

Model 17360-1001

MARINE ENGINE COOLING FEATURES

- Pump Body:** Bronze
Impeller: Jabsco Neoprene Compound
Cam: Wear Resistant Polyurethane Cam/Liner
Wearplates: 316 Stainless Steel
Shaft: 316 Stainless Steel
Seal: Mechanical Face Seal
Ports: 2-1/2" Flange Type
Weight: Shipping Weight 28 lb.



Model 17360-1001

APPLICATION

Marine engine cooling for engine models:

- Caterpillar D-343
- Detroit Diesel V-71 and V-92
- Some Stewart and Stevenson Marinizations of Detroit Diesel Engines

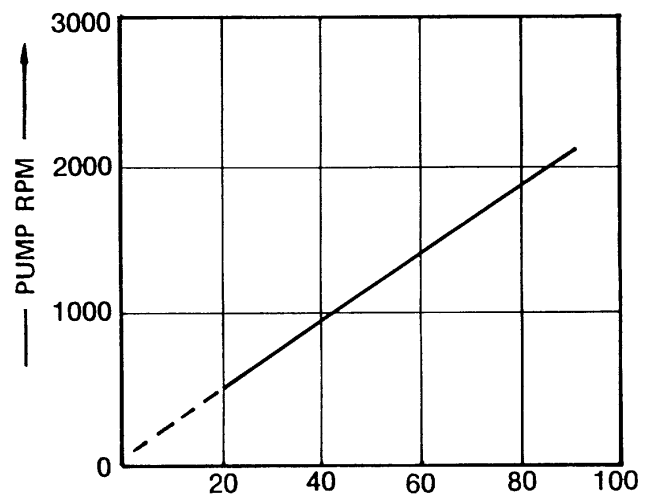
INSTALLATION

Position flange gasket on bearing housing of pump. Align drive gear with pump drive coupling. Slide pump assembly into position and secure to adaptor flange with six (6) 3/8-16 x 1" SS bolts, flat washers and lock washers. Position port adaptors on pump to determine if minor plumbing modification is required for proper hose alignment. When proper plumbing alignment is achieved, position port adaptor gaskets and secure port adaptors with eight (8) 3/8-16x3/4" bolts and lock washers. Secure hoses to port adaptors using two (2) hose clamps on each connection.

OPERATION

- Pump will self-prime at low or high speeds. BE SURE SUCTION LINES ARE AIRTIGHT OR PUMP WILL NOT SELF-PRIME. Intake vacuum should not exceed seven (7) inches of mercury (178mm Hg).
- Discharge pressure should not exceed twenty (20) p.s.i. (138 kPa). Excess discharge pressure may cause impeller damage. Typical pressure 12 – 15 p.s.i.
- Impeller depends on liquid pumped for lubrication. DO NOT RUN DRY for more than thirty (30) seconds. Lack of liquid will burn the impeller.
- Winterize pump by loosening end cover screws to drain water.

