

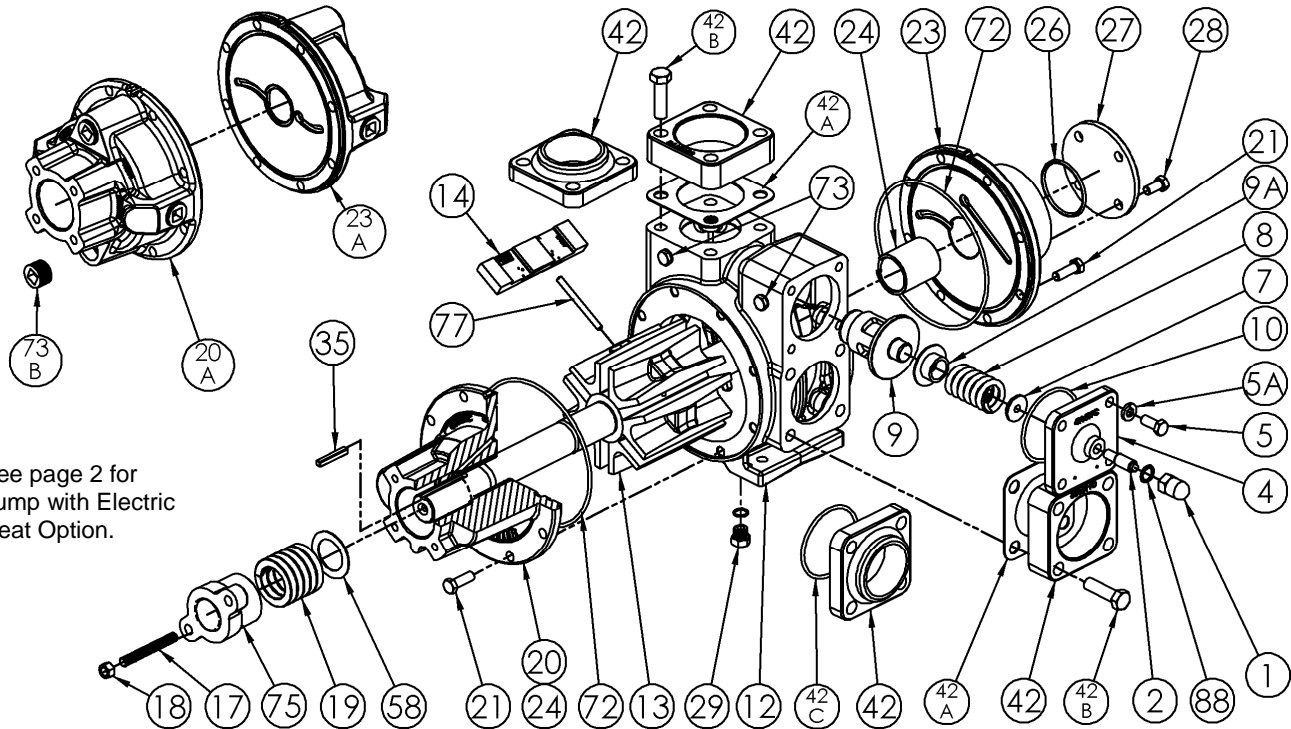
BLACKMER PARTS LIST

PUMP MODEL: NP2.5F

961602 **PARTS LIST**
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Section 103
Effective Nov 2012
Replaces Sept 2011

Keep with Instructions 103-A00 for Installation, Operation and Maintenance



See page 2 for pump with Electric Heat Option.

