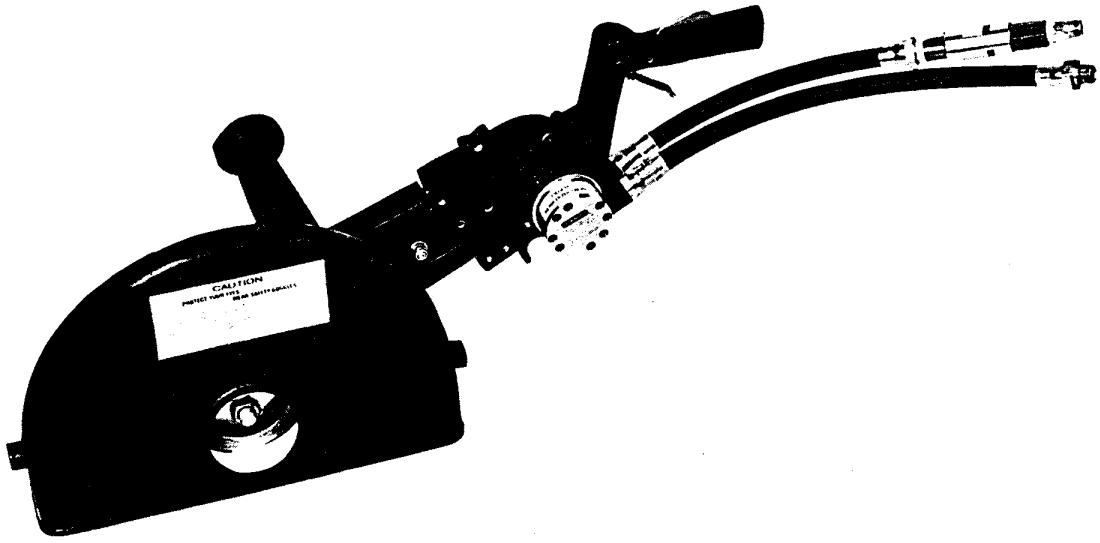
CO14
HYDRAULIC CUTOFF SAW



Operation and Maintenance Manual

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SAFETY PRECAUTIONS

Operators and maintenance personnel must always comply with the following safety precautions. These precautions are given here for your safety. Review them carefully before operating the tool and before performing general maintenance or repairs on the tool.

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 3.

SAFETY SYMBOLS

Safety symbols are used in these instructions to bring attention to actions that may cause personal injury or damage to the equipment. Always observe these symbols, they are included for your safety and for the protection of the tool.

⚠ WARNING

This symbol is used to identify an action that can cause injury to the operator or other personnel.

IMPORTANT

This symbol is used to identify an action or condition that can result in damage to the tool or other equipment.

SAFETY PRECAUTIONS

- Read all instructions carefully before operating the tool.
- New operators must start in a work area without bystanders. He/she must be familiar with all prohibited work areas such as excessive slopes and dangerous terrain conditions.
- Always wear safety equipment such as goggles, ear protection and safety shoes at all times when operating the tool.
- Never use tools around energized transmission lines. Know the location of buried or covered services before starting your work.
- Never wear loose clothing that can get entangled in the working end of the tool.
- Wear head protection.
- Do not over reach. Maintain proper footing and balance at all times.
- Do not inspect or clean the tool with the power source operating or with operating pressure at the tool. Accidental engagement of the tool can cause serious injury.
- Always connect hoses to the tool hose couplers before energizing the power source.
- Do not operate the tool at oil temperatures above 140°F/60°C. Operation at higher temperatures can cause higher than normal temperatures at the tool which can result in operator discomfort.
- Always hold the tool with both hands when the unit is running. Use a firm grip.
- Keep all parts of your body away from a rotating cutoff wheel.

- Keep the wheel off all surfaces when starting the saw.
- Always carry the tool with the wheel stopped.
- Make sure the wheel has stopped before setting down the tool.
- Keep the handles dry, clean and free of oil at all times.
- Operate the tool in well-ventilated areas only.
- All service must be performed by experienced service personnel only.
- Always inspect wheels for possible damage before installation.
- Establish a training program for all operators to ensure safe operation.
- Do not operate the tool unless thoroughly trained.
- Never transport or store the tool with the wheel mounted on the saw.
- Do not operate the tool if it is damaged, improperly adjusted or not completely and correctly assembled.
- Never cock, jam or wedge the wheel during the cut.
- Never cause sparks in the vicinity of flammable materials.
- Do not operate the tool with the wheel guard removed.
- Do not start cutting until you have a clear work area and secure footing.
- Do not allow other persons near the tool when starting or cutting.
- Never operate the tool when you are tired or fatigued.
- Do not use a wheel that is cracked or otherwise damaged.
- Do not operate the tool if the wheel does not stop when the throttle trigger is released.
- Do not use the side of the wheel as the cutting surface.
- Never exceed the maximum operating speed marked on the wheel.
- Always use cutoff wheels that conform to the specifications given in the OPERATION section of this manual.
- Do not remove flow control supplied with tool.
- Do not operate tool with flow control removed.
- Do not reverse wheel rotation direction by changing oil flow direction. Obtain a saw designed for the wheel direction that you desire.

