

Medium Tank (M3 Lee)

GENERAL DATA

Crew:		6 or 7 men
Length: w/75mm gunM2, W/O sandshields		222 inches
Length: w/75mm gunM3, W/O sandshields		241 inches
Length: w/o Gun, w/o Sandshields		222 inches
Gun Overhang: Gun forward M3		19 inches
Width: over side doors		107 inches
Height: Over cupola		123 inches
Tread:		83 inches
Ground Clearance:		17 inches
Fire Height: 75mm gun		69 inches
Turret Ring Diameter: (inside)		54.5 inches
Weight Combat Loaded:	61,500 pounds *	
Weight Unstowed:	57,400 pounds*	
Power to Weight Ratio:	Net	11.4 hp/ton
	Gross	13.0 hp/ton
Ground Pressure: Zero penetration		12.6 psi

*all weights based on T48 or T51 tracks

ARMOR

Type: Turret, cast homogeneous steel; Hull, rolled homogeneous steel; riveted assembly

Hull Thickness:	Actual	Angled w/Vertical
Front, Upper	2.0 inches	30 degrees
Middle	1.5 inches	53 degrees
Lower	2.0 inches	0 to 45 degrees
Sides	1.5 inches	0 degrees
Rear	1.5 inches	0 to 10 degrees
Top	0.5 inches	83 to 90 degrees
Floor, Front	1.0 inches	0 degrees
Rear	0.5 inches	90 degrees
Turret Thickness:		
Front	2.0 inches	47 degrees
Sides	2.0 inches	5 degrees
Rear	2.0 inches	5 degrees
Top	0.875 inches	90 degrees

ARMAMENT

Primary: 75mm Gun M2 or M3 in Mount M1 in right front hull
 Traverse: Manual 30 degrees, (15 degrees L or R)
 Elevation: Manual -20 to -9 degrees
 Tiring Rate: (max) 20 rounds/minute
 Loading System: Manual
 Stabilizer System: Elevation only

37mm Gun M5 or M6 in Mount M24 in turret
 Traverse: Hydraulic or Manual 360 degrees
 Traverse Rate: (max) 20 seconds/360 degrees
 Elevation: Manual +60 to -7 degrees
 Firing rate: (Max) 20 rounds a minute
 Loading system: Manual Stabilizer: Elevation only

Secondary:

- (1) .30 caliber MG M1919A4 in turret cupola
- (1) .30 caliber MG M1919A4 coaxial w/37mm gun in turret
- (1) .30 caliber MG M1919A4 fixed in front plate
- Provision for (1) .45 caliber SMG M1928A1*
- (2) in early production vehicles

AMMUNITION

50 rounds of 75mm	12 hand grenades
178 rounds of 37mm	
1200 rounds .45 caliber	
9200 rounds .30 caliber	

FIRE CONTROL AND VISION EQUIPMENT

Primary Weapon: Direct Indirect
 75mm gun Periscope M1 with Gunner's Quadrant M1
 Telescope M21A1
 37mm gun Periscope M2 with
 Telescope m19A1

Vision Devices:	Direct	Indirect
Driver	Hatch and	Protectiscope (1)
Gunner(75)	None	Periscope M1 (1)
Loader (75)	Hatch	Protectiscope (1)
Commander	hatch and vision slots	Protectiscope (1)
Gunner (3)	None	Periscope M2 (1)
Loader (37)	Pistol Port	Protectiscope (1)

Total Periscopes: M1(1), M2 (2)

Total Protectiscopes: (7) #

Total Pistol Ports: Hull (4)*, Turret (1)

*very late production (6) #Very late production (3)

ENGINE

Make and Model: Continental R975 EC2
 Type: 9 cylinder, 4 cycle, radial
 Cooling System: Air Ignition: Magneto
 Displacement: 973 cubic inches
 Bore and Stroke: 5 X 5.5 inches
 Compression Ratio: 6.3:1
 Net Horsepower (max) 340 hp at 2400 rpm
 Gross Horsepower (max): 400 hp at 2400 rpm
 Net Torque (max): 800 ft-lb at 1800 rpm
 Gross Torque (max): 890 ft-lb at 1800 rpm
 Weight: 1137 lb. dry
 Fuel: 80 octane gasoline 175 gallons
 Engine Oil: 36 quarts

POWER TRAIN

Clutch: Dry disc, 2 or 3 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: 1.5515:1

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 top 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
 (T51) 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, in left front sponson SCR 506 in right rear sponson on command tanks
 Interphone: (part of radio) 5 stations plus earphones for whole crew

*early vehicles may be equipped with SCR 245

FIRE PROTECTION

- (2) 10 carbon dioxide, fixed
- (2) 4 pound carbon dioxide, portable

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:	40 inches
Minimum Turning Circle: (diameter)	62 feet
Cruising Range: Roads	approx. 120 miles

