

272 Series PTO for the FORD F650/750 Chassis

The 272-FORD Series PTO is now available from the Chelsea Products Division of Parker for the FORD F650/750 chassis with the 6R140 TorqShift transmission. This includes the MY2012+ F650/750 6.8L Gas and MY2016+ F650/750 6.7L Diesel. It will work in both stationary and mobile modes as permitted by FORD.

The 272-FORD was specifically designed to fit the larger chassis where space is more readily available. This PTO will maximize work at a higher level of efficiency by offering more ratios that allows you to dial in the PTO output speed to fit your system needs. FORD permits 60HP for the Diesel and 40HP for the Gas in continuous-duty applications. Continuous-duty is defined as PTO operations greater than 5 minutes in a 15-minute period.

The 272-FORD is capable of up to 300 ft-lbs Intermittent torque (see Chelsea Application Catalog for details) with seven ratios and the most popular pump and driveline outputs. It is also available with special features such as Electronic Overspeed Control (EOC) and Smart Start that help protect your truck and driven equipment while maximizing efficiency throughout the life of the truck.

PTO model code options are listed in the attached Sales Flyer (HY25-0193-B1/US).

PTO applications can be found on FRD-10, 11, & 12 of the Chelsea Application Catalog HY25-3000/US or the online database on www.PHTruck.com/Chelsea.

Documents Included:

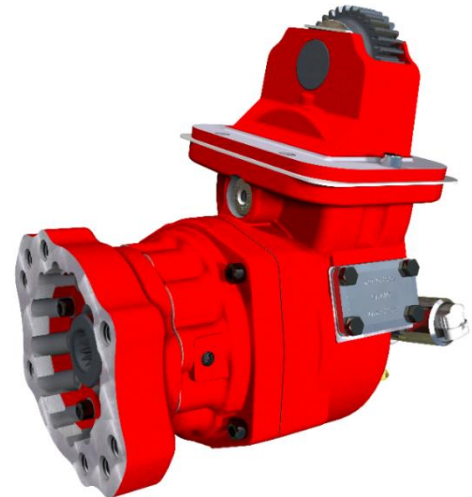
- Sales Flyer – HY25-0193-B1/US
- Price List Addendum
- Application Pages FRD-10, 11, 12

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

US: Chelsea Customer/Technical Services 1-888-PH4-TRUK (1-888-744-8785)
Europe: Parker Hannifin Europe +49 (0) 371 3937 157



Curtis Dalton
Product Sales Manager
Chelsea Products



Chelsea® 272-FORD Series

FORD TorqShift® 6 Transmission for the F650/750

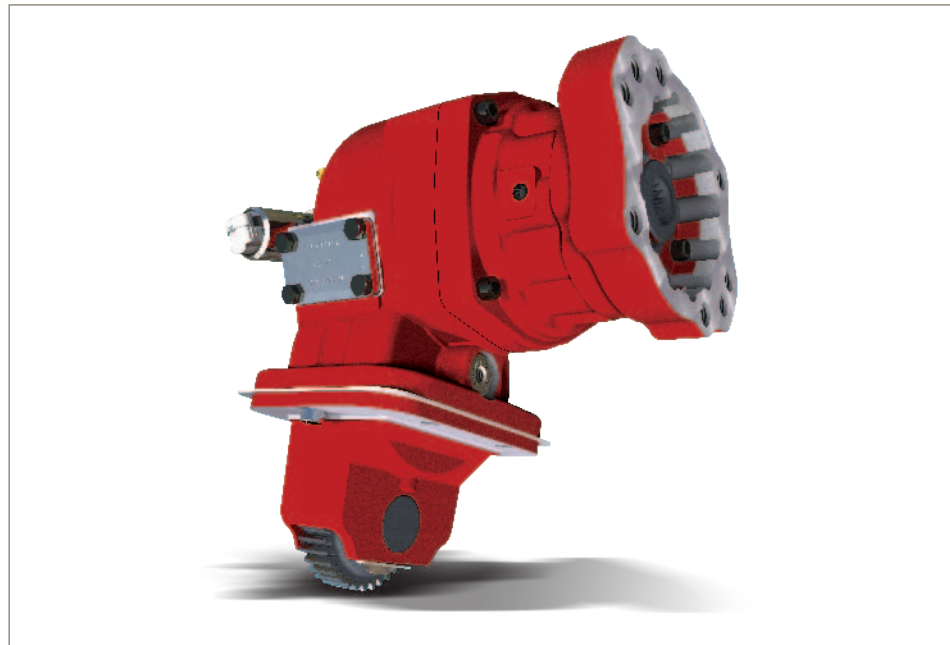


Overview:

The Chelsea 272F Series PTO features all the robust power density of the 272 specifically designed for the FORD 6R140 TorqShift® 6 transmission on the F650/750 chassis. High capacity bearings and superior gear design provide torque ratings up to 300 ft-lbs*. The superior design of the 272-F allows you to take full advantage of all the power available on the transmission with 6.8L gas or 6.7L diesel engines. There are multiple ratios, output types, and shift options to make it a versatile PTO for the F650/750. It is available with Electronic Overspeed Control (EOC) and SmartStart options to protect your equipment and extend the life of your truck, there by maximizing work and profits. It can be used in both Mobile or Stationary modes. The 272-FORD is the best PTO choice for your FORD truck.

*See Chelsea Application Catalog for details.

- Tow & Recovery
- LP Gas
- Water Trucks
- Service Trucks
- Aerial
- Dump
- Refuse



Contact Information:

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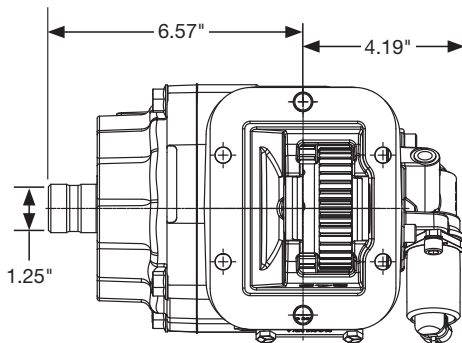
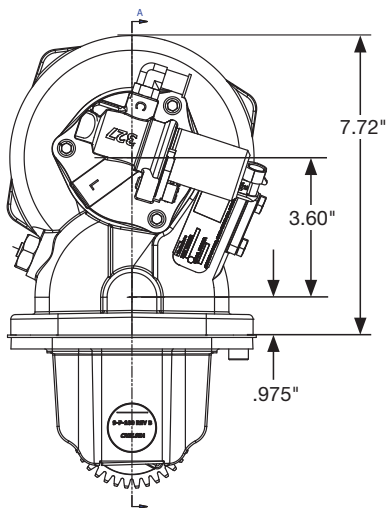
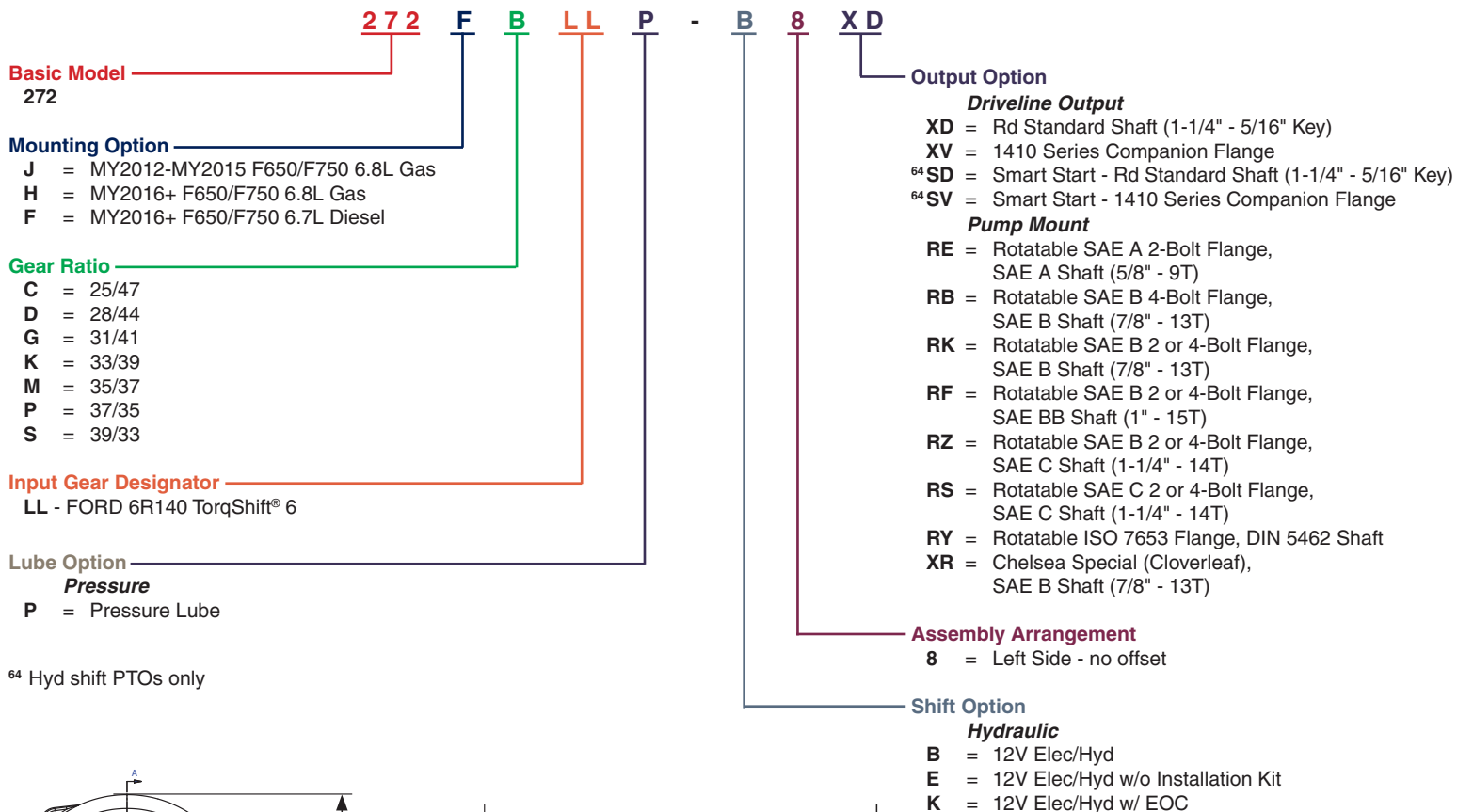
Product Features and Benefits:

