

(Unloader included with pump)

## PUMP FEATURES

- Ultimate portability - less than 11 pounds - less than 10" long.
- Unique spring loaded inlet valves and the flow through ceramic plungers provides a smooth, steady flow.
- Optional 3450 or 1725 RPM models for gas or electric drive.
- Regulating Unloader is standard on each pump to assure system pressure control and pump protection.
- Special HT and FPM seals and FPM or EPDM O-Rings for liquid compatibility.

## COMMON PUMP SPECIFICATIONS

|  |   |                       |
|--|---|-----------------------|
| Inlet Pressure Range (Standard)  | Flooded to 75 psi                       | (Flooded to 5.25 bar) |
| ..... (Hi-Temp)  | 30 to 75 psi                            | (2.1 to 5.25 bar)     |
| Bore .....   | 0.708"                                  | (18 mm)               |
| Max. Liquid Temperature(Standard)  | 160°F                                   | (71°C)                |
| ..... (Hi-Temp)  | 190°F                                   | (88°C)                |
| Above 130°F call CAT PUMPS for inlet conditions and elastomer recommendations. |   |                       |
| Crankcase Capacity.....  | 11.15 oz.                               | (.33 l)               |
| Inlet Ports (1).....   | 3/8" NPTF                               | (3/8" NPTF)           |
| Discharge Ports (2).....   | 3/8" NPTF                               | (3/8" NPTF)           |
| By-Pass Ports (1).....   | 1/4" NPTF                               | (1/4" NPTF)           |
| Weight (Pump Only).....  | 10.6 lbs.                               | (4.8 kg)              |
| Dimensions (Pump Only) .....   | 9.13 x 6.65 x 6.50" (232 x 169 x 165mm) |                       |

### ⚠ CAUTIONS AND WARNINGS

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

Read all CAUTIONS and WARNINGS before commencing service or operation of any high pressure system. The CAUTIONS and WARNINGS are included in each service manual and with each Accessory Data sheet. CAUTIONS and WARNINGS can also be viewed online at [www.catpumps.com/cautions-warnings](http://www.catpumps.com/cautions-warnings) or can be requested directly from CAT PUMPS.

### WARRANTY

View the Limited Warranty on-line at [www.catpumps.com/warranty](http://www.catpumps.com/warranty).

## Direct-Drive Plunger Pumps

**Electric Models** **2SF10ES**

**2SF20ES, 2SF22ES, 2SF22ELS**

**2SF29ELS, 2SF30ES, 2SF35ES**

**Gas Models** **2SF30GS, 2SF35GS**

## SPECIFICATIONS

|                              | U.S.<br>Measure | Metric<br>Measure | U.S.<br>Measure | Metric<br>Measure |
|------------------------------|-----------------|-------------------|-----------------|-------------------|
| <b>MODEL</b>                 |                 |                   | <b>2SF10ES</b>  |                   |
| Flow .....                   |                 |                   | 1.0 gpm         | (3.8 l/m)         |
| Max. Discharge Pressure..... |                 |                   | 2000 psi        | (140 bar)         |
| Max. RPM.....                |                 |                   | 3450 rpm        | (3450 rpm)        |
| Stroke.....                  |                 |                   | 0.071"          | (1.8 mm)          |
| <b>MODEL</b>                 |                 |                   | <b>2SF20ES</b>  | <b>2SF22ES</b>    |
| Flow .....                   | 2.0 gpm         | (7.6 l/m)         | 2.2 gpm         | (8.3 l/m)         |
| Max. Discharge Pressure      | 2000 psi        | (140 bar)         | 2000 psi        | (140 bar)         |
| Max. RPM.....                | 3450 rpm        | (3450 rpm)        | 3450 rpm        | (3450 rpm)        |
| Stroke.....                  | 0.122"          | (3.1 mm)          | 0.132"          | (3.35 mm)         |
| <b>MODEL</b>                 |                 |                   | <b>2SF22ELS</b> |                   |
| Flow .....                   |                 |                   | 2.2 gpm         | (8.3 l/m)         |
| Max. Discharge Pressure..... |                 |                   | 2000 psi        | (140 bar)         |
| Max. RPM.....                |                 |                   | 1725 rpm        | (1725 rpm)        |
| Stroke.....                  |                 |                   | 0.248"          | (6.3 mm)          |
| <b>MODEL</b>                 |                 |                   | <b>2SF29ELS</b> | <b>2SF30ES</b>    |
| Flow .....                   | 2.85 gpm        | (10.8 l/m)        | 3.0 gpm         | (11.4 l/m)        |
| Max. Discharge Pressure      | 1500 psi        | (105 bar)         | 1500 psi        | (105 bar)         |
| Max. RPM.....                | 1725 rpm        | (1725 rpm)        | 3450 rpm        | (3450 rpm)        |
| Stroke.....                  | 0.335"          | (8.5 mm)          | 0.177"          | (4.5 mm)          |
| <b>MODEL</b>                 |                 |                   | <b>2SF30GS</b>  |                   |
| Flow .....                   |                 |                   | 3.0 gpm         | (11.4 l/m)        |
| Max. Discharge Pressure..... |                 |                   | 2000 psi        | (140 bar)         |
| Max. RPM.....                |                 |                   | 3450 rpm        | (3450 rpm)        |
| Stroke.....                  |                 |                   | 0.189"          | (4.8 mm)          |
| <b>MODEL</b>                 |                 |                   | <b>2SF35ES</b>  | <b>2SF35GS</b>    |
| Flow .....                   | 3.5 gpm         | (13.2 l/m)        | 3.5 gpm         | (13.2 l/m)        |
| Max. Discharge Pressure      | 1500 psi        | (105 bar)         | 2000 psi        | (140 bar)         |
| Max. RPM.....                | 3450 rpm        | (3450 rpm)        | 3450 rpm        | (3450 rpm)        |
| Stroke.....                  | 0.220"          | (5.6 mm)          | 0.220"          | (5.6 mm)          |

