

Model 2530 Shown

## FEATURES

### Superior Design

- Triplex plunger design gives smoother liquid flow.
- Special epoxy painted crankcase, bearing covers and rear cover with liquid gasket seal provides added moisture protection (2530E Only)
- Hi-Pressure Seals are completely lubricated and cooled by the liquid being pumped.
- Lubricated Lo-Pressure Seals provide double protection against external leakage.
- Oil bath crankcase assures optimum lubrication.
- Close tolerance concentricity of the ceramic plunger maximizes seal life.

### Quality Materials

- Precision design 316SS valves and seats are hardened and polished for ultimate seating and extended valve life.
- Brass, 316 Stainless Steel or Nickel Aluminum Bronze manifolds are strong and corrosion resistance.
- Special concentric, high-density, polished, solid ceramic plungers provide a true wear surface and extended seal life.
- Specially formulated, CAT PUMP exclusive, Hi-Pressure seals offer unmatched performance and seal life.
- Die cast aluminum crankcase provides high strength, minimum weight and precision tolerance control.
- Chrome-moly crankshaft gives unmatched strength and surface hardness.
- Oversized crankshaft bearings with greater loading capacity mean longer bearing life.

### Easy Maintenance

- Wet-end is easily serviced without entering crankcase.
- Interchangeable inlet and discharge valve assemblies.
- Preset seals require no packing adjustment.

### ⚠ 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 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).

# 25 Frame Plunger Pump

Standard Brass  
Models

**2530, 2530E**

Stainless Steel  
Model

**2531**

Nickel Aluminum  
Bronze Model

**2537**

## SPECIFICATIONS

U.S. Measure

Metric Measure

### MODELS 2530, 2530E, 2531

|                      |                 |               |
|----------------------|-----------------|---------------|
| Flow .....           | 25 GPM          | (95 L/M)      |
| Pressure Range ..... | 100 to 1000 PSI | (7 to 70 BAR) |
| RPM.....             | 1025 RPM        | (1025 RPM)    |

### MODEL 2537

|                      |                 |               |
|----------------------|-----------------|---------------|
| Flow .....           | 21 GPM          | (80 L/M)      |
| Pressure Range ..... | 100 to 1200 PSI | (7 to 85 BAR) |
| RPM .....            | 860 RPM         | (860 RPM)     |

### COMMON SPECIFICATIONS

|  |                      |                         |
|--|----------------------|-------------------------|
| Inlet Pressure Range .....   | Flooded to 70 PSI    | (Flooded to 4.9 BAR)    |
| Bore .....   | 1.260"               | (32 mm)                 |
| Stroke .....   | 1.516"               | (38.5 mm)               |
| Crankcase Capacity .....   | 84 oz.               | (2.5 L)                 |
| Maximum Liquid Temperature .....   | 160°F                | (71°C)                  |
| <small>For temperatures above 130°F call CAT PUMPS for inlet conditions and elastomer recommendations.</small> |                      |                         |
| Inlet Ports (2) .....  | 1-1/4" NPTF          | (1-1/4" NPTF)           |
| Discharge Ports (2) .....  | 3/4" NPTF            | (3/4" NPTF)             |
| Pulley Mounting.....   | Either Side          | (Either Side)           |
| Shaft Diameter.....  | 1.181"               | (30 mm)                 |
| Weight .....   | 82 lbs.              | (37.1 kg)               |
| Dimensions.....  | 19.11 x 15.04 x 7.8" | (485.44 x 382 x 198 mm) |

## ELECTRIC HORSEPOWER REQUIREMENTS

| MODEL      | FLOW        |     | PRESSURE |      |      | RPM  |
|------------|-------------|-----|----------|------|------|------|
|            | U.S.<br>GPM | L/M | PSI      | PSI  | PSI  |      |
|            |             |     | 800      | 1000 | 1200 |      |
|            |             |     | BAR      | BAR  | BAR  |      |
| 2530,2530E | 25          | 95  | 13.7     | 17.1 | N/A  | 1025 |
| 2531       | 21          | 80  | 11.5     | 14.4 | 17.3 | 860  |
| 2537       | 21          | 80  | 11.5     | 14.4 | 17.3 | 860  |
|            | 18          | 68  | 9.9      | 12.3 | 14.8 | 738  |
|            | 15          | 57  | 8.2      | 10.3 | 12.4 | 61   |

