

# DATA SHEET

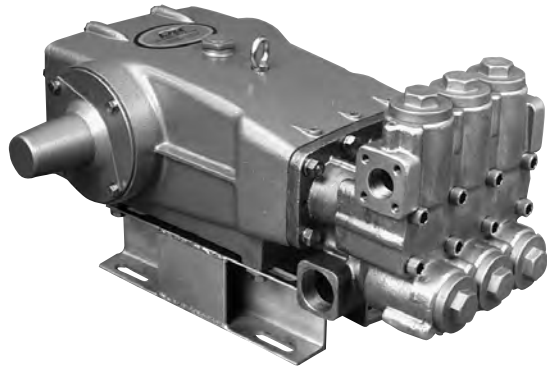
## 60 FRAME PLUNGER PUMPS



**Standard  
Brass  
6775**

**Stainless  
Steel  
6771**

**Nickel Aluminum  
Bronze  
6777**



Model 6775 Shown

### FEATURES

- Triplex plunger design delivers high efficiency and low pulsation.
- Durable dual V-Packings are lubricated and cooled by pumped liquid.
- 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.
- Guided valve design for extended valve life.
- Wet-end easily serviced without entering crankcase.
- Standard NBR seals with alternative options for temperature and chemical compatibility
  - FPM – .0110
  - EPDM – .0220

### SPECIFICATIONS

	U.S. Measure	Metric Measure
Flow	75 gpm	284 lpm
Pressure Range	100 to 1200 psi	6.9 to 83 bar
Pump RPM*	650 rpm	650 rpm
Inlet Pressure Range	Flooded to 50 psi	Flooded to 3.5 bar
Bore	2.165"	55 mm
Stroke	2.579"	65.5 mm
Crankcase Capacity	10 qts.	9.46 l
Max. Liquid Temperature	140° F	60° C
Above 130° F call Cat Pumps for inlet conditions and elastomer recommendations.		
Inlet Ports (2)	2" NPT(F)	2" NPT(F)
Discharge Ports (2)	1 1/4" NPT(F)	1 1/4" NPT(F)
Shaft Diameter	1.772"	45 mm
Weight		
6775	356 lbs.	161 kg
6771	353 lbs.	160 kg
6777	327 lbs.	148 kg
Dimensions		
6775, 6777	31.14 x 24.37 x 12.87"	791 x 619 x 327 mm
6771	30.71 x 24.37 x 12.44"	780 x 619 x 316 mm

\* Pump minimum is 100 RPM.

### ELECTRIC HORSEPOWER REQUIREMENTS

FLOW		PRESSURE			RPM
		psi 900	psi 1000	psi 1200	
U.S. gpm	lpm	bar 62	bar 69	bar 83	
75	284	46.2	51.4	61.6	650
70	265	43.2	47.9	57.5	607
60	227	37.0	41.1	49.3	520
50	189	30.8	34.2	41.1	433

<b>DETERMINING THE PUMP R.P.M.</b>	$\frac{\text{Rated gpm}}{\text{Rated rpm}}$	=	$\frac{\text{"Desired" gpm}}{\text{"Desired" rpm}}$
<b>DETERMINING THE REQUIRED H.P.</b>	$\frac{\text{gpm} \times \text{psi}}{1460}$	=	$\frac{\text{Electric Brake}}{\text{H. P. Required}}$
<b>DETERMINING MOTOR PULLEY SIZE</b>	$\frac{\text{Motor Pulley O.D.}}{\text{Pump rpm}}$	=	$\frac{\text{Pump Pulley O.D.}}{\text{Motor rpm}}$

