

## 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:	<u>Actual</u>	<u>Angled w/Vertical</u>
Front, Upper	2.5 inches	47 degrees
Lower	4.25 to 2 inches	0 to 56 degrees
Sides	1.5 inches	0 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
<b>Turret Thickness:</b>		
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  
 Traverse Rate: (max) 15 seconds/360 degrees  
 Elevation: Manual -20 to -10 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 hull11 turret 12 hand grenades  
 1000 rounds .50 caliber  
 2000 rounds .30 caliber  
 450 rounds .30 caliber carbine

### FIRE CONTROL AND VISION EQUIPMENT

Primary Weapon:	<u>Direct</u>	<u>Indirect</u>
Telescope M76D or F		Azimuth Indicator M18
		Gunner's Quadrant M1
		Elevation Quadrant M9

Vision Devices:	<u>Direct</u>	<u>Indirect</u>
Driver	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: Synchronmesh, 5 speeds forward, 1 reverse  
 Gear Ratios: 1<sup>st</sup> 7.56:1 4<sup>th</sup> 1.11:1  
 2<sup>nd</sup> 3.11 5<sup>th</sup> 0.73:1  
 3<sup>rd</sup> 1.78 **Reverse** 5.65:1  
 Steering: Controlled differential  
 Bevel Gear Ratio: 3.53:1 Steer Ratio: 1.5515:1  
 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 1/2 Quart decontaminating apparatus

### PERFORMANCE

Maximum Speed: Sustained, level road 26 miles/hour  
 Maximum Grade: 60 percent  
 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

