



CHELSEA® POWER TAKE-OFF 2026 APPLICATION CATALOG



WARNING – User Responsibility

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.

The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.

To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

Offer of Sale

The items described in this document are hereby offered for sale by Parker Hannifin Corporation, its subsidiaries or its authorized distributors. This offer and its acceptance are governed by the provisions stated in the "Offer of Sale".



WARNING: This product can expose you to chemicals including Lead and Lead Compounds, and Di(2-ethylhexyl)phthalate (DEHP) which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

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APPLICATIONS





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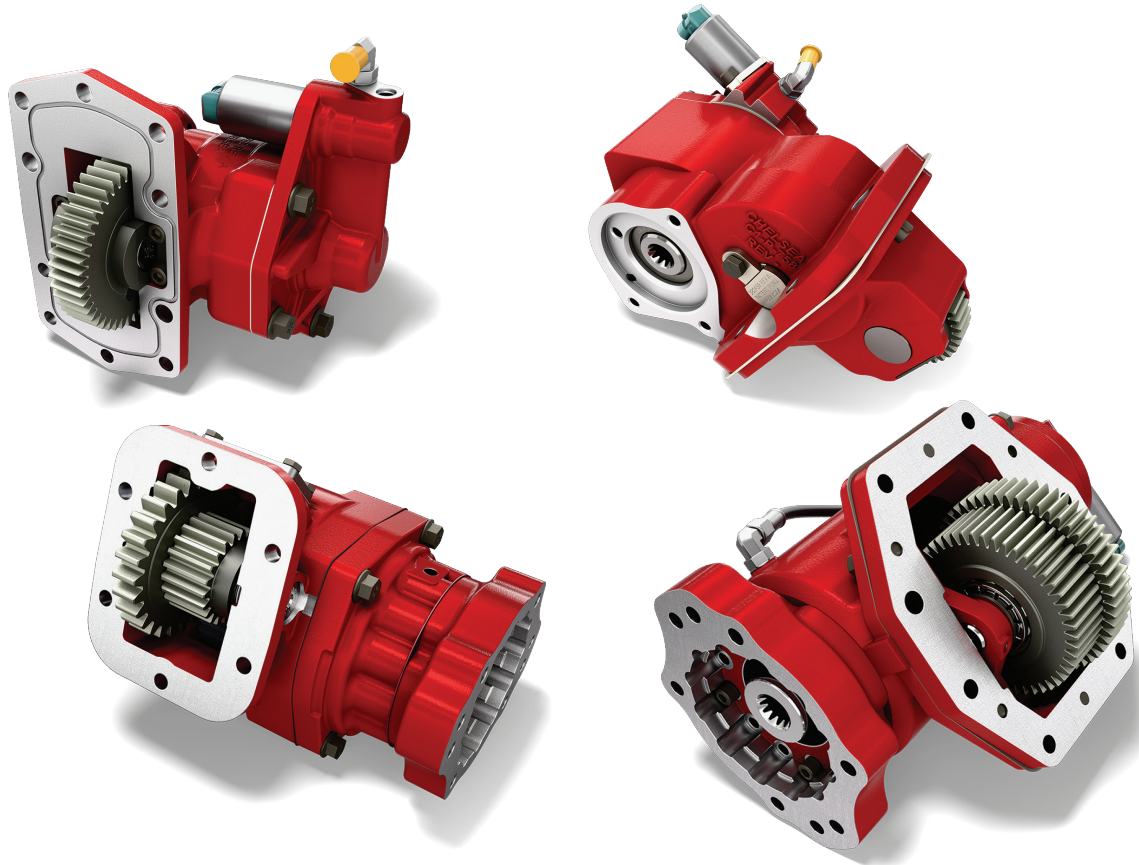
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FORD



**WARNING – User Responsibility**

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FORD TRANSMISSION INDEX

Transmission Make and Model	PTO Appl. Number	Number Forward Speeds	Teeth in PTO Driver
10R140 Diesel F-250-F-600 10-Bolt; MY2020-Current	FRD-13	10	L46
10R140 Gas F-250-F-600 10-Bolt; MY2020-Current	FRD-14	10	L46
10R140 8-Bolt F-650/F-750; MY2024+ Diesel Only	FRD-15	10	L46
5R110 Diesel F-350-F-550; MY2003-2010 (Stationary ONLY)	FRD-9	5	L121
5R110 Gas F-350-F-550; MY2003-2016 (Stationary ONLY)	FRD-9	5	L121
5R110WOJ233 (Ford Mexico)	FRD-9	5	L121
6R140 Diesel F-250-F-550; MY2011-MY2019	FRD-10	6	L52
6R140 Diesel F-650/F-750; MY2016-MY2023	FRD-10	6	L52
6R140 Gas F-250-F-550; MY2017-MY2019	FRD-12	6	L52
6R140 Gas F-650/F-750; MY2013-2015	FRD-11	6	L52
6R140 Gas F-650/F-750; MY2016-Current	FRD-12	6	L52



IMPORTANT: See Safety Information
in Section 1 of the Chelsea Applications
catalog HY25-3000/US

Transmission PTO Driver & Apertures (Viewed from Rear of Transmission)
L-Left Side R-Right Side B-Bottom Side T-Top Side CS-Countershaft
For transmissions not listed, contact your authorized Chelsea Distributor.

CHELSEA®**FORD****FRD-9**

5R110WQJ233 (Ford Mexico)
 5R110 Diesel F-350-F-550; MY2003-2010 (Stationary ONLY)
 5R110 Gas F-350-F-550; MY2003-2016 (Stationary ONLY)

LEFT SIDE ONLY**TRANSMISSION GEAR DATA:**

L.S. 06-BOLT Opening Gear REAR of Centerline
 121 Teeth - SPUR

PITCH LINE TO APERTURE FACE:

1.3390" (33.7800 mm)

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

PTO Model	Torq	Dir Rot	Engine %		Filler Block	Adapter ASSY	Stud Kit	PTO Model	Torq	Dir Rot	Engine %		Filler Block	Adapter ASSY	Stud Kit
	I / C †		Fwd	Rev					I / C †		Fwd	Rev			

ONE SPEED - TWO GEAR - POWERSHIFT (HYDRAULIC)

247FMKSP-*2 (1)	120 I	Opp	154				Furnished
247FMKSP-*4 (1)	120 I	Opp	154				Furnished

† I = Intermittent Torque Only - De-rate Torque Rating 30% for Continuous Duty.

