

SHERWOOD®

The Original Engine Cooling Pump Since 1921

www.sherwoodpumps.com



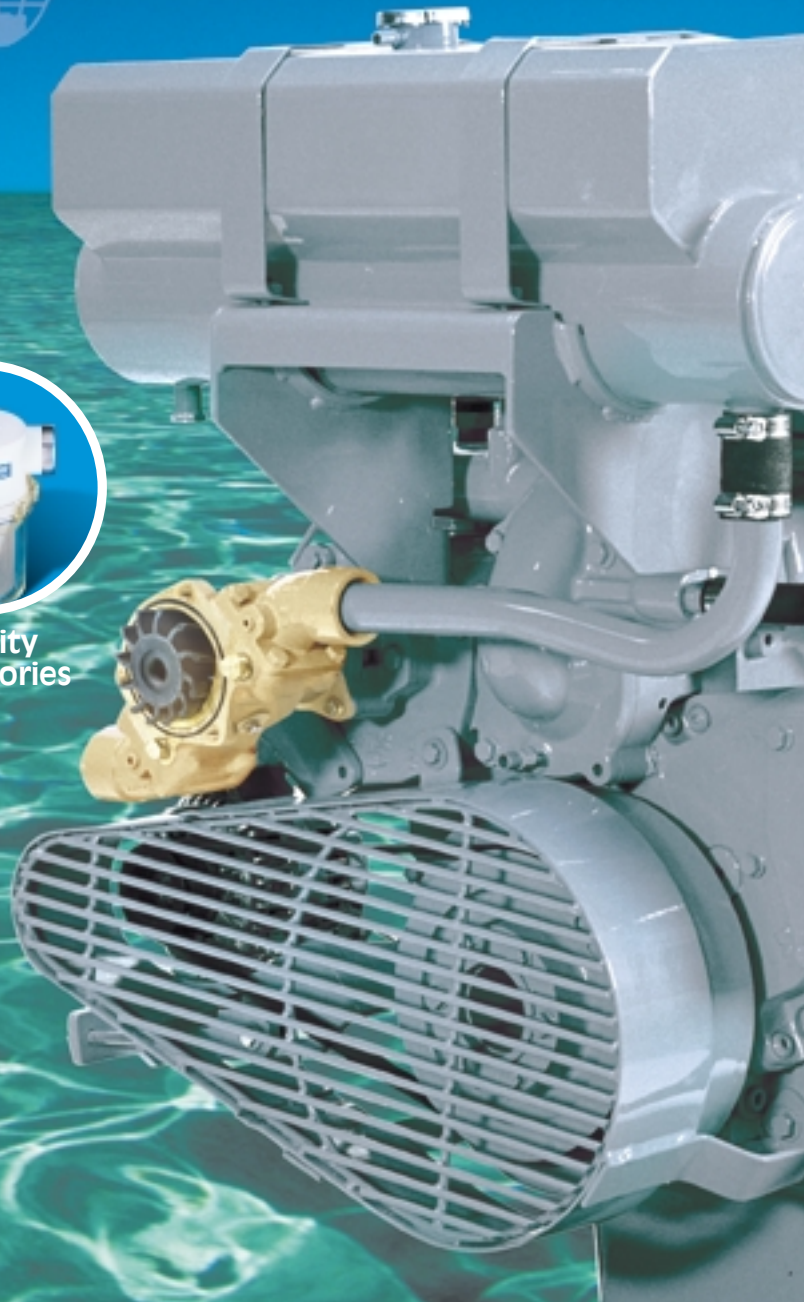
OEM
Specified Pumps



Genuine
Replacement Parts



Quality
Accessories



The Original Engine Cooling Pump Since 1921

Due to Sherwood's manufacturing expertise in brass products, Marine Engine Coolant Pumps were sought out in 1920 as a growth industry in which to apply these skills. This commitment in the marine field was further cultivated during the Second World War when Sherwood became a prime supplier of Marine Engine Coolant Pumps for the United States Navy. During this period, Sherwood supplied a coolant pump for the following marine engine manufacturers: Buda, Caterpillar, Chris Craft, Cummins, Gray, Hercules and Packard. With the advance of pleasure and commercial boating in the Postwar Era, attention was turned to accommodating the expanding requirements of this growing market. Sherwood has developed a history of "Quality Pump Design and Manufacturing" expertise. This reputation and prominence in the marine industry becomes part of every marine engine on which a Sherwood pump is installed.

Today's advances in marine engine design create new challenges for pumps: limited space, higher speeds and greater rates of liquid cooling. Sherwood continues to keep pace with these increasing demands as the number one manufacture of propulsion and genset cooling pumps for both gasoline and diesel marine engines. Sherwood designs are sometimes copied, but the quality and reliability is never duplicated.

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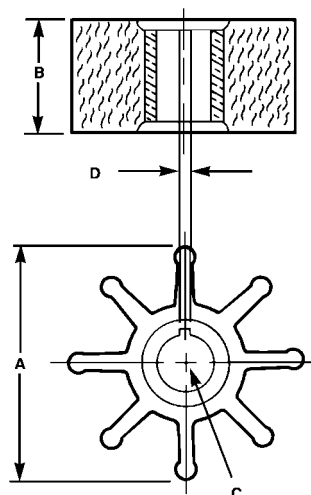
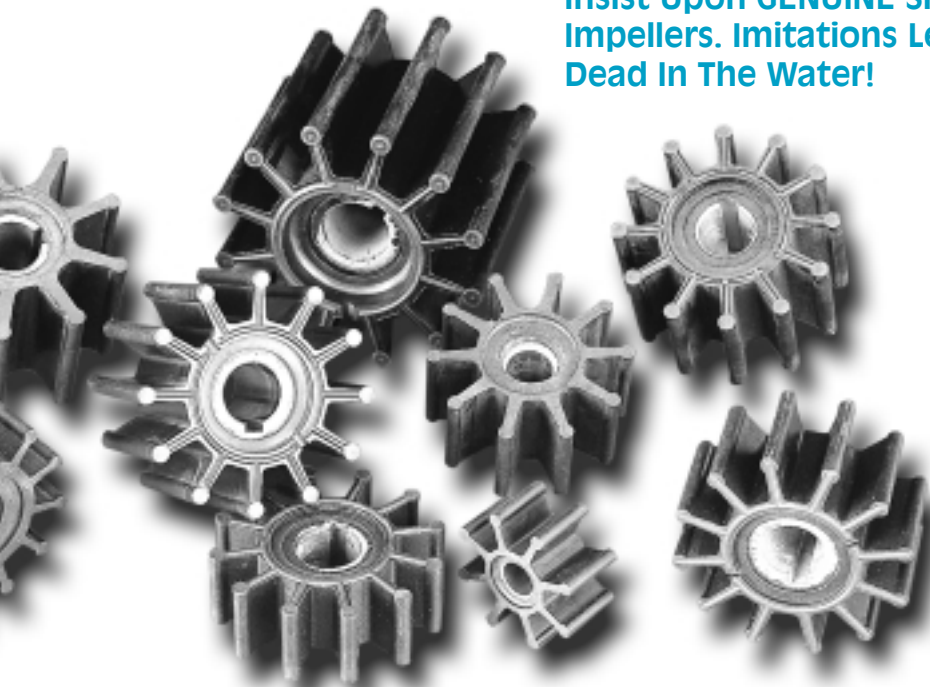
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Genuine Sherwood Impellers

To Maintain Engine Performance,
Insist Upon GENUINE Sherwood
Impellers. Imitations Leave You
Dead In The Water!



Now Available in
New P.O.P Packaging



Part No.	Diameter A		Width B		Shaft Diameter C	Keyway D	Number Vanes	Material
08000K	1-9/16"	39.7 mm	3/4"	19.0 mm	7/16"	D-Slot	6	Neoprene
09979	1-3/4"	39.7 mm	3/4"	19.0 mm	3/8"	Pinned	8	Neoprene
10077K	2-1/4"	57.1 mm	25/32"	19.8 mm	1/2"	3/32"	12	Neoprene
12336	2-1/4"	57.1 mm	25/32"	19.8 mm	1/2"	3/32"	12	Nitrile
09000K	2-7/16"	61.9 mm	7/8"	22.2 mm	5/8"	3/16"	12	Neoprene
09959K	2-7/16"	61.9 mm	1-1/4"	31.7 mm	5/8"	3/16"	12	Neoprene
12337	2-7/16"	61.9 mm	1-1/4"	31.7 mm	5/8"	3/16"	12	Nitrile
10615K	2-9/16"	65.0 mm	1-5/8"	41.2 mm	5/8"	3/16"	12	Neoprene
15000K	2-9/16"	65.0 mm	2"	50.8 mm	5/8"	3/16"	12	Neoprene
18200	2-9/16"	65.0 mm	2"	50.8 mm	5/8"	Spline	12	Neoprene
19000	2-9/16"	65.0 mm	2"	50.8 mm	3/4"	Special*	12	Neoprene
10187	2-19/32"	65.8 mm	1-31/32"	35.7 mm	5/8"	3/16"	9	Neoprene
12338	2-19/32"	65.8 mm	1-31/32"	35.7 mm	5/8"	3/16"	9	Nitrile
17000K	3-1/4"	82.5 mm	2-7/8"	73.0 mm	20 mm	3/16"	12	Neoprene
18000K	3-5/8"	92.0 mm	4"	101.5 mm	15/16"	Spline	12	Neoprene
22000K	4-1/2"	114.3 mm	4-5/16"	109.5 mm	15/16"	Spline	10	Neoprene

* Same as Mercruiser

K = Kit and includes: Impeller, Gasket and O-ring. 18000K and 22000K do not include P.O.P. packaging.

• Neoprene™ Maximum Temperature: 130°F

316 Stainless Steel Aqua-Tiger Series

AC/DC Centrifugal Pumps

NEW!

Aqua-Tiger SS[®]



Cover, Body and Impeller: 316 Stainless Steel
Mechanical Seal: 316 Stainless Steel, Viton Elastomer
Port Size: 3/4" NPT, Internal
Weight: 5 lbs.
Motor: 316 Stainless Steel Shaft, permanent magnet (DC), fully enclosed and low amp draw
Models: AT12SS - 12 Volt DC
 AT24SS - 24 Volt DC
 AT36SS - 36 Volt DC

- All wetted components 316 SS construction
- Standard Viton mechanical seal for longevity
- Compact in size for portability
- Typical applications include use in bait tanks, wash downs, air scrubbers, general purpose filling of emptying, diesel transfer (not gasoline) and chemical transfer
- Discharge ports can be rotated 90° increments for ease in mounting

Performance Data

Model #	GPM @ 0 ft.	GPM @ 5 ft.	GPM @ 10 ft.	GPM @ 15 ft.	GPM @ 20 ft.	Max. Shut-Off Head
ATXXSS	22	19	16	11	5	22 ft.

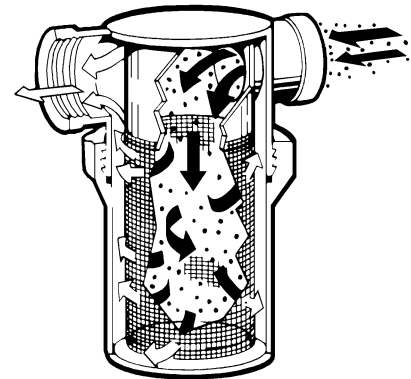
Seawater Strainer and Bracket

- Full Flow Filtering with Ultra Low Pressure Differential
- Easy In-Line Cleaning
- Durable Non-Corrosive Construction
- Quick Clear Bowl Examination
- Lightweight with Optional Mounting Bracket
- Stainless Steel Screens



Strainer Description

Strainer Number	Port Size	Screen Mesh	Bracket No.
15935	1/2"	20 Mesh	N/A
18004	1/2"	50 Mesh	N/A
18001	3/4"	20 Mesh	14240
18005	1"	20 Mesh	14239
18016	1-1/4"	20 Mesh	14238
18029	1-1/2"	20 Mesh	21930



Strainer Components

Strainer Number	Screen No.	O-ring No.	Bowl No.
15935	11810	11805	14379
18004	11811	11805	14379
18001	11810	11805	14379
18005	11807	11803	14380
18016	14214	11803	14380
18029	16126	11803	14380



General Purpose Pumps

Flexible Rubber Impeller Pump

- Self Priming to 20 Feet.
- Ideal for Water or Petroleum Based Fluids.
- Handles Abrasives & Particles in Suspension.
- 1/8" Pipe Taps for Vacuum Switch or Pressure Gauge.
- Corrosion Resistant Bronze Constructed Body.
- Nitrile Impeller and Lip Seal - Standard.
- Stainless Steel Shaft, Cover and Wear Plate.
- ODP 115/230 Voltage 56C Motors - Standard.
- Convenient Handle for Easy Portability (removal for permanent installations)



Model No.	Port Size NPT	GPM @ HP	GPM @ RPM	GPM Free Flow	GPM @ 5 PSI	GPM @ 10 PSI	GPM @ 20 PSI	GPM @ 25 PSI	Impeller/ Shaft Kits	Major Kit*
MRB9001	1/2"	1/3	1725	7.4	7.1	6.6	5.9	5.2	23174	23175
MRB9002	1/2"	1/2	3450	12.1	11.7	10.5	9.2	7.9	23174	23175
MRB9901	3/4"	1/2	1725	11.6	11.2	10.2	9.0	7.1	23176	23177
MRB9902	3/4"	3/4	3450	19.4	18.8	17.9	17.0	15.9	23176	23177
MRB15001	1"	3/4	1725	21.2	20.4	19.0	17.5	15.9	23172	23173
MRB15002	1"	1	3450	37.5	36.7	34.6	32.1	28.9	23172	23173

* Major Kits above include Impeller Shaft Assy., Lip Seal, Wear Plates, O-rings, Key, O-rings, Retaining Ring, Cam, Cam Screw Washer



Vac-On Switch

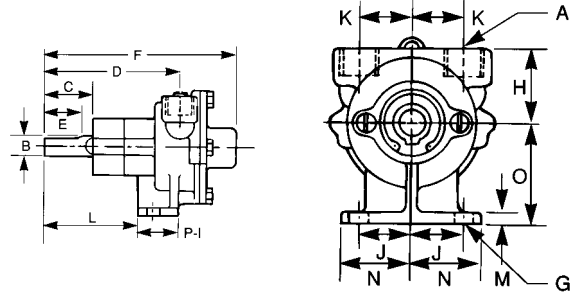
- Dry Run Protection – Automatic Shut Off of Electric Motor on Loss of Suction
- Connection: 1/4" F-NPT
- Can be Used with Either AC or DC Motors (See Ratings Below)**

