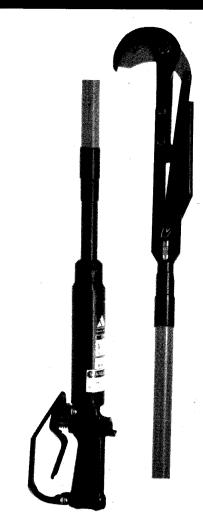
# PR40 HYDRAULIC PRUNER



# Safety, Operation and Maintenance Manual



### **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 3.

### GENERAL SAFETY PRECAUTIONS

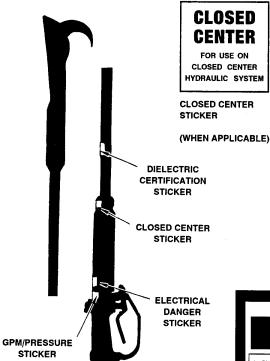
The PR40 Hydraulic Pruner will provide safe and dependable service if operated in accordance with the instructions given in this manual. Read and understand this manual and any stickers and tags attached to the pruner and hose before operation. Failure to do so could result in personal injury or equipment damage.

- Operators must start in a work area without bystanders. Flying debris can cause serious injury.
- Establish a training program for all operators to ensure safe operation.
- The operator must be familiar with all prohibited work areas such as excessive slopes and dangerous terrain conditions.
- 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 pruner.
- Know the location of buried or covered services before starting your work.
- Without the use of non-conductive accessories, this tool is not for use near energized lines. Failure
  to comply with this warning could result in serious personal injury.
- Use care when handling the pruner, especially near the cutting edge.
- 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. Make sure all hose connections are tight.
- Do not operate the tool at fluid 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.
- To avoid personal injury or equipment damage, all tool repair and service must only be performed by authorized and properly trained personnel.

### **TOOL STICKERS AND TAGS**

The safety related stickers and tags attached to the pruner prior to shipment from the factory are shown below.

The pressure and flow rates specified must never be exceeded. All stickers and tags must be read and understood prior to operating the tool.





#### **ELECTRICAL DANGER STICKER**

The safety tag at right is attached to the pruner 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 pruner when not in use.

The information listed on these stickers and tags must be legible at all times. Always replace those that have become worn or damaged. Replacements are available from your Stanley distributor.

#### CAUTION

3-9 GPM/11-34 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.

**GPM/PRESSURE** STICKER



**DIELECTRIC CERTIFICATION STICKER** (INCLUDED ON ORIGINAL PURCHASE. REPLACEMENT **REQUIRES RETESTING.)** 



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.

INJURY

BEFORE USING HOSE LABELED AND CERTIFIED AS NONCONDUCTIVE ON OR NEAR ELECTRIC LINES BE SURE THE HOSE
IS MAINTAINED AS NON-CONDUCTIVE THE HOSE SHOULD BE
REGULARLY TESTED FOR ELECTRIC CURRENT LEARAGE IN
ACCORDANCE WITH YOUR SAFETY DEPARTMENT
INSTRUCTIONS

- 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.

  - LEAK OR BURST

    DO NOT EXCEED RATED WORKING PRESSURE OF HYDRAULC HOSE USED WITH THIS TOOL EXCESS PRESSURE MAY CAUSE A LEAK OR BURST
    CHECK TOOL MOSE COUPLERS AND CONVIECTORS DAILY FOR LEAKS DO NOT FEEL FOR LEAKS WITH YOUR RAIDS CONTACT WITH A LEAK MAY RESULT IN SEVERE PERSONAL DISTRIBUTIONS.