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

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

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

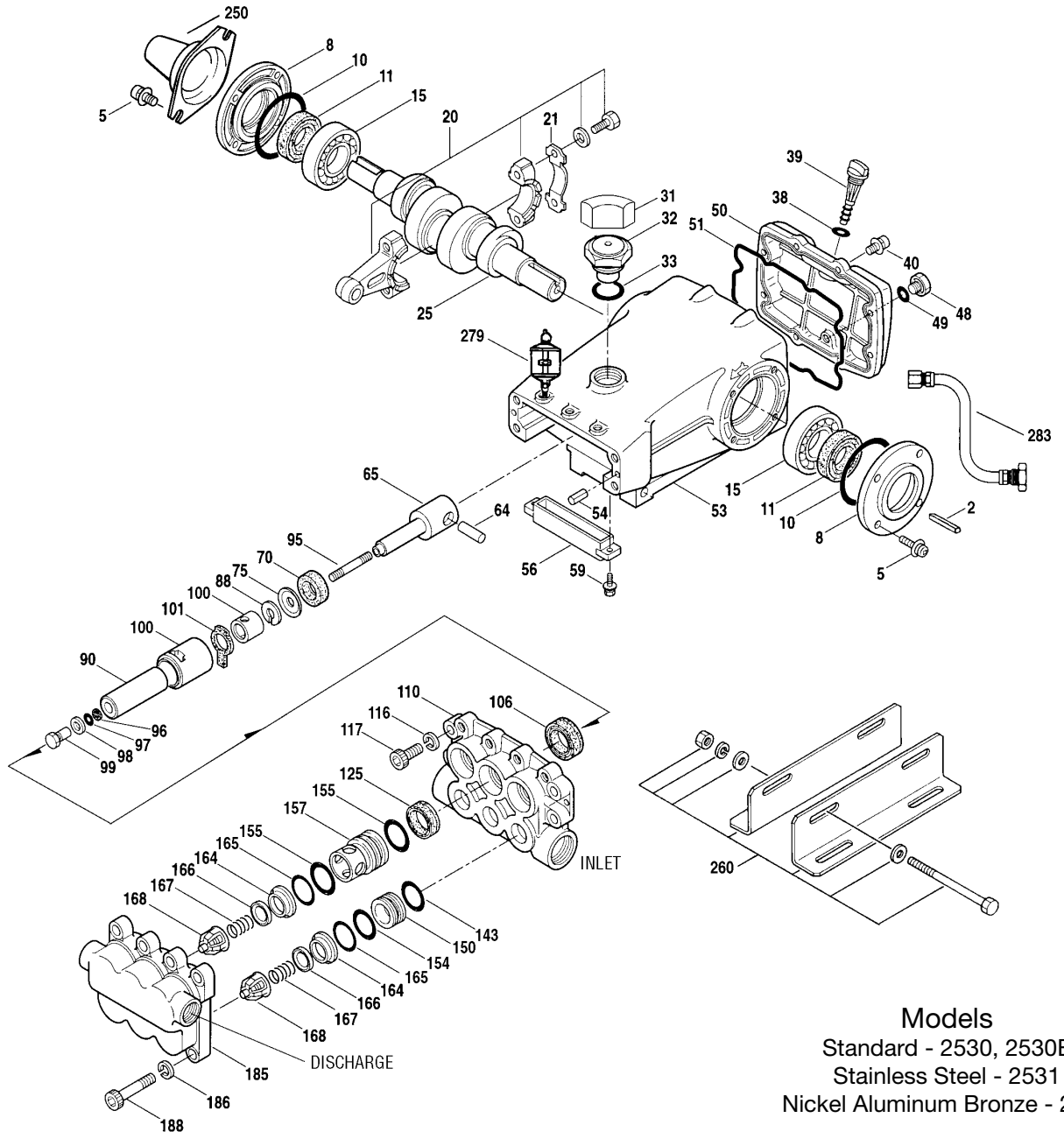
See complete Drive Packages [Incls: Pulleys, Belts, Hubs, Key] Tech Bulletin 003. Refer to pump **Service Manual** for repair procedure and additional technical information.

