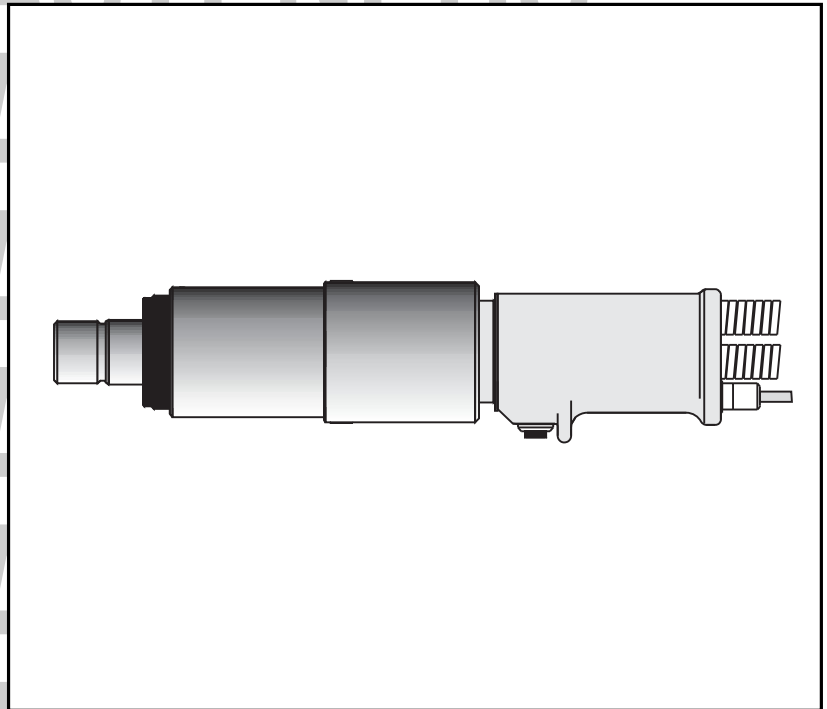


INSTRUCTION MANUAL

HPT *ALL MODELS*

HYDRAULIC INSTALLATION TOOL



EU Declaration of Conformity

Manufacturer:

Huck International, Inc., Installation Systems Division, 1 Corporate Drive, Kingston, NY, 12401, USA

Description of Machinery:

Model numbers HPT25RH, HPT35RH, HPT57RH, HPT115 and HPT115RAC fastener installation tools

Relevant provisions complied with:

Council Directive related to Machinery, (89/392/EEC), (91/368/EEC), (93/44/EEC), (93/68/EEC)

Council Directive related to EMC/EMI, (89/336/EEC)

European Representative:

Rob Pattenden, Huck International, Ltd. Unit C Stafford Park 7, Telford Shropshire TF3 3BQ, England, United Kingdom

Authorized Signature/date:

I, the undersigned, do hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(s).

Signature:



Full Name: Henk Rosier

Position: Engineering Manager,
Installation Systems Division

Place: Kingston, New York, USA

Date: June, 2001

Sound Levels

Models: HPT25RH, HPT35RH, HPT57RH, HPT115 and HPT115RAC

The sound level of the tool cycling without fastener is too small to be measured above the background noise of the Powerig. The noise of the fastener being installed in structure is considered process noise, not tool noise. Process noise varies greatly from application to application. Sound measurements of simulated process noise are available upon written request.

Vibration Levels

Models: HPT25RH, HPT35RH, HPT57RH, HPT115 and HPT115RAC

For an eight hour work day, installing 1000 typical Huck fasteners will result in an equivalent weighted RMS vibration level (A_{eq}) of 15.8 m/s^2 for HPT25RH, 10.2 m/s^2 for HPT35RH, 26.9 m/s^2 for HPT57RH, 5.2 m/s^2 for HPT115 and 5.2 m/s^2 for HPT115RAC.

Test data to support the above information is on file at Huck International, Inc., Kingston, NY, USA. Vibration measurements are frequency weighted in accordance with ISO 8041 (1990).

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SAFETY

This instruction manual must be read with particular attention to the following safety guide lines, by any person servicing or operating this tool.

1 Safety Glossary



WARNINGS - Must be understood to avoid severe personal injury.

CAUTIONS - *show conditions that will damage equipment and or structure.*

Notes - are reminders of required procedures.

Bold, Italic type and underlining - emphasizes a specific instruction.

2 Huck equipment must be maintained in a safe working condition at all times and inspected on a regular basis for damage or wear. Any repair should be done by a qualified repairman trained on Huck procedures.

3 Repairman and Operator must read and understand any Warning and Caution stickers/labels supplied with equipment before connecting equipment to any primary power supply - - as applicable, each of the sections in this manual have specific safety, and other information.

4 When repairing or operating Huck installation equipment always wear approved eye protection. Where applicable, refer to ANSI Z87.1 - 1989

5 Disconnect primary power source before doing maintenance on Huck equipment.

6 If any equipment shows signs of damage, wear or leakage, do not connect it to the primary power supply.

7 Make sure proper power source is used at all times.

8 Never remove any safety guards or pintail deflector.

9 Never install a fastener in free air, personal injury from fastener ejecting may occur.

10 Do not abuse tool by dropping or using it as a hammer. Reasonable care of installation tools by operators is an important factor in maintaining tool efficiency, eliminating downtime and in preventing an accident which may cause severe personal injury.

DESCRIPTION

HUCK Models HPT25H, 25RH, 35H, 35RH, 57H, 57RH, 70, 90 and 115 are Hydraulic Installation Tools that install various HUCK fasteners. HPT tools are configured to install fasteners in limited clearance applications. Nine (9) models vary in size and pulling capacity. Each fastener type requires a specific nose assembly (refer to selection chart or your Huck representative). **Tools suffixed with RH are equipped with rear handles; tools suffixed with H are equipped with handle/shroud combination; tools that are not suffixed with a letter have no handles -- see illustrations.**

HPT tool design consists of a cylinder housing with two chambers to accommodate two tandem pull pistons. This feature increases pull capacity while maintaining optimum centerline-to-edge clearance and lightweight.

Tools are used with Huck POWERIG® Hydraulic Unit Models 913H, 918 and 940 or equivalent (sold separately). Except for nose assembly, all tools are complete with hydraulic hoses, couplings and electric control cord ready to be attached to POWERIG® Hydraulic Units hoses and control cord.

CAUTION - *Huck recommends that only Huck POWERIG® Hydraulic Unit be used as the power source for Huck installation equipment. Hydraulic power units that deliver high pressure for both PULL and RETURN, and are not equipped with relief valves are specifically not recommended, and may be dangerous.*



WARNING - Proper PULL and RETURN pressures are important for proper function of Installation Tools. Severe personal injury or damage to equipment may occur without correct pressures. Huck Pressure Gauge P/N T-10280 (old style) or the new T124833 is now available for checking these pressures using instructions furnished with the gauge and in applicable POWERIG® Hydraulic Unit instruction manuals. See Specifications.

Note - Models 912, 917 & 917-5, POWERIG® Hydraulic Units must be retrofitted with the correct combination valve to function with HPT tools. These valves are designed to provide 8000 to 8400 psi PULL pressure and 6000 psi RETURN pressure. Refer to product update #285.

PRINCIPLE OF OPERATION

An electric trigger switch controls the PULL and RETURN strokes of the tool. As the trigger is pressed, the combination valve directs hydraulic PULL pressure to front sides of both pistons, moving them rearward. Fastener Installation begins.

When the fastener installation is complete, the trigger is released, causing the hydraulic units combination valve to redirect the hydraulic RETURN pressure to the rear side of the front piston moving it forward. The nose

assembly, with the tool, is pushed off the installed fastener. The release opens the jaws releasing the pintail

As the pistons reach the end of the RETURN stroke, hydraulic pressure increases causing the hydraulic unit idler valve to move to idle position (in Model 918) or automatically shut off (in Model 940). The tool & nose assembly is now ready to install another fastener.

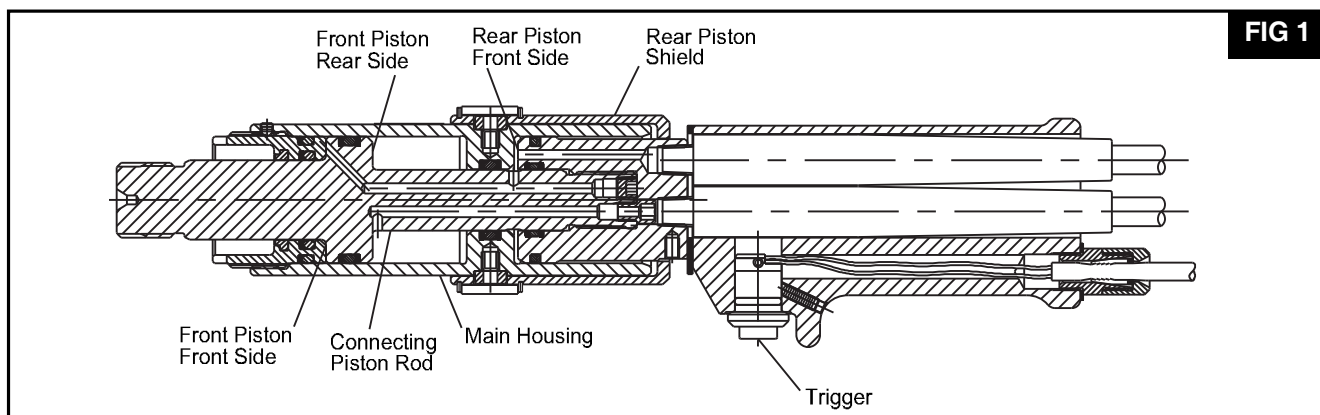
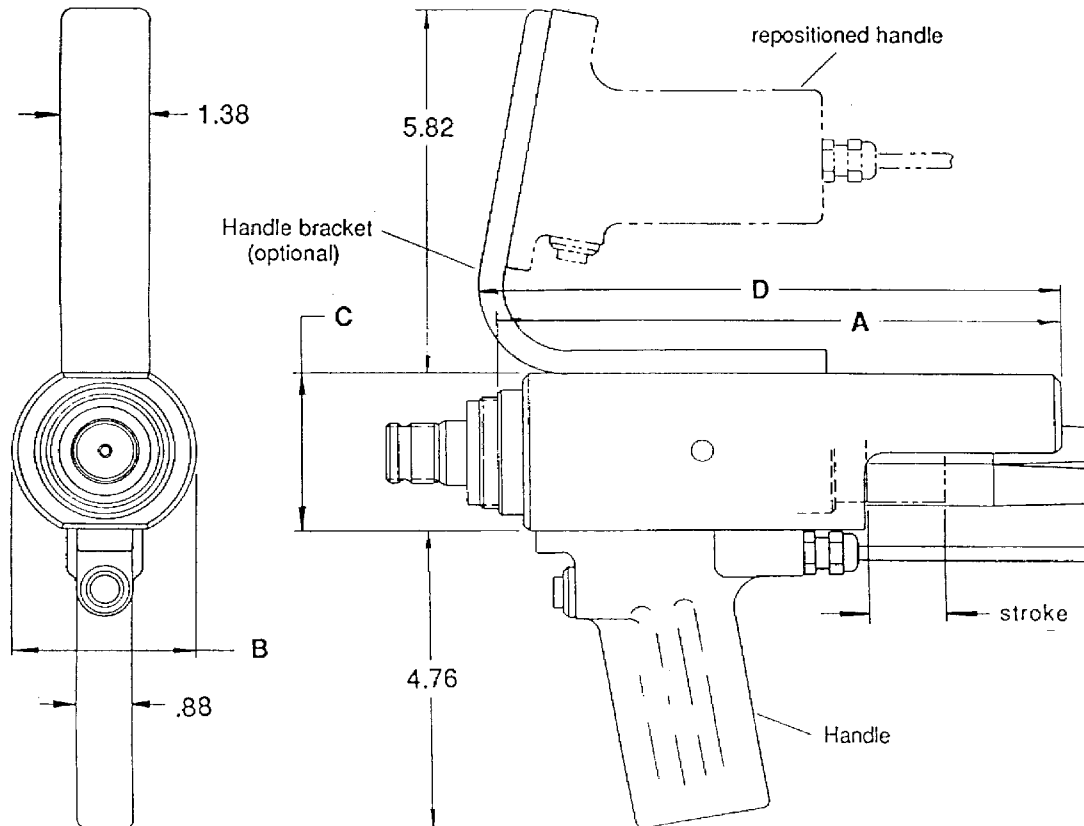