### **IMPORTANT**

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

DANGER

- D DO NOT DET OR CARRY TOOL BY THE HOSES DO NOT ABUSE HOSE. DO NOT USE KINKED, TORN OR DAMAGED HOSE.
- HOSE, DO NOT USE KINNELL TORTH OF DAMAGED HOSE. MAKE SURE HYDRAULICH GOSS AND REPORPERLY CONNECTED TO THE TOOL BEFORE PRESSURZING SYSTEM SYSTEM PRESSURE HOSE MUST ALWAYS BE CONNECTED TO TOOL "NOT RETURN HOSE MUST ALWAYS BE CONNECTED TO TOOL "OUT PORT REVERSING CONNECTIONS MAY CAUSE REVERES TOOL OPERATION WHICH CALL RESULT IN SEVERE PERSONAL INJURY

OPERATION WHICH CATINESSUL IN SEVERE PERSONAL INJUIT
DO NOT CONFECT CLOSED CENTER TOOLS TO OPEN CENTER
HYDRAULICSYSTEMS THIS MAY CAUSE EXTREME SYSTEMHEAT
ANDORS SEVERE PERSONAL INJUIT
DO NOT CONFECT OPEN CENTER TOOLS TO LOSED CENTER
HYDRAULIC SYSTEMS THIS MAY RESULT IN LOSS OF OTHER
HYDRAULIC FUNCTIONS PROMERED BY THE SAME SYSTEM AND.
OR SEVERE PERSONAL INJUITY.

- BYSTANDERS MAY BE INJURED IN YOUR WORK AREA. KEEP BYSTANDERS CLEAR OF YOUR WORK AREA.
- BYSIATIONS CLEAN OF YOUR WORK AREA
  WEAR HEARING EVE FOOT HAND AND HEAD PROTECTION
  TO AVOID PERSONALINJURY OR EQUIPMENT DAMAGE ALL TOOL
  REPAIR MAINTENANCE AND SERVICE MUST ONLY BE
  PERFORMED BY AUTHORIZED AND PROPERLY TRAINED
  PERSONNEL

### **IMPORTANT**

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

LISE 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

### **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.



This safety symbol may appear on the tool. It is used to alert the operator of an action that could place him/her or others in a lifethreatening situation.



This safety symbol appears throughout these instructions. It is used to identify an action that could cause bodily injury to the operator or other personnel.

### **IMPORTANT**

This safety symbol appears throughout these instructions. It is used to identify an action or condition that could result in damage to the tool or other 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 operato and maintenance personnel.

### **EQUIPMENT PROTECTION AND CARE**

### **IMPORTANT**

In addition to the Safety Precautions on pages 1 thru 3 of this manual, observe the following for equipment protection and care.

- Always store an idle pruner in a clean dry space, safe from damage or pilferage.
- Operate the tool within its rated capacity.
- Do not use the tool for applications for which it was not designed.
- Keep the blade and guide surfaces clean.
- Keep cutting edges sharp. Maintain blade contour.
- Keep the space between the link bar and slide head assembly clear. Do not pinch any material between the link bar and slide head assembly.
- 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. The hydraulic supply hoses must have a minimum working pressure of 2500 psi/175 bar.
- All hoses must have a fluid resistant inner surface and an abrasive resistant outer surface.
- Tool repair must 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 might result in damage to the quick couplers and cause overheating of the hydraulic system.

## **HYDRAULIC HOSE REQUIREMENTS**

#### **HOSE TYPES**

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

- 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.

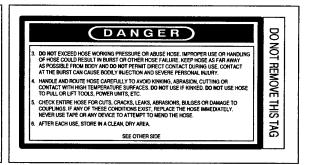
To help ensure your safety, the following DANGER tags are attached to all hoses purchased from Stanley Hydraulic Tools. DO NOT REMOVE THESE TAGS.

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

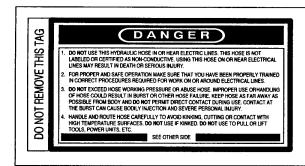
This tag is attached to all certified and labeled non-conductive hose.





## 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 pole chain saw.

## HYDRAULIC SYSTEM REQUIREMENTS

- The hydraulic system should provide a flow of 3-9 gpm/11-34 lpm at an operating pressure of 1000-2000 psi/70-140 bar. Recommended relief valve setting is 2100-2250 psi/145-155 bar.
- The system should not have 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 fluid 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 fluid 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 based hydraulic fluids with antiwear properties and a viscosity index over 140 ssu/28 centistokes will meet the recommended requirements over a wide range of operating temperatures.
- The recommended hose size is 0.500-inch/12 mm I.D. up to 50 ft/15 m long and 0.625-inch/16 mm I.D. minimum up to 100 ft/30 m.

