

Chapter 7

VEHICLE EQUIPMENT



M-35(A1)(A2) 2 1/2 TON TRUCK

DESCRIPTION: The M-35(A-1)(A-2) Truck is a 2½ ton capacity, general purpose cargo and/or passenger carrier. It consists of a 140-146 BHP engine, three-axle, six-wheel, manual five-speed transmission with low and high range. It has a cruising range of 300 miles with a fuel capacity of 50 gallons (US). Fuel consumption, loaded, is approximately six MPG. Over-road speed is approximately 58 MPH (governed). Difference between models is acceptable fuels: the M-35 requires MOGAS (80 octane); M-35A1 and A2 require either diesel or MOGAS, but perform better with diesel. This vehicle is often referred to as the "6 X 6." Power take-off winch is on some models.

CAPABILITIES:

5000 lbs all-terrain payload. Up to 12 persons with full combat equipment plus driver and one passenger. 300 miles cruising range. Five-speed transmission, low and high range, and

three driving axles.

POWER: M-35: 146 BHP @ 3400 RPM. M-35A1 and A2: 140 BHP @ 2600 RPM. Electrical system is two 12 VDC batteries in series for 24-26.5 VDC. Braking is air over hydraulic.

MANUFACTURER: M-35: Reo.
M-35A1: White Motor Company.
M-35A2: Kaiser Jeep Corporation.

COST: M-35: \$6750.00.
M-35A1 and A2: \$7942.00.

WEIGHT: M-35 with winch: 12,880 lbs.
M-35 without winch: 12,465 lbs.
M-35A1 with winch: 13,530 lbs.
M-35A1 without winch: 13,115 lbs.
M-35A2 with winch: 13,530 lbs.
M-35A2 without winch: 13,000 lbs.

CUBE: M-35 with winch: 1705 cu. ft.
M-35 without winch: 1652 cu. ft.
M-35A1 and A2 with winch: 1705 cu. ft.
M-35A1 and A2 without winch: 1652 cu. ft.

APPLICABLE TO: 36A12-1-494-----Cabin, Chassis
and Body Components



M-37 3/4 TON TRUCK

DESCRIPTION: The M-37 Truck is a 3/4 ton capacity general purpose cargo and/or passenger carrier. It consists of a 78 BHP engine, two-axle, four-wheel, and manual four-speed transmission with low and high range. The body is made of metal construction and has a canvas top and cover. It has a cruising range of 225 miles with a fuel capacity of 24 gallons. Fuel used in this vehicle is MOGAS (72-80 octane) with a consumption rate of approximately 9 MPG. Maximum allowable speed (governed) is 55 MPH. This vehicle is normally referred to as a "Weapons Carrier." A power take-off winch is available on some models.

CAPABILITY: 1500 lbs all-terrain payload, up to six persons with full combat equipment plus driver and one passenger. 225 mile cruising range, four-speed transmission with high-low range and two driving axles.

POWER: 78 BHP engine at 3200 RPM. Electrical system is 12 VDC, single battery. Braking system is hydraulic.

<u>MAJOR COMPONENTS:</u>	<u>NOMENCLATURE</u>	<u>COMMON NAME</u>
	2805 (G741-703-2646)...	Engine Assembly
	2520-737-3390.....	Transmission Assembly
	2520-737-3721.....	Transfer Case Assembly
	2530-737-3741.....	Front Axle Assembly
	2520-737-3711.....	Rear Axle Assembly

MANUFACTURER: Dodge.

COST: \$3,341.00.

WEIGHT: 5917 lbs.

CUBE: 509 cu. ft.

APPLICABLE TOs: 36A-1-394-----Repair Parts List
36A-1-1044-----Organizational
Maintenance Parts
List



M-151A1 1/4 TON TRUCK

DESCRIPTION: The M-151A1 is a general purpose $\frac{1}{4}$ -ton truck for carrying either passengers or cargo. Usual application is for transportation of command and reconnaissance personnel. The vehicle features independent four-wheel suspension which makes it a very good, rough terrain vehicle but more easily upset than the standard vehicle. The vehicle is gasoline driven (72-80 octane MOGAS).

