WPT®
POWER

Engine Driven Products

Industrial Clutch, Brake, and Power Take-Off Manufacturer

Founded in Wichita Falls, Texas in, 1992, WPT® Power Corporation has built an international reputation for excellence in the mechanical power transmission industry. We manufacture heavy-duty pneumatic, hydraulic, mechanical, and spring-set industrial brakes, clutches, power take-offs, and gearboxes.

The engineering and manufacturing processes for all our product lines follow the ISO 9001-2015 standard as certified by DNV. In-house testing facilities and certifications, including ABS, DNV, and ATEX, ensure you are getting the highest quality products.

Our long history of designing standard and custom solutions means our products have proven real-world performance. This makes them ideal for Energy, Agriculture, Dynamometer, Forestry, Marine, Metal Forming, Mining, Off-Highway, Paper/Converting, and Steel industry applications.

We are committed to delivering the best customer experience from initial development to long-term maintenance. That is what makes WPT different and why we have become a global leader in the industry.

Contents

▶ Page 2 **Pilotless® Mechanical Power Take-Off**

▶ Page 3 **Pilotless® Over-The-Shaft Power Take-Off**

▶ Page 4 **Automotive-Style Spring Loaded Power Take-Off**

▶ Page 5 **GM®-Style Power Take-Off**

▶ Page 6 **Mechanical Power Take-Off**

▶ Page 7 **OEM Clutch Packs**

▶ Page 8 **Type 2 Air/Hydraulic Power Take-Off**

▶ Page 9 **Type 1 Air/Hydraulic Power Take-Off**

▶ Page 10 **PTO Product Selection Guide**

▶ Page 14 **Python® Hydraulic Clutch Control**

▶ Page 15 **Hydraulic Power Unit**

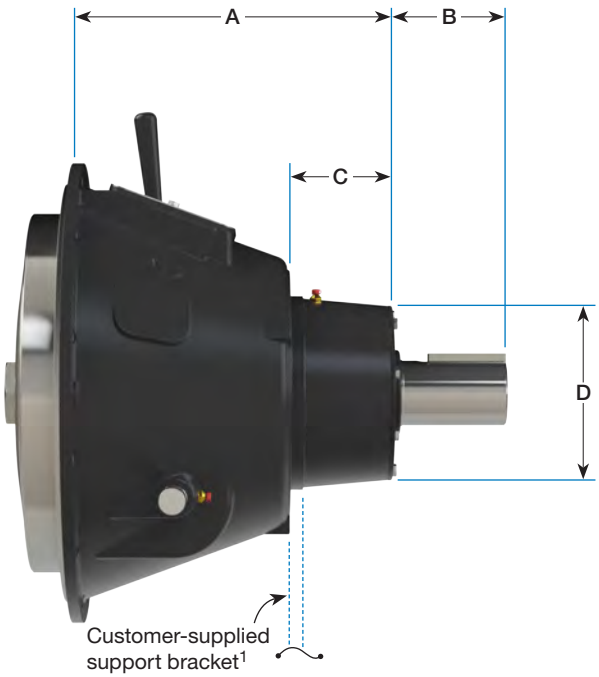
▶ Page 16 **Pump Drive**

▶ Page 19 **Pump Drive Selection Guide**

▶ Page 20 **Custom Units**

Pilotless® Mechanical Power Take-Off

Industrial engine applications are more demanding than ever. Customers need a solution rugged enough to meet those demands, and WPT Power has engineered that solution with the ***WPT Pilotless® Mechanical Power Take-Off.*** This design eliminates the pilot bearing and increases side load capacity over previous generations of PTO products. The WPT Pilotless® Mechanical Power Take-Off will optimize your cost by reducing inventory, increasing uptime and engine life, and simplifying installation time.



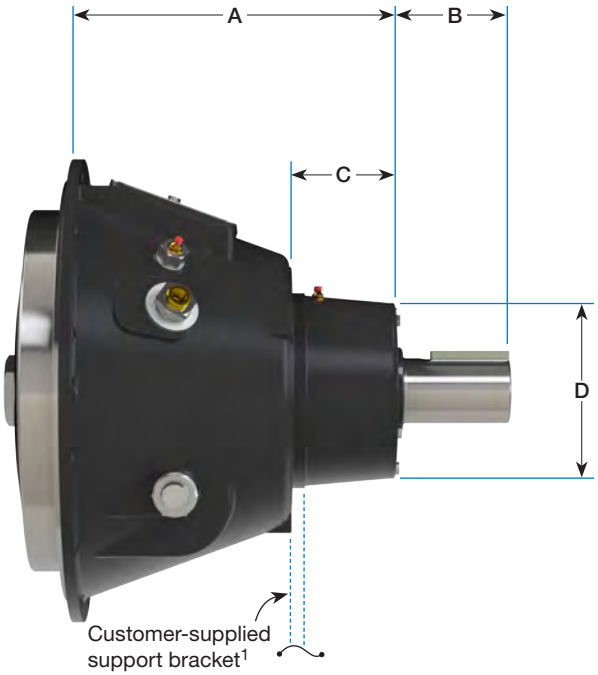
- Dual spherical roller main bearing design.
- Time savings for assembly since no pilot bearing alignment is required.
- Most sizes fit within the envelope of the previous design.
- No direct loading to the engine crankshaft increases the life of engine main bearings.
- No installation-related engine thrust bearing damage.
- 100% equipped with ball-bearing engagement collars.
- Increased side load capacity.

Model	SAE Housings	A	Output Shaft			C	D	Weight	# of Teeth
			B	Diameter	Keyway				
		in (mm)	in (mm)	in (mm)	in	in (mm)	in (mm)	lb (kg)	
WPL 106	5, 4	8 7/16 (214.6)	2 1/8 (55.4)	1.438 (36.53)	3/8 x 3/16	2 7/16 (62.7)	4 7/16 (112.8)	72 (33)	42
WPL 107	5, 4	8 7/16 (214.6)	2 1/8 (55.4)	1.438 (36.53)	3/8 x 3/16	2 7/16 (62.7)	4 7/16 (112.8)	75 (34)	47
WPL 108	4	8 3/8 (213.4)	4 5/8 (118.4)	1.750 (44.45)	1/2 x 1/4	3 (76.7)	4 13/16 (122.9)	88 (40)	51
WPL 110	4, 3	9 3/4 (248.4)	3 15/16 (100.1)	2.250 (57.15)	5/8 x 5/16	3 1/2 (89.4)	5 3/4 (146.1)	125 (57)	63
WPL 111	3	11 7/16 (291.7)	4 1/16 (102.6)	2.250 (57.15)	5/8 x 5/16	11 1/8 (282.7)	5 3/4 (146.1)	162 (73)	72
WPL 211	3, 2	12 9/16 (320.0)	3 5/8 (92.5)	2.500 (63.50)	5/8 x 5/16	4 1/4 (108.0)	6 3/4 (171.5)	218 (99)	72
WPL 311[1]	3, 2	15 3/4 (400.8)	8 (204.0)	3.500 (88.90)	7/8 x 7/16	3 11/16 (94.2)	7 3/4 (196.9)	343 (156)	72
WPL 114	1	13 5/8 (346.2)	5 1/8 (130.6)	3.000 (76.20)	3/4 x 3/8	3 3/4 (95.2)	6 3/4 (171.5)	275 (125)	59
WPL 214[1]	1, 0	16 3/16 (411.5)	7 1/2 (191.8)	3.500 (88.90)	7/8 x 7/16	4 5/16 (110.2)	7 3/4 (196.9)	407 (185)	59
WPL 314[1]	1, 0	17 1/16 (433.1)	7 1/2 (190.5)	3.938 (100.01)	1 x 1/2	3 7/8 (99.6)	8 1/4 (209.6)	470 (213)	59

[1] Support plate for 311, 214, and 314 is required for sideload applications and recommended for inline applications.

Pilotless® Over-the-Shaft Power Take-Off

WPT Power's Pilotless® Over-the-Shaft (OTS) Power Take-Off is engineered to meet the most demanding diesel engine applications. This design eliminates the pilot bearing while increasing side load capacity over competitive units. The OTS PTO is suitable for pneumatic or hydraulic actuation from the side of the housing and can be utilized for in-line or sideload applications. The WPT Pilotless® OTS Power Take-Off will increase uptime, engine life, and simplify installation time.



- Dual spherical roller main bearing design increases side load capacity.
- Self-Adjusting clutch.
- No direct loading to engine crankshaft, which increases the life of engine main bearings.
- Time savings for assembly since no pilot bearing alignment is required.
- For in-line or sideload applications.
- Hydraulic or pneumatic actuation.
- Compatible with the Hydraulic Power Unit.

Model	SAE Housings	A	Output Shaft			C	D	Weight	# of Teeth
			B	Diameter	Keyway				
		in (mm)	in (mm)	in (mm)	in	in (mm)	in (mm)	lb (kg)	
OTS-PL 211	3, 2	12 9/16 (320.0)	4 1/16 (102.6)	2.500 (63.50)	5/8 x 5/16	4 1/4 (108.0)	6 3/4 (171.5)	218 (99)	72
OTS-PL 311[1]	3, 2	15 3/4 (400.8)	8 (204.0)	3.500 (88.90)	7/8 x 7/16	3 11/16 (94.2)	7 3/4 (196.9)	343 (156)	72
OTS-PL 214[1]	1, 0	16 3/16 (411.5)	7 1/2 (191.8)	3.500 (88.90)	7/8 x 7/16	4 5/16 (110.2)	7 3/4 (196.9)	407 (185)	59
OTS-PL 314[1]	1, 0	17 1/16 (433.1)	7 1/2 (190.5)	3.938 (100.01)	1 x 1/2	3 7/8 (99.6)	8 1/4 (209.6)	470 (213)	59

[1] Support plate for 311, 214, and 314 is required for sideload applications and recommended for inline applications.