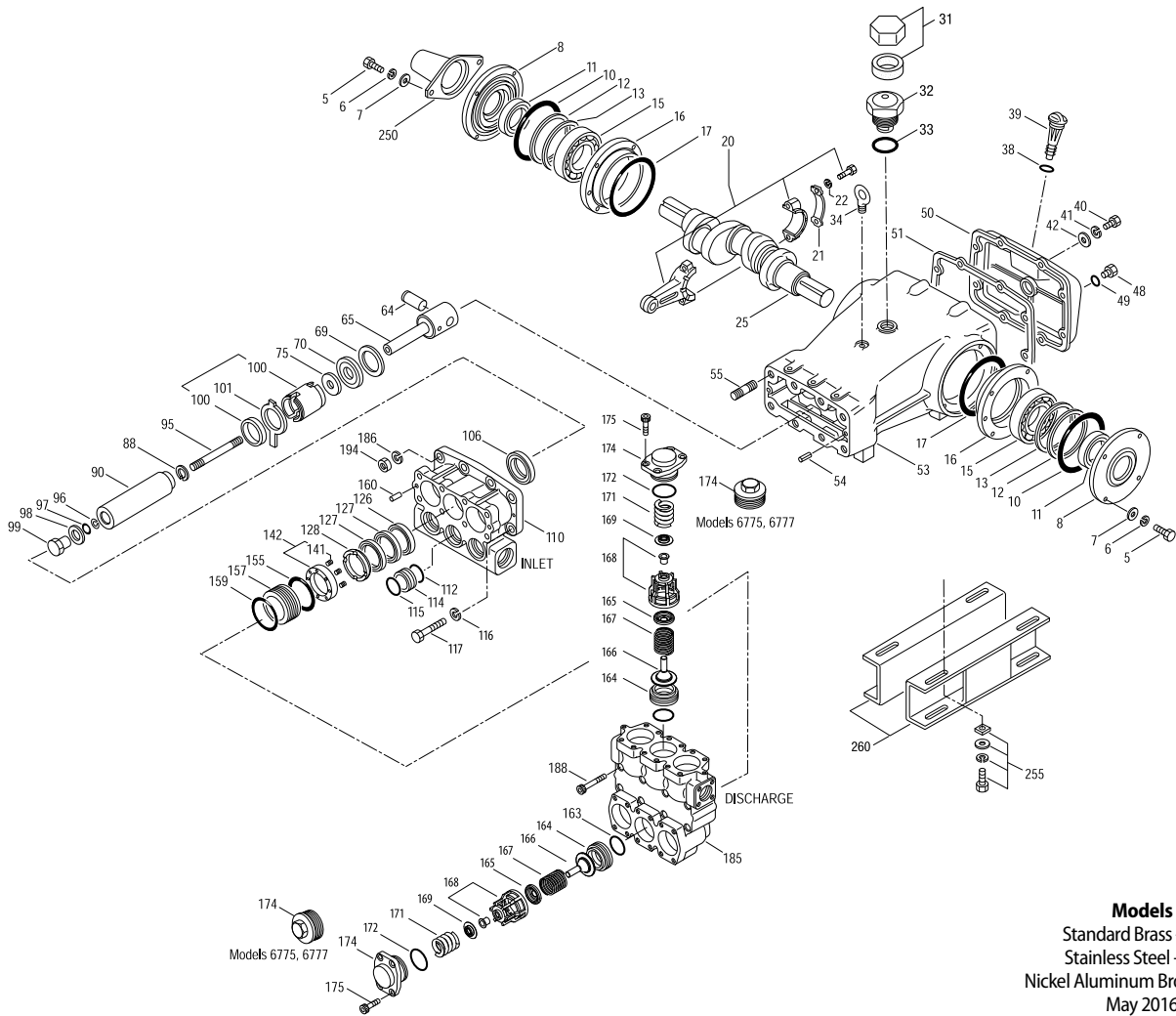
See complete Drive Packages [Includes: Pulleys, Belts, Hubs, Key] Tech Bulletin 003.  
Refer to pump **Service Manual** for repair procedure and additional technical information.

