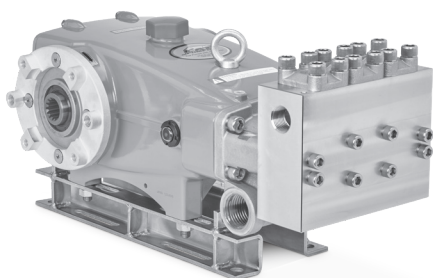


DATA SHEET

35 FRAME PLUNGER PUMPS



Models: 3560T14, 3560RST14



Model 3560RST14 Shown
(Mounting rails and RPM sensor sold separately)

FEATURES

- Triplex design ensures high efficiency and low pulsation.
- V-packings and low-pressure seals are completely lubricated and cooled by pumped liquid, greatly increasing service life.
- Wet-end easily serviced without entering crankcase.
- Pump comes standard with NBR seals.
- 14-tooth hollow spine shaft allows for direct mounting of 2 or 4-bolt SAE C hydraulic motors to the pump, greatly reducing the space requirement.
- Optional RPM sensor provides electronic pump speed feedback to an electronic control system.

SPECIFICATIONS

| | U.S. Measure | Metric Measure |
|----------------------------|-------------------------------------|--------------------|
| Flow | 20 gpm | 76 lpm |
| Pressure Range | 100–4000 psi | 6.9–275 bar |
| Pump RPM* | 1160 rpm | 1160 rpm |
| Inlet Pressure Range | Flooded to 70 psi | Flooded to 4.8 bar |
| Maximum Liquid Temp. (NBR) | 160° F | 71° C |
| Bore | 0.984" | 25 mm |
| Stroke | 1.890" | 48 mm |
| Crankcase Capacity | 4.2 qts | 4 l |
| Inlets Ports (2) | 1½" NPT(F) | 1½" NPT(F) |
| Discharge Ports (2) | 1" NPT(F) | 1" NPT(F) |
| Hollow Shaft | 1.25" spline –12/24 pitch, 14 tooth | |
| Weight | 142 lbs | 64.4 kg |
| Dimensions | 23.54 x 13.03 x 9.88" | 598 x 331 x 251 mm |

ALTERNATE SPECIFICATIONS

| | U.S. Measure | Metric Measure |
|----------------|--------------|----------------|
| Flow | 25 gpm | 95 lpm |
| Pressure Range | 100–3000 psi | 6.9–207 bar |
| Pump RPM * | 1450 rpm | 1450 rpm |

