

# DATA SHEET

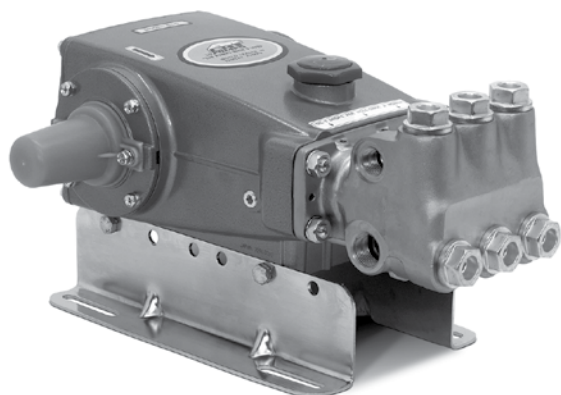
## 15 FRAME PLUNGER PUMPS



**Brass  
Model  
660**

**Stainless Steel  
Model  
661D**

**Stainless Steel  
Flushed Model  
661C**



Model 660 Shown  
(Mounting rails and shaft protector sold separately)

SPECIFICATIONS	U.S. Measure	Metric Measure
Flow	10 gpm	38 lpm
Pressure Range	100 to 3000 psi	6.9 to 207 bar
Pump RPM*	1429 rpm	1429 rpm
Inlet Pressure Range	Flooded to 60 psi	Flooded to 4.1 bar
Max. Liquid Temperature	160° F	71° C
Above 130°F call Cat Pumps for inlet conditions and elastomer recommendations.		
Bore	0.787"	20 mm
Stroke	1.181"	30 mm
Crankcase Capacity	42 oz.	1.26 l
Inlet Ports (2)	3/4" NPT(F)	3/4" NPT(F)
Flushing Ports (2) (661C)	1/8" NPT(F)	1/8" NPT(F)
Discharge Ports (2)	1/2" NPT(F)	1/2" NPT(F)
Pulley Mounting	Either Side	Either Side
Shaft Diameter	1.181"	30 mm
Weight	44 lbs.	19.9 kg
Dimensions	16.28 x 12.99 x 6.44"	413.5 x 330 x 163.5 mm

\*Pump minimum is 100 RPM.

### 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.
- Standard NBR seals with alternative options for temperature and chemical compatibility
  - FPM – .0110
  - EPDM – .0220
  - IPFE – .0770
  - High Temp, 190°F – .3000
  - High Temp, 200°F – .3400 (Intermittent Run-Dry)

### ELECTRIC HORSEPOWER REQUIREMENTS

FLOW		PRESSURE			RPM
		psi 2000	psi 2500	psi 3000	
U.S. gpm	lpm	bar 138	bar 172	bar 207	
10.0	38	13.7	17.2	20.6	1429
9.0	34	12.4	15.4	18.5	1286

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

$$\frac{\text{Hp (Electric Brake)}}{\text{1460}} = \frac{\text{gpm x psi}}{\text{1460}}$$

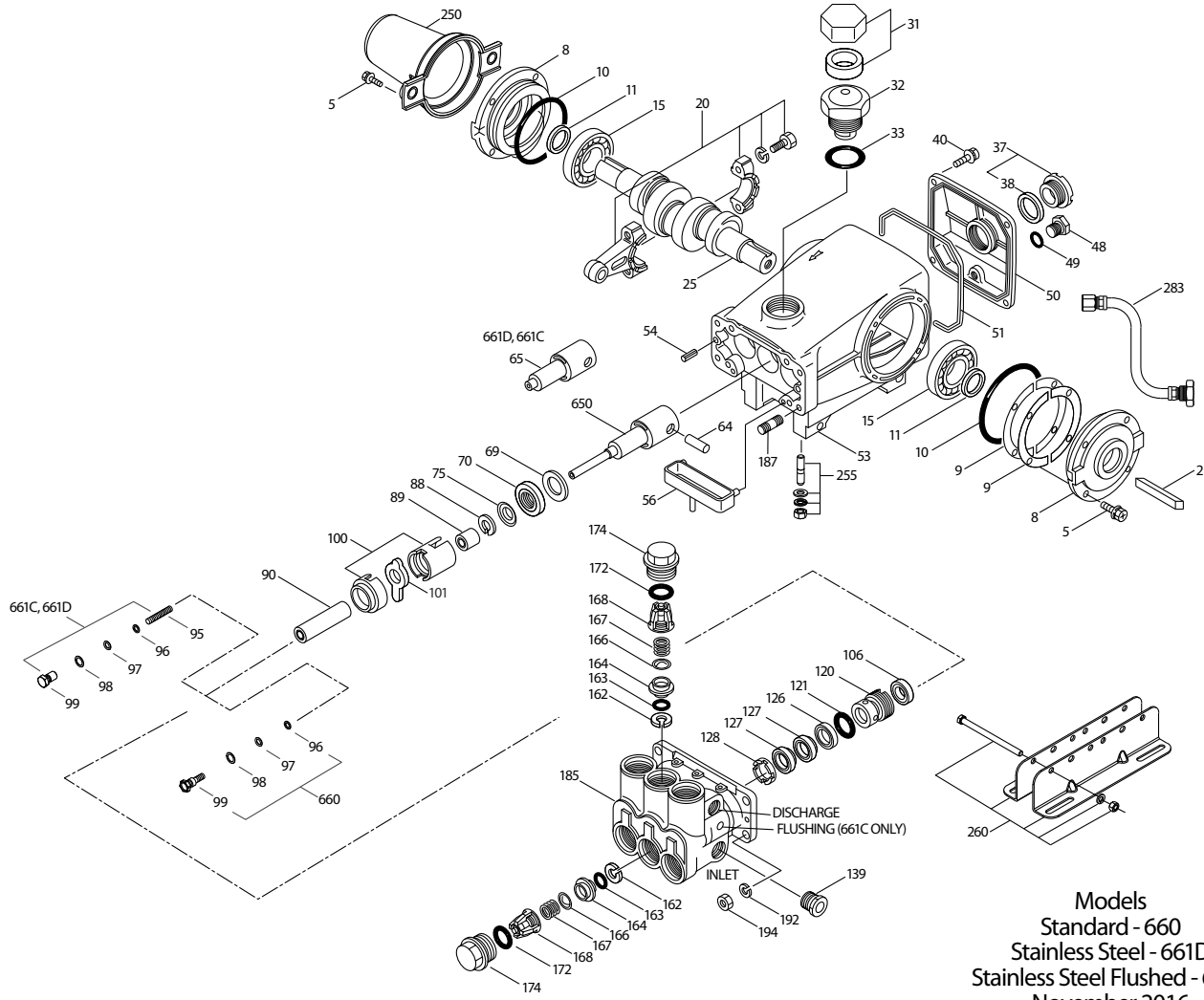
$$\frac{\text{Motor Pulley O.D.}}{\text{Pump rpm}} = \frac{\text{Pump Pulley O.D.}}{\text{Motor rpm}}$$

