

# DATA SHEET

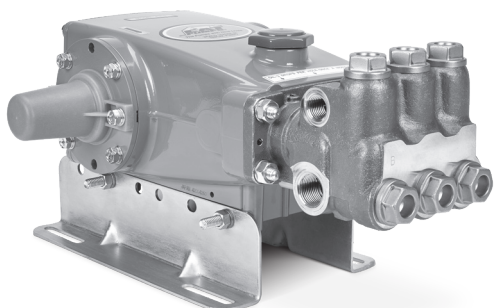
## 15 FRAME PLUNGER PUMPS



**Brass  
Model  
660**

**Stainless Steel  
Model  
661D**

**Stainless Steel  
Flushed Model  
661C**



Model 660 Shown  
(Mounting rails sold separately)

### FEATURES

- Triplex design offers high-efficiency and low-pulsation.
- Durable V-Packings are lubricated and cooled by the liquid being pumped.
- Pre-set low-pressure seals provide secondary protection against external leaks and require no packing adjustment.
- Special high-density, polished, concentric plungers provide a true wear surface and extended seal life.
- Model 661C offers external flush for higher temperatures or low-lubricity liquids.
- Pump comes standard with NBR seals. Alternative seal materials are available for higher temperature or chemical compatibility.

| SPECIFICATIONS  | U.S. Measure          | Metric Measure         |
|---|-----------------------|------------------------|
| Flow  | 10 gpm                | 38 lpm                 |
| Pressure Range  | 100–3000 psi          | 6.9–207 bar            |
| Pump RPM*   | 1429 rpm              | 1429 rpm               |
| Inlet Pressure Range  | Flooded to 60 psi     | Flooded to 4.1 bar     |
| Max. Liquid Temp. (NBR)   | 160° F                | 71° C                  |
| <b>Alternate seals available for higher temperatures up to 200° F</b> |                       |                        |
| Bore  | 0.787"                | 20 mm                  |
| Stroke  | 1.181"                | 30 mm                  |
| Crankcase Capacity  | 42 oz                 | 1.26 l                 |
| Inlet Ports (2)   | ¾" NPT(F)             | ¾" NPT(F)              |
| Flush Ports (2) (661C)  | ⅛" NPT(F)             | ⅛" NPT(F)              |
| Discharge Ports (2)   | ½" NPT(F)             | ½" NPT(F)              |
| Pulley Mounting   | Either Side           | Either Side            |
| Shaft Diameter  | 1.181"                | 30 mm                  |
| Weight  | 44 lbs                | 19.9 kg                |
| Dimensions  | 16.28 x 12.99 x 6.44" | 413.5 x 330 x 163.5 mm |

\*Pump minimum is 100 RPM.

### ALTERNATIVE SEAL CONFIGURATION

| MATERIAL | SUFFIX CODE | MAXIMUM TEMPERATURE |         |
|----------|-------------|---------------------|---------|
| NBR      | —           | 160° F              | (71° C) |
| FPM      | .0110       | 180° F              | (82° C) |
| EPDM     | .0220       | 160° F              | (71° C) |
| IPFE     | .0770       | 200° F              | (93° C) |
| HT       | .3000       | 180° F              | (82° C) |
| STHT     | .3400       | 190° F              | (88° C) |

See **Tech Bulletin 002** for inlet conditions and RPM at high temperature.



|  |  |  |  |
|--|--|--|--|
| <b>DETERMINING<br/>THE PUMP RPM</b>    | Rated gpm                                | =  | Desired gpm  |
|  | Rated rpm                                | =  | Desired rpm  |
| <b>DETERMINING<br/>THE REQUIRED HP</b> | Hp<br>(Electric Brake)                   | =  | $\frac{\text{gpm} \times \text{psi}}{1460}$        |
|  | <b>DETERMINING<br/>MOTOR PULLEY SIZE</b> | $\frac{\text{Motor Pulley OD}}{\text{Pump rpm}}$ | = $\frac{\text{Pump Pulley OD}}{\text{Motor rpm}}$ |