C = Continuous or Intermittent Torque - No need to De-Rate Torque Rating.

IMPORTANT: Refer to the back of this transmission section and read all notes associated with this application page. Some notes may affect the proper PTO selection.

WARNING: To guarantee full torque capability at the automatic transmission PTO gear, and the PTO, the TorqShift transmission torque converter must be locked (Engine RPM @ 1200 RPM), and hydraulic line pressure to the PTO clutch must be elevated to a minimum of 110 PSI. On both Diesel and Gas engines, the Stationary Elevated Idle Control (SEIC) strategy is 1200 RPM. Therefore, for stationary operations, a discrete signal, which is supplied with Chelsea 247 wire harness 329598X, must be used to elevate engine idle to a minimum of 1200 RPM. Battery voltage must be applied to the PTO circuit to begin SEIC strategy for both mobile and stationary applications. Failure to follow these procedures may lead to PTO clutch wear and internal damage to the PTO/Transmission. See Chelsea Owner's/Installation Manual HY25-1FRD-M1/US or Contact Chelsea Technical Services (662-895-1052) for complete details.

(1) Input Gear Part No. 5-P-1387

CHELSEA®**FORD****FRD-10**

6R140 Diesel F-250-F-550; MY2011-MY2019
 6R140 Diesel F-650/F-750; MY2016-MY2023

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" (87.7640 mm)

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

PTO Model	Torq	Dir Rot	Engine %		Filler Block	Adapter ASSY	Stud Kit	PTO Model	Torq	Dir Rot	Engine %		Filler Block	Adapter ASSY	Stud Kit
	I / C †		Fwd	Rev					I / C †		Fwd	Rev			

ONE SPEED - TWO GEAR - POWERSHIFT (HYDRAULIC)

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

See next page for more pump options.

Continued on Next Page

† I = Intermittent Torque Only - De-rate Torque Rating 30% for Continuous Duty.

C = Continuous or Intermittent Torque - No need to De-Rate Torque Rating.

IMPORTANT: Refer to the back of this transmission section and read all notes associated with this application page. Some notes may affect the proper PTO selection.

WARNING: If any Chelsea PTO is purchased without a Chelsea supplied activation switch, warning light, and warning light installation instructions, which are normally included with the PTO, it is the full responsibility of the installer to ensure the PTO is properly installed and electrically interfaced with the OE truck communication system. The installer assumes full responsibility for warning the operator of the truck that the PTO is engaged or disengaged. Failure to adequately warn the operator could result in death, personal injury, and/or property damage.

CAUTION: FORD PTO Driver Gear Torque ratings and HP vary by platform (F-250-F-550 or F-650/F-750), fuel type (Gas or Diesel), and operating mode (Mobile or Stationary). Consult FORD BBAS for the current ratings. The applications on this page are rated for Stationary Mode.

CAUTION: 272 will only fit F-650/F-750 chassis, not for use on F-550 and below.

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

CHELSEA®

FORD

FRD-10

6R140 Diesel F-250-F-550; MY2011-MY2019
6R140 Diesel F-650/F-750; MY2016-MY2023

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" (87.7640 mm)

Pump Option Charts

249 Series Gear Pump Options

Chelsea CGP-P11 Series Pump Specs for 4x2 and 4x4 Vehicles (3/4" - 11 Tooth Pump Spline – AD Output)

Order Code w/ PTO (C)	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) lb-ft	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	2016	3.6
26	CGP-P11A026-5GC	0.61	3.54	7.5	26.4	3990	3625	3600	2016	5.9
32	CGP-P11A032-5GC	0.73	4.23	9.0	31.6	3990	3625	3500	2016	7.1
37	CGP-P11A037-5GC	0.85	4.93	10.4	36.8	3990	3625	3300	2016	8.3
42	CGP-P11A042-5GC	0.98	5.68	12.0	42.4	3990	3625	3000	2016	9.5
55	CGP-P11A055-5GC	1.28	7.42	14.8	52.1	3480	3410	2800	2016	12.5
61	CGP-P11A061-5GE	1.40	8.12	15.5	54.6	3410	3265	2800	2016	13.6
71	CGP-P11A071-5GE	1.65	9.57	15.4	54.3	2900	2755	2400	1935	15.4
82	CGP-P11A082-5GE	1.89	10.96	15.3	54.0	2465	2395	2300	1855	16.9
87	CGP-P11A087-5GE	2.01	11.65	15.3	54.0	2320	2250	2000	1613	15.7

Chelsea PGP-315 Series Pump Specs for 4x2 Vehicles Only (3/4" - 11 Tooth Pump Spline – AD Output)

Order Code w/ PTO	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) lb-ft	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	2016	18.1
09	CGP-P31B094-5AG	2.17	12.58	21.3	75.1	2900	2900	3000	2016	21.1
11	CGP-P31B107-5AG	2.48	14.38	21.0	74.0	2500	2500	3000	2016	24.2

Chelsea P16 Series Pump Specs for 4x2 Vehicles Only (7/8" - 13 Tooth Pump Spline – XP Output)

Order Code w/ PTO	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) lb-ft	Pressure PSI		Max Speed RPM		Max Pump Flow GPM
						Intermittent	Continuous	Pump	Engine (B)	
15	CGP16-150A-2D1	2.93	16.99	29.7	104.9	3000	3000	2800	2016	28.5

(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. Max Speed determined by Max PTO output speed of 2500.**(C)** For Pump Codes 61, 71, 82 & 87 - 45-degree fittings are required to connect hydraulic hoses for clearance. Order Kit number 329667X**CAUTION:** 249 Gear Pump Options: The PTO drive gear delivers up to 250 lb-ft torque to the aftermarket PTO, and can manage the heat of 60 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.

