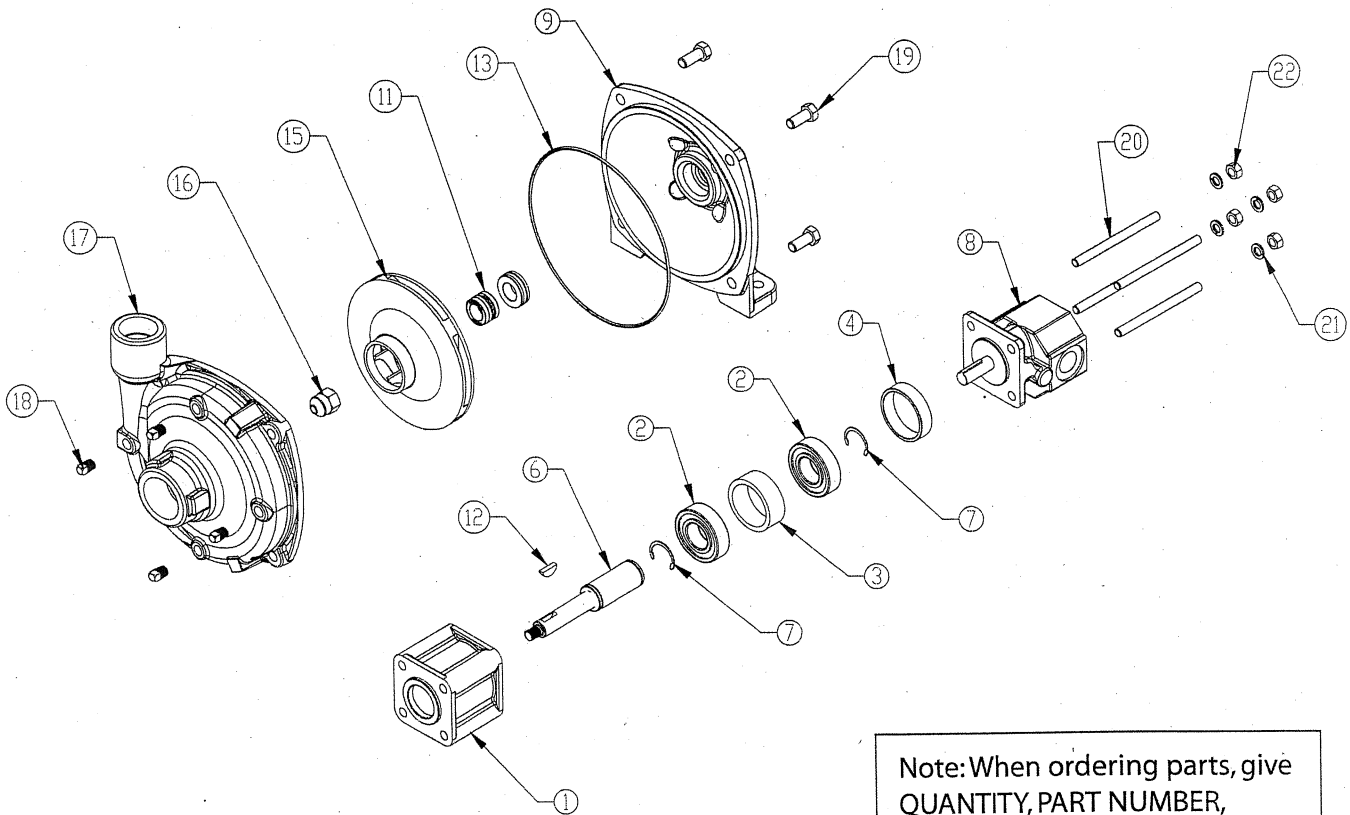


Models 9302CT-GM1 & 9302ST-GM1



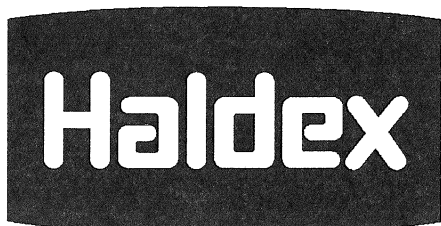
Note: Mechanical Seals ref. 11 is not available outside of the kit form. For replacement seal order kit #3430-0332 for model 9302CT-GM1 and kit #3430-0589 for model 9302ST-GM1.