FIG 1

SPECIFICATIONS

FIG 2



TOOL	UNITS	WEIGHT H/S *	WEIGHT S/B/H **	STROKE	A	B	C	D
HPT25H	IN.	-----	-----	1.25	8.88	2.90	2.45	9.14
	MM	-----	-----	31.75	225.55	73.66	62.23	232.16
	LBS	8.30	9.8	-----	-----	-----	-----	-----
	KG	3.77	4.45	-----	-----	-----	-----	-----
HPT35H	IN.	-----	-----	1.50	10.00	3.24	2.90	9.80
	MM	-----	-----	38.10	254.00	82.30	73.66	248.92
	LBS	12.22	13.70	-----	-----	-----	-----	-----
	KG	5.55	6.23	-----	-----	-----	-----	-----
HPT57H	IN.	-----	-----	1.75	11.76	3.78	3.24	11.24
	MM	-----	-----	44.45	298.70	96.01	82.30	285.50
	LBS	15.90	17.40	-----	-----	-----	-----	-----
	KG	7.23	7.91	-----	-----	-----	-----	-----

* H/S = with handle and shroud

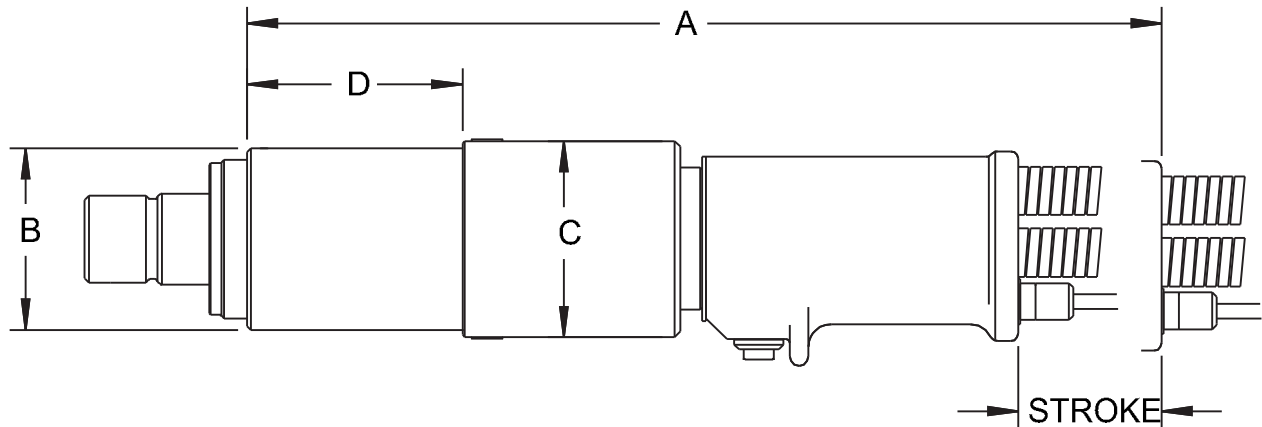
** H/B/S = with shroud, bracket and handle

Pull Pressure - 8,000 - 8,400 psi (55,200 - 57,900 kPa)

Return Pressure - 6,000 - 6,500 psi (41,379 - 44,828 kPa)

SPECIFICATIONS (CONTINUED)

FIG 3



TOOL	UNITS	WEIGHT *	STROKE	A	B	C	D
HPT25RH	IN.	-----	1.25	8.88	2.90	2.25	2.79
	MM	-----	31.75	225.55	73.66	57.15	70.87
	LBS	6.00	-----	-----	-----	-----	-----
	KG	2.73	-----	-----	-----	-----	-----
HPT35RH	IN.	-----	1.50	8.19	2.38	2.62	3.25
	MM	-----	38.10	208.03	60.45	66.55	82.55
	LBS	9.00	-----	-----	-----	-----	-----
	KG	4.09	-----	-----	-----	-----	-----
HPT57RH	IN.	-----	1.75	9.30	3.00	3.24	3.57
	MM	-----	44.45	236.22	76.20	82.30	90.68
	LBS	12.00	-----	-----	-----	-----	-----
	KG	5.45	-----	-----	-----	-----	-----

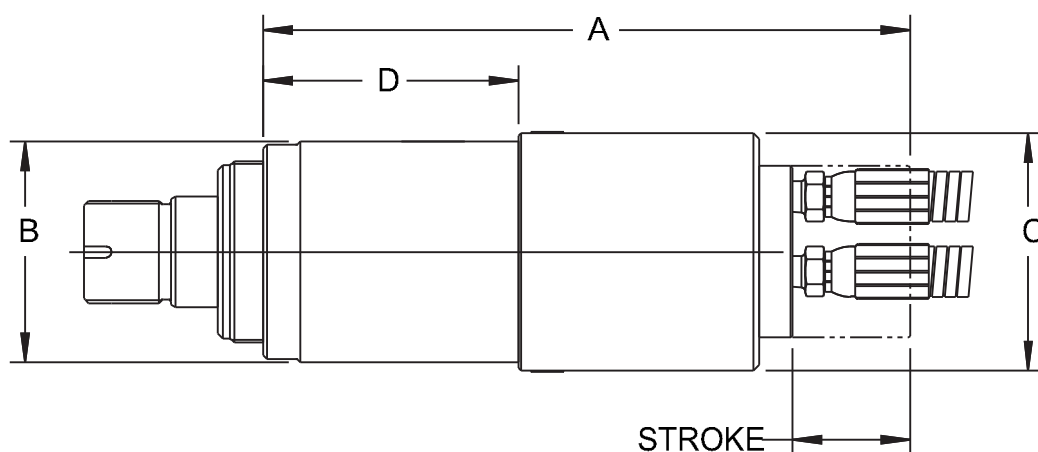
* No handles -or- rear handle only

Pull Pressure - 8,000 - 8,400 psi (55,200 - 57,900 kPa)

Return Pressure - 6,000 - 6,500 psi (41,379 - 44,828 kPa)

SPECIFICATIONS (CONTINUED)

FIG 4



TOOL	UNITS	WEIGHT	STROKE	A	B	C	D
HPT70	IN.	-----	1.25	10.24	3.50	3.75	4.05
	MM	-----	31.75	260.10	88.9	95.25	102.87
	LBS	19.60	-----	-----	-----	-----	-----
	KG	8.91	-----	-----	-----	-----	-----
HPT90	IN.	-----	1.50	10.75	3.94	4.19	4.17
	MM	-----	38.10	273.05	100.08	106.43	105.92
	LBS	24.80	-----	-----	-----	-----	-----
	KG	11.27	-----	-----	-----	-----	-----
HPT115	IN.	-----	1.75	11.25	4.38	4.63	4.42
	MM	-----	44.45	285.75	111.25	117.60	112.27
	LBS	31.80	-----	-----	-----	-----	-----
	KG	14.45	-----	-----	-----	-----	-----

Note: HPT 115RAC not shown in chart. Please contact your Huck representative for more information.

Pull Pressure - 8,000 - 8,400 psi (55,200 - 57,900 kPa)

Return Pressure - 6,000 - 6,500 psi (41,379 - 44,828 kPa)

PUTTING INTO SERVICE

1. Use Huck POWERIG Hydraulic Unit, or equivalent, that has been prepared for operation per applicable **instruction manual**. Check both PULL and RETURN pressures, and if required, adjust to pressures given in **specifications of this manual**.
2. First, turn hydraulic unit to OFF, and then, disconnect power supply from unit. Connect tool's hoses to unit.
Caution: *Do not let couplers contact a dirty floor. Dirt & debris in hydraulic fluid can causes valve failure.*
3. Connect tool's control switch electrical cord to hydraulic unit.
4. Connect hydraulic unit to power supply. Turn unit to ON. Hold tool trigger depressed for 30 seconds; depress trigger a few times to cycle tool and to circulate hydraulic fluid. Observe action of tool and check for leaks. Turn unit to OFF.
5. Select nose assembly for fastener to be installed. Disconnect tool's control switch electrical cord from hydraulic unit; disconnect unit from power supply. Attach nose assembly to tool as given by instructions on **Nose Assembly Data Sheet**.
6. Reconnect hydraulic unit to power supply; reconnect tool's switch control cord to unit. Check operation of nose assembly - - see **Nose Assembly Data Sheet** - - install fasteners in test plate of correct thickness with proper size holes. Inspect installed fasteners. If fasteners do not pass inspection, see **Troubleshooting** to locate and correct tool malfunction.



WARNING - Be sure to connect tool hoses to hydraulic unit BEFORE connecting tool electrical switch cord to unit. Hoses and switch must be connected in this order and disconnected in the opposite order to prevent possible severe personal injury.

SERVICING THE TOOL

Good Service Practices

CAUTION: *Keep dirt and other harmful material out of hydraulic system - - this includes tool, hoses, couplers and POWERIG® Hydraulic Unit. Parts must be kept away from unclean work surfaces. Dirt in hydraulic system causes valve failure in hydraulic unit.*

Individual parts must be handled carefully and examined for damage or wear. Replace parts where required. Always replace o-rings and back-up rings when tool is disassembled for any reason - see applicable Service Kit.

- The efficiency and life of your tool depends on proper maintenance. Using the manual will help give a clear understanding of the tool and basic



WARNING: Inspect tool for damage or wear before each use. Do not operate if damaged or worn, as severe personal injury may occur

maintenance procedures - - please read this page completely before proceeding with maintenance and repair. Use proper hand tools in a clean and well-lighted area. Only standard hand tools are required in most cases; where a special tool is required, the description and part number are given.

- While clamping tool or parts in a vise, and when parts require force, use suitable soft materials to cushion impact. For example - - using a half-inch brass drift, wood block and vise with soft jaws greatly reduces possibility of damaging tool. Remove components in a straight line without bending, cocking or undue force - - reassemble tool with the same care.
- Consult manuals **TROUBLESHOOTING** if a malfunction occurs and then see appropriate section of **DISASSEMBLY**; **ASSEMBLY**; Assembly and/or Components (illustration).

SERVICING THE TOOL (CONTINUED)

Good Service Practices (Continued)

Sealants, Lubricants, Hydraulic Fluid and Service Kits

- Rub SLIC-TITE TEFLON thread compound, or equivalent, on pipe threads to prevent leaks and for ease of assembly. **CAUTION:** *Do not use TEFLON tape on pipe threads.* Particles of shredded tape cause hydraulic unit valve failure. (SLIC-TITE - - in stick form, 503237).
- Smear LUBRIPLATE 130AA, or equivalent, on o-rings and mating surfaces to prevent damaging o-rings on rough or sharp surfaces. Also, increases ease of assembly. (LUBRIPLATE in a tube, 502723).
- Each Service Kit contains perishable parts for your specific tool. As foreseeable use may indicate, keep extra kits (o-rings, back-up rings, other standard items) and tool parts in stock. When stock is depleted, you can get kit items from any regular retailer of these items. See kit parts list for: o-ring size (AS568- number); material; durometer - - for kit parts lists and related information, see General Notes.

Preventive Maintenance

System Inspection

Operating efficiency of the tool is directly related to the performance of the complete system, including the tool with nose assembly, hydraulic hoses, trigger switch and control cord, and POWERIG Hydraulic Unit. Therefore, an effective preventive maintenance program includes scheduled inspections of the system to detect and correct minor troubles.

- Inspect tool and nose assembly for external damage.
- Verify that hydraulic hose fittings and couplings, and electrical connections are secure.
- Inspect hydraulic hoses for damage and deterioration. Do not use hoses to carry tool. Replace hoses if damaged.
- Observe tool, hoses and hydraulic unit during operation to detect abnormal heating, leaks or vibration.

POWERIG Hydraulic Unit Maintenance

Refer to the applicable POWERIG instruction manual.

Tool Maintenance

Whenever disassembled and also at regular intervals (depending on severity and length of use) replace all seals, wipers and back-up rings in tool. Service Kits, hoses and extra parts should be kept in stock. Inspect cylinder bore, pistons and piston rods for scored surfaces and excessive wear or damage. Replace as necessary.