FORMULAS:

GPM = Cu. In. x .004329 = G/rev x 1488 RPMs x .90 efficiency

HP = (GPM x Max PSI)/1714

Torque = (HP x 5252)/1488 RPMs

CHELSEA®

FORD

FRD-10

6R140 Diesel F-250-F-550; MY2011-MY2019
6R140 Diesel F-650/F-750; MY2016-MY2023

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" (87.7640 mm)

Pump Option Charts

249 Series Gear Pump Options

Chelsea 249V Integral Vane Pump Data for 4x2 or 4x4 Vehicles

Option Code w/ PTO	Chelsea Pump Cartridge Number	Displacement in ³ /rev	GPM (D)	Pump (D) HP	Torque (D) lb-ft	Pressure PSI		Pump Speed RPM		Max Speed RPM Engine (B)
						Intermittent	Continuous	Min.	Max	
08	380418-08	1.61	9.33	19	67	4000	3500	400	2800	2015
10	380418-10	2.08	12.06	25	87	4000	3500	400	2800	2015
12	380418-12	2.26	13.10	27	94	4000	3500	400	2800	2015
14	380418-14	2.81	16.29	33	117	4000	3500	400	2800	2015
17	380418-17	3.56	20.64	42	149	4000	3500	400	2800	2015
20	380418-20	3.89	22.55	46	163	4000	3500	400	2800	2015
22	380418-22	4.29	24.87	51	179	4000	3500	400	2800	2015
25	380418-25	4.84	28.06	57	202	4000	3500	400	2800	2015
157	380418-157					4000	3500	400	2800	2015

(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. Max Speed determined by Max PTO output speed of 2500.

(D) GPM & Pump Input HP @ 1200 Engine RPM (1488 PTO Output RPM - 124% Ratio) & 2000 PSI Continuous Pressure Rating.

See leakage chart for additional flow losses at other pressures.

CAUTION: 249V Pump Options: The PTO drive gear delivers up to 250 lb-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.

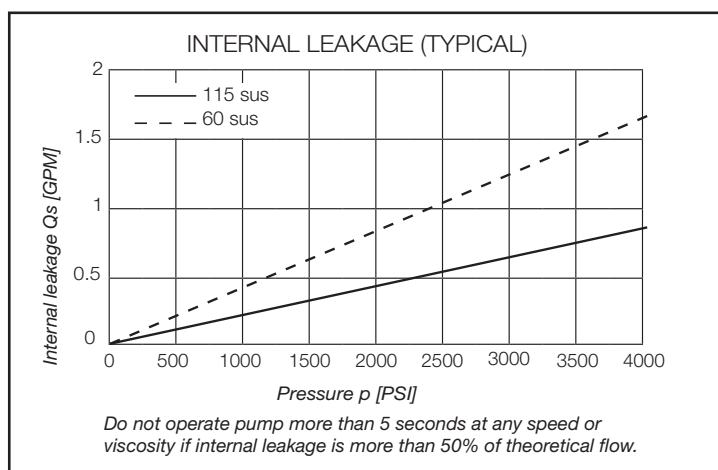
NOTE: Refer to Chelsea Owner's Manual HY25-1FRD-M1/US for complete vane pump information.

FORMULAS:

GPM = Cu. In. x .004329 = G/rev x 1488 RPMs x .90 efficiency

HP = (GPM x Max PSI)/1714

Torque = (HP x 5252)/1488 RPMs



CHELSEA®**FORD****FRD-11**

6R140 Gas F-650/F-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" (87.7640 mm)

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

PTO Model	Torq	Dir Rot	Engine %		Filler Block	Adapter ASSY	Stud Kit	PTO Model	Torq	Dir Rot	Engine %		Filler Block	Adapter ASSY	Stud Kit
	I / C †		Fwd	Rev					I / C †		Fwd	Rev			

ONE SPEED - TWO GEAR - POWERSHIFT (HYDRAULIC)

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

See next page for more pump options.

Continued on Next Page

† I = Intermittent Torque Only - De-rate Torque Rating 30% for Continuous Duty.

C = Continuous or Intermittent Torque - No need to De-Rate Torque Rating.

IMPORTANT: Refer to the back of this transmission section and read all notes associated with this application page.
Some notes may affect the proper PTO selection.**WARNING:** If any Chelsea PTO is purchased without a Chelsea supplied activation switch, warning light, and warning light installation instructions, which are normally included with the PTO, it is the full responsibility of the installer to ensure the PTO is properly installed and electrically interfaced with the OE truck communication system. The installer assumes full responsibility for warning the operator of the truck that the PTO is engaged or disengaged. Failure to adequately warn the operator could result in death, personal injury, and/or property damage.**CAUTION:** FORD PTO Driver Gear Torque ratings and HP vary by platform (F-250-F-550 or F-650/F-750), fuel type (Gas or Diesel), and operating.

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

CHELSEA®

FORD

FRD-11

6R140 Gas F-650/F-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" (87.7640 mm)

Pump Option Charts

249 Series Gear Pump Options

Chelsea CGP-P11 Series Pump Specs for 4x2 and 4x4 Vehicles (3/4" - 11 Tooth Pump Spline – AD Output)

Order Code w/ PTO (C)	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) lb-ft	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	2016	3.6
26	CGP-P11A026-5GC	0.61	3.54	7.5	26.4	3990	3625	3600	2016	5.9
32	CGP-P11A032-5GC	0.73	4.23	9.0	31.6	3990	3625	3500	2016	7.1
37	CGP-P11A037-5GC	0.85	4.93	10.4	36.8	3990	3625	3300	2016	8.3
42	CGP-P11A042-5GC	0.98	5.68	12.0	42.4	3990	3625	3000	2016	9.5
55	CGP-P11A055-5GC	1.28	7.42	14.8	52.1	3480	3410	2800	2016	12.5
61	CGP-P11A061-5GE	1.40	8.12	15.5	54.6	3410	3265	2800	2016	13.6
71	CGP-P11A071-5GE	1.65	9.57	15.4	54.3	2900	2755	2400	1935	15.4
82	CGP-P11A082-5GE	1.89	10.96	15.3	54.0	2465	2395	2300	1855	16.9
87	CGP-P11A087-5GE	2.01	11.65	15.3	54.0	2320	2250	2000	1613	15.7

Chelsea PGP-315 Series Pump Specs for 4x2 Vehicles Only (3/4" - 11 Tooth Pump Spline – AD Output)

Order Code w/ PTO	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) lb-ft	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	2016	18.1
09	CGP-P31B094-5AG	2.17	12.58	21.3	75.1	2900	2900	3000	2016	21.1
11	CGP-P31B107-5AG	2.48	14.38	21.0	74.0	2500	2500	3000	2016	24.2

Chelsea P16 Series Pump Specs for 4x2 Vehicles Only (7/8" - 13 Tooth Pump Spline – XP Output)

Order Code w/ PTO	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) lb-ft	Pressure PSI		Max Speed RPM		Max Pump Flow GPM
						Intermittent	Continuous	Pump	Engine (B)	
15	CGP16-150A-2D1	2.93	16.99	29.7	104.9	3000	3000	2800	2016	28.5

(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. Max Speed determined by Max PTO output speed of 2500.