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

# PARTS LIST

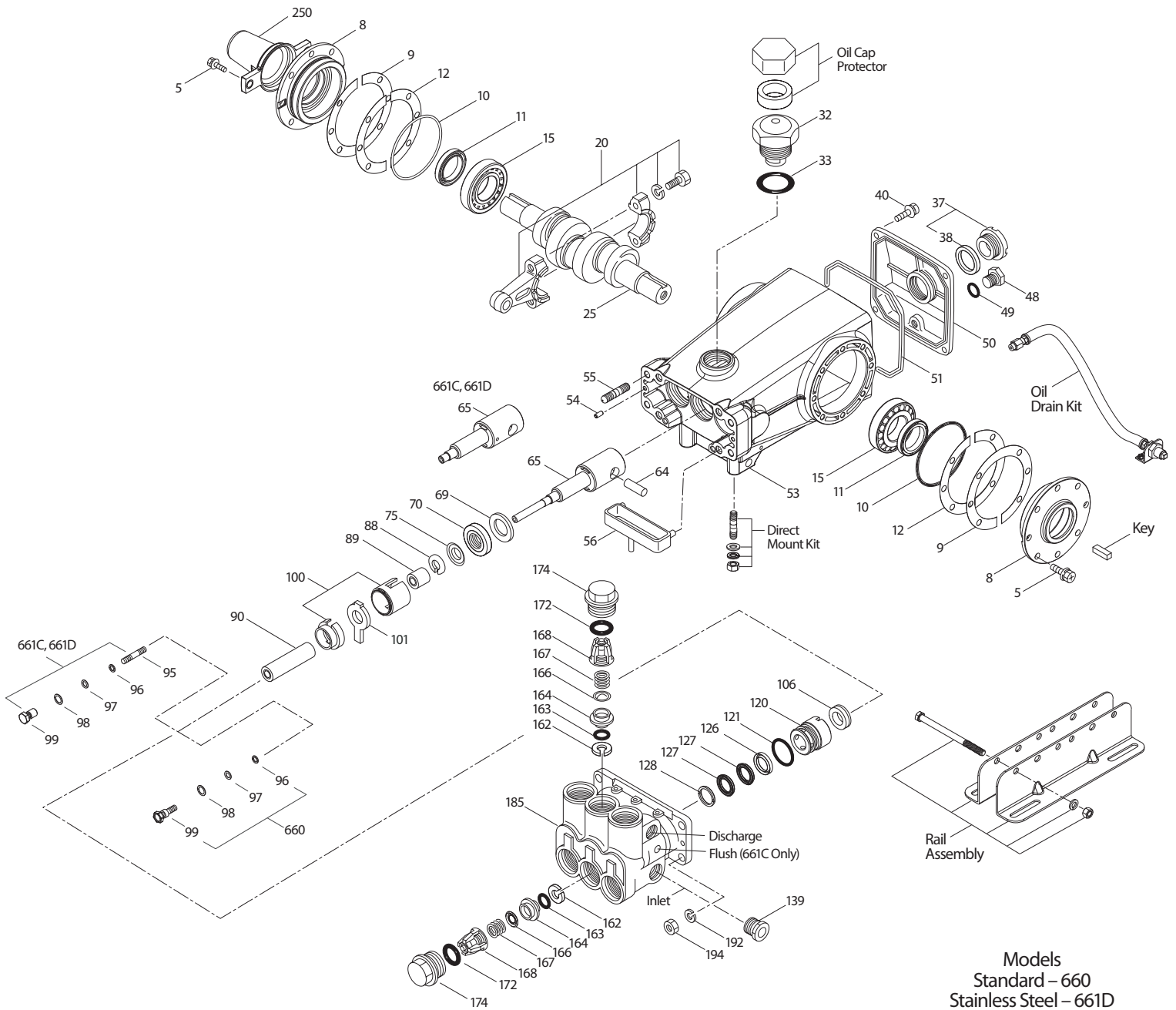
| ITEM | PART NUMBER   | MATL   | PART NUMBER      | MATL   | DESCRIPTION   | QTY |
|------|---------------|--------|------------------|--------|---|-----|
|      | <b>660</b>    |        | <b>661C/661D</b> |        |   |     |
| 5    | <b>126540</b> | STCP R | <b>49651</b>     | S      | Screw, HHC Sems (M8 x 20) (See Tech Bulletin 074, 128)      | 8   |
| 8    | 134805        | ALE    | 134805           | ALE    | Cover, Bearing (See Tech Bulletin 118, 128)                 | 2   |
| 9    | 855043        | FBR    | 855043           | FBR    | Split Shim, Bearing Cover, 2-Piece (See Tech Bulletin 128)  | 0-2 |
| 10   | 11340         | NBR    | 11340            | NBR    | O-Ring, Bearing Case-70D                                    | 2   |
| 11   | 43495         | NBR    | 43495            | NBR    | Seal, Oil, Crankshaft-70D                                   | 2   |
| 12   | 855044        | S      | 855044           | S      | Split Shim, Bearing Cover, 2-Piece (See Tech Bulletin 128)  | 0-2 |
| 15   | 39060         | STL    | 39060            | STL    | Bearing, Roller   | 2   |
| 20   | 48600         | TNM    | 48600            | TNM    | Rod Assembly, Connecting [11/00] (See Tech Bulletin 074)    | 3   |
| 25   | 43494         | FCM    | 43494            | FCM    | Crankshaft - Dual End (M30)                                 | 1   |
| 31   | 828710        | PE     | 828710           | PE     | Protector, Oil Cap with Foam Gasket                         | 1   |
| 32   | 43211         | ABS    | 43211            | ABS    | Cap, Oil Filler   | 1   |
| 33   | 14177         | NBR    | 14177            | NBR    | O-Ring, Filler Cap-70D                                      | 1   |
| 37   | 92241         | PC     | 92241            | PC     | Gauge, Oil, Bubble with Gasket-80D                          | 1   |
| 38   | 44428         | NBR    | 44428            | NBR    | Gasket, Flat, Oil Gauge-80D                                 | 1   |
| 40   | <b>126541</b> | STCP R | <b>92542</b>     | S      | Screw, HHC Sems (M6 x 20) (See Tech Bulletin 074)           | 4   |
| 48   | 25625         | STCP   | 25625            | STCP   | Plug, Drain (1/4" x 19 BSP)                                 | 1   |
| 49   | 23170         | NBR    | 23170            | NBR    | O-Ring, Drain Plug-70D                                      | 1   |
| 50   | 133576        | ALE    | 133576           | ALE    | Cover, Rear (See Tech Bulletin 118)                         | 1   |
| 51   | 44834         | NBR    | 44834            | NBR    | O-Ring, Rear Cover-70D                                      | 1   |
| 53   | <b>134836</b> | ALE    | <b>134848</b>    | ALE    | Crankcase (Includes: 54, 55) (See Tech Bulletin 118, 128)   | 1   |
| 54   | 27488         | S      | 27488            | S      | Pin, Guide  | 2   |
| 55   | <b>126545</b> | STCP R | <b>44005</b>     | S      | Stud (M10 x 45) (See Tech Bulletin 128)                     | 4   |
| 56   | 44664         | POP    | 44664            | POP    | Pan, Oil  | 1   |
| 64   | 43507         | CM     | 43507            | CM     | Pin, Crosshead  | 3   |
| 65   | <b>48228</b>  | SHS    | —                | —      | Rod, Plunger, Long  | 3   |
|      | —             | —      | <b>48892</b>     | SSHB   | Rod, Plunger, Short [3/02]                                  | 3   |
| 69   | 126592        | STCP R | 126592           | STCP R | Washer, Seal  | 3   |
| 70   | 43500         | NBR    | 43500            | NBR    | Seal, Oil, Crankcase-80D                                    | 3   |
