

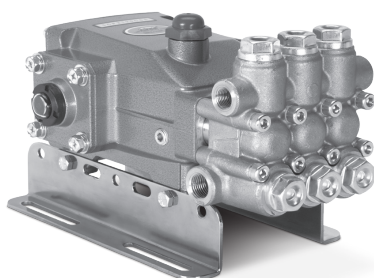
# DATA SHEET

## 5CP PLUNGER PUMPS



**Brass Model:** **5CP5135CSS**

**Brass Gearbox Models:** **5CP5135CSSG1, 5CP5135CSSG118**



Model 5CP5135CSS Shown  
(Mounting rails sold separately)

### FEATURES

- Triplex plunger design ensures high efficiency and low pulsation.
- Belt-driven option provide precise flow setting.
- Gearbox model available with 1" or 1½" hollow shaft fits a wide variety of engines.
- Direct-driven option offers a compact foot print for electric motors with a NEMA or IEC frame, or SAE hydraulic motors with a bell housing/flexible coupler assembly.
- Pump comes standard with NBR seals. Alternative seal materials are available for higher temperature or chemical compatibility.

### SPECIFICATIONS

#### U.S. Measure

#### Metric Measure

#### 5CP5135CSS

|                |              |             |
|----------------|--------------|-------------|
| Flow           | 6.0 gpm      | 22.7 lpm    |
| Pressure Range | 100–3500 psi | 6.9–241 bar |
| Pump RPM*      | 1750 rpm     | 1750 rpm    |
| Stroke         | 0.709"       | 18 mm       |
| Weight         | 19.9 lbs     | 9 kg        |

#### 5CP5135CSSG1, 5CP5135CSSG118

|                |              |             |
|----------------|--------------|-------------|
| Flow           | 5.8 gpm      | 22 lpm      |
| Pressure Range | 100–3500 psi | 6.9–241 bar |
| Engine RPM     | 3450 rpm     | 3450 rpm    |
| Stroke         | 0.709"       | 18 mm       |
| Weight         | 26.5 lbs     | 12 kg       |

\*Pump minimum is 100 RPM.

### COMMON

#### SPECIFICATIONS

#### U.S.

#### Metric

|                               |             |              |
|-------------------------------|-------------|--------------|
| Inlet Pressure Range          | -2.5–60 psi | -0.2–4.1 bar |
| Max. Liquid Temperature (NBR) | 160° F      | 71° C        |

#### Alternative seals available for higher temperatures up to 190° F

|                     |                      |                    |
|---------------------|----------------------|--------------------|
| Bore                | 0.709"               | 18 mm              |
| Crankcase Capacity  | 17 oz                | 0.50 l             |
| Inlet Ports (2)     | ½" NPT (F)           | ½" NPT (F)         |
| Discharge Ports (2) | ¾" NPT (F)           | ¾" NPT (F)         |
| Shaft Diameter      | 0.787"               | 20 mm              |
| Dimensions          | 10.90 x 8.90 x 5.75" | 277 x 226 x 146 mm |

### 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) |
| HT       | .3000       | 180° F              | (82° C) |
| STHT     | .3400       | 190° F              | (88° C) |

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

#### DETERMINING THE PUMP RPM

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

#### DETERMINING THE REQUIRED HP

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

#### DETERMINING MOTOR PULLEY SIZE

$$\frac{\text{Motor Pulley OD}}{\text{Pump rpm}} = \frac{\text{Pump Pulley OD}}{\text{Motor rpm}}$$

