

# DATA SHEET

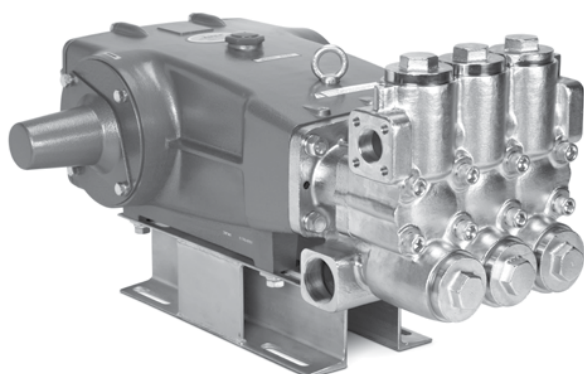
## 60 FRAME PLUNGER PUMPS



**Chrome  
Plated  
6740**

**Stainless  
Steel  
6741**

**Nickel Aluminum  
Bronze  
6747**



Model 6740 shown  
(Rails and shaft protector included)

| SPECIFICATIONS                                                                        | U.S.                   | Metric             |
|---------------------------------------------------------------------------------------|------------------------|--------------------|
| Flow                                                                                  | 48 gpm                 | 182 lpm            |
| Pressure Range                                                                        | 100 to 2030 psi        | 6.9 to 140 bar     |
| Pump RPM*                                                                             | 615 rpm                | 615 rpm            |
| Inlet Pressure Range                                                                  | Flooded to 50 psi      | Flooded to 3.5 bar |
| Max. Liquid Temperature                                                               | 140° F                 | 60° C              |
| Above 54°C (130°F) call Cat Pumps for inlet conditions and elastomer recommendations. |                        |                    |
| Bore                                                                                  | 1.772"                 | 45 mm              |
| Stroke                                                                                | 2.579"                 | 65.5 mm            |
| Crankcase Capacity                                                                    | 10 qts.                | 9.46 l             |
| Inlet Ports (2)                                                                       | 2" NPT(F)              | 2" NPT(F)          |
| Discharge Ports (2)                                                                   | 1 1/4" NPT(F)          | 1 1/4" NPT(F)      |
| Shaft Diameter                                                                        | 1.772"                 | 45 mm              |
| Pulley Mounting                                                                       | Either Side            | Either Side        |
| Weight                                                                                | 335 lbs.               | 151.95 kg          |
| Dimensions                                                                            |                        |                    |
| 6740, 6747                                                                            | 31.14 x 24.37 x 17.87" | 791 x 619 x 454 mm |
| 6741                                                                                  | 30.71 x 24.37 x 17.44" | 780 x 619 x 443 mm |

\*Pump minimum is 100 RPM.

### FEATURES

- Triplex plunger delivers high efficiency and low pulsation.
- Durable V-Packings are completely lubricated and cooled by pumped liquid.
- Pre-set low-pressure seals provide secondary protection against external leaks and require no packing adjustment.
- Special high-density, polished, concentric, ceramic plungers provide a true wear surface and extend seal life.
- Standard NBR seals with alternative options for temperature and chemical compatibility.
  - FPM – .0110
  - EPDM – .0220

### DETERMINING THE PUMP R.P.M.

$$\frac{\text{Rated gpm}}{\text{Rated rpm}} = \frac{\text{"Desired" gpm}}{\text{"Desired" rpm}}$$

### DETERMINING THE REQUIRED H.P.

$$\frac{\text{Hp (Electric Brake)}}{1460} = \frac{\text{gpm x psi}}{1460}$$

### DETERMINING MOTOR PULLEY SIZE

$$\frac{\text{Motor Pulley O.D.}}{\text{Pump rpm}} = \frac{\text{Pump Pulley O.D.}}{\text{Motor rpm}}$$

