

New 590 Series

The new 590 Series Power Shift Rear Mount Power Take-Off (PTO) is designed for automatic transmissions that offer a rear mount provision. Current transmission coverage includes Caterpillar CX series.

The 590 offers simplified installation because there is no backlash to set. The rear mounting position provides excellent clearance for larger pump designs. The 590 is available with 6 direct mount pump flanges. Each features a wet splined pump flange option that will help extend the P.T.O. and pump shaft life up to 10 times its normal life expectancy. Also available is a 1410 companion flange output for remote mounted driven equipment. With an excellent power to weight ratio this P.T.O. is an excellent choice for heavy duty applications.

Versatility, power and ease of maintenance and installation make the 590 Series the only choice for your vocational truck needs.

Markets

- Fire and Rescue
- Refuse
- Sewer Cleaning
- Oil and Gas
- Hydro Excavating

Product Features and Benefits:

- Reduced installation time over side mounted P.T.O.s
- No backlash to set
- Excellent clearance for direct mounted pumps
- Heavy Duty Torque Rating of 650 Lbs.ft. [881Nm] (Continuous & Intermittent Duty Cycles)
- 124 H.P. [93 Kw] at 1000 RPM of shaft speed
- Standard output is a SAE "C" flange and shaft
- All direct mount pump flange options are wet splined for superior shaft life
- Pump Bracket Supplied for mounting large or multiple pumps



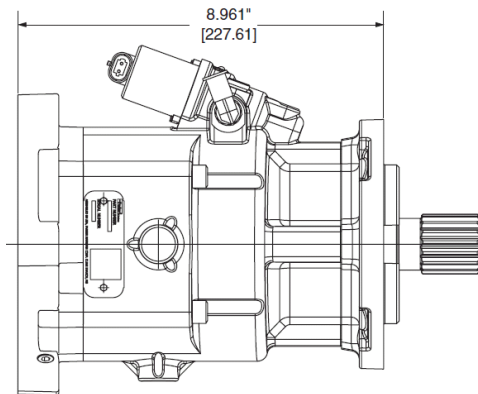
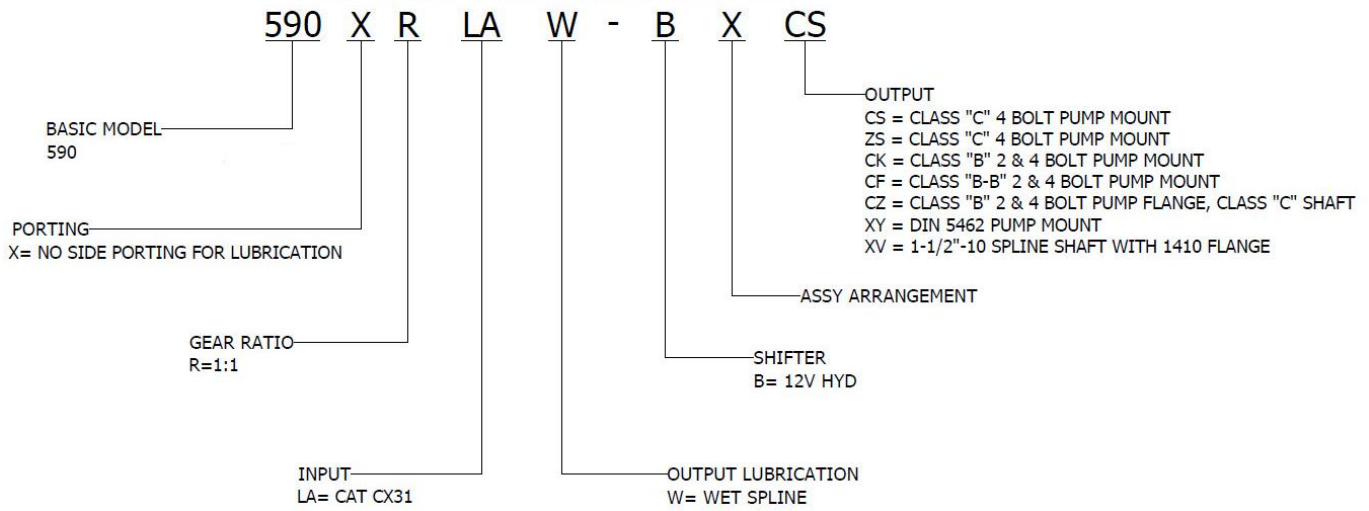
If you have questions about this bulletin or other technical questions, contact us at:

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Visit our web site at www.chelseaproduct.com for complete information on this new P.T.O. Series

Walt Harris
Product Sales Manager
Chelsea Products

MODEL NUMBER CHART



Specifications Chart

	590*R
Standard Output Shaft Size	"CS" S.A.E. "C" 4-Bolt
Continuous Torque Rating (Lbs. ft.)*	650
Continuous Torque Rating (N.m.)	881
Horsepower Rating for Continuous Service	
At 500 R.P.M. of Output Shaft (HP)	62
At 1000 R.P.M. of Output Shaft (HP)	124
At 500 R.P.M. of Output Shaft (Kw)	46
At 1000 R.P.M. of Output Shaft (Kw)	93
Approximate Weight:	50 lbs. [22.8 kg]

*For the 590 Series, 650 Lbs. ft. Torque Rating is for both Intermittent and Continuous, all Output Options.



PTO Model	Side	Input Gear	Rotate	Torque (Ft-Lbs/Nm)	% of Engine		PTO Filler	Adapter	Shaft Kit	Stud Kit
					High	Reverse				
REAR MOUNT - CONSTANT MESH										
CAT-DNXLA-*	Rear		Opposite	800/1085	125	0				Furnished
REAR MOUNT - HOTSHIFT (HYDRAULIC)										
560VNLAW-*1	Rear		Opposite	335/454	125	0				Furnished
590XRLAW-*X	Rear		Opposite	650/881	125	0				Furnished
CAT-HNXLA-*	Rear		Opposite	335/454	125	0				Furnished

NOTE: See Front Section of Caterpillar Index for Pressure Hose Chart Requirements (SK-414) for Side Mount Applications. Rear Mounts come with the Hose Supplied.

NOTE: Powershift P.T.O. Units Require a Pressure Regulating Solenoid and are Shipped with Units Ordered for this Transmission ("LA" or "KV" input gear).

NOTE: The Internal Drive Shaft for the Rear Mount Opening is Optional from Caterpillar and Must be Specified when the Transmission is Ordered.

NOTE: The "XV" Output for the CAT-D Rear Mount is Rated at Both 800 Lbs.ft Intermittent and 800 Lbs.ft Continuous. This Output is not Derated for Continuous Operation.

NOTE: The CAT-H & 560V Series Rear Mounts are Rated at 335 Lbs.ft for Both Intermittent and Continuous Applications(All Output Options) .

NOTE: 280, 870 Family and 590 Series of P.T.O.s stated Torque is for Intermittent and Continuous Duty Applications.

NOTE: The Transmission Filter may Interfere with Large Pumps Mounted to P.T.O.s at the 8 o'clock (Left Side) Position. A Remote Mount Filter Kit can be ordered from Caterpillar if this Option is Required. Large Pumps will also Require the Use of the Rear Pressure Port for Oil Supply Requirements. (See Front Section for Location and Hose Requirements, SK-414)

NOTE: The 267 Series in the "5" Arrangement May Have Possible Interference Between the Lube Fitting and Converter Housing. Make Sure the Fitting is Screwed Completely In before you Torque Down the P.T.O. Verify that the Fitting is not Contacting the Transmission Housing. A "3" Arrangement with SAE "B" Output Must Either be "XQ" or "AK" Can be Used. The "XK" Output can Not be Used Due to Interference Between Flange and Pressure Lube Fitting.

