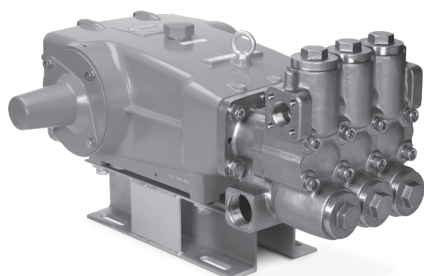


DATA SHEET

60 FRAME PLUNGER PUMP



**Nickel/Aluminum
Bronze Model: 6747**



(Box rails and shaft protector included)

FEATURES

- Triplex plunger design ensures high efficiency and low pulsation.
- V-packings and low-pressure seals are completely lubricated and cooled, greatly increasing service life.
- Nickel aluminum bronze manifolds and 316 stainless steel internal components suit a range of high-salinity sea water or chemicals.
- Special high-density, polished concentric plungers provide a true wear surface and extend seal life.
- Pump comes standard with NBR seals. Alternative seal materials are available for higher temperature or chemical compatibility.

SPECIFICATIONS	U.S. Measure	Metric Measure
Flow	48 gpm	182 lpm
Pressure Range	100–2000 psi	6.9–138 bar
Pump RPM*	615 rpm	615 rpm
Inlet Pressure Range	Flooded to 50 psi	Flooded to 3.4 bar
Max. Liquid Temp. (NBR)	140° F	60° C
Alternative seals available for higher temperatures up to 180° F		
Bore	1.772"	45 mm
Stroke	2.579"	65.5 mm
Crankcase Capacity	10 qts	9.46 l
Inlets Ports (2)	2" NPT(F)	2" NPT(F)
Discharge Ports (2)	1¼" NPT(F)	1¼" NPT(F)
Shaft Diameter	1.772"	45 mm
Pulley Mounting	Either Side	Either Side
Weight	335 lbs	152 kg
Dimensions	31.14 x 24.37 x 12.87"	791 x 619 x 327 mm

*Pump minimum is 100 RPM.

ALTERNATIVE SEAL CONFIGURATION

MATERIAL	SUFFIX CODE	MAXIMUM TEMPERATURE	
NBR	—	140° F	(71° C)
FPM	.0110	180° F	(82° C)
EPDM	.0220	160° F	(71° C)

See **Tech Bulletin 002** for inlet conditions and RPM at high temperature.

DETERMINING THE PUMP RPM	$\frac{\text{Rated gpm}}{\text{Rated rpm}}$	=	$\frac{\text{Desired gpm}}{\text{Desired rpm}}$
DETERMINING THE REQUIRED HP	$\frac{\text{hp}}{\text{(Electric Brake)}}$	=	$\frac{\text{gpm} \times \text{psi}}{1460}$
DETERMINING MOTOR PULLEY SIZE	$\frac{\text{Motor Pulley OD}}{\text{Pump rpm}}$	=	$\frac{\text{Pump Pulley OD}}{\text{Motor rpm}}$

