



Heavy Equipment Transporter System (HETS)

The Heavy Equipment Transporter System (HETS) transports tanks and other heavy tracked and wheeled vehicles to and from the battlefield. The M1070 tractor and M1000 semi-trailer, replaces the M911/M747 HET system as the Army's latest model HETS. The M1070/M1000 HETS was developed to accommodate the increased weight of the M1 Abrams Family of Main Battle Tanks. The M1070 provides line-haul, local-haul and maintenance evacuation on and off road during tactical operations worldwide. Unlike previous HETS, the M1070 is designed to carry both the tank and its crew.

The HETS is required to transport, deploy and evacuate 70-ton payloads, primarily M-1 tanks, on highways and unimproved roads and cross-country. The HETS consists of the M-1070 truck tractor and M-1000 semitrailer. HETS has automatically steerable axles and load leveling hydraulic suspension. The tractor has front and rear axle steering with central tire inflation system and cab space for five crew members.

HETS, which was not available for service during the Persian Gulf War, entered low-rate initial production soon thereafter. At the completion of the initial contract in FY 92, the Army had purchased 1,179 trucks, and trailers. Army units received this vehicle in mid-1993. FUE occurred June 1994. As of late 1996 1,320 HET systems had been fielded. In January 1997 a contract option was exercised to procure an additional 187 HETS. The total Army requirement is: 2,412. FPI = 632; FPII = 404, FPIII = 365, FPIV = 1,011. Authorizations include: 96 per CORPS Heavy Truck Company; 24 per DIVISION Heavy Truck Company; and 6 per ACR. Currently approved to acquire 1,667 M1070 tractors and 1,503 M1000 trailers.

M1070 Tractor

Manufacturer: Oshkosh Truck Corporation

Dimensions:

Length: 358"

Width: 102"

Height: 141.5"

Curb Weight: 41,000 lb.

Gross Combination Weight (GCW): 231,400 lb.

Gross Vehicle Weight: 86,000 lb.

Kingpin Load: 45,000 lb.

Configuration: 8x8

Wheel Base: 215"

Performance:

Maximum Speed: 45 mph

Fording: 28"

Gradient: 15% @ GCW

Air Transportability: C5A & C17

Equipment Specifications:

Cab: 6 Man

Seats: Front - Fore/Aft Adjustable; Suspension Driver and Front Passenger

Rear: Bench Type; Convertible into Bunks

Seat Belts: 3-Point With Retractors

Windshield Wiper: Two Speed Electric

Instrumentation Gauges: Coolant; Dual Air Pressure; Fuel; Oil; Transfer Case;

Transmission; Speedometer; Tachometer

Engine: Manufacturer: Detroit Diesel, 8V92TA, DDEC II and DDEC III

Type: V8, Two-cycle, Turbo Charged and Aftercooled

Bore: 4.84"

Stroke: 5.00"

Displacement: 736 cu. in.

Brake HP: 500 HP @ 2100 rpm

Cooling System: Radiator Core, Fan (Eight Blade) Cooled

Transmission: Manufacturer: Allison CLT-754

Type: Automatic, 5 Speed Forward/ 1 Reverse with TC-496 Torque Converter, Second Gear Start

Transfer: Manufacturer: Oshkosh Truck Corporation, 55000
Type: Two Speed, Air Operated Front Axle Disconnect
Ratio: 9.85:1 and 2.464:1

Axles: Manufacturer: Rockwell SVI 5MR
Type: Driving, Planetary Hub Reduction, Double Cardan Joint Steering Axles, 30/70 Split
Inter-Axle Differential Interlock: Manual Control
Gear Ratios: Final - 7.36:1; Differential Carrier - 1.59:1; Planetary Hub - 4.63:1

Suspension: Front: Hendrickson Parabolic Taper Leaf Spring
Rear Tridem: Hendrickson - Turner Air Ride

Electrical System: Alternator - 145 Amp, 14 VDC; 130 Amp, 28 VDC
Starting/Accessories: 24 VDC
Lighting: 12 VDC
Batteries: 4 12 VDC, 600 CCA @ 0 deg. F

Brakes: Parking: Type: Dual Air, Spring Brakes on Axles 2, 3, 4; Modulated Emergency System
Service: Manufacturer: Rockwell
Type: Internal Shoe, Air Operated Dual System
Lining Size: 16.5x7"

Tires: Type: Michelin Radial
Size: 16.00R20
Quantity: 8 ea., Plus 1 Spare

Wheels: Type: 2 Piece Bolt Together, Steel Disc
Size: 20x10

Winches: Type: Automatic Internal Brake, Double Reduction Planetary Gears, Self-contained Hydraulics, Two Speed Hydraulic Gear Motors
Manufacturer:
Main: DP Manufacturing, 55K
Capacity: 2 Winches, 55,000 lb. ea.
Cable: 1" Diameter, 170'
Auxiliary: DP Manufacturing. 3GN
Capacity: 3000 lb.
Cable: .25" Diameter, 300'

M1000 Semitrailer

Manufacturer: Systems & Electronics, Incorporated (formerly Southwest Mobile Systems)

Tractor Compatibility: M1070 / M911 / M746 / MK48 / MK16 / SLT50-2 / M916 and Future U.S. and NATO Tractors

Dimensions:

Length: 622"

Width: Overall - Rear Bumper - 144.8"; Trailer Bed: 119"

Height: Overall - At Handrails - 144"; Fifth Wheel @ CW - 65.4"; @ GCVW - 64.3"

Usable Deck: 403"

Minimum Ground Clearance: 15.8"

Curb Weight: 50,000 lb.

Payload: 140,000 lb.

Payload Capabilities: Self Load/Unload Disabled Tanks

Specifications:

Axles: 5 Axle Lines, 2 Half-width Axles per Line

Steering: Hydraulically Actuated Mechanical Linkage; Axles 2,3,4 and 5 Automatically Steer

Axle Vertical Travel: 20"

Suspension: Type: Load Leveling Hydraulic, Independent from Side to Side

Suspension Supports: 10 ea.

Brakes: Two-line, Straight Air with Spring-actuated Park/Emergency Features

Tires: Type: Radial, Michelin

Size: 215x75R17.5 Tubeless

Quantity: 40 ea.; Plus 2 Spares

Gooseneck: Type: Pivoting, Hydraulic, Load Compensating

5th Wheel Nominal Height: 63"

Kingpin: 3.5" Diameter; U.S./NATO Heavy Duty Standard, Removable