

Motor and Relief Valve sold separately.

O.E.M. Stainless Steel Direct-Drive Plunger Pump

Models 2SF05SEEL
 2SF10SEEL, 2SF15SEEL
 2SF25SEEL, 2SF29SEEL
 2SF35SEEL

FEATURES

- Triplex design provides smoother liquid flow.
- Unique spring loaded Inlet Valves and flow through ceramic plungers assure smooth, consistent liquid flow through pump.
- 316L Stainless Steel Manifolds for strength and corrosion resistance.
- OPTIONAL Stainless Steel Unloader for system pressure control and pump protection.
- Ultra compact and lightweight.

COMMON SPECIFICATIONS

Inlet Pressure Range	Flooded to 60 PSI	(Flooded to 4 BAR)
Shaft Diameter5/8"	(15.9 mm)
Bore.....	0.709"	(18 mm)
Maximum Liquid Temperature	160°F	(71°C)
Above 130°F call CAT PUMPS for inlet conditions and elastomer recommendations.		
Crankcase Capacity	12.0 oz.	(0.36 L)
Inlet Port (1).....	3/8" NPTF	(3/8" NPTF)
Discharge Ports (2).....	3/8" NPTF	(3/8" NPTF)
By-Pass Port (1)	1/4" NPTF	(1/4" NPTF)
Weight (Pump Only)	10.6 lbs.	(4.8 kg)
Dimensions (Pump Only).....	8.3x7.5x6.3"	(213x191x160 mm)

⚠ WARNING

All systems require both a primary pressure regulating device (i.e., regulator, unloader) and a secondary pressure safety relief device (i.e., pop-off valve, safety valve). Failure to install such relief devices could result in personal injury or damage to the pump or to system components. CAT PUMPS does not assume any liability or responsibility for the operation of a customer's high pressure system.

SPECIFICATIONS

U.S. Measure

Metric Measure

MODEL 2SF05SEEL

Flow.....	0.5 GPM	(1.9 L/M)
Discharge Pressure Range.....	100-1200 PSI	(7-85 BAR)
RPM	1725 RPM	(1725 RPM)
Stroke.....	0.067"	(1.7 mm)

MODEL 2SF10SEEL

Flow.....	1.0 GPM	(3.8 L/M)
Discharge Pressure Range.....	100-1200 PSI	(7-85 BAR)
RPM	1725 RPM	(1725 RPM)
Stroke.....	0.122"	(3.1 mm)

MODEL 2SF15SEEL

Flow.....	1.5 GPM	(5.7 L/M)
Discharge Pressure Range.....	100-1200 PSI	(7-85 BAR)
RPM	1725 RPM	(1725 RPM)
Stroke.....	0.177"	(4.5 mm)

MODEL 2SF25SEEL

Flow.....	2.5 GPM	(9.5 L/M)
Discharge Pressure Range.....	100-1200 PSI	(7-85 BAR)
RPM	1725 RPM	(1725 RPM)
Stroke.....	0.278"	(7.3 mm)

MODEL 2SF29SEEL

Flow.....	2.85 GPM	(10.8 L/M)
Discharge Pressure Range.....	100-1200 PSI	(7-85 BAR)
RPM	1725 RPM	(1725 RPM)
Stroke.....	0.335"	(8.5 mm)

MODEL 2SF35SEEL

Flow.....	3.5 GPM	(13.2 L/M)
Discharge Pressure Range.....	100-1200 PSI	(7-85 BAR)
RPM	1725 RPM	(1725 RPM)
Stroke.....	0.402"	(10.2 mm)

