

15 Frame Plunger Pumps

Standard Models

Stainless Steel Model

SS Flushed Model

660
661D
661C

FEATURES

- Triplex design delivers high efficiency and low pulsation.
- Durable V-Packings are lubricated and cooled by the liquid being pumped.
- Pre-set Lo-Pressure Seals provide secondary protection against external leaks and require no packing adjustment.
- Special high-density, polished, concentric plungers provide a true wear surface and extended seal life.
- Special ported manifold (Model 661C) permits an external flush liquid providing cooling for hi-temp liquids and lubrication for low lubricity liquids.

SPECIFICATIONS

	U.S. Measure	Metric Measure
Flow.....	10 gpm	38 lpm
Pressure Range.....	100 to 3000 psi	7 to 210 bar
Inlet Pressure Range.....	Flooded to 60 psi	Flooded to +4 bar
RPM.....	1429 rpm	1429 rpm
Bore.....	.787"	20 mm
Stroke.....	1.181"	30 mm
Crankcase Capacity.....	42 oz.	1.26 L
Maximum Liquid Temperature.....	160°F	71°C
Above 130F call CAT PUMPS for inlet conditions and elastomer recommendations.		
Inlet Ports (2).....	3/4" NPTF	3/4" NPTF
Flushing Ports (2) (661C).....	1/8" NPTF	1/8" NPTF
Discharge Ports (2).....	1/2" NPTF	1/2" NPTF
Pulley Mounting.....	Either Side	Either Side
Shaft Diameter.....	1.181"	30 mm
Weight.....	44 lbs.	19.9 kg
Dimensions.....	16.28x12.99x6.44"	413.50x330x163.50 mm

ALTERNATE SPECIFICATIONS

Flow.....	7.0 gpm	27 lpm
Pressure Range.....	100 to 3000 psi	7 to 210 bar
Inlet Pressure Range.....	-5 to +60 psi	-0.35 to +4 bar
RPM.....	1000 rpm	1000 rpm

ELECTRIC HORSEPOWER REQUIREMENTS

FLOW		PRESSURE			MOTOR PULLEY SIZE	
U.S. gpm	lpm	psi	psi	psi	Using 1725 rpm Motor 10" O.D. Pump Pulley	
		2000	2500	3000	rpm	Pulley O.D.
10.0	38	bar 13.7	bar 17.2	bar 20.6	1429	8.1
9.0	34	bar 12.4	bar 15.4	bar 18.5	1286	7.3

DETERMINING THE PUMP R.P.M.	Rated gpm	=	"Desired" gpm
	Rated rpm	=	"Desired" rpm
DETERMINING THE REQUIRED H.P.	gpm x psi	=	Electric Brake
	1460	=	H. P. Required
DETERMINING MOTOR PULLEY SIZE	Motor Pulley O.D.	=	Pump Pulley O.D.
	Pump rpm	=	Motor rpm

⚠ CAUTIONS AND WARNINGS

All High Pressure Systems require a primary pressure regulating device (i.e. regulator, unloader) and a secondary pressure relief device (i.e. 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/cautions-warnings or can be requested directly from CAT PUMPS.