## PARTS LIST – STANDARD PUMP (NBR SEAL)

ITEM	PART NUMBER		DESCRIPTION		QTY			
	6775	MATL	6771	MATL		6777	MATL	
5	<b>126532</b>	STCP R	<b>89728</b>	S	<b>89728</b>	S	Screw, HH (M10 x 40)	8
6	<b>126231</b>	STCP R	<b>15847</b>	S	<b>15847</b>	S	Lockwasher (M10)	8
7	<b>126574</b>	STZP R	<b>19934</b>	S	<b>19934</b>	S	Washer, Flat (M10)	8
8	29443	AL	29443	AL	29443	AL	Cover, Bearing, Outer (See Tech Bulletin 118)	2
10	29444	NBR	29444	NBR	29444	NBR	O-Ring Outer, Bearing Cover - 70D	2
11	11443	NBR	11443	NBR	11443	NBR	Seal, Oil, Crankshaft - 70D	2
12	126594	STCP R	126594	STCP R	126594	STCP R	Washer, Shim (M120 x 0.3)	0-2
13	126595	STCP R	126595	STCP R	126595	STCP R	Washer, Shim (M120 x 0.5)	0-2
15	29441	STL	29441	STL	29441	STL	Bearing, Roller	2
16	29442	STL	29442	STL	29442	STL	Cover, Bearing, Inner	2
17	29444	NBR	29444	NBR	29444	NBR	O-Ring Inner, Bearing Cover - 70D	2
20	126612	BBHS	126612	BBHS	126612	BBHS	Rod, Connecting (Includes: 21, 22)	3
21	126560	STCP R	126560	STCP R	126560	STCP R	Washer, Locking	3
22	126593	STCP R	126593	STCP R	126593	STCP R	Washer, Shim (M10.5 x 1.5)	6
25	29440	FCM	29440	FCM	29440	FCM	Crankshaft, Dual End (65.5 mm)	1
31	828710	PE	828710	PE	828710	PE	Protector, Oil Cap w/Foam Gasket	1
32	43211	ABS	43211	ABS	43211	ABS	Cap, Oil Filler	1
33	14177	NBR	14177	NBR	14177	NBR	O-Ring, Oil Filler Cap - 70D	1
34	126743	STCP R	126743	STCP R	126743	STCP R	Bolt, Eye (M12) (For Lifting Pump Only)	1
38	129343	RBR	129343	RBR	129343	RBR	Gasket, Flat	1
39	27769	ABS	27769	ABS	27769	ABS	Stick, Dip	1
40	<b>126531</b>	STCP R	<b>89627</b>	S	<b>89627</b>	S	Screw, HH (M10 x 30)	8
41	<b>126231</b>	STZP R	<b>15847</b>	S	<b>15847</b>	S	Lockwasher (M10)	8
42	<b>126574</b>	STCP R	<b>19934</b>	S	<b>19934</b>	S	Washer, Flat (M10)	8
48	25625	STCP	25625	STCP	25625	STCP	Plug, Drain (1/4 x 19BSP)	1
49	23170	NBR	23170	NBR	23170	NBR	O-Ring, Drain Plug - 70D	1
50	29438	AL	29438	AL	29438	AL	Cover, Rear (See Tech Bulletin 118)	1
51	129386	NBR	129386	NBR	129386	NBR	Gasket, Rear Cover	1
53	45303	AL	45303	AL	45303	AL	Crankcase w/Guide Pins (Includes: 34, 54) (See Tech Bulletin 118)	1
54	43282	S	43282	S	43282	S	Pin, Guide	2
55	<b>126553</b>	STCP R	<b>89615</b>	S	<b>89615</b>	S	Stud (M16 x 70)	2
64	29481	CM	29481	CM	29481	CM	Pin, Crosshead	3
65	† 45384	SSZZ	45384	SSZZ	45384	SSZZ	Rod, Plunger	3
69	126588	STCP R	126588	STCP R	126588	STCP R	Washer, Oil Seal	3
70	29454	NBR	29454	NBR	29454	NBR	Seal, Oil - 80D	3
75	44752	NBR	44752	NBR	44752	NBR	Slinger, Barrier - 85D	3
88	45677	SS	45677	SS	45677	SS	Washers, Keyhole (M14)	3
90	44749	CC	44749	CC	44749	CC	Plunger (M55 x 185)	3
95	<b>89783</b>	S	<b>44748</b>	SS	<b>44748</b>	SS	Stud, Plunger Retainer (M14 x 147)	3
96	20214	PTFE	20214	PTFE	20214	PTFE	Back-up-Ring, Plunger Retainer	3
97	17616	NBR	17616	NBR	17616	NBR	O-Ring, Plunger Retainer - 80D	3
99	<b>45276</b>	S	<b>44750</b>	SS	<b>44750</b>	SS	Retainer, Plunger (M14)	3
100	855000	PVDF	855000	PVDF	855000	PVDF	Retainer, Seal, 2-pc (See Tech Bulletin 105)	3
101	44762	—	44762	—	44762	—	Wick, Long Tab (M55 x 185)	3
106	44757	NBR	44757	NBR	44757	NBR	Seal, LPS w/SS-Spg	3
110	<b>49457</b>	NABC	<b>45769</b>	SS	<b>44754</b>	NAB	Manifold, Inlet	1
112	18175	NBR	18175	NBR	18175	NBR	O-Ring, Spacer, Inner - 80D	3
114	44767	SS	44767	SS	44767	SS	Spacer, Inlet Manifold	3
115	18175	NBR	18175	NBR	18175	NBR	O-Ring, Spacer, Outer - 80D	3
116	<b>126569</b>	STCP R	<b>19086</b>	S	<b>19086</b>	S	Lockwasher (M16)	4
117	<b>126537</b>	STCP R	<b>89729</b>	S	<b>89729</b>	S	Screw, HH (M16 x 55)	4
126	48392	D	48392	D	48392	D	Adapter, Female (See Tech Bulletin 087)	3
	45771	SS	45771	SS	45771	SS	Adapter, Female	3
127	44764	STG*	44764	STG*	44764	STG*	V-Packing	6
128	45772	SS	45772	SS	45772	SS	Adapter, Male	3
141	44943	SS	44943	SS	44943	SS	Coil Spring, Spacer	24
142	<b>48501</b>	BB	<b>45383</b>	SS	<b>45383</b>	SS	Spacer w/Coil Springs	3
155	18178	NBR	18178	NBR	18178	NBR	O-Ring, Spacer - 80D	3
157	45321	SS	45321	SS	45321	SS	Spacer, V-Packing	3
159	18178	NBR	18178	NBR	18178	NBR	O-Ring, Spacer - 80D	3
160	44756	S	44756	S	44756	S	Pin, Guide	2

