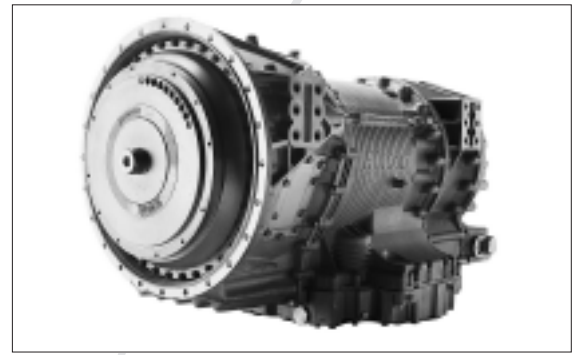




4700/4800 Series



RATINGS

Model ⁽¹⁾		Input Torque Gross N•m (lb-ft)	Input Power Gross ⁽²⁾ Kw (hp)	Turbine Torque Net ⁽³⁾ N•m (lb-ft)	GVW kg (lbs)	GCW kg (lbs)
4700	General, Construction	2400 (1770)	410 (550)	3525 (2600)	n/a	n/a
	Airport Rescue and Fire-Fighting Vehicle	2508 (1850)	447 (600)	3795 (2800)	n/a	n/a
	Heavy Equipment Transport	2508 (1850)	447 (600)	3525 (2600)	n/a	n/a
	Refuse Vehicles	2102 (1550)	373 (500)	3322 (2450)	n/a	n/a
4700 OFS	Oil Field Series	2508 (1850)	447 (600)	3525 (2600)	n/a	n/a
4700 SP	Specialty / Military	2508 (1850)	447 (600)	4067 (3000)	n/a	n/a
4800	General	2644 (1950)	507 (680)	3795 (2800)	n/a	n/a
4800 SP	Specialty / Military	2644 (1950)	597 (800)	4067 (3000)	n/a	n/a

(1). Models including vocational designations (ie: ORS, OFS, SP, MH) are for global markets. All other models within this document are targeted for non North American markets only.
 (2). Gross Power rating as defined by ISO 1585 or SAE J1995. (3). Turbine Torque limit based on iSCAAN standard deductions.

DRIVETRAIN INTERFACES

Acceptable full-load engine governed speed	1700 – 2300 rpm
Acceptable engine idle speed range (with transmission in Drive)	500 – 800 rpm

MOUNTING

To Engine	SAE No.1
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-521	2.42
TC-531	2.34
TC-541	1.90
TC-551	1.79
TC-561	1.58

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

Range	
First	7.63 : 1
Second	3.51 : 1
Third	1.91 : 1
Fourth	1.43 : 1
Fifth	1.00 : 1
Sixth	0.74 : 1
Seventh	0.64 : 1
Reverse	-4.80 : 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)] Option 1: 1C-[1L]-2C-2L-3L-4L-5L Option 2: 1C-[1L]-2C-2L-3L-4L-5L-6L Option 3: 1C-[1L]-2C-2L-3L-4L-5L-6L-7L
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

International Series 4700/4800

PHYSICAL DESCRIPTION

	Length*	Dry weight	Depth below transmission centerline
Basic Model	1049 mm (41.3 in)	493 kg (1087 lbs)	378 mm (14.8 in)
With PTO Drive Provision	1122 mm (44.2 in)	521 kg (1145 lbs)	378 mm (14.8 in)
With Retarder	1049 mm (41.3 in)	527 kg (1162 lbs)	378 mm (14.8 in)
With PTO Drive Provision and Retarder	1122 mm (44.2 in)	555 kg (1224 lbs)	378 mm (14.8 in)

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

ENGINE-DRIVEN POWER TAKE-OFF PROVISION

PTO drive	Engine-driven helical gear		
PTO mounting pads	Ten-bolt, 1 o'clock and 8 o'clock positions (as viewed from rear)		
PTO drive gear ratio	1 o'clock position	1.00 x engine speed	
	8 o'clock position	1.00 x engine speed	
PTO drive gear rating (continuous operation)	Using one PTO:	928 N•m (685 lb-ft)	
	Total using two PTO's:	1593 N•m (1175 lb-ft)	
PTO Drive Gear	97 tooth		

OUTPUT RETARDER PROVISION (OPTION)

Type	Integral, hydraulic		
Capacity			
	Torque	Power	
Level 3	2710 N•m (2000 lb-ft)	447 kW (600 hp)	
Level 2	2170 N•m (1600 lb-ft)	447 kW (600 hp)	
Level 1	1760 N•m (1300 lb-ft)	373 kW (500 hp)	

OIL SYSTEM

Fluid Type:	Allison Approved ATF TES 295, TES 389 and DEXRON®		
Capacity, excluding external circuits			
	With PTO	51 litres (54 quarts)	
	Without PTO	48 litres (51 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		

4700/4800 Series

With Retarder, PTO and Deep oil sump