WARRANTY

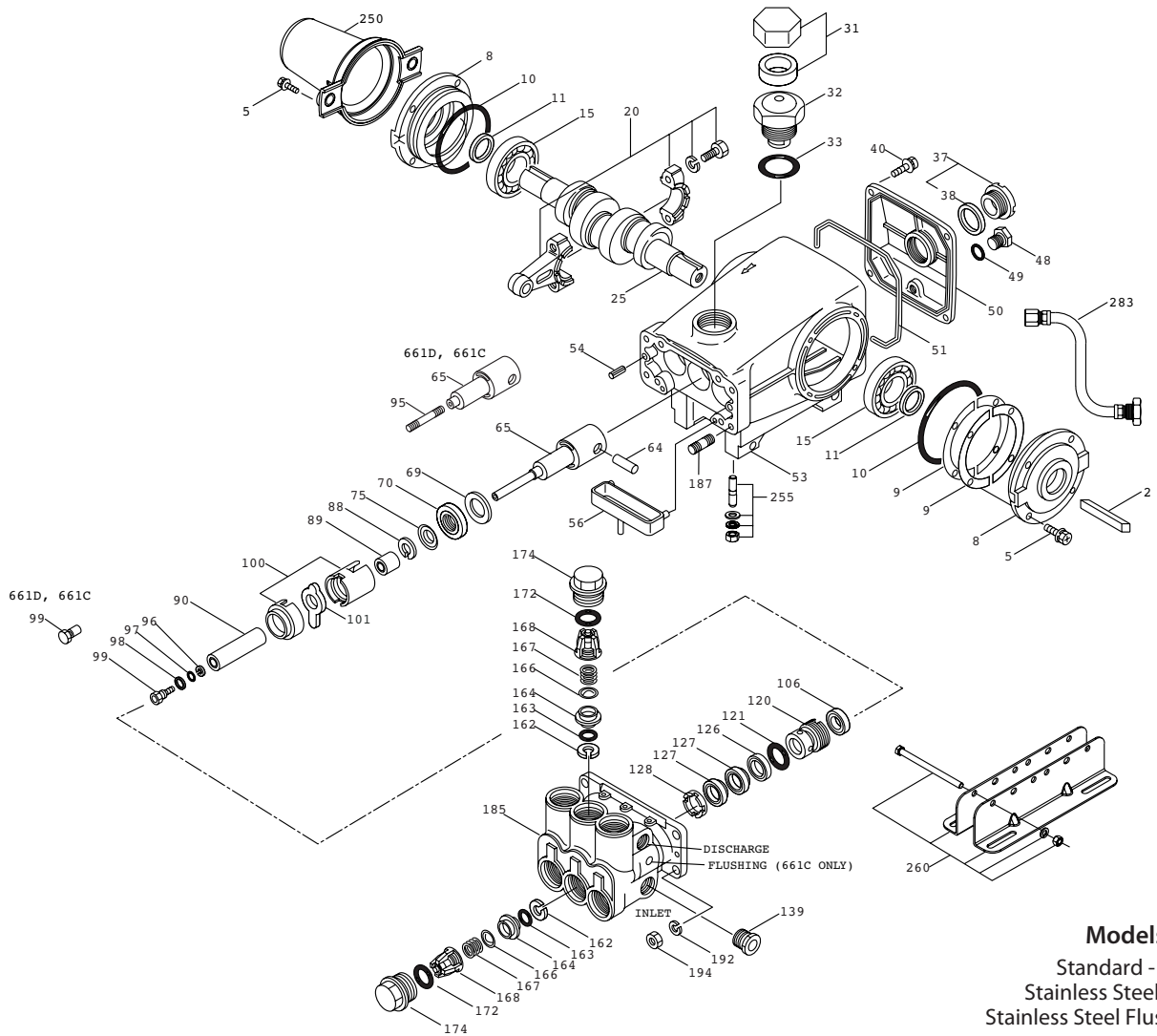
View the Limited Warranty on-line at www.catpumps.com/warranty.

See complete Drive Packages [Incls: Pulleys, Belts, Hubs, Key] Tech Bulletin 003. Refer to pump **Service Manual** for repair procedure and additional technical information.

