## TM 9-815

#### WAR DEPARTMENT

## **TECHNICAL MANUAL**

32

4-TON TRUCK, 4 × 4

(FOUR WHEEL DRIVE MODEL HAR-1)

JUNE 10, 1943

TECHNICAL MANUAL No. 9-815

WAR DEPARTMENT Washington, February 13, 1943

# 4-TON TRUCK, 4 x 4 (FOUR WHEEL DRIVE MODEL HAR-1)

Prepared under the direction of the
Chief of Ordnance
(with the cooperation of the Four Wheel Drive Auto Co.)

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#### PART I—OPERATING INSTRUCTIONS

#### Section 1

#### INTRODUCTION

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#### 1. SCOPE.

- a. This manual is published for the information and guidance of the using arms and services.
- b. In addition to a description of the FWD 4 x 4 Model HAR-1 General Service Cargo Truck, this manual contains descriptions of the major units, group assemblies, and functional systems, including instructions with reference to their operation, inspection, adjustments, minor repair, and unit replacement. Specific information for the guidance of operating personnel (crew) is contained in Part I, sections I to IX, inclusive. Information for the guidance of organizational maintenance (using arms unit mechanics) is contained in Part II, sections X to XXXI, inclusive.
- c. In all cases where the nature of the repair, modification, 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. DESCRIPTION (figs. 1 through 5).

- a. This General Service Cargo Truck is a four-wheel drive chassis and is powered with a six-cylinder L-head type of engine. It has a conventional type of transfer case assembly, with a center differential similar to the differential in the front and rear axles. A military type of cargo body is mounted to the chassis with seating capacity for the using arms.
- b. A single plate dry disk clutch and constant mesh clash type transmission is used.

