VEHICLE CHARACTERISTICS

FOR USE IN RESIDENT INSTRUCTION

THE ARMORED SCHOOL
**TABLE OF CONTENTS**

<table>
<thead>
<tr>
<th>Introduction</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truck, ¾-Ton, 4x4, Command Reconnaissance</td>
<td>3</td>
</tr>
<tr>
<td>Truck, ¾-Ton, 4x4, Utility, M38</td>
<td>4</td>
</tr>
<tr>
<td>Truck, ¾-Ton, 4x4, Ambulance, KD</td>
<td>5</td>
</tr>
<tr>
<td>Truck, ¾-Ton, 4x4, Weapons Carrier and Command Weapons Carrier</td>
<td>6</td>
</tr>
<tr>
<td>Truck, ¾-Ton, 4x4, Cargo, M37</td>
<td>7</td>
</tr>
<tr>
<td>Carrier, Cross-Country, ¾-Ton, 4x4, T53</td>
<td>8</td>
</tr>
<tr>
<td>Truck, 2½-Ton, 6x6, Cargo, CCKW 353, SWB</td>
<td>9</td>
</tr>
<tr>
<td>Truck, 2½-Ton, 6x6, Cargo, CCKW 353, LWB</td>
<td>10</td>
</tr>
<tr>
<td>Truck, 2½-Ton, 6x6, Cargo, M84</td>
<td>11</td>
</tr>
<tr>
<td>Truck, 2½-Ton, 6x6, Cargo, T55</td>
<td>12</td>
</tr>
<tr>
<td>Carrier, Cross-Country, 5-Ton, 6x6, T51</td>
<td>13</td>
</tr>
<tr>
<td>Carrier, Half-Track, Mortar, 81-mm, M21</td>
<td>14</td>
</tr>
<tr>
<td>Carriage, Motor, Multiple Gun, M16</td>
<td>15</td>
</tr>
<tr>
<td>Truck, Wrecking, Heavy, M1A1</td>
<td>16</td>
</tr>
<tr>
<td>Vehicle, Tank Recovery, M32A1B3</td>
<td>17</td>
</tr>
<tr>
<td>Tank, Light, M24</td>
<td>18</td>
</tr>
<tr>
<td>Tank, Light, T41</td>
<td>19</td>
</tr>
<tr>
<td>Tank, Medium, M4A3E8</td>
<td>20</td>
</tr>
<tr>
<td>Tank, Medium, M26</td>
<td>21</td>
</tr>
<tr>
<td>Tank, Medium, M45</td>
<td>22</td>
</tr>
<tr>
<td>Tank, Medium, M46</td>
<td>23</td>
</tr>
<tr>
<td>Tank, Medium, T42</td>
<td>24</td>
</tr>
<tr>
<td>Tank, Heavy, T43</td>
<td>25</td>
</tr>
<tr>
<td>Carriage, Motor, Multiple Gun, T77</td>
<td>26</td>
</tr>
<tr>
<td>Carriage, Motor, Twin 40-mm Gun, M19A1</td>
<td>27</td>
</tr>
<tr>
<td>Carriage, Motor, 105-mm Howitzer, M37</td>
<td>28</td>
</tr>
<tr>
<td>Carriage, Motor, 105-mm Howitzer, T98</td>
<td>29</td>
</tr>
</tbody>
</table>
TABLE OF CONTENTS—(Continued)

<table>
<thead>
<tr>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carriage, Motor, 155-mm Howitzer, M41</td>
<td>30</td>
</tr>
<tr>
<td>Carriage, Motor, 155-mm Howitzer, T99</td>
<td>31</td>
</tr>
<tr>
<td>Carriage, Motor, 155-mm Gun, M40, and Carriage, Motor, 8-Inch Howitzer, M49</td>
<td>32</td>
</tr>
<tr>
<td>Carriage, Motor, 155-mm Gun, T97</td>
<td>33</td>
</tr>
<tr>
<td>Vehicle, Utility, Armored, M39</td>
<td>34</td>
</tr>
<tr>
<td>Vehicle, Utility, Armored, T18</td>
<td>35</td>
</tr>
<tr>
<td>Vehicle, Utility, Armored, M44</td>
<td>36</td>
</tr>
<tr>
<td>Vehicle, Utility, Armored, M44E1</td>
<td>37</td>
</tr>
<tr>
<td>Tractor, 13-Ton, High Speed, M5A1</td>
<td>38</td>
</tr>
<tr>
<td>Tractor, Cargo, T4E1</td>
<td>39</td>
</tr>
<tr>
<td>Tractor, High Speed, 18-Ton, M4 and M4C</td>
<td>40</td>
</tr>
<tr>
<td>Tractor, Cargo, M8</td>
<td>41</td>
</tr>
<tr>
<td>Tractor, Cargo, M8E1</td>
<td>42</td>
</tr>
<tr>
<td>Tractor, High Speed, M6</td>
<td>43</td>
</tr>
<tr>
<td>Tractor, Cargo, T44</td>
<td>44</td>
</tr>
<tr>
<td>Vehicle, Landing, Tracked (Unarmored), LVT (4)</td>
<td>45</td>
</tr>
<tr>
<td>Vehicle, Landing, Tracked (Armored), LVT (A) (4)</td>
<td>46</td>
</tr>
<tr>
<td>Carrier, Cargo, Amphibious, T46</td>
<td>47</td>
</tr>
<tr>
<td>Trailer, ¾-Ton, 2W, Cargo (Amphibian)</td>
<td>48</td>
</tr>
<tr>
<td>Trailer, 1-Ton, 2W, Cargo</td>
<td>49</td>
</tr>
<tr>
<td>Trailer, 1-Ton, 2W, Water Tank, 250-Gallon</td>
<td>50</td>
</tr>
<tr>
<td>Trailer, Ammunition, M10</td>
<td>51</td>
</tr>
<tr>
<td>Trailer, 8-Ton, Ammunition, 4W, M23</td>
<td>52</td>
</tr>
</tbody>
</table>
Dream Weapon

SPEED: LAND - 50 MPH
SEA - SURFACE: 30 KNOTS
-SUBMERGED: 20 KNOTS
AIR - 700 MPH (W/TAIL WIND)
RANGE: LAND - 1,000 MILES
SEA - 20,000 MILES
AIR - NO LIMIT
COST: WILL SAVE THE GOVERNMENT MILLIONS!!

NOTE:
DOZER BLADE AND HEAD DIGGER
MAY BE ATTACHED, THUS RENDERING
ENGINEERS UNNECESSARY.

HURRY, PAW! IF'N WE
DON'T KETCH 'EM HE'LL
JERN THE ARMY.

DEEN THOUGHT OF OUR BOY, GETTIN
IN THAT DREAM WEAPON OUTFIT.

BEEN PROUD OF
OUR SUN, PAW,
SINCE HE'S A
DREAM WEAPON
COMMANDER.
At this slope, gravity will have as much tendency to pull the vehicle downhill as to give the vehicle traction. At greater slopes the vehicle will have a tendency to fall off the hill.

Figure 1. Gradability scale.

Figure 2. Typical power package utilizing the new family-type engine.

Figure 3. Cross-drive transmission.

Figure 4. Wobble-stick control for full-track vehicles using cross-drive transmission.

Figure 5. Planetary converter.
VEHICLE CHARACTERISTICS

This text supersedes unnumbered pamphlet, The Armored School, entitled, Vehicle Characteristics and Installations

INTRODUCTION

1. SCOPE. This text is a compilation of characteristics and data of combat vehicles organic to units of the various ground combat arms. It is intended to familiarize students attending The Armored School with the combat vehicles included in their course or instruction and which are or may soon be organic to their parent organizations. The pictorial review, including silhouettes, will enable you to more easily recognize the vehicles when you see them. As a student you must realize that this text is furnished to you as a unit of instruction, or it may be preliminary to a unit of instruction. In either case it is your duty to study each and every vehicle included. Do not attempt to remember all data, but do study each vehicle nomenclature, picture, and silhouette relating them so as to be able to intelligently discuss them in class. The data presented may be used as a basis for tactical problems included in various courses at The Armored School.

2. TERMS AND SYMBOLS.

a. Model Numbers.

(1) “M” numbers. Vehicles assigned model numbers with the prefix “M” are or have been standard and are filling a requirement as organic equipment.

(2) “T” numbers. Vehicles assigned model numbers with the prefix “T” are new vehicles in development stages. These vehicles are usually intended to replace some existing standard vehicle. In such a case the classification portion of the vehicle data sheet will explain the development status and which vehicle it will replace.

b. Unknown or doubtful information. In some cases a description or specification item will be marked “unknown.” At the time this text was compiled, this information was either not available or was classified too high to be included. Specifications marked “estimated” are not verified but were either computed from existing information or estimated from comparison with like vehicles.

c. Maximum computed gradability. This is the steepest slope, measured in per cent, which a vehicle can negotiate. Per cent of slope is defined as the ratio between the vertical rise and the horizontal distance traveled. In other words, a 100 per cent grade is the grade angle at which the force of gravity has as much tendency to drag the vehicle back down the grade as it does to hold the vehicle against the ground and provide traction (fig 1).

d. Turning radius. Radius of minimum circle within which vehicle can negotiate a complete turn.

e. Cruising range. Average distance vehicle will travel on one full tank of fuel at rated consumption. Warning: Do not depend on these figures as being accurate on every vehicle under all conditions. Fuel mileages are inconsistent due to terrain, vehicle, driver, and weather difference. Give yourself a liberal margin on these figures.

f. Classification. Normally vehicles are classified from the standpoint of suitability for use. The ratings are: standard, substitute standard, limited standard, and obsolete. Due to the rapid change-over of vehicle models, no attempt is made to classify the vehicle in this text other than to give the general classification, which includes such information as whether or not the vehicle is being used, if it is to be replaced soon, and if it is to be replaced what vehicle will replace it. This will give the student a general idea of current distribution of vehicles and what to expect in the future.

3. VEHICLE DEVELOPMENT TRENDS.

In order to offset the rapid changes in tables of equipment and to prolong the useful life of this text, vehicles which are now under development and likely to be made standard in the very near future are included in this text. Their status will be clarified under Classification on each characteristics sheet.

NOTE: The statements made under “Classification” are based on tables of equipment, field requirements, and trends. They are not based on official plans. Classification and specifications of experimental vehicles are subject to change frequently.
These "T"-model vehicles will be studied and discussed in class for comparison purposes only. Do not count on using all of these vehicles because very often "T"-model vehicles never make the "M" grade. Before we look into the "T" vehicles let us consider the present development trends in combat vehicles.

a. Power plant. An out-and-out program is being launched to standardize all engines in future Army vehicles. These engines are called the Army family of engines, consisting of three major cylinder barrel sizes using various numbers of cylinders and arrangements. These engines are of the air-cooled type utilizing individual cylinders (barrels) with the valves overhead. This means only three sizes of valves, cylinders, pistons, pins, rings, etc., must be stocked for replacement parts to supply all sizes of vehicles. The space limitations of engine compartments in vehicles and the need for more powerful engines is provided by this new family of engines; they will be supplied in horizontally and vertically opposed and "V" types in various sizes capable of filling most any requirement. These engines are equipped with quick release fuel, oil, and electrical connections allowing quick removal of entire power packages (fig 2). Another interesting feature is that hot oil is provided by the engine for heating crew compartments with core-type heaters.

b. Power train. All power trains will utilize some type of torque converter which will eliminate the need for a clutch and reduce the number of gear changes in the transmission. Transmissions will utilize planetary gears with servo shifting or engaging mechanisms controlled either automatically or manually through remote controls.

(1) Full-track vehicles will utilize a family of combination transmission, differential, and steering mechanisms called "cross-drive" transmissions; they will be supplied in four sizes to meet various requirements (fig 3). These cross-drive transmissions are controlled by a remote control called the "wobble stick." This wobble stick provides two speeds forward, a neutral, a neutral steer, and a reverse by moving the lever forward or back. To steer the vehicle to the right the lever must be moved to the right. To steer the vehicle to the left, move the lever to the left. The vehicle will pivot to infinity by placing the lever in neutral steer position and then moving it in the direction you desire to turn (fig 4).

(2) Wheeled vehicles will utilize a series of five transmissions and transfer case combinations called "planetary converters." The five sizes make sufficient combinations to provide for all wheeled vehicles (fig 5).

c. Accessories. Generators, starters, batteries, and instruments will all be standard 24-volt and will be waterproofed. Magneto will be standardized and waterproofed. A similar standardization and interchangeability program is also in effect on other units to reduce replacement part stocks and simplify repairs.

d. Ease of maintenance. In general, the new vehicles will be easier to maintain. It is true that some of the parts are not as yet readily accessible, but accessibility (in general) is greatly improved over old-type vehicles. An example is the T44 cargo tractor, in which the power package rolls out on rails for accessibility. The engine may be started and tested while pulled out of the compartment. The mechanic may stand on the floor and reach most any part of the power package.

4. CLASSIFIED MATTER. You are reminded of Army Regulation 385-5, Safeguarding Military Information. Information contained in this text will not be made available to the general public. It will be entrusted only to those individuals whose official duties require such knowledge or possession.
TRUCK, ¼-TON, 4x4, COMMAND RECONNAISSANCE

GENERAL DATA

Purpose: To carry personnel, primarily for reconnaissance; to transport light cargo; to tow trailer or light field piece.

Classification: At printing date, this vehicle is standard in all organizations requiring such a vehicle. However, improvements are in order and have been applied to the projected model, the Truck, Utility, M38, which will eventually replace the ¼-ton truck.

Manufacturer: Willys or Ford. Willys Overland Company held the primary contract. Ford Motor Company manufactured the vehicle under a subcontract to Willys. Both vehicles are the same except for minor changes. The Willys Model number is MB. The Ford model number is GPA.

Technical manuals: 9-S05, 9-1805A, 9-1803B.

Lubrication order: DA LO 9-805.

Parts list: ORD 7 SNL G503, ORD 8 SNL G504, ORD 9 SNL G505.

Price of vehicle* .................................................. $1053

Price based on vehicle with equipment.

Crew (number of personnel) ........................................ 2

Weight, combat loaded ............................................. 3455-3574 lb

Length, over-all ................................................... 11 ft

Width, over-all .................................................... 5.1 ft

Height, over-all .................................................... 5.9 ft

Shipping dimensions: 501 cu ft, 57 sq ft

Wheelbase ............................................................. 60 in

Tread (center to center of wheels) ................................ 40 in

Approach angle ...................................................... 49°

Departure angle ..................................................... 65°

Ground clearance ................................................... 6.75 in

Electrical system .................................................... 6-volt

Turning radius (right or left) ...................................... 17.5 ft

Fording depth ....................................................... 8 ft

Pay load ............................................................... 450 lb

Towed load ............................................................ 1000 lb

ENGINE

Make (manufacturer) ................................................ Willys or Ford

Model number ....................................................... Willys 443

Brake horsepower ................................................ 44 hp

Torque ................................................................. 108 ft lb @ 3600 rpm

Stated speed (not governed) ....................................... 4000 rpm

Construction and design .......................................... In-line, L-head

Number of cylinders ............................................... 4

Displacement, total ................................................ 154.4 cu in

Compression ratio ................................................ 6.4:1

Cooling system ...................................................... Liquid

Ignition ................................................................. Battery, distributor

CHASSIS AND POWER TRAIN

Clutch ................................................................. Single disc

Transmission ......................................................... Synchromesh

Control ............................................................... Direct, hand lever

Speeds forward ..................................................... 3

Speeds reverse ...................................................... 1

Transfer case ....................................................... Selective sliding gear

Control ............................................................... Direct, hand lever

Differential ........................................................ Conventional (hypoid)

Steering control .................................................. Steering wheel

Brakes: Operating principle ....................................... Hydraulic

Control ............................................................... Foot

Drive ................................................................. All wheel (Hitchcock)

Number of wheels ................................................ 4 (single)

Suspension ........................................................... Four semieliptic springs

Fuel: Total ........................................................... 15 gal

Cooling system ..................................................... 1 qt

Crankcase, with filter ............................................. 3 qt

Engine air cleaner (each) .......................................... 1 qt

Transmission ......................................................... 8 qt

Differential ........................................................ 1.9 qt

Transfer case ....................................................... 1.9 qt

PERFORMANCE

Gross horse power to weight ratio ................................ 58.9 hp per ton

Cruising range ...................................................... 300 mi

Fuel consumption .................................................. 30 mpg

Maximum allowable speed ........................................ 65 mph

Maximum gradeability ............................................. 60 per cent

ADDITIONAL DATA
**TRUCK, 1/4-TON, 4x4, UTILITY, M38**

---

### GENERAL DATA

**NOTE:** These specifications are tentative and subject to change.

**Purpose:** To carry personnel, primarily for reconnaissance; to transport light cargo, to tow trailer or light field piece.

**Classification:** This is the future standard 1/4-ton truck. It is now under accelerated tests. In the event of an emergency this vehicle would probably be put into production. It would replace the 1/4-ton shown on page 3.

**Manufacturer:** Willys.

**Technical manuals:** 9-804, 9-1804A, 9-1804B.

**Lubrication order:** DA LO 5-804.

**Parts list:** ORD 1, SNL G740, ORD 8, SNL G740, ORD 9, SNL G740.

**Price of vehicle** ........................................... $885.00

**Weight, combat loaded** ..................................... 3460 lb

**Length, over-all** ........................................... 11.9 ft

**Height, over-all** ........................................... 5.41 ft

**Wheelbase** .................................................. 8.0 in

**Tread (center to center of wheels)** ....................... 4.8 in

**Front lift** .................................................. 54 deg

**Rear lift** ................................................... 48 deg

**Departure angle** ............................................ 33 deg

**Ground clearance** ........................................... 3.8 in

**Electrical system** .......................................... 12-volt

**PERFORMANCE**

<table>
<thead>
<tr>
<th>Gross weight to weight ratio</th>
<th>33.8 lb per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cruising range (estimated)</td>
<td>800 mi</td>
</tr>
<tr>
<td>Fuel consumption (estimated)</td>
<td>20 mpg</td>
</tr>
<tr>
<td>Maximum all-wheel speed</td>
<td>80 mph</td>
</tr>
<tr>
<td>Maximum gradability</td>
<td>60% per cent</td>
</tr>
<tr>
<td>Turning radius</td>
<td>30 ft</td>
</tr>
<tr>
<td>Forcing depth (estimated)</td>
<td>81 in</td>
</tr>
<tr>
<td>Per load</td>
<td>800 lb</td>
</tr>
</tbody>
</table>

*Price without winch and with equipment.

---

### CHASSIS AND POWER TRAIN

**Make (manufacturer):** Willys

**Model number:** Willys MB

**Engine:** In-line, L-head 4-cyl.

**Number of cylinders:** 4

**Displacement, total:** 7.44 cu in

**Compression ratio:** 8.5:1

**Cooling system** .......................................... Liquid

**Ignition** .................................................. Battery, distributor

---

### ENGINE

**Type:** Single disc

**Transmission:** Synchromesh

**Control:** Direct, hand lever

**Slopes forward:** 8

**Slopes reverse:** 4

**Transfer case:** Selective, 10-speed

**Control:** Direct, hand lever

**Speeds:**

- Direct
- 1st
- 2nd
- 3rd
- 4th
- 5th
- Reverse

**Differential** ............................................. Conventional (hypoid)

**Steering control** ........................................ Steering wheel

**Brakes:** Operating principle: Hydraulic

**Control:** Foot

**Drive:** All-wheel (Hotchkiss)

**Number of wheels:** 4 (single)

**Suspension:** Four semi-elliptic springs

---

### Fuel CAPACITIES

**Total fuel capacity** .................................... 10 gal

**Cooling system** ........................................... 1.5 qt

**Crankcase** .................................................. 1.5 qt

**Engine air cleaner (ends)** ............................... 1.5 qt

**Transmission** ............................................. 2.75 qt

**Differential** ............................................. 2.75 qt

**Transfer case** ............................................ 2.75 qt

**Winch gear case (estimated)** ......................... 2.75 qt

---

### ADDITIONAL DATA
**TRUCK, ¾-TON, 4x4, AMBULANCE, KD**

![Diagram of truck](image.png)

### GENERAL DATA

**Purpose:** To transport sick and wounded personnel in the field and on the highway.

**Classification:** This is the current standard field ambulance. It superseded Ambulance WC 54. A new ambulance, W43, is being developed to replace the one shown here.

