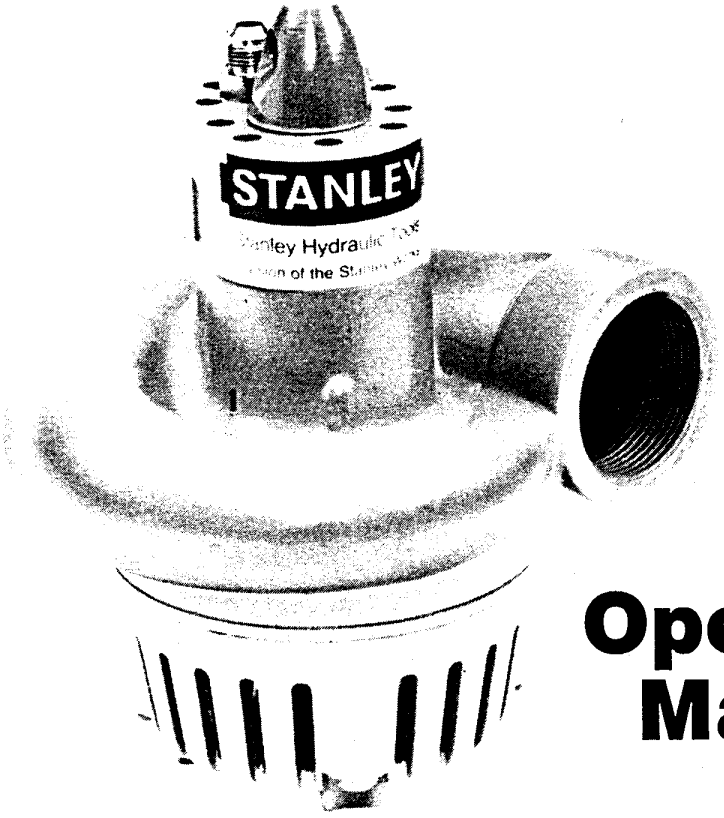
SM23
HYDRAULIC SUMP PUMP



Safety, Operation and Maintenance Manual

Focused on performance ™

STANLEY®
helps you do things right

05452 1/94R

SAFETY PRECAUTIONS

Tool operators and maintenance personnel must always comply with the safety precautions given in this manual and on the stickers and tags attached to the tool and hose.

These safety precautions are given for your safety. Review them carefully before operating the tool and before performing maintenance or repairs.

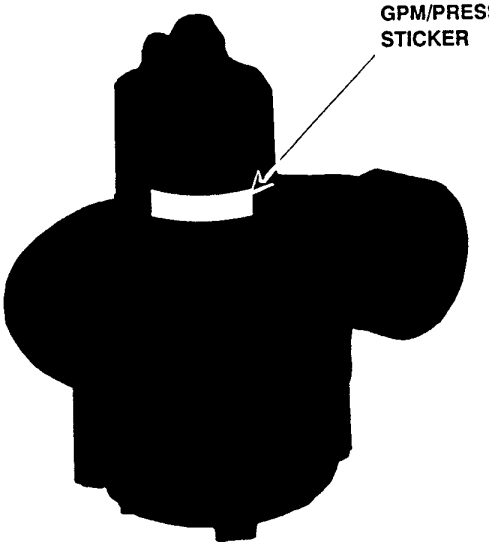
Supervising personnel should develop additional precautions relating to the specific work area and local safety regulations. If so, place the added precautions in the space provided on page 4.

GENERAL SAFETY PRECAUTIONS

The SM23 Sump Pump will provide safe and dependable service if operated in accordance with the instructions given in this manual. Read and understand this manual and any safety stickers and tags attached to the pump and hose before operation. Failure to do so can result in personal injury or equipment damage.

- Operators must start in a work area without bystanders. The operator must be familiar with all prohibited work areas such as aexcessive slopes and dangerous terrain conditions.
- Establish a training program for all operators to ensure safe operation.
- Do not operate the tool unless thoroughly trained or under the supervision of an instructor.
- Always wear safety equipment such as goggles, ear and head protection, and safety shoes at all times when operating the tool.
- Never use tools near energized transmission lines. Know the location of buried or covered services before starting work.
- Never wear loose clothing that can get entangled in the working parts of the tool.
- Do not overreach. Maintain proper footing and balance at all times.
- Do not inspect or clean the tool while the hydraulic power source is connected. Accidental engagement of the tool can cause serious injury.
- ALways connect hoses to the tool hose couplers before energizing the hydraulic power source. Be sure all hose connections are tight.
- Do not lift the pump by pulling on the hydraulic hoses. Use a suitable line fastened through the hole in the plug in the pump head.
- Do not put hand under volute while the pump is running.
- To avoid personal injury or equipment damage, all tool repair, maintenance and service must only be performed by authorized and trained personnel.

