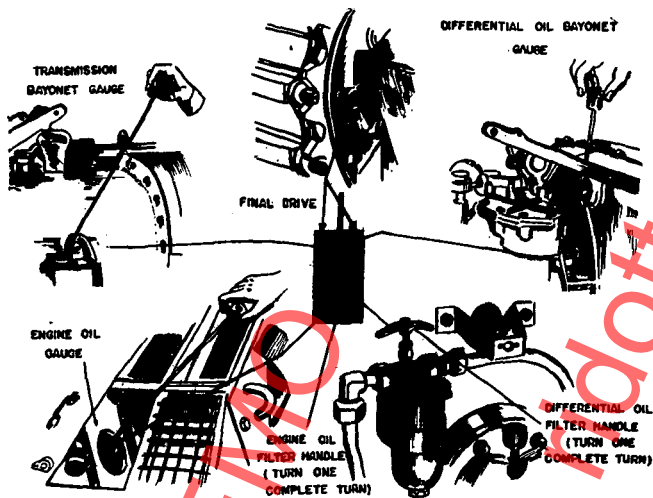


FIGURE 23.—First echelon maintenance—location to check oil level before operation.

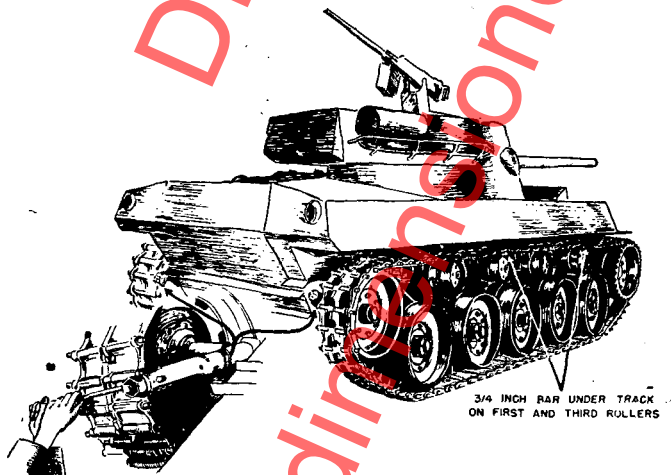


FIGURE 24.—First echelon maintenance—checking track adjustment.



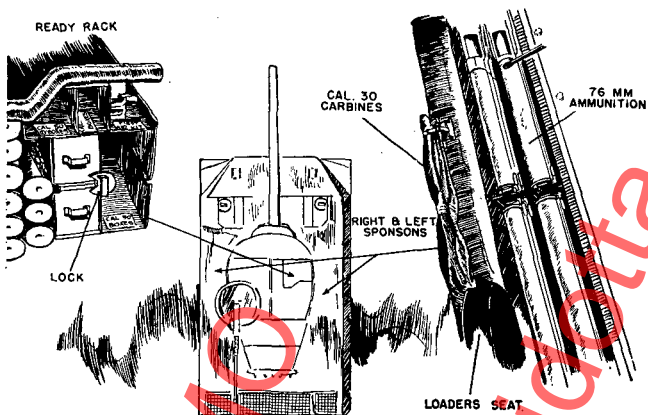


FIGURE 25.—Stowage of ammunition.

## CHAPTER 5

### TRAINING FOR PLACING ANTI-AIRCRAFT MACHINE GUN IN ACTION

■ 56. SCOPE.—This chapter covers training in placing the anti-aircraft machine gun in action. Mechanical functioning and manipulation are covered in FM 23-60 and 23-65.

■ 57. MOUNTS.—Mounts for the machine gun caliber .50, HB, M2, flexible, for anti-aircraft firing are:

- a. Skate track mount. (See fig. 26.)
- b. Skate ring truck mount. (See fig. 27.)
- c. Pedestal mount. (See fig. 28.)
- d. Pintle mount. (See fig. 29.)
- e. Concentric ring mount. (See fig. 30.)



FIGURE 26.—Skate track mount.

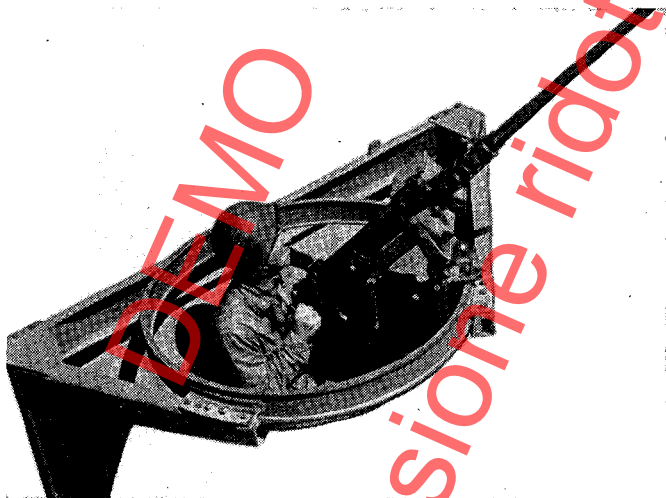


FIGURE 27.—Skate ring truck mount.

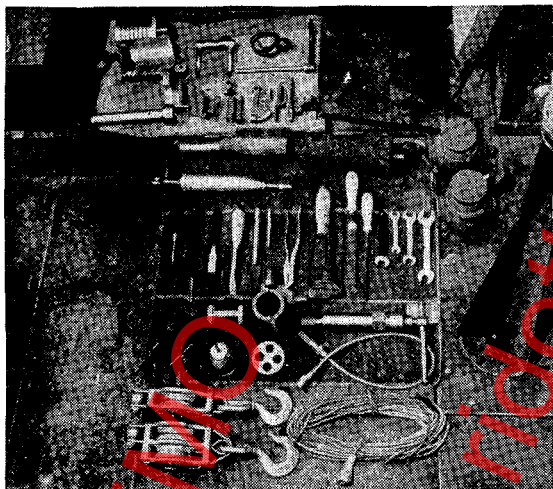


FIGURE 46.—Display of equipment—breech block and gun tools, 75-mm.



FIGURE 47.—Display of equipment—tools, wrecker truck.



FIGURE 48.—Display of equipment—kitchen.

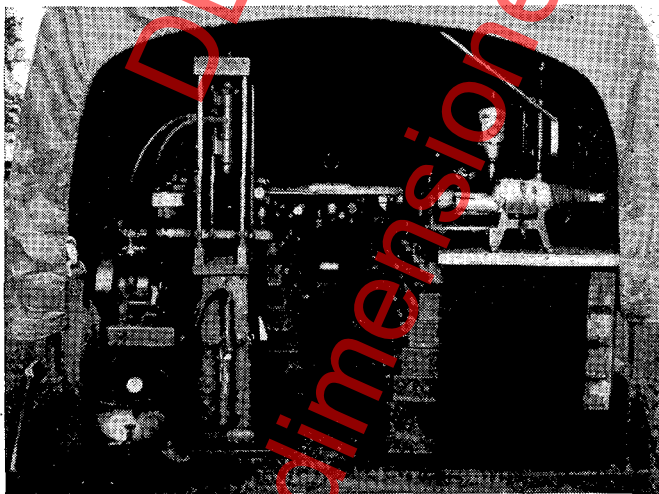


FIGURE 49.—Display of equipment—shop truck.



FIGURE 50.—Display of individual equipment.