## 4-TON TRUCK, 4 x 4 (FOUR WHEEL DRIVE MODEL HAR-1)

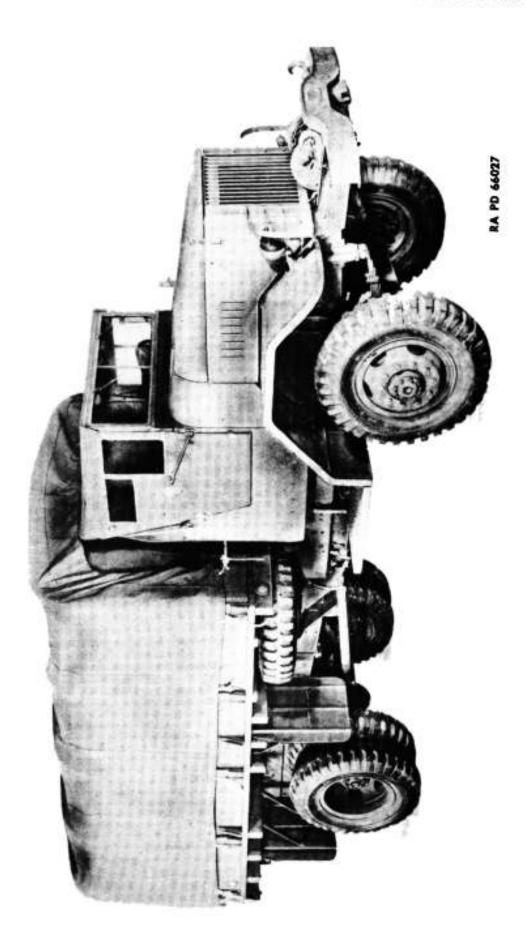


Figure 1—Cargo Truck HAR-1—Three-quarter Right Front

## INTRODUCTION

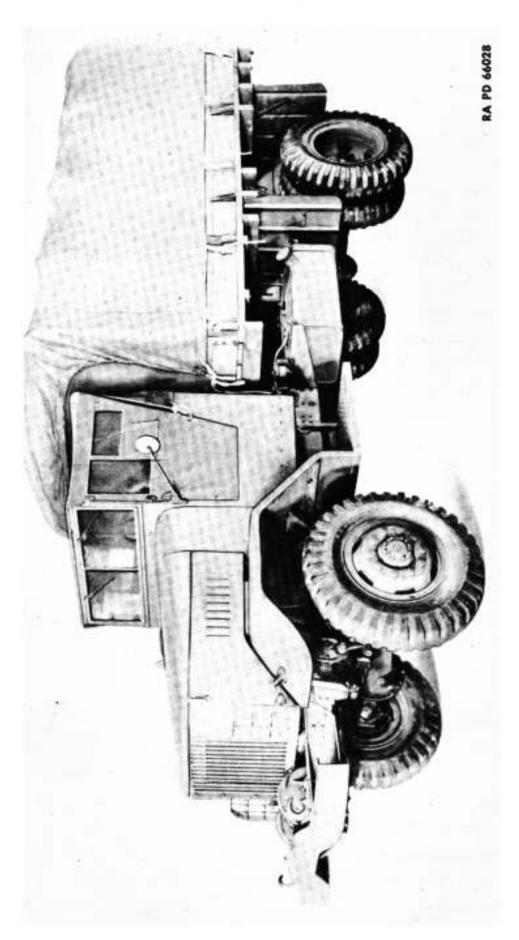


Figure 2—Cargo Truck HAR-1—Three-quarter Left Front

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#### 4-TON TRUCK, 4 x 4 (FOUR WHEEL DRIVE MODEL HAR-1)

3. TABULATED DATA.
Wheelbase
Length, over-all
Width, over-all96 in.
Height, over-all111 in.
Wheel size
Tire size9:00 x 20
Tread (front)
Tread (rear)
Weight of vehicle—empty11,425 lb
Weight of vehicle—loaded19,425 lb
Approach angle
Departure angle30°
Minimum turning radius
Ground clearance
Fording depth (bottom of transfer case)
Towing facilities (front)
(rear)Pintle hook
Pintle height
Speeds (all wheels driving)
In first gear 4 mph
In second gear 8 mph
In third gear
In fourth gear24 mph
In fifth gear
Maximum allowable speed
Transmission capacity
Transfer case capacity4 qt
Front axle capacity
Rear axle capacity6 pt
Gasoline tank capacity (one tank)40 gal
Cooling system capacity
Crankcase capacity
Air cleaner capacity1.5 pt
Hydraulic brake assembly capacity
Steering gear capacity
Winch capacity

#### INTRODUCTION



Figure 3—Cargo Truck HAR-1—Front

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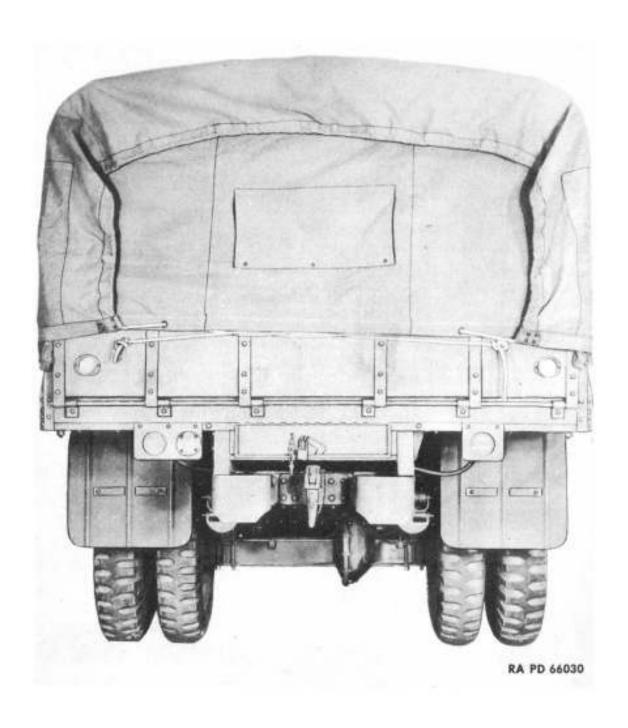


Figure 4—Cargo Truck HAR-I—Rear