Nose Assembly Maintenance

Clean nose often - - dip in mineral spirits, or similar solvent, to clean jaws and wash away metal chips and debris. At regular intervals, as experience shows, disassemble nose and use a sharp "pick" to remove imbedded particles from grooves of jaws. See appropriate NOSE ASSEMBLY DATA SHEET.

Disassembly (Refer to Figures 5-18)

For part identification see **Fig 5** of Typical HPT Tool and other illustrations. The following procedures are for complete disassembly of tool. Remove ONLY those parts necessary - - check components for wear or damage and replace as needed. Replace o-rings, POLY-SEAL, wiper, and back-up rings.



WARNING: Be sure to disconnect tool's electric control trigger system from POWERIG® Hydraulic Unit before disconnecting tool's hoses from unit. Before any maintenance is done, DISCONNECT IN THIS ORDER (RECONNECT IN THE OPPOSITE ORDER) to avoid possible severe personal injury.

1. Turn power source OFF at end of PULL stroke so that Piston Assembly (5) is at rear of cylinder - - opposite of position that is shown.
2. First, disconnect tool's electric trigger control cord from hydraulic unit, and then, uncouple hoses.

NOTE: *Disassemble electric control switch only when necessary to rewire or replace.*

SERVICING THE TOOL (CONTINUED)

3. Carefully cut cable ties from hoses. Remove both couplers (nipple and body) from hoses. Drain hoses into container by pushing rearward on piston. Discard fluid.
4. Remove rear handle (9) and cushion using hex key. If required, remove switch - - use hex key after loosening strain relief. If handle and shroud assembly is attached, remove the timing screw and spacer, and then, both socket head cap screws from side of shroud/tool. Slide handle and shroud off tool. (See fig. 7, 9 or 11)
5. Remove hoses from tool. Note: If applicable, remove rear piston shields by removing retaining rings and sleeve that holds locator buttons in place. Remove locator buttons and slide off shield.
6. Hold tool vertically, and in vise with soft jaws, clamp vise jaws on flats of Rear Piston (4).
7. Install a collet (a component of a nose assembly) onto pull piston - - thread all the way down until it bottoms out.
8. Invert tool, clamping collet in vise. Remove locking sleeve (8) from rear of piston rod - - access to sleeve is through return pressure port - - use hex key.
9. Unscrew Rear Piston from piston rod - - remove tool from vise. Drain remaining fluid into container.
10. Clamp tool in vise with rear of cylinder facing down the remove collet.
11. Unscrew Lockscrew (1) that locks Front Gland (6) in tool. (See P. 24, General Notes, item 6.) then remove front gland with face spanner wrench.
12. Slide Front Piston Assembly (5) out of Cylinder (7).
13. Remove all o-rings and back-up rings. Clean out o-ring grooves - - clean all components in mineral spirits or isopropyl alcohol. Dry parts before reassembly as solvent is detrimental to o-rings.

Assembly (Refer to Figures 5-18)

Review MAINTENANCE section for Good Service Practices - - use correct assembly procedures and materials - - clean out o-ring grooves and reinstall perishable parts (o-rings, etc.) of Service Kit.

1. Slide Piston Assembly (5) into threaded end of cylinder (7). Push piston to the rear of the cylinder.
2. Thread a collet onto the piston rod until it bottoms out on the piston threads. Thread rear piston assembly (4) onto main piston (5). Back rear piston off just enough to allow installation of the Locking Sleeve (8) in rear piston rod through return port in rear piston, tighten with hex key.

Note: If applicable, shield, locator button, and flat head socket screw are installed - - use hex key.

3. Invert tool in vise clamping jaws on flats of rear piston.

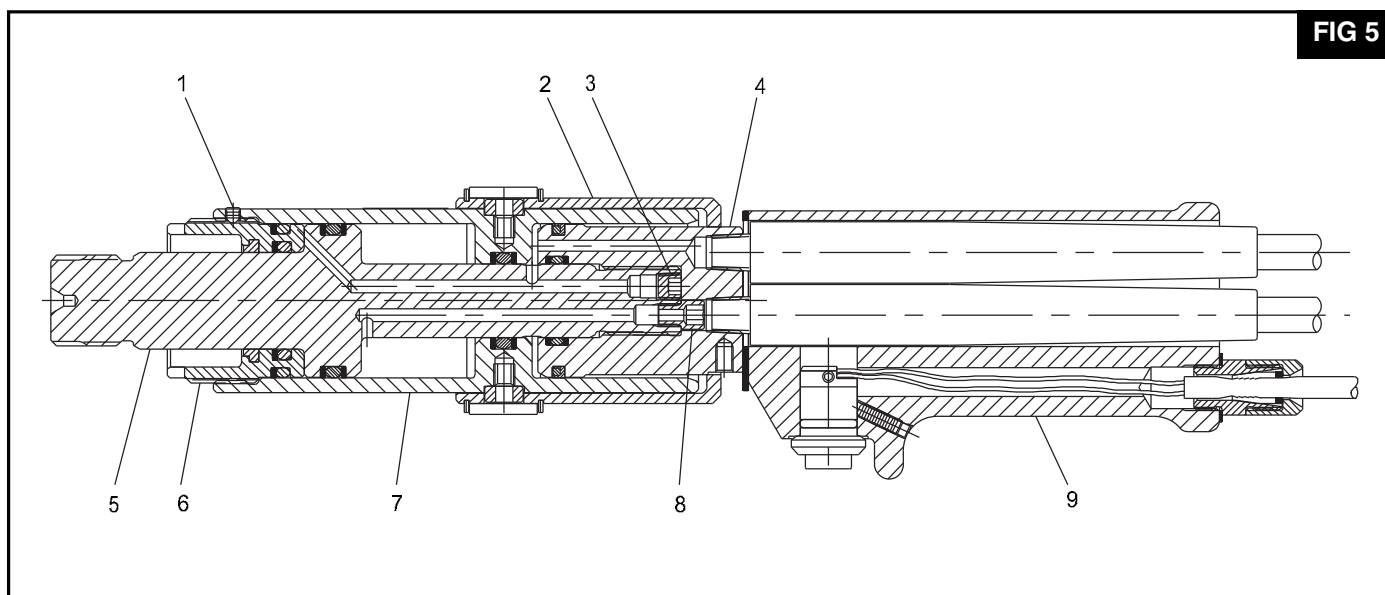


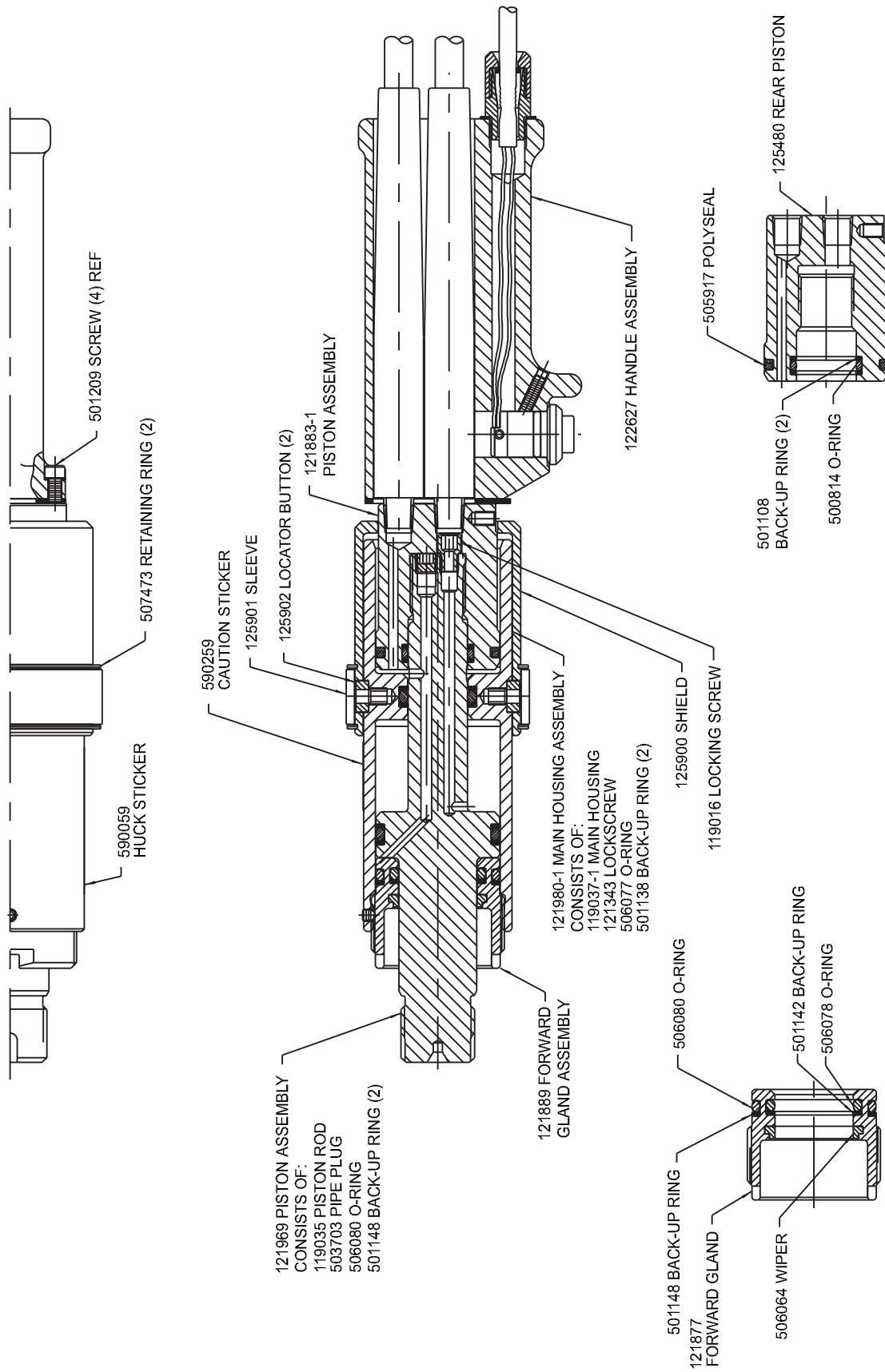
FIG 5

SERVICING THE TOOL (CONTINUED)

4. Thread Front Gland (6) into cylinder using a face-spanner wrench, bottom out threads. (See page 25, General Notes, Item 6) Back gland out (1/4 turn or less) and install Lock Screw (1) in cylinder. The screw must seat in groove of gland.
5. Install one hydraulic hose in rear piston port marked "P" and one in port marked "R".
CAUTION: *Do not use TEFLON tape on pipe threads. (See Good Service Practices Page 9)*
6. Assemble switch to Rear Handle (9). Slide rear handle over hoses, attach handle assembly including cushion, to Rear Piston (4) with four lockwashers and cap screws. Torque as follows:
HPT25, torque to 8-10 ft/lbs.
For all other models, torque to 12-14 ft/lbs.
7. If a handle and shroud assembly was attached to the tool, slide the handle/shroud over the cylinder and install locators and screws, and then install spacer and timing screw. (See fig. 7, 9 or 11) Torque the timing and attaching screws as follows:
All H version timing screws - - 12-14 ft/lbs.
HPT25H&35H attaching screws - - 12-14 ft/lbs.
HPT57H attaching screws - - 20-24 ft/lbs.
8. Install Coupler Nipple, 110438, (PULL pressure hose); Coupler Body, 110439, (RETURN pressure hose). (See figure 16, 17 or 18)