See complete Drive Packages [Includes: pulleys, belts, hubs, key] Tech Bulletin 003.  
Refer to pump **Service Manual** for repair procedure and additional technical information.

# PARTS LIST

ITEM	PART NUMBER	MATL	PART NUMBER	MATL	DESCRIPTION	QTY
	<b>660</b>		<b>661C/661D</b>			
2	30067	STL	30067	STL	Key (M8x7.5x25)	1
5	<b>125824</b>	STCPR	<b>92538</b>	S	Screw, HHC Sems (M6x16)	8
8	43496	AL	43496	AL	Cover, Bearing (See Tech Bulletin 118)	2
9	815281	FBR	815281	FBR	Split Shim, Bearing Cover, 2 Pc.	2
	—	—	<b>814800</b>	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 (M30)	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	<b>126541</b>	STCPR	<b>92542</b>	S	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	49276	ALE	49276	ALE	Cover, Rear (See Tech Bulletin 118)	1
51	44834	NBR	44834	NBR	O-Ring, Rear Cover - 70D	1
53	115471	AL	115471	AL	Crankcase (Incls: 54) (See Tech Bulletin 118)	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	<b>48228</b>	SHS	—	—	Rod, Plunger, Long	3
	—	—	<b>48892</b>	SSHB	Rod, Plunger, Short [3/02]	3
69	126592	STCPR	126592	STCPR	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	<b>43505</b>	BB	<b>45880</b>	SS	Spacer, Plunger	3
90	43300	CC	43300	CC	Plunger (M20x77)	3
95	—	—	<b>89651</b>	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	<b>45891</b>	CU	<b>44041</b>	SS	Gasket, Plunger Retainer	3
99	—	—	<b>44031</b>	SS	Retainer, Plunger (M6)	3
	<b>104360</b>	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	<b>49291</b>	BB	<b>49284</b>	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	<b>43515</b>	BB	<b>49152</b>	PTFE	Adapter, Female [01/04]	3
127	44607	STG	44607	STG	V-Packing	6
	44386	FPM	44386	FPM	V-Packing	6
128	<b>43517</b>	BB	<b>44165</b>	SS	Adapter, Male	3
139	<b>20326</b>	BBCP	<b>44382</b>	SS	Plug, Inlet [3/4" NPT(M)]	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	<b>43722</b>	S	<b>44037</b>	SS	Seat	6
166	<b>43721</b>	S	<b>48793</b>	SS	Valve	6
167	<b>43751</b>	S	<b>44039</b>	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	<b>43850</b>	BB	<b>49293</b>	SS	Plug, Valve	6
185	<b>45975</b>	NAB	<b>48780</b>	SSD	Head, Manifold	1
	—	—	<b>49338</b>	SS	Head, Manifold Flushed (1/8" Flushing Port) 661C Only	1
187	<b>126545</b>	STCPR	<b>44005</b>	S	Stud (M10x45)	4
192	<b>126231</b>	STCPR	<b>15847</b>	S	Lockwasher (M10)	4
194	<b>126522</b>	STCPR	<b>81258</b>	S	Nut, Hex (M10)	4