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

# PARTS LIST

| ITEM | PART NUMBER       | MATL   | PART NUMBER           | MATL   | DESCRIPTION                                                    | QTY |
|------|-------------------|--------|-----------------------|--------|----------------------------------------------------------------|-----|
|      | <b>5CP5135CSS</b> |        | <b>5CP5135CSSG1</b>   |        |                                                                |     |
|      |                   |        | <b>5CP5135CSSG118</b> |        |                                                                |     |
| 5    | 126542            | STCP R | 126542                | STCP R | Screw, HHC, Sems (M8 x 16) (See Tech Bulletin 074)             | 8   |
| 8    | 46910             | AL     | 46910                 | AL     | Cover, Bearing                                                 | 1   |
| 10   | 14028             | NBR    | 14028                 | NBR    | O-Ring, Bearing Cover                                          | 2   |
| 11   | 43222             | NBR    | 43222                 | NBR    | Seal, Oil, Crankshaft                                          | 1   |
| 15   | 14480             | STL    | 14480                 | STL    | Bearing, Ball                                                  | 2   |
| 20   | 48742             | TNM    | 48742                 | TNM    | Rod, Connecting Assembly (See Tech Bulletin 074)               | 3   |
| 25   | 48233             | FCM    | 48233                 | FCM    | Crankshaft, Single-End (M18)                                   | 1   |
| 30   | 49776             | AL     | 49776                 | AL     | Cover, Bearing                                                 | 1   |
| 32   | 46798             | —      | 46798                 | —      | Cap, Oil Filler, Domed                                         | 1   |
| 33   | 14179             | NBR    | 14179                 | NBR    | O-Ring, Oil Filler Cap                                         | 1   |
| 37   | 92241             | PC     | 92241                 | PC     | Gauge, Oil, Bubble with Gasket                                 | 2   |
| 38   | 44428             | NBR    | 44428                 | NBR    | Gasket, Flat, Oil Gauge                                        | 2   |
| 40   | 125824            | STCP R | 125824                | STCP R | Screw, HHC, Sems (M6 x 16) (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                                             | 1   |
| 50   | 46940             | AL     | 46940                 | AL     | Cover, Rear                                                    | 1   |
| 51   | 14044             | NBR    | 14044                 | NBR    | O-Ring, Rear Cover                                             | 1   |
| 53   | 48617             | AL     | 48617                 | AL     | Crankcase                                                      | 1   |
| 64   | 46746             | CM     | 46746                 | CM     | Pin, Crosshead                                                 | 3   |
| 65   | 48458             | BBNP   | 48458                 | BBNP   | Rod, Plunger                                                   | 3   |
| 70   | 46838             | NBR    | 46838                 | NBR    | Seal, Oil, Crankcase                                           | 3   |
| 75   | 43328             | S      | 43328                 | S      | Slinger, Barrier                                               | 3   |
| 88   | 45697             | S      | 45697                 | S      | Washer, Keyhole (M18 x 10)                                     | 3   |
| 90   | 49655             | CC     | 49655                 | CC     | Plunger (M18 x 50)                                             | 3   |
| 98   | 46730             | NBR    | 46730                 | NBR    | Washer, Seal                                                   | 3   |
| 99   | † 48201           | SS     | † 48201               | SS     | Retainer, Plunger with Stud (M6)                               | 3   |
| 100  | 46749             | PVDF   | 46749                 | PVDF   | Retainer, Seal                                                 | 3   |
| 106  | 43243             | NBR    | 43243                 | NBR    | Seal, Low-Pressure with S-Spring                               | 3   |
| 120  | 49657             | BB     | 49657                 | BB     | Case, Seal                                                     | 3   |
| 121  | 13978             | NBR    | 13978                 | NBR    | O-Ring, Seal Case                                              | 3   |
| 127  | 44549             | SNG    | 44549                 | SNG    | V-Packing                                                      | 6   |
| 128  | 44548             | NY     | 44548                 | NY     | Adapter, Male                                                  | 3   |
| 163  | 17547             | NBR    | 17547                 | NBR    | O-Ring, Seat                                                   | 6   |
| 164  | 45790             | S      | 45790                 | S      | Seat                                                           | 6   |
| 166  | 46429             | S      | 46429                 | S      | Valve                                                          | 6   |
| 167  | 43750             | S      | 43750                 | S      | Spring                                                         | 6   |
| 168  | † 44565           | PVDF   | † 44565               | PVDF   | Retainer, Spring                                               | 6   |
| 172  | 142807            | NBR    | 142807                | NBR    | O-Ring, Valve Plug                                             | 6   |
| 173  | 48365             | D      | 48365                 | D      | Backup Ring, Valve Plug                                        | 6   |
| 174  | 45900             | BB     | 45900                 | BB     | Plug, Valve (See Tech Bulletin 074)                            | 6   |
| 185  | 46895             | FBB    | 46895                 | FBB    | Manifold, Head                                                 | 1   |
| 188  | 126513            | STCP R | 126513                | STCP R | Screw, HSH (M8 x 70) (See Tech Bulletin 074)                   | 8   |
| 500  | —                 | —      | <b>8076</b>           | —      | Gearbox 1" (See Individual Data Sheet) (Model 5CP5135CSSG1)    | 1   |
|      | —                 | —      | <b>8077</b>           | —      | Gearbox 1½" (See Individual Data Sheet) (Model 5CP5135CSSG118) | 1   |

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

*Italics are optional items.* † Production parts are different than repair parts.