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

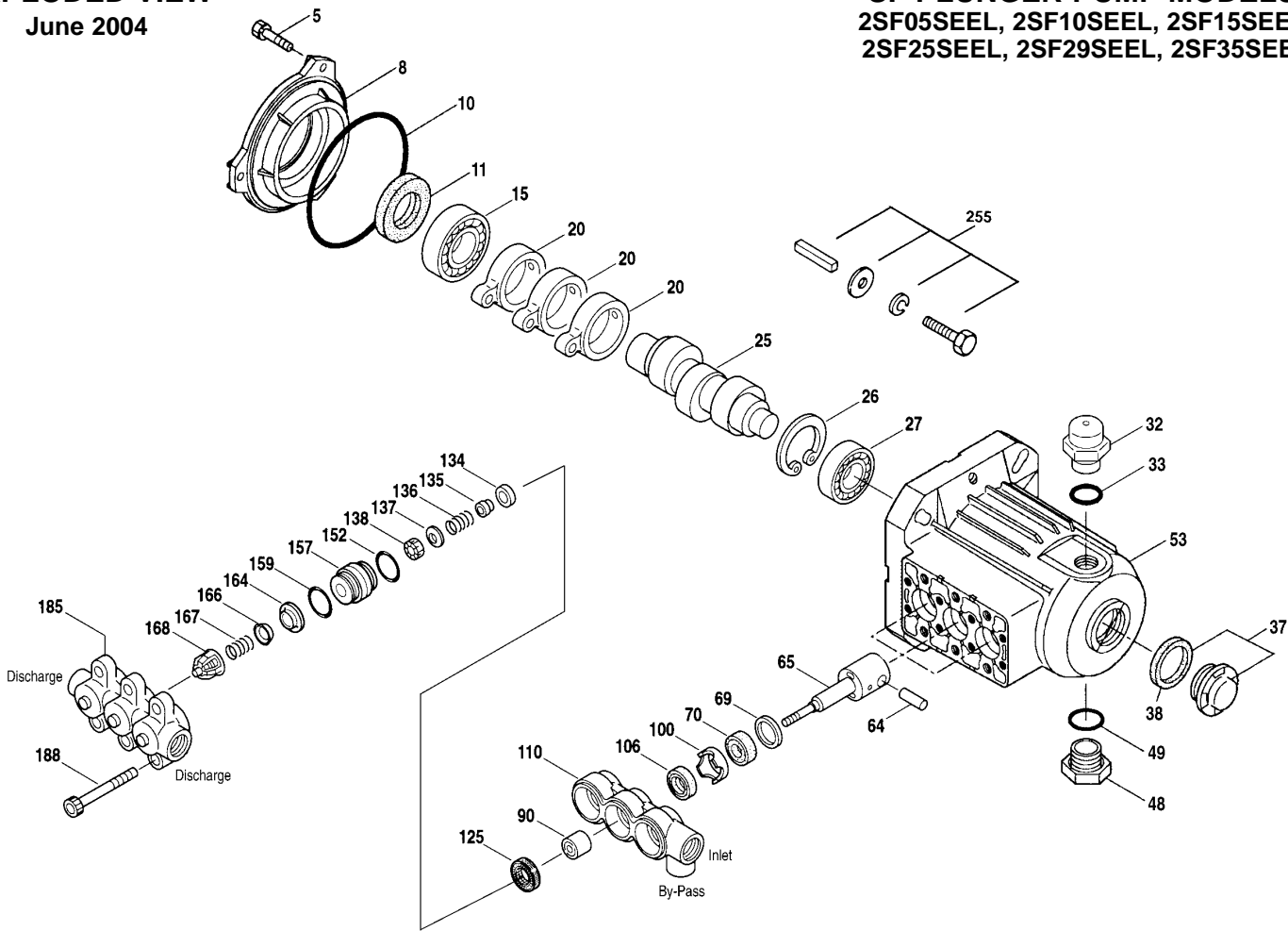
“Customer confidence is our greatest asset”