LOCAL SAFETY REGULATIONS

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

OPERATION

IMPORTANT

Observe the following for Equipment protection and care.

- Always store an idle cutoff saw in a clean, dry space, safe from damage or pilferage.

- Replace the cutoff wheel if worn for maximum tool performance. Make sure that the wheel is not chipped or damaged.

- Always keep critical tool markings, such as labels and 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 2000 psi/140 bar. All hoses must have an oil resistant inner surface and an abrasive resistant outer surface. Hoses that conform to SAE100R1A are recommended.

- Use only cutoff wheels that meet the requirements of ANSI B7.5. Wheels should be no larger than 14 inches/35.5 cm in diameter, 5/32 inch/4 mm thick with a 1 inch or 22 mm arbor hole. Rated speed must be 5000 rpm minimum.

- Tool repair should be performed by experienced 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

1. The hydraulic system should provide a flow of 7-9 gpm/26-34 lpm at an operating pressure of 1000-2000 psi/70-140 bar. Recommended relief valve setting is 2100-2250 psi/145-155 bar.

2. 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 or 400 ssu/82 centistokes (minimum operating temperatures).

3. 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 h.p./3.73 kw at a 40° F/22° C difference between ambient temperature and oil temperature.

4. 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 20 to 30 gpm/75 to 113 lpm for cold temperature startup and maximum dirt holding capacity.

5. The hydraulic fluid used should have a viscosity between 100 and 400 ssu/20-82 centistokes at the maximum and minimum expected operating temperatures. Hydraulic fluids of petroleum base with anti-wear properties and viscosity indexes over 140 will meet the recommended requirements over a wide range of operating temperatures.

6. The recommended hose size is .500 inch/12 mm I.D. up to 50 ft/15 m long and .625 inch/16 mm I.D. minimum up to 100 ft/30 m long.

PREOPERATION CHECKOUT PROCEDURES

POWER SOURCE

1. Using a calibrated flow meter and pressure gauge, check that the hydraulic power source develops a flow of 7-9 gpm/26-34 lpm at 1000-2000 psi/70-140 bar.

2. Make certain that the power source is equipped with a relief valve set to crack at 2250 psi/155 bar maximum.

3. Check that all operating controls and indicators are easily accessible.

CUTOFF SAW TRIGGER AND SAFETY CATCH

1. Check that the trigger operates smoothly and is free to travel between the ON to OFF positions.

2. Check that the trigger is set to disengage the cutoff saw when released.

3. Check that the safety catch on the valve handle assembly is operating properly. It should prevent engagement of the trigger unless the catch is fully pressed down into the handle slot.

HANDLE

- Check that the handle is securely fastened to the extension housing. Remove any oil from the handle grip.

WHEEL GUARD

1. Inspect the wheel guard for cracks and other structural damage.

2. Rotate the guard to ensure that it moves freely on the wheel-arbor centerline.

3. Check that the locking mechanism operates properly to hold the guard in a set position.

ARBOR AND COLLARS

1. Inspect the collars and arbor prior to installation. Check for burrs. Check that the bearing surfaces are flat and run true when mounted on the drive shaft.

2. Inspect the drive shaft threads.

REDUCING BUSHINGS

1. When a reducing bushing is used in the cutoff wheel mounting hole, check that it does not exceed the thickness of the wheel.

2. Make sure that the reducing bushing does not protrude beyond the surface of the wheel on both sides. Bushings that are too thick will not allow the collars to fit properly against the wheel.

3. Check that reducing bushings are tight in the cutoff wheel mounting hole. Never use bushings that do not fit tightly in the mounting hole. Never use shim stock.

WHEEL CONDITION

1. Before installing abrasive wheels, "sound" the wheel for possible damage by hanging the wheel vertically by the arbor hole and rapping lightly with a screw driver handle or similar instrument. Thin, organic bond wheels will produce a low drumming tone if it is physically sound. If the wheel produces a "dead" or "flat" sound, it may be cracked. Cracked or damaged wheels must never be used.

2. Check that the surfaces of the wheel that come in contact with blotters and flanges are free of dirt and other foreign particles.

3. Check that the correct wheel is used for the job.

4. Check that the wheel conforms to the physical requirements listed in the SPECIFICATION section of this manual (also listed on page 4). The cutoff wheel shall fit freely on the cutoff saw arbor and remain free under all cutting conditions. A controlled clearance between the arbor hole and the cutoff saw arbor is essential to avoid excessive pressure from installation and/or arbor expansion.

