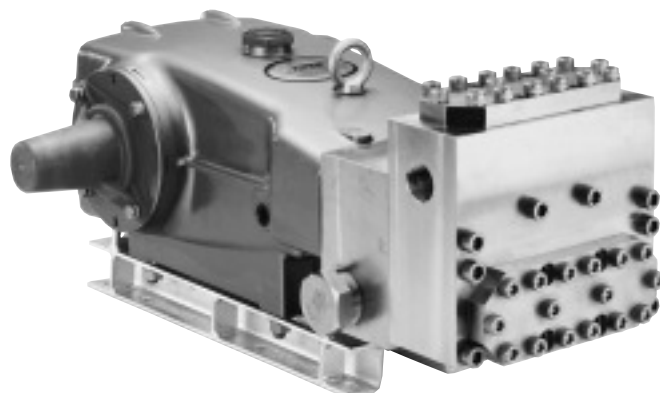




# PIJTTERSEN

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## 38 Frame Block-Style Stainless Steel Plunger Pump

Standard  
Models

3821, 3831

Flushed  
Models

3821K, 3831K

### FEATURES

#### Superior Design

- Triplex plunger design provides smoother liquid flow.
- Oil bath crankcase assures optimum lubrication.
- Close tolerance concentricity of the ceramic plunger maximizes seal life.
- Standard Models: Lo-Pressure Seals and V-Packings are completely lubricated and cooled by the liquid being pumped.
- K Models: Special Flushed Inlet Manifold permits flush for added cooling with high temperature liquids and lubrication with low lubricity liquids.

#### Quality Materials

- Precision design 316 stainless steel valves are hardened and polished for ultimate seating and extended valve life.
- 316 SSL block-style manifolds for strength and corrosion resistance.
- Special concentric, high-density, polished, solid ceramic plungers provide a true wear surface and extended seal life.
- Specially formulated, CAT PUMP exclusive, V-Packings offers unmatched performance and seal life.
- Die cast aluminum crankcase provides high strength, minimum weight and precision tolerance control.
- Optional Cast Iron crankcase for hazardous environments.
- Chrome-moly crankshaft gives unmatched strength and surface hardness.
- Oversized crankshaft bearings with greater loading capacity means longer bearing life.

#### Easy Maintenance

- Wet-end is easily serviced without entering crankcase, requiring less time and effort.
- Inlet and discharge valve assemblies interchange for easier maintenance without disturbing piping.
- Preset packings mean no packing gland adjustment is necessary, reducing maintenance costs.

#### ⚠ WARNING

All systems require both a primary pressure regulating device (i.e., regulator, unloader) and a secondary pressure safety relief device (i.e., pop-off valve, safety valve). Failure to install such relief devices could result in personal injury or damage to the pump or to system components. CAT PUMPS does not assume any liability or responsibility for the operation of a customer's high pressure system.

### SPECIFICATIONS

U.S. Measure

Metric Measure

#### MODEL 3821, 3821K

Flow .....23 GPM

(87 L/M)

Pressure Range.

100 to 2000 PSI (7 to 140 BAR)

Bore .....1.260"

(32 mm)

#### MODEL 3831, 3831K

Flow .....36 GPM

(136 L/M)

Pressure Range.

#### COMMON SPECIFICATIONS

Inlet Pressure\*

Flooded to 70 PSI (Flooded to 4.9 BAR)

(800 RPM)

Stroke .....1.890"

(48 mm)

Crankcase Capacity .....4.2 Qts.

(4 L)

Maximum Liquid Temperature .....160°F

(71°C)

Above 130°F call CAT PUMPS for inlet conditions and elastomer recommendations.

Inlet Ports (2).

.....1-1/2" NPTF (1-1/2" NPTF)

Flushing Ports (2)\*.

.....1/2" NPTF (1/2" NPTF)

Discharge Ports (2). .....1" NPTF

(1" NPTF)

Weight. ....167 lbs.

(75 kg)

Dimensions. ....24.4 x 18.11 x 9.37"

(620 x 460 x 238 mm)

\* K Models: Special Flushed Inlet Manifold permits external flush for added cooling with high temperature liquids and lubrication with low lubricity liquids.

### ELECTRIC HORSEPOWER REQUIREMENTS

| MODEL | FLOW        |     | PRESSURE   |             |             |             |             |             | RPM |
|-------|-------------|-----|------------|-------------|-------------|-------------|-------------|-------------|-----|
|       |             |     | PSI<br>800 | PSI<br>1000 | PSI<br>1200 | PSI<br>1500 | PSI<br>1800 | PSI<br>2000 |     |
|       | U.S.<br>GPM | L/M | BAR<br>55  | BAR<br>70   | BAR<br>85   | BAR<br>105  | BAR<br>125  | BAR<br>140  |     |
| 3821  | 23          | 87  | N/A        | N/A         | N/A         | 23.7        | 28.4        | 31.6        | 800 |
| 3821K | 20          | 76  | N/A        | N/A         | N/A         | 20.6        | 24.7        | 27.4        | 696 |
|       | 18          | 68  | N/A        | N/A         | N/A         | 18.5        | 22.2        | 24.7        | 626 |
| 3831  | 36          | 136 | 19.8       | 24.7        | 29.7        | N/A         | N/A         | N/A         | 800 |
| 3831K | 30          | 114 | 16.5       | 20.6        | 24.7        | N/A         | N/A         | N/A         | 667 |
|       | 25          | 95  | 13.7       | 17.2        | 20.6        | N/A         | N/A         | N/A         | 556 |

DETERMINING  
THE PUMP R.P.M.

