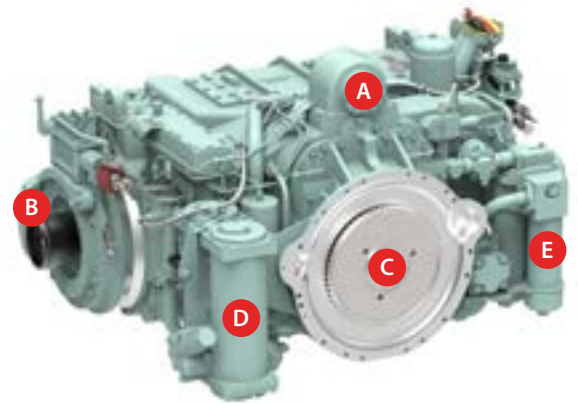


TN54E/ETS

The TN54E fully automatic transmission designed and manufactured by DB Defence is installed in the Challenger 2 main battle tank and CRAARV recovery vehicle.

It is also installed in the Trojan/Titan engineering vehicles in the TN54ETS designation.

TN54E is within the Challenger 2 family currently in service with the Royal Army of Oman. The transmission features six forward and two reverse gears at a rating of 1200bhp with an option to increase the power to 1500bhp.



A – Power take off

B – Output

E – Filters

C – Input

D – Oil Cooler

Key features	
Rating	1200-1500bhp (895-1120kW) at 2300rpm
Speed changing module	Six forward gears and two reverse gears. Epicyclic change speed section with multiplate clutches
Arrangement	- Single input and two in-line outputs are right angles to the input - Drive is transmitted from the engine through a splined coupling close coupled to the engine - The gear and direction of travel are engaged by correctly sequenced application of multiplate clutches, actuated hydraulically and controlled by electro- solenoid valves

Principle dimensions	
Length	1169mm
Height	847mm (excluding PTO)
Width	1536mm (excluding coupling)
Net dry weight	2390kg



Rating

- 1200-1500bhp (895-1120kW)
- Maximum torque 3055-3540lbft (4148-4800Nm)

Change speed section

- Three epicyclic gear trains and six oil cooled multiplate clutches arranged to give six forward and two reverse ratios

Forward	1 st	2 nd	3 rd	4 th	5 th	6 th
	7.174	4.87	3.26	2.207	1.498	1.003
Reverse	1 st	2 nd				
	5.015	1.544				

Torque converter

- Three element type with lock-up clutch for vehicle starting in 1st and 2nd forward gears and reverse gear

Steering

- Hydrostatic steer providing infinitely variable steer control to the minimum turn radius

Lubrication system

- Independent system with integral pumps and filters

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In the interest of continuous development, DB Defence reserves the right to alter designs and specifications without prior notice.

DB Defence is certified to ISO 9001:2008, 14001:2015 and 45001:2018. Your DB Defence representative should be consulted prior to product selection and use. 3X terms and conditions apply. Contact your local DB Defence representative for details and to check eligibility.

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