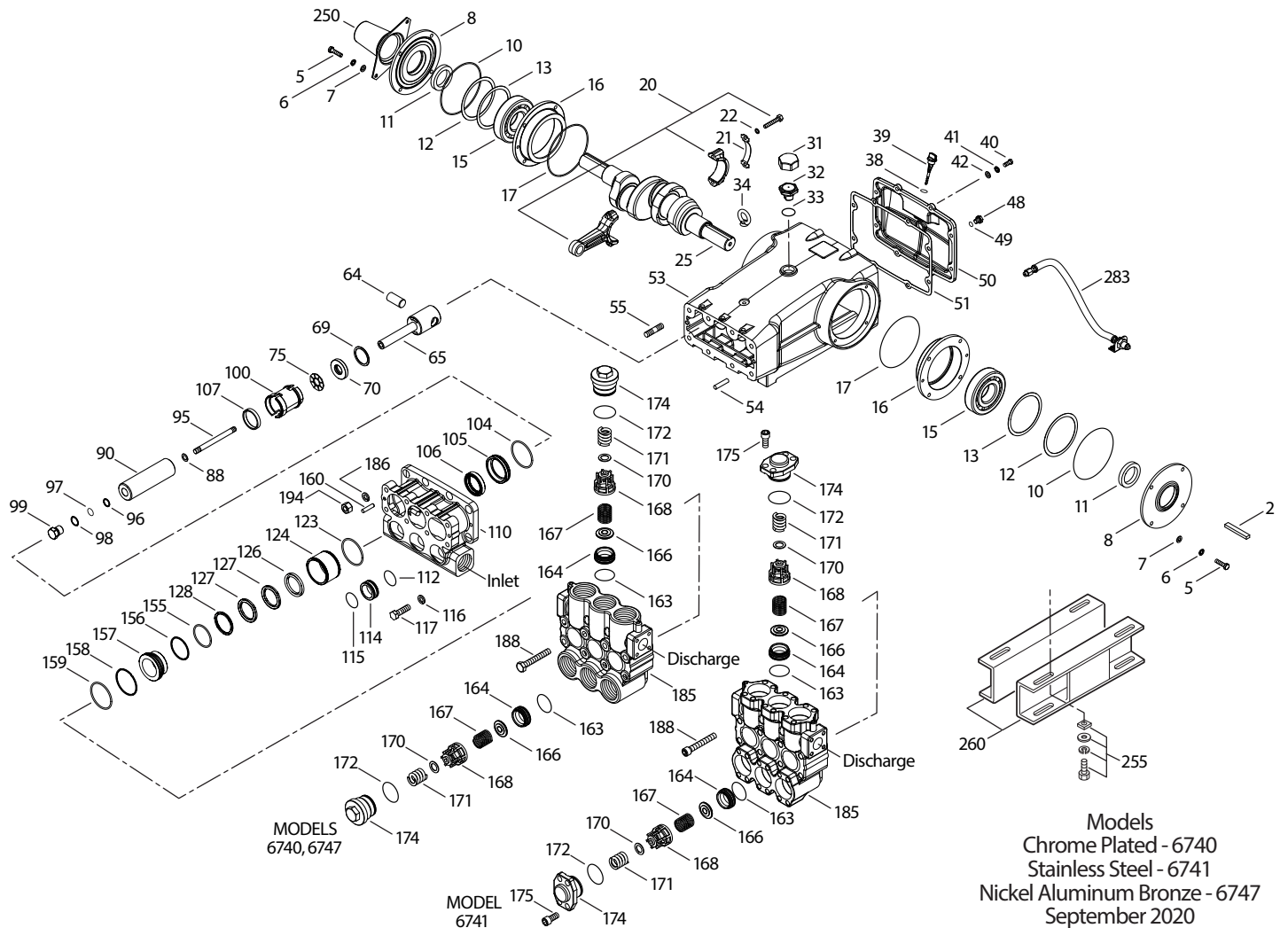
See complete Drive Packages [Includes: pulleys, belts, hubs, key] Tech Bulletin 003.  
Refer to pump **Service Manual** for repair procedure and additional technical information.