Rated G.P.M.  
Rated R.P.M.

=  
"Desired " G.P.M.  
"Desired " R.P.M.

DETERMINING  
THE REQUIRED H.P.

GPM x PSI  
1460

=  
Electric Brake  
H. P. Required

DETERMINING  
MOTOR PULLEY SIZE

Motor Pulley O.D.  
Pump R.P.M.

=  
Pump Pulley O.D.  
Motor R.P.M.

See complete Drive Packages [Incls: Pulleys, Belts, Hubs, Key] Tech Bulletin 003.  
Refer to pump Service Manual for repair procedure, additional technical information and pump warranty.

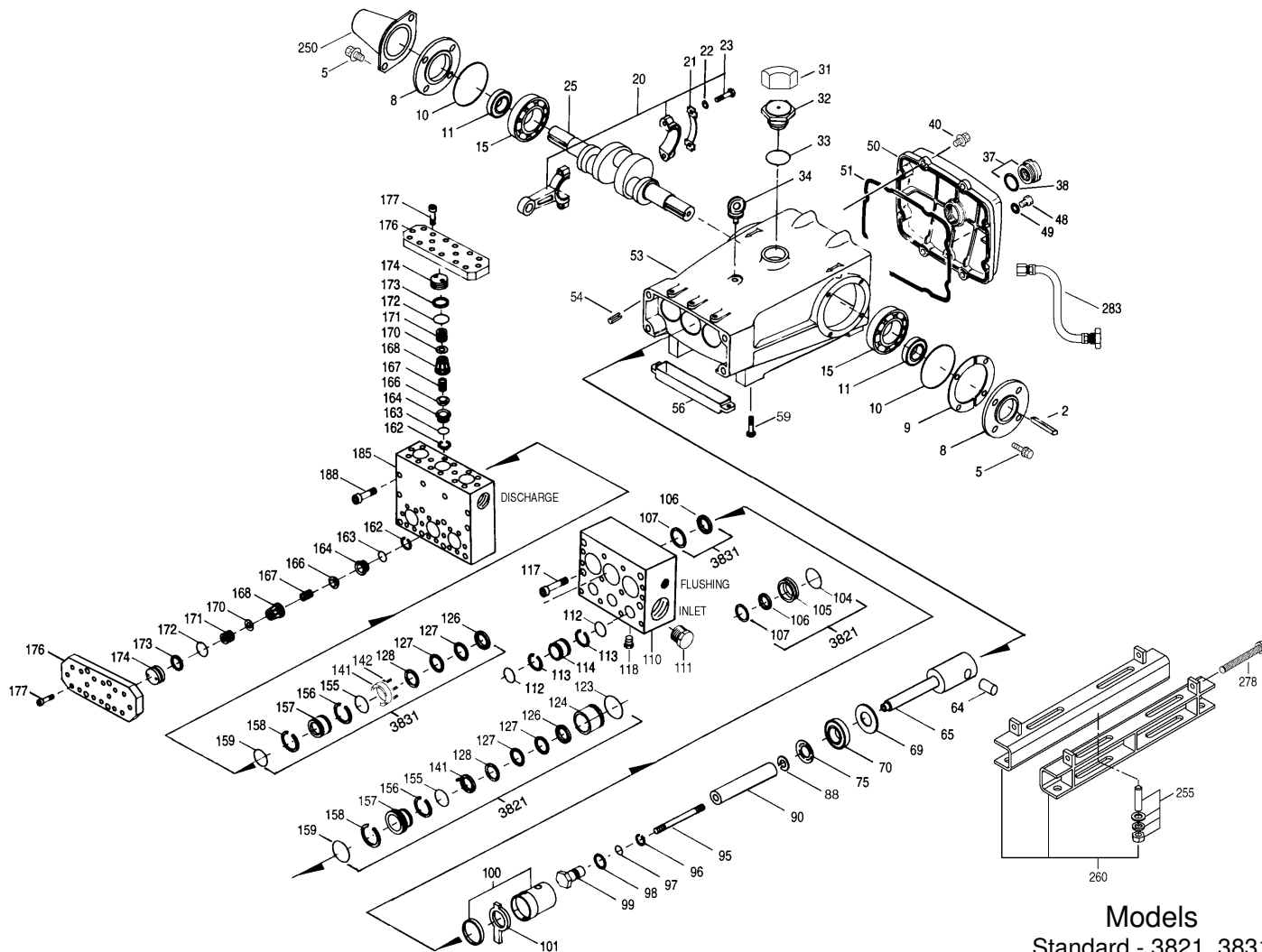
"Customer confidence is our greatest asset"