Ref. No.	Description	Qty	Part No.	Ref. No.	Description	Qty	Part No.
1	Cap - Relief Valve (R/V)	1	411453	20A	Head & Bushing Asy. - Inboard (Jacket)	1	031672
2	Adjusting Screw - R/V	1	431401	21	Capscrews - Head	16	920341
4	Cover - R/V (Std.)	1	411600	23	Head & Bushing Asy. - Outboard	1	031677
	Cover - R/V ^{1,4} (high pressure)		411608	23A	Head & Bushing Asy. - Outboard (Jacket)	1	031673
5	Capscrew - R/V Cover (Std.)	4	920316	24	Bushing (Sleeve Bearing)	2	⁵ 161600
	Capscrew - R/V Cover ^{1,4} (high pressure)		920421	26	O-Ring - Bearing Cover (FKM) (Std.)	1	⁵ 702038
5A	Lockwasher - R/V Capscrew ^{1,4} (high press)	0 - 4	909649		O-Ring - Bearing Cover (PTFE)		702234
7	Spring Guide - R/V (Std.)	1	423955		O-Ring - Bearing Cover (Buna-N) ⁴		702037
	Spring Guide - R/V ^{1,4} (high pressure)		421805	27	Bearing Cover	1	041600
8	Spring - R/V (41-50 psi) ²	1	471608	28	Capscrews - Bearing Cover	4	920291
	Spring - R/V (51-110 psi)		471631	29	Pipe Plug Asy. (SAE # 6) (FKM) (Std.)	1	908212
	Spring - R/V (111-150 psi)		471614		Pipe Plug Asy. (SAE # 6) (PTFE)		908213
	SS Spring - R/V (51-110 psi)		471632		Pipe Plug Asy. (SAE #6) (Buna-N) ⁴		908211
	SS Spring - R/V (111-150 psi)		471615	35	Key - Shaft	1	⁵ 909177
	SS Spring - R/V (151-200 psi) ¹ (hp)		471671	42 ³	Flange - 2½" NPT	2	651611
9	Valve - R/V (51-200 psi) (Std.)	1	451623		Flange - 2½" Weld		651610
	Valve - R/V (51-200 psi) (Nickel Plated)		451624	42A	Gasket - NPT Flange (Comp.) (Std.)	2	⁵ 381650
	Valve - R/V (41-50 psi) ²		451609	42B ²	Capscrew - (NPT Flange ONLY)	8	920532
9A	Collar - Valve ^{1,4} (high pressure)	0 - 1	431606		Capscrew - Weld / DIN ⁴ / ANSI Flange		920491
10	O-Ring - R/V Cover (FKM) (Std.)	1	⁵ 701924	42C	O-Ring - Weld Flange (FKM)	0 - 2	701924
	O-Ring - R/V Cover (PTFE)		702079		O-Ring - Weld Flange (PTFE)		702079
	O-Ring - R/V Cover (Buna-N) ⁴		701925		O-ring - Weld Flange (Buna-N) ⁴		701925
12	Cylinder (Std.)	1	021605	72	O-Ring - Head (FKM) (Std.)	2	⁵ 702241
	Cylinder w/ SAE Drain (Cast Iron) ⁴		021602		O-Ring - Head (PTFE)		702242
13	Rotor & Shaft, Open Rotor (Shown)	1	261668		O-Ring - Head (Buna-N) ⁴		702240
	Rotor & Shaft, Closed Rotor (Opt.)		261675	73	Gage Plug	2	908198
14	Vane - Duravane (Std.) ⁴	6	⁵ 091619	73B	Jacket Plug	0 - 4	908223
	Vane - EC Laminate		091627	77	Push Rods	3	⁵ 121607
	Vane - EC Cast Iron		091621	88	Gasket - R/V Cap	1	⁵ 701981
	Vane - EC Bronze		091624	—	Kit - Maintenance	—	898930
20	Head & Bushing Asy. - Inboard	1	031676				

¹ Optional High Pressure Relief Valve - **parts must be used as a group** (includes p/n 411608, 920421, 909649, 421805, 431606 & 471671).