# PARTS LIST

| ITEM | PART NUMBER   |             |              |             | DESCRIPTION  |             | QTY                                                            |
|------|---------------|-------------|--------------|-------------|--------------|-------------|----------------------------------------------------------------|
|      | <b>6740</b>   | <b>MATL</b> | <b>6741</b>  | <b>MATL</b> | <b>6747</b>  | <b>MATL</b> |                                                                |
| 2    | 43048         | STL         | 43048        | STL         | 43048        | STL         | Key (M14x9x90)                                                 |
| 5    | <b>126532</b> | STCP R      | <b>89728</b> | S           | <b>89728</b> | S           | Screw, HH (M10x40)                                             |
| 6    | <b>126231</b> | STCP R      | <b>15847</b> | S           | <b>15847</b> | S           | Lockwasher                                                     |
| 7    | <b>126574</b> | STCP R      | <b>19934</b> | S           | <b>19934</b> | S           | Washer, Flat (M10)                                             |
| 8    | 29443         | AL          | 29443        | AL          | 29443        | AL          | Cover, Bearing, Outer (See Tech Bulletin 118)                  |
| 10   | 29444         | NBR         | 29444        | NBR         | 29444        | NBR         | O-Ring, Bearing Cover - 70D                                    |
| 11   | 11443         | NBR         | 11443        | NBR         | 11443        | NBR         | Seal, Oil, Crankshaft - 70D                                    |
| 12   | 126594        | STCP R      | 126594       | STCP R      | 126594       | STCP R      | Washer, Shim (M120x0.3)                                        |
| 13   | 126595        | STCP R      | 126595       | STCP R      | 126595       | STCP R      | Washer, Shim (M120x0.5)                                        |
| 15   | 29441         | STL         | 29441        | STL         | 29441        | STL         | Bearing, Roller                                                |
| 16   | 29442         | STL         | 29442        | STL         | 29442        | STL         | Cover, Bearing, Inner                                          |
| 17   | 29444         | NBR         | 29444        | NBR         | 29444        | NBR         | O-Ring, Bearing Cover - 70D                                    |
| 20   | 126612        | BBHS        | 126612       | BBHS        | 126612       | BBHS        | Rod, Connecting (Incls: 21, 22)                                |
| 21   | 126560        | STCP R      | 126560       | STCP R      | 126560       | STCP R      | Washer, Locking                                                |
| 22   | 126593        | STCP R      | 126593       | STCP R      | 126593       | STCP R      | Washer, Shim (M10.5x1.5)                                       |
| 25   | 29440         | FCM         | 29440        | FCM         | 29440        | FCM         | Crankshaft, Dual End                                           |
| 31   | 828710        | PE          | 828710       | PE          | 828710       | PE          | Protector, Oil Cap w/Foam Gasket                               |
| 32   | 43211         | ABS         | 43211        | ABS         | 43211        | ABS         | Cap, Oil Filler                                                |
| 33   | 14177         | NBR         | 14177        | NBR         | 14177        | NBR         | O-Ring, Oil Filler Cap - 70D                                   |
| 34   | 126743        | STCP R      | 126743       | STCP R      | 126743       | STCP R      | Bolt, Eye (M12) (For Lifting Pump Only)                        |
| 38   | 129343        | RBR         | 129343       | RBR         | 129343       | RBR         | Gasket, Flat Flex                                              |
| 39   | 27769         | ABS         | 27769        | ABS         | 27769        | ABS         | Stick, Dip                                                     |
| 40   | <b>126531</b> | STCP R      | <b>89627</b> | S           | <b>89627</b> | S           | Screw, HH (M10x30)                                             |
| 41   | <b>126231</b> | STCP R      | <b>15847</b> | S           | <b>15847</b> | S           | Lockwasher (M10)                                               |
| 42   | <b>126574</b> | STCP R      | <b>19934</b> | S           | <b>19934</b> | S           | Washer, Flat (M10)                                             |
| 48   | 25625         | STCP        | 25625        | STCP        | 25625        | STCP        | Plug, Drain (1/4"x19BSP)                                       |
| 49   | 23170         | NBR         | 23170        | NBR         | 23170        | NBR         | O-Ring, Drain Plug - 70D                                       |