Foot Notes:

(N) Filler Block is Furnished but not required

(P) Filler Block PTO Side

(F) Filler Block is Furnished with PTO

(T) Filler Block is Transmission Side



PTO Model	Side	Input Gear	Rotate	Torque (Ft-Lbs/Nm)	% of Engine High	Reverse	PTO Filler	Adapter	Shaft Kit	Stud Kit
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REAR MOUNT - CONSTANT MESH

CAT-DNXLA-*	Rear		Opposite	667/904	125	0				Furnished
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REAR MOUNT - HOTSHIFT (HYDRAULIC)

560VNLAW-*1	Rear		Opposite	335/454	125	0				Furnished
590XRLAW-*X	Rear		Opposite	650/881	125	0				Furnished
CAT-HNXLA-*	Rear		Opposite	335/454	125	0				Furnished

NOTE: See Front Section of Caterpillar Index for Pressure Hose Chart Requirements (SK-414) for Side Mount Applications. Rear Mount Units come with Hose Supplied.

NOTE: Powershift P.T.O. Units Require a Pressure Regulating Solenoid and are Shipped with Units Ordered for this Transmission ("LA" or "KV" input gear).

NOTE: The Internal Drive Shaft for the Rear Mount Opening is Optional from Caterpillar and Must be Specified when the Transmission is Ordered.

NOTE: The "XV" Output for the CAT-D Rear Mount is Limited to 667 Lbs.ft Intermittent Torque Due to Transmission Load Limits. All Other Output Options are Limited by the Hydraulic Pump Output Shaft Spline.

NOTE: The CAT-H & 560V Series Rear Mounts are Rated at 335 Lbs.ft for Both Intermittent and Continuous Applications(All Output Options) .

NOTE: Large Pumps on the Left Hand Side (LHS) may Require the Use of the Rear Pressure Port for Oil Supply Requirements. If the Left Hand Side (LHS) P.T.O. opening is used, the transmission dipstick should be relocated to the Right Hand Side (RHS).

NOTE: A "3" Arrangement with SAE "B" Output Must Either be "XQ" or "AK". The "XK" Output can Not be Used Due to Interference Between Flange and Pressure Lube Fitting. On the LHS, if the 267 Series "5" arrangement is used, pump clearance is severely limited due to position of the transmission valve bank.. A "3" arrangement offers much more clearance.

NOTE: 859, 867, 277 Series will not fit and/or allow pump clearance on the Left Hand Side (LHS).

NOTE: 280, 870 Family and 590 Series of P.T.O.s stated Torque is for Intermittent and Continuous Duty Applications.

Foot Notes:

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(F) Filler Block is Furnished with PTO

(P) Filler Block PTO Side

(T) Filler Block is Transmission Side



PTO Model	Side	Input Gear	Rotate	Torque (Ft-Lbs/Nm)	% of Engine		PTO Filler	Adapter	Shaft Kit	Stud Kit
					High	Reverse				
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560VNLAW-*1	Rear		Opposite	335/454	125	0				Furnished
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CAT-HNXLA-*	Rear		Opposite	335/454	125	0				Furnished

NOTE: See Front Section of Caterpillar Index for Pressure Hose Chart Requirements (SK-414) for Side Mount Applications. Rear Mounts come with the Hose Supplied.

NOTE: Powershift P.T.O. Units Require a Pressure Regulating Solenoid and are Shipped with Units Ordered for this Transmission ("LA" or "KV" input gear).

NOTE: The Internal Drive Shaft for the Rear Mount Opening is Optional from Caterpillar and Must be Specified when the Transmission is Ordered.

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NOTE: The CAT-H & 560V Series Rear Mounts are Rated at 335 Lbs.ft for Both Intermittent and Continuous Applications(All Output Options) .

NOTE: 280, 870 Family and 590 Series of P.T.O.s stated Torque is for Intermittent and Continuous Duty Applications.

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Foot Notes:

(N) Filler Block is Furnished but not required

(F) Filler Block is Furnished with PTO

(P) Filler Block PTO Side

(T) Filler Block is Transmission Side