*Pump minimum is 100 RPM

DETERMINING THE PUMP RPM

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

DETERMINING TORQUE

$$\text{Torque} = \frac{3.6 \times (\text{gpm} \times \text{psi})}{\text{rpm}}$$

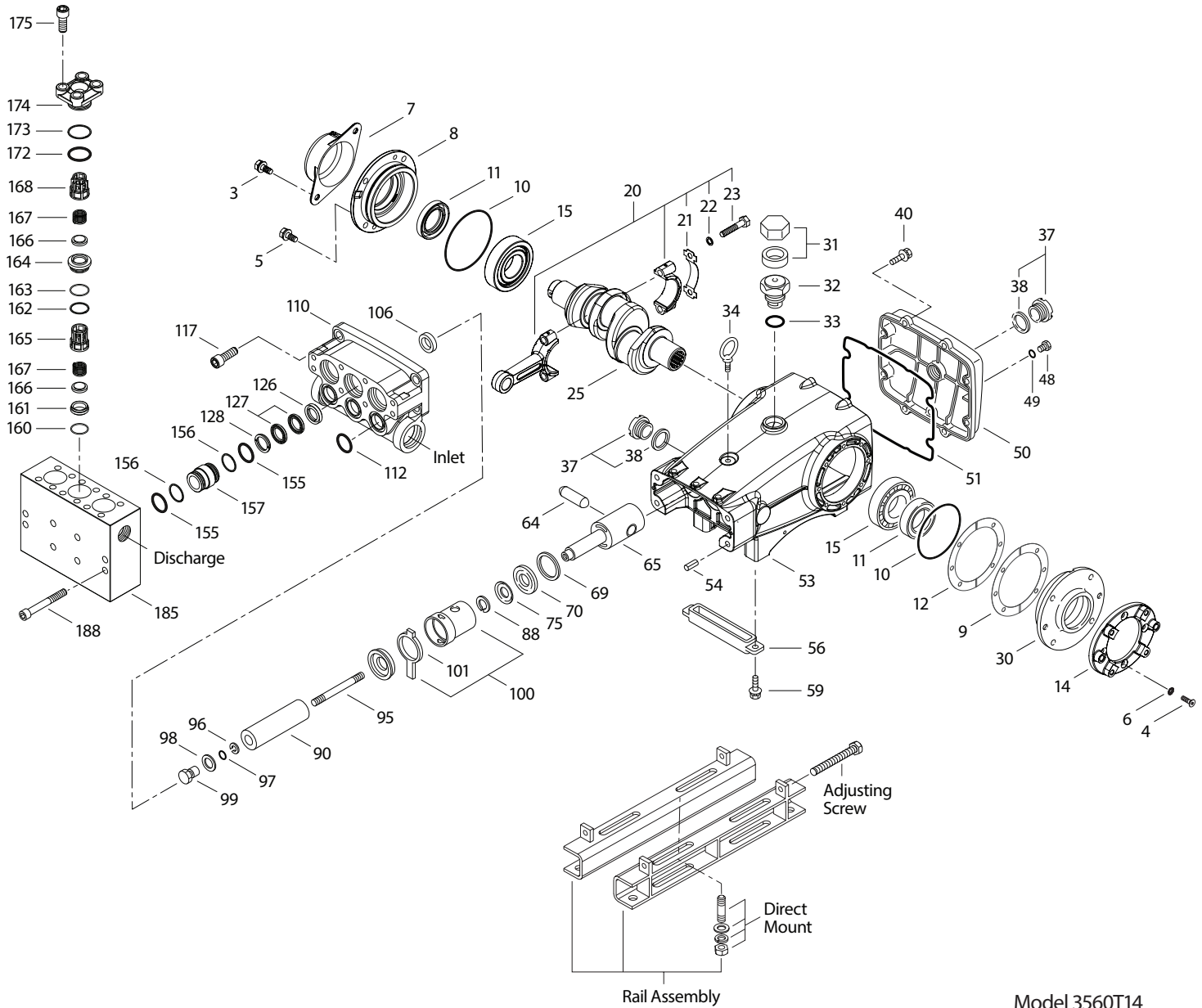
Refer to pump **Service Manual** for repair procedure and additional technical information.