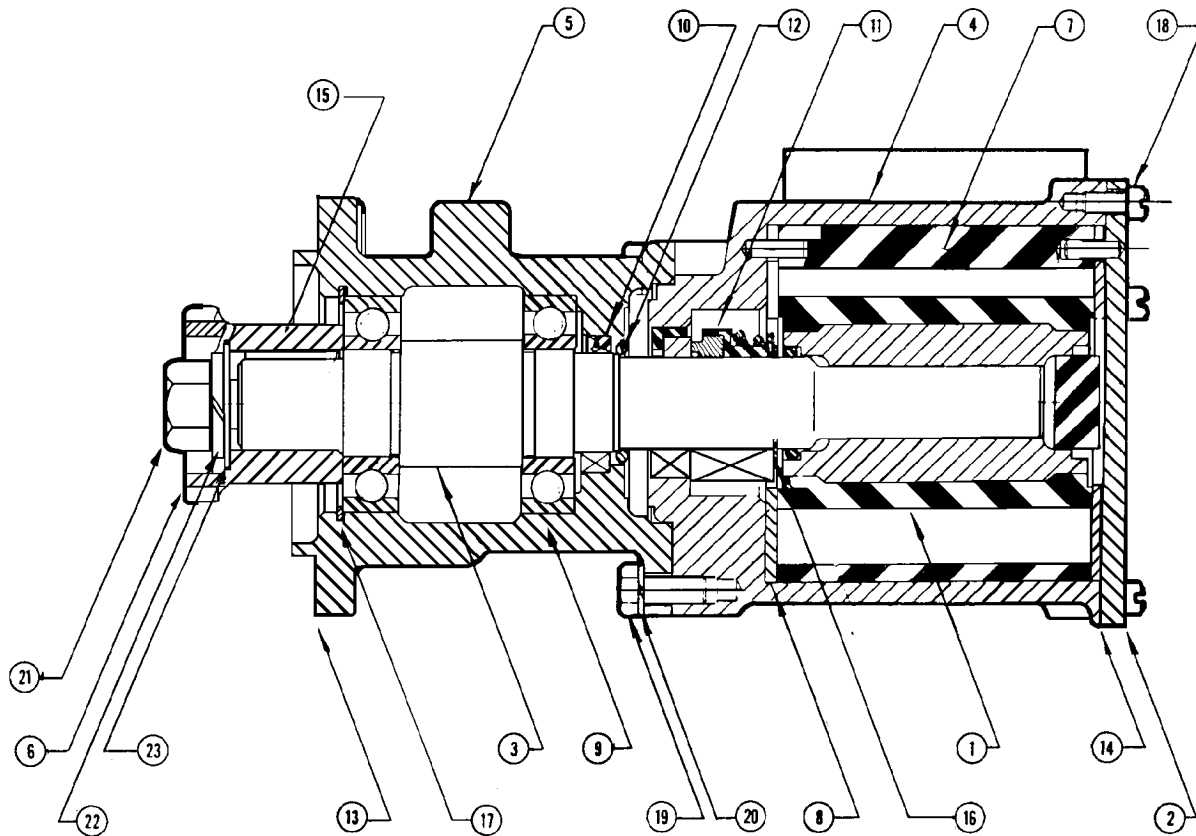
PUMP FLOW CHART



FLOW IN U.S. GPM

Typical flow in average engine cooling application*

* Average engine cooling applications have discharge pressures of 10 -15 PSI and intake vacuum of 3 – 5 inches of mercury.



KEY	PART NUMBER	DESCRIPTION	QTY REQ.
1*	17370-0001	Impeller	1
2	17378-1000	End Cover	1
3	17366-1000	Shaft	1
4		Body	1
5		Bearing Housing	1
6		Drive Gear	1
7	17374-1000	Cam Liner	1
8	17372-1000	Wearplate, 616 SS	2
9	18752-0000	Ball Bearing	2
10	92701-0180	Seal, Oil	1
11*	96080-0371	Seal, Water	1
12*	18754-1004	O-Ring	2
13	4009-1000	Gasket, Adaptor Flange	1
14*	17365-1000	Gasket, End Cover	1
15	91402-0230	Woodruf Key	1
16	18721-0000	Retaining Ring, Seal	1
17	18725-0000	Retaining Ring, Bearing	1
18	91005-0040	Screw, End Cover 1/4 – 20 x 1/2	6
19	See "A" Kit	Screw, 5/16 x 1/2	4
20	See "A" Kit	Lock Washer, 5/16	4
21	See "B" Kit	Hex Nut, 5/8 – 18	1
22	See "B" Kit	Lock Washer, 5/8	1
23	See "B" Kit	Retaining Washer	1
A-Kit	17369-0001	Screw Kit, Housing to Body	
B-Kit	17369-0003	Nut Kit, Drive Gear	
	17369-0002	Mounting Hardware Kit (not illustrated)	
	90190-0001	Service Kit	

MINOR SERVICE-DISASSEMBLY

1. Remove end cover screws (Key 18), end cover (Key 2), gasket (Key 14) and outer wearplate.
2. Grasp hub of impeller (Key 1) with pliers and remove from impeller bore. If impeller O-ring remains on shaft, remove it from shaft.
3. Remove cam/liner (Key 7) from pump body.
4. Remove inner wearplate (Key 8)
5. Remove seal retaining ring (Key 16) taking care not to scratch shaft. Remove carbon portion of seal with tensioning spring attached.
6. Remove bolts securing port adaptors to ports. Remove four (4) 5/16" bolts and lock washers (Keys 19 and 20) holding pump body to bearing housing.
7. Remove pump body (Key 4) from bearing housing and shaft sub-assembly. Remove any remaining gasket material from port adaptors.
8. Remove slinger O-ring (Key 12) from shaft.
9. From drive end of pump body press out remaining portions of seal.
10. Clean and inspect all parts for wear. If wear plates are worn, they should be reversed or replaced. If cam/liner thickness is 3/8" or less at its thickest section it should be replaced.