R Components comply with RoHS Directive. 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): AL=Aluminum BB=Brass BBNP=Brass/Nickel Plated CC=Ceramic CM=Chrome-moly D=Acetal EPDM=Ethylene Propylene Diene Monomer FBB=Forged Brass FCM=Forged Chrome-moly FPM=Fluorocarbon HT=Hi-Temp (EPDM Alternative)

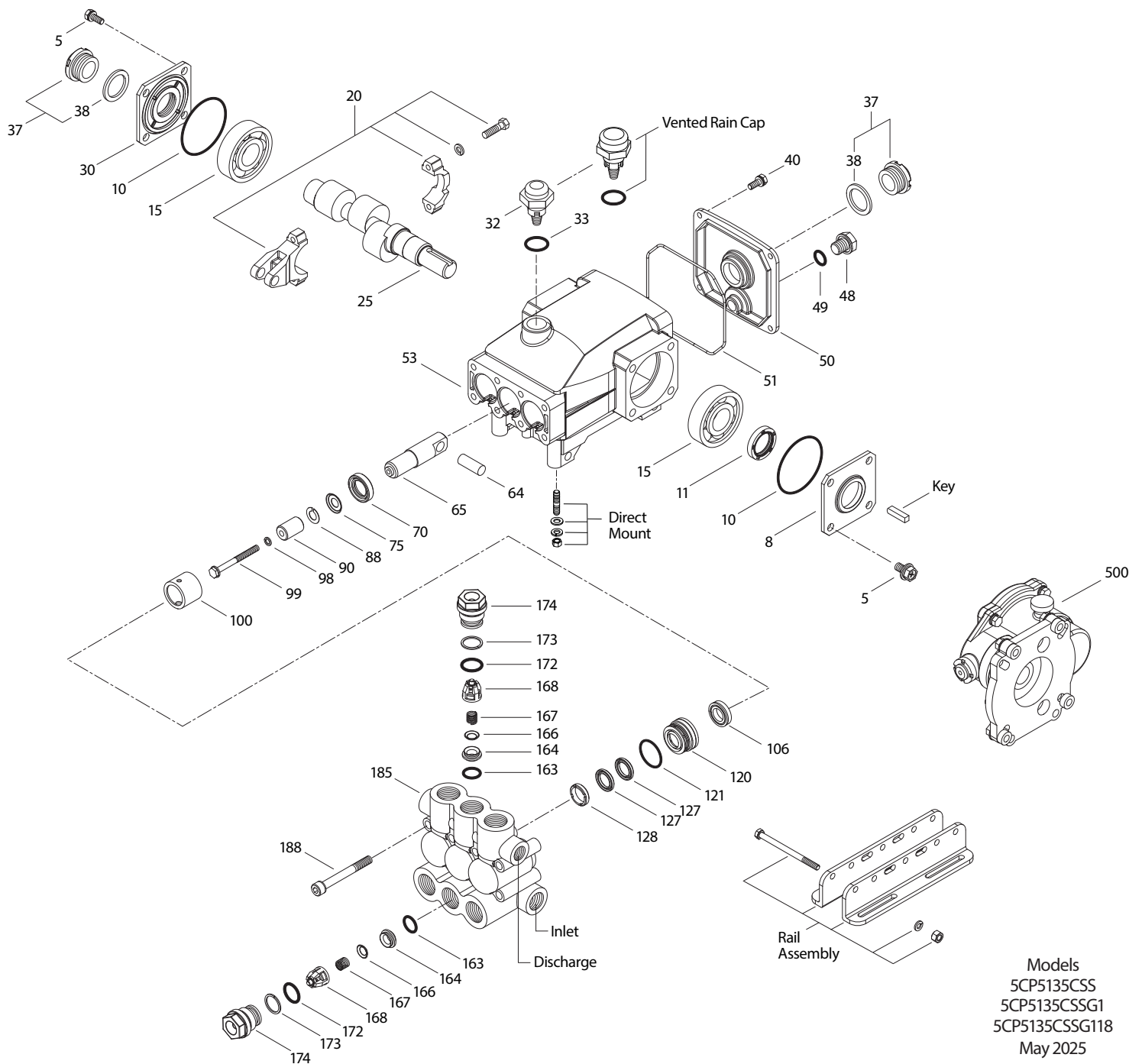
NBR=Medium Nitrile (Buna-N) NY=Nylon PC=Polycarbonate PVDF=Polyvinylidene Fluoride S=304SS SS=316SS SNG=Special Blend (Buna)