(C) For Pump Codes 61, 71, 82 & 87 - 45-degree fittings are required to connect hydraulic hoses for clearance. Order Kit number 329667X

CAUTION: 249 Gear Pump Options: The PTO drive gear delivers up to 250 lb-ft torque to the aftermarket PTO, and can manage the heat of 60 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.

FORMULAS:

GPM = Cu. In. x .004329 = G/rev x 1488 RPMs x .90 efficiency

HP = (GPM x Max PSI)/1714

Torque = (HP x 5252)/1488 RPMs

CHELSEA®

FORD

FRD-11

6R140 Gas F-650/F-750; MY2013-MY2015

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" (87.7640 mm)

Pump Option Charts

249 Series Vane Pump Options

Chelsea 249V Integral Vane Pump Data for 4x2 or 4x4 Vehicles

Option Code w/ PTO	Chelsea Pump Cartridge Number	Displacement in ³ /rev	GPM (D)	Pump (D) HP	Torque (D) lb-ft	Pressure PSI		Pump Speed RPM		Max Speed RPM Engine (B)
						Intermittent	Continuous	Min.	Max	
08	380418-08	1.61	9.33	19	67	4000	3500	400	2800	2015
10	380418-10	2.08	12.06	25	87	4000	3500	400	2800	2015
12	380418-12	2.26	13.10	27	94	4000	3500	400	2800	2015
14	380418-14	2.81	16.29	33	117	4000	3500	400	2800	2015
17	380418-17	3.56	20.64	42	149	4000	3500	400	2800	2015
20	380418-20	3.89	22.55	46	163	4000	3500	400	2800	2015
22	380418-22	4.29	24.87	51	179	4000	3500	400	2800	2015
25	380418-25	4.84	28.06	57	202	4000	3500	400	2800	2015
157	380418-157					4000	3500	400	2800	2015

(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. Max Speed determined by Max PTO output speed of 2500.

(D) GPM & Pump Input HP @ 1200 Engine RPM (1488 PTO Output RPM - 124% Ratio) & 2000 PSI Continuous Pressure Rating.

See leakage chart for additional flow losses at other pressures.

CAUTION: 249V Pump Options: The PTO drive gear delivers up to 250 lb-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.

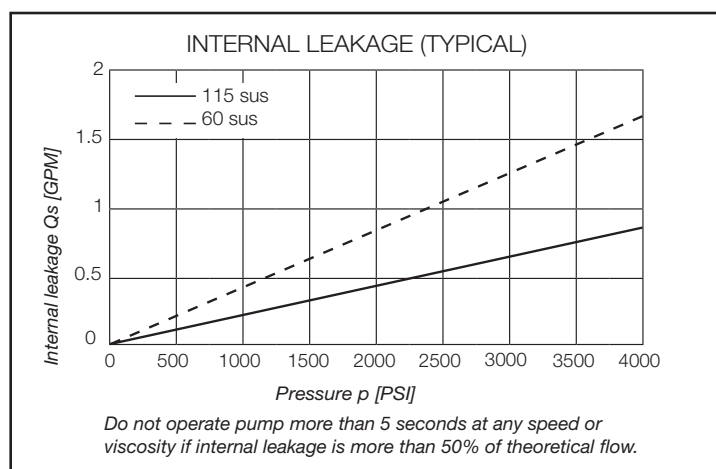
NOTE: Refer to Chelsea Owner's Manual HY25-1FRD-M1/US for complete vane pump information.

FORMULAS:

GPM = Cu. In. x .004329 = G/rev x 1488 RPMs x .90 efficiency

HP = (GPM x Max PSI)/1714

Torque = (HP x 5252)/1488 RPMs



CHELSEA®**FORD****FRD-12**

6R140 Gas F-250-F-550; MY2017-MY2019
 6R140 Gas F-650/F-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" (87.7640 mm)

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

PTO Model	Torq I / C †	Dir Rot	Engine %		Filler Block	Adapter ASSY	Stud Kit	PTO Model	Torq I / C †	Dir Rot	Engine %		Filler Block	Adapter ASSY	Stud Kit
			Fwd	Rev							Fwd	Rev			

ONE SPEED - TWO GEAR - POWERSHIFT (HYDRAULIC)

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

See next page for more pump options.

Continued on Next Page

† I = Intermittent Torque Only - De-rate Torque Rating 30% for Continuous Duty.

C = Continuous or Intermittent Torque - No need to De-Rate Torque Rating.

IMPORTANT: Refer to the back of this transmission section and read all notes associated with this application page. Some notes may affect the proper PTO selection.

WARNING: If any Chelsea PTO is purchased without a Chelsea supplied activation switch, warning light, and warning light installation instructions, which are normally included with the PTO, it is the full responsibility of the installer to ensure the PTO is properly installed and electrically interfaced with the OE truck communication system. The installer assumes full responsibility for warning the operator of the truck that the PTO is engaged or disengaged. Failure to adequately warn the operator could result in death, personal injury, and/or property damage.

CAUTION: FORD PTO Driver Gear Torque ratings and HP vary by platform (F-250-F-550 or F-650/F-750), fuel type (Gas or Diesel), and operating

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

CHELSEA®

FORD

FRD-12

6R140 Gas F-250-F-550; MY2017-MY2019
6R140 Gas F-650/F-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" (87.7640 mm)

Pump Option Charts

249 Series Gear Pump Options

Chelsea CGP-P11 Series Pump Specs for 4x2 and 4x4 Vehicles (3/4" - 11 Tooth Pump Spline – AD Output)

Order Code w/ PTO (C)	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) lb-ft	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	2016	3.6
26	CGP-P11A026-5GC	0.61	3.54	7.5	26.4	3990	3625	3600	2016	5.9
32	CGP-P11A032-5GC	0.73	4.23	9.0	31.6	3990	3625	3500	2016	7.1
37	CGP-P11A037-5GC	0.85	4.93	10.4	36.8	3990	3625	3300	2016	8.3
42	CGP-P11A042-5GC	0.98	5.68	12.0	42.4	3990	3625	3000	2016	9.5
55	CGP-P11A055-5GC	1.28	7.42	14.8	52.1	3480	3410	2800	2016	12.5
61	CGP-P11A061-5GE	1.40	8.12	15.5	54.6	3410	3265	2800	2016	13.6
71	CGP-P11A071-5GE	1.65	9.57	15.4	54.3	2900	2755	2400	1935	15.4
82	CGP-P11A082-5GE	1.89	10.96	15.3	54.0	2465	2395	2300	1855	16.9
87	CGP-P11A087-5GE	2.01	11.65	15.3	54.0	2320	2250	2000	1613	15.7