PARTS LIST

| ITEM | P/N | MATL | DESCRIPTION | QTY |
|------|--------|--------|--|-----|
| 3 | 866895 | SS | Screw (M10 x 30), Sensor Cover with Lockwasher, Flatwasher (See Tech Bulletin 074) | 2 |
| 4 | 31302 | S | Screw, Flat Head (M10 x 35) (Spline Side) (See Tech Bulletin 074) | 4 |
| 5 | 96049 | S | Screw, HH, Sems (M10 x 25) (See Tech Bulletin 074) | 2 |
| 6 | 31348 | S | Lockwasher | 4 |
| 7 | 32341 | AL | Cover, Sensor | 1 |
| 8 | 134604 | ALE | Cover, Bearing | 1 |
| 9 | 815279 | FBR | Shim, Split, 2-Piece | 0-2 |
| 10 | 12398 | NBR | O-Ring, Bearing Cover-70D | 2 |
| 11 | 13296 | NBR | Seal, Oil, Crankshaft | 2 |
| 12 | 855049 | S | Shim, Split, 2-Piece | 0-2 |
| 14 | 32347 | AL | Flange SAE C | 1 |
| 15 | 29326 | STL | Bearing, Roller | 2 |
| 20 | 121467 | TNM | Rod, Connecting Assembly (Includes: 21, 22, 23) (See Tech Bulletin 074) | 3 |
| 21 | 126749 | STCP R | Washer, Locking (M10) | 3 |
| 22 | 126593 | STCP R | Washer, Flat (M10) | 6 |
| 23 | 122045 | STZP | Screw, HH (M10 x 55) | 6 |
| 25 | 670207 | FCM | Crankshaft, Single-End Spline (M48) | 1 |
| 30 | 132723 | ALE | Cover, Bearing, Unpainted with Pilot | 1 |
| 31 | 828710 | PE | Protector, Oil Cap with Foam Gasket | 1 |
| 32 | 43211 | ABS | Cap, Oil Filler | 1 |
| 33 | 14177 | NBR | O-Ring, Oil Filler Cap-70D | 1 |
| 34 | 126743 | STCP R | Bolt, Eye (M12 x 1.75) (For Lifting Pump Only) | 1 |
| 37 | 92241 | PC | Gauge, Oil, Bubble with Gasket (See Tech Bulletin 074) | 2 |
| 38 | 44428 | NBR | Gasket, Flat, Oil Gauge-80D | 2 |
| 40 | 125753 | S | Screw, HHC, Sems (M8 x 25) | 8 |
| 48 | 25625 | STCP | Plug, Drain (1/4" x 19 BSP) | 1 |
| 49 | 23170 | NBR | O-Ring, Drain Plug-70D | 1 |
| 50 | 45936 | ALE | Cover, Crankcase | 1 |
| 51 | 16612 | NBR | O-Ring, Crankcase-70D | 1 |
| 53 | 134786 | ALE | Crankcase Assembly (Includes: 54) | 1 |
| 54 | 27488 | S | Pins, Guide | 2 |
| 56 | 27790 | POP | Pan, Oil | 1 |
| 59 | 92538 | S | Screw, HHC, Sems (M6 x 16) | 2 |
| 64 | 43864 | CM | Pin, Crosshead | 3 |
| 65 | 49076 | SHB | Rod, Plunger | 3 |
| 69 | 126587 | STCP R | Washer, Oil Seal | 3 |
| 70 | 100488 | NBRS | Seal, Oil, Crankcase | 3 |
| 75 | 110669 | S | Slinger, Barrier | 3 |
| 88 | 110670 | S | Washer, Keyhole (M16) | 3 |
| 90 | 48535 | CC | Plunger (M25 x 110) | 3 |
| 95 | 126549 | STCP R | Stud, Plunger Retainer (M7 x 103) | 3 |
| 96 | 20184 | PTFE | Backup Ring, Plunger Retainer | 3 |
| 97 | 14190 | NBR | O-Ring, Plunger Retainer-70D | 3 |
| 98 | 44069 | SS | Gasket, Retainer | 3 |
| 99 | 44068 | SS | Retainer, Plunger (M7) (See Tech Bulletin 074) | 3 |
| 100 | 855017 | — | Retainer, Seal 2-Piece | 3 |
| 101 | 44096 | — | Wick, Long Tab | 3 |
| 106 | 44086 | NBR | Seal, Low-Pressure with SS-Spring | 3 |
| 110 | 49759 | FBB | Manifold, Inlet | 1 |
| 112 | 11379 | NBR | O-Ring, Inlet Manifold-70D | 3 |
| 117 | 44585 | S | Screw, HSH (M14 x 40) (See Tech Bulletin 074) | 4 |
| 126 | 48538 | BB | Adapter, Female | 3 |
| 127 | 44610 | STG | V-Packing | 6 |
| 128 | 48539 | BB | Adapter, Male | 3 |
| 155 | 17629 | NBR | O-Ring, Spacer V-Packing-80D | 6 |
| 156 | 28243 | PTFE | Backup Ring, Spacer V-Packing | 6 |
| 157 | 49082 | BB | Spacer, V-Packing | 3 |
| 160 | 49092 | NBR | O-Ring, Seat, Inlet-80D | 3 |
| 161 | 49091 | S | Seat, Inlet | 3 |
| 162 | 49088 | PTFE | Backup Ring, Discharge Seat | 3 |
| 163 | 49087 | NBR | O-Ring, Seat, Discharge-70D | 3 |
| 164 | 49086 | S | Seat, Discharge | 3 |
| 165 | 49090 | PVDF | Retainer, Spring, Inlet | 3 |
| 166 | 49089 | S | Valve | 6 |
| 167 | 44109 | SS | Spring | 6 |
| 168 | 49085 | PVDF | Retainer, Spring, Discharge | 3 |
| 172 | 18690 | NBR | O-Ring, Valve Plug-70D | 3 |
| 173 | 20369 | PTFE | Backup Ring, Valve Plug | 3 |
| 174 | 49093 | BB | Plug, Valve | 2 |
| | 997878 | BB | Plug, Valve, Center with 1/4" NPT(F) Port | 1 |
| 175 | 550176 | S | Screw, HSH (M14 x 35) (See Tech Bulletin 074) | 12 |
| 185 | 49084 | SS | Manifold, Discharge | 1 |
| 188 | 49045 | S | Screw, HSH (M12 x 95) (See Tech Bulletin 074) | 8 |