| 75   | 43506         | S      | 43506            | S      | Slinger, Barrier  | 3   |
| 88   | 45675         | S      | 45675            | S      | Washer, Keyhole   | 3   |
| 89   | <b>43505</b>  | BB     | <b>45880</b>     | SS     | Spacer, Plunger   | 3   |
| 90   | 43300         | CC     | 43300            | CC     | Plunger (M20 x 77)  | 3   |
| 95   | —             | —      | <b>89651</b>     | SS     | Stud, Plunger Retainer (M6 x 70)                            | 3   |
| 96   | 43235         | PTFE   | 43235            | PTFE   | Backup Ring, Plunger Retainer                               | 3   |
| 97   | 17399         | NBR    | 17399            | NBR    | O-Ring, Plunger Retainer-80D                                | 3   |
| 98   | <b>45891</b>  | CU     | <b>44041</b>     | SS     | Gasket, Plunger Retainer                                    | 3   |
| 99   | —             | —      | <b>44031</b>     | SS     | Retainer, Plunger (M6) (See Tech Bulletin 074)              | 3   |
|      | <b>104360</b> | S      | —                | —      | Retainer with Stud, Plunger (M5) (See Tech Bulletin 074)    | 3   |
| 100  | 855001        | POP    | 855001           | POP    | Retainer, Seal, 2-Piece (See Tech Bulletin #098)            | 3   |
| 101  | 43508         | —      | 43508            | —      | Wick, Long Tab  | 3   |
| 106  | † 44071       | NBR    | † 44071          | NBR    | Seal, LPS with SS-Spring                                    | 3   |
| 120  | <b>49291</b>  | BB     | <b>49284</b>     | SSNP   | Case, Seal [07/05]  | 3   |
| 121  | 14762         | NBR    | 14762            | NBR    | O-Ring, Seal Case-70D                                       | 3   |
| 126  | <b>43515</b>  | BB     | <b>49152</b>     | PTFE   | Adapter, Female [01/04]                                     | 3   |
| 127  | † 44607       | STG    | † 44607          | STG    | V-Packing   | 6   |
| 128  | <b>43517</b>  | BB     | <b>44165</b>     | SS     | Adapter, Male   | 3   |
| 139  | <b>20326</b>  | BBCP   | <b>44382</b>     | SS     | Plug, Inlet [3/4" NPT(M)]                                   | 1   |
| 162  | 43248         | PTFE   | 43248            | PTFE   | Backup Ring, Seat   | 6   |
| 163  | 43249         | NBR    | 43249            | NBR    | O-Ring, Seat-80D  | 6   |
| 164  | <b>43722</b>  | S      | <b>44037</b>     | SS     | Seat  | 6   |
| 166  | <b>43721</b>  | S      | <b>48793</b>     | SS     | Valve   | 6   |
| 167  | <b>43751</b>  | S      | <b>44039</b>     | SS     | Spring  | 6   |
| 168  | 44564         | PVDF   | 44564            | PVDF   | Retainer, Spring  | 6   |
| 172  | 17617         | NBR    | 17617            | NBR    | O-Ring, Valve Plug-90D                                      | 6   |
| 174  | <b>43850</b>  | BB     | <b>49293</b>     | SS     | Plug, Valve (See Tech Bulletin 074)                         | 6   |
| 185  | <b>45975</b>  | NAB    | <b>48780</b>     | SSD    | Head, Manifold  | 1   |
|      | —             | —      | <b>49338</b>     | SSD    | Head, Manifold Flushed (1/8" Flushing Port) 661C Only       | 1   |
| 192  | <b>126231</b> | STCP R | <b>15847</b>     | S      | Lockwasher (M10)  | 4   |
| 194  | <b>126522</b> | STCP R | <b>81258</b>     | S      | Nut, Hex (M10) (See Tech Bulletin 074)                      | 4   |
| 250  | <b>855046</b> | NY     | —                | NY     | Protector, Shaft with Two Screws (See Tech Bulletin 128)    | 1   |
|      | —             | —      | <b>855047</b>    | NY     | Protector, Shaft with Two SS Screws (See Tech Bulletin 128) | 1   |