| 50   | 29438         | AL          | 29438        | AL          | 29438        | AL          | Cover, Rear (See Tech Bulletin 118)                            |
| 51   | 129386        | NBR         | 129386       | NBR         | 129386       | NBR         | Gasket, Rear Cover                                             |
| 53   | 45303         | AL          | 45303        | AL          | 45303        | AL          | Crankcase w/Guide Pins (Incls: 34, 54) (See Tech Bulletin 118) |
| 54   | 43282         | S           | 43282        | S           | 43282        | S           | Pin, Guide                                                     |
| 55   | <b>126553</b> | STCP R      | <b>89615</b> | S           | <b>89615</b> | S           | Stud (M16 x 70)                                                |
| 64   | 29481         | CM          | 29481        | CM          | 29481        | CM          | Pin, Crosshead                                                 |
| 65   | 445384        | SSZZ        | 45384        | SSZZ        | 45384        | SSZZ        | Rod, Plunger                                                   |
| 69   | 126588        | STCP R      | 126588       | STCP R      | 126588       | STCP R      | Washer, Oil Seal                                               |
| 70   | 29454         | NBR         | 29454        | NBR         | 29454        | NBR         | Seal, Oil - 80D                                                |
| 75   | 44752         | NBR         | 44752        | NBR         | 44752        | NBR         | Slinger, Barrier - 85D                                         |
| 88   | 45677         | SS          | 45677        | SS          | 45677        | SS          | Washers, Keyhole (M14)                                         |
| 90   | 45672         | CC          | 45672        | CC          | 45672        | CC          | Plunger (M45x185)                                              |
| 95   | <b>89783</b>  | S           | <b>44748</b> | SS          | <b>44748</b> | SS          | Stud, Plunger Retainer (M14x147)                               |
| 96   | 20214         | PTFE        | 20214        | PTFE        | 20214        | PTFE        | Back-up-Ring, Plunger Retainer                                 |
| 97   | 17616         | NBR         | 17616        | NBR         | 17616        | NBR         | O-Ring, Plunger Retainer - 80D                                 |
|      | 11686         | FPM         | 11686        | FPM         | 11686        | FPM         | O-Ring, Plunger Retainer - 80D                                 |
|      | ♦ 703369      | EPDM        | 703369       | EPDM        | 703369       | EPDM        | O-Ring, Plunger Retainer - 70D                                 |
| 98   | 44751         | SS          | 44751        | SS          | 44751        | SS          | Gasket, Plunger Retainer                                       |
| 99   | <b>45276</b>  | S           | <b>44750</b> | SS          | <b>44750</b> | SS          | Retainer, Plunger (M14)                                        |
| 100  | 702014        | PVDF        | 702014       | PVDF        | 702014       | PVDF        | Retainer, Seal                                                 |
| 104  | 18178         | NBR         | 18178        | NBR         | 18178        | NBR         | O-Ring                                                         |
|      | 13338         | FPM         | 13338        | FPM         | 13338        | FPM         | O-Ring                                                         |
|      | ♦ 701657      | EPDM        | 701657       | EPDM        | 701657       | EPDM        | O-Ring                                                         |
| 105  | 701355        | SS          | 701355       | SS          | 701355       | SS          | Adapter, LPS                                                   |
| 106  | 106147        | NBR         | 106147       | NBR         | 106147       | NBR         | Seal, LPS w/SS-Spg                                             |
|      | 701752        | SFTA        | 701752       | SFTA        | 701752       | SFTA        | Seal, LPS w/SS-Spg                                             |
| 107  | 701580        |             | 701580       |             | 701580       |             | Spacer, LPS                                                    |
| 110  | <b>49457</b>  | NABC        | <b>45769</b> | SS          | <b>44754</b> | NAB         | Manifold, Inlet                                                |
| 112  | 18175         | NBR         | 18175        | NBR         | 18175        | NBR         | O-Ring, Spacer, Inner - 80D                                    |