PARTS LIST

ITEM	PART NUMBER		DESCRIPTION		QTY	
	660	MATL	661C/661D	MATL		
2	30067	STL	30067	STL	Key (M8x7.5x25)	1
5	92519	STZP	92538	S	Screw, HHC Sems (M6x16)	8
	125824	STCPR	—	—	Screw, HHC Sems (M6x16)	8
8	43496	AL	43496	AL	Cover, Bearing	2
9	815281	FBR	815281	FBR	Split Shim, Bearing Cover, 2 Pc.	2
	—	—	814800	S	Split Shim, Bearing Cover, 2 Pc.	2
10	11340	NBR	11340	NBR	O-Ring, Bearing Case - 70D	2
11	43495	NBR	43495	NBR	Seal, Oil, Crankshaft - 70D	2
15	39060	STL	39060	STL	Bearing, Roller	2
20	48600	TNM	48600	TNM	Rod Assy, Connecting [11/00]	3
25	43494	FCM	43494	FCM	Crankshaft - Dual End	1
31	828710	PE	828710	PE	Protector, Oil Cap w/Foam Gasket	1
32	43211	ABS	43211	ABS	Cap, Oil Filler	1
33	14177	NBR	14177	NBR	O-Ring, Filler Cap - 70D	1
37	92241	—	92241	—	Gauge, Oil, Bubble w/Gasket - 80D	1
38	44428	NBR	44428	NBR	Gasket, Flat, Oil Gauge - 80D	1
40	92520	STZP	92542	S	Screw, HHC Sems (M6x20)	4
	126541	STCPR	—	—	Screw, HHC Sems (M6x20)	4
48	25625	STCP	25625	STCP	Plug, Drain (1/4"x19BSP)	1
49	23170	NBR	23170	NBR	O-Ring, Drain Plug - 70D	1
50	43491	AL	43491	AL	Cover, Rear	1
51	44834	NBR	44834	NBR	O-Ring, Rear Cover - 70D	1
53	115471	AL	115471	AL	Crankcase (Incls: 54)	1
54	27488	S	27488	S	Pin, Guide	2
56	44664	POP	44664	POP	Pan, Oil	1
64	43507	CM	43507	CM	Pin, Crosshead	3
65	48228	SHS	—	—	Rod, Plunger, Long	3
	—	—	48892	SSHB	Rod, Plunger, Short [3/02]	3
69	126592	STCP R	126592	STCP R	Washer, Seal	3
70	43500	NBR	43500	NBR	Seal, Oil, Crankcase - 80D	3
75	43506	S	43506	S	Slinger, Barrier	3
88	45675	S	45675	S	Washer, Keyhole	3
89	43505	BB	45880	SS	Spacer, Plunger	3
90	43300	CC	43300	CC	Plunger (M20x77)	3
95	—	—	89651	SS	Stud, Plunger Retainer (M6x70)	3
96	43235	PTFE	43235	PTFE	Back-up-Ring, Plunger Retainer	3
97	17399	NBR	17399	NBR	O-Ring, Plunger Retainer - 80D	3
	14160	FPM	14160	FPM	O-Ring, Plunger Retainer - 80D	3
	◆ 46204	EPDM	◆ 46204	EPDM	O-Ring, Plunger Retainer - 70D	3
	701715	IPFE	701715	IPFE	O-Ring, Plunger Retainer	3
98	45891	CU	44041	SS	Gasket, Plunger Retainer	3
99	—	—	44031	SS	Retainer, Plunger (M6)	3
	104360	S	—	—	Retainer w/stud, Plunger (M5)	3
100	855001	POP	855001	POP	Retainer, Seal, 2-pc [See Tech Bulletin #098]	3
101	43508	—	43508	—	Wick, Long Tab	3
106	44071	NBR	44071	NBR	Seal, LPS w/SS-Spg	3
	44381	FPM	44381	FPM	Seal, LPS w/S-Spg	3
	701974	SFTB*	701974	SFTB*	Seal, LPS w/NIH-Spg	3
	76071	ST2	76071	ST2	Seal, LPS w/SS-Spg	3
	703179	SFTA	703179	SFTA	Seal, LPS w/SS-Spg	3
120	49291	BB	49284	SSNP	Case, Seal [07/05]	3
121	14762	NBR	14762	NBR	O-Ring, Seal Case - 70D	3
	11737	FPM	11737	FPM	O-Ring, Seal Case - 75D	3
	◆ 46205	EPDM	◆ 46205	EPDM	O-Ring, Seal Case	3
	701851	IPFE	701851	IPFE	O-Ring, Seal Case	3
126	43515	BB	49152	PTFE	Adapter, Female [01/04]	3
127	44607	STG*	44607	STG*	V-Packing	6
	44386	FPM	44386	FPM	V-Packing	6
128	43517	BB	44165	SS	Adapter, Male	3
139	20326	BBCP	44382	SS	Plug, Inlet (3/4" NPT)	1
162	43248	PTFE	43248	PTFE	Back-up-Ring, Seat	6
163	43249	NBR	43249	NBR	O-Ring, Seat - 80D	6
	44383	FPM	44383	FPM	O-Ring, Seat - 70D	6
	◆ 46206	EPDM	◆ 46206	EPDM	O-Ring, Seat - 70D	6
	701852	IPFE	701852	IPFE	O-Ring, Seat	6
164	43722	S	44037	SS	Seat	6
166	43721	S	48793	SSL	Valve	6
167	43751	S	44039	SS	Spring	6
168	44564	PVDF	44564	PVDF	Retainer, Spring	6
172	17617	NBR	17617	NBR	O-Ring, Valve Plug - 90D	6
	11691	FPM	11691	FPM	O-Ring, Valve Plug - 90D	6
	◆ 46207	EPDM	◆ 46207	EPDM	O-Ring, Valve Plug - 70D	6
	701853	IPFE	701853	IPFE	O-Ring, Valve Plug	6
174	43850	BB	49293	SS	Plug, Valve	6
185	45975	NAB	48780	SSD	Head, Manifold	1
	—	—	49338	SS	Head, Manifold Flushed (1/8" Flushing Port) 661C Only	1
187	126545	STCPR	44005	S	Stud (M10x45)	4
192	126231	STCPR	15847	S	Lockwasher (M10)	4
194	126522	STCPR	81258	S	Nut, Hex (M10)	4
250	30764	NY	30764	NY	Protector, Shaft w/Two Screws	1
	—	—	307645	NY	Protector, Shaft w/Two SS Screws	1
255	30264	STZP	30264	STZP	Mount, Direct	1

