

68 Frame Block-Style Stainless Steel Plunger Pump

Standard Models 6841, 6861
Flushed Models 6841K, 6861K

FEATURES

Superior Design

- Triplex plunger design gives smoother liquid flow.
- Inlet and discharge valve assemblies interchange for easier maintenance.
- 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 pumped liquid.

Flushed Models: Special ported inlet manifold permits liquid to cool or flush between V-Packings and Lo-Pressure Seals providing protection against high temperatures or contaminating pumped liquids.

Quality Materials

- All 316 stainless steel valves are heat treated and seats are roller burnished for a positive seal and extended valve life.
- 316 SSL block-style manifolds for strength and corrosion resistance.
- Special concentric, high density, polished, graphite impregnated, solid ceramic plungers are abrasion resistant and result in extended seal life.
- Specially formulated, CAT PUMP exclusive, V-Packings offer 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 mean longer bearing life.

Easy Maintenance

- Wet-end is easily serviced without entering crankcase, requiring less time and effort.
- 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 6841, 6841K

Flow48 GPM (182 L/M)
Pressure Range.....100 to 2000 PSI (7 to 140 BAR)
Max. RPM.....615 RPM (615 RPM)
Bore.....1.772" (45 mm)

MODEL 6861, 6861K

Flow60 GPM (227 L/M)
Pressure Range.....100 to 1200 PSI (7 to 85 BAR)
Max. RPM.....520 RPM (520 RPM)
Bore.....2.165" (55 mm)

Alternate Specifications

Flow**70 GPM (265 L/M)
Pressure Range.....100 to 1000 PSI (7 to 70 BAR)
Max. RPM.....600 RPM (600 RPM)

When operating at the **Alternate Specifications (600 RPM), a thin walled Stainless Steel fitting and a minimum 3" inlet line is required for optimum performance.

COMMON SPECIFICATIONS

Inlet Pressure Range*.....Flooded to 50 PSI (Flooded to 3.5 BAR)
Stroke2.579" (65.5 mm)
Crankcase Capacity.....10 Qts. (9.46 L)
Max. Liquid Temperature.....120°F (60°C)
Above 130°F call CAT PUMPS for inlet conditions and elastomer recommendations.
Inlet Ports (2)2-1/2" NPTF (2-1/2" NPTF)
Flushing Ports (2)1/2" NPTF (1/2" NPTF)
Discharge Ports (2).....1-1/4" NPTF (1-1/4" NPTF)
Shaft Diameter1.772" (45 mm)
Weight.....460 lbs. (206 kg)
Dimensions.....28.86 x 24.33 x 12.64" (733 x 618 x 321 mm)

*"K" models have special inlet ports for cooling/flushing, containment of hazardous liquids and high inlet pressure. Contact CAT PUMPS for additional information.

HORSEPOWER REQUIREMENTS

| MODEL | FLOW | | PRESSURE | | | | | RPM |
|--------------|----------|-----|----------|----------|----------|----------|----------|-----|
| | | | PSI 900 | PSI 1000 | PSI 1200 | PSI 1500 | PSI 2000 | |
| | U.S. GPM | L/M | BAR 60 | BAR 70 | BAR 85 | BAR 105 | BAR 140 | |
| 6841 | 48.0 | 182 | N/A | N/A | 39.5 | 49.3 | 65.8 | 615 |
| 6841K | 40.0 | 151 | N/A | N/A | 32.9 | 41.1 | 54.8 | 518 |
| 6861 | 70 | 265 | 43.2 | 48.0 | N/A | N/A | N/A | 600 |
| 6861K | 60 | 227 | 37.0 | 41.1 | 49.3 | N/A | N/A | 520 |
| | 50 | 189 | 30.8 | 34.2 | 41.1 | N/A | N/A | 433 |

DETERMINING THE PUMP R.P.M. $\frac{\text{Rated G.P.M.}}{\text{Rated R.P.M.}} = \frac{\text{"Desired" G.P.M.}}{\text{"Desired" R.P.M.}}$

DETERMINING THE REQUIRED H.P. $\frac{\text{GPM x PSI}}{1460} = \text{Electric Brake H. P. Required}$

DETERMINING MOTOR PULLEY SIZE $\frac{\text{Motor Pulley O.D.}}{\text{Pump R.P.M.}} = \frac{\text{Pump Pulley O.D.}}{\text{Motor R.P.M.}}$

See complete Drive Packages [Incls: Pulleys, Belts, Hubs, Key] Tech Bulletin 003.