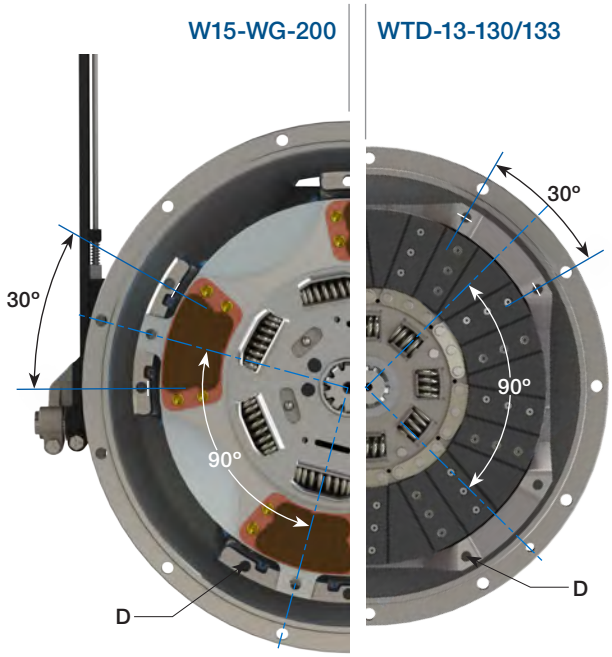
Automotive-Style

W15-WG-200

WTD-13-130/133

Loaded with features and virtually maintenance free, the automotive-style PTO is used with flat-faced flywheels in marine, industrial, construction, brush chipper and irrigation applications.

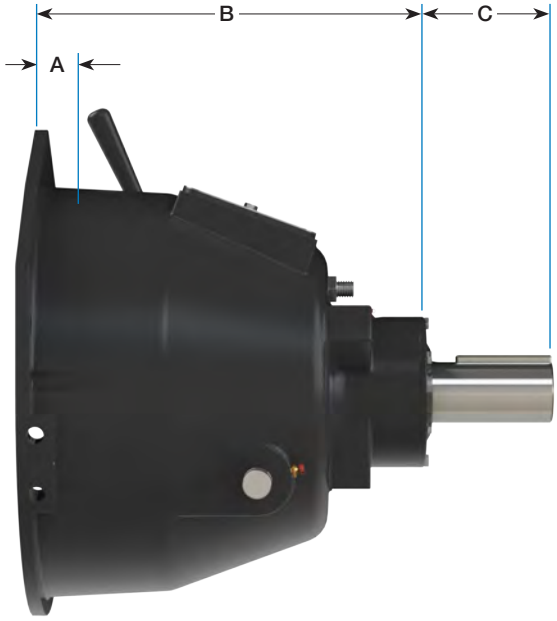
- The troublesome pilot bearing has been eliminated to reduce failures and downtime.
- Torsionally-dampened automotive-style spring-loaded clutch.
- Quick and easy external adjustments.
- The angular contact throwout bearing reduces heat buildup during long idle times.



Model	SAE Housings	A	B	Output Shaft			D Hole			Weight
				C	Diameter	Keyway	Bolt Circle	Qty	Diameter	
		in (mm)	in (mm)	in (mm)	in (mm)	in	in (mm)		in (mm)	lg (kg)
WTD-13-130 WTD-13-133	3	2.56 (65.1)	9 1/8 (231.8)	2 15/16 (74.6)	1.750 (44.45)	3/8 x 3/16	14.13 (358.8)	8	3/8 (9.5)	149 (68)
W15-WG-200	1	2.53 (79.1)	13 3/16 (335.3)	4 1/4 (108.0)	2.500 (63.50)	5/8 x 5/16	16.63 (422.3)	8	1/2 (12)	190 (87)

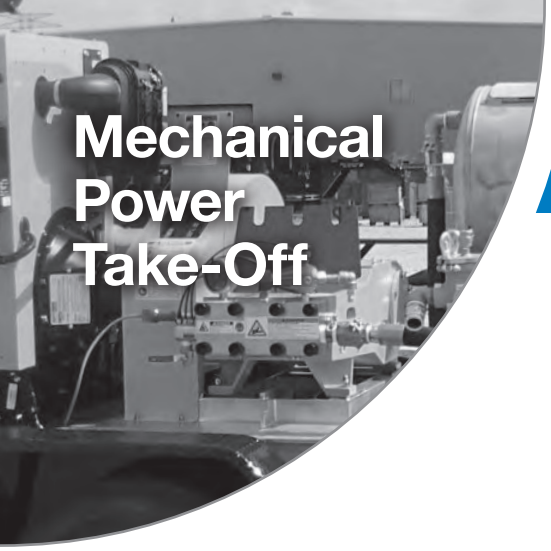
GM®-Style

- GM®-style bellhousing mounts directly to 4.3, 5.7, 6.2, 7.4 & 8.1 liter engines.
- Solid ductile iron bellhousing is built for heavy-duty applications, keeping out weather and other contaminants.
- Heavy-duty adjustment ball screw with jam nut makes adjustments easy.
- Inline or sideload applications.
- Heavy-duty, precision components are made of steel and ductile iron.

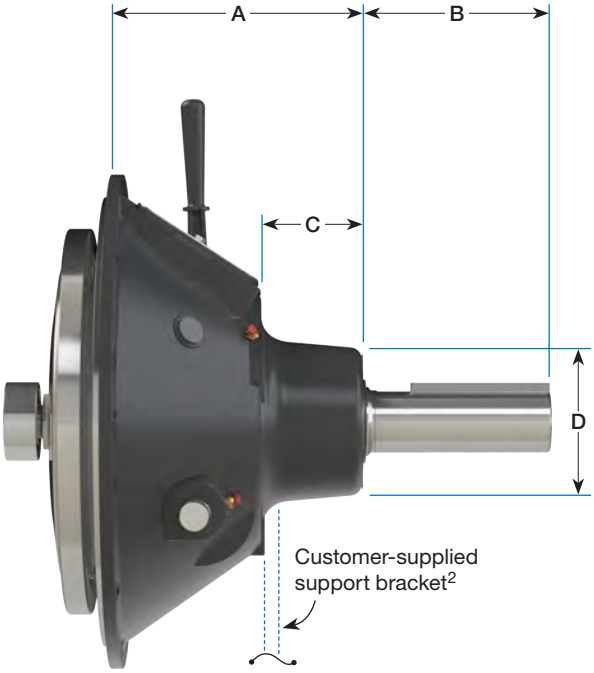


GM® is a registered trademark of the General Motors Company

Model	A	B	Output Shaft			D Hole			Weight
			C	Diameter	Keyway	Bolt Circle	Qty	Diameter	
	in (mm)	in (mm)	in (mm)	in (mm)	in	in (mm)		in (mm)	lg (kg)
GM® Style	1.69 (42.9)	14 7/16 (366.7)	4 7/16 (112.7)	1.750 (44.45)	3/8 x 3/16	12.63 (320.7)	6	3/8 (9.5)	160 (73)
GM® Style HD	1.69 (42.9)	14 7/16 (366.7)	4 7/16 (112.7)	2.250 (57.15)	1/2 x 1/4	12.63 (320.7)	6	3/8 (9.5)	160 (73)



Mechanical Power Take-Off



The WPT® Mechanical Power Take-Off consists of a lever-actuated clutch with a shaft and bearings mounted in a rigid cast housing. The Mechanical PTO is designed for inline and sideload applications on all internal combustion engines with standard SAE industrial flywheel/flywheel housing dimensions.

- Sealed-for-life pilot and throw-out bearings eliminate lubrication-related issues.
- Ductile iron drive rings come standard on all models.
- Custom units available for OEM applications.
- Standard, HD Molded, and HD Laminated friction options.