**Manufacturer:** Chrysler Corporation, Dodge Division.

**Technical manuals:** 9-808, 9-1898A, 9-1899, 9-1899A.

**Lubrication order:** DA LO 9-808.

**Parts list:** ORD 7 SNL G-502, ORD 8 SNL G-502, ORD 9 SNL G-502.

**Price of vehicle:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crew (number of personnel)</td>
<td>9</td>
</tr>
<tr>
<td>Weight, empty</td>
<td>6000 lb</td>
</tr>
<tr>
<td>Weight, combat loaded</td>
<td>6800 lb</td>
</tr>
<tr>
<td>Length, over-all</td>
<td>193.8 ft</td>
</tr>
<tr>
<td>Width, over-all</td>
<td>7.1 ft</td>
</tr>
<tr>
<td>Height, over-all</td>
<td>7.1 ft</td>
</tr>
<tr>
<td>Shipping dimensions</td>
<td>538.5 cu ft</td>
</tr>
<tr>
<td>Tread (center to center of wheels)</td>
<td>64.75 in</td>
</tr>
<tr>
<td>Ground clearance</td>
<td>13.3 in</td>
</tr>
<tr>
<td>Electrical system</td>
<td>6-volts</td>
</tr>
</tbody>
</table>

### ENGINE

<table>
<thead>
<tr>
<th>Component</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make (manufacturer)</td>
<td>Dodge</td>
</tr>
<tr>
<td>Model number</td>
<td>3134</td>
</tr>
<tr>
<td>Brake horsepower</td>
<td>98 hp</td>
</tr>
<tr>
<td>Torque</td>
<td>11 tempt @ 1800 rpm</td>
</tr>
<tr>
<td>Maximum governed speed</td>
<td>3800 rpm</td>
</tr>
<tr>
<td>Construction and design</td>
<td>In-line, L-head</td>
</tr>
<tr>
<td>Number of cylinders</td>
<td>6</td>
</tr>
<tr>
<td>Displacement, total</td>
<td>285.8 cu in</td>
</tr>
<tr>
<td>Compression ratio</td>
<td>6.7:1</td>
</tr>
<tr>
<td>Cooling system</td>
<td>Liquid</td>
</tr>
<tr>
<td>Ignition</td>
<td>Battery, distributor</td>
</tr>
</tbody>
</table>

### CHASSIS AND POWER TRAIN

<table>
<thead>
<tr>
<th>Component</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clutch</td>
<td>Single dry disc</td>
</tr>
<tr>
<td>Transmission</td>
<td>Selective sliding</td>
</tr>
<tr>
<td>Control</td>
<td>Manual hand lever</td>
</tr>
<tr>
<td>Speeds forward</td>
<td>4</td>
</tr>
<tr>
<td>Speeds reverse</td>
<td>1</td>
</tr>
<tr>
<td>Transfer case</td>
<td>Constant mesh</td>
</tr>
<tr>
<td>Control</td>
<td>Hydraulic</td>
</tr>
<tr>
<td>Steering control</td>
<td>Conventional</td>
</tr>
<tr>
<td>Drive</td>
<td>All-wheel</td>
</tr>
</tbody>
</table>

### PERFORMANCE

<table>
<thead>
<tr>
<th>Component</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross horsepower to weight ratio</td>
<td>21.5 hp per ton</td>
</tr>
<tr>
<td>Fuel consumption</td>
<td>28 mpg</td>
</tr>
<tr>
<td>Maximum allowable speed</td>
<td>64 mph</td>
</tr>
<tr>
<td>Maximum gradeability</td>
<td>66.5 per cent</td>
</tr>
<tr>
<td>Turning radius</td>
<td>29.5 ft</td>
</tr>
<tr>
<td>Fording depth</td>
<td>34 in</td>
</tr>
<tr>
<td>Angle of approach</td>
<td>69 deg</td>
</tr>
<tr>
<td>Angle of departure</td>
<td>94 deg</td>
</tr>
<tr>
<td>Pay load</td>
<td>5000 lb</td>
</tr>
<tr>
<td>Towed load</td>
<td>1500 lb</td>
</tr>
<tr>
<td>Winch load</td>
<td>5000 lb</td>
</tr>
</tbody>
</table>

### ADDITIONAL DATA

<table>
<thead>
<tr>
<th>Component</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel</td>
<td>30 gal</td>
</tr>
<tr>
<td>Total</td>
<td>30 gal</td>
</tr>
<tr>
<td>Cooling system</td>
<td>17 qt</td>
</tr>
<tr>
<td>Crankcase</td>
<td>5 qt</td>
</tr>
<tr>
<td>Air filter cleaner</td>
<td>1 qt</td>
</tr>
<tr>
<td>Transmission</td>
<td>8.4 qt</td>
</tr>
<tr>
<td>Transmission</td>
<td>8.4 qt</td>
</tr>
<tr>
<td>Differential</td>
<td>8.4 qt</td>
</tr>
<tr>
<td>Transfer case</td>
<td>11 qt</td>
</tr>
<tr>
<td>Winch gear case</td>
<td>11 qt</td>
</tr>
</tbody>
</table>

*Prior based on basic vehicle less equipment.*
TRUCK, 3/4-TON, 4x4, WEAPONS CARRIER AND COMMAND WEAPONS CARRIER

GENERAL DATA
Purpose: To transport weapons, tools, equipment, and personnel; also used for command and reconnaissance.
Classification: At printing date, these vehicles are standard; however, improvements are in order and will be incorporated in the following projected models: Truck, 3/4-Ton, 4x4, Cargo, M57, which will eventually replace the weapons carrier and truck, 3/4-Ton, 4x4, Utility, M48, which will replace the command weapons carrier.
Manufacturer: Dodge Division, Chrysler Corporation.
Technical manual: 9-SN1, 9-1908A, 9-1908B, 9-1908A.
Lubrication order: DA 60-20.
Parts list: ORD 7 SNL G508, G512, G502, G602.
Price of vehicle* .......................................................... $1800
Crew (number of personnel) ........................................ 2
Weight, combat loaded .................................................. 3740 lb
Length, over-all ............................................................ 14 ft 2 in
Width, over-all .............................................................. 5 ft 10 in
Height, over-all .............................................................. 5 ft 10 in
Shipping dimensions ..................................................... 721.86 cu ft, 101.43 sq ft
Wheel base ................................................................. 8 ft 9 in
Track (center to center of wheels) .................................... 64-1/2 in
Front approach angle .................................................... 27 deg
Departure angle ............................................................. 31 deg
Ground clearance .......................................................... 10-5/8 in
Electrical system: .............................................................
Command weapons carrier ............................................... 12-volt
Communication system (command weapons carrier only) ....... Radio

PERFORMANCE
Gross horsepower to weight ratio .................................... 21.8 hp per ton
Cruising range ............................................................. 210 mi
Fuel consumption ........................................................ 20 mpg
Maximum allowable speed ............................................. 35 mph
Maximum gradability .................................................... 60 per cent

Turning radius ............................................................ 21.16 ft
Printing depth ............................................................. 6 ft
Ray load ...................................................................... 700 lb
Towed load ................................................................. 1000 lb
Winch load** .............................................................. 2000 lb

ENGINE
Make (manufacturer) ...................................................... Dodge
Model number ............................................................. 1984
Brake horsepower ......................................................... 90 hp
Torque ...................................................................... 160 ft lb @ 1200 rpm
Maximum governed speed ............................................. 9000 rpm
Construction and design ................................................ In-line L-head
Number of cylinders ...................................................... 6
Displacement, total ....................................................... 150.3 cu in
Compression ratio ........................................................ 6.7:1
Cooling system ............................................................. Liquid
Ignition ...................................................................... Battery, distributor

CHASSIS AND POWER TRAIN
Clutch ....................................................................... Single disc
Transmission ............................................................ Selective sliding gear
Control ...................................................................... Direct hand lever
Speeds forward ............................................................ 4
Speeds reverse ............................................................. 1
Transfer case ............................................................. Constant mesh
Control ...................................................................... Direct hand lever
Sprockets ................................................................. Direct
Differential ................................................................. Conventional (hypoid)
Steering control .......................................................... Steering wheel
Brakes: Operating principle ............................................. Hydraulic
Control ...................................................................... Foot
Drive ....................................................................... All-wheel
Number of wheels ......................................................... 4 (single)
Suspension ................................................................. Four semi-elliptic springs

Fuel: .................................................................
Total ................................................................. 30 gal
Crankcase ............................................................... 1 qt
Engine oil ............................................................... 1.7 qt
Engine air cleaner (rich) ............................................... 1 qt
Transmission ........................................................... 1.5 qt
Differential (front or rear) ............................................. 0.5 qt
Transfer case ........................................................... 0.5 qt
Winch gear case ......................................................... 1 qt

CAPACITIES

ADDITIONAL DATA
TRUCK, 3/4-TON, 4x4, CARGO, M37

GENERAL DATA

NOTE: These specifications are tentative and subject to change.

*Price with wheels and equipment.

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make (manufacturer)</td>
<td>Dodge</td>
</tr>
<tr>
<td>Model number</td>
<td>64 hp</td>
</tr>
<tr>
<td>Brake horsepower</td>
<td>168 ft lb @ 1800 rpm</td>
</tr>
<tr>
<td>Maximum governed speed</td>
<td>8500 rpm</td>
</tr>
<tr>
<td>Construction and design</td>
<td>In-line, L-head</td>
</tr>
<tr>
<td>Number of cylinders</td>
<td>6</td>
</tr>
<tr>
<td>Displacement, total</td>
<td>355.8 cu in</td>
</tr>
<tr>
<td>Compression ratio</td>
<td>8.5:1</td>
</tr>
<tr>
<td>Cooling system</td>
<td>Vapor, Liquid</td>
</tr>
<tr>
<td>Ignition</td>
<td>Battery, distributor</td>
</tr>
<tr>
<td>Chassis and power train</td>
<td>Single disc</td>
</tr>
<tr>
<td>Transmission</td>
<td>Selective sliding gear</td>
</tr>
<tr>
<td>Speeds forward</td>
<td>4</td>
</tr>
<tr>
<td>Speeds reverse</td>
<td>1</td>
</tr>
<tr>
<td>Transfer case</td>
<td>Selective sliding gear</td>
</tr>
<tr>
<td>Control</td>
<td>Direct, hand lever</td>
</tr>
<tr>
<td>Differential</td>
<td>Conventional (hypoid)</td>
</tr>
<tr>
<td>Steering control</td>
<td>Hydropneumatic, shaft steering wheel</td>
</tr>
<tr>
<td>Brake</td>
<td>Foot</td>
</tr>
<tr>
<td>Number of wheels</td>
<td>All wheel (Nutchbins)</td>
</tr>
<tr>
<td>Suspension</td>
<td>Four semielliptic springs</td>
</tr>
<tr>
<td>Fuel</td>
<td>90 gal</td>
</tr>
<tr>
<td>Total</td>
<td>45 qt</td>
</tr>
<tr>
<td>Cooling system</td>
<td>4.5 gal</td>
</tr>
<tr>
<td>Crash case</td>
<td>5 gal</td>
</tr>
<tr>
<td>Engine air cleaner (each)</td>
<td>1 gal</td>
</tr>
<tr>
<td>Transmission (estimated)</td>
<td>5.5 qt</td>
</tr>
<tr>
<td>Differential (front or rear) (estimated)</td>
<td>5 gal</td>
</tr>
<tr>
<td>Transfer case (estimated)</td>
<td>1 qt</td>
</tr>
<tr>
<td>Winch gear case (estimated)</td>
<td>1 qt</td>
</tr>
</tbody>
</table>

CHASSIS AND POWER TRAIN

Clutch                        | Single disc |
Transmission                   | Selective sliding gear |
Control                       | Direct, hand lever |
Differential                   | Conventional (hypoid) |
Steering control               | Hydropneumatic, shaft steering wheel |
Brakes                        | Foot |
Drive                          | All wheel (Nutchbins) |
Number of wheels               | All wheel (Nutchbins) |
Suspension                     | Four semielliptic springs |
Fuel                           | 90 gal |
Cooling system                 | 45 qt |
Crash case                     | 5 gal |
Engine air cleaner (each)      | 1 gal |
Transmission (estimated)       | 5.5 qt |
Differential (front or rear) (estimated) | 5 gal |
Transfer case (estimated)      | 1 qt |
Winch gear case (estimated)    | 1 qt |

ADDITIONAL DATA
## CARRIER, CROSS-COUNTRY, ¾-TON, 4x4, T53

### GENERAL DATA

**NOTE:** These specifications are tentative and subject to change.

**Purpose:** To provide a ¾-ton cross-country carry with a ¾-ton highway capacity incorporating new design features providing improved performance and riding characteristics. It is in line with the standardization program utilizing the family line of air-cooled engines and hydraulic torque converters. 

**Classification:** This vehicle is not standard. It is in the experimental stage. It is expected that it will probably replace the ¾ ton Wap- pora Carrier or the proposed M37 ¾ ton cargo truck. 

**Manufacturer:** Chrysler Corp. 

**Technical manual:** Not assigned. 

**Lubrication order:** Not assigned. 

**Horsepower:** Not assigned. 

**Price of Vehicle:** Unknown 

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crew (number of personnel)</td>
<td>Unknown</td>
</tr>
<tr>
<td>Weight, combat loaded</td>
<td>3000 lb</td>
</tr>
<tr>
<td>Length, over-all</td>
<td>12.8 ft</td>
</tr>
<tr>
<td>Width, over-all</td>
<td>6.4 ft</td>
</tr>
<tr>
<td>Height, over-all</td>
<td>101 sq ft</td>
</tr>
<tr>
<td>Shipping dimensions (estimated)</td>
<td>785 cu ft</td>
</tr>
<tr>
<td>Wheelbase</td>
<td>114 in</td>
</tr>
<tr>
<td>Tread (center to center of wheel)</td>
<td>89.75 in</td>
</tr>
<tr>
<td>Approach angle</td>
<td>58 deg</td>
</tr>
<tr>
<td>Departure angle</td>
<td>40 deg</td>
</tr>
<tr>
<td>Ground clearance</td>
<td>14 in</td>
</tr>
<tr>
<td>Electrical system</td>
<td>34 volt</td>
</tr>
</tbody>
</table>

### PERFORMANCE

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross horsepower to weight ratio</td>
<td>35 hp per ton</td>
</tr>
<tr>
<td>Cruising range (estimated)</td>
<td>300 mi</td>
</tr>
<tr>
<td>Fuel consumption (estimated)</td>
<td>10 mpg</td>
</tr>
<tr>
<td>Maximum allowable speed</td>
<td>60 mph</td>
</tr>
<tr>
<td>Maximum groundability</td>
<td>40 per cent</td>
</tr>
<tr>
<td>Turning radius</td>
<td>58 ft</td>
</tr>
<tr>
<td>Fording depth</td>
<td>48 in</td>
</tr>
<tr>
<td>Pay load</td>
<td>3900 lb</td>
</tr>
<tr>
<td>Towed load</td>
<td>4000 lb</td>
</tr>
<tr>
<td>Winch load</td>
<td>3000 lb</td>
</tr>
</tbody>
</table>

### ENGINE

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make (manufacturer)</td>
<td>Continental</td>
</tr>
<tr>
<td>Model number</td>
<td>TD-406.5</td>
</tr>
<tr>
<td>Brake horsepower</td>
<td>340 ft lb @ 1500 rpm</td>
</tr>
<tr>
<td>Torque</td>
<td>3500 rpm</td>
</tr>
<tr>
<td>Construction and design</td>
<td>Opposed 1-head</td>
</tr>
<tr>
<td>Number of cylinders</td>
<td>6</td>
</tr>
<tr>
<td>Compression ratio</td>
<td>6.3:1</td>
</tr>
<tr>
<td>Cooling system</td>
<td>Air-cooled</td>
</tr>
<tr>
<td>Ignition</td>
<td>Magneto</td>
</tr>
</tbody>
</table>

### CHASSIS AND POWER TRAIN

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clutch</td>
<td>None</td>
</tr>
<tr>
<td>Transmission</td>
<td>Automatic</td>
</tr>
<tr>
<td>Torque converter</td>
<td>Automatic</td>
</tr>
<tr>
<td>Speeds forward</td>
<td>1</td>
</tr>
<tr>
<td>Speeds reverse</td>
<td>1</td>
</tr>
<tr>
<td>Transfer case</td>
<td>Constant mesh</td>
</tr>
<tr>
<td>Control</td>
<td>New</td>
</tr>
<tr>
<td>Speeds</td>
<td>1</td>
</tr>
<tr>
<td>Differential</td>
<td>Automatic locking</td>
</tr>
<tr>
<td>Steering control</td>
<td>Steering wheel</td>
</tr>
<tr>
<td>Brakes</td>
<td>Operating principle</td>
</tr>
<tr>
<td>Control</td>
<td>Hydraulic (sealed)</td>
</tr>
<tr>
<td>Drive</td>
<td>All-wheel</td>
</tr>
<tr>
<td>Number of wheels</td>
<td>4</td>
</tr>
<tr>
<td>Suspension</td>
<td>Independent torsion bar</td>
</tr>
</tbody>
</table>

### CAPACITIES

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel</td>
<td>40 gal</td>
</tr>
<tr>
<td>Total</td>
<td>40 gal</td>
</tr>
<tr>
<td>Cooling system</td>
<td>None</td>
</tr>
<tr>
<td>Crankcase</td>
<td>14 qt</td>
</tr>
<tr>
<td>Engine air cleaner (estimated)</td>
<td>Unknown</td>
</tr>
<tr>
<td>Transmission</td>
<td>Unknown</td>
</tr>
<tr>
<td>Differential (each) (estimated)</td>
<td>9 qt</td>
</tr>
<tr>
<td>Transfer case</td>
<td>Unknown</td>
</tr>
<tr>
<td>Winch gear case (estimated)</td>
<td>1 qt</td>
</tr>
</tbody>
</table>

### ADDITIONAL DATA

---

---
TRUCK, 2½-TON 6x6, CARGO, CCKW 352, SWB

GENERAL DATA

Purpose: To transport personnel or cargo and to act as a light prime mover. It is also used for mounting special bodies such as the drop truck body, dump body, searchlight, decontaminator, and air compressor.

Classification: This vehicle is standard in all current tables of equipment. The Truck, 8½-Ton, Cargo, 434, will be manufactured as a replacement for this vehicle in the future.

Manufacturer: General Motors Truck and Coach Company.


Specifications: DALO 5-501.

PERFORMANCE

Gross horsepower to weight ratio: 15.6 hp per ton
Cruising range: 300 mi
Fuel consumption: 20 mpg
Maximum speed: 61 mph
Maximum cargo weight: 8,500 lb
Maximum ground clearance: 9 in
Electrical system: 6-volts

ENGINE

Make (manufacturer): GMC
Model number: 81.9
Brake horsepower: 175 hp
Torque: 3,000 lb-ft @ 1,000 rpm
Maximum governed speed: 63 mph
Construction and design: Rear wheel drive
Number of cylinders: 6
Engine displacement: 9,914 cu. in.
Compression ratio: 6.1 to 1
Cooling system: Water
Ignition: Battery, distributor

CHASSIS AND POWER TRAIN

Clutch: Single disc
Transmission: Selective sliding, overdrive
Brakes: Foot Pedal
Speeds: 4 forward, 1 reverse
Transfer case: Selective sliding
Axle type: Differential: Bevel, hypoid
Steering control: Steering wheel

CAPACITIES

Fuel: 40 gal
Cooling system: 10 qt
Crankcase: 7 qt
New pump (shallow): 10 qt
Fuel filter (insert): 10 qt
Transmission: 31 qt
Differential: 31 qt
Transfer case: 2.5 qt
Winch gear case: 1-4 qt

ADDITIONAL DATA
TRUCK, 2½-TON 6x6, CARGO, CCKW 353, LWB

**GENERAL DATA**

- **Purpose:** To transport personnel or general cargo on the highway and cross-country. It is also used for mounting special bodies such as the shop truck, dump body, searchlight, decontamination, and air compressor.
- **Classification:** This vehicle is standard in all current tables of equipment. The Truck, 2½-Ton, 6x6, M94, will be manufactured and issued in place of this vehicle in the future.
- **Manufacturer:** General Motors Truck and Coach Division (GMC).
- **Lubrication order:** DA LO 6-801.
- **Parts list:** ORD 7 SNL G-508, ORD 8 SNL G-508, ORD 9 SNL G-508.

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price of vehicle</td>
<td>$8847</td>
</tr>
<tr>
<td>Crew (number of personnel)</td>
<td>10,000 lb</td>
</tr>
<tr>
<td>Length, overall</td>
<td>15.70 ft</td>
</tr>
<tr>
<td>Weight, overall</td>
<td>7.5 ft</td>
</tr>
<tr>
<td>Weight, gross</td>
<td>9.08 ft</td>
</tr>
<tr>
<td>Height, overall</td>
<td>6.54 ft</td>
</tr>
<tr>
<td>Wheelbase</td>
<td>264 in</td>
</tr>
<tr>
<td>Tread, (easier to center of wheels)</td>
<td>110 in</td>
</tr>
<tr>
<td>Track</td>
<td>90 in</td>
</tr>
<tr>
<td>Approach angle</td>
<td>61 deg</td>
</tr>
<tr>
<td>Departure angle</td>
<td>61 deg</td>
</tr>
<tr>
<td>Ground clearance</td>
<td>5.97 ft</td>
</tr>
<tr>
<td>Electrical system</td>
<td>8-volt</td>
</tr>
</tbody>
</table>

**PERFORMANCE**

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross horsepower to weight ratio</td>
<td>9.6 hp per ton</td>
</tr>
<tr>
<td>Cruising range</td>
<td>7.0 mph</td>
</tr>
<tr>
<td>Fuel consumption</td>
<td>20 mi</td>
</tr>
<tr>
<td>Maximum allowable speed</td>
<td>7.0 mph</td>
</tr>
<tr>
<td>Maximum speed</td>
<td>69 mph</td>
</tr>
<tr>
<td>Turning radius</td>
<td>160 ft</td>
</tr>
<tr>
<td>Towing load</td>
<td>3530 lb</td>
</tr>
</tbody>
</table>

* Price based on vehicle without equipment and with winch.
* For winch adds 700 pounds to weight.
*** Tread data based equipment with benzo axle.