|      | 13266         | FPM         | 13266        | FPM         | 13266        | FPM         | O-Ring, Spacer, Inner - 70D                                    |
|      | ♦ 702442      | EPDM        | 702442       | EPDM        | 702442       | EPDM        | O-Ring, Spacer, Inner - 75D                                    |
| 114  | † 44767       | SS          | 44767        | SS          | 44767        | SS          | Spacer, Inlet Manifold                                         |
| 115  | 18175         | NBR         | 18175        | NBR         | 18175        | NBR         | O-Ring, Spacer, Outer - 80D                                    |
|      | 13266         | FPM         | 13266        | FPM         | 13266        | FPM         | O-Ring, Spacer, Outer - 70D                                    |
|      | ♦ 702442      | EPDM        | 702442       | EPDM        | 702442       | EPDM        | O-Ring, Spacer, Outer - 75D                                    |
| 116  | <b>126569</b> | STCP R      | <b>19086</b> | S           | <b>19086</b> | S           | Lockwasher (M16)                                               |
| 117  | <b>126537</b> | STCP R      | <b>89729</b> | S           | <b>89729</b> | S           | Screw, HH (M16x55)                                             |
| 123  | 18178         | NBR         | 18178        | NBR         | 18178        | NBR         | O-Ring                                                         |
|      | 13338         | FPM         | 13338        | FPM         | 13338        | FPM         | O-Ring                                                         |
|      | ♦ 701657      | EPDM        | 701657       | EPDM        | 701657       | EPDM        | O-Ring                                                         |
| 124  | 701357        | SS          | 701357       | SS          | 701357       | SS          | Cylinder, V-Packing                                            |
| 126  | 701358        | SS          | 701358       | SS          | 701358       | SS          | Adapter, Female                                                |
| 127  | 104450        | STG*        | 104450       | STG*        | 104450       | STG*        | V-Packing                                                      |
| 128  | 701359        | SS          | 701359       | SS          | 701359       | SS          | Adapter, Male                                                  |
| 155  | 701978        | NBR         | 701978       | NBR         | 701978       | NBR         | O-Ring, Spacer                                                 |
|      | 701360        | FPM         | 701360       | FPM         | 701360       | FPM         | O-Ring, Spacer                                                 |
|      | ♦ 702045      | EPDM        | 702045       | EPDM        | 702045       | EPDM        | O-Ring, Spacer                                                 |
| 156  | 701361        | PTFE        | 701361       | PTFE        | 701361       | PTFE        | Back-up-Ring                                                   |
| 157  | 701362        | SS          | 701362       | SS          | 701362       | SS          | Spacer w/Coil Springs                                          |
| 158  | 701363        | PTFE        | 701363       | PTFE        | 701363       | PTFE        | Back-up-Ring                                                   |
| 159  | 18178         | NBR         | 18178        | NBR         | 18178        | NBR         | O-Ring                                                         |
|      | 13338         | FPM         | 13338        | FPM         | 13338        | FPM         | O-Ring                                                         |
|      | ♦ 701657      | EPDM        | 701657       | EPDM        | 701657       | EPDM        | O-Ring                                                         |
| 160  | 44756         | S           | 44756        | S           | 44756        | S           | Pin, Guide                                                     |
| 163  | 18176         | NBR         | 18176        | NBR         | 18176        | NBR         | O-Ring, Seat                                                   |
|      | 13278         | FPM         | 13278        | FPM         | 13278        | FPM         | O-Ring, Seat                                                   |
|      | ♦ 702445      | EPDM        | 702445       | EPDM        | 702445       | EPDM        | O-Ring, Seat                                                   |
| 164  | † 44772       | SS          | 44772        | SS          | 44772        | SS          | Seat                                                           |
| 166  | † 44774       | SS          | 44774        | SS          | 44774        | SS          | Valve                                                          |

