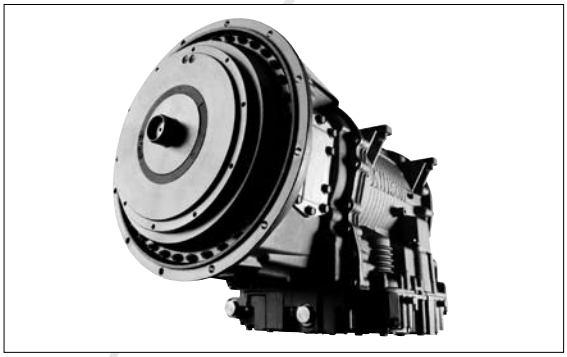
Allison Torqmatic™

T325 (R) specification

For Applications with engines up to 220 kW (295 hp) gross input power and up to 1200 N•m (885 lb-ft) gross input torque.



RATINGS

	Input Torque Gross N•m (lb-ft)	Input Power Gross(1) Kw (hp)	Turbine Torque Net(2) N•m (lb-ft)	GVW kg (lbs)	Vocations
City Bus	1200 (885)	213 (285)	1857 (1370)	29,000 (62,830)	City Bus
Tour Coach	1200 (885)	220 (295)	2030 (1497)	27,000 (57,320)	Tour Coach

(1). Gross Power rating as defined by ISO 1585 or SAE J1995. (2). Turbine Torque limit based on iSCAAN standard deductions.

DRIVETRAIN INTERFACES

Acceptable full-load engine governed speed	2000 – 2800 rpm
Acceptable engine idle speed range (with transmission in Drive)	500 – 800 rpm
Maximum output shaft speed at 105 km/hr (65 mi/hr) - retarder-equipped models only	3600 rpm

MOUNTING

To Engine	SAE No.2
In Chassis	Rear support available (required for some installations)

TORQUE CONVERTER

Type One stage, three element, polyphase. Includes standard integral damper which is operational in lockup.

Model	Stall Torque Ratio
TC-411	2.71
TC-413	2.44
TC-415	2.35
TC-417	2.20
TC-418	1.98
TC-419	2.02
TC-421	1.77

MECHANICAL RATIOS (Gear ratios do not include torque converter multiplication)

Range

First	3.49 : 1
Second	1.86 : 1
Third	1.41 : 1
Fourth	1.00 : 1
Fifth	0.75 : 1
Sixth	0.65 : 1
Reverse	-5.03 : 1

CONTROL SYSTEM

Description Allison 4th Generation Electronic Controls with closed loop adaptive shifts

Shift Sequences [C = Converter mode (lockup clutch disengaged); L = Lockup mode (lockup clutch engaged)]

City Bus	Tour Coach
Standard: 1C–[1L]–2C–2L–3L–4L–5L	Standard: 1C–[1L]–2C–2L–3L–4L–5L
Optional: 1C–[1L]–2C–2L–3L–4L–5L–6L	Optional: 1C–[1L]–2C–2L–3L–4L–5L–6L
Optional: 1C–[1L]–2C–2L–3L–4L	Optional: 1C–[1L]–2C–2L–3L–4L

TCM must be calibrated for "1L" option. Second-gear-start calibrations are not available for all vehicle applications.

Driver-to-Transmission Interface Cab-mounted shift selector, pushbutton or lever with two-digit display (range selected and range attained)

Communication Protocol - Engine/Vehicle Systems Interface SAE J1939, SAE J1587, ISO 9141, IESCAN

PHYSICAL DESCRIPTION

	Installation Length*	Dry Weight	Depth below transmission centerline With Deep Oil Sump (Optional)	Depth below transmission centerline With Shallow Oil Sump (Standard)
Basic Model	740 mm (29 in)	243 kg (535 lbs)	283 mm (11.4 in)	328 mm (12.9 in)
With Retarder	740 mm (29 in)	289 kg (615 lbs)	283 mm (11.4 in)	328 mm (12.9 in)

