

Models 6400-Series 7420-Series

SELF-PRIMING PUMPS

FEATURES

Body: **Bronze** Impeller: Neoprene

Shaft: Type 316 Stainless Steel

Wearplate: Replaceable

Shaft Seal: Carbon-Ceramic Face Type Bearing: Pre-lubricated Double Row Ball

1-1/4" NPT Internal Ports: Weight: 10-1/2 lb (4,8 kg) approx.

VARIATIONS AVAILABLE

MODEL NO. DESCRIPTION

6400-0004 Full Thickness Cam, Neoprene Impeller,

Standard Shaft

Half Thickness Cam, Neoprene Impeller, 6400-0051

Standard Shaft

6400-1051 Half Thickness Cam, Neoprene Impeller,

Short S.S. Shaft for Caterpillar Engines

7420-0004 Full Thickness Cam, Neoprene Impeller,

Standard Shaft

Full Thickness Cam, Neoprene Impeller, 7420-1001

Short S.S. Shaft for Caterpillar Engines

APPLICATIONS

MARINE: Pumping bilges, Washdown, Engine Cooling.

INDUSTRIAL: Circulating and Transferring liquids; Velocity-mixing; Transferring soap, liquors, pastes, glues, glycerine, lotions and brine.

FARM: Pumping water for stock and poultry houses and Booster Pumping.

PLUMBING & HOME: Pumping out flooded basements, cesspools, sumps and many other uses.

OPERATING INSTRUCTIONS

- 1. INSTALLATION Pump may be mounted in any position. The rotation of the pump shaft determines the location of the pump's intake and discharge ports. (Refer to dimensional drawing.) Pump is normally assembled at factory for clockwise rotation (looking at end cover). If counter clockwise rotation is desired, follow steps 1 and 2 of disassembly and step 12 of assembly instructions to change direction of impeller blade deflection under cam.
- 2. DRIVE Belt or Direct with flexible coupling. BELT DRIVE - Overtight belt load will reduce bearing life.



Injury hazard. Exposed pulleys and belts can cause injury. Install shield around pulleys and belts. Stay clear while machinery is operating.

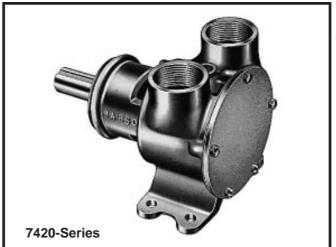
Jabsco



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CANADA ITT Fluid Products 55 Royal Road Guelph, Ontario N1H 1T1 JAPAN NHK Jabsco Company Ltd. 3-21-10, Shin-Yokohama Kohoku-Ku, Yokohama, 222 **GERMANY** Jabsco GmbH Oststrasse 28 22844 Norderstedt





DIRECT DRIVE - Clearance should be left between drive shaft and pump shaft when installing coupling. Always mount and align pump and drive shaft before tightening the coupling set screw.

NOTICE: If drive pulley or coupling must be pressed on shaft, remove end cover and impeller and support shaft from impeller end during press operation. Do not hammer a pulley or coupling on shaft. Failure to follow above instructions can damage the pump.

- 3. SPEEDS 100 RPM to the maximum shown in the performance table. For longer pump life, operate at lowest possible speeds.
- SELF-PRIMING Primes at low or high speeds. For vertical dry suction lift of 10 feet, (3,1m) a minimum of 800 RPM is required. Pump will produce suction lifts up to 22 (6,7m) feet when wetted. BE SURE SUCTION LINES ARE AIRTIGHT.
- RUNNING DRY Unit depends on liquid pumped for lubrication. DO NOT RUN DRY for more than 30 seconds. Lack of liquid will damage the impeller.



