



ARCONIC

Instruction Manual

14CC through 44CC

Large Diameter Hydraulic Collar Cutters



HUCK IS FOREVER.™

April 19, 2017
HK942

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Makers of Huck®, Marson®, Recoil®
Brand Fasteners, Tools & Accessories





Safety Instructions

GLOSSARY OF TERMS AND SYMBOLS:



- Product complies with requirements set forth by the relevant European directives.



- Read manual prior to using this equipment.



- Eye protection is required while using this equipment.



- Hearing protection is required while using this equipment.

Notes: are reminders of required procedures.

Bold, Italic type, and underline: emphasize a specific instruction.



WARNINGS: Must be understood to avoid severe personal injury.



CAUTIONS: Show conditions that will damage equipment or structure.

I. GENERAL SAFETY RULES:

1. A half hour long hands-on training session with qualified personnel is recommended before using Huck equipment.
2. Huck equipment must be maintained in a safe working condition at all times. Tools and hoses should be inspected at the beginning of each shift/day for damage or wear. Any repair should be done by a qualified repairman trained on Huck procedures.
3. For multiple hazards, read and understand the safety instructions before installing, operating, repairing, maintaining, changing accessories on, or working near the assembly power tool. Failure to do so can result in serious bodily injury.
4. Only qualified and trained operators should install, adjust or use the assembly power tool.
5. Do not modify this assembly power tool. This can reduce effectiveness of safety measures and increase operator risk.
6. Do not discard safety instructions; give them to the operator.
7. Do not use assembly power tool if it has been damaged.
8. Tools shall be inspected periodically to verify all ratings and markings required, and listed in the manual, are legibly marked on the tool. The employer/operator shall contact the manufacturer to obtain replacement marking labels when necessary. Refer to assembly drawing and parts list for replacement.
9. Tool is only to be used as stated in this manual. Any other use is prohibited.
10. Read MSDS Specifications before servicing the tool. MSDS specifications are available from the product manufacturer or your Huck representative.
11. Only genuine Huck parts shall be used for replacements or spares. Use of any other parts can result in tooling damage or personal injury.
12. Never remove any safety guards or pintail deflectors.
13. Never install a fastener in free air. Personal injury from fastener ejecting may occur.
14. Where applicable, always clear spent pintail out of nose assembly before installing the next fastener.
15. Check clearance between trigger and work piece to ensure there is no pinch point when tool is activated. Remote triggers are available for hydraulic tooling if pinch point is unavoidable.
16. Do not abuse tool by dropping or using it as a hammer. Never use hydraulic or air lines as a handle or to bend or pry the tool. Reasonable care of installation tools by operators is an important factor in maintaining tool efficiency, eliminating downtime, and preventing an accident which may cause severe personal injury.
17. Never place hands between nose assembly and work piece. Keep hands clear from front of tool.
18. Tools with ejector rods should never be cycled with out nose assembly installed.
19. When two piece lock bolts are being used always make sure the collar orientation is correct. See fastener data sheet for correct positioning.

II. PROJECTILE HAZARDS:

1. Risk of whipping compressed air hose if tool is pneudraulic or pneumatic.
2. Disconnect the assembly power tool from energy source when changing inserted tools or accessories.
3. Be aware that failure of the workpiece, accessories, or the inserted tool itself can generate high velocity projectiles.
4. Always wear impact resistant eye protection during tool operation. The grade of protection required should be assessed for each use.
5. The risk of others should also be assessed at this time.
6. Ensure that the workpiece is securely fixed.
7. Check that the means of protection from ejection of fastener or pintail is in place and operative.
8. There is possibility of forcible ejection of pintails or spent mandrels from front of tool.

III. OPERATING HAZARDS:

1. Use of tool can expose the operator's hands to hazards including: crushing, impacts, cuts, abrasions and heat. Wear suitable gloves to protect hands.
2. Operators and maintenance personnel shall be physically able to handle the bulk, weight and power of the tool.
3. Hold the tool correctly and be ready to counteract normal or sudden movements with both hands available.
4. Maintain a balanced body position and secure footing.
5. Release trigger or stop start device in case of interruption of energy supply.
6. Use only fluids and lubricants recommended by the manufacturer.
7. Avoid unsuitable postures, as it is likely for these not to allow counteracting of normal or unexpected tool movement.
8. If the assembly power tool is fixed to a suspension device, make sure that fixation is secure.
9. Beware of the risk of crushing or pinching if nose equipment is not fitted.

Continued on next page...



Safety Instructions (continued)

IV. REPETITIVE MOTION HAZARDS:

1. When using assembly power tool, the operator can experience discomfort in the hands, arms, shoulders, neck or other parts of the body.
2. When using tool, the operator should adopt a comfortable posture while maintaining a secure footing and avoid awkward or off balanced postures.
3. The operator should change posture during extended tasks to help avoid discomfort and fatigue.
4. If the operator experiences symptoms such as persistent or recurring discomfort, pain, throbbing, aching, tingling, numbness, burning sensations or stiffness, these warnings should not be ignored. The operator should tell the employer and consult a qualified health professional.

V. ACCESSORIES HAZARDS:

1. Disconnect tool from energy supply before changing inserted tool or accessory.
2. Use only sizes and types of accessories and consumables that are recommended. Do not use other types or sizes of accessories or consumables.

VI. WORKPLACE HAZARDS:

1. Be aware of slippery surfaces caused by use of the tool and of trip hazards caused by the air line or hydraulic hose.
2. Proceed with caution while in unfamiliar surroundings; there could be hidden hazards such as electricity or other utility lines.
3. The assembly power tool is not intended for use in potentially explosive environments.
4. Tool is not insulated against contact with electrical power.
5. Ensure there are no electrical cables, gas pipes, etc., which can cause a hazard if damaged by use of the tool.

VII. NOISE HAZARDS:

1. Exposure to high noise levels can cause permanent, disabling hearing loss and other problems such as tinnitus, therefore risk assessment and the implementation of proper controls is essential.
2. Appropriate controls to reduce the risk may include actions such as damping materials to prevent workpiece from 'ringing'.
3. Use hearing protection in accordance with employer's instructions and as required by occupational health and safety regulations.
4. Operate and maintain tool as recommended in the instruction handbook to prevent an unnecessary increase in the noise level.
5. Select, maintain and replace the consumable / inserted tool as recommended to prevent an unnecessary increase in noise.
6. If the power tool has a silencer, always ensure that it is in place and in good working order when the tool is being operated.

VIII. VIBRATION HAZARDS:

1. Exposure to vibration can cause disabling damage to the nerves and blood supply to the hands and arms.
2. Wear warm clothing when working in cold conditions and keep hands warm and dry.
3. If numbness, tingling, pain or whitening of the skin in the fingers or hands, stop using the tool, tell your employer and consult a physician.
4. Support the weight of the tool in a stand, tensioner or balancer in order to have a lighter grip on the tool.

X. HYDRAULIC TOOL SAFETY INSTRUCTIONS:



WARNINGS:

Do not exceed maximum pull or return settings on tool.

Be sure all hose connections are tight. All tool hoses must be connected.

1. Carry out a daily check for damaged or worn hoses or hydraulic connections and replace if necessary.
2. Wipe all couplers clean before connecting. Failure to do so can result in damage to the quick couplers and cause overheating.
3. Ensure that couplings are clean and correctly engaged before operation.
4. Use only clean oil and filling equipment.
5. Power units require a free flow of air for cooling purposes and should therefore be positioned in a well ventilated area free from hazardous fumes.
6. Do not inspect or clean the tool while the hydraulic power source is connected. Accidental engagement of the tool can cause serious injury.
7. Be sure all hose connections are tight.
8. Wipe all couplers clean before connecting. Failure to do so can result in damage to the quick couplers and cause overheating.



Description

Collar Cutters are used to remove collar sizes -14 through -32. Cutter model number is also the size of the collar. All models, except -32, have stationary blades.

Collar Cutters are powered by Huck Model 913, 918 and 940 POWERIG® Hydraulic Units, or equivalent.

-32 blades are attached to the actuating piston. The blades of all models make two parallel cuts through the collar; collar is then easily removed.

Specifications

TEMPERATURES: Operating Range: 32° -125° F (0° - 51.7° C)
Maximum Operating Temperature: 125°F (51.7° C)

PRESSURES:

Pressures for each model (size) cutter are set at:

Cutter	PULL Pressure	RETURN Pressure
-14, -16, -18, -20	5700 psi (393 BAR)	2400 psi (165 BAR)
-24, -28	6500 psi (448 BAR)	4000 psi (276 BAR)
-32	8800 psi (607 BAR)	4000 psi (276 BAR)
-44	8800 psi (607 BAR)	5400 psi (372 BAR)

NOTE: When setting pressures using the 918 POWERIG®, cycle the cutter 10–15 times while adjusting the valve to ensure proper shut-off of the POWERIG.