- **Torque** – Ratings up to 300 lbs-ft.*
- **Clearance** – Interference issues have been reduced with compact housing.
- **Positive Stop** – Driveline outputs; eliminates oil seal damage from coupling.
- **Protection** – Wet Spline Lubrication option provide 7 to 10 times greater shaft life.
- **Speeds** – Multiple speeds available.
- **Shift** – Three options.
- **Smart Start** – Option available to reduce shock load at start-up for certain applications.



ENGINEERING YOUR SUCCESS.

272 SERIES POWER TAKE-OFF SPECIFICATIONS AND TECHNICAL DATA



Specifications Chart

Approximate Weight: 55 lbs. [25 kg]

	272*CLL	272*DLL	272*GLL	272*KLL	272*MLL	272*PLL	272*SLL
Intermittent Torque Rating lbs-ft [Nm]	300 [407]	300 [407]	300 [407]	300 [407]	274 [371]	246 [333]	220 [298]
HP Rating for Intermittent Duty							
At 500 RPM of Output Shaft HP [Kw]	29 [21]	29 [21]	29 [21]	29 [21]	26 [19]	23 [17]	21 [16]
At 1000 RPM of Output Shaft HP [Kw]	57 [43]	57 [43]	57 [43]	57 [43]	52 [39]	47 [35]	42 [31]
* Ford limits the 6R140 transmission to 40 HP _s							

TOROSHIFT 6 - 6R140 (6.7L Diesel - F250-550 MY2011-Current; F650/750 MY2016-Current)

LEFT SIDE ONLY

TRANSMISSION GEAR DATA:
 L.S. 06-BOLT Opening Gear FORWARD of Centerline
 52 Teeth - SPUR

PITCH LINE TO APERTURE FACE:
 3.4550" (87.7640MM)

Caution: Application Approval Required for PTO Output Shaft Speeds Above 2500 RPM

LEFT Side PTO Model	Inter. Torq.	Dir. Rot.	Engine %		Filler Block	Adapter Assy.	Stud Kit		Inter. Torq.	Dir. Rot.	Engine %		Filler Block	Adapter Assy.	Stud Kit
			Fwd.	Rev.							Fwd.	Rev.			

ONE SPEED - TWO GEAR - POWERSHIFT (HYDRAULIC)

249FMLLX-*2 (1)	200	Opp	124				Furnished								
249FMLLX-*4 (1)	200	Opp	124				Furnished								
249FMLLX-*V (1)	200	Opp	124				Furnished								
272FCLLP-*8	300	Opp	61				Furnished								
272FDLLP-*8	300	Opp	74				Furnished								
272FGLLP-*8	300	Opp	87				Furnished								
272FKLLP-*8	300	Opp	98				Furnished								
272FMLLP-*8	274	Opp	109				Furnished								
272FPLLP-*8	246	Opp	122				Furnished								
272FSLLP-*8	220	Opp	137				Furnished								

See next page for more pump options.