TOOL STICKERS AND TAGS



A flow and pressure sticker is attached to the pump at the location shown. Never exceed the flow and pressure levels specified on this sticker.

10-16 GPM/38-60 LPM
DO NOT EXCEED 2000 PSI/140 BAR

■ DO NOT EXCEED SPECIFIED FLOW OR PRESSURE. ■ USE CLOSED-CENTER TOOL ON CLOSED-CENTER SYSTEM. ■ USE OPEN-CENTER TOOL ON OPEN-CENTER SYSTEM. ■ CORRECTLY CONNECT HOSES TO TOOL "IN" AND "OUT" PORTS. ■ IMPROPER HANDLING, USE OR MAINTENANCE OF TOOL COULD RESULT IN A LEAK, BURST OR OTHER TOOL FAILURE. ■ CONTACT AT A LEAK OR BURST CAN CAUSE OIL INJECTION INTO THE BODY. ■ FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS PERSONAL INJURY. 03786

GPM/PRESSURE STICKER

The information listed on each sticker must be legible at all times. Always replace a worn or damaged sticker. A replacement is available from your local Stanley distributor.

The safety tag at the right is attached to the pump when shipped from the factory. Read and understand the safety instructions listed on this tag before removal. We suggest you retain this tag and attach it to the pump when not in use.

DANGER

1. FAILURE TO USE HYDRAULIC HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE WHEN USING HYDRAULIC TOOLS ON OR NEAR ELECTRICAL LINES MAY RESULT IN DEATH OR SERIOUS INJURY.

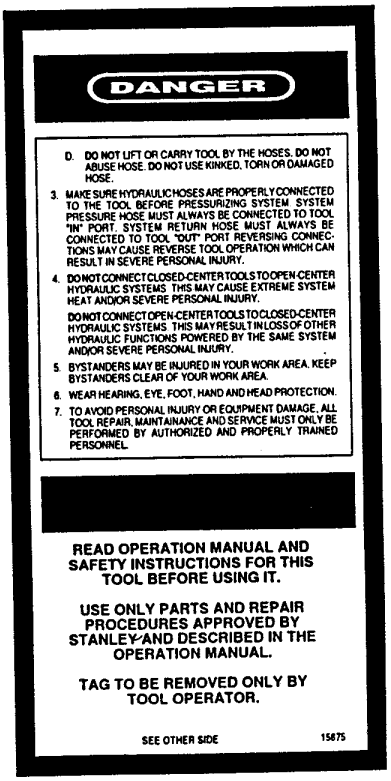
   BEFORE USING HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE ON OR NEAR ELECTRICAL LINES BE SURE THE HOSE IS MAINTAINED AS NON-CONDUCTIVE. THE HOSE SHOULD BE REGULARLY TESTED FOR ELECTRIC CURRENT LEAKAGE IN ACCORDANCE WITH YOUR SAFETY DEPARTMENT INSTRUCTIONS.
2. A HYDRAULIC LEAK OR BURST MAY CAUSE OIL INJECTION INTO THE BODY OR CAUSE OTHER SEVERE PERSONAL INJURY.
   A. DO NOT EXCEED SPECIFIED FLOW AND PRESSURE FOR THIS TOOL. EXCESS FLOW OR PRESSURE MAY CAUSE A LEAK OR BURST
   B. DO NOT EXCEED RATED WORKING PRESSURE OF HYDRAULIC HOSE USED WITH THIS TOOL. EXCESS PRESSURE MAY CAUSE A LEAK OR BURST.
   C. CHECK TOOL HOSE COUPLERS AND CONNECTORS DAILY FOR LEAKS. DO NOT FEEL FOR LEAKS WITH YOUR HANDS. CONTACT WITH A LEAK MAY RESULT IN SEVERE PERSONAL INJURY.

READ OPERATION MANUAL AND SAFETY INSTRUCTIONS FOR THIS TOOL BEFORE USING IT.

USE ONLY PARTS AND REPAIR PROCEDURES APPROVED BY STANLEY AND DESCRIBED IN THE OPERATION MANUAL.

TAG TO BE REMOVED ONLY BY TOOL OPERATOR.

SEE OTHER SIDE 15875



HYDRAULIC HOSE REQUIREMENTS

HOSE TYPES

Hydraulic hose types authorized for use with Stanley Hydraulic Tools are as follows:

1. Labeled and certified non-conductive
2. Wire braided (conductive)
3. Fabric braided (not certified or labeled non-conductive)

Hose 1 listed above is the only hose authorized for use near electrical conductors.