ASSEMBLY

1. Install slinger O-ring on shaft near bearing housing.
2. IT IS EXTREMELY IMPORTANT THAT SEAL COMPONENTS DO NOT BECOME SOILED DURING ASSEMBLY. Lubricate ceramic seal seat boot with WATER ONLY and press into seal bore of pump body. Exposed ceramic surface should face toward impeller bore.
3. Slide pump body (with seal seat installed) over shaft, taking care not to dislodge seal seat as body is moved toward (and aligned with) bearing housing. Attach pump body to bearing housing with four (4) 5/16" bolts and lock washers.
4. Install carbon portion of seal with tensioning spring and spring washer over shaft and locate in seal bore with carbon face against ceramic seal seat. Slide seal retaining ring over shaft against seal thrust ring and locate in retaining ring groove.
5. Install inner wearplate in pump body aligning notch in wearplate with pin in body.
6. Lubricate body with film of water pump grease and aligning hole in top of cam/liner with pin in pump body. Push into body until it is recessed about 1/8" from end cover surface.
7. Liberally grease the inside of cam/liner with water pump grease.
8. Install impeller O-ring groove in impeller insert. Inserting end of impeller with O-ring first, rotate impeller in direction of pump rotation to bend blades under cam and push into bore until impeller insert flats align with shaft flats. Then push impeller all the way into impeller bore. End of impeller should be

approximately even with cam/liner. Install rubber spline plug into end of impeller.

9. Install outer wearplate insuring that notch in wearplate aligns with hole in top of cam/liner.
10. Place end cover gasket over pin in end cover. Install end cover aligning pin with hole in cam/liner.

MAJOR SERVICE-DISASSEMBLY

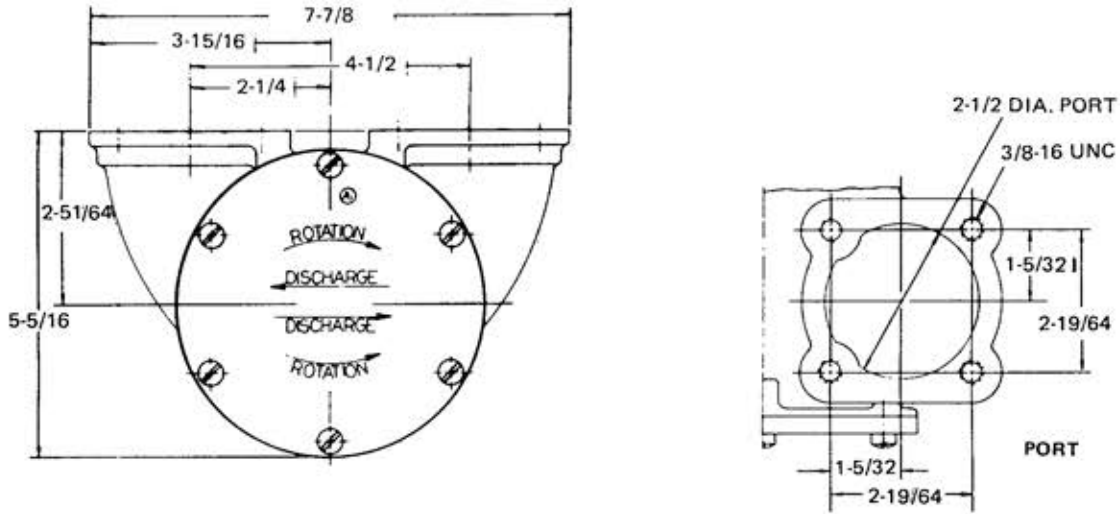
1. Follow Disassembly Steps 1 through 10 of Minor Service Instructions.*
2. Remove bearing housing (Key 5) and shaft sub-assembly from adaptor flange.
3. Prevent shaft from rotating by holding it with a wrench on shaft flats at impeller end. Remove drive gear retaining nut, lock washer and retaining flat washer (Keys 21, 22 and 23).
4. Remove drive gear (Key 6) from shaft. A punch and small mallet may be used to gently tap underside of drive gear teeth to loosen from shaft. Remove Woodruff key (Key 15).
5. Remove retaining ring (Key 17) securing bearing in bearing housing.
6. Press against impeller end of shaft to remove shaft and bearing sub-assembly from bearing housing.
7. Support inner race of bearing and press shaft out of bearing. Repeat procedure on second bearing.
8. From pump end of bearing housing push oil seal (Key 10) out of bearing housing.
9. Clean and inspect all parts for wear and replace as needed. Clean any remaining gasket material from face of adaptor flange on PTO.