5. Check diamond wheels to ensure all segments are intact.

DRIVESHAFT SPEED CHECK

The speed of the motor output shaft should be checked at least every 100 hours of operation by trained and experienced personnel. A record of the speed checks should be maintained. The maximum rated speed of the CO14 Cutoff Saw is 4500 rpm. This speed must be equal to or less than the rated speed of the cutting wheel. Tests should be conducted while operating from the normal power supply used with the cutoff saw.

Excessive speed may be caused by excessive oil flow to the tool.

OPERATING INSTRUCTIONS

CUTOFF WHEEL INSTALLATION

IMPORTANT

Make sure the wheel has been thoroughly inspected prior to installation.

Note: When mounting the wheel, use blotters at the collars. The blotters should be made from highly compressible material and should not be more than .025 inch thick.

1. Install the keyed inside collar on the arbor.

2. Install the wheel on the arbor. Refer to the SPECIFICATIONS section of this manual for wheel requirements.

3. Install the outside collar.

4. Install and tighten the arbor nut. Tighten the nut only tight enough to prevent slippage of the wheel.

5. Position the wheel guard as required, then tighten the knob.

CONNECTING 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 hoses. It is a good practice to connect return hoses first and disconnect 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 flow is in the proper direction. The female coupler on the tool hose is the inlet coupler.

4. Move the hydraulic circuit control valve to the "On" position to operate the tool.

Note: If uncoupled hoses are left in the sun, pressure increase within the hose may result in making them difficult to connect. When possible, connect the free ends of operating hoses together.

TOOL OPERATION

Note: At the beginning of each shift or when a new cutoff wheel has been installed, run the cutoff saw at operating speed for at least one minute before starting work. Keep all bystanders from standing in front of or in line with the wheel.

General Procedures

1. Whenever possible, the work should be held down and securely supported on both sides of the cut.

2. Press down the safety catch, then slowly squeeze the trigger. Start the cut with the wheel rotating. Start the work gently, do not "bump" the work.

3. Feed the wheel through the material as fast as possible without allowing the wheel to reduce its speed. Cutting through the material too slowly allows heat expansion and can cause wheel "pinching" in the material. "Pinching" the wheel from heat expansion is one of the most common causes of wheel breakage.

Wet Cutting

When shutting down a wet-cutting operation, shut off the water and allow the wheel to "spin-off" the excess water.

Make sure the cutting wheel is suitable for wet cutting.

Saw Cart Applications

⚠ WARNING

When operating a cutoff saw that is mounted on a cart with the trigger clamped in the ON position, never use a cylinder-type valve to turn the saw ON and OFF. Always use a "motor" type valve with all ports connected to the tank when in neutral or a direct line from the tool outlet to the tank must be used. Failure to observe these procedures may cause motor damage or wheel spinoff.

CARE OF ABRASIVE CUTOFF WHEELS

All abrasive cutting-off wheels are breakable and, therefore, care must be exercised during handling and storage to prevent damage.

STORAGE

Thin, organic bonded wheels such as cutting-off wheels should be laid flat on a flat surface of steel or similar rigid material away from excessive heat or moisture. Wheels should not be stored where they will be exposed to high humidity, water, other liquids or freezing temperatures. Temperatures low enough to cause condensation on the wheels when moving them from storage to an area of higher temperature should be avoided. Wheels used on cutoff saws carried on emergency vehicles should be removed after use and discarded or carefully stored as described in this section. If wheels are supplied with blotters, attached, suitable separators should be used to preserve flatness.

INVESTIGATION OF WHEEL BREAKAGE

Wheels designed for use with hand-held portable saws are specifically manufactured for this application. They are manufactured to be extremely tough and are difficult to break under normal use.

If a wheel breaks during use, a careful investigation should be conducted by the user to determine the cause of the breakage. The cause must then be corrected as soon as possible.

If the user is unable to determine the cause of breakage, the wheel manufacturer should be consulted.

COLD WEATHER OPERATION

If the saw is to be used during cold weather, preheat the hydraulic oil at low engine speed prior to use. 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 saw can result from use with oil that is too viscous or thick.

SERVICE INSTRUCTIONS

PRIOR TO DISASSEMBLY

- Clean exterior of the tool.
- Obtain seal kit Part Number 09473. The kit contains seals which must be replaced if exposed during disassembly.

ON-OFF VALVE REMOVAL AND INSTALLATION

1. Remove the plug button from the top of the handle. Pry under the edge and pull it from the handle.

2. Drive out the two 3/16 x 1-3/8 inch/35 mm long roll pins securing the trigger to the valve handle assembly. Depress the safety catch and remove the trigger through the bottom of the valve handle.