MAX FLOW RATE: 2.0 gpm (7.6 l/min)

WEIGHTS:

-14CC.....	6.0 lbs (2.7 kg)
-16CC.....	8.0 lbs (3.6 kg)
-18CC.....	9.0 lbs (4.1 kg)
-20CC.....	10.0 lbs (4.5 kg)
-24CC.....	17.0 lbs (7.7 kg)
-28CC.....	17.0 lbs (7.7 kg)
-32CC.....	21.0 lbs (9.5 kg)
-44CC.....	25.0 lbs (11.3 kg)

See next page for dimensions.

POWER SOURCE: 90 psi (6.2 BAR) maximum shop air

HYDRAULIC FLUID:

Hydraulic fluid shall meet DEXRON® III, DEXRON VI, MERCON®, Allison C-4 or equivalent Automatic Transmission Fluid (ATF) specifications. Fire-resistant fluid may be used if it is an ester-based fluid such as Quintolubric® HFD or equivalent. Water-based fluid shall NOT be used as serious damage to equipment will occur.

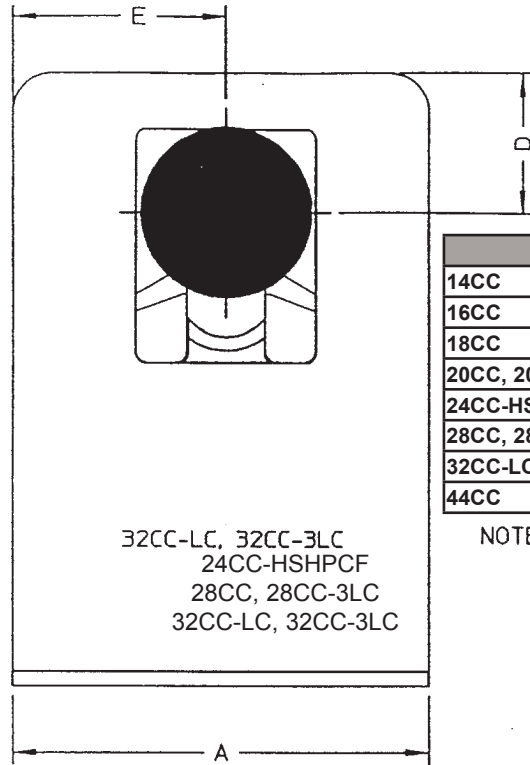
DEXRON is a registered trademark of General Motors Corp.

MERCON is a registered trademark of Ford Motor Corp.

Quintolubric is a registered trademark of Quaker Chemical Corp.

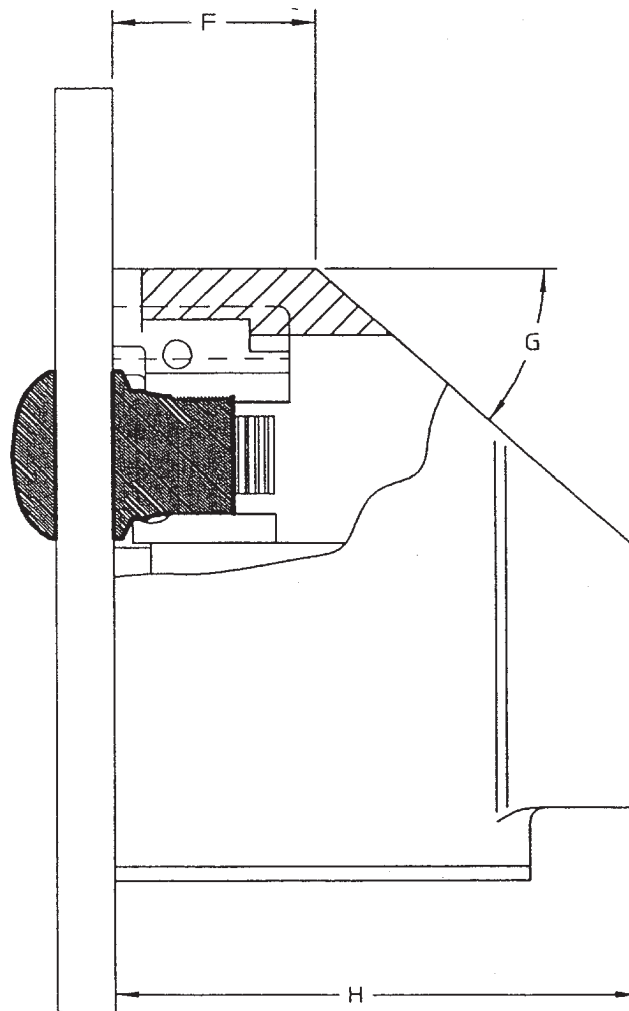
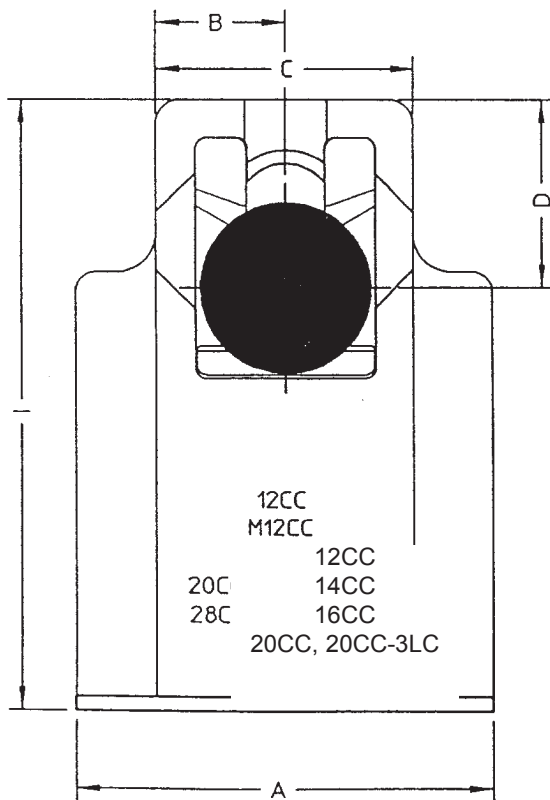


Specifications (continued)

FIGURE 1


	A	B	C	D	E	F	G	H	I
14CC	2.00	.75	1.50	.93		.85	41°	2.69	3.56
16CC	2.70	.93	1.00	1.30		1.46	41°	3.38	4.08
18CC	2.12	1.06	2.12	.938		2.17	50°	3.81	5.30
20CC, 20CC-3LC	3.13	1.06	2.12	1.57		1.56	45°	3.81	5.30
24CC-HSHPCF	3.50			1.064	1.75	1.82	50°	4.20	5.78
28CC, 28CC-3LC	3.50			1.82	1.75	1.82	50°	4.20	5.78
32CC-LC, 32CC-3LC	3.90			1.50	1.95	1.71	49°	4.63	5.78
44CC	5.00			1.92	2.5	2.17	50°	5.67	7.89

NOTE: THE MODELS 32CC-LC AND 32CC-3LC HAVE THE BLADE SET MOUNTED TO THE PISTON. ALL OTHER MODELS HAVE A LEFT AND RIGHT BLADE THAT ARE MOUNTED TO THE REAR OF THE HOUSING.





Checking Hydraulic Pressures



WARNING: Huck recommends that only Huck Powerig® Hydraulic Units be used as a 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.

Conditions that require checking and adjusting output pressures:

1. If HPT tool with higher pressure has been used.
2. When changing collar cutter size.
3. When changing tools, if pressure requirements differ.
4. First time startup.
5. After overhauling unit.
6. When troubleshooting.



WARNING: Correct PULL and RETURN pressures are required for operator's safety and for Collar Cutter's function. Pressure gauge T-124833CE is available for checking pressures, see [SPECIFICATIONS](#) section and applicable gauge instruction manual.



WARNING: For adjusting the pressure, see the applicable Powerig® instruction manual. Neglecting to verify pressures may lead to catastrophic failure of hoses, tool or other part of system. This could cause severe or fatal injury to anyone nearby.

Preparation for checking pressures:

Prime and bleed hydraulic unit per the applicable Powerig® instruction manual.



WARNING: When hydraulic unit is running, be sure to connect tool's hoses to unit before connecting tool's control cord to unit. If a malfunctioning cord switch is connected first, tool may begin to cycle unexpectedly. An accidentally cycling tool could severely injure a hand. When disconnecting hoses, switch control cord must be disconnected first, before disconnecting hoses.