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

EXPLODED VIEW



Model 3560T14
July 2024

OPTIONAL PARTS AND ACCESSORIES

| PART | DESCRIPTION | QTY |
|-------|---|-----|
| 92674 | Mount, Rail Assembly (Includes: 34018) | 1 |
| 34018 | Mount, Direct | 1 |
| 80540 | Screw, Adjusting (M12 x 100) | 2 |
| 34334 | Kit, Oil Drain (3/8" x 24") (Not Shown) | 1 |
| — | RPM Sensor (Not Shown) | 1 |

SERVICE PARTS

| PART | DESCRIPTION | QTY |
|-------|---|-----|
| 31280 | Kit, Seal – Standard NBR | 1 |
| 31292 | Kit, Valve – Standard NBR | 1 |
| 6100 | Oil, Case (12 - 21 oz bottles) (Fill to Specified Crankcase Capacity Prior to Start-up) | 1 |
| 6124 | Gasket, Liquid (3 oz) | 1 |
| 6139 | Lubricant, Anti-Seize (8 oz) | 1 |
| 32273 | Crankcase Oil Seal Removal and Installation Kit (Not Shown) (Includes: Oil Seals, Guide Tool, Screws, Washers, Driver) | 1 |
| 30696 | Reverse Pliers (Not Shown) | 1 |

Italics are optional items. R Components comply with RoHS Directive.

For additional technical information see www.catpumps.com/literature/tech-bulletins.

MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic AL=Aluminum ALE=Aluminum Epoxy BB=Brass BBSS=Brass/316SS CC=Ceramic CM=Chrome-Moly