EXPLODED VIEW

June 2004

SF PLUNGER PUMP MODELS

2SF05SEEL, 2SF10SEEL, 2SF15SEEL
2SF25SEEL, 2SF29SEEL, 2SF35SEEL



PARTS LIST

ITEM	P/N	MATL	DESCRIPTION	MODEL USED	QTY	ITEM	P/N	MATL	DESCRIPTION	MODEL USED	QTY
5	547445	S	Screw, HHC Sems (M6x14) [3/03]	All	3	136	543690	SS	Spring, Inlet Valve	All	3
8	547153	AL	Cover, Bearing [3/03]	All	1	137	88575	S	Washer, Conical (M6)	All	3
10	14041	NBR	O-Ring, Bearing Cover - 70D [3/03]	All	1	138	543692	SS	Nut (M6)	All	3
11	55337	NBR	Seal, Oil, Crankshaft - 70D [3/03]	All	1	152	26089	NBR	O-Ring, Adapter Spacer, Inner - 80D	All	3
15	14488	STL	Bearing, Ball	All	1	11377	FPM	O-Ring, Adapter Spacer, Inner - 80D	All	3	
20	547046	TNM	Rod, Connecting	All	3	157	544700	SS	Spacer, Discharge Valve	All	3
25	543135	FCM	Crankshaft, 1.7mm	05SEEL	1	159	26089	NBR	O-Ring, Adapter Spacer, Outer - 80D	All	3
	46109	FCM	Crankshaft, 3.1mm	10SEEL	1	11377	FPM	O-Ring, Adapter Spacer, Outer - 80D	All	3	
	44931	FCM	Crankshaft, 4.5mm	15SEEL	1	164	544293	SS	Seat	All	3
	544693	FCM	Crankshaft, 7.3mm	25SEEL	1	166	543669	SS	Valve	All	3
	45426	FCM	Crankshaft, 8.5mm	29SEEL	1	167	543700	SS	Spring	All	3
	544694	FCM	Crankshaft, 10.2mm	35SEEL	1	168	44565	PVDF	Retainer, Spring	All	3
26	12385	STL	Ring, Retaining, Bearing	All	1	185	544227	SSL	Manifold, Discharge	All	1
27	15710	STL	Bearing, Ball	All	1	188	544701	S	Screw, HSH (M8x80)	All	6
32	547961	RTP	Cap, Oil Filler [1/04]	All	1	255	30517	STZP	Assy, Bolt Mount	All	1
33	14179	NBR	O-Ring, Oil Filler Cap - 70D	All	2	30980	STZP	Washer, Flat (3/8")	All	4	
37	92241	—	Gauge, Oil w/Gasket - 80D	All	1	30921	STZP	Lockwasher (3/8")	All	4	
38	44428	NBR	Gasket, Flat, Oil Gauge - 80D	All	1	34100	STZP	Screw, HH (3/8"-16x1-3/8")	All	4	
48	44842	NY	Plug, Drain	All	1	6106	—	Lubricant, Antiseize	All	1	
49	14179	NBR	O-Ring, Drain Plug - 70D	All	1	30050	STL	Key (3/16"x3/16"x1-1/4" HD)	All	1	
53	547285	AL	Crankcase [3/03]	All	1	285	80228	STL	Screw (M8-1.25x80) (Motor Removal)	All	2
64	16948	CM	Pin, Crosshead	All	3	300	34973	NBR	Kit, Seal (Incls: 106, 125, 152, 159)	All	1
65	544695	SSZZ	Rod, Plunger	All	3	33453	FPM	Kit, Seal (Incls: 106, 125, 152, 159)	All	1	
69	20017	STZP	Washer, Oil Seal	All	3	310	34972	NBR	Kit, Valve (Incls: 152,159,164,166,167,168)	All	1
70	25461	NBR	Seal, Oil Crankcase	All	3	33454	FPM	Kit, Valve (Incls: 152,159,164,166,167,168)	All	1	
90	544697	CC	Plunger, Ceramic (M18x18)	All	3	311	39668	NBR	Kit, Inlet Valve (Incls: 134-138,152,159)	All	1
100	44869	PVDF	Retainer, Seal	All	3	34974	NBR	Kit, Inlet Valve (Incls: 134-138,152,159)	All	1	
106	547683	NBR	Seal, LPS w/SS-Spg	All	3	33460	FPM	Kit, Inlet Valve (Incls: 134-138,152,159)	All	1	
	545192	FPM	Seal, LPS w/SS-Spg	All	3	352	44050	STZP	Tool, Oil Gauge Removal	All	1
110	544698	SSL	Manifold, Inlet	All	1	400	7501	SS	Unloader (Not Shown)	All	1
125	44652	SNG	Seal, HPS w/SS	All	3	7501.100	SS	Relief Valve (Not Shown)	All	1	
	46652	HT	Seal, Hi-Temp (190° Max)	All	3	—	6107	—	Oil, Bottle (21 oz) ISO 68 Multi-Viscosity Hydraulic	All	1
134	543691	SS	Valve, Inlet [4/02]	All	3	—	6565.8	—	(Fill to specified crankcase capacity prior to start-up)	All	1
	33873	NY	Valve, Inlet (Hi-Temp) [4/02]	All	3	—	—	—	Service Video	All	1
135	543689	SS	Spacer	All	3						