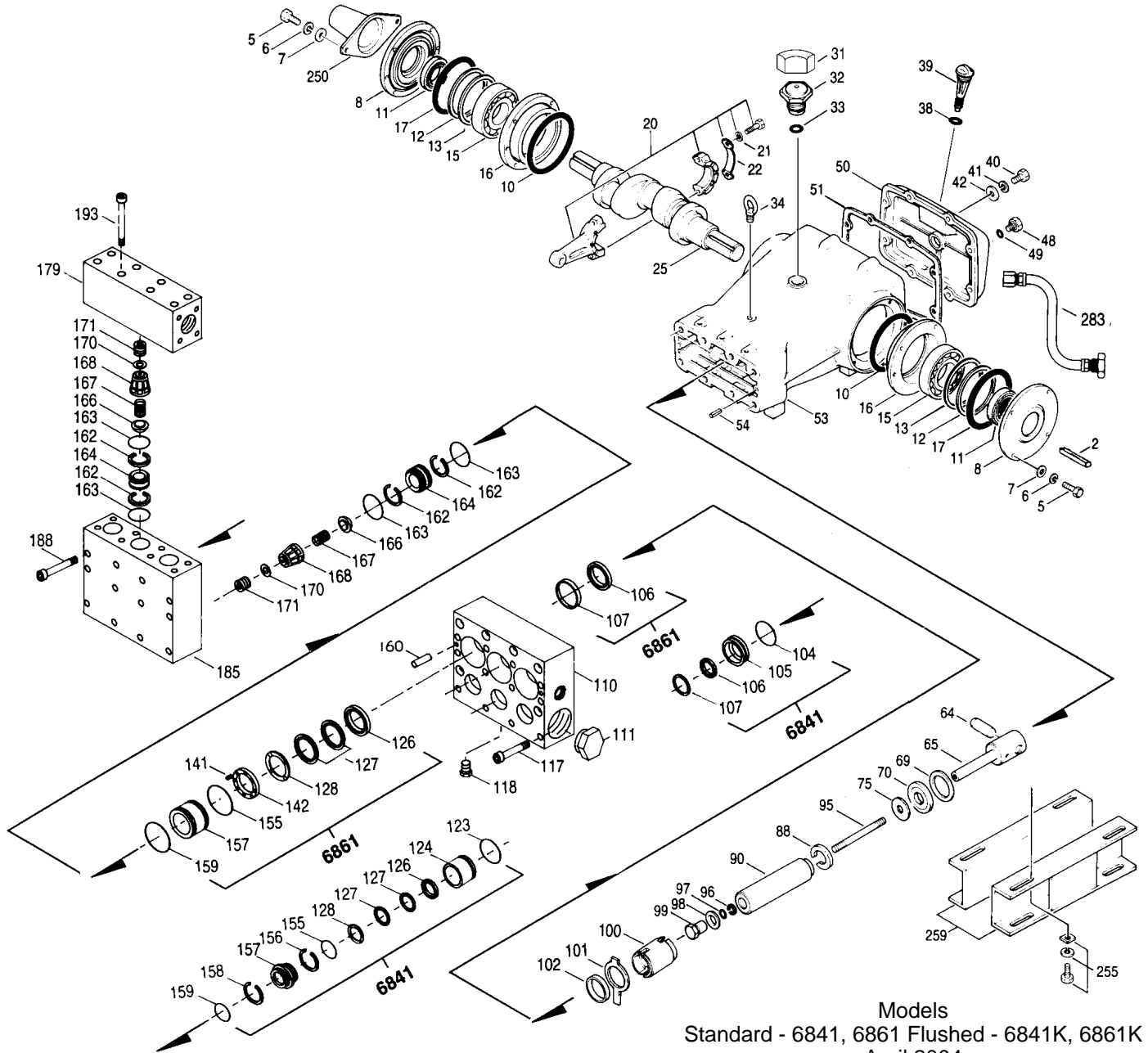
Refer to pump Service Manual for repair procedure and additional technical information.