**CHASSIS AND POWER TRAIN**

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clutch</td>
<td>Single disc</td>
</tr>
<tr>
<td>Transmission</td>
<td>Selective sliding, overdrive</td>
</tr>
<tr>
<td>Control</td>
<td>Direct, hand lever</td>
</tr>
<tr>
<td>Speeds forward</td>
<td>1</td>
</tr>
<tr>
<td>Speeds reverse</td>
<td>1</td>
</tr>
<tr>
<td>Transfer case</td>
<td>Selective sliding</td>
</tr>
<tr>
<td>Control</td>
<td>Direct, hand lever</td>
</tr>
<tr>
<td>Differential</td>
<td>Conventional</td>
</tr>
<tr>
<td>Steering control</td>
<td>Steering wheel</td>
</tr>
<tr>
<td>Brakes</td>
<td>Hydraulically boosted</td>
</tr>
<tr>
<td>Operating principle</td>
<td>Foot pedal</td>
</tr>
<tr>
<td>Drive</td>
<td>All-wheel</td>
</tr>
<tr>
<td>Number of wheels</td>
<td>4 (4 dual, 8 single)</td>
</tr>
<tr>
<td>Suspension</td>
<td>Semielliptic springs</td>
</tr>
<tr>
<td>Rear</td>
<td>Boge, inverted semielliptic springs</td>
</tr>
</tbody>
</table>

**CAPACITIES**

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>40 gal</td>
</tr>
<tr>
<td>Cooling system</td>
<td>19 qt</td>
</tr>
<tr>
<td>Crankcase</td>
<td>9.5 qt</td>
</tr>
<tr>
<td>Old sump</td>
<td>2.5 qt</td>
</tr>
<tr>
<td>New pump</td>
<td>10 qt</td>
</tr>
<tr>
<td>Engine air cleaner</td>
<td>6.5 qt</td>
</tr>
<tr>
<td>Transmission</td>
<td>6.5 qt</td>
</tr>
<tr>
<td>Differential (each)</td>
<td>6.5 qt</td>
</tr>
<tr>
<td>Transfer case</td>
<td>6.5 qt</td>
</tr>
<tr>
<td>Winch gear case</td>
<td>1.4 qt</td>
</tr>
</tbody>
</table>

**ADDITIONAL DATA**

---

---

---
**TRUCK, 2½-TON, 6x6, CARGO, M34**

**GENERAL DATA**

| NOTE: These specifications are tentative and subject to change. Purpose: To transport personnel and general cargo on the highway and cross-country. Classification: This vehicle is scheduled to replace the Truck, 8½-Ton, GMC. In case of emergency it would probably be produced in quantity as was the GMC model during World War II. Manufacturer: Reo Motor Company. Technical manual: 2-819, 0-1819A, D-1819B. Lubrication order: DA LO 9-819. Parts list: ORD 1 SNL G748, ORD 8 SNL G748, ORD 9 SNL G748. |

| Price of vehicle* | 68975 |
| Number of personnel | 8 |
| Gross weight, combat loaded | 17,900 lb |
| Length, overall (with winch) | 18.75 ft |
| Height, overall | 6.75 ft |
| Width, overall | 6.63 ft |
| Wheelbase | 6.63 ft |
| Weight of sides | 1,544 lb |
| Tread (outside centers) | 5.28 ft |
| Approach angle | 35 deg |
| Departure angle (estimated) | 35 deg |
| Ground clearance | 4 in |
| Electrical system | 12 volt |

**PERFORMANCE**

| Gross horsepower to weight ratio | 15.75 hp per ton |
| Cruising range (estimated) | 257 mi |
| Maximum speed (estimated) | 50 mph |
| Turning radius (estimated) | 11.9 ft |
| Fuel capacity | 150 gal |
| Gross vehicle weight | 22,000 lb |
| Tyres (front) | 10.000 X 16 |
| Tyres (rear) | 10.000 X 16 |

* Based with winch and equipment.

**ENGINE**

- Make (manufacturer): Reo
- Model number: M34
- Brake horsepower: 150 hp @ 2,000 rpm
- Torque: 200 ft lbs @ 1,500 rpm
- Compression ratio: 6.75:1
- Ignition: Battery, distributor

**CHASSIS AND POWER TRAIN**

- Clutch: 4-speed, direct, hand lever
- Transmission: 5-speed, select-able sliding gear
- Speeds forward: 4, reverse: 1
- Transfer case: Selective sliding gear
- Final drive: 4-speed, direct, hand lever
- Differential: Conventional
- Steering control: Rack and pinion
- Steering: Hydraulic, booster
- Operating principle: Hydraulic, booster
- Front suspension: Semi-elliptic springs
- ReAR suspension: Semi-elliptic springs
- Number of wheels: 6 (single)
- Total: 12 wheels

**CAPACITIES**

- Fuel: 150 gal
- Water: 2 gal
- Coolant: 1 gal
- Engine oil: 1 gal
- Engine oil filter: 1 gal
- Fuel filter: 1 gal
- Coolant reservoir: 1 gal
- Transfer case: 1 gal
- Winch gear case: 1 gal

**ADDITIONAL DATA**

---

11
TRUCK, 2½-TON, 6x6, CARGO, T55

GENERAL DATA
Note: These specifications are tentative and subject to change.

Purpose: For transporting cargo and personnel cross-country and
over highways. Primarily intended as a lightweight, compact
vehicle practical for transporting by air.

Classification: This vehicle is in development stage. It may in
some cases replace the Truck, 1½-Ton, GMC, but is not intended
as an overall replacement. A definite requirement exists for a
lightweight vehicle of this size for airborne units.

Manufacturer: Chrysler Corporation.


Lubrication Order: Not assigned.

Price of vehicle: Unknown

Gross (number of personnel) ........................................... 16,000 lb

Weight, axle loaded .................................................. 18,000 lb

Length, overall ......................................................... 25.5 ft

Width, overall .......................................................... 7.36 ft

Height, overall .......................................................... 8.16 ft

Steering dimensions ....................................................

Tread (center to center) .............................................. 59.73 in

Tread (center to center) .............................................. 59.73 in

Ground clearance ....................................................... 11.69 in

Electrical system ....................................................... 12- volt

PERFORMANCE

Gross horsepower to weight ratio ...................................

45.6 hp per ton

Cruising range .......................................................... 500 mi

Fuel consumption ....................................................... 7.30 mpg

Maximum allowable speed ............................................

Unknown

Maximum productivity ................................................

65 per cent

Turning radius .........................................................

53 ft

Forcing depth .......................................................... 18 in

Pay load ................................................................. 3000 lb

Winch load .............................................................. 7000 lb

ENGINE

Make (manufacturer) .................................................... Continental

Model number .......................................................... AO-418-2

Brake horsepower ..................................................... 466 ft lb & 2500 rpm

Maximum governed speed ............................................. 3600 rpm

Construction and design ............................................ Opposed, flat-head

Number of cylinders ................................................ 6

Compression ratio ..................................................... Not assigned

Cooling system ........................................................ Air

Ignition ................................................................. Magneto

CHASSIS AND POWER TRAIN

Clutch ................................................................. None

Transmission .......................................................... Torque converter and planetary gear

Control ................................................................. Automatic

Speeds forward ....................................................... 1...3 Transmission mated

Speeds reverse ........................................................ Not assigned

Transfer case .......................................................... Not assigned

Differential ........................................................... Automatic locking

Steering control ....................................................... Power

Brakes: Operating principle ......................................... Hydraulic (sealed)

Drive ................................................................. All-Wheel

Number of wheels ...................................................... 8 (single)

Suspension: Front ....................................................... Independent, torsion bar

Rear ................................................................. Bogie, inverted semi-elliptic springs

CAPACITIES

Fuel ................................................................. 40 gal

Cooling system ....................................................... None

Cranchcase ............................................................ 14 qt

Engine air cleaner (each) ...........................................

Transmission ........................................................ Unknown

Differential ........................................................... Unknown

Transfer case ........................................................ Unknown

Winch gear case ..................................................... Unknown

ADDITIONAL DATA
CARTRGER, CROSS-COUNTRY, 5-TON, 6x6, T51

GENERAL DATA

| NOTE: These specifications are tentative and subject to change. |
| Purpose: To transport personnel and general cargo cross-country and over highways. |
| Classification: This vehicle incorporates the most desirable design features available. These features are being tested and in the future may be built into T/O&E vehicles. To that the vehicle is not standard. |
| Manufacturer: General Motors Corporation. |
| Technical manual: Not assigned. |
| Lubrication: Not assigned. |
| Parts list: Not assigned. |
| Price of vehicle: $16,540. |
| Crew (number of personnel): 2-3. |
| Weight, combat loaded: 26,000 lb. |
| Length, overall: 21.5 ft. |
| Width, overall: 9.41 ft. |
| Height, overall: 16.7 ft. |
| Shipping dimensions: Unknown. |
| Wheelbase: 159.6 in. |
| Tread (center to center of wheels): 68 in. |
| Approach angle: 33 deg. |
| Departure angle: 30 deg. |
| Ground clearance: 15.8 in. |
| Electrical system: 44 volts. |

PERFORMANCE

| Gross horsepower to weight ratio (estimated): 18.8 hp per ton |
| Cruising range: 500 mi. |
| Fuel consumption (estimated): 9.18 mpg. |
| Maximum allowable speed: 33 mph. |
| Maximum gradient: 65 per cent. |
| Turning radius: 23 ft. |
| Fuel load: 79 in. |
| Highways: 10,000 lb. |
| Cross-Country: 5,000 lb. |
| Towed load: 7,500 lb. |
| Winch load: 10,000 lb. |

* Price with winch and equipment.

ADDITIONAL DATA

| ENGINE |
| Make (manufacturer): Continental |
| Model number: AO-566-3 |
| Brake horsepower: 200 hp. |
| Torque: 460 ft lb @ 1400 rpm. |
| Maximum governed speed: 6800 rpm. |
| Construction and design: Vertical, opposed, L-head. |
| Number of cylinders: 6. |
| Displacement, total: 397.6 cu in. |
| Compression ratio: 4.8:1. |
| Cooling system: Air cooled. |
| Ignition: Magnet. |

CHASSIS AND POWER TRAIN

| Clutch: None. |
| Transmission: Torque converter. |
| Control: 1st to 5th, manual remote; 6th to 8th, automatic. |
| Speeds forward: 7. |
| Speeds reverse: 3. |
| Transfer case: Constant mesh. |
| Control: None. |
| Diffrential: Automatic locking. |
| Steering control: Power steering. |
| Brakes: Air hydraulic (sealed). |
| Driving principle: All-wheel. |
| Number of wheels: 6. |
| Transfer case: Independent torsion bar. |

FUEL CAPACITIES

| Total: 70 gal. |
| Coolant system: None. |
| Engine air cleaner (cap): 10 qt. |
| Transmission: Unknown. |
| Differential: Unknown. |
| Transfer case: Unknown. |
| Winch gear case: Unknown. |

13
CARRIER, HALF-TRACK, MORTAR, 81-MM, M21

GENERAL DATA
Purpose: To provide a self-propelled mount for the 81-mm mortar.
Classification: The armored division infantry battalion has a requirement for motor carriages for the 81-mm mortar. The half-track must fill this requirement until a better vehicle is developed.
Manufacturer: White Motor Corporation
Lubrication order: DALO 9-710
Part list: ORD 1 SML 9-106, ORD 8 SNL 9-106, ORD 9 SNL 9-106
Price of vehicle: $8,413
Weight, combat loaded: 55,000 lb
Length, over-all: 27.1 ft
Width, over-all: 9.1 ft
Height, over-all: 8.9 ft
Shipping dimensions (unloaded): 2,664 sq ft
Tread center to center of:
Front wheels: 10 in
Rear wheels: 8 in
Ground clearance: 11.7 in
Electrical system: 12-volt
Communication system: Radio

PERFORMANCE
Gross horsepower to weight ratio: 14.8 hp per ton
Cruising range: 290 mi
Fuel consumption: 1.2 gpm, 8 hp
Maximum allowable speed: 45 mph
Maximum gradientability: 30 per cent
Turning radius: 30 ft
Fording depth: 39 in
Approach angle: 35 deg with roller, 38 deg with winch
Departure angle: 60 deg
Per load: 48,000 lb
Winch load: 10,000 lb

ENGINE
Make (manufacturer): White
Model number: 180 AX
Bore and stroke: 4 in x 4.5 in
Displacement, total: 366 cu in
Compression ratio: 6.4:1
Cylinders: 6
Lubrication: Liquid
Ignition: Battery, distributor
Construction and design: In-line, L-head
Number of cylinders: 6

CHASSIS AND POWER TRAIN
Transfer case: Single dry disc
Transmission: Selective sliding
Control: Direct hand lever
Speeds forward: 1
Speeds reverse: 1

ARMAMENT
Primary armament: Mortar, 81-mm
Secondary armament: \( \text{cal .50, MG} \)

ARMOR
Construction: Homogeneous plate
Hull: None
Armament: None

FUEL
Total: 80 gal
Right tank: 40 gal
Cooling system: 40 gal
Crankcase: 16 qt
Engine air cleaner: \( \text{intake} \)
Transmission: \( \text{intake} \)
Differential: \( \text{intake} \)

ADDITIONAL DATA
Price based on unit price basic vehicle plus artillery equipment.
# CARRIAGE, MOTOR, MULTIPLE GUN, M16

## GENERAL DATA

<table>
<thead>
<tr>
<th>Purpose</th>
<th>To provide mobility for multiple machines guns for anti-aircraft protection.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classification</td>
<td>A requirement exists for armored motor carriage for multiple machine guns in armored artillery units. The Buffalo Carriage, M16, will fill this requirement until the G77 multiple-gun motor carriage is in production and meets the demand.</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>White Motor Company.</td>
</tr>
<tr>
<td>Lubrication order</td>
<td>DA LQ 9-170.</td>
</tr>
</tbody>
</table>

### Price of vehicle

| Price of vehicle | $10,880 |

### General Data

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length, overall</td>
<td>1300 in.</td>
</tr>
<tr>
<td>Height, overall</td>
<td>69 or 72 in.</td>
</tr>
<tr>
<td>Turning radius, front</td>
<td>99 deg.</td>
</tr>
<tr>
<td>Engine</td>
<td>6 cyl. 350 c.i. 135 HP @ 3000 rpm</td>
</tr>
<tr>
<td>Electronics</td>
<td>12 volt, 50 amp, 1 battery, 1 starter, 1 alternator</td>
</tr>
<tr>
<td>Transmission</td>
<td>Selective sliding, 1st-3rd, 4th-5th, reverse</td>
</tr>
<tr>
<td>Transfer case</td>
<td>Selective sliding, 1st-3rd, 4th-5th, reverse</td>
</tr>
<tr>
<td>Differential</td>
<td>Standard, 4.10:1</td>
</tr>
<tr>
<td>Brakes</td>
<td>Mechanical, dual, 12 in. disks, 12 in. drums, 8 in. rear</td>
</tr>
<tr>
<td>Operating principle</td>
<td>Booster, hydraulic</td>
</tr>
<tr>
<td>Control</td>
<td>Engine, foot pedal, brake pedal, hand brake</td>
</tr>
<tr>
<td>Number of wheels</td>
<td>6</td>
</tr>
<tr>
<td>Tread</td>
<td>35 in.</td>
</tr>
</tbody>
</table>

### Armament

| Cal. 50 MG | 4 |

### Armor

| Front (windshield cover) | 5 in. |
| Rear | 1 in. |
| Top | 1 in. |
| Floor | None |

### Fuel

| Capacity | 36 gal |
| Fuel tank | 16 gal |
| Cooling system | 20 gal |
| Engine air cleaner | 1 / 2 gal |
| Differential | 3 / 4 gal |
| Transfer case | 1 / 2 gal |
| Winch gear case | 1 / 4 gal |

### Additional Data

| Make (manufacturer) | White |
| Number model | 30 AX |
| Brake horse power | 130 HP @ 3500 rpm |
| Maximum governed speed | 35 mph |
| Compression ratio | 6.44:1 |
| Ignition | Battery, distributor |

### Chassis and Power Train

| Clutch | Single dry disc |

* Price based on unit price basic vehicle plus artillery equipment.
TRUCK, WRECKING, HEAVY, M1A1

GENERAL DATA

Purpose: For towing, salvaging, and recovering vehicles and heavy equipment. Also for various jobs requiring heavy hoisting and winching.

Classification: Standard. As yet no vehicle is in production to replace this vehicle.

Manufacturer: Ward-LaFrance Truck Division and Kenworth Motor Truck Company.


Lubrication order: DA LO 9-768.

Parts list: ORD 7 SNL G118, ORD 8 SNL G118, ORD 9 SNL G118.

Price of vehicle: $14,007.

Engine:

Make (manufacturer): Continental
Model number: 4-140

Torque: 300 ft-lb @ 1400 rpm
Maximum governed speed: 4400 rpm

Compression ratio: 7:1

Cooling system: Bottled water
Ignition: Battery, distributor

CHASSIS AND POWER TRAIN

Clutch: Single disc
Transmission: 4-speed

Control: Direct, hand lever

Speeds forward: 3 + 1 reverse

Transfer case: None

Differential: Congregational

Steering control: Hydraulic

Brakes: Air

Suspension: Front - Semielliptic springs
Rear - Semielliptic springs

Fuel:

Total: 100 gal

Cooling system: 30 qt

Engine air cleaner: 11 qt

Differential: 8 qt

Front: 14 qt

Rear: 3 qt

Transfer case: 3 qt

Winch gear case: 3 qt

PERFORMANCE

Gross horsepower to weight ratio: 0.3 hp per ton
Cruising range: 350-500 mi

Fuel consumption: 5.4 mpg

Maximum allowable speed: 45 mph

Maximum gradientability: 30 per cent

Turning radius: 40 ft

Fording depth: 10 ft

Payload: 40,000 lb

Winch load: 40,000 lb

Booster load: 18,000 lb

ADDITIONAL DATA

* Price based on vehicle and equipment.
VEHICLE, TANK RECOVERY, M32A1B3

GENERAL DATA
Purpose: To recover disabled tanks and mechanized equipment.
Classification: This vehicle is standard and no replacement has as yet been developed.
Manufacturer: Lima Locomotive Works.
Lubrication order: DA L0 9-795.
Price of vehicle*..........................$85,007
Crew (number of personnel)..................88 tons
Length, over-all .....................................86 ft
Boom in up position (estimated)............86 ft
Height, over-all (travel position) (estimated) 1.7 ft
Shipping dimensions (estimated)............$112 in ft
Track (center to center of track)...........1.3 in
Ground pressure ..................................10.3 lb/sq in
Communication system.........................Radio and interphone
PERFORMANCE
Gross horsepower to weight ratio............18.8 hp per ton
Gross weight of vehicle..........................100 mi
Fuel consumption ..................................8 mpg
Maximum usable speed..........................80 per cent
Maximum speed..................................60 mph
Maximum gradeability..........................80 per cent
Maximum speed above grade..................60 mph
Maximum vertical obstacle can negotiate...84 in
Winch load........................................60,000 lb
Armament........................................50,000 lb

ENGINE
Make (manufacturer).........................Ford
Model number....................................GAA
Brake horsepower...............................300
Torsion............................................101 in
Maximum governed speed..........................600 rpm
Number of cylinders..............................8
Displacement, total..............................11.00 cu in
Compression ratio................................9.3:1
Cooling system....................................Liquid
Ignition..........................................Magneto

TRANSMISSION
Type ............................................Multiple disc
Control ..........................................Direct, hand lever
Speeds forward.................................8
Speeds reverse..................................8
Differential ......................................Controlled
Steering control...............................Two hand levers
Brakes ............................................Center guide rubber and steel
Drive .............................................Frontal sprocket
Number of wheels ................................18 (dual)
Suspension.......................................Horizontal vehicle spring
Tracks:.............................................Center guide rubber and steel
Height .............................................1.8 in
Width .............................................50 in

ARMAMENT
MG, ring mounted..............................80 cal (1 in)
MG, bow mounted...............................80 cal (1 in)

ARMOR
Construction.................................Homogeneous plate
Thickness:........................................
Front...........................................1.3 in
Side.............................................1.3 in
Rear..............................................1.3 in
Top..............................................1.3 in

VISION AND SIGHTING EQUIPMENT
Parascope, vision.................................