SFG=Special Blend (FPM) STG=Special Blend PTFE White ST2=Special Blend PTFE STL=Steel STCP=Steel/Chrome Plated

STHT=Special PTFE High Temp STZP=Steel/Zinc Plated TNM=Special High Strength

**Optional Parts and Accessories and Service Parts listed on page 3. Standard and Optional Seal and Valve Kits Listed on page 4.**

# EXPLODED VIEW



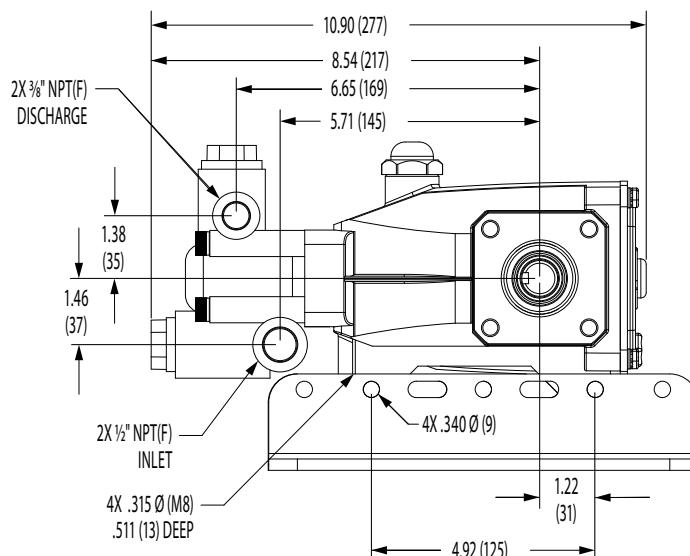
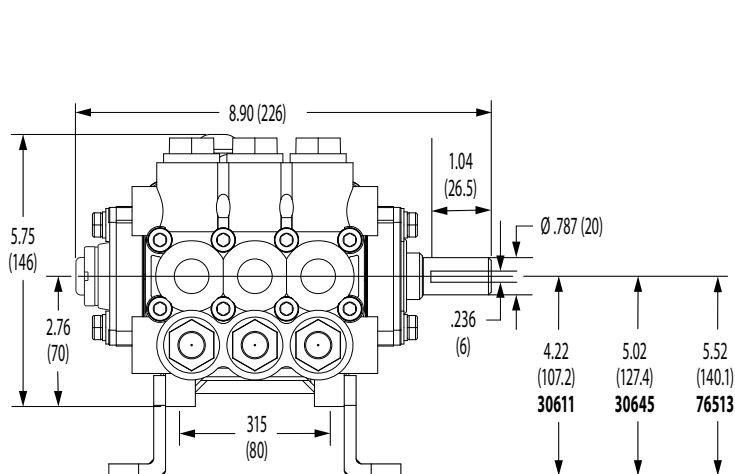
Models  
5CP5135CSS  
5CP5135CSSG1  
5CP5135CSSG118  
May 2025

## OPTIONAL PARTS AND ACCESSORIES

| PART   | DESCRIPTION                                              | QTY |
|--------|----------------------------------------------------------|-----|
| 30057  | Key (M6 x 6 x 25)                                        | 1   |
| 30611  | Assembly, Rail (4.22" – See Dimensional Drawing)         | 1   |
| 30645  | Assembly, Rail (5.02" – See Dimensional Drawing)         | 1   |
| 76513  | Assembly, Rail (5.52" – See Dimensional Drawing)         | 1   |
| 30637  | Mount, Rail Assembly (Retro Fit – See Tech Bulletin 078) | 1   |
| 30243  | Mount, Direct                                            | 1   |
| 127409 | Cap, Vented with O-Ring (Rain Cap)                       | 1   |
| 34334  | Kit, Oil Drain (3/8" x 24") (Not Shown)                  | 1   |
| 22179  | Plug, Inlet (1/2" NPT[M]) (Not Shown)                    | 1   |
| 22187  | Plug, Discharge (3/8" NPT[M]) (Not Shown)                | 1   |