Chelsea PGP-315 Series Pump Specs for 4x2 Vehicles Only (3/4" - 11 Tooth Pump Spline – AD Output)

Order Code w/ PTO	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) lb-ft	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	2016	18.1
09	CGP-P31B094-5AG	2.17	12.58	21.3	75.1	2900	2900	3000	2016	21.1
11	CGP-P31B107-5AG	2.48	14.38	21.0	74.0	2500	2500	3000	2016	24.2

Chelsea P16 Series Pump Specs for 4x2 Vehicles Only (7/8" - 13 Tooth Pump Spline – XP Output)

Order Code w/ PTO	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) lb-ft	Pressure PSI		Max Speed RPM		Max Pump Flow GPM
						Intermittent	Continuous	Pump	Engine (B)	
15	CGP16-150A-2D1	2.93	16.99	29.7	104.9	3000	3000	2800	2016	28.5

(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. Max Speed determined by Max PTO output speed of 2500.

(C) For Pump Codes 61, 71, 82 & 87 - 45-degree fittings are required to connect hydraulic hoses for clearance. Order Kit number 329667X

CAUTION: 249 Gear Pump Options: The PTO drive gear delivers up to 250 lb-ft torque to the aftermarket PTO, and can manage the heat of 60 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.

FORMULAS:

GPM = Cu. In. x .004329 = G/rev x 1488 RPMs x .90 efficiency

HP = (GPM x Max PSI)/1714

Torque = (HP x 5252)/1488 RPMs

CHELSEA®

FORD

FRD-12

6R140 Gas F-250-F-550; MY2017-MY2019
6R140 Gas F-650/F-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" (87.7640 mm)

Pump Option Charts

249 Series Vane Pump Options

Chelsea 249V Integral Vane Pump Data for 4x2 or 4x4 Vehicles

Option Code w/ PTO	Chelsea Pump Cartridge Number	Displacement in ³ /rev	GPM (D)	Pump (D) HP	Torque (D) lb-ft	Pressure PSI		Pump Speed RPM		Max Speed RPM Engine (B)
						Intermittent	Continuous	Min.	Max	
08	380418-08	1.61	9.33	19	67	4000	3500	400	2800	2015
10	380418-10	2.08	12.06	25	87	4000	3500	400	2800	2015
12	380418-12	2.26	13.10	27	94	4000	3500	400	2800	2015
14	380418-14	2.81	16.29	33	117	4000	3500	400	2800	2015
17	380418-17	3.56	20.64	42	149	4000	3500	400	2800	2015
20	380418-20	3.89	22.55	46	163	4000	3500	400	2800	2015
22	380418-22	4.29	24.87	51	179	4000	3500	400	2800	2015
25	380418-25	4.84	28.06	57	202	4000	3500	400	2800	2015
157	380418-157					4000	3500	400	2800	2015

(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. Max Speed determined by Max PTO output speed of 2500.

(D) GPM & Pump Input HP @ 1200 Engine RPM (1488 PTO Output RPM - 124% Ratio) & 2000 PSI Continuous Pressure Rating.

See leakage chart for additional flow losses at other pressures.

CAUTION: 249V Pump Options: The PTO drive gear delivers up to 250 lb-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.

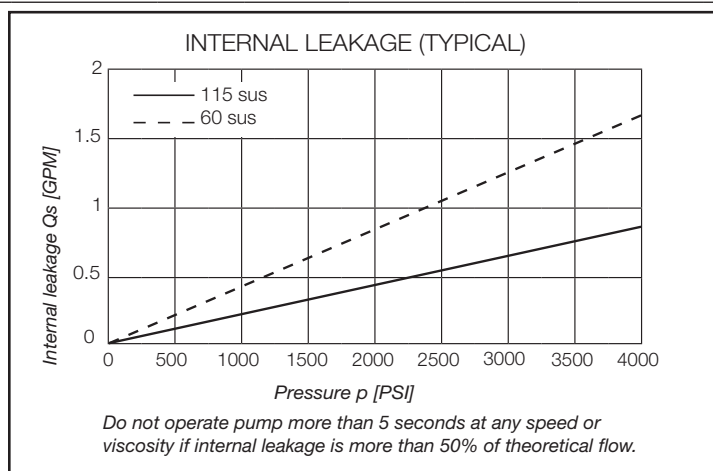
NOTE: Refer to Chelsea Owner's Manual HY25-1FRD-M1/US for complete vane pump information.

FORMULAS:

GPM = Cu. In. x .004329 = G/rev x 1488 RPMs x .90 efficiency

HP = (GPM x Max PSI)/1714

Torque = (HP x 5252)/1488 RPMs



CHELSEA®**FORD****FRD-13**

10R140 Diesel F-250-F-600; MY2020-Current

LEFT SIDE ONLY**TRANSMISSION GEAR DATA:**

L.S. 10-BOLT Opening Gear FORWARD of Centerline

46 Teeth - SPUR

PITCH LINE TO APERTURE FACE:

1.75" (44.45 mm)

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

PTO Model	Torq	Dir Rot	Engine %		Filler Block	Adapter ASSY	Stud Kit	PTO Model	Torq	Dir Rot	Engine %		Filler Block	Adapter ASSY	Stud Kit
	I / C †		Fwd	Rev					I / C †		Fwd	Rev			

ONE SPEED - TWO GEAR - POWERSHIFT (HYDRAULIC)

210FMMFP-*2 (1)	235 I	Opp	144					Furnished
210FMMFP-*4 (1)	235 I	Opp	144					Furnished

See next page for more pump options.

Continued on Next Page

† I = Intermittent Torque Only - De-rate Torque Rating 30% for Continuous Duty.

C = Continuous or Intermittent Torque - No need to De-Rate Torque Rating.

IMPORTANT: Refer to the back of this transmission section and read all notes associated with this application page. Some notes may affect the proper PTO selection.

WARNING: If any Chelsea PTO is purchased without a Chelsea supplied activation switch, warning light, and warning light installation instructions, which are normally included with the PTO, it is the full responsibility of the installer to ensure the PTO is properly installed and electrically interfaced with the OE truck communication system. The installer assumes full responsibility for warning the operator of the truck that the PTO is engaged or disengaged. Failure to adequately warn the operator could result in death, personal injury, and/or property damage.