Part No.	Description	Vacuum Req.	Elastomer	Construction
13217	Vac-On Switch	2-1/2" Mercury	Neoprene	Plated Steel (Yellow Zinc Dichromate)
21971	Vac-On Switch	1-1/2" Mercury	Buna-N	300 Series SS Wetted Components
18204	Vac-On Switch Ass'y (includes 13217 switch, wire, close brass nipple, Sta-Kon forked terminals)	2-1/2" Mercury	Neoprene	Plated Steel (Yellow Zinc Dichromate)

**DC (32-115-230V): up to 1/2 hp. Single or 3 phase at 110V: up to 2 hp. Single or 3 phase at 220V: up to 3 hp.

Engine Cooling Pumps

- Heavy Duty Design for Pulley Drive or Long Couple
- Mechanical Seal for Extended Seal Life
- Rear Support Bushing for Load Absorption
- Ball Bearing Supported Drive Shaft
- Corrosion Resistant Bronze Constructed
- Neoprene Impeller and Buna Seal - Standard
- Stainless Steel Shaft



Model No.	Impeller	Port Size	Dimensions (Inches)														
			B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
R30G	10077	1/2" NPT	.50	1.50	3.56	1.0	5.28	.34	1.47	.75	1.06	1.12	3.09	.25	1.44	1.38	.44
R50G	09959	3/4" NPT	.63	1.50	4.06	1.0	5.28	.41	1.63	.75	1.12	1.25	3.34	.25	1.50	2.12	.50
R102	10615	1" NPT	.63	1.50	4.53	1.0	6.66	.41	2.12	.88	1.38	1.50	3.97	.25	1.81	2.12	.56

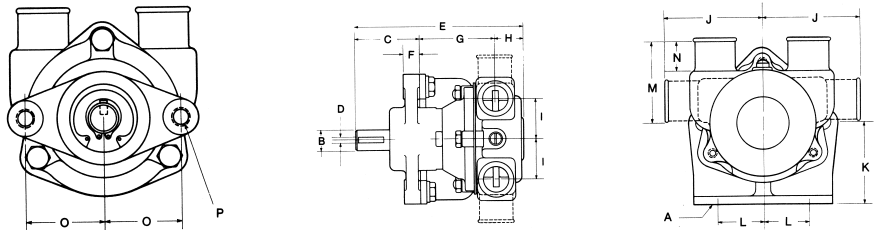
- Recommended Horsepower: R30G - 1/2, R50G - 3/4, R102 - 2.
See Impeller Flow Curves on Page 12 for Performance.

G Series Flexible Impeller Pumps

- Mechanical Seal
- Bronze Housing
- Stainless Steel Shaft
- Sealed Ball Bearing
- Excellent for Engine Cooling, Either as Replacement for Obsolete Pump or New Installation



Horizontal Porting G1, G3, & G9 Vertical Porting G2, G4, & G11



Model No.	Impeller	Port Size	Dimensions (Inches)															
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
G-1	09959	1" Hose	13/32	5/8	2-1/64	3/16	5-1/4	1/2	2-25/64	27/32	1-1/4	2-5/8	2-1/8	1-3/8	-	7/8	1-5/8	3/8
G-2	09959	1" Hose	13/32	5/8	2-1/64	3/16	5-1/4	1/2	2-25/64	27/32	1-1/4	-	2-1/8	1-3/8	2-1/4	7/8	1-5/8	3/8
G-3	10615	1-1/4" Hose	13/32	5/8	2-1/64	3/16	5-5/8	1/2	2-37/64	1-1/32	1-1/2	2-5/8	2-1/8	1-3/8	-	7/8	1-5/8	3/8
G-4	10615	1-1/4" Hose	13/32	5/8	2-1/64	3/16	5-5/8	1/2	2-37/64	1-1/32	1-1/2	-	2-1/8	1-3/8	2-5/16	7/8	1-5/8	3/8
G-8	10615	1-1/4" Hose	13/32	5/8	2-1/64	3/16	-	1/2	-	-	1-1/2	-	2-1/8	1-3/8	-	7/8	1-5/8	3/8
G-9	15000	1-1/2" Hose	13/32	5/8	2-1/64	3/16	5-5/8	1/2	2-37/64	1-1/32	1-1/2	2-5/8	2-1/8	1-3/8	-	7/8	1-5/8	3/8
G-11	09000	1/2" NPT	13/32	5/8	2-1/64	3/16	5-1/4	1/2	2-25/64	27/32	1-1/4	-	2-1/8	1-3/8	2-1/4	7/8	1-5/8	3/8

- See Impeller Flow Curves on Page 12 for Performance

Engine Specified Pumps

Manufacturer's Original Equipment

Caterpillar 3208

Model P176
(See page 14 & 28)



Caterpillar 3116-3126

Model P1710, P1726
(See page 14 & 28)



Chris Craft 350 & 454

Model G30-2, G30-2B, G45-1
(See page 14 & 24)



Chris Craft 283

Model N10360GX
(See page 14)



Chrysler 318-340

Model G5, G7, G7B, G50
(See page 16 & 24)



Chrysler M225-M440

Model D-55, D-60, D-70, D75
(See page 16)



Commander 302, 351

Model J70, L80
(See page 16 & 24)



Now Available
From Sherwood

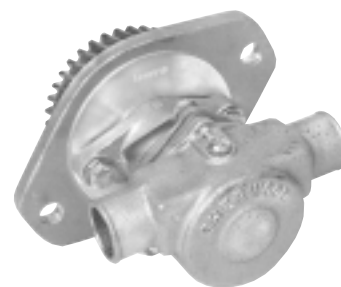
Crusader

Model E35
(See page 16 & 26)



Cummins/Onan

Model M71
(See page 18 & 24)



The #1 Reason for Premature Engine Wear Is **Overheating**. To Maintain Performance, Insist Upon **Original** Engine Specified Sherwood Pumps.

Engine Specified Pumps *Manufacturer's Original Equipment*

Cummins 4B

Model GC5, GC4, GC1
(See page 18 & 24)



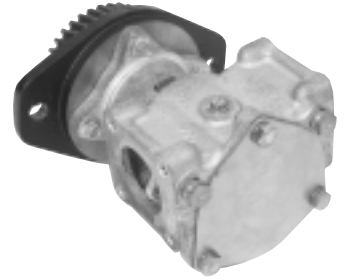
Cummins 6B & C

Model P1716, P1722, P173
(See page 18 & 28)



Cummins 6B & C

Model P1730, P1727
(See page 18 & 28)



John Deere

Model P1711, P1719
(See page 16 & 28)



Kohler Diesel

Model G907P
(See page 18)



Kohler Gasoline 3.5-6.5

Model G906, G907
(See page 18)



Kohler Gasoline 8-12.5

Model G907P
(See page 18)



MerCruiser Diesel

Model G155
(See page 22 & 24)



OMC/Volvo 4.3-8.2

Model G9901
(See page 20 & 24)



The #1 Reason for Premature Engine Wear Is **Overheating**. To Maintain...

Engine Specified Pumps

Manufacturer's Original Equipment

Onan MDL

Model K75B, L10B
(See page 20 & 24)



Perkins

Model G65
(See page 20)



Perkins

Model RP-B-C
(See page 20)



Perkins

Model H5
(See page 20)



Pleasurecraft Ford

Model G20, G21
(See page 22 & 24)



Pleasurecraft GM 5.7

Model P105
(See page 22)



Star Power & Marine Power

Model G151, G157
(See page 20, 22 & 24)



Volvo/OMC 3.0-8.2

Model G9903
(See page 22 & 24)



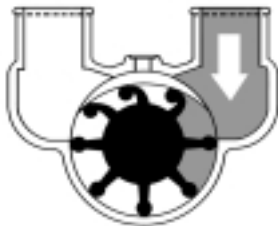
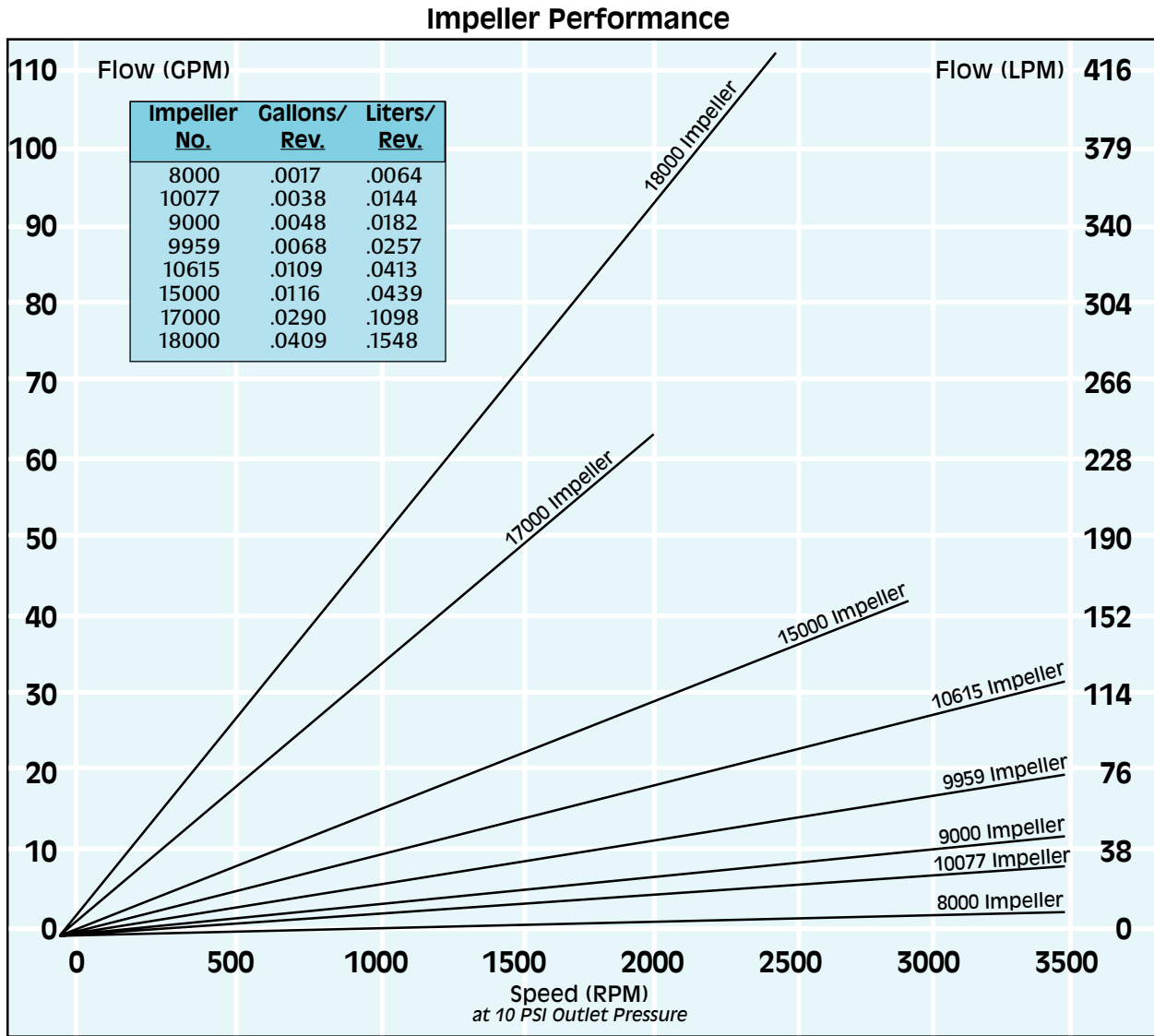
Yamaha

Model R991
(See page 22)

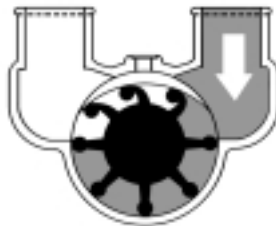


...Performance, Insist Upon **Original** Engine Specified Sherwood Pumps.

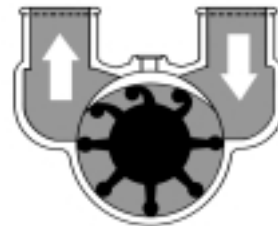
Genuine Sherwood Impellers



1 A self-priming vacuum is created as the flexible impeller vanes straighten upon leaving the cam, drawing liquid into the pump.



2 The rotating impeller carries liquid from the inlet to the outlet port. As a consequence of their design, flexible impeller pumps can pass fairly large solids.



3 When the flexible impeller vanes regain contact with the cam, they bend and the liquid is discharged from the pump in a uniform flow.

Liquids can be pumped in the opposite direction by reversing the rotation of the pump.

The #1 Reason for Premature Engine Wear Is **Overheating**. To Maintain Engine Performance, Insist Upon **GENUINE** Sherwood Impellers. Imitations Leave You Dead In The Water!

Service Section

Pumps and Parts

Major Pump and Parts Service Section

The following parts list is made available for the identification of major components of raw water pumps currently active in marine engine applications. Although the pump may no longer be a unit in production, it may be a serviceable pump. This is intended to assist the distributors and their dealers with identification and ordering of parts.

Engine Manufacturer Engine Model	Sherwood Pump Number	Ports		Pump Availability	Replacement Pump	Repair Kits		Major Components				
		Inlet	Outlet			Minor	Major	Impeller	Seal & Seat/Lip Seal	Bearing Assembly	Shaft	Cam
EXAMPLE ONLY:	G-8450	1-3/4"	1-3/4"	O		18284	18285	5236/5237	10545	4257/123	11420 A	10626/10824
	P101	1-3/4"	1-3/4"	P		19301	19300	10615	12859	17	19293	10944
	P-10700G	1"	1"	S		10685	12252	9959	16545	(2) 12211	10266	10072
	D-15CC	1"	1"	S				10635	10577	4257		
	D-10C	3/4"	1/2"	S				10557	10577	14055		
	L-9980	2"	1"	C	N 10350GX	*	*			14055		
	P1716B	1"	1"	R/P	P1716X							

EXAMPLE:

D-15CC	Centrifugal recirculating pump counterclockwise rotation from pulley end.
D-10C	Centrifugal recirculating pump clockwise rotation from pulley end.