"Customer confidence is our greatest asset"

PARTS LIST

| ITEM | PART NUMBER | | | | | | | | DESCRIPTION | QTY |
|------|-------------|-------|--------|-------|--------|------|--------|------|---------------------------------------|-------|
| | 6841 | MATL | 6841K | MATL | 6861 | MATL | 6861K | MATL | | |
| 2 | 43048 | STL | 43048 | STL | 43048 | STL | 43048 | STL | Key (M14x9x90) | 1 |
| 5 | 89728 | S | 89728 | S | 89728 | S | 89728 | S | Screw, HH (M10x40) | 8 |
| 6 | 15847 | S | 15847 | S | 15847 | S | 15847 | S | Lockwasher (M10) | 8 |
| 7 | 19934 | SS | 19934 | SS | 19934 | SS | 19934 | SS | Washer, Flat (M10) | 8 |
| 8 | 29443 | AL | 29443 | AL | 29443 | AL | 29443 | AL | Cover, Bearing, Outer | 2 |
| 10 | 29444 | NBR | 29444 | NBR | 29444 | NBR | 29444 | NBR | O-Ring, Bearing Cover - 70D | 2 |
| 11 | 11443 | NBR | 11443 | NBR | 11443 | NBR | 11443 | NBR | Seal, Oil, Crankshaft - 70D | 2 |
| 12 | 43642 | S | 43642 | S | 43642 | S | 43642 | S | Washer, Shim (M120x0.3) | 0-2 |
| 13 | 43643 | S | 43643 | S | 43643 | S | 43643 | S | Washer, Shim (M120x0.5) | 0-2 |
| 15 | 29441 | STL | 29441 | STL | 29441 | STL | 29441 | STL | Bearing, Roller | 2 |
| 16 | 29442 | STL | 29442 | STL | 29442 | STL | 29442 | STL | Cover, Bearing, Inner | 2 |
| 17 | 29444 | NBR | 29444 | NBR | 29444 | NBR | 29444 | NBR | O-Ring, Bearing Cover - 70D | 2 |
| 20 | 115983 | HS | 115983 | HS | 115983 | HS | 115983 | HS | Rod, Connecting Assembly | 3 |
| 21 | 44941 | STZP | 44941 | STZP | 44941 | STZP | 44941 | STZP | Washer, Locking | 6 |
| 22 | 43641 | STZP | 43641 | STZP | 43641 | STZP | 43641 | STZP | Washer, Shim (M10.5x1.5) | 3 |
| 25 | 29440 | FCM | 29440 | FCM | 29440 | FCM | 29440 | FCM | Crankshaft, Dual Shaft | 1 |
| 31 | 828710 | — | 828710 | — | 828710 | — | 828710 | — | Protector, Oil Cap | 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, Filler Cap - 70D | 1 |
| 34 | 44319 | STZP | 44319 | STZP | 44319 | STZP | 44319 | STZP | Bolt, Eye (M12) | 1 |
| 38 | 11338 | NBR | 11338 | NBR | 11338 | NBR | 11338 | NBR | O-Ring, Dip Stick - 70D | 1 |
| 39 | 27769 | ABS | 27769 | ABS | 27769 | ABS | 27769 | ABS | Dipstick | 1 |
| 40 | 89627 | S | 89627 | S | 89627 | S | 89627 | S | Screw, HH (M10x30) | 8 |
| 41 | 15847 | S | 15847 | S | 15847 | S | 15847 | S | Lockwasher (M10) | 8 |
| 42 | 19934 | SS | 19934 | SS | 19934 | SS | 19934 | SS | Washer, Flat (M10) | 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 | 29438 | AL | 29438 | AL | 29438 | AL | 29438 | AL | Cover, Rear | 1 |
| 51 | 29439 | NBR | 29439 | NBR | 29439 | NBR | 29439 | NBR | Gasket, Rear Cover | 1 |
