

On Road Trucks CURSOR 13

C13 ENT

397 kW (540 HP) @ 1900 rpm

EuroIII

SPECIFICATIONS

Thermodynamic Cycle		Diesel 4 stroke
Air Handling		TAA
Bore x Stroke	millimeters	135 x 150
Total Displacement	liters	12.9
Valves per cylinder	number	4
Cooling System		liquid
Direction of Rotation	viewed facing flywheel	CCW
Compression ratio		16.5 : 1
Injection System		EUI
Arrangement		6L

PERFORMANCES

Peak power	kW (HP) @ rpm	397 (540) @ 1900
Peak torque	Nm (kgm) @ rpm	2350 (240) @ 1600
High idle speed	rpm	2320
Low idle speed	rpm	±550
Minimum starting temperature without auxiliaries	°C	-10°
Oil and oil filter maintenance interval for replacement	kilometer	-

STANDARD CONFIGURATION

Flywheel housing	type	SAE 1 - aluminium
Flywheel size	inch	17"
Intake manifold location		middle high / right side
Exhaust manifold location		middle high / left side / back
Turbocharger		Variable Geometry Turbocharger
Turbocharger location		center / left side
Fan transmission ratio		n.a.
Distance between fan - crankshaft centers	millimeters	X=0 Y=0
Fuel filter	number	right side
Oil filter	number	single cartridge - left side
Oil sump		suspended sheet / front sump
Oil vapours blow-by circuit		close case ventilation
Oil heat exchanger		integrated into the block
Oil filler		on valve cover
Starter		24V - 5.5kW
Alternator		24 V - 90 A
Engine stop device		by electronic control unit
Wiring harness		interface wiring loom with accessories
Painting color		grey
Air compressor		-
Hydraulic steering pump	liters-minute	-
Maximum torque available from crankshaft pulley	newton-meter	-

WEIGHT AND DIMENSIONS

Dimensions	LxWxH (mm)	1329 x 866 x 1130
Dry Weight	Kg	1006

DIMENSIONS CAN BE CHANGED ACCORDING TO ENGINE OPTIONS



ON ROAD

IMAGES SHOWN ARE FOR ILLUSTRATION PURPOSE ONLY

POWER & TORQUE

NOT INCLUDED IN STANDARD CONFIGURATION

Power Take Off (PTO)		-
PTO - transmission ratio		1.14:1
PTO - maximum available torque	without 800Nm on flywheel housing	600Nm -
Battery - minimum capacity recommended	Ah	! x 170 Ah (24 V)
Battery - minimum cold cranking capacity recommended	Ah	24 V - 800 Ah

LEGEND

Arrangement	Air Handling	Turbocharger	Injection System	Emission standard	Exhaust System
L (in line)	TCA (Turbocharged with aftercooler)	WG (Wastegate)	M (Mechanical)	EEV (Enhanced Environmentally friendly Vehicle)	EGR (Exhaust Gas Recirculation)
V (90° "V" configuration)	TC (Turbocharged)	VGT (Variable Geometry Turbocharger)	ECR (Electronic Common Rail)		SCR (Selective Catalytic Reduction)
	NA (Naturally Aspirated)	TST (Twin Stage Turbocharge)	EUI (Electronic Unit Injector)		
			MPI (Multi Point Injection)		

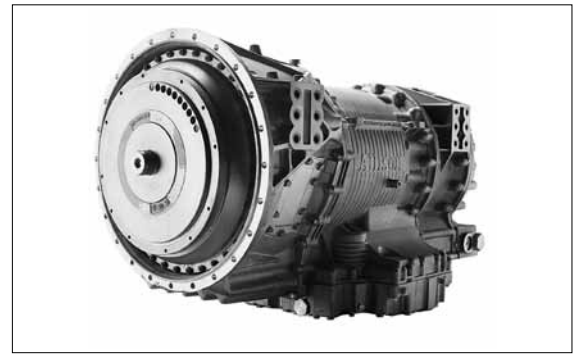
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SPECIFICATION SUBJECT TO CHANGE WITHOUT NOTICE





4700/4800 Series



International Series 4700/4800

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)	421 (565)	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	Airport Rescue and Fire-Fighting Vehicle	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 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

	Length*	Dry Weight	Depth below transmission centerline
Basic Model	1049 mm (41.3 in)	493 kg (1087 lbs)	375 mm (14.8 in)
With PTO Drive Provision	1122 mm (44.2 in)	521 kg (1145 lbs)	375 mm (14.8 in)
With Retarder	1049 mm (41.3 in)	527 kg (1162 lbs)	375 mm (14.8 in)
With PTO Drive Provision and Retarder	1122 mm (44.2 in)	555 kg (1224 lbs)	375 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:	930 N•m (685 lb-ft)
	Total using two PTO's:	1595 N•m (1175 lb-ft)
PTO Drive Gear	97 tooth	

OUTPUT RETARDER PROVISION (OPTION)

Type	Capacity	
	Torque	Power
Low	1763 N•m (1300 lb-ft)	373 kW (500 hp)
Medium	2170 N•m (1600 lb-ft)	447 kW (600 hp)
High	2710 N•m (2000 lb-ft)	447 kW (600 hp)

Integral, hydraulic

OIL SYSTEM

Allison approved fluids: TES 295 and TES 389	
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