- O Obsolete pump, no longer in production.
- R/P Replacement for proprietary pump.
- P Proprietary pump, must purchase through engine manufacturer or their distributor.
- S Sherwood pump, purchase direct from Sherwood (Dealers must purchase through Sherwood Distributor.)

L-9980	O	N 10360GX	Pump shown in this column is direct replacement.
G-8456	O	*	Asterisk indicates direct replacement not available.

5236/5237	Gear pump, first item drive gear; second, idler gear.
(2) 10077	Rubber impeller (2) per pump.
9959/10615	Rubber impeller (2) per pump.

10545	Seal & Seat Assy. Complete See Assembly Chart.
10513/10514	One each of two seals.

4257/12317	One each of (2) bearings.
(2) 12211	Two of same bearing.

Shaft & Bearing Assy.	11420-A
Drive Shaft/Idler Shaft.	10788/10793

(Two cams, one each)	15833/10824
(Two cams same)	(2) 10072

GENERAL PARTS INFORMATION
 *Asterisk indicates parts are obsolete.
 Blank space indicates part not used in pump design.

SHERWOOD REPLACEMENT PUMPS

Not all pumps under this listing are original equipment pumps, but they can be used as replacement pumps. Some will require changes in mounting and piping arrangement.

Engine Manufacturer Engine Model	Sherwood Pump Number	Ports		Pump Avail- ability	Replacement Pump	Repair Kits		Major Components					
		Inlet	Outlet			Minor	Major	Impeller	Seal & Seat/Lip Seal	Bearing Assembly	Shaft	Cam	
CATERPILLAR													
3208	9Y-1304	P-171	1-3/4"	1-3/4"	O	P176	18284	18285	17000	15955	(2) 15951	16045	18271
	7E-4115	P-176	1-1/2" NPT	1-3/4"	S		18284	18285	17000	15955	(2) 15951	19620	18271
3116	7E-3268	P-172	1-3/4"	1-3/4"	O	P1710	18284	18285	17000	15955/15950	(2) 15951	19620	18693
	4P-7168	P-1710	FLANGE ELBOWS	FLANGE ELBOWS	S		18284		17000	15955	(2) 15951	19706	18271
3126	113-1109	P-1726	FLANGE ELBOWS	FLANGE ELBOWS	P		18284		17000	15955/21776	(2) 15951	19706	21318
3176	100-6441	G1801	2-1/2"	2"	O	G1805	21351	21352	18000	19878/19869	19871/19872	19830	19829
	123-0500	G1805	2-1/2"	2"	P		21494	21855	18000	19878/19869	19871/19872	19830	(2) 21106
3196	123-0471	G1807	2-1/2"	2"	P		21494	21855	18000	19878/19869	19871/19872	21526	(2) 21106
3406	112-6177	G1804	2-1/2"	2"	O	G1806	21494	21495	18000	19878/19869	19871/19872	21526	(2) 21533
3406C	130-1160	G1806	2-1/2"	2-1/2"	P		21494	21495	18000	19878/19869	19871/19872	21526	(2) 21533
3406E	131-8272	G1808	3-3/4"	3-3/4"	P		21494	21495	18000	19878/23045	(2) 19871	22782	(2) 21533
CHRIS CRAFT													
MODEL A ENGINE	G-8456 A-16		1"	1"	O O	* *	* 11223	* 9959	* 9959	* 10927	* 4257	* 11149	* 10072
MODEL B ENGINE	D-7704		3/8"	3/8"	O	M-10261G	*	*	*	*	*	*	*
	D-7730		3/8"	3/8"	O	M-10261G	*	*	*	*	*	*	*
	G-8450		3/8"	3/8"	O	M-10261G	*	*	*	*	4306	*	*
	K-9750G		3/8"	3/8"	O	M-10261G	*	*	9732	10546	4306	*	*
	M-10261G		3/8" NPT	3/8" NPT	O	*	10425	12244	10077	10546	4306	*	10285
MODEL K ENGINE	D-7669		1/2"	1/2"	O	M-10262G	*	*	*	*	*	*	*
	D-7729		1/2"	1/2"	O	M-10262G	*	*	*	*	*	*	*
	G-8451		1/2"	1/2"	O	M-10262G	*	*	5237	10522	4306	5247	*
	K-9710G		1/2"	1/2"	O	M-10262G	*	*	*	10546	4306	*	*
16.80-10007	M-10262G		1/2" NPT	1/2" NPT	O	*	10424	12245	10314	10546	4306	10312	10313
MODEL M ENGINE	D-7710		3/4"	3/4"	O	M-10263G	*	*	*	*	*	*	*
	D-7731		3/4"	3/4"	O	M-10263G	*	*	*	*	*	*	*
	G-8452		3/4"	3/4"	O	M-10263G	*	*	*	*	4306	*	*
	K-9635G		3/4"	3/4"	O	M-10263G	*	*	*	10546	4306	*	*
	16.80-10008	M-10263G		3/4" NPT	3/4" NPT	O	*	10685	12246	9959	10545	4306	*
MODEL W ENGINE	G-8453		1"	1"	O	M-10264G	*	*	*	*	*	*	*
	K-9740		1"	1"	O	M-10264G	*	*	*	10545	4257	*	*
	16.80-10009	M-10264G		1" NPT	1" NPT	O	*	10685	12247	9959	10545	4257	10276
MODEL 283	L-9980G		1/2"	1/2"	O	N-10360GX	*	*	*	10546	4306	*	*
	L-9910G		1/2"	1/2"	O	N-10360GX	*	*	9924	10546	4306	*	*
	N-10160G		1/2"	1/2"	O	N-10360GX	*	*	9924	10546	*	*	*
	M-10095G		1/2"	1/2"	O	N-10360GX	10244	*	(2) 10077	10546	4306	10078	10122
	16.80-10003	N-10360GX		1/2" NPT	1/2" NPT	S	10244	12301	(2) 10077	10546	4306	10078	10134
MODEL 283M	L-9980G		1/2"	1/2"	O	N-10360GX	*	*	*	10546	4306	*	*
MODEL 283F	Q-10780G		1" NPT	1" NPT	O	S-11095G	*	*	*	10545	19988	*	*
	16.80-27555	Q-10825CC	-	-	O	*		12249	10557	10577	14055	*	*
	16.80-27554	Q-10830C	-	-	O	*		12249	10635	10577	14055	*	*
MODEL 307-327Q													
16.80-18340	D-05		1"	1"	S		11430		10615	10927	(2) 4257	11429	10944
16.80-28342	D-10C		-	-	S				10635	10577	14055	*	*
16.80-28341	D-15CC		-	-	S				10557	10577	14055	*	*
MODEL 327-F	Q-10780G		1" NPT	1" NPT	O	S-11095G	*	*	*	10545	19988	*	*
	S-11095G		1"	1"	S		11102	12308	10615	10545	19988	14212	10944
	Q-10825CC		-	-	O	*		12249	10557	10577	14055	*	*
	Q-10830C		-	-	O	*		12249	10635	10577	14055	*	*
MODEL 427	16.80-10010	S-11095G	1"	1"	S		11102	12308	10615	10545	19988	14212	10944
	16.80-07808	S-11110C	-	-	O	*			10635	10577	14055	*	*
	16.80-11007	S-11115CC	-	-	O	*			10557	10577	14055	*	*
MODEL 430	N-10450		-	-	O	N-10360GX	*	*	*	10545	4257	*	*
	M-10080G		-	-	O	N-10360GX	*	*	9924	10546	4306	*	10134
	N-10200G		-	-	O	N-10360GX	*	*	(2) 10077	10546	4306	10078	10134
	N-10370G		-	-	O	N-10360GX	*	*	(2) 10077	10546	4306	10078	10134
	N-10360GX		1/2" NPT	1/2" NPT	S		10244	12301	(2) 10077	10546	4306	10078	10134

Gasket/O-Ring	Bushing	Body	Cam Screw	Cover	Housing	End Plate/ Wear Plate	Key	Pin	Pipe Plug	Slinger	Hub/ Adapt.	Retaining Ring	Pulley/Gear
15945			19673	18742	*	18441	15948		(2) 339			(3) 15952/15942 (1)	
15945			19673	18742	19015	18441	19209		(2) 339			(3) 15952/15942 (1)	
15945			19673	18742	18098	18441	15948		(2) 339			(3) 15952/15942 (1)	
15945			19715	19241	19683	18441	19667	18442	(2) 339		19699	(3) 15952/15942 (1)	
15945			19715	18742	19683	18441	19667		(2) 339		19699	(2) 15950/15942 (1)	
19879		19827		19837	19828	19836			(2) 339	19868		(2) 19762/19867 (1)	
(2) 21561		22125		19837	21829	19836		21566	(2) 339	19868		(2) 19762/19867 (1)	
(2) 21561		21827		19837	21829	19836		21566	(2) 339	19868		(2) 19762/19867 (1)	
(2) 21561		21476		19837	21565	19836		21566	(2) 339	19868		(2) 19762/19867 (1)	
(2) 21561		21986		19837	21829	19836		21566	(2) 339	19868		(2) 19762/19867 (1)	
(2) 21561		22412		19837	22762	19836	22791	21566		19868		(2) 19762/19867 (1)	
10103	6333	*		*	*		17658	17657	336	7070			*
		*			11221		4432	1311	336	13315		(2) 4258/4259 (1)	*
(4) 5248		*	*	*	*		17658	17657	336	7070			
(4) 5248	17891/5747	*	*	8453	*		17658	17657	336	7070			
(4) 5248	17891/5747	*	*	8453	*	5795	17658	17657	336	7070	*		
9484	2075	*		*	*			17657	336	7070			
10286	2075	*	12686	10279	*		10093	17657	336	7070		4304	
(4) 5248	17891/5747	*	*	*	*	*	17658	17657	336	7070			
(4) 5248	17891/5747	*	*	8453	*	5795	17658	17657	336	7070			
(4) 5248	17891/5747	*	*	8453	*	5795	17658	17657	336	7070	*		
9484	2075	*		*	*			17657	336	7070			
10286	2075	*	10195	10279	*	10079	17658	17657	336	7070		4304	
(4) 5248	17891/5747	*	*	*	*	*	17658	17657	336	7070			
(4) 5248	17891/5747	*	*	8453	*	5795	17658	17657	336	7070			
(4) 5248	17891/5747	*	*	8453	*	5795	17658	17657	336	7070	*		
9484	2075	*		*	*			17657	336	7070			
10103	6333	10269	9919	10094	*		4432	17657	336	10891		4258	
*	17891/5747	*	*	*	*	*	17658	17657	336	7070	*		
9484	6333	*		*	*	*		528	336	*			
10103	6333	10274	9919	10094	*	12317	4432	528	336	10891		4258	
*	17891/5747	*	*	*	*	*	17658	528	336	7070		4304	
9917/9918	2075	9909	9919	9907	*	*		528	336		*		
9917/9918	2075	9909	9919	9907	*	*		528	336		*		
9917/9918	2075	9909	9919	9907	*	10079	10093	528	336			4304	
9917/9918	2075	9909	9919	9907	10416	10079	10093	528	336			4304	
*	2075/5747	*	12686	*	*	*	17658	528	336	7070		4304	
*	6333/7237	*	*	*	*	*	4432	9420	336		10769	4258	
10575				*	*				336	13315		10574	
10575				*	*				336	13315		10574	
10931	6333	11428	10515		11426		4432	1311				(2) 4258/4259 (1)	
15945				11423	11418				336	13315		10574	
15945				11423	11419				336	13315		10574	
*	6333/7237	*	*	*	*	*	4432	9420	336		10769	(2) 4258	
10971	6333		10515	10182	10957	*	4432	9420	336		10769	(2) 4258/8781 (1)	
10575					*				336	13315		10574	
10575					*				336	13315		10574	
10971	6333		10515	10182	10957	*	4432	9420	336		10769	(2) 4258/8781 (1)	
					*				336	13315		10574	
					*				336	13315		10574	
*	6333/7237	*	*	*	*	*	17658	528	336	*	*	4258	
9917	2075	9909	9919	*	*	*		528	336				
9917	2075	9909	9919	*	*	*	10093	528	336			4304	
9917	2075	9909	9919	*	*	*	10093	528	336			4304	
9917/9918	2075	9909	9919	9907	10416	10079	10093	528	336			4304	