Standard and Optional Seal Kits, Valve Kits, Optional Parts and Accessories and Service Parts listed on page 4.

# EXPLODED VIEW



**Models**  
 Standard Brass - 6775  
 Stainless Steel - 6771  
 Nickel Aluminum Bronze - 6777  
 May 2016

ITEM	6775		6771		6777		DESCRIPTION	QTY
	PART NUMBER	MATL	PART NUMBER	MATL	PART NUMBER	MATL		
163	18176	NBR	18176	NBR	18176	NBR	O-Ring, Seat - 80D	6
164	† 44772	SS	44772	SS	44772	SS	Seat	6
165	76304	SS	76304	SS	76304	SS	Guide, Spring	6
166	76319	SS	76319	SS	76319	SS	Valve, Guided, QV	6
167	76309	SS	76309	SS	76309	SS	Spring	6
168	76349	PVDF	76349	PVDF	76349	PVDF	Retainer, Spring	6
169	76306	SS	76306	SS	76306	SS	Retainer, Bushing	6
171	44780	SS	44780	SS	44780	SS	Spring, Coil, Valve Plug	6
172	18177	NBR	18177	NBR	18177	NBR	O-Ring, Valve Plug - 80D	6
174	<b>49461</b>	NABC	<b>48572</b>	SS	<b>44778</b>	NAB	Plug, Valve [3/00]	1
175	—	—	<b>48573</b>	S	—	—	Screw, HSH (M16x35) [3/00]	24
185	<b>49459</b>	NABC	<b>48489</b>	SS	<b>44769</b>	NAB	Manifold, Discharge [3/00]	1
186	<b>126569</b>	STCR R	<b>19086</b>	S	<b>19086</b>	S	Lockwasher (M16)	2
188	<b>126744</b>	STCP R	<b>89694</b>	S	<b>89694</b>	S	Screw, HSH (M16 x 110)	8
194	<b>126525</b>	STCP R	<b>81291</b>	S	<b>81291</b>	S	Nut, Hex (M16)	2
250	29445	AL	29445	AL	29445	AL	Protector, Shaft (Included w/Pump) (See Tech Bulletin 118)	1
255	33243	STZP	33243	STZP	33243	STZP	Kit, Mount (Included w/Pump)	1
260	126604	STZP	126604	STZP	126604	STZP	Rail (Included w/Pump) (Two per pump required)	2

**Standard and Optional Seal Kits, Valve Kits, Optional Parts and Accessories and Service Parts listed on page 4.**

**Bold Part Numbers are unique to a particular pump model. Italics are optional items.** [ ] Date of latest production change. † Production parts are different than service parts.

