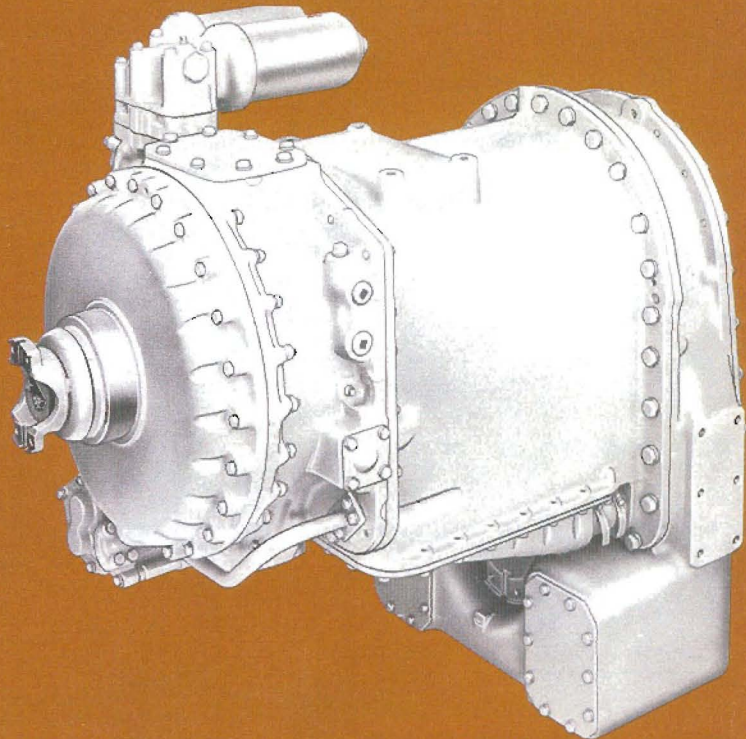


Allison Transmissions

hauling models

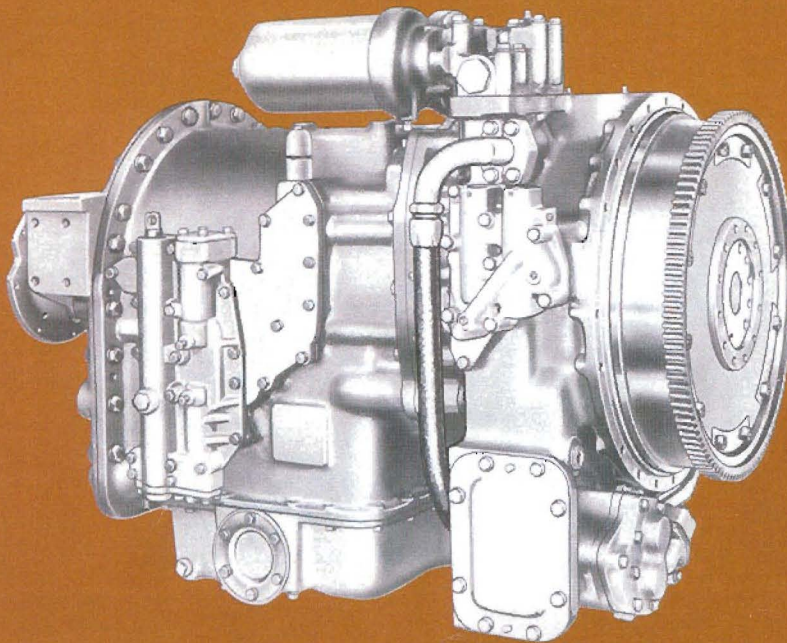
CL(B)T 5-6000

475 to 675 hp
(354 to 503 kW)



CLT 5860

A detailed 3D rendering of the Allison CLT 5860 transmission, shown from a three-quarter rear view. The unit is a large, heavy-duty metal component with a complex, multi-faceted design. It features a prominent circular flange on the front and a smaller cylindrical component on top. The entire unit is set against a solid brown background.