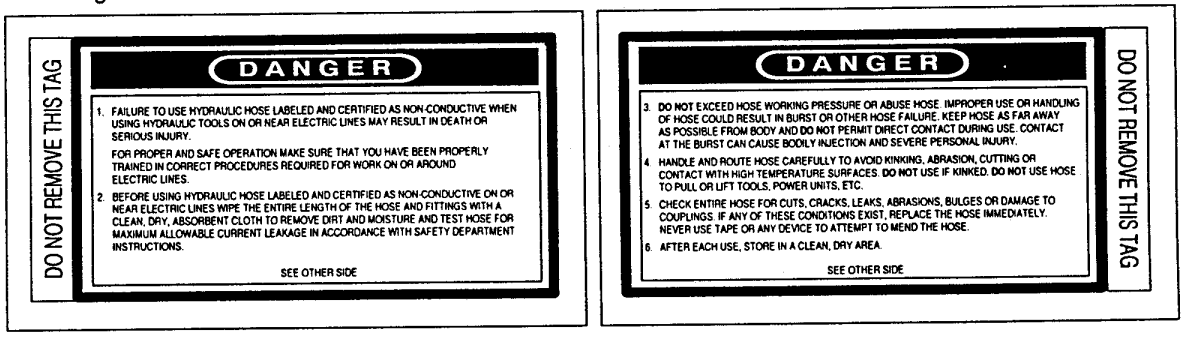
Hoses 2 and 3 listed above are conductive and must never be used near electrical conductors.

To help ensure your safety, the following DANGER tags are attached to all hoses purchased from Stanley Hydraulic Tools. DO NOT REMOVE THESE TAGS.

If the information on a tag is illegible because of wear or damage, replace the tag immediately. A new tag can be obtained at no charge from your Stanley distributor.

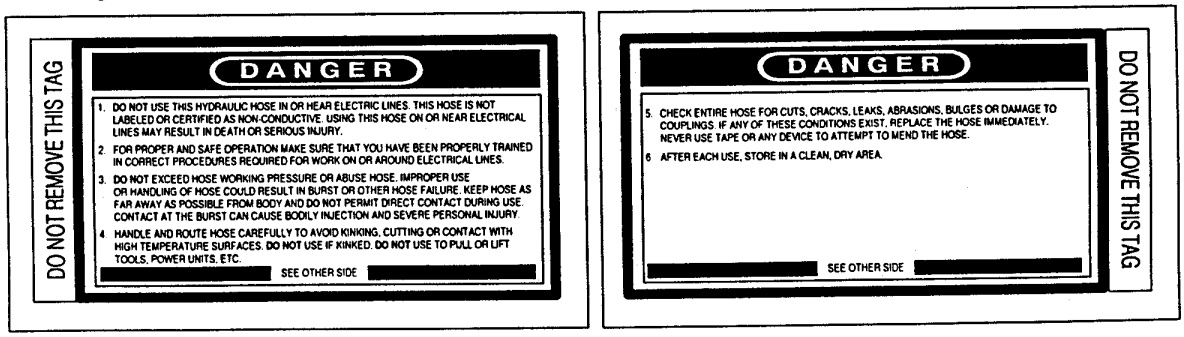
1 CERTIFIED NON-CONDUCTIVE HOSE

This tag is attached to all certified and labeled **non-conductive** hose.



2 AND 3 WIRE- AND FABRIC-BRAIDED (NOT CERTIFIED OR LABELED NON-CONDUCTIVE) HOSE

This tag is attached to all **conductive** hose.

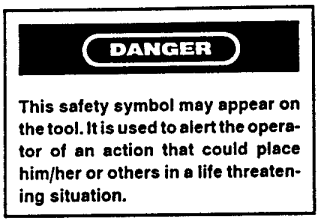


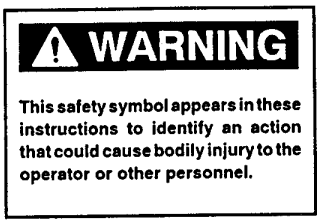
HOSE PRESSURE RATING

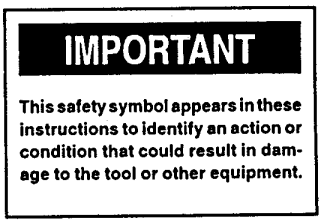
The rated working pressure of the hydraulic hose must be equal to or higher than the relief valve setting of the hydraulic system used to power the pump.

SAFETY SYMBOLS

Safety symbols are used to emphasize all operator, maintenance and repair actions which, if not strictly followed, could result in a life-threatening situation, bodily injury or damage to equipment.







Always observe safety symbols. They are included for your safety and for the protection of the tool.

LOCAL SAFETY REGULATIONS

Enter any local safety regulations here. Keep these instructions in an area accessible to the operator and maintenance personnel.

OPERATION

IMPORTANT

In addition to the Safety Precautions on pages 1 and 4 of this manual, observe the following for equipment protection and care.

- Always keep critical tool markings such as labels and warning stickers legible.

- Always replace hoses, couplings and other parts with replacement parts recommended by Stanley Hydraulic Tools. Supply hoses must have a minimum working pressure rating of 2500 psi/175 bar. All hoses must have an oil resistant inner surface and an abrasive resistant outer surface.

- Tool repair should be performed by authorized and trained personnel only.