# PARTS LIST

| ITEM | PART NUMBER |        |          |        | DESCRIPTION |        |          |        | QTY                                            |      |
|------|-------------|--------|----------|--------|-------------|--------|----------|--------|------------------------------------------------|------|
| 2    | 3821        | MATL   | 3821K    | MATL   | 3831        | MATL   | 3831K    | MATL   | Key (M10x8x70)                                 | 1    |
| 5    | 34021       | STL    | 34021    | STL    | 34021       | STL    | 34021    | STL    | Screw, HH Sems (M8x25)                         | 8    |
| 8    | 44542       | AL     | 44542    | AL     | 44542       | AL     | 44542    | AL     | Cover, Bearing                                 | 2    |
| 9    | 815279      | FBR    | 815279   | FBR    | 815279      | FBR    | 815279   | FBR    | Shim, Split 2-Pc                               | 4    |
| 10   | 12398       | NBR    | 12398    | NBR    | 12398       | NBR    | 12398    | NBR    | O-Ring, Bearing Cover - 70D                    | 2    |
| 11   | 13296       | NBR    | 13296    | NBR    | 13296       | NBR    | 13296    | NBR    | Seal, Oil, Crankshaft                          | 2    |
| 15   | 29326       | STL    | 29326    | STL    | 29326       | STL    | 29326    | STL    | Bearing, Roller                                | 2    |
| 20   | 121467      | TNM    | 121467   | TNM    | 121467      | TNM    | 121467   | TNM    | Rod, Connecting Assy (Incls: 21,22,23) [10/00] | 3    |
| 21   | 126749      | STCP R | 126749   | STCP R | 126749      | STCP R | 126749   | STCP R | Washer, Locking (M10)                          | 3    |
| 22   | 126574      | STCP R | 126574   | STCP R | 126574      | STCP R | 126574   | STCP R | Washer, Flat (M10)                             | 6    |
| 23   | 122045      | STZP   | 122045   | STZP   | 122045      | STZP   | 122045   | STZP   | Screw, HH (M10x55)                             | 6    |
| 25   | 29325       | FCM    | 29325    | FCM    | 29325       | FCM    | 29325    | FCM    | Crankshaft, Dual End (M48)                     | 1    |
| 31   | 828710      | —      | 828710   | —      | 828710      | —      | 828710   | —      | Protector, Oil Cap w/Foam Gasket               | 1    |
| 32   | 43211       | ABS    | 43211    | ABS    | 43211       | ABS    | 43211    | ABS    | Cap, Oil Filler                                | 1    |
| 33   | 14177       | NBR    | 14177    | NBR    | 14177       | NBR    | 14177    | NBR    | O-Ring, Oil Filler Cap - 70D                   | 1    |
| 34   | 126743      | STCP R | 126743   | STCP R | 126743      | STCP R | 126743   | STCP R | Bolt, Eye (M12x1.75) (For Lifting Pump Only)   | 1    |
| 37   | 92241       | —      | 92241    | —      | 92241       | —      | 92241    | —      | Gauge, Oil Bubble w/Gasket                     | 1    |
| 38   | 44428       | NBR    | 44428    | NBR    | 44428       | NBR    | 44428    | NBR    | Gasket, Flat, Oil Gauge - 80D                  | 1    |
| 40   | 125753      | S      | 125753   | S      | 125753      | S      | 125753   | S      | Screw, HH Sems (M8x25)                         | 8    |
| 48   | 25625       | STCP   | 25625    | STCP   | 25625       | STCP   | 25625    | STCP   | Plug, Drain (1/4"x19BSP)                       | 1    |
| 49   | 23170       | NBR    | 23170    | NBR    | 23170       | NBR    | 23170    | NBR    | O-Ring, Drain Plug - 70D                       | 1    |
| 50   | 45936       | AL     | 45936    | AL     | 45936       | AL     | 45936    | AL     | Cover, Rear                                    | 1    |
| 51   | 16612       | NBR    | 16612    | NBR    | 16612       | NBR    | 16612    | NBR    | O-Ring, Cover - 70D                            | 1    |
| 53   | 44487       | AL     | 44487    | AL     | 44487       | AL     | 44487    | AL     | Crankcase Assy (Incls: 34, 54)                 | 1    |
| 54   | 27488       | S      | 27488    | S      | 27488       | S      | 27488    | S      | Pins, Guide                                    | 2    |
| 56   | 27790       | POP    | 27790    | POP    | 27790       | POP    | 27790    | POP    | Pan, Oil                                       | 1    |
| 59   | 92538       | S      | 92538    | S      | 92538       | S      | 92538    | S      | Screw, HH Sems (M6x16)                         | 2    |
| 64   | 43864       | CM     | 43864    | CM     | 43864       | CM     | 43864    | CM     | Pin, Crosshead                                 | 3    |
| 65   | 45116       | SSZZ   | 45116    | SSZZ   | 45116       | SSZZ   | 45116    | SSZZ   | Rod, Plunger                                   | 3    |
| 69   | 126587      | STCP R | 126587   | STCP R | 126587      | STCP R | 126587   | STCP R | Washer, Oil Seal                               | 3    |