Optional Electric-3/4" Shaft - 2SF30GES, 2SF35GES

ES, ELS = **Electric 5/8"** hollow shaft with bolt mount

GES = **Electric 3/4"** hollow shaft with bolt mount

GS = **Gas 3/4"** hollow shaft with bolt and adapter mount

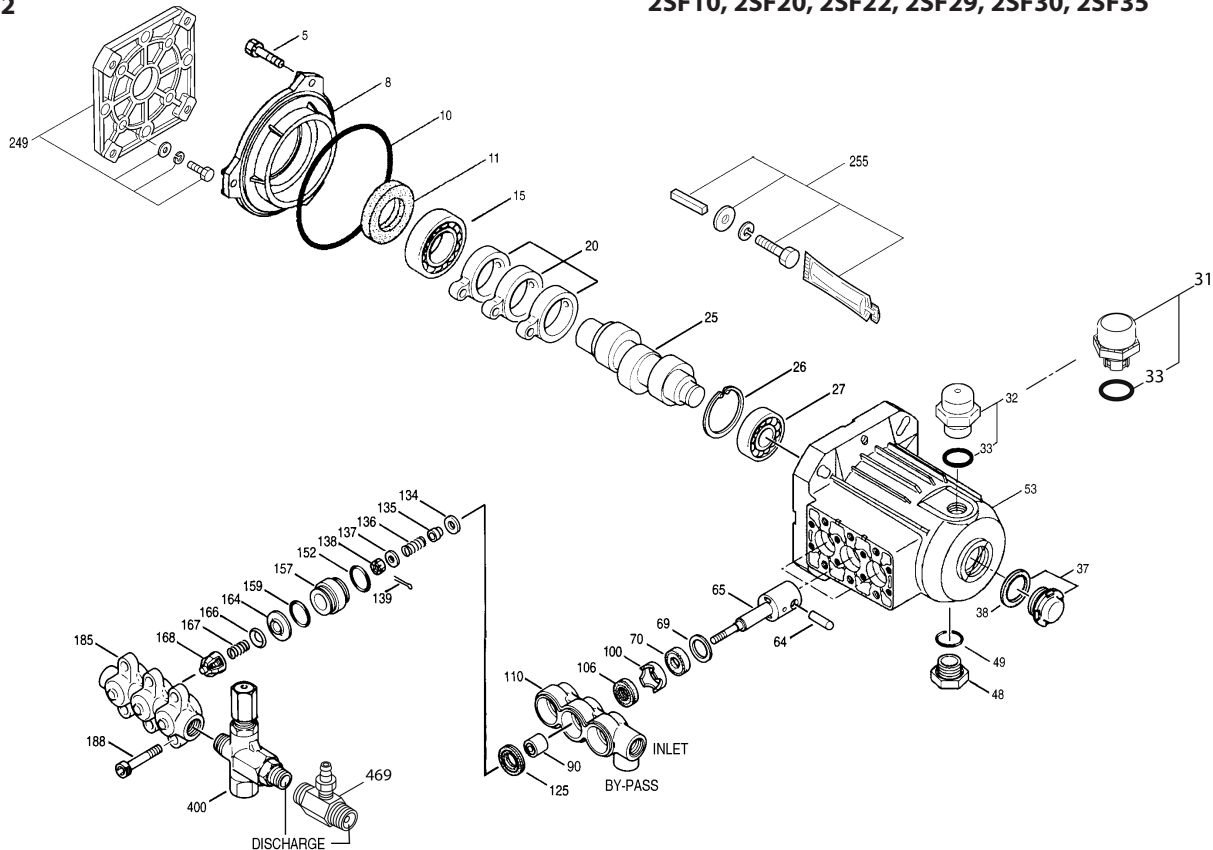
Mounting Flange: SAE J609, Flange A, Extension 3 (3/4"Ø)