- Make sure all couplers are wiped clean before connection.

- The hydraulic circuit control valve must be in the "OFF" position when coupling or uncoupling hydraulic tools. Failure to do so may result in damage to the quick couplers and cause overheating of the hydraulic system.

HYDRAULIC SYSTEM REQUIREMENTS

- The hydraulic system should provide a flow of 10-16 gpm/38-60 lpm at an operating pressure of 1000-2000 psi/70-140 bar. Recommended relief valve setting is 2100 psi/145 bar.

- The system should have no more than 250 psi/17 bar backpressure measured at the tool end of the operating hoses. The system conditions for measurement are at maximum fluid viscosity of 400 ssu/82 centistokes (minimum operating temperatures).

- The hydraulic system should have sufficient heat rejection capacity to limit the maximum oil temperature to 140° F/60° C at the maximum expected ambient temperature. The recommended minimum cooling capacity is 5 hp/3.73 kW at a 40° F/22° C difference between ambient temperature and oil temperature.

- The hydraulic system should have a minimum of 25 micron filtration. It is recommended that filter elements be sized for a flow of at least 30 gpm/114 lpm for cold temperature startup and maximum dirt holding capacity.

- The hydraulic fluid used should have a viscosity between 100 and 400 ssu/20 and 82 centistokes at the maximum and minimum expected operating temperatures. Petroleum base hydraulic fluids with antiwear properties and a viscosity index over 140 ssu/28 centistrokes will meet the recommended requirements over a wide range of operating temperatures.

- The recommended hose sizes are listed in table 1.

Table 1. Recommended Hose Sizes

Length-Ft/M	Inside Diameter
To 30 ft/9 m 30-60 ft/9-18 m	1/2 inch/12 mm (both) 5/8 inch/16 mm (both)
60-150 ft/18-46 m	5/8 inch/16 mm (pressure) 3/4 inch/19 mm (return)

PREOPERATION PROCEDURES

CHECK POWER SOURCE

1. Using a calibrated flowmeter and pressure gauge, check that the hydraulic power source develops a flow of 10-16 gpm/38-60 lpm at 1000-2000 psi/70-140 bar.

2. Make certain the power source is equipped with a relief valve set to crack at 2150 psi/145 bar maximum.

3. Check that the pump inlet screen is clean. Remove any obstruction before operating the pump. Refer to PUMP CLEANING PROCEDURES.

CONNECT HOSES

1. Wipe all hose couplers with a clean lint-free cloth before making connections.

2. Connect the hoses from the power supply to the tool fittings. It is a good practice to connect return hoses first and disconnect them last to minimize or avoid trapped pressure within the tool.

3. If hose couplers are used, observe the arrow on the coupler to ensure that the oil flow is in the proper direction. The female coupler on the tool hose is the inlet coupler. This coupler should be connected to the port closest to the water outlet.

PUMP OPERATION

Note: The SM23 pump is not designed for use with a suction pipe inlet. The diameter of the suction screen at the bottom of the pump provides maximum pump efficiency. Reducing the size of this inlet will greatly reduce pump performance.

1. Connect a hose fitted with a 2 1/2-inch male pipe end to the pump outlet fitting. Make sure the fitting is securely tightened.

2. Lower the pump into the liquid to be pumped. Locate the outlet end of the discharge hose to disperse the liquid as required.

Note: Do not lower pump by the hoses. Affix a suitable line through the hole in the plug in the pump head.

⚠ WARNING

Never point the end of the hose at bystanders.

3. Energize the power source. Watch for solids in the liquid being pumped. If solids are excessive, the discharge flow may decrease. If this happens, stop the pump and check for the cause of the problem.

Under some conditions, the liquid being pumped may be slowed enough so that it can no longer push particles in the liquid. If this happens, particles can accumulate in the pumping chamber, causing further restriction. The impeller then acts as a "grinding wheel", which causes accelerated pump wear. Reduced liquid flow can be caused by the following:

- The pump sinks into solids at the bottom of the hole.

- The end of the oulet hose is too high, causing an excessive lift height for the column of liquid being pushed by the pump. This slows the flow of liquid to a level where it can no longer carry solids.

- The flow and pressure of hydraulic oil to the pump is too low, which reduces impeller speed. A 20 percent decrease in hydraulic oil flow can reduce pump performance by 50 percent. When operating at reduced hydraulic flow and pressure, the end of the outlet hose should not be more than 30 ft/9 m above the liquid.

4. When pumping is completed, set the hydraulic flow control valve at the power source to "OFF", then lift the pump from the hole or chamber.

COLD WEATHER OPERATION

If the pump is to be used during cold weather, preheat the hydraulic oil at low engine speed. When using the normally recommended oils, oil should be at or above 50°F/10°C (400 ssu/82 centistokes) before use.

Damage to the hydraulic system or pump can result from use with oil that is too viscous or thick.