Model	SAE Housings	A	Output Shaft			C	D	Weight	# of Teeth
			B	Diameter	Keyway				
		in (mm)	in (mm)	in (mm)	in	in (mm)	in (mm)	lb (kg)	
C106[1] C107[1]	5, 4	7 1/8 (181.0)	3 1/2 (88.9)	1.438 (36.53)	3/8 x 3/16	2 1/8 (54.0)	4 5/8 (117.5)	65 (30)	42
C108	5, 4, 3	7 1/8 (181.0)	6 (152.4)	1.750 (44.45)	1/2 x 1/4	2 1/4 (57.2)	5 (127.0)	82 (37)	51
C110	4, 3	8 5/8 (219.1)	5 1/2 (139.7)	2.250 (57.15)	5/8 x 5/16	3 3/4 (95.3)	5 5/8 (142.9)	117 (53)	63
SP111	3, 2, 1	9 1/4 (235.0)	6 1/2 (165.1)	2.250 (57.15)	5/8 x 5/16	3 3/4 (95.3)	5 3/4 (146.1)	143 (65)	72
SP211	3, 2, 1	9 5/8 (244.5)	6 1/2 (165.1)	2.500 (63.50)	5/8 x 5/16	3 (76.2)	6 1/4 (158.8)	157 (71)	72
SP311[2]	3, 2	13 7/8 (352.4)	10 (254.0)	3.500 (88.90)	7/8 x 7/16	3 3/8 (85.7)	7 1/2 (190.5)	233 (106)	72
SP114	1	12 1/8 (308.0)	8 1/2 (215.9)	3.000 (76.20)	3/4 x 3/8	3 3/4 (95.3)	6 5/8 (168.3)	263 (119)	59
SP214[2]	1, 0	13 3/4 (349.3)	10 (254.0)	3.500 (88.90)	7/8 x 7/16	3 3/8 (85.7)	7 1/2 (190.5)	332 (151)	59
SP314[2]	1, 0	14 1/2 (368.3)	10 (254.0)	3.938 (100.01)	1 x 1/2	3 3/8 (85.7)	7 1/2 (190.5)	413 (187)	59
IBF314[2]	1, 0	16 3/4 (425.5)	10 (254.0)	3.938 (100.01)	1 x 1/2	3 5/8 (92.1)	12 1/2 (317.5)	595 (270)	59
SP318[2]	0	18 1/4 (463.6)	10 (254.0)	4.500 (114.30)	1 x 1/2	2 5/8 (66.7)	10 (254.0)	897 (407)	75

[1] Double main bearings

[2] Support plate for 311, 214, and 314 is required for sideload applications and recommended for inline applications. A support plate for 318 is required for both sideload and inline applications.

OEM Clutch Packs

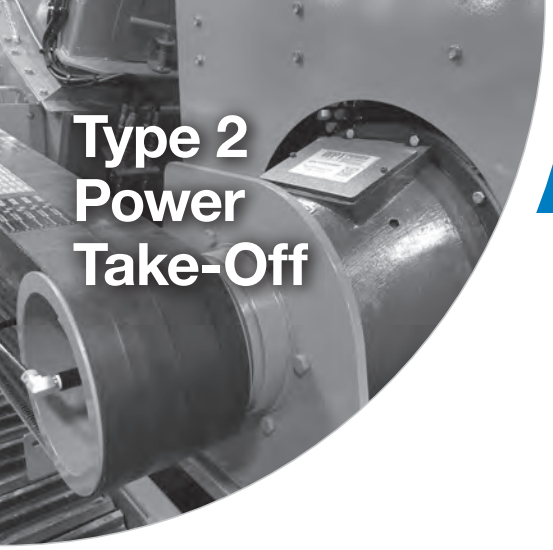
The OEM Clutch Pack is the perfect solution for gearbox manufacturers looking for mechanical, pneumatic, or hydraulic disconnect options. These assemblies are designed to be mounted on the input side of a gearbox. Kits can be customized with different combinations of friction material, drive rings, and bell housings.

WPT provides many clutch pack options for OEM gearbox applications.

- Configurations: 1-, 2-, and 3-plate.
- Available Sizes: 6- through 18-inch (mechanical) and 10- through 21-inch (pneumatic and hydraulic).
- Torque Range: 214 lbf-ft [290 Nm] to 13,500 lbf-ft [18300 Nm].
- Housing Sizes: 5, 4, 3, 2, 1, 0, and 00.

Additional clutch pack features.

- Custom drop-in designs for fast, easy installations.
- Multiple actuation options for flexibility.
- Standard, HD Molded, and HD Laminated friction options.



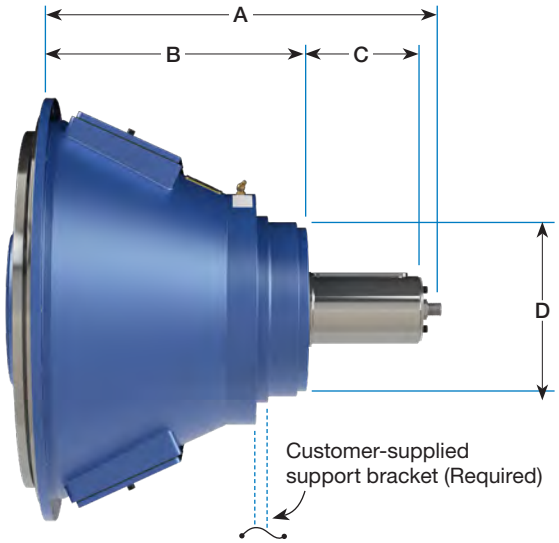
Type 2 Power Take-Off

If you are looking for an innovative, high capacity power take-off, look no further than the WPT® Type 2.

With its versatile design, dry clutch and top-of-the-line spherical roller bearings, the Type 2 PTO has been field-proven in many sideload applications.

The benefits of the WPT Type 2 include the potential for remote engagement, self-adjusting clutch, with air or hydraulic actuation. Heavy-duty gear tooth friction discs are standard on 14” and 18” models. Bearings are lubricated with either grease or oil.

Customers needing maximum capacity in a small package will find the Type 2 an outstanding PTO for their applications.



- The Hydraulic Power Unit (HPU) is the ideal power source for Type 2.
- Python® Hydraulic Clutch Control (HCC) is engineered for smooth engagement with Type 2 PTO.

Model in (mm)	SAE Housings	A	B	Output Shaft			D
				C	Diameter	Keyway	
		in (mm)	in (mm)	in (mm)	in (mm)	in	in (mm)
211/311	3, 2	17 5/16 (439.6)	11 3/16 (284.2)	3 3/8 (85.7)	2.750 (69.85)	5/8 x 5/16	7 3/16 (182.6)
214/314H	1, 0	31 9/16 (801.7)	21 1/16 (535.0)	7 1/4 (184.2)	3.625 (92.08)	7/8 x 7/16	8 1/2 (215.9)
214 Compact	2, 1	20 7/16 (518.6)	20 7/16 (518.6)	5 1/2 (140.0)	2.756 (70.00)	20 mm x 6 mm	9 (228.6)
314H Compact	2, 1			5 11/16 (144.0)	3.542 (90.00)	25 mm x 10.7 mm	9 (228.6)
218	0	31 7/8 (810.3)	20 15/16 (531.5)	7 1/4 (184.2)	3.625 (92.08)	7/8 x 7/16	8 1/2 (215.9)
318	0	33 7/16 (849.3)	22 7/16 (569.2)	7 1/4 (184.2)	3.625 (92.08)	7/8 x 7/16	8 1/2 (215.9)

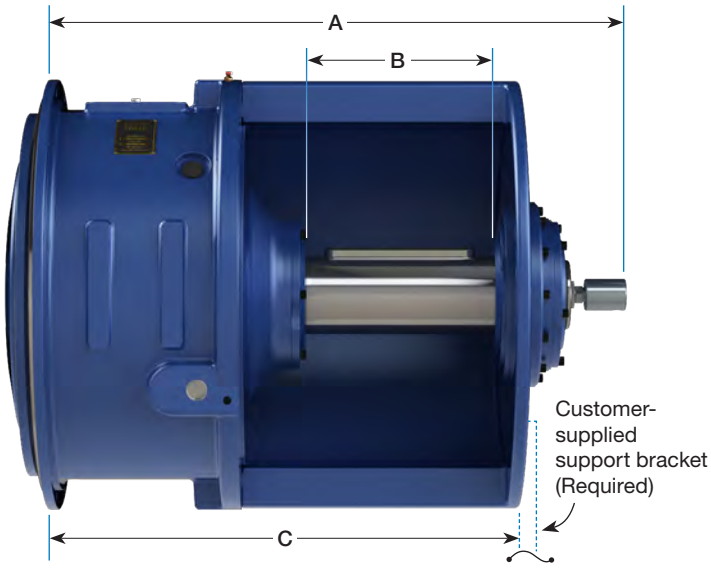
Flange output shafts are available. Contact WPT Applications Engineering for assistance.

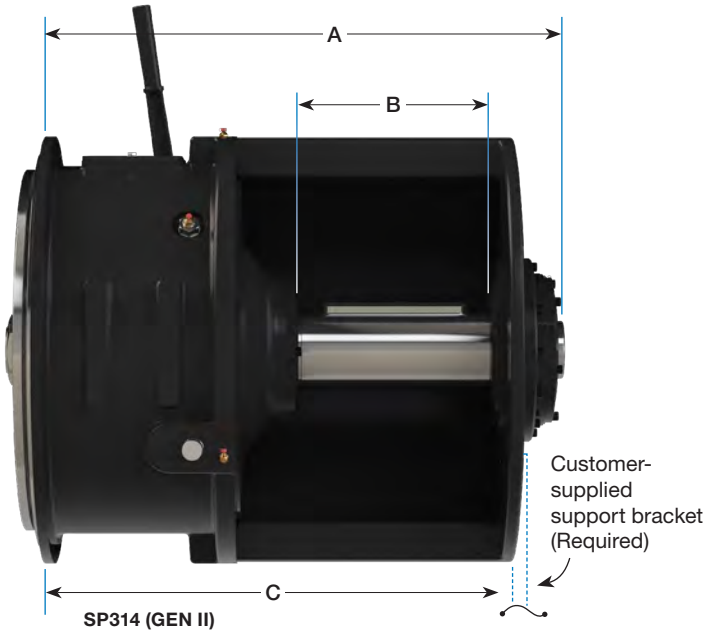
Type 1 Power Take-Off

The Type 1 PTO is one of the most rugged, highest capacity products available on the market today. With the sheave mounted between the bearings, these power take-offs are designed to attain the maximum potential of their massive spherical roller bearings.