| 70   | 100488      | NBRS   | 100488   | NBRS   | 100488      | NBRS   | 100488   | NBRS   | Seal, Oil, Crankcase                           | 3    |
|      | 44739       | FPM    | 44739    | FPM    | 44739       | FPM    | 44739    | FPM    | Seal, Oil, Crankcase                           | 3    |
| 75   | 43865       | S      | 43865    | S      | 43865       | S      | 43865    | S      | Slinger, Barrier                               | 3    |
| 88   | 45676       | S      | 45676    | S      | 45676       | S      | 45676    | S      | Washer, Keyhole (M16)                          | 3    |
| 90   | 43957       | CC     | 43957    | CC     | 43921       | CC     | 43921    | CC     | Plunger (M32x145) (M40x145)                    | 3    |
| 95   | 89778       | SS     | 89778    | SS     | 89778       | SS     | 89778    | SS     | Stud, Plunger Retainer (M10x135)               | 3    |
| 96   | 20189       | PTFE   | 20189    | PTFE   | 20189       | PTFE   | 20189    | PTFE   | Back-up-Ring, Plunger Retainer                 | 3    |
| 97   | 11345       | NBR    | 11345    | NBR    | 11345       | NBR    | 11345    | NBR    | O-Ring, Plunger Retainer - 70D                 | 3    |
|      | 11375       | FPM    | 11375    | FPM    | 11375       | FPM    | 11375    | FPM    | O-Ring, Plunger Retainer                       | 3    |
|      | ◆ 701490    | EPDM   | ◆ 701490 | EPDM   | ◆ 701490    | EPDM   | ◆ 701490 | EPDM   | O-Ring, Plunger Retainer                       | 3    |
| 98   | 44085       | SS     | 44085    | SS     | 44085       | SS     | 44085    | SS     | Gasket, Plunger Retainer                       | 3    |
| 99   | 44084       | SS     | 44084    | SS     | 44084       | SS     | 44084    | SS     | Retainer, Plunger (M10)                        | 3    |
| 100  | 814279      | PVDF   | 814279   | PVDF   | 814279      | PVDF   | 814279   | PVDF   | Retainer, Seal, 2-Pc                           | 3    |
| 101  | 44106       | —      | 44106    | —      | 44112       | —      | 44112    | —      | Wick, Long Tab                                 | 3    |
| 104  | 43875       | NBR    | 43875    | NBR    | —           | —      | —        | —      | O-Ring, Inlet Adapter - 70D                    | 3    |
|      | 44826       | FPM    | 44826    | FPM    | —           | —      | —        | —      | O-Ring, Inlet Adapter - 70D                    | 3    |
|      | ◆ 701656    | EPDM   | ◆ 701656 | EPDM   | —           | —      | —        | —      | O-Ring, Inlet Adapter - 70D                    | 3    |
| 105  | 45562       | SS     | 45562    | SS     | —           | —      | —        | —      | Adapter, Inlet                                 | 3    |
| 106  | 44098       | NBR    | 44098    | NBR    | 44113       | NBR    | 44113    | NBR    | Seal, LPS w/SS-Spg                             | 3    |
|      | 44827       | FPM    | 44827    | FPM    | 44740       | FPM    | 44740    | FPM    | Seal, LPS w/SS-Spg                             | 3    |
|      | ◆ 48244     | EPDM   | ◆ 48244  | EPDM   | ◆ 46955     | EPDM   | ◆ 46955  | EPDM   | Seal, LPS w/S-Spg                              | 3    |
| 107  | 44101       | SS     | 44101    | SS     | 45381       | SS     | 45381    | SS     | Washer, LPS Seal                               | 3    |
| 110  | 701286      | SSL    | —        | 701286 | SSL         | —      | 701286   | SSL    | Manifold, Inlet, Block-Style                   | 1    |
|      | —           | —      | 701408   | SSL    | —           | —      | 701408   | SSL    | Manifold, Inlet, Block-Style, Flushed          | 1    |
| 111  | 701116      | SS     | 701116   | SS     | 701116      | SS     | 701116   | SS     | Plug, Inlet (1-1/2" NPT)                       | 1    |
| 112  | 701794      | NBR    | 701794   | NBR    | 701794      | NBR    | 701794   | NBR    | O-Ring, Inlet Spacer - 70D                     | 6    |
|      | 701318      | FPM    | 701318   | FPM    | 701318      | FPM    | 701318   | FPM    | O-Ring, Inlet Spacer - 75D                     | 6    |
|      | ◆ 701495    | EPDM   | ◆ 701495 | EPDM   | ◆ 701495    | EPDM   | ◆ 701495 | EPDM   | O-Ring, Inlet Spacer - 70D                     | 6    |
| 113  | 701319      | PTFE   | 701319   | PTFE   | 701319      | PTFE   | 701319   | PTFE   | Back-up-Ring, Inlet Spacer                     | 6    |
| 114  | 701317      | SS     | 701317   | SS     | 701317      | SS     | 701317   | SS     | Spacer, Inlet                                  | 3    |
| 117  | 701252      | SS     | 701252   | SS     | 701252      | SS     | 701252   | SS     | Screw, HSH (M14x100)                           | 4    |
| 118  | 701077      | SS     | —        | 701077 | SS          | —      | 701077   | SS     | Plug (1/4" NPT)                                | 1    |
| 123  | 12391       | NBR    | 12391    | NBR    | —           | —      | —        | —      | O-Ring, V-Packing Cylinder - 70D               | 3    |