CAUTION: The applications on this page are rated for a diesel engine in stationary mode (based on 300 lb-ft at transmission PTO gear).

(1) Input Gear Part No. 5-P-1597

CHELSEA®

FORD

FRD-13

10R140 Diesel F-250-F-600; MY2020-Current

LEFT SIDE ONLY

TRANSMISSION GEAR DATA:

L.S. 10-BOLT Opening Gear FORWARD of Centerline

46 Teeth - SPUR

PITCH LINE TO APERTURE FACE:

1.75" (44.45 mm)

Pump Option Charts

210 Series Gear Pump Options

Chelsea CGP-P11 Series Pump Specs for 4x2 and 4x4 Vehicles (3/4" - 11 Tooth Pump Spline – AD Output)

Order Code w/ PTO (C)	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) lb-ft	Pressure PSI		Max Speed RPM		Max Pump Flow GPM	Rear Pump Ports	
						Intermittent	Continuous	Pump	Engine (B)		Inlet	Outlet
21	CGP-P11A021-5AC	0.49	3.30	7.0	24.6	3988	3625	4000	1728	4.8	SAE 12	SAE 10
26	CGP-P11A026-5AC	0.61	4.11	8.7	30.7	3988	3625	3600	1728	5.9	SAE 12	SAE 10
32	CGP-P11A032-5AC	0.73	4.91	10.4	36.7	3988	3625	3500	1728	7.1	SAE 12	SAE 10
37	CGP-P11A037-5AC	0.85	5.72	12.1	42.7	3988	3625	3300	1728	8.3	SAE 12	SAE 10
42	CGP-P11A042-5AC	0.98	6.60	14.0	49.3	3988	3625	3000	1728	9.5	SAE 12	SAE 10
50	CGP-P11A050-5AC	1.16	7.81	16.5	58.3	3770	3625	3000	1728	11.3	SAE 12	SAE 10
55	CGP-P11A055-5AP	1.28	8.62	17.1	60.5	3480	3410	2800	1728	12.5	SAE 16	SAE 12
61	CGP-P11A061-5AP	1.40	9.43	18.0	63.4	3408	3265	2800	1728	13.6	SAE 16	SAE 12
71	CGP-P11A071-5AP	1.65	11.11	17.9	63.0	2900	2755	2300	1597	14.8	SAE 16	SAE 12
82	CGP-P11A082-5AP	1.89	12.72	17.8	62.8	2465	2395	2300	1597	16.9	SAE 16	SAE 12
87	CGP-P11A087-5AP	2.01	13.53	17.8	62.7	2320	2250	2000	1389	15.7	SAE 16	SAE 12

Chelsea PGP-315 Series Pump Specs for 4x2 and 4x4 Vehicles (3/4" - 11 Tooth Pump Spline – AD Output)

Order Code w/ PTO	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) lb-ft	Pressure PSI		Max Speed RPM		Max Pump Flow GPM	Rear Pump Ports	
						Intermittent	Continuous	Pump	Engine (B)		Inlet	Outlet
8	CGP-P31B081-5AG	1.86	12.52	24.1	85.1	3300	3300	3000	1728	18.1	SAE 16	SAE 16
9	CGP-P31B094-5AG	2.17	14.61	24.7	87.2	2900	2900	3000	1728	21.1	SAE 16	SAE 16
11	CGP-P31B107-5AG	2.48	16.70	24.4	86.0	2500	2500	3000	1728	24.2	SAE 16	SAE 16

Chelsea P16 Series Pump Specs for 4x2 and 4x4 Vehicles (7/8" - 13 Tooth Pump Spline – XP Output)

Order Code w/ PTO	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) lb-ft	Pressure PSI		Max Speed RPM		Max Pump Flow GPM	Rear Pump Ports	
						Intermittent	Continuous	Pump	Engine (B)		Inlet	Outlet
15	CGP16-150A-2D1	2.93	19.73	34.5	121.9	3000	3000	2800	1728	28.5	SAE 20	SAE 16
18	CGP16-180A-2D1	3.51	23.63	30.3	107.1	2200	2200	2500	1728	34.2	SAE 20	SAE 16
20	CGP16-200A-2D1	3.90	26.26	30.6	108.1	2000	2000	2200	1528	33.4	SAE 20	SAE 16

(A) GPM & Pump Input HP @ 1200 Engine RPM (1728 PTO Output RPM - 144% Ratio) & Continuous Pressure Rating with 90% efficiency rating considered.

(B) Max Engine Speed = Minimum of (1) (Max Pump Speed)/1.44 PTO Ratio and (2) 2500 RPM maximum PTO output speed. PTO output speeds above 2500 RPM requires application approval from Parker Chelsea.

NOTE: Minimum ideal engine speed for Ford Super Duty in stationary mode is 900 RPM (Diesel) and 700 RPM (Gas). Consult fordbbas.com**NOTE:** Ford's 10R140 transmission delivers up to 300 lb-ft to PTO. Consult fordbbas.com for power and torque limitations based on vehicle configuration.

FORMULAS:

GPM = Cu. In. x .004329 = G/rev x 1728 RPMs x .90 efficiency

HP = (GPM x Max PSI)/1714

Torque = (HP x 5252)/1728 RPMs

CHELSEA®**FORD****FRD-14**

10R140 Gas F-250-F-600; MY2020-Current

LEFT SIDE ONLY**TRANSMISSION GEAR DATA:**

L.S. 10-BOLT Opening Gear FORWARD of Centerline

46 Teeth - SPUR

PITCH LINE TO APERTURE FACE:

1.75" (44.45 mm)

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

PTO Model	Torq	Dir Rot	Engine %		Filler Block	Adapter ASSY	Stud Kit	PTO Model	Torq	Dir Rot	Engine %		Filler Block	Adapter ASSY	Stud Kit
	I / C †		Fwd	Rev					I / C †		Fwd	Rev			

ONE SPEED - TWO GEAR - POWERSHIFT (HYDRAULIC)

210GMMFP-*2 (1)	196 I	Opp	144				Furnished
210GMMFP-*4 (1)	196 I	Opp	144				Furnished

See next page for more pump options.

Continued on Next Page

† I = Intermittent Torque Only - De-rate Torque Rating 30% for Continuous Duty.

C = Continuous or Intermittent Torque - No need to De-Rate Torque Rating.

IMPORTANT: Refer to the back of this transmission section and read all notes associated with this application page. Some notes may affect the proper PTO selection.