EXPLODED VIEW



Models
 Standard - 660
 Stainless Steel - 661D
 Stainless Steel Flushed - 661C
April 2014

	660	MATL	661C/661D	MATL	DESCRIPTION	QTY
260	30613	STZP R	30613	STZP R	Mount, Rail Assy	1
	990550	STZP R	990550	STZP R	Mount, Rail (Required on Diesel/Gas)	1
	76513	STZP R	76513	STZP R	Mount, Rail Assy	1
269	30206	F	30206	F	Pulley (10") AB [See Tech Bulletin 003]	1
274	30059	STL	30059	STL	Hub, "H" (M30) (Keyway M8) [See Tech Bulletin 003]	1
283	34334	—	34334	—	Kit, Oil Drain	1
299	814561	BB	816780	DSS	Head, Complete	1
	—	—	818420	SS	Head, Complete - C (661C Only)	1
300	30798	NBR*	30798	NBR*	Kit, Seal (Incls: 97,100,106,121,127) Std.	1
	31033	FPM	31033	FPM	Kit, Seal (Incls: 97,100,106,121,127) .0110	1
	◆ 33919	EPDM*	◆ 33919	EPDM*	Kit, Seal (Incls: 97,100,106,121,127) .0220	1
	76195	IPFE*	76195	IPFE*	Kit, Seal (Incls: 97,100,106,121,127) .0770	1
310	30820	NBR	34387	NBR	Kit, Valve (Incls: 162,163,164,166,167,168,172) Std.	2
	31263	FPM	30987	FPM	Kit, Valve (Incls: 162,163,164,166,167,168,172) .0110	2
	◆ 31259	EPDM	◆ 31258	EPDM	Kit, Valve (Incls: 162,163,164,166,167,168,172) .0220	2
	—	—	76385	IPFE	Kit, Valve (Incls: 162,163,164,166,167,168,172) .0770	2
350	30696	STZP	30696	STZP	Plier, Reverse	1
351	33006	STZP	33006	STZP	Socket, Seal Case 1/2" Drive	1
	6107	—	6107	—	Oil, Bottle (21 oz.) ISO 68 Hydraulic (Fill to specified crankcase capacity prior to start-up)	2

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

Italics are optional items. ◆Silicone oil/grease required. [] Date of latest production change.