## SERVICE PARTS

| PART         | DESCRIPTION                                                                            | QTY |
|--------------|----------------------------------------------------------------------------------------|-----|
| <b>33630</b> | Seal Kit – Standard NBR                                                                | 1   |
| <b>33060</b> | Valve Kit – Standard NBR                                                               | 2   |
| 6107         | Oil, Bottle (21 oz bottle)<br>(Fill to Specified Crankcase Capacity Prior to Start-up) | 1   |
| 6110         | Gear Lube (16 oz) For Gearbox Only                                                     | 1   |
| 6124         | Gasket, Liquid (3 oz)                                                                  | 1   |
| 814844       | Head, Complete – with NBR Seals and O-Rings                                            | 1   |



Model 5CP5135CSS

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

| PUMP MODELS                              | NBR (STD) | FPM (.0110) | EPDM (.0220) ♦ | HT (.3000) | STHT (.3400) |
|------------------------------------------|-----------|-------------|----------------|------------|--------------|
| 5CP5135CSS, 5CP5135CSSG1, 5CP5135CSSG118 | 33630     | 31350       | 76630          | 76645      | 76960        |

| ITEM (Included in Seal Kits) |       |       |       |       |       | DESCRIPTION                       | QTY |
|------------------------------|-------|-------|-------|-------|-------|-----------------------------------|-----|
| 98                           | 46730 | 48394 | 48432 | 46730 | 46730 | Washer, Seal                      | 3   |
| 106                          | 43243 | —     | —     | 43243 | 76243 | Seal, Low-Pressure with S-Spring  | 3   |
|                              | —     | 44926 | 46651 | —     | —     | Seal, Low-Pressure with SS-Spring | 3   |
| 121                          | 13978 | 14329 | 48904 | 13978 | 13978 | O-Ring, Seal Case                 | 3   |
| 127                          | 44549 | 45617 | 48300 | 48300 | 48300 | V-Packing                         | 6   |

♦ Silicone Oil/Grease required

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

| PUMP MODELS                              | NBR (STD) | FPM (.0110) | EPDM (.0220) ♦ | HT (.3000) | STHT (.3400) |
|------------------------------------------|-----------|-------------|----------------|------------|--------------|
| 5CP5135CSS, 5CP5135CSSG1, 5CP5135CSSG118 | 33060     | 31345       | 31735          | 33060      | 33060        |

| ITEM (Included in Seal Kits) |        |       |       |        |        | DESCRIPTION             | QTY |
|------------------------------|--------|-------|-------|--------|--------|-------------------------|-----|
| 163                          | 17547  | 11685 | 46648 | 17547  | 17547  | O-Ring, Seat            | 3   |
| 164                          | 45790  | 45790 | 45790 | 45790  | 45790  | Seat                    | 3   |
| 166                          | 46429  | 46429 | 46429 | 46429  | 46429  | Valve                   | 3   |
| 167                          | 43750  | 43750 | 43750 | 43750  | 43750  | Spring                  | 3   |
| 168                          | 44565  | 44565 | 44565 | 44565  | 44565  | Retainer, Spring        | 3   |
| 172                          | 142807 | 26996 | 49133 | 142807 | 142807 | O-Ring, Valve Plug      | 3   |
| 173                          | 48365  | 48365 | 48365 | 48365  | 48365  | Backup Ring, Valve Plug | 3   |

♦ Silicone Oil/Grease required

### ⚠ CAUTIONS AND WARNINGS

All high-pressure systems require a primary pressure regulating device (e.g. regulator, unloader) and a secondary pressure relief device (e.g. 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/dynamic-literature/cautions-and-warnings](http://www.catpumps.com/dynamic-literature/cautions-and-warnings) or can be requested directly from Cat Pumps.

### WARRANTY

View the Limited Warranty online at [www.catpumps.com/literature/cat-pumps-limited-warranty](http://www.catpumps.com/literature/cat-pumps-limited-warranty)