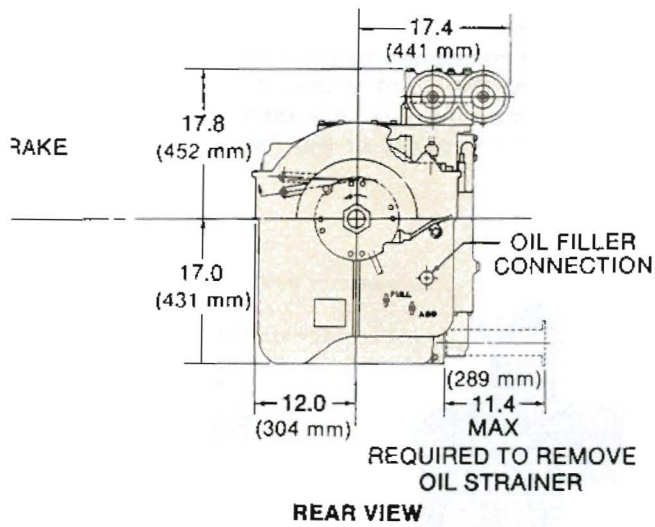


CLBT 6061

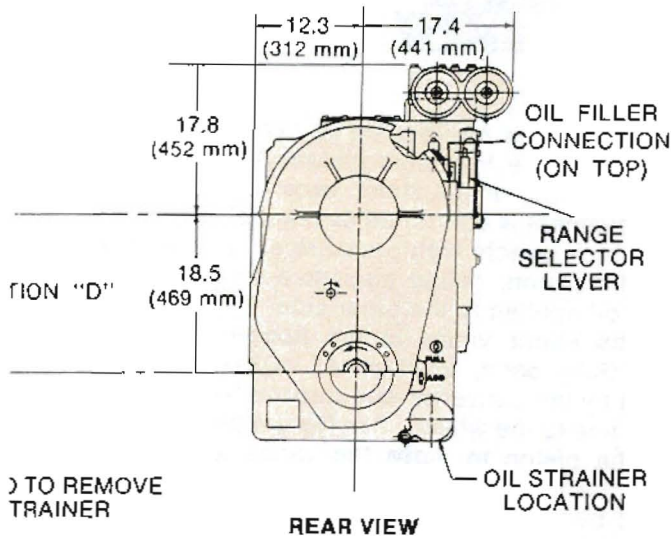
specifications

		5860	5960	6061
applicable power	Input (gross)	475 hp (354 kW)	525 hp (391 kW)	675 hp (503 kW)
rating	Input speed, max	2500 rpm	2500 rpm	2500 rpm
	Input torque, max (net): General Truck	1100 lb ft (1491 N·m) 1195 lb ft (1620 N·m)	1270 lb ft (1722 N·m) 1350 lb ft (1830 N·m)	1660 lb ft (2251 N·m) 1800 lb ft (2439 N·m)
rotation	Input—right hand	Output—right hand (forward ranges)		
mounting	Direct mounted	SAE 1 flywheel housing (wet) modified; two mounting pads at rear		
	Remote mounted	Trunnion mount at front; two mounting pads at rear		
torque converter	Type	Single-phase, 3-element		TC 680—2.16
	Stall torque ratio	TC 350—3.51 TC 540—2.89 TC 550—3.36 TC 560—2.69 TC 570—3.19 TC 580—2.63 TC 590—2.50 VTC 550 —3.34 (open) —2.24 (closed)	TC 680—2.16 TC 690—2.56 VTC 570 —3.34 (open) —2.18 (closed) VTC 690 —2.38 (open) —1.78 (closed)	
	Lockup clutch, automatic	Effective all forward ranges or 2nd thru 6th (optional)		
hydraulic retarder	Type Capacity (torque absorption)	Vaned rotor between fixed vanes 1500 lb ft (2033 N·m) at 2100 rpm; 600 hp (447 kW) at 2100 rpm		
gearing	Type: Range gearing Transfer gearing (5000 series only) Ratios	Constant mesh, involute spur, planetary Constant mesh, involute spur, in-line First —4.00 Fifth —1.00 Second—2.68 Sixth —0.67 Third —2.01 Reverse—5.15 Fourth —1.35 Transfer Gear—1.00 (5000 series only)		
clutches	Hydraulic-actuated, spring-released, oil-cooled, multidisk, self-adjusting (automatic compensation for wear)			
flanges	Input (remote mounted)	Spicer 1700, 1800; Mechanics 8C, 9C; Twin Disc J230	Spicer 1800; Mechanics 9C; Twin Disc J230	Spicer 1800, 1850; Mechanics 9C; Twin Disc J230
	Output	Spicer 1800, 1850; Mechanics 9C, 10C	Spicer 1800, 1850; Mechanics 9C, 10C	Spicer 1800, 1850; Mechanics 9C
parking brake	Type Size	Drum, internal-expanding shoe 12 x 5 in. (343 x 127 mm)		
power takeoff (2)	Size Engine driven Rating (either top, side, or total of both) Ratio	SAE 8-bolt, heavy duty Top, side, or both Intermittent—200 hp (149 kW) Continuous—125 hp (93 kW) Top—1.21 x engine speed Side—1.00 x engine speed		
speedometer drive	Size Ratio	SAE 5/32 (3.96 mm), heavy duty Straight through models—0.5 x output speed Transfer gear models—1.0 x output speed		
control valve body	Either manual or (optional) Manual Electric Shift Control (12- or 24-volt)			
oil system	Oil Type Capacity (excluding external circuit) Sump Filter (Remote or direct mounted) Cooler (customer furnished)	Hydraulic transmission fluid, type C-2 Straight through models—18 US gal (68 litres) Transfer case models—13 US gal (49 litres) Integral Full-flow, replaceable elements Remote mounted		
size	Length, max (w/hydraulic retarder) Width (w/direct mounted oil filter) Height (w/direct mounted oil filter) Weight (dry)	<u>Straight through models</u>		<u>Transfer case models</u>
		56.92 in. (1445 mm) 29.40 in. (746 mm) 34.85 in. (885 mm) 2165 to 2445 lb (980 to 1109 kg)	57.66 in. (1464 mm) 29.69 in. (755 mm) 44.52 in. (1130 mm) 2165 to 3090 lb (980 to 1490 kg)	