Some benefits of the WPT® Type 1 include the potential for remote engagement, self-adjusting clutch, air or hydraulic actuation, heavy-duty gear tooth friction discs, and easy drive belt removal.

Gen II Type 1 PTOs make it possible to house mechanical, hydraulic, or pneumatic clutch packs. In addition, the sheave housing is designed with internal and external pilots, vastly improving the quality and ease of field repairs while increasing uptime.



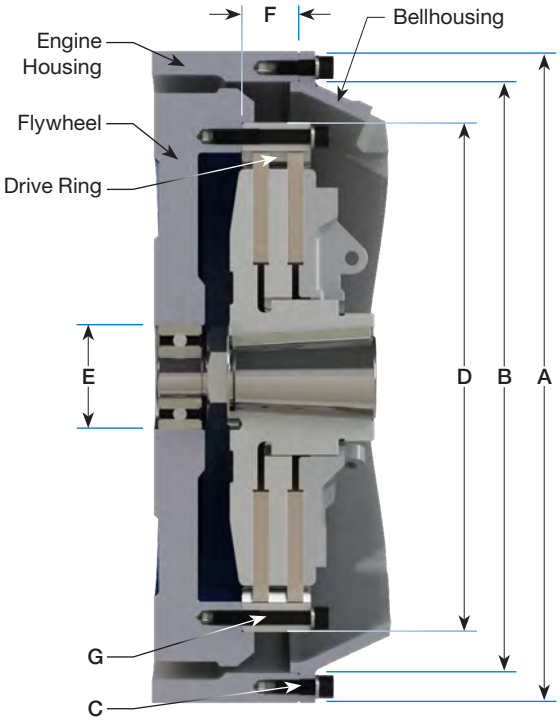


SP314 (GEN II)

Model	SAE Housings	A	Output Shaft			C	Sheave (Customer Supplied)	
			B	Diameter	Keyway		Max Dia	Max Width[1]
		in (mm)	in (mm)	in (mm)	in	in (mm)	in (mm)	in (mm)
314H (GEN II)	1, 0	29 1/2 (749.3)	9 1/2 (241.3)	3.938 (100.00)	1 x 1/2	23 7/8 (606.4)	17 (431.8)	12 7/8 (327.0)
SP314 (GEN II)	1, 0	28 5/16 (718.6)	9 1/2 (241.3)	3.938 (100.00)	1 x 1/2	23 7/8 (606.4)	17 (431.8)	12 7/8 (327.0)
318	0	38 3/4 (984.3)	13 5/16 (338.1)	4.500 (114.30)	1 x 1/2	31 1/2 (800.1)	18 (457.2)	15 5/16 (388.9)
318/Ext Version	0	44 3/4 (1136.7)	19 5/16 (490.5)	4.500 (114.30)	1 x 1/2	37 1/2 (952.5)	18 (457.2)	21 3/8 (542.9)
321	00	44 5/8 (1133.5)	19 15/16 (506.4)	4.750 (120.65)	1 1/4 x 5/8	39 3/4 (1009.7)	23 (584.2)	22 (558.8)
321/Short Version	00	35 5/8 (904.9)	11 (279.4)	4.750 (120.65)	1 1/4 x 5/8	30 3/4 (781.1)	23 (584.2)	13 (330.2)
321/Ext Version	00	47 5/8 (1209.7)	23 (584.2)	4.750 (120.65)	1 1/4 x 5/8	42 3/4 (1085.9)	23 (584.2)	25 (635.0)

[1] Maximum sheave width varies with sheave diameter. The tabulated value is at the maximum sheave diameter.

PTO Product Selection Guide



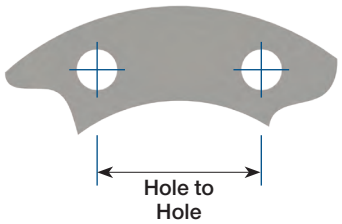
WPT SAE Housing Adapters Available

Part Number	From SAE Engine Housing	To SAE Bellhousing
WTD-00-000	2	4
WTD-00-001	1	2
WTD-00-002	1/2	1
WTD-00-003	0	1
WTD-00-004	00	0

Additional adapters are available upon request.

WPT PTOs meet the mounting requirements of SAE J617 and SAE J620.

Dual or double-drilled flywheels may interfere with PTO. Contact WPT Applications Engineering for assistance on higher capacity or speed rating questions.

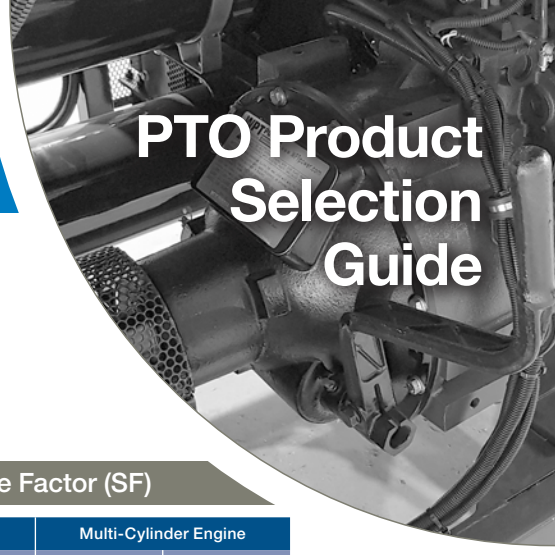


Housing

SAE Housing	A	B Pilot	C			
			Bolt Circle	Qty	Diameter	Hole to Hole
	in (mm)	in (mm)	in (mm)		in (mm)	in (mm)
6	12 1/8 (307.8)	10.500 (266.70)	11.25 (285.8)	8	13/32 (10.3)	4 1/4 (109.4)
5	14 (355.6)	12.375 (314.32)	13.13 (333.4)	8	13/32 (10.3)	5 (127.6)
4	15 7/8 (403.4)	14.250 (361.95)	15.00 (381.0)	12	13/32 (10.3)	3 7/8 (98.6)
3	17 3/4 (450.8)	16.125 (409.58)	16.88 (428.6)	12	13/32 (10.3)	4 5/16 (110.9)
2	19 1/4 (489.0)	17.625 (447.68)	18.38 (466.7)	12	13/32 (10.3)	4 3/4 (120.8)
1	21 3/4 (552.4)	20.125 (511.18)	20.88 (530.2)	12	15/32 (11.9)	5 3/8 (137.2)
1/2	25 1/2 (647.7)	23.000 (584.20)	24.38 (619.1)	12	17/32 (11.5)	6 1/4 (160.2)
0	28 (711.2)	25.500 (647.70)	26.75 (679.5)	16	17/32 (11.5)	5 3/16 (132.6)
00	34 3/4 (882.6)	31.000 (787.40)	33.50 (850.9)	16	17/32 (11.5)	6 1/2 (166.0)

Flywheel

WPT Clutch Size	D Pilot	E (mm)	F	G			
				Bolt Circle	Qty	Diameter	Hole to Hole
	in (mm)		in (mm)	in (mm)		in (mm)	in (mm)
6”	8.500 (215.90)	52	1 3/16 (30.2)	7.88 (200.0)	6	21/64 (8.3)	3 15/16 (100.0)
7”	9.500 (241.30)	52	1 3/16 (30.2)	8.75 (222.3)	8	21/64 (8.3)	3 5/16 (85.1)
8”	10.375 (263.52)	62	2 7/16 (62.0)	9.63 (244.5)	6	13/32 (10.3)	4 3/4 (122.2)
10”	12.375 (314.32)	62 72	2 1/8 (53.8)	11.63 (295.3)	8	13/32 (10.3)	4 7/16 (113.0)
11”	13.875 (352.42)	62 72 80	1 9/16 (39.6)	13.13 (333.4)	8	13/32 (10.3)	5 (127.6)
14”	18.375 (466.72)	72 80 100	1 (25.4)	17.25 (438.2)	8	17/32 (13.5)	6 9/16 (167.7)
18”	22.500 (571.50)	100 120	5/8 (15.7)	21.38 (542.9)	6	21/32 (16.7)	10 11/16 (271.5)
21”	26.500 (673.10)	-	0 (0)	25.25 (641.4)	12	21/32 (16.7)	6 1/2 (166.0)



PTO Product Selection Guide

Step One

Application Service Factor Selection Guide			Service Factor (SF)			
	Duty Service Classification	Typical Applications	Single Cylinder Engine		Multi-Cylinder Engine	
			Up to 10 Hours/Day	Over 10 Hours/Day	Up to 10 Hours/Day	Over 10 Hours/Day
Uniform	Light loads with minimal slip	Centrifugal blowers, compressors, fans, rotary pumps	1.5	1.75	1.25	1.5
Moderate	Medium loads with maximum 3 second slip at engagement	Cone crushers, wood chippers, mine fans, reciprocating pumps, road milling machines and planers	2	2.25	1.75	2
Severe	Heavy loads requiring bump start sequence for engagement	Jaw crushers, tub grinders, dredge/mud pumps, hammer mills, reciprocating compressors, waste recyclers	2.25	2.5	2	2.25

Step Two

Maximum Input Torque

$$T = \frac{hp \times SF}{r/min} \times 5{,}252 = \_\_\_\_\_ \text{ lbf·ft}$$

$$T = \frac{kW \times SF}{r/min} \times 9{,}549 = \_\_\_\_\_ \text{ N·m}$$

$$T = \text{Engine Torque [lbf·ft (N·m)]} \times SF$$

Conversions

Multiply	By	To Obtain
lbf·ft	1.356	N·m
hp	0.746	kW
lbf	0.454	kgf
kg	9.807	N

Step Three

For in-line applications skip to Step Four.