Continued Next Page

CAUTION: Mobile and Stationary Mode Operations are Supported. The Maximum Load (Torque) Allowable for Mobile Mode is 150 Ft.lbs at the Transmission PTO Gear and 120 Ft.lbs at the PTO Output. If the PTO Feature is Used for Extended Periods of Time Without Vehicle Movement it is Recommended to Switch to Stationary Mode. In Stationary Mode Maximum Load (Torque) is 250 Ft.lbs at the Transmission PTO Gear and 200 Ft.lbs at the PTO Output.

NOTE: Ford provides an option for the use of one of the "Upfitter" Switches to be used as a PTO switch. Chelsea does not recommend the use of the UNPROTECTED switch for PTO function, but if required, contact Chelsea Technical Services for assistance.(662-895-1052)

NOTE: 249FMLLX-*2 -- 4 x 2 applications, all output options and all gear pumps listed in the pump chart are available.

NOTE: 249FMLLX-*4 -- 4 x 4 applications only and will come with a modified PGP-P11 (CGP-P11) gear pump with the PTO from the factory when one of the following output option codes is ordered; 16,26,32,37,42,55,61,71,82,87 (See Pump Chart). Or one of the following output shafts "XD", "XP" or "AD".

NOTE: 249FMLLX-*V-- Both 4 x 2 and 4 x 4 applications. 249 Series with integral vane pump options (See Pump Chart).

NOTE: 272 will only fit F650/750 chassis, not for use on F550 and below.

(1) Input Gear Part No. 5-P-1436



TORQSHIFT 6 - 6R140 (6.7L Diesel - F250-550 MY2011-Current; F650/750 MY2016-Current)

LEFT SIDE ONLY

TRANSMISSION GEAR DATA:
L.S. 06-BOLT Opening Gear FORWARD of Centerline
52 Teeth - SPUR

PITCH LINE TO APERTURE FACE:
3.4550" (87.7640MM)

Pump Option charts

Chelsea CGP-P11 Series Pump Specifications for 4x2 and 4x4 Vehicles (3/4" - 11 Tooth Pump Spline)										
Order Code w/ PTO (C)	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) ft-lbs	Pressure PSI		Max Speed RPM		Max Pump Flow GPM
						Intermittent	Continuous	Pump	Engine (B)	
16	CGP-P11A016-5GC	0.37	2.15	4.5	16.0	3990	3625	4000	3226	6.41
26	CGP-P11A026-5GC	0.61	3.54	7.5	26.4	3990	3625	3600	2903	9.51
32	CGP-P11A032-5GC	0.73	4.23	9.0	31.6	3990	3625	3500	2823	11.06
37	CGP-P11A037-5GC	0.85	4.93	10.4	36.8	3990	3625	3300	2661	12.14
42	CGP-P11A042-5GC	0.98	5.68	12.0	42.4	3990	3625	3000	2419	12.73
55	CGP-P11A055-5GC	1.28	7.42	14.8	52.1	3480	3410	2800	2258	15.52
61	CGP-P11A061-5GE	1.40	8.12	15.5	54.6	3410	3265	2800	2258	16.97
71	CGP-P11A071-5GE	1.65	9.57	15.4	54.3	2900	2755	2400	1935	17.14
82	CGP-P11A082-5GE	1.89	10.96	15.3	54.0	2465	2395	2300	1855	18.82
87	CGP-P11A087-5GE	2.01	11.65	15.3	54.0	2320	2250	2000	1613	17.40

Chelsea PGP-315 Series Pump Specifications for 4x2 Vehicles Only (3/4" - 11 Tooth Pump Spline)										
Order Code w/ PTO	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) ft-lbs	Pressure PSI		Max Speed RPM		Max Pump Flow GPM
						Intermittent	Continuous	Pump	Engine (B)	
08	CGP-P31B081-5AG	1.86	10.78	20.8	73.3	3300	3300	3000	2419	24.16
09	CGP-P31B094-5AG	2.17	12.58	21.3	75.1	2900	2900	3000	2419	28.18
11	CGP-P31B107-5AG	2.48	14.38	21.0	74.0	2500	2500	3000	2419	32.21

Chelsea P16 Series Pump Specifications for 4x2 Vehicles Only (7/8" - 13 Tooth Pump Spline)										
Order Code w/ PTO	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) ft-lbs	Pressure PSI		Max Speed RPM		Max Pump Flow GPM
						Intermittent	Continuous	Pump	Engine (B)	
15	P16-150A-2D1	2.93	16.99	29.7	104.9	3000	3000	2800	2258	35.52

