

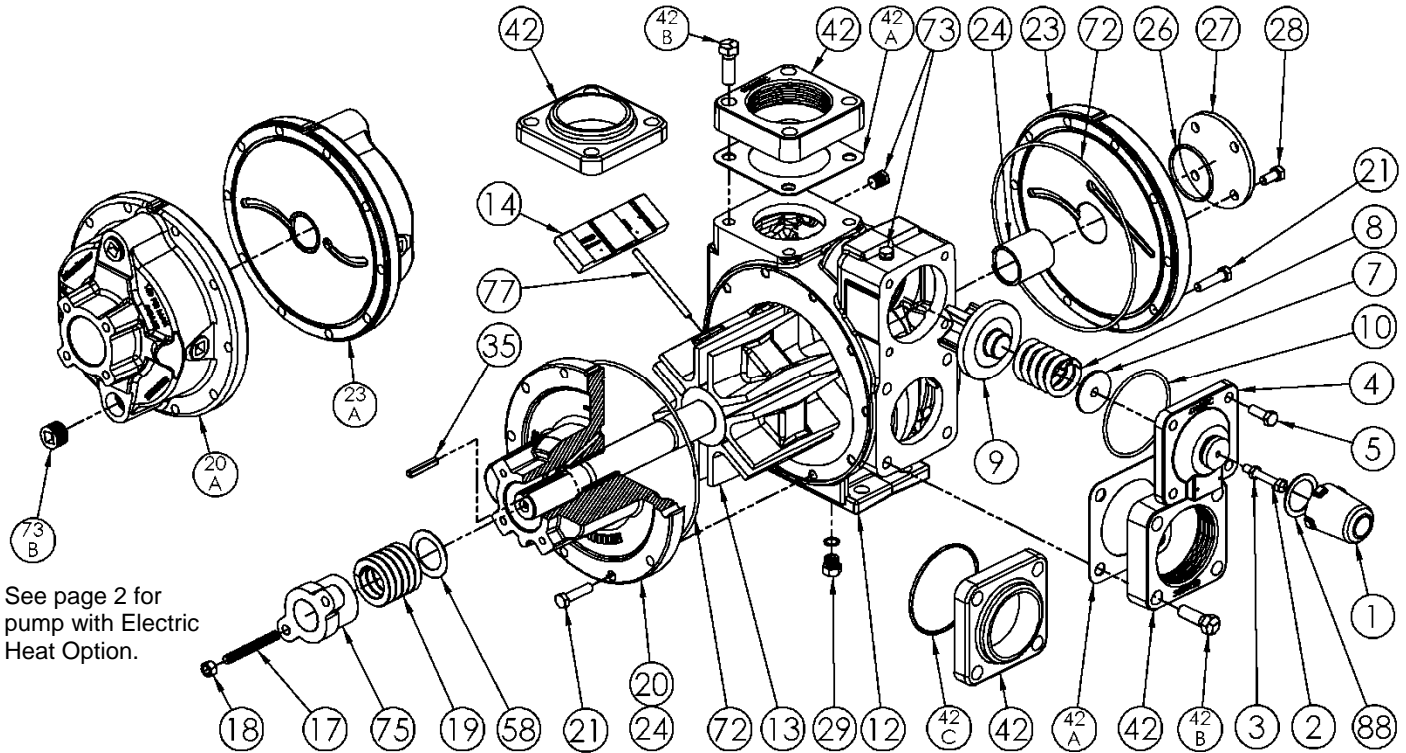
BLACKMER PARTS LIST

PUMP MODEL: NP3F

961806 PARTS LIST
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Keep with Instructions 103-A00 for Installation, Operation and Maintenance

Section 103
Effective Jun 2018
Replaces Feb 2015



See page 2 for pump with Electric Heat Option.