R Components comply with RoHS Directive. *Review material codes for individual items (STG generally may be used as alternate).

See Tech Bulletins 002, 003, 024, 027, 035, 036, 043, 045, 048, 049, 052, 053, 062, 074, 077,083,095 and 098 for additional information.

MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic AL=Aluminum BB=Brass BCCP=Brass/Chrome Plated CC=Ceramic CM=Chrome-Moly

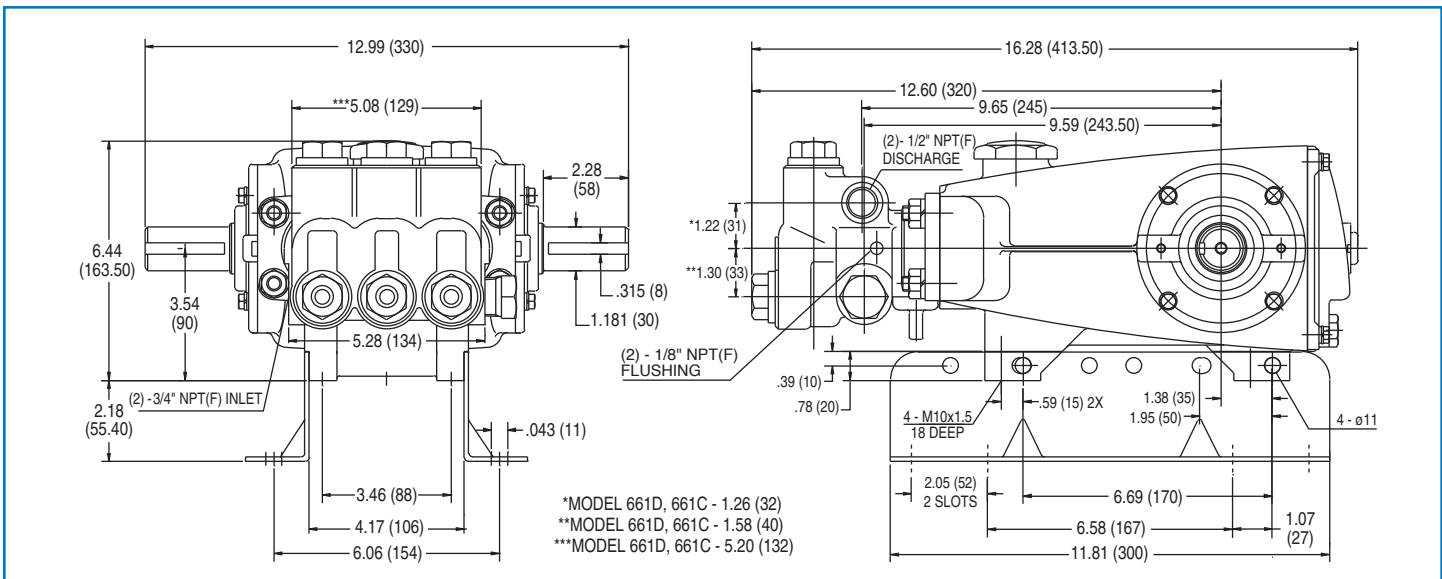
CU=Copper EPDM=Ethylene Propylene Diene Monomer F=Cast Iron FBR=Fiber FCM=Forged Chrome-Moly FPM=Fluorocarbon IPFE=1-Perfluoroelastomer