### **OPERATION**

# PREOPERATION PROCEDURES

### CHECK POWER SOURCE

- 1. Using a calibrated flowmeter and pressure gauge, check that the hydraulic power source develops a flow of 3-9 gpm/11-34 lpm at 1000-2000 psi/70-140 bar.
- 2. Make certain that the hydraulic power source is equipped with a relief valve set to open at 2100 psi/145 bar maximum.

### **CONNECT HOSES**

- 1. Wipe all hose couplers with a clean lint-free cloth before making connections.
- 2. Connect hoses from the hydraulic power supply to the tool. It is a good practice to connect return hoses first and disconnect them last to minimize or avoid trapped pressure within the tool.
- 3. Observe the flow indicators stamped on hose couplers to ensure that the oil flow will be in the proper direction. The female coupler on the tool is the inlet coupler. See illustration in PARTS LIST section for tool port identification.

**Note**: If uncoupled hoses are left in the sun, pressure increase inside the hoses may make them difficult to connect. When possible, connect the free ends of the operating hoses together.

# OPERATING PROCEDURES TOOL OPERATION

Observe all safety precautions.



Make certain that the pruner head is unobstructed and the tool firmly held before starting the hydraulic power supply.

2. Move the hydraulic circuit control valve to the "ON" position to pressurize the circuit. If the tool

has been properly connected, the hydraulic pressure will immediately cause the blade to snap to its open position.

**Note**: Open-center (o.c.) models will bypass flow at low pressure and closed-center (c.c.) models will cause bypass at the relief pressure setting on o.c. system. Make sure the pruner valve type matches the hydraulic system type.

- 3. While maintaining proper footing and balance, position the pruner hook on the tree branch to be trimmed. Squeeze the trigger. The knife (blade) will operate full stroke to complete the cut.
- 4. Release the trigger to retract the knife (blade)
- 5. Reposition the pruner hook to make the next cut and continue operating the tool as before.

### **MAKING CUTS**

To make the proper flush cut with the pruner, the hook is placed over the branch to be cut off, with the blade next to the lateral, as shown in figure 1. At times it is difficult to position the pruner for the proper flushing cut. However, by placing the hook over the limb to be removed and drawing back on it, the pruner will generally slide into the proper position.

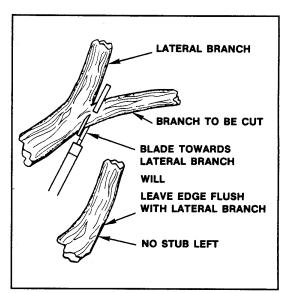


Figure 1. Flush Cut.

In pruning limbs which have a tendency to split or tear when making a single pruner flush cut, as in figure 2, it is advisable to make more than one cut. The first cut is made a few inches from the point of the flush cut; removing the weight of the limb being trimmed out and leaving a short stub. The stub is then flushed off as described above (also see figure 1). (Whenever practical, the cut shall be treated with tree paint if it is larger than 1-inch in diameter.) This technique will avoid breaking the lateral which you are trying to save or splitting the remaining limb down the center as the flush cut is made.

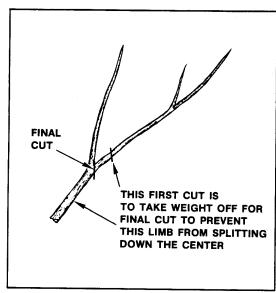


Figure 2. Flush Cutting a Limb Having a Tendency to Split or Tear.

# POST-OPERATION PROCEDURES

- 1. Wipe the tool thoroughly with a clean dry or slightly oiled cloth.
- 2. Clean and lubricate the blade and connecting pivot points.
- 3. Check all bolts and nuts for tightness.
- 4. When the tool is not in use, store horizontally in a clean dry space and protected from damage.

# COLD WEATHER OPERATION

If the pruner 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 pruner can result from use with oil that is too viscous or thick.

### **SERVICE INSTRUCTIONS**

Good maintenance practices will keep the pruner on the job and increase its service life.

A very important maintenance practice is to keep the hydraulic fluid clean at all times. Contaminated hydraulic fluid causes rapid wear and/or failure of internal parts.