|      | 13266       | FPM    | 13266    | FPM    | —           | —      | —        | —      | O-Ring, V-Packing Cylinder - 70D               | 3    |
|      | ◆ 701657    | EPDM   | ◆ 701657 | EPDM   | —           | —      | —        | —      | O-Ring, V-Packing Cylinder - 70D               | 3    |
| 124  | 45563       | SSL    | 45563    | SSL    | —           | —      | —        | —      | Cylinder, V-Packing                            | 3    |
| 126  | 45564       | SS     | 45564    | SS     | 45367       | SS     | 45367    | SS     | Adapter, Female                                | 3    |
| 127  | † 44608     | STG*   | † 44608  | STG*   | † 44609     | STG*   | † 44609  | STG*   | V-Packing                                      | 6    |
|      | 44829       | SFG    | 44829    | SFG    | 44741       | SFG    | 44741    | SFG    | V-Packing                                      | 6    |
| 128  | 45565       | SS     | 45565    | SS     | 45368       | SS     | 45368    | SS     | Adapter, Male                                  | 3    |
| 141  | 45113       | SS     | 45113    | SS     | 45113       | SS     | 45113    | SS     | Springs, Coil                                  | 6/18 |
| 142  | 45566       | SS     | 45566    | SS     | 45382       | SS     | 45382    | SS     | Spacer w/Coil Springs                          | 3    |
| 155  | 48861       | NBR    | 48861    | NBR    | 48860       | NBR    | 48860    | NBR    | O-Ring, V-Packing Spacer - 90D                 | 3    |
|      | 11748       | FPM    | 11748    | FPM    | 20137       | FPM    | 20137    | FPM    | O-Ring, V-Packing Spacer                       | 3    |
|      | ◆ 701749    | EPDM   | ◆ 701749 | EPDM   | ◆ 701492    | EPDM   | ◆ 701492 | EPDM   | O-Ring, V-Packing Spacer                       | 3    |
| 156  | 48362       | D      | 48362    | D      | 48362       | D      | 48362    | D      | Back-up-Ring, V-Packing Spacer                 | 3    |
| 157  | 45674       | SS     | 45674    | SS     | 45369       | SS     | 45369    | SS     | Spacer, V-Packing                              | 3    |
| 158  | 48371       | D      | 48371    | D      | 48362       | D      | 48362    | D      | Back-up-Ring, V-Packing Spacer                 | 3    |
| 159  | 48860       | NBR    | 48860    | NBR    | 48860       | NBR    | 48860    | NBR    | O-Ring, V-Packing Spacer - 90D                 | 3    |
|      | 20137       | FPM    | 20137    | FPM    | 20137       | FPM    | 20137    | FPM    | O-Ring, V-Packing Spacer                       | 3    |
|      | ◆ 701492    | EPDM   | ◆ 701492 | EPDM   | ◆ 701492    | EPDM   | ◆ 701492 | EPDM   | O-Ring, V-Packing Spacer                       | 3    |
| 162  | 48363       | D      | 48363    | D      | 48363       | D      | 48363    | D      | Back-up-Ring, Seat                             | 6    |
| 163  | 26142       | NBR    | 26142    | NBR    | 26142       | NBR    | 26142    | NBR    | O-Ring, Seat - 80D                             | 6    |
|      | 14330       | FPM    | 14330    | FPM    | 14330       | FPM    | 14330    | FPM    | O-Ring, Seat                                   | 6    |
|      | ◆ 701493    | EPDM   | ◆ 701493 | EPDM   | ◆ 701493    | EPDM   | ◆ 701493 | EPDM   | O-Ring, Seat                                   | 6    |
| 164  | 44612       | SS     | 44612    | SS     | 44612       | SS     | 44612    | SS     | Seat, Stepped                                  | 6    |
| 166  | 44108       | SS     | 44108    | SS     | 44108       | SS     | 44108    | SS     | Valve                                          | 6    |
| 167  | 44109       | SS     | 44109    | SS     | 44109       | SS     | 44109    | SS     | Spring                                         | 6    |
| 168  | 44728       | PVDF   | 44728    | PVDF   | 44728       | PVDF   | 44728    | PVDF   | Retainer, Spring                               | 6    |
| 170  | 44729       | SS     | 44729    | SS     | 44729       | SS     | 44729    | SS     | Washer, Spring Retainer                        | 6    |
| 171  | 44644       | SS     | 44644    | SS     | 44644       | SS     | 44644    | SS     | Spring, Coil (70kg), Valve Plug                | 6    |
| 172  | 89827       | NBR    | 89827    | NBR    | 89827       | NBR    | 89827    | NBR    | O-Ring, Valve Plug - 90D                       | 6    |
|      | 11747       | FPM    | 11747    | FPM    | 11747       | FPM    | 11747    | FPM    | O-Ring, Valve Plug - 90D                       | 6    |
|      | ◆ 701494    | EPDM   | ◆ 701494 | EPDM   | ◆ 701494    | EPDM   | ◆ 701494 | EPDM   | O-Ring, Valve Plug - 70D                       | 6    |
| 173  | 48364       | D      | 48364    | D      | 48364       | D      | 48364    | D      | Back-up-Ring, Valve Plug                       | 6    |