Sideload

$$L = \frac{hp \times F \times SF}{r/min \times D\ (in)} \times 126{,}000 = \_\_\_\_\_ \text{ lbf}$$

$$L = \frac{kW \times F \times SF}{r/min \times D\ (mm)} \times 1{,}947{,}000 = \_\_\_\_\_ \text{ kgf}$$

L = Actual Applied sideload
D = Sheave or Sprocket Diameter
F = Load Factor
- 1.0 for Chain Drive or Gear Drive
- 1.5 for Timing Belts
- 2.2 for All V-belts

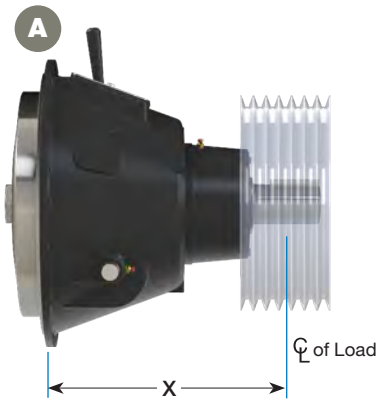
Step Four

See Pages 14 and 15 for PTO Maximum Input Torque, r/min and Sideload ratings.

Additional Notes:

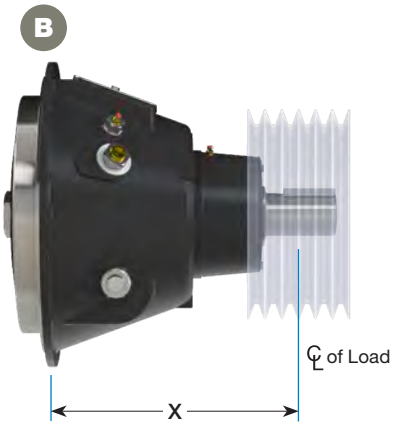
Power Take-Off calculations are for reference only. For full warranty consideration, a data sheet must be turned in to WPT Power and complete review performed by WPT Power Applications Engineering.

Pilotless®/OTS/Automotive Performance Ratings



A Pilotless® Mechanical

"X" Distance Inches (mm) · Allowable Sideload[1] lbf (kgf)						Maximum Input Torque[1] lbf·ft (N·m)	Maximum Speed[1] r/min
Model	r/min	"X"	Sideload	"X"	Sideload		
WPL 106	1800 2500 3500	10 (254)	1,610 (730) 1,610 (730) 1,540 (700)	11 (279)	1,360 (610) 1,360 (610) 1,290 (590)	214 (290)	3500
WPL 107	1800 2500 3200	10 (254)	1,610 (730) 1,610 (730) 1,580 (720)	11 (279)	1,360 (610) 1,360 (610) 1,330 (600)	239 (325)	3200
WPL 108	2100 2400 3100	11 (279)	1,900 (860) 1,900 (860) 1,710 (780)	13 (330)	1,250 (570) 1,250 (560) 1,130 (510)	310 (420)	3100
WPL 110	2100 2300 2500	12 (305)	2,370 (1070) 2,310 (1050) 2,250 (1020)	14 (356)	1,810 (820) 1,780 (810) 1,740 (790)	443 (600)	2800
WPL 111	2100 2300 2500	13 (330)	3,100 (1410) 3,020 (1370) 2,940 (1340)	15 (381)	2,410 (1090) 2,350 (1060) 2,290 (1040)	609 (825)	2500
WPL 211	2100 2300 2500	14 (356)	4,750 (2160) 4,630 (2100) 4,510 (2050)	16 (406)	3,690 (1670) 3,590 (1630) 3,500 (1590)	1220 (1650)	2500
WPL 311	2100 2300 2500	19 (483)	3,670 (1660) 3,570 (1620) 3,480 (1580)	23 (584)	2,500 (1130) 2,430 (1100) 2,370 (1080)	2180 (2960)	2500
WPL 114	1800 2100 2300	16 (406)	3,150 (1430) 3,000 (1360) 2,920 (1330)	18 (457)	2,490 (1130) 2,380 (1080) 2,310 (1050)	1080 (1460)	2300
WPL 214	1800 2100 2300	20 (508)	3,890 (1770) 3,720 (1690) 3,620 (1640)	24 (610)	2,760 (1250) 2,640 (1200) 2,570 (1160)	2160 (2930)	2300
WPL 314	1800 2100 2300	22 (559)	4,040 (1830) 3,850 (1750) 3,750 (1700)	24 (610)	3,420 (1550) 3,270 (1480) 3,180 (1440)	3230 (4380)	2300



B Pilotless® Over-the-Shaft

Model	"X" Distance Inches (mm) Allowable Sideload[1] lbf (kgf)			Maximum Input Torque lbf·ft (N·m) at 100 lbf/in² [7 bar]	Maximum Input Torque[1] lbf·ft (N·m) at 200 lbf/in² [14 bar]	Maximum Speed[1] r/min
	r/min	"X"	Sideload			
OTS-PL 211	2100 2300 2500	14 (356)	4,750 (2160) 4,630 (2100) 4,510 (2050)	702 (948)	2570 (3480)	2500
OTS-PL 311	2100 2300 2500	19 (483)	3,670 (1660) 3,570 (1620) 3,480 (1580)	1030 (1390)	3770 (5110)	2500
OTS-PL 214	1800 2100 2300	20 (508)	3,890 (1770) 3,720 (1690) 3,620 (1640)	2080 (2810)	4970 (6740)	2300
OTS-PL 314	1800 2100 2300	22 (559)	4,040 (1830) 3,850 (1750) 3,750 (1700)	1930 (2610)	4820 (6530)	2300

C Automotive

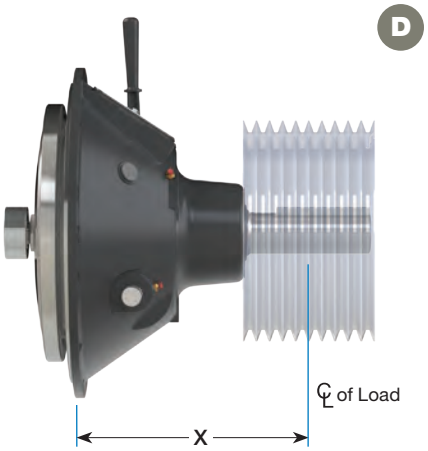
"X" Distance Inches (mm) · Allowable Sideload[1] lbf (kgf)						Maximum Input Torque[1] lbf·ft (N·m)	Maximum Speed[1] r/min
Model	r/min	"X"	Sideload	"X"	Sideload		
WTD-13-130	2000 3000	10 (254)	1,000 (500) 900 (400)	13 (330)	700 (300) 600 (300)	412 (560)	3500 3000
WTD-13-133	2000 3000	10 (254)	2,600 (1200) 2,300 (1000)	13 (330)	1,700 (800) 1,500 (700)	412 (560)	3000
W15-WG-200	2000 3000	10 (254)	1,000 (500) 900 (400)	13 (330)	500 (200) 400 (200)	1650 (2200)	2100
GM® Style	2000 3000	15 (381)	1,000 (500) 900 (400)	18 (457)	700 (300) 600 (300)	386 (523)	3400
GM® Style HD	2000 3000	15 (381)	2,900 (1300) 2,900 (1300)	18 (457)	2,000 (900) 2,000 (900)	386 (523)	3400

[1] Contact WPT Applications Engineering for assistance on higher capacity or speed rating questions.