WARNING: If any Chelsea PTO is purchased without a Chelsea supplied activation switch, warning light, and warning light installation instructions, which are normally included with the PTO, it is the full responsibility of the installer to ensure the PTO is properly installed and electrically interfaced with the OE truck communication system. The installer assumes full responsibility for warning the operator of the truck that the PTO is engaged or disengaged. Failure to adequately warn the operator could result in death, personal injury, and/or property damage.

CAUTION: The applications on this page are rated for a gas engine in stationary mode (based on 250 lb-ft at transmission PTO gear).

(1) Input Gear Part No. 5-P-1597

CHELSEA®

FORD

FRD-14

10R140 Gas F-250-F-600; MY2020-Current

LEFT SIDE ONLY

TRANSMISSION GEAR DATA:

L.S. 10-BOLT Opening Gear FORWARD of Centerline

46 Teeth - SPUR

PITCH LINE TO APERTURE FACE:

1.75" (44.45 mm)

Pump Option Charts

210 Series Gear Pump Options

Chelsea CGP-P11 Series Pump Specs for 4x2 and 4x4 Vehicles (3/4" - 11 Tooth Pump Spline – AD Output)

Order Code w/ PTO (C)	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) lb-ft	Pressure PSI		Max Speed RPM		Max Pump Flow GPM	Rear Pump Ports	
						Intermittent	Continuous	Pump	Engine (B)		Inlet	Outlet
21	CGP-P11A021-5AC	0.49	3.30	7.0	24.6	3988	3625	4000	1728	4.8	SAE 12	SAE 10
26	CGP-P11A026-5AC	0.61	4.11	8.7	30.7	3988	3625	3600	1728	5.9	SAE 12	SAE 10
32	CGP-P11A032-5AC	0.73	4.91	10.4	36.7	3988	3625	3500	1728	7.1	SAE 12	SAE 10
37	CGP-P11A037-5AC	0.85	5.72	12.1	42.7	3988	3625	3300	1728	8.3	SAE 12	SAE 10
42	CGP-P11A042-5AC	0.98	6.60	14.0	49.3	3988	3625	3000	1728	9.5	SAE 12	SAE 10
50	CGP-P11A050-5AC	1.16	7.81	16.5	58.3	3770	3625	3000	1728	11.3	SAE 12	SAE 10
55	CGP-P11A055-5AP	1.28	8.62	17.1	60.5	3480	3410	2800	1728	12.5	SAE 16	SAE 12
61	CGP-P11A061-5AP	1.40	9.43	18.0	63.4	3408	3265	2800	1728	13.6	SAE 16	SAE 12
71	CGP-P11A071-5AP	1.65	11.11	17.9	63.0	2900	2755	2300	1597	14.8	SAE 16	SAE 12
82	CGP-P11A082-5AP	1.89	12.72	17.8	62.8	2465	2395	2300	1597	16.9	SAE 16	SAE 12
87	CGP-P11A087-5AP	2.01	13.53	17.8	62.7	2320	2250	2000	1389	15.7	SAE 16	SAE 12

Chelsea PGP-315 Series Pump Specs for 4x2 and 4x4 Vehicles (3/4" - 11 Tooth Pump Spline – AD Output)

Order Code w/ PTO	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) lb-ft	Pressure PSI		Max Speed RPM		Max Pump Flow GPM	Rear Pump Ports	
						Intermittent	Continuous	Pump	Engine (B)		Inlet	Outlet
8	CGP-P31B081-5AG	1.86	12.52	24.1	85.1	3300	3300	3000	1728	18.1	SAE 16	SAE 16
9	CGP-P31B094-5AG	2.17	14.61	24.7	87.2	2900	2900	3000	1728	21.1	SAE 16	SAE 16
11	CGP-P31B107-5AG	2.48	16.70	24.4	86.0	2500	2500	3000	1728	24.2	SAE 16	SAE 16

Chelsea P16 Series Pump Specs for 4x2 and 4x4 Vehicles (7/8" - 13 Tooth Pump Spline – XP Output)

Order Code w/ PTO	Chelsea Pump Model	Displacement in ³ /rev	GPM (A)	Pump (A) HP	Torque (A) lb-ft	Pressure PSI		Max Speed RPM		Max Pump Flow GPM	Rear Pump Ports	
						Intermittent	Continuous	Pump	Engine (B)		Inlet	Outlet
15	CGP16-150A-2D1	2.93	19.73	34.5	121.9	3000	3000	2800	1728	28.5	SAE 20	SAE 16
18	CGP16-180A-2D1	3.51	23.63	30.3	107.1	2200	2200	2500	1728	34.2	SAE 20	SAE 16
20	CGP16-200A-2D1	3.90	26.26	30.6	108.1	2000	2000	2200	1528	33.4	SAE 20	SAE 16

(A) GPM & Pump Input HP @ 1200 Engine RPM (1728 PTO Output RPM - 144% Ratio) & Continuous Pressure Rating with 90% efficiency rating considered.

(B) Max Engine Speed = Minimum of (1) (Max Pump Speed)/1.44 PTO Ratio and (2) 2500 RPM maximum PTO output speed. PTO output speeds above 2500 RPM requires application approval from Parker Chelsea.

NOTE: Minimum ideal engine speed for Ford Super Duty in stationary mode is 900 RPM (Diesel) and 700 RPM (Gas). Consult fordbbas.com**NOTE:** Ford's 10R140 transmission delivers up to 300 lb-ft to PTO. Consult fordbbas.com for power and torque limitations based on vehicle configuration.

FORMULAS:

GPM = Cu. In. x .004329 = G/rev x 1728 RPMs x .90 efficiency

HP = (GPM x Max PSI)/1714

Torque = (HP x 5252)/1728 RPMs

CHELSEA®**FORD****FRD-15**

10R140 8-Bolt F-650/F-750; MY2024+ Diesel Only

LEFT SIDE ONLY**TRANSMISSION GEAR DATA:**

L.S. 08-BOLT Opening Gear FORWARD of Centerline

46 Teeth - SPUR

PITCH LINE TO APERTURE FACE:

2.0640" (52.4256 mm)

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

PTO Model	Torq	Dir Rot	Engine %		Filler Block	Adapter ASSY	Stud Kit	PTO Model	Torq	Dir Rot	Engine %		Filler Block	Adapter ASSY	Stud Kit
	I / C †		Fwd	Rev					I / C †		Fwd	Rev			

ONE SPEED - TWO GEAR - POWERSHIFT (HYDRAULIC)

810DDMFP-*2 (1)	420 C	Opp	81				Furnished
810DMMFP-*2 (2)	293 C	Opp	116				Furnished
810DSMFP-*2 (3)	195 I	Opp	158				Furnished

† I = Intermittent Torque Only - De-rate Torque Rating 30% for Continuous Duty.