Note: All data and specifications subject to change without notice.



REAR VIEW

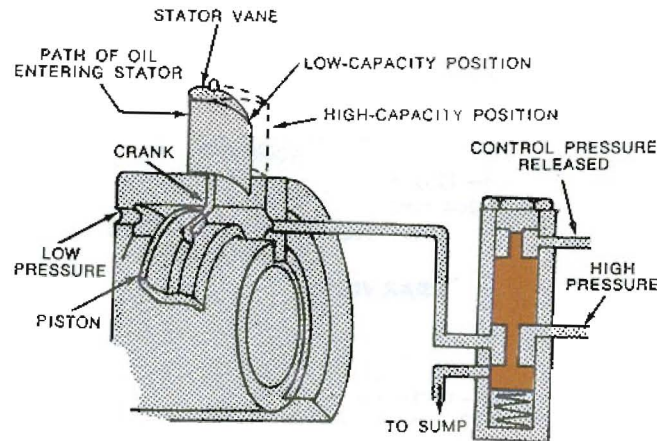


REAR VIEW

- Choice of popular drive flanges
- Transfer gearing (5000 series only)
- Output at front, rear or both with transfer gearing (5860 and 5960).

variable input capacity converter

Among optional features available for the 5000-6000 series hauling transmissions is the variable input capacity converter. A variable position stator blade assembly in the torque converter provides ability to vary converter absorption capacity. It allows the converter to match auxiliary or primary power requirements without compromising performance. Only one engine is necessary to provide a desired degree of power at the point where it is needed most at the moment—the auxiliary equipment for work, the wheels for roading, or the desired combination of both.



The stator vanes are located on cranks which fit in a groove in the hydraulic piston. As the piston moves, the angle of the stator vane changes. The piston movement is controlled by manual release of a valve which directs high pressure oil against one side of the piston, acting against a constant low pressure oil applied to the other side.

With the stator vanes in the normal or high-capacity (fully open) position, all of the power is absorbed by the converter and transmitted through the drive line to the wheels. Applying high pressure causes the piston to move the vanes to the low capacity (partially closed) position. Less power is absorbed by the converter and more power is directed to the power takeoff and auxiliary equipment.

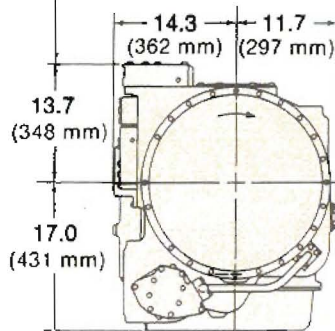
electric shift control

An exclusive optional feature for the 5000-6000 Series transmission is the Electric Shift Control system. It consists of only three major parts—shift tower, wiring harness, and valve body—and operates on a 12-volt or 24-volt system. The shift tower houses snap action switches which are activated by movement of the shift lever. An engine overspeed downshift inhibitor is also featured in the shift tower. The wiring harness, which replaces all of the complex, mechanical linkage, transmits electrical power to the valve body where electric solenoids actuate hydraulic forces which move the shift valves. The operator has positive shift control with no false or partial shifts. If the need arises, this system can be quickly disconnected and reconnected.