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

PARTS LIST

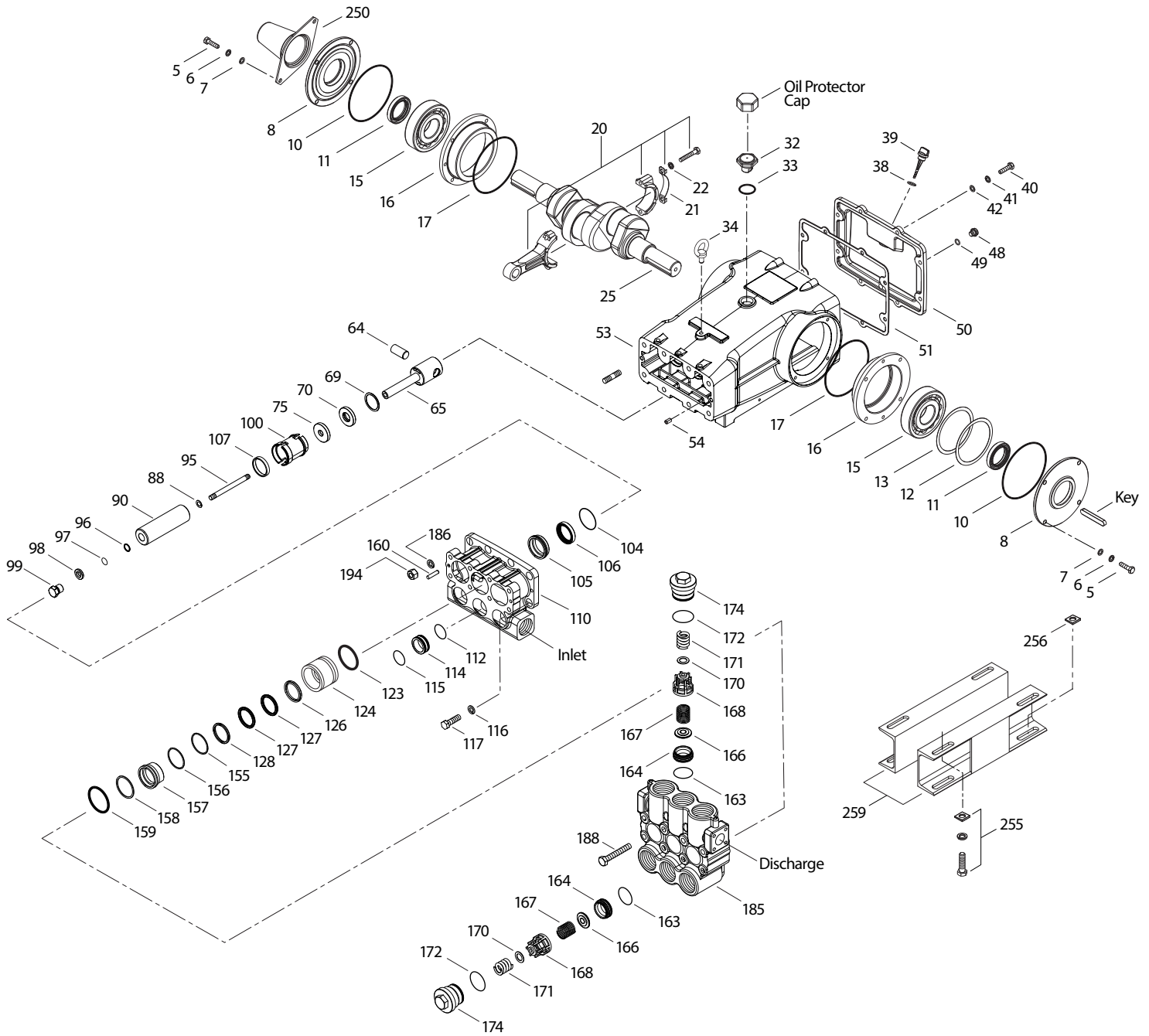
ITEM	P/N	MATL	DESCRIPTION	QTY
5	89728	S	Screw, HH (M10 x 40) (See Tech Bulletin 074)	8
6	15847	S	Lockwasher (M10)	8
7	19934	S	Washer, Flat (M10)	8
8	29443	ALE	Cover, Bearing, Outer	2
10	29444	NBR	O-Ring, Bearing Case-70D	2
11	11443	NBR	Seal, Oil, Crankshaft	2
12	126594	STCP R	Washer, Shim (M120 x 0.3), Bearing, Inner	0-2
13	126595	STCP R	Washer, Shim (M120 x 0.5), Bearing, Inner	0-2
15	29441	STL	Bearing, Roller	2
16	29442	STL	Cover, Bearing, Inner	2
17	29444	NBR	O-Ring, Bearing Case-70D	2
20	126612	BBHS	Rod, Connecting (Includes: 21, 22) (See Tech Bulletin 074)	3
21	126560	STCP R	Washer, Locking	3
22	126593	STCP R	Washer, Shim (M10.5 x 1.5)	6
25	29440	FCM	Crankshaft, Dual-End (M65.5)	1
32	43211	ABS	Cap, Oil Filler	1
33	14177	NBR	O-Ring, Oil Filler Cap-70D	1
34	126743	STCP R	Bolt, Eye (M12 x 1.75) (For Lifting Pump Only) (See Tech Bulletin 084)	1
38	129343	RBR	Gasket, Flat	1
39	27769	ABS	Stick, Dip	1
40	89627	S	Screw, HH (M10 x 30) (See Tech Bulletin 074)	8
41	15847	S	Lockwasher (M10)	8
42	19934	S	Washer, Flat (M10)	8
48	25625	STCP	Plug, Drain (1/4" x 19 BSP)	1
49	23170	NBR	O-Ring, Drain Plug-70D	1
50	29438	ALE	Cover, Rear	1
51	129386	NBR	Gasket, Rear Cover	1
53	133667	ALE	Crankcase (Includes: 54)	1
54	43282	S	Pin, Guide	2
55	89615	S	Stud (M16 x 70)	2
64	29481	CM	Pin, Crosshead	3
65	45384	SSZZ	Rod, Plunger	3
69	126588	STCP R	Washer, Oil Seal	3
70	29454	NBR	Seal, Oil	3
75	44752	NBR	Slinger, Barrier	3
88	45677	SS	Washers, Keyhole (M14)	3
90	45672	CC	Plunger (M45 x 185)	3
95	44748	SS	Stud, Plunger Retainer (M14 x 147)	3