SERVICE INSTRUCTIONS

CLEANING THE PUMPING CHAMBER

Debris such as weeds, sand and other solids may become trapped in the pumping chamber. This can reduce pumping performance. It is important that the pumping chamber be kept clean at all times. The chamber can be cleaned as follows:

1. Disconnect pump from the power source.

2. Remove four 3/8-16 x 3 1/2-inch/89 mm long hex head capscrews securing the screen, impeller cover and shims to volute assembly.

3. Remove all debris from the screen, impeller cover, impeller and pump volute. Do not remove the impeller unless necessary for repair, replacement or to remove trapped debris.

4. Install impeller cover and shims as required to obtain .010-.020-inch/.25-.51 mm clearance between the impeller and the impeller cover. Install screen and secure with four 3/8-16 x 3 1/2-inch/89mm long hex head capscrews.

CHECKING THE MAIN SHAFT SEAL

1. Remove four 3/8-16 x 3 1/2-inch/89 mm long hex head capscrews securing the screen, impeller cover and shims to volute assembly.

2. Secure the impeller to prevent it from rotating. Remove the conical (left-hand threaded) nut by turning **clockwise**. Remove impeller and key.

3. Thoroughly clean the area around the impeller shaft, quad ring and wear plate.

4. Connect the pump to a hydraulic power supply as described in the OPERATION section of this manual. Apply hydraulic power to the pump motor. Carefully check for oil leaks around the quad ring and impeller shaft.

5. If oil leaks are apparent around the shaft, remove the wear plate and quad ring and replace the quad ring seal. See PUMP DISASSEMBLY AND REASSEMBLY in this manual.

PUMP DISASSEMBLY AND REASSEMBLY

PRIOR TO DISASSEMBLY

- Clean the exterior of the pump thoroughly.

- Obtain the proper seal kit or repair kit to replace all seals exposed during disassembly. See the PARTS LIST section of this manual.

DISASSEMBLY

1. Remove two hydraulic adapters and the plug from the top of the pump head.

2. Remove four 3/8-16 x 3 1/2-inch/89 mm long hex head capscrews securing the screen, impeller cover and shims to volute assembly.

3. Secure the impeller to prevent it from rotating. Remove the conical (left hand threaded) nut by turning **clockwise**. Remove impeller and key.

4. Remove seven 1/4-20 x 5/8-inch/15.8 mm long socket head capscrews securing the wear plate to the volute assembly.

5. Place two 1/4-20 x 5/8-inch/15.8 mm long socket head capscrews in the short tapped holes in the wear plate. Turn them in evenly to remove the wear plate. Remove the two capscrews from the wear plate.

6. Remove the o-ring from the volute assembly and the quad ring from the wear plate.

7. Remove ten 1/4-20 x 2 3/4-inch/70 mm long socket head capscrews securing the pump head to the volute assembly.

8. Lift the pump head from volute and remove large o-ring.

9. Remove gear and key from drive shaft or volute. Remove the idler gear and set aside so it will not be confused with drive shaft gear.

10. Remove 1/8 x 1-inch/25 mm long cotter pin and (holding the shaft near keyways only) 7/16-20 castle nut from the drive shaft.

11. Remove washers, bearing and spacers from pump head. Remove drive shaft.

MOTOR CLEANING AND INSPECTION

Cleaning

- Clean all parts with a degreasing solvent. Blow dry with compressed air and wipe clean. Use only lint-free cloths.

Bushing (In Volute)

- The inside of the bushings should be gray in color. If a significant amount of yellow-bronze shows, bushing replacement is required. Inspect shafts for corresponding wear and replace as required.

Gear Chamber (In Volute)

- The gear chamber bores and end faces around the bores should be polished but not rough or grooved. The flat surfaces around the chamber and bolt holes should be flat and free of nicks and burrs that could cause mis-alignment or leaks.

Gears

- Both gears should have flat, straight tips without nicks. They should have a smooth even polish on the teeth and end faces. Check for cracks between the drive gear keyway and gear root. Discard the gear if cracks are present.

Pump Head

- The gear running surfaces should show two interconnecting polished circles without a step or roughness.

Wear Plate

- The quad ring bore in the wear plate should be smooth and free from nicks or scratches.

Shafts

- The drive shaft diameter at the bearing and quad ring locations must be smooth. Grooves, roughness or a reduced diameter indicates fluid contamination and damaged bushings. If abnormal wear as above occurs (in excess of normal polishing) both shafts and associated bushings must be replaced.

REASSEMBLY

Note: Lubricate all o-rings, seals, gears and shafts before assembly.

1. Lubricate and install the quad ring in the wear plate bore.

2. Install the o-ring in the volute (impeller side) and secure the wear plate to the volute using seven 1/4-20 x 5/8-inch/22.2 mm long socket head capscrews.

3. Using grease to help retain the key, install longest key in long drive shaft keyway. Install the drive shaft gear in the volute.