Standard and Optional Seal Kits, Valve Kits, Optional Parts and Accessories and Service Parts are listed on page 4.

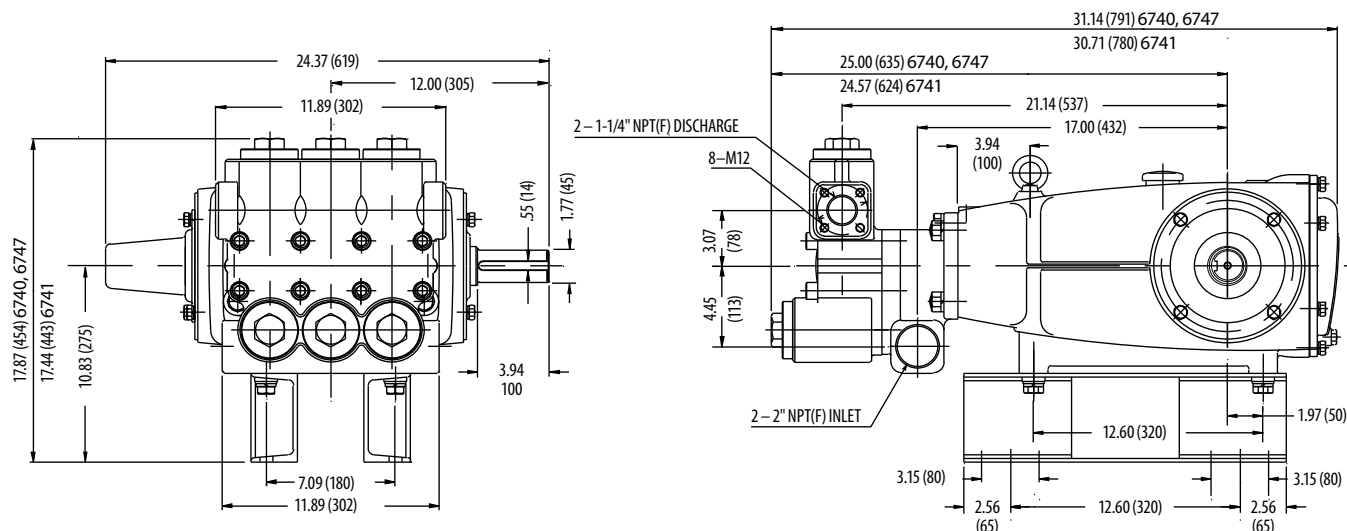
# EXPLOSIONSZEICHNUNG



| ITEM     | 6740    | MATL   | 6741   | MATL   | 6747   | MATL  | DESCRIPTION                                                                                                     | QTY |
|----------|---------|--------|--------|--------|--------|-------|-----------------------------------------------------------------------------------------------------------------|-----|
| 167      | 44773   | SS     | 44773  | SS     | 44773  | SS    | Spring                                                                                                          | 6   |
| 168      | 44775   | PVDF   | 44775  | PVDF   | 44775  | PVDF  | Retainer, Spring                                                                                                | 6   |
| 170      | † 44776 | SS     | 44776  | SS     | 44776  | SS    | Washer, Retainer                                                                                                | 6   |
| 171      | 44780   | SS     | 44780  | SS     | 44780  | SS    | Spring, Coil, Valve Plug                                                                                        | 6   |
| 172      | 18177   | NBR    | 18177  | NBR    | 18177  | NBR   | O-Ring, Valve Plug - 80D                                                                                        | 6   |
|          | 13279   | FPM    | 13279  | FPM    | 13279  | FPM   | O-Ring, Valve Plug - 70D                                                                                        | 6   |
| ♦ 701988 | EPDM    | 701988 | EPDM   | 701988 | EPDM   | EPDM  | O-Ring, Valve Plug                                                                                              | 6   |
| 174      | 49461   | NABC   | 48572  | SSD    | 44778  | NAB   | Plug, Valve [3/00]                                                                                              | 6   |
| 175      | —       | —      | 48573  | S      | —      | —     | Screw, HSH (M16x35) [3/00]                                                                                      | 24  |
| 185      | 49459   | NABC   | 48489  | SS     | 44769  | NAB   | Manifold, Discharge [3/00]                                                                                      | 1   |
| 186      | 126569  | STCRR  | 19086  | S      | 19086  | S     | Lockwasher (M16)                                                                                                | 2   |
| 188      | 126744  | STCRR  | 89694  | S      | 89694  | S     | Screw, HSH (M16x110)                                                                                            | 8   |
| 194      | 126525  | STCRR  | 81291  | S      | 81291  | S     | Nut, Hex (M16)                                                                                                  | 2   |
| 250      | 29445   | AL     | 29445  | AL     | 29445  | AL    | Protector, Shaft (Included w/pump) (See Tech Bulletin 118)                                                      | 1   |