Note: • It is not always necessary to completely remove the roll pins from the valve handle to remove parts.

• While not required to service the on-off valve, the safety catch can be removed by driving out the 3/16 x 1 inch/25 mm long roll pin.

3. Push the on-off valve out through the top of the valve handle. Using snap-ring pliers, remove the retaining ring and slide off the spring and spring washers.

4. Clean and inspect the valve and its bore in the handle carefully. The valve and bore should have a polished appearance without scoring or deep scratches. Excessive wear indicates contaminated oil in the system.

5. To install the valve:

A. Lubricate and install the o-ring in the bottom of the valve bore.

B. Lubricate and install the o-ring on the valve.

C. Install one spring washer in each end of the spring and secure to the valve with the retaining ring.

D. Lubricate the valve and o-rings. Install the valve in the bore from the top.

E. Replace the safety catch (if removed previously). Drive in the 3/16 x 1 inch/25 mm long roll pin. Make sure the spring is properly located in the recess of the handle.

F. Depress the safety catch and slide the trigger through the bottom of the handle. Depress the trigger and safety catch so the roll pin directly over the valve center line can be installed. Drive in the 3/16 x 1-3/8 inch/35 mm long roll pin.

G. Line up the trigger with its pivot by inserting a 3/16 inch/4.75 mm punch to maintain alignment while driving the roll pin into the handle. Install the 3/16 x 1-3/8 inch/35 mm long roll pin in the trigger pivot hole.

H. Replace the plug button.

6. Check the safety catch/trigger mechanism for proper operation. The trigger must not activate the tool without the operator first depressing the safety catch.

WHEEL DRIVE ASSEMBLY REMOVAL AND INSTALLATION

DISASSEMBLY

1. Remove two 5/16-24 nuts and 5/16 flatwashers securing the chain (belt) guard to the valve handle assembly. Remove the guard.

2. Loosen the 10-24 x 2 inch/51 mm long Fillister head screw (used for belt tension) and remove the wheel drive assembly from the valve handle assembly.

3. Remove two 5/16-18 x 1-3/4 inch/44 mm long capscrews, 5/16-18 elastic stop nuts and 5/16 flatwashers securing the cover plate to the extension housing. Remove the cover plate and lift out the drive belt. Note the spacer located at the valve handle assembly end, under the cover plate.

4. To remove the wheel guard, loosen and remove the knob and 5/16 inch flatwasher.

5. Remove the 5/8-18 arbor nut and both the inside and outside collars.

6. Using external snap-ring pliers, remove the retaining ring securing the wheel guard to the extension housing. Slide the wheel guard off of the extension housing.

7. Remove the pulley by inserting a Phillips head screwdriver or 5/16 inch/8 mm rod through the extension housing and into the corresponding hole in the pulley. Loosen and remove the 1/2-20 elastic stop nut and 1/2 inch flatwasher securing the pulley to the drive shaft. Remove the pulley, spacer and woodruff key.

8. Using internal snap-ring pliers, remove the retaining ring securing the ball bearing in the extension housing.

9. Remove the 3/16 x 3/4 inch/19 mm long roll pin securing the arbor to the drive shaft with pliers placed across the split in the roll pin. DISCARD THE PIN. Remove the arbor from the drive shaft.

Note: Do not remove the bearings or drive shaft from the extension housing unless they have failed or the extension housing and drive shaft require replacement.

10. Place the extension housing in an arbor press (wheel guard side up) and allow enough room so the drive shaft can be pressed out. Press the drive shaft out from the wheel guard side of the extension housing. The ball bearing will come out with the drive shaft.

11. Place the drive shaft (key slot up) across the opening of an arbor press and press on the end of the drive shaft until the ball bearing has been removed from the drive shaft. Discard the ball bearing. It must be replaced after removal from the drive shaft.

12. To remove the roller bearing, turn the extension housing over (wheel guard side down). Using a suitable sleeve or rod, press out the roller bearing towards the wheel guard side of the extension housing. Do not damage the bearing bore in the extension housing. Discard the roller bearing. It must be replaced after removal from the extension housing.

13. Remove the handle assembly and bar by removing two 5/16-18 x 1-3/4 inch/44 mm long capscrews, 5/16-18 elastic stop nuts and 5/16 inch flatwashers.

ASSEMBLY

Note: Do not reinstall the roller or ball bearings if they have been removed from the extension housing and drive shaft, respectively.

1. Place the drive shaft in the arbor press (key slot up). Pressing on the inner race only, install a new ball bearing (sealed side facing out) on the drive shaft using an appropriate sleeve.

2. Place the extension housing in the arbor press (wheel guard side up). Grease the new roller bearing and press it into the extension housing (lip seal facing the wheel guard side) using the appropriate sleeve or rod to press on the race only. Press the roller bearing in until it is flush with the exposed face of the extension housing.