Shaft Length: 2.296, Pilot Ø= 1 5/8", B.C. Ø= 3 5/8", Thread= 5/16"-24 UNC Tap

Refer to pump **Service Manual** for repair procedure and additional technical information.

# EXPLODED VIEW

October 2012



# SF PLUNGER PUMP MODELS

2SF10, 2SF20, 2SF22, 2SF29, 2SF30, 2SF35

## PARTS LIST

| ITEM | P/N    | MATL   | DESCRIPTION                              | MODEL USED              | QTY | ITEM  | P/N    | MATL   | DESCRIPTION  | MODEL USED              | QTY |
|------|--------|--------|--|-------------------------|-----|-------|--------|--|--|-------------------------|-----|
| 5    | 549360 | STCP R | Screw, HH (M6x14)                        | All Models              | 3   | 134   | 45854  | S  | Valve, Inlet   | All Models              | 3   |
| 8    | 547153 | AL     | Cover, Bearing, Inner [3/03]             | All Models              | 1   | 33873 | NY     | Valve, Inlet, Hi-Temp                              | All Models   | 3                       |     |
| 10   | 14041  | NBR    | O-Ring, Bearing Cover - 70D [3/03]       | All Models              | 1   | 135   | 549520 | S  | Spacer, Inlet  | All Models              | 3   |
| 11   | 55337  | NBR    | Seal, Oil [3/03]                         | All Models              | 1   | 136   | 44872  | S  | Spring, Inlet Valve                                      | All Models              | 3   |
| 15   | 14488  | STL    | Bearing, Ball, Inner                     | All Models              | 1   | 137   | 88575  | S  | Washer, Conical (M6)                                     | All Models              | 3   |
| 20   | 547046 | TNM    | Rod, Connecting                          | All Models              | 3   | 138   | 27000  | S  | Nut, Slotted (M6)  | All Models              | 3   |
| 25   | 831987 | CM     | Crankshaft, 3450 RPM, 5/8", 1.8mm        | 10ES                    | 1   | 139   | 14158  | S  | Cotterpin (M1.6x10)                                      | All Models              | 3   |
|      | 46109  | CM     | Crankshaft, 3450 RPM, 5/8", 3.1mm        | 20ES                    | 1   | 152   | 26089  | NBR  | O-Ring, Adapter, Inner - 80D                             | All Models              | 3   |
|      | 46074  | CM     | Crankshaft, 3450 RPM, 3/4", 3.35mm       | 22GS                    | 1   | 11377 | FPM    | O-Ring, Adapter, Inner - 80D                       | All Models   | 3                       |     |
|      | 44929  | CM     | Crankshaft, 3450 RPM, 5/8", 3.35mm       | 22ES                    | 1   | 46647 | EPDM   | O-Ring, Adapter, Inner - 80D                       | All Models   | 3                       |     |
|      | 546334 | CM     | Crankshaft, 3450 RPM, 3/4", 4.8mm        | 30GS                    | 1   | 157   | 44878  | BB   | Discharge Valve Adapter                                  | All Models except 29ELS | 3   |
|      | 44931  | CM     | Crankshaft, 3450 RPM, 5/8", 4.5mm        | 30ES                    | 1   | 45430 | BB     | Discharge Valve Adapter                            | 29ELS  | 3                       |     |
|      | 45096  | CM     | Crankshaft, 3450 RPM, 5/8", 5.6mm        | 35ES                    | 1   | 159   | 26089  | NBR  | O-Ring, Adapter, Outer - 80D                             | All Models              | 3   |
|      | 46017  | CM     | Crankshaft, 3450 RPM, 3/4", 5.6mm        | 35ES                    | 1   | 11377 | FPM    | O-Ring, Adapter, Outer - 80D                       | All Models   | 3                       |     |
|      | 45160  | CM     | Crankshaft, 1725 RPM, 5/8", 6.3mm        | 22ELS                   | 1   | 46647 | EPDM   | O-Ring, Adapter, Outer - 80D                       | All Models   | 3                       |     |
|      | 45914  | CM     | Crankshaft, 1725 RPM, 5/8", 8.5mm        | 29ELS                   | 1   | 164   | 44881  | S  | Seat   | All Models              | 3   |
| 26   | 12385  | STL    | Ring, Retaining                          | All Models              | 1   | 166   | 43723  | S  | Valve  | All Models              | 3   |
| 27   | 15710  | STL    | Bearing, Ball, Outer                     | All Models              | 1   | 167   | 541062 | S  | Spring   | All Models              | 3   |
| 31   | 549726 | —      | Cap, Vented w/O-Ring (Rain Cap)          | All Models              | 1   | 168   | 44565  | PVDF   | Retainer, Spring   | All Models              | 3   |