Italics are optional items. [] Date of latest production change. See Tech Bulletins 002, 036, 043, 055, 064, 070, 073, 074, 091 and 092 for additional information.

NOTE: Discard Key that may come standard with most motors and engines and use only the key included in Bolt kit.

MATERIAL CODES (Not Part of Part Number): AL=Aluminum CC=Ceramic CM=Chrome-Moly FCM=Forged Chrome-moly FPM=Fluorocarbon (Viton®) HT=Hi-Temp (EPDM Alternative)

NBR=Medium Nitrile (Buna-N) NY=Nylon PVDF=Fluoroplastic (High Strength) RTP=Reinforced Composite S=304SS SNG=Special Blend (Buna)

SS=316SS SSL=316SS/Low Carbon SSZZ=316SS/Zamak STL=Steel STZP=Steel/Zinc Plated TNM=Special High Strength

MOTOR SPECIFICATIONS

Model 8059

Horsepower	0.75
Shaft Diameter	5/8"
Max. Volts.....	115/208-230
FULL LOAD AMPS.....	10.4/5.4-5.2
RPM	1725
Weight	35 lbs.
Phase	Single
Frame Size.....	56-C TEFC
Hertz.....	60
Service Factor	1.15

Model 8062

Horsepower	2.0
Shaft Diameter	5/8"
Max. Volts.....	115/230
FULL LOAD AMPS.....	17.0/8.5
RPM	1725
Weight	45.65 lbs.
Phase	Single
Frame Size.....	56-C TEFC
Hertz.....	60
Service Factor	1.15

Model 8060

Horsepower	1.5
Shaft Diameter	5/8"
Max. Volts.....	115/230
FULL LOAD AMPS.....	14.0/7.0
RPM	1725
Weight	42 lbs.
Phase	Single
Frame Size.....	56-C TEFC
Hertz.....	60
Service Factor	1.20

Model 8062.050

Horsepower	1.75
Shaft Diameter	5/8"
Max. Volts.....	110
FULL LOAD AMPS.....	17.0/8.5
RPM	1425
Weight	45.65 lbs.
Phase	Single
Frame Size.....	56-C TEFC
Hertz.....	50
Service Factor	1.00

Model 8060.050

Horsepower	1.5
Shaft Diameter	5/8"
Max. Volts.....	110/220
FULL LOAD AMPS.....	18.2/9.1
RPM	1425
Weight	42 lbs.
Phase	Single
Frame Size.....	56-C TEFC
Hertz.....	50
Service Factor	1.00

Common Motor Specifications

Max. Ambient Temp.....	104°F
Capacitor Start	Yes
Thermal Overload-Manual Reset.....	Yes
U.L. Construction Reference	E44549
U.L. Insulation Reference.....	E37878
CSA Reference	LR4642

Note: Motor Start-Up AMPS may vary, then settle within FULL LOAD AMPS rating after initial run in time.

