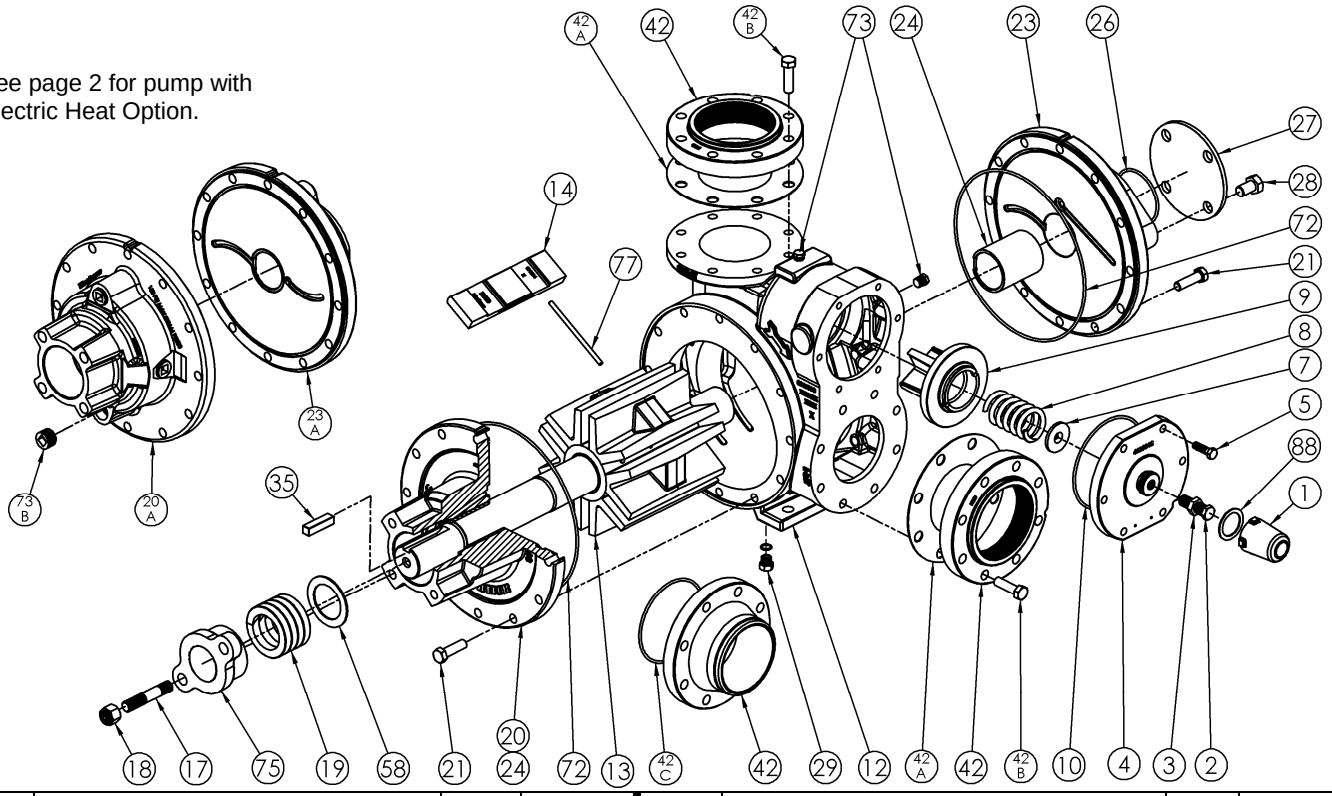
BLACKMER PARTS LIST
PUMP MODEL: NP4F

PARTS LIST 103-A05

Section	103
Effective	Aug 2011
Replaces	Jan 2011

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

See page 2 for pump with Electric Heat Option.