| 32   | 547961 | RTP    | Cap, Oil Filler w/O-Ring                 | All Models              | 1   | 185   | 44879  | BB   | Manifold, Discharge                                      | All Models              | 1   |
| 33   | 14179  | NBR    | O-Ring, Oil Filler Cap - 70D             | All Models              | 1   | 188   | 126762 | STCP R   | Screw, HSH (M8x7.5)                                      | All Models              | 6   |
| 37   | 92241  | —      | Gauge, Bubble Oil w/Gasket - 80D         | All Models              | 1   | 249   | 30520  | —  | Assy, Adapter Mount, Gas                                 | 30GS, 35GS              | 1   |
| 38   | 44428  | NBR    | Gasket, Flat Flex., Oil Gauge - 80D      | All Models              | 1   | 255   | 30517  | STZP R   | Assy, Bolt Mount   | All Models              | 1   |
| 48   | 44842  | NY     | Plug, Drain (1/2" NPT)                   | All Models              | 1   | 283   | 990394 | —  | Kit, Oil Drain (Not Shown)                               | All Models              | 1   |
| 49   | 14179  | NBR    | O-Ring, Drain Plug - 70D                 | All Models              | 1   | 285   | 80228  | STL  | Screw (M8-1.25x80) (Not Shown)                           | All Models              | 2   |
| 53   | 547285 | AL     | Crankcase [3/03] (See Tech Bulletin 092) | All Models              | 1   | 300   | 34053  | NBR  | Kit, Seal (Incls: 106,125,139,152,159)                   | All Models              | 7   |
| 64   | 16948  | CM     | Pin, Crosshead                           | All Models              | 3   | 33953 | HT     | Kit, Seal-Hi-Temp (Incls: 106,125,134,139,152,159) | All Models   | 7                       |     |
| 65   | 44865  | SCP    | Rod, Plunger                             | All Models except 29ELS | 3   | 33453 | FPM    | Kit, Seal (Incls: 106,125,139,152,159)             | All Models   | 7                       |     |
|      | 45427  | SZZ    | Rod, Plunger                             | 29ELS                   | 3   | 30536 | EPDM   | Kit, Seal (Incls: 106,125,139,152,159)             | All Models   | 7                       |     |
| 69   | 126259 | STCP R | Washer (M24)                             | All Models              | 3   | 310   | 34052  | NBR  | Kit, Valve (Incls: 152,159,164,166,167,168)              | All Models              | 7   |
| 70   | 25461  | NBR    | Seal, Oil                                | All Models              | 3   | 311   | 34668  | NBR  | Kit, Inlet Valve (Incls: 134-137,139,152,159)            | All Models              | 7   |
| 90   | 45847  | CC     | Plunger (M18x14)                         | All Models except 29ELS | 3   | 352   | 44050  | STZP   | Tool, Oil Gauge Removal                                  | All Models              | 1   |
|      | 45429  | CC     | Plunger (M18x16)                         | 29ELS                   | 3   | 400   | 75005  | BB   | Unloader, Regulating                                     | All Models              | 7   |
| 100  | 44869  | PVDF   | Retainer, Seal                           | All Models              | 3   | 469   | 7192   | BB   | Injector, Chemical (1.8 mm Adjustable)                   | All Models              | 7   |
| 106  | 44876  | NBR    | Seal, LPS w/S-Spg                        | All Models              | 3   | —     | 7193   | BB   | Injector, Chemical (2.1 mm Adjustable)                   | All Models              | 7   |
|      | 545192 | FPM    | Seal, LPS w/SS-Spg                       | All Models              | 3   | —     | 7194   | BB   | Injector, Chemical (2.3 mm Adjustable)                   | All Models              | 7   |
| ◆    | 546507 | EPDM   | Seal, LPS w/SS-Spg                       | All Models              | 3   | —     | 6575   | —  | Plunger Pump Service DVD                                 | All Models              | 7   |
| 110  | 44874  | BB     | Manifold, Inlet                          | All Models              | 1   | —     | 6107   | —  | Oil, Bottle (2.1 oz) ISO 68 Hydraulic                    | All Models              | 7   |
| 125  | 43245  | SNG    | Seal, HPS w/S                            | All Models              | 3   |       |        |  | (Fill to specified crankcase capacity prior to start-up) |                         |     |
|      | 46652  | HT*    | Seal, HPS "Hi-Temp" 2-Pc w/S-Support     | All Models              | 3   |       |        |  |  |                         |     |