4. Slide the drive shaft (with key installed) through the gear and out the wear plate.

5. Using grease to help retain the key, install the impeller key in the smaller drive shaft keyway. Align the key with the keyway in the impeller and install the impeller.

6. Using the left hand threaded conical nut, secure the impeller to the drive shaft. Hold the impeller to keep it from rotating and tighten the conical nut **counterclockwise**.

7. Lubricate and install the idler gear in the volute.

8. Lubricate and install the o-ring on the pump head that fits between the volute and pump head.

9. Secure the pump head to the volute using ten 1/4-20 x 2 3/4-inch/70 mm long socket head capscrews.

10. Install spacer, bearing (circular race grooves towards balls), washers and 7/16-20 castle nut.

11. Tighten 7/16-20 castle nut, back-off approximately 1/3 turn and install 1/8 x 1-inch/25 mm long cotter pin in cross hole of drive shaft. Bend ends of cotter pin over to secure.

12. Install two hydraulic adapters and large plug in pump head. Use teflon tape or other thread sealant on the plug threads.

13. Install impeller cover and shims as required to obtain .010-.020 inch/.25-.51 mm clearance between the impeller and the impeller cover. Install screen and secure with four 3/8-16 x 3 1/2-inch/89 mm long hex head capscrews.

IMPELLER INSPECTION

REMOVAL

1. Remove four 3/8-16 x 3 1/2-inch/89 mm long hex head capscrews securing the screen, impeller cover and shims to volute assembly.

2. Remove all debris from the screen, impeller cover, impeller and pump volute.

3. Secure the impeller to prevent it from rotating. Remove the conical (left hand threaded) nut by turning **clockwise**. Remove impeller and key.

INSPECTION

- Check the impeller blades for cracks, chips and signs of excessive wear. Replace the impeller if damaged or seriously worn.

INSTALLATION

1. Install the impeller and key. Secure to drive shaft with left hand threaded conical nut. Tighten **counterclockwise**.

2. Install impeller cover and shims as required to obtain .010-.020-inch/.25-.51 mm clearance between the impeller and the impeller cover. Install screen and secure with four 3/8-16 x 3 1/2-inch/89 mm long hex head capscrews.

WEAR PLATE INSPECTION

REMOVAL

1. Remove four 3/8-16 x 3 1/2-inch/89 mm long hex head capscrews securing the screen, impeller cover and shims to volute assembly.

2. Secure the impeller to prevent it from rotating. Remove the conical (left hand threaded) nut by turning **clockwise**. Remove impeller and key.

3. Remove seven 1/4-20 x 5/8-inch/15.8 mm long socket head capscrews securing the wear plate to the volute assembly.

4. Place two 1/4-20 x 5/8-inch/15.8 mm long socket head capscrews in the short tapped holes in the wear plate. Turn them in evenly to remove the wear plate. Remove the capscrews from the wear plate.

INSPECTION

- Carefully check the wear plate for cracks, deep scratches and signs of excessive wear. Scratches deeper than 1/16-inch/2 mm may affect pump performance. Replace the wear plate if damaged or seriously worn. Check impeller to wear plate clearance.

INSTALLATION

1. Lubricate and install the quad ring in the wear plate bore.

2. Install the o-ring in the volute (impeller side) and secure the wear plate to the volute using seven 1/4-20 x 5/8-inch/22.2 mm long socket head capscrews.

3. Install the impeller and key. Secure to drive shaft with left hand threaded conical nut. Tighten **counterclockwise**.

4. Install impeller cover and shims as required to obtain .010-.020-inch/.25-.51 mm clearance between the impeller and the impeller cover. Install screen and secure with four 3/8-16 x 3 1/2-inch/89 mm long hex head capscrews.

TROUBLESHOOTING

If symptoms of poor performance develop, the following chart can be used as a guide to correct the problem.

When diagnosing faults in operation of the pump, always check that the hydraulic power source is supplying the correct hydraulic flow and pressure to the tool as listed in the table. Use a flowmeter known to be accurate. Check the flow with the hydraulic oil temperature at least 80° F/27° C.

PROBLEM	CAUSE	REMEDY
Pump will not start.	No hydraulic flow or pressure.	Turn on power unit and check that 10-16 gpm/38-60 lpm at 1000-2000 psi/70-140 bar is available at the pump.
	Defective couplers.	Check the couplers by connecting them together; then with the hydraulic power supply operating and the control valve "ON", the power supply should operate without "loading" from the couplers.
	Impeller jammed with debris.	Clean the pumping chamber as described in the SERVICE INSTRUCTION section of this manual.
	Impeller rubbing against wear plate.	Check and adjust the impeller clearance as described in the SERVICE INSTRUCTION section of this manual.
	Defective hydraulic motor.	Repair or replace motor.
Poor pump performance.	Hydraulic flow reversed.	Check that hoses are correctly connected to the pump motor ports. The female coupler should be connected to the IN port. The return oil must never flow through a reversing valve.
	Improper hydraulic oil flow.	Check that 10-16 gpm/38-60 lpm at 1000-2000 psi/70-140 bar is available at the pump. A 20 percent decrease in flow can result in a 50 percent decrease in pump performance. 10-13 gpm/38-49 lpm is best circuit flow.
	Pump submersed in sediment.	Lift the pump from the bottom of the hole or chamber. Use a flat support under the pump if necessary.