CAPACITIES
Fuel.............................................166 gal
Left tank........................................46 gal
Cooling system.................................14 gal
Cherub .........................................14 gal
Engine air cleaner.........................54 qt
Transmission....................................184 ft
Differential....................................Integral with transmission
Final drive (each)...........................50 lb
Winch gear case...............................5 lb
Ammunition....................................
Cal 50........................................800 rounds
Cal 30.........................................8,800 rounds

* Price based on vehicle without armament.

ADDITIONAL DATA
# TANK, LIGHT, M24

## GENERAL DATA

<table>
<thead>
<tr>
<th>Purpose</th>
<th>To provide mobile firepower and crew protection for offensive combat.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class/Model</td>
<td>At present this vehicle is the standard light tank. Eventually to be superseded by the new Light Tank, T41.</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Cadillac Motor Car Division (GMC).</td>
</tr>
<tr>
<td>Lubrication order</td>
<td>DA LO 9-758.</td>
</tr>
<tr>
<td>Part list</td>
<td>ORD 7 SNL G-800, ORD 8 SNL G-800, ORD 9 SNL G-800.</td>
</tr>
<tr>
<td>Price of vehicle</td>
<td>$692,983.</td>
</tr>
<tr>
<td>Crew (number of personnel)</td>
<td>4 or 6.</td>
</tr>
<tr>
<td>Weight, combat loaded</td>
<td>26 tons.</td>
</tr>
<tr>
<td>Length, overall</td>
<td>19.0 ft.</td>
</tr>
<tr>
<td>Width, overall</td>
<td>9.9 ft.</td>
</tr>
<tr>
<td>Height, overall</td>
<td>7.8 ft.</td>
</tr>
<tr>
<td>Tread (center to center of track)</td>
<td>11.5 ft.</td>
</tr>
<tr>
<td>Ground clearance</td>
<td>11.64 in.</td>
</tr>
<tr>
<td>Ground pressure</td>
<td>24 lb/sq in.</td>
</tr>
<tr>
<td>Electrical system</td>
<td>24-volt.</td>
</tr>
<tr>
<td>Communication system</td>
<td>Radio and interphones.</td>
</tr>
</tbody>
</table>

## PERFORMANCE

| Gross horsepower to weight ratio | 11.0 hp per ton. |
| Cruising range | 100 mi. |
| Fuel consumption | 0.96 mpg. |
| Maximum allow speed | 53 mph. |
| Maximum gradient | 60% per cent. |
| Turning radius | 26 ft. |
| Forging depth | 66 in. |
| Maximum visible horizontal range | 1066 yds. |
| Range of primary armament: |
| With 155 shell or WP smoke at 45° or 611 mils | 12,995 yds. |
| With APC-T projectile at 45° or 500 miles | 13,895 yds. |
| Vehilopment of primary armament: |
| With HE shell or WP smoke at 45° or 611 mils | 4900 ft. |
| With APC-T projectile at 45° or 500 miles | 5660 ft. |
| With HVAP-T shot or HEAT | 5860 ft. |

## ENGINE

| Make (manufacturer) | Cadillac. |
| Model number | 44794. |
| Brake horsepower | 340 hp. |
| Rated speed (not governed) | 4000 rpm. |
| Construction and design | V, L-head. |
| Number of cylinders | 7086.1. |
| Compression ratio (each engine) | 546 in. |
| Cooling system | Liquid. |
| Ignition | Battery, distributor. |

## CHASSIS AND POWER TRAIN

| Clutch | None. |
| Transmission | Hydr.-Matic. |
| Control | Automatic. |
| Speeds forward | 4. |
| Speeds reverse | None. |

### Transfer case
- Synchronesh
- Remote, hand lever

### Differential
- Controlled

### Steering control
- Two hand levers

### Breakage
- Operating principle: Mechanical, band
- Control: Two hand levers

### Drive
- Number of wheels: 10 (dual)
- Suspension: Individual flail bar

### Tracks
- Construction: Center guide, rubber and steel
- Width: 74 in.

## ARMAMENT

### Primary armament
- Gun, 75-mm, M6

### Traverse:
- Left: 90°
- Right: 90°
- Elevation: 15°
- Depression: 10°

### Armament control
- Recoil mechanism: Concentric
- Stabilizing system: Gyro on elevation only

### Secondary armament:
- Caliber 30 MG: 1 (bow); 1 (coastal)

### Hull construction
- Armor: Homogeneous plate

### Hull thickness:
- Front: 1.0 in.
- Sides: 0.6 in.
- Rear: 0.6 in.
- Floor: 0.5 in.
- Turret: 0.6 in.

## VISION AND SIGHTING EQUIPMENT

| Periscope, vision | M8 |
| Periscope, commander's | M7E2 |
| Quadrant elevation | M9 |
| Telescope, gunner's | M10C |
| Periscope, gunner's | M10C |

## FUEL CAPACITIES

| Total | 110 gal. |
| Lift tank | 55 gal. |
| Cooling system | 15 gal. |
| Crankcase (each) | 6 qt. |
| Engine air cleaner (each) | 10 qt. |
| Transmission (each) | 10 qt. |
| Differential | 6 qt. |
| Transfer case | 44 gal. |

### Armament
- Primary weapon: .50 calibers
- Secondary weapon: .30 calibers

| Caliber 30 | 480 rounds. |
| Caliber 30 | 5780 rounds. |
TANK, LIGHT, T41

GENERAL DATA

NOTE: These specifications are tentative and subject to change. To provide added fire power and crew protection for offensive combat. To provide a tank with complete azimuth and elevation stabilization together with a range finder. This vehicle may eventually replace the M4 light tank. To date, it is not standard.

Manufacturer: Detroit Arsenal

Technical manuals: Not assigned.

Fuel: Not assigned.

Price of vehicle: $888,000

Wheels, combat loaded: 93.8 tons

Gun in firing position: 56.0 ft

Wheels, over-all: 8.9

Shipping dimensions (estimated): 1643 on it

Tread (center to center of track): 101.75 in

Ground clearance: 17.5 in

Ground pressure: 10 lb/sq in

Electrical system: 24-volt

Communication system: Radio and interphone

PERFORMANCE

Gross horsepower to weight ratio: 19.0 hp per ton

Fuel consumption (estimated): 1 mpg

Maximum allowable speed: 41.8 mph

Tons, gross: Pivot to infinity

Turning radius: 45 ft

Maximum vertical obstacle can negotiate: 4.5 ft

Range of primary armament:

With 50 cal shell or WP smoke at 45° 97° or 811 miles: Unknown

With APC-T projecticle at 45° or 800 miles: Unknown

With APC-T projecticle at 45° or 97°: Unknown

With HVT-T shot or HEAT: Unknown

ARMAMENT

Primary Armament: Gun, 76-mm, T31

Secondary armament: Cal .50 MG (1) - AA, 1-coastal

Cal .50 MG (1) - MA blisters

Hull: Armament

Construction: Homogeneous plate

Thickness:

Front: 1 in

Side: 1 in

Top: 1 in

Floor: 1.25 in

Turret ring diameter: 69 in

Construction: Homogeneous plate

Thickness:

Front: 1.7 in

Side: 1.1 in

Top: 1.1 in

VISION AND SIGHTING EQUIPMENT

Periscope, vision:

Periscope, commander's: M17

Periscope, gunner's: M10

Engine:

Make (manufacturer): Continental

Model number: A-80A

Brake horsepower: 350

Torque: 645 ft lb @ 2400 rpm

Maximum governed speed: 8800 rpm

Construction and design:

Displacement, total: 886 cu in

Compression ratio: 8.3:1

Ignition: Magneto

CHASSIS AND POWER TRAIN

Clutch: None

Transmission: 1-case drive, with torque converter

Control: None

Speeds forward: Wobble stick

Speeds reverse: Wobble stick

Steering control: Foot pedal

Operating principle: Multiple disc

Central: None

Number of wheels:

(1) - dual

Suspension:

Individual torsion bar

Tracks:

Center guide, steel

Shoes or blocks: 5 ft

Width: 4 ft

CAPACITIES

Fuel:

Total: 145 gal

Cocking system: None

Crankcase: 59 qt

Engine air cleaner: Unknown

Transmission: Unknown

Final drive: Unknown

Ammunition:

Primary weapon: 40 rounds

Secondary weapons:

Cal .30: 1540 rounds

Cal .50: 3500 rounds
TANK, MEDIUM, M4A3E8

GENERAL DATA

Purpose: To provide mobile fire power and crew protection for offensive combat.

Classification: Tank M4A3E8 is one of the standard medium tanks. Its design has been made obsolete by medium tanks M5E, M1A3, and T48, but for now it remains standard. Eventually the new T48 or a similar designed tank will replace it.

Manufacturer: Detroit Tank Arsenal (Chrysler).


Lubrication order: DA LO 9-759.

Parts No.: D646, C600, and C-905. ORD 8 SNL G-504 and C-905, ORD 8 SNL G-504 and C-905.

Price of vehicle*: $84,856

Crew (number of personnel)..............6

Weight, combat loaded: 37,766 lbs

Length, over-all: 34.75 ft

Width, traveling position: 8.75 ft

Height, over-all: 9.78 ft

Weight: 110,350 lbs.

Dimensions: 36.18 in x 13.5 in x 7.16 in

Ground clearance: 7.16 in

Ground pressure: 10.3 lbs/sq in

Electrical system: 14-volt

Communication system: Radio and interphone

PERFORMANCE

Gross horsepower to weight ratio..........................10.5 hp per ton

Cruising range: 100 mi

Fuel consumption: 5.6 mpg

Maximum allowable speed: 42 mph

Maximum probability: 166 mph

Turning radius: 31 ft

Forcing depth: 86 in

Maximum turret elevation: 20°

Maximum vertical obstacle can negotiate: 34 in

Range of primary armament:

With HE shell or WP smoke at 45° 97° or 811 mls: 14,880 yd

With APC-T projectile at 45° or 800 mls: 18,100 yds

With HVAP-T shot or HE: 8,500 yds

ENGINE

Make (manufacturer).................................Ford

Model number.......................................C8A

Engine type.......................................D-6

Power rating......................................500 hp

Torque..............................................360 ft lb @ 1600 rpm

Maximum governed speed: 8800 rpm

Construction and design: Homogeneous

Number of cylinders: 6

Displacement, total: 717 cu in

Compression ratio: 7:1

Cooling system: Liquid

Ignition: Magneto

CHASSIS AND POWER TRAIN

Clutch: Multiple disc

Transmission: Synchromesh

Control: Direct, hand lever

Speeds forward: 5

Speeds reverse: 1

* Price based on vehicle and artillery equipment.

Differential: Controlled

Steering control: Two hand levers

Brakes: Operating principle: Bands on differential

Control: Two hand levers

Driveline: Front sprocket

Number of wheels: 18 (dual)

Suspension: Horizontal volute spring

Tracks:

Construction: Center guide, rubber and steel

Shank or blocks: 70 ea

Width: 69 in

ARMAMENT

Primary armament: Gun, 76-mm, M1A1

Traverse:

Right: 360 deg

Left: 360 deg

Elevation: 35 deg

Depression: 10 deg

Recoil mechanism: Hydro-Spring

Stabilizer system: Gyro on elevation only

Secondary Armament:

Cal 30 MG

Cal 30 MG

Construction: Homogeneous, plate

Thickening:

Front: 8 in

Side: 8 in

Rear: 8 in

Top: 8 in

Floor: 7.5 in

Turret:

Ring diameter: 60 in

Construction: Homogeneous, cast

Thickening:

Front: 8 in

Side: 8 in

Rear: 8 in

Top: 8 in

VISION AND SIGHTING EQUIPMENT

Periscopes, vision (commander's).............M6

Periscope, commander's.............M6

Telescope, gunner's.............M71D

Periscope, gunner's.............M4A1

Fuel:

Total: 166 gal

Right tank: 54 gal

Left tank: 54 gal

Cooling system: 14 gal

Crankcase: 7 gal

Engine air cleaner (each): 2.25 qt

Transmission: 104 qt

Differential: Integral with transmission

Final drive: Integral with transmission

Ammunition:

Primary weapon: .71 rounds

Secondary weapon: 490 rounds

Cal 30

Cal 30

20
TANK, MEDIUM, M26

GENERAL DATA

Purpose: To provide mobility and crew protection for 90-mm gun for offensive combat.

Classifications: To date this vehicle is one of the standard medium tanks. Its design has been superseded by the Medium Tank, M48, which is a major modification of the M26 tank. Really, Medium Tank, M46, will replace these present standard medium tanks.

Manufacturer: Fisher Tank Division (GMC); Detroit Tank Arsenal.


Lubrication order: DA 9-735.

Parts list: ORD 7 SNL G23S, ORD 8 SNL G28S, ORD 9 SNL G29S.

Price of vehicle* = $81,584

Price of vehicle* = $81,584

Crew (number of personnel) = 7

Width, combat loaded = 9 ft

Height, overall = 9 ft

Weight, combat loaded = 48 tons

Weight, overall = 48 tons

Ground clearance = 11 in

Ground pressure = 84 lb/sq in

Transmission system = 64-volt

Radio and interphone

GRAND DATA

Price of vehicle* = $81,584

Crew (number of personnel) = 7

Width, combat loaded = 9 ft

Height, overall = 9 ft

Weight, combat loaded = 48 tons

Weight, overall = 48 tons

Ground clearance = 11 in

Ground pressure = 84 lb/sq in

Transmission system = 64-volt

Radio and interphone

Gross horsepower to weight ratio = 9.2 hp per ton

Cruising range = 100 mi

Fuel consumption = 10 mpg (approx).

Maximum allowale speed = 56 mph

Maximum grade ability = 80 per cent

Turning radius = 31 ft

Feeding depth = 31 in

Maximum speed of vehicle with gross capacity

Maximum vertical obstacle can negotiate = 4 ft

Climbing angle of vehicle

With HE shell or WP smoke at 45°7 or 811 miles = 19,880 yd

With APC-T projectile at 45° or 800 miles = 31,400 yd

Velocity of secondary armament:

With HE shell or WP smoke at 45°7 or 811 miles = 2700 fps

With APC-T projectile at 45° or 800 miles = 2970 fps

With HVAT-T shot or HEAT = 3850 fps

Make (manufacturer) = Ford

Model number = GAF

Torque = 960 ft lb @ 1900 rpm

Maximum governed speed = 3000 rpm

Number of cylinders = 6

Number of head = 1

Displacement, total = 1100 cu in

Compression ratio = 7.5:1

Cooling system = Water

Ignition = Magneto

CHASSIS AND POWER TRAIN

Engine = None

Transmission = None

Control = Remote, hand lever

* Price based on vehicle plus artillery equipment.

PERFORMANCE

SPEEDS

SPEEDS FORWARD

SPEEDS REVERSE

Primary armament:

Gun, 90-mm, M3

Secondary armament:

Cal.50 MG

Cal.30 MG

VISION AND SIGHTING EQUIPMENT

TELESCOPE, gunner's

ENGINE

Prime mover:

Fuel: 181.5 gal

Right tank: 89.5 gal

Left tank: 89.5 gal

Fuel capacity: 191.5 gal

Fuel system: 32 qt

Water cooling system: 32 qt

Engine air cleaner (each): 0.75 qt

Transmission: 54 qt

Differential: 1.05 qt

Final drive: 1.75 qt

Armament:

Primary weapon: 70 rounds

Secondary weapons: 850 rounds

21
TANK, MEDIUM, M45

GENERAL DATA

Purpose: To provide mobility and crew protection for the 105-mm howitzer, for defensive combat.

Classification: This vehicle is standard. In design it superseded the M4A2E8, and is based on the M4A3. The M4A3 equipped vehicles are in use.

Description: The M4A3E8 has a 105-mm howitzer. To date no power design tank has been made for the 105-mm howitzer. The M4A3E8 is used for offensive and defensive combat.

Manufacturer: Fisher Tank Division (GMC), Detroit Tank Arsenal, Packard Tank, M4A3E8, 5-1758, 5-1758A, 5-1759, 5-1759A, 1910.

Heritage: M4A3E8, 1910.

Price list: ORD 7 SNL G86, ORD 8 SNL G585, ORD 9 SNL G586.

Price of vehicle: $79,377

Crew (number of personnel): 7

Weight, combat loaded: 49,465 lbs

Length, overall: 17.5 ft

Gun in firing position: 20.9 ft

Gun in traveling position: 20.5 ft

Width, overall: 9.8 ft

Height, overall: 9.9 ft

Ship's dimensions (estimated): 811.9 sq ft

Tread (center to center of track): 110 in

Ground clearance: 17.8 in

Ground pressure: 11.99 lb/sq in

Electrical system: 124-volt

Communication system: Radio and interphone

Performance

Gross horsepower to weight ratio: 9.8 hp per ton

Cruising range: 100 mi

Fuel consumption: 6 mpg (approx.)

Maximum allowable speed: 40 mph

Maximum gradientability: 50 per cent

Turning radius: 31 ft

Firing depth: 30 in

Maximum travel off road: 48 in

Range of primary armament:

With M6 shell or WP smoke at 45° 777 yds, 63,209.2 in.

With HAP fletch or HE at 45° 787 yds, 580 fps

With HAP at 45° 787 yds, 580 fps

Differential: 1

Steering control: Two hand levers

Brakes: Band on differential

Control: Band on differential

Number of wheels: 18 (Dual)

Suspension: Torsion bar

Tracks:

Construction: Center guide Rubber and steel

Length: 83 in

Width: 36 in

ARMAMENT

Primary armament: Howitzer, 105-mm, M4

Traverse:

Right: 385 deg

Left: 86 deg

Elevation:

Depression:

Recoil mechanism:

Stabilizer system:

Secondary armament:

Cal. 50 MG

Cal. 30 MG

Hull:

Construction: Armored

Thickening:

Front:

Sides:

Floor:

Top:

VISTA AND SIGHTING EQUIPMENT

Periscope, vision:

Periscope, commander's:

Quadrant, elevation:

Periscope, gunner's:

Periscope, turret:

Periscope, panoramic:

Fuel:

Capacity:

Total:

Right tank:

Left tank:

Cooling system:

Crankcase:

Engine air cleaner:

Transmission:

Differential:

Final drive (each):

Ammunition:

Primary weapon:

Secondary weapon:

Cal. 30:

Cal. 40:

Cal. 50:

440 rounds

5000 rounds
TANK, MEDIUM, M46

GENERAL DATA

NOTE: These specifications are tentative and subject to change. Specifications indicate mobility and crew protection for the 90-mm gun for offensive combat. To provide increased performance characteristics, reliability, and mobility in a medium tank. At present it is a prototype for medium tanks. Approximately 500 M46 tanks were constructed to provide data due to the limited number available only part of the medium tank units will receive these. The M46 will remain equipped with M26, M46, or M4A3E8 medium tanks.

Manufacturer: Detroit Arsenal
Technical manuals: B-116, E-717A, B-717B
Lubrication order: DA LO 5-71B
Parts list: ORD 7 SNL G-244, ORD 8 SNL G-244, ORD 9 SNL G-444.