CAPABILITY:

$\frac{1}{4}$ -ton payload or four persons including the driver. Cruising range, loaded, is 300 miles at 17 MPG fuel consumption. Maximum speed is 66 MPH. The transmission is a manual four-speed with front wheel drive capability.

POWER:

The M151A1 has a liquid cooled 4-cylinder gasoline engine that delivers 71 BHP.

MANUFACTURER: Kaiser Jeep and Ford Motors.
COST: \$4000.00.
WEIGHT: 2140 lbs.
CUBE: 350 cu. ft.
APPLICABLE TOs: 36A12-24-8-1-----Operators'
Manual
36A12-24-8-4-----Organizational
Maintenance Re-
pair Parts.



M-715 1 1/4 TON TRUCK

DESCRIPTION: The M-715 Truck is a 1¼ ton capacity general purpose and/or passenger carrier. It consists of a 132.5 BHP engine, two-axle, four-speed manual transmission, and a transfer case with a low and high range. The body is made of metal construction and has a canvas top and cover. It has a cruising range of about 220 miles with a fuel capacity of 28 gallons. Fuel used in this vehicle is MOGAS (85 octane minimum). Maximum allowable speed is 60 MPH (not governed). This vehicle is normally referred to as a "Weapons Carrier." A power take-off winch is available on some models.

CAPABILITY: 2500 lbs cross country and 3000 lbs highway payload, up to eight persons with full combat equipment plus driver and one passenger. Four-wheel drive, four-speed transmission and transfer case with low and high range. Towing capacity of 4200 lbs cross country and 4450 lbs highway.

POWER: 132.5 BHP engine at 4000 RPM, electrical system is 24 VDC, two 12 VDC batteries. Braking is hydraulic.

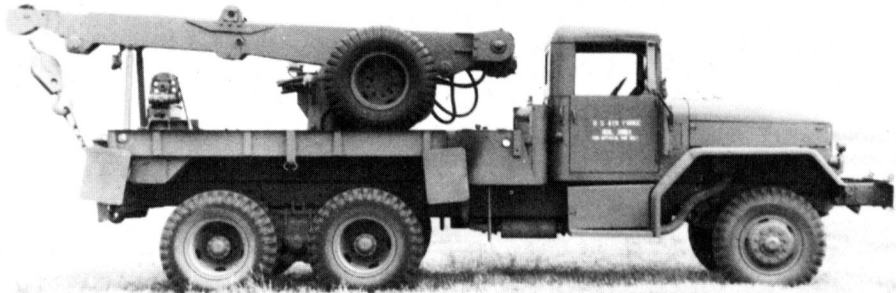
MANUFACTURER: Kaiser Jeep Corporation.

COST: \$3850.00.

WEIGHT: 5500 lbs wo/winch, 6000 lbs with winch.

CUBE: 606 wo/winch, 640 with winch.

APPLICABLE TOs: TM-9-2320-244-24P-----Parts List
TM-9-2320-244-10-----Operators Manual
TM-9-2320-244-24-----Maintenance
Manual
LO-9-2320-244-12-----Lubrication
Orders



M-62

5 TON WRECKER

DESCRIPTION: This vehicle is used to tow, salvage and recover disabled medium vehicles and equipment. It is also used for numerous repair operations where medium hoist and winch equipment is needed. The engine is six-cylinder, 4-cycle and uses MOGAS (72-80 octane gasoline). Fuel capacity is 65 gallons with a consumption rate of 10 MPG and a cruising range of 650 miles. The cab is of metal construction.

CAPABILITIES:

The M-62 Wrecker has a boom which extends from 10 to 18 feet in one foot increments. With 10' extension, the boom is capable of lifting 10,000 lbs. With outriggers extended and without extended outriggers, lifting capability is 6700 lbs. When boom is extended 18 feet with outriggers out, it can lift 4000 lbs, and without outriggers, 3000 lbs. The two

winches on the M-62 are mounted on the front and back with a 100 yard cable and pulling capability of five tons.