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

◆ Silicone oil/grease required. † Production parts different from service parts. [ ] Date of latest production change. R Components comply with RoHS Directive.

\*Review material codes for individual items (STG generally may be used as alternate). For additional technical information see [www.catpumps.com/literature/tech-bulletins](http://www.catpumps.com/literature/tech-bulletins)  
MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic ALE=Aluminum Epoxy BB=Brass BBCP=Brass/Chrome Plated CC=Ceramic CM=Chrome-Moly CU=Copper  
EPDM=Ethylene Propylene Diene Monomer F=Cast Iron FBR=Fiber FCM=Forged Chrome-Moly FPM=Fluorocarbon IPFE=1-Perfluoroelastomer NAB=Nickel Aluminum Bronze  
NBR=Medium Nitrile (Buna-N) NY=Nylon PC=Poly Carbonate PE=Polyethylene POP=Polypropylene PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride  
S=304SS SFTA=Special Blend PTFE Tan SFTB=Special Blend PTFE Black SHS=304SS/High Strength SS=316SS SSD=Duplex Stainless SSHB=316SS/High Strength Brass  
SSNP=316SS/Nickel Plated STCP=Steel/Chrome Plated STG=Special Blend PTFE White STL=Steel ST2=Special PTFE 2  
STZP=Steel/Zinc Plated TNM=Special High Strength