| 53 | 43284 | AL | 43284 | AL | 43284 | AL | 43284 | AL | Crankcase w/Guide Pins | 1 |
| 54 | 43282 | S | 43282 | S | 43282 | S | 43282 | S | Pin, Guide | 2 |
| 64 | 29481 | CM | 29481 | CM | 29481 | CM | 29481 | CM | Pin, Crosshead | 3 |
| 65 | 45384 | SSZZ | 45384 | SSZZ | 45384 | SSZZ | 45384 | SSZZ | Rod, Plunger | 3 |
| 69 | 29453 | STZP | 29453 | STZP | 29453 | STZP | 29453 | STZP | Washer, Oil Seal | 3 |
| 70 | 29454 | NBR | 29454 | NBR | 29454 | NBR | 29454 | NBR | Seal, Oil, Crankcase - 80D | 3 |
| 75 | 44752 | NBR | 44752 | NBR | 44752 | NBR | 44752 | NBR | Slinger, Barrier - 85D | 3 |
| 88 | 45677 | SS | 45677 | SS | 45677 | SS | 45677 | SS | Washer, Keyhole (M14) | 3 |
| 90 | 45672 | CC | 45672 | CC | 44749 | CC | 44749 | CC | Plunger (M45x185) (M55x185) | 3 |
| 95 | 44748 | SS | 44748 | SS | 44748 | SS | 44748 | SS | Stud, Plunger Retainer (M14x147) | 3 |
| 96 | 20189 | PTFE | 20189 | PTFE | 20189 | PTFE | 20189 | PTFE | Back-up-Ring, Plunger Retainer | 3 |
| 97 | 17616 | NBR | 17616 | NBR | 17616 | NBR | 17616 | NBR | O-Ring, Plunger Retainer - 80D | 3 |
| | 11686 | FPM | 11686 | FPM | 11686 | FPM | 11686 | FPM | O-Ring, Plunger Retainer - 80D | 3 |
| 98 | 44751 | SS | 44751 | SS | 44751 | SS | 44751 | SS | Gasket, Plunger Retainer | 3 |
| 99 | 44750 | SS | 44750 | SS | 44750 | SS | 44750 | SS | Retainer, Plunger (M14) | 3 |
| 100 | 44760 | PVDF | 44760 | PVDF | 44760 | PVDF | 44760 | PVDF | Retainer, Seal, Rear | 3 |
| 101 | — | — | — | — | 44762 | — | 44762 | — | Wick, Long Tab | 3 |
| 102 | 44761 | PVDF | 44761 | PVDF | 44761 | PVDF | 44761 | PVDF | Retainer Seal, Adapter, Front | 3 |
| 104 | 18178 | NBR | 18178 | NBR | — | — | — | — | O-Ring, Inlet, Adapter - 80D | 3 |
| | 13338 | FPM | 13338 | FPM | — | — | — | — | O-Ring, Inlet, Adapter - 70D | 3 |
| 105 | 701355 | SS | 701355 | SS | — | — | — | — | Adapter, LPS | 3 |
| 106 | 106147 | NBR | 106147 | NBR | 44757 | NBR | 44757 | NBR | Seal, LPS, w/SS-Spg | 3 |
| | 701752 | SFTA* | 701752 | SFTA* | 45882 | FPM | 45882 | FPM | Seal, LPS, w/SS-Spg | 3 |
| 107 | 701356 | SS | 701356 | SS | 46167 | SS | 46167 | SS | Spacer, LPS | 3 |
| 110 | 46166 | SSL | — | — | 46166 | SSL | — | — | Manifold Inlet, Block-Style | 1 |
| | — | — | 701343 | SSL | — | — | 701343 | SSL | Manifold Inlet, Block-Style, Flushed | 1 |
| 111 | 701353 | SS | 701353 | SS | 701353 | SS | 701353 | SS | Plug, Inlet Manifold (2-1/2" NPT) | 1 |
| 117 | 89694 | S | 89694 | S | 89694 | S | 89694 | S | Screw, HSH (M16x110) | 6 |
| 118 | 701077 | SS | — | — | 701077 | SS | — | — | Plug (1/4" NPT) | 3 |
| 123 | 18178 | NBR | 18178 | NBR | — | — | — | — | O-Ring, V-Packing Cylinder - 80D | 3 |