3. Turn the extension housing over (wheel guard side down) and grease the inside of the bearings. Insert the ball bearing/drive shaft assembly (key slot up) into the extension housing.

4. Pressing on the outer race only, install the ball bearing/drive shaft assembly into the extension housing.

5. Secure the ball bearing in place with the internal retaining ring.

6. Install the spacer over the drive shaft (against the ball bearing). Install the woodruff key and pulley.

7. Place a Phillips head screwdriver or 5/16 inch/8 mm rod through the extension housing and into one of the holes in the pulley. Install the 1/2 inch flatwasher and 1/2-20 elastic stop nut on the drive shaft. Tighten securely.

8. Install the arbor (small diameter facing the wheel guard side) and align small hole in arbor with the hole in the drive shaft. Drive a new 3/16 x 3/4 inch/19 mm long roll pin into place to secure the arbor to the drive shaft.

9. Using two 5/16-18 x 1-3/4 inch/44 mm long capscrews, 5/16-18 elastic stop nuts and 5/16 inch flatwashers, install the handle assembly and bar on the extension housing.

10. Align the hole in the bar with the bar adjustment nut and the slot in the bar with the mounting studs. Install the extension housing assembly on the valve handle assembly. Place the drive belt on the pulleys.

11. Loosely secure the chain (belt) guard to the valve handle assembly using two 5/16 inch flatwashers and 5/16-24 nuts.

12. Tighten the 10-24 x 2 inch Fillister head screw (used for belt tension adjustment) until the belt is snug.

Note: Do not overtighten the drive belt. Driving torque is transmitted by the belt teeth, not friction.

13. Tighten two 5/16-24 nuts to secure the chain (belt) guard to the valve assembly.

14. Install the cover plate using two 5/16-18 x 1-3/4 inch/44 mm long capscrews, 5/16 inch flatwashers, 5/16-18 elastic stop nuts and one tubular spacer. The spacer is installed between the bar and cover plate at the hole closest to the valve handle assembly.

15. Install the wheel guard placing a 1/16 inch thick 5/16 inch flatwasher over the carriage bolt and install the assemlby on the extension housing. Loosely secure with the 5/16 inch flatwasher and knob.

16. Secure the wheel guard to the drive shaft pivot with the external retaining ring.

17. Place the keyed inner collar over the arbor and roll pin followed by the outer collar and 5/8-18 arbor nut.

MOTOR REMOVAL AND INSTALLATION

DISASSEMBLY

1. Remove two 5/16-24 nuts and 5/16 inch flatwashers securing the chain (belt) guard to the valve handle assembly. Remove the guard.

2. Loosen the belt tension screw and remove the wheel drive assembly and drive belt from the valve handle assembly.

3. Clamp the pulley (a chain type vise grip works best) and remove the 1/2-20 (left hand threaded) nut securing the pulley to the motor drive shaft.

4. Remove the pulley and key.

5. Remove the large internal retaining ring securing the output shaft ball bearing.

6. Remove the eight 10-24 x 1-1/4 inch/32 mm long socket head capscrews securing the rear gear housing to the valve handle assembly.

7. Using a flat-bladed screwdriver or similar tool, gently and evenly pry *all around* the groove between the rear gear housing and the valve handle assembly. Lift the rear gear housing straight up. *Do not* tilt the rear gear housing or pry on the flat surface inside the surrounding groove. Damage to the sealing surfaces could result.

Note: The gears and idler shaft may remain in the rear gear housing. Do not drop or damage them.

8. Remove the gears, idler shaft and drive key and support the valve handle assembly so the drive shaft and bearing can be removed. Use a soft faced hammer and tap on the small end of the drive shaft.

9. Remove the internal retaining ring securing the seal back-up washer and seal. Remove the seal back-up washer and seal. Note their orientation.

10. To remove the drive shaft ball bearing, support the bearing and push out the drive shaft from the threaded end. Do not damage the threads.

MOTOR INSPECTION AND CLEANING

Inspect and clean all parts as follows:

Bushings

- The inside of the bushings should be gray with some bronze showing through. If a significant amount of yellow-bronze shows, bushing replacement is required. Inspect drive shaft for corresponding wear and replace as required.

Note: Remove bushings as required using a 3/8 inch collet and slide hammer from Part Number 5064 bearing puller kit.

Gear Chamber

- The chamber bores and bottoms around the shaft bushings should be polished and smooth. The flat surface surrounding the gear chambers and bolt holes should be flat and free of nicks which could cause misalignment or leaks.

Gears

- The gears should have straight tips without nicks, square tooth ends and smooth, even polish on the teeth and end surfaces. Check for cracks at groove in the drive gear bore.

