BHISHMA T 90

Tank Bhishma (T-90) is a tracked combat vehicle with powerful armament, reliable Armour protection and high manoeuvrability. The tank is provided with high-accuracy sighting systems as well as with an automatic loader ensuring high practicable rate of gun fire. The smoke grenades launching system is designed for remote setting of smoke screen with grenades. The basic components of tank are the hull, turret, weapons and fire control system, automatic loader, power plant, power train, tracks and suspension, electric equipment and communication facilities, and special equipment have underwater stream-crossing, CBR protection system, smoke-generating equipment, fire-fighting equipment, entrenching equipment, built-in ERA.



The Tank is Powered with 1000HP engine with multi fuel system having high power to weight ratio with reliable Suspension and Transmission systems which enables high mobility and manoeuvrability on all types of terrain under any climatic conditions during combat operation.

PROTECTION

The tank is provided with a built-in Explosive Reactive Armour (ERA), which enhances the tank protection against armour - piercing discarding sabot and high-explosive anti tank missiles. The tank is equipped with a CBR protection system intended to protect the crew and equipment inside the tank against shock waves and penetrating radiation in case of nuclear explosion, against radioactive dust when moving over contaminated terrain, against chemical warfare agents, bacteriological materials.

FIRE POWER

The Tank is equipped with a 125-mm smoothbore Gun stabilized in elevation and azimuth, 12.7-mm Antiaircraft Machine Gun and 7.62-mm Coaxial Machine Gun. The main armament can fire FSAPDS, HEF, HEAT and Laser Guided missiles. All Rounds can be loaded automatically by Auto-Loading Gear which ensures high rate of firing.

SIGHTING SYSTEM AND VISION DEVICES

The Tank is provided with high-accuracy sighting systems for both commander and gunner which enable day and night fighting capabilities. The diver's night sight enables driving during night and low light conditions under different terrains. Thermal sight is designed to detect targets and to deliver aimed fire from the gun and machine gun by all types of rounds under various weather conditions, while on the move and at halts, by day and at night.

SPECIFICATIONS

WEIGHT	46.5 TONNES
CREW	3
OVERALL LENGTH	9.530 M
OVERALL HEIGHT	2.865 M
OVERALL WIDTH	3.780 M
MAXIMUM ROAD SPEED	60 KMPH
ENGINE POWER	1000 HP
POWER TO WEIGHT RATIO	21.5 HP/T
SHALLOW FORDING	1.8 M
FORDING	5 M (WITH SNORKEL)
VERTICAL OBSTACLE	0.85 M
TRENCH CROSSING WIDTH	2.6 TO 2.8 M
GRADIENT	30 DEGREES
GUN BORE	125 MM (SMOOTH)
RATE OF FIRE	8 RDS / MIN
AMMUNITION	42 (GUIDED MISSILE /
	FSAPDS / HEAT / HEF)
CO-AXIAL MACHINE GUN	7.62 MM
ANTI-AIRCRAFT MACHINE GUN	12.7 MM

Manufactured by

HEAVY VEHICLES FACTORY, AVADI

Unit of Armoured Vehicles Nigam Limited A Government of India Enterprise, Ministry of Defence Chennai, Tamil Nadu. Pin: 600054.





COMBAT IMPROVED AJEYA - T 72

Tank T-72 is a tracked fighting vehicle having powerful armament, reliable armor protection and high mobility. The tank is provided with high-accuracy laying and sighting material, and with an automatic loading gear ensuring high effective rate of gun fire. The basic components of the tank are the hull, turret, weapons and fire control system, power unit, power transmission, track-and-suspension system, electrical equipment and communication facilities, and special equipment have underwater stream-crossing equipment, CBR protection system, smoke-generating equipment, fire-fighting equipment, entrenching equipment.



SPECIFICATIONS

43 TONNES WEIGHT **CREW** 9.530 M **OVERALL LENGTH** 2.190 M **OVERALL HEIGHT** 3.590 M **OVERALL WIDTH** MAXIMUM ROAD SPEED 60 KMPH 780 HP **ENGINE POWER** POWER TO WEIGHT RATIO 19 HP/T 1.8 M SHALLOW FORDING

FORDING 5 M (WITH SNORKEL)

VERTICAL OBSTACLE 0.85 M
TRENCH CROSSING WIDTH 2.8 M

GRADIENT 30 DEGREES
GUN BORE 125 MM (SMOOTH)

RATE OF FIRE 8 RDS/MIN

AMMUNITION 44 (FSAPDS/HEAT/HEF)

CO-AXIAL MACHINE GUN 7.62 MM ANTI-AIRCRAFT MACHINE GUN 12.7 MM

MOBILITY

The Tank is Powered with 780 HP engine with multi fuel system having high power to weight ratio with reliable Suspension and Transmission systems which enables high mobility and manoeuvrability on all types of terrain under any climatic conditions during combat operation.

