

# Chelsea® 249 Series

249 Series for Ford Super Duty

Featuring the Patented  
Chelsea Noise Suppression System



## Overview:

Parker Chelsea makes PTO installation simpler, quieter and more cost-effective with its 249 Series PTO. The patented concept reduces torsional noise levels that are common on PTO applications for these trucks. A wide selection of pump sizes are available to provide optimum flow rates. The 249 Series also provides ease of installation through a single hose connection and an integrated cartridge valve and pressure switch helping to reduce installation time. Chelsea robust design makes the 249 the best choice for any application.

- Aerial
- Tow & Recovery
- Fire & Rescue
- Water Drilling



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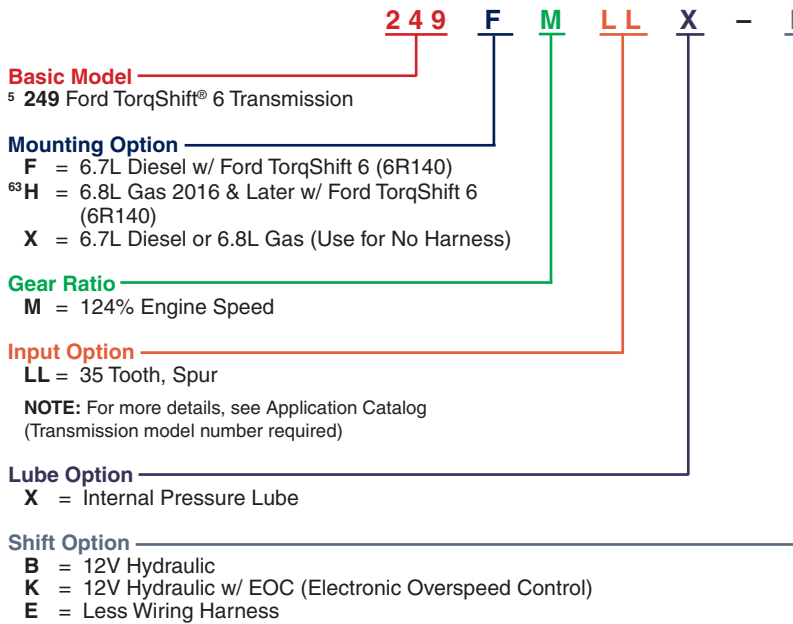


## Product Features and Benefits:

- **Noise Suppression System** – Provides quiet PTO applications on Ford Super Duty Trucks (Patent #9,494,227 B2)
- **Smart Start Available** – Shock load dampening feature to protect driven equipment
- **Single Hose connection and Integrated Actuation Valve** – Single hose simplifies installation and reduces installation time along with eliminating leak paths
- **Intermittent Torque Rating of 200 lbs-ft** – 58 HP @ 1200 engine RPM
- **Pump flows up to 25.1 GPM at 1200 Engine RPM** – Standard SAE flanges and shafts allow for a wider variety of flows and pressures
- **Simple** – PTO, pump, wiring harness and shift kits available under one part number and package
- **Two Year Warranty** – Greater bearing capacity, larger gear width and greater clutch engagement surface provide a robust design

ENGINEERING YOUR SUCCESS.

# 249 SERIES POWER TAKE-OFF SPECIFICATIONS AND TECHNICAL DATA



**Basic Model**  
<sup>5</sup> 249 Ford TorqShift® 6 Transmission

**Mounting Option**  
**F** = 6.7L Diesel w/ Ford TorqShift 6 (6R140)  
<sup>63</sup>**H** = 6.8L Gas 2016 & Later w/ Ford TorqShift 6 (6R140)  
**X** = 6.7L Diesel or 6.8L Gas (Use for No Harness)

**Gear Ratio**  
**M** = 124% Engine Speed

**Input Option**  
**LL** = 35 Tooth, Spur  
**NOTE:** For more details, see Application Catalog (Transmission model number required)

**Lube Option**  
**X** = Internal Pressure Lube

**Shift Option**  
**B** = 12V Hydraulic  
**K** = 12V Hydraulic w/ EOC (Electronic Overspeed Control)  
**E** = Less Wiring Harness

<sup>5</sup> Automatically pressure lubed

<sup>38</sup> 4 x 2 Vehicles Only

<sup>63</sup> Includes wiring harness with high temperature loom and heat shield

**Output Option**

**Driveline Output**

<sup>38</sup> **SD** = Smart Start - Rd Standard Shaft (1-1/4" - 5/16" Key)

<sup>38</sup> **XD** = Rd Standard Shaft (1-1/4" - 5/16" Key)

**Pump Mount**

<sup>38</sup> **08** = Hyd. Pump 1.86 In<sup>3</sup>/rev - 0.0081 GPR

<sup>38</sup> **09** = Hyd. Pump 2.17 In<sup>3</sup>/rev - 0.0094 GPR

<sup>38</sup> **11** = Hyd. Pump 2.48 In<sup>3</sup>/rev - 0.0107 GPR

<sup>38</sup> **15** = Hyd. Pump 2.93 In<sup>3</sup>/rev - 0.0127 GPR

**16** = Hyd. Pump 0.37 In<sup>3</sup>/rev - 0.0016 GPR

**26** = Hyd. Pump 0.61 In<sup>3</sup>/rev - 0.0026 GPR

**32** = Hyd. Pump 0.73 In<sup>3</sup>/rev - 0.0032 GPR

**37** = Hyd. Pump 0.85 In<sup>3</sup>/rev - 0.0037 GPR

**42** = Hyd. Pump 0.98 In<sup>3</sup>/rev - 0.0042 GPR

**55** = Hyd. Pump 1.28 In<sup>3</sup>/rev - 0.0055 GPR

**61** = Hyd. Pump 1.40 In<sup>3</sup>/rev - 0.0061 GPR

**71** = Hyd. Pump 1.65 In<sup>3</sup>/rev - 0.0071 GPR

**82** = Hyd. Pump 1.89 In<sup>3</sup>/rev - 0.0082 GPR

**87** = Hyd. Pump 2.01 In<sup>3</sup>/rev - 0.0087 GPR

**AD** = SAE A 2-Bolt Flange (3/4" - 11T)

**XP** = Special SAE A Pilot 2-Bolt Flange, SAE B Shaft (7/8" - 13T)

**Assembly Arrangement**

**2** = 4 x 2 Vehicles

**4** = 4 x 4 Vehicles

**Chelsea CGP-P11 Series Pump Specs for 4 x 2 and 4 x 4 Vehicles (3/4" - 11 Tooth Pump Spline – AD Output)**

Order Code w/ PTO (C)	Chelsea Pump Model	Displacement in <sup>3</sup> /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	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 4 x 2 Vehicles Only (3/4" - 11 Tooth Pump Spline – AD Output)**

Order Code w/ PTO	Chelsea Pump Model	Displacement in <sup>3</sup> /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	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 4 x 2 Vehicles Only (7/8" - 13 Tooth Pump Spline – XP Output)**

Order Code w/ PTO	Chelsea Pump Model	Displacement in <sup>3</sup> /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	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 Lbs. 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