| 255      | 33243   | —      | 33243  | —      | 33243  | —     | Kit, Mount (Included w/Pump)                                                                                    | 1   |
| 260      | 126604  | STCPR  | 126604 | STCPR  | 126604 | STCPR | Rail (Included w/Pump)                                                                                          | 2   |
| 279      | 30429   | STZP   | 30429  | STZP   | 30429  | STZP  | Oil (0.31 / 10 oz.) (Not Shown)                                                                                 | 3   |
| 283      | 34314   | —      | 34314  | —      | 34314  | —     | Kit, Oil Drain                                                                                                  | 1   |
| 290      | 6124    | —      | 6124   | —      | 6124   | —     | Gasket, Liquid (0.11 / 3.0 oz.)                                                                                 | 1   |
| 299      | —       | —      | —      | —      | 702348 | NAB   | Head, Complete                                                                                                  | 1   |
| 300      | 702349  | NBR    | 702349 | NBR    | 702349 | NBR   | Kit, Seal (Incls: 97,104,106,112,115,123,127,155,156,158,159)                                                   | 1   |
|          | 702350  | FPM    | 702350 | FPM    | 702350 | FPM   | Kit, Seal (Incls: 97,104,106,112,115,123,127,155,156,158,159)                                                   | 1   |
| ♦ 703545 | EPDM    | 703545 | EPDM   | 703545 | EPDM   | EPDM  | Kit, Seal (Incls: 97,104,106,112,115,123,127,155,156,158,159)                                                   | 1   |
| 310      | † 34092 | NBR    | 34092  | NBR    | 34092  | NBR   | Kit, Valve (Incls: 163,164,166,167,168,170,172)                                                                 | 2   |
|          | 31273   | FPM    | 31273  | FPM    | 31273  | FPM   | Kit, Valve (Incls: 163,164,166,167,168,170,172)                                                                 | 2   |
|          | 76092   | EPDM   | 76092  | EPDM   | 76092  | EPDM  | Kit, Valve (Incls: 163,164,166,167,168,170,172)                                                                 | 2   |
| —        | 819010  | F      | 819010 | F      | 819010 | F     | Assy, Crankcase, Cast Iron Conversion                                                                           | 1   |
| —        | 88902   | STCP   | 88902  | STCP   | 88902  | STCP  | Stud (M16x277) (For removing D.M., I.M.)                                                                        | 2   |
| —        | 6105    | —      | 6105   | —      | 6105   | —     | Oil, Twin Pack (Two 9.46 l / 2.5 Gal) ISO-68 Hydraulic (Fill to specified crankcase capacity prior to start-up) | 1   |
| —        | —       | —      | 6119   | —      | —      | —     | Lubricant, Antiseize (0.06 l / 2 oz.) (See Tech Bulletin 095)                                                   | 1   |