# EXPLODED VIEW



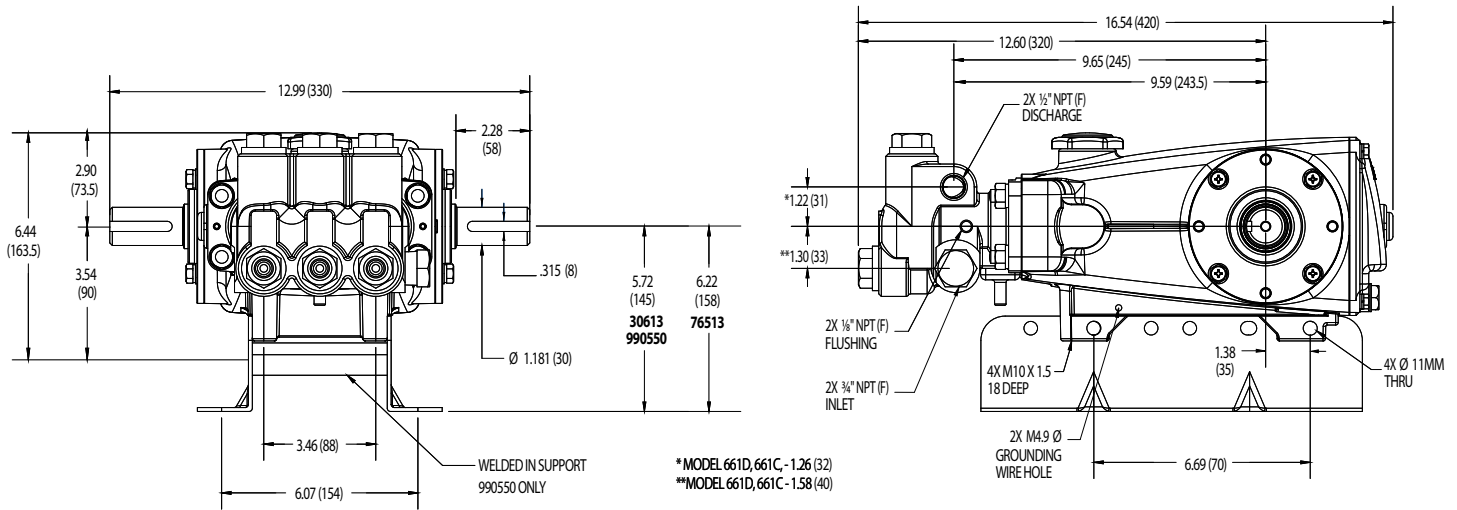
Models  
 Standard – 660  
 Stainless Steel – 661D  
 Stainless Steel Flushed – 661C  
 April 2021

## OPTIONAL PARTS AND ACCESSORIES

| PART   | DESCRIPTION   | QTY |
|--------|---|-----|
| 30067  | Key, (M8 x 7.5 x 25)  | 1   |
| 30661  | Kit, Complete Mounting  | 1   |
| 30613  | Mount, Rail Assembly (5.72" See Dimensional Drawing)                | 1   |
| 990550 | Mount, Rail Assembly for Diesel/Gas (5.72" See Dimensional Drawing) | 1   |
| 76513  | Mount, Rail Assembly (6.22" See Dimensional Drawing)                | 1   |
| 30264  | Kit, Direct Mount   | 1   |
| 30206  | Pulley, 10" (A/B)   | 1   |
| 30059  | Hub, "H" (M30)  | 1   |
| 34334  | Kit, Oil Drain (3/8" x 24")   | 1   |
| 30696  | Pliers, Reverse   | 1   |
| 33006  | Socket, Seal Case   | 1   |

## SERVICE PARTS

| PART   | DESCRIPTION  | QTY |
|--------|--|-----|
| 30798  | Seal Kit – Standard NBR                                  | 1   |
| 30820  | Valve Kit – Standard NBR (Model 660)                     | 2   |
| 34387  | Valve Kit – Standard NBR (Model 661C, 661D)              | 2   |
| 6107   | Oil, Bottle (21 oz bottle)                               | 2   |
| 6119   | Lubricant, Anti-Seize (2 oz)                             | 1   |
| 814561 | Head, Complete – with NBR Seals and O-Rings (Model 660)  | 1   |
| 816780 | Head, Complete – with NBR Seals and O-Rings (Model 661D) | 1   |
| 818420 | Head, Complete – with NBR Seals and O-Rings (Model 661C) | 1   |