*"Customer confidence is our greatest asset"*

# PARTS LIST

| ITEM | 2530          | PART NUMBER   |               |             |               | DESCRIPTION | QTY  |   |
|------|---------------|---------------|---------------|-------------|---------------|-------------|--|---|
|      | <b>2530E</b>  | <b>MATL</b>   | <b>2531</b>   | <b>MATL</b> | <b>2537</b>   | <b>MATL</b> |  |   |
| 2    | 990036        | STL           | 990036        | STL         | 990036        | STL         | Key (M8x7x40) [2/00]   | 1 |
| 5    | 92508         | STZP          | 125753        | S           | 125753        | S           | Screw, HHC, Sems (M8x25)   | 8 |
|      | 126544        | STCP R        | —             | —           | —             | —           | Screw, HHC, Sems (M8x25)   | 8 |
| 8    | <b>27773</b>  | <b>AL</b>     | <b>27773</b>  | <b>AL</b>   | <b>27773</b>  | <b>AL</b>   | Cover, Bearing   | 2 |
|      | <b>49533</b>  | <b>ALE</b>    | —             | —           | —             | —           | Cover, Bearing (2530E Only)  | 2 |
| 10   | 27772         | NBR           | 27772         | NBR         | 27772         | NBR         | O-Ring, Oil Seal Case - 70D  | 2 |
| 11   | 27771         | NBR           | 27771         | NBR         | 27771         | NBR         | Seal, Oil, Crankshaft - 70D  | 2 |
| 15   | 26512         | STL           | 26512         | STL         | 26512         | STL         | Bearing, Ball  | 2 |
| 20   | 48613         | TNM           | 48613         | TNM         | 48613         | TNM         | Rod, Connecting  | 3 |
| 21   | 126562        | STCP R        | 126562        | STCP R      | 126562        | STCP R      | Washer, Locking  | 3 |
| 25   | 48704         | FCM           | 48704         | FCM         | 48704         | FCM         | Crankshaft - Dual End [2/00] (See Tech Bulletin 085)                     | 1 |
| 31   | 828710        | —             | 828710        | —           | 828710        | —           | Protector, Oil Cap w/Gasket  | 1 |
| 32   | 43211         | ABS           | 43211         | ABS         | 43211         | ABS         | Cap, Oil Filler  | 1 |
| 33   | 14177         | NBR           | 14177         | NBR         | 14177         | NBR         | O-Ring, Oil Filler Cap -70D  | 1 |
| 38   | 11338         | NBR           | 11338         | NBR         | 11338         | NBR         | O-Ring, Dipstick - 70D   | 1 |
| 39   | 27769         | ABS           | 27769         | ABS         | 27769         | ABS         | Dipstick   | 1 |
| 40   | <b>92508</b>  | <b>STZP</b>   | <b>125753</b> | <b>S</b>    | <b>125753</b> | <b>S</b>    | Screw, HHC, Sems (M8x25)   | 8 |
|      | <b>126544</b> | <b>STCP R</b> | —             | —           | —             | —           | Screw, HHC, Sems (M8x25)   | 8 |
| 48   | 25625         | STCP          | 25625         | STCP        | 25625         | STCP        | Plug, Drain (1/4"x19BSP)   | 1 |
| 50   | <b>27768</b>  | <b>AL</b>     | <b>27768</b>  | <b>AL</b>   | <b>27768</b>  | <b>AL</b>   | Cover, Rear  | 1 |
|      | <b>49531</b>  | <b>ALE</b>    | —             | —           | —             | —           | Cover, Rear (2530E Only)   | 1 |
| 51   | 27767         | NBR           | 27767         | NBR         | 27767         | NBR         | O-Ring, Rear Cover - 70D   | 1 |
| 53   | <b>27762</b>  | <b>AL</b>     | <b>27762</b>  | <b>AL</b>   | <b>27762</b>  | <b>AL</b>   | Crankcase w/Guide Pins   | 1 |
|      | <b>49528</b>  | <b>ALE</b>    | —             | —           | —             | —           | Crankcase w/Guide Pins (2530E Only)                                      | 1 |
| 54   | 27488         | S             | 27488         | S           | 27488         | S           | Pin, Guide   | 2 |