*Approximate length from engine housing to output flange (depending on output flange type)

OUTPUT RETARDER PROVISION (OPTION)

Type Integral, hydraulic

	Capacity	
	Torque	**Power**
Low	1490 N•m (1100 lb-ft)	298 kW (400 hp)
Medium	1763 N•m (1300 lb-ft)	373 kW (500 hp)

OIL SYSTEM

Allison approved fluids: TES 295 and TES 389	
Capacity, excluding external circuits	
With Deep Oil Sump	27 litres (29 quarts)
With Shallow Oil Sump	25 litres (26 quarts)
Main circuit oil filter	Replaceable element, integral
Cooler circuit oil filter	Replaceable element, integral
Electronic oil level sensor (OLS)	Standard

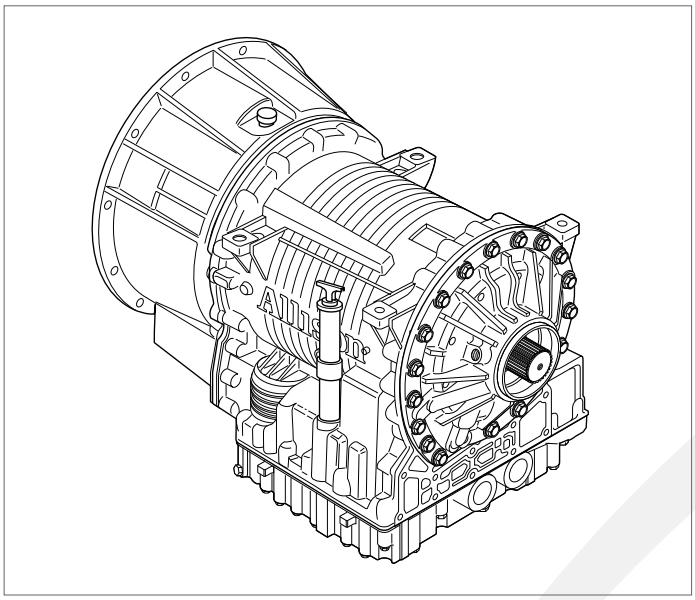
SPEEDOMETER PROVISION

Description Non-zero-crossing square wave
8, 16 or 40 pulses per revolution of transmission output shaft
Location Electronic output from TCM

TACHOGRAPH PROVISION

Tone wheel 4 or 6-tooth
Mounting M18 x 1.5 metric thread
Location Transmission rear cover or retarder housing

T325



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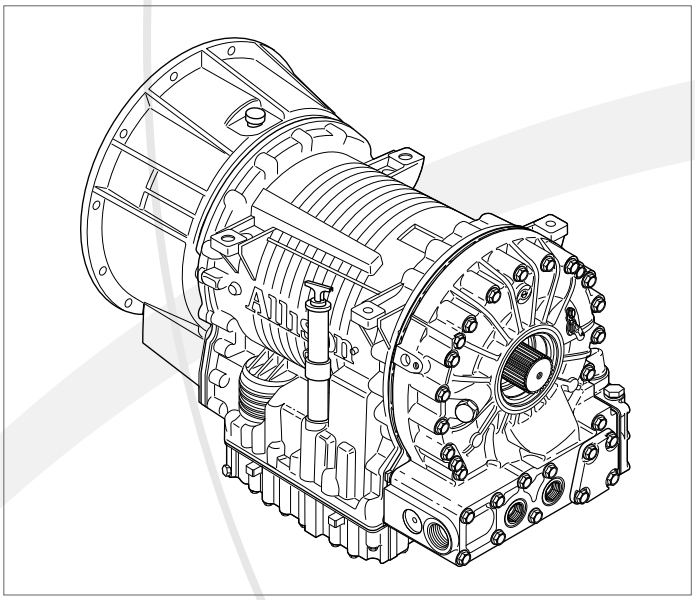

Allison Transmission