

# 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 do 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 high-pressure seals as outlined in the table below. Seal kits are available to assist 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
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
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 high-pressure seals.

## Cat Pumps

Technical Services Department

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