1485 Dale Way, P.O. Box 2158

Costa Mesa, CA 92628-2158

OPERATING INSTRUCTIONS

- 6. NOTICE If pumping light fraction petroleum derivatives, solvents, thinners, highly concentrated or organic acids, consult Jabsco "Chemical Resistance Table" (which is available upon request from ITT Jabsco) for proper body materials and impeller compounds. If corrosive fluids are handled, pump life will be prolonged if pump is flushed with water after each use or after each work day.
- PRESSURES For continuous operation, pressure should not exceed 30 psi (2,1 kg/sq cm). For intermittent service only, pressures from 35 to 50 psi (2,5 - 3,5 kg/sq cm) can be attained using 807-1001 impeller, plus an extra gasket.
- 8. TEMPERATURES Neoprene: 45°-180°F (7°-82°C) Nitrile: 50°-180°F (10°-82°C) Natural Rubber: 33°-120°F (0.6°-49°C)
- FREEZING TEMPERATURES Drain unit by loosening end cover. The following anti-freeze compounds can be used without any adverse effect to the neoprene impeller: Atlas "Permaguard", DuPont "Zerex" and "Telar", Dow Chemical "Downguard" and Olin Mathison "Pyro". Most methyl alcohol (methanol) based anti-freezes can be used. DO NOT USE PETROLEUM BASED ANTI-FREEZE COMPOUNDS OR RUST INHIBITORS.
- GASKET Use standard pump part. A thicker gasket will reduce priming ability. A thinner gasket will cause impeller to bind. Standard gasket is 0.015" thick.
- SPARE PARTS To avoid costly shut downs, keep a Jabsco Service Kit on hand.

SERVICE INSTRUCTIONS

DISASSEMBLY

- 1. Remove end cover screws, end cover and gasket.
- 2. Remove impeller (and O-ring on -10XX pumps only).
- Remove seal with hooked wire. Remove seal seat and gasket.
- 4. Loosen cam screw and remove cam. Clean off sealant.
- 5. Remove wearplate.
- 6. Insert screwdriver between OD of outer bearing seal and pump bore and pry out seal.
- 7. Remove bearing to body retaining ring.

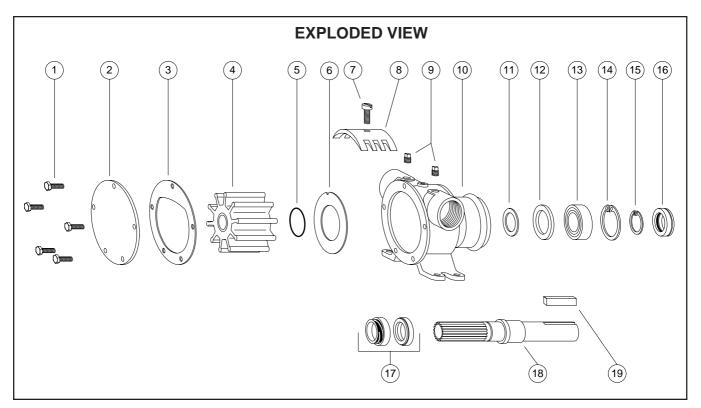
- Press on impeller drive end of shaft to remove shaft and bearing assembly. Heating outside of body at bearing will ease disassembly.
- 9. Remove bearing-to-shaft retaining ring.
- 10. Supporting bearing inner race, press shaft through bearing.
- Using extreme care not to mar bore, insert screwdriver between OD of inner seal and pump bore and pry out the seal

NOTE: Inspect all parts for wear or damage and replace if necessary.

ASSEMBLY

- Lubricate inner seal with grease and press into body bearing seal bore with lip facing away from bearing bore.
- Press shaft into bearing, using care to support inner race of bearing.
- Install bearing-to-shaft retaining ring with flat side toward bearing.
- Position slinger in body drain area on 6400-Series pumps only. Insert splined end of shaft through bearing bore and guide slinger over shaft until bearing contacts body.
- 5. Pressing on bearing outer race, install bearing and shaft assembly into bore.
- 6. Install bearing to body retaining ring in body groove with flat side toward bearing.
- Lubricate outer bearing seal with grease and press into bearing bore until it is flush with the body.
- 8. Install wearplate in body bore, aligning slot in wearplate with dowel pin in body.