----- SERVICE NOTES: -----

FIG 6

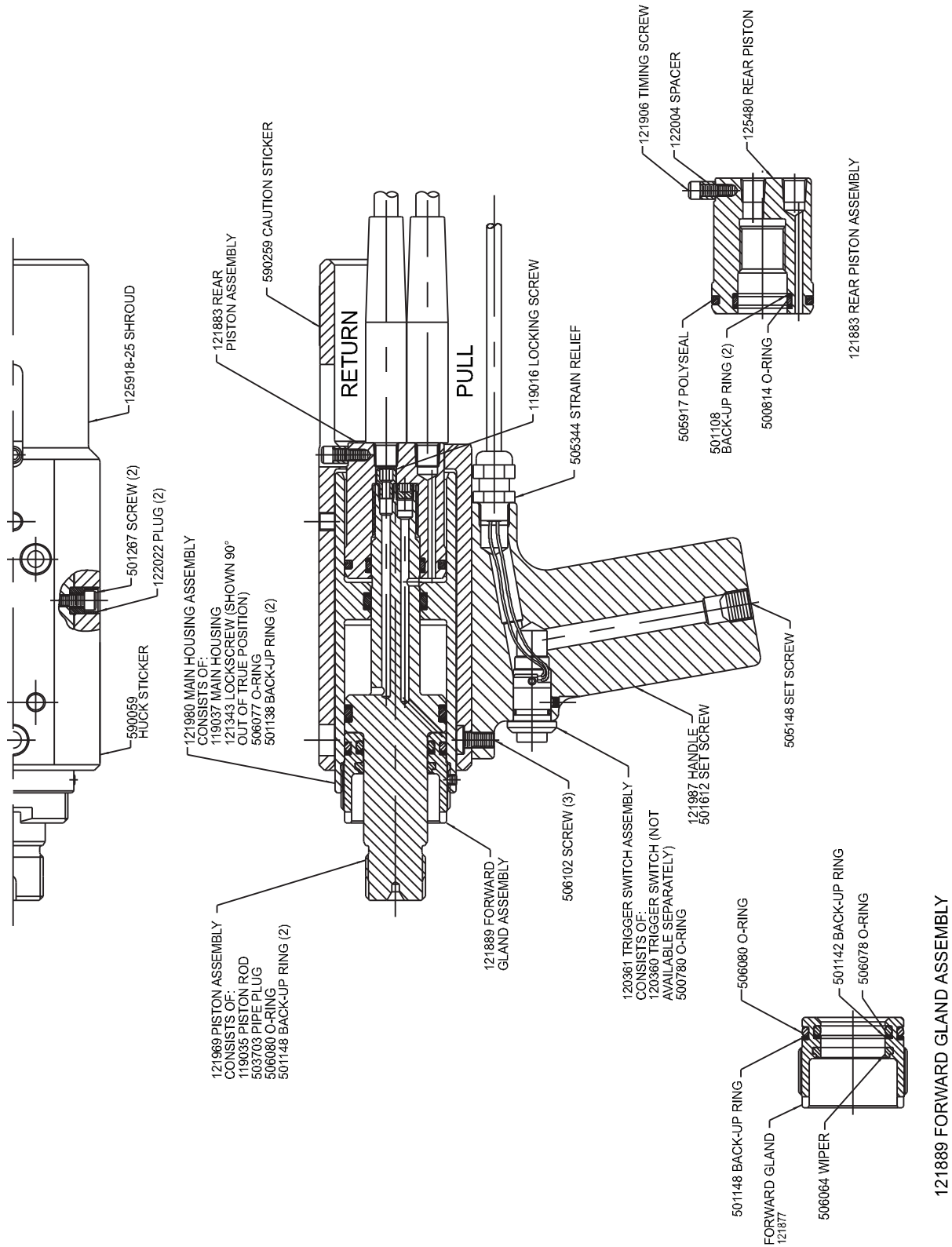


121889 FORWARD GLAND ASSEMBLY

121883-1 REAR PISTON ASSEMBLY

HPT 25RH

FIG 7



HPT25H

FIG 8