Ref. No.	Description	Parts per Pump	Part No.	Ref. No.	Description	Parts per Pump	Part No.
1	Cap - Relief Valve (R/V)	1	413957	20	Head & Bushing Asy. - Inboard	1	031976
2	Adjusting Screw - R/V (Std.)	1	436307	20A	Head & Bushing Asy. – Inboard (Jacket)	1	031972
	Adjusting Screw - R/V[1,4] (high pressure)		436311	21	Capscrews - Head	24	920532
3	Locknut - Adjusting Screw	1	436355	23	Head & Bushing Asy. - Outboard	1	031977
4	Cover - R/V (Std.)	1	411968	23A	Head & Bushing Asy. – Outboard (Jacket)	1	031973
	Cover - R/V[1,4] (high pressure)		411969	24	Bushing (Sleeve Bearing)	2	[5] 161900
5	Capscrew - R/V Cover (Std.)	6	920351	26	O-Ring - Bearing Cover (FKM) (Std.)	1	[5] 702222
	Capscrew - R/V Cover[1,4] (high pressure)		920421		O-Ring - Bearing Cover (PTFE)		702225
7	Spring Guide - R/V	1	426355		O-Ring - Bearing Cover (Buna-N) [4]		702219
8	Spring - R/V (51-75 psi)	1	476310	27	Bearing Cover	1	041900
	Spring - R/V (76-150 psi)		476305	28	Capscrews - Bearing Cover	4	920611
	SS Spring - R/V (51-75 psi)		476314	29	Pipe Plug Asy. (SAE # 6) (FKM)(Std.)	1	908212
	SS Spring - R/V (76-150 psi)		476321		Pipe Plug Asy. (SAE # 6) (PTFE)		908213
	SS Spring - R/V (151-200 psi)[1,4]		476969		Pipe Plug Asy. (SAE #6) (Buna-N) [4]		908211
9	Valve - R/V (Std.)	1	456315	35	Key - Shaft	1	[5] 909191
	Valve - R/V (Nickel Plated) [4]		456300	42	See Page 4 for Flange Options		
10	O-Ring - R/V Cover (FKM) (Std.)	1	[5] 702229	72	O-Ring - Head (FKM) (Std.)	2	[5] 702128
	O-Ring - R/V Cover (PTFE)		702230		O-Ring - Head (PTFE)		702129
	O-Ring - R/V Cover (Buna-N)		702228		O-Ring – Head (Buna-N) [4]		702127
12	Cylinder (Std.)	1	021906	73	Gage Plug	2	908198
	Cylinder w/ SAE Drain (Ductile Iron) [4]		021911	73B	Jacket Plug	0-4	908223
13	Rotor & Shaft, Open Rotor (Shown)	1	261968	77	Push Rods	3	[5] 121905
	Rotor & Shaft, Closed Rotor (Optional)		261980	88	Gasket – R/V Cap	1	[3, 5] 533909
14	Vane - Duravane (Std.) [2]	6	[5] 091924	—	Kit — Maintenance	—	898932
	Vane - EC Laminate [4]		091931				
	Vane - EC Cast Iron		091952				
	Vane - EC Bronze		091953				