Chelsea 249 "V" Integral Vane Pump Data for 4x2 or 4x4 Vehicles										
Order Code w/ PTO	Chelsea Pump Cartridge Number	Displacement in ³ /rev	GPM (D)	Pump (D) HP	Torque (D) ft-lbs	Pressure PSI		Pump Speed RPM		Max Speed RPM Engine (B)
						Intermittent	Continuous	Min.	Max	
12	380418-12	2.26	13.68	31.9	112.6	4000	3500	400	2800	2258
14	380418-14	2.81	17.20	35.1	123.9	4000	3500	400	2800	2258
17	380418-17	3.56	21.79	44.5	157.0	4000	3500	400	2800	2258
20	380418-20	3.89	23.80	48.6	171.6	4000	3500	400	2800	2258
22	380418-22	4.29	26.25	53.6	189.2	4000	3500	400	2800	2258

(A) GPM & Pump Input HP @ 1200 Engine RPM (1488 PTO Output RPM - 124% Ratio) & Continuous Pressure Rating with 90% efficiency rating considered.
 (B) Max Engine Speed = (Max Pump Speed) / (1.24) for PTO Ratio Increase
 (C) For Pump Codes 61, 71, 82 & 87 - 45 degree fittings are required to connect hydraulic hoses for clearance. Order Kit number 329667X
 (D) GPM & Pump Input HP @ 1200 Engine RPM (1488 PTO Output RPM - 124% Ratio) & Continuous Pressure Rating with 94% efficiency rating considered.
CAUTION: 249 "V" Pump Options: "The PTO drive gear delivers up to 250 Lbs. ft. torque to the aftermarket PTO, and can manage the heat of 40 HP continuously. Higher horsepower can be delivered, but for shorter durations depending on the amount of power required." Ref: Ford Body Builders Manual; TorqShift Automatic Transmission.
NOTE: Refer to Chelsea Owner's Manual HY25-1249-M1/US for complete vane pump information.

FORMULAS:
 GPM = Cu. In. x .004329 = G/Rev x 1488 RPMs x .90 efficiency (249V = .94)
 HP = (GPM x Max PSI) / 1714
 Torque = (HP x 5252) / 1488 RPMs

Ford

TORQSHIFT 6 - 6R140 (6.8L Gas - F650/750 MY2013-2015)

LEFT SIDE ONLY

TRANSMISSION GEAR DATA:
L.S. 06-BOLT Opening Gear FORWARD of Centerline
52 Teeth - SPUR

PITCH LINE TO APERTURE FACE:
3.4550" (87.7640MM)

Caution: Application Approval Required for PTO Output Shaft Speeds Above 2500 RPM

LEFT Side PTO Model	Inter. Torq.	Dir. Rot.	Engine %		Filler Block	Adapter Assy.	Stud Kit		Inter. Torq.	Dir. Rot.	Engine %		Filler Block	Adapter Assy.	Stud Kit
			Fwd.	Rev.							Fwd.	Rev.			

ONE SPEED - TWO GEAR - POWERSHIFT (HYDRAULIC)

249GMLLX-*2 (1)	200	Opp	124				Furnished								
249GMLLX-*V (1)	200	Opp	124				Furnished								
272JCLLP-*8	300	Opp	61				Furnished								
272JDLLP-*8	300	Opp	74				Furnished								
272JGLLP-*8	300	Opp	87				Furnished								
272JKLLP-*8	300	Opp	98				Furnished								
272JMLLP-*8	274	Opp	109				Furnished								
272JPLLP-*8	246	Opp	122				Furnished								
272JSLLP-*8	220	Opp	137				Furnished								

See next page for more pump options.

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CAUTION: Only Stationary Mode Operations are Supported. The Maximum Load (Torque) In Stationary Mode is 250 Ft.Lbs at the Transmission PTO Gear and 200 Ft.Lbs at the PTO Output.

NOTE: Ford Does Not Recommend PTO Operation At or Below 900 rpm for the 6.8L Gas Engine. Minimum Engine Speed 910 rpm and Maximum 2400 rpm. Reference Ford Bulletin Q-215 for Latest Information.

NOTE: For MY2013 Ford F-650 4 x 2 w/Gas engine will come with a 6R140 transmission. This will require a heat shield (329790X) to protect the PTO from the exhaust. Also a new Chelsea wiring harness (329789X) will be required. These are included with the PTO when ordering the 249"G" mounting option.

NOTE: 249GMLLX-*2 -- 4 x 2 applications, all output options and all pumps listed in the pump chart are available.

NOTE: Ford provides an option for the use of one of the "Upfitter" Switches to be used as a PTO switch. Chelsea does not recommend the use of the UNPROTECTED switch for PTO function, but if required, contact Chelsea Technical Services for assistance.(662-895-1052)

NOTE: PTO Pressure Switch - if the PTO pressure switch needs to be re-indexed due to interference, use P/N 380451 90 degree fitting.