C = Continuous or Intermittent Torque - No need to De-Rate Torque Rating.

IMPORTANT: Refer to the back of this transmission section and read all notes associated with this application page. Some notes may affect the proper PTO selection.

WARNING: If any Chelsea PTO is purchased without a Chelsea supplied activation switch, warning light, and warning light installation instructions, which are normally included with the PTO, it is the full responsibility of the installer to ensure the PTO is properly installed and electrically interfaced with the OE truck communication system. The installer assumes full responsibility for warning the operator of the truck that the PTO is engaged or disengaged. Failure to adequately warn the operator could result in death, personal injury, and/or property damage.

CAUTION: The applications on this page are rated for a diesel engine in stationary mode (based on 300 lb-ft at transmission PTO gear). FORD PTO Driver Gear Torque ratings and HP vary by operating mode (Mobile or Stationary). Consult FORD BBAS for the current ratings.

Ford Notes

FRD-9

1. Standard Parker PGP-P17 pumps may interfere with the transmission shift lever, order Chelsea FGP-P17 Series pumps to assure shifter clearance.
2. The PTO mounting gasket (22-P-120) is supplied with the PTO. It is the correct thickness and material so that the customer does not have to set backlash. DO NOT use gasket supplied with the transmission under the 6-Bolt cover plate.
3. 247FMKSP-*2 -- 4x2 applications: all output options and all pumps listed in the pump chart are available.
4. 247FMKSP-*4 -- 4x4 applications will only work with a modified PGP-P11 (CGP-P11) pump. Use one of the following output option codes when ordering: 16, 26, 37, 42, 55, 61, 71, 82, 86 (See Pump Chart).
5. 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).
6. The 272-FORD does not have noise dampening technology incorporated into the PTO like the 249 Series. Therefore, a gear rattle may be present during idle with no load on the PTO. This noise is not harmful to PTO or the transmission.

FRD-10

1. Mobile and Stationary Mode Operations are supported. The maximum load (Torque) allowable for Mobile Mode is 150 lb-ft at the transmission PTO driver gear. 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 lb-ft at the transmission PTO driver gear.
2. 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).
3. 249FMLLX-*2 -- 4x2 applications, all output options and all gear pumps listed in the pump chart are available.
4. 249FMLLX-*4 -- 4x4 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.
5. For Pump Codes 61, 71, 82 & 87 - 45-degree fittings are required to connect hydraulic hoses for clearance. Order Kit number 329667X in addition to the PTO.
6. 249FMLLX-*V-- Both 4x2 and 4x4 applications. 249 Series with integral vane pump options (See Pump Chart).
7. The 272-FORD does not have noise dampening technology incorporated into the PTO like the 249 Series. Therefore, a gear clatter noise will be present during idle with no load on the PTO.

FRD-11

1. Only Stationary Mode Operations are supported for this application page. The Maximum Load (Torque) in Stationary Mode is 250 lb-ft at the transmission PTO driver gear and 200 lb-ft at the PTO output.
2. 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.
3. For MY2013 Ford F-650 4x2 w/ Gas engine will come with a 6R140 transmission. This will require a heat shield (329931X) to protect the PTO from the exhaust. It is included with the PTO when ordering the 249 G mounting option.
4. 249GMLLX-*2 - 4x2 applications, all output options and all pumps listed in the pump chart are available.
5. 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).
6. For Pump Codes 61, 71, 82 & 87 - 45-degree fittings are required to connect hydraulic hoses for clearance. Order Kit number 329667X in addition to the PTO.
7. PTO Pressure Switch - if the PTO pressure switch needs to be relocated due to interference, use P/N 380451 90-degree fitting.

FRD-12

1. MY2016 F-650/F-750 is only operable in Stationary Mode. Mobile Mode is supported for 2017 F-250-F-750 and the Torque to the Transmission gear is reduced to 125 lb-ft and 100 lb-ft to the PTO output.
2. 249HMLLX-*2 -- 4x2 applications, all output options and all gear pumps listed in the pump chart are available.
3. 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.
4. FORD Gas applications require a Heat Shield Kit (329931X) that will be provided with the PTO to protect the PTO and its related components from the extreme temperatures near the exhaust pipes.
5. 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.
6. For Pump Codes 61, 71, 82 & 87 - 45-degree fittings are required to connect hydraulic hoses for clearance. Order Kit number 329667X in addition to the PTO.
7. PTO Pressure Switch - if the PTO pressure switch needs to be relocated due to interference, use P/N 380451 90-degree fitting.

Ford Notes

FRD-13

1. Mobile and Stationary Mode Operations are supported and vary based on vehicle configuration. If the PTO feature is used for extended periods of time without vehicle movement it is recommended to switch to Stationary Mode. For 6.7L Diesel, maximum load (torque) at the transmission gear is 150 lb-ft in mobile mode and 300 lb-ft in stationary. Consult FORD BBAS for the most up to date ratings.
2. All 4x4 compatible pumps MUST be mounted with the bulge toward the transmission.
3. The following output options are 4x2 only: SD SmartStart driveshaft, code '18' + '20'.

FRD-14

1. Mobile and Stationary Mode Operations are supported and vary based on vehicle configuration. If the PTO feature is used for extended periods of time without vehicle movement it is recommended to switch to Stationary Mode. For 7.3L Gas, maximum load (torque) at the transmission gear is 125 lb-ft in mobile mode and 250 lb-ft in stationary. For 6.2L Gas, maximum load (torque) at the transmission gear is 115 lb-ft in mobile mode and 250 lb-ft in stationary. Consult FORD BBAS for the most up to date ratings.
2. All 4x4 compatible pumps MUST be mounted with the bulge toward the transmission.
3. The following output options are 4x2 only: SD Smart Start driveshaft, code '18' + '20'.
4. Thermal sleeving is required for lube hose and pressure switch on Gas applications. See owner's manual for details.

FRD-15

1. Mobile and Stationary Mode Operations are supported and vary based on vehicle configuration. If the PTO feature is used for extended periods of time without vehicle movement, it is recommended to switch to Stationary Mode. Consult FORD BBAS for the most up to date torque ratings.
2. 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 (662-895-1011).