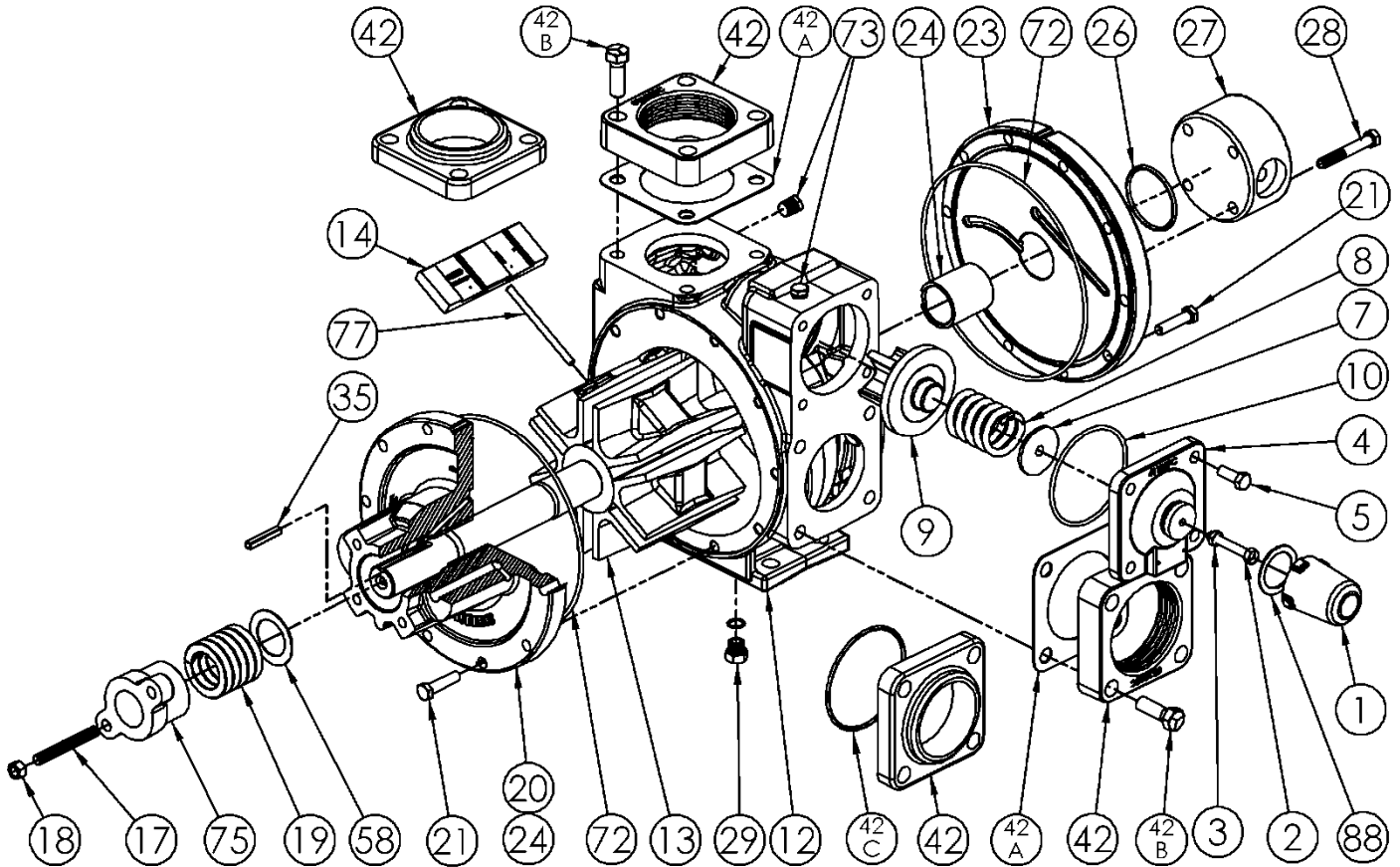
| Ref. No. | Description | Parts per Pump | Part No. | Ref. No. | Description | Parts per Pump | Part No. |
|----------|-------------------------------------------------|----------------|---------------------|----------|-----------------------------------------------|----------------|-----------------------|
| 1 | Cap - Relief Valve (R/V) | 1 | 413957 | 20 | Head & Bushing Asy. - Inboard | 1 | 031876 |
| 2 | Adjusting Screw - R/V | 1 | 431808 | 20A | Head & Bushing Asy. - Inboard (Jacket) | 1 | 031866 |
| 3 | Locknut - Adjusting Screw | 1 | 922923 | 21 | Capscrews - Head | 20 | 920369 |
| 4 | Cover - R/V (Std.) | 1 | 411811 | 23 | Head & Bushing Asy. - Outboard | 1 | 031877 |
| | Cover - R/V ^{1,6} (high pressure) | | 411868 | 23A | Head & Bushing Asy. - Outboard (Jacket) | 1 | 031873 |
| 5 | Capscrew - R/V Cover (Std.) | 4 | 920331 | 24 | Bushing (Sleeve Bearing) | 2 | ⁴ 161600 |
| | Capscrew - R/V Cvr ^{1,6} (high press.) | | 920384 | 26 | O-Ring - Bearing Cover (FKM) (Std.) | 1 | ⁴ 702038 |
| 7 | Spring Guide - R/V | 1 | 421805 | | O-Ring - Bearing Cover (PTFE) | | 702234 |
| 8 | Spring - R/V (36-50 psi) | 1 | 471805 | | O-Ring - Bearing Cover (Buna-N) ⁶ | | 702037 |
| | Spring - R/V (51-110 psi) | | 471806 | 27 | Bearing Cover | 1 | 041600 |
| | Spring - R/V (111-150 psi) | | 471809 | 28 | Capscrews - Bearing Cover | 4 | 920291 |
| | SS Spring - R/V (51-110 psi) | | 471807 | 29 | Pipe Plug Asy. (SAE # 6) (FKM) (Std.) | 1 | 908212 |
| | SS Spring - R/V (111-150 psi) | | 471808 | | Pipe Plug Asy. (SAE # 6) (PTFE) | | 908213 |
| | SS Spring - R/V (151-200 psi) ^{1,6} | | 471870 | | Pipe Plug Asy. (SAE #6) (Buna-N) ⁶ | | 908211 |
| 9 | Valve - R/V (Std.) | 1 | 451807 | 35 | Key - Shaft | 1 | ⁴ 909177 |
| | Valve - R/V (Nickel Plated) ⁶ | | 451808 | 42 | See page 4 for Flange Options | | |
| 10 | O-Ring - R/V Cover (FKM) (Std.) | 1 | ⁴ 711931 | 72 | O-Ring - Head (FKM) (Std.) | 2 | ⁴ 702232 |
| | O-Ring - R/V Cover (PTFE) | | 702080 | | O-Ring - Head (PTFE) | | 702233 |
| | O-Ring - R/V Cover (Buna-N) ⁶ | | 701936 | | O-Ring - Head (Buna-N) ⁶ | | 702231 |
| 12 | Cylinder (Std.) | 1 | 021805 | 73 | Gage Plug | 2 | 908198 |
| | Cylinder w/ SAE Drain (Cast Iron) ⁶ | | 021816 | 73B | Jacket Plug | 0 - 4 | 908223 |
| 13 | Rotor & Shaft, Open Rotor (Shown) | 1 | 261868 | 77 | Push Rods | 3 | ⁴ 121807 |
| | Rotor & Shaft, Closed Rotor (Opt.) | | 261880 | 88 | Gasket - R/V Cap | 1 | ^{4,5} 533909 |
| 14 | Vane - Duravane (Std.) ⁶ | 6 | ⁴ 091819 | — | Kit - Maintenance | — | 898931 |
| | Vane - EC Laminate | | 091829 | | EC = Extra Clearance | | |
| | Vane - EC Cast Iron | | 091821 | | SS = Stainless Steel | | |
| | Vane - EC Bronze | | 091804 | | ⁴ Included in Maintenance Kit | | |