NOTE: 272 will only fit F650/750 chassis, not for use on F550 and below.

(1) Input Gear Part No. 5-P-1436

TORQSHIFT 6 - 6R140 (6.8L Gas - F650/750 MY2013-2015)

LEFT SIDE ONLY

TRANSMISSION GEAR DATA:
L.S. 06-BOLT Opening Gear FORWARD of Centerline
52 Teeth - SPUR

PITCH LINE TO APERTURE FACE:
3.4550" (87.7640MM)

Pump Option charts

Chelsea CGP-P11 Series Pump Specifications for 4x2 and 4x4 Vehicles (3/4" - 11 Tooth Pump Spline)										
Order Code w/ PTO (C)	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) ft-lbs	Pressure PSI		Max Speed RPM		Max Pump Flow GPM
						Intermittent	Continuous	Pump	Engine (B)	
16	CGP-P11A016-5GC	0.37	2.15	4.5	16.0	3990	3625	4000	3226	6.41
26	CGP-P11A026-5GC	0.61	3.54	7.5	26.4	3990	3625	3600	2903	9.51
32	CGP-P11A032-5GC	0.73	4.23	9.0	31.6	3990	3625	3500	2823	11.06
37	CGP-P11A037-5GC	0.85	4.93	10.4	36.8	3990	3625	3300	2661	12.14
42	CGP-P11A042-5GC	0.98	5.68	12.0	42.4	3990	3625	3000	2419	12.73
55	CGP-P11A055-5GC	1.28	7.42	14.8	52.1	3480	3410	2800	2258	15.52
61	CGP-P11A061-5GE	1.40	8.12	15.5	54.6	3410	3265	2800	2258	16.97
71	CGP-P11A071-5GE	1.65	9.57	15.4	54.3	2900	2755	2400	1935	17.14
82	CGP-P11A082-5GE	1.89	10.96	15.3	54.0	2465	2395	2300	1855	18.82
87	CGP-P11A087-5GE	2.01	11.65	15.3	54.0	2320	2250	2000	1613	17.40

Chelsea PGP-315 Series Pump Specifications for 4x2 Vehicles Only (3/4" - 11 Tooth Pump Spline)										
Order Code w/ PTO	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) ft-lbs	Pressure PSI		Max Speed RPM		Max Pump Flow GPM
						Intermittent	Continuous	Pump	Engine (B)	
08	CGP-P31B081-5AG	1.86	10.78	20.8	73.3	3300	3300	3000	2419	24.16
09	CGP-P31B094-5AG	2.17	12.58	21.3	75.1	2900	2900	3000	2419	28.18
11	CGP-P31B107-5AG	2.48	14.38	21.0	74.0	2500	2500	3000	2419	32.21

Chelsea P16 Series Pump Specifications for 4x2 Vehicles Only (7/8" - 13 Tooth Pump Spline)										
Order Code w/ PTO	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) ft-lbs	Pressure PSI		Max Speed RPM		Max Pump Flow GPM
						Intermittent	Continuous	Pump	Engine (B)	
15	P16-150A-2D1	2.93	16.99	29.7	104.9	3000	3000	2800	2258	35.52

Chelsea 249 "V" Integral Vane Pump Data for 4x2 or 4x4 Vehicles										
Order Code w/ PTO	Chelsea Pump Cartridge Number	Displacement in ³ /rev	GPM (D)	Pump (D) HP	Torque (D) ft-lbs	Pressure PSI		Pump Speed RPM		Max Speed RPM Engine (B)
						Intermittent	Continuous	Min.	Max	
12	380418-12	2.26	13.68	31.9	112.6	4000	3500	400	2800	2258
14	380418-14	2.81	17.20	35.1	123.9	4000	3500	400	2800	2258
17	380418-17	3.56	21.79	44.5	157.0	4000	3500	400	2800	2258
20	380418-20	3.89	23.80	48.6	171.6	4000	3500	400	2800	2258
22	380418-22	4.29	26.25	53.6	189.2	4000	3500	400	2800	2258

(A) GPM & Pump Input HP @ 1200 Engine RPM (1488 PTO Output RPM - 124% Ratio) & Continuous Pressure Rating with 90% efficiency rating considered.
 (B) Max Engine Speed = (Max Pump Speed) / (1.24) for PTO Ratio Increase
 (C) For Pump Codes 61, 71, 82 & 87 - 45 degree fittings are required to connect hydraulic hoses for clearance. Order Kit number 329667X
 (D) GPM & Pump Input HP @ 1200 Engine RPM (1488 PTO Output RPM - 124% Ratio) & Continuous Pressure Rating with 94% efficiency rating considered.
CAUTION: 249 "V" Pump Options: "The PTO drive gear delivers up to 250 Lbs. ft. torque to the aftermarket PTO, and can manage the heat of 40 HP continuously. Higher horsepower can be delivered, but for shorter durations depending on the amount of power required." Ref: Ford Body Builders Manual; TorqShift Automatic Transmission.
NOTE: Refer to Chelsea Owner's Manual HY25-1249-M1/US for complete vane pump information.