Principle of Operation

Some of the cutter's blades differ, therefore there's no general illustration to refer to. Refer elsewhere in the manual for illustration of tools you have.

Hydraulic hose and trigger control are connected to POWERIG® Hydraulic Unit. PULL pressure fluid is pumped to collar cutter when cutter's trigger is

depressed. Piston causes cutter blades to shear through collar. Sheared collar sections are separated from pin.

When collar cutting is completed, trigger is released. RETURN pressure returns piston to starting position, ready for next cutting cycle.



Huck recommends that only Huck Powerig Hydraulic Units be used as a 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.



Preparation for Use



WARNINGS:

Read full manual before using tool.

A half-hour training session with qualified personnel is recommended before using Huck equipment.

When operating Huck installation equipment, always wear approved eye protection.

Be sure there is adequate clearance for the operator's hands before proceeding.



WARNING: Be sure to connect Tool's hydraulic hoses to Powerig Hydraulic Unit before connecting Tool's switch control cord to unit. If not connected in this order, severe personal injury may occur.

Note: Where a part number (P/N) is given, Huck sells that part.

Apply Threadmate® (Huck P/N **508517**) to pipe threads and quick connect fittings.



CAUTION: Do not let disconnected hoses and couplers contact a dirty floor. Keep harmful material out of hydraulic fluid. Dirt in hydraulic fluid causes valve failure in Tool and in POWERIG Hydraulic Unit.



CAUTION: Do not use TEFLON®* tape on pipe threads. Pipe threads may cause tape to shred resulting in tool malfunction. (Loctite® is available as Huck P/N 508567.)



WARNING: Correct PULL and RETURN pressures are required for operator's safety and for Installation Tool's function. Gauge T-124883CE is available for checking pressures. See Tool SPECIFICATIONS and Gauge Instruction Manual. Failure to verify pressures may result in severe personal injury.

1. Use Huck Powerig Hydraulic Unit, or equivalent, that has been prepared for operation per instruction manual. Check both PULL and RETURN pressures and, if required, adjust to pressures given in **SPECIFICATIONS** section of this manual.
2. First, turn hydraulic unit to OFF. Then disconnect power supply from hydraulic unit. Disconnect trigger control system from hydraulic unit.
3. Connect PULL pressure hose, with coupler nipple, into port "P" of tool. Use only with HUCK supplied hoses rated at 10,000 psi or greater. Check trigger assembly for apparent damage or wear. If required, adjust position of trigger assembly on return pressure hose. Connect trigger control system to hydraulic unit.
4. Connect hydraulic unit to power supply (air or electric). Turn hydraulic unit to ON. Depress trigger a few times to cycle tool and to circulate hydraulic fluid. Observe action of Tool and check for leaks.
5. Disconnect tool from power supply.

* Threadmate is a registered trademark of Parker Intangibles LLC.

* TEFLON is a registered trademark of DuPont Corp.



Operating Instructions

Read all of these instructions in order to ensure the safe operation of this equipment.

GENERAL

Operators should receive training from qualified personnel.



WARNINGS:

- To avoid severe personal injury: Wear approved eye and ear protection.
- Be sure of adequate clearance for Operator's hands before proceeding with fastener installation.
- Tools are not generally insulated for coming into contact with electric power sources.
- Stored gas or fluid energy can pose a hazard.
- There is a risk when using cutters of large dimensions, due to the larger opening of cutting end.
- Tool shall not be operated if directed toward the operator or any person.
- Beware of ejection of cutting material or chips; turn head in each operation to avoid exposure.
- Working on brittle material can cause harmful splinter.

Do not bend tool to free if stuck.

See Fig. 3 for removal of partially cut collars. Unequal loading of the blades caused by misalignment is the cause of most tool malfunctions. Experience will show the most efficient procedure in each situation. The collar to be removed requires the operator's judgment before proceeding. **Collars must be cut on first attempt. Repeated cycling of the tool is likely to cause blade damage.**

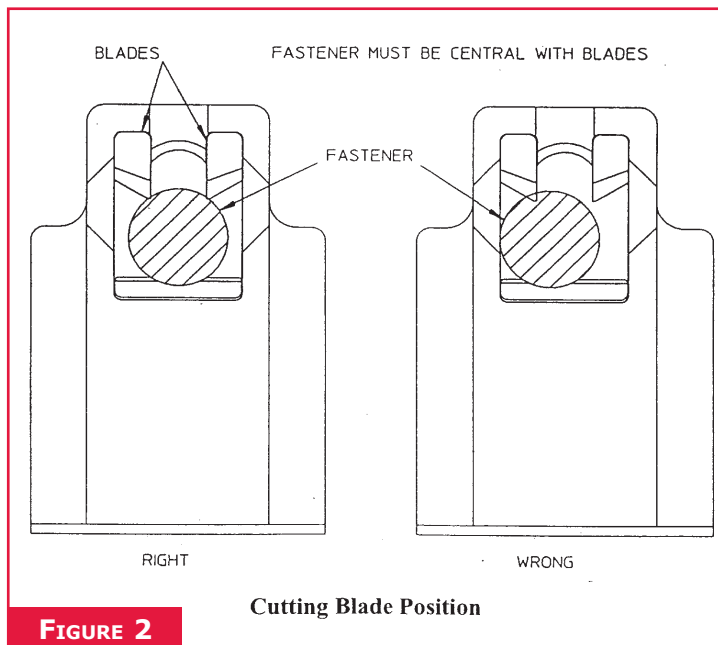


FIGURE 2

Cutting Blade Position

1. See Figures 2 & 4. Place tool over fastener to be removed as shown. See all cautions. Position of blades must be checked prior to triggering tool.
2. Depress actuating trigger of tool; release trigger when cutting action stops.
3. Remove tool. If the tool is adjusted correctly for the swaged condition of the collar, one stroke will remove collar. When collar is cut but still attached to fastener, use appropriate hand tools to complete collar removal.
4. Tap end of fastener with soft mallet to remove from hole.



WARNING: Tool must be disconnected prior to clearing collar segments.



CAUTIONS: Check tool for collar segments after each stroke. Segments not removed from tool will cause damage to tool and to fastened structure.