EC = Extra Clearance SS = Stainless Steel

[2] 150 psi maximum for Duravanes

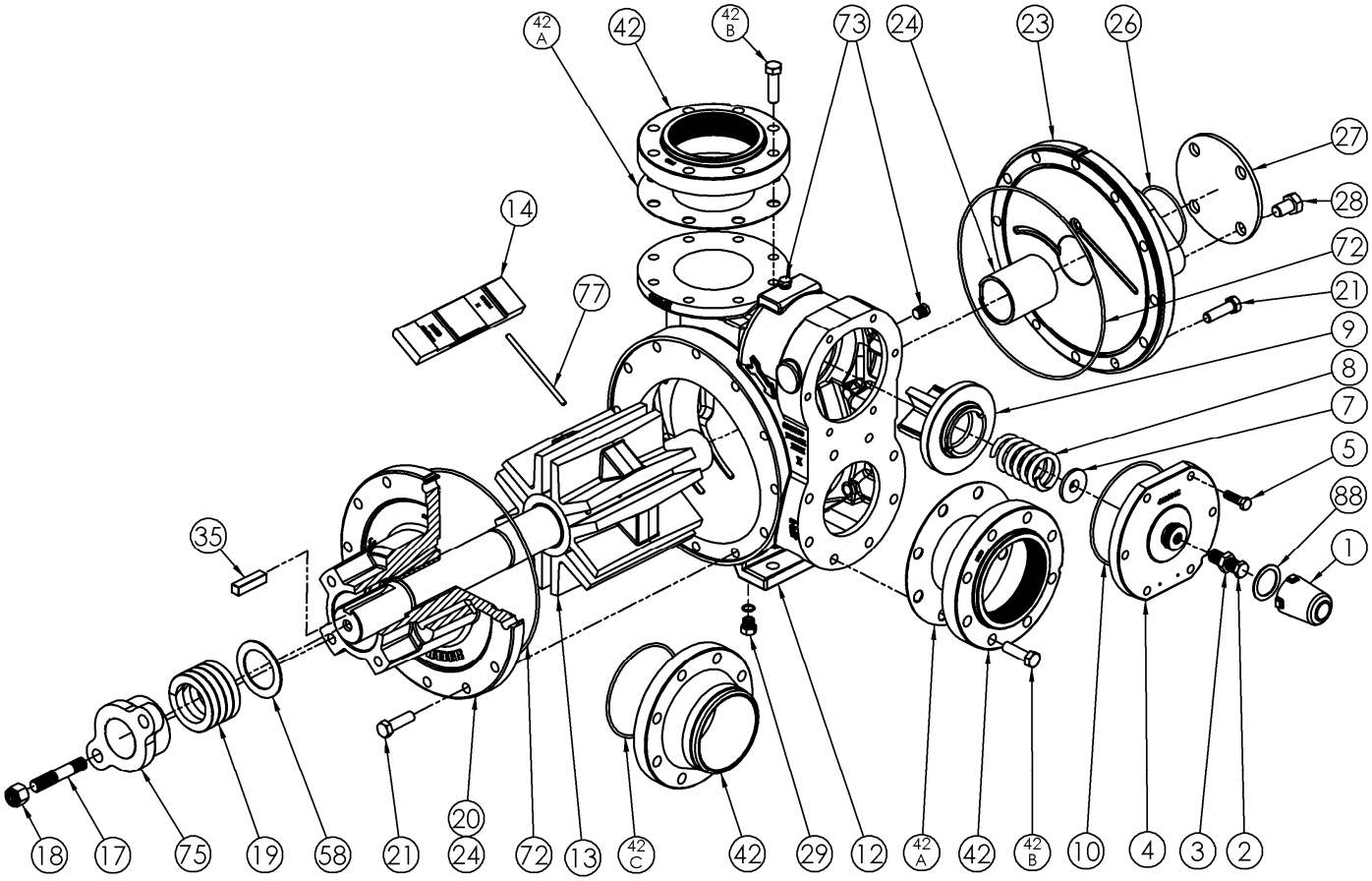
[5] Included in Maintenance Kit

[1] High Pressure Relief Valve parts must be used as a group (includes p/n's 436311, 411969, 920421, and 476969) (ref 2, 4, 5 & 8).

[3] R/V Caps on earlier pumps used an O-ring; the 533909 Gasket may be used with the O-Ring type R/V Caps.

[4] AFFF service pumps include: Nickel Pltd. High Press. RV, 200 psi RV spring, Buna O-rings, Cyl. w/ Drain, Lip Seal & EC Laminate Vanes.

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	413957	20	Head & Bushing Asy. – Inboard (EH)	1	031984
2	Adjusting Screw - R/V (Std.)	1	436307	21	Capscrews - Head	24	920532
3	Locknut - Adjusting Screw	1	436355	23	Head & Bushing Asy. – Outboard (EH)	1	031985
4	Cover - R/V (Std.)	1	411968	24	Bushing (Sleeve Bearing) (EH)	2	161901
5	Capscrew - R/V Cover (Std.)	6	920351	26	O-Ring - Bearing Cover (FKM) (Std.)	1	702222
7	Spring Guide - R/V	1	426355		O-Ring - Bearing Cover (PTFE)		702225
8	SS Spring - R/V (51-75 psi)	1	476314	27	Bearing Cover	1	041900
	SS Spring - R/V (76-150 psi)		476321	28	Capscrews - Bearing Cover	4	920611
9	Valve - R/V (Std.)	1	456315	29	Pipe Plug Asy. (SAE # 6) (FKM)(Std.)	1	908212
	Valve - R/V (Nickel Plated)		456300		Pipe Plug Asy. (SAE # 6) (PTFE)		908213
10	O-Ring - R/V Cover (FKM) (Std.)	1	702229	35	Key - Shaft	1	909191
	O-Ring - R/V Cover (PTFE)		702230	42	See Page 4 for Flange Options		
12	Cylinder (Std.)	1	021906	72	O-Ring - Head (FKM) (Std.)	2	702128
	Cylinder w/ SAE Drain (Ductile Iron)		021911		O-Ring - Head (PTFE)		702129
13	Rotor & Shaft, Open Rotor (Shown)	1	261968	73	Gage Plug	2	908198
	Rotor & Shaft, Closed Rotor (Optional)		261980	77	Push Rods	3	121905
14	Vane - Duravane (Std.)[2]	6	091924	88	Gasket – R/V Cap	1	[6] 533909
	Vane - EC Laminate		091931				
	Vane - EC Cast Iron		091952				
	Vane - EC Bronze		091953				

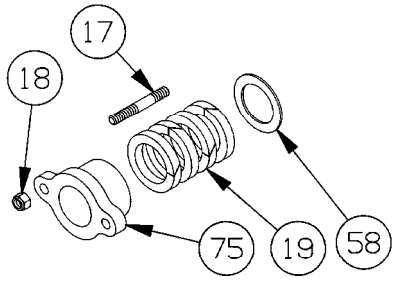
[2] 150 psi maximum for Duravanes
[6] R/V Caps on earlier pumps used an O-ring; the 533909 Gasket may be used with the O-Ring type R/V Caps..
EH = Electric Heat Option EC = Extra Clearance SS = Stainless Steel

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PACKING - STANDARD & ELECTRIC HEAT OPTION

