

TECH BULLETIN 122



Design changes for 2SF and 5CP stainless steel plunger pumps

Cat Pumps is incorporating product changes to various models of the 2SF and 5CP stainless steel plunger pumps. "Q" has been added to the model number to indicate engineering changes related to noise reduction.

Cat Pumps completed extensive product modeling and testing to isolate the critical sources of sound. Pump modifications resulted in less noise with no effect on product performance (see table below for individual components).

Beginning January 2017, a running change will be made to models 2SF25SEEL, 2SF29SEEL, 2SF35SEEL, 2SF42SEEL and models 5CP6221, 5CP6241CS and 5CP6251. Once these pumps have been exhausted, they will be replaced by the new "Q" series design. This new designation will use "Q" in the model number. Please note that models 2SF05SEEL, 2SF10SEEL, 2SF15SEEL and 2SF22SEEL will not change due to their lower flow rates.

2SF Stainless Steel Plunger Pump Versions

The 2SF pump models can also be converted by changing the high pressure seals, inlet valves and discharge valves; kits are also available to assist in the conversion. Crankcase, guide pins and inlet manifold would not need to be changed.

Models 2SF25SEEL, 29SEEL, 35SEEL and 42SEEL

| ITEM | PN | MATL | DESCRIPTION | QTY |
|------|--------|------|------------------------------|-----|
| 52 | NA | NA | NA | NA |
| 53 | 547285 | AL | Crankcase | 1 |
| 110 | 547704 | SS | Manifold, Inlet | 1 |
| | 831288 | SS | Manifold, Inlet (42SEEL) | 1 |
| 125 | 44652 | SNG | Seal, High Pressure | 3 |
| | 44649 | SNG | Seal, High Pressure (42SEEL) | 3 |
| 134 | 543691 | SS | Valve, Inlet | 3 |
| | 831400 | SS | Valve, Inlet (42SEEL) | 3 |
| 166 | 543669 | SS | Valve, Discharge | 3 |
| 300 | 34973 | NBR | Kit, Seal | 1 |
| | 76973 | NBR | Kit, Seal (42SEEL) | 1 |
| 310 | 34972 | NBR | Kit, Valve | 1 |
| | 76972 | NBR | Kit, Valve (42SEEL) | 1 |
| 311 | 39668 | NBR | Kit, Inlet Valve | 1 |
| | 76668 | NBR | Kit, Inlet Valve (42SEEL) | 1 |

Models 2SFQ25SEEL, 29SEEL, 35SEEL and 42SEEL

| ITEM | PN | MATL | DESCRIPTION | QTY |
|------|--------|------|------------------------------|-----|
| 52 | 833820 | SSSS | Pin, Guide | 2 |
| 53 | 833819 | AL | Crankcase | 1 |
| 110 | 833996 | SS | Manifold, Inlet | 1 |
| | 833822 | SS | Manifold, Inlet (42SEEL) | 1 |
| 125 | 833997 | SNG | Seal, High Pressure | 3 |
| | 833824 | SNG | Seal, High Pressure (42SEEL) | 3 |
| 134 | 33873 | D | Valve, Inlet | 3 |
| | 833821 | D | Valve, Inlet (42SEEL) | 3 |
| 166 | 833825 | D | Valve, Discharge | 3 |
| 300 | 76273 | NBR | Kit, Seal | 1 |
| | 76265 | NBR | Kit, Seal (42SEEL) | 1 |
| 310 | 76282 | NBR | Kit, Valve | 1 |
| | 76274 | NBR | Kit, Valve (42SEEL) | 1 |
| 311 | 34974 | NBR | Kit, Inlet Valve | 1 |
| | 76278 | NBR | Kit, Inlet Valve (42SEEL) | 1 |

MATERIAL CODES (Not part of part number): AL = Aluminum, D = Acetal, NBR = Medium Nitrile (Buna-N), SNG = Special Blend (Buna), SS = 316SS, SSSS = 440SS

5CP Stainless Steel Plunger Pump Versions

5CP pump models without the "Q" can be retrofitted in the field by replacing the low and high pressure seals as outlined in the table below; seal kits are available for assistance in the conversion. Please note that bearings are not found in the seal kit and will require disassembly of the crankcase.

Models 5CP6221, 5CP6241CS and 5CP6251

| ITEM | PN | MATL | DESCRIPTION | QTY |
|------|-------|------|---------------------|-----|
| 15 | 14480 | STL | Bearing, Ball | 2 |
| 106 | 44127 | NBR | Seal, Low Pressure | 3 |
| 125 | 44649 | SNG | Seal, High Pressure | 3 |
| 300 | 34353 | NBR | Kit, Seal | 1 |

Models 5CPQ6221, 5CPQ6241CS and 5CPQ6251

| ITEM | PN | MATL | DESCRIPTION | QTY |
|------|--------|------|---------------------|-----|
| 15 | 127472 | STL | Bearing, Ball | 2 |
| 106 | 132277 | NBR | Seal, Low Pressure | 3 |
| 125 | 833824 | SNG | Seal, High Pressure | 3 |
| 300 | 76283 | NBR | Kit, Seal | 1 |

MATERIAL CODES (Not part of part number): NBR = Medium Nitrile (Buna-N), SNG = Special Blend (Buna), STL = Steel

Note: When performing field maintenance for the 5CPQ models, apply a small amount of oil to the ceramic plungers. Do not lubricate the low or high pressure seals.

Cat Pumps

Technical Services Department

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