**Bold print part numbers are unique to a particular pump model.** *Italics are optional items.* [ ] Date of latest production change. † Production parts 304SS, replacement parts are 316SS  
R Components comply with RoHS Directive. \*Überprüfen Sie die Materialcodes für einzelne Artikel (STG kann generell als Alternative verwendet werden). \*\*Complete head for model 6767 only.  
See Tech Bulletins 003, 024, 036, 043, 052, 053, 074, 082, 083, 084, 087, 095, 105 and 118 for additional information.  
MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic AL=Aluminum BB=Brass BBHS=Brass/High Strength CC=Ceramic CM=Chrome-Moly D=Acetal F=Cast Iron  
FCM=Forged Chrome-moly FPM=Fluorocarbon NAB=Nickel Aluminum Bronze NABC=Nickel Aluminum Bronze Chrome Plated NBR=Medium Nitrile (Buna-N)  
PE=Polyethylene PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride S=304SS SS=316SS SSD=Duplex SS SSZZ=316SS/Zamak  
STCP=Steel/Chrome Plated STG=Special Blend PTFE White STL=Steel STZP=Steel/Zinc Plated

Standard and Optional Seal Kits, Valve Kits, Optional Parts and Accessories and Service Parts are listed on page 4.



## SEAL KITS

| PUMP MODELS      | NBR    | FPM (0.0110) | EPDM (0.0220) ♦ |
|------------------|--------|--------------|-----------------|
| 6740, 6741, 6747 | 702349 | 702350       | 703545          |

| ITEM (Included in Seal Kits) | PART NUMBER |        |        | DESCRIPTION                 | QTY |
|------------------------------|-------------|--------|--------|-----------------------------|-----|
| 97                           | 17616       | 11686  | 703369 | O-Ring, Plunger Retainer    | 3   |
| 104, 123, 159                | 18178       | 13338  | 701657 | O-Ring                      | 9   |
| 106                          | 106147      |        |        | Seal, LPS w/SS-Spg          | 3   |
| 112, 115                     | 18175       | 13266  | 702442 | O-Ring, Spacer, Inner/Outer | 6   |
| 127                          | 104450      | 104450 | 104450 | V-Packing                   | 6   |
| 155                          | 701978      | 701360 | 702045 | O-Ring, Spacer              | 3   |
| 156                          | 701361      | 701361 | 701361 | Back-up-Ring                | 3   |
| 158                          | 701363      | 701363 | 701363 | Back-up-Ring                | 3   |

Note: One (1) seal kit required per pump

♦ Silicone Oil/Grease required

## VALVE KITS

| PUMP MODELS      | NBR   | FPM (0.0110) | EPDM (0.0220) ♦ |
|------------------|-------|--------------|-----------------|
| 6740, 6741, 6747 | 34092 | 31273        | 76092           |

| ITEM (Included in Valve Kits) | PART NUMBER |       |        | DESCRIPTION        | QTY |
|-------------------------------|-------------|-------|--------|--------------------|-----|
| 163                           | 18176       | 13278 | 702445 | O-Ring, Seat       | 3   |
| 164                           | 44772       | 44772 | 44772  | Seat               | 3   |
| 166                           | 44774       | 44774 | 44774  | Valve              | 3   |
| 167                           | 44773       | 44773 | 44773  | Spring             | 3   |
| 168                           | 44775       | 44775 | 44775  | Retainer, Spring   | 3   |
| 170                           | 44776       | 44776 | 44776  | Washer, Retainer   | 3   |
| 172                           | 18177       | 13279 | 701988 | O-Ring, Valve Plug | 3   |

Note: Two (2) valve kits required per pump

♦ Silicone Oil/Grease required

## ⚠ 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.de](http://www.catpumps.de) or can be requested directly from CAT PUMPS.