



# OPTIMUM W SERIES SERVICE PARTS

**NOTES:**

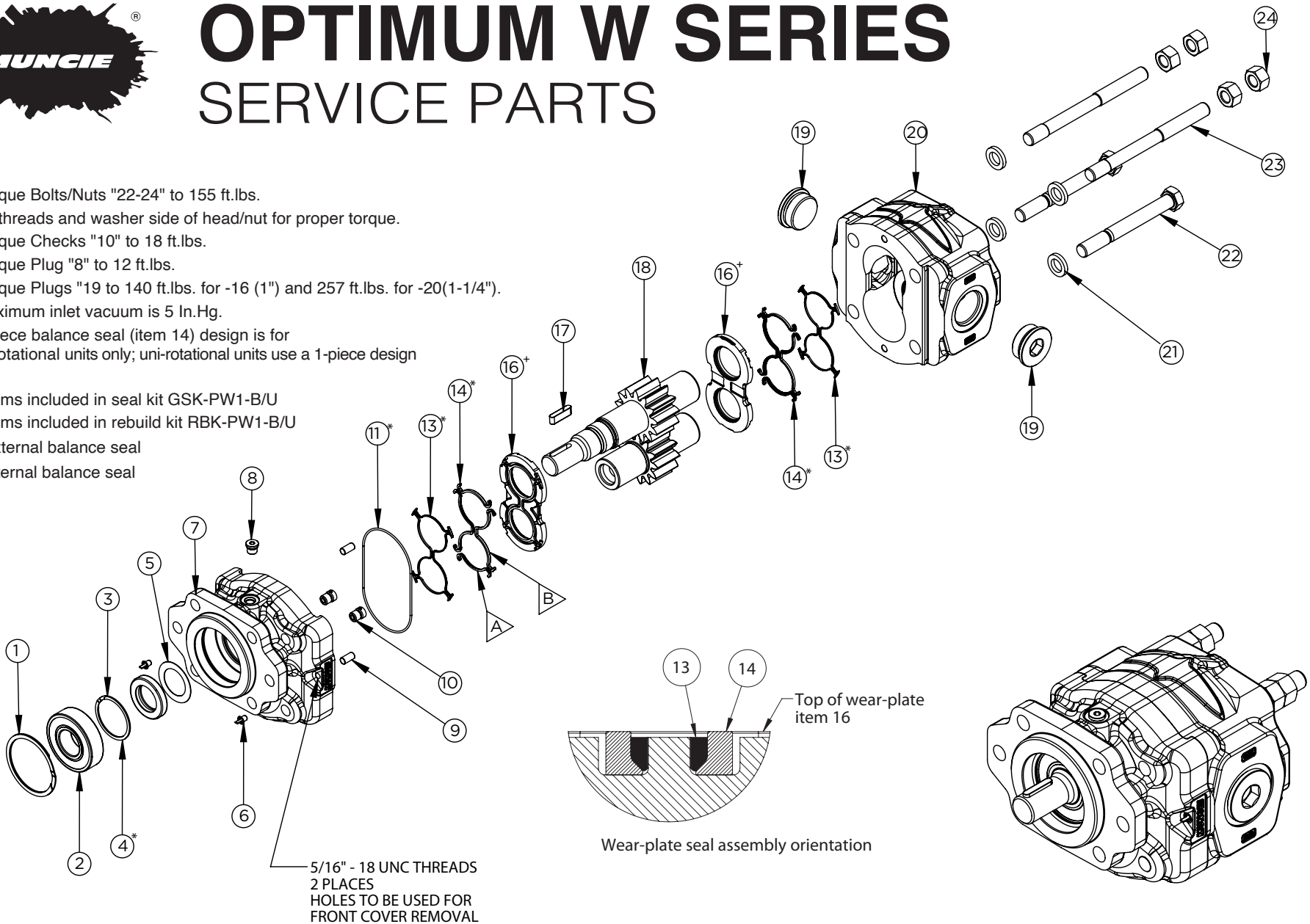
- Torque Bolts/Nuts "22-24" to 155 ft.lbs.
- Oil threads and washer side of head/nut for proper torque.
- Torque Checks "10" to 18 ft.lbs.
- Torque Plug "8" to 12 ft.lbs.
- Torque Plugs "19 to 140 ft.lbs. for -16 (1") and 257 ft.lbs. for -20(1-1/4").
- Maximum inlet vacuum is 5 In.Hg.
- 4 piece balance seal (item 14) design is for bi-rotational units only; uni-rotational units use a 1-piece design

\* Items included in seal kit GSK-PW1-B/U

\*,+ Items included in rebuild kit RBK-PW1-B/U

▷ External balance seal

▽ Internal balance seal



A Member of the Interpump Group

SP12-02 (Rev. 04-21)

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# OPTIMUM W-SERIES SERVICE PARTS

