

Chelsea® 680 Series

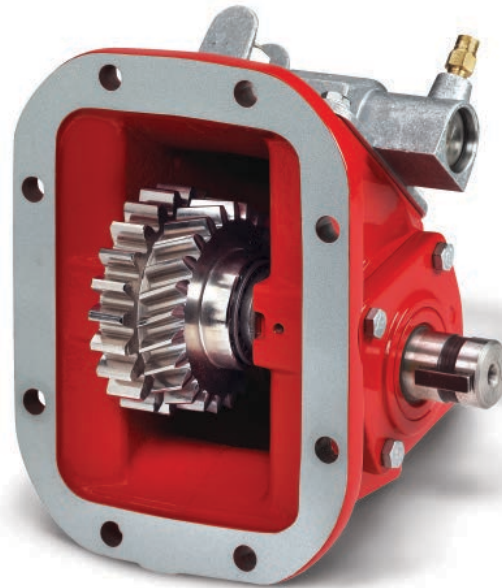
Two Gear Heavy Duty PTO
for Mechanical Transmission



Overview:

The Chelsea 680 PTO features a cast iron housing, cast iron bearing caps, and a press fit idler pin with tapered cone bearings and one-piece input gears to give it the highest torque rating and longest service life possible. The space saving air shift cover provides maximum clearance in tight spaces. It offers a large variety of output options including Chelsea's popular 360° rotatable and greaseable pump mount options. It has four internal speed ratios and eleven shift options to make this one versatile PTO. Take advantage of over 70 years of Chelsea PTO technology to increase performance and lower costs.

- Aerial
- Fire & Rescue
- Dump Trucks & Trailers
- Service Trucks
- Blower & Vacuum



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Product Features and Benefits:

- **Coverage** – Excellent for transmissions with 8-Bolt openings
- **Housing** – Deep mount housing option for Mack applications
- **Torque** – Designed for higher torque applications such as pneumatic blowers
- **Outputs** – Twenty-Nine output options
- **Shift Options** – Fourteen shift options
- **Power** – Torque ratings up to 375 lb-ft
- **Confidence** – Two Year Warranty



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680 SERIES POWER TAKE-OFF SPECIFICATIONS AND TECHNICAL DATA

680 X Q AH X - A 3 XK

Basic Model

Mounting Option

- X** = Standard Mount
G = Standard Mount w/Metric Studs
K = Standard Mount w/o Stud Kit
Z = Deep Mount
D = Detroit DT12™ w/Req Adapter
***Q** = Eaton Endurant™
***E** = Eaton FTS Mount

Gear Ratio

- F** = 21/37
***H** = 23/35
Q = 19/24
R = 22/24
S = 24/22

Input Option

AH, BG, DA, *LZ, *MA, *MB, *MC, *ME

NOTE: For more details, see Application Catalog
(Transmission Model Number required)

Lube Option

- X = No Pressure Lube
P = Pressure Lube

Shift Option

- A** = Air Shift
- 1P** = 12VDC Elec/Air Shift
- *Q** = 24VDC Elec/Air Shift
- V** = Air Shift w/o Installation Kit
- 21S** = Air Shift w/PTO/Dump Pump Combo Valve w/Kick Out w/Neutral Spring Return
- 21T** = Air Shift w/PTO/Dump Pump Combo Valve w/o Kick Out w/Neutral Spring Return
- 21U** = Air Shift w/PTO/Dump Pump Combo Valve w/Kick Out w/o Neutral Spring Return
- 1W** = Wire Shift
- *D** = 12VDC Elec/Air Shift Eaton Endurant™
- *5** = Double Acting (DA) Shift Less Installation Kit for Daimler DT12™ & Eaton Endurant XD™
- *6** = Double Acting (DA) Shift for Eaton Endurant XD
- X** = Wire Shift w/o Cable & Knob
- M** = Constant Mesh
- H** = No Shift Assembly
- C** = Special Shift Control & Bracket Kit

- Output Option

Driveline Output

- XD** = Chelsea Standard Keyed Shaft (1-1/4" - 5/16" Key)
XV = 1410 Series Companion Flange
XX = 1-1/4" Tapered Output Shaft w/Keyway