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

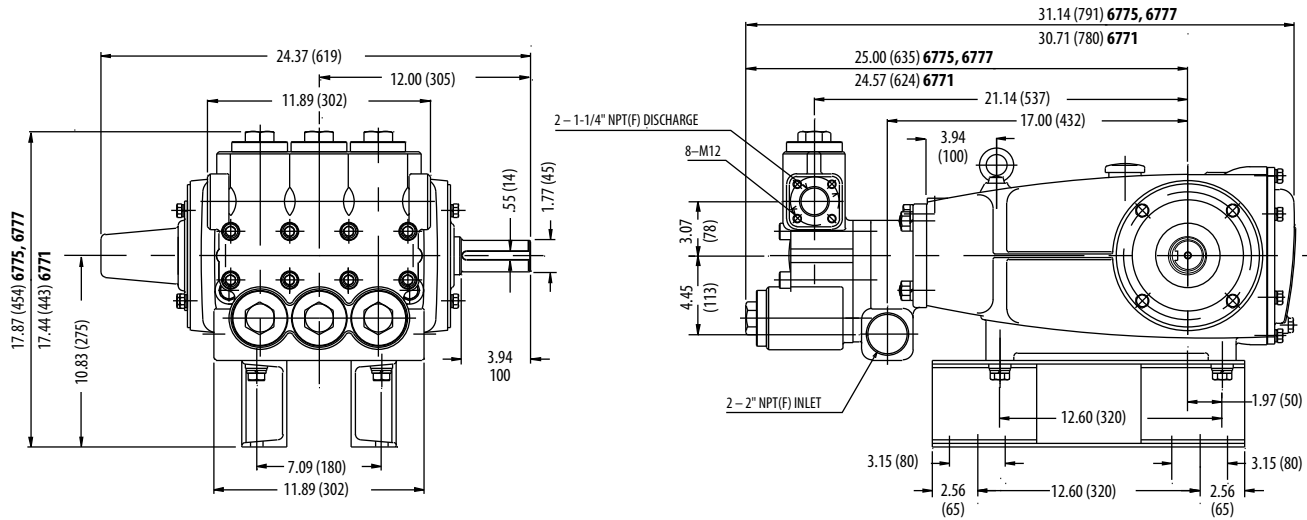
See Tech Bulletins 003, 024, 036, 043, 052, 053, 074, 083, 084, 087, 095, 105 and 118 for additional information.

MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic AL=Aluminum BB=Brass BBHS=Brass/High Strength CC=Ceramic CM=Chrome-Moly D=Acetal

EPDM=Ethylene Propylene Diene Monomer FCM=Forged Chrome-moly FPM=Fluorocarbon NAB=Nickel Aluminum Bronze NABC=Nickel Aluminum Bronze Chrome Plated NBR=Medium

Nitrile PE=Polyethylene (Buna-N) PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene RBR=Rubber Fluoride S=304SS SS=316SS

SFTB=Special Blend PTFE Black SSZZ=316SS/Zamak STCP=Steel/Chrome Plated STG=Special Blend PTFE White STL=Steel STZP=Steel/Zinc Plated



Models 6771, 6775, 6777

### SEAL KITS

ITEM	34091	34093	76091	DESCRIPTION	QTY
	NBR STD	FPM (.0110)	EPDM♦ (.0220)		
97	17616	11686	703369	O-Ring, Plunger Retainer	3
106	44757	45882	702228	Seal, LPS w/SS-Spg	3
112	18175	13266	702442	O-Ring, Inner Spacer	3
115	18175	13266	702442	O-Ring, Outer Spacer	3
127	44764	44764	44764	V-Packing	6
155	18178	13338	701657	O-Ring, Spacer	3
159	18178	13338	701657	O-Ring, Spacer	3

Note: One (1) seal kit required per pump  
♦ Silicone Oil/Grease required

### VALVE KITS

ITEM	76140	76145	76240	DESCRIPTION	QTY
	NBR STD	FPM (.0110)	EPDM♦ (.0220)		
163	18176	13278	702445	O-Ring, Seat	3
164	44772	44772	44772	Seat	3
165	76304	76304	76304	Guide, Spring	3
166	76319	76319	76319	Valve, Guided	3
167	76309	76309	76309	Spring	3
168	76349	76349	76349	Retainer, Spring	3
169	76306	76306	76306	Retainer, Bushing	3
172	18177	13279	701988	O-Ring, Valve Plug	3

Note: Two (2) valve kits required per pump  
♦ Silicone Oil/Grease required

### OPTIONAL PARTS AND ACCESSORIES

PART	DESCRIPTION	QTY
30429	Oiler (10 oz.)	3
990014	Hub, 45mm (M14 x 9 Keyway)	1
819010	Assy, Crankcase Cast Iron Conversion	1
76074	Kit, Oil Indicator (3/8" x 24") (See Individual Data Sheet)	1
34314	Kit, Oil Drain (3/8" x 48") (See Individual Data Sheet)	1
88902	Stud (M16 x 227) for removal of DM and IM	1
30696	Pliers (Reverse)	1

### SERVICE PARTS

PART	DESCRIPTION	QTY
6105	Oil, Twin Pack (Two 2.5 Gallon) ISO-68 Hydraulic	1
43048	Key (M14 x 9 x 90)	1
6119	Lubricant, Antiseize (2 oz.) (See Tech Bulletin 095)	1
6124	Gasket, Liquid (3 oz.)	1
996760	Head, Complete - 6775 w/NBR Seals and O-Rings	1
996667	Head, Complete - 6771 w/NBR Seals and O-Rings	1
994820	Head, Complete - 6777 w/NBR Seals and O-Rings	1

### 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).



#### CAT PUMPS

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