Mechanical/Type 1/Type 2 Performance Ratings

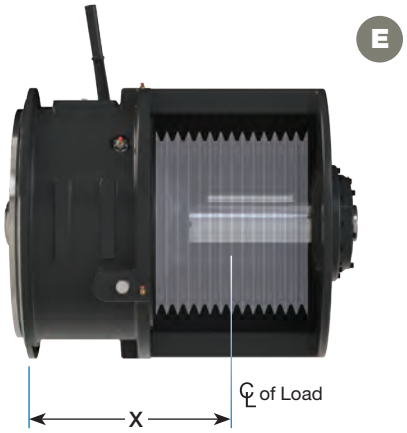
D Mechanical

"X" Distance Inches (mm) · Allowable Sideload[1] lbf (kgf)						Maximum Input Torque[1] lbf·ft (N·m)	Maximum Speed[1] r/min
Model	r/min	"X"	Sideload	"X"	Sideload		
C106 C107	1800 3500	8 (203)	600 (300) 500 (200)	9 (229)	500 (200) 400 (200)	214 (290) 239 (325)	3500 3200
(Double Main Bearings) C106 C107	1800 3200	9 (229)	1,000 (400) 800 (400)	10 (254)	800 (400) 600 (300)	214 (290) 239 (325)	3500 3200
C108	1800 3100	10 (254)	1,300 (600) 1,100 (500)	12 (305)	900 (400) 800 (400)	310 (420)	3100
C110	1800 2800	12 (305)	2,000 (900) 1,700 (800)	14 (356)	1,400 (600) 1,200 (600)	443 (600)	2800
SP111	1800 2500	12 (305)	2,100 (1000) 1,900 (900)	14 (356)	1,500 (700) 1,300 (600)	609 (825)	2500
SP211	1800 2500	13 (330)	2,100 (900) 1,900 (800)	15 (381)	1,500 (700) 1,300 (600)	1220 (1650)	2500
SP311	1800 2300	18 (457)	2,000 (900) 1,900 (900)	22 (559)	1,300 (300) 1,200 (500)	2180 (2960)	2300
SP114	1800 2300	16 (406)	2,000 (900) 2,200 (1000)	22 (508)	1,200 (500) 1,400 (600)	1080 (1460)	2300
SP214	1800 2300	18 (457)	2,900 (1300) 2,300 (1000)	20 (559)	1,200 (500) 1,400 (700)	2160 (2930)	2300
SP314 (80 mm PB)	1800 2300	19 (483)	2,700 (1200) 2,500 (1100)	23 (584)	1,700 (800) 1,500 (700)	3230 (4380)	2300
SP314 (100mm PB)	1800 2800	19 (483)	3,800 (1700) 3,800 (1700)	23 (584)	2,500 (1100) 2,400 (1100)	3230 (4380)	2300
IBF314	1800 2300	22 (559)	5,500 (2500) 6,000 (2700)	27 (686)	4,600 (2100) 5,000 (2300)	3230 (4380)	2300
SP318	1800 2100	23 (584)	6,020 (2730) 6,340 (2880)	27 (686)	3,910 (1770) 4,110 (1860)	8080 (11000)	2100



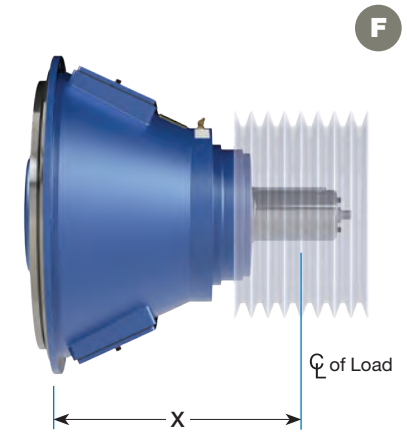
E Type 1

"X" Distance Inches (mm) · Allowable Sideload[1] lbf (kgf)						Maximum Input Torque[1] lbf·ft (N·m)	Maximum Speed[1] r/min
Model	RPM	"X"	Sideload	"X"	Sideload		
314H (GEN II) SP314 (GEN II)	1800 2300	17 (432)	15,100 (6900) 14,100 (6400)	19 (483)	12,400 (5600) 11,500 (5200)	3,800 (5100)	2300
318	1800 2100	22 (559)	28,300 (12800) 27,000 (12300)	26 (660)	21,700 (9900) 19,800 (9000)	7,100 (9600)	2100
321	1200 1800	28 (711)	31,700 (14400) 28,800 (13100)	32 (813)	24,400 (11100) 22,200 (10100)	13,500 (18300)	1800



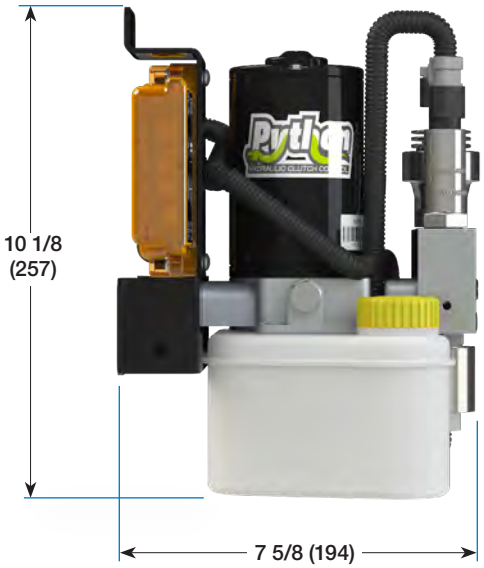
F Type 2

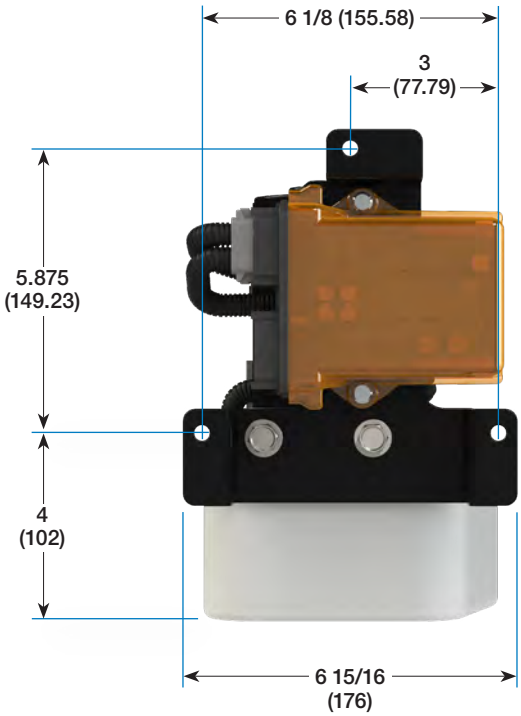
"X" Distance Inches (mm) · Allowable Sideload[1] lbf (kgf)						Maximum Input Torque[1] lbf·ft (N·m)	Maximum Speed[1] r/min
Model	r/min	"X"	Sideload	"X"	Sideload		
211	2100 2500	12 (305)	3,500 (1600) 3,300 (1500)	15 (381)	2,400 (1100) 2,300 (1000)	1,300 (1800)	2500
311	2100 2500	12 (305)	3,500 (1600) 3,300 (1500)	15 (381)	2,400 (1100) 2,300 (1000)	1,900 (2600)	2500
214H Compact	1800 2300	16 (406)	5,300 (2400) 5,300 (2400)	19 (483)	3,800 (1700) 3,500 (1600)	2,500 (3400)	2300
214H	1800 2300	23 (584)	8,000 (3600) 7,600 (3500)	29 (737)	5,500 (2500) 5,300 (2400)	2,500 (3400)	2300
314H Compact	1800 2300	16 (406)	5,300 (2400) 5,300 (2400)	19 (483)	3,800 (1700) 3,500 (1600)	3,800 (5100)	2300
314H	1800 2300	23 (584)	8,000 (3600) 7,600 (3500)	29 (737)	5,500 (2500) 5,300 (2400)	3,800 (5100)	2300
218	1800 2300	23 (584)	8,000 (3600) 7,600 (3500)	29 (737)	5,500 (2500) 5,300 (2400)	4,700 (6400)	2100
318	1800 2300	23 (584)	8,000 (3600) 7,600 (3500)	29 (737)	5,500 (2500) 5,300 (2400)	7,100 (9600)	2100
318 Heavy Duty	1800 2100	17 (432)	16,600 (7500) 15,800 (7200)	20 (508)	12,000 (5400) 11,500 (5200)	7,100 (9600)	2100



[1] Contact WPT Applications Engineering for assistance on higher capacity or speed rating questions.

Python® Hydraulic Clutch Control





WPT Power's patented Python® Hydraulic Clutch Control is the perfect product for any equipment with an engine that struggles during machine startup. With the push of a button, our Python® will smoothly engage any WPT Type 1 and Type 2 Power Take-Off to accelerate the most demanding loads. It eliminates the need for bump starting heavy loads, which can stall or damage the engine. This product was designed and tested alongside seasoned experts in the Off-Highway Equipment industry and was specially engineered for applications with high inertia loads. WPT Power's patented Python® is perfect for the OEM as well as the end user.

- Voltage: 12 or 24 VDC .
- Pressure: 500 psi [35 bar].
- Ambient Temperature: -10 F [-25 C] to 110 F [43 F].
- Applicable Products: Type 1 and Type 2 PTOs.

Additional Python® features.

- Eliminates operator-related engagement abuse.
- Maximizes the clutch's wear component life.
- Optimizes clutch engagement for smooth operation.
- Can be easily integrated into OEM control systems.
- Self-contained unit. No need for machine hydraulics.
- Compatible with SAE J1939 engine connections.

