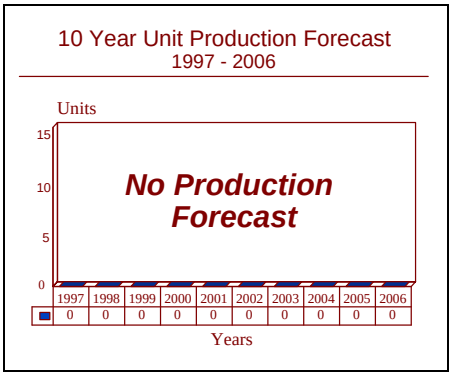
Type 83 152 mm Self-Propelled Howitzer - Archived 4/97

Outlook

- The serial production of the Type 83 is dormant and not forecast to be resumed
- A total of 2,384 systems has been manufactured
- Some modernization and retrofit potential will exist for this system



Orientation

Description. A tracked 152 millimeter self-propelled artillery system

Sponsor. The development and procurement of this self-propelled artillery system is sponsored by the Ministry of National Defense through the People's Liberation Army.

Contractors. The Type 83 was developed and manufactured by the Ministry of Ordnance Industry of the People's Republic of China at the Chinese State Arsenals at undetermined locations.

Licensees. None

Status. The production line for the Type 83 went dormant in 1993; the system remains in service in the People's Republic of China.

Total Produced. A total of 2,834 Type 83 self-propelled artillery systems has been manufactured.

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

Price Range. In equivalent 1993 United States dollars, the unit price of the Type 83 was $948,000.

Technical Data

Crew. Five: commander, gunner, two loaders and driver.

Muzzle Brake. Double baffle

Recoil System. Hydropneumatic

Breech Mechanism. Semiautomatic vertical sliding block.

Ammunition. This artillery system fires the following 152 millimeter separate pattern ammunition types that are interchangeable with the Type 66 152 millimeter howitzer, which in turn is essentially the same as the Russian D.20. The types are High Explosive, the MP-152 High Explosive Rocket Assisted Projectile, and Smoke.

Armor. Conventional steel alloy with a maximum thickness of 1.45 centimeters (0.57 inch).

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

	SI units	US units
Length overall	7.33 meters	24.04 feet
Width	3.24 meters	10.63 feet
Height	3.50 meters	11.48 feet
Combat weight	30.02 tonnes	33.09 tons
Fuel capacity	885 liters	235.37 gallons
Ordnance caliber	152 millimeters	5.98 inches

Performance. The maximum range figure for the Type 66 ordnance is when it is used in the gun mode and is with the non-assisted High Explosive projectile. The maximum speed and vehicle range data are for a metalled road.

Maximum speed	55 kilometers per hour	34.2 miles per hour
Maximum range	454 kilometers	281.9 statute miles
Step	70 centimeters	2.29 feet
Trench	2.7 meters	8.86 feet
Slope	30%	30%
Gradient	64%	64%
Fording	1.3 meters	4.27 feet
Elevation	+65°	+65°
Depression	-5°	-5°
Traverse	360°	360°
Maximum ordnance range	17.23 kilometers	18,842.7 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 83 uses the Type 12150L diesel engine; this liquid cooled engine is rated at 387.9 kilowatts (520 horsepower) and is provided by the Chinese State Factories. The power-to-weight ratio is 12.92 kilowatts per tonne (15.71 horsepower per ton). A 24 volt electrical system with four Type 65 12 volt batteries is used.

Gearbox. The Type 83 uses an unidentified manually operated constant mesh type gearbox. This unit is provided by the Chinese State Factories.

Suspension and Running Gear. The Type 83 uses a torsion bar type suspension with six dual-tired road wheels on each side; the center four road wheels are in two pairs and a shock damper is mounted on the first and last road wheel stations. The drive sprocket is at the front while the rear road wheel acts as the idler. There are three track return rollers mounted on each side.

Fire Control. All turret movements as well as the cannon elevation (+65°) and depression (-5°) are powered with manual backup. The Type 83 is normally used for indirect fires with target data supplied by a forward observer through a command post or directly to the Type 83; a Type 889D radio is fitted. In either case, the Type 83 crew uses this information to properly lay the cannon. A panoramic sight is mounted on the turret roof and a direct fire sight is also provided.

Variants/Upgrades

Variants. The Type 83 chassis is also used as the basis of the Type 83 multiple launch rocket system which is covered in a separate report in Tab E of this book. In addition, the Type 762 425 millimeter Mine Clearing Rocket Launcher is based on the Type 83 152 millimeter self-propelled artillery system. For this application, the turret of the Type 83 152 millimeter self-propelled artillery system is replaced by a lower turret mounting the dual launcher for the Type 762 rockets. The weight of this vehicle is 27 tonnes (29.76 tons). Finally, a trench-digging engineer vehicle has also been developed based on the Type 83. This vehicle mounts the trench-digging machine over the rear of the hull; a three-man crew operates the vehicle.

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