Engine Manufacturer Engine Model	Sherwood Pump Number	Ports		Pump Avail- ability	Replacement Pump	Repair Kits		Major Components				
		Inlet	Outlet			Minor	Major	Impeller	Seal & Seat/Lip Seal	Bearing Assembly	Shaft	Cam
MODEL 431	P-10670 N-10490CC N-10580C	-	-	0	N-10360GX Q-10825X Q-10830X	*	*	*	10545 10577 10577	4257 14055 14055	*	
MODELS 35016.80-18346	G-15 G-30-2 G-30-2B	1"	1"	S		12399	12619	9959	12859	(2) 12211	12233	15883
454 16.80-18347	G-45-1	1-1/4"	1-1/4"	S		12399	12619	9959	12859	(2) 12211	12612	15883
						12394	12619	10615	12859	(2) 12211	12612	10944
CHRYSLER MARINE												
M-80 (CW) E-5913-M	P-10560G	-	-	0	*	*	*	(2) 9959	10545	*	*	(2) 10072
M-80 (CCW) E-5839-M	P-10710G	-	-	0	*	*	*	(2) 9959	10545	*	*	(2) 10072
SLANT 6 E-7783-M 2659553	P-10610G A-03	-	-	0	*	10685 11145	12252 12792	9959 9959	10545 10545	4257 4257	*	10072 10072
M225X E-8542-M 2847632	Q-10855G D-75	1"	1"	0	D-75	12818 10656	12933 12793	(2) 9959 (2) 9959	10545 10927	19988 4257	10501 11459	(2) 15883 (2) 15883
M-273X, LM-318X E-9327-M 2847630	R-10935G D-60	1"	1"	0	D-60	12818 10656	12814 12300	(2) 9959 (2) 9959	10545 10927	19988 4257	10501 11459	(2) 15883 (2) 15883
M-273X, LM-318X E-7584-M 2847631	N-10390G D-65	1"	1"	0	D-60	12818 10656	12814 12300	(2) 9959 (2) 9959	10545 10927	19988 4257	10501 11459	(2) 15883 (2) 15883
M-383X, M-413E M-440X E-7592-M 2847629	P-10550G D-55	1-1/4"	1-1/4"	0	D-55	*	12816	9959/10615	10545	19988	10617	15883/10944
		1-1/4"	1"	S		10922	12299	9959/10615	10927	4257	11460	15883/10944
ALL ABOVE CURRENT PROD. MODELS AND LM-318-X, LM-340-X 2846428 3675763 3745511 3619030 3619212	C-03 G-5 G-5-1 F-10 G-50	- 1-1/4" 1-1/4" 1-1/4" 1-1/4"	- 1-1/4" 1-1/4" 1-1/4" 1-1/4"	0 0 0 0 S	G-7 G-7 G-7 G-50	11179 12394 12394 11179 12394	12240 12794 12872 12240 12794	10615 10615 10615 10615 10615	10927 12859 12859 10927 12859	4257 (2) 12211 (2) 12211 4257 (2) 12211	* 12233 12233 * 12233	10944 10944 10929 10944 10944
318, 360 4142878	G-7 G-7B	1-1/4" 1-1/4"	1-1/4" 1-1/4"	S S		12394 12394	12794 12794	10615 10615	12859 12859	(2) 12211 (2) 12211	13363 13363	10929 10929
COMMANDER												
302, 351 FORD 10-610 CONVERSIONS CM1-10-610 C2-10-610	J-70 L-80	1"	1"	S S		12399 12394	12665 12794	9959 10615	12859 12859	(2) 12211 (2) 12211	13274 13274	15883 10944
CRUSADER-MARINE (DEARBORN MARINE)												
CHEVROLET CONVERSION RIGHT HAND ROTATION	L-9820G L-9870G M-10270G	- - 1" NPT	- - 1-1/4"	0 0 0	* * *	* * 10687	* * *	9745 9745 (2) 9959	10545 10545 10545	4257 4257 4257	* * 10266	* * *
LEFT HAND ROTATION	L-9841G L-9875G M-10280G	- - 1" NPT	- - 1-1/4"	0 0 0	* * *	* * 10687	* * *	9745 9745 (2) 9959	10545 10545 10545	4257 4257 4257	* * 10266	* * *
LEFT HAND ROTATION 1000269 1001984	Q-10755G Q-10775G S-11085G	- - 1-1/2"	- - 1"	0 0 0	* * *	10688 * *	12813 12819 12819	9959 10187 10187	10545 10758 10758	4257 4257 4257	* 10748 10748	15883 10944 10944
RIGHT HAND ROTATION 1000270 1001985	Q-10765G Q-10785G S-11090G	- - 1-1/2"	- - 1"	0 0 0	* * *	10688 * *	12813 12819 12819	9959 10187 10187	10545 10758 10758	4257 4257 4257	* 10748 10748	15883 10944 10944
INTERCEPTOR	M-10210G N-10410G P-10700G F-15	- - 3/4" NPT 3/4" NPT	- - 3/4" NPT 3/4" NPT	0 0 S 0	P-10700G P-10700G R-50G	10685 10685 10685	12252 12252 *	9959 9959 9959	10545 10545 10545	4257 4257 4257	10256 10256 10256	10072 10072 10072
									10927	4257	11786	10072

Gasket/O-Ring	Bushing	Body	Cam Screw	Cover	Housing	End Plate/ Wear Plate	Key	Pin	Pipe Plug	Slinger	Hub/ Adapt.	Retaining Ring	Pulley/Gear
* 10575 10575	6333/7237	*	*	*	*	*	17658	528	336 336 336	13315 13315	* *	4258 * *	
12231/12855 12231/12855 12231/12855 12231/12855		12324 12328 19784 12328	10515 10515 10515 10515		12303 12303 12303 12228	12856 12856 12856 12856	4432/12622 4432 4432 4432	12791 12791 12791			12615 12615 12615	12305/(2), 4258/4259 (2) (3) 4258/4259 (2) (3) 4258/4259 (2) (3) 4258/4259 (2)	12323
(2) 10103 (2) 10103	6333 6333	* *	(2) 9919 (2) 9919	10094 10094	* *	* *	4432 4432						*
10103 *	6333 6333	* *	9919 9919	10094	*		4432/14096 4432	1311 1311		*		4258/4259 4258/4259	*
(2) 10609 (2) 10609	6333 6333	11454	(2) 10515 (2) 10515	10619 10619	*	10625 10625	(2) 4432 (2) 4432/11515	(2) 413 (2) 413		*		4258/8781 (3) 4258/4259 (1)	21761 12326
(2) 10609 (2) 10609	6333 6333	* 11454	(2) 10515 (2) 10515	10913 10913	*	10625 10625	(2) 4432 (2) 4432/11515	(2) 413 (2) 413		*		4258 (3) 4258/4259 (1)	21761 12326
(2) 10609 (2) 10609	6333 6333	* 11454	(2) 10515 (2) 10515	10619 10619	*	10625 10625	(2) 4432/10496 (2) 4432/11515	(2) 413 (2) 413		*		4258/8781 (3) 4258/4259 (1)	21761 12326
10609/10612 10609/10612	6333 6333	* 11455	(2) 10515 (2) 10515	10619 10619		10625 10625	(2) 4432 (2) 4432/11515	(2) 413 (2) 413		*		4258/8781 (3) 4258/4259 (1)	21761 12326
10612 12231/12855 12231/12855 10612 12231/12855	6333 6333	* 12227 12227 * 12227	10515 10515 10515 10515 10515	* *	12228 12952 12228	12856 12856 12856	4432 4432 4432 4432	1311 11541 11541 1311 11541				(2) 4258/4259 (2) 4258/4259 (2) (2) 4258/4259 (2) (3) 4258/4259 (2) 4258/4259, (2) 12305	* 12326 13834 * 12323
12231/12855 12231/12855		12227 19789	10515 10515		12952 12952	12856 12856	4432 4432					(3) 4258/4259 (2) (3) 4258/4259 (2)	15055 15055
12231/12855 12231/12855		12328 12328	10515 10515		12303 12228	12856 12856	4432/12622 4432/12622					(3) 4258/4259 (2) (3) 4258/4259 (2)	13429 13429
9484 9484 (2) 10103	6333 6333 6333	* * *	* * 9919	* * 10094	* * *	* * *	(2) 4432	413 413 413	336 336 336		* * *	4258/4259 4258/4259 (2) 4258/4259	
9484 9484 (2) 10103	6333 6333 6333	* * *	* * 9919	* * 10094	* * *	* * *	(2) 4432	413 413 413	336 336 336		* * *	4258/5328 4258/5328 (2) 4258/4259	
* 10752 10752	6333 6333 6333	* * *	10515 10515 10515	* * *	* * *		4432 4432 4432	1311 1311 1311	336 336		*	(2) 4258/4259 (2) 4258/4259 (2) 4258/4259	
* 10752 10752	6333 6333 6333	* * *	10515 10822 10822	* * *	* * *		4432 4432 4432	1311 1311 1311	336 336			(2) 4258/4259 (2) 4258/4259 (2) 4258/4259	
10103 10103 10103 10103	6333 6333 6333 6333	* * 10662 10176	9919 9919 9919 9919	10094 10094 10094 10094		10254 10254 10254	4432 4432 4432 (2) 4432	1311 1311 1311 1311	336 336 336 336			4258/4259 4258/4259 (2) 4258/4259 (3) 4258/4259	

Engine Manufacturer Engine Model	Sherwood Pump Number	Ports		Pump Avail- ability	Replacement Pump	Repair Kits		Major Components				
		Inlet	Outlet			Minor	Major	Impeller	Seal & Seat/Lip Seal	Bearing Assembly	Shaft	Cam
CRUSADER MODELS 220, 270, 300, 350 97179 40070 40050	S-11040G	1" NPT	1" NPT	O	E-35	10999	11068	10615	10927	4257	10948	10944
	B-04	1" NPT	1" NPT	O	E-35	10999	11068	10615	10927	4257	11744	10944
	E-35	1" NPT	1" NPT	S		10999	11068	10615	10927	4257	11744	10944
	P-102	1-1/4"	1 1/4"	S		19355	19354	10615	18652	8490	19308	10944
	R-101	1" NPT	1" NPT	P		18654	18653	10615	10927	4257	18466	10944
	P-101	1-1/4"	1-1/4"	P		19301	19300	10615	12859	(2) 12211	19293	10944
V-6 CHEVY 97512	H-10	1"	1"	O	*	12399	12665	9959	12859	(2) 12211	12596	15883
PALMER I. H. 60	E-20	1/2" NPT	1/2" NPT	O	*		*	10077	10859/11628	4306	11747	10285
CUMMINS												
4 CYL. DIESEL 3907458 3912019	M-70	1-1/4"	1-1/4"	O	M-71	12394	*	10615	12859	(2) 12211	14159	10944
	M-71	1-1/4"	1-1/4"	S		12394	15852	10615	12859/10514	(2) 12211	14159	10944
B SERIES 250 HP 3912962 3920298 3927684 3349340	GC-1	1-1/2"	1-1/2"	S		15979	18694	15000	12859/10514	(2) 12211	21069	18398
	GC-4	1-1/2"	1-1/2"	S		15979	18694	15000	12859/10514	(2) 12211	21069	18398
	GC-5	1-1/2"	1-1/2"	S		15979	21073	15000	12859/10514	(2) 12211	19843	18398
	G-1503	1-1/2"	1-1/2"	S		23233	23256	15000	12859/12966	(2) 23448	23228	
B SERIES 300 HP 3919899 3922590	P-1712	1-3/4"	1-3/4"	O	P-1716X	18284	18285	17000	15955/19674	(2) 15951	16046	18271
	P-1716	2"	1-3/4"	R/P	P-1716X	21064	21065	17000	15955/19674	(2) 15951	19616	18271
C SERIES 3912139 3922589 3897194 3866493	P-173	1-3/4"	1-3/4"	O	P-1722X	18284	18285	17000	15955/19674	(2) 15951	16046	18271
	P-1722	2"	1-3/4"	R/P	P-1722X	21064	21065	17000	15955/19674	(2) 15951	19616	18271
	P-1727FB	FLANGED ELBOWS	FLANGED ELBOWS	R/P	P-1727X	21592	21587	17000	15955/19674	(2) 15951	19616	18271
	P-1730F	FLANGED ELBOWS	FLANGED ELBOWS	R/P	P-1730X	21592	21587	17000	15955/19674	(2) 15951	19616	18271
JOHN DEERE RE45458	P-1711	FLANGED ELBOWS	FLANGED ELBOWS	O	P-1719	19637	19636	17000	15955/19674	(2) 15951	19345	18271
	P-1719	FLANGED ELBOWS	FLANGED ELBOWS	S		19725	19726	17000	15955/19674	(2) 15951	19345	18271
ESCORT MARINE (SKILTEC ASSOCIATES)												
FORD CONVERSION 302 CID, 351 CID D5M28502	F-75	1" NPT	1" NPT	O	*	12418	12417	10615	10927	4257	12316	10944
	G-85	1-1/4"	1-1/4"	S		12394	12794	10615	12859	(2) 12211	12596	10944
GLASTRON BOAT CO.												
FORD ENGINE 121 C.I., 182 C.I., 302 C.I.	G-95-1	1"	1"	S		12399	12665	9959	12859	(2) 12211	12664	15883
GRAY MARINE												
CONTINENTAL MOTORS												
FOUR CYL. G78478 G78972 G77560	N-10510G	-	-	O	*	*	12252	9959	10545	4257	*	10072
	P-10650G	-	-	O	*	12797	12242	9959	10545	4257	*	10072
	L-9930G	3/4" NPT	3/4" NPT	O	*	*	12252	9959	10545	4257	*	10072
SIX CYL. G77160 G77475 G77560	K-9615G	-	-	O	*	*	*	9731	10545	4257	*	*
	M-10065G	-	-	O	*	12799	12798	9959	10545	4257	*	10072
	L-9930G	-	-	O	*	*	12252	9959	10545	4257	*	10072
FIREBALL V8 CW ROTATION (LEFT HAND) G75842 G77532 G80785 G77586	K-9529G	-	-	O	*	*	*	9745	10545	4257	*	*
	L-9850G	-	-	O	*	*	*	9745	10545	4257	*	*
	R-10925G	-	-	O	*	10687	*	9959	10545	4257	*	10072
	M-10180G	-	-	O	*	12796	*	(2) 9959	10545	4257	10266	(2) 10072
CCW ROTATION (RIGHT HAND) G80784 G77585	R-10920G	-	-	O	*	10687	*	9959	10545	4257	*	10072
	L-9920G	-	-	O	*	12796	*	(2) 9959	10545	4257	10266	(2) 10072
COMPACT V8 215, 225 CCW ROTATION G80301 CW ROTATION G80300	N-10460	-	-	O	*	12815	12250	9959	10513/10514	4257	*	10072
	N-10470	3/4" NPT	3/4"	O	*	12815	12250	9959	10513/10514	4257	*	10072
GOV. ENGINE G76647 G80971 G85106 G80561 G80953 G80954	Q-10770G	-	-	O	L-9930G	10685	12252	9959	10545	4257	*	10072
	R-10955G	-	-	O	L-9930G	10685	12252	9959	10545	4257	*	10072
	R-10970G	-	-	O	*	10999	12947	10615	10927	4257	*	10929
	Q-10840	1/2" NPT	1/2" NPT	O	*	12822	12251	10077	10859/11628	(2) 4306	10858	10285
	R 10945CC	1-1/2"	1-1/4"	O	*	12249	*	10557	10577		14055	
	R-10950C	1-1/2"	1-1/4"	O	*	12249	*	10635	10577		14055	
INDMAR (CRANK DRIVE)												
	P-105	1-1/4"	1-1/4"	S		19355	19354	10615	18652	8490	19308	10944
ISUZU												
4, 6 CYL. DIESEL X-26-230-1023	K-90	1-1/4"	1-1/4"	S		12394	13368	10615	12859	(2) 12211	12596	10944