Item	Description	Qty	Muncie Number	Item	Description	Qty	Muncie Number	Item	Description	Qty	Muncie Number
1	Outboard Bearing Snap Ring .....	1	PL1-1001	Versatile <sup>B</sup> Gear Set, SAE "BB" 1.0" - 15T Spline				Split Flange Ports, Side Only			
2	Outboard Bearing .....	1	PL1-1002	06 GPM.....	1	PW1-1016-S17-06TV-2		06 GPM, 1.50SF x 1.0SF ...1			PW1-1125-06-FIVX
3	Shaft Seal Snap Ring .....	1	PL1-1004	08 GPM.....	1	PW1-1016-S17-08TV-2		08 GPM, 1.50SF x 1.0SF ...1			PW1-1125-08-FIVX
4	Shaft Seal High Pressure (GFN) ..1		PL1-1005	11 GPM.....	1	PW1-1016-S17-11TV-2		11 GPM, 1.50SF x 1.0SF ...1			PW1-1125-11-FIVX
5	Seal Retainer.....	1	PX1-1002D	13 GPM.....	1	PW1-1016-S17-13TV-2		13 GPM, 1.50SF x 1.0SF ...1			PW1-1125-13-FIVX
6	Jack Bolt Plug.....	2	PX1-1022P	15 GPM.....	1	PW1-1016-S17-15TV-2		15 GPM, 2.0SF x 1.25SF ...1			PW1-1125-15-FJC
7 <sup>A</sup>	Front Cover			17 GPM.....	1	PW1-1016-S17-17TV-2		17 GPM, 2.0SF x 1.25SF ...1			PW1-1125-17-FJC
	SAE "A" 2-bolt,			19 GPM.....	1	PW1-1016-S17-19TV-2		19 GPM, 2.0SF x 1.25SF ...1			PW1-1125-19-FJC
	3.25" pilot dia, w/ -4 SAE drain1.....		PW1-1107-ALSMDM	21 GPM.....	1	PW1-1016-S17-21TV-2		21 GPM, 2.0SF x 1.25SF ...1			PW1-1125-21-FJC
	SAE "B" 2/4-bolt,			Versatile <sup>B</sup> Gear Set, SAE "B" 7/8" Round							
	4" pilot dia, w/ -4 SAE drain ...1		PW1-1107-BLSMDM	06 GPM.....	1	PW1-1016-K09-06TV-2		21	1/16 Washer .....	4	PW1-1029
	Remote mount pad,			08 GPM.....	1	PW1-1016-K09-08TV-2		22	Capscrew		
	w/ -4 SAE drain .....	1	PW1-1107-RLSDM	11 GPM.....	1	PW1-1016-K09-11TV-2			06 GPM 1/16-12 UNC x 4.50 .2		PK1-1028-11
8	Case Drain Plug w/ O-Ring, - 6 SAE .....	1	HHBP-6Z	13 GPM.....	1	PW1-1016-K09-13TV-2			08 GPM 1/16-12 UNC x 5.00 .2		PK1-1028-15
9	Dowel Pin, 5/16" x 5/8".....	2	PX1-1024	15 GPM.....	1	PW1-1016-K09-15TV-2			11 GPM 1/16-12 UNC x 5.00 .2		PK1-1028-15
10	Check Valve Assembly.....	2	PS1-1010	17 GPM.....	1	PW1-1016-K09-17TV-2			13 GPM 1/16-12 UNC x 5.25 .2		PK1-1028-17
11	Body Seal .....	1	PW1-1015	19 GPM.....	1	PW1-1016-K09-19TV-2			15 GPM 1/16-12 UNC x 5.25 .2		PK1-1028-17
13	Backup seal			21 GPM.....	1	PW1-1016-K09-21TV-2			17 GPM 1/16-12 UNC x 6.00 .2		PK1-1028-C0600
	plastic, uni-rotational design 2 .....		PW1-1009-XPU	Versatile <sup>B</sup> Gear Set, SAE "BB" 1.0" Round					19 GPM 1/16-12 UNC x 6.25 .2		PK1-1028-C0625
	plastic, bi-rotational design ..2		PW1-1009-XPB	06 GPM.....	1	PW1-1016-K01-06TV-2			21 GPM 1/16-12 UNC x 6.25 .2		PK1-1028-C0625
14	Balance Seal			08 GPM.....	1	PW1-1016-K01-08TV-2		23	Stud		
	Uni-rot, Buna N.....	2	PW1-1008-XBU	11 GPM.....	1	PW1-1016-K01-11TV-2			06 GPM 1/16-12 UNC x 6.50 .2		PS1-1028-11S
	Bi-rot, external (14A), Buna N..	4	PW1-1008-XBBE	13 GPM.....	1	PW1-1016-K01-13TV-2			08 GPM 1/16-12 UNC x 6.75 .2		PK1-1028-S0675
	Bi-rot, internal (14B), Buna N....4		PW1-1008-XBBI	15 GPM.....	1	PW1-1016-K01-15TV-2			11 GPM 1/16-12 UNC x 7.00 .2		PK1-1028-437S
