

Medium Tank M4A2 75 (mid production)

GENERAL DATA

Crew:	5 men
Length: Gun forward w/o Sandshields	232 inches
Length: Gun to Rear w/o Sandshields	232 inches
Length: w/o Gun, w/o Sandshields	232 inches
Gun Overhang: Gun forward	0 inches
Width: w/o Sandshields	103 inches
Height: Over Turret hatch	108 inches
Tread:	83 inches
Ground Clearance:	17 inches
Fire Height:	88 inches
Turret Ring Diameter: (inside)	69 inches
Weight Combat Loaded:	70,200 pounds *
Weight Unstowed:	66,000 pounds*
Power to Weight Ratio:	Net 10.7 hp/ton Gross 11.7 hp/ton
Ground Pressure: Zero penetration	14.4 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	Angled w/Vertical
Front, Upper	2.0 inches	56 degrees
Lower	2.0 inches	0 to 56 degrees
Sides	1.5 inches	0 degrees
Rear	1.5 inches	0 to 10 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	3.5 inches	0 degrees
Rotor Shield	2.0 inches	0 degrees
Front	3.0 inches	30 degrees
Sides	2.0 inches	5 degrees
Rear	2.0 inches	0 degrees
Top	1.0 inches	90 degrees

ARMAMENT

Primary: 75mm Gun M3 in Mount M34A1	in Turret
Traverse: Hydraulic and Manu	360 degrees
Traverse Rate: (max)	15 seconds/360 degrees
Elevation: Manual	-25 to -12 degrees
Tiring Rate: (max)	20 rounds/minute
Loading System:	Manual
Stabilizer System:	Elevation only

Secondary:

- (1) .50 caliber MG HB M2 flexible AA mount on turret
- (1) .30 caliber MG M1919A4 coaxial w/75mm gun in turret
- (1) .30 caliber MG M1919A4 in bow mount
- (1) 2 inch smoke Mortar (smoke) fixed in turret
- Provision for (1) .45 caliber SMG M1928A1
- *Mount M34A1 in later production tanks

AMMUNITION

97 rounds of 75mm	12 hand grenades
300 rounds .50 caliber	12 rounds 2 inch smoke
600 rounds .45 caliber	
4750 rounds .30 caliber	

FIRE CONTROL AND VISION EQUIPMENT

Primary Weapon:	<u>Direct</u>	<u>Indirect</u>
	Periscope M4 with	Azimuth Indicator M19
	Telescope M38	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	Hatch	Periscope M6 (1)
Gunner	None	Periscope M4 (1)
Loader	Pistol Port	Periscope M6 (1)
Total Periscopes: M4(1), M6 (6)		
Total Pistol Ports: Hull (0), Turret (1)		

ENGINE

Make and Model:	General Motors 6046
Type:	12 cylinder, 2 cycle, Twin in-line six
Cooling System:	Liquid <u>Ignition:</u> Compression
Displacement:	850 cubic inches
Bore and Stroke:	4.25 X 5 inches
Compression Ratio:	16:1
Net Horsepower (max):	375 hp at 2100 rpm
Gross Horsepower (max):	410 hp at 2900 rpm
Net Torque (max):	1000 ft-lb at 1400 rpm
Gross Torque (max):	885 ft-lb at 1900 rpm
Weight:	5110 lb. dry
Fuel:	40 Cetane diesel oil
Engine Oil:	148 gallons
	28 quarts

POWER TRAIN

Clutch:	Dry disc, 2 plate
Transfer Case Gear Ratio:	0.73:1
Transmission:	Synchromesh, 5 speeds forward, 1 reverse
Gear Ratios:	1 st 7.56:1 4 th 1.11:1 2 nd 3.11 5 th 0.73:1 3 rd 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 508, 528 or 538 in rear of turret; SCR 506* (command tank only) in right front sponson
Interphone:	(part of radio) 5 stations
Flag Set M238, Panel Set AP50A, Spotlight, Siren	
Flares:	3 each, M17, M18, M19, and m21 (command tanks only)
Ground Signals Projector M4 (command tanks only)	
	*early vehicles may be equipped with SCR 245

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	21 miles/hour
	Short periods, level	24 miles/hour
Maximum Grade:		60 percent
Maximum Trench:		7.5 feet
Maximum Vertical Wall:		24 inches
Maximum Fording Depth:		42 inches
Minimum Turning Circle: (diameter)		70 feet
Cruising Range: Roads		approx. 120 miles