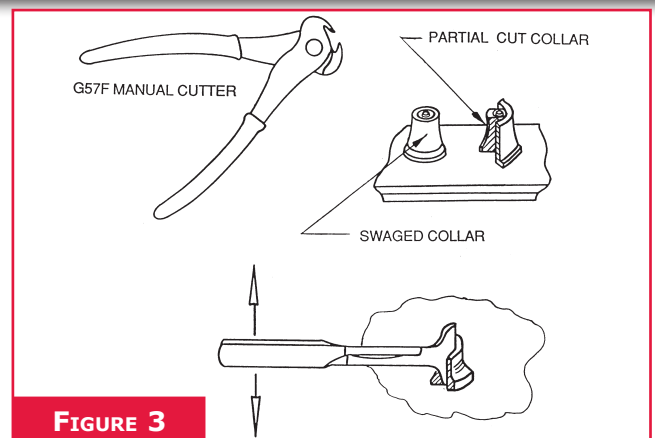


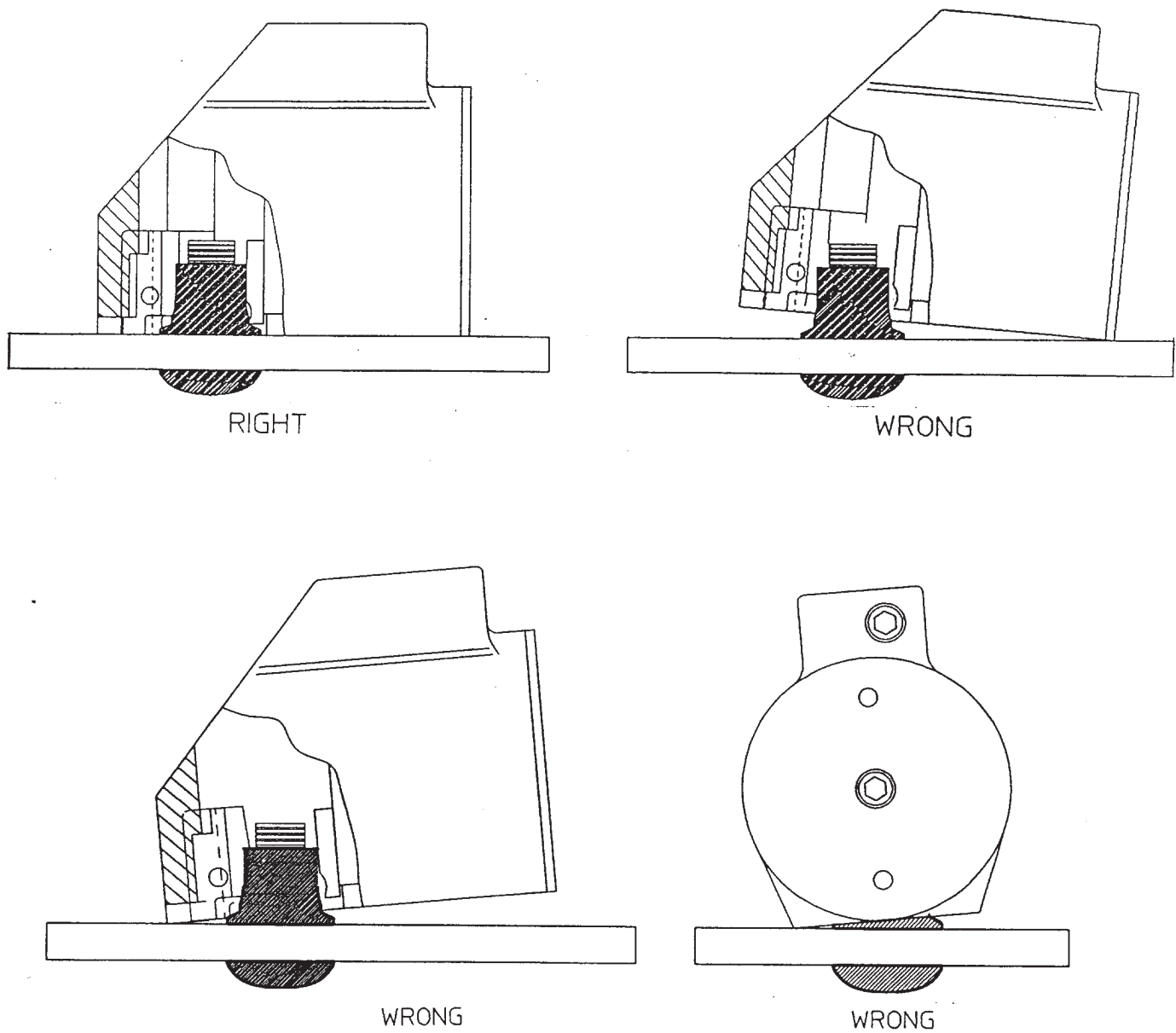
FIGURE 3

PARTIAL CUT COLLAR REMOVAL

1. Place G57F over fastener to be removed as shown.
2. Squeeze handles together closing blades around pin.
3. Move G57F handles up and down as shown in direction of arrows until collar separates from pin.



FIGURE 4



Right and Wrong Cutting Positions

See **IMPORTANT CAUTIONS** on previous pages.

WARNING

Tool moves forcibly while cutting collars. to prevent severe injury to hands and/or structural; tool damage, be sure there is enough clearance for the tool to move while cutting collars.



Maintenance



CAUTIONS:

- Consult the Material Safety Data Sheet (MSDS) before servicing tool.
- Keep foreign matter out of the hydraulic system. Keep separated parts away from dirty work surfaces.
- Dirt and debris in hydraulic fluid causes valve failures in tool and Powerig®.

GOOD SERVICE PRACTICES

The efficiency and life of any installation or removal tool depends upon proper maintenance and good service practices. Tools should be serviced by personnel who are thoroughly familiar with them and how they operate.

A clean well lighted area should be available for servicing the tool. Special care must be taken to prevent contamination of hydraulic systems.

All parts must be handled carefully and examined for damage or wear. Perishable parts such as o-rings and seals should be kept on hand for replacement whenever tool is disassembled.

See **SPECIFICATIONS** for fluid type. Dispose of fluid in accordance with local environmental regulations. Recycle steel, aluminum, and plastic parts in accordance with local lawful and safe practices.



CAUTION: Always replace seals, wipers, and back-up rings when tool is disassembled for any reason.



CAUTION: Do not use Teflon® tape on pipe threads. Tape can shred, resulting in malfunctions. Threadmate™ is available in a 4oz. tube from Huck (P/N 508517).

Components should be disassembled and assembled in a straight line without bending, cocking or undue force.

Disassembly and assembly procedures outlined in this manual should be followed. Appropriate hand tools and soft materials to protect tools must be available. Only standard hand tools are required. A half inch brass drift, wood block and a vise with soft jaws will prevent damaging tool.

PREVENTIVE MAINTENANCE

Refer to the applicable section for **ASSEMBLY** and **DISASSEMBLY**. For supplementary information refer to **TROUBLESHOOTING** and illustrations.

With proper care, the cutter will remove 300 collars before it may be necessary to replace the blades. To extend blade life it is recommended that as often as possible (i.e. every 25 fasteners) lubricate the blade pocket with NEVER-SEEZ and, as applicable, inspect blade and ram retaining screws for tightness. NEVER-SEEZ, 505565 (Bostik-Emhart Co.)

The estimated life of the Collar Cutter is 25,000 cycles or 5 years, depending on service conditions.

SYSTEM INSPECTION

Operating efficiency of the cutter is directly related to the performance of the complete system, including the cutter, hydraulic hoses, trigger assembly and the POWERIG® Hydraulic Unit. Therefore, an effective preventive maintenance program includes scheduled inspections of the system to detect and correct minor defects.

1. Inspect cutter for external damage.
2. Verify that hoses, fittings and trigger connections are secure.
3. Inspect hydraulic hoses for signs of damage. Replace if required.
4. Inspect cutter, hoses and POWERIG® during operation to detect abnormal heating, leaks or vibration.

POWERIG® HYDRAULIC UNIT MAINTENANCE

Hydraulic fluid should have a maximum contamination level of ISO CODE 18/15 or SAE LEVEL 6. Portable filtration on smaller powerigs and maintaining filters on larger powerigs is recommended. Maintenance and repair instructions are in applicable POWERIG Hydraulic Unit instruction manuals.

CUTTER MAINTENANCE

At regular intervals, depending upon use, replace all seals in the cutter. Spare seals and parts should be kept on hand. Inspect cylinder bore and piston for scored surfaces, excessive wear or damage, and replace as necessary.

Notes and Specifications for Standard Parts

All part numbers shown are available from Huck. The 500000 series numbers are standard parts which can generally be purchased locally. *Service Part Kits* are not available. Order individual parts as needed.

Needle Valve Adjustment

A needle valve has been designed into the hydraulic cylinder of some of the cutters. The adjustment provides for the proper piston RETURN stroke when using various hydraulic units and hose combinations. Tool is shipped with the valve set in the closed position.

Adjustment for the 940 Powerig® Hydraulic Unit:

Turn needle valve clockwise to the closed position.

Adjustment for the 918 Powerig® Hydraulic Unit:

1. Close needle valve clockwise. Depress trigger until piston stops forward.
2. Open needle valve by turning slightly counterclockwise. Jog or activate switch. If valve is correctly adjusted, piston will return to rear and pump shuts off. Repeat procedure until cutter cycles normally.
3. If normal cutter operation cannot be attained, close needle valve completely and start over at 1. Repeat until requirements are met.

Needle Valve Adjustment Trouble-shooting:

Note: A normal piston cycle is when the piston goes fully forward and fully back with one actuation of the switch.

Q. Piston partially returns and pump shuts off.

A. Needle valve not open enough.

Q. Piston partially or fully returns and pump will not shut off.

A. Needle valve is open too far.

* *Slic-Tite* is a registered trademark of LA-CO Industries, Inc.

* *TEFLON* is a registered trademark of DuPont Corp.



Disassembly Procedure

Refer to **MAINTENANCE** section and illustrations. The following procedure is for complete disassembly. Disassemble only sub-assemblies necessary to check and replace damaged/worn seals and components. **Always replace O-rings, wipers, and back-up rings of disassembled subassemblies.**



WARNING: Disconnect the Tool's electrical control trigger system from Powerig® Hydraulic Unit BEFORE disconnecting Tool's hydraulic hoses from unit. If not disconnected in this order before any maintenance or cleaning is done, severe personal injury may occur.