FORMULAS:
 GPM = Cu. In. x .004329 = G/Rev x 1488 RPMs x .90 efficiency (249V = .94)
 HP = (GPM x Max PSI) / 1714
 Torque = (HP x 5252) / 1488 RPMs

Ford

TORQSHIFT 6 - 6R140 (6.2L & 6.8L Gas - F250-550 MY 2017; F650/750 MY 2016-Current)

LEFT SIDE ONLY

TRANSMISSION GEAR DATA:
 L.S. 06-BOLT Opening Gear FORWARD of Centerline
 52 Teeth - SPUR

PITCH LINE TO APERTURE FACE:
 3.4550" (87.7640MM)

Caution: Application Approval Required for PTO Output Shaft Speeds Above 2500 RPM

LEFT Side PTO Model	Inter. Torq.	Dir. Rot.	Engine %		Filler Block	Adapter Assy.	Stud Kit		Inter. Torq.	Dir. Rot.	Engine %		Filler Block	Adapter Assy.	Stud Kit
			Fwd.	Rev.							Fwd.	Rev.			

ONE SPEED - TWO GEAR - POWERSHIFT (HYDRAULIC)

249HMLLX-*2 (1)	200	Opp	124				Furnished								
249HMLLX-*4 (1)	200	Opp	124				Furnished								
249HMLLX-*V (1)	200	Opp	124				Furnished								
272HCLLP-*8	300	Opp	61				Furnished								
272HDLLP-*8	300	Opp	74				Furnished								
272HGLLP-*8	300	Opp	87				Furnished								
272HKLLP-*8	300	Opp	98				Furnished								
272HMLLP-*8	274	Opp	109				Furnished								
272HPLLP-*8	246	Opp	122				Furnished								
272HSLLP-*8	220	Opp	137				Furnished								

See next page for more pump options.

Continued Next Page

CAUTION: Only Stationary Mode Operations are supported for MY2016 F650/750. The Maximum Load (Torque) in Stationary Mode is 250 ft.lbs at the Transmission PTO Gear and 200 ft.lbs at the PTO Output. Mobile Mode is supported for 2017 F250-750 and the Torque to the Transmission gear is reduced to 125 ft-lbs and 100 ft lbs to the PTO output.

NOTE: 249HMLLX-*2 -- 4 x 2 applications, all output options and all gear pumps listed in the pump chart are available.

NOTE: Ford Does Not Recommend PTO Operation At or Below 900 rpm for the 6.8L Gas Engine. Minimum Engine Speed 910 rpm and Maximum 2400 rpm. Reference Ford Bulletin Q-215 for Latest Information.

NOTE: FORD Gas applications require a Heat Shield Kit (329790X) that will be provided with the PTO to protect the PTO and its related components from the extreme temperatures near the exhaust pipes.

NOTE: Ford provides Upfitter Switches that can be used as a PTO switch. Chelsea only recommends the use of protected circuits for PTO operations. Ensure the switch is protected by a fuse before use.

NOTE: PTO Pressure Switch - if the PTO pressure switch needs to be re-indexed due to interference, use P/N 380451 90 degree fitting.

NOTE: 272 will only fit F650/750 chassis, not for use on F550 and below.

(1) Input Gear Part No. 5-P-1436



TORQSHIFT 6 - 6R140 (6.2L & 6.8L Gas - F250-550 MY 2017; F650/750 MY 2016-Current)

LEFT SIDE ONLY

TRANSMISSION GEAR DATA:
L.S. 06-BOLT Opening Gear FORWARD of Centerline
52 Teeth - SPUR

PITCH LINE TO APERTURE FACE:
3.4550" (87.7640MM)