ASSEMBLY

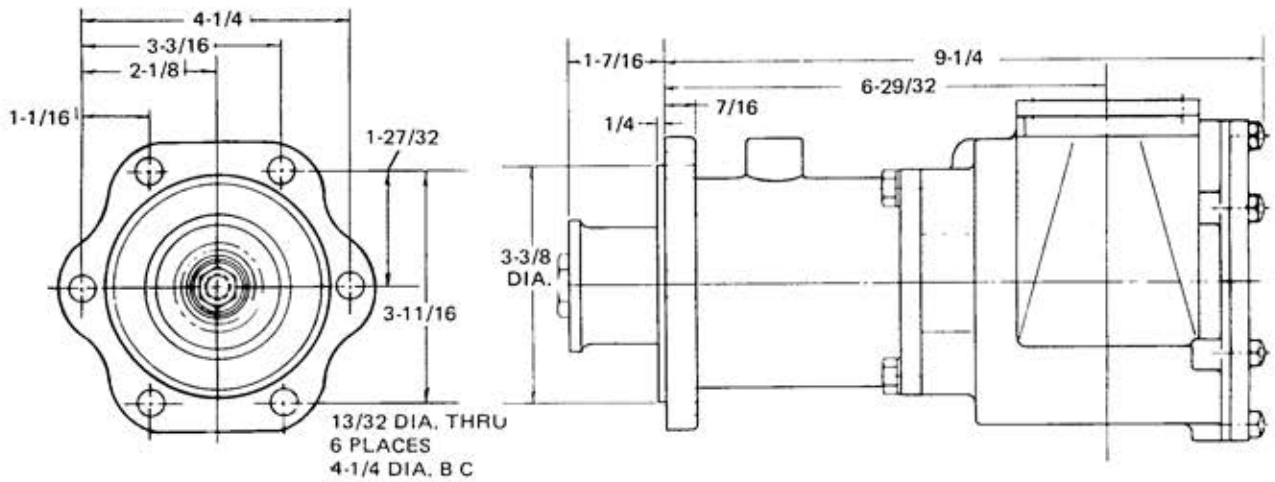
1. From drive end of bearing housing push oil seal into seal bore with lip pointing toward drive end of housing. A light coat of oil may be used to ease installation.
2. Pushing on inner race of bearing, press bearings onto shaft.
3. Pushing on outer race of bearing, install bearing and shaft sub-assembly into bearing housing.
4. Install bearing retaining ring in bearing housing, insuring it is securely seated in retaining ring groove.
5. Install Woodruff key. Install drive gear by gently tapping it on to shaft with a small mallet.
6. Install flat washer, lock washer and retaining nut. Prevent shaft from rotation by holding it with a wrench on shaft flats at impeller end and tighten retaining nut.
7. Follow Assembly Steps 1 through 10 or Minor Service Instructions.
8. Install new adaptor flanges gasket and secure pump assembly to adaptor flange on PTO with six (6) 3/8" bolts, flat washers and lock washers.
9. Install new port adaptor gaskets and secure port adaptors to pump body.

For ease of service, port adaptor may be loosened and bearing housing/pump assembly removed from adaptor flange prior to pump disassembling.

DIMENSIONAL DRAWING
INCHES (MILLIMETERS)



PUMP TO ADAPTOR



Jabsco



THE PRODUCTS DESCRIBED HEREIN ARE SUBJECT TO THE JABSCO ONE YEAR LIMITED WARRANTY, WHICH IS AVAILABLE FOR YOUR INSPECTION UPON REQUEST.

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