| | 13338 | FPM | 13338 | FPM | — | — | — | — | O-Ring, V-Packing Cylinder - 70D | 3 |
| 124 | 701357 | SSL | 701357 | SSL | — | — | — | — | Cylinder, V-Packing | 3 |
| 126 | 701358 | SS | 701358 | SS | 48392 | D | 48392 | D | Adapter, Female | 3 |
| | — | — | — | — | 45771 | SS | 45771 | SS | Adapter, Female | 3 |
| 127 | 104450 | STG* | 104450 | STG* | 44764 | STG* | 44764 | STG* | V-Packing | 6 |
| 128 | 701359 | SS | 701359 | SS | 45772 | SS | 45772 | SS | Adapter, Male | 3 |
| 141 | — | — | — | — | 44943 | SS | 44943 | SS | Spring, Coil | 18/24 |
| 142 | — | — | — | — | 45383 | SS | 45383 | SS | Spacer w/Coil Springs | 3 |
| 155 | 701978 | NBR | 701978 | NBR | 18178 | NBR | 18178 | NBR | O-Ring, V-Packing Spacer, Inner - 80D | 3 |
| | 701360 | FPM | 701360 | FPM | 13338 | FPM | 13338 | FPM | O-Ring, V-Packing Spacer, Inner - 70D | 3 |
| 156 | 701361 | PTFE | 701361 | PTFE | — | — | — | — | Back-up-Ring, Spacer, Inner | 3 |
| 157 | 701362 | SS | 701362 | SS | — | — | — | — | Spacer, V-Packing w/Coil Springs | 3 |
| | — | — | — | — | 45321 | SS | 45321 | SS | Spacer, V-Packing | 3 |
| 158 | 701363 | PTFE | 701363 | PTFE | — | — | — | — | Back-up-Ring, Spacer, Outer | 3 |
| 159 | 18178 | NBR | 18178 | NBR | 18178 | NBR | 18178 | NBR | O-Ring, V-Packing Spacer, Outer - 80D | 3 |
| | 13338 | FPM | 13338 | FPM | 13338 | FPM | 13338 | FPM | O-Ring, Spacer, Outer - 70D | 3 |
| 160 | 44756 | S | 44756 | S | 44756 | S | 44756 | S | Pin, Guide | 2 |
| 162 | 23116 | PTFE | 23116 | PTFE | 23116 | PTFE | 23116 | PTFE | Back-up-Ring, Seat | 12 |
| 163 | 12392 | NBR | 12392 | NBR | 12392 | NBR | 12392 | NBR | O-Ring, Seat - 70D | 12 |
| | 13279 | FPM | 13279 | FPM | 13279 | FPM | 13279 | FPM | O-Ring, Seat - 70D | 12 |
| 164 | 46173 | SS | 46173 | SS | 46173 | SS | 46173 | SS | Seat | 6 |
| 166 | 44774 | SS | 44774 | SS | 44774 | SS | 44774 | SS | Valve | 6 |
| 167 | 44773 | SS | 44773 | SS | 44773 | SS | 44773 | SS | Spring | 6 |
| 168 | 44775 | PVDF | 44775 | PVDF | 44775 | PVDF | 44775 | PVDF | Retainer, Spring | 6 |
| 170 | 44776 | SS | 44776 | SS | 44776 | SS | 44776 | SS | Washer, Retainer | 6 |
| 171 | 701354 | SS | 701354 | SS | 701354 | SS | 701354 | SS | Spring, Coil, Retainer | 6 |
| 179 | 46176 | SSL | 46176 | SSL | 46176 | SSL | 46176 | SSL | Manifold, Discharge - Block-Style | 1 |
| 185 | 46171 | SSL | 46171 | SSL | 46171 | SSL | 46171 | SSL | Manifold, Valve - Block-Style | 1 |
| 188 | 89694 | S | 89694 | S | 89694 | S | 89694 | S | Screw, HSH (M16x110), Lower | 12 |
| 193 | 89694 | S | 89694 | S | 89694 | S | 89694 | S | Screw, HSH (M16x110), Upper | 8 |