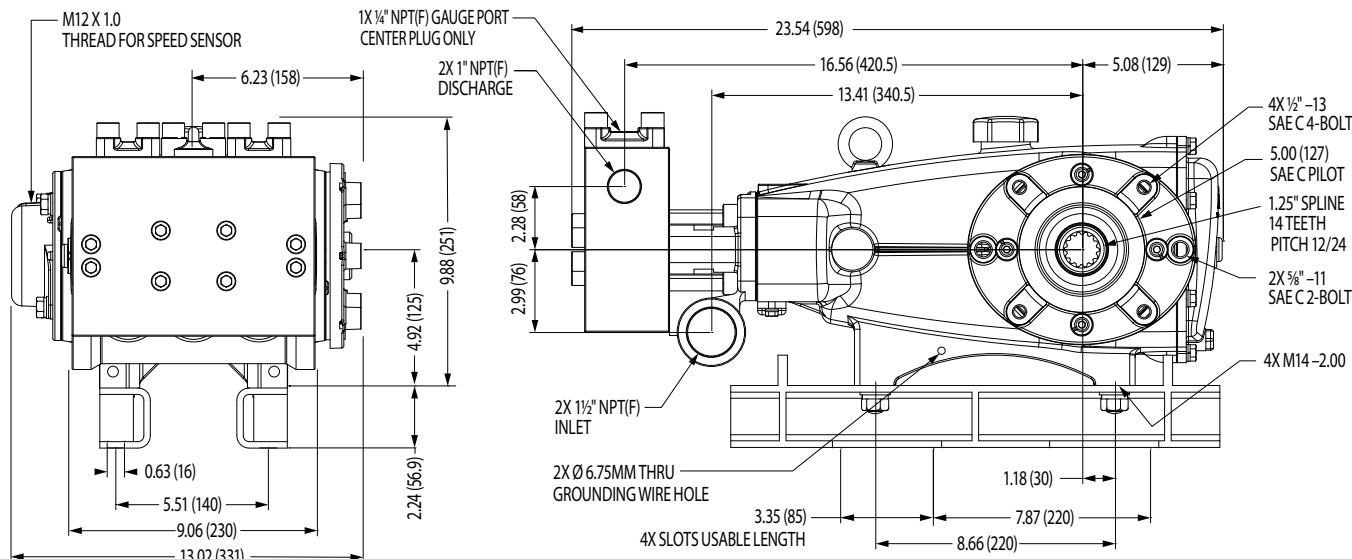
FBB=Forged Brass FBR=Fiber FCM=Forged Chrome-Moly NBR=Medium Nitrile (Buna-N) NBRs=Buna, Silicone Free PC=Poly Carbonate

PE=Polyethylene POP=Polypropylene PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride S=304SS SS=316SS

SHB=304SS/High Strength Brass STCP=Steel/Chrome Plated STG=Special Blend PTFE White

STL=Steel STZP=Steel/Zinc Plated TNM=Special High Strength ZP=Zinc Plated

Kits – NBR listed on page 4.



Model 3560T14

SEAL KITS One (1) seal kit required per pump

| PUMP MODELS | NBR (STD) |
|--------------------|-----------|
| 3560T14, 3560RST14 | 31280 * |

| ITEM (Included in Seal Kits) | DESCRIPTION | QTY |
|------------------------------|---|-----|
| 97 | 14190 O-Ring, Plunger Retainer | 3 |
| 106 | 44086 Seal, Low-Pressure with SS-Spring | 3 |
| 112 | 11379 O-Ring, Inlet Manifold | 3 |
| 127 | 44610 V-Packing | 6 |
| 155 | 17629 O-Ring, V-Packing Spacer | 6 |
| 156 | 28243 Backup Ring, V-Packing Spacer | 6 |

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

VALVE KITS One (1) valve kit required per pump

| PUMP MODELS | NBR (STD) |
|--------------------|-----------|
| 3560T14, 3560RST14 | 31292 |

| ITEM (Included in Valve Kits) | DESCRIPTION | QTY |
|-------------------------------|-----------------------------------|-----|
| 160 | 49092 O-Ring, Seat, Inlet | 3 |
| 161 | 49091 Seat, Inlet | 3 |
| 162 | 49088 Backup Ring, Discharge Seat | 3 |
| 163 | 49087 O-Ring, Discharge Seat | 3 |
| 164 | 49086 Seat, Discharge | 3 |
| 165 | 49090 Retainer, Spring, Inlet | 3 |
| 166 | 49089 Valve | 6 |
| 167 | 44109 Spring | 6 |
| 168 | 49085 Retainer, Spring, Discharge | 3 |
| 172 | 18690 O-Ring, Valve Plug | 3 |
| 173 | 20369 Backup Ring, Valve Plug | 3 |

⚠ 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 or can be requested directly from Cat Pumps.

WARRANTY

View the Limited Warranty online at www.catpumps.com/literature/cat-pumps-limited-warranty