Note: When ordering parts, give QUANTITY, PART NUMBER, DESCRIPTION, and COMPLETE MODEL NUMBER. Reference numbers are used ONLY to identify parts in the drawing and are NOT to be used as order numbers.

Ref. No.	Qty. Req'd	Part No.	Description
1	1	0701-9300C	Bearing Housing
2	2	2008-0001	Bearing
3	1	1410-0108	Bearing Spacer
4	1	1410-0110	Motor Pilot Ring
6	1	0517-2500	Shaft Assembly
7	2	1810-0013	Retainer Ring
8	1	2500-0033	Hydraulic Gear Motor
9	1	0750-9300C2	Mounting Flange
9*	1	0756-9300S	Mounting Flange
11	1	2120-0009	Mechanical Seal (See Note)
11*	1	2120-0039	Mechanical Seal (See Note)
12	1	1610-0012	Key
12*	1	04432	Key

Ref. No.	Qty. Req'd	Part No.	Description
13	1	1720-0083	O-Ring
15	1	0401-9100P	Impeller (Nylaglass)
15*	1	0401-9200P	Impeller (Polypropylene)
16	1	2253-0006	Acorn Nut
17	1	0150-9200C2	Pump Casing
17*	1	0156-9200S1	Pump Casing
18	4	2406-0007	Pipe Plug
18*	4	2406-0016	Pipe Plug
19	4	2210-0020	Hex Head Capscrew
19*	4	2210-0125	Hex Head Capscrew
20	4	2210-0130	Threaded Stud
21	4	2260-0002	Lockwasher
22	4	2250-0008	Nut

* Denotes Part for 9302ST-GM1



OPERATING INSTRUCTIONS & PARTS MANUAL

HYDRAULIC GEAR PUMPS/MOTORS

MODELS 10561 THRU 10567

OIPM P/N 2690163

READ CAREFULLY BEFORE ATTEMPTING TO ASSEMBLE, INSTALL, OPERATE OR MAINTAIN THE PRODUCT DESCRIBED. PROTECT YOURSELF AND OTHERS BY OBSERVING ALL SAFETY INFORMATION. FAILURE TO COMPLY WITH INSTRUCTIONS COULD RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE! RETAIN INSTRUCTIONS FOR FUTURE REFERENCE.

Description

Our hydraulic pumps are highly efficient and specifically designed for bi-directional rotation. They utilize an external gear fixed displacement design and are of a durable cast iron construction. They incorporate an internally lubricated ball bearing on the drive shaft which will withstand up to 150 lb. side load.

They can be used for direct drive or for belt driven applications. Hydraulic pumps are suitable for use in a wide variety of material handling, agricultural, and construction equipment applications; in addition to machine tools, robotics, and other types of machinery.

Unpacking

Due to cast iron construction, very little damage can occur during transit. Do not remove the plastic shipping plugs from the ports until ready for installation. This will keep dirt or foreign material from entering the system.

Specifications

Cast iron hydraulic pump, bi-rotational, 4-bolt 4F17 mounting, 11 tooth gears, 1.50" shaft extension, 0.50" shaft diameter with 0.125" square x 1" drive key, side porting with SAE straight thread ports, internally lubricated ball bearing for side loads to 150 lbs.