PROBLEM	CAUSE	REMEDY
Poor pump performance. (cont)	Pump inlet restricted.	Remove the pump screen and clean thoroughly.
	Discharge hose kinked or restricted.	Straighten the hose. If the hose must bend at top of hole, use a piece of split rigid conduit with large diameter of the expanded hose. This will keep the hose from kinking. Use a 90° 2-1/2 inch pipe elbow on pump outlet, if necessary.
		Check for debris inside the hose. Clean as required.
	Discharge hose too small.	Use 2-1/2 inch/63.5 mm diameter fire hose.
	Water lift too high.	Lower the outlet end of the discharge hose.
		Obtain higher water head (capacity) pump.
	Impeller worn or damaged.	Check for impeller damage and excessive wear. Replace the impeller if necessary.
	Impeller cover worn or damaged.	Check for impeller cover damage and excessive wear. Replace the impeller if necessary.
	Hose used on suction side of pump.	Do not use any plumbing on the pump inlet. Use pump with suction screen as designed. Submerge pump in the water.

SPECIFICATIONS

Weight	22 lb/10.9 kg
Overall Length	11 inch/27.9 cm
Pressure Range	1000-2000 psi/70-140 bar
Flow Range	10-16 gpm/38-60 lpm
Maximum Flow	15 gpm/57 lpm
System Type	open center, HTMA TYPE 2 or 3 (TYPE 3 best)
Porting	-8 SAE o-ring
Connect Size and Type	3/8 inch Male Pipe Fittings
Water Outlet Size	2.5-inch pipe
Drop Through Hole Diameter	12 inch/30.48 mm

NOTE

Weights, dimensions and operating specifications listed are subject to change without notice. Where specifications are critical to your application, please consult the factory.

ACCESSORIES

PART NUMBER	DESCRIPTION
01304	Flat Bottom Suction Screen
02183	25 ft/8 m Length of 2-1/2 in. Fire Hose with Pin Lug Male x Female Coupler
02317	Fire Nozzle — 1 in. Output
02812	Street Elbow 90°
05133	2-1/2 in. Thread Adapter for Fire Hose
05134	50 ft/15 m Length of 2-1/2 in. Fire Hose with Pin Lug Male x Female Coupler
05135	Spanner Wrench for Pin Lug Coupler

WARRANTY

Hand held tools and their parts are warranted against defects in materials and workmanship for a period of 12 months from the date of purchase. Exceptions are cutting parts, steels, and other parts not manufactured by Stanley (such as impact mechanisms, alternators, regulators, and hoses), and parts subject to normal wear and tear (such as o-rings, saw blades, and other parts that become worn through normal use of the tool).