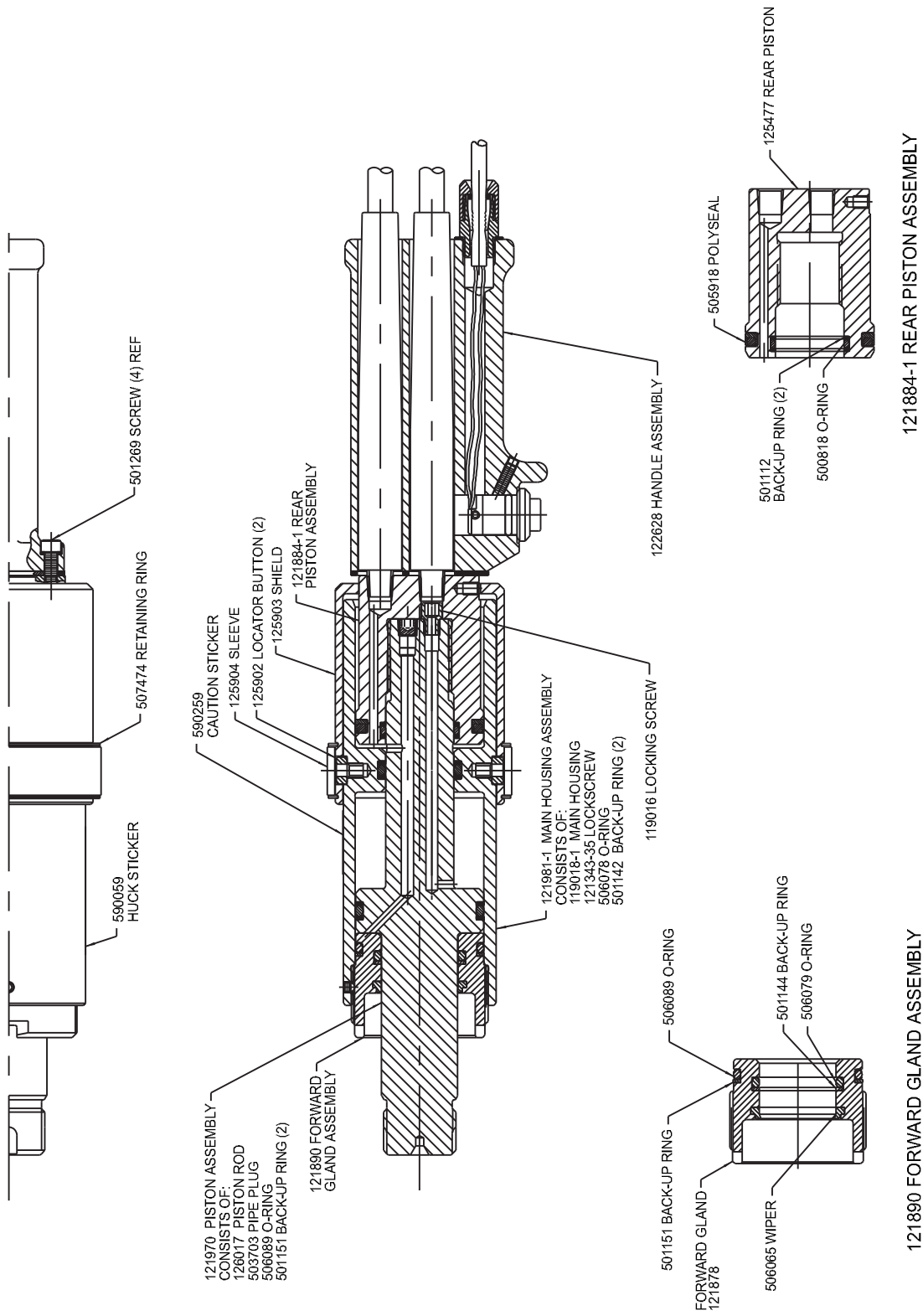
**HPT35RH**

FIG 9

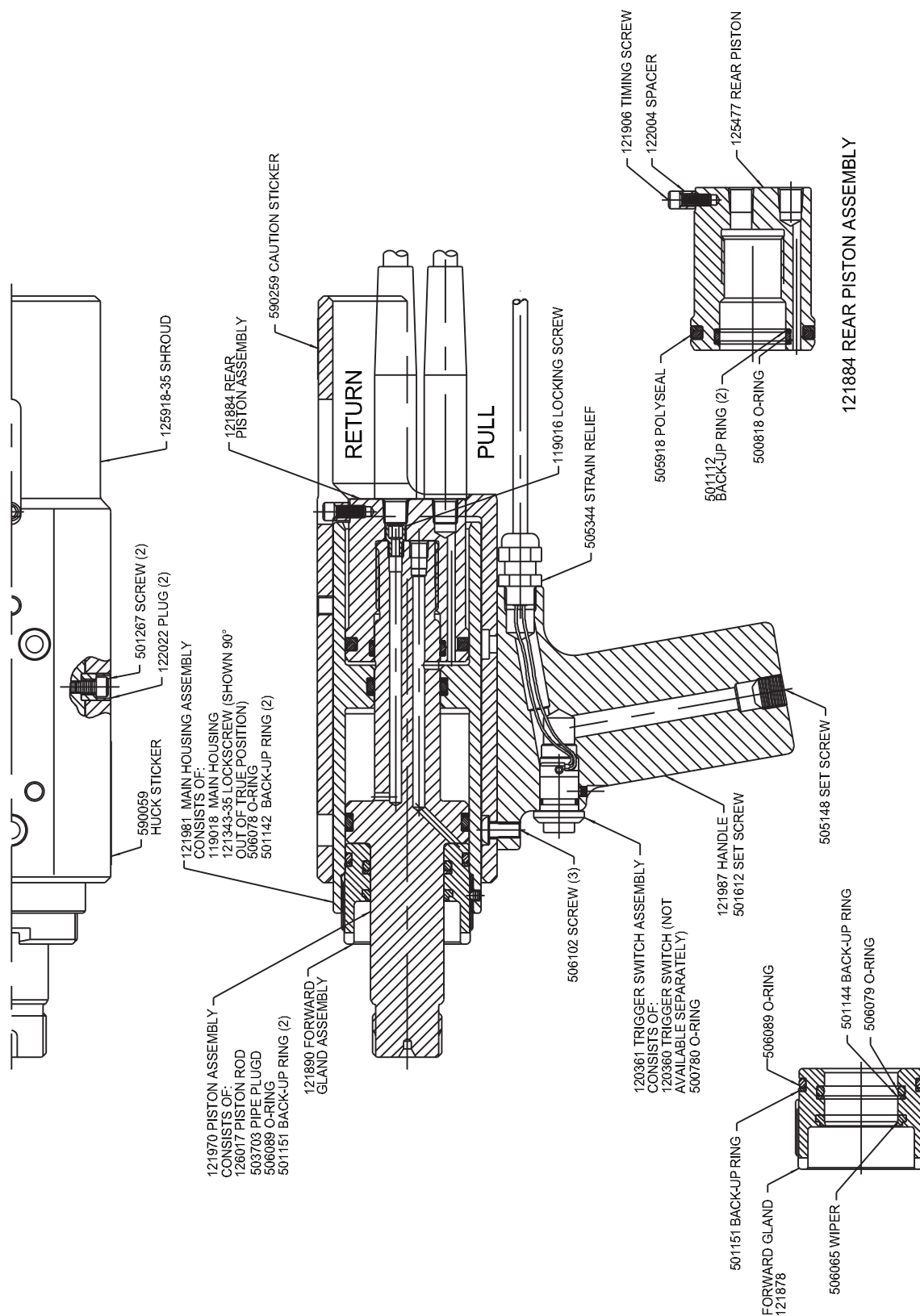
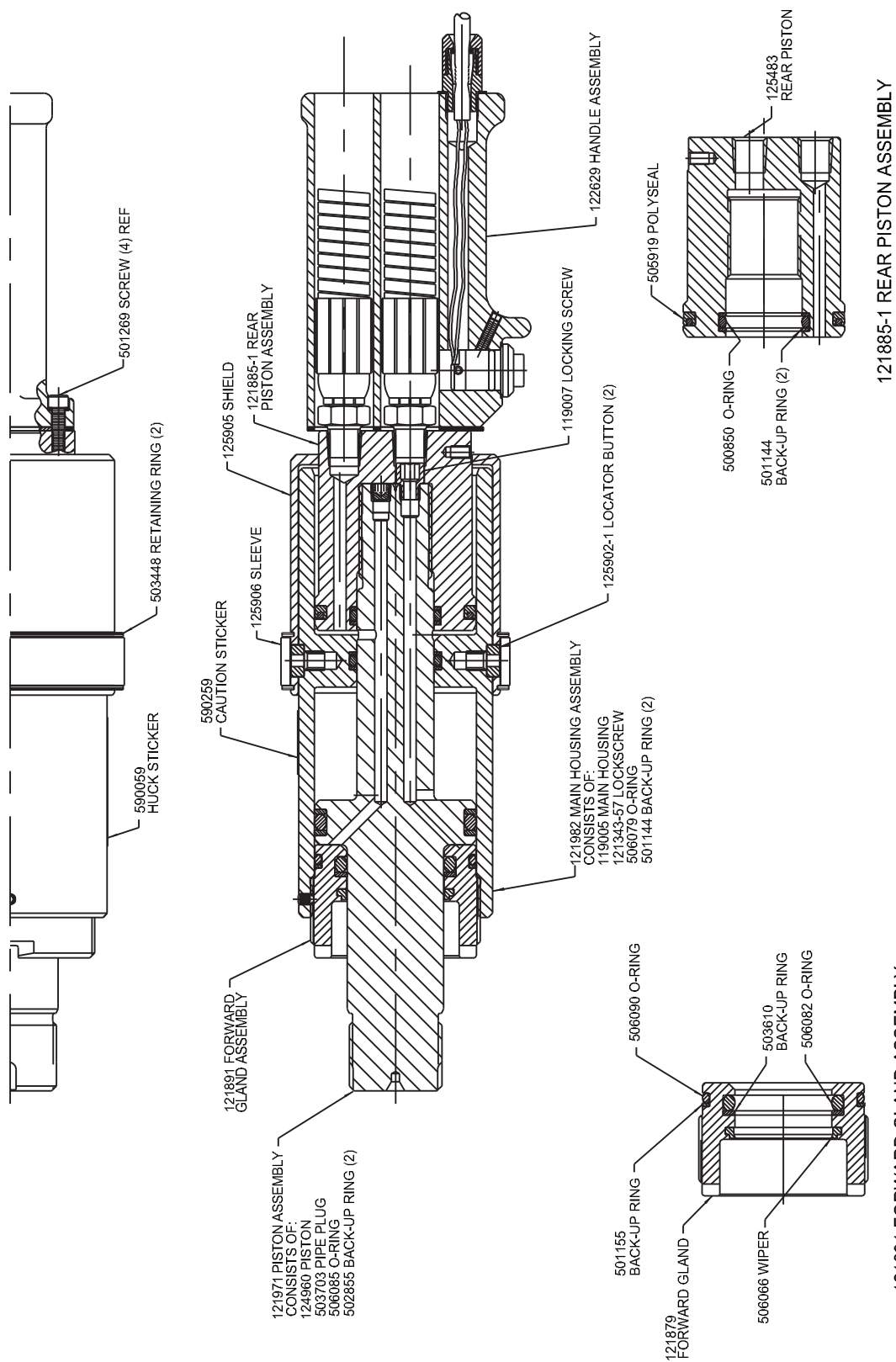
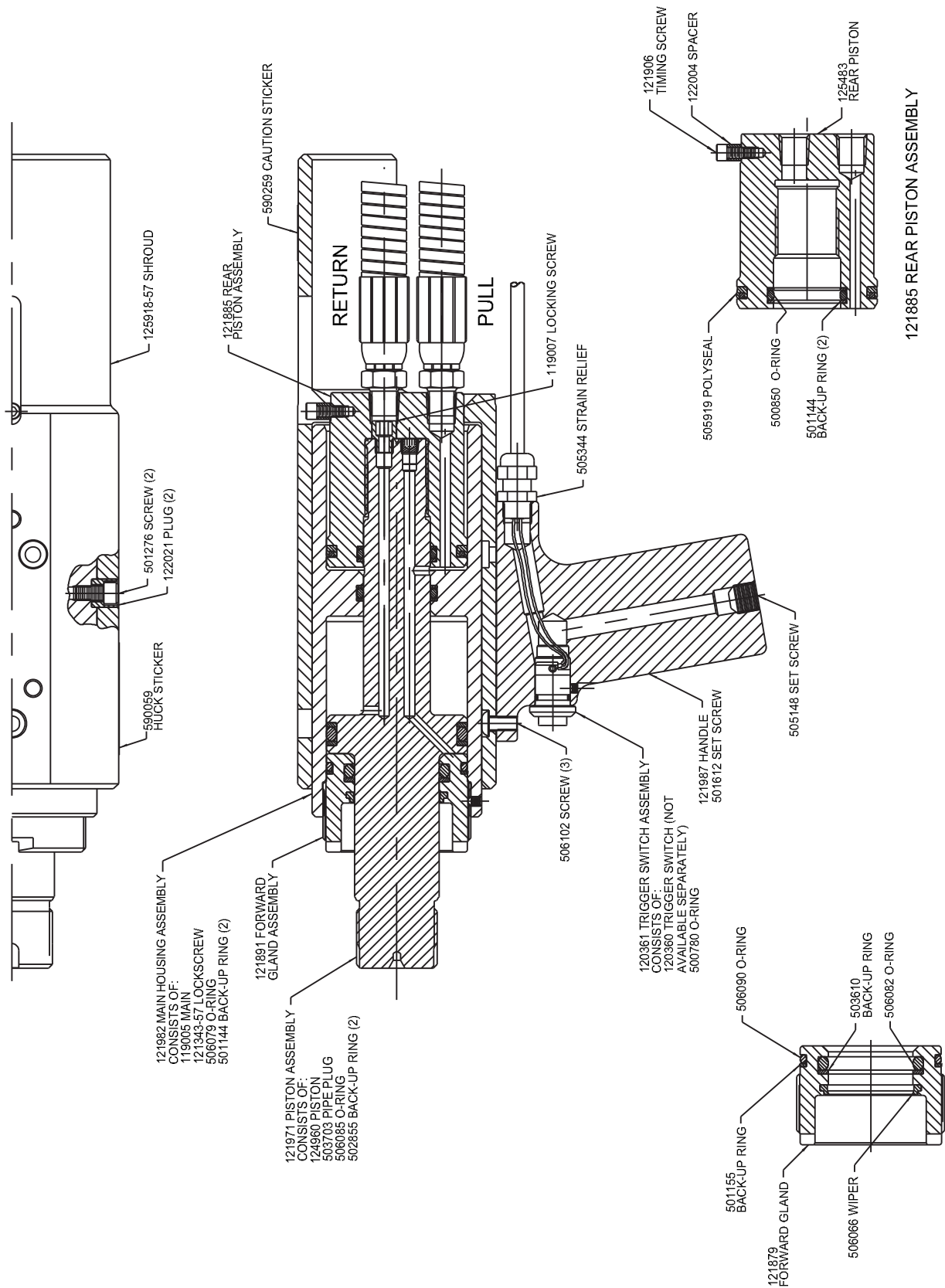