Valve Handle Assembly

- The surface near the gears should show two overlapping polished circles without a step. The bottom of the o-ring groove should be smooth as should the rest of the flat surface. The bore for the shaft seal should be smooth or leakage may occur.

Drive Shaft

- The diameter should be smooth on each side of the v-groove keyway: signs of polishing are normal. Grooves, roughness or a reduced diameter are indications of fluid contamination. Replace the bushings and seals if the drive shaft requires replacement.

- Check the hydraulic system for excess contamination in the fluid and for filter condition. Operating conditions may require changing from a 25 micron filter to an oversized 10 micron filter.

ASSEMBLY

1. Support the inner race of the ball bearing and install the ball bearing on the drive shaft.

2. Using an arbor press, install motor bushings using Part Number 11916 installation tool. Install with the split lines in adjacent bushings facing each other.

3. Protect the gear face of the valve handle assembly and install the drive shaft seal with the lip facing the gear face. Install the seal back-up washer and retaining ring.

4. Place the valve handle assembly in the arbor press (large bearing bore up). Allow clearance for insertion of the drive shaft. Grease the motor shaft keyway and insert the drive shaft and ball bearing assembly (threaded end up) into the valve handle assembly until the press is required for further insertion.

5. Using a sleeve with a diameter only slightly smaller than the outer race of the bearing, press the bearing and drive shaft into the valve handle assembly with the arbor press. *Do not* press on the end of the drive shaft, only the bearing outer race. Install the internal retaining ring to secure the bearing.

6. Install the needle roller key in the v-groove of the drive shaft. Apply a small amount of grease for retention of the key. Install the drive gear over the key and drive shaft.

7. Install the idler shaft and gear.

8. Grease the face seal o-ring and install in its groove in the valve handle assembly.

IMPORTANT

Do not force parts together.

9. Align the screw holes in the rear gear housing with those in the valve handle assembly. Carefully slide the rear gear housing straight over the gears and shafts. Do not force together. The assembly is a close fit but does not require force if the parts are correctly aligned.

Note: The screw holes will only match one way.

10. Check that the rear gear housing is fully seated on the valve handle assembly. Rotate the drive shaft by hand to assure freedom of rotation.

11. Install and tighten the eight 10-24 x 1-1/4 inch/32 mm long socket head capscrews securing the rear gear housing to the valve handle assemlby. Check for freedom of rotation.

12. Place the key and pulley (small diameter first) on the drive shaft and secure with 1/2-20 (left hand threaded) nut. Clamp the pulley (a chain type vise grip works best) and tighten the nut securely.

⚠ WARNING

The following step can be hazardous. Failure to heed the instructions could result in serious injury.

13. Connect the saw to a hydraulic power source and check for proper operation. When new parts are installed it may be necessary to perform a break-in procedure on the motor.

READ THE FOLLOWING CAREFULLY BEFORE PROCEEDING WITH THIS STEP.

A. Make sure the hydraulic power source is running at the lowest gpm/lpm rate it can while still producing full pressure.

B. Grasp the saw firmly in a bench vise and place the correct size wrench on the 1/2-20 nut securing the pulley.

C. Connect the hydraulic power source to the saw and turn the power source valve to the "ON" position.

D. With a firm grip on the saw and wrench, *SLOWLY* squeeze the trigger to activate the saw.

E. Turn the motor shaft both against and with the direction of rotation.

F. Release the trigger and remove the wrench.

G. Activate the saw to determine that the motor starts and runs freely.

H. If the motor is not starting or running freely, carefully repeat the above steps until the motor performs satisfactorily.

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 cutoff saw, 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 flow meter known to be accurate. Check the flow with the hydraulic oil temperature at least 80°F/27°C.

PROBLEM	CAUSE	REMEDY
Tool does not run.	Power unit not functioning.	Check power unit for proper flow and pressure (8 gpm at 2000 psi/30 lpm at 141 bar).
	Coupler or hoses blocked.	Remove obstruction.
	Mechanical failure.	Disassemble tool and inspect for damage.
Tool runs backwards.	Pressure and return reversed.	Correct hose connection or flow direction. Motor shaft rotates clockwise.
Oil leakage between rear gear housing and valve handle assembly.	Motor face seal failure.	Replace as required.
On-off trigger is hard to press.	Backpressure too high.	Should not exceed 250 psi at 8 gpm/17 bar at 30 lpm, measured at the end of the tool operating hoses.
	Pressure and return reversed.	Correct for proper flow direction.
Saw cuts too slow.	Insufficient oil flow or low relief valve setting.	Adjust oil flow to proper gpm. For optimum performance adjust relief valve to 2250 psi/155 bar.
	Wrong wheel for material being cut.	Use correct wheel.