PNEUMA

Type of vehicle: Unknown
Crew (number of personnel): 4
Weight, combat loaded: 56 tons
Length, overall: 10.4 ft
Gun in firing position: 87.7 ft
Gun in traversing position: 81.6 ft
Width, over-tall: 10.4 ft
Height, overall: 10.4 ft
Shipping dimensions: 2 × 12 ft, (estimated) 10 ft
Tread (center to center of tracks): 18.7 ft
Ground clearance: 12.3 in
Ground pressure: 15.5 lb/sq in
Electrical system: 120 volt
Communication system: None

PERFORMANCE

Gross horsepower to weight ratio: 17.0 hp per ton
Cruising range: 40.0 miles
Fuel consumption: 5.4 miles per gallon
Maximun available speed: 90 mph
Maximum gradability: 40 per cent
Towing radius: Pivot to infinity
Fording depth: 4 ft
Maximum trench vehicle will cross: 10 ft
Maximum vertical obstacle can negotiate: 4 ft
Number of primary armament:
With AP departure or WP smoke at 48° or 811 miles: 19,800 yd
With Flack projector at 48° or 800 miles: 31,400 yd

Engine

Make (manufacturer): Continental
Model number: AV-1790-3
Brake horsepower: 1510 hp
Engine displacement: 1810 ft lb @ 2500 rpm
Maximum governed speed: 1600 rpm
Construction and design: V, 16-cyl
Number of cylinders: 16
Engine, total: 17,950 lb
Comprcssion ratio: 24.1
Cooling system: None
Ignition: Magneto

CHASSIS AND POWER TRAIN

Clutch: None
Transmission: Cross-drive
Control: Remote
Speeds forward: 3
Speeds reverse: 1

Differential: Cross-drive
Steering control: Wobble stick
Brakes: None
Operating principle: Mechanical, multiple disc
Control: Manual, foot pedals
Drive: Rear
Number of wheels: 18 (dual)
Suspension: 4×4 individual suspension
Tracks: Center guide, rubber and steel
Shocks or blocks: None

WIDTH

ARMAMENT

Primary armament: Gun, 90-mm, M3A1
Traverse:
Left: 360 deg
Right: 360 deg
Elevation: 10 deg
Depression: 10 deg
Recoil mechanism: None
Stabilizer system: None
Secondary Armament:
Cal .50 MG
Cal .50 MG

Hull:
Construction: Homogeneous cast
Thickmess:
Front: 4 in
Side: 4 in
Top: 4 in

VISION AND SIGHTING EQUIPMENT

Periscope, vision: M10
Periscope, commander's: M15
Quadrant elevation: M9
Telescope, gunner's: M178
Periscope, gunner's: M109

FUEL

CAPACITIES

Total: 870 gal
Right tank: 110 gal
Left tank: 110 gal
Cooling system: None
Grain: 7.3 qt
Engine air cleaner (each): 0.5 qt
Transmission: 100 gal
Differential: None
Final drive (each): 4 qt

Primary weapon: .70 rounds
Secondary weapon: .850 rounds
Cal .50: .500 rounds
Cal .50: .500 rounds
TANK, MEDIUM, T42

GENERAL DATA

<table>
<thead>
<tr>
<th>System</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight, combat loaded</td>
<td>26.4 tons</td>
</tr>
<tr>
<td>Length, over-all</td>
<td>26.9 ft</td>
</tr>
<tr>
<td>Width, over-all</td>
<td>11.6 ft</td>
</tr>
<tr>
<td>Crew (number of personnel)</td>
<td>Unknown</td>
</tr>
<tr>
<td>Crew full load</td>
<td>6</td>
</tr>
<tr>
<td>Electrical system</td>
<td>24 volt</td>
</tr>
<tr>
<td>Gross horsepower to weight ratio</td>
<td>19 hp per ton</td>
</tr>
<tr>
<td>Cruise range</td>
<td>100 mi</td>
</tr>
<tr>
<td>Fuel consumption</td>
<td>Unknown</td>
</tr>
<tr>
<td>Maximum allowable speed</td>
<td>50 mph</td>
</tr>
<tr>
<td>Maximum velocity</td>
<td>60 per cent</td>
</tr>
<tr>
<td>Turning radius</td>
<td>18 ft</td>
</tr>
<tr>
<td>Forcing depth</td>
<td>18 in</td>
</tr>
<tr>
<td>Maximum vertical obstacle negotiable</td>
<td>30 in</td>
</tr>
<tr>
<td>Range (sector to center of track)</td>
<td>Unknown</td>
</tr>
<tr>
<td>Velocity of primary armament:</td>
<td></td>
</tr>
<tr>
<td>With HE shell or WP smoke at 45°</td>
<td>Unknown</td>
</tr>
<tr>
<td>With APC-T projectile at 68° or 800 miles</td>
<td>Unknown</td>
</tr>
<tr>
<td>With M46 or 50-BB bullet</td>
<td>111 lb</td>
</tr>
<tr>
<td>Ground clearance</td>
<td>0.75 ft</td>
</tr>
<tr>
<td>Ground pressure</td>
<td>16 lb/sq ft</td>
</tr>
<tr>
<td>Radio and interphone</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

ARMAMENT

Primary armament: Gun, 90-mm, T119

With HE shell or WP smoke at 45° or 811 miles, Unknown
With APC-T projectile at 68° or 800 miles, Unknown
With M46 or 50-BB bullet, 111 lb

ARMOR

Hull construction: Homogeneous cast

Artillery: 90-mm, T119

ARMAMENT

Primary armament: Gun, 90-mm, T119

With HE shell or WP smoke at 45° or 811 miles, Unknown
With APC-T projectile at 68° or 800 miles, Unknown
With M46 or 50-BB bullet, 111 lb

VISION AND SIGHTING EQUIPMENT

Periscope, vision: Unknown
Periscope, commander's: M19
Periscope, gunner's: M19

CAPACITIES

Total fuel capacity: Unknown
Cooling system: None
Engine air cleaner (each): Unknown
Transmission: Unknown
Final drive (each): Unknown
Ammunition:

Primary weapon: .50 cal
Secondary weapons: 1950 rounds
TANK, HEAVY, T43

GENERAL DATA

Purpose: To provide mobility and crew protection for the 180-mm gun for offensive combat. To provide in a heavy tank all the latest developments in weapons, fire power, armor, power train, and running gear.

Classification: This is not yet a standard tank. It is being developed and if proved satisfactory will supersede all existing heavy tanks. To date no suitable heavy tank is available for issue.

Manufacturer: Detroit Arsenal.

Technical manuals: Not assigned.

Lubrication: Not assigned.

Parts list: Not assigned.

Tires: 6.00-16.

Crew: 5 (number of personnel). 7 tons (total weight, combat loaded).

Length, over-all: 15 ft. 7 in. (gun in firing position).

Width, over-all: 8 ft. 6 in.

Height, over-all: 8 ft. 11 in.

Ground clearance: 17 in.

Ground pressure: 16 lb. per in.

Electrical system: 12-volt.

Communication system: Radio and Interphone.

Cruising range: 100 mi.

Fuel consumption: Unknown.

Maximum road speed: 35.5 mph.

Turning radius: Pivot to infinity.

Fording depth: 14 in.

Maximum vertical obstacle: 15 in.

Maximum trench vehicle will cross: 60 in.

Range of primary armament:

With 180-mm shell or WP smoke at 45° or 811 mls unknown.

With APC-T projectile at 45° or 800 mls unknown.

Velocity of primary armament:

With 180-mm shell or WP smoke at 45° or 811 mls unknown.

With APC-T projectile at 45° or 800 mls unknown.

With HVAR-T shell or HEAT unknown.

ENGINE

Make: Continental

Model number: AV-1792-3

Brake horsepower: 640 hp.

Speed: 1800 r.p.m.

Compression ratio: 2.7:1.

Cooling system: Air.

Ignition: Magneto.

CHASSIS AND POWER TRAIN

Transmission: Remote, wobble stick.

Speeds forward: 1

Clutch: None.

Control: Remote, wobble stick.

Suspension: Independent, torsion bar.

Brakes: Mechanical, multiple disc.

Differential: Cross-drive.

Steering control: Remote, wobble stick.

ARMAMENT

Primary armament: 180-mm, T18B.

Traverse: Right 360°, Left 360°.

Elevation: 30°.

Depression: 0°.

Recoil mechanism: None.

Stabilizer system: None.

Secondary armament: Cal. .50 MG.

VISION AND FIGHTING EQUIPMENT

Periscope, vision: Unknown.

Periscope, commander's: M16.

Rangefinder: None.

Quadrant elevation: 14°.

Periscope, gunner's: M16.

Fuel:

Total: Unknown.

Cooling system: None.

Brakes: Mechanical, multiple disc.

Engine air cleaner (each): Unknown.

Transmission: Unknown.

Differential: Unknown.

Differential: Unknown.

Fuel drive (each): Unknown.

Ammunition:

Primary weapon: 60 rounds.

Secondary weapon: Cal. .50.

25
CARRIAGE, MOTOR, MULTIPLE GUN, T77

GENERAL DATA

NOTE: These specifications are tentative and subject to change.

| Purpose | Highly mobile armored, multiple, caliber .50 automatic fire power capable of accompanying armored units.
| Classification | A definite requirement exists in the armored division for a vehicle of this type. This vehicle is undergoing field tests at present and will probably fill the requirement.
| Manufacturer | United States Army Ordnance G-1
| Technical manual | Not assigned.
| Lubrication order | Not assigned.
| Parts list | Not assigned.
| Name of vehicle | Unknown
| Gross weight, combat loaded | 16 tons
| Length, over-all | 16.75 ft
| Width, over-all | 13.5 ft
| Height, over-all | 13.2 ft
| Shipping dimensions | Length 146.8, width 138.8, height 48 in
| Tread (center to center of track) | 96 in
| Ground clearance | 10 in
| Ground pressure | 10.8 lbs/in
| Electrical system | Battery and 6-volt
| Communication system | Radio and interphone

PERFORMANCE

| Gross horsepower to weight ratio | 11.1 hp per ton
| Cruising range | 150 mi
| Fuel consumption | 1.9 mpg
| Maximum allowable speed | 35 mph
| Maximum speed on level ground | 35 mph
| Turning radius | 20 ft
| Tread depth | 42 in
| Maximum average obstacle can negotiate | 58 in

ENGINE

| Net power | 600 hp
| Horsepower | 600 hp
| Torque | 460 ft lb @ 1600 rpm
| Construction and design | V, L-head
| Number of cylinders (each) | 6
| Compression ratio | 7:1
| Ignition | Battery, distributor

CHASSIS AND POWER TRAIN

| Clutch | None
| Transmission | Hydra-Matic
| Control | Automatic
| Speeds | 1
| Transfer case | Synchromesh
| Control | Remote, hand lever
| Speeds forward | 1
| Differential | Controlled
| Steering control | Two-hand lever
| Brakes | Mechanical, band
| Operating principle | Two-hand lever

Drive front sprocket
Number of wheels | 10 (dual)
Suspension | Individual torsion bar
Tracks | Center guide, steel
Shoes or blocks | 70 in
Width | 70 in
| PRIMARY ARMAMENT

<table>
<thead>
<tr>
<th>MG, Cal. .50 (8 each)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traverse</td>
</tr>
<tr>
<td>Left</td>
</tr>
<tr>
<td>Elevation</td>
</tr>
<tr>
<td>Depression</td>
</tr>
<tr>
<td>SECONDARY ARMAMENT</td>
</tr>
<tr>
<td>Cal. .50 MG</td>
</tr>
<tr>
<td>Hull</td>
</tr>
</tbody>
</table>
| Construction | Homogeneous plate
| Thickness | 1 in
| Armament |
| Material | Homogeneous cast iron
| Thickness | 1 in
| Vision and Sighting Equipment |
| Periscopes, sights |
| Fuels, Capacities |
| Total |
| Flight tank | 110 gal
| Left tank | 15 gal
| Cooling system |
| Engine air cleaner (each) | 3 gal
| Transmission (each) | 30 gal
| Differential |
| Transfer case | 45 qts
| Ammunition |
| Cal. .50 |
| 700 rounds |

ADDITIONAL DATA
CARRIAGE, MOTOR, TWIN 40-MM GUN, M19A1

GENERAL DATA

Purpose: To provide mobility for the twin 40-mm gun for tank aircraft protection. To provide armor protection for driver and crew.

Classification: This vehicle is standard. At present only a limited number are available for issue. Detroit Arsenal is now assembling these vehicles.

Manufacturer: Detroit Arsenal

Technical Manual: 9-1787

Lubrication order: DA LO 2-1787

Parts list: ORD 7 8NL, G100, ORD 8 8NL, G100, ORD 9 8NL G100.

Price of vehicle: $855,70

Crew (number of personnel): 11 persons

Weight, combat loaded: 18,000 lb

Length, overall: 18'11" ft

Width, overall: 9'0" ft

Height, overall: 8'6" ft

Tire diameter: 6'0" in

Driveline: None-Drive, Automatic

Performance

Gross horsepower to weight ratio: 11.5 hp per ton

Fuel consumption: 0.04 mi per gallon

Maximum allowable speed: 60 mph

Maximum gradient: 40 per cent

Turning radius: 40 ft

Fording depth: 30 in

Maximum trench: 30 in

Range of primary armament:
- With HE shell or WP round at 48 deg or 811 miles: 5800 yd
- With APC target at 48 deg or 800 miles: 5847 yd

Vehicle of primary armament:
- With HE shell or WP round at 48 deg or 811 miles: 2870 fpm
- With APC target at 48 deg or 800 miles: 2840 fpm

Engine

NOTE: This vehicle has two engines as described below.

Make (manufacturer): Cadillac

Model number: 44784

Brake horsepower: 110 hp

Weight: 3460 lb

Rated speed (not governed): 1600 rpm

Construction and design: 10-deg

Number of cylinders: 8

Compression ratio: 6.8:1

Cooling system: Liquid

Ignition: Battery, distributor

CHASSIS AND POWER TRAIN

Clutch: None

Transmission: Hydromatic Automatic

Speeds:
- First: 110 sq
- Second: 110 sq
- Third: 110 sq
- Fourth: 110 sq

Transfer case:
- Front: 8 sq
- Rear: 8 sq
- Total: 16 sq

Speeds forward:
- First: 8 sq
- Second: 8 sq
- Third: 8 sq
- Fourth: 8 sq

Speeds reverse:
- First: 8 sq
- Second: 8 sq
- Third: 8 sq
- Fourth: 8 sq

Differential:
- Front: 2500 lb
- Rear: 2500 lb
- Total: 5000 lb

Final drive:
- Front: 4000 lb
- Rear: 4000 lb
- Total: 8000 lb

Engine

Fuel total:
- Gasoline: 110 gal

Light tank:
- Cooling system: 6 sq
- Crankcase: 6 sq
- Engine air cleaner: 6 sq
- Transmission: 6 sq
- Final drive: 6 sq

Armament:
- Primary weapon: 40-mm gun
- Secondary weapon: None

Armor:
- Primary armor: Homogeneous plate
- Secondary armor: None

Vision and Sighting Equipment

Periscope, vision (8 sq):
- Sight, computing:
- Quadrant, gunner's:

Fuel capacity:
- Total: 110 gal
- Left tank:
- Right tank:

Conclusion:
- Cadillac

Model number: 44784

Brake horsepower: 110 hp

Weight: 3460 lb

Rated speed (not governed): 1600 rpm

Construction and design: 10-deg

Number of cylinders: 8

Compression ratio: 6.8:1

Cooling system: Liquid

Ignition: Battery, distributor

Clutch: None

Transmission: Hydromatic Automatic

Speeds:
- First: 110 sq
- Second: 110 sq
- Third: 110 sq
- Fourth: 110 sq

Transfer case:
- Front: 8 sq
- Rear: 8 sq
- Total: 16 sq

Speeds forward:
- First: 8 sq
- Second: 8 sq
- Third: 8 sq
- Fourth: 8 sq

Speeds reverse:
- First: 8 sq
- Second: 8 sq
- Third: 8 sq
- Fourth: 8 sq

Differential:
- Front: 2500 lb
- Rear: 2500 lb
- Total: 5000 lb

Final drive:
- Front: 4000 lb
- Rear: 4000 lb
- Total: 8000 lb

Engine

Fuel total:
- Gasoline: 110 gal

Light tank:
- Cooling system: 6 sq
- Crankcase: 6 sq
- Engine air cleaner: 6 sq
- Transmission: 6 sq
- Final drive: 6 sq

Armament:
- Primary weapon: 40-mm gun
- Secondary weapon: None

Armor:
- Primary armor: Homogeneous plate
- Secondary armor: None

Vision and Sighting Equipment

Periscope, vision (8 sq):
- Sight, computing:
- Quadrant, gunner's:

Fuel capacity:
- Total: 110 gal
- Left tank:
- Right tank:
CARRIAGE, MOTOR, 105-MM HOWITZER, M37

GENERAL DATA

Purpose: To provide a mobile 105-mm howitzer with crew protection for artillery units in an armored division.

Classification: At present this vehicle is standard. Eventually it will be superseded by the T98 motor gun carriage which includes all the latest improvements.

Manufacturers: Cadillac Motor Car Division, GMC.

Technical manuals: 9-717.

Lubrication order: DA LO 9-717.

Parts list: ORD 7 SNL G358, ORD 8 SNL G358, ORD 9 SNL G358.

Price of vehicle*: $40,089

Grew (number of personnel) .................................................. 27

Length overall: ...................................................... 17.5 ft

Gun in firing position: .............................................. 16 ft

Height, overall: .................................................... 9.6 ft

Width, overall: ..................................................... 7.2 ft

Shipping dimensions: ........................................... 1658 cu ft; 159.4 sq ft

Tread (center to center of track) .................................. 56 in

Ground clearance ............................................................ 10 in

Ground pressure ............................................................ 36 lb/sq in

Electrical system: 12 volt

Communication system: Radio and interphone

PERFORMANCE

Gross horsepower to weight ratio ...................................... 10.3 hp per ton

Grading range ............................................................ 100 mi

Fuel consumption .......................................................... 13 mpg

Maximum allowable speed .............................................. 30 mph

Maximum gradient .......................................................... 50 per cent

Turning radius ............................................................. 30 ft

Firing depth ................................................................. 58 in

Maximum trench vehicle will cross .................................. 58 in

Maximum earthwork obstacle can negotiate ....................... 58 in

Range of primary ammunition:

With HE shell or WP smoke at 45° 37' or 811 mls ... 18,805 yds

With HE shell or WP smoke at 45° 07' or 811 mls ... 1830 fps

ENGINE

Speeds forward ........................................................................... 3

Speeds reverse ........................................................................... 3

Steering control ....................................................................... Two hand lever

Brakes: Operating principle .................................................. Band

Control ......................................................................................... Two hand lever

Drive ......................................................................................... Front sprangleaf

Number of wheels .............................................................. 6 (Equal)

Suspension ................................................................................ None

Tracks: Construction .............................................................. Center guide, Steel, Rubber

Shoes or blocks ......................................................................... 6 in

Width ......................................................................................... 10 in

ARMAMENT

Primary armament: Howitzer, 105-mm M4

Traverse: Right ........................................................................ 40 deg

Left ......................................................................................... 40 deg

Elevation .................................................................................. 42 deg

Depression ................................................................................ 10 deg

Rheostatic mechanism ................................................................. None

Stabilizer system ...................................................................... None

Secondary armament: Cal .50 MG ................................................. 1 (AA)

Hull

Construction .............................................................................. Homogeneous plate

Thickness: Front ......................................................................... 60 in

Sides ......................................................................................... 10 in

Rear ......................................................................................... 30 in

Top ......................................................................................... 50 in

Floor ......................................................................................... 100-50 in

VISION AND SIGHTING EQUIPMENT

Periscope, vision ........................................................................ N19

Ouadrant, elevation .................................................................... M12

Telescope, gunner's ................................................................. M12

Telescope, panoramic ............................................................... M13

Fuel

Total ......................................................................................... 110 gal

Nose tank ................................................................................. 54 gal

Fuel capacities ......................................................................... 54 gal

Cylindrical tank ....................................................................... 70 gal

Ammunition:

Primary weapon ....................................................................... 182 rounds

Secondary weapons: Cal .50 ......................................................... 990 rounds

ADDITIONAL DATA

* Price based on vehicle plus artillery equipment.
**GENERAL DATA**

NOTE: The specifications are tentative and subject to change.

**CARTRIDGE, MOTOR, 105-MM HOWITZER, T98**

**Make (manufacturer):** Continental

**Model number:** 105-MM

**Engine:** Continental AOS 950-1

**Fuel consumption (estimated):** 9 mph

**Maximum allowable speed:** 60 mph

**Turning radius:** Pivot to infinity

**Maximum fps:** 15

**Maximum vertical obstacle:** 15

**Range of primary armament:**

- With HS or WP mode at 45° 3° or 811 miles: 12.305 yd
- With HVAP-T shot or HE: 1380 fps

**PERFORMANCE**

- Cross horsepower to weight ratio: 80 hp per ton
- Cruising range: 50 mi
- Engine governed speed: 3,000 rpm
- Maximum governed speed: 3,000 rpm
- Compression ratio: 9.5:1
- Ignition: Magneto

**CHASSIS AND POWER TRAIN**

- Clutch: None
- Transmission: None
- Engine: Cross-drive
- Speeds forward: 1
- Speeds reverse: Cross-drive

**ENGINE**

- Make: Continental
- Model number: AOS 950-1
- Horsepower: 3,000 rpm
- Compression ratio: 9.5:1
- Ignition: Magneto

**ARMAMENT**

- Primary armament: Howitzer, 105-mm
  - Traverse:
    - Right: 30°
    - Left: 30°
  - Elevation: 20°
  - Depression: 4°
  - Traverse, gunner's:
    - Right: 30°
    - Left: 30°
- Secondary armament:
  - Cal. 50 MG:
    - Construction: Homogeneous plate
    - Thickness:
      - Front: 1 in
      - Sides: 1 in
      - Rear: 1 in
      - Top: 1 in

**VISION AND SIGHTING EQUIPMENT**

- Periscope, vision: 1.16
- Periscope, commander's:
  - Telescope, gunner's: 1.16
  - Telescope, panoramic: 1.68
- Fuels:
  - Tank: 160 gal
  - Coolant: None
  - Engine air cleaner (each): Unknown
  - Final drive (each): Unknown

**CAPACITIES**

- Primary weapon:
  - Cal. 50: 1100 rounds
- Secondary weapon:
  - Cal. 50: 100 rounds
CARRIAGE, MOTOR, 155-MM HOWITZER, M41

GENERAL DATA
Purpose: To provide a mobile 155-mm howitzer with crew protection for units of an armored division.