Replace  
as a set

# EXPLODED VIEW



Models  
Standard - 3821, 3831  
Flushed - 3821K, 3831K  
February 2009

|     | 3821     | MATL | 3821K    | MATL | 3831     | MATL | 3831K    | MATL |                                                                               |    |
|-----|----------|------|----------|------|----------|------|----------|------|-------------------------------------------------------------------------------|----|
| 174 | 701278   | SS   | 701278   | SS   | 701278   | SS   | 701278   | SS   | Plug, Valve                                                                   | 6  |
| 176 | 701316   | SS   | 701316   | SS   | 701316   | SS   | 701316   | SS   | Cover, Valve                                                                  | 2  |
| 177 | 87951    | S    | 87951    | S    | 87951    | S    | 87951    | S    | Screw, HSH (M10x30)                                                           | 32 |
| 185 | 701315   | SSL  | 701315   | SSL  | 701315   | SSL  | 701315   | SSL  | Manifold, Discharge, Block-Style                                              | 1  |
| 188 | 701279   | S    | 701279   | S    | 701279   | S    | 701279   | S    | Screw, HSH (M12x100)                                                          | 12 |
| 196 | 701342   | SS   | 701342   | SS   | 701342   | SS   | 701342   | SS   | Plug, Discharge (1" NPT) Not Shown                                            | 1  |
| 250 | 44516    | NY   | 44516    | NY   | 44516    | NY   | 44516    | NY   | Protector, Shaft w/2 Screws, Lockwashers and Washers (Incl w/Pump)            | 1  |
| 255 | 34039    | S    | 34039    | S    | 34039    | S    | 34039    | S    | Assy, Direct Mount                                                            | 1  |
| 260 | 92674    | STZP | 92674    | STZP | 92674    | STZP | 92674    | STZP | Mount, Rail Assy (Incls: 34018)                                               | 1  |
| 275 | 990013   | STL  | 990013   | STL  | 990013   | STL  | 990013   | STL  | Hub, "B", (35mm Keyway) [See Drive Packages Tech 003]                         | 1  |
| 278 | 80540    | ZP   | 80540    | ZP   | 80540    | ZP   | 80540    | ZP   | Screw, HH (M12x100) (Rail Adjusting Screw)                                    | 1  |
| 279 | 30278    | STZP | 30278    | STZP | 30278    | STZP | 30278    | STZP | Oiler (1 oz.) Not Shown                                                       | 3  |
| 281 | 30967    | —    | 30967    | —    | 30967    | —    | 30967    | —    | Glass, Oiler Not Shown                                                        | 3  |
| 282 | 10069    | NBR  | 10069    | NBR  | 10069    | NBR  | 10069    | NBR  | Gasket, Oiler Not Shown                                                       | 3  |
| 283 | 34314    | —    | 34314    | —    | 34314    | —    | 34314    | —    | Kit, Oil Drain (3/8" X 48")                                                   | 1  |
| 290 | 6124     | —    | 6124     | —    | 6124     | —    | 6124     | —    | Gasket, Liquid (3 oz.)                                                        | 1  |
| 299 | 901401   | SSL  | —        | —    | 901400   | SSL  | —        | —    | Head, Complete, Block-Style                                                   | 1  |
| 300 | 701699   | NBR  | 701699   | NBR  | 701698   | NBR  | 701698   | NBR  | Head, Complete, Block-Style, Flushed                                          | 1  |
|     | 33269    | FPM  | 33269    | FPM  | 33268    | FPM  | 33268    | FPM  | Kit, Seal (Incls: 97, 104, 106, 112, 113, 123, 127, 155, 156, 158, 159)       | 1  |
|     | ♦ 701714 | EPDM | ♦ 701714 | EPDM | ♦ 701797 | EPDM | ♦ 701797 | EPDM | Kit, Seal (Incls: 97, 104, 106, 112, 113, 123, 127, 155, 156, 158, 159)       | 1  |
| 310 | 34017    | NBR  | 34017    | NBR  | 34017    | NBR  | 34017    | NBR  | Kit, Seal (Incls: 97, 104, 106, 112, 113, 123, 127, 155, 156, 158, 159)       | 1  |
|     | 31955    | FPM  | 31955    | FPM  | 31955    | FPM  | 31955    | FPM  | Kit, Valve, Preassembled (Incls: 162, 163, 164, 166, 167, 168, 170, 172, 173) | 2  |
|     | ♦ 31952  | EPDM | ♦ 31952  | EPDM | ♦ 31952  | EPDM | ♦ 31952  | EPDM | Kit, Valve, Preassembled (Incls: 162, 163, 164, 166, 167, 168, 170, 172, 173) | 2  |
|     | 819000   | F    | 819000   | F    | 819000   | F    | 819000   | F    | Kit, Valve, Preassembled (Incls: 162, 163, 164, 166, 167, 168, 170, 172, 173) | 2  |
| 370 | —        | —    | 990663   | —    | —        | —    | 990663   | —    | Assembly, Crankcase, Cast Iron Conversion                                     | 1  |
| 390 | 714500   | SS   | 714500   | SS   | 714500   | SS   | 714500   | SS   | Assembly, Flushing, 5 gal., 115V, 1.1 Amp, 1/2"NPT                            | 1  |
| 391 | 714506   | SS   | 714506   | SS   | 714506   | SS   | 714506   | SS   | C.A.T. (Inlet pressure stabilizer for RO and boosted inlet applications)      | 1  |
| 392 | 701828   | SS   | 701828   | SS   | 701828   | SS   | 701828   | SS   | Adapter (2 per C.A.T.) (See Data Sheet for complete selection)                | 2  |
|     | 6100     | —    | 6100     | —    | 6100     | —    | 6100     | —    | Elbow Assy used with Adapter Assy 714506                                      | 1  |
|     |          |      |          |      |          |      |          |      | Oil, Case (12-21 oz. Bottles) ISO-68 Hydraulic                                | 1  |
|     |          |      |          |      |          |      |          |      | (Fill to specified crankcase capacity prior to start-up)                      |    |

