

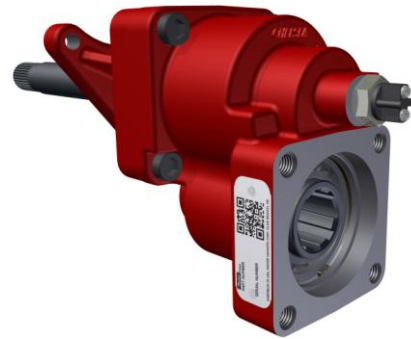
New 523 Series Volvo I-Shift Transmissions

The two gear designed rear mount P.T.O. provides a compact housing which helps eliminate clearance issues along with two speed ratios to meet your application requirements. High capacity bearings and superior gear designs provide torque ratings up to 258 Lbs. ft. or 350 N.m. for the ultimate performance. The superior design of this P.T.O. provides all the power you will need so there is no need to de-rate the P.T.O. for continuous applications.

The 523 mounts to the Volvo I-Shift and Mack M-Drive transmission and features four shift options integrated into the P.T.O. housing for a space saving design. Now you have options between DIN & SAE pump mounts.

Product Features & Benefits

- Continuous Torque rating of 350 N.m [258 Lbs.ft]
- Rear Mount Design – Less Mounting Space Required
- No Gear back lash to set – Simplifying Installation
- Wet Spline Output Options –Extends Pump Shaft Life
- Two Direct Mount Pump Options
- Six Shift Options
- Standard DIN 5462 Pump Flange



Markets: Fire, Refuse, Sewer/Sanitation, Aerial and Tipper applications.

See the back page of this bulletin for application information

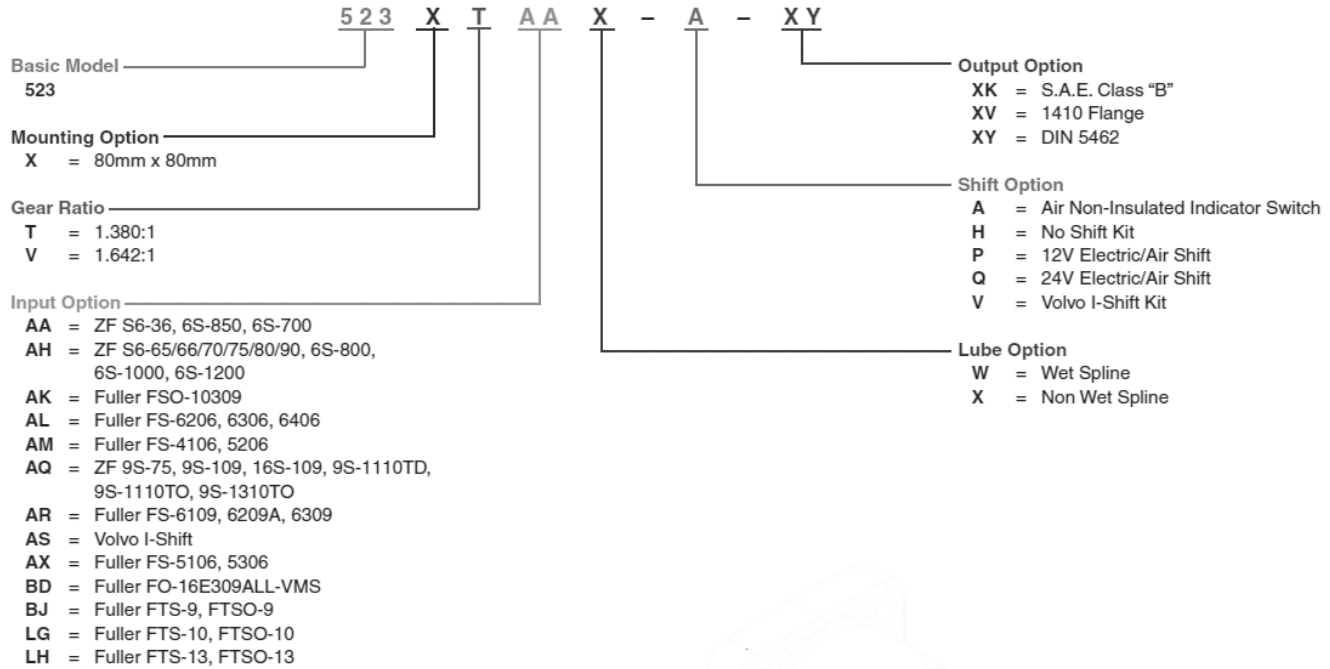
If you have questions about this bulletin or other technical questions, contact us at:

US: Chelsea Customer/Technical Services at **1-888-PH4-TRUK** (1-888-744-8785) or Fax 662.895.1069

Canada: Parker Canada Division 905-693-3020

Europe: Chelsea Products Europe +44 (01384) 2822777

Walt Harris
Product Sales Manager
Chelsea Products



Specifications Chart

	523*T	523*V
Standard Output Shaft Size	4-Bolt DIN 5462	
Intermittent & Continuous Torque Rating (Lbs. ft.)	258	258
Intermittent & Continuous Torque Rating (N.m.)	350	350
Horsepower Rating for Intermittent & Continuous Service		
At 500 R.P.M. of Output Shaft (HP)	25	25
At 1000 R.P.M. of Output Shaft (HP)	49	49
At 500 R.P.M. of Output Shaft (Kw)	18	18
At 1000 R.P.M. of Output Shaft (Kw)	37	37
Approximate Weight:	12.0 lbs. [5.4 kg]	

Mack M-Drive Applications

Transmission Models: TMD12AD

Page: MAK-34
Transmission: R 04-BOLT Opening Gear NON-STANDARD of Centerline



PTO Model	Side	Input Gear	Rotate	Torque (Ft-Lbs/Nm)	% of Engine High	Reverse	PTO Filler	Adapter	Shaft Kit	Stud Kit
REAR MOUNT - MECHANICAL SHIFT (12 SPEED TRANSMISSIONS)										
523XTASX-.*	Rear		Engine	258/350	97	0		329735X		Furnished
523XVASX-.*	Rear		Engine	258/350	115	0		329735X		Furnished

NOTE: All Stated Torque Ratings for the 523 are Good for Both Continuous and Intermittent Applications.