EXPLODED VIEW



Models
Standard - 6841, 6861 Flushed - 6841K, 6861K
April 2004

| | 6841 | MATL | 6841K | MATL | 6861 | MATL | 6861K | MATL | | |
|-----|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|--|---|
| 250 | 29445 | AL | 29445 | AL | 29445 | AL | 29445 | AL | Protector, Shaft | 1 |
| 255 | 33243 | STZP | 33243 | STZP | 33243 | STZP | 33243 | STZP | Kit, Mount (Included w/Pump) | 2 |
| 259 | 29477 | STZP | 29477 | STZP | 29477 | STZP | 29477 | STZP | Rail, Box (Included w/Pump) | 2 |
| 275 | 990014 | STL | 990014 | STL | 990014 | STL | 990014 | STL | Hub, "B", (M45) (Keyway M14x9x90) [See Drive Packages, Tech Bulletin 003] | 1 |
| 283 | 34334 | — | 34334 | — | 34334 | — | 34334 | — | Kit, Oil Drain | 1 |
| 290 | 6104 | — | 6104 | — | 6104 | — | 6104 | — | Gasket, Liquid (1 oz.) | 1 |
| 299 | 910201 | SSL | — | — | 910200 | SSL | — | — | Head, Complete, Block-Style | 1 |
| — | — | — | 910203 | SSL | — | — | 910202 | SSL | Head, Complete, Block-Style, Flushed | 1 |
| 300 | — | — | — | — | 34106 | NBR* | 34106 | NBR* | Kit, Seal (Incls: 97,106,127,155,159, 163) | 1 |
| — | 34098 | NBR* | 34098 | NBR* | — | — | 33406 | FPM* | Kit, Seal (Incls:97,104,106,123,127,155,156,158,159, 163) | 1 |
| — | — | — | — | — | 33406 | FPM* | 33406 | FPM* | Kit, Seal (Incls: 97,106,127,155,159, 163) | 1 |
| — | 701365 | FPM* | 701365 | FPM* | — | — | — | — | Kit, Seal (Incls: 97,104,106,123,127,155,156,158,159, 163) | 1 |
| 310 | 34105 | NBR | 34105 | NBR | 34105 | NBR | 34105 | NBR | Kit, Valve (Incls: 159,162,163,164,166,167,168,170) | 2 |
| — | 701801 | FPM | 701801 | FPM | 701801 | FPM | 701801 | FPM | Kit, Valve (Incls: 159,162,163,164,166,167,168,170) | 2 |
| 370 | — | — | 990663 | — | — | — | 990663 | — | Assembly, Flushing, 5 gal., 115V, 1.1 Amp, 1/2" NPT | 1 |
| — | 717500 | SS | 717500 | SS | 717500 | SS | 717500 | SS | C.A.T. (Captive Acceleration Tube) | 1 |
| — | 717510 | SS | 717510 | SS | 717510 | SS | 717510 | SS | Adapter (2 per C.A.T.) (See Data Sheet for complete selection) | 2 |
| — | 6565.7 | — | 6565.7 | — | 6565.7 | — | 6565.7 | — | Plunger Pump Service Video | 1 |
| — | 819010 | F | 819010 | F | 819010 | F | 819010 | F | Assy, Crankcase, CAST IRON Conversion | 1 |
| — | 6105 | — | 6105 | — | 6105 | — | 6105 | — | Oil, Twin Pack (Two 2.5 Gal) ISO 68 Multi-viscosity Hydraulic (Fill to specified crankcase capacity prior to start-up) | 1 |

Bold print part numbers are unique to a particular pump model. Italics are optional items.