¹ High Pressure Relief Valve parts must be used as a group (includes p/n's 411868, 920381, and 471870) (ref 4, 5 & 8).

⁵ R/V Caps on earlier pumps used an O-ring; the 533909 Gasket may be used with the O-Ring type R/V Caps..

⁶ AFFF service pumps include: Nickel Pltd. High Press. RV, 200 psi RV spring, Buna O-rings, Cyl. w/ Drain, Lip Seal & Duravanes.

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 Assy. – Inboard EH | 1 | 031886 |
| 2 | Adjusting Screw - R/V | 1 | 431808 | 21 | Capscrews - Head | 20 | 920369 |
| 3 | Locknut - Adjusting Screw | 1 | 922923 | 23 | Head & Bushing Assy. - Outboard EH | 1 | 031887 |
| 4 | Cover - R/V (Std.) | 1 | 411811 | 24 | Bushing EH (Sleeve Bearing) | 2 | 161601 |
| 5 | Capscrew - R/V Cover (Std.) | 4 | 920331 | 26 | O-Ring - Bearing Cover (FKM) (Std.) | 1 | 702038 |
| 7 | Spring Guide - R/V | 1 | 421805 | | O-Ring - Bearing Cover (PTFE) | | 702234 |
| 8 | SS Spring - R/V (51-110 psi) | 1 | 471807 | 27 | Bearing Cover EH | 1 | 041880 |
| | SS Spring - R/V (111-150 psi) | | 471808 | 28 | Capscrews - Bearing Cover EH | 4 | 920444 |
| 9 | Valve - R/V (Std.) | 1 | 451807 | 29 | Pipe Plug Asy. (SAE # 6) (FKM) (Std.) | 1 | 908212 |
| | Valve - R/V (Nickel Plated) | | 451808 | | Pipe Plug Asy. (SAE # 6) (PTFE) | | 908213 |
| 10 | O-Ring - R/V Cover (FKM) (Std.) | 1 | 711931 | 35 | Key - Shaft | 1 | 909177 |
| | O-Ring - R/V Cover (PTFE) | | 702080 | 42 | See page 4 for Flange Options | | |
| 12 | Cylinder (Std.) | 1 | 021805 | 72 | O-Ring - Head (FKM) (Std.) | 2 | 702232 |
| | Cylinder w/ SAE Drain (Cast Iron) | | 021816 | | O-Ring - Head (PTFE) | | 702233 |
| 13 | Rotor & Shaft, Open Rotor (Shown) | 1 | 261868 | 73 | Gage Plug | 2 | 908198 |
| | Rotor & Shaft, Closed Rotor (Opt.) | | 261880 | 77 | Push Rods | 3 | 121807 |
| 14 | Vane - Duravane (Std.) | 6 | 091819 | 88 | Gasket – R/V Cap | 1 | ⁵ 533909 |
| | Vane - EC Laminate | | 091829 | | | | |
| | Vane - EC Cast Iron | | 091821 | | | | |
| | Vane - EC Bronze | | 091804 | | | | |