** Kohler Replacement for "G-906P with pulley" is G-907P; "without pulley", use G-906.

Gasket/O-Ring	Bushing	Body	Cam Screw	Cover	Housing	End Plate/ Wear Plate	Key	Pin	Pipe Plug	Slinger	Hub/ Adapt.	Retaining Ring	Pulley/Gear
10931	6333G	*	10515	10182			4432	1311	336		97176	4258/4259	
10931	6333G	11245	10515	10182			4432	1311	(2) 336		97176	4258/4259	
10931	6333G	11245	10515	10182			4432	(2) 1311	(2) 336		97176	(2) 4258/4259 (1)	
12231		19728	10515	21120			4432				19275	5126/6837	
12231	6333G		10515	18468	18467		12841					(3) 4258/4259 (1)	
19251		19294	10515	19291		19295	4432				97176	(2) 4258/4259 (1)	
12231/12855		12328	10515		12303	12856	4432				97176	(3) 4258/4259 (2)	
10286		*	10195	10593			10093		336			4303/4304	
12231/12855		14160	10515		12228	12856	4432				*	(2) 4258/4259 (2)	14184
12231/12855		14160	10515		12228	12856	4432				18681	4258/14161/4259 (2)	14184
12231/12855		14160	10515		17684	12856	4432				18681	4258/14161/4259 (2)	14184
12231/12855		14160	10515		17684	12856	4432				19387	4258/14161/4259 (2)	14184
12231/12855		19907	10515		17684	12856	4432		(2) 336		21700	(2) 4258/4259	19884
12231		23231		21173	23230	22836	4432		(2) 339			(2) 4258/4259 (1)	22494
15945			19673	18742	18385	18441	19209				19380	(3) 15952/15942 (1)	14184
21570/15945			19714	18742	19630	18441	19667		(2) 339		19727	(3) 15952	19885
15945			10515	18742	18385	18441	19209				15975	(3) 15952/15942 (1)	14184
21570/15945			19714	18742	19630	18441	19667		(2) 339		19955	(3) 15952	19885
21570/15945			19714	18742	21523	18441	19667		(2) 336		21205	(3) 15952	19885
21570/15945			19714	18742	21523	18441	19667	18441	(2) 339			(3) 15952	22495
15945			19714	18742	19634	18441	19209				19344	(3) 15952	
15945			19714	18742	19732	18441	19667		(2) 339	19712	19700	(3) 15952	
10971	6333		10515	10182	*	*	4432	1311	336		10769	(2) 4258/4259	
12231/12855		12328	10515		12228	12856	4432	9420			10769	(3) 4258/4259 (2)	
12231/12855		12328	10515		12303	12856	4432	11543			12636	(3) 4258/4259 (2)	
10103	6333	*	9919	10094	*	*	4432	1311	336			4258/4259	
10103	6333	*	9919	10094	*	*	4432	1311	336			4258/4259	*
10103	6333	*	9919	10094	*	*	4432	1311	336			4258/4259	
9484	6333	*	*	*	*	*	*	1311	336		*	4258/4259	
9484	6333	*	9919	*	*	*	4432	1311	336			4258/4259	
10103	6333	*	9919	10094	*	*	4432	1311	336			4258/4259	
9484	6333	*	*	*	*	*	*	*	336		*	4258/4259	
9484	6333	*	*	*	*	*	*	413	336		*	4258/4259	
(2) 10103	6333	*	9919	10094	*	*	4432	413	336			4258/4259	*
(2) 10103	6333	*	9919	10094	*	*	4432	413	336			4258/4259	*
(2) 10103	6333	*	9919	10094	*	*	4432	413	336			4258/4259	*
(2) 10103	6333	*	9919	10094	*	*	4432	413	336			4258/4259	*
10512		*	10515	*	*	*	4432	1311	336	*		5328/4259	*
10512		*	10515	*	*	*	4432	1311	336	*		5328/4259	*
10103	6333	*	10515	10094			4432	1311	336			(3) 4258/4259	*
10103	6333	*	10515	10094			4432	1311	336			(3) 4258/4259	*
10931	6333	*	10515	10182			4432	1311	336	7070		4258/4259	*
10286		*	10195	10593			10093	*	336	*		4303/4304	*
10575				*	*	*	*		336	*		10574	*
10575				*	*	*	*		336	*		10574	*
12231		19728	10515	21120			4432				19275	5126/6837	
12231/12855		12227	10515		12228	12856	4432					(3) 4258/4259 (2)	*

Engine Manufacturer Engine Model	Sherwood Pump Number	Ports		Pump Avail- ability	Replacement Pump	Repair Kits		Major Components					
		Inlet	Outlet			Minor	Major	Impeller	Seal & Seat/Lip Seal	Bearing Assembly	Shaft	Cam	
KOHLER													
FORD 246489	G-906P	3/8" NPT	3/8" NPT	O	**	9000K		9000	18570	(2) 12211	18569	18663	
FORD 344089	G-907P	3/8" NPT	3/8" NPT	S		9000K		9000	22546	(2) 12211	21861	18663	
4-6.5 KW GAS 344371	G-907	3/8" NPT	3/8" NPT	S		9000K		9000	18035/10926	(2) 12211	21861	18663	
5-7 KW DIE. 359341	GP8001	3/8"	3/8"	S				8000	23459	(2) 23323	23445		
LENCO FRESHWATER KITS	L-90	1-1/4"	1-1/4"	O	G-7	12394	12794	10615	12859	(2) 12211	12233	10944	
MARINE CORP. OF AMER- ICA (SEE STAR POWR)													
MARINE POWER	G-157	1-1/2"	1-1/2"	S		15979		15000	12859	(2) 12211	21231	18314	
	P-105	1-1/4"	1-1/4"	S		19355	19354	10615	18652	8490	19308	10944	
MERCUISER	G151	1-1/2"	1-1/2"	S		15979		15000	12859	(2) 12211	19570	18314	
7.3 DIESEL L/270	G155	1-1/2"	1-1/2"	S		15979		15000	12859	(2) 12211	19510	18314	
NORTH AMERICAN ENGINE	G-56	1-1/4"	1-1/4"	S		12394	13368	10615	12859	(2) 12211	12596	10944	
ONAN													
ELECTRIC PLANTS													
12 MDJC-15 MDJF 132C115	RP-G-C	3/4" NPT	3/4" NPT	O	*	10685	12246	9959	10545	4306	11409	10072	
30 MDEH-50MDEG	RP-G-C	3/4"	3/4"	O		10685	12246	9959	10545	4306	11409	10072	
4 CYL. DIESEL 132-0275	K-75	1"	1"	O	K-75B	13967	13966	9959	12859	(2) 12211	13363	15883	
	K-75B	1"	1"	S		13967	13966	9959	12859	(2) 12211	13363	15883	
5 CYL. DIESEL 132-0278	L-10	1 1/4"	1-1/4"	O	L-10B	12394	12872	10615	12859	(2) 12211	13363	10929	
	L-10B	1 1/4"	1-1/4"	S		12394	12872	10615	12859	(2) 12211	13363	10929	
132-0271	G-905	1"	1"	O				9000	12859/18570	(2) 12211	19252		
132-0343	G-1004	1"	1"	O	G-1005	10615K	22014	10615	21208/21209	(2) 12211	21207	10929	
132-0347	G-1005	1"	1"	O	G-1006	10615K	22014	10615	21208/21209	(2) 12211	21207	10929	
6.5-10 KW 132-0358	G-701	1"	1"	P		10077K	22784	10077	18037/21751	(2) 12211	22769		
10-25 KW 132-0356	G-1006	1"	1"	P		22783	22276	10615	22177/21208	12211	22143	10929	
OSCO MOTORS	P-105	1-1/4"	1-1/4"	S		19355	19354	10615	18652	8490	19308	10944	
OWENS FLAGSHIP MARINE													
MODEL V8 6587	L-9887	-	-	O	*	*	*	*	7269/10546	*	*		
	M-10230	-	-	O	*	*	*	*	7269/10546	*	*		
	Q-10750	-	-	O	*	*	*	*	10545	*	*		
OMC													
IN BOARD 981939	G-45-2	1-1/4"	1-1/4"	O	G-46	11790	12946	10615	12859	(2) 12211	12233	10929	
V8 CHEVY 981937	H-85	1-1/4"	1-1/4"	O		11790	12946	10615	12859	(2) 12211	12596	10929	
985096	G-46	1-1/4"	1-1/4"	S		11790	12946	10615	12859	(2) 12211	13363	10929	
6-8 CYL. 3852398	G-9901	1-1/4"	1"	S		12399	12665	9959	12859	(2) 12211	13363	15883	
4 CYL. 3852399	G-9902	1-1/4"	1"	O	G-9903	12399	12665	9959	12859	(2) 12211	13363	15883	
4 CYL. 3855079	G-9903	1-1/4"	1"	S		12399	12665	9959	12859	(2) 12211	13363	15883	
PATHFINDER VOLKSWAGON ENG. 4 CYL.	J-90	1"	1"	O	*	*	*	9959	12859	*	*	*	
PERKINS ENGINE U.S.													
40-107 DIESEL	B-06	3/4" NPT	3/4" NPT	O	G-65	11422	11421	9959	11237/10514	*	*	10072	
40-108 DIESEL NA003335	G-65	3/4" NPT	3/4" NPT	S		11422	12221	9959	10514	(2) 12211	12444	10072	
4-154 DIESEL NA005576	H-5	1"	1"	S		12981	12980	9959	10514/11816	(2) 4257	13272	15883	
6-354 DIESEL NA001175	RP-B-C	1" NPT	1" NPT	S		10999	11068	10615	10927	4257	11374	10944	

Gasket/O-Ring	Bushing	Body	Cam Screw	Cover	Housing	End Plate/ Wear Plate	Key	Pin	Pipe Plug	Slinger	Hub/ Adapt.	Retaining Ring	Pulley/Gear
19964 19964 19964 23447		23354	10195 10195 10195	19965 19965 19965	19963 21862 21862 23352		13777 13777 13777		(2) 18449 (2) 18449 (2) 18449			4258/4259 (2) 4258/4257 (2) 4258/4259 (1) 23325/23443	19967 21859
12231/12855		12227	10515		12228	12856	4432/12622	11541			12393	12305 (2) 4258/4259	12326
12231/12855 12231		12227 19728	10515 10515	21120	17684	12856	4432 4432		(2) 336		19275	(3) 4258/4259 (2) 5126/6837	
12231/12855		12227 12227	12857 12857		17684 19880	12856 12856	4432 4432					(3) 4258/4259 (2) 15055 (2) 4258/4259 (3)	
12855/12231		12328	10515		12907	12856	4432	9420			10769	(2) 4258/4259 (3)	
10103 10103 12231/12855 12231/12855 12231/12855 12231/12855 (2) 19964/19257 12231 12231 21303/22770 (2) 12231	6333G 6333G	* * * 19948 * 19948 19253 21122 21122 22685 6333 22141	9919 9919 10515 10515 10515 10515 10515 10515 10515 10515 10515 22140	10094 10094 19255 21173 21173	13793 13793 13899 13899 19201 21150 21150	12856 12856 12856 12856 19254 21163 21163	4432 4432 4432 4432 4432 4432 4432 4432 10093 4432	1311 1131 1311	336 336	10891 10891	13795 13795 13795 13795	4258/5484 4258/5484 (3) 4258/4259 (2) (3) 4258/4259 (2) (3) 4258/4259 (2) (3) 4258/4259 (2) 4258/4259 (2) 4258/4259 (2) 4258/4259 (3) 4258/4259 (2)	
12231		19728	10515	21120			4432				19275	5126/6837	
(2) 5248 * *	2075 (2) 5747 2075 (2) 5747 6333 (2) 7237	* * *	* * *	8453 * *	* * *	* * *	17658 17658 17658	1311 1311 1311	336 336 336			4304 4304 4304	* * *
12231/12855 12231/12855 12231/12855 12231/12855 12231/12855 12231/12855		12328 12328 12328 21153 21153 21759	10515 10515 10515 10515 10515 10515	* * * * * *	12952 12952 12952 21151 21151 21151	12856 12856 12856	4432/12622 4432 4432 4432 4432 4432	11541				(2) 4258/4259 (2) (3) 4258/4259 (2) (3) 4258/4259 (2) (3) 4258/4259 (3) 4258/4259 (3) 4258/4259	12326 11874 15048 21154 21175 21175
*	*		9919	*	*		4432	*				4258/12840	
11360 11360 12231 10931	6333G	* 12440 11794 11370	10515 10515 10515 10515	11389 11389 11795 10182			4432 4432 4432/13271 4432/10093	(2) 1311	(2) 336	10891		4259/12582 (3) 4258/4259 (1)	