**Bold print part numbers are unique to a particular pump model. Italics are optional items. [ ]** Date of latest production change. R Components comply with RoHS Directive.

◆ Silicone Oil /Grease Required. View Tech Bulletins 002, 024, 036, 043, 055, 060, 064, 065, 070, 073, 074, 083, 091 and 092 for additional information.

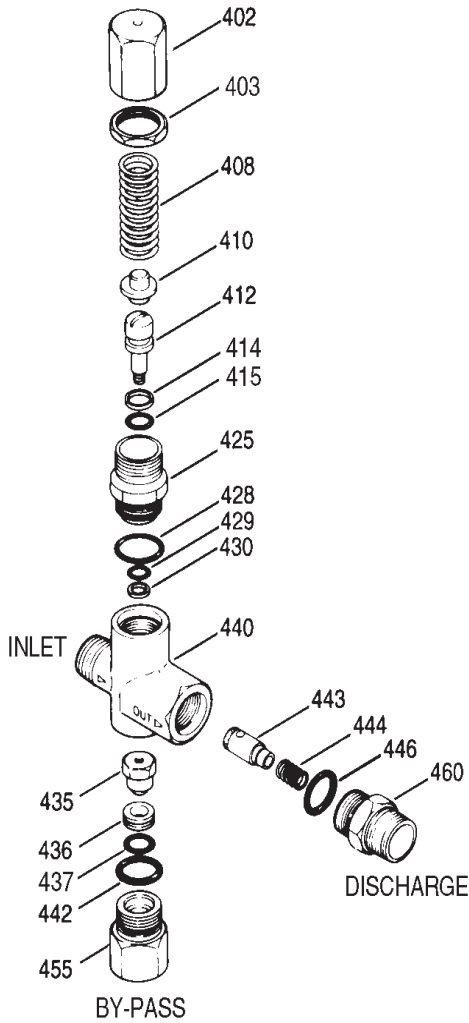
NOTE: Discard Key which may come standard with most motors and engines and use only the key included in this kit.

MATERIAL CODES (Not Part of Part Number): AL=Aluminum BB=Brass CC=Ceramic CM=Chrome-Moly FPM=Fluorocarbon

HT=Hi-Temp (EPDM Alternative) LDPE=Low Density Polyethylene NBR=Medium Nitrile (Buna-N) NY=Nylon PVDF=Polyvinylidene Fluoride RTP=Reinforced Composite  
S=304SS SCP=304SS/Chrome Plated SNG=Special Blend (Buna) STL=Steel STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated SZZ=304SS/Zamak TNM=Special High Strength

Center raised pilot guide on the **Adapter Plate** assures proper alignment of pump and engine. Before mounting pump onto engine inspect engine for **recessed seal and bearing guide** to permit adapter to completely seat into recess and four bosses to be flush with engine face.