96	20214	PTFE	Backup Ring, Plunger Retainer	3
97	17616	NBR	O-Ring, Plunger Retainer-80D	3
98	44751	SS	Gasket, Plunger Retainer	3
99	44750	SS	Retainer, Plunger (M14) (See Tech Bulletin 074)	3
100	702014	PVDF	Retainer, Seal	3
104	18178	NBR	O-Ring, Inlet Adapter-80D	3
105	701355	SS	Adapter, Low-Pressure Seal	3
106	106147	NBR	Seal, Low-Pressure with SS-Spring	3
107	701580	D	Spacer, Low-Pressure	3
110	*44754	NAB	Manifold, Inlet	1
112	18175	NBR	O-Ring, Spacer, Inner-80D	3
114	44767	SS	Spacer, Inlet Manifold	3
115	18175	NBR	O-Ring, Spacer, Outer-80D	3
116	19086	S	Lockwasher (M16)	4
117	89729	S	Screw, HH (M16 x 55) (See Tech Bulletin 074)	4
123	18178	NBR	O-Ring, Cylinder, V-Packing-80D	3
124	701357	SS	Cylinder, V-Packing	3
126	701358	SS	Adapter, Female	3
127	104450	STG	V-Packing	6
128	701359	SS	Adapter, Male	3
155	701978	NBR	O-Ring, Spacer	3
156	701361	PTFE	Backup Ring, Spacer Inner	3
157	701362	SS	Spacer, V-Packing with Coil Springs	3
158	701363	PTFE	Backup Ring, Spacer Outer	3
159	18178	NBR	O-Ring, Spacer-80D	3
160	44756	S	Pin, Guide	2
163	18176	NBR	O-Ring, Seat-80D	6
164	44772	SS	Seat	6
166	44774	SS	Valve	6
167	44773	SS	Spring	6
168	44775	PVDF	Retainer, Spring	6
170	44776	SS	Washer, Retainer	6
171	44780	SS	Spring, Coil, Valve Plug	6
172	18177	NBR	O-Ring, Valve Plug-80D	6
174	44778	NAB	Plug, Valve	6
185	44769	NAB	Manifold, Discharge	1
186	19086	S	Lockwasher (M16)	2
188	89694	S	Screw, HSH (M16 x 110) (See Tech Bulletin 074)	8
194	81291	S	Nut, Hex (M16)	2
250	29445	ALE	Protector, Shaft	1
255	33243	STZP	Mount, Direct	1
256	29649	STCP	Washer, Slant (M16) (To Shim and Align Mounting Bolts [Not Included] Through the Box Rail and Mounting Base)	4
259	126604	STCP R	Rail, Box	2