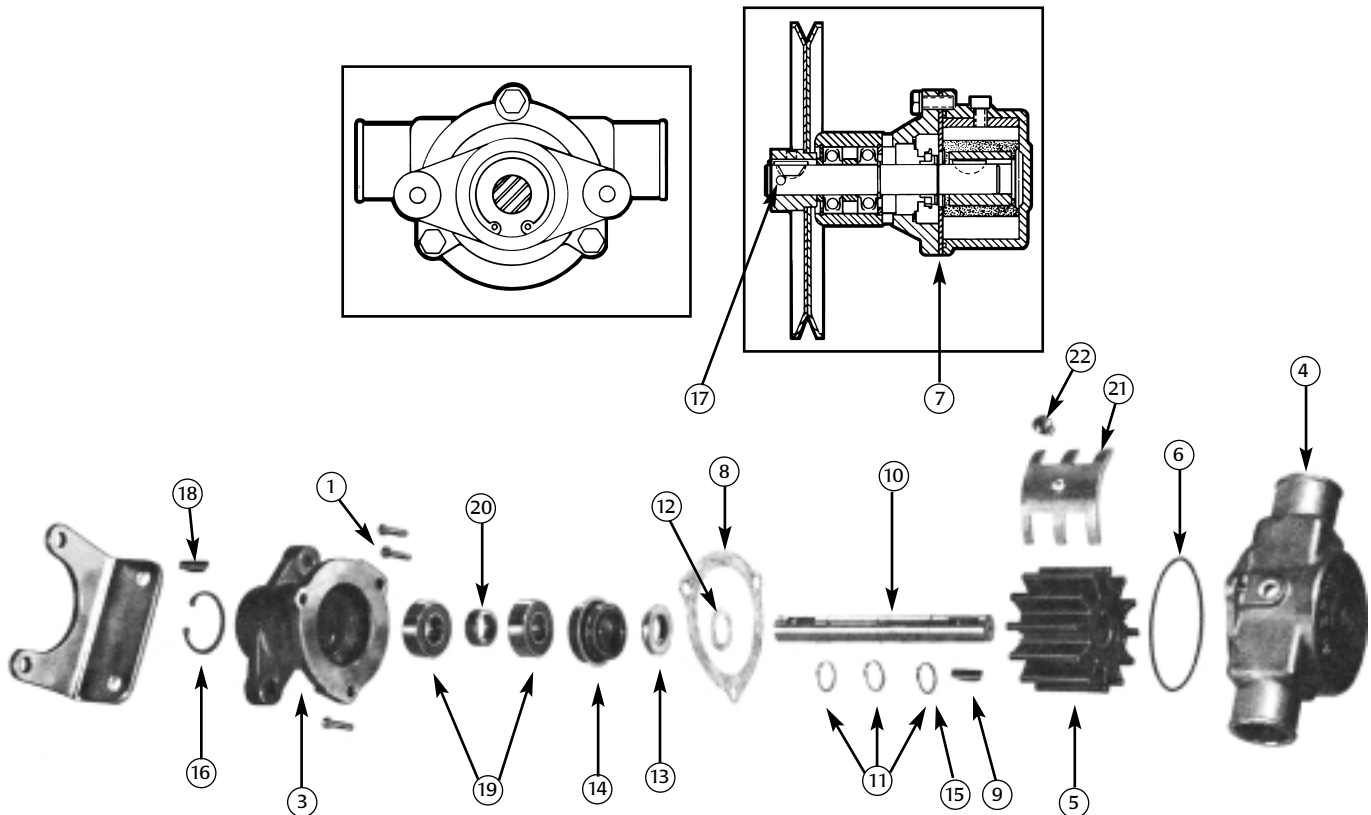
Engine Manufacturer Engine Model	Sherwood Pump Number	Ports		Pump Avail- ability	Replacement Pump	Repair Kits		Major Components				
		Inlet	Outlet			Minor	Major	Impeller	Seal & Seat/Lip Seal	Bearing Assembly	Shaft	Cam
PLEASURECRAFT MARINE												
CHEVY 454 C.I. RA057009	G-55-2	1-1/4"	1-1/4"	P		12394	13368	10615	12859	(2) 12211	12596	10944
302 & 351 C.I. R057007	G-20	1"	1"	O	G-21	12399	12400	9959	12859	(2) 12211	12367	15883
FORD 302/351 C.I. RA057007	G-21	1"	1"	S		12399	12665	9959	12859	(2) 12211	13363	15883
MITSUBISHI-4 CYL.	G-22	-	-	S		12399	12665	9959	12859	(2) 12211	13363	15883
73 DIESEL	G-26	1-1/4"	1-1/4"	P		12394	12794	10615	12859	(2) 12211	13363	10944
CURRENT GM	P-105	1-1/4"	1-1/4"	S		10615K	19354	10615	18652	(2) 8409	19308	10944
STAR POWR												
INBOARD	G-151	1-1/2"	1-1/2"	S		15979		15000	12859	(2) 12211	19570	18314
STERN DRIVE3 800790MI	G-155	1-1/2"	1-1/2"	S		15979		15000	12859	(2) 12211	19570	18314
UNIVERSAL MEDALIST												
ATOMIC FOUR	L-9960	-	-	O	T-11165	*	*	9979	*		*	*
	T-11165	3/8"	3/8"	O	*	12949	*	9979	10514		10991	*
UTILITY FOUR	T-11165	-	-	O	*	12949	*	9979	10514		10991	*
MODEL OK-OL	L-9790G	-	-	O	*	*	*	9732	10546	4306	*	*
	Q-10805G	3/8"	3/8"	O	*	10425	*	10077	10546	4306	*	10285
SABRE V6	R-10930G	3/4"	3/4"	O	R-40G	10997		9959	10545	4257	*	10162
LIGHT PLANTS	E-05	1/2"	1/2"	O	R-30G	10996	12935	10077	11367	4306	10289	10285
	R-10870G	3/4" NPT	3/4" NPT	O	R-50G	10997	12936	9959	10927	4257	*	10072
299805	H-80A	3/8"	3/8"	O	G-903	11876	15056	12336	(2) 10514		11873	15042
300986	M-5	3/8"	3/8"	O	G-903	11876	15056	12336	(2) 10514		13833	15042
302648	G-903	1/2"	1/2"	O	G-908			9000	12859/18806	(2) 12211	18566	18663
U.S. MARINE												
351 FORD	P-151	1-1/4"	1-1/4"	O	*			15000	18652	(2) 18662	18671	18398
VOLVO PENTA												
	G-30-2	1"	1"	S		12399	12619	9959	12859	(2) 12211	12612	15883
	G-85	1-1/4"	1-1/4"	S		12394	12794	10615	12859	(2) 12211	12596	10944
(CRANK DRIVE)****	P-105	1-1/4"	1-1/4"	S		19355	19354	10615	18652	8490	19308	10944
6-8 CYL. 3852398	G-9901	1-1/4"	1"	S		12399	12665	9959	12859	(2) 12211	13363	15883
4 CYL. 3852399	G-9902	1-1/4"	1"	O	G-9903	12379	12665	9959	12859	(2) 12211	13363	15883
4 CYL. 3855079	G-9903	1-1/4"	1"	S		12399	12665	9959	12859	(2) 12211	13363	15883
J.H. WESTERBEKE CORP.												
PILOT 10-20	A-20	3/8" NPT	3/8" NPT	O	F-85		*	10077	10927/11237	*	*	10285
16423	F-85	1/2" NPT	1/2" NPT	P			12221	9959	10514	(2) 12211	12444	10072
DIESEL 4 CYL. 16432	F-95	3/4" NPT	3/4" NPT	P		12344	12333	10615	10927	21972	12226	10929
DIESEL 6 CYL. 16432	F-95	3/4" NPT	3/4" NPT	P		12344	12333	10615	10927	21972	12226	10929
24102	R30G-1	1/2" NPT	1/2" NPT	P		10996	12935	10077	11367	4306	11854	10285
GOV. LIFE BOAT 11658	B-11	1/2" NPT	1/2" NPT	O		12951	13369	5237/5725	11367	11365	11363/5247	
11353	R-10870G	3/4" NPT	3/4" NPT	P				9959	10927	4257	10852	15883
24143	H-70	7/8"	7/8"	O	*	13367	13366	10077	11628		11882	10285
302648	G-903	1/2" NPT	1/2" NPT	O	G-908			9000	12859/18806	(2) 12211	18566	18663
42175	G-908	1/2" NPT	1/2" NPT	P				9000	12859/18806	(2) 12211	18566	18663
WHITTAKER CORP.												
GOV. LIFE BOAT	S-4-1	1/2" NPT	1/2" NPT	S				5828/456	10927	4257	5782/6394	
YAMAHA												
4.3 V6 10100000	R-991	1-1/4"	1-1/4"	S		18656	18655	9959	10927	4257	18464	15883
305/350 CHEVY												

*** Pump retrofits with Johnson's F6B-9 (10-24228-1) and Jabsco's 23800-0201.

Gasket/O-Ring	Bushing	Body	Cam Screw	Cover	Housing	End Plate/ Wear Plate	Key	Pin	Pipe Plug	Slinger	Hub/ Adapt.	Retaining Ring	Pulley/Gear
12231/12855		12328	10515		12907	12856	4432	9420			12926	(3) 4258/4259 (2)	
12231/12855		12328	10515		12303	12856	4432/12622	11541				4259/4258/12305	12327
12231/12855		12328	10515		12303	12856	4432					(3) 4258/4259 (2)	19729
12231/12855		17501	10515		12303	12856	4432					(3) 4258/4259 (2)	19729
12231/12855		17501	10515		12228	12856	4432					(3) 4258/4259 (2)	19729
12231		21378	10515	21120			4432					5126/6837	
12231/12855		12227	12857		17684	12856	4432					(3) 4258/4259 (2)	15055
12231/12855		12227	12857		19880	12856	4432					(3) 4258/4259 (2)	15055
*		*	*	*					336	*			
*		*	*	*					336				
*		*	*	*					336				
9484	2075G	*	*	*		*		17657	336	7070	*		
10286	2075G	*	10195	10279			10093	1311	336	7070		4304	
10103	6333G	*	*	10094	*		4432	1311	336			4258/4259	
10197/10286	2075G	10596	10195	10279			10093	1311	336			4303/4304	
10171/10103	6333G	*	9919	10094	15104		4432/12622	1311	336			4258/4259	
10286	11519	*	10822	10593			10093		336			12863	
10286	11519	*	10822	10593			10093		336			12863	
12231/12855		18561	10195		18451	12856	18576			13315		(3) 4258/4259 (1)	
12231			10515	18509	18660		4432			14990	18507	6837/8781	
12231/12855		12328	10515	12856	12303	12856	4432	12791			12615	(3) 4258/4259 (2)	
12231/12855		12328	10515		12228	12856	4432	9420			10769	(3) 4258/4259 (2)	
12231		19728	10515	21120			4432				19275	5126/6837	
12231/12855		21153	10515		21151		4432					(3) 4258/4259	21154
12231/12855		21153	10515		21151		4432					(3) 4258/4259	21175
12231/12855		21759	10515		21151		4432					(3) 4258/4259	21175
*		*	344	10593			10093					4258	
11360		12210	10575	12220			4432						
10931		12225	10515	10182			4432	(2) 1311	336	7070		(3) 4258/4259 (1)	
10931	6333G	12225	10515	10182			4432	(2) 1311	336	7070		(3) 4258/4259 (1)	
10197/10286	2075	10596	10195	10279	15103		10093/13370	(2) 1311	336			4303/4304 (3)	
(2) 5248	5747/17891	11362	10195	8453	5249			(4) 1311	336	7269		4304	
10103/10171	6333G	10176	9919	10094	15104		4432/12622	(2) 1311	336			(3) 4258/4259	
11885	11518	*	10195	*			10093			7070		(2) 12863	
12231/12855		18561	10195		18451	12856	18576			13315		(3) 4258/4259 (1)	
12231/12855		18561	10195		18451	12856	18576			13315		(3) 4258/4259 (1)	
4263/252	6333G	6438		11485	11415		4432/12622					(3) 4258/4259 (1)	
12231	6333G		10515	18428	18427		12841					(3) 4258/4259 (1)	18446

G Series Service Repair Guide

- G-1 - G5 • G7 • G7B • G20 • G21 • G22 • G26 • G30-2 • G30-2B
- G45-1 • G50 • G55-2 • G85 • G95-1 • G151 • G155 • G157 • G9901
- G9903 • GC1 • GC4 • GC5 • J70 • K75 • L10 • L80 • M71



Disassembly:

- A. Remove the screws (1) and lockwashers (2) that hold the body (3) and housing (4) together.
- B. The housing assembly including the impeller (5) can be removed from the body assembly, along with the o-ring (6), spacer plate (7) and gasket (8).
- C. Remove the woodruff key (9) from the shaft (10). If the shaft is to be used again and if it is put in a vise, always use lead over the jaws of the vise so that the shaft is not damaged.
- D. Remove the retaining ring (11) (15) from the shaft (impeller end). The shoulder washer (12) and seat assembly (13) can now be removed.
- E. From the drive end of the pump (pulley end, hub end, shaft end) remove retaining ring, remove pin (17), remove woodruff key (18), loosen set screw if used.
- F. Remove the large internal retaining ring (16) from the body at the end of the bearing.
- G. Support the body and press the shaft, bearings (19), spacer (20) and retaining ring out thru the bearing or pulley end of the body.
- H. The seal assembly (14) is pressed into the body. It can be removed by pushing a tool thru the bearing end and up against the metal or back side of the seal.

NOTE: If the pulley (23) or hub (24) is pressed on the shaft it will be necessary to locate a support directly between the

pump body and pulley or hub as close to the shaft as possible. Press the shaft out of the pulley or hub. Make sure the body is free and not supported.

NOTE: On some pumps there is a spacer located between the pulley (hub) and bearing on the shaft. On other pumps the bearings are positioned on the shaft with a retaining ring on each end. Support the bearings on the inner race and push the shaft out of the bearings.

Assembly:

- A. When assembling the cam (21), put Permatex #1 on the backside of the cam and the screw (22) that retains the cam. Wipe off any Permatex that gets into the impeller cavity.
- B. Assemble a retaining ring (11) on the shaft into the second groove from the impeller end. Push the ball bearing (19) over the shaft (10). Press on the inner race of the bearing. Push the bearing up against the retaining ring. (Push the bearing on from the pulley or drive end.)* Assemble a spacer and then the second ball bearing. Assemble the second retaining ring over the shaft and up against the ball bearing if required.
- C. There is a large internal retaining ring (16) located in the body that provides a shoulder for the bearings if it has not been removed. Approximately 1.38 inch from the bearing end of the body. If it has been removed it must be reassembled at this time.
- D. Press the mechanical seal (14) into the body from the impeller end. Make sure that seal is pressed in square. A tool should be used to assure proper assembly.
- E. Push the bearing and shaft assembly into the body using care not to cock the bearing. A tool is recommended that will give you uniform pressure on the bearing outer race. Lock the bearing in place with the large internal retaining ring.
- F. Assemble the seat assembly (13), shoulder washer (12) and retaining ring (11) (15) over the shaft from the impeller end. Locate the white ceramic surface against the seal – Do not damage (scratch) the white ceramic surface of the seat or the seal and seat assembly might leak. Lubricate the rubber part of the seat and use a tool for ease of assembly.
- G. Press the woodruff key (9) into the shaft. Make sure the brass or stainless steel key is used at this location.
- H. Assemble the impeller (5) into the housing (4).
- I. Assemble the gasket (8) and spacer plate (7) on the body (3), and line up the screw holes.
- J. Make sure the o-ring (6) is properly located in the groove in the housing. A small dab of grease will help hold it in position until the housing to body screws are tightened.

Repair Note:

It may not be necessary to completely disassemble your pumps unless you want a complete or major repair. You should first determine, if possible, the cause of your pump problem.

- A. Failure to prime or pump. (Generally, impeller, cam, and or cover wear.)
- B. Leaking through drain holes in the bearing housing. (Seal problem)
- C. Shaft wobble. (Major repair/wear of bushing, bearing, and or shaft.) It is recommended when replacing the seal or seat that you replace both at the same time. Before assembling the pump, all parts should be inspected and parts replaced if excessive wear is noted.