1. Uncouple control cable and hydraulic hose connector from POWERIG.
2. Using a sliding pin spanner wrench, unscrew cap from rear of cutter.
3. For models with ejectors, remove the two flat headed screws and ejector. Use hex key.
4. Remove ram or blade set from face of piston. Use hex keys.
5. Stand cylinder on end, use standoff for clearance. Use a rod of soft material (brass, aluminum or wood) and mallet to tap piston out of cylinder housing. On piston with stroke limiter, remove limiter.
6. Unscrew needle valve from piston. Note: **Do not** remove retaining screw from rear of piston. This is factory set.
7. For models with blades mounted to cylinder housing, remove retaining screws with hex key.
8. Loosen two screws on cord grip. Loosen cup point screw with hex key. Pull switch from housing.
9. Loosen two screws at rear of switch to remove switch from electrical cord. Remove two #6-32 socket set screws to dismantle switch for cleaning. Remove cord grip.
10. Disconnect electrical connector to rewire or replace.



Assembly Procedure

Clean all components with mineral spirits, and inspect for wear or damage. Replace as necessary. **Always replace all seals on/in disassembled components.** Order individual parts as needed. Smear LUBRIPLATE® 130-AA (P/N 502723) or SUPER-O-LUBE® (P/N 505476) on seals and mating parts to facilitate assembly. Assemble tool taking care not to damage seals.



WARNING: Do not omit any seals during servicing or re-assembly; leaks will result and serious personal injury can occur.

1. Install needle valve into piston (where applicable).
2. On models with stroke limiter, install with large chamfer against piston shoulder.
3. Install piston into cylinder housing being careful to align ram or blade set mounting holes as applicable.
Note: Position piston, after being installed, by using holes on back side. Use appropriate hand tools. See Figure 5.
4. As applicable, install ram or blade set onto piston and tighten screws firmly.
5. Install ejectors on applicable models.
6. Using a sliding pin spanner wrench, install cap into cylinder housing and tighten firmly.
7. As applicable, install right and left blades, then tighten firmly.

8. Fill cylinder housing with hydraulic fluid through center hole in cap. Replace pipe plug if cutter is to have hoses in top location.



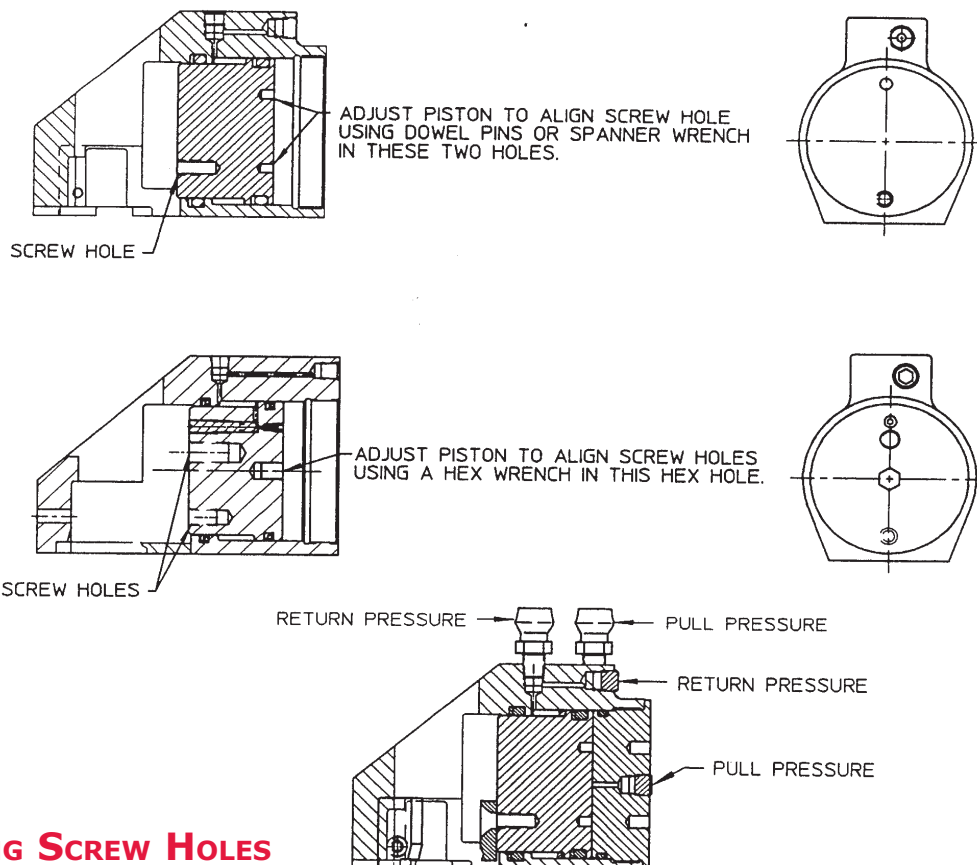
CAUTION: Do not use TEFLON® tape on pipe threads. Tape can shred, resulting in malfunctions.

9. If hydraulic hoses have been removed, tighten hoses into cylinder housing.
10. See Caution, screw coupling nipple onto PULL pressure hose (from "P" port) and coupling body to RETURN pressure hose.
11. If necessary, rewire and assemble electrical connector. Screw cord grip into cylinder housing.
12. Assemble switch, install two #6-32 socket set screws. Attach cord using two screws at rear of switch.
13. Push switch into housing and tighten cup point set screw to hold switch. Tighten two screws on cap.
14. See WARNING in **DISASSEMBLY** and reverse the given procedure; i.e. **CONNECT HOSES FIRST**, and then connect electrical control cord before testing tool on hydraulic unit.



WARNING: Tool must be fully assembled with all components included.