FIG 10



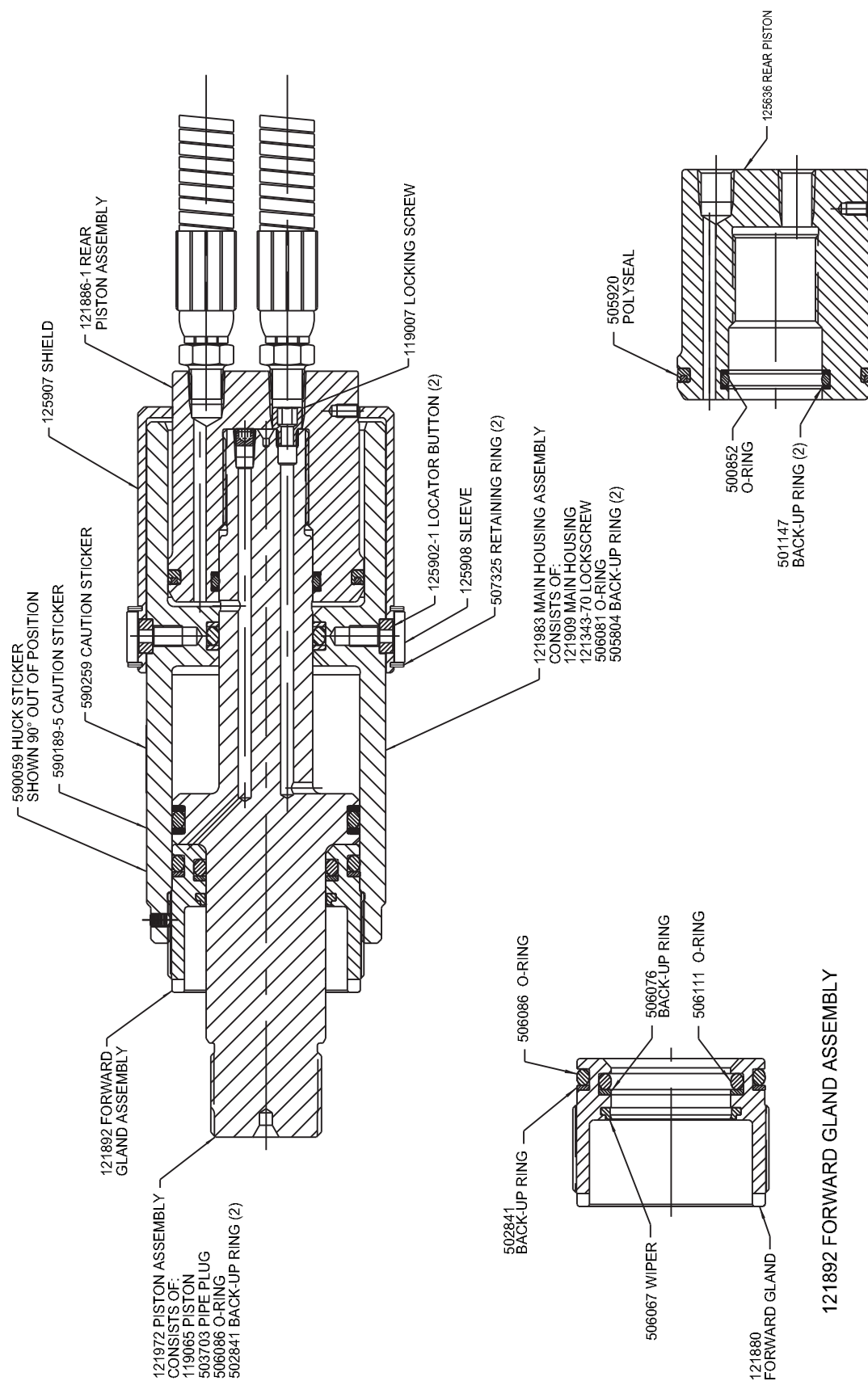
HPT57RH

FIG 11



HPT57H

FIG 12

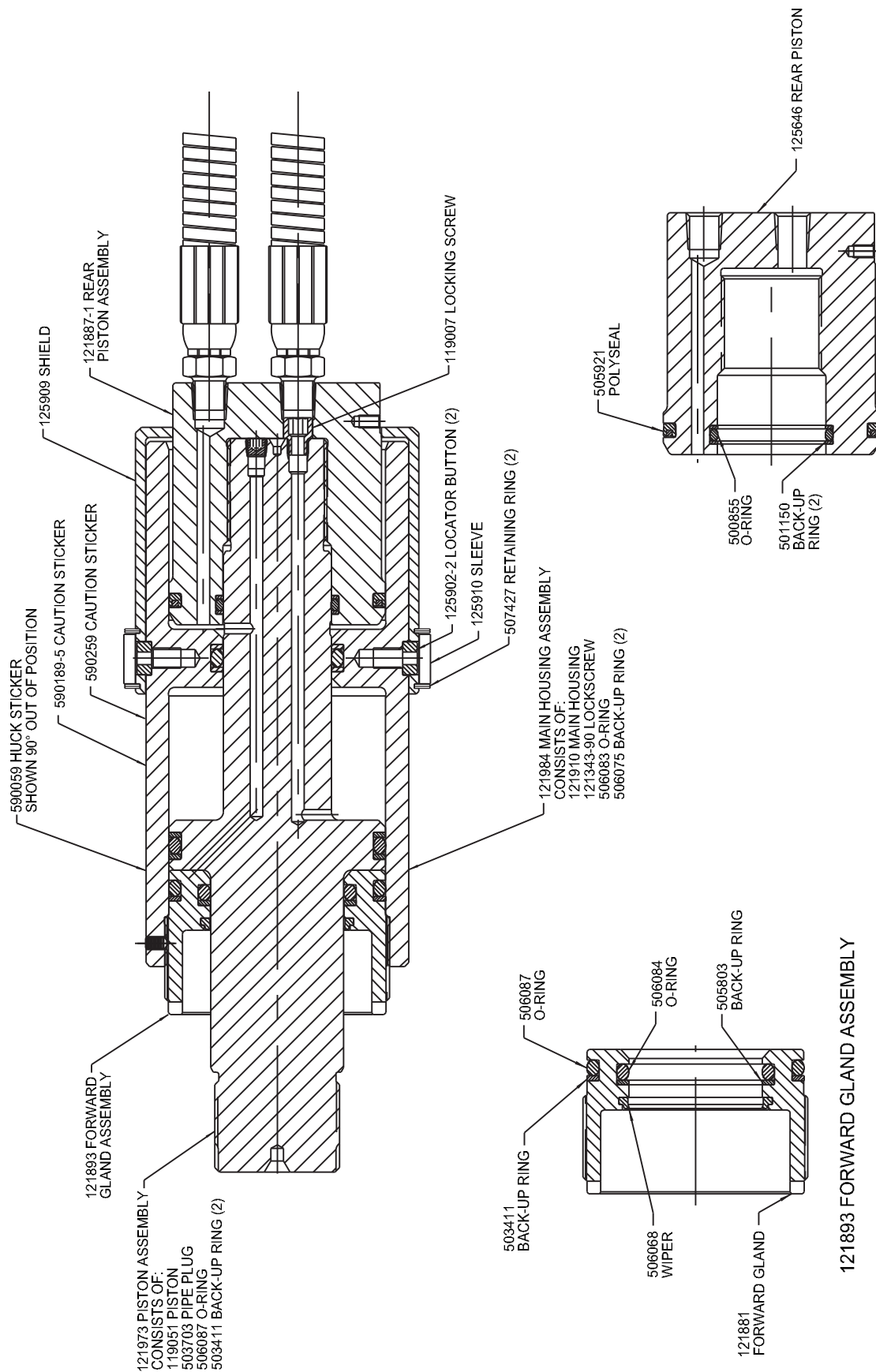


121886-1 REAR PISTON ASSEMBLY

HPT70

121892 FORWARD GLAND ASSEMBLY

FIG 13



121887-1 REAR PISTON ASSEMBLY

HPT90

121893 FORWARD GLAND ASSEMBLY

FIG 14

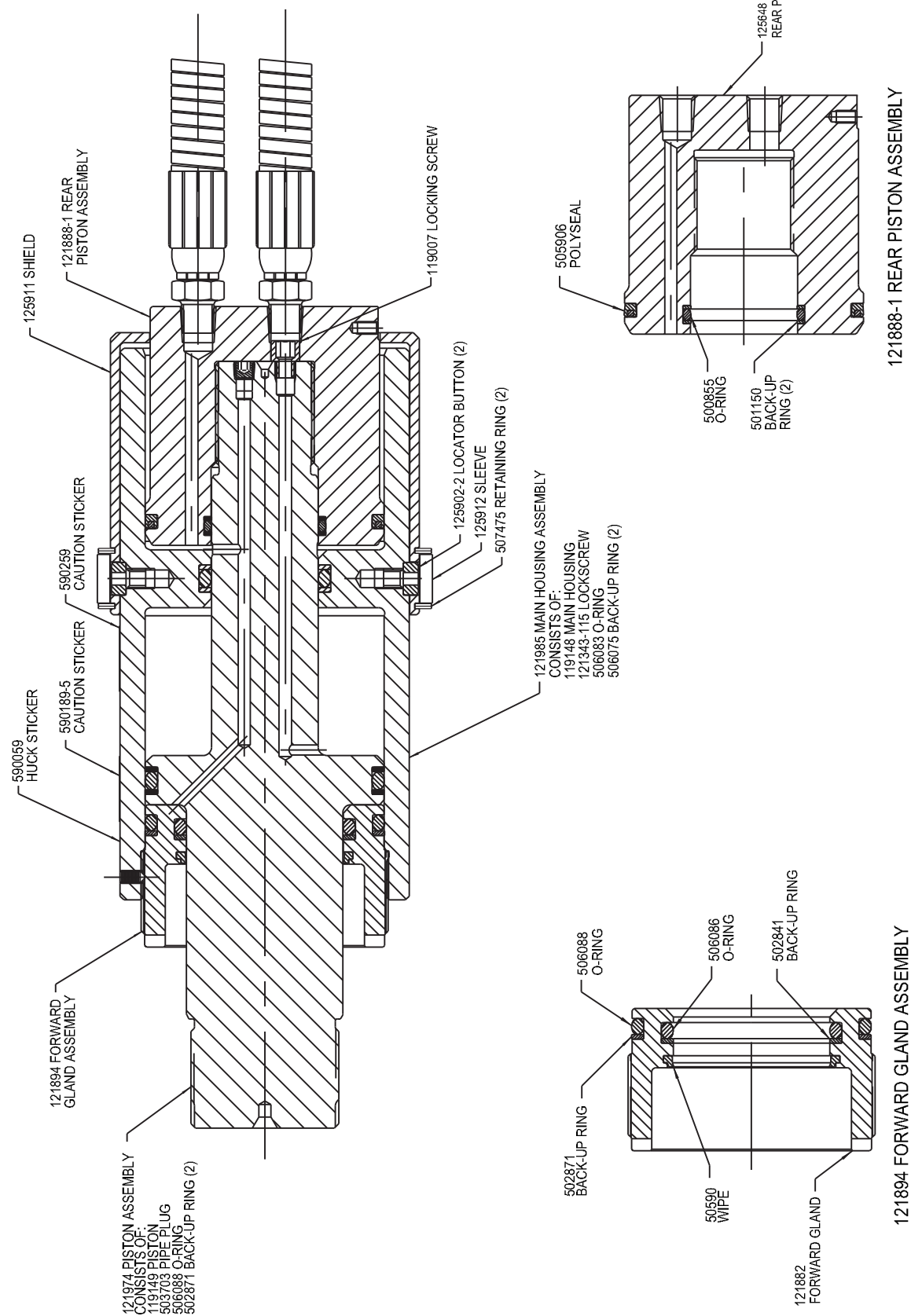
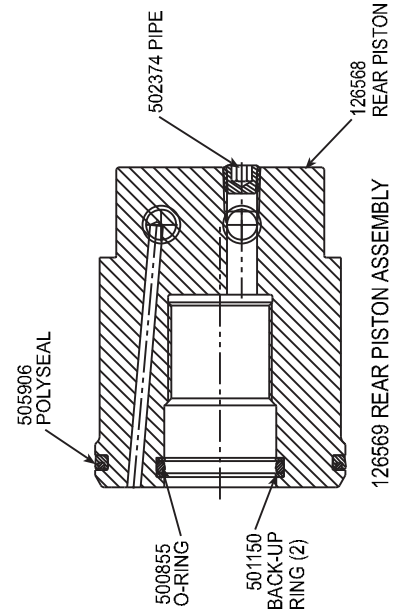
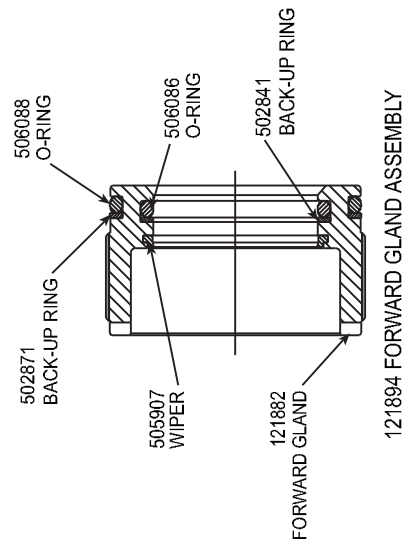
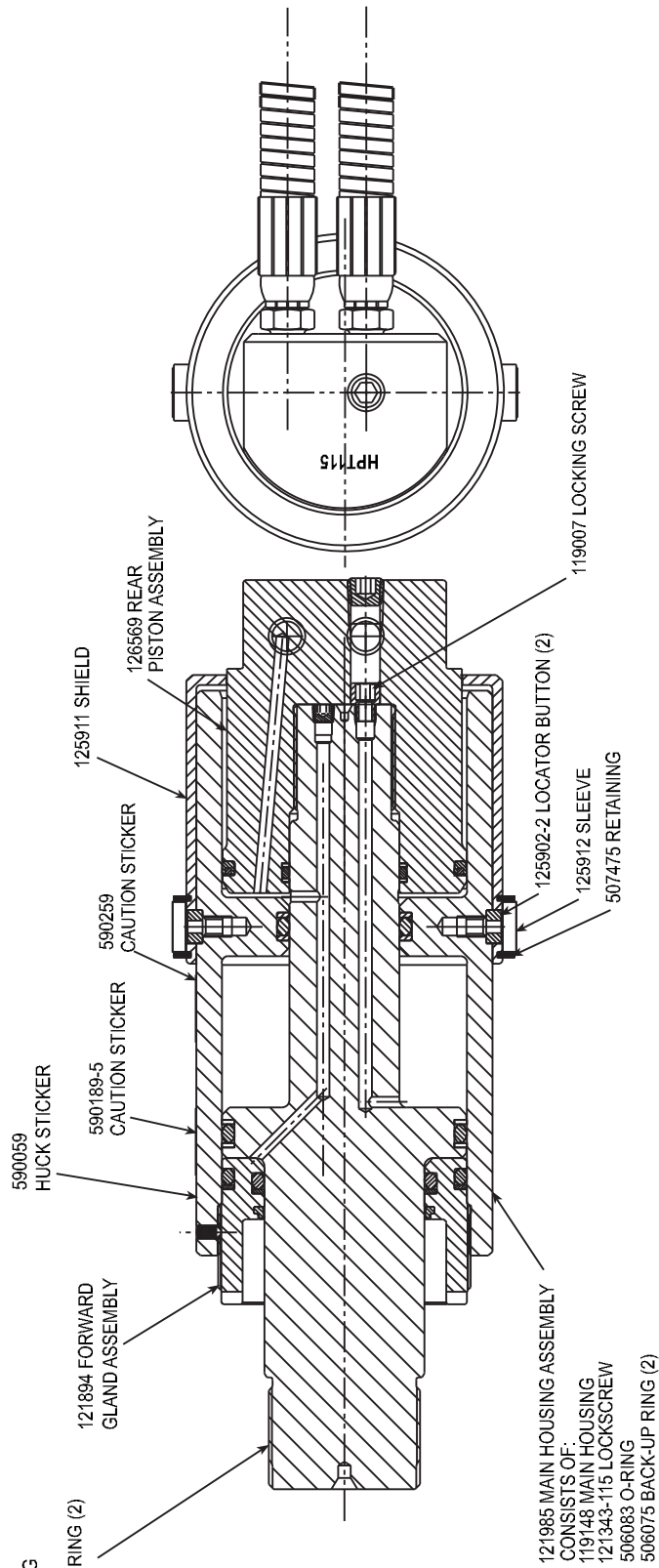
**HPT115**

