

ARMORED SELF-PROPELLED 81mm MORTAR CARRIER M252

GENERAL DATA

Crew: 6 men
 Length: Overall 191.5 inches
 Width: Overall 105.75 inches
 Height: Over MG 99.25 inches
 Tread: 85.0 inches
 Ground Clearance: 17.1 inches
 Weight, Combat Loaded: 25,410 pounds
 Weight, Unstowed: 23,970 pounds
 Weight, Air Transport: 20,780 pounds
 Power to Weight Ratio: 16.7 hp/ton
 Ground Pressure: Zero penetration 8.1 psi

ARMOR
 Type: Hull, rolled 5083/5086 H32 aluminum armor,
 Welded assembly

Hull Thickness:	Actual	Angle w/Vertical
Front, Upper	1.50 inches (38mm)	45 degrees
Lower	1.50 inches (38mm)	30 degrees
Sides, Upper	1.75 inches (44mm)	0 degrees
Lower	1.25 inches (32mm)	0 degrees
Rear, On Ramp	1.50 inches (38mm)	8 degrees
Off Ramp	1.50 inches (38mm)	9 degrees
Top	1.50 inches (38mm)	90 degrees
Floor	1.125 inches (29mm)	90 degrees

ARMAMENT

Primary: 81mm mortar M252

Secondary:

(1) .50 caliber MG HB M2 on cupola

AMMUNITION

114 rounds 81mm
 600 rounds .50 caliber

VISION EQUIPMENT

Vision Devices:

	Direct	Indirect
Driver	Hatch: Periscope M17 (4) Periscope M19 (infrared) (1)	
Commander	Hatch Periscope M17 (5)	
Crew Compartment	Roof Hatch	None

Total Periscopes: M17 (9), M19 (infrared) (1)

ENGINE

Make and Model: General Motors 6V53
 Type: 6 cylinder, 2 cycle, vee
 Cooling System: Liquid Ignition: Compression
 Displacement: 318 cubic inches
 Bore and Stroke: 3.875 x 4.5 inches
 Compression Ratio: 17:0:1
 Gross Horsepower: (max) 212 hp at 2800 rpm
 Gross Torque: (max) 492 ft-lbs at 1300 rpm
 Weight: 1310 pounds, dry
 Fuel: diesel oil MIL-VV-F-800 95 gallons
 Engine Oil: 22 quarts

POWER TRAIN

Transfer Case: Overall ratio 1.286:1 overdrive
 Transmission: Allison TX-100
 Torque Converter: Hydraulic, single stage, multiphase w/lockup
 Torque Converter Stall Ratio: 3.5:1
 Transmission Ratios: 1st 3.81:1 3rd 1.00:1
 2nd 1.936:1 reverse 4.35:1

Steering: DS200 controlled differential, steering brake levers

Input Ratio: 1.28:1 Steering Ratio: 1.1 to 1.786:1

Brakes: Differential band

Final Drive: Spur gear Gear Ratio: 3.928:1

Drive Sprockets: At front of vehicle with 10 teeth

Pitch Diameter: 19.618 inches

RUNNING GEAR

Suspension: Flat track, torsion bar
 10 individually sprung dual road wheels (5/track)
 Tire Size: 24 x 2.1 inches
 Dual adjustable idler at rear of each track
 Idler Size: 21 x 2.1 inches
 Shock absorbers on first 2 and last road wheels on each side
 Tracks: Center guide, T130E1 and T150
 Type: T130E1, Single pin, 15 inch width, steel w/detachable rubber pad
 T150, Double pin, 14.81 inch width, steel w/chevron rubber pad
 Pitch: 6 inches
 Shoes per vehicle; 127 (63 left, 64 right)
 Ground Contact Length: 105 inches

ELECTRICAL SYSTEM

Nominal Voltage: 24 volts DC
 Main generator: (1) 28 volts, 100 amperes, driven by main engine
 Auxiliary Generator: None
 Battery: (2) 12 volts in series

COMMUNICATIONS

Radio: AN/GRC-3 thru 8, AN/VRC-24, AN/GRC-19, AN/VRQ-1 thru 3
 AN/PRC-8 thru 10, AN/GRR-5 or AN/VRC-12

Interphone: AN/UIC-1, 4 stations

FIRE AND NBC PROTECTION

(1) 5 pound carbon dioxide, fixed
 (1) 5 pound carbon dioxide, portable
 Gas particulate filter unit

PERFORMANCE

Maximum Speed: Level road	40 mile/hour
Water	3.6 miles/hour
Maximum Tractive Effort: TE at stall	19,800 pounds
Per Cent of Vehicle weight: TE/W	78 per cent
Maximum Grade:	60 per cent
Maximum Trench:	5.5 feet
Maximum Vertical Wall:	24 inches
Maximum Fording Depth:	floats
Minimum Turning Circle: (diameter)	26 feet
Cruising Range: Roads	approx. 300 miles