

THE CAT® CX31 TRANSMISSION

The Cat® CX31 transmission is designed for off-highway and on-highway applications and is compatible with the Cat C9, C11, C13, C15, C18 engines. There are three different mounting arrangements for the engines depending upon the flywheel housings and crankshafts being used.



NUMBER OF GEARS

# Gears (Forward/Reverse)	6F / 1R
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RATINGS

Max Input Power	410 kW	550 hp
Max Input Torque	2400 N•m	1,770 lb-ft
Rated Input Speed	2,100 rpm	
Minimum Input Speed	600 rpm	

ROTATION

Rotation Direction	SAE J824 Standard, Counterclockwise
Output Rotation	Forward, Same as Input Reverse, Opposite Input

MOUNTINGS

Integrated transmission and torque converter	
Several yoke options	The type of yoke chosen needs to suit the OEM in terms of driveline criteria, load, and output speed. Output Connection (yoke): 1710, 1760, 1810, SPL 170, SPL 250, RPL 20, 8.5C, 9C, T180, ISO 8667

ELECTRICAL SYSTEM

Electrical System	12V & 24V
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HYDRAULIC RETARDER

Hydraulic Retarder Capacity	Hydraulic Retarder Transmission Input Mount
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TORQUE CONVERTER

Series	TC42531, TC42731, TC42833
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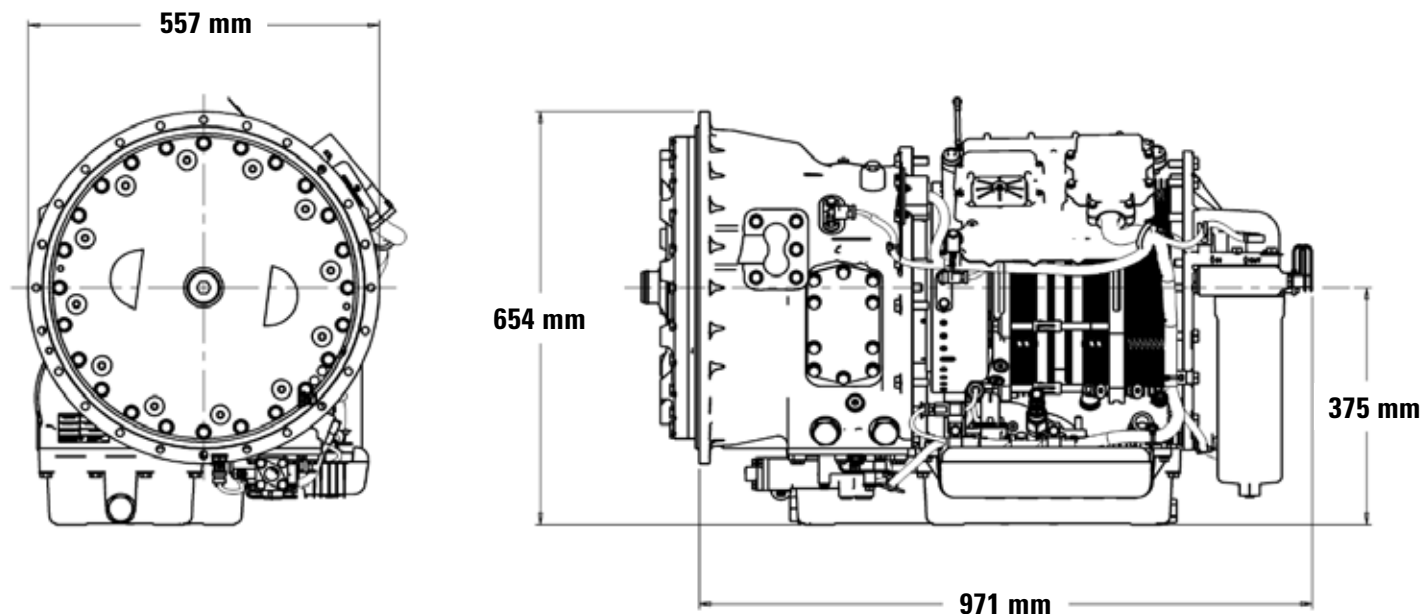
CLUTCHES

Electro-Hydraulic Oil Cooled, Multidisc
Cat® Electronic Clutch Pressure Control (ECPC)

INSTALLATION CONNECTIONS

2 oil cooler lines, 2 electrical connectors





OIL SYSTEM

Oil	Cat Transmission / Drive Train SAE 30	
Max Oil Temperatures	Continuous Sump 93°C (200°F) Continuous Transmission Out 121°C (250°F) Intermittent Sump 121°C (250°F)	
Hydraulic Fill Capacity	45 L	13.5 gal
Filter Type	β12=75 Synthetic Cartridge Mounted	

GEARS

Transmission Gearing Type	Helical, Straight Spur Planetary	
	Gear	Ratio
Forward	1F	4.40
	2F	2.33
	3F	1.53
	4F	1.00
	5F	0.72
	6F	0.61
Reverse	1R	-3.97

WEIGHT

Approximate Dry Weight	494 kg	1,088 lb
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For more information, contact your OEM Solutions Account Manager or email oem_solutions@cat.com

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