Pump Mount

- AK** = SAE B 2-Bolt Flange, SAE B Shaft (7/8" - 13T)
AZ = SAE B 4-Bolt Flange, SAE C Shaft (1-1/4" - 14T)
XE = SAE A 2 or 4-Bolt Flange, SAE A Shaft (5/8" - 9T)
XK = SAE B 2 or 4-Bolt Flange, SAE B Shaft (7/8" - 13T)
⁵⁹**XQ** = SAE B 2 or 4-Bolt Flange, SAE B Shaft (7/8" - 13T)
AF = SAE B 2 or 4-Bolt Flange, SAE BB Shaft (1" - 15T)
GA = Greaseable SAE B 2-Bolt Rotatable Flange,
 SAE B Shaft (7/8" - 13T)
GB = Greaseable SAE B 4-Bolt Rotatable Flange,
 SAE B Shaft (7/8" - 13T)
GK = Greaseable SAE B 2 or 4-Bolt Flange,
 SAE B Shaft (7/8" - 13T)
⁵⁹**GQ** = Greaseable SAE B 2 or 4-Bolt Flange,
 SAE B Shaft (7/8" - 13T)
GH = Greaseable SAE B 2-Bolt Rotatable Flange,
 SAE BB Shaft (1" - 15T)
GF = Greaseable SAE B 2 or 4-Bolt Flange,
 SAE BB Shaft (1" - 15T)
GZ = Greaseable SAE B 2 or 4-Bolt Flange,
 SAE C Shaft (1-1/4" - 14T)
GR = Greaseable Chelsea Special (Cloverleaf),
 SAE B Shaft (7/8" - 13T)
GY = Greaseable ISO 7653 Pump Mount DIN 5462 Shaft
RC = Rotatable SAE A 2-Bolt Flange, SAE A Shaft (5/8" - 9T)
RD = Rotatable SAE A 2-Bolt Flange, SAE B Shaft (7/8" - 13T)
RA = Rotatable SAE B 2-Bolt Flange, SAE B Shaft (7/8" - 13T)
RF = Rotatable SAE B 2-Bolt Flange, SAE BB Shaft (1" - 15T)
RK = Rotatable SAE B 2 or 4-Bolt Flange,
 SAE B Shaft (7/8" - 13T)
^{*}**RJ** = Rotatable SAE B 2 or 4-Bolt Flange,
 SAE BB Shaft (1" - 15T)
RB = Rotatable SAE B 4-Bolt Flange, SAE B Shaft (7/8" - 13T)
RE = Rotatable SAE B 4-Bolt Flange, SAE BB Shaft (1" - 15T)
⁷⁹**RY** = Rotatable ISO 7653 Pump Mount DIN 5462 Shaft
XR = Chelsea Special (Cloverleaf), SAE B Shaft (7/8" - 13T)
XY = ISO 7653 Pump Mount DIN 5462 Shaft

- Assembly Arrangement

- 3 = Right side - bulge down Left side - bulge up
4 = Right side - bulge down Left side - bulge up
5 = Left side - bulge down Right side - bulge up
6 = Left side - bulge down Right side - bulge up

¹ Includes mounting parts.

²¹ Includes installation kit, console sold separately.

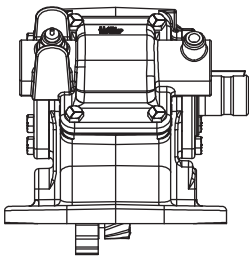
⁵⁹ Same as XK except rotated 90°.

