

105mm Howitzer M4

Carriage and mount:	Medium Tank M4 Series in Mount M52
Length of Chamber (to Rifling):	15.03 inches
Length of Rifling:	78.02 inches
Length of Chamber (to projectile base):	11.38 inches (boat-tailed projectiles)
Travel of Projectile in Bore:	81.67 inches (boat-tailed projectiles)
Length of Bore:	93.05 inches, 22.5 calibers
Depth of Breach Recess:	8.25 inches
Length of Muzzle to rear face of Breach:	101.3 inches, 24.5 calibers
Additional length, Muzzle Brake, etc.:	none
Overall length:	101.3 inches
Diameter of Bore:	4.134 inches
Chamber Capacity:	153.80 cubic inches
Weight Tube (w/o muzzle brake):	973 pounds
Total Weight:	1140 pounds
Type of Breechblock:	Manually operated horizontal sliding wedge.
Rifling:	36 grooves, unifom right hand twist, one turn in 20 calibers
Ammunition:	Semi-fixed, variable charge except for HEAT M67
Primer:	Percussion
Weight Complete Round in pounds:	HE M1 Shell 42.07, HEAT M67 Shell 36.85, WP M60 Shell 43.77, HC BE M84 Shell 41.94
Explosive charge size:	HE M1 Shell 6 pounds, HEAT M67 Shell 2 pounds
Weight, Projectile in pounds:	HE M1 Shell 33.00, HEAT M67 Shell 29.22, WP M60 Shell 34.31, HC BE M84 Shell 32.87
Maximum Powder Pressure:	28,000 psi
Maximum Rate of Fire:	8 rounds a minute
Muzzle Velocity:	HE M1 Shell 1550ft-sec, HEAT M67 Shell 1250ft-sec, WP M60 Shell 1550ft-sec, HC BE M84 Shell 1550ft-sec
Muzzle Energy of Projectile: KE=1/2MV ² <small>Rotational energy is neglected and valuse are based on long tons (2,240 pounds)</small>	HE M1 Shell (HE) 555ft-tons, HEAT M67 Shell (HEAT-T) 317 ft-tons
Maximum Range (independent of mount):	HE M1 Shell 12205 yards HEAT M67 Shell 8590 yards, WP M60 Shell 12150 yards, HC BE M84 Shell 12205 yards

Gun Penetration Tables

Shell Name	500 Yards	1000 Yards	1500 Yards	2000 yards
Homogenous Armor at 0 degrees obliquity				
HEAT M67 Shell (HEAT-T)	4.0 inches	4.0 inches	4.0 inches	4.0 inches
	101.6mm	101.6mm	101.6mm	101.6mm

Chart created by the Sherman tank site with data from Hunnicutt's Sherman and Pershing books and US Army TMs

Notes:

