



Challenger 2

Great Britain's Challenger 2 main battle tank is successor to the successful Challenger 1 which was used to great effect in the first Gulf War.

When Challenger 2 was being developed in the early 1990s the British Army worked very closely with industry to avoid the flaws experienced with Challenger 1 and incorporate the lessons learned from the Gulf War.

The Army wanted high firepower, high reliability, high agility both on road and cross-country, ease of handling and operation, and readiness under bad conditions.

Although it was based on the Challenger 1, there are more than 150 improvements, from a completely new turret down to air conditioning and a water heater for the crew. The turret and hull designs also incorporate stealth technology to keep the tank's radar signature to a minimum.

Equipment supplied on the Challenger 2 includes both French and Canadian elements.

The commander has a gyro-stabilised sight from SFIM Industries of France which provides all-round vision without the commander having to move his head, and is identical to that used on the Leclerc MBT.

The fire control system is by Computing Devices Company of Canada, an improved version of the system used on the US M1A1 Abrams tank.

The Challenger's L30 gun has a chromium lining to give increased velocity and penetrating power, greater precision and reduced wear. It can fire a depleted uranium round which is about two and a half times more dense than steel. A new system under development will enable use of a longer depleted uranium projectile to increase armour penetration.

All eight regiments in the Royal Armoured Corps are now equipped with Challenger 2.



PRODUCTION

1988

Based on British Army requirements, nine trial vehicles built

1989

Challenger 1 production stopped

1992

Production of Challenger 2 starts

1998

38 Challenger 2s handed over to The Royal Scots Dragoon Guards at Bergen-Hohne in Germany, the first Royal Armoured Corps unit to receive it.

Challenger 2E

Vickers Defence Systems (now Alvis Vickers Ltd.) produces a Challenger 2 with modifications called

Desert Challenger or Challenger 2E (Export). Main improvement is a change of engine and transmission. It uses an updated version of the German Leopard 2 MBT engine, MTU 883 turbocharged diesel rated at 1,500hp with a German RENK transmission. Oman ordered 38 which are now in service.

SPECIFICATIONS

Designation: Challenger 2

Length: 11.55m

Hull length: 8.327m

Height: 2.95m

Width: 3.518m

Ground clearance: 0.5m

Ground pressure: 0.9kg/cm²

Combat weight: 62.5mt

Crew: 4

Engine: 1200bhp V12 Perkins diesel

Gearbox: David Brown TN54 epicyclic with 6 forward and two reverse gears

Range: 450km (increased by 70km by two 200-litre fuel barrels carried on rear)

Speed: 56km/h max road, 40km/h cross country

Fording depth: 1.07m

Armament:

Stabilised 120mm L30 rifled gun with ND-YAG laser rangefinder and TOGS II thermal imager for passive night vision; Marconi Space & Defence digital No. 6 Mk1 ballistic computer; fire control computer from CDC of Canada
Maximum range: 9,000 meters

Ammunition:

50 mixed projectiles stowed below the turret ring. Propellant charges are stowed separately in armoured bins. The L30 gun fires all current 120mm two-piece ammunition, and they can be a mixture of APFSDS (armour piercing fin stabilized discarding sabot), HESH (high explosive squash head), a depleted uranium round, or smoke.

Auxiliary weapons:

7.62mm chain gun mounted co-axially and 7.62mm GPMG mounted on loader's hatch for air defence.

Protection:

Challenger 2 is the best protected tank in NATO, incorporating second generation Chobham armour plating and full NBC protection.

Vehicle also has smoke grenade dischargers and engine exhaust smoke system.