* When ordering a new inlet manifold PN 44754, order two (2) PN 44756 guide pins (Item #160)

R Components comply with RoHS Directive. For additional technical information see www.catpumps.com/literature/tech-bulletins.
MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic ALE=Aluminum Epoxy CC=Ceramic CM=Chrome-Moly D=Acetal EPDM=Ethylene Propylene Diene Monomer
FCM=Forged Chrome-moly FPM=Fluorocarbon NAB=Nickel Aluminum Bronze NBR=Medium Nitrile (Buna-N) PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride
RBR=Rubber S=304SS SFTA=Special Blend PTFE Tan SS=316SS SSZZ=316SS/Zamak STG=Special Blend PTFE White
STL=Steel STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated

Optional Parts and Accessories and Service parts listed on page 3. Standard and optional Seal and Valve Kits listed on page 4.

EXPLODED VIEW



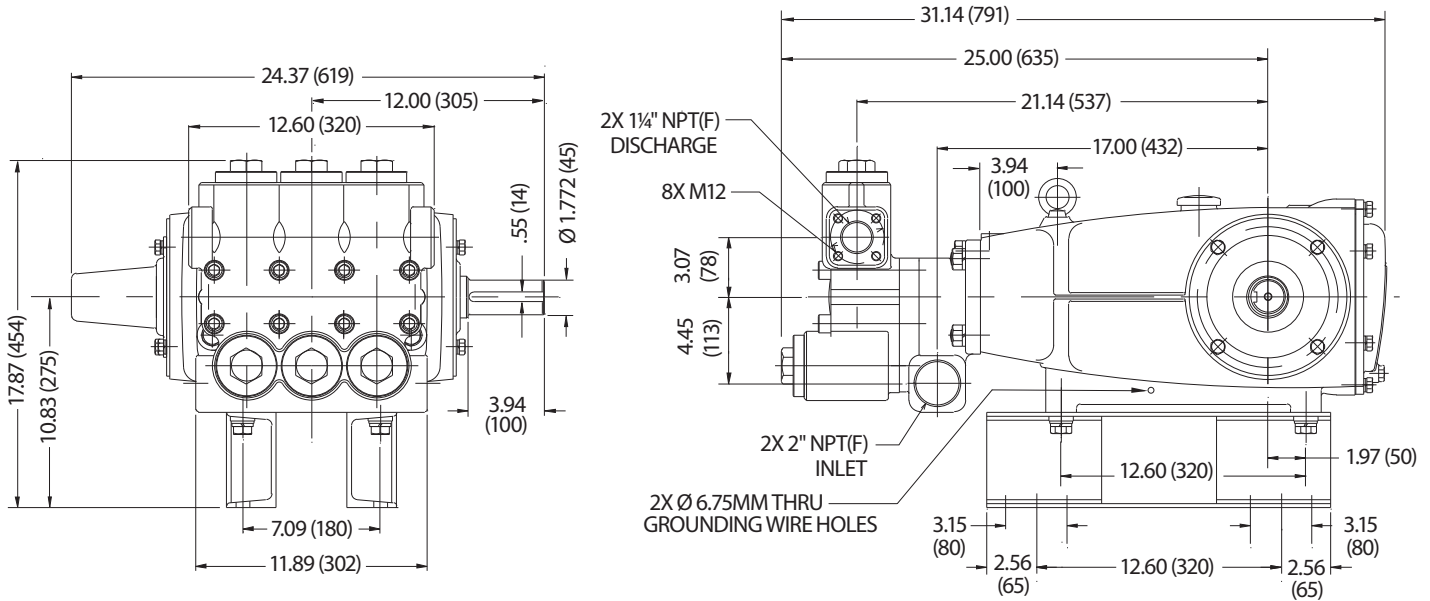
Model 6747
May 2024

OPTIONAL PARTS AND ACCESSORIES

PART	DESCRIPTION	QTY
43048	Key (M14 x 9 x 90)	1
828710	Protector, Oil, Cap with Foam Gasket	1
990014	Hub, "B", 45 mm (Not Shown)	1
34314	Kit, Oil Drain (3/8" x 48") (Not Shown)	1
88902	Stud (M16 x 277) (For Removal of DM and IM) (Not Shown)	2
819010	Assembly, Crankcase, Cast Iron Conversion (Not Shown)	1

SERVICE PARTS

PART	DESCRIPTION	QTY
702349	Kit, Seal – Standard NBR	1
34092	Kit, Valve – Standard NBR	2
6102	Oil, Jug (2.5 gal) (Fill to Specified Crankcase Capacity Prior to Start-up)	1
6124	Gasket, Liquid (3 oz)	1
6139	Lubricant, Anti-seize (8 oz) (See Tech Bulletin 095)	1
31173	Crankcase Oil Seal Removal and Installation Kit (Not Shown) (Includes: Oil Seals, Guide Tool, Screws, Washer)	1
30696	Reverse Pliers (Not Shown)	1
702348	Head, Complete with NBR Seals and O-Rings	1