| 56   | 27790         | POP           | 27790         | POP         | 27790         | POP         | Pan, Oil   | 1 |
| 59   | <b>92519</b>  | <b>STZP</b>   | <b>92538</b>  | <b>S</b>    | <b>92538</b>  | <b>S</b>    | Screw, HHC, Sems (M6x16)   | 2 |
|      | <b>125824</b> | <b>STCP R</b> | —             | —           | —             | —           | Screw, HHC, Sems (M6x16)   | 2 |
| 64   | 27784         | CM            | 27784         | CM          | 27784         | CM          | Pin, Crosshead   | 3 |
| 65   | † 48592       | SSHS          | † 48592       | SSHS        | † 48592       | SSHS        | Rod, Plunger   | 3 |
| 70   | 27785         | NBR           | 27785         | NBR         | 27785         | NBR         | Seal, Crankcase Oil -70D   | 3 |
| 75   | 110669        | S             | 110669        | S           | 110669        | S           | Slinger, Barrier   | 3 |
| 88   | 110670        | S             | 110670        | S           | 110670        | S           | Washer, Keyhole  | 3 |
| 90   | 45749         | CC            | 45749         | CC          | 45749         | CC          | Plunger (M32x93)   | 3 |
| 95   | † 89835       | SS            | † 89835       | SS          | † 89835       | SS          | Stud, Retainer (M7x87)   | 3 |
| 96   | 20184         | PTFE          | 20184         | PTFE        | 20184         | PTFE        | Back-up-Ring, Plunger Retainer   | 3 |
| 97   | 14190         | NBR           | 14190         | NBR         | 14190         | NBR         | O-Ring, Plunger Retainer - 70D   | 3 |
|      | 14161         | FPM           | 14161         | FPM         | 14161         | FPM         | O-Ring, Plunger Retainer - 70D   | 3 |
|      | ◆ 48239       | EPDM          | ◆ 48239       | EPDM        | ◆ 48239       | EPDM        | O-Ring, Plunger Retainer   | 3 |
| 98   | 44069         | SS            | 44069         | SS          | 44069         | SS          | Gasket, Plunger Retainer   | 3 |
| 99   | 44068         | SS            | 44068         | SS          | 44068         | SS          | Retainer, Plunger [7/02]   | 3 |
| 100  | 110672        | NY            | 110672        | NY          | 110672        | NY          | Retainer, LPS, Front   | 3 |
|      | 111116        | NY            | 111116        | NY          | 111116        | NY          | Retainer, LPS, Rear  | 3 |
| 101  | 110796        | —             | 110796        | —           | 110796        | —           | Wick, Long Tab (M32)   | 3 |
| 106  | † 44098       | NBR           | † 44098       | NBR         | † 44098       | NBR         | Seal, LPS w/SS-Spg   | 3 |
|      | 44827         | FPM           | 44827         | FPM         | 44827         | FPM         | Seal, LPS w/SS-Spg   | 3 |
|      | ◆ 48244       | EPDM          | ◆ 48244       | EPDM        | ◆ 48244       | EPDM        | Seal, LPS w/SS-Spg   | 3 |
| 110  | <b>49265</b>  | <b>CFBB</b>   | <b>48583</b>  | <b>SS</b>   | <b>45830</b>  | <b>NAB</b>  | Manifold, Inlet  | 1 |
| 116  | <b>126570</b> | <b>STCP R</b> | <b>19085</b>  | <b>S</b>    | <b>19085</b>  | <b>S</b>    | Lockwasher, Split  | 4 |
| 117  | <b>126518</b> | <b>STCP R</b> | <b>88398</b>  | <b>S</b>    | <b>88398</b>  | <b>S</b>    | Screw, HSH (M12x40)  | 4 |
| 125  | † 45832       | SNG           | † 45832       | SNG         | † 45832       | SNG         | Seal, HPS w/SS   | 3 |
|      | 48220         | HT*           | 48220         | HT*         | 48220         | HT*         | Seal, HPS w/SS, 2-PC w/S-Support   | 3 |
| 143  | 14203         | NBR           | 14203         | NBR         | 14203         | NBR         | O-Ring, Adapter, LPS, Rear-70D   | 3 |