★ ★ Before mounting pump on motor, apply P.N. 6106 Antiseize Lubricant to pump shaft.

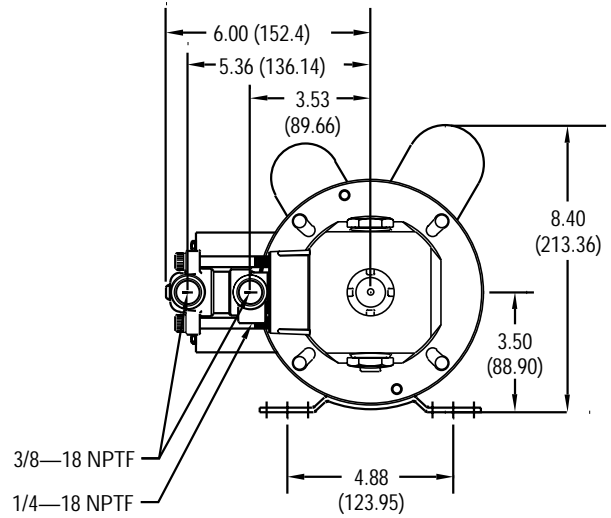
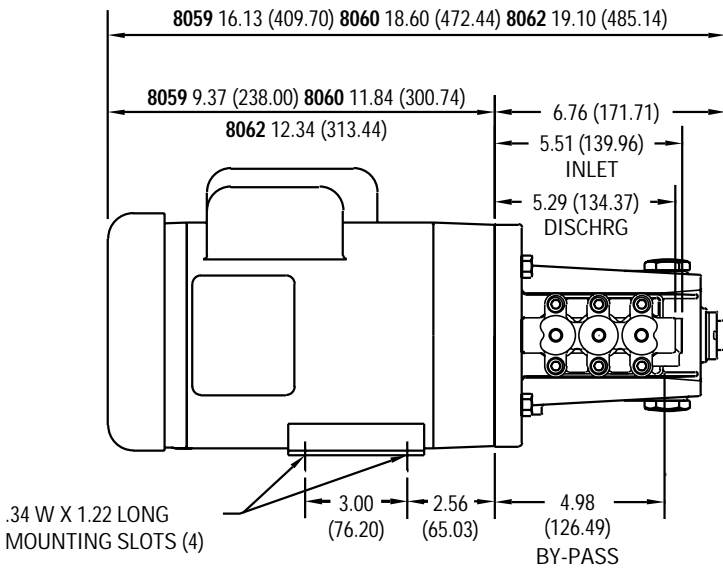
★ ★ Refer to Tech Bulletin 055 for instructions on removing pump from electric motor.

For warranty consideration contact CAT PUMPS for the local **Authorized Service Center**. If you are uncertain as to the cause of failure (Pump or Motor), secure **Returned Goods Authorization number** and return complete assembly **PREPAID** to CAT PUMPS for evaluation.

HORSEPOWER REQUIREMENTS					
FLOW		PRESSURE PSI (BAR)			PUMP RPM
U.S. GPM	Metric L/M	700 (50)	1000 (70)	1200 (85)	
0.5	1.9	.24	.35	.41	1725
1.0	3.8	.47	.68	.82	1725
1.5	5.7	.72	1.03	1.23	1725
2.5	9.5	1.19	1.71	2.05	1725
2.85	10.8	1.36	2.0	2.3	1725
3.5	13.2	1.67	2.39	2.87	1725

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

2SF“SEEL” DIMENSIONAL



Products described hereon are covered by one or more of the following U.S. patents 3558244, 3652188, 3809508, 3920356, 3930756 and 5035580

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