Follow the procedures contained in the HYDRAU-LIC SYSTEM REQUIREMENTS section of this manual to ensure peak performance from the tool.

Never disassemble the pruner unless proper troubleshooting procedures have isolated the problem to an internal part. Then, only disassemble it to the extent necessary to replace the defective part. KEEP CONTAMINANTS SUCH AS A DIRT AND GRIT AWAY FROM INTERNAL PARTS AT ALL TIMES.

Always determine and correct the cause of the problem prior to assembly. Further wear and tool failure can result if the original cause is not corrected.

## KNIFE REMOVAL AND REPLACEMENT

#### KNIFE REMOVAL

- 1. Clean the exterior of the tool.
- 2. Remove the cotter pin and clevis pin connecting the link bar to the knife.
- 3. Remove the roll pin, hex slotted nut, washer, knife bolt and knife.

#### KNIFE REPLACEMENT

- 1. Clean the sliding surfaces of the hook, slide head and knife bolt.
- Lubricate the sliding surfaces with a "Moly" type of lubricant.
- 3. Insert knife between hook and slide head.
- 4. Install knife bolt and assemble with washer, and slotted nut. Tighten the knife bolt and nut. Adjust this assembly for a snug knife action.
- 5. Insert the roll pin in a slot in the nut and through a hole in the knife bolt.
- 6. Connect the knife to the link bar by installing the clevis pin. Secure it with the cotter pin.

### KNIFE SHARPENING

- To ensure cutting performance, keep the cutting edges sharp.
- Use care when handling the pruner, especially near the cutting edges.

The knife can be dressed with a sharpening stone to restore a sharp edge. Maintain the knife contour. Dress the tapered side first; then stone the flat side to remove any burrs and create a slight back break, approximately 0.03-inch/0.8 mm, on the cutting edge towards the flat side.

The hook can be dressed with a sharpening stone to restore the inside edge against which the knife cuts. Dress the inside of the cutting edge curve. Finish by stoning the flat side to remove any burrs raised on the cutting edge.

### PRIOR TO DISASSEMBLY

- Clean exterior of tool.
- Obtain Seal Kit, part number 09557, so you can replace all seals exposed during disassembly.
   Note orientation of seals before removing them.
   Install new seals in the same way.

# HYDRAULIC PRUNER DISASSEMBLY

### PRUNER HEAD DISASSEMBLY

- Remove knife. See KNIFE REMOVAL AND REPLACEMENT procedure.
- 2. Remove the two hex head capscrews and lockwashers to remove hook.
- Unscrew the slide head assembly from the external tube assembly.

## EXTERNAL AND INTERNAL TUBE DISASSEMBLY

- 1. Remove pruner head assembly as described above.
- 2. Unscrew the coupler nut and pull the coupler

sleeve away from the handle to expose the piston rod connection

- 3. Loosen the hex nut which locks the internal tube assembly to the piston rod and unscrew the internal tube assembly from the piston rod.
- 4. Remove the internal tube assembly from the external tube assembly (slide head end).
- 5. Use wrench flats on the coupler sleeve to unscrew it from the external tube assembly.

## PISTON AND ROD DISASSEMBLY

- 1. With the valve handle in a vise, use a hook spanner to remove the cylinder end bearing. The cylinder end bearing or cylinder will come loose. Do not clamp the cylinder in a vise.
- 2. Use wrench flats on the cylinder to unscrew it from cylinder end bearing.
- 3. Remove the piston and rod assembly carefully to prevent damage to the cylinder oil tube.
- 4. To remove the piston from the piston rod place the piston in a vise with soft jaws and unscrew the piston rod. Heat might be necessary to soften the thread sealant. **Do not mar the piston or rod.**

**Note:** On open center models, the piston comes as an assembly of piston nut, disc valve and disc valve spring. On closed center models, the piston is a single part.