SPECIFICATIONS

Weight	25 lbs/11.3 kg
Length	31 inches/78 cm
Width	8 inches/20 cm
Pressure Range	1000-2000 psi/70-140 bar
Flow Range	7-9 gpm/26-34 lpm
Optimum Flow	8 gpm/30 lpm
System Type	o.c. or c.c. HTMA TYPE 2
Porting	SAE 8 o-ring
Connect Size	3/8 NPT hose ends
Cutting Wheel	ANSI B7.5, 14 inches/35.5 cm diameter, 5/32 inch/4 mm thick, 1 inch or 22 mm arbor hole. 5000 RPM minimum rated speed.

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, except for cutting parts, steels and other parts not manufactured by Stanley (such as impact mechanisms, alternators, regulators and hoses).

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 pre-paid 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.

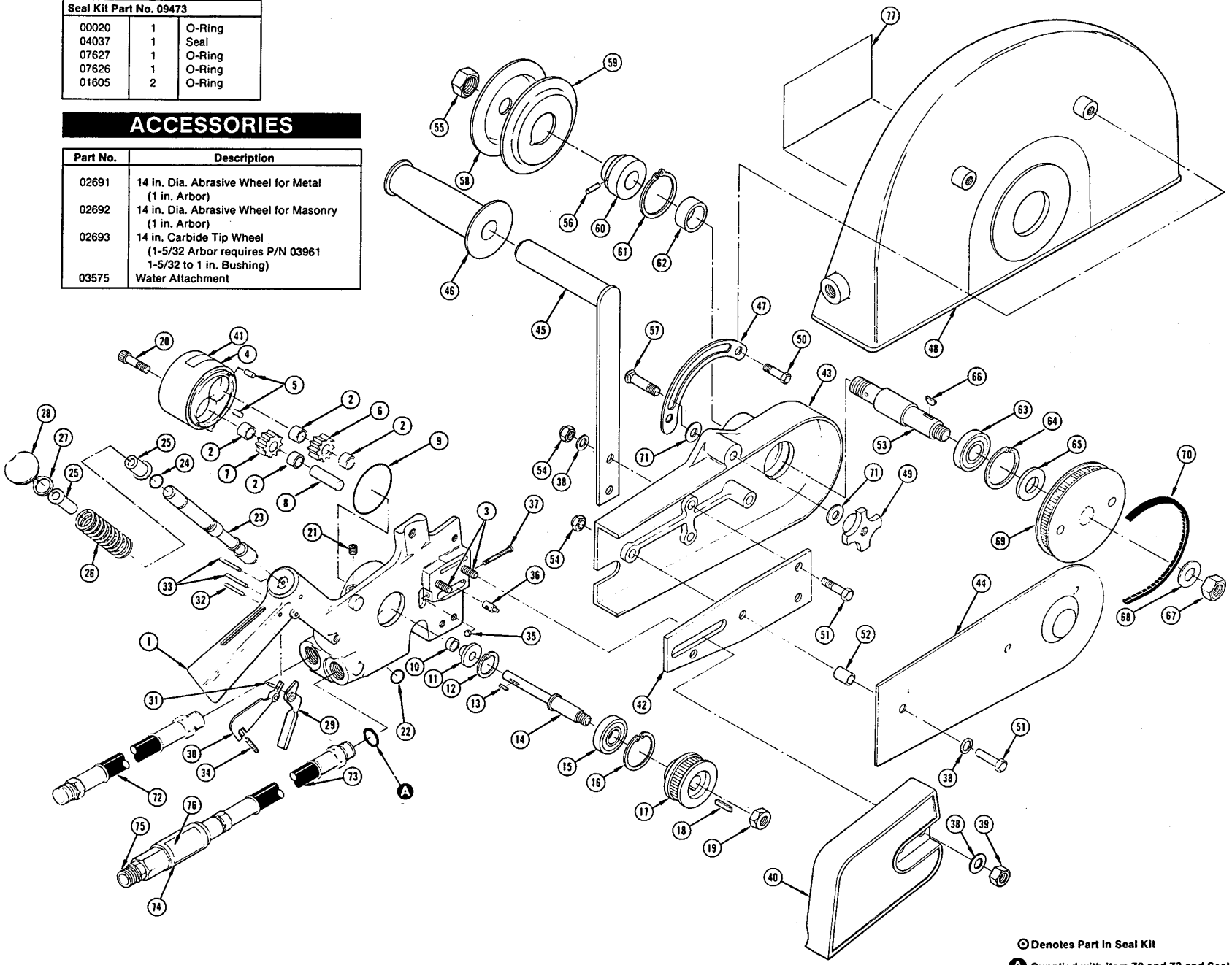
SEAL KIT DATA

Note: Use Part Number and Part Name when ordering.