PROTECTION

The Explosive Reactive Armour (ERA) is an add-on armour designed to offer additional protection to tank T-72. The tank is equipped with a CBR protection system intended to protect the crew and equipment inside the tank against shock wave and penetrating radiation in case of nuclear explosion, against radioactive dust when moving over contaminated terrain, against chemical warfare agents, bacteriological materials.

FIRE POWER

The Tank is equipped with a 125-mm smoothbore gun stabilized in elevation and azimuth, 12.7-mm Antiaircraft Machine Gun and 7.62-mm Coaxial Machine Gun. The main armament can fire FSAPDS, HEF and, HEAT. All Rounds can be loaded automatically by Auto-Loading Gear which ensures high rate of firing.

SIGHTING SYSTEM AND VISION DEVICES

The Tank is provided with high-accuracy sighting systems for both commander and gunner which enable day and night fighting capabilities. The driver's night sight enables driving during night and low light conditions under different terrains.

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BRIDGE LAYER TANK T-72

Bridge Layer Tank (BLT T-72) is used by Armoured formation and engineering units for crossing natural /artificial obstacles in shortest possible time during the advance of tank columns. Bridging system consisting of Launching Mechanism, Bridge Superstructure, Hydraulics, Auxiliary System, and Electronic control System.



SALIENT FEATURES

BLT T-72 carries a prefabricated steel bridge of 20m span which can be launched over an obstacle in shortest time and to facilitate crossing by all types of 'A' and 'B' vehicles.

BLT T-72 launching mechanism is supported by hydraulic system for launching and retrieval operation. It is capable of launching a 20 m bridge which is 4m width, within 3 to 5 minutes on any wet and dry obstacles, facilitating speedy induction. The launching mechanism is capable of retrieving the bridge from either end.

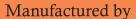
BLT T-72 has a separate auxiliary system in order to lay or retrieve the bridge superstructure as an emergency measure. This system consists of an auxiliary power pack, an auxiliary gear box and a hydraulic pump.

Self luminous beta lights is provided with each marker rod which provides guidance to the driver of the vehicle during night crossing of bridge.

Electrical joysticks are also provided with the BLT for remote operation of bridge launching/retrieval, which can be used by both, the driver and the commander.

SPECIFICATIONS

WEIGHT	49 TONNES
CREW	2
OVERALL LENGTH	11.36 M
OVERALL HEIGHT	3.8 M
OVERALL WIDTH	4.0 M
MAXIMUM ROAD SPEED	60 KMPH
ENGINE POWER	780 HP
POWER TO WEIGHT RATIO	16.12 HP/T
BRIDGE TYPE	SCISSORS LAUNCH
SHALLOW FORDING	1.8 M
(MEDIUM FORDING WITH SNORKEL)	
VERTICAL OBSTACLE	0.76 M
TRENCH CROSSING WIDTH	2.4 M
GRADIENT	25 DEGREES
ANTI-AIRCRAFT MACHINE GUN	12.7 MM





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40 TONNIEC

TANK T 72 TRAWL

Tank is equipped with TRAWL assembly on to the Tank T-72. Trawl assembly is a vehicle mounted device having a set of Rollers mounted in front of a tank with a frame which rolls on the ground in front of the tank tracks and deliberately detonates mines to make a safe path through a minefield. Trawls physically activate mines by applying pressure due to self weight of rollers.



SPECIFICATIONS

WEIGHT (WITH TRAWL EQUIPMENT) 50.5 TONNES

CREW OVERALL LENGTH

OVERALL HEIGHT

OVERALL WIDTH

MAXIMUM ROAD SPEED

ENGINE POWER

POWER TO WEIGHT RATIO

SHALLOW FORDING

FORDING

VERTICAL OBSTACLE

TRENCH CROSSING WIDTH

GRADIENT

GUN BORE

RATE OF FIRE

AMMUNITION

CO-AXIAL MACHINE GUN ANTI-AIRCRAFT MACHINE GUN

9.530 M

2.190 M

3.590 M

60 KMPH

780 HP

15.44 HP/T

1.8 M

5 M (WITH SNORKEL)

0.85 M

2.8 M

30 DEGREES

125 MM (SMOOTH)

8 RDS / MIN

(FSAPDS/HEAT/HEF)

7.62 MM

12.7 MM

MOBILITY

The Tank is Powered with 780 HP engine with multi fuel system having high power to weight ratio with reliable Suspension and Transmission systems which enables high mobility and manoeuvrability on all types of terrain under any climatic conditions during combat operation.