² Low pressure spring must be used with low pressure valve p/n 451609

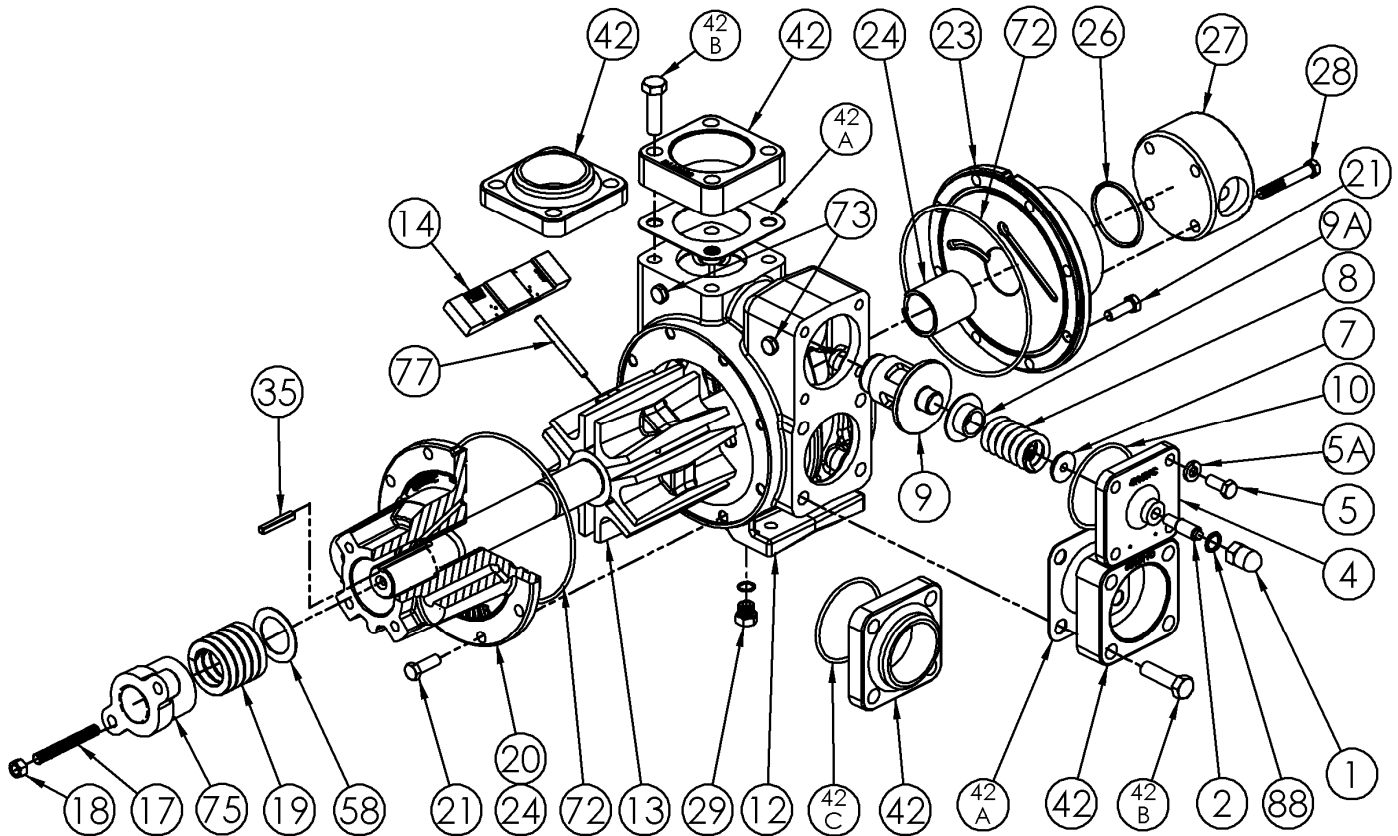
³ See Page 3 for other flanges

⁴ AFFF service pumps include: Nickel Plated, High Press. RV, 200 psi RV spring, Buna O-rings, Cyl. w/ Drain, Lip Seal & Duravanes.

⁵ Included in Maintenance Kit.

EC = Extra-Clearance SS = Stainless Steel

Pumps with Heads for Electric Heating



Ref. No.	Description	Parts per Pump	Part No.	Ref. No.	Description	Parts per Pump	Part No.
1	Cap - Relief Valve (R/V)	1	411453	24	Bushing – EH (Sleeve Bearing)	2	161601
2	Adjusting Screw - R/V	1	431401	26	O-Ring - Bearing Cover (FKM) (Std.)	1	702038
4	Cover - R/V (Std.)	1	411600		O-Ring - Bearing Cover (PTFE)		702234
5	Capscrew - R/V Cover (Std.)	4	920316	27	Bearing Cover EH	1	041880
7	Spring Guide - R/V (Std.)	1	423955	28	Capscrews - Bearing Cover EH	4	920444
8	SS Spring - R/V (51-110 psi)	1	471632	29	Pipe Plug Assy. (SAE # 6) (FKM) (Std)	1	908212
9	Valve - R/V (51-200 psi) (Std.)	1	451623		Pipe Plug Assy. (SAE # 6) (PTFE)		908213
	Valve - R/V (51-200 psi) (Nickel Plated)		451624	35	Key - Shaft	1	909177
10	O-Ring - R/V Cover (FKM) (Std.)	1	701924	42 ³	Flange – 2½" NPT (Std.)	2	651611
	O-Ring - R/V Cover (PTFE)		702079		Flange – 2 ½" Weld		651610
12	Cylinder (Std.)	1	021605	42A	Gasket - NPT Flange (Comp.) (Std.)	2	381650
	Cylinder w/ SAE Drain (Cast Iron)		021602	42B ²	Capscrew – (NPT Flange ONLY)	8	920532
13	Rotor & Shaft, Open Rotor (Shown)	1	261668		Capscrew – Weld / ANSI Flange		920491
	Rotor & Shaft, Closed Rotor (Opt.)		261675	42C	O-Ring – Weld Flange (FKM)	0 - 2	701924
14	Vane - Duravane (Std.)	6	091619		O-Ring – Weld Flange (PTFE)		702079
	Vane - EC Laminate		091627	72	O-Ring - Head (FKM) (Std.)	2	702241
	Vane - EC Cast Iron		091621		O-Ring - Head (PTFE)		702242
	Vane - EC Bronze		091624	73	Gage Plug	2	908198
20	Head & Bushing Assy. – Inboard EH	1	031684	77	Push Rods	3	121607
21	Capscrews - Head	16	920341	88	Gasket - R/V Cap	1	701981
23	Head & Bushing Assy. – Outboard EH	1	031685				