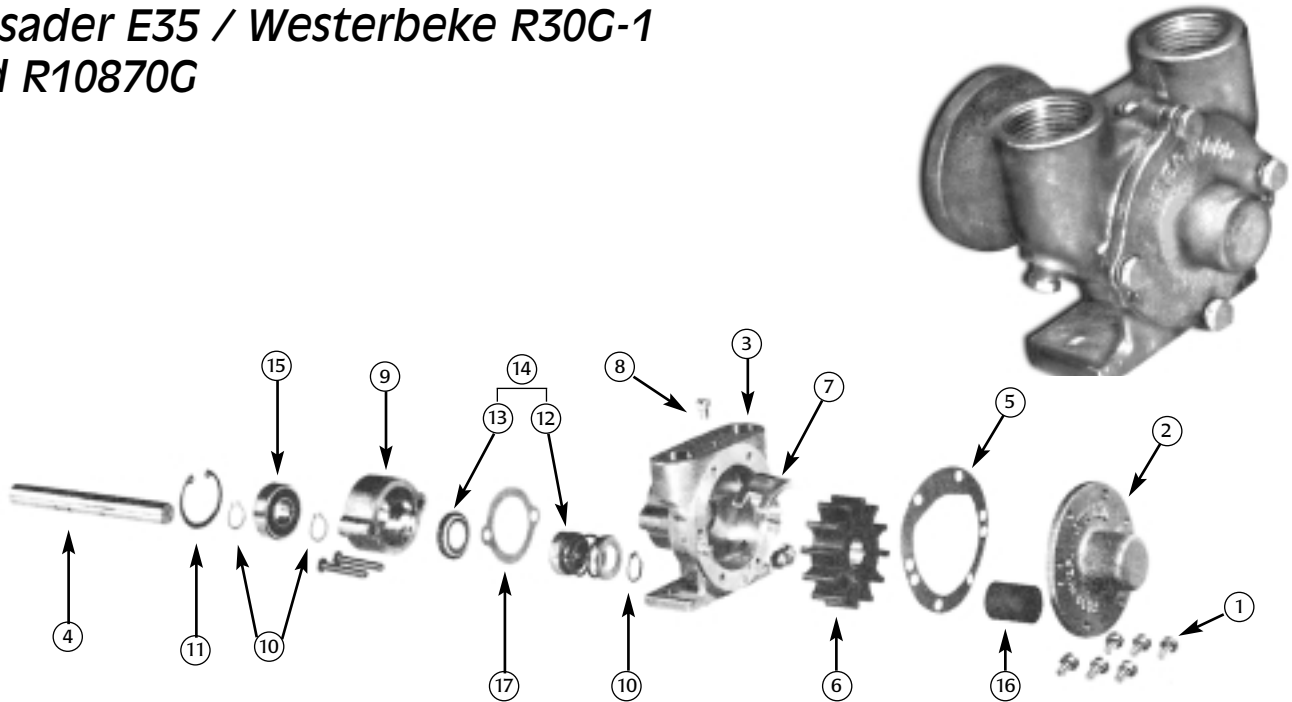
* Except for GC1, M71 pumps

Sherwood #		G5	G7	G7B	G21	G30-2B	G45-1	G55-2	GC1	K75B	L10B	M71
Engine Manufacturer		Chrys.	Chrys.	Chrys.	Pl. Craft	Chris Craft	Chris Craft	Pl. Craft	Cummins	Onan	Onan	Cummins
Engine Model		3675763	4142878	4142878	302&351	350	454	454	4B	MDL3,4	MDL6	210B
Item	QTY											
1	Screw	3	12857	12857	12857	12857	12857	12857	12857	12857	12857	12857
2	Lockwasher	3	12710	12710	12710	12710	12710	12710	12710	12710	12710	12710
3	Body	1	12227	12227	19789	12328	19784	12328	12328	14160	19948	14160
4	Housing	1	12228	12228	12228	12303	12303	12228	12907	17684	13793	12228
5	Impeller	1	10615	10615	10615	9959	9959	10615	10615	15000	9959	10615
6	O-ring	1	12231	12231	12231	12231	12231	12231	12231	12231	12231	12231
7	End Plate	1	12856	12856	12856	12856	12856	12856	12856	12856	12856	12856
8	Gaskets	1	12855	12855	12855	12855	12855	12855	12855	12855	12855	12855
9	Key	1	4432	4432	4432	4432	4432	4432	4432	4432	4432	4432
10	Shaft	1	12233	13363	13363	13363	12612	12612	12596	21069	19864	12596
11	Retaining Ring (Ext)	2/3	4258	4258	4258	4258	4258	4258	4258	4258	4258	4258
12	Washer	1	4264	4264	4264	4264	4264	4264	4264	4264	4264	4264
15	Retaining Ring (Ext)	1	12305	12305	12305					14161		
16	Retaining Ring (Int)	2	4259	4259	4259	4259	4259	4259	12597	4259	4259	4259
17	Pin	1	11541	11541	11541		12791	12791	9420			
18	Key	1	12622	12622	12622							
19	Ball Bearing	2	12211	12211	12211	12211	12211	12211	12211	12211	12211	12211
20	Spacer	1	5133	5133	5133	5133	5133	5133	5133	5133	5133	5133
21	Cam	1	10944	10944	10944	15883	15883	10944	10944	18398	15883	10944
22	Cam Screw	1	10515	10515	10515	10515	10515	10515	10515	10515	10515	10515
23	Drive Pulley or Gear	1	12326	15055	15055	19729				14184		14184
24	Hub	1					12615	12615	12926		13795	13795
13/14	Water Seal/Seat Assy	1	12859	12859	12859	12859	12859	12859	12859	12859	12859	12859
	Oil Seal	1								10514		10514
	Minor Repair Kit**		12394	12394	12394	12399	12399	12394	12394	15979	12399	12394
	Major Repair Kit**		12794	12794	12794	13251	12619	12619	13368	18694	13966	15852

** Minor and Major Repair Kits break down see page 30.

E35 and R Series Service Repair Guide

Crusader E35 / Westerbeke R30G-1
and R10870G



Disassembly:

- A. Remove the screws (1) and lockwashers that hold the cover to the body (3). Pull the cover and bushing assembly (2) off the drive shaft (4).
- B. Remove the vellum gasket (5). We recommend replacing the gasket each time the pump is assembled, however, if you plan to use the same gasket, it should be submerged in water until it is reassembled. If gasket dries it will shrink.
- C. The impeller (6) can now be removed by using pliers and grasping a vane on one side, then the other, alternating positions and gently pulling. Make sure you have a good grip on each vane so the pliers will not slip and damage the impeller.
- D. The cam (7) can be removed by removing the screw (8) that goes down through the top of the body between the intake and discharge ports.
- E. Remove the two screws and lockwashers from the bearing housing (9) on the drive shaft end of the housing. This will allow you to remove the bearing housing, seal assembly and shaft from the body.
- F. Remove the woodruff key from the shaft. If the shaft is to be used again and if it is put in a vise, always use lead over the jaws of the vise so that the shaft is not damaged.
- G. Remove the retaining ring (10) from the shaft at the seal end. The seal (12) can now be removed from the shaft. Note how the seal and seat assembly (14) are arranged so they can be properly reassembled.
- H. By removing the large internal retaining ring (11) from the bearing housing, the bearing (15) and shaft can be pressed out of the bearing housing. Support the bearing housing and press on the shaft from the impeller end.
- I. Pumps designed without separate bearing housings may require shaft removal from opposite end depending on housing design.
- J. The seat assembly (13) is pressed into the bearing housing and can be removed by pushing a tool through the bearing end and against the rubber or backside of the seat.

Repair Note:

It may not be necessary to completely disassemble your pumps unless you want a complete or major repair. You should first determine, if possible, the cause of your pump problem.

- A. Failure to prime or pump. (Generally, impeller, cam, and or cover wear.)
- B. Leaking through drain holes in the bearing housing. (Seal problem)
- C. Shaft wobble. (Major repair/wear of bushing, bearing, and or shaft.)

It is recommended when replacing the seal or seat that you replace both at the same time. Before assembling the pump, all parts should be inspected and parts replaced if excessive wear is noted.

Inspection and Replacement of Parts:

Cam – Replace if heavy pitting or wear is evident.

Impeller – Inspect for cracks or tears. Also, inspect for excessive abrasion of vane ends. Replace if any of the above conditions exist.

Mechanical Seal – Replace at major pump rebuild or if leaking.

Bearing – Inspect for loss of grease, corrosion or rough rotation. Replace if in doubt.

Assembly:

- A. When replacing the carbon bushing (16) in the cover, care should be taken not to crack the bushing. A tool that pilots on the inside diameter and presses uniformly against the end of the bushing is recommended.
- B. When assembling the cam (7), put Permatex #1 on back side of cam and the screw (8) that retains the cam. Wipe off any Permatex that gets into the impeller cavity.
- C. Assemble a retaining ring (10) on the shaft into the second groove from the drive shaft end. Push the ball bearing (15) over the shaft (4). Press on the inner race of the bearing. Push the bearing up against the retaining ring. Assemble the second snap ring (10) over the shaft and up against the ball bearing, from the flat shaft end.
- D. Push the bearing and shaft assembly into the bearing housing (9) using care not to cock the bearing. A tool is recommended that will give you uniform pressure on the bearing outer race. Lock the bearing in place with the large internal retaining ring.
- E. From the opposite end (woodruff key end of the shaft), assemble the seat (13) over the shaft, rubber side first. Push it into the counter bore in the bearing housing. Do not damage (scratch) the white ceramic surface on the seat, or the seal and seat assembly might leak.
- F. Push the seal assembly (12) over the shaft and down against the seat. Do not damage the black carbon washer that rides against the ceramic.
- G. Assemble the third retaining ring (10) on the shaft. It will be necessary to compress the seal assembly to allow the retaining ring to enter the groove on the shaft.
- H. Press the woodruff key into the keyway in the shaft.
- I. Assemble the small gasket (17) over the pilot on the bearing housing and assemble the complete shaft, bearing, seal assembly, to the body. Use the two long screws for fastening the bearing housing to the body.
- J. Assemble the impeller (6) over the shaft (4). Line up the key in the shaft with the keyway in the impeller and push the impeller into the body (3).
- K. Push the gasket (5) and cover (2) over the dowel pins and attach the cover with the screws and lockwashers.

Start-Up Note:

To prevent damaging the impeller, always wet or lubricate impeller with silicon before starting the pump.

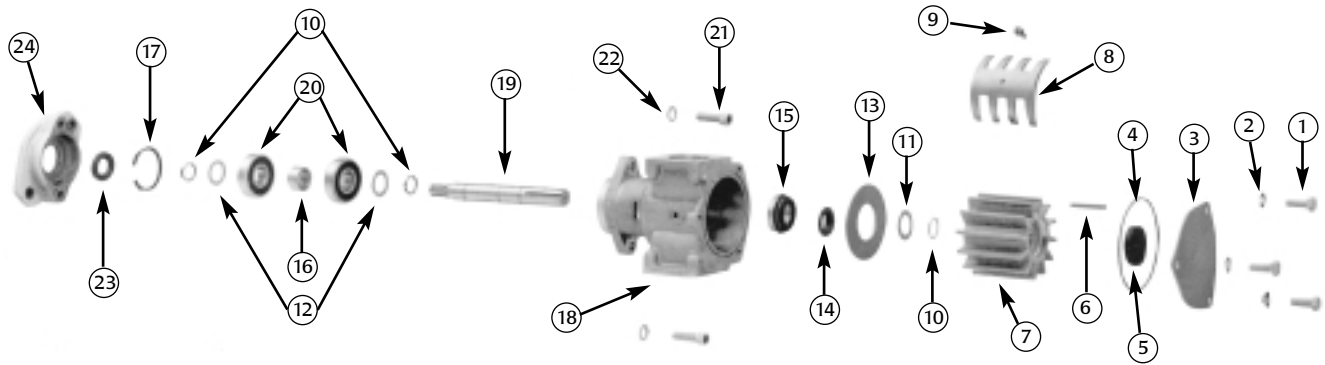
Sherwood #		R30G	R30G-1	R10870G	R50G	R102	E35
Engine Manufacturer		Sherwood	Westerbeke	Westerbeke	Sherwood	Sherwood	Crusader
Engine Model				24102	11353		97179
Item		QTY					
1	Screw	4/6	12686	18999	1482	1482	1483
2	Cover Assy*	1	10281	10281	10096	10096	10183
3	Body Assy*	1	10597	10597	10177	10177	18503
4	Shaft	1	10289	11854	10852	10175	18502
5	Gasket, Cover	1	10286	10286	10103	10103	10931
6	Impeller	1	10077	10077	9959	9959	10615
7	Cam	1	10285	10285	10072	10072	10929
8	Cam Screw	1	10195	10195	9919	9919	10515
9	Bearing/Housing Assy*	1	10198	10198	10172	10172	
10	Retaining Ring (Ext)	3	4304	4304	4258	4258	4258
11	Retaining Ring (Int)	1	4303	4303	4259	4259	4259
12	Seal	1	10522	10522	18743	18743	18743
13	Seat	1	11361	11361	10926	10926	10926
14	Water Seal/Seat Assy	1	11367	11367	10927	10927	10927
15	Ball Bearing	1	4306	4306	4257	4257	4257
16	Bushing	1	2075	2075	6333	6333	6333
17	Gasket, Housing	1	10197	10197	10171	10171	
	Key	1	10093	10093	4432	4432	4432
	Dowel Pin	2	1311	1311	1311	1311	1311
	Hub for pulley	1					97176
	Minor Repair Kit**		10996	10996	10997	10997	10999
	Major Repair Kit**		12935	12935	12937	12937	11068

* ASSEMBLY DESCRIPTION: Body Assembly includes body and two dowel pins. Cover Assembly includes cover and bushing. Ball Bearing Housing Assembly includes ball bearing and seat.

** Minor and Major Repair Kits break down see page 30.

P-17000 Service Repair Guide

CAT / Cummins / John Deere



Assembly and Disassembly Procedures of 17000 Series Pumps

The following assembly/disassembly procedures apply to all 17000 Series pumps. Deviations from pump to pump are primarily a result of different methods of drive and mounting.