16	Wear plate			17 GPM.....	1	PW1-1016-K01-17TV-2			13 GPM 1/16-12 UNC x 7.25 .2		PK1-1028-S0725
	uni-rotational .....	2	PW1-1014UX	19 GPM.....	1	PW1-1016-K01-19TV-2			15 GPM 1/16-12 UNC x 7.50 .2		PK1-1028-S0750
	bi-rotational .....	2	PW1-1014BX	21 GPM.....	1	PW1-1016-K01-21TV-2			17 GPM 1/16-12 UNC x 7.75 .2		PK1-1028-S0775
17	Key			Versatile <sup>B</sup> Gear Set, 3/4 - 11T Spline					19 GPM 1/16-12 UNC x 8.00 .2		PK1-1028-S0800
	1 1/4" x 1/4" x 3/8" for 1.00"			06 GPM.....	1	PW1-1016-S16-06TV-2			21 GPM 1/16-12 UNC x 8.25 .2		PK1-1028-S0825
	round shaft .....	1	PS1-1017	08 GPM.....	1	PW1-1016-S16-08TV-2		24	Nut 1/16-12 UNC .....	4 or 6	PK1-1020
	1" x 1/4" x 3/8" for 7/8"			11 GPM.....	1	PW1-1016-S16-11TV-2					
	round shaft .....	1	PK1-1017	13 GPM.....	1	PW1-1016-S16-13TV-2					
18	Gear Set, SAE "B" - 7/8 - 13T Spline			15 GPM.....	1	PW1-1016-S16-15TV-2					
	06 GPM.....	1	PW1-1016-S02-06-2	17 GPM.....	1	PW1-1016-S16-17TV-2					
	08 GPM.....	1	PW1-1016-S02-08-2	19 GPM.....	1	PW1-1016-S16-19TV-2					
	11 GPM.....	1	PW1-1016-S02-11-2	21 GPM.....	1	PW1-1016-S16-21TV-2					
	13 GPM.....	1	PW1-1016-S02-13-2	19	Steel Port Plug w/ O-Ring						
	15 GPM.....	1	PW1-1016-S02-15-2	-20 SAE.....	2	HHBP-20Z					
	17 GPM.....	1	PW1-1016-S02-17-2	-16 SAE.....	2	HHBP-16Z					
	19 GPM.....	1	PW1-1016-S02-19-2	20 <sup>A</sup>	Gear Housing						
	21 GPM.....	1	PW1-1016-S02-21-2		SAE Ports, Side & Rear						
	Versatile <sup>B</sup> Gear Set, SAE "B" - 7/8- 13T Spline				06 GPM, -16 SAE .....	1	PW1-1125-06-SGIGI				
	06 GPM.....	1	PW1-1016-S02-06TV-2		08 GPM, -16 SAE .....	1	PW1-1125-08-SGIGI		Seal Kit Seal Kit (includes items 4, 11, 13, 14)		
	08 GPM.....	1	PW1-1016-S02-08TV-2		11 GPM, -16 SAE .....	1	PW1-1125-11-SGIGI		Bi-rotational seal kit.....	kit	GSK-PW1-B
	11 GPM.....	1	PW1-1016-S02-11TV-2		13 GPM, -20 SAE .....	1	PW1-1125-13-SGTGT		Uni-rotational seal kit.....	kit	GSK-PW1-U
	13 GPM.....	1	PW1-1016-S02-13TV-2		15 GPM, -20 SAE .....	1	PW1-1125-15-SGTGT		Rebuild Kit (includes items 4, 11, 13, 14, 16)		
	15 GPM.....	1	PW1-1016-S02-15TV-2		17 GPM, -20 SAE .....	1	PW1-1125-17-SGTGT		Bi-rotational rebuild kit .....	kit	RBK-PW1-B
	17 GPM.....	1	PW1-1016-S02-17TV-2		19 GPM, -20 SAE .....	1	PW1-1125-19-SGTGT		Uni-rotational rebuild kit.....	kit	RBK-PW1-U
	19 GPM.....	1	PW1-1016-S02-19TV-2		21 GPM, -20 SAE .....	1	PW1-1125-21-SGTGT				
	21 GPM.....	1	PW1-1016-S02-21TV-2								

KITS	Description	Muncie Number
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	Seal Kit Seal Kit (includes items 4, 11, 13, 14)	
	Bi-rotational seal kit.....	kit
	Uni-rotational seal kit.....	kit
	Rebuild Kit (includes items 4, 11, 13, 14, 16)	
	Bi-rotational rebuild kit .....	kit
	Uni-rotational rebuild kit.....	kit

- NOTES:
- A. Covers come shipped with bushings installed
  - B. Versatile gear sets are machined for multiple pump configurations