³ See Page 3 for other flanges

EH = Electric Heat Option Parts

EC = Extra-Clearance

SS = Stainless Steel



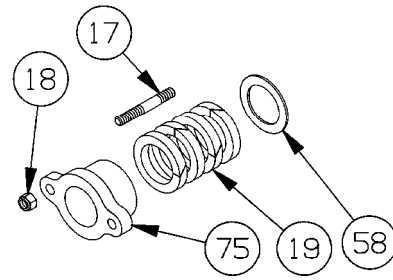
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PACKING – STANDARD & ELECTRIC HEAT OPTION

Ref. No.	Part Name	Parts Per Pump	Part No.
17	Stud - Packing Follower	2	921868
18	Nut - Packing Follower Stud	2	922428
19	Packing Set Packing Set – Electric Heat Option	1	⁵ 321868 321880
58	Pack Washer	1	355168
75	Packing Follower	1	141868

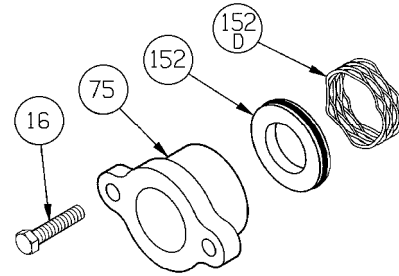
⁵ Included in Maintenance Kit.



LIP SEAL - OPTIONAL ⁴

Ref. No.	Part Name	Parts Per Pump	Part No.
16	Capscrew - Follower	2	920359
75	Seal Follower	1	141868
152	Lip Seal Assembly (To 500°F)	1	702245
152D	Wave Spring	1	321601

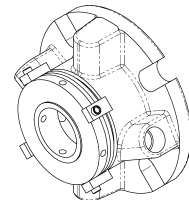
NOTE: A Commercial Mechanical Seal (cartridge type) can be used in place of packing or lip seals. Consult mechanical seal manufacturer for more information.



COMMERCIAL MECHANICAL SEAL (Cartridge Type) - OPTIONAL

Ref. No.	Part Name	Parts Per Pump	Part No.
-	John Crane 5610	1	331639

NOTE: Seal Materials (Sil-Car, Carbon, FKM)

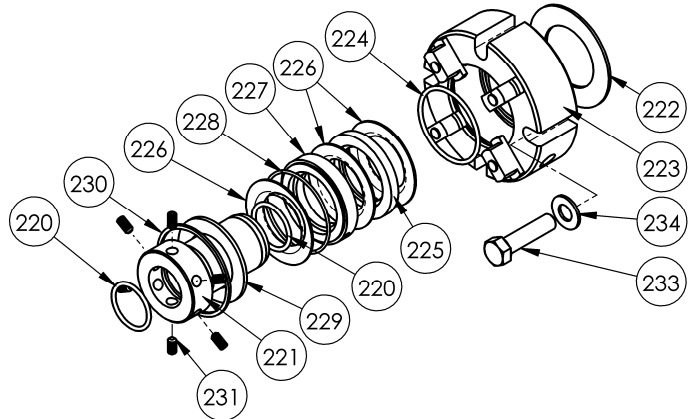


Commercial Mechanical Seal Cartridge Type

TRIPLE-LIP CARTRIDGE SEAL - OPTIONAL

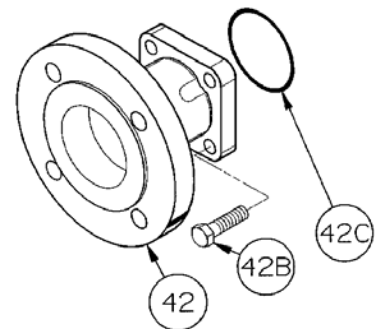
Ref. No.	Part Name	Seal	Seal Rebuild Kit
—	TRIPLE-LIP CARTRIDGE SEAL	331774	899105
220	Shaft Sleeve O-Ring	2	X
221	Shaft Sleeve	1	
222	Gasket	1	X
223	Gland Plate Assembly	1	
224	Element O-Ring	1	X
225	Seal Spacer	1	X
226	Seal Element	3	X
227	Flushing Spacer	1	X
228	Flushing Spacer O-Ring	1	X
229	Retaining Ring	1	
230	Snap Ring	1	X
231	Shaft Sleeve Setscrews	6	X
233	Gland Capscrew	4	
234	Flat Washer	4	

X = Parts Included in Seal Rebuild Kit



FLANGE OPTIONS

Ref. No.	Part Name	Parts Per Pump	Part No.
42	Flange – ANSI 3" 150 lb. R.F.	0-2	651617



ANSI FLANGE



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