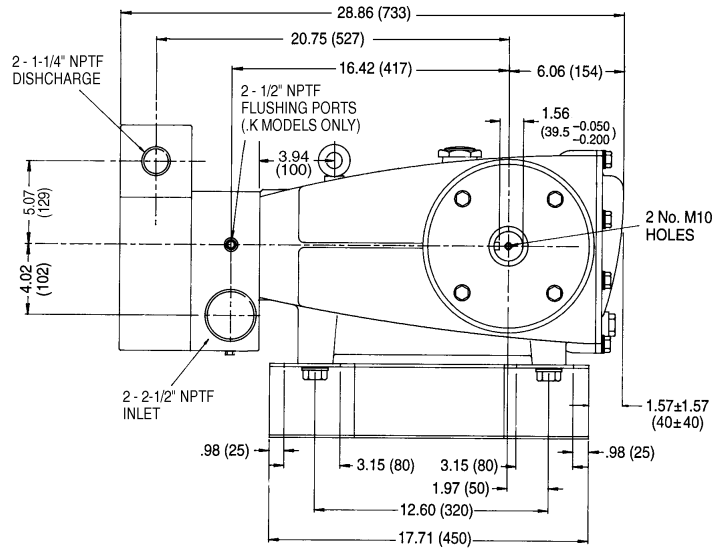
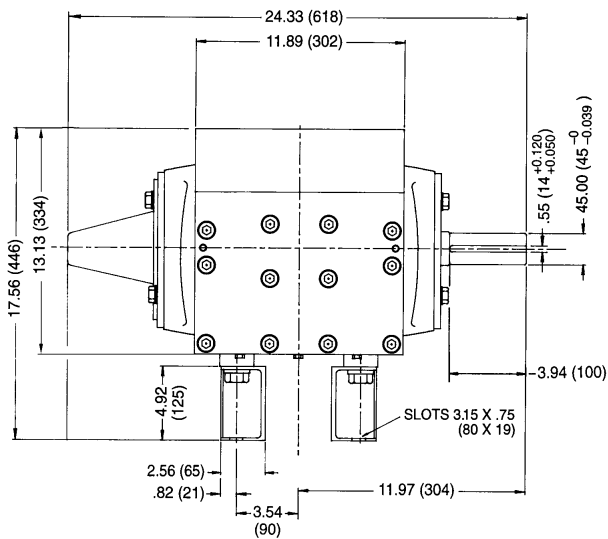
* Review material codes for individual items (STG and SFTA generally may be used as alternate).

Pressurized Inlet and C.A.T. highly recommended for Hi-Temp, R.O. and industrial applications. See Tech Bulletin 003, 024, 036, 043, 074, 077, 083 and 084 for additional information.

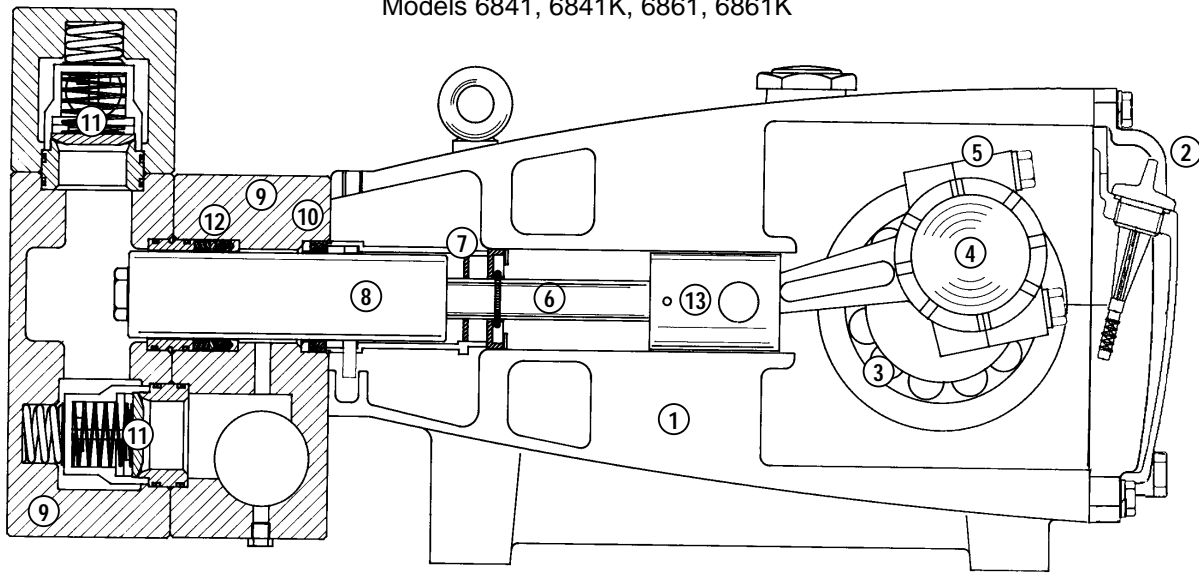
MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic AL=Aluminum CC=Ceramic CM=Chrome-moly D=Acetal F=Cast Iron FCM=Forged Chrome-moly