PERSONNEL REQUIRED: One operator with a valid permit, any AFSC.

MANUFACTURER: Chassis: International Harvester Company
Engine: Continental Engine Corporation

COST: \$21,175.00.

WEIGHT: 33,675 lbs.

CUBE: 2,486 cu. ft.

APPLICABLE TOs: 36A-1-494-----Organizational Maintenance Repair Parts.
36A-1-492-----General Instructions - Chassis.
36A-1-1131-----Operators' Instructions on Trench - Chassis.
36A-1-1182-----Field Depot Maintenance Instructions.
36A-1-1184-----Field Depot Maintenance Repair.



M-543A2 5 TON WRECKER

DESCRIPTION: The M-543A2 is a 5 ton capacity, multiple drive, special purpose vehicle. It consists of a military model LDS465-1A, supercharged multi-fuel 220 BHP engine, three-axles, five speed manual shift transmission and transfer case with a low and high range. It is equipped with a hydraulically operated crane with a maximum lifting capacity of 10,000 lbs, a rear winch with a 20 ton pulling capacity, and a front winch with a 10 ton pulling capacity. The body is of metal construction and has a canvas cab cover. It has a cruising range of about 500 miles with a fuel capacity of 133 gallons. The primary fuel is diesel (40 octane rating). Maximum highway speed in fifth gear is 53 MPH (governed). This vehicle is normally referred to as a "5 Ton M-series Wrecker".

CAPABILITY:

The M-543A2 can load/off-load items weighing up to 10,000 lbs. Winch capability is 5 tons for retrieving tactical vehicles in rough terrain. Cross country towing capacity is 7,000 lbs. and 12,000 lbs on a highway.

POWER:

220 BHP engine at 2800 RPM. Electrical system is 24 VDC with two 12V type 6TN storage batteries. Braking system is air over hydraulic.

MANUFACTURER: Kaiser Jeep Corp.
COST: \$20,553.00
WEIGHT: 34,250 lbs.
CUBE: 2,252 cu. ft.
APPLICABLE TOs: TM9-2320-211-20P-----Parts List.
TM9-2320-211-10-----Operators Man.
TM9-2320-211-20-----Maintenance Man.
L09-2320-211-12-----Lubrication Order.



M-101 3/4 TON TRAILER

DESCRIPTION: The M-101 trailer is used to transport general cargo. Suggested towing vehicle is the M-37, 3/4 ton cargo truck. The M-101 is constructed of metal with wooden ribbing for the canvas top.

CAPABILITY: The M-101 is rated at 1500 lbs cargo capacity. The suggested improved and unimproved towing speed is up to 55 MPH. It is designed for all terrain use. There is no provision for prime mover braking action, although there is a parking brake. The tail gate of the trailer is hinged to aid in gaining access to the cargo compartment.

POWER INPUT: 26.5 VDC for lights.

MANUFACTURER: Progress Electric.

COST: \$494.00.
WEIGHT: 1340 lbs.
CUBE: 520 cu. ft.
APPLICABLE TO: 36A11-5-4-64-----Operators' Organizational and Field Maintenance Instructions; Repairs Parts Breakdown.



M-105 1 1/2 TON TRAILER

DESCRIPTION: The M-105 trailer is designed to transport general cargo. The recommended towing vehicle is the cargo truck, 2½ ton. The load bed is of metal construction with canvas cover and wooden ribbing to support the canvas.

CAPABILITY: This trailer is load rated at 3000 lbs for all terrain. Suggested towing speed is up to 55 MPH over improved terrain and less over unimproved terrain. Braking is provided from the prime mover and is air over hydraulic.

POWER INPUT: 26.5 VDC for lights.

MANUFACTURER: Fruehauf or Johnson Furnace Co.

COST: \$873.00.

WEIGHT: 2650 lbs.

CUBE:

770 cu. ft.

APPLICABLE TOs:

36A11-1-214-----Organizational,
Field & Depot
Maintenance
Instructions.
36A11-1-224-----Repair Parts
Listing.