### VALVE DISASSEMBLY

- 1. To remove the cylinder oil tube, use Oil Tube Clamp, part number 01239, or place the tube in a vise with soft jaws and unscrew the valve handle from the oil tube.
- 2. Remove the hex socket head capscrew from the valve spool.
- 3. Remove the two hex socket flathead screws from the trigger guard.
- 4. Pull the entire trigger, trigger guard, spring, and valve spool assembly from the spool bore.
- 5. Drive out the trigger roll pin to remove the spool from the trigger.
- 6. Drive out the roll pin to remove the trigger from the guard.

### **PRIOR TO ASSEMBLY**

- Clean all parts with a degreasing solvent.
- Ensure that all seals that were exposed have been replaced with new parts.
- Apply clean grease or o-ring lubricant to all parts during assembly.
- Obtain Seal Kit, part number 09557, so you can replace all seals exposed during disassembly.
   Note orientation of seals before removing them.
   Install new seals in the same way.

# HYDRAULIC PRUNER ASSEMBLY

### VALVE ASSEMBLY

- 1. Assemble the trigger, trigger guard and valve spool assembly into a complete unit.
- 2. Install the o-rings in the valve handle spool bore.
- 3. Lubricate the end of the valve spool. With the spring on the valve spool, insert the valve spool into the valve handle with a twisting motion.
- 4. Install the hex socket head capscrew into the valve spool to retain the assembly.
- 5. Install the two hex socket flathead screws to fasten the trigger guard to the valve handle.
- 6. Replace the cylinder oil tube in the valve handle using the Oil Tube Clamp, part number 01239, to hold the oil tube.

### PISTON AND ROD ASSEMBLY

- 1. Screw the piston onto the piston rod.
- 2. Install the o-rings on the valve handle and cylinder end bearing.
- 3. Install the o-ring inside the piston. Install the o-ring in the outside groove.
- 4. Install the o-ring and the back-up ring inside the cylinder end bearing.

**Note:** The back-up ring is installed with the flat side to the outside of the groove farthest from the valve handle.

- 5. Lubricate the cylinder oil tube and insert it into the piston rod assembly.
- 6. Lubricate the piston rod and insert the assembly through the cylinder with the wrench flats toward the valve handle. Install the cylinder end bearing into the cylinder and onto the piston rod.
- 7. With the valve handle in a vise, use a hook spanner to tighten the end bearing into the cylinder and the cylinder onto the valve handle.

## EXTERNAL AND INTERNAL TUBE ASSEMBLY

- 1. Place the slide head assembly in a vise, gripping at the hook mounting surface.
- 2. Install the o-ring inside the slide head assembly.
- 3. Screw the external tube assembly onto the slide head assembly.
- 4. Insert the internal tube assembly, slide link bolt first, through the external tube and into the slide head.
- 5. Insert the coupler sleeve into the coupler nut and screw the coupler sleeve into the end of the external tube assembly. Tighten the assembly.
- 6. Attach the piston rod to the internal tube assembly. Be sure the hex nut has been installed onto the piston rod.

**Note:** Set initial tube clearance to 1.5-inch/38 mm from the piston rod as shown in figure 3.

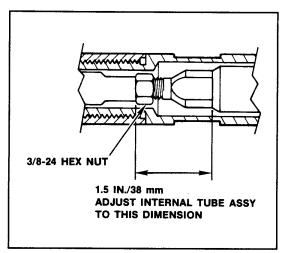


Figure 3. Initial Internal Tube Adjustment.

7. Tighten the hex nut to lock the internal tube to the piston rod.

- 8. Screw the coupler nut loosely onto the cylinder end bearing.
- 9. Install the hook with the two hex head capscrews and lockwashers.
- 10. Install the knife (see KNIFE REMOVAL AND REPLACEMENT procedure). Lubricate with "Lead-Plate" or "Moly" grease.
- 11. Align the slot in the slide head assembly with the hole in the link bolt. The external tube assembly can be turned in the loosely installed coupler nut.
- 12. Position the link bar with the hole in the link bolt. Secure with the clevis pin and temporarily install the cotter pin.
- 13. Twist the valve handle or tool head to align the trigger and hook on the same side of the pruner. Tighten the coupler nut. The pruner is now ready for testing and final adjustment.