PROTECTION

The Explosive Reactive Armour (ERA) is an add-on armour designed to offer additional protection to tank T-72. The tank is equipped with a CBR protection system intended to protect the crew and equipment inside the tank against shock waves and penetrating radiation in case of nuclear explosion, against radioactive dust when moving over contaminated terrain, against chemical warfare agents, bacteriological materials.

FIRE POWER

The Tank is equipped with a 125-mm smoothbore gun stabilized in elevation and azimuth, 12.7-mm Antiaircraft Machine Gun and 7.62mm Coaxial Machine Gun. The main armament can fire FSAPDS, HEF and, HEAT. All Rounds can be loaded automatically by Auto-Loading Gear which ensures high rate of firing.

SIGHTING SYSTEM AND VISION DEVICES

The Tank is provided with high-accuracy sighting systems for both commander and gunner which enable day and night fighting capabilities. The driver's night sight enables driving during night and low light conditions under different terrains.

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MAIN BATTLE TANK ARJUN MK-1A

The state-of-the-art ARJUN Main Battle Tank MK-JA has been designed and developed indigenously by incorporating numerous improvements over and above the ARJUN MBT Mk-1 which is already in service with the Indian Army. It is endowed with superior fire power, high mobility and excellent protection characteristics required to fulfill the challenging battlefield requirements of the 21st century ARJUN MBT MK-1A manifests the latest battle tank technologies that makes it a distinct front-runner amongst the array of contemporary Main Battle Tanks of modern armies the world over.



SALIENT FEATURES

FIRE POWER:

The superior armour defeating prowess of the ARJUN MBT MK-1A gives it an edge over contemporary battle tanks of the world. A computer controlled Integrated Fire Control System incorporating day-cum-night stabilized sighting system guarantees a very high first round hit probability and reduced reaction time to bring effective fire on targets. The Fire power of ARJUN MBT MK-1A is enhanced by;

◆ Commander's Panoramic Sight Mk-II Automatic Target Tracker Remotely Controlled Weapon Station ◆ Effective Muzzle Reference System.

MOBILITY

The ARJUN MBT has been referred to as a "Desert Ferrari" due to its excellent mobility characteristics that have proved its worth while operating in highly demanding Indian desert conditions. Low ground pressure, high power to weight

SPECIFICATIONS

WEIGHT **68 TONNES CREW OVERALL LENGTH** 10.642 M **OVERALL HEIGHT** 3.182 M **OVERALL WIDTH** 3.950 M 58 KMPH MAXIMUM ROAD SPEED **ENGINE POWER** 1400 HP POWER TO WEIGHT RATIO 20.59 HP/T SHALLOW FORDING 1.4 M MEDIUM FORDING 2.15 M VERTICAL OBSTACLE 0.45 M TRENCH CROSSING WIDTH 2.0 M

 GRADIENT
 20 DEGREES

 GUN BORE
 120 MM (RIFLED)

 RATE OF FIRE
 6 - 8 RDS / MIN

 AMMUNITION
 39 (FSAPDS/HESH)

 CO-AXIAL MACHINE GUN
 7.62 MM MAG

ANTI-AIRCRAFT MACHINE GUN 12.7 MM NSVT (ON RCWS)

ratio and a high performance powerpack, including a robust and effective transmission system, characterize the ARJUN MBT's remarkable mobility. Further progressions effected in ARUN MBT MK-1A include ◆ Advance Running Gear System New Final Drive with increased reduction ratio New Track System with increased horn height ◆ Driver's Night Sight ◆ Advanced Land Navigation System.

Advance Running Gear System ensures outstanding mobility in desert as well as developed terrain and provides excellent ride comfort for the crew minimizing fatigue even on extended runs.

PROTECTION

The all round protection has been enhanced with improved KANCHAN armour. ARJUN MBT MK-IA affords a higher degree of protection amongst the present generation of battle tanks due to the provision of:

- ◆ Containerized Ammunition Bin with Individual Shutters ◆ Explosive Reactive Armour (ERA) Panels
- ◆ Roof Mounted Driver's Seat ◆ Laser Warning and Counter Measure System ◆ Track Width Mine Plough.

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