Part No.	Qty.	Description
Seal Kit Part No. 09473		
00020	1	O-Ring
04037	1	Seal
07627	1	O-Ring
07626	1	O-Ring
01605	2	O-Ring

ACCESSORIES

Part No.	Description
02691	14 in. Dia. Abrasive Wheel for Metal (1 in. Arbor)
02692	14 in. Dia. Abrasive Wheel for Masonry (1 in. Arbor)
02693	14 in. Carbide Tip Wheel (1-5/32 Arbor requires P/N 03961 1-5/32 to 1 in. Bushing)
03575	Water Attachment



⊙ Denotes Part In Seal Kit

Ⓐ Supplied with Item 72 and 73 and Seal Kit

PARTS LIST

Item No.	Part No.	Qty.	Description
1	07693	1	Valve Handle Assy (Incl. Items 2 & 3)
2	04041	4	Bushing - Garlock 06DU06
3	07630	2	Stud
4	07652	1	Rear Gear Housing Assy (Incl. Items 2 & 5)
5	00289	2	Dowel Pin 3/16 x 3/4
6	04106	1	Drive Gear
7	04105	1	Idler Gear
8	07612	1	Idler Shaft
9	00020	1	O-Ring 1.670 x 1.810 x .070 ⊙
10	04037	1	Seal - Omniseal AR10400-110 WC ⊙
11	07615	1	Seal Back-up Washer
12	04856	1	Retaining Ring - 7/8 INT
13	04044	1	Needle Roller .0938 x .380 Lg-Torrington Q-8290
14	07613	1	Drive Shaft
15	00335	1	Ball Bearing SKF 6202-2RS
16	06635	1	Retaining Ring - 1-3/8 INT
17	09213	1	Pulley
18	00609	1	Key
19	00453	1	Nut 1/2-20 L.H.
20	00753	8	Capscrew 10-24 x 1-1/4 Hex Soc. Hd.
21	00955	1	Pipe Plug 1/8-27 NPT
22	07627	1	O-Ring 5/8 x 3/4 x 1/16 ⊙
23	07607	1	ON/OFF Valve o.c.
	07608	1	ON/OFF Valve c.c.
24	07626	1	O-Ring 1/2 x 5/8 x 1/16 ⊙
25	07609	2	Spring Washer
26	07610	1	Spring
27	04512	1	Retaining Ring - 1/2 Ext.
28	07625	1	Plug Button
29	07605	1	Trigger
30	07603	1	Safety Catch
31	00072	1	Roll Pin 1/8 x 3/8
32	07624	1	Roll Pin 3/16 x 1
33	03009	2	Roll Pin 3/16 x 1-3/8
34	07602	1	Spring
35	06971	1	Locknut 10-24 UNC
36	07620	1	Bar Adjustment Nut
37	07632	1	Screw 10-24 x 2 Fil. Hd.
38	02634	6	Washer 5/16
39	07631	2	Nut 5/16-24
40	07618	1	Chain Guard
41	03786	1	GPM Sticker - 7-9 GPM, 2000 psi
42	09190	1	Bar
43	09191	1	Extension Housing
44	09193	1	Cover Plate
45	09194	1	Handle Assy
46	08080	1	Handle Grip
47	09195	1	Sector
48	09196	1	Wheel Guard
49	09197	1	Knob-Ried #DK-55
50	02146	2	Capscrew 1/4-20 x 3/4 Hex Hd.
51	09198	4	Capscrew 5/16-18 x 1-3/4 Hex Hd.
52	09199	1	Spacer
53	09200	1	Drive Shaft
54	03906	4	Elastic Stop Nut 5/16-18
55	03765	1	Arbor Nut 5/8-18
56	03047	1	Roll Pin 3/16 x 3/4
57	09201	1	Carriage Bolt 5/16 x 2-3/4
58	04877	1	Outside Collar
59	04876	1	Inside Collar
60	03094	1	Arbor
61	09205	1	Retaining Ring 1-3/4 Ext
62	09206	1	Roller Bearing - Torrington # JT149
63	09207	1	Ball Bearing - FAG # 6203 RS
64	09208	1	Retaining Ring 1-9/16 Int.
65	09209	1	Spacer
66	00772	1	Key - Woodruff # 605
67	09210	1	Elastic Stop Nut 1/2-20 Thin, Light
68	02634	1	Washer
69	09211	1	Pulley
70	09212	1	Drive Belt - Dodge # 345050, 3/8 Pitch, 1/2 Wide
71	01594	2	Washer
72	07226	1	Hose Assy - 18"
73	05638	1	Hose Assy - 13"
74	04722	1	Flow Control
75	03044	1	Hex Nipple - 3/8 NPT
76	06693	1	Flow Control Label
77	05868	1	Safety Label

SERVICE AND REPAIR NOTES

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