

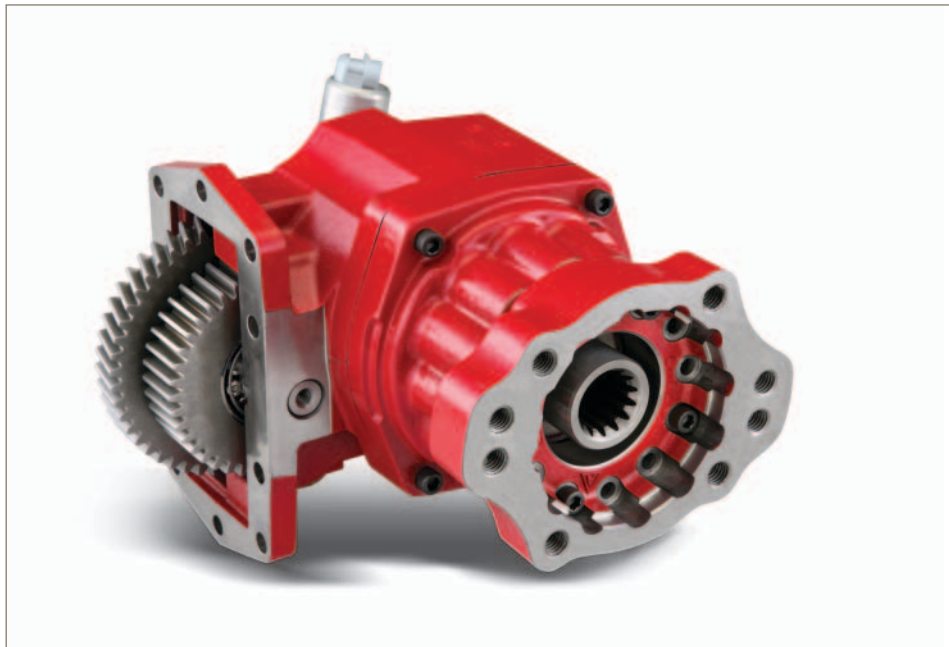
Chelsea® 280 Series

Powershift Hydraulic 10-Bolt



Overview:

The **NEW 280 Series** is a new P.T.O. design utilizing the best of our technology and innovations from our current Hot Shift P.T.O.'s. The 280 Series combines our 277 and 278 Series into one model of P.T.O. It will feature a **single continuous duty torque rating**. No more intermittent rating. Pump clearance issues have been improved with rotatable **cast iron** flanges and the Wet Spline Pump Flange option provides 7 to 10 times greater shaft life. Broader coverage of speed ranges expands from **5** ratios to **9** ratios and includes lower and higher speeds that were never available in the past. The standard output shaft features a new positive stop for Driveline outputs that eliminates the ability for shaft couplings to damage Oil Seals. Three option positions for the integrated solenoid valve. Plus a remote mounted option provides maximum clearance under the truck. The pressure / lube hose will be included with the **NEW 280 Series**. No need to order separately. Versatility, power, ease of maintenance and installation makes the new 280 Series the only choice for your vocational truck requirements.



- Fire and Rescue
- Refuse
- Aerial Devices

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Product Features and Benefits:

- It will feature a single continuous duty torque rating. No more intermittent rating.
- Torque capacity ratings have been increased.
- Pump clearance issues have been improved with rotatable cast iron flanges.
- New positive stop for driveline outputs; eliminates ability for shaft couplings to damage oil seals.
- Wet Spline Pump Flange option provides 7 to 10 times greater shaft life.
- Broader coverage of speed ranges expanding from 5 ratios to 9 ratios.
- Lower and higher speed now available.
- The pressure / lube hose will be included with the new 280 Series. No need to order separately.
- Three option positions for the integrated solenoid valve. Plus, a remote mounted option provides maximum clearance.



ENGINEERING YOUR SUCCESS.

280 SERIES POWER TAKE-OFF MODEL NUMBER DESIGNATOR & SPECIFICATIONS

280 G B FJ P - B 5 XD

Basic Model
280

Mounting Option
G = Standard Mount, Metric Studs

Gear Ratio

| [3 & 5 Arr.] | [8 Arr.] |
|--------------|-----------|
| B = 22/50 | B = 22/53 |
| C = 25/47 | C = 25/50 |
| D = 28/44 | D = 28/47 |
| G = 31/41 | G = 31/44 |
| K = 33/39 | M = 35/40 |
| M = 35/37 | P = 37/38 |
| P = 37/35 | S = 39/36 |
| S = 39/33 | T = 42/33 |
| T = 41/31 | |