- Apply a thin coat of sealant to cam screw threads and top side of cam and install in body.
- 10. Lubricate seal seat assembly with water and insert in seal bore of body with polished surface facing outward. Care must be taken not to mar or scratch seal seat face. Installing this assembly with a slight rotary motion will insure seating the gasket firmly in the cavity.
- Slide carbon ring assembly, with carbon facing ceramic, over the shaft and firmly up against the ceramic seat.
- 12. Slide O-ring onto shaft and position in the O-ring groove at the base of the spline (-10XX series pumps only).
- 13. Lubricate impeller bore with a light coat of water pump grease and start impeller into bore with a rotary motion until splines engage, then push into bore.
- Install gasket and end cover and secure with end cover screws.



PARTS LIST

Model 6400-0004 Model 7420-0004

Key	Description	Qty. Req.	Part Number		
1	Screw, End Cover	5	91005-0040		
2	End Cover	1	12062-0000		
3	*Gasket for Full Thickness Cam	1	816-0000		
	for Half Thickness Cam		2553-0000		
4	*Impeller (St'd) Neoprene	1	17935-0001		
	(Opt'l) Nitrile		836-0003		
	(Opt'l) High Pressure		807-1001		
	(Opt'l) Natural Rubber		836-0008		
5	O-Ring -10XX series pumps only	1	92000-0120		
6	Wearplate	1	2574-0000		
7	Screw, Cam for Full Thickness Cam	1	91005-0040		
	for Half Thickness Cam		91005-0050		
8	Cam, Full Thickness	1	834-0001		
	Half Thickness		2551-0000		
9	Pipe Plug, 1/4" -10XX series pumps only	2	92650-0070		
10	Body, Sub Ass'y (6400)	1	18753-0585		
	Body, Sub Ass'y (7420)	1	7424-0000		
11	Slinger (6400-Series only)	1	3181-0000		
12	Bearing Seal (inner)	1	817-0000		
13	Ball Bearing	1	92600-0040		
14	Retaining Ring (Brg. to Body)	1	18712-0000		
15	Retaining Ring (Brg. to Shaft)	1	18711-0000		
16	Bearing Seal** (outer)	1	818-0000		
17	*Seal Assembly **	1	6407-0010		
18	Shaft, Std. Length - 316 Stainless Steel	1	824-0020		
	Short - S.S. for Caterpillar Pumps	1	824-2001		
	6400-1051 & 7420-1001				
19	Key 1/4" x 1/4" x 1-1/2"	1	9214-0000		
	Key 1" for -10XX series pumps only		9214-0001		
	Service Kit Neoprene Imp.		90062-0001		
	Service Kit Nitrile Imp.		90062-0003		

^{*} Parts Included in Service Kit

^{**} When replacing shaft seal, the outer bearing seal is generally distorted during disassembly requiring replacement and is not included in the service kit.

