

Challenger 2

Operation Telic – Iraq 2003

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.

Challenger 2 proved equally as effective during the second Gulf War in 2003 – and is still providing valuable support for Warrior crews in Southern Iraq.

Distinctive changes to the Challenger include Thermal Exhaust Cowlings to reduce exhaust heat signature on the hull rear sides, thermal identification panels and filter louvres on the turret, and side armour with sand reduction skirting.

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.

However, it had not been tested in desert battle conditions, and there were poor results and several incapacitated Challengers, when the tanks took part in exercises in Oman in 2001. Omani tanks, all Challenger 2E models and designed for the desert, had no problems.

The exercise exposed the tank's weakness to dust and fine sand. Modifications to fans and filters doubled



useful life in the dustiest conditions, and the side skirts were extended to prevent dust being thrown up towards the air intakes. All the work was carried out in Kuwait before hostilities began.

No Challengers were lost through enemy action during Operation Telic. On 27 March 2003, 14 Challengers of C Squadron, Royal Scots Dragoon Guards, engaged a column of 14 ageing T-55 tanks in what is credited as being the British Army's biggest tank engagement since World War II. None of the Challenger tanks was hit and all the T55s destroyed. Announcements are soon expected to be made on the upgrade of the Challenger 2 with a 120mm smoothbore gun which will involve reconfiguring the turret and changing stowage areas within the turret and hull.

It may involve collaboration with the German firm Rheinmetall.

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 epicyclical 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.

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.