Disassembly:

- A. Remove the three bolts (1) and lock washers (2) from the pump cover (3). The cover and o-ring (4) are now free. The impeller end cap (5) can be pried off with a screw driver. Normally, impellers (7) can be removed using two pair of pliers to grip two of the impeller's vanes on opposite sides of the impeller. A penetrating lubricant will help loosen a stuck impeller. Also, rotating the shaft by hand may help free the impeller. The 3/16" key (6) will also be removed at this time.
- B. Remove any pulleys or drive gears (25) from the drive shaft. For tapered shaft models, (P171, P172, P176 & P1710), it is necessary to remove the shaft nut and pull the gear or pulley with a puller. For models with pressed on gears (P173), two threaded holes are provided in the gear. An appropriate puller may be attached to these two holes to remove the gear from the shaft.
- C. Most models will be equipped with a flange adapter (24). The flange adapter is held to the pump body by two socket head cap screws (21), either 3/8" or 10mm, depending on the model. The screws are removed by using a hex socket wrench. More current models are mounted with four 8mm flange hex head bolts.

Note: If the bolts prove difficult to remove, their removal may be assisted by mildly heating the flange adapter, in the area of the bolt, with a propane torch. The bolts are secured at the factory with thread locking compound and the heat will break down the bond. Care should be taken not to over heat the body adapter.

The adapter is then removed. If the lip seal (23) in the adapter requires replacing, it can be pressed out at this time.

- D. The cam (8) and cam screw (9) are removed. The internal wear plate (13) will drop out. The retaining ring (10), washer (11) and seal seat (14) are then removed. External snap ring pliers are required.
- E. From the ball bearing end, the internal snap ring (17) must be removed on models P171 through P176. Later models have extended bearing assemblies and are held together by means of the flanged adapter. The bearing assembly (10, 12, 16, 19, 20) is pressed out of the body from the impeller end of the housing. The two external snap rings (10) are removed from the shaft (19) along with the bearing washers (12), permitting removal of bearings (20). The mechanical seal (15) may now be pressed from the bearing side of the housing (18).

Inspection and Replacement of Parts:

Cam – Replace if heavy pitting or wear is evident.

Impeller – Inspect for cracks or tears. Also, inspect for excessive abrasion of vane ends. Replace if any of the above conditions exist.

Mechanical Seal – Replace at major pump rebuild or if leaking.

Lip Seal – Replace if leaking.

Shaft – Inspect for wear in area of lip seal and rubber impeller. Grooving of lip seal area or heavy fretting of the impeller end shaft will require shaft replacement.

Bearing – Inspect for loss of grease, corrosion or rough rotation. Replace if in doubt.

Reassembly:

- A. Press mechanical seal (15) into housing (18). A small amount of Permatex or other sealant should be used to insure against leakage.
- B. Install external snap ring (10) on shaft (19). Next, place washer (12), bearing (20), bearing spacer (16), second bearing (20) and washer (12) and secure with the second external snap ring (10). The bearings will have to be pressed on from the pulley/gear end. Note that it is extremely important to properly align the bearings to the shaft prior to press, otherwise the possibility exists of galling the shaft in the area of the lip seal. This completes the bearing and shaft assembly.

- C. Press the bearing and shaft assembly into the housing (18). On older models, replace the internal snap ring (17). On new model pumps the bearings will be flush to the end of the housing and will be retained with the flange adapter (24).
- D. On all older model pumps with mounting adapters, the lip seal (23) will have to be replaced prior to replacing the flange adapter (24). Care should be taken to insure proper alignment of the lip seal to the adapter and that the lip seal is uniformly pressed to prevent distortion. The adapter (24) may be reassembled to the pump housing (18) at this time. The use of Loctite #262 or equivalent is recommended on the adapter bolts.
- E. The ceramic seal and rubber cup (14) is now installed from the impeller end of the housing. Care must be taken to remove all burrs from the keyway to prevent cutting of the rubber cup. If possible, a half thickness key can be used to assist in assembly. In pressing the ceramic and boot a pusher should be used with a diameter only slightly greater than the shaft diameter, (.80"). Soapy water or a lubricant from a seal manufacturer may be used in assembly. Oil or grease should not be used as it will prevent the rubber cup from properly gripping the shaft. The seat and cup are pressed just beyond the external/snap ring groove. The seat should be inspected to insure that the cup did not become partially dislodged during the press procedure. The washer (11) and external snap ring (10) are then installed.
- F. The internal wear plate (13) is dropped in place, anti-rotation pin aligned with the cast slot in the bottom of the housing. The cam (8) is reinstalled and secured with the cam screw (9). Older model cam screws were sealed by means of a nylon washer requiring Permatex or other sealant to seal the cam screw. The cam should be inspected to insure that it does not protrude below the cam. This condition is possible if the nylon seal is badly deformed or if a substitute screw is used. Should the screw protrude beneath the cam, replace it with a new screw or grind flush. Failure to do so will result in immediate impeller damage.
- G. At this time, if applicable, press on any gears (25) or pulleys. The shaft (19) must be securely supported from the impeller end and in line with the press. Failure to do so will result in either damaged bearings and/or a canted gear with excessive run out.
- H. Install the impeller (7) using a non-petroleum based lubricant such as silicon or soapy water (the use of oils or grease will result in a damaged impeller). The impeller is installed using a twisting motion. Insure the impeller blades are bent in the same direction as upon removal. Once installed, rotate the shaft to align keyway and slide the key (6) in place. Then cover end with the rubber end plug (5).
- I. Replace o-ring gasket (4) and cover plate (3). Secure with three cover plate bolts (1) and lock washers (2).

Sherwood #	P176	P1710	P1716	P1719	P1722	P1726	P1727	P1730	
Engine Manufacturer	CAT	CAT	Cummins	Deere	Cummins	CAT	Cummins	Cummins	
Engine Model	3208	3116	B Series	6076	C Series	3126	C Series	B Series	
Engine Part Number	7E4115	4P7168	3922690	RE45458	3922589	1131109	3897194	3866493	
Item	QTY								
1	Cap Screw	3	16029	19626	19626	19626	19626	19626	19626
2	Lockwasher	3	15944	15944	15944	15944	15944	21573	21573
3	Cover Plate	1	18742	18742	18742	18742	18742	18742	18742
4	O-ring	1	15945	15945	15945	15945	15945	15945	15945
5	Impeller Cap	1	19210	19210	19210	19210	19210	19210	19210
6	Key	1	19667	19667	19667	19667	19667	19667	19667
7	Impeller	1	17000	17000	17000	17000	17000	17000	17000
8	Cam	1	18271	18271	18271	18271	18271	18271	18271
9	Cam Screw	1	10515	19714	19714	19714	19714	19714	19714
10	Retaining Ring (Ext)	3	15952	15952	15952	15952	15952	15952	15952
11	Washer	1	15959	15959	15959	15959	15959	15959	15959
12	Washer	2	19614	19614	19614	19614	19614	19614	19614
13	Wear Plate-Pin Assy	1	18441	18441	18441	18441	18441	18441	18441
14/15	Water Seal/Seat Assy	1	15955	15955	15955	15955	15955	15955	15955
16	Spacer	1	15940	19707	19615	19615	19707	19615	19615
17	Retaining Ring (Int)	1	15942	15942			15942		
18	Housing	1	19015	19683	19630	19732	19630	19683	21523
19	Shaft	1	19620	19706	19616	19345	19616	19706	19616
20	Ball Bearing	2	15951	15951	15951	15951	15951	15951	15951
21	Adaptor Bolts	4		19708	19708	19708	19708	19708	19708
23	Oil Lip Seal	1		21776	19674	19674	21776	19674	19674
24	Adaptor	1		19699	19727	19700	19955	19699	21205
25	Gear Assy	1			19885		19885		21985
	Cam Screw O-ring	1		19712	19712	19712	19712	19712	22495
	Gear Nut	1			19730		19730		19730
	Adaptor Gasket	1			21570		21570		21570
	Flanged Port O-rings	2							21525
	Flanged Port Bolts	8							21525
	Minor Repair Kit**		18284	18284	18284	18284	18284	21592	21484
	Major Repair Kit**		18285		21065	19726	21065	21587	21587

• Components for Major Kits are in Darker Bold Print.
 ** Minor and Major Repair Kits break down see page 30.

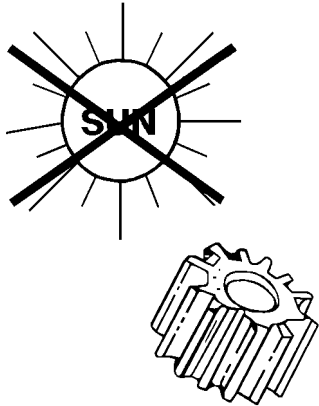
Repair Kits

Part Number		For Pump Model No.	Kits Include The Following										
			Bushing	Bearing	Water Seal Assy	Gasket/O-Ring	Impeller	Cam	Wear Plate	Key	Cover Assy	Oil Seal	
Minor Kits													
10244	M10095G, N10360GX, N10360GX		x	x	x	x	xx						
10615K	P105, P102, G1006, G1005, G1004					x	x						
10656	D75, D60				x	xx	xx						
10922	D55				x	xx	xx						
10996	R30G-1, R30G				x	xx	x						
10997	R10997, R10870G				x	xx	x						
10999	E35, R10970G, S10040G, B04				x	x	x						
11102	S11095G		x	x	x	x	x						
12344	F95			x	x	x	x				x		
12394	G45-1, G5, G5-1, G50, G7, G7B, L80, L10, L10B, M70, M71, G85, K90, L90, G56, G85				x	xx	x						
12399	G20, G21, G30-2, G30-2B, J70, G95-1, H10, K75, K75B					xx	x		x				
15979	GC-1, GC-4, G157, G155, G1503, GC5				x	xx	x						
18284	All P17000 Series Pumps				x	x	x						
18656	R991		x			x	x						
19301	P101				x	x	x						
19725	P1719					x	x						
21064	P1716, P1722, P1727, P1730, P1726, P1719, P1710					x	x				x		
21351	G1801					xx	x						
21352	G1801					xx	x	xx	x			x	
21494	G1804, G1805, 1806, 1807					xx	x						
21495	G1804, G1806, G1808					xx	x	xx	x			x	
21592	P1727, P1730					xxx	x				x		
21855	G1805, G1807					xx	x	xx	x			x	
21931	All P17000 Series Pumps					x	x				xx		
Major Kits													
10996	E05				x	xx	x						
11068	RPB-C; E-35		x	x	x	x	x	x					
12221	G65			x	x	x	x						
12299	D55		x	x	x	xx	xx	xx	x				
12300	D60		x	x	x	xx	xx	xx	x				
12301	N10360GX		x	x	x	xx	xx		x	xx			
12308	S11095G		x	x	x	x	x			x			
12333	F95		x	x	x	x	x						
12619	G30-2, G30-B2, G45-1			xx	x	xx			x	x			
12665	J70, G95-1, G9901, G9902, G9903, G21, G22			xx	x	xx	x			x			
12793	D75		x	x	x	xx	xx	xx	x				
12794	G50, G7, G7B, G85, L90, G26			xx	x	xx	x	x	x				
12872	L10, L10B			xx	x	xx	x	x	x				
12935	R30G-1		x	x	x	xx	x	x					
12946	G45-2, H85, G46			xx	x	xx	x	x	x				
12980	H5			xx	xx	xx	x	x		x			
13368	K90, G56, G55-2			xx	x	xx	x	x	x				
13966	K75, K75B				x	xx	x	x	x				
15852	M71 (includes shaft & body)			xx		xx				x			x
18285	P171, P176, P172, P1712, P173			xx	x	x	x						
18655	R991			x	x	x	x	x					
18694	GC1, GC4 (includes impeller housing)					x	x	x					
19354	P105, (includes shaft)			x	x	xx	x						
19726	P1719			xx	xx	x	x			x			x
21065	P1716, P1722, P1727, P1730 (see pg 29)			xx	x	x	x	x	x	x	x	x	x
21073	GC1, GC5, GC4			xx	x	xx	x	x	x	x			x
21496	G1804, G1806 (includes shaft)			xx	x	xx	x	xx	x			x	x
21587	P1716, P1722, P1727, P1730 (see pg 29)			xx	x	xx	x	x	x	x	x		x
21856	G1805 (includes shaft, body assy)			xx	x	xx	x	xx	x			x	x
21899	G1807 (includes shaft, body assy)			xx	x	xx	x	xx	x			x	x
22014	G1004, G1005				x	xx	x	x	x	x			
22276	G1006		x		x	xx	x	x	x	x	x	x	x
22784	G701			xx	x	xxx	x		x	x	x	x	x
23233	G1503			xx	x	x	x		x	x	x	x	x

x = one item xx = two items xxx = three items

Genuine Sherwood Tech Tips

1 Sherwood recommends replacing your impeller annually. However, as usage may vary vastly, we do have some storage tips for those who do not have many hours on your engine.



Store your impeller in a cool dark place. This avoids the following:

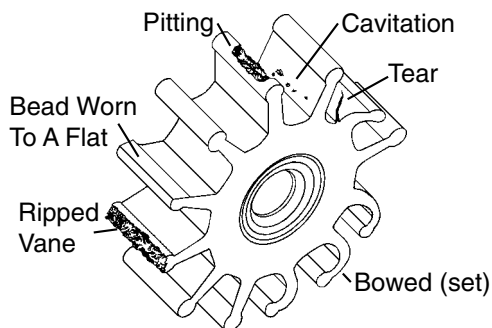
- Copper Bonding to the impeller as it sits in the housing
- Vanes “setting” in the position as stored in the housing
- Ultra Violet (Sunlight) deterioration

2 Sherwood suggests three easy tips to help you install your new impeller.



- Use a non-petroleum based lubricant (i.e. silicon or soapy water) to help slide in the impeller
- Install the impeller with a twisting motion onto the shaft. Never force the impeller onto the shaft. The impeller must move freely on the shaft to properly prime and function
- Use a small amount of non-petroleum based lubricant to help hold the o-ring when replacing the cover

3 Sherwood recommends inspecting your impeller closely during any pump maintenance. Replace the impeller if you discover either of the following.



- Tear or rip on any of the impeller blades. Flex the blades to examine more thoroughly
- Severe wear on the impeller

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