

# ARCHIVED REPORT

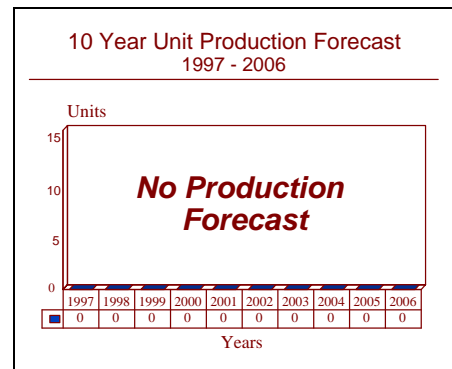
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## M108 105 mm Self-Propelled Howitzer - Archived 4/97

### Outlook

- The M108 is out of production
- A total of 451 M108 systems was manufactured
- Only a minimal additional modernization and retrofit potential exists for the remaining systems



### Orientation

**Description.** A tracked self-propelled 105 millimeter artillery system

**Sponsor.** The development and procurement of the M108 was sponsored by the United States Department of Defense through the United States Army.

**Contractors.** The M108 was manufactured by the Cadillac Motor Car Division of General Motors Corporation at the Detroit Arsenal located in Detroit, Michigan, United States of America.

**Licensees.** None

**Status.** Production of the M108 terminated in 1963, and the system remains in service in several nations.

**Total Produced.** A total of 451 M108 systems were manufactured.

**Application.** Mobile light artillery support for the field army at the battalion level.

**Price Range.** The M108 has not yet been traded on the open market; a few are expected to appear in this market in the near future. One source states that the open market price for a refurbished M108 should be around \$160,000 in 1997 United States dollars.

### Technical Data

**Crew.** Five

**Muzzle Brake.** None

**Recoil System.** Hydro-mechanical

**Breech Mechanism.** Vertical sliding wedge

**Ammunition.** The M108 fires all United States/NATO standard 105 millimeter ammunition.

Dimensions. The following data are for the last production standard.

	<u>SI units</u>	<u>US units</u>
Length	6.11 meters	20.05 feet
Width	3.3 meters	10.83 feet
Height	3.16 meters	10.37 feet
Combat weight	22.45 tonnes	24.75 tons
Fuel capacity	511 liters	135.9 gallons
Ordnance caliber	105 millimeters	4.13 inches

Performance. The maximum speed and range of the vehicle is on a metallated road. The maximum ordnance range is with the M1 High Explosive round.

	<u>SI units</u>	<u>US units</u>
Maximum speed	56 kilometers per hour	34.78 miles per hour
Maximum range	390 kilometers	242.19 statute miles
Step	53.3 centimeters	1.75 feet
Trench	1.83 meters	6.0 feet
Slope	35%	35%
Gradient	60%	60%
Fording	1.83 meters	6.0 feet
Elevation	+74°	+74°
Depression	-4°	-4°
Traverse	360°	360°
Maximum ordnance range	11,500 meters	12,576 yards
Maximum rate of fire	3 rounds per minute	3 rounds per minute

**Engine.** The M108 uses a Detroit Diesel 8V-71T two stroke, eight cylinder, supercharged diesel engine which is rated at 302.13 kilowatts (405 horsepower) at 38.34 revolutions per second (2,300 revolutions per minute). The power-to-weight ratio is 13.46 kilowatts per tonne (16.37 horsepower per ton). A 24 volt electrical system with four model 6TN 12-volt batteries is the standard electrical fit.

**Gearbox.** The Allison Transmission Division of General Motors Corporation XTG-411-2A gearbox with four forward and two reverse gear ratios is used.

**Suspension and Running Gear.** The M108 uses a torsion bar type suspension with seven dual tired

roadwheels on each side with the drive sprocket forward and the idler at the rear. No track return rollers are fitted.

**Fire Control.** The M108 can be used for direct and indirect fires; for the latter, targeting information is provided by a forward observer through a fire direction center command post. Once the targeting data are received on the M108, the crew lays the cannon in the appropriate manner. The gunner has a M117 panoramic four power telescope having a ten degree field of view, a M118 elbow telescope with the same optical parameters and a M15 elevation quadrant.

## Variants/Upgrades

**Variants.** While no distinct variants of the M108 were ever developed, following their retirement in Belgium, the Belgian Army converted seventeen M108 vehicles

to armored command posts. These vehicles, designated Véhicule Blindé de Commandement et de Liaison, were converted by the Rocourt Arsenal.

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