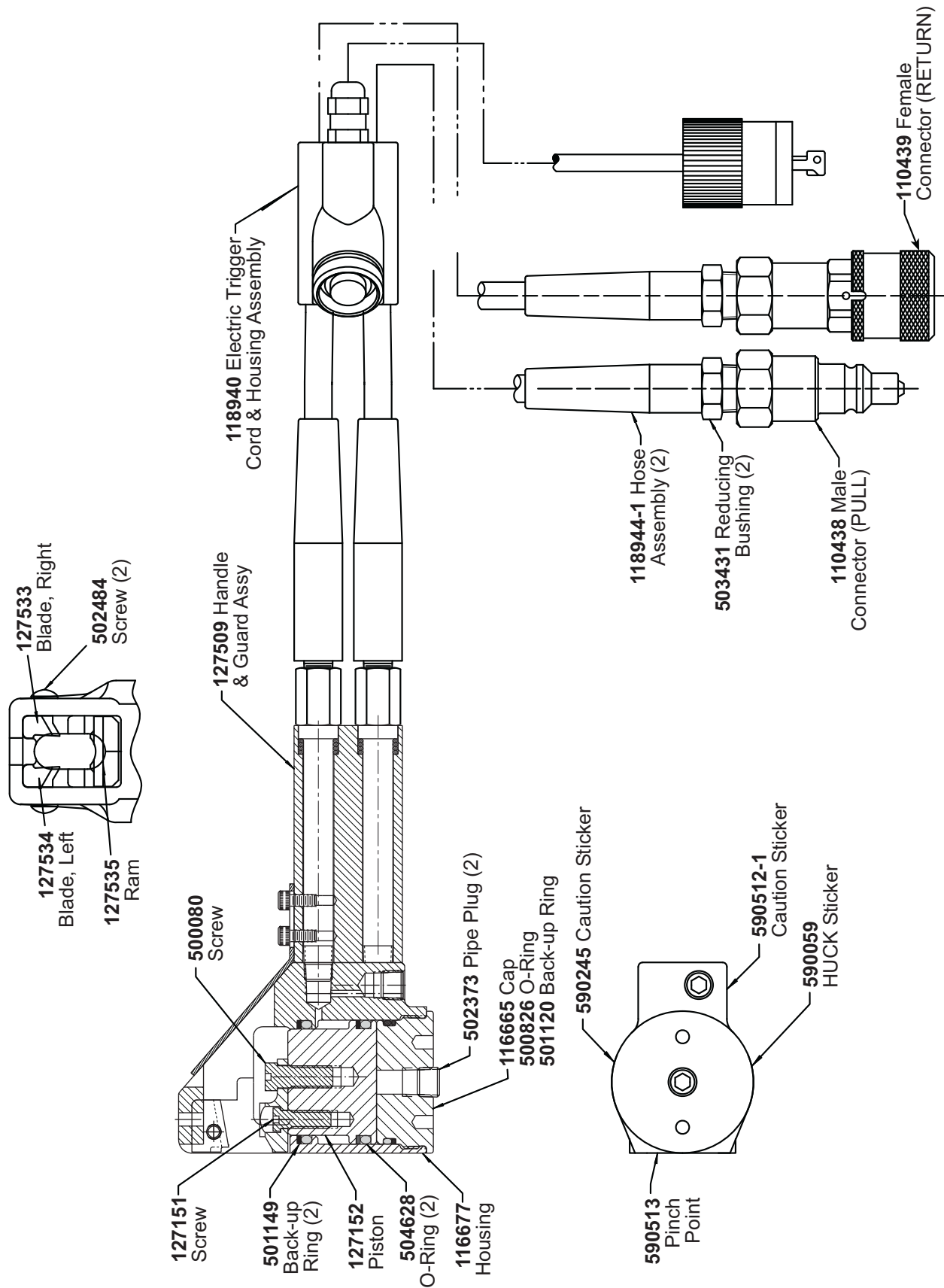
FIGURE 5



ALIGNING SCREW HOLES

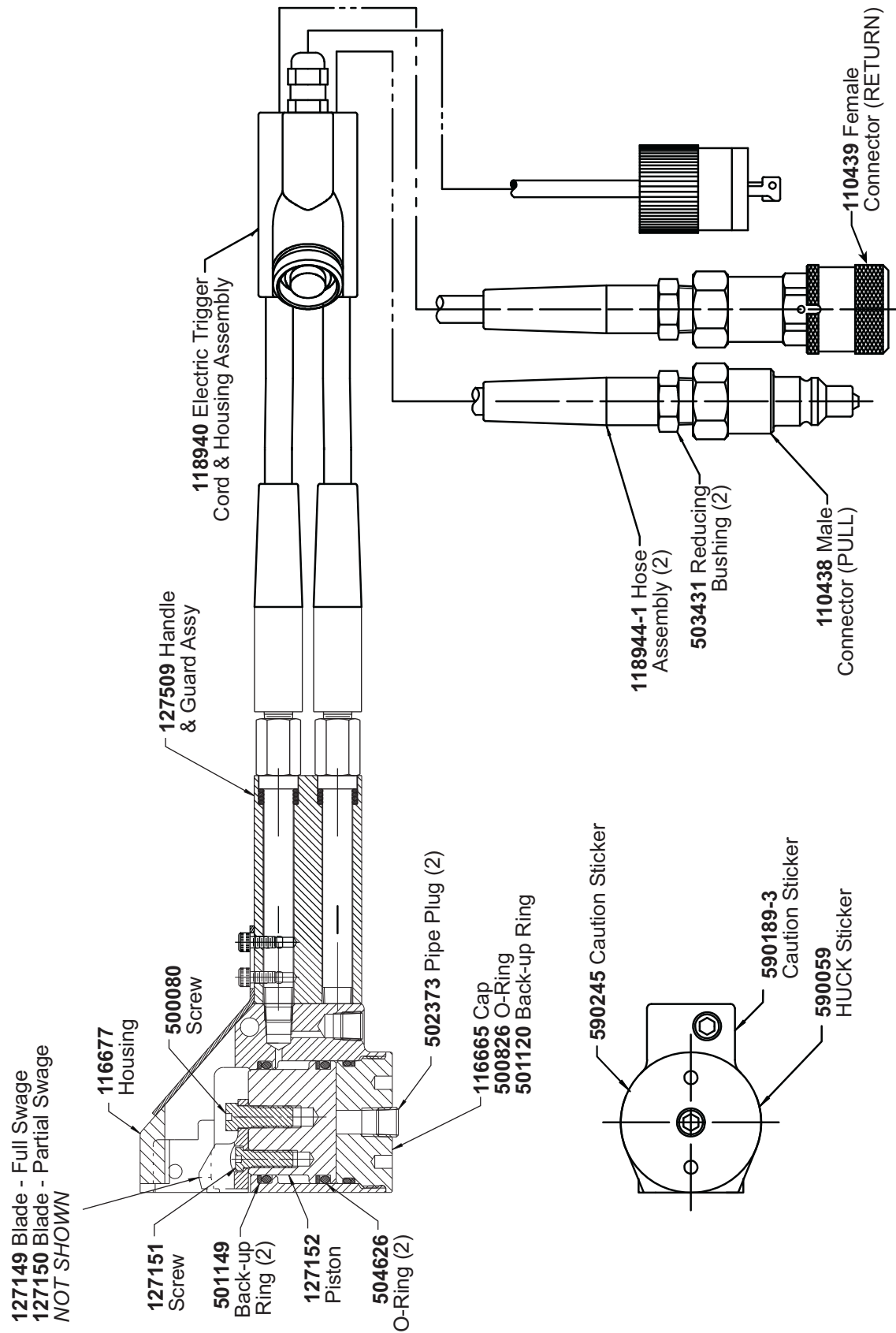


14CCFT-H



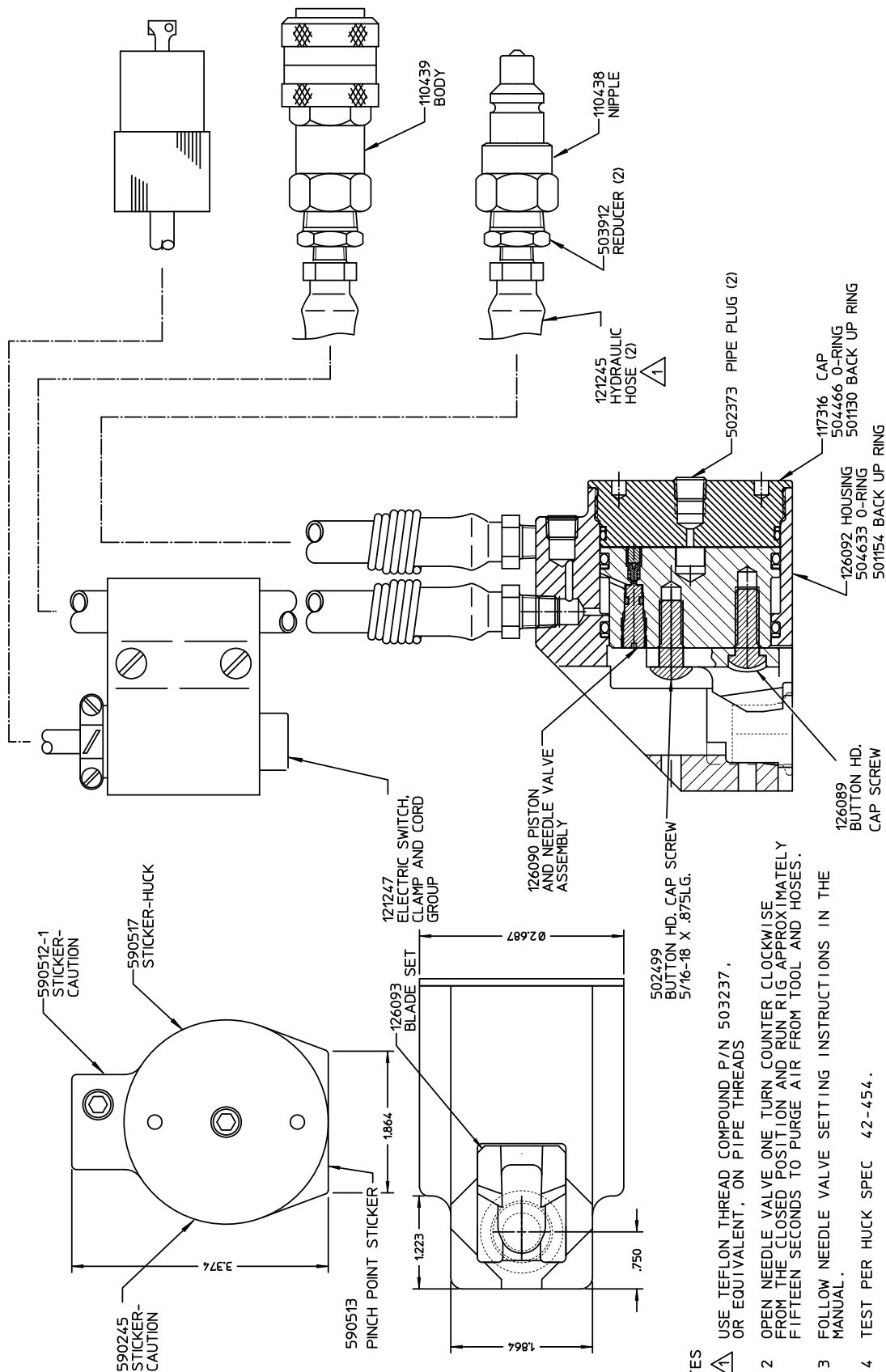


14CC-XBF





16CC-HSHPCF



NOTES

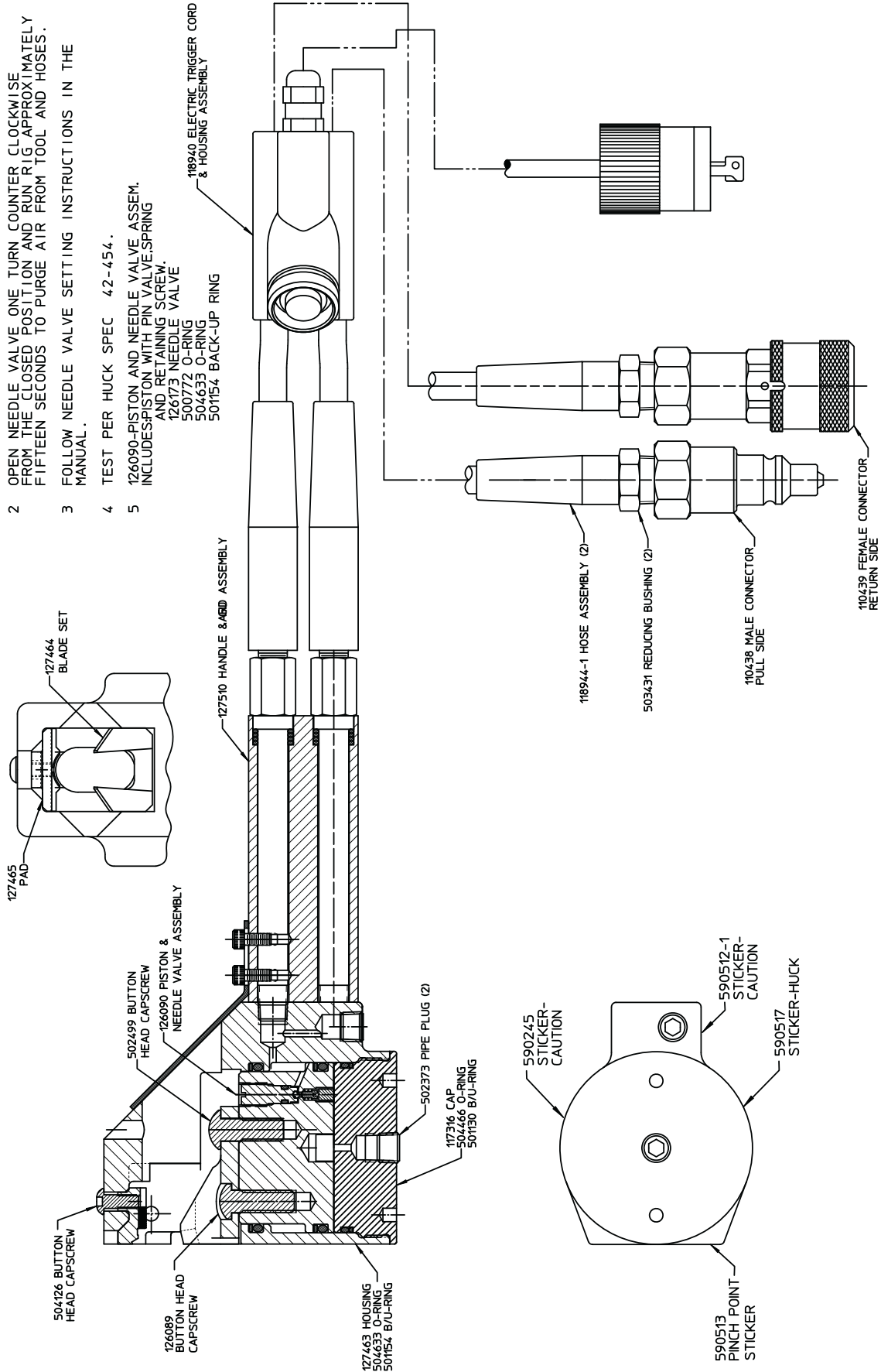
- 1 USE TEFLON THREAD COMPOUND P/N 503237, OR EQUIVALENT, ON PIPE THREADS.
- 2 OPEN NEEDLE VALVE ONE TURN COUNTER CLOCKWISE FROM THE CLOSED POSITION AND RUN RIG APPROXIMATELY FIFTEEN SECONDS TO PURGE AIR FROM TOOL AND HOSES.
- 3 FOLLOW NEEDLE VALVE SETTING INSTRUCTIONS IN THE MANUAL.
- 4 TEST PER HUCK SPEC 42-454.