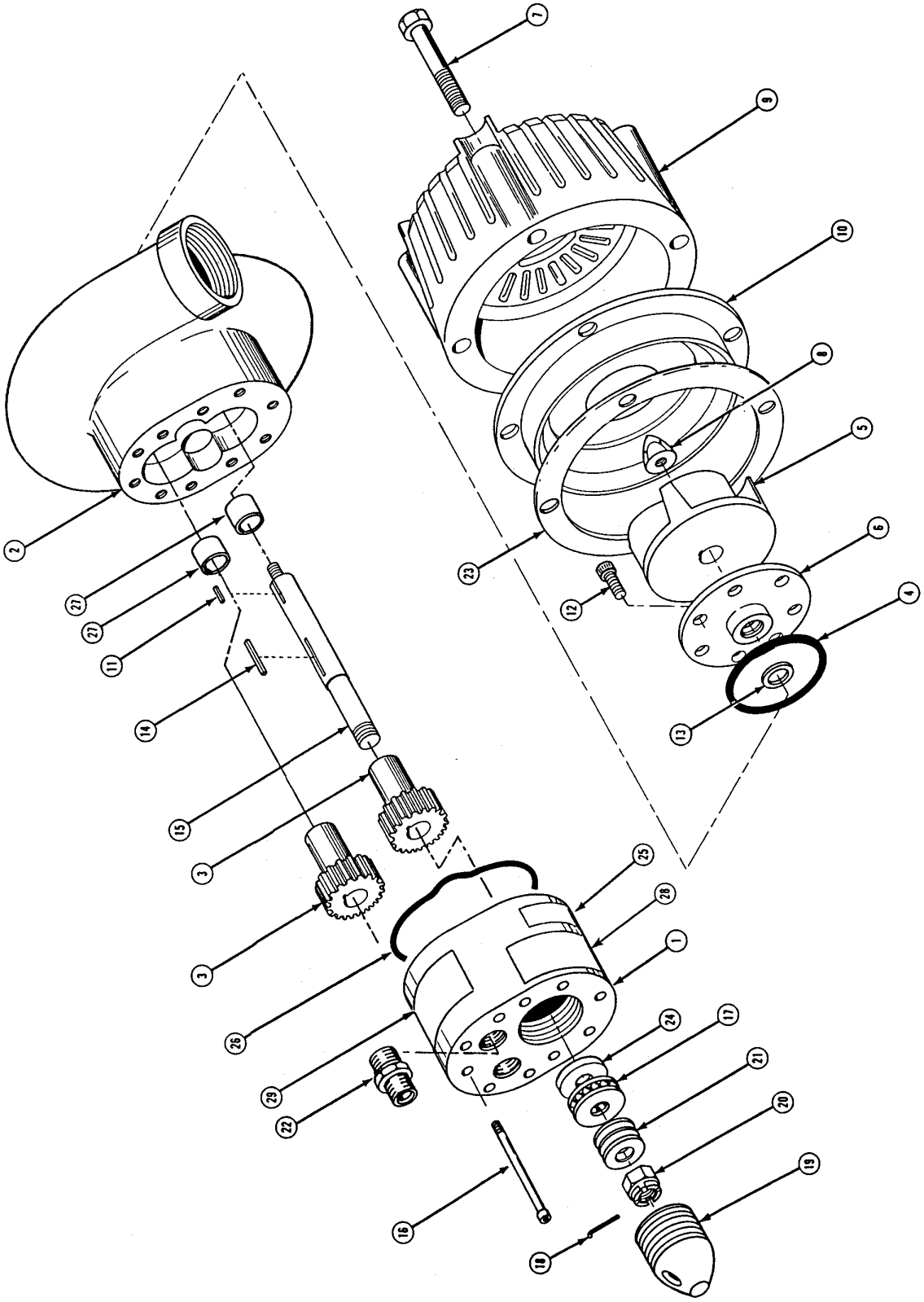
The Warranty Registration Card packed with the tool must be filled out and returned to Stanley upon receipt of the tool.

Stanley reserves the right to replace or repair only those parts which under our examination prove to have been defective at the time of purchase.

Shipping charges are prepaid by the customer unless otherwise authorized by Stanley.

The warranty is void if maximum flow and pressure ratings are exceeded.

There is no other warranty expressed or implied.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PARTS LIST

Item No.	Part No.	Qty.	Description
1	02796	1	Sump Pump Head
2	04122	1	Volute Assembly, Incl. item 27
3	02799	2	Gear
4	03750	1	O-Ring, 2 5/16 x 2 1/2 x 3/32 ⊙
5	03747	1	Impeller •
6	03746	1	Wear Plate
7	01208	4	Capscrew, Hex Head 3/8 - 16 UNC x 3 1/2
8	02433	1	Nut, Conical •
9	02784	1	Screen
10	02815	1	Impeller Cover
11	00635	1	Impeller Key •
12	02446	7	Capscrew Hex Soc., Stnls. 1/4 - 20 UNC x 5/8
13	01241	1	Quad Ring, 11/16 x 7/8 x 3/32 ⊙
14	02797	1	Drive Shaft Key •
15	02802	1	Drive Shaft
16	03249	10	Capscrew, Hex Soc. Hd.,Stnls. 1/4 - 20 UNC x 2 1/2
17	02444	1	Bearing
18	02808	1	Cotter Pin, 1/8 x 1 ⊙
19	03136	1	Plug
20	02810	1	Castle Nut, 7/16 - 20 UNF
21	02477	A/R	Washer •
22	00936	2	Adapter
23	01312	A/R	Shim, .003
	01313	A/R	Shim, .005
	01314	A/R	Shim, .010
	01315	A/R	Shim, .025
24	03953	1	Spacer •
25	03791	1	GPM Sticker 10-16
26	06799	1	O-Ring, 2 3/4 x 2 7/8 x 1/16 ⊙
27	04121	2	Bushing
28	03147	1	Nameplate Sticker
29	05152	1	Stanley Sticker
	15875		Tool Operator Warning Tag (Not Shown)

NOTE: Use Part Number and Part Name When Ordering

- • **Denotes Part in Repair Kit**
- ⊙ **Denotes Part in Seal Kit**

REPAIR AND SEAL KIT DATA

Part No.	Qty.	Description
Repair Kit Part No. 03266		
00635	1	Impeller Key
02433	1	Conical Nut
02477	1	Washer
02797	1	Drive Shaft Key
03747	1	Impeller
03953	1	Spacer
Seal Kit Part No. 03267		
01241	1	Quad Ring
02808	1	Cotter Pin
03750	1	O-Ring
06799	1	O-Ring

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