79 Flooded Cavity

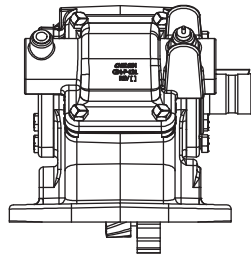
* New option added

680 SERIES POWER TAKE-OFF SPECIFICATIONS AND TECHNICAL DATA

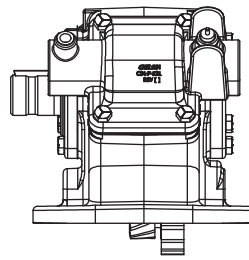
Assembly Arrangements



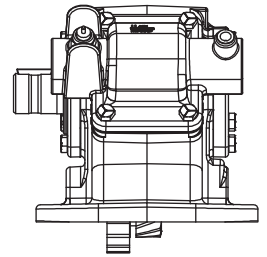
Assembly 3



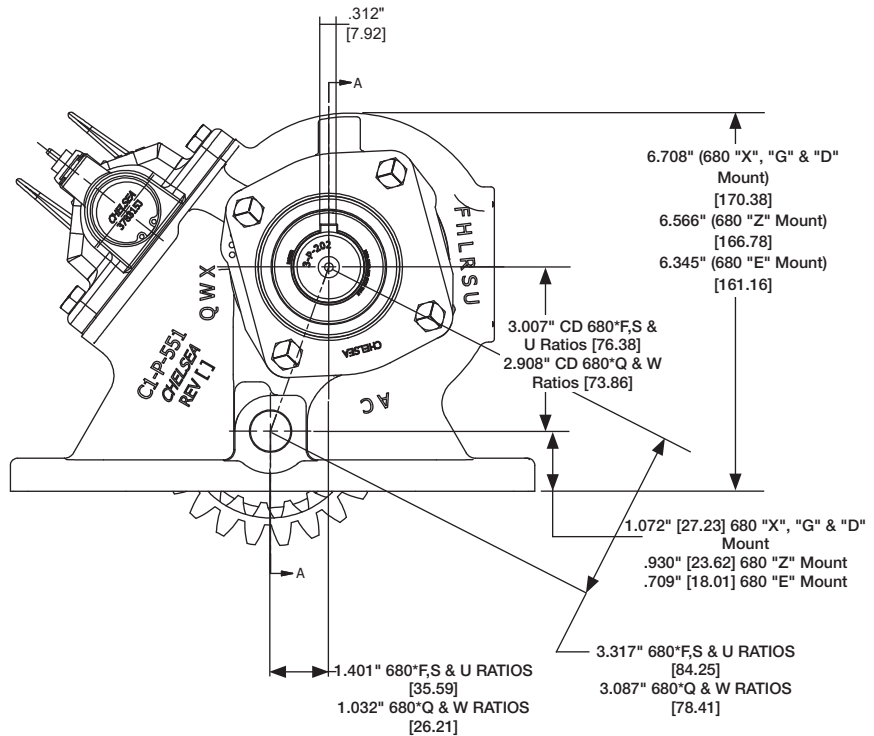
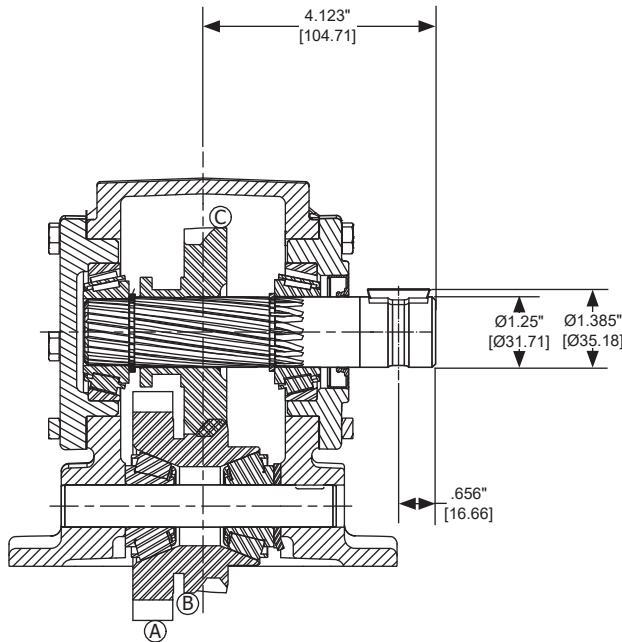
Assembly 4



Assembly 5



Assembly 6



Specifications Chart

Approximate Weight: 28.2 lbs. [12.8 kg]

	680°F	680°H	680°Q	680°R	680°S
Intermittent Torque Rating (lb-ft) [Nm]	375 [508]	375 [508]	375 [508]	350 [475]	325 [441]
HP Rating for Intermittent Duty					
At 500 RPM of Output Shaft (HP) [Kw]	36 [27]	36 [27]	36 [27]	33 [25]	31 [23]
At 1000 RPM of Output Shaft (HP) [Kw]	71 [53]	71 [53]	71 [53]	67 [50]	62 [46]
At 1500 RPM of Output Shaft (HP) [Kw]	107 [80]	107 [80]	107 [80]	100 [75]	93 [69]

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Supersedes HY25-0098-B1/US April 2021 HY25-0098-B1/US August 2023



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