- 5 126090-PISTON AND NEEDLE VALVE ASSEM. INCLUDES: PISTON WITH PIN VALVE, SPRING AND RETAINING SCREW.
126173 NEEDLE VALVE
500772 O-RING
504633 O-RING
501154 BACK-UP RING



16CC-LGP

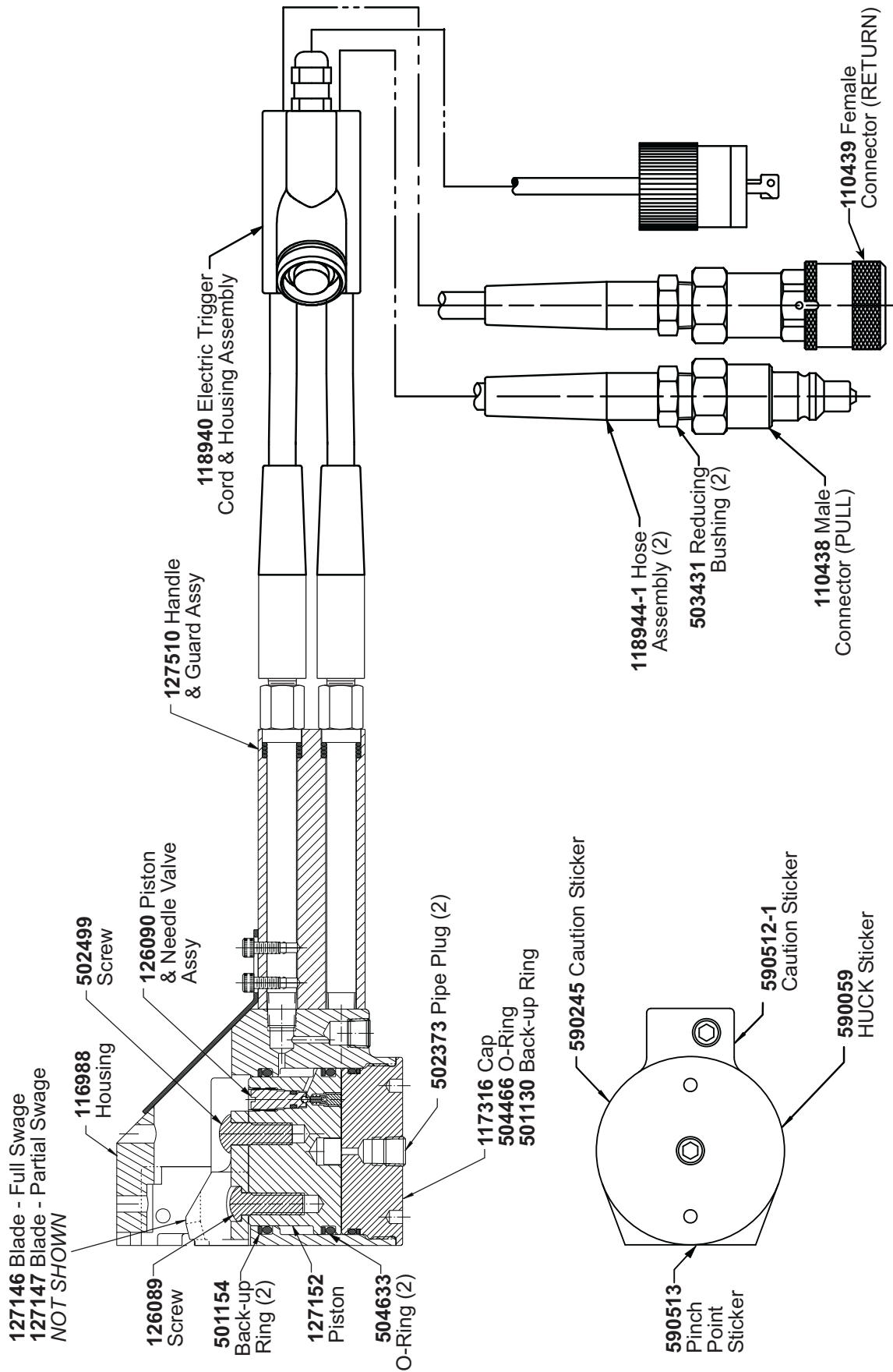
NOTES

1. USE TEFLON THREAD COMPOUND P/N 503237, OR EQUIVALENT, ON PIPE THREADS.
2. OPEN NEEDLE VALVE ONE TURN COUNTER CLOCKWISE FROM THE CLOSED POSITION AND RUN RIG APPROXIMATELY FIFTEEN SECONDS TO PURGE AIR FROM TOOL AND HOSES.
3. FOLLOW NEEDLE VALVE SETTING INSTRUCTIONS IN THE MANUAL.
4. TEST PER HUCK SPEC 42-454.
5. 126090-PISTON AND NEEDLE VALVE ASSEM. INCLUDES-PISTON WITH PIN VALVE, SPRING AND RETAINING SCREW.