M-416 1/4 TON TRAILER

DESCRIPTION: The M-416 Trailer is used to transport general cargo on improved or unimproved surfaces. Recommended towing vehicle is the truck, utility, $\frac{1}{4}$ -ton, such as the M-151A1 or M-38. Construction is of metal with canvas cover.

CAPABILITY: The M-416 will accommodate up to 500 lbs of cargo. Recommended towing speed, full or empty, is 55 MPH. The trailer is not equipped with a braking system from the prime mover; however, it does have parking brakes. Electrical power for stop lights comes from the prime mover. Body is of solid construction and the trailer may be floated when empty.

POWER INPUT: 26.5 VDC for stop/black-out lights.

MANUFACTURER: Johnson Furnace Co.

COST: \$275.00.

WEIGHT: 560 lbs.

CUBE: 159 cu. ft.

APPLICABLE TOs: 36A11-5-3-1-----Operators' &
Service Instruc-
tions
36A11-5-3-14-----Repair Parts
Listing



M-107 400 GAL WATER TRAILER

DESCRIPTION: The M-107 water trailer is a 1½ ton (empty), two wheel vehicle designed to transport and dispense water for personnel use. Recommended towing vehicle is the 2½ ton truck. Maximum towing speed is 55 MPH.

CAPABILITY: 400 gallon, gravity operated, designed for all terrain towing. Tank is of metal construction and requires periodic steam or chlorine purification under medical direction and certified thereto.

MANUFACTURER: Fruehauf.

COST: \$2500.00.

WEIGHT: 2280 lbs (empty); approximately 5480 lbs (full).

CUBE: 708 cu. ft.



M-149 400 GAL WATER TRAILER

DESCRIPTION: The M-149 water trailer is a 1½ ton (empty), two wheel vehicle designed to transport and dispense water for personnel use. Recommended towing vehicle is the 2½ ton truck. Maximum towing speed is 55 MPH.

CAPABILITY: 400 gallon, gravity operated, designed for all terrain towing. Tank is of plastic construction and required periodic steam or chlorine purification under medical direction and certified thereto. Brake system is air over hydraulic.

MANUFACTURER: Case Master Body Co.

COST: \$940.00.

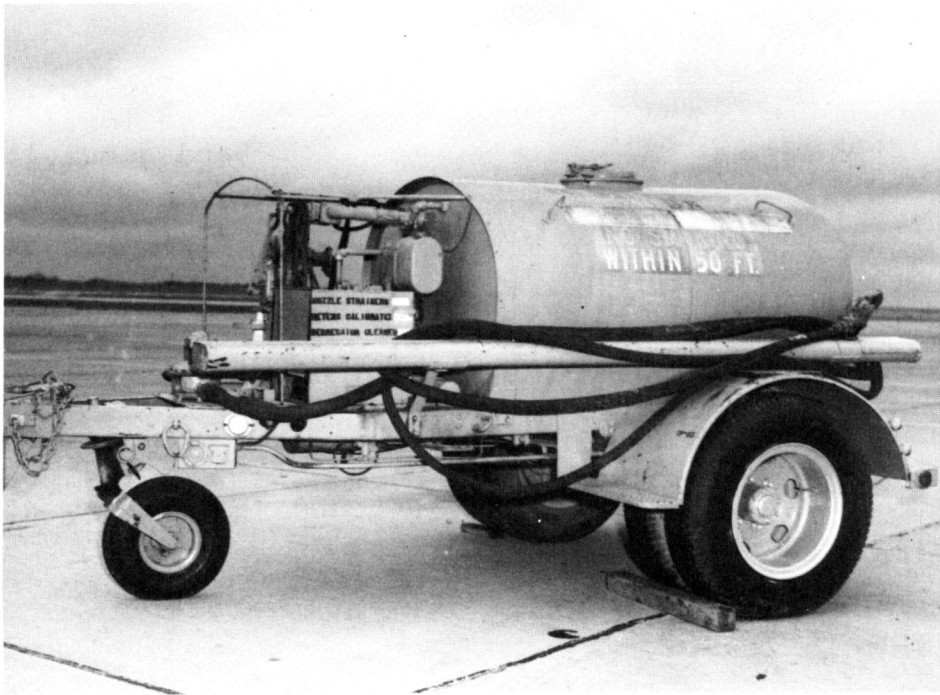
WEIGHT: 2500 lbs (empty); approximately 5700 lbs (full).