FPM=Fluorocarbon HS=High Strength NBR=Medium Nitrile (Buna-N) PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride S=304SS SS=316SS

SSL=316SS/Low Carbon STL=Steel SFTA=Special Blend PTFE Tan STG=Special Blend PTFE White SSZZ=316SS/Zamak STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated



Models 6841, 6841K, 6861, 6861K



- 1 Die cast aluminum **crankcase** means high strength, lightweight, and excellent tolerance control.
- 2 **Dipstick** offers optimal top access in addition to rear bubble oil gauge for easy oil level check.
- 3 Oversized crankshaft **bearings** provide extended bearing life and pump performance.
- 4 Chrome-moly **crankshaft** provides unmatched strength and surface hardness for long life.
- 5 Matched oversized high strength **connecting rods** are noted for superior strength and bearing quality.
- 6 Special stainless steel **plunger rods** with high strength crossheads for longevity and corrosion resistance.
- 7 The Buna-N **barrier slinger** provides back-up protection for the crankcase seal, keeping pumped liquids out of the crankcase.
- 8 Special concentric, high density, polished, graphite impregnated, solid ceramic **plungers** are abrasion resistant and result in extended seal life.
- 9 **Manifolds** are 316 stainless steel block-style for long-term, continuous-duty and corrosion resistance.
- 10 **Standard Models:** Lo-Pressure Seals and V-Packings are completely lubricated and cooled by the liquid being pumped.
- 10 **Flushed Models:** Special ported inlet manifold permits liquid to cool or flush between V-Packings and Lo-Pressure Seals providing protection against high temperatures or contaminating pumped liquids.
- 11 316 stainless steel **valves, seats and springs** provide corrosion-resistance, positive seating and long life.
- 12 Specially formulated, CAT PUMP exclusive, **V-Packings** offer unmatched performance and seal life.
- 13 **Crossheads** are 360° supported for uncompromising alignment.

Products described hereon are covered by one or more of the following U.S. patents 3558244, 3652188, 3809508, 3920356, 3930756 and 5035580

World Headquarters
CAT PUMPS
 1681 - 94th Lane N.E. Minneapolis, MN 55449-4324
 Phone (763) 780-5440 — FAX (763) 780-2958
 e-mail: techsupport@catpumps.com
 www.catpumps.com

International Inquiries
 FAX (763) 785-4329
 e-mail: intlsales@catpumps.com



CAT PUMPS (U.K.) LTD.
 1 Fleet Business Park, Sandy Lane, Church Crookham, Fleet
 Hampshire GU52 8BF, England
 Phone Fleet 44 1252-622031 — Fax 44 1252-626655
 e-mail: sales@catpumps.co.uk

N.V. CAT PUMPS INTERNATIONAL S.A.
 Heiveldekens 6A, 2550 Kontich, Belgium
 Phone 32-3-450.71.50 — Fax 32-3-450.71.51
 e-mail: cpi@catpumps.be www.catpumps.be

CAT PUMPS DEUTSCHLAND GmbH
 Buchwiese 2, D-65510 Idstein, Germany
 Phone 49 6126-9303 0 — Fax 49 6126-9303 33
 e-mail: catpumps@t-online.de www.catpumps.de