|      | 11731         | FPM           | 11731         | FPM         | 11731         | FPM         | O-Ring, Adapter, LPS, Rear   | 3 |
|      | ◆ 48241       | EPDM          | ◆ 48241       | EPDM        | ◆ 48241       | EPDM        | O-Ring, Adapter, LPS, Rear   | 3 |
| 150  | <b>45752</b>  | <b>BB</b>     | <b>45835</b>  | <b>SS</b>   | <b>45835</b>  | <b>SS</b>   | Adapter, LPS   | 3 |
| 154  | 18690         | NBR           | 18690         | NBR         | 18690         | NBR         | O-Ring, Adapter, LPS, Front -70D   | 3 |
|      | 11744         | FPM           | 11744         | FPM         | 11744         | FPM         | O-Ring, Adapter, LPS, Front  | 3 |
|      | ◆ 48242       | EPDM          | ◆ 48242       | EPDM        | ◆ 48242       | EPDM        | O-Ring, Adapter, LPS, Front  | 3 |
| 155  | 14520         | NBR           | 14520         | NBR         | 14520         | NBR         | O-Ring, Adapter, Valve -70D  | 6 |
|      | 11745         | FPM           | 11745         | FPM         | 11745         | FPM         | O-Ring, Adapter, Valve   | 6 |
|      | ◆ 48240       | EPDM          | ◆ 48240       | EPDM        | ◆ 48240       | EPDM        | O-Ring, Adapter, Valve   | 6 |
| 157  | <b>45751</b>  | <b>BB</b>     | <b>45834</b>  | <b>SS</b>   | <b>45834</b>  | <b>SS</b>   | Adapter, Valve   | 3 |
| 164  | † 46857       | SS            | † 46857       | SS          | † 46857       | SS          | Seat [11/95] (See Tech Bulletin 076)                                     | 6 |
| 165  | 14014         | NBR           | 14014         | NBR         | 14014         | NBR         | O-Ring, Seat   | 6 |
|      | 48238         | FPM           | 48238         | FPM         | 48238         | FPM         | O-Ring, Seat   | 6 |
|      | ◆ 48243       | EPDM          | ◆ 48243       | EPDM        | ◆ 48243       | EPDM        | O-Ring, Seat   | 6 |
| 166  | † 45839       | SS            | † 45839       | SS          | † 45839       | SS          | Valve  | 6 |
| 167  | † 45840       | SS            | † 45840       | SS          | † 45840       | SS          | Spring   | 6 |
| 168  | 110682        | PVDF          | 110682        | PVDF        | 110682        | PVDF        | Retainer, Spring   | 6 |
| 185  | <b>49267</b>  | <b>CFBB</b>   | <b>48585</b>  | <b>SS</b>   | <b>45836</b>  | <b>NAB</b>  | Manifold, Discharge  | 1 |
| 186  | <b>126570</b> | <b>STCP R</b> | <b>19085</b>  | <b>S</b>    | <b>19085</b>  | <b>S</b>    | Lockwasher, Split  | 8 |
| 188  | <b>89573</b>  | <b>STCP</b>   | <b>89628</b>  | <b>S</b>    | <b>89628</b>  | <b>S</b>    | Screw, HSH (M12x65)  | 8 |
|      | <b>126517</b> | <b>STCP R</b> | —             | —           | —             | —           | Screw, HSH (M12x65)  | 8 |
| 250  | 26516         | STCP          | 26516         | STCP        | 26516         | STCP        | Protector, Shaft   | 1 |
| 260  | 30614         | STZP R        | 30614         | STZP R      | 30614         | STZP R      | Rail, Angle Assy   | 1 |
| 269  | 30206         | F             | 30206         | F           | 30206         | F           | Pulley (10") [See Drive Packages, Tech Bulletin 003]                     | 1 |
| 270  | 30059         | STL           | 30059         | STL         | 30059         | STL         | Hub, "H", M30 (Keyway M8) [See Drive Packages, Tech Bulletin 003] [2/00] | 1 |
| 279  | 30278         | STZP          | 30278         | STZP        | 30278         | STZP        | Oilers (1 oz.)   | 3 |
| 281  | 30967         | —             | 30967         | —           | 30967         | —           | Glass, Oiler   | 3 |
| 282  | 10069         | NBR           | 10069         | NBR         | 10069         | NBR         | Gasket, Oiler  | 3 |