## EXPLODED VIEW



## PARTS LIST

| ITEM | P/N      | MATL   | DESCRIPTION  | QTY. |
|------|----------|--------|--|------|
| 402  | 540081   | BB     | Cap, Hex Adjusting   | 1    |
| 403  | 31047    | BB     | Nut, Lock (M18 x 1)  | 1    |
| 408  | 32094    | STZP R | Spring, Pressure   | 1    |
| 410  | 107672   | BB     | Retainer, Spring   | 1    |
| 412  | 45694    | S      | Stem, Piston (M5)  | 1    |
| 414  | 20184    | PTFE   | Back-up-Ring, Piston Stem                                  | 1    |
| 415  | 14190    | NBR    | O-Ring, Piston Stem - 70D                                  | 1    |
|      | 14161    | FPM    | O-Ring, Piston Stem - 70D                                  | 1    |
|      | ◆ 48239  | EPDM   | O-Ring, Piston Stem  | 1    |
| 425  | 107673   | BB     | Retainer, Piston   | 1    |
| 428  | 13969    | NBR    | O-Ring, Piston Retainer - 70D                              | 1    |
|      | 14320    | FPM    | O-Ring, Piston Retainer - 70D                              | 1    |
|      | ◆ 547313 | EPDM   | O-Ring, Piston Retainer - 70D                              | 1    |
| 429  | 14759    | NBR    | O-Ring, Body   | 1    |
|      | 14160    | FPM    | O-Ring, Body - 80D   | 1    |
|      | ◆ 46204  | EPDM   | O-Ring, Body - 70D   | 1    |
| 430  | 107675   | PTFE   | Back-up-Ring, Body   | 1    |
| 435  | 45696    | BB     | Valve and Ball Assembly (M5)                               | 1    |
| 436  | 107680   | S      | Seat   | 1    |
| 437  | 13963    | NBR    | O-Ring, Seat - 70D   | 1    |
|      | 14303    | FPM    | O-Ring, Seat - 70D   | 1    |
|      | ◆ 547319 | EPDM   | O-Ring, Body - 70D   | 1    |
| 440  | —        | BB     | Body   | 1    |
| 442  | 13969    | NBR    | O-Ring, By-Pass Fitting - 70D                              | 1    |
|      | 14320    | FPM    | O-Ring, By-Pass Fitting - 70D                              | 1    |
|      | ◆ 547313 | EPDM   | O-Ring, By-Pass Fitting - 70D                              | 1    |
| 443  | 541060   | BB     | Valve, Check w/O-Ring                                      | 1    |
| 444  | 45924    | S      | Spring   | 1    |
| 446  | 13969    | NBR    | O-Ring, Discharge Fitting - 70D                            | 1    |
|      | 14320    | FPM    | O-Ring, Discharge Fitting - 70D                            | 1    |
|      | ◆ 547313 | EPDM   | O-Ring, Discharge Fitting - 70D                            | 1    |
| 455  | 45695    | BB     | Fitting, By-Pass (3/8" NPTF)                               | 1    |
| 460  | 107681   | BB     | Fitting, Discharge (3/8" NPTM)                             | 1    |
| 465  | 7090     | BB     | By-Pass Hose (15" x 3/8")                                  | 1    |
| 466  | 7090.40  | BB     | By-Pass Hose w/Thermo Valve                                | 1    |
|      | 7090.35  | RTP    | By-Pass Hose w/Thermo Valve                                | 1    |
| 468  | 32097    | NBR    | Kit, O-Ring (Incls: 414,415, 428, 429, 430, 437, 442, 446) | 1    |
|      | 31627    | FPM    | Kit, O-Ring (Incls: 414,415, 428, 429, 430, 437, 442, 446) | 1    |
|      | ◆ 31959  | EPDM   | Kit, O-Ring (Incls: 414,415, 428, 429, 430, 437, 442, 446) | 1    |

*Italics are optional items. R Components comply with RoHS Directive.*

◆ Silicone Oil/Grease Required. MATERIAL CODES (Not Part of Part Number): BB=Brass  
FPM=Fluorocarbon NBR=Medium Nitrile (Buna-N) PTFE=Pure Polytetrafluoroethylene S=304SS  
STZP=Steel/Zinc Plated

## 7500S UNLOADER SPECIFICATIONS

|                             | U.S. Measure      | Metric Measure     |
|-----------------------------|-------------------|--------------------|
| Flow Range.....             | 0.5-6.0 gpm       | (1.89-23 l/m)      |
| Pressure Range.....         | 100-2000 psi      | (7-140 bar)        |
| Inlet Port - Rear.....      | 3/8" NPTM         | (3/8" NPTM)        |
| Discharge Port - Front..... | M18 x 1.0         | (M18 x 1.0)        |
| By-pass Port - Bottom.....  | 3/8" NPTF         | (3/8" NPTF)        |
| Weight.....                 | 14.4 oz.          | (0.41 kg)          |
| Dimensions.....             | 3.0 x 1.0 x 4.25" | (76 x 25 x 108 mm) |

## UNLOADER TYPE

Each pump comes with a pressure sensitive regulating unloader. This unloader will set system pressure. While in by-pass the line pressure will drop to a low pressure mode and then quickly build up to set system pressure when the system is back to full use.

## INSTALLATION AND START-UP

Install a pressure gauge close to the manifold head of the pump to assist in setting system pressure and to periodically monitor system pressure. By-pass line can be directed to the ground, or to a reservoir or be redirected to the 1/4" NPTF port on bottom side of inlet manifold. If routing to pump inlet use a 3/8" flexible hose and thermo valve.