EH = Electric Heat Option EC = Extra Clearance SS = Stainless Steel

⁵ R/V Caps on earlier pumps used an O-ring; the 533909 Gasket may be used with the O-Ring type R/V Caps..



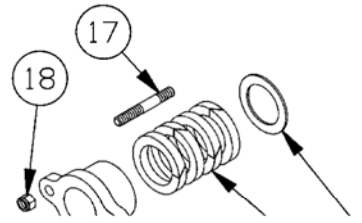
1809 Century Avenue, Grand Rapids, Michigan 49503-1530, U.S.A.
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PACKING - STANDARD & ELECTRIC HEAT OPTION

| 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 | 1 | 4 321868 |
| | Packing Set – Electric Heat Option | | 321880 |
| 58 | Pack Washer | 1 | 355168 |
| 75 | Packing Follower | 1 | 141868 |

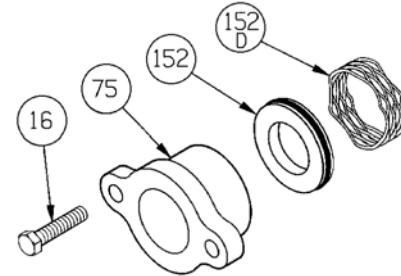
⁴ Included in Maintenance Kit



LIP SEAL - OPTIONAL ⁶

| 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 |

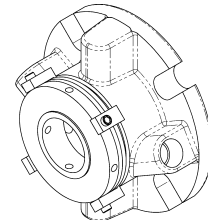
NOTE: A Commercial Mechanical Seal (cartridge type) may be used in place of packing or lip seals. Consult mechanical seal manufacturer for more information.



COMMERCIAL MECHANICAL SEAL (Cartridge Type) - OPTIONAL

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

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

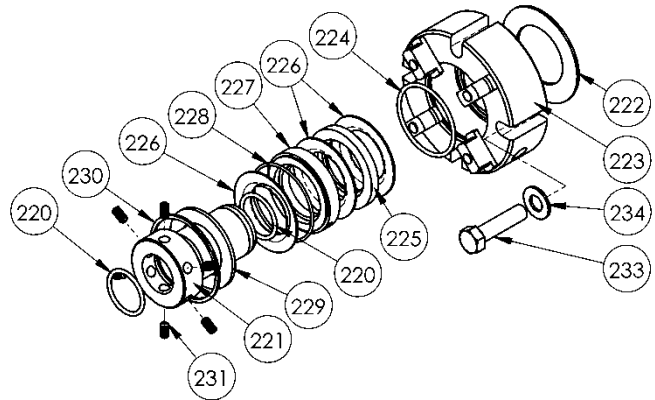


Commercial Mechanical Seal Cartridge Type

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 - 3" NPT (Std.) | 2 | 651803 |
| | Flange - 3" Weld | | 655102 |
| | Flange - ANSI 3" 150 lb. R.F. | 0 - 2 | 651817 |
| 42A | Gasket - NPT Flange (Comp.) (Std.) | 2 | ⁴ 381816 |
| 42B | Capscrew - (NPT Flange ONLY) | 8 | 920532 |
| | Capscrew - Weld / ANSI Flange | | 920510 |
| 42C | O-Ring - Flange (FKM) | 0 - 2 | 701968 |
| | O-Ring - Flange (PTFE) | | 702101 |
| | O-Ring - Flange (Buna-N) ⁶ | | 701937 |