Crew: 4

Manufacturer: Cadillac

Specifications:
- Length overall: 17.6 ft
- Width overall: 9 ft
- Height overall: 7.9 ft
- Weight: 31.8 tons
- Engine: 10.8 hp per ton
- Cruise speed: 30 mi per hr
- Maximum road speed: 35 mph
- Maximum speed on level ground: 700 per min
- Torque: 110 lb-ft @ 1,600 rpm
- Number of cylinders: 6
- Compression ratio: 7.0:1
- Bore: 7.48 in
- Stroke: 8 in
- Ignition: Battery, distributor

Price of vehicle: $144,150

PRESSURE

Performance
- Gross horsepower per weight ratio: 10.8 hp per ton
- Cruise range: 50 mi
- Fuel consumption: 2 mpg

ENGINE

- Model: Cadillac
- Number: 113
- Torque: 110 lb-ft @ 1,600 rpm
- Rated speed (not governed): 1,600 rpm
- Construction and design: V-8, liquid

CHASSIS AND POWER TRAIN

- Transmission: Hydra-Matic
- Control: Automatic
- Speeds: 4
- Transfer case: Synchromesh
- Speeds forward: 2
- Speeds reverse: 2
- Steering control: Two hand levers

ARMAMENT

- Primary armament: Howitzer, 155-mm M1
- Secondary armament: None
- Gun depression: 45°
- Gun elevation: 60°

VISION AND SIGHTING EQUIPMENT

- Periscope: None
- Quadrant, gunner's: M13
- Telescope, panoramic: M13

ADDITIONAL DATA

- Total weight: 31.8 tons
- Armor: Homogeneous plate
- Hull: 60 in
- Side: 60 in
- Top: 50 in
- Vision: 50 in

- Engine: Cadillac
- Model: 113
- Torque: 110 lb-ft @ 1,600 rpm
- Rated speed: 1,600 rpm
- Construction and design: V-8, liquid
- Ignition: Battery, distributor
- Fuel: None
- Transmission: Hydra-Matic
- Control: Automatic
- Speeds: 4
- Transfer case: Synchromesh
- Speeds forward: 2
- Speeds reverse: 2
- Steering control: Two hand levers
- Construction: Center guide, steel, rubber
- Shocks or blocks: 60 in
- Width: 16 in
- Armor: Homogeneous plate
- Hull: 60 in
- Side: 60 in
- Top: 50 in
- Vision: 50 in

- Engine: Cadillac
- Model: 113
- Torque: 110 lb-ft @ 1,600 rpm
- Rated speed: 1,600 rpm
- Construction and design: V-8, liquid
- Ignition: Battery, distributor
- Fuel: None
- Transmission: Hydra-Matic
- Control: Automatic
- Speeds: 4
- Transfer case: Synchromesh
- Speeds forward: 2
- Speeds reverse: 2
- Steering control: Two hand levers
- Construction: Center guide, steel, rubber
- Shocks or blocks: 60 in
- Width: 16 in
- Armor: Homogeneous plate
- Hull: 60 in
- Side: 60 in
- Top: 50 in
- Vision: 50 in

- Engine: Cadillac
- Model: 113
- Torque: 110 lb-ft @ 1,600 rpm
- Rated speed: 1,600 rpm
- Construction and design: V-8, liquid
- Ignition: Battery, distributor
- Fuel: None
- Transmission: Hydra-Matic
- Control: Automatic
- Speeds: 4
- Transfer case: Synchromesh
- Speeds forward: 2
- Speeds reverse: 2
- Steering control: Two hand levers
- Construction: Center guide, steel, rubber
- Shocks or blocks: 60 in
- Width: 16 in
- Armor: Homogeneous plate
- Hull: 60 in
- Side: 60 in
- Top: 50 in
- Vision: 50 in

- Engine: Cadillac
- Model: 113
- Torque: 110 lb-ft @ 1,600 rpm
- Rated speed: 1,600 rpm
- Construction and design: V-8, liquid
- Ignition: Battery, distributor
- Fuel: None
- Transmission: Hydra-Matic
- Control: Automatic
- Speeds: 4
- Transfer case: Synchromesh
- Speeds forward: 2
- Speeds reverse: 2
- Steering control: Two hand levers
- Construction: Center guide, steel, rubber
- Shocks or blocks: 60 in
- Width: 16 in
- Armor: Homogeneous plate
- Hull: 60 in
- Side: 60 in
- Top: 50 in
- Vision: 50 in

- Engine: Cadillac
- Model: 113
- Torque: 110 lb-ft @ 1,600 rpm
- Rated speed: 1,600 rpm
- Construction and design: V-8, liquid
- Ignition: Battery, distributor
- Fuel: None
- Transmission: Hydra-Matic
- Control: Automatic
- Speeds: 4
- Transfer case: Synchromesh
- Speeds forward: 2
- Speeds reverse: 2
- Steering control: Two hand levers
- Construction: Center guide, steel, rubber
- Shocks or blocks: 60 in
- Width: 16 in
- Armor: Homogeneous plate
- Hull: 60 in
- Side: 60 in
- Top: 50 in
- Vision: 50 in

- Engine: Cadillac
- Model: 113
- Torque: 110 lb-ft @ 1,600 rpm
- Rated speed: 1,600 rpm
- Construction and design: V-8, liquid
- Ignition: Battery, distributor
- Fuel: None
- Transmission: Hydra-Matic
- Control: Automatic
- Speeds: 4
- Transfer case: Synchromesh
- Speeds forward: 2
- Speeds reverse: 2
- Steering control: Two hand levers
- Construction: Center guide, steel, rubber
- Shocks or blocks: 60 in
- Width: 16 in
- Armor: Homogeneous plate
- Hull: 60 in
- Side: 60 in
- Top: 50 in
- Vision: 50 in

- Engine: Cadillac
- Model: 113
- Torque: 110 lb-ft @ 1,600 rpm
- Rated speed: 1,600 rpm
- Construction and design: V-8, liquid
- Ignition: Battery, distributor
- Fuel: None
- Transmission: Hydra-Matic
- Control: Automatic
- Speeds: 4
- Transfer case: Synchromesh
- Speeds forward: 2
- Speeds reverse: 2
- Steering control: Two hand levers
- Construction: Center guide, steel, rubber
- Shocks or blocks: 60 in
- Width: 16 in
- Armor: Homogeneous plate
- Hull: 60 in
- Side: 60 in
- Top: 50 in
- Vision: 50 in

- Engine: Cadillac
- Model: 113
- Torque: 110 lb-ft @ 1,600 rpm
- Rated speed: 1,600 rpm
- Construction and design: V-8, liquid
- Ignition: Battery, distributor
- Fuel: None
- Transmission: Hydra-Matic
- Control: Automatic
- Speeds: 4
- Transfer case: Synchromesh
- Speeds forward: 2
- Speeds reverse: 2
- Steering control: Two hand levers
- Construction: Center guide, steel, rubber
- Shocks or blocks: 60 in
- Width: 16 in
- Armor: Homogeneous plate
- Hull: 60 in
- Side: 60 in
- Top: 50 in
- Vision: 50 in

- Engine: Cadillac
- Model: 113
- Torque: 110 lb-ft @ 1,600 rpm
- Rated speed: 1,600 rpm
- Construction and design: V-8, liquid
- Ignition: Battery, distributor
- Fuel: None
- Transmission: Hydra-Matic
- Control: Automatic
- Speeds: 4
- Transfer case: Synchromesh
- Speeds forward: 2
- Speeds reverse: 2
- Steering control: Two hand levers
- Construction: Center guide, steel, rubber
- Shocks or blocks: 60 in
- Width: 16 in
- Armor: Homogeneous plate
- Hull: 60 in
- Side: 60 in
- Top: 50 in
- Vision: 50 in

- Engine: Cadillac
- Model: 113
- Torque: 110 lb-ft @ 1,600 rpm
- Rated speed: 1,600 rpm
- Construction and design: V-8, liquid
- Ignition: Battery, distributor
- Fuel: None
- Transmission: Hydra-Matic
- Control: Automatic
- Speeds: 4
- Transfer case: Synchromesh
- Speeds forward: 2
- Speeds reverse: 2
- Steering control: Two hand levers
- Construction: Center guide, steel, rubber
- Shocks or blocks: 60 in
- Width: 16 in
- Armor: Homogeneous plate
- Hull: 60 in
- Side: 60 in
- Top: 50 in
- Vision: 50 in
CARRIAGE, MOTOR, 155-MM HOWITZER, T99

GENERAL DATA

NOTE: The specifications are tentative and subject to change.

Purpose: To provide an improved type, full-track, lightly armored, highly mobile 155-mm gun carriage, to give close support to both rapidly moving armored columns and standard infantry divisions.

Classification: This vehicle is not as yet standard. When perfected it will supersede the M41 motor gun carriage.

Manufacturer: Detroit Arsenal.

Technical manuals: Not assigned.

Lubrication orders: Not assigned.

Parts list: Not assigned.

Price of Vehicle: Unknown
Weight, combat loaded: 59,250 lb
Length, over-all: Unknown
Width, over-all: 10 ft
Height, over-all: 9 ft 8 in
Shipping dimensions: Unknown
Tread center to center: 101 in
Ground clearance: 18 3/4 in
Ground pressure: 13.4 lb/sq in
Electrical system: 12 volt
Communication system: Radio and interphones

PERFORMANCE

Gross horsepower to weight ratio: 17.0 hp per ton
Cruising range: 90 miles
Fuel consumption: 9 mpg
Maximum allowable speed: 65 mph
Turning radius: 5 ft 6 in
Finding depth: 49 in
Maximum trench vehicle can cross: 60 in
Maximum vertical obstacle vehicle can negotiate: 33 in
Range of primary armored:
With HE shell or WP smoke at 45° or 811 m...16,085 yards
Velocity of primary armored:
With HE shell or WP smoke at 45° or 811 m...1870 fpm

ENGINE

Make (manufacturer): Continental
Model number: 800
Brake horsepower: 500
Torque: 945 ft lb @ 1600 rpm
Construction and design: Opposed, 1-head
Number of cylinders: 6
Displacement, total: 668 cu in
Compression ratio: 6.5:1
Ignition system: Magneto

CHASSIS AND POWER TRAIN

Clutch: None
Transmission: Cross-drive
Control of transmission: None
Speeds forward: 3
Speeds reverse: 3

ARMAMENT

Primary armament: Howitzer, 155-mm
Traverse:
Left: 30
Right: 30
Elevation:
Depression: Unknown
Stabilizer system: None
Secondary armament:
Cal .50 MG: 1

Hull: Homogeneous plate
Thickens:
Front: 20
Sides: 40
Rear: 20
Top: 20
Floor: 20

VISION AND SIGHTING EQUIPMENT

Periscope, vision: M15
Periscope, commander's: M10-695
Quadrant, elevation: Unknown
Telescope, gunner's: None
Telescope, panoramic: None

CAPACITIES

Fuel:
Total: 160 gal
Cooling system: None
Crankcase: 36 qt
Engine air cleaner (each): Unknown
Transmission:
Differential: Unknown
Final drive (each): Unknown

Ammunition:
Primary weapon: 50 rounds
Secondary weapons:
Cal .50: 1100 rounds
CARRIAGE, MOTOR, 155-MM GUN, M40, AND CARRIAGE, MOTOR, 8-INCH HOWITZER, M43

GENERAL DATA

Purpose: To provide fire support mobility and crew protection as supporting artillery for offensive combat.

Classification: At present this vehicle is standard. It will eventually be supplemented by vehicle with turret bay suspension, air-cooled engine, cross-drive transmission, and turret-type gun mount.

Displacement: Total 4-ton motor-gun carriage.

Manufacturer: Pressed Steel Car Company.


Lubrication: DA LO 9-747.

Parts list: ORD 7 SRL GS8, ORD 8 SRL GS8, ORD 9 SRL GS8.

Price of vehicle: Unknown

Number of personnel: 8 in travel, 10 for firing

Weight, combat loaded: 40 tons

Length, over-all, in firing or travel position: M4, 8-in howitzer: 30 ft 8 in

Height, over-all: M4, 8-in howitzer: 12 ft 10 in

Ground clearance: M4, 8-in howitzer: 16 in

Ground pressure: M4, 8-in howitzer: 10 lb/sq in

Electrical system: 12-volt

Communication system: Radio and interphone

General information:

Cruise range: 100 miles

Maximum speed: 45 mph

Maximum road speed: 64 mph

Maximum speed, vehicle on hill: 45 mph

Maximum vertical obstacle can negotiate: 44 in

Maximum trench vehicle will cross: 12 ft

Range of secondary armament:

With HE 155-mm shell or WP smoke at 45°/57°: 8,718 yds or 811 miles

With HE 8-in shell or WP smoke at 45°/57°: 8,010 yds or 811 miles

Velocity:

811 mile:

With HE 155-mm shell or WP smoke at 45°/57°: 876 fps

With HE 8-in shell or WP smoke at 45°/57°: 890 fps

EACH OF LOCALS

Make (manufacturer): Continental

Model number: A-95C-C

Torque: 390 ft lb @ 1700 rpm

Maximum governed speed: 3,900 rpm

Number of cylinders: 2

Compression ratio: 6.5:1

Cooling system: Air

Ignition system: Magneto

CHASSIS AND POWER TRAIN

Clutch: Multiple disc

Transmission: Synchronized

Control: Direct

Speed: Reverses

Differential: Controlled

Steering control: Two hand levers

Operating principle: Band

Control: Front tiller

Number of wheels: 18 (dual)

Suspension: Horizontal vane spring

Tracks: Center guide, steel, rubber

Shoes or blocks: 85 in

ARMAMENT

Primary armament: Gun, 155-mm

Howitzer, 8-in

Traverse:

Right: 18 deg

Left: 18 deg

Elevation: 20 deg

Depression: 3 deg

Recoil mechanism: Hydraulically

Hull:

Construction: Homogeneous plate

Thickening:

Front: 80 in

Side: 80 in

Rear: 80 in

Top: 80 in

Floor: 80 in

Vision and Sighting Equipment

Periscope, vision: None

Periscope, commander: None

Range finder: None

Quadrant, elevation: None

Telescope, gunner's (M40 only): M86

Telescope, panoramic: M86

Fuel:

Total: 818 gal

Cooling system: None

Crankcase: None

Engine air cleaner (each): 8 qt

Transmission: 104 qt

Differential: Integral with transmission

Final drive (each): 84 qt

Ammunition: 18 rounds

ADDITIONAL DATA
### GENERAL DATA

**NOTE:** These specifications are tentative and subject to change.

**Purpose:** To provide an improved mobile and maneuverable gun carriage capable of giving close support to armored columns.

**Classification:** The vehicle is not yet standard. When put into production, it will replace the M4A1 motor gun carriage.

**Manufacturer:** Pacific Car and Foundry Company.

**Technical data:**
- **Model:** Not assigned.
- **Type:** Not assigned.
- **Price of vehicle:** Unknown
- **Guns (number of personnel):** 1
- **Weight, combat loaded:** 48 tons
- **Length, overall:** 16.6 ft
- **Width, overall:** 16.6 ft
- **Height, overall:** 8.6 ft
- **Tread, (center to center of track):** Unknown
- **Ground clearance (estimated):** 6 in
- **Ground pressure:** 16.3 lb/ sq in

**PERFORMANCE**

- **Gross horsepower to weight ratio:** 18.6 hp per ton
- **Cruising range:** 150 mi
- **Fuel consumption:** 6.3 m.p.g.
- **Maximum speed:** 38 m.p.h.
- **Maximum road speed:** 40 m.p.h.
- **Turning radius:** Pivot to center
- **Fording depth:** 14 in
- **Maximum vertical obstacle:** 36 in
- **Range of primary armament:**
  - With M14 shell or WP smoke at 45° or 811 m: 2,700 yd
  - With APC-T projectile at 45° or 811 m: 1,899 yd

**ENGINE**

- **Make (manufacturer):** Continental
- **Model number:** AV-1790-C
- **Brake horsepower:** 1560 b.h.p. @ 3800 rpm
- **Maximum governed speed:** 6100 rpm
- **Number of cylinders:** 18
- **Compression ratio:** 6.3:1
- **Cooling system:** Air
- **Ignition:** Magnetic

**CHASSIS AND POWER TRAIN**

- **Clutch:** None
- **Transmission:** Remote, wobble stick
- **Speeds forward:** Remote, wobble stick
- **Speeds reverse:** 1

### ARMAMENT

**Primary armament:**
- **Type:** Gun, 155-mm
- **Band:** Right
- **Lef:** 29
- **Elevation:** 20
- **Depression:** 10
- **Sides:** 40
- **Top:** 0

**Secondary armament:**
- **Cal. 30 M1:**

**HULL**

- **Type:** Homogeneous plate armor
- **Thickens:**
  - Front:
  - Sides:
  - Top:
  - Rear:
  - Bottom:

**VISION AND SIGHTING EQUIPMENT**

- **Periscopes, vision:** M17
- **Periscopes, commando:** M15
- **Quadrant elevation:** Unknown
- **Telescope, gunner's:** Unknown

**FUEL**

- **Capacities:** 850 gal
- **Fueling system:** None
- **Crankcase:** 78 gal
- **Engine air cleaner:** Unknown
- **Transmission:** Differential
- **Final drive (each):** Unknown

**Primary weapon:**
- **Cal. 30 M1:** 1100 rounds

**Secondary weapon:**
- **50 rounds**
VEHICLE, UTILITY, ARMORED, M39

GENERAL DATA
Purpose: To transport cargo and personnel in combat and for use as prime mover for light field artillery.
Classification: At present this vehicle is limited standard. Its power train and power plant are not in line with the standardization program. The vehicles will be supplied by either the T18 utility vehicle or T48 cargo tractor.
Manufacturer: Buick Motor Car Division, GMC.
Lubrication order: DA LO 9-755.
Parts list: ORD 7 SNL G165, ORD 8 SNL G165, ORD 9 SNL G165.

Price of vehicle: Unknown
Crew (number of personnel): 10
Weight, combat loaded: 17,480 lbs
Length, over-all: 17.8 ft
Width, over-all: 9.4 ft
Height, over-all: 8.6 ft
Shipping dimensions: 13 x 6 x 6 ft
Track (outer to center of track): 60.3 in
Ground clearance: 11.9 in
Ground pressure: 9.5 lb/in
Electrical system: 12-volt
Communication system: Radio and intercepts

PERFORMANCE
Cruising range: 150 mi
Fuel consumption: 8.5 mpg
Maximum allowable speed: 60 mph
Maximum gradeability: 60% per cent
Turning radius: 39 ft
Fuel capacity: 28.8 gal
Maximum breack vehicle will cross: 74 in
Maximum vertical obstacle can negotiate: 36 in
Key load: 1.44 tons
Towed load: 24,500 lbs

ENGINE
Make (manufacturer): Continental
Model number: R975C4
Torque: 640 ft-lb @ 1700 rpm
Maximum governed speed: 2400 rpm
Number of cylinders: 6
Displacement, total: 2978 cu in
Compression ratio: 6.1:1

Cooling system: Air
Ignition: Magneto

CHASSIS AND POWER TRAIN
Clutch: None
Transmission: Torque
Control: Remote, hand lever
Speeds forward: 10
Speeds reverse: 10
Transfer case: Constant mesh
Control: None
Differential: Constant
Steering control: Two hand lever
Brakes: Operating principle: Band
Control: Two hand levers
Drive: Number of wheels: 10 (dual)
Suspension: Center guide pole
Shoes or blocks: 44 in
Width: 11 in

ARMAMENT
Cal. 50 MG

Hull Construction: Homogeneous plate

VISION AND SIGHTING EQUIPMENT
Periscope, vision: M18

FUEL CAPACITIES
Total: 166 gal
Right tank: 81 gal
Left tank: 85 gal

Cooling system: None
Crankcase: 9 qts
Engine air cleaner (each): 7 qts
Transmission: 10 qts
Differential and transfer case: 5 qts
Final drive (each): 9 qts

Ammunition: Primary weapon (Cal .50 MG): 900 rounds

ADDITIONAL DATA
VEHICLE, UTILITY, ARMORED, T18

GENERAL DATA

NOTE: These specifications are tentative and subject to change.

Vehicle: Armored personnel carrier, armored cargo carrier, litter carrier, prime mover, reconnaissance vehicle, and command post vehicle.

Classification: This vehicle is in development stage. It was primarily intended to fill the requirement for a 16-man armored personnel carrier for armored infantry.

Manufacturer: International Harvester Company.

Technical manuals: Not assigned.

Lubrication order: Not assigned.

Price list: Not assigned.