FIG 15

121974 PISTON ASSEMBLY
CONSISTS OF:

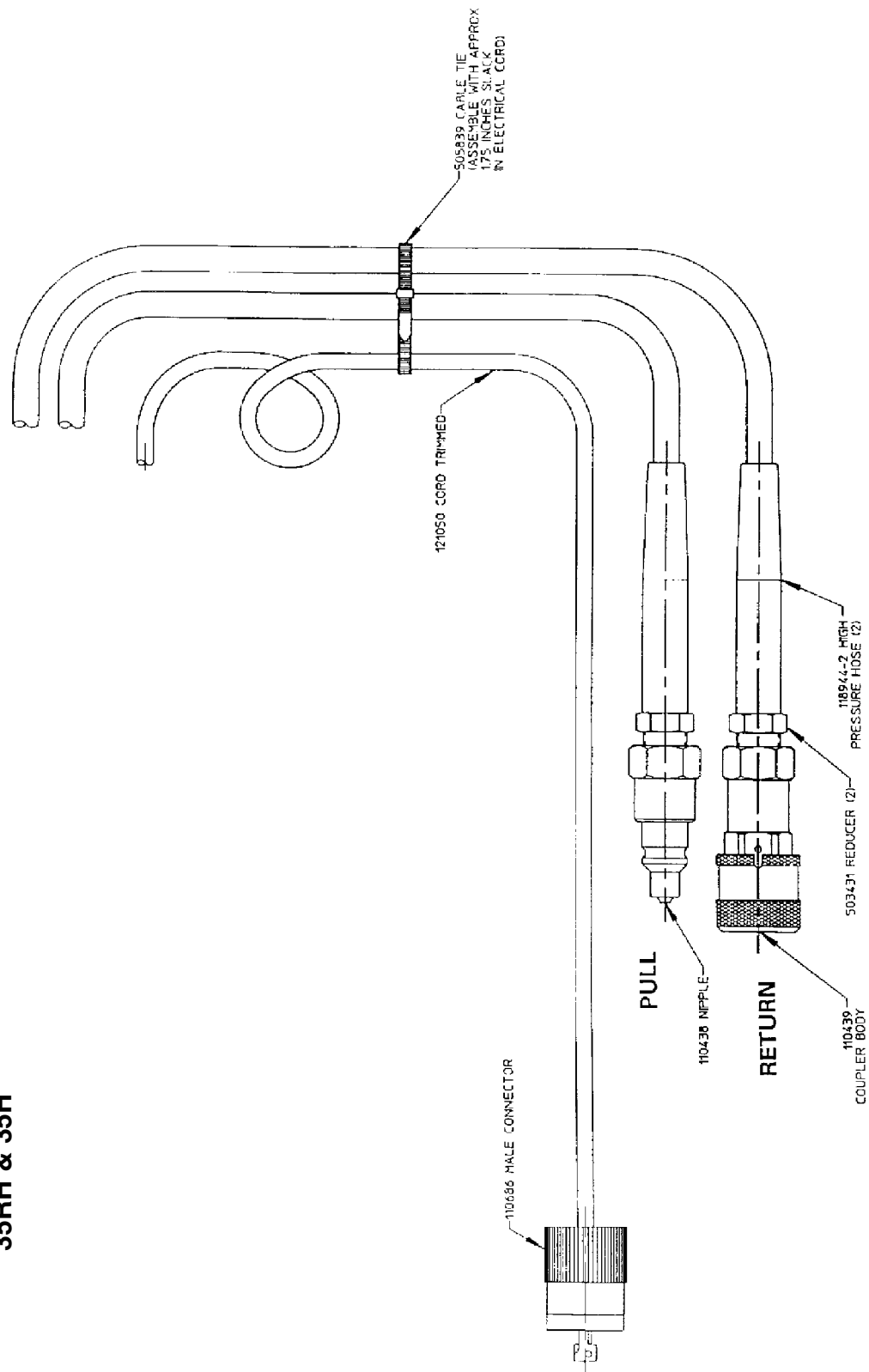
119149 PISTON
503703 PIPE PLUG
506088 O-RING
502871 BACK-UP RING (2)



HPT 115RAC

FIG 16

Hose Assembly For HPT25RH & 25H and 35RH & 35H



Hose Assembly For HPT57RH & 57H

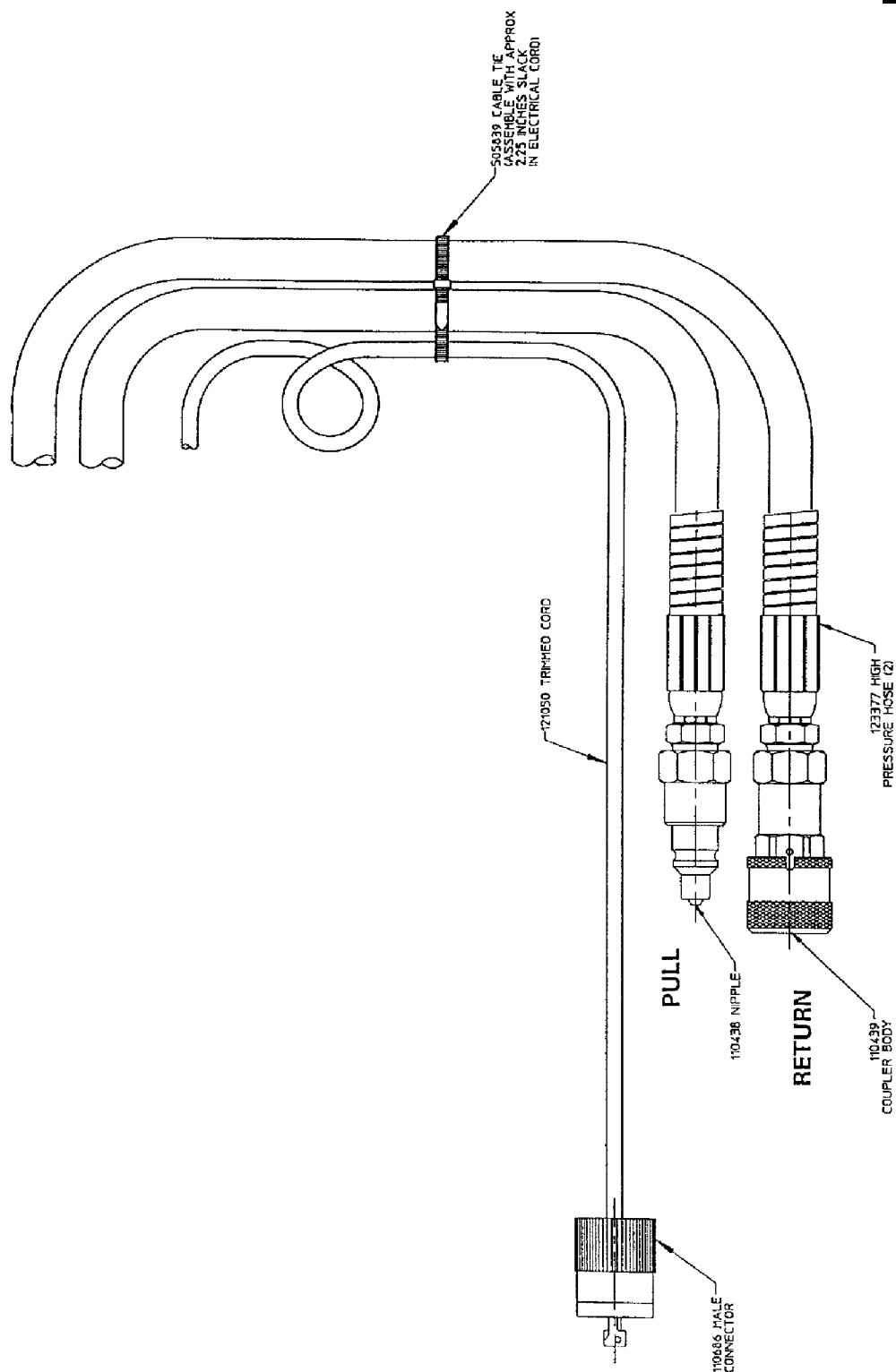
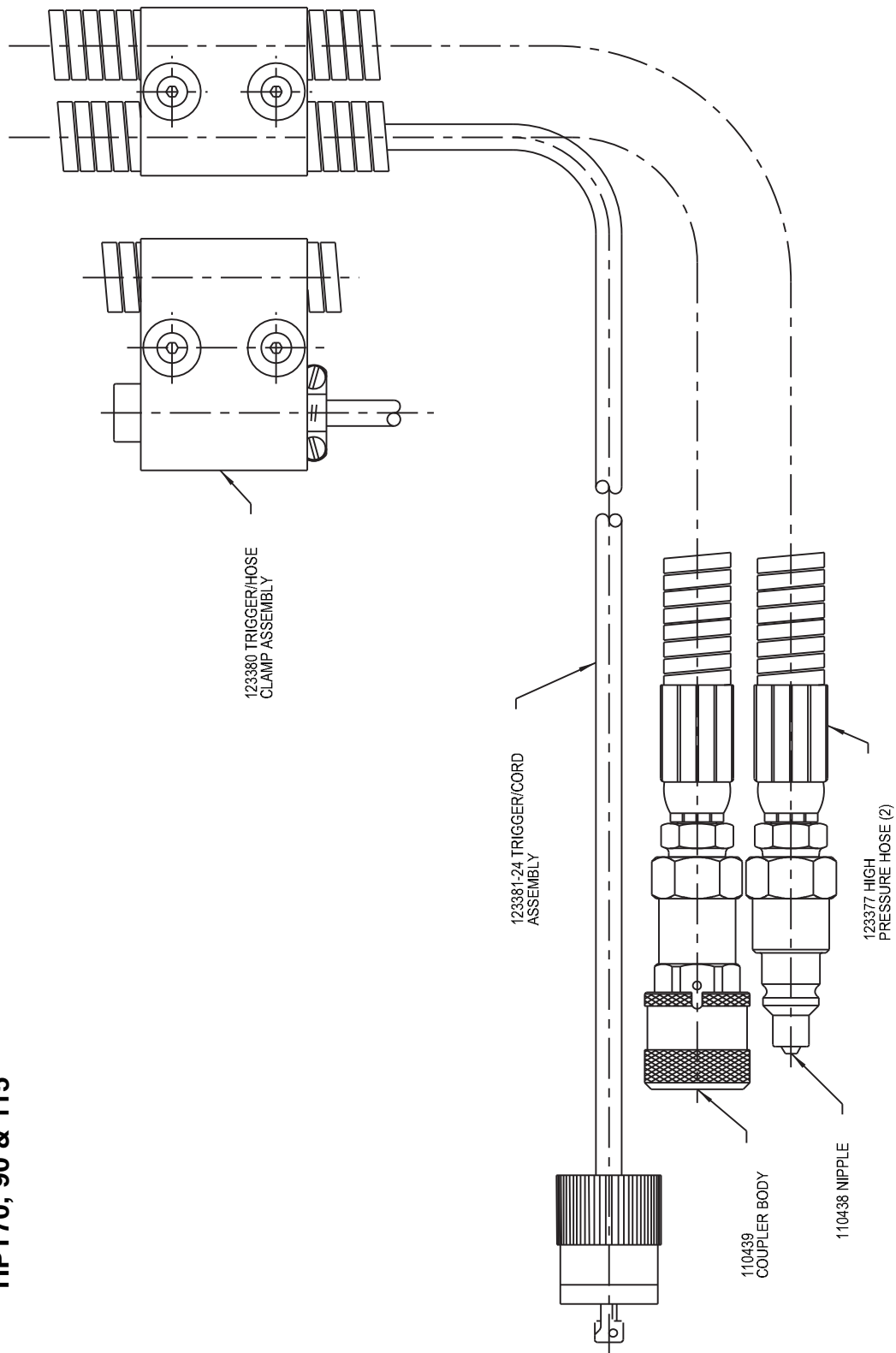


FIG 17

FIG 18

Hose Assembly For HPT70, 90 & 115



TROUBLESHOOTING

Always check the simplest possible cause of a malfunction first. For example, a loose or disconnected trigger line. Then proceed logically and eliminate each possible cause until the defect is found. Where possible, substitute known good parts for suspected defective parts. Use chart as an aid in troubleshooting.

1. Tool fails to operate when trigger is pressed.
 - a. Inoperative POWERIG® Hydraulic Unit. See applicable instruction manual.
 - b. Loose electrical connections.
 - c. Damaged trigger assembly.
 - d. Loose or faulty hose coupling.
2. Tool operates in reverse.
 - a. Reversed hose connections between hydraulic unit and tool.
3. Tool leaks hydraulic fluid.
 - a. Defective tool o-rings or loose connections at tool.
4. Hydraulic couplers leak fluid.
 - a. Damaged or worn o-rings in coupler body coupler P/N 110440.
5. Hydraulic fluid overheats.
 - a. Unit not operating properly - - see units manual.
 - b. Unit running in reverse (918; 918-5 only) - - see units manual.
6. Tool operates erratically and fails to install fastener properly.
 - a. Low or erratic hydraulic pressure - - air in system.
 - b. Damaged or worn piston o-ring in tool.
 - c. Excessive wear on sliding surfaces of tool parts.
7. Pull grooves on fastener pintail stripped during PULL stroke.
 - a. Operator not sliding anvil completely onto fastener pintail.
 - b. Incorrect fastener grip.
 - c. Worn or damaged jaw segments.
 - d. Metal particles in jaw grooves.
 - e. Excessive sheet gap.
8. Collar of fastener not completely swaged.
 - a. Improper tool operation - - see No. 6.
 - b. Scored anvil.
9. Tool "hangs up" on swaged collar of fastener.
 - a. Improper tool operation - - see No. 6.
 - b. RETURN pressure too low.
 - c. Not enough collar lubricant.
 - d. Nose assembly not installed per NOSE ASSEMBLY DATA SHEET.
10. Pintail of fastener fails to break.
 - a. Improper tool operation - - see No. 6.
 - b. Pull grooves on fastener stripped - - see No. 7.
 - c. PULL pressure too low.
11. Nose will not release broken pintail.
 - a. Nose assembly not installed per NOSE ASSEMBLY DATA SHEET.

