

# ARCHIVED REPORT

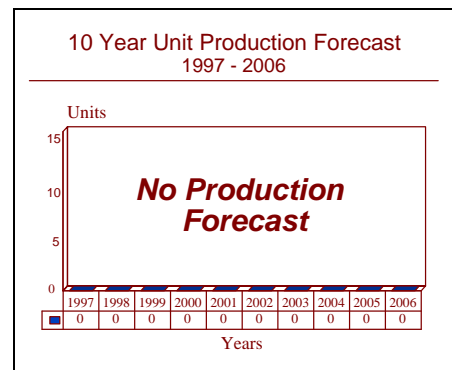
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## Type 54 and Type 54-1 122 mm Self-Propelled Howitzers - Archived 4/97

### Outlook

- The Type 54 and Type 54-1 are out of production
- A total of 788 systems was manufactured
- Some additional modernization and retrofit potential exists for the remaining systems



### Orientation

**Description.** Tracked 122 millimeter self-propelled artillery systems.

**Sponsor.** The development and procurement of this self-propelled artillery system has been sponsored by the Ministry of National Defense of the People's Republic of China.

**Contractors.** The Type 54 and 54-1 were developed and manufactured by the Ministry of Ordnance Industry of the People's Republic of China through the Chinese State Arsenals at undetermined locations.

**Licensees.** None

**Status.** Production of the Type 54 is complete; the manufacture of the Type 54-1 is also complete. Both systems are in service with the People's Republic of China.

**Total Produced.** A total of 429 Type 54 and 359 Type 54-1 self-propelled artillery systems was manufactured.

**Application.** Mobile fire support for the field army at the battalion and division levels.

**Price Range.** In equivalent 1992 United States dollars, the unit price of the Type 54-1 was \$621,000. This vehicle has not been traded by international arms merchants.

### Technical Data

**Crew.** Up to seven: commander, gunner, up to four loaders and driver

**Muzzle Brake.** None

**Recoil System.** Hydropneumatic

**Breech Mechanism.** A hinged screw breech mechanism is used.

**Ammunition.** This artillery system fires the following 122 millimeter case type separate loading ammunition types: High Explosive, Smoke and Illumination.

**Armor.** Both the Type 54 and Type 54-1 are fabricated from conventional steel alloy armor affording protection from small arms projectiles and ballistic fragments; the thickness of 12 millimeters (0.47 inch) over the frontal arc.

**Dimensions.** The Type 54 is the basic vehicle that has the 122 millimeter cannon mounted directly to the unmodified Type YW 531 chassis. The Type 54-1 uses a lengthened chassis with an extra roadwheel on each side for additional stability. The following dimensions are for the last production standard of the Type 54-1.

	<u>SI units</u>	<u>US units</u>
Length overall	5.6 meters	18.37 feet
Width	3.07 meters	10.07 feet
Height	2.69 meters	8.82 feet
Combat weight	15.3 tonnes	16.86 tons
Fuel capacity	665 liters	176.86 gallons
Ordnance caliber	122 millimeters	4.80 inches

**Performance.** The maximum range figure for the Type 54 ordnance is when it is with the non-assisted High Explosive projectile. The maximum speed and vehicle range data are for a metallated road.

Maximum speed	55 kilometers per hour	34.2 miles per hour
Maximum range	454 kilometers	281.9 statute miles
Step	60 centimeters	1.97 feet
Trench	2.0 meters	6.56 feet
Slope	30%	30%
Gradient	61%	61%
Fording	1.1 meters	3.61 feet
Elevation	+63°	+63°
Depression	-2.5°	-2.5°
Traverse (total)	45°	45°
Maximum ordnance range	11.93 kilometers	13,046.6 yards
Maximum rate of fire	4 rounds per minute	4 rounds per minute
Sustained Rate of Fire	2 rounds per minute	2 rounds per minute

**Engine.** The Type 54 and 54-1 both use the Model 6150L diesel engine; this six-cylinder liquid cooled engine is rated at 193.9 kilowatts (260 horsepower) at 33.34 revolutions per second (2,000 revolutions per minute) and is provided by the Chinese State Factories. The power-to-weight ratio is 12.67 kilowatts per tonne (15.42 horsepower per ton).

**Gearbox.** The Type 54 and 54-1 use an unidentified manually operated constant mesh type gearbox. This unit is provided by the Chinese State Factories.

**Suspension and Running Gear.** The Type 54 and 54-1 use a torsion bar type suspension with four (five in the 54-1) dual-tire road wheels on each side. The drive sprocket is at the front while the rear road wheel acts as the idler. There are three track return rollers on each side.

**Fire Control.** The fire control suites of both the Type 54 and Type 54-1 are rudimentary at best. The gunner has a panoramic sight and a gun position indicator.

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