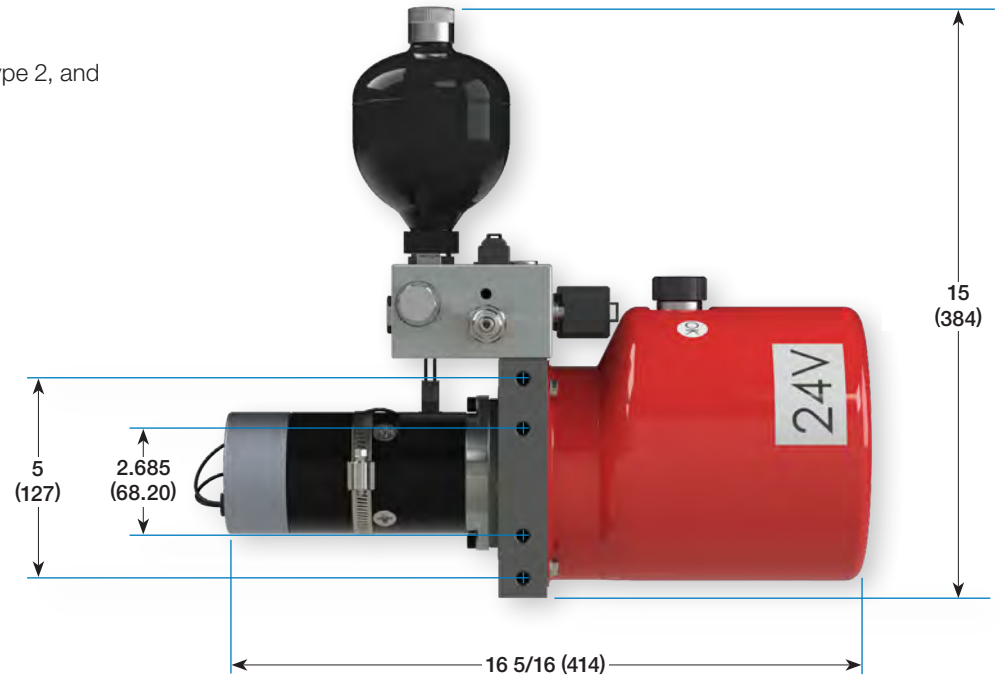
Hydraulic Power Unit

WPT Power's self-contained Hydraulic Power Unit (HPU) is the ideal power source to operate any WPT Hydraulic Power Take-Off. Available in 12VDC or 24VDC, the WPT HPU is designed to simplify installation and minimize maintenance. All WPT Hydraulic Power Packs are factory-set to the pressure requirements of your PTO application.

- Voltage: 12 or 24 VDC.
- Pressure Range: 160 psi [11 bar] to 675 psi [47 bar].
- Flow: 1.4 gal/min [5.3 l/min].
- Applicable Products: Type 1, Type 2, and OTS PTOs.

Additional HPU features.

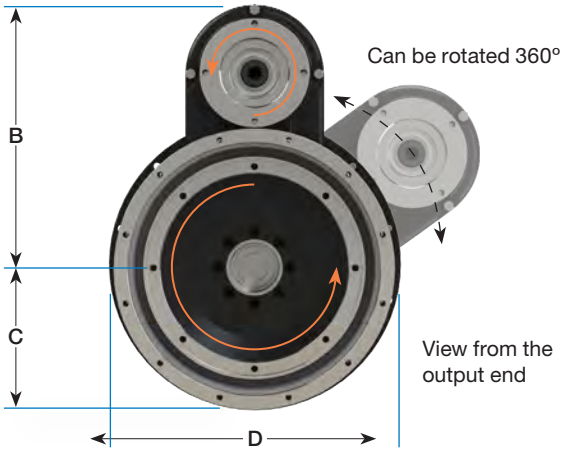
- Large 0.8 gal (3L) tank.
- Lockout/Tagout is easy with removable key.
- Thermal Overload Protection as standard.



Pump Drive

Mounted between the power take-off and the engine, the WPT® Power Pump Drive (PPD) is a rugged and versatile unit providing for multiple live or clutched pumps. As the PPD is self-contained, no external lubrication is required. Flexible couplings on the input side dampen torsional vibrations and are standard on all WPT PPDs.

The Power Pump Drive can be provided with a variety of SAE engine housings, power take-off clutches, SAE pump drives and accessories. All units mount to standard SAE flywheel housings and provide up to 8 pump mounting faces. An internal heat exchanger can be added as required.



WPD-03

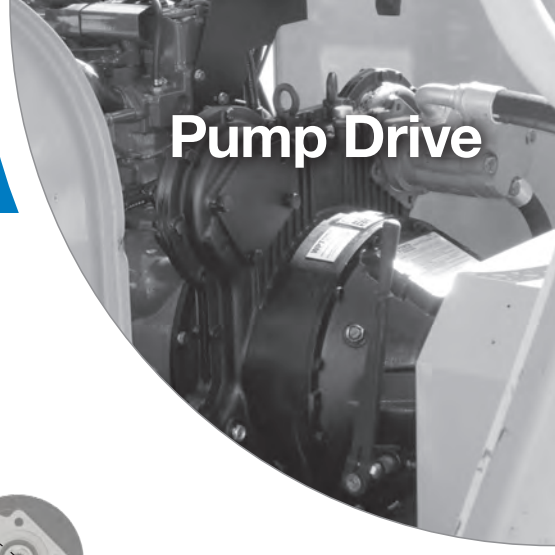
SAE Input	SAE Output	A in (mm)	B in (mm)	C in (mm)	D in (mm)
#5 - 7 1/2	#4M - 10	8 5/8 (218.5)	15 1/2 (393.0)	7 (178.0)	15 7/8 (404.0)
#4 - 10				7 15/16 (202.0)	
#3 - 11 1/2				8 7/8 (225.5)	

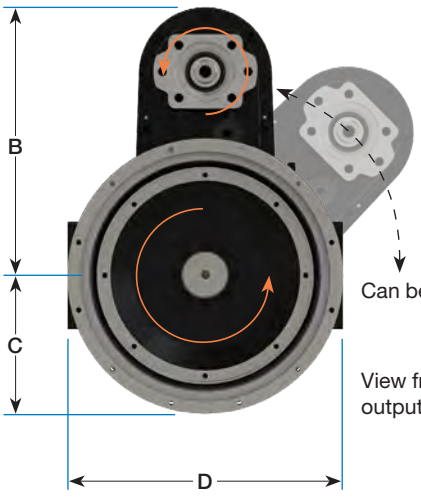
Available in SAE B

Maximum Input Speed r/min	Maximum Input Torque lbf·ft (N·m)	Head hp (kW)[1]	Head Ratio	Weight lb (kg)
3000	230 (310)	58 (43)	1 : 1	110 (50)
	413 (560)			
	413 (560)			

[1] Rated at maximum input speed.

Pump Drive





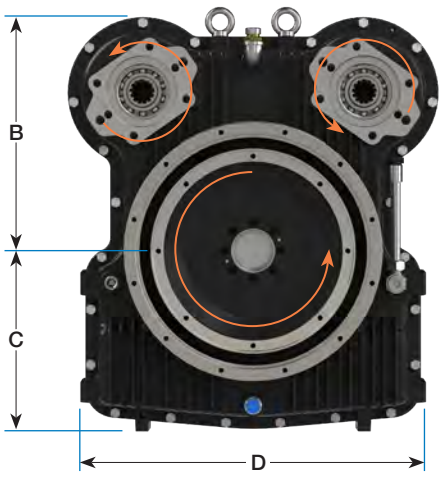
WPD-05

SAE Input	SAE Output	A	B	C	D
		in (mm)	in (mm)	in (mm)	in (mm)
#4 - 10	#4M - 10	9 3/4 (247.0)	18 (460.0)	8 15/16 (223.0)	17 7/8 (454.0)
#3 - 11 1/2	#3M - 11 1/2	9 1/3 (237.0)			

Available in SAE B

Maximum Input Speed r/min	Maximum Input Torque	Head	Head Ratio	Weight
	lbf·ft (N·m)	hp (kW)[1]		lb (kg)
3000	410 (560)	120 (90)	1 : 0.93	160 (73)
	630 (860)			

[1] Rated at maximum input speed.



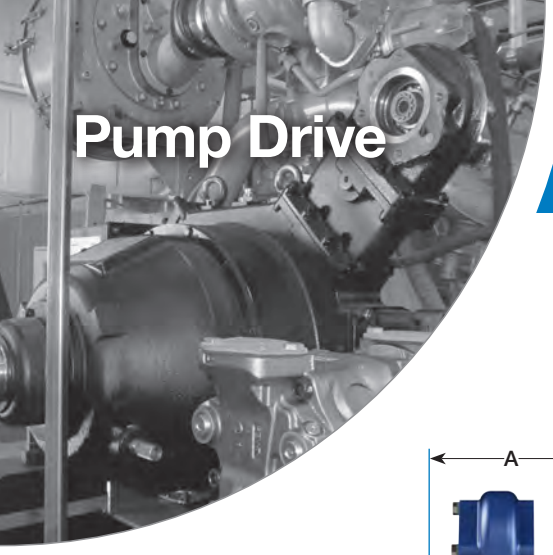
WPD-00

SAE Input	SAE Output	A	B	C	D
		in (mm)	in (mm)	in (mm)	in (mm)
#3, #2 - 11 1/2	#3M - 11 1/2	10 1/8 (257.0)	16 5/8 (422.0)	12 13/16 (325.0)	24 7/16 (620.0)
#1 - 14		11 1/8 (282.0)			

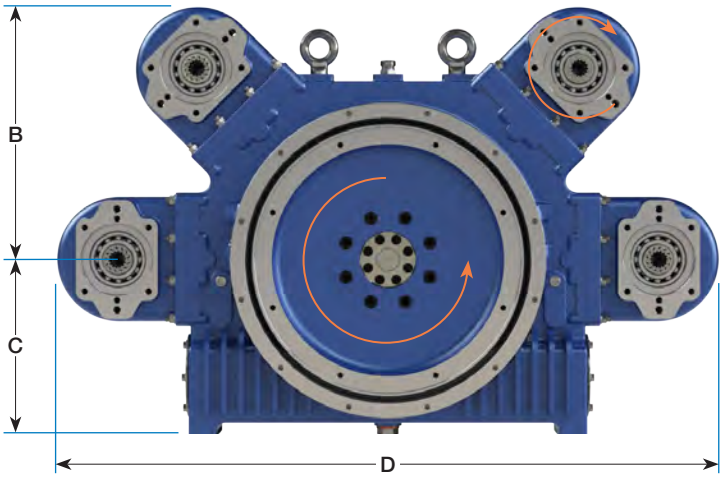
Available in SAE B, B-B, C, D, E (spline only)

Maximum Input Speed r/min	Maximum Input Torque	Total Head	Single Head	Head Ratio	Weight
	lbf·ft (N·m)	hp (kW)[1]	hp (kW)[1]		lb (kg)
2600	1475 (2000)	235 (175)	160 (120)	1 : 1	430 (195)

[1] Rated at maximum input speed.



