90mm GMC M36 B1

GENERAL DATA
Crew: 5 men
Length: Gun forward w/o muzzle brake 293 inches
Length: Gun to Rear w/ Sandshields 247 inches
Length: w/o Gun, w/ Sandshields 247 inches
Gun Overhang: Gun forward 0 inches
Width: w/ Sandshields 105 inches
Height: Over all 112.75 inches
Tread: 83 inches
Ground Clearance: 17 1/2 inches
Fire Height: 85 inches
Turret Ring Diameter: (inside) 69 inches
Weight Combat Loaded: 68,500 pounds *
Weight Unstowed: 65,500 pounds *
Power to Weight Ratio: Net 12.9 hp/ton Gross 14.4 hp/ton
Ground Pressure: Zero penetration 14.3 psi
* all weights based on T48 or T51 tracks

ARMOR
Type: Turret, cast homogeneous steel; Hull, rolled and cast homogeneous steel; Welded assembly
Hull Thickness: Actual 2.5 inches Angled w/Vertical 47 degrees
Front, Upper 1.5 inches 0 to 22 degrees
Rear 1.5 inches 0 to 22 degrees
Top 0.75 inches 83 to 90 degrees
Floor, Front 1.0 inches 0 degrees
Rear 0.5 inches 90 degrees
Turret Thickness:
Gun Shield 3.0 inches 0 degrees
Sides 1.25 inches 5 degrees
Rear 1.75 to 5.0 inches 0 degrees
Top 0.375 to 1.0 inches 90 degrees

ARMAMENT
Primary: 90mm Gun M3 in Mount M4 (T8) in Turret
 Traverse: Hydraulic and Manual 360 degrees
Elevation: Manual -20 to +30 degrees
Tiring Rate: (max) 8 rounds/minute
Loading System: Manual
Stabilizer System: none
Secondary:
(1) .50 caliber MG HB M2 flexible AA mount on turret
(1) .30 caliber MG M1919A4 in bow mount
Provision for (4) .30 caliber Carbines M1A2

AMMUNITION
47 rounds of 90mm 36 hull1 turret 12 hand grenades
1000 rounds .50 caliber
2000 rounds .30 caliber
450 rounds .30 caliber carbine

FIRE CONTROL AND VISION EQUIPMENT
Primary Weapon: Direct Telescope M76D or F
Indirect Azimuth Indicator M18 Gunner’s Quadrant M1
Elevation Quadrant M9
Vision Devices:
Driver Direct Hatch Periscope M6 (2)
Asst. Driver Hatch Periscope M6 (2)
Commander Open turret none
Gunner Open turret none
Loader Open turret none
Total Periscopes: M6 (4)

ENGINE
Make and Model: Ford GAA
Type: 8 cylinder, 4 cycle, 60 degree vee
Cooling System: Liquid Ignition: Magneto
Displacement: 1100 cubic inches
Bore and Stroke: 5.4 X 6 inches
Compression Ratio: 7.5:1
Net Horsepower (max) 450 hp at 2600 rpm
Gross Horsepower (max): 500 hp at 2600 rpm
Net Torque (max): 950 ft-lb at 2200 rpm
Gross Torque (max): 1040 ft-lb at 2200 rpm
Weight: 1560 lb. dry
Fuel: 80 octane gasoline
168 gallons
Engine Oil: 32 quarts

POWER TRAIN
Clutch: Dry disc, 2 plate
Transmission: Synchronesh, 5 speeds forward, 1 reverse
Gear Ratios: 1st 7.56:1 4th 1.11:1 2nd 3.11 5th 0.73:1 3rd 1.78 Reverse 5.65:1
Steering: Controlled differential
Bevel Gear Ratio: 3.53:1 Steer Ratio: 1.551:1
Brakes: Mechanical, external contracting
Final Drive: Herringbone gear Gear ratio: 2.84:1
Drive Sprocket: At front of vehicle with 13 teeth
Pitch Diameter: 25.038 inches

RUNNING GEAR
Suspension: Vertical volute Spring
12 wheels in 6 bogies (3 bogies/track)
Tire Size: 20 X 9 inches
6 track return rollers (1 at rear of each bogie)
Adjustable idler at rear of each track
Idler Size: 22 X 9 inches
Tracks: Outside guide: T48, T49, T51, and T54E1
Type: (T48) Double pin, 16.56 inch width, chevron, rubber
(T49) Double pin, 16.56 inch width, parallel bar, steel
(T51) Double pin, 16.56 inch width, smooth, rubber
(T54E1) Double pin, 16.56 inch width, chevron, steel
Pitch: 6 inches
Shoes per Vehicle: 158 (79/track)
Ground Contact Length: 147 inches

ELECTRICAL SYSTEM
Nominal Voltage: 24 volts DC
Main Generator: (1) 24 volts, 50 amperes, driven by power take-off from main engine
Auxiliary Generator: (1) 30 volts, 50 amperes, driven by the auxiliary engine
Battery: (2) 12 volts in series

COMMUNICATIONS
Radio: SCR 610 in right front sponson
Interphone: RC99, 5 stations
Flag Set M238, Panel Set AP50A, Siren
Pyrotechnic Hand Projector M9

FIRE AND GAS PROTECTION
(2) 10 carbon dioxide, fixed
(2) 4 pound carbon dioxide, portable
(2) 1 ½ Quart decontaminating apparatus

PERFORMANCE
Maximum Speed: Sustained, level road 26 miles/hour
Maximum Trench: 7.5 feet
Maximum Vertical Wall: 24 inches
Maximum Fording Depth: 36 inches
Minimum Turning Circle: (diameter) 62 feet
Cruising Range: Roads approx. 100 miles