Head Canacity Table

Cap	acit	y Ta	able											
	TOTAL HD.		500 F	RPM	1160	RPM	1450 RPM		1750 RPM		2100 RPM		2450 RPM	
	P.S.I.	Ft. of	GPM	НР	GPM	HP	GPM	HP	GPM	НР	GPM	HP	GPM	НР
	(kg/sq	l	ŀ		\ \ \									
		<u> </u>	-		(L/min)		(L/min)		(L/min)		(L/min)		(L/min)	
.		1	1	1/2		1		1½	62	1½	72	3	74	3
				-										
er	I.	•		1/2		1	1	1½	I .	1½	1	3		3
	17.3	40	14	1/2	37	11%	46	11/4	55	-	66	2	71	3
PSS	(1,2)	(12,2)	(53,0)	/2	(140,1)	1/2	(174,1)		(208,2)		(249,8)	3	(268,7)	, s
033				—		11/2		2		2		3	67	5
					(121,1)					000000000000000000000000000000000000000		***********		
	(2,4)	(24.4)				_	(132,5)	2	(166,5)	2	(196.8)	3		5
		L HD.	500 RPM 1160		1160	RPM	1450 RPM		1750	RPM	2100	0 RPM 2450		RPM
	P.S.I.	Ft. of	GPM	HP	GPM	НР	GPM	HP	GPM	HP	GPM	НР	G₽M	нР
	(kg/sq	l												
rd	cm)	(metre)	(L/min)		(L/min)		(L/min)		(L/min)		(L/min)		(L/min)	
е	4.3	10	11	1/2	26	3/4	31	11/2	37	1½	46	1%	56	2
er											(174,1)		(212,0)	
				1/2		1		1½		11/2		2	1987-00-00-00-00-00-00-00-00-00-00-00-00-00	3
ess										ļ				
	(1,2)	(12,2)		1/2	1	1		11/2	_	1½		2	L0000000000000000000000000000000000000	3
	26.0	60			12	11/6	15	11/4	21	11/	31			3
	(1,8)	(18,3)		L	(45,4)	172	(56,8)	1 / 2	(79,5)	1 72	(117,3)	3	(140,1)	•
		L HD.	500 RPM		1160 RPM 1450 R		RPM 17	1750	RPM					
		Ft. of	GPM	HP	GPM	HP	GPM	HP	GPM	HP				
	(kg/sq	Water												
	cm)		(L/min)		(L/min)		(L/min)		(L/min)					
	8.7	20	14 3/4		38	11/2	50	2	62	9				
									(234,7)		Engineering assistance shaded area. High sta required. Pump startin			
r				3/4		1½		3	100000000000000000000000000000000000000	3				
ess	(2,4)	(24,4)	(30,3)	7	ı	2	l l	3	(0.000000000000000000000000000000000000	5				
	47.8	110			28	2	36	3	47	5				
	rd e ess ess ess	TOTA P.S.I. (kg/sq cm) 4.3 (0,3) e 8.7 (0,6) 17.3 (1,2) 26.0 (1,8) 34.6 (2,4) TOTA P.S.I. (kg/sq cm) 8.7 (0,6) 17.3 (1,2) 26.0 (1,8) 8.7 (0,6) 17.3 (1,2) 26.0 (1,8) TOTA P.S.I. (kg/sq cm) 8.7 (0,6) 17.3 (1,2) 26.0 (1,8) TOTA P.S.I. (kg/sq cm) 8.7 (0,6) 21.6 (1,5) 34.6 (2,4) 47.8	TOTAL HD. P.S.I. Ft. of Water (metre) 4.3 10 (0,3) (3,0) e 8.7 20 (0,6) (6,1) 17.3 40 (1,2) (12,2) 26.0 60 (1,8) (18,3) 34.6 30 (2,4) (24,4) TOTAL HD. P.S.I. Ft. of (kg/sq cm) (metre) 4.3 10 (0,6) (6,1) 17.3 40 (1,2) (12,2) 26.0 60 (1,8) (18,3) 37 20 (0,6) (6,1) 17.3 40 (1,2) (12,2) 26.0 60 (1,8) (18,3) TOTAL HD. P.S.I. Ft. of (kg/sq cm) (12,2) 26.0 60 (1,8) (18,3) TOTAL HD. P.S.I. Ft. of (kg/sq cm) 8.7 20 (0,6) (6,1) 17.3 40 (1,2) (12,2) 26.0 60 (1,8) (18,3) TOTAL HD. P.S.I. Ft. of (kg/sq cm) 8.7 20 (0,6) (6,1) 21.6 50 (1,5) (15,2) 34.6 80 (2,4) (24,4) 47.8 110	P.S.I. Ft. of (kg/sq (metre)) (L/min) 4.3 10 18 (0.3) (3.0) (68.1) e 8.7 20 17 (0.6) (6.1) (64.4) (1.2) (12.2) (53.0) ess (2.4) (24.4) (3.0) (3.0) (41.6) 8.7 20 9.5 (0.6) (6.1) (36.0) ess (1.2) (12.2) (20.8) (26.0 60 (1.8) (1.8	TOTAL HD. 500 RPM P.S.I. Ft. of Water (metre) (L/min) 4.3 10 18 (0,3) (3,0) (68,1) 2 8.7 20 17 ½ (0,6) (6,1) (64,4) 17.3 40 14 (1,2) (12,2) (53,0) 2 TOTAL HD. 500 RPM P.S.I. Ft. of GPM HP (kg/sq cm) (18,3)	TOTAL HD. 500 RPM HP GPM (L/min)	TOTAL HD. 500 RPM HP GPM HP (L/min) (L/min) (155,2) 1 8.7 20 17 1/2 (10,6) (6,1) (64,4) (155,2) 1 17.3 40 14 1/2 37 (140,1) 1 17.3 40 14 1/2 37 (121,1) 1 34.6 80	TOTAL HD. 500 RPM HP GPM HP GPM (kg/sq (metre) (L/min) (L/min) (L/min) (L/min) 4.3 10 18 ½ 41 1 51 (193,0) 8.7 20 17 ½ 40 1 50 (189,3) 17.3 40 14 ½ 37 1½ 46 (174,1) 26.0 60 34 (18,3) 346 80 32 (132,3) TOTAL HD. 500 RPM HP GPM HP GPM (kg/sq cm) (1,2) (12,2) (53,0) TOTAL HD. 500 RPM HP GPM HP GPM (kg/sq cm) (metre) (L/min) (L/min) (L/min) 8.7 20 9.5 ½ 24 1 29 (10,8) (117,3) 8.7 20 9.5 ½ 24 1 29 (10,8) (117,3) 8.7 20 9.5 ½ 24 1 29 (10,8) (117,3) 8.7 20 9.5 ½ 24 1 29 (10,8) (117,3) 8.7 20 9.5 ½ 24 1 29 (10,8) (117,3) 8.7 20 9.5 ½ 24 1 29 (10,8) (117,3) 8.7 20 9.5 ½ 19 1 23 (10,8) (11,8) (18,3) (18,3) (18,3) (18,3) (18,3) (18,3) (19,8) (11,3) (15,8	TOTAL HD. 500 RPM	TOTAL HD. 500 RPM	TOTAL HD.	TOTAL HD. 500 RPM 1160 RPM 1450 RPM 1750 RPM 2100 PPM	TOTAL HD. 500 RPM 1160 RPM 1450 RPM 1750 RPM 2100 RPM PS.I. Ft. of GPM Water (metre) (L/min) (TOTAL HD. 500 RPM 1160 RPM 1450 RPM 1750 RPM 2100 RPM 2450 RPM 1450 RPM 1460 RPM 1450 RPM