Ref. No.	Part Name	Parts Per Pump	Part No.
17	Stud - Packing Follower	2	921610
18	Nut - Packing Follower Stud	2	922435
19	Packing Set (std) Packing Set (EH)	1	[5] 321968 321980
58	Pack Washer	1	351900
75	Packing Follower	1	141968

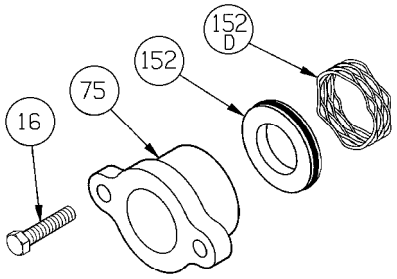
[5] Included in Maintenance Kit



LIP SEAL - OPTIONAL [4]

Ref. No.	Part Name	Parts Per Pump	Part No.
16	Capscrew - Follower	2	920640
75	Seal Follower	1	141968
152	Lip Seal Assembly (To 500ºF)	1	702246
152D	Wave Spring	1	321901

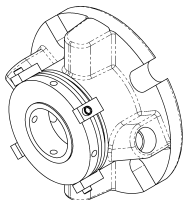
NOTE: A Commercial Mechanical Seal (cartridge type) may be used in place of packing or lip seals. Consult mechanical seal manufacturer for more information.



COMMERCIAL MECHANICAL SEAL (Cartridge Type) - OPTIONAL

Ref. No.	Part Name	Parts Per Pump	Part No.
-	John Crane 5610	1	331940

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

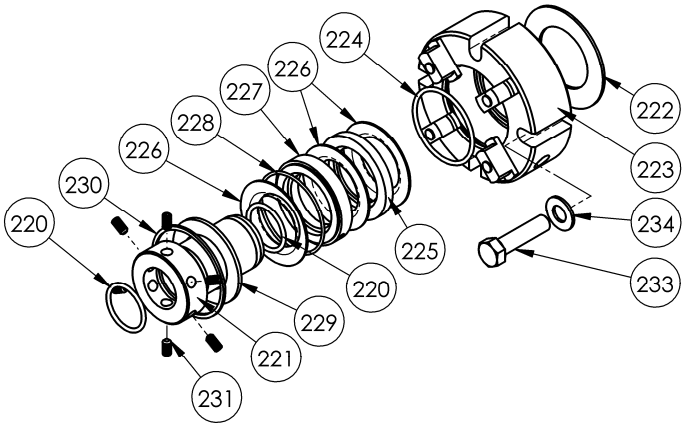


Commercial Mechanical Seal
Cartridge Type

TRIPLE-LIP CARTRIDGE SEAL - OPTIONAL

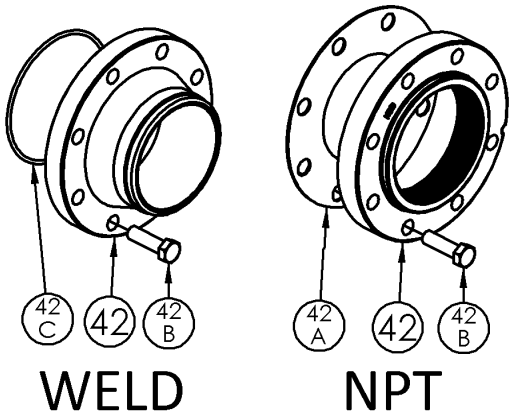
Ref. No.	Part Name	Seal	Seal Rebuild Kit
—	**Triple-Lip Cartridge Seal**	**331948**	**899107**
220	Shaft Sleeve O-Ring	2	X
221	Shaft Sleeve	1	
222	Gasket	1	X
223	Gland Plate Assembly	1	
224	Element O-Ring	1	X
225	Seal Spacer	1	X
226	Seal Element	3	X
227	Flushing Spacer	1	X
228	Flushing Spacer O-Ring	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	

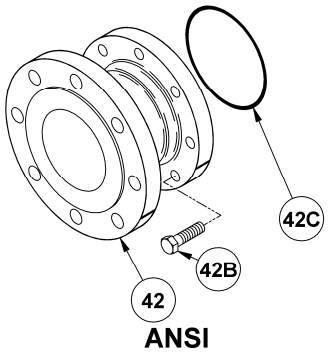
X = Parts Included in Seal Rebuild Kit



FLANGE OPTIONS

Ref. No.	Part Name	Parts Per Pump	Part No.
42	Flange - 4" NPT (Std.)	0 - 2	651900
	Flange – 4" Weld		651906
	Flange – ANSI 4" 150 lb. R.F.		651917
42A	Gasket - NPT Flange (Comp.) (Std.)	2	381904
42B	Capscrew	16	920532
42C	O-Ring – Flange (FKM)	0 - 2	702238
	O-Ring - Flange (PTFE)		702239
	O-Ring - Flange (Buna-N) [4]		702237





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