**Bold print part numbers are unique to a particular pump model. Italics are optional items.** [ ] Date of latest production change. ♦ Silicone oil/grease required.

† Production parts are different than replacement parts. R Components comply with RoHS Directive. \* Review individual parts in each kit for material code identification.

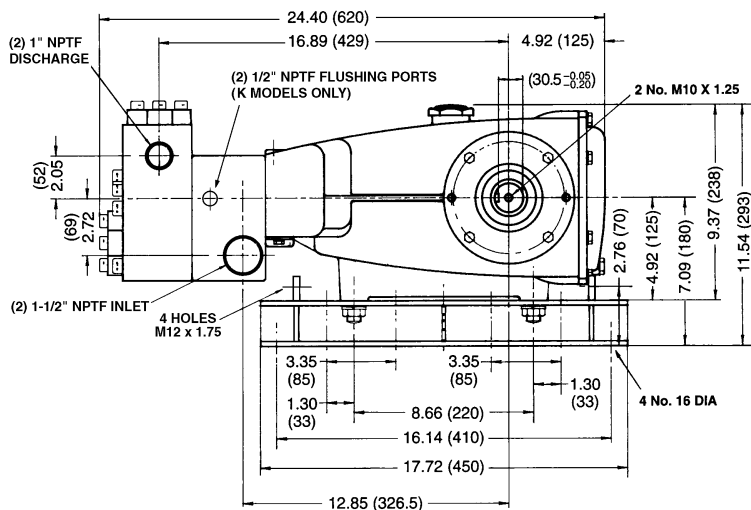
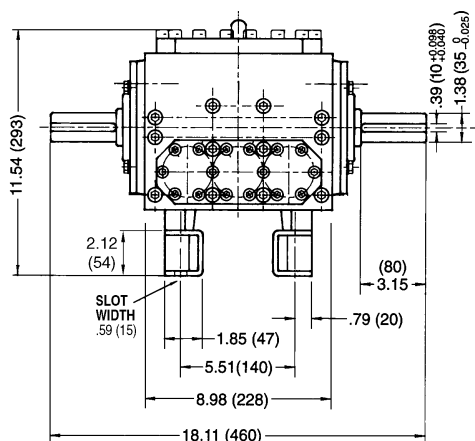
See Tech Bulletins 002, 003, 024, 035, 036, 041, 043, 053, 074, 077, 083, 095 and 105 for additional information. **C.A.T. highly recommended for pressurized inlet, R.O. and industrial applications.**

MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic AL=Aluminum CC=Ceramic CM=Chrome-Moly D=Acetal EPDM=Ethylene Propylene Diene Monomer F=Cast Iron FBR=Fiber

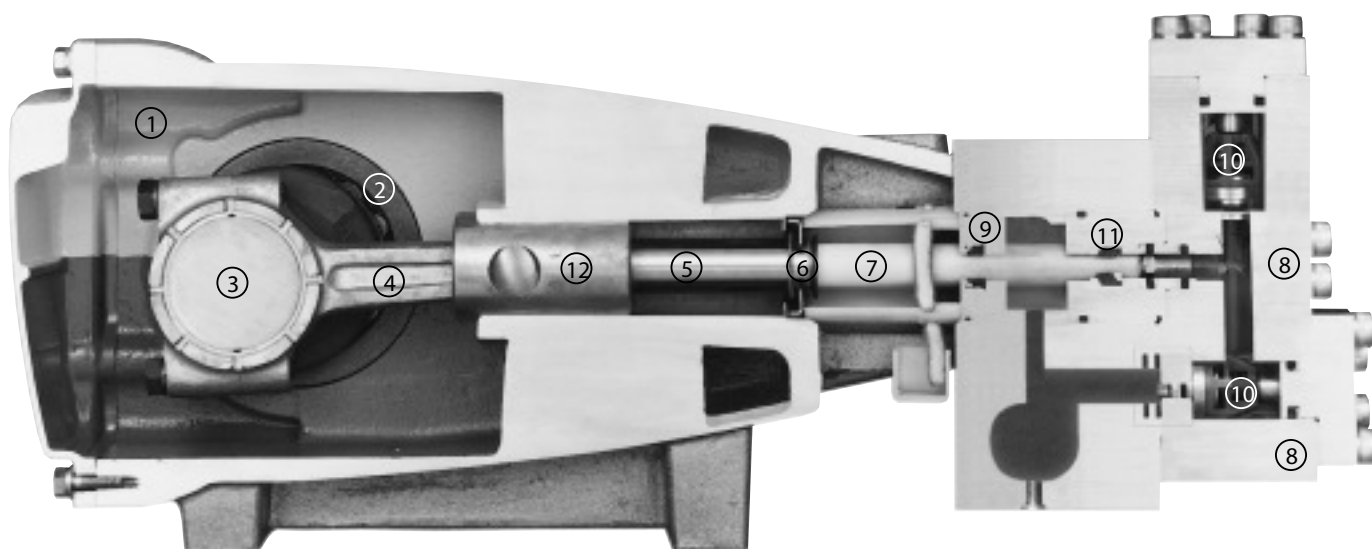
FCM=Forged Chrome-moly FPM=Fluorocarbon NBR=Medium Nitrile (Buna-N) NBRs=Buna, Silicone Free NY=Nylon POP=Polypropylene PTFE=Pure Polytetrafluoroethylene

PVDF=Polyvinylidene Fluoride S=304SS SFG=Special Blend FPM SS=316SS SSL=316SS/Low Carbon SSZZ=316SS/Zamack STG=Special Blend PTFE White STL=Steel

STZP=Steel/Zinc Plated TNM=Special High Strength ZP=Zinc Plated



Models 3821, 3821K, 3831, 3831K



- 1 Die cast aluminum crankcase means high strength, lightweight, and excellent tolerance control.
- 2 Oversized crankshaft bearings provide extended bearing life and pump performance.
- 3 Chrome-moly crankshaft provides unmatched strength and surface hardness for long life.
- 4 Matched oversized high strength TNM connecting rods noted for superior strength and bearing quality.
- 5 Special stainless steel plunger rods with high strength crossheads for longevity and corrosion resistance.

- 6 The stainless steel slinger provides back-up protection for the crankcase seal, keeping pumped liquids out of the crankcase.
- 7 Special concentric, high-density, polished, solid ceramic plungers provide a true wear surface and extended seal life.
- 8 Manifolds are 316 SSL block-style for long-term continuous-duty and corrosion resistance.
- 9 Standard Models: Lo Pressure Seals and V-Packings are completely lubricated and cooled by the liquid being pumped.

- 9 Special Flushed Inlet Manifold permits external flush for added cooling with high temperature liquids and lubrication with low lubricity liquids.
- 10 Stainless steel valves, seats and springs provide corrosion-resistance, ultimate seating and extended life.
- 11 Specially formulated, CAT PUMP exclusive, V-Packings offer unmatched performance and seal life.
- 12 Crossheads are 360° supported for uncompromising alignment.



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