# EXPLODED VIEW



**Models**  
 Standard - 2530, 2530E  
 Stainless Steel - 2531  
 Nickel Aluminum Bronze - 2537

|     | <b>2530</b>   | <b>MATL</b> | <b>2531</b>   | <b>MATL</b> | <b>2537</b>   | <b>MATL</b> |  |   |
|-----|---------------|-------------|---------------|-------------|---------------|-------------|--|---|
| 283 | 34334         | —           | 34334         | —           | 34334         | —           | Kit, Oil Drain (See Tech Bulletin 077)   | 1 |
| 290 | 6124          | —           | 6124          | —           | 6124          | —           | Gasket, Liquid (3 oz.)   | 1 |
| 299 | <b>814838</b> | <b>BB</b>   | <b>816735</b> | <b>SS</b>   | <b>816538</b> | <b>NAB</b>  | Head, Complete   | 1 |
| 300 | 30952         | NBR         | 30952         | NBR         | 30952         | NBR         | Kit, Seal (Incls: 97,106,125,143,154,155)  | 1 |
|     | 33607         | FPM*        | 33607         | FPM*        | 33607         | FPM*        | Kit, Seal (Incls: 97,106,125,143,154,155)  | 1 |
|     | ◆ 33608       | EPDM*       | ◆ 33608       | EPDM*       | ◆ 33608       | EPDM*       | Kit, Seal (Incls: 97,106,125,143,154,155)  | 1 |
| 310 | 33952         | NBR         | 33952         | NBR         | 33952         | NBR         | Kit, Valve (Incls: 143,154,155,164,165,166,167,168) [Prior to 11/95 6 Req.] [1/96] | 2 |
|     | 31267         | FPM         | 31267         | FPM         | 31267         | FPM         | Kit, Valve (Incls: 143,154,155,164,165,166,167,168) [Prior to 11/95 6 Req.] [1/96] | 2 |
|     | ◆ 31268       | EPDM        | ◆ 31268       | EPDM        | ◆ 31268       | EPDM        | Kit, Valve (Incls: 143,154,155,164,165,166,167,168) [Prior to 11/95 6 Req.] [1/96] | 2 |
| 390 | 714500        | SS          | 714500        | SS          | 714500        | SS          | C.A.T. (Inlet pressure stabilizer for RO and boosted inlet applications)           | 1 |
| 391 | 714505        | SS          | 714505        | SS          | 714505        | SS          | Adapter (2 per C.A.T.) (See Data Sheet for complete selection)                     | 2 |
| 392 | <b>701828</b> | <b>SS</b>   | <b>701828</b> | <b>SS</b>   | <b>701828</b> | <b>SS</b>   | Elbow Assy Used With Adapter Assy 714505   | 1 |
| —   | 6575          | —           | 6575          | —           | 6575          | —           | Plunger Pump Servicing DVD   | 1 |
| —   | —             | —           | <b>6119</b>   | —           | —             | —           | Lubricant, Antiseize (1 oz.) (See Tech Bulletin 095)                               | 1 |
| —   | 701931        | —           | —             | —           | —             | —           | Sealant, Silicone (2.7oz) (2530E Only)   | 1 |
| —   | 6100          | —           | 6100          | —           | 6100          | —           | Oil, Case (12 Bottles) ISO 68 Hydraulic  | 1 |