mounting dimensions

CL(B)T 5000-6000 SERIES STRAIGHT THROUGH MODELS

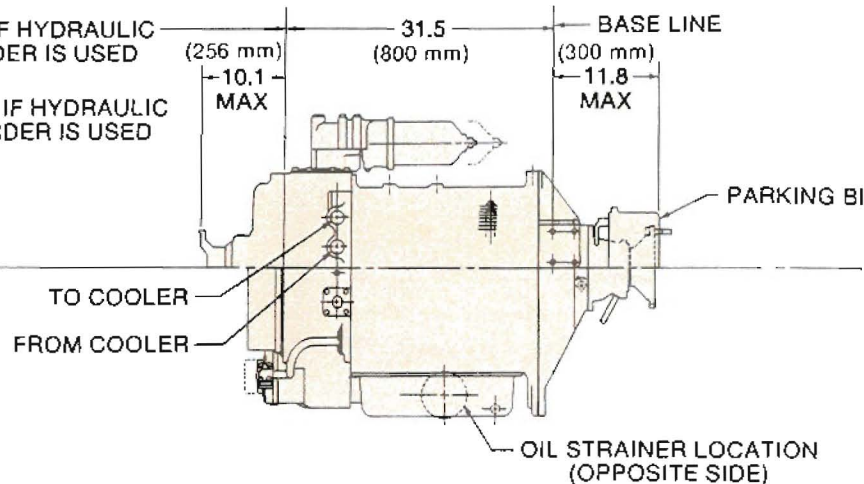
FOR REMOTE
FILTER OPTION



FRONT VIEW

ADD 3.4 IF HYDRAULIC
RETARDER IS USED

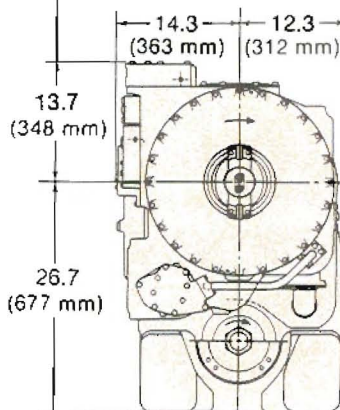
ADD 3.1 IF HYDRAULIC
RETARDER IS USED



SIDE VIEW

CL(B)T 5000 SERIES TRANSFER GEAR MODELS

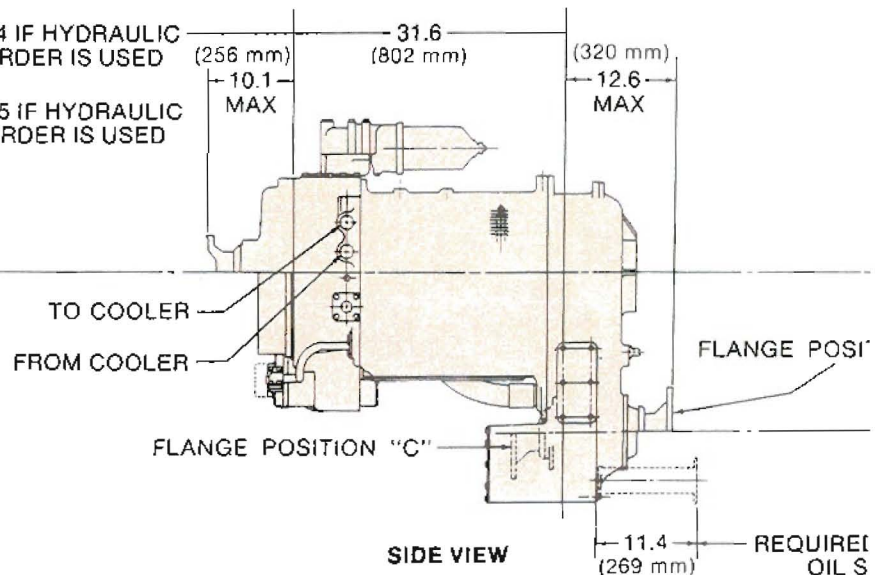
FOR REMOTE
FILTER OPTION



FRONT VIEW

ADD 3.4 IF HYDRAULIC
RETARDER IS USED

ADD 2.5 IF HYDRAULIC
RETARDER IS USED



SIDE VIEW

FLANGE POSITION "C", BAND OR "D" MAY BE USED
ON BOTH 5860 AND 5960. A DISCONNECT IS ALSO
AVAILABLE AT "B" & "C" OR "B" & "D" POSITION
BUT NOT BOTH "C" AND "D".