**NOTE:** If not using a thermo valve **DO NOT EXCEED 6 MINUTES** in by-pass.

**NOTE:** For Hi-Temp seal pumps **DO NOT USE THERMO VALVE**, use optional dual pressure switches and mechanical relays.

Pump should be purged of air before commencing with operation. Liquid must flow through the pump without discharge restriction to assure full system pressure is reached.

Setting and adjusting the unloader pressure must be done with the system turned on. Start the system with the unloader backed off to the lowest pressure setting (counterclockwise direction). Squeeze the trigger and read the pressure on the gauge at the pump. Do not read pressure at the gun or nozzle. If more pressure is desired, release the trigger, turn adjusting cap one quarter turn in a clockwise direction. Squeeze the trigger and read the pressure. Repeat this process until the desired system pressure is reached. Thread locking nut up to adjusting cap.

**NOTE:** Pressure is not set at the factory.

## SERVICE

The unloader should be serviced on the same schedule as the seals in the pump. Refer to SF Plunger Pump Service Manual for start-up, servicing of seals and valves, torque requirements and diagnosis and maintenance chart.

# MOTOR SPECIFICATIONS

## Model 8050

|                      |           |
|----------------------|-----------|
| Horsepower .....     | 1.5       |
| Shaft Diameter ..... | 5/8"      |
| Max. Volts .....     | 115/230   |
| FULL LOAD AMPS ..... | 12.1      |
| RPM .....            | 3450      |
| Weight .....         | 32.1 lbs. |
| Phase .....          | Single    |
| Frame Size .....     | 56-C TEFC |
| Service Factor ..... | 1.15      |

## Model 8055

|                      |           |
|----------------------|-----------|
| Horsepower .....     | 3.0       |
| Shaft Diameter ..... | ● 3/4"    |
| Max. Volts .....     | 230       |
| FULL LOAD AMPS ..... | 15.2/13.6 |
| RPM .....            | 3450      |
| Weight .....         | 46.3 lbs. |
| Phase .....          | Single    |
| Frame Size .....     | 56-C TEFC |
| Service Factor ..... | 1.15      |

● Use 3/4" shaft size motor with GES Models.

## ★ Model 8060

|                      |           |
|----------------------|-----------|
| Horsepower .....     | 1.5       |
| Shaft Diameter ..... | 5/8"      |
| Max. Volts .....     | 115/230   |
| FULL LOAD AMPS ..... | 14.0/7.0  |
| RPM .....            | 1725      |
| Weight .....         | 40 lbs.   |
| Phase .....          | Single    |
| Frame Size .....     | 56-C TEFC |
| Service Factor ..... | 1.2       |

★ Use with ELS models or to reduce flow by 50% on standard models.

## Model 8125

|                      |                    |
|----------------------|--------------------|
| Horsepower .....     | 2.5                |
| Shaft Diameter ..... | 5/8"               |
| Max. Volts .....     | 110/220, 115/230   |
| FULL LOAD AMPS ..... | 23.6/11.8, 21/11.5 |
| RPM .....            | 1450, 1750         |
| Weight .....         | 52.9 lbs.          |
| Phase .....          | Single             |
| Hertz .....          | 50/60              |
| Frame Size .....     | 56-C TEFC          |
| Service Factor ..... | 1.0, 1.2           |

## Model 8052

|                      |              |
|----------------------|--------------|
| Horsepower .....     | 2.0          |
| Shaft Diameter ..... | 5/8"         |
| Max. Volts .....     | 115/230      |
| FULL LOAD AMPS ..... | 17.0/9.2-8.5 |
| RPM .....            | 3450         |
| Weight .....         | 32.5 lbs.    |
| Phase .....          | Single       |
| Frame Size .....     | 56-C TEFC    |
| Service Factor ..... | 1.15         |

## Model 8057

|                      |                |
|----------------------|----------------|
| Horsepower .....     | 5.0            |
| Shaft Diameter ..... | ● 3/4"         |
| Max. Volts .....     | 230            |
| FULL LOAD AMPS ..... | 22.0           |
| RPM .....            | 3450           |
| Weight .....         | 40 lbs.        |
| Phase .....          | Single         |
| Frame Size .....     | 56-C OPEN DRIP |
| Service Factor ..... | 1.15           |

● Use 3/4" shaft size motor with GES Models.

## ★ Model 8062

|                      |           |
|----------------------|-----------|
| Horsepower .....     | 2.0       |
| Shaft Diameter ..... | 5/8"      |
| Max. Volts .....     | 115/230   |
| FULL LOAD AMPS ..... | 17.0/8.5  |
| RPM .....            | 1725      |
| Weight .....         | 43.7 lbs. |
| Phase .....          | Single    |
| Frame Size .....     | 56-C TEFC |
| Service Factor ..... | 1.15      |

★ Use with ELS models or to reduce flow by 50% on standard models.