Pump Option charts

Chelsea CGP-P11 Series Pump Specifications for 4x2 and 4x4 Vehicles (3/4" - 11 Tooth Pump Spline)										
Order Code w/ PTO (C)	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) ft-lbs	Pressure PSI		Max Speed RPM		Max Pump Flow GPM
						Intermittent	Continuous	Pump	Engine (B)	
16	CGP-P11A016-5GC	0.37	2.15	4.5	16.0	3990	3625	4000	3226	6.41
26	CGP-P11A026-5GC	0.61	3.54	7.5	26.4	3990	3625	3600	2903	9.51
32	CGP-P11A032-5GC	0.73	4.23	9.0	31.6	3990	3625	3500	2823	11.06
37	CGP-P11A037-5GC	0.85	4.93	10.4	36.8	3990	3625	3300	2661	12.14
42	CGP-P11A042-5GC	0.98	5.68	12.0	42.4	3990	3625	3000	2419	12.73
55	CGP-P11A055-5GC	1.28	7.42	14.8	52.1	3480	3410	2800	2258	15.52
61	CGP-P11A061-5GE	1.40	8.12	15.5	54.6	3410	3265	2800	2258	16.97
71	CGP-P11A071-5GE	1.65	9.57	15.4	54.3	2900	2755	2400	1935	17.14
82	CGP-P11A082-5GE	1.89	10.96	15.3	54.0	2465	2395	2300	1855	18.82
87	CGP-P11A087-5GE	2.01	11.65	15.3	54.0	2320	2250	2000	1613	17.40

Chelsea PGP-315 Series Pump Specifications for 4x2 Vehicles Only (3/4" - 11 Tooth Pump Spline)										
Order Code w/ PTO	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) ft-lbs	Pressure PSI		Max Speed RPM		Max Pump Flow GPM
						Intermittent	Continuous	Pump	Engine (B)	
08	CGP-P31B081-5AG	1.86	10.78	20.8	73.3	3300	3300	3000	2419	24.16
09	CGP-P31B094-5AG	2.17	12.58	21.3	75.1	2900	2900	3000	2419	28.18
11	CGP-P31B107-5AG	2.48	14.38	21.0	74.0	2500	2500	3000	2419	32.21

Chelsea P16 Series Pump Specifications for 4x2 Vehicles Only (7/8" - 13 Tooth Pump Spline)										
Order Code w/ PTO	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) ft-lbs	Pressure PSI		Max Speed RPM		Max Pump Flow GPM
						Intermittent	Continuous	Pump	Engine (B)	
15	P16-150A-2D1	2.93	16.99	29.7	104.9	3000	3000	2800	2258	35.52

Chelsea 249 "V" Integral Vane Pump Data for 4x2 or 4x4 Vehicles										
Order Code w/ PTO	Chelsea Pump Cartridge Number	Displacement in ³ /rev	GPM (D)	Pump (D) HP	Torque (D) ft-lbs	Pressure PSI		Pump Speed RPM		Max Speed RPM Engine (B)
						Intermittent	Continuous	Min.	Max	
12	380418-12	2.26	13.68	31.9	112.6	4000	3500	400	2800	2258
14	380418-14	2.81	17.20	35.1	123.9	4000	3500	400	2800	2258
17	380418-17	3.56	21.79	44.5	157.0	4000	3500	400	2800	2258
20	380418-20	3.89	23.80	48.6	171.6	4000	3500	400	2800	2258
22	380418-22	4.29	26.25	53.6	189.2	4000	3500	400	2800	2258

(A) GPM & Pump Input HP @ 1200 Engine RPM (1488 PTO Output RPM - 124% Ratio) & Continuous Pressure Rating with 90% efficiency rating considered.
 (B) Max Engine Speed = (Max Pump Speed) / (1.24) for PTO Ratio Increase
 (C) For Pump Codes 61, 71, 82 & 87 - 45 degree fittings are required to connect hydraulic hoses for clearance. Order Kit number 329667X
 (D) GPM & Pump Input HP @ 1200 Engine RPM (1488 PTO Output RPM - 124% Ratio) & Continuous Pressure Rating with 94% efficiency rating considered.
CAUTION: 249 "V" Pump Options: "The PTO drive gear delivers up to 250 Lbs. ft. torque to the aftermarket PTO, and can manage the heat of 40 HP continuously. Higher horsepower can be delivered, but for shorter durations depending on the amount of power required." Ref: Ford Body Builders Manual; TorqShift Automatic Transmission.
NOTE: Refer to Chelsea Owner's Manual HY25-1249-M1/US for complete vane pump information.

FORMULAS:
 GPM = Cu. In. x .004329 = G/Rev x 1488 RPMs x .90 efficiency (249V = .94)
 HP = (GPM x Max PSI) / 1714
 Torque = (HP x 5252) / 1488 RPMs

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