

Chelsea® 249V Series

PowerShift Hydraulic 6-Bolt

Featuring the Patented
Chelsea Noise Suppression System



Overview:

Chelsea's 249V Series PTO fits both the 4 x 4 and 4 x 2 Ford Super Duty with the TorqueShift™ 6 Automatic Transmission. This unique design concept will provide a PTO that is best in class for pressure, flow, and noise reduction. The 249V provides flows up to 35 GPM at 3500 PSI continuous pressure. This PTO also features a Patented Noise Suppression System. The combination of the Chelsea 249 Series and the Parker Denison T6C vane pump will provide greater flows and pressures that are not available anywhere else.

- Aerial
- Tow & Recovery
- Fire & Rescue
- Water Drilling
- Truck Mounted Cranes



Contact Information: Product Features and Benefits:

Parker Hannifin Corporation
Chelsea Products Division
8225 Hacks Cross Road
Olive Branch, MS 38654 USA

Phone: 1-888-PH4-TRUK
(1-888-744-8785)
Fax: 1-662-895-1069
chelseacustserv@parker.com

www.parker.com/chelsea

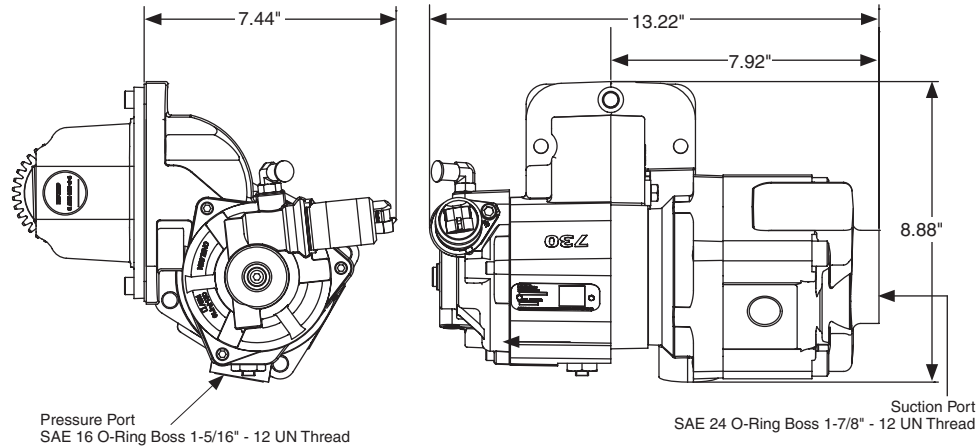


- **Pump flows up to 35 GPM at 3500 PSI** – Integrated design provides maximum power in a small package
- **Simple** – PTO, pump, wiring harness and shift kits available under one part number and package
- **Noise Suppression System** – Provides quiet PTO applications on Ford Super Duty Trucks (Patent #9,494,227 B2)
- **Smart Start Available** – Shock load dampening feature to protect driven equipment
- **Installation** – Eliminates costs and saves time
- **Single Hose Connection and Integrated Actuation Valve** – Single hose for the PTO simplifies installation and reduces installation time along with eliminating leak paths
- **Intermittent Torque Rating of 200 lbs-ft** – 58 Horse Power @ 1200 Engine Speed
- **Two Year Warranty** – Greater bearing capacity. Larger gear width and greater clutch engagement surface provide a robust design

ENGINEERING YOUR SUCCESS.

249V SERIES POWER TAKE-OFF SPECIFICATIONS AND TECHNICAL DATA

Basic Model 5 249	Mounting Option F = 6.7L Diesel w/ Ford TorqShift 6 (6R140) 63 H = 6.8L Gas 2016 & Later 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 = External Pressure Lube 5 Automatically pressure lubed 63 Includes wiring harness with high temperature loom and heat shield	Output Option Pump Mount 08 = B08 Cartridge 1.61 in³/rev - 0.0438 GPR 10 = B10 Cartridge 2.08 in³/rev - 0.0566 GPR 12 = B12 Cartridge 2.26 in³/rev - 0.0615 GPR 14 = B14 Cartridge 2.81 in³/rev - 0.0764 GPR 17 = B17 Cartridge 3.56 in³/rev - 0.0968 GPR 20 = B20 Cartridge 3.89 in³/rev - 0.1058 GPR 22 = B22 Cartridge 4.29 in³/rev - 0.1167 GPR 25 = B25 Cartridge 4.84 in³/rev - 0.1316 GPR IT = Less Cartridge	Assembly Arrangement V = Integral Denison T6C Vane Pump	Shift Option B = 12V Hydraulic K = 12V Hydraulic w/ EOC (Electronic Overspeed Control) E = No Harness
-----------------------------	--	--	---	---	--	---	---



Chelsea 249V Integral Vane Pump Data for 4 x 2 or 4 x 4 Vehicles

Option Code w/ PTO	Chelsea Pump Cartridge Number	Displacement in³/rev	GPM (D)	Pump (D) HP	Torque (D) Ft. Lbs.	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 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 HY25-1FRD-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