Pump Drive



View from the output end

WPD-01

SAE Input	SAE Output	A	B	C	D
		in (mm)	in (mm)	in (mm)	in (mm)
#1 - 14	#1M - 14	12 3/16 (310.0)	18 (456.5)	12 7/16 (315.0)	47 1/8 (1197.0)

Available in SAE B, B-B, C, D, E (spline only)

Maximum Input Speed r/min	Maximum Input Torque	Total Head	Single Head	Head Ratio[2]	Weight
	lbf·ft (N·m)	hp (kW)[1]	hp (kW)[1]		lb (kg)
2200	2470 (3350)	400 (300)	160 (120)	1 : 1	770 (350)
				1 : 0.88	

[1] Rated at maximum input speed.
[2] Head ratios other than 1:1 are speed increasing

WPD-02

SAE Input	SAE Output	A	B	C	D
		in (mm)	in (mm)	in (mm)	in (mm)
#1 - 14	#0M - 18	14 3/4 (374.0)	19 3/4 (502.0)	16 3/8 (415.0)	52 3/16 (1326.0)
#0 - 18		14 5/16 (363.0)			

Available in SAE B, B-B, C, D, E (spline only)

Maximum Input Speed r/min	Maximum Input Torque	Total Head	Single Head	Head Ratio[2]	Weight
	lbf·ft (N·m)	hp (kW)[1]	hp (kW)[1]		lb (kg)
2100	4650 (6300)	535 (400)	235 (175)	1 : 0.95	1170 (530)

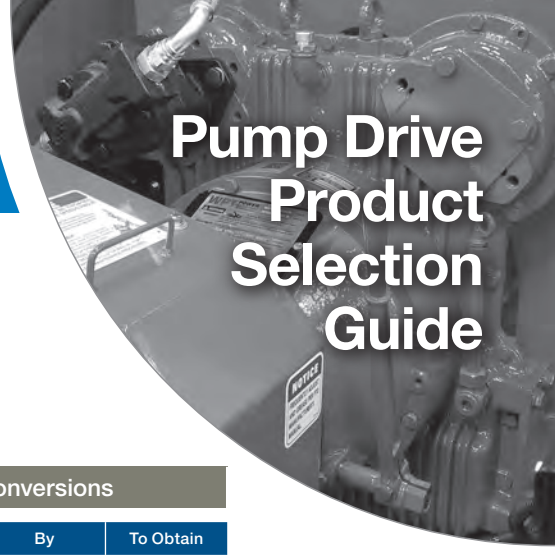
[1] Rated at maximum input speed.
[2] Head ratios other than 1:1 are speed increasing

Optional Accessories

Head PTO

Oil Actuated Clutch

Head Extension



Pump Drive Product Selection Guide

Step One

Maximum Input Torque

$$T = \frac{hp}{r/min} \times 5{,}252 = \_\_\_\_\_ \text{ lbf·ft}$$

$$T = \frac{kW}{r/min} \times 9{,}549 = \_\_\_\_\_ \text{ N·m}$$

$$T = \text{Engine Torque [lbf·ft (N·m)]} \times SF$$

Conversions

Multiply	By	To Obtain
lbf·ft	1.356	N·m
hp	0.746	kW
lbf	0.454	kgf
kg	9.807	N

Step Two

Hydraulic Pump Service Factor Guide

Pump Type	Service Factor (SF)
Piston Plunger	1.8
Vane Gear	1.5
Centrifugal	1.0

Step Three

Single Head Nº 1[1] = $P_1 \times SF_1 \times PU_1 + P_2 \times SF_2 \times PU_2 + \ldots + P_n \times SF_n \times PU_n$

Single Head Nº 2[1] = $P_1 \times SF_1 \times PU_1 + P_2 \times SF_2 \times PU_2 + \ldots + P_n \times SF_n \times PU_n$

Single Head Nº 3[1] = $P_1 \times SF_1 \times PU_1 + P_2 \times SF_2 \times PU_2 + \ldots + P_n \times SF_n \times PU_n$

Single Head Nº 4[1] = $P_1 \times SF_1 \times PU_1 + P_2 \times SF_2 \times PU_2 + \ldots + P_n \times SF_n \times PU_n$

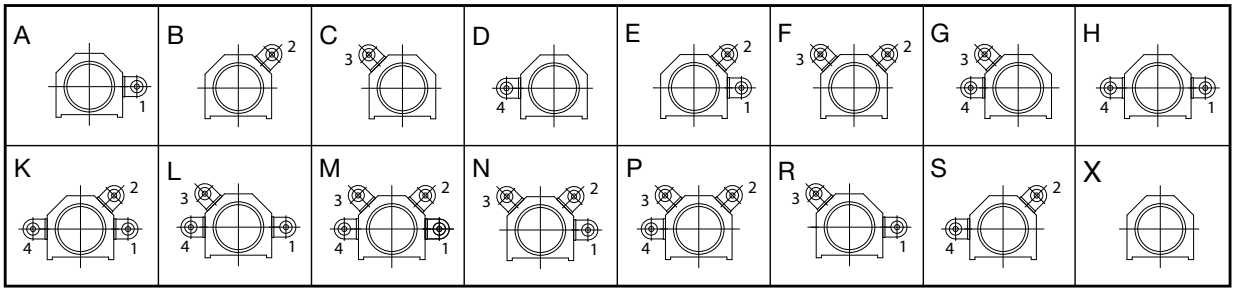
Total Head[1] = Sum of All Heads from Step 3

Definitions:
P = Hydraulic Pump Absorbed Power
SF = Pump Service Factor
PU = Percent of Power Used by Pump
n = Number of Pumps on Head

Note 1: Single and Total Head calculations may exceed the rating for Pump Drive depending on duty cycles or pump modes. Please contact WPT Power Applications Engineering for details.

Step Four *For WPD-01 and WPD-02 only!*

View from Y side



Step Five *See Pages 16, 17, 18 for Pump Drive Maximum Input Torque, r/min, and Head Ratings.*

Additional Notes:

1. Power Pump Drive calculations are for reference only. For full warranty consideration, a data sheet must be turned in to WPT Power and a complete review performed by WPT Power Applications Engineering.
2. Power Pump Drive models WPD-01 and WPD-02 may require a Cooling Package and Circulation Kit. Please contact WPT Power Applications Engineering for details.
3. Pump Drive assemblies require a Torsional Vibration Analysis (TVA) for proper flexible input coupling selection. Additional information will be required to perform the TVA.

Custom OEM Solutions

At WPT Power, custom engineering means developing a solution tailored to our customer's challenges. That solution can be the development of a new product, or a modification of existing technology. The scope of the project can be broad to extremely detailed. WPT's sales and engineering teams work directly with the customer to design a solution to meet the application requirements. If you don't see a standard WPT product that fits your application, please contact us today to discuss custom clutch, brake, power take-off, winch, and rotation gearbox options.

▶ P11-23AB-002

Designed for very high tension and torque applications, this heavy-duty PTO will carry close to 3 times the belt tension of comparably sized PTOs.

▶ W15-CG-345

This hydraulically actuated PTO features an integrated rubber input coupling to dampen vibrations in the drivetrain. It is custom-designed to meet both the performance and envelope requirements of a major road building equipment manufacturer.

▶ W15-CG-325

Designed for proper sheave location while still having the capacity for very high belt tension.

▶ W10-CG-101

The WPT Hydro-Mechanical PTO was designed for side-load applications where a customer needs hydraulic engagement in a mechanical PTO sized package. This PTO requires no adjustment for the life of the product. It also replaces competitive thrust-bearing design PTOs requiring precision pressure control using a high-reliability low-maintenance clutch, pressure insensitive actuator, and rotating union.

Application Photos

Irrigation Pumping Station

WPT 11” Pilotless® Mechanical Power Take-Off.

Portable Horizontal Impact Plant

WPT 314H Hydraulic Power Take-Off with patented Python® Hydraulic Clutch Control System.

Self Contained Loader Mount Snow Blower

WPT 14” Mechanical Power Take-Off.

Track Mounted Brush Chipper

WPT model WPD-00 Pump Drive with SP211 “chipper” PTO.

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