SEAL KITS One (1) seal kit required per pump

PUMP MODEL	NBR (STD)	FPM (.0110)	EPDM (.0220) ♦
6747	702349 *	702350 *	703545 *

ITEM (Included in Seal Kits)				DESCRIPTION	QTY
97	17616	11686	703369	O-Ring, Plunger Retainer	3
104	18178	13338	701657	O-Ring, Inlet Adapter	3
106	106147	701752	701752	Seal, Low-Pressure with SS-Spring	3
112	18175	13266	702442	O-Ring, Inlet Spacer	3
115	18175	13266	702442	O-Ring, Outer Spacer	3
123	18178	13338	701657	O-Ring, V-Packing Cylinder	3
127	104450	104450	104450	V-Packing	6
155	701978	701360	702045	O-Ring, V-Packing Spacer	3
156	701361	701361	701361	Backup Ring, V-Packing Spacer	3
158	701363	701363	701363	Backup Ring, V-Packing Spacer	3
159	18178	13338	701657	O-Ring, V-Packing Spacer	3

♦ Silicone oil/grease required

* Review material codes for individual items (STG may be used as alternative)

VALVE KITS Two (2) valve kits required per pump

PUMP MODEL	NBR (STD)	FPM (.0110)	EPDM (.0220) ♦
6747	34092	31273	76092

ITEM (Included in Valve Kits)				DESCRIPTION	QTY
163	18176	13278	702445	O-Ring, Valve Seat	3
164	44772	44772	44772	Seat	3
166	44774	44774	44774	Valve	3
167	44773	44773	44773	Spring	3
168	44775	44775	44775	Retainer, Spring	3
170	44776	44776	44776	Washer, Spring Retainer	3
172	18177	13279	701988	O-Ring, Valve Plug	3

♦ Silicone oil/grease required

⚠ CAUTIONS AND WARNINGS

All high-pressure systems require a primary pressure regulating device (e.g. regulator, unloader) and a secondary pressure relief device (e.g. 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/dynamic-literature/cautions-and-warnings or can be requested directly from Cat Pumps.

WARRANTY

View the Limited Warranty online at www.catpumps.com/literature/cat-pumps-limited-warranty