s approximate head-flow S. gallons per minute and ogressively longer life operating pressures uced. Factory Application nce is recommended for starting torque motors are rting torque in dry condition dy) is 134 inch-pounds and in wet condition (fluid in pump body) is 105 inch-pounds.

Dimensional Drawings † Inches (millimetres)

(106,0)

20

(75.7)

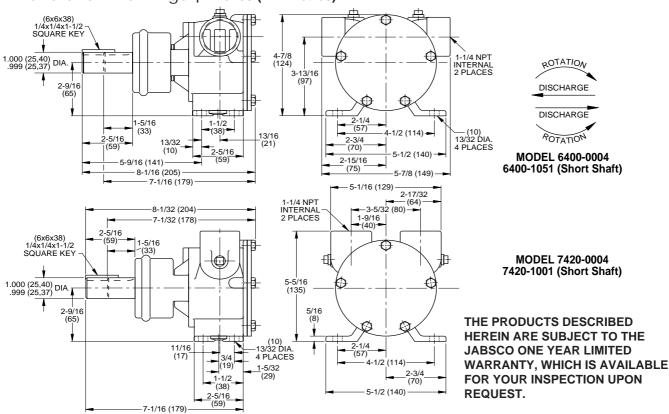
(3,4)

60.5 (4.3)

(33,5)

140

(42,7)



3

5

(177,9)

38

(143.8)

(136,3)

28

(106.0)