Crew and passengers (number of personnel): 14

Length, over-all: 117.4 ft

Width, over-all: 9 ft

Height, over-all (estimated): 6 ft 9 in

Shipping dimensions: 1410 cu ft

Track (center to center of track): 87 in

Ground clearance: 16 in

Ground pressure: 8.6 lb/ft

Electrical system: 12-volts

Communication system: Radio and interphone

PERFORMANCE

Gross horsepower to weight ratio: .58 hp per ton

Cruising range (estimated): 110 mi

Fuel consumption: 25 mpg

Maximum allowable speed: 47 mph

Maximum gradeability: 60% per cent

Turning radius: Wheel to wheel: 48 in

Fording depth: 28 in

Maximum trench vehicle will cross: 56 in

Maximum vertical obstacle: 18 in

Pav. load: Unknown

Towed load: Unknown

ENGINE

Make (manufacturer): Continental

Model number: AC-105

Brake horsepower: 975

Torque: 376 ft lb

Maximum governed speed: 8500 rpm

Construction and design: Opposed, 1-head

Displacement, total: 895 cu in

Compression ratio: 5.7:1

Cooling system: Air cooled

Ignition: Magnetos

CHASSIS AND POWER TRAIN

Clutch: Cross-drive (OD 500)

Transmission: Cross-drive (OD 500)

Control: Wobble style

Speeds forward: 10

Differential: Manual

Brakes: Mechanical, multiple disc

Drive: Front suspension

Number of wheels: 10 (dual)

Suspension: Individual torsion bar

Tract: Steel chevron, center guide

Width: 81 in

ARMAMENT

Cal .50 MG: 3 (remote controlled, one on each side of front end)

Hull: Homogeneous plate

Thick.: Front: % in

Side: % in

Rear: % in

Top: % in

Floor: % in

VISION AND SIGHTING EQUIPMENT

Periscope, vision: M17 (35 ea)

Sight, periscope: T21 (1 ea)

Fuel:

Total: 150 gal

Cooling system: None

Grill: None

Engine air cleaner (each): (estimated) 3.5 qt

Transmission: Unknown

Differential: Unknown

Final drive (each): Unknown

Ammunition:

Cal .50: 5000 rounds

ADDITIONAL DATA
VEHICLE, UTILITY, ARMORED, M44

GENERAL DATA

Purpose: Armored cargo and personnel carrier, reconnaissance vehicle, command post, prime mover, and armored maintenance vehicle.

Classification: The vehicle at present is T/O&E standard in armored units. As only six of these vehicles exist, they are not available for issue to field troops. The M44E1 will supersede the M44 in the future. It has the common components power train.

Manufacturer: Cadillac Motor Car Division.

Technical manual: Not assigned.

Lubrication order: Not assigned.

Parts list: Not assigned.

Price of vehicle: Unknown

Crew and passengers (number of personnel): 27

Weight, combat loaded: 36.68 tons

Length, overall: 10.04 ft

Width, overall: 9.81 ft

Height, overall: 8.8 ft

Shipment dimensions: 2034.56 cu ft; 118.5 sq ft

Tread (center to center of track): 30 in

Ground clearance: 16.55 in

Ground pressure: 9.8 lb/sq in

Electrical system: 12-volt

Communication system: Radio and interphone

PERFORMANCE

Gross horsepower to weight ratio: 13.5 hp per ton

Cruising range: 160 mi

Fuel consumption: 9 mpg

Maximum allowable speed: 32 mph

Maximum speed: 80 km/h (estimated)

Turning radius (estimated): 21 ft

Fording depth: 40 in

Maximum trench vehicle will cross: 34 in

Maximum vertical obstacle can negotiate: 30 in

For load (estimated): 10,000 lb

Towed load: 32,000 lb

ENGINE

Make (manufacturer): Continental

Model number: 8975-D4

Brake horsepower: 475

Torque: 1075 ft lbs @ 1600 rpm

Engine type: Flat head, 180 degrees

Maximum governed speed: 2400 rpm

Construction and design: Block, 6-cylinders

Number of cylinders: 8

Displacement, total: 970 cu in

Compression ratio: 5.7:1

Cooling system: Air

Ignition: Magnet

CHASSIS AND POWER TRAIN

Clutch: None

Transmission: Torque shift

Control: Remote, hand lever

Speeds forward: 1

Speeds reverse: 1

Transfer case: 1 speed

Differential: Controlled

Steering control: Two hand levers

Brakes: Band

Operating principle: Front spring

Suspension: Individual torsion bar

Tracks: Construction: Steel chevron, center guide

Shoe or blocks: 310 sq ft

Width: 9238 gal

ARMAMENT

Cal .30 MG: 1 (ring mount)

Cal .30 MG: 1 (bow)

Hull: Construction: Homogeneous plate

Thickness: Front: 1/4 in

Sides: 1/4 in

Rear: 1/4 in

Top: 1/4 in

Floor: 3/16 in

VISION AND SIGHTING EQUIPMENT

Periscope, vision: M17 (14 in)

Fuselage: Vision: None

Total: 228 gal

Cooling system: None

Crankcase: 18 qt

Engine air cleaner (24 sq in): 34 qt

Torque converter: 34 qt

Transmission: 38 qt

Differential: Integral with transmission

Final drive (each): 10 qt

Ammunition: Cal .30: 500 rounds

Cal .30: 1000 rounds

ADDITIONAL DATA
VEHICLE, UTILITY, ARMORED, M44E1

GENERAL DATA

NOTE: These specifications are tentative and subject to change.

Purpose: A full-track armored carrier capable of transporting personnel and cargo. It will serve as a prime mover, command post, reconnaissance vehicle, or maintenance vehicle.

Classification: This vehicle is an improved version of the current standard M44 armored utility vehicle. It contains standard components such as the cross-drive transmission and air cooled family) engines. Eventually it will replace the M44.

Manufacturer: Detroit Arsenal.

Technical manual: Not assigned.

Lubrication order: Not assigned.

Parts list: Not assigned.

Price of vehicle: Unknown.

Crew and passengers (number of personnel): 10.

Weight, combat loaded: 67,480 lb.

Length, overall: 17.9 ft.

Width, overall: 8.9 ft.

Height, overall: 8.3 ft.

Shipping dimensions: 1984.4 cu ft, 311.1 sq ft.

Tread (center to center of track): 9.8 in.

Ground clearance: 0.3 in.

Ground pressure: 0.9 psi.

Electrical system: 12 volt.

Communication system: Radio and interphone.

PERFORMANCE

Gross horsepower: 196 hp.

Specific power: 19.6 hp per ton.

Cruising range: 150 mi.

Fuel consumption: 8.8 mpg.

Maximum allowable speed: 44.4 mph.

Maximum gradeability: 60 per cent.

Turning radius: Pivot in infinity.

Fording depth: 48 in.

Maximum trench vehicle will cross: 34 in.

Maximum vertical obstacle can negotiate: 30 in.

Tractive effort: 42,100 lb.

ENGINE

Make (manufacturer): Continental.

Model number: A05-800-1.

Brake horsepower: 500 hp.

Torque: 855 ft lb @ 4,000 rpm.

Maximum governed speed: 350 mph.

Construction and design: Opposed, liquid.

Number of cylinders: 8.

Displacement, total: 305 cu in.

Compression ratio: 6.5:1.

Cooling system: Air cooled.

Ignition: Magneto.

CHASSIS AND POWER TRAIN

Clutch: None.

Transmission: Cross-drive.

Engine: Continental.

Speeds forward: 8.

Speeds reverse: 4.

Differential: Cross-drive.

Brakes: Mechanical, multiple disc.

Air cooled.

Sides: Individual torsion bar.

Tracks: Steel chevron, center guide.

Shoes or blocks: 31 in.

Width: 34 in.

ARMAMENT

Cal .50 MG: 1 (ring mount).

Hull: Armor: Homogeneous plate.

Thick:.

Front: 34 in.

Sides: 34 in.

Rear: 34 in.

Top: 34 in.

Floor: 34 in.

VISION AND SIGHTING EQUIPMENT

Periscope, vision: M17 (14 each).

Fuel: 225 gal.

Cooling system: None.

Guns: 38 mm.

Engine air cleaner (each): Unknown.

Transmission: Integral with transmission.

Ammunition: 380 rounds.

ADDITIONAL DATA
TRACTOR, 13-TON, HIGH SPEED, M5A1

GENERAL DATA

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>To tow artillery over rough terrain and transport gun</td>
</tr>
<tr>
<td>Crew</td>
<td>11 personnel</td>
</tr>
<tr>
<td>Weight, combat loaded</td>
<td>15.75 tons</td>
</tr>
<tr>
<td>Length, overall</td>
<td>18.2 ft</td>
</tr>
<tr>
<td>Height, overall</td>
<td>8.8 ft</td>
</tr>
<tr>
<td>Shipping dimensions</td>
<td>1176.0 cu ft</td>
</tr>
<tr>
<td>Ground clearance</td>
<td>10.75 in</td>
</tr>
<tr>
<td>Ground pressure</td>
<td>111 lb/sq in</td>
</tr>
<tr>
<td>Brake horsepower</td>
<td>653 ft lb</td>
</tr>
<tr>
<td>Transmission</td>
<td>Dual range, disk</td>
</tr>
<tr>
<td>Controls</td>
<td>Constant, peak</td>
</tr>
<tr>
<td>Clutch type</td>
<td>Dual, hand lever</td>
</tr>
<tr>
<td>Speeds forward</td>
<td>65 mph</td>
</tr>
<tr>
<td>Differential</td>
<td>Two hand levers</td>
</tr>
<tr>
<td>Steering control</td>
<td>Hand</td>
</tr>
<tr>
<td>Number of wheels</td>
<td>8 (single)</td>
</tr>
<tr>
<td>Frictional wheel spring</td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>Outside guide, steel</td>
</tr>
<tr>
<td>Shoes or blocks</td>
<td>98 sq in</td>
</tr>
<tr>
<td>Width</td>
<td>11 3/4 in</td>
</tr>
</tbody>
</table>

PERFORMANCE

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross horsepower to weight ratio</td>
<td>18.0 hp/ton</td>
</tr>
<tr>
<td>Fuel consumption</td>
<td>1 to 3 mpg</td>
</tr>
<tr>
<td>Maximum allowable speed</td>
<td>1500 rpm</td>
</tr>
<tr>
<td>Maximum gradability</td>
<td>87% per cent</td>
</tr>
<tr>
<td>Turning radius</td>
<td>30 ft</td>
</tr>
<tr>
<td>Fording depth</td>
<td>46 in</td>
</tr>
<tr>
<td>Maximum trench vehicle will cross</td>
<td>95 in</td>
</tr>
<tr>
<td>Maximum vertical obstacle can negotiate</td>
<td>16 in</td>
</tr>
<tr>
<td>Towed load</td>
<td>10,000 lb</td>
</tr>
<tr>
<td>Winch load</td>
<td>10,000 lb</td>
</tr>
</tbody>
</table>

ENGINE

<table>
<thead>
<tr>
<th>Model number</th>
<th>Continental</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-878</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel tank</td>
<td>106.75 gal</td>
</tr>
<tr>
<td>Left tank</td>
<td>54.37 gal</td>
</tr>
<tr>
<td>Engine air cleaner (each)</td>
<td>5 qt</td>
</tr>
<tr>
<td>Transmission</td>
<td>64 qt</td>
</tr>
<tr>
<td>Final drive (each)</td>
<td>5 qt</td>
</tr>
<tr>
<td>Winch gear case</td>
<td>8 qt</td>
</tr>
</tbody>
</table>

ADDITIONAL DATA

* Prices based on vehicle plus artillery equipment.
TRACTOR, CARGO, T43E1

GENERAL DATA
NOTE: These specifications are tentative and subject to change.

Purpose: Cross-country prime mover for 155-mm howitzer and lighter loads; also used as cargo or personnel carrier. Where no armor is required.

Classification: This vehicle is not as yet standard. When put into production it will supersede the M5 and M3A1 10-ton high-speed tractor.

Manufacturer: Ingersoll Harvestor Company.

Technical manual: Not assigned.

Lubrication order: Not assigned.

Parts list: Not assigned.

Price of vehicle: Unknown

Gross output (number of personnel) 16

Weight, combat loaded: 16,800 lb

Length, over-all: 17.6 ft

Width, over-all: 8.8 ft

Height, over-all: 17.5 ft

Shipping dimensions: Unknown

Truck (center to center of track): 57.5 in

Ground clearance: 22 in

Ground pressure: 8.9 lb/sq in

Electrical system: 24-volt

PERFORMANCE
Gross horsepower to weight ratio: 88.3 hp per ton

Cruising range: 150 mi

Fuel consumption (estimated): 9.5 mpp

Maximum allowable speed: 32 mph

Maximum gradability: 30% per cent

Turning radius: Pivot to infinity

Forgetting depth: 40 in

Maximum breast vehicles will cross: 95 in

Maximum vertical obstacles will negotiate: 21 in

Pay load: Unknown

Towed load: Unknown

Winch load: Unknown

ENGINE
Make (manufacturer): Continental
Model number: AO-855-6
Brake horsepower: 750 hp
Torque: 2400 ft lb
Maximum governed speed: 2000 rpm
Construction and design: Opposed, 4-cylinder, air-cooled
Number of cylinders: 6
Displacement, total: 960 cu in
Compression ratio: 6:1
Cooling system: Air
Ignition: Magneto

CHASSIS AND POWER TRAIN
Clutch: None
Transmission: Cross-drive
Control: Wobble stick
Speeds forward: 5
Speeds reverse: 2
Differential: Cross-drive
Steering control: Wobble stick
Brakes: Operating principle: Mechanical (multiple disc)
Control: Foot pedal
Drive: Front propeller
Number of wheels: 10 (dual)
Suspension: Torsion bar

trucks:

Construction: Center guide, steel
Suspension: 76 in

Fuel: 180 gal

Cooling system: No

Engine size: 96 cu in

Engine air cleaner (each): Unknown

Transmission: Unknown

Differential: Unknown

Final drive (each): Unknown

Winch gear case: Unknown

ADDITIONAL DATA
TRACTOR, HIGH SPEED, 18-TON, M4 AND M4C

GENERAL DATA

Purpose: To tow heavy artillery over rough terrain, transport gun crews, and ammunition.

Classification: This vehicle is a substitute standard. It has been superseded by Cargo Tractor, M8. Both vehicles will eventually be superseded by the T40BE1 or T44 cargo tractors.

Manufacturer: Allis-Chalmers Manufacturing Company.


Specification order: 9-785.

Part list: ORD 7 SNL G150, ORD 8 SNL G150, ORD 9 SNL G150.

Price of vehicle*: $18,087

Crew (number of personnel) .................................................. 11

Weight, combat loaded .................................................... 16 tons

Length, over-all ............................................................. 60.0 ft

Width, over-all ............................................................. 8.1 ft

Height, over-all ............................................................. 13.4 ft

Shipping dimensions: 11.58 cu ft; 107.6 sq ft

Tread (center to center of track) ........................................ 80 in

Ground clearance ........................................................... 12 in

Ground pressure ............................................................ 1.1 lb/sq in

Electrical system ............................................................ 12-volt

PERFORMANCE

Gross horsepower to weight ratio ........................................ 10.4 hp per ton

Cruising range ............................................................... 180 mi

Fuel consumption ........................................................... 12.8 mpg

Maximum airspeed .......................................................... 85 mph

Maximum speed ............................................................ 15.8 mph

Turning radius .............................................................. 18.5 ft

Forcing depth .................................................................. 41 in

Maximum trench vehicle will cross .................................... 80 in

Maximum vertical obstacle can negotiate ................................ 80 in

Towed load .................................................................... 30,000 lb

Winch load .................................................................... 30,000 lb

* Price based on vehicle plus artillery equipment.

M4C is a M4 modified to carry 48 rounds of 155-mm ammunition and 8 passengers.

ENGINE

Make (manufacturer) .............................................................. Waukesha

Model number ................................................................... 148CI

Brake horsepower ............................................................. 810 hp

Torque ............................................................................. 885 ft lb @ 1550 rpm

Maximum governed speed .................................................. 1600 rpm

Construction and design .................................................... 16-lit, 1-head

Number of cylinders .......................................................... 16

Displacement, total ......................................................... 11,770 cu in

Compression ratio ............................................................ 9.8:1

Cooling system ................................................................. Liquid cooled

Ignition ................................................................................ Battery, distributor

CHASSIS AND POWER TRAIN

Clutch ................................................................................ Single disc

Transmission ....................................................................... Selective sliding with torque converter

Control ............................................................................... Direct, hand lever

Low gear forward .............................................................. 4.1:1

High gear forward ............................................................. 1.04:1

Differential ......................................................................... Controlled

Steering control ................................................................. Two hand levers

Brakes ............................................................................... Band

Operating principle ............................................................ Two hand levers

Control ............................................................................... Band

Number of wheels ............................................................ 8 (single)

Suspension ......................................................................... Horizontal coil spring

Tracks ................................................................................ Outside guide, rubber and steel

Construction ................................................................. 16.59 in

CAPACITIES

Fuel, total ........................................................................ 193 gal

Cooling system ................................................................. 18 gal

Crankcase .......................................................................... 18 gal

Engine oil filter ................................................................. 18 gal

Engine air cleaner (each) ................................................... 9 gal

Transmission ....................................................................... Integral with differential

Differential ......................................................................... 34 gal

Torque converter (each) ..................................................... 34 gal

Final drive (each) ............................................................... 18 gal

Winch gear case ............................................................... 9 gal

ADDITIONAL DATA


40
TRACTOR, CARGO, M8

GENERAL DATA

Purpose: Prime mover and cargo carrier capable of towing loads from 10,000 to 30,000 pounds. For transporting personnel, ammunition, or miscellaneous equipment totaling 20,000 pounds or more.

Classification: This vehicle was to be standard; however, only six of them were manufactured before the war terminated and the contract for 3000 was canceled. The requirement will eventually be filled by the new Tractor Cargo, M6E1.

Manufacturer: Buick Division, G.M.C.

Technical manuals: Not assigned.

Lubrication order: Not assigned.

Price of vehicle: Unknown.

Crew (number of personnel): 6

Weight, combat loaded: 32,750 lbs.

Length, over-all: 6 ft. 3 in.

Width, over-all: 3 ft. 11 in.

Height, over-all: 4 ft. 3 in.

Shipping dimensions: (center to center of tracks) 12 ft. 3 in.

Ground clearance: 18.5 in.

Ground pressure: 7.88 lb/sq in.

Electrical system: 12 volt

Brake horse power per weight ratio: 12.1 hp per ton

Performance:

Cross horsepower to weight ratio: 12.1 hp per ton

Braking range: 800 m.l.

Fuel consumption: 9 mpg

Maximum allowable speed: 30 mph

Maximum gradability: .35 per cent

Turning radius: 7.6 ft.

Fording depth: 12 in.

Maximum trench vehicle will cross: 5 ft.

Maximum vertical obstacle can negotiate: 8 ft.

Towed load: 10,000 lb.

Winch load: 35,000 lb.

ENGINE

Make, (manufacturer): Continental

Model number: R-878D4

Brake horse power: 476

Torque: 1078 ft. lb @ 1500 rpm

Maximum governed speed: 35 mph

Construction and design: B Model, 6-cylinders

Number of cylinders: 6

Displacement, total: 266 cu. in.

Compression ratio: 6.6:1

Cooling system: Open

Ignition: Magneto

CHASSIS AND POWER TRAIN

Clutch: None

Transmission: 2 speed

Control: Remote, hand controlling

Speeds forward: 2

Speeds reverse: 2

Differential: Compensated

Steering control: Two hand levers

Brakes:

Operating principle: Mechanical bands

Control: Two hand levers

Drive:

Front: 3.8:1 (dual)

Number of wheels:

Suspension: Torsion bar

Tracks:

Construction: Center guide, steel

Shoe or block:

Width: 8.1 in.

ARMOR

For structural strength only

CAPACITIES

Fuel tank: 288 gal

Cooling system: 40 qt

Crankcase: 40 qt

Engine air cleaner (each): 40 qt

Transmission: 40 qt

Differential: 40 qt

Final drive (each): 35 qt

Winch gear case: Unknown

ADDITIONAL DATA
TRACTOR, CARGO, M8E1

GENERAL DATA

NOTE: These specifications are tentative and subject to change.

Purpose: An improved full-track, high-speed prime mover for artillery loads of 18,000 to 18,000 pounds and a personnel capacity of 16,000 pounds for transporting personnel, ammunition, or miscellaneous cargo of all types of terrain.

Classification: This vehicle is an improved version of the current standard M8 cargo tractor. It contains all the modern components such as cross-drive transmission and in-line air-cooled engine. Eventually it will replace the M8 cargo tractor.

Manufacturer: Detroit Arsenal

Technical manuals: Not assigned.

Lubrication order: Not assigned.

Parts list: Not assigned.

