

# Cruiser Tank Sherman VC

## GENERAL DATA

Crew:	4 men
Length: Gun forward w/ Sandshields	309 inches
Length: Gun to Rear w/ Sandshields	292 inches
Length: w/o Gun, w/o Sandshields	254 inches
Gun Overhang: Gun forward W /muzzle brake	55 inches
Width: w/ Sandshields	105 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:	72,100 pounds *
Weight Unstowed:	67,800 pounds*
Power to Weight Ratio: Net	10.3 hp/ton
Gross	11.8 hp/ton
Ground Pressure: Zero penetration	13.6 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 45 degrees
Sides	1.5 inches	0 degrees
Rear	1.5 inches	0 to 20 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	3.5 inches	0 degrees
Mantlet	1.5 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: 17 pdr Gun (76.2mm) Mk IV or VII in mount Mk I in turret  
 Traverse: Hydraulic and Manu 360 degrees  
 Traverse Rate: (max) 15 seconds/360 degrees  
 Elevation: Manual -25 to -12 degrees  
 Tiring Rate: (max) 10 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 coaxial w/17pdr gun in turret  
 (1) 2 inch smoke Mortar (smoke) fixed in turret  
 Provision for (1) .45 caliber SMG M1928A1

## AMMUNITION

77 rounds of 17 pdr 9 hand grenades  
 1170 rounds .50 caliber 27 rounds 2 inch smoke  
 440 rounds .45 caliber  
 5000 rounds .30 caliber

## FIRE CONTROL AND VISION EQUIPMENT

Primary Weapon: Direct Indirect  
 Telescope Mk 3/14 with Azimuth Indicator M19  
 Periscope M4 with Clinometer  
 Telescope M38 Rangefinder  
 Vision Devices: Direct Indirect  
 Driver Hatch and Periscope M6 (2)  
 Commander Hatch Periscope M6 (1)  
 Gunner None Periscope M4 (1)  
 Loader Pistol Port Periscope M6 (1)  
 Total Periscopes: M4(1), M6 (4)  
 Total Pistol Ports: Hull (0), Turret (1)

## ENGINE

Make and Model: Chrysler A57  
 Type: 30 cylinder, 4 cycle, multibank  
 Cooling System: Liquid Ignition: Battery  
 Displacement: 1253 cubic inches  
 Bore and Stroke: 4.37 X 4.5 inches  
 Compression Ratio: 6.2:1  
 Net Horsepower (max) 370 hp at 2400 rpm  
 Gross Horsepower (max): 425 hp at 2850 rpm  
 Net Torque (max): 1020 ft-lb at 1200 rpm  
 Gross Torque (max): 1060 ft-lb at 1400 rpm  
 Weight: 5400 lb. dry  
 Fuel: 80 octane gasoline 160gallons  
 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: British Wireless Set No. 19, mounted in the back of the turret  
 Interphone: (part of radio) 4 stations  
 Tank Distinguishing Flag Set  
 Signal Pistol No.1. 1 inch  
 Signal Flares

## FIRE AND GAS PROTECTION

(2) 10 carbon dioxide, fixed  
 (2) 4 pound carbon dioxide, portable  
 (2) Methyl Bromide Portable

## PERFORMANCE

Maximum Speed: Sustained, level road 20 miles/hour  
 Short periods, level 25 miles/hour  
 Maximum Grade: 60 percent  
 Maximum Trench: 8 feet  
 Maximum Vertical Wall: 24 inches  
 Maximum Forging Depth: 42 inches  
 Minimum Turning Circle: (diameter) 70 feet  
 Cruising Range: Roads approx. 100 miles

