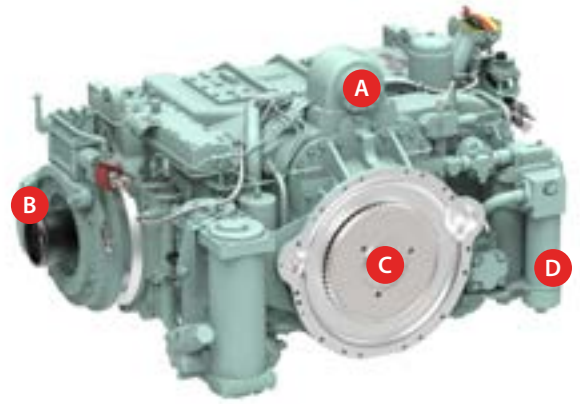


## TN54E/ETS

The TN54E fully automatic transmission designed and manufactured by David Brown Santasalo 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

**C** – Input

**D** – Filters

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	<ul style="list-style-type: none"> <li>• Single input and two in-line outputs are right angles to the input</li> <li>• Drive is transmitted from the engine through a splined coupling close coupled to the engine</li> <li>• The gear and direction of travel are engaged by correctly sequenced application of multiplate clutches, actuated hydraulically and controlled by electro- solenoid valves</li> </ul>

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 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>
	7.174	4.87	3.26	2.207	1.498	1.003
Reverse	1 <sup>st</sup>	2 <sup>nd</sup>				
	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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The information contained in this catalogue has been obtained through sources deemed reliable but cannot be guaranteed as to its accuracy. Any information of special interest should be obtained through independent verification and consulted with a David Brown Santasalo representative.

In the interest of continuous development, David Brown Santasalo reserves the right to alter designs and specifications without prior notice.

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



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