Price of vehicle: Unknown

Crew (number of personnel): 8

Weight, combat loaded: 54,740 lb

Length over-all: 16 ft 9 in

Width, over-all: 8 ft 3 in

Height, over-all: 9 ft 9 in

Shipping dimensions: 16 ft 9 in

Truck center to center of track: 3 ft 8 in

Ground clearance: 8 in

Ground pressure: 14.4 lb/sq in

Electrical system: 4 volt

Communication system: None

PERFORMANCE

Brake horsepower: 285 hp

Torque: 965 ft lb @ 2,400 rpm

Maximum governed speed: 65 mph

Construction and design: Opposed, I-block

Number of cylinders: 6

Displacement, total: 360 cu in

Compression ratio: 6.7:1

Cooling system: Air-cooled

Ignition: Magnetoelectric

CHASSIS AND POWER TRAIN

Clutch: None

Transmission: Cross-drive

Control: Wobble shaft

Speeds forward: 1

Speeds reverse: 1

Differential: Cross-drive

Steering control: Wobble shaft

Brakes: Mechanical, single disc

Operating principle: Manual, foot pedal

Drive: Front axle

Number of wheels: 18 (14 dual)

Suspension: Independent torsion bar

Traction:

Construction: Steel chevron, center guide

Shoes or blocks: 1 in

Width: 47 in

ENGINE

Make (manufacturer): Continental

Model number: AO8 888-1

Armament: 3.50 MG (rear mount)

Armor (for structural strength only):

Capacities:

Fuel: 885 gal

Cooling system: None

Engine air cleaner (eqv.) [estimated]: 1.6 qt

Transmission: [Unknown]

Differential: Integral with transmission

Final drive (each): Unknown

Winch gear case: Unknown

Communication: Cal .50

500 rounds

ADDITIONAL DATA
TRACTOR, HIGH SPEED, M6

GENERAL DATA

Purpose: To tow heavy artillery and transport gas crews and ammunition.

Classification: This vehicle will not be seen in quantity in using organizations, only a small quantity were manufactured for use specially for development and instructional purposes. The new M-74 cargo tractor is all that is required for this type vehicle.

Manufacturer: Allis Chalmers Manufacturing Company.


Lubrication order: 0-706

Part list: ORD 7 ENL G184, ORD 8 ENL G184, ORD 9 ENL G184.

Engine: V-8 and V-12

Note: This vehicle has two engines as described below.

Engine (manufacturer) 0.706

Pressure

Model number

Fuel consumption

Maximum allowable speed

Maximum gradeability

Turning radius

Fording depth

Maximum trench vehicle will cross

Maximum vertical obstacle can negotiate

Towed load

Winch load

Performance

Engine

NOTE: This vehicle has two engines as described below.

Engine (manufacturer) 0.706

Pressure

Model number

Fuel consumption

Maximum allowable speed

Maximum gradeability

Turning radius

Fording depth

Maximum trench vehicle will cross

Maximum vertical obstacle can negotiate

Towed load

Winch load

GENERAL DATA

Note: This vehicle has two engines as described below.

Engine (manufacturer) 0.706

Pressure

Model number

Fuel consumption

Maximum allowable speed

Maximum gradeability

Turning radius

Fording depth

Maximum trench vehicle will cross

Maximum vertical obstacle can negotiate

Towed load

Winch load

ADDITIONAL DATA
TRACTOR, CARGO, T44

GENERAL DATA

NOTE: These specifications are tentative and subject to change.

Purpose: An improved full-track high speed prime mover for

artillery loads of 40,000 to 68,000 pounds and having a payload
capacity of 30,000 pounds for transporting personnel, ammuni-
tion, or miscellaneous cargo over all types of terrain.

Classification: This vehicle is not yet standard. When developed
and put into production, it will replace Cargo Tractor, High Speed,
Tractor, High Speed, M6, and possibly Cargo Tractor, High Speed,
M47.

Manufacturer: Detroit Arsenal.

Technical manual: Not assigned.

Preliminary test: Not assigned.

Price of vehicle: Unknown.

Grew (number of personnel): Unknown.

Length, overall: 12.9 ft.

Width, overall: 11.9 ft.

Height, overall: 12.9 ft.

Shipping dimensions: Unknown.

Tread (center to center of track): 11.9 in.

Ground clearance: 11.9 in.

Ground pressure: Unknown.

Electrical system: 12-volt.

PERFORMANCE

Gross horsepower to weight ratio: 18.39 hp per ton

Cruising range: 300 mi.

Maximum allowable speed: 38 mph.

Maximum gradability: 60 per cent.

Turning radius: 15 ft.

Parking depth: 12 ft.

Maximum trench vehicle will cross: 9 ft.

Maximum water obstacle can negotiate: 7 ft.

Load capacity: 40,000 lb.

Winch load: 60,000 lb.

ENGINE

Make (manufacturer): Continental.

Model number: 6-310.

Speed: 1650 rpm.

Maximum governed speed: 3500 rpm.

Number of cylinders: 2.

Displacement total: 1790 cu in.

Compression ratio: 6.5:1.

Cooling system: Air.

Ignition: Magnetos.

CHASSIS AND POWER TRAIN

Clutch: None.

Transmission: Case driven.

Control: Remote, wobble skid.

Speeds forward: Case driven.

Speeds reverse: Case driven.

Differential: Remote, wobble skid.

Steering control: Mechanical, multiple disc.

Brakes: Remote, wobble skid.

Operating principle: Mechanical, multiple disc.

Control: Manual, foot pedal.

Drive: Front and rear.

Number of wheels: 14 (tandem)

Suspension: Front and rear.

Tracks: Center guide, steel.

width: 120 in.

CAPACITIES

Fuel, total: 350 gal.

Cooling system: 18 gal.

Cranks: Unknown.

Engine air cleaner (each): Unknown.

Transmission: Unknown.

Differential: Integral with transmission.

Final drive (each): Unknown.

Winch gear case: Unknown.

ADDITIONAL DATA

--------


**VEHICLE, LANDING, TRACKED (UNARMORED), LVT (4)**

**GENERAL DATA**

**Purpose:** For transporting personnel and cargo over rough terrain, swamps, and soft ground in exposed waters. Also for landing on beaches through surf.

**Classification:** To date no vehicle has been placed into production to replace the LVT (4). In event it is superseded by a production vehicle it will be of the same components type utilizing the cross-drive transmission and air-cooled engine.

**Manufacturer:** Food Machinery Corporation and St. Louis Car Company.


**Chassis and Power Train**

**Lubrication order:** DA LO 9-778.

**Parts list:** ORD 7 ENL, GD09; ORD 8 ENL, GR09; ORD 9 ENL.

**Price of vehicle*:** $45,339

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crew (number of personnel)</td>
<td>7</td>
</tr>
<tr>
<td>Weight, combat loaded</td>
<td>16,708 lbs</td>
</tr>
<tr>
<td>Length, overall</td>
<td>14 ft 6 in</td>
</tr>
<tr>
<td>Width, overall</td>
<td>8 ft 9 in</td>
</tr>
<tr>
<td>Height, overall</td>
<td>9 ft 10 in</td>
</tr>
<tr>
<td>Track dimension</td>
<td>60 inches</td>
</tr>
<tr>
<td>Ground clearance</td>
<td>12 inches</td>
</tr>
<tr>
<td>Electrical system</td>
<td>12 volt</td>
</tr>
</tbody>
</table>

**PERFORMANCE**

Cross-horsepower to weight ratio: 11.6 hp per ton

Fuel consumption: 160 mi (land); 18.5 mpg (water)

Maximum speed (land): 10 mph

Maximum speed (water): 8 mph

Turning radius: 60 ft (land)

Maximum depth Amphibious: 9 ft

Maximum vertical obstacle can negotiate: 2 ft

Pay load: 5000 lb

*Price based on basic vehicle plus artillery equipment.

**Vision and Sighting Equipment**

**Vision Block:**

**Fuel:**

**Engine:**

**CAPACITIES**

Reservoir: 97 gal

Transmission: 54 qt

Differential: 54 qt

Final drive (each): 54 qt

Ammunition (each): 1000 rounds

**Chassis and Power Train**

**Make (manufacturer):** Continental

**Model number:** W670-97

**Torque:** 575 ft lb @ 1800 rpm

**Maximum governed speed:** 28 mph

**Number of cylinders:** 4

**Displacement, total:** 587.56 cu in

**Transmission:** Multiple disc synchromesh

**Control:** Detachable hand lever

**Speed forward:** 1st

**Speed reverse:** 2nd

**Differential:** 2-speed, controlled

**Steering control:** 2-hand lever

**Brakes:** 2-wheel

**Operating principle:** Band

**Control:** 2-wheel

**Drive:** Front propeller

**Number of wheels:** 4 (tandem)

**Suspension:** Torsional rubber

**Tires:** Steel

**Number of blocks:** 15 (grouser and cross chain)

**Width:** 14.48 in

**Armament:** None.

**ADDITIONAL DATA**

---

45
VEHICLE, LANDING, TRACKED (ARMORED), LVT (A) (4)

GENERAL DATA

Purpose: For use in rough terrain, swamp land, and self-propulsion over roads. Also for landing on beach through surf.

Classification: To date, no vehicle has been put into production to supersede the LVT. In event more tracked landing vehicles are manufactured, they will follow the development trends using common components such as air-cooled engines and cross-drive transmissions.

Manufacturer: Ford Motor Company, St. Louis Car Company.


Lubrication order: DA LO 9-776.


Price of vehicle: 41,000

Weight, combat loaded: 8,000 lbs

Length, overall: 20 ft

Width, overall: 8 ft

Height: 7 ft

Tread (center to center of track): 35.1 in

Ground clearance: 10 in

Electrical system: 12 volt

Communication system: Radio and telephone

PERFORMANCE

Gross horsepower to weight ratio: 13.7 hp per ton

Grazing range (land): 800 miles

Fuel consumption (land) estimated: 10 gal per hour

Maximum allowable speed (land): 21 mph (wheel) 8 mph (track)

Maximum road speed: 21 mph

Maximum amphibious speed: 2 mph

Ground clearance: 10 in

Range of primary armament:

With HE shell or WP smoke at 48° off or 811 miles 500 yds

Velocity of primary armament:

With HE shell or WP smoke at 48° off or 811 miles 1800 fps

ENGINE

Make (manufacturer): Continental

Model number: WC-710-A4

Engine horsepower: 250 hp

Maximum governed speed: 2970 rpm

Construction and design: Head, L-head

Number of cylinders: 6

Displacement, total: 455 cu in

Compression ratio: 4.4 to 1

Cooling system: Air

Ignition system: Magneto

Price based on vehicle less equipment.

Loaded waterline length: 470 in

Loaded freeboard (min): 27 in

Loaded draft:

Front: 21.5 in

Rear: 21.5 in

CHASSIS AND POWER TRAIN

Clutch: Multiple disc

Transmission: Multiple disc

Brakes: Hand lever

Speeds forward:

1st: 3 mph

2nd: 6 mph

3rd: 10 mph

4th: 21 mph

5th: 35 mph

Reverse:

1st: 5 mph

2nd: 10 mph

3rd: 25 mph

4th: 35 mph

Differential: Traction

Steering control: Two hand levers

Drive: Final drive

Number of wheels: 8

Suspension: Semielliptic

Trailer:

Construction:

Front or sides: Steel

Length: 70 in (ground and cross-section)

Width: 18.5 in

ARMAMENT

Primary armament:

Gun: 75 mm

Armament:

Number of guns: 2

Elevation: 70°

Depression: 10°

Secondary armament:

Caliber: .30 (or 20 caliber)

ARMOR

Construction:

Material: Boiler plate with homogeneous plate attached

Thickness:

Front: 7 in

Side: 4 in

Top (floor): 5 in

ARMOR

VISION AND SIGHTING EQUIPMENT

Quadring, elevation

Telescope, gunner's

Telescope, panoramic

Gun:

CAPACITIES

Fuel:

1st tank: 140 gal (8)

2nd tank: 70 gal

Cooled system:

Reservoir: 3.7 gal

Engine air cleaner (each): 1 qt

Fuel storage (each): 1 qt

Final drive (each): 9 qt

Ammunition:

Primary weapon:

Secondary weapons:

Caliber: .30

6000 rounds (5.56 cal MGs)
CARRIER, CARGO, AMPHIBIOUS, T46

GENERAL DATA

NOTE: These specifications are tentative and subject to change. These specifications are tentative and subject to change.

Purpose: To provide a light amphibious cargo carrier and prime mover, convertible to a transport vehicle, suitable for cargo and personnel and capable of being transported by air.

Classification: This vehicle is in development stage. When put into production it will replace Cargo Carrier, M128, and some of the requirements for the LVT/A.

Manufacturer: General Motors Corporation.

Technical manuals: Not assigned.

Lubrication order: Not assigned.

Parts list: Not assigned.

Prime of vehicle: ...

Crew (number of personnel) ........................................... Unknown

Weight combat loaded ............................................... 6 tons

Length, overall .......................................................... 18.0 ft

Width, overall ............................................................ 7.0 ft

Height, overall ........................................................... 7.0 ft

Steering dimension ..................................................... Unknown

Track center to center of track ..................................... 67.8 in

Ground clearance ......................................................... 14.3 in

Ground pressure ........................................................ 61 lb/sq in

Electrical system ........................................................ 120 volt

Communications system ................................................. Radio and interphone

PERFORMANCE

Gross horsepower to weight ratio .................................. 30.8 hp per ton

Climbing range ......................................................... 600 mi

Fuel consumption ....................................................... 3.5 mpg

Maximum allowable land speed ..................................... 45.5 mph

Maximum allowable water speed .................................... 25.5 mph

Maximum gradeability .................................................. 80 per cent

Turning radius ........................................................... Fixed to infinity

Firing depth ............................................................... Amphibious

Maximum trench vehicle will cross ................................ 80 in

Maximum vertical obstacle can negotiate ....................... 18 in

Pay load ................................................................. 3,600 lb

Winch (Captain) load .................................................. Unknown

Winch (Captain) load .................................................. Unknown

ENGINE

Make (manufacturer) ................................................... Continental

Model number ........................................................... AD-333-B

Brake horsepower ....................................................... 120

Torque ................................................................. 24 ft-lb @ 4,000 rpm

Maximum governed speed ............................................ 40 mph

Compression ratio ..................................................... 6:1

Cooling system ........................................................ Mechanical

Ignition ................................................................. Electric

Chassis and power train ............................................. Front wheel drive

Number of wheels ..................................................... 8 (twin)

Suspension ............................................................... Torsion bar

Tracks ............................................................................ Known dimensions

Construction ............................................................... Goal type

Shoe or blocks ................................................................... 38 in

Width ............................................................................. 86.5 in

CAPACITIES

Fuel, total ................................................................. 40 gal

Cooling system ........................................................... Known

Engine oil capacity ..................................................... 12 qt

Transmission ............................................................... Unknown

Differential ............................................................... Unknown

Final drive (each) ....................................................... Known

Winch (Captain) gear case ........................................... Unknown

ADDITIONAL DATA


47
TRAILER, 1/4-TON, 2W, CARGO, (AMPHIBIAN)

GENERAL DATA

**Purpose:** Transport general cargo on land or water.

**Manufacturer:** American Bantam Car Company, Willys Overland Motors, Incorporated.

**Technical manual:** No-1881.

**Part list:** SNL 0385.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price of vehicle</td>
<td>$800.00</td>
</tr>
<tr>
<td>Body type</td>
<td>Cargo</td>
</tr>
<tr>
<td>Weight, gross</td>
<td>1,500 lb</td>
</tr>
<tr>
<td>Pay load</td>
<td>500 lb</td>
</tr>
<tr>
<td>Net weight</td>
<td>550 lb</td>
</tr>
</tbody>
</table>

Weight distribution:
- Empty: 80 pounds; axle 470 pounds
- Loaded: 150 pounds; axle 897 pounds

**Length, over-all:** 8.68 ft
**Width, over-all:** 4.68 ft
**Loading height:** 4.5 ft
**Shipping dimensions (assembled vehicle):** 100.8 in; 48 in
**Tread (center to center of wheels):** 44.1 in
**Ground clearance:** 13 in
**Tires, 4-ply, 600-15:** 35 in
**Brakes:** Parking mechanical

**Towing vehicle to be used:** On land, any vehicle equipped with plate hook; on water, 1/4-ton, 4 x 4, amphibian.

ADDITIONAL DATA

Trailer will float with 500-pound pay load, with six inches free board.
GENERAL DATA

Purpose: To transport general cargo. Also designated K-59 and K-58 and used by Signal Corps as mobile power unit; by Medical Corps to transport medical cargo for surgical truck, operating.

Classification: Standard.

Manufacturer: Ben Hur Company.


Lubrication order: DO LO 0-883.

Parts list: S.N. GS 16.

Price of vehicle: $305.00

Body type: Cargo, wood or steel with stakes, sides, and canopy.

Net weight: 1800 lb

Purpse: To transport general cargo. Also designated K-59 and K-58 and used by Signal Corps as mobile power unit; by Medical Corps to transport medical cargo for surgical truck, operating.

Classification: Standard.

Manufacturer: Ben Hur Company.


Lubrication order: DO LO 0-883.

Parts list: S.N. GS 16.

Price of vehicle: $305.00

Body type: Cargo, wood or steel with stakes, sides, and canopy.

Net weight: 1800 lb

Pay load: 1000 lb

Price of vehicle: $305.00

Pay load: 1000 lb

ADDITONAL DATA

...
**GENERAL DATA**

| Purpose: To transport, store, and dispense drinking water. |
| Classification: Standard. |
| Technical manuals: S-853. |
| Price of vehicle: $1943. |

| Weight, gross, steel tank | 3900 lb |
| Aluminum tank | 8500 lb |
| Pay load | 2000 lb |
| Net load, steel tank | 1500 lb |
| Aluminum tank | 1800 lb |
| Weight distribution: | Lumetta 850 lb, sale 1850 lb |
| Lumetta 870 lb, sale 1870 lb |
| Length, over-all | 8 ft 10 in |
| Width, over-all | 5 ft 6 in |
| Height, over-all | 5 ft 6 in |
| Loading height | 5 ft 6 in |
| Shipping dimensions (assembled vehicle) | 10 ft 6 in, 87.4 sq ft |
| Tw-d (center to center of wheels) | 4 ft 6 in |
| Ground clearance | 16 in |
| Tires, 8-ply, 750 x 50, operating | |
| Brakes | Parking, moderate. |
| Towing vehicle to be used | Truck, 1-ton, capacity or greater. |

**ADDITIONAL DATA**
TRAILER,ammunition, M-10

GENERAL DATA

Purpose: To transport ammunition.
Classification: Standard.
Manufacturer: Fruehauf Trailer Company, Youngstown Steel Door Company; Schlemme Brothers.
Parts list: ORD 7 SNL G59, ORD 8 SNL G59, ORD 9 SNL G59.
Price of vehicle: Unknown
Body type: Cargo
Weight, gross: Will vary with type of ammunition

Pay load: Will vary with type of ammunition
Net weight: 1000 lb
Length, over-all: 11.86 ft
Height, over-all: 4.88 ft
Width, over-all: 58 in
Shipping dimension (assembled vehicle): 388.0 cu ft, 79.7 sq ft
Tread (center to center of wheels): 6 ft
Ground clearance: 8 in
Tires, 12 ply, 9.00 x 20, operating: Parking, mechanical
Brakes: Pintle height (rear): 83 in

ADDITIONAL DATA
TRAILER, 8-TON, AMMUNITION, 4W, M23

GENERAL DATA

Purpose: To transport ammunition, 96 rounds, 155-mm., or 60 rounds, 8-inch, or 22 rounds, 340-mm ammunition.

Classification: Standard.

Manufacturer: Utility Trailer Manufacturing Company.

Technical manual: J-190, C-1957A.

Lubrication order: DA LD 9-780.

Part list: ORD 7 SNL G-816, ORD 8 SNL G-816, ORD 9 SNL G-816.

Price of vehicle: $6,000

Body type: Frameless

Weight, gross: 10,000 lb

Weight, net: 10,000 lb

ADDITIONAL DATA

Weight distribution:

Empty: Limber, 8400 lb; bogie 8500 lb each axle

Loaded: Limber, 8000 lb bogie 10,000 lb each axle

Length, over-all: 15.88 ft

Width, over-all: 6.90 ft

Loading height: 7.94 in

Shipping dimension (assembled vehicle): 1099 on it; 138.9 in to it.

Tread (center to center of wheels): 7.86 ft

Ground clearance: 10.80 in

Tire: 11.00 x 20

Brakes: Service, Westinghouse air; parking, mechanical.

Towing vehicle*: be used: Attached directly to 1/4-ton prime mover, or towed by truck, 4 or 8-ton (64-66) or greater capacity.

Plating height: 18 in

* A note indicating that the trailer can be used with a 1/4-ton prime mover or towed by a larger truck.