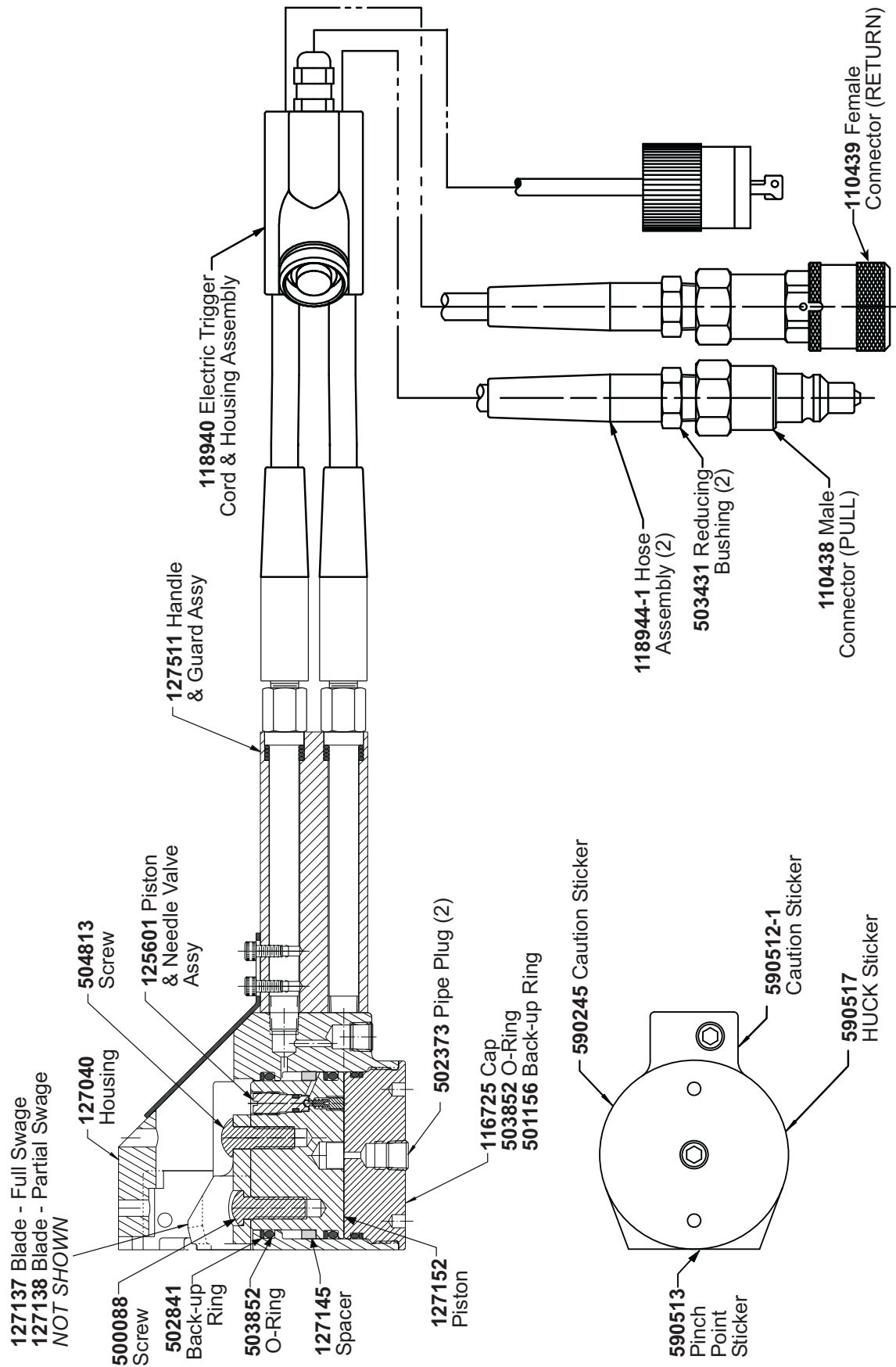


16CC-XBF



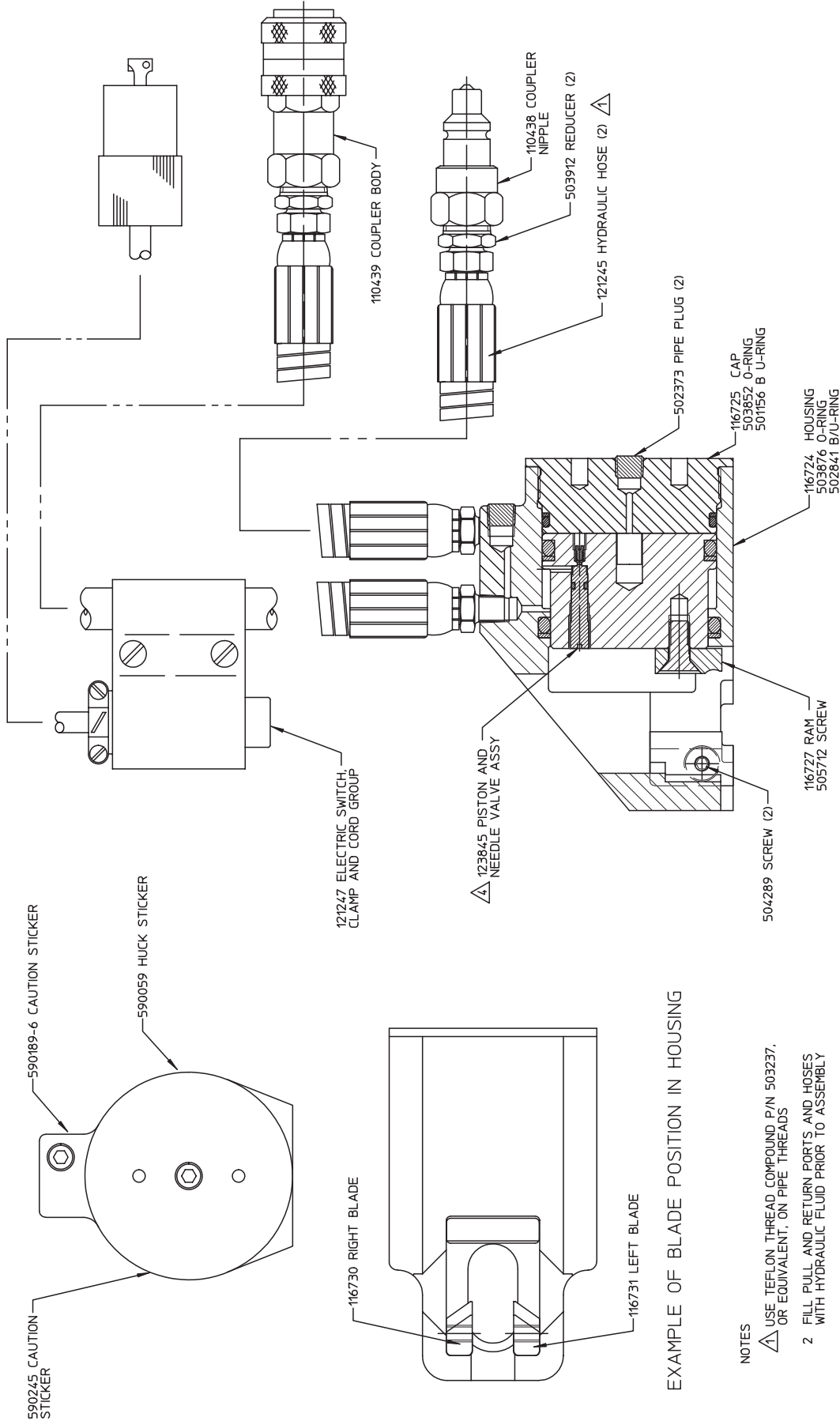


18CC-XBF





20CC



NOTES

1 USE TEFLON THREAD COMPOUND P/N 503237, OR EQUIVALENT, ON PIPE THREADS

2 FILL, PULL AND RETURN PORTS AND HOSES WITH HYDRAULIC FLUID PRIOR TO ASSEMBLY

