

Arjun Main Battle Tank (MBT)

The Arjun is a main battle tank (MBT) of the third generation, developed by the Defence Research and Development Organisation (DRDO) for the India Army. It is named after Arjuna, the main protagonist of the Mahabharata.

It entered into service in 2004. Following the formation of the 43rd Armoured Regiment in 2009, it became the first regiment to receive the Arjun

This article will further elaborate on the Arjun MBT. The information from this article will be useful in the Science and Technology segment of the IAS Exam.

What is a Main Battle Tank?

Before going into detail about the Arjun tank, it is necessary to know what a Main Battle Tank is. An MBT is a tank that plays the role of direct fire and manoeuvre in today's modern armies.

The Cold-War era saw the development of powerful engines, enhanced suspension systems and light composite armour. This led to the development of a tank that had the following qualities:

- Firepower of a super-heavy tank
- Armour protection of a heavy tank
- Nimble mobility of a light tank
- Weight of a medium tank

In the 1960s the Main Battle Tank replaced all other types of tanks, and now they are the mainstay of armoured regiments around the world. They are organized into armoured units composed of infantry supported by surveillance and ground-attack aircraft.

Characteristics of Arjun Battle Tank

The specifications of the Arjun Battle Tank are given in the table below:

Characteristics of Arjun Battle Tank (Mk1 and Mk.1A)	
Mass	Mk.1: 58.5 tonnes Mk.1A: 68 tonnes
Length	Mk.1: 10.19 metres Mk.1A/Mk.2: 10.64 metres

Width	Mk.1: 3.85 metres Mk.1A/Mk.2: 3.95 metres
Height	Mk.1: 2.32 metres Mk.1A/Mk.2: ~2.8 metres
Crew	4 (commander, gunner, loader and driver)
Armour	ERA, NERA, Kanchan armour (classified)
Main armament	1× 120 mm rifled tank gun capable of firing LAHAT, SAMHO,HEAT, APFSDS, HESH, PCB & Thermobaric Rounds (Rate of fire: 6–8 rounds/minute, total: 42 containerized rounds)
Secondary armament	1× NSV 12.7mm AA MG 1× MAG 7.62 mm Tk715 coaxial MG 12 × smoke grenades
Engine	MTU MB 838 Ka-501 V10; 1,400 hp (1,044 kW) liquid-cooled turbocharged diesel engine.
Designed	1983–1996
Manufacturer	Armoured Vehicles Nigam Limited (at Heavy Vehicles Factory)

Variants of the Arjun Main Battle Tank

The following are the variants of the Arjun Main Battle Tank produced or was proposed for production

- Arjun MK1: The first variant produced is similar to the German Leopard 2A4. It is equipped with Kanchan composite armour a 120 mm rifled gun and laser warning receiver protection system
- Bhim SPH: The Bhim SPH was a proposed self-propelled howitzer of 155 mm calibre. It was to be fitted with a G5 howitzer to the tank chassis. The project was ultimately cancelled as the manufacturer, South Africa-based Denel became involved in a corruption scandal in India
- Arjun Catapult System: A 130 mm catapult system built on the Arjun Chassis, it was successfully tested following which the Indian army placed an order for 40 systems

- Bridge Layer Tank (BLT): A bridge laying vehicle built on an Arjun chassis
- Arjun MK1A: The MK1A (previously designated as MK2) is a new variant of Arjun tank designed to enhance firepower, mobility and survivability. It has a completely redesigned turret protected with improved Kanchan armour and ERA. The MK1A has 89 major and minor improvements, of which 73 could be easily incorporated into the MK1 variant.

Frequently Asked Questions about Arjun Main Battle Tank

What are the drawbacks of the Arjun Main Battle Tank?

The Arjun MBT is widely criticized for its weight, logistic issues, low serviceability, and timeline. In 2016 Comptroller and Auditor General (CAG) of India report said that Arjun tanks have not been operational since 2013 due to a lack of spares.

How many Arjun tanks India has?

The army already operates 124 Arjun Mark 1 MBTs, which amounts to two tank regiments. Due to logistics and heavy weight, the army has not ordered for more units.