CUBE:

608 cu. ft.

APPLICABLE TOs:

36A11-20-5-1-----Operations, Organizational, direct and general support maintenance including repair parts and special tools.



A-1B FUEL SERVICING TRAILER

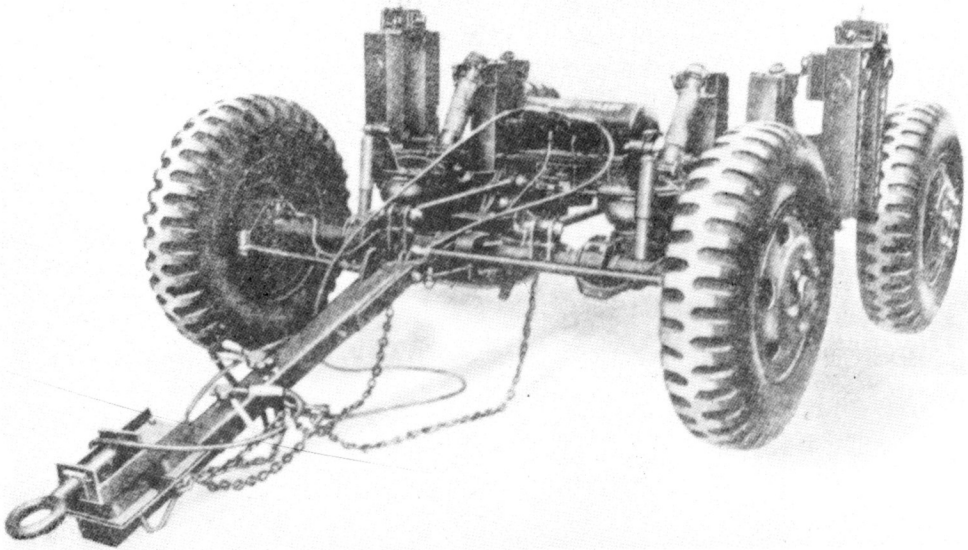
DESCRIPTION: The A-1B Fuel Servicing Trailer is designed to service ground equipment with fuels and oil. The tank is of metal construction and is bolted to the frame of the running gear. It is a single compartment type tank. An oval type manhole is provided at the top of the tank. The pump engine assembly consists of a self-priming, centrifugal pump. The power unit is a four-cycle, air-cooled, gasoline engine. The brake system of the trailer is air over hydraulic, controllable from the driver's seat of the towing vehicle.

CAPABILITIES:

A 600-gallon tank trailer with not less than 7% expansion space. It will service ground equipment with aromatic or jet aircraft-type fuels conforming to MIL-F-5572 and MIL-F-5624 specifications under temperature conditions ranging from -65°F to $+130^{\circ}\text{F}$. The pump and engine assembly is capable of delivering a minimum of

50 GPM of fuel at 25 PSI at the outlet of the nozzle when the nozzle is at the same level as the pump. The trailer is also capable of transporting this rated payload of 600 gallons of fuel or oil over hard-surfaced roads at speeds of 50 MPH and over off-roads at a speed of 10 MPH when it is being towed by a standard 6-wheel drive cargo truck.

<u>MAJOR COMPONENTS:</u>	<u>NOMENCLATURE</u>	<u>COMMON NAME</u>
	1001.....	Truck Assembly.
	A-401.....	Pump.
	ABND.....	Engine.
	1002.....	Running Gears Assembly.
 <u>MANUFACTURER:</u>	 Paramount Products Corporation Incorporated.	
 <u>COST:</u>	 \$2,650.00.	
 <u>WEIGHT:</u>	 4,250 lbs.	
 <u>CUBE:</u>	 825 cu. ft.	
 <u>APPLICABLE TOs:</u>	 36A11-10-3-1-----Operators' In- structions.	
	36A11-10-3-3-----Overhaul In- structions.	
	36A11-10-3-4-----Illustrated Parts Breakdown.	