## TESTING AND FINAL ADJUSTMENT

- 1. Connect the pruner to a hydraulic power source by following the CONNECT HOSES procedure.
- 2. Perform steps 1 and 2 of TOOL OPERATION to ready the pruner for testing.
- 3. Squeeze the trigger. The edge of the knife should complete a full cut. Release the trigger. The link bar should come within 0.09 to 0.13-inch/2.3 to 3.3 mm of the back of the hook. See figure 4.

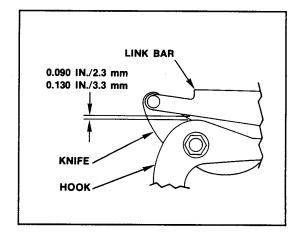


Figure 4. Link Bar Clearance Adjustment.

4. If the pruner does not comply with step 3 above, perform the following steps.



- 5. Remove the lower clevis pin from the link bar.
- 6. Loosen the coupler nut and pull the external tube assembly and cylinder apart to expose the

hex nut, the piston rod and the internal tube assembly.

- 7. Loosen the hex nut. Twist the internal tube assembly using a 7/16-inch wrench to shorten or lengthen the internal tube assembly as required.
- 8. Tighten the hex nut securely. Slide the external tube assembly back into place. Replace the clevis pin and its cotter pin. Reconnect the coupler nut to the cylinder and tighten.
- 9. Retest to check results by performing steps 1 thru 3.

## **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 tool, 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
Tool will not work.	Hoses not connected to tool.	Connect hoses.
	Hydraulic system valve is "OFF".	Turn valve to "ON".
Knife closes when hydraulic power is applied	Pruner is connected backwards.	Reverse the hydraulic connections to the pruner.
to pruner.	Hydraulic system valve has a reversing valve and is in the reverse position.	Put the system valve in the forward position.
High cutting effort.	Dull or damaged knife.	Sharpen or replace knife.
	Cutting hard wood.	Keep knife sharp.
Will not cut. Low cut- ting force.	Low relief valve setting.	Adjust relief valve to crack open at 2100 psi/145 bar.
	Excess backpressure.	Measure backpressure; it should not exceed 250 psi/17 bar. Remove restriction.

### **SPECIFICATIONS**

Capacity	2-1/4 inch/5.7 cm cut
System Type	HTMA Type I or II, o.c. or c.c.
Pressure Range	1000-2000 psi/70-140 bar
Flow Range	3-9 gpm/11-34 lpm
Optimum Flow	8 apm/30 lpm
Porting Size	3/8 NPT
Weight	9 lb/4 kg
Length	84 inch/213.4 cm
Connect Size and Type	3/8 NPT in handle

#### 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 NO.	DESCRIPTION	
01239	Oil Tube Clamp	

### **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.

Description

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Part No.

PARTS LIST

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Part O

00550 00757 03029 04487 05268 07233 08249 13352 08251 08257

(3) 3

> € (2)

Spool 3 1/2 × 5/8 × 1/16 90D **⊙** 

0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 0 1 2 2 2 4 2 5 5 7 8 6 8	002028 08241 00537 01276 00018 001852 00574 01815 00574 01815	100	Outen 7,124, x 3.4 rail read Roll Pin 1/8 x 1-14 to C-Hing 1-5/8 x 1-3/4 x 1/14 to C-Hing 1-5/8 x 1-3/4 x 1/16 ♥ Cylinder Coll Tube C-Hing 1-5/8 x 1-13/16 x 3/32 700 ♥ C-Hing 7/16 x 9/16 x 1/16 800 ♥ Cylinder End Bearing 7/16 x 3/23 900 ♥ Back-up fing 3/16 x 3/37 x 3/33 x 3/30 € Coupler Nut Coupler Steeve Piston Assembly — Open Center (Inc.1 terms 21-24)
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Piston	Piston Nut	Disc Valve Spring	Disc Valve	Piston — Closed Center	Piston Rod	Hex Nut - 3/8-24	Internal Tube Assembly	External Tube Assembly	Slide Head	Clevis Pin •	Slide Link Bolt	o dig
-	-	-	-	-	-	-	-		-	-	-	·
08243	08244	00552	00539	01253	08245	99500	04141	0520	08246	08247	08248	03000
_	83	ន	24	55	8	22	8	6	8	Ξ	D D	2

