PVP Medium High Pressure Hydraulic Piston Pump

This document is intended to serve as a high-level guide to service PVP Medium HIgh Pressure Hydraulic Piston Pumps.



Contact Information:

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Product Features:

- Provides durable variable volume
- Medium pressure
 applications
- Pressure rating of 3,600 psi
- Wide range of controls
- Efficient and reliable
- High strength cast-iron housing
- Low noise levels
- Thru-shaft capability
- Two piece housing for ease of service



PVP Service

The parts selection process starts with the complete model code of the pump. The complete model code will include the design number which designates the end of the model code. If there is an "X" followed by four digits (ex: X4004) please contact the division. The pump catalog can also be used to identify the different characters in the model code.

For our example we will use model code PVP1630BR2M<u>12</u> and we will be looking for the shaft seal, shaft assembly, seal kit, rotating group, and compensator.

The part number PVP1630BR2M12 contains the design of the pump "12". The brochure will look like the following, and will match the design number.

Bulletin PM 1620-12-M1/USA

Parker Pumps Parts & Service

Revised: May 1998

PVP Series Variable Volume Piston Pump Service Bulletin

Model PVP16 **** 12

The service brochure will show the internal pump parts, service part numbers, and service hints. Refer to the picture below for some of the pump terminology.



The parts are identified with numbered "balloons". For example, the balloon #40 identifies the shaft while the balloon #60 identifies the shaft seal.



Some of the larger part kits are detailed in separate areas of the brochure. Typically, each pump family has the same service brochure layout.

The compensator is identified in the model code PVP1630BR2 \underline{M} 12



REMOTE CONTROL OPTION"M REQUIRED W/POWER OPTION "H" ITEM 62

The service brochure will have page(s) that include the balloon number, the part number, quantity, and a description.

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		TEM	PART NUMBER	QTY	DESCRIPTION
P		1	788014	1	SWASH PLATE ASSY
		2	786999	2	TRUNNION PIN
		3	786995	1	SLIPPER PLATE
		4	786994	1	SLIPPER RETAINER
	>	5	786985	9	PISTON ASSEMBLY
		6	787896	1	BARREL ASSEMBLY
		7	787004	2	TRUNNION BEARING
		8			

The main section of part numbers will have the model code along the top of the page, and lines connecting the model code character to boxes containing the parts. Sometimes there are more than one line.

Our shaft assembly is #40 and is designated by model code letter "B" (PVP1630BR2_M12). The model code description on top of the page shows a line from the "shaft option" going to the box containing the shaft part-numbers.



There is also a connection to the thru drive designation of either "omit" or "6" that effects the part number of the shaft. (PVP1630**B**R2_M12) Since our pump is a "B" shaft and an "omit" thru drive the part number is 787434 quantity 1 ea.





	OMIT	40	787432	1	SHFT ASSY,3/4 STR.
OMIT	6	40	787433	1	SHFT ASSY, 3/4 STR, THRU
	MD	40	787434	1	SHFT ASSY,9T-16/32
	6	40	787435	1	SHFT ASSY,9T-16/32-THRU
	OMIT	40	787436	1	SHFT ASSY,11T-16/32
	6	40	787437	1	SHFT ASSY,11T-16/32-THRU
ĸ	OMIT	40		1	SHFT ASSY,18MM STR,
	9	40		1	SHFT ASSY,18MM STR.THRU

Since our pump is a "B" shaft and an "omit" thru drive the part number is 787434 quantities 1 ea.

For our shaft seal #60 it matches the seal location in the model code (omit), has a part number of 787003, and has a quantity of 1 pc.

	60	787003	1	SHAFT SEAL - BUNA
ом	т 31	108X2	1	PLUG
	32	2022N-7	2	O-RING
	60	787084	1	SHAFT SEAL - VITON
v	31	108X2V	1	PLUG
	32	2022V-7	2	O-RING

The compensator is identified in the model code PVP1630BR2<u>M</u>12. It is located in a couple of areas because there is a connection between different compensators. Below is the "M" compensator and the relationship with the "H" compensator.



The compensator requires PVP16<u>30</u>BR2<u>M</u>12 the code for the compensator, the pressure range, and the seal type.



				_			
		1	100	00 PSI MAX COMP SETTING			
T F			2	200	2000 PSI MAX COMP SETTING		
			3	300	00 PSI MAX COMP SETTING		
			36	360	00 PSI MAX COMP SETTING		
	OMIT	61	787010〇-*	1	STANDARD COMP ASSY		
	М	62	787028〇-*	1	REMOTE COMP ASSY (INT)		
	ME	63	787029〇-*	1	REMOTE COMP ASSY (EXT)		
	Α	64	787027〇-*	1	LOAD SENSE COMP ASSY		
3)	н	65	787501〇	1	HORSEPOWER ASSEMBLY		
		62	787028〇-*	1	REMOTE COMP ASSY (INT)		
3)	С	65	787501()	1	HORSEPOWER ASSEMBLY		
		64	787027〇-*	1	LOAD SENSE COMP ASS'Y		
	VO	-	SEE ABOVE	1	USE STD 'OMIT' CONTROL		
	VM	-	SEE ABOVE	1	USE 'M' CONTROL		
	١/٨			4			

The seal in our example is the "omit".



The seal kit is typically in the note section and requires the type of seal and the design number. The part number would typically be SKPVP1612.





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The rotating group is shown in the pump drawing, and it is comprised of balloon numbers 46,6,11,10,4,5, and 3. The rotation "R" or "L" needs to be obtained from the model code.



In our example PVP1630BR2M12 the rotation is "R" so our part number would be RRKPVP16R12.



For further assistance please contact Technical Services Ph: 937-644-3915.