# EXPLODED VIEW



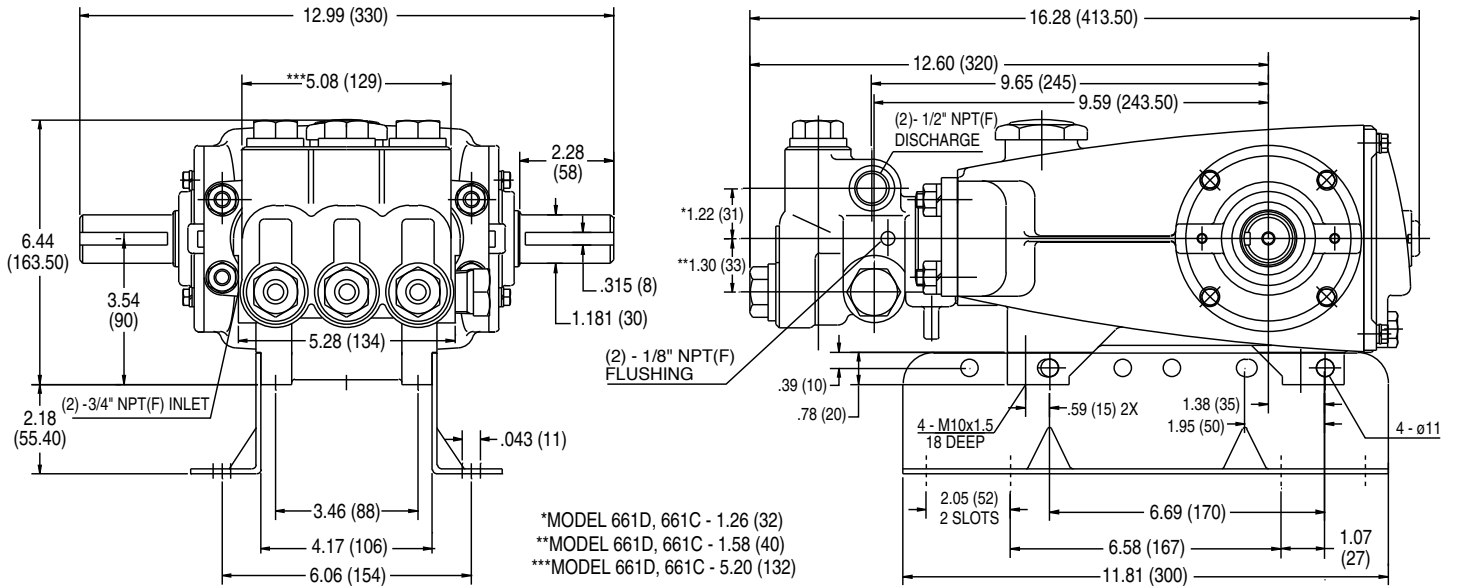
Models  
 Standard - 660  
 Stainless Steel - 661D  
 Stainless Steel Flushed - 661C  
 November 2016

ITEM	PART NUMBER	MATL	PART NUMBER	MATL	DESCRIPTION	QTY
	<b>660</b>		<b>661C/661D</b>			
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
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	<b>814561</b>	BB	<b>816780</b>	DSS	Head, Complete w/NBR Seals and O-Rings	1
	—	—	<b>818420</b>	SS	Head, Complete - C (661C Only) w/NBR Seals and O-Rings	1
300	30798	NBR*	30798	NBR*	Kit, Seal (Incls: 97,100,106,121,127) <b>Standard</b>	1
	31033	FPM	31033	FPM	Kit, Seal (Incls: 97,100,106,121,127) <b>.0110</b>	1
	◆ 33919	EPDM*	◆ 33919	EPDM*	Kit, Seal (Incls: 97,100,106,121,127) <b>.0220</b>	1
	76195	IPFE*	76195	IPFE*	Kit, Seal (Incls: 97,100,106,121,127) <b>.0770</b>	1
310	<b>30820</b>	NBR	<b>34387</b>	NBR	Kit, Valve (Incls: 162,163,164,166,167,168,172) <b>Standard</b>	2
	<b>31263</b>	FPM	<b>30987</b>	FPM	Kit, Valve (Incls: 162,163,164,166,167,168,172) <b>.0110</b>	2
	◆ <b>31259</b>	EPDM	◆ <b>31258</b>	EPDM	Kit, Valve (Incls: 162,163,164,166,167,168,172) <b>.0220</b>	2
	—	—	<b>76385</b>	IPFE	Kit, Valve (Incls: 162,163,164,166,167,168,172) <b>.0770</b>	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, 083, 095, 098 and 118 for additional information.

MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic AL=Aluminum BB=Brass BBCP=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 SFTA=Special Blend PTFE Tan  
 SFTB=Special Blend PTFE Black SHS=304SS/High Strength SS=316SS SSD=Duplex Stainless SSHB=316SS/High Strength Brass SSNP=316SS/Nickel Plated STCP=Steel/Chrome Plated  
 STG=Special Blend PTFE White STL=Steel ST2=Special PTFE 2 STZP=Steel/Zinc Plated SZZ=304SS/Zamak TNM=Special High Strength



Models 660, 661C, 661D

**⚠ 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](http://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](http://www.catpumps.com/warranty).



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