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Slide Head	Clevis Pin •	Slide Link Bolt	Cotter Pin •	Clevis Pin •	Capscrew 5/16-18 x 1 Hex Head	Lockwasher 5/16	Link Bar •	
-	-	-	~	-	7	8	-	
08246	08247	08248	03029	08249	69500	00283	13352	
								•

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Knife Bolt Was		04487
Knife Bolt •	- ,	08251
Hook •	-	07233
Knife •	-	00550
Link Bar •	-	13352
Lockwasher 5/	ø	00283
Capscrew 5/16	~	69500
Clevis Pin •	-	08249
Cotter Pin •	8	03029

13352 00550 07233		Link Bar • Knife • Hook •
08251	-	Knife Bolt •
05268	-	Hex Slotted Nut
04487	-	Knife Bolt Washe
00757	-	Roll Pin 1/8 x 3/
01211	-	O-Ring 5/8 x 3/4
03783		GPM Sticker 3-9
03693	-	Closed Center S

04487 00757 01211 03783	 Knife Bott Washer • Roll Pin 1/8 × 3/4 • O-Ring 5/8 × 3/4 × 1/16 © GPM Sticker 3-9 2000 PSI
33693 12412 39598	 Closed Center Sticker Warning Sticker – Electrical Nameplate Sticker

NOTE: Use Part Number and Part Name when ordering.

© Denotes Part in Seal Kit.

• Denotes Part in Repair Kit.

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Part No.	Oty.	Description
Seal	Seal Kit Part No. 02039	lo. 02039
00018	1	O-Ring
00175	7	O-Ring
00574	-	O-Ring
01211	-	O-Ring
00200	-	O-Ring
01815	-	Back-Up Ring
00252	7	O-Ring

Description	Valve Assembly (Incl. Items 1-10)	Valve Handle	Spring		O-Ring 1/2 x 5/8 1/16 90D O	Trigger Guard	Trigger	Screw	Screw 1/4-20 x 3/4 Flat Head		O-Ring 1-5/8 x 1-3/4 x 1/16    O-Ring 1-5/8 x 1-3/4 x 1/16	Cylinder		片	O-Hing //16 x 9/16 x 1/16 90U	Cylinder End Bearing	O-Hing 3/4 x 13/16 x 3/32 900 @		Coupler Sleave	Piston Assembly Open Center	7	Piston	Piston Nut	Disc Valve Spring	Disc Valve	Piston — Closed Center	Piston Rod	Hex Nut — 3/8-24	Internal Tube Assembly	External Tube Assembly	Slide Head	Clevis Pin	Slide Link Bolt	Cotter Pin	Clevis Pin	Capscrew 5/16-18 x 1 Hex Head	Lockwasner	Lift Dar	ACC I	Knife Bolt	Hex Stotted Nut 1/2-20	Knife Bolt Washer	Roll Pin 1/8 x 3/4	O-Ring 5/8 x 3/4 x 1/16 ⊙	α.	.~	Warning Sticker — Electrical	Namepiate Sticker
ģ.	-	-	-	-	~	-	-		7	2	2	-	-		- ,			-	-	-		-	-	-	-	-	-	-	-		-	-	-	٧.	- ,	N C	v <del>-</del>			-	-	-	-	-	-	-	-	_
Part No.	01808	01989	16556	01809	00175	01715	01718	01812	16307	01534	00252	00536	00537	00560	81000	0003	01815	00542	00541	00771		00535	00534	00552	00539	18885	08245	89500	04141	07290	08246	08247	08248	03029	08249	69200	10000	2000	74127	08251	05268	04487	75700	01211	03783	03693	12412	09598
Item No.		+-	8	က	4	2	9	^	æ	6	2	=	12	₽;	4 4	2 5	2 0		19	20	1	2	8	ន	24	52	56	27	83	8	8	<u></u>	32	8 3	3 1	9.8	3 8	3 6	8 8	8 8	4	42	5	4	45	94	47	<del>4</del>

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NOTE: Use Part Name and Part Number when ordering.

© Denotes Part in Seal Kit

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