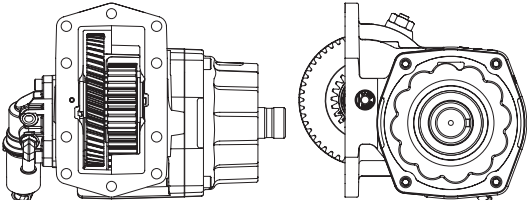
Input Option
FJ = Allison
KV = Caterpillar

Lube Option
P = Pressure Lube Only
R = Valve Cap Rotated 120°
S = Valve Cap Rotated 240°
W = Wet Spline
V = Valve Cap Rotated 120° with Wet Spline
Y = Valve Cap Rotated 240° with Wet Spline

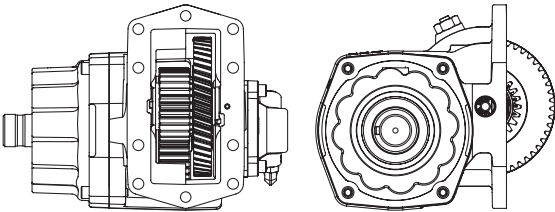
Output Option
AB = DIN 120 Flange
AC = DIN 100 Flange
BA = 1410 Flange with Shaft Brake
BD = 1.250" Keyed with Shaft Brake
RF = Class "B" 2 & 4-Bolt Rotatable Pump Mount, 15T
RK = Class "B" 2 & 4-Bolt Rotatable Pump Mount, 13T
RS = Class "C" 2 & 4-Bolt Rotatable Pump Mount, 14T
RY = DIN 5462 Pump Mount, 8T
RZ = Class "B" 2 & 4-Bolt Pump Flange, Class "C" Shaft
UN = UNI 8953 3-Bolt Pump Flange, 6T
XD = 1.250" Round Shaft Keyed
XV = 1-1/2" - 10T Spline Shaft with 1410 Flange

Assembly Arrangement
3 - Gear Forward, Shaft Rear, Bulge Up Left Side, Bulge Down Right Side
5 - Gear Forward, Shaft Rear, Bulge Up Right Side, Bulge Down Left Side
8 - Gear Forward, Shaft Rear

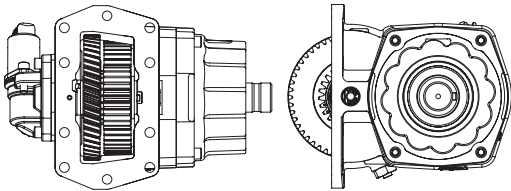
Shift Option
B = 12V Hydraulic Valve
D = 24V Hydraulic Valve
G = 12V Remote Valve w/o E.O.C.
H = 24V Remote Valve w/o E.O.C.
K = 12V Hydraulic Valve w/E.O.C.
L = 24V Hydraulic Valve w/E.O.C.
M = 12V w/o Installation Kit
N = 24V w/o Installation Kit
S = P.T.O. (Air/Elec/Hyd) & Dump Pump (Air) Combo Valve - with P.T.O. Kick Out & Neutral Spring Return
T = P.T.O. (Air/Elec/Hyd) & Dump Pump (Air) Combo Valve - Less P.T.O. Kick Out & Neutral Spring Return



Assembly 3



Assembly 5



Assembly 8

Specifications Chart

| | 280*B | 280*C | 280*D | 280*G | 280*K | 280*M | 280*P | 280*S | 280*T |
|---|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Standard Output Shaft Size | 1-1/4" Round w/key | | | | | | | | |
| Intermittent & Continuous Torque Rating (Lbs. ft.) | 300 | 390 | 390 | 360 | 340 | 318 | 290 | 265 | 240 |
| Intermittent & Continuous Torque Rating (N.m.) | 407 | 529 | 529 | 488 | 461 | 431 | 393 | 359 | 325 |
| Horsepower Rating for Intermittent & Continuous Service | | | | | | | | | |
| At 500 R.P.M. of Output Shaft (HP) | 29 | 37 | 37 | 34 | 32 | 30 | 28 | 25 | 23 |
| At 1000 R.P.M. of Output Shaft (HP) | 57 | 74 | 74 | 69 | 65 | 61 | 55 | 50 | 46 |
| At 500 R.P.M. of Output Shaft (Kw) | 21 | 28 | 28 | 26 | 24 | 23 | 21 | 19 | 17 |
| At 1000 R.P.M. of Output Shaft (Kw) | 43 | 56 | 56 | 51 | 48 | 45 | 41 | 38 | 34 |
| Approximate Weight | 49 lbs. [22 kg] | | | | | | | | |

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