GENERAL NOTES

1. All part numbers shown are available from Huck. The 500000 series P/N's are standard parts that can generally be purchased locally.
2. Is AS568-121 for example, the Aerospace Standard designation for o-rings is "AS568-" and the size is "121." AS568- was previously ARP568-.
3. In S-11248-121, "S-11248-" is the series designation of W.S. Shamban & Co. for back-up rings, single turn TEFLON (MS-28774), or equivalent. "121" is back-up ring size which also corresponds to o-ring size.
4. Materials and durometer for o-rings are shown to the right of the description (equivalent may be used).
5. Adjustable face-spanner is available to remove front glands. Obtain from: Huck, P/N 503612, or Williams Tool Co., 483 (size - 1/4 pin x 9/32 long, 3" capacity).
6. For 500933 and 500934, use Waldes TRUARC pliers 0100, Huck P/N 502857.
7. HPT (tool number here) KIT is for service parts for HPT (- -)RH and HPT (- -)H tools. For example, HPT57RH.

KITS & ACCESSORIES

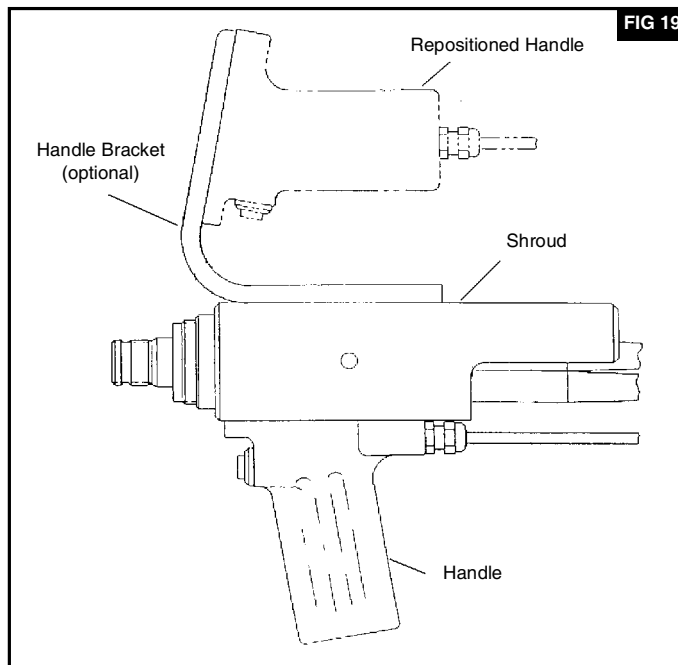
Handle & Shroud Retrofit kits

1. Tools with handle and shroud assembly were available 10-10-91. To add handle and shroud to a tool that was sold before that date, tool must have the following modifications:

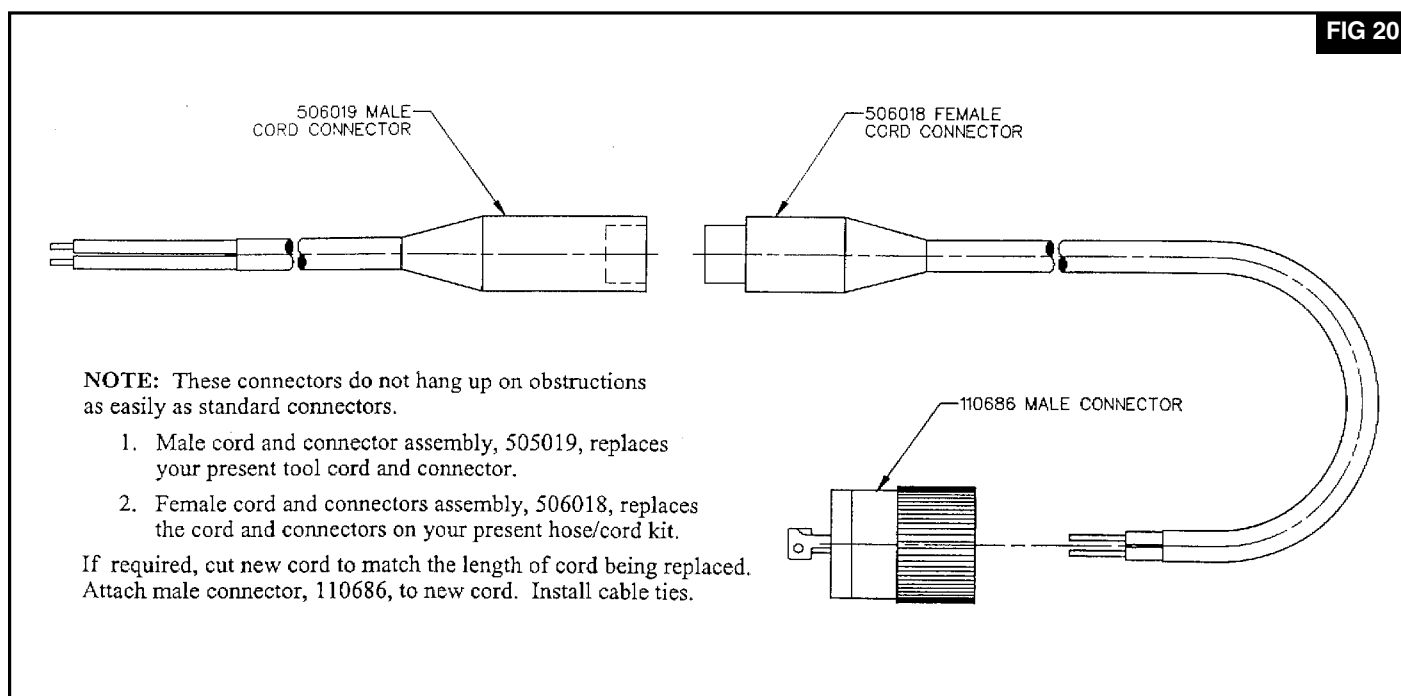
- A tapped hole showing in the rear piston.
- Two tapped holes in main housing to show that your tool will accept new handle and shroud assembly.

If holes are missing, replacement of main housing and rear piston are required to update tool to accept new handle and shroud. If your tool conforms to the above you can then converted to the "H" version with the following kits:

HPT25 uses 122281
 HPT35 uses 122282
 HPT57 uses 122283
 HPT70 Not available
 HPT90 Not available
 HPT115 Not available



Optional Control Cord Kit P/N 121248



Tool & Product Update

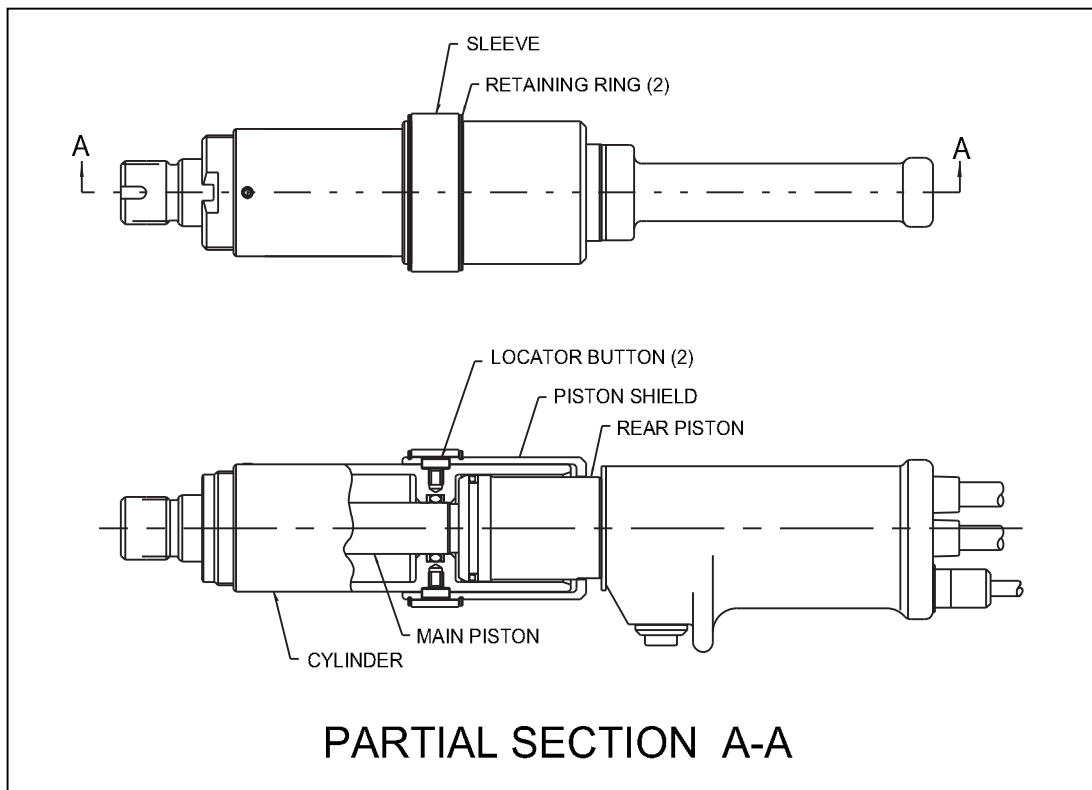
HPT TOOL REVISIONS

In August of '98 rear piston shields were designed and fitted to HPT tools having rear handles or no handles. The shields were designed to prevent the rear piston ejecting forcibly from the tool should the threaded joint on the main pull piston fail after extended use. The shields were fitted by means of locator buttons and screws. However, shock at pin break has been causing the screws to fail resulting in shields falling off.

To prevent this from happening the shields have been redesigned. The locator buttons are now held in place using a sleeve and retaining rings (see figure below). The redesign necessitated new shields, buttons, sleeves and retaining rings. The contents of the conversion kits assigned when the shields were first fitted in '98 have been changed to reflect the new part numbers. These conversion kits are shown in the Table 1 and should be ordered when retrofitting old tools with no shields. For tools having shields held in place with screws, retrofit with parts shown in Table 2.

In addition the "H" versions of the HPT family (i.e. HPT25H, HPT35H, HPT57H) have been fitted with new shrouds. These new shrouds have a stepped ID and will perform the same function as the rear piston shield (fitted on the "RH" versions) in the event of piston failure. If retrofitting existing "H" model tools refer to Table 3 for new shroud part numbers.

The current changes did not necessitate any modifications to major tool components such as pistons or cylinders. If you should have any questions or concerns please contact the Kingston Engineering Department.



Product Update (Continued)**TABLE 1**

TOOL	CONVERSION KIT
HPT25RH	125481
HPT35RH	125485
HPT57RH	125484
HPT70	125676
HPT90	125677
HPT115	125678

Use table 1 when retrofitting tools that have not been previously fitted with shields. If tools have been fitted with shields (held on with screws) see Table 2.

TABLE 2

TOOL	PISTON SHIELD	SLEEVE	RETAINING RING	BUTTON
HPT25RH	125900	125901	507473 (2)	125902 (2)
HPT35RH	125903	125904	507474 (2)	125902 (2)
HPT57RH	125905	125906	503448 (2)	125902-1 (2)
HPT70	125907	125908	507325 (2)	125902-1 (2)
HPT90	125909	125910	507427 (2)	125902-2 (2)
HPT115	125911	125912	507475 (2)	125902-2 (2)

Use Table 2 when retrofitting tools already fitted with shields that are held in place with screws.

TABLE 3

TOOL	SHROUD	REAR PISTON ASSEMBLY	MAX PISTON DIAMETER
HPT25H	125918-25	121883	1.620 INCHES
HPT35H	125918-35	121884	1.890 INCHES
HPT57H	125918-57	121885	2.375 INCHES

Use Table 3 when retrofitting "H" model tools. **Note: If the rear piston diameters are not greater than the max values shown in the table then it is only necessary to order a shroud as the tool was shipped with a reduced diameter rear piston.** The diameter can be checked at the rear of the tool without removing the piston. However, it may be necessary to cycle the piston back.