XM-689 TRANSPORT MOBILIZER

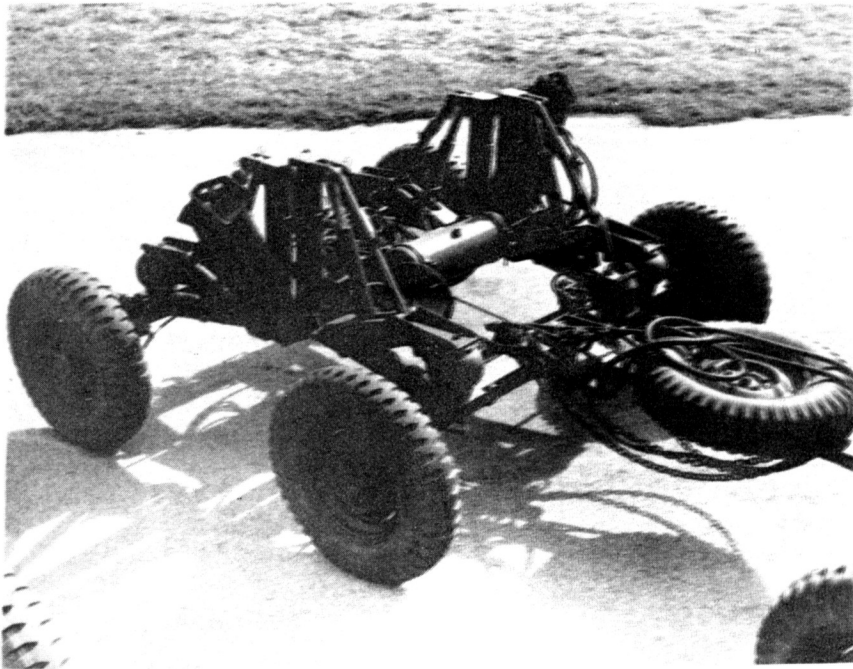
DESCRIPTION: The XM-689 Mobilizer is a 5-ton capacity equipment transporter. It consists of two axles, and is equipped with a towing bar with steering mechanism attached to the front axle. The Mobilizer is constructed of metal, and has metal arms and lugs for securing the transporter to transport vans. It is towed by a 2½ or 5 ton motorized vehicle with a pintle hook attachment.

CAPACITY: 10,500 pound payload, with a maximum towing speed of 50 MPH on highway, 25 MPH cross-country.

POWER: Towed by a motorized vehicle with a pintle hook attachment. It is equipped with 24 volt DC lights. Brake system is air-hydraulic, and is actuated by the towing vehicle.

MANUFACTURER: Craig Systems, Inc.

COST: \$4,826.00.
WEIGHT: Empty - 3500 lbs.
CUBE: 494 cu. ft.
APPLICABLE TO: TM9-23330-275-14



XM-720 TRANSPORT MOBILIZER

DESCRIPTION: The XM-720 Mobilizer is a 3 ton capacity equipment transporter. It consists of two axles and is equipped with a towing bar and a steering mechanism for the front axles. The mobilizer has metal arms and lugs for attaching it to the transported van. It is towed by a 2½ ton or 5 ton motorized vehicle with a pintle hook attachment.

CAPABILITY: 6000 lbs. payload, with a maximum towed speed of 60 MPH on highway, 20 MPH cross country.

POWER: Towed by a motorized vehicle with a pintle hook attachment. Equipped with 24 VDC lights. Braking system is air over hydraulic, actuated by the towing vehicle.

MANUFACTURER: Gichner Mobile Systems, Inc.

COST: \$3039.00

WEIGHT: Empty 1500 lbs.

CUBE: 230 cu. ft.

APPLICABLE TOs:

36A11-21-10-1-----Preliminary Operating
and Maintenance Manual