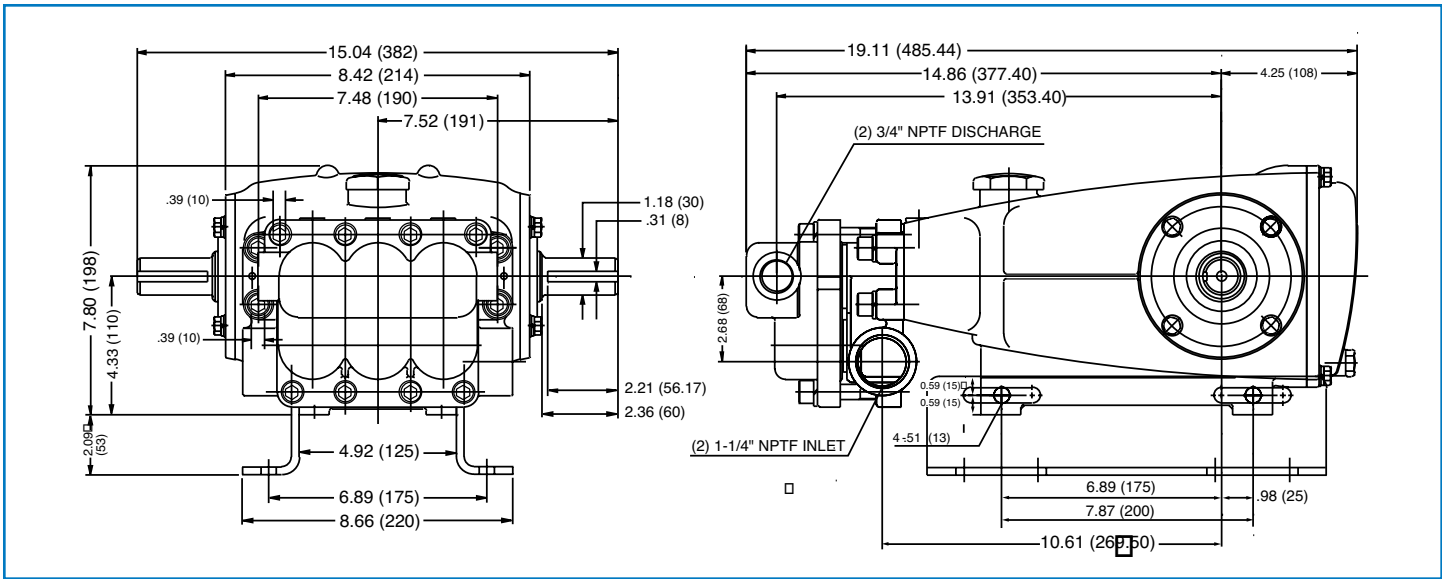
**Bold print part numbers are unique to a particular pump model. Italics are optional items. [ ]** Date of latest production change.

◆ Silicone oil/grease required. +Production parts different from service parts. R Components comply with RoHS Directive.

\*Review individual parts in each kit for material code identification.

View Tech Bulletins 002, 003, 024, 036, 043, 053, 074, 076, 077, 081, 083, 085 and 095 for additional information. MATERIAL CODES (Not Part of Part Number):

ABS=ABS Plastic AL=Aluminum ALE=Aluminum Epoxy BB=Brass CC=Ceramic CFBB=Chrome Forged Brass CM=Chrome-moly  
 EPDM=Ethylene Propylene Diene Monomer F=Cast Iron FCM=Forged Chrome-moly FPM=Fluorocarbon HT=High Temp (EPDM Alternative) NAB=Nickel Aluminum Bronze  
 NBR=Medium Nitrile (Buna-N) NY=Nylon POP=Polypropylene PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride S=304SS SS=316SS  
 SNG=Special Blend (Buna) STG=Special Blend PTFE White STL=Steel SSSH=316SS/High Strength  
 STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated TNM=Special High Strength



Models 2530, 2530E, 2531, 2537



- 1 Die cast aluminum **crankcase** means high strength, light weight, and excellent tolerance control.
- 2 **Dipstick** offers top access 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 TNM **connecting rods** noted for superior tensile strength and bearing quality.
- 6 Special stainless steel **plunger rods** with high tensile strength crossheads for long life.
- 7 The stainless steel **slinger** provides back-up protection for the crankcase seal, keeping pumped liquids out of the crankcase.
- 8 Special concentric, high-density, polished, solid ceramic **plungers** provide a true wear surface and extended seal life.
- 9 **Manifolds** are a high tensile strength brass, 316 stainless steel or nickel aluminum bronze for long term, continuous duty.
- 10 100% **wet seal** design adds to service life by allowing pumped liquids to cool and lubricate on both sides.
- 11 Stainless steel **valves, seats and springs** provide corrosion-resistance, ultimate seating and extended life.
- 12 Specially formulated, CAT PUMP exclusive, **Hi-Pressure Seals** offer unmatched performance and seal life.
- 13 **Crosshead** is 360° supported for uncompromising alignment.

**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, B-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