## Common Motor Specifications

|                                   |       |
|-----------------------------------|-------|
| Max. Ambient Temp .....           | 104°F |
| Capacitor Start .....             | Yes   |
| Thermal Overload-Manual Reset.... | Yes   |
| Hertz .....                       | 60    |

Note: Motor Start-Up AMPS may vary, then settle within FULL LOAD AMPS rating after initial run in time.

- ★★ Before mounting pump on motor, apply P.N. 6106 Antiseize Lubricant to pump shaft.
- ★★ Refer to Tech Bulletin 055 for instructions on removing pump from gas engine or electric motor.

For warranty consideration contact CAT PUMPS for the local **Authorized Service Center**. If you are uncertain as to the cause of failure (Pump or Motor), secure **Returned Goods Authorization number** and return complete assembly **PREPAID** to CAT PUMPS for evaluation.

## ELECTRIC HORSEPOWER REQUIREMENTS

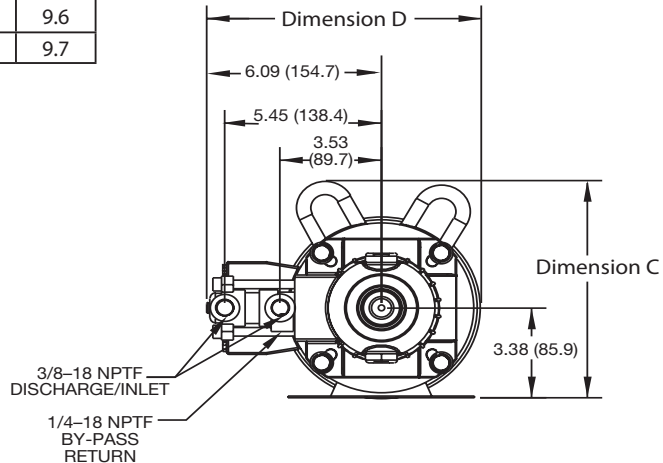
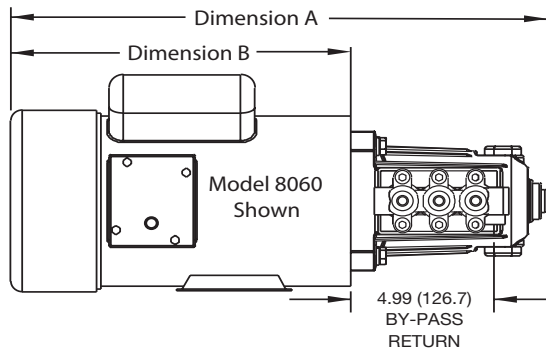
| FLOW     |            | PRESSURE |          |          |          |          | PUMP RPM  |
|----------|------------|----------|----------|----------|----------|----------|-----------|
|          |            | psi 700  | psi 1000 | psi 1200 | psi 1500 | psi 2000 |           |
| U.S. gpm | Metric l/m | bar 50   | bar 70   | bar 85   | bar 105  | bar 140  |           |
| 1.0      | 3.8        | .48      | .68      | .82      | 1.0      | 1.4      | 3450      |
| 2.2      | 8.3        | 1.1      | 1.5      | 1.8      | 2.3      | 3.0      | 1725/3450 |
| 2.85     | 10.8       | 1.36     | 2.0      | 2.3      | 2.9      | N/A      | 1725      |
| 3.0      | 11.4       | 1.4      | 2.1      | 2.5      | 3.1      | 4.1      | 3450      |
| 3.5      | 13.2       | 1.67     | 2.39     | 2.87     | 3.59     | N/A      | 3450      |

## DETERMINING THE REQUIRED H.P.

$$\frac{\text{gpm} \times \text{psi}}{1460} = \text{Electric Brake H.P. Required}$$

## 2SF DIMENSIONAL DRAWING

| MODEL       | 8050 | 8052 | 8055 | 8057 | 8060 | 8062 | 8125 |
|-------------|------|------|------|------|------|------|------|
| Dimension A | 18.2 | 18.2 | 20.0 | 18.7 | 18.7 | 19.2 | 19.1 |
| Dimension B | 11.3 | 11.3 | 13.1 | 11.8 | 11.8 | 12.3 | 12.2 |
| Dimension C | 8.4  | 8.4  | 8.3  | 9.0  | 8.1  | 8.1  | 9.6  |
| Dimension D | 9.5  | 9.5  | 9.5  | 9.5  | 9.5  | 9.5  | 9.7  |



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