Models 660, 661C, 661D

## SEAL KITS One (1) seal kit required per pump

| PUMP MODELS    | NBR (STD)      | FPM (.0110)  | EPDM (.0220)♦  | IPFE (.0770)   | STHT (.3400) |
|----------------|----------------|--------------|----------------|----------------|--------------|
| 660,661C, 661D | <b>30798 *</b> | <b>31033</b> | <b>33919 *</b> | <b>76195 *</b> | <b>76056</b> |

### ITEM (Included in Seal Kits)

| ITEM | NBR (STD)          | FPM (.0110)        | EPDM (.0220)♦       | IPFE (.0770)        | STHT (.3400)       | DESCRIPTION                   | QTY |
|------|--------------------|--------------------|---------------------|---------------------|--------------------|-------------------------------|-----|
| 97   | 17399              | 14160              | 46204               | 701715              | 17399              | O-Ring, Plunger Retainer      | 3   |
| 100  | 855001             | 855001             | 855001              | 855001              | 855001             | Retainer, Seal                | 3   |
| 106  | 44071 <sup>1</sup> | 44381 <sup>2</sup> | 701974 <sup>3</sup> | 703179 <sup>1</sup> | 76071 <sup>1</sup> | Seal, LPS (See Notes 1, 2, 3) | 3   |
| 121  | 14762              | 11737              | 46205               | 701851              | 14762              | O-Ring, Seal Case             | 3   |
| 127  | 44607              | 44386              | 44607               | 44607               | 44607              | V-Packing                     | 6   |

♦ Silicone Oil/Grease required

\* Review material codes for individual items (STG generally by be used as alternative)

<sup>1</sup> W/SS-SPG, <sup>2</sup> W/S-SPG, <sup>3</sup> W/NIH-SPG

## VALVE KITS Two (2) valve kits required per pump

| PUMP MODELS | NBR (STD)    | FPM (.0110)  | EPDM (.0220) ♦ | IPFE (.0770) | STHT (.3400) |
|-------------|--------------|--------------|----------------|--------------|--------------|
| 660         | <b>30820</b> | <b>31263</b> | <b>31259</b>   |              | <b>30820</b> |
| 661C, 661D  | <b>34387</b> | <b>30987</b> | <b>31258</b>   | <b>76385</b> | <b>34387</b> |

### ITEM (Included in Seal Kits)

| ITEM | NBR (STD) | FPM (.0110) | EPDM (.0220) ♦ | IPFE (.0770) | STHT (.3400) | DESCRIPTION                | QTY |
|------|-----------|-------------|----------------|--------------|--------------|----------------------------|-----|
| 162  | 43248     | 43248       | 43248          | 43248        | 43248        | Backup Ring, Valve Seat    | 3   |
| 163  | 43249     | 44383       | 46206          | 701852       | 43249        | O-Ring, Valve Seat         | 3   |
| 164  | 43722     | 43722       | 43722          |              | 43722        | Seat (Model 660)           | 3   |
|      | 44037     | 44037       | 44037          | 44037        | 44037        | Seat (Models 661C, 661D)   | 3   |
| 166  | 43721     | 43721       | 43721          |              | 43721        | Valve (Model 660)          | 3   |
|      | 48793     | 48793       | 48793          | 48793        | 48793        | Valve (Models 661C, 661D)  | 3   |
| 167  | 43751     | 43751       | 43751          |              | 43751        | Spring (Model 660)         | 3   |
|      | 44039     | 44039       | 44039          | 44039        | 44039        | Spring (Models 661C, 661D) | 3   |
| 168  | 44564     | 44564       | 44564          | 44564        | 44564        | Retainer, Spring           | 3   |
| 172  | 17617     | 11691       | 46207          | 701853       | 17617        | O-Ring, Valve Plug         | 3   |

♦ Silicone Oil/Grease required



# PIJTTERSEN

Pijtersen B.V.  
Beneluxweg 33  
9636 HV Zuidbroek  
Tel.: +31(0)50-8200963

KvK 01013855  
BIC RABONL2U  
BTW NL002166811B01  
IBAN NL24 RABO 0353 2970 97



*The Pumps with Nine Lives*