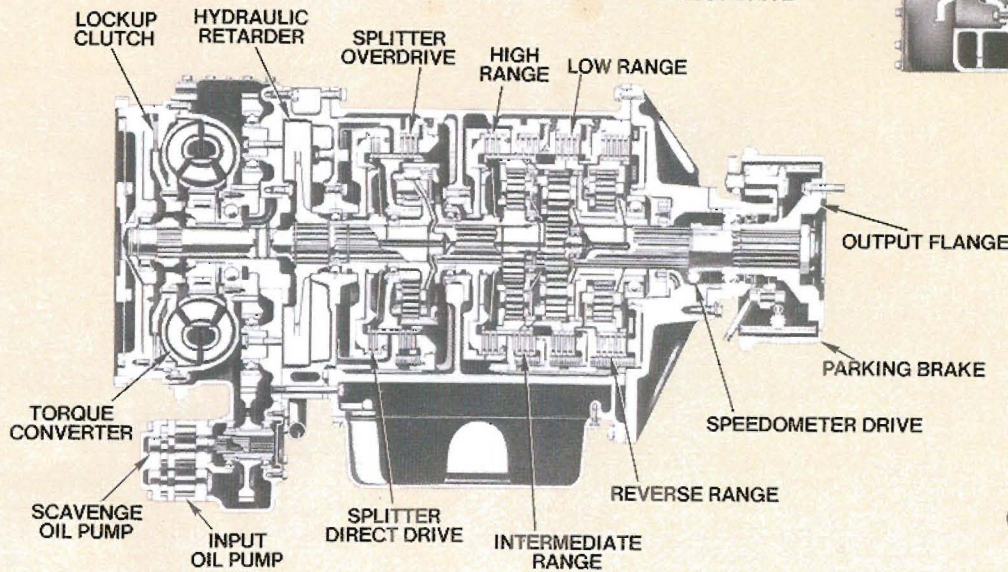
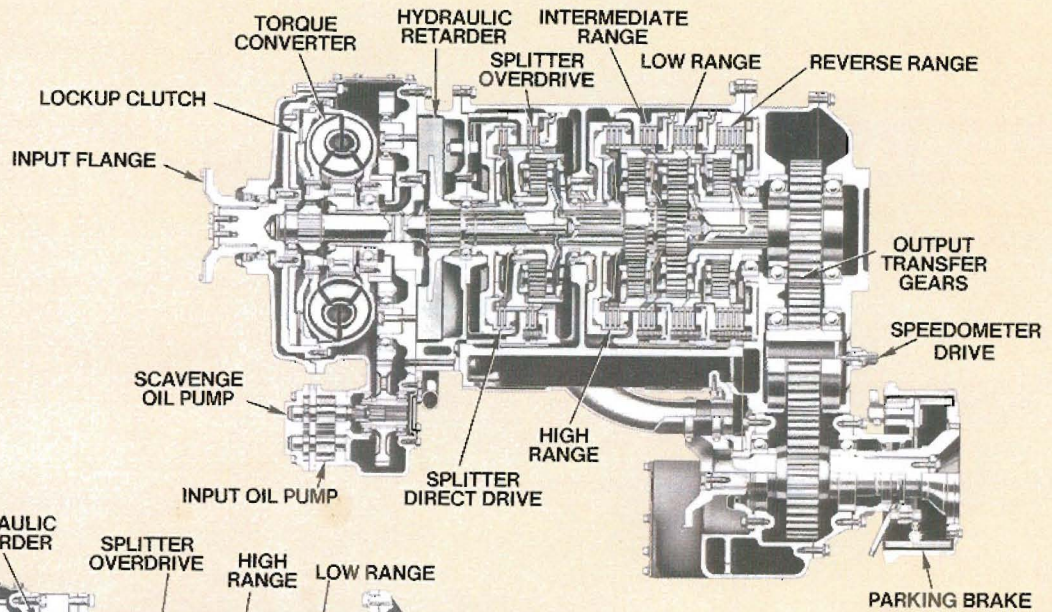
Note: Dimensions are given in inches with metric value in parentheses.

options

- Transmission remote mounted, or direct mounted on engine
- Manual Electric/Automatic Electric shift controls (12- or 24-volts) with downshift inhibitors
- Hydraulic retarder
- Parking brake
- Oil filter remote mounted or on transmission
- Power takeoff at top
- Variable input capacity converter (5000 series only)

CL(B)T 5000-6000 powershift transmission

CLBT 5860



CLBT5960

Among optional features available for the 5000-6000 series hauling transmissions is the variable input capacity converter. A variable position stator blade assembly in the torque converter provides ability to vary converter absorption capacity. It allows the converter to match auxiliary or primary power requirements without compromising performance. Only one engine is necessary to provide a desired degree of power at the point where it is needed most at the moment—the auxiliary equipment for work, the wheels for roading, or the desired combination of both.

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Division of General Motors Corporation

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