NOTE: Rear Mount P.T.O. speeds are shown in Low - Multiply All Values by 1.28 for High Split

NOTE: Connection to Volvo/Mack system required for Volvo I-Shift or Mack M-Shift, the vehicle needs to be ordered with P.T.O. prep package. Vehicle ECU must be programmed by dealer for P.T.O. operation.

NOTE: 523 Rear Mounts-The adapter noted is furnished with the P.T.O.

NOTE: 523 Series - Any Duty Cycle Longer then 5 Minutes is Classed as Continuous. For Continuous Applications a Lubrication Hose Must be Supplied between the Transmission Oil Cooler Return Line and the P.T.O.(see Chelsea Owner's Manual HY25-1500-M1/US for details)

Transmission Models: TMD12AO

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Transmission: R 04-BOLT Opening Gear NON-STANDARD of Centerline



PTO Model	Side	Input Gear	Rotate	Torque (Ft-Lbs/Nm)	% of Engine High	Reverse	PTO Filler	Adapter	Shaft Kit	Stud Kit
REAR MOUNT - MECHANICAL SHIFT (12 SPEED TRANSMISSIONS)										
523XTASX-.*	Rear		Engine	258/350	124	0		329735X		Furnished
523XVASX-.*	Rear		Engine	258/350	148	0		329735X		Furnished

NOTE: All Stated Torque Ratings for the 523 are Good for Both Continuous and Intermittent Applications.

NOTE: 523 Series - Any Duty Cycle Longer then 5 Minutes is Classed as Continuous. For Continuous Applications a Lubrication Hose Must be Supplied between the Transmission Oil Cooler Return Line and the P.T.O.(see Chelsea Owner's Manual HY25-1500-M1/US for details)

NOTE: Connection to Volvo/Mack system required for Volvo I-Shift or Mack M-Shift, the vehicle needs to be ordered with P.T.O. prep package. Vehicle ECU must be programmed by dealer for P.T.O. operation.

NOTE: 523 Rear Mounts-The adapter noted is furnished with the P.T.O.

NOTE: Rear Mount P.T.O. speeds are shown in Low - Multiply All Values by 1.28 for High Split

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

Volvo I-Shift Applications

Transmission Models: AT2412, AT2512, AT2612,
AT2812, V2412AT, V2512AT, V2812AT

Page: VLV-10
Transmission: R 04-BOLT Opening Gear NON-STANDARD of Centerline



PTO Model	Side	Input Gear	Rotate	Torque (Ft-Lbs/Nm)	% of Engine High Reverse	PTO Filler	Adapter	Shaft Kit	Stud Kit
REAR MOUNT - MECHANICAL SHIFT (12 SPEED TRANSMISSIONS)									
523XTASX-.*	Rear		Engine	258/350	97 0		329735X		Furnished
523XVASX-.*	Rear		Engine	258/350	115 0		329735X		Furnished

NOTE: All Stated Torque Ratings for the 523 are Good for Both Continuous and Intermittent Applications.

NOTE: Rear Mount P.T.O. speeds are shown in Low - Multiply All Values by 1.28 for High Split

NOTE: Connection to Volvo system required for Volvo I-Shift or Mack M-Shift, the vehicle needs to be ordered with P.T.O. prep package. Vehicle ECU must be programmed by dealer for P.T.O. operation.

NOTE: 523 Rear Mounts-The adapter noted is furnished with the P.T.O.

NOTE: 523 Series - Any Duty Cycle Longer then 5 Minutes is Classed as Continuous. For Continuous Applications a Lubrication Hose Must be Supplied between the Transmission Oil Cooler Return Line and the P.T.O.(see Chelsea Owner's Manual HY25-1500-M1/US for details)

Transmission Models: ATO2512, ATO2612,
ATO3112, VO2512AT, VO3112AT

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Transmission: R 04-BOLT Opening Gear NON-STANDARD of Centerline



PTO Model	Side	Input Gear	Rotate	Torque (Ft-Lbs/Nm)	% of Engine High Reverse	PTO Filler	Adapter	Shaft Kit	Stud Kit
REAR MOUNT - MECHANICAL SHIFT (12 SPEED TRANSMISSIONS)									
523XTASX-.*	Rear		Engine	258/350	124 0		329735X		Furnished
523XVASX-.*	Rear		Engine	258/350	148 0		329735X		Furnished

NOTE: All Stated Torque Ratings for the 511 and 523 are Good for Both Continuous and Intermittent Applications.

NOTE: 523 Series - Any Duty Cycle Longer then 5 Minutes is Classed as Continuous. For Continuous Applications a Lubrication Hose Must be Supplied between the Transmission Oil Cooler Return Line and the P.T.O.(see Chelsea Owner's Manual HY25-1500-M1/US for details)

NOTE: Connection to Volvo system required for Volvo I-Shift or Mack M-Shift, the vehicle needs to be ordered with P.T.O. prep package. Vehicle ECU must be programmed by dealer for P.T.O. operation.

NOTE: 523 Rear Mounts-The adapter noted is furnished with the P.T.O.

NOTE: Rear Mount P.T.O. speeds are shown in Low - Multiply All Values by 1.28 for High Split

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