Replacement Parts

Seal & Bearing Kit 2300780

General Safety

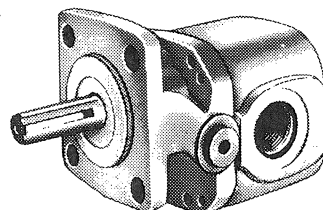


Figure 1

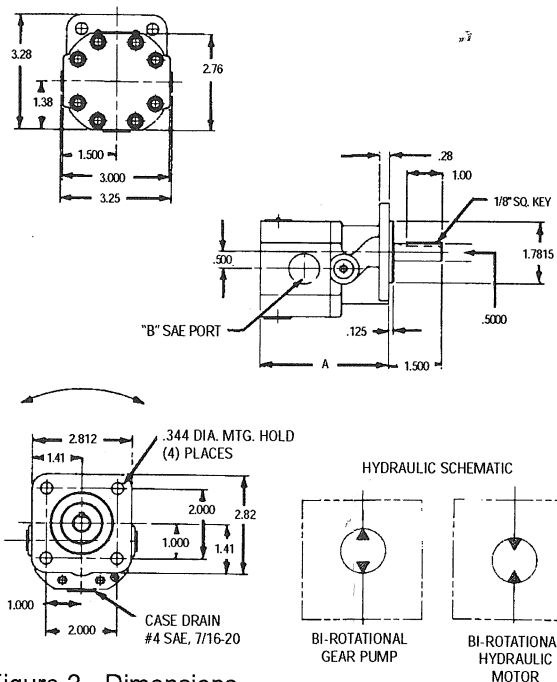


Figure 2 - Dimensions

PUMP/FLUID MOTOR DIMENSIONAL DATA

MODEL	DIMENSIONS	
	A	B
10561	3.16"	9/16-18 SAE #6
10562	3.16"	9/16-18 SAE #6
10563	3.16"	3/4-16 SAE #8
10564	3.16"	3/4-16 SAE #8
10565	3.16"	3/4-16 SAE #8
10566	3.66"	7/8-14 SAE #10
10657	3.66"	7/8-14 SAE #10

Troubleshooting Chart

SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Pump does not develop full pressure	<ol style="list-style-type: none"> 1. System relief valve set too low, or leaking 2. Oil temp is too high 3. Pump is worn out 4. Double acting cylinder piston seals are cut or worn out 	<ol style="list-style-type: none"> 1. Check system relief valve for proper setting with pressure gauge in outlet line 2. Let oil cool below 140°F 3. Replace worn parts or pump 4. Replace or repair cylinder
Motor won't start	<ol style="list-style-type: none"> 1. Loose connection 2. Circuit breaker tripped 3. Voltage drop 4. Seized pump 5. Start up load is higher than motor torque capability 	<ol style="list-style-type: none"> 1. Check wiring 2. Reset circuit breaker 3. Use heavier gauge wire 4. Replace pump 5. Use larger motor or reduce operating pressure
Will not pump oil (Motor runs but cylinder does not move, or moves slowly)	<ol style="list-style-type: none"> 1. No oil in reservoir 2. Motor rotating wrong direction 3. Oil level low 4. Suction strainer is clogged 5. Double acting cylinder piston seals are cut or worn out 6. Reservoir breather is dirty or clogged 7. Bi-rotational check valve leaking 	<ol style="list-style-type: none"> 1. Check oil level, refill 2. Change rotation of prime mover or reverse inlet and outlet hoses 3. Add oil as needed 4. Clean suction strainer 5. Replace or repair cylinder 6. Clean reservoir breather and reinstall 7. Remove check valve on pressure side. Clean and reassemble.
Pump motor unit is noisy	<ol style="list-style-type: none"> 1. Low oil level 2. Air in system 3. Suction strainer or inlet filter is clogged 	<ol style="list-style-type: none"> 1. Add oil as needed 2. Bleed air from highest fitting in system by loosening fitting very slightly and operating unit until bubbling of air stops, then tighten 3. Clean suction strainer or inlet filter
Motor operating slow or stalling	<ol style="list-style-type: none"> 1. Excessive slipping of gears due to overheating of oil 2. Excessive wear on the sides of gear housing due to oil contaminants 	<ol style="list-style-type: none"> 1. Check system. Add oil if needed. Oil cooler may be necessary to keep oil at normal operating temperatures 2. Check condition of oil and replace if contaminated
Motor speed is erratic	<ol style="list-style-type: none"> 1. Motor operating below minimum recommended speed of 750 RPM 2. Air in system 	<ol style="list-style-type: none"> 1. Increase minimum operating speed to 750 RPM or more 2. Bleed air from system