NAB=Nickel Aluminum Bronze NBR=Medium Nitrile (Buna-N) NY=Nylon PE=Polyethylene POP=Polypropylene PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene

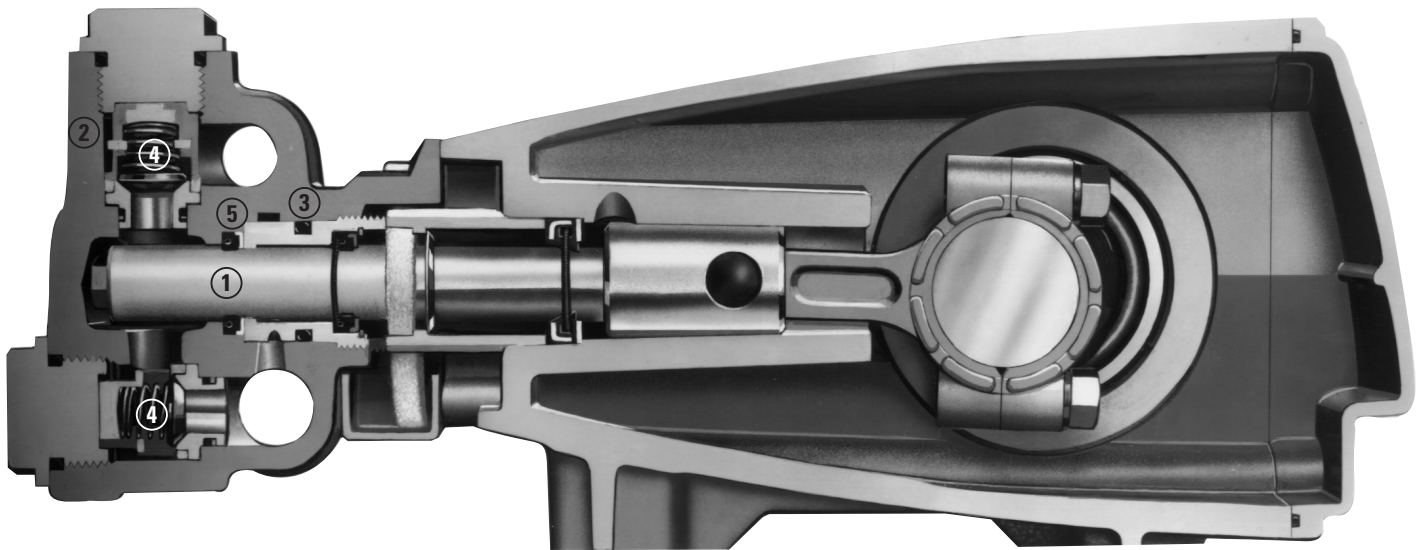
Fluoride S=304S SSFTB=Special Blend PTFE Black SFTA=Special Blend PTFE Tan SHS=304SS/High Strength SS=316SS SSD=Duplex Stainless

SSL=316SS/Low Carbon SSHB=316SS/High Strength STCP=Steel/Chrome Plated STG=Special Blend PTFE White STL=Steel STZP=Steel/Zinc Plated

SZZ=304SS/Zamak TNM=Special High Strength



Models 660, 661, 661C



- 1 Special concentric, high-density, polished, solid ceramic **plungers** provide a true wear surface and extended seal life.
- 2 **Manifolds** are a high tensile strength bronze or Duplex stainless steel for long term, continuous duty and corrosion resistance.
- 3 100% wet **seal** design adds to service life by allowing pumped liquids to cool and lubricate on both sides.
- 4 Stainless steel **valves, seats and springs** provide corrosion-resistance, ultimate seating and extended life.
- 5 Specially formulated, Cat Pump exclusive, **V-Packings** offer unmatched performance and seal life.
- 6 Optional special **ported Flushed Manifold** permits external flush for lubricating and cooling seals when pumping liquids such as DI water, Hi-Temp or low lubricity. (Not shown).



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