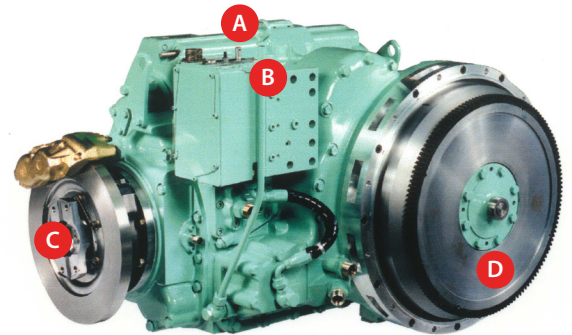


T300E transmission family

The T300E is the latest generation in a family of cross drive transmissions with integral steering system, suitable for tracked armoured personnel carriers and armoured fighting vehicles up to 360bhp.

The introduction of new materials throughout the transmission has enabled the power rating to be increased to 360bhp.



A – Forward/reverse mechanism

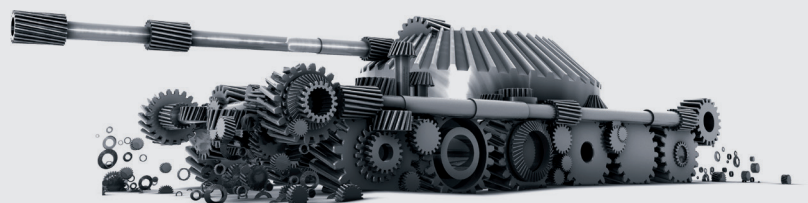
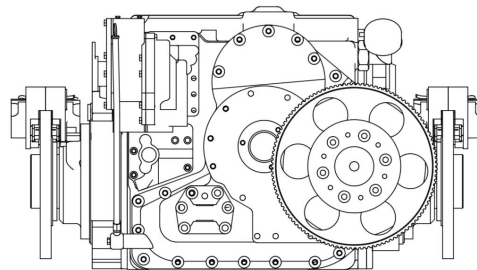
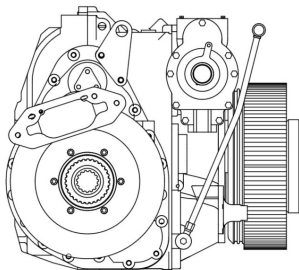
B – Dipstick

C – Steering disc

D – Fluid coupling

Key features	
Rating	360bhp (270kW) at 2400rpm
Configuration	offset cross drive fully automatic (manual available up to 300bhp), with centrifugal clutch
Speeds	7 forward, 7 reverse
Arrangement	<ul style="list-style-type: none"> • Three speed compound epicyclic gear set with low and high ranges. A further multi-plate clutch is employed for seventh gear • Remote mounted or close coupled • Automatic gear selection achieved by electro hydraulic valve block replacing the standard mechanical selector
Overall ratio speed	20.45

Principle dimensions	
Length	616mm
Height	580mm
Width	993mm
Dry weight	476kg engine mounted
Oil capacity	4 gallons (18 litre)



Rating

- Maximum input torque 1050Nm at 1800rpm
- Maximum input power 360bhp at 2400rpm
- Typical maximum vehicle weight 13.5 tonnes

Steering

- Merritt-Brown regenerative system employing single disc brakes

Gearbox	Drive ratio (straight)	Steering (typical metres)	Min. radii (feet)
1 (Lx1)	14.11	1.7	5.6
2 (Lx2)	6.13	3.9	12.9
3 (Lx3)	4.39	5.5	18.1
4 (Hx1)	2.61	9.2	30.3
5 (Hx2)	1.44	16.8	55.2
6 (Hx3)	1.09	21.9	72.0
7 (Hx7)	0.69	34.5	113.1

Lubrication system

- Oil type OMD 90 – transmission oil circulated by an integral mounted gear pump driven from the engine input. Pressure regulated by a pre-set integral mounted pressure relief valve
- Full flow filtration system with the filter mounted on either the transmission or vehicle mounted

Brakes

- Main brakes and handbrake system are vehicle mounted
- David Brown Santasalo can assist in the upgrade of existing brake systems or help in designing a complete new system

Control system

- Electro hydraulic fully automatic, electro hydraulic semi-automatic and mechanical hydraulic controllers
- Both the mechanical and the automatic selectors used fit in the same space envelope on the transmission
- Operation of the fully automatic system is by a simple gear selector and an electronic controller – both can be configured to suit individual customer requirements
- David Brown Santasalo can supply harnesses, connections and assist in vehicle integration if required

Input

- Can be either centrifugal clutch or fluid coupling

Auxiliary drive (PTO)

- None or belt driven from input (close coupled version has no PTO)

Mounting

- Trunnion mounted at the outputs with a reaction mount for remote location next to the input

Upgrades

- Upgrades are available – please contact David Brown Santasalo for information

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We are certified to ISO 9001:2008, 14001:2015 and 45001:2018. Your David Brown Santasalo representative should be consulted prior to product selection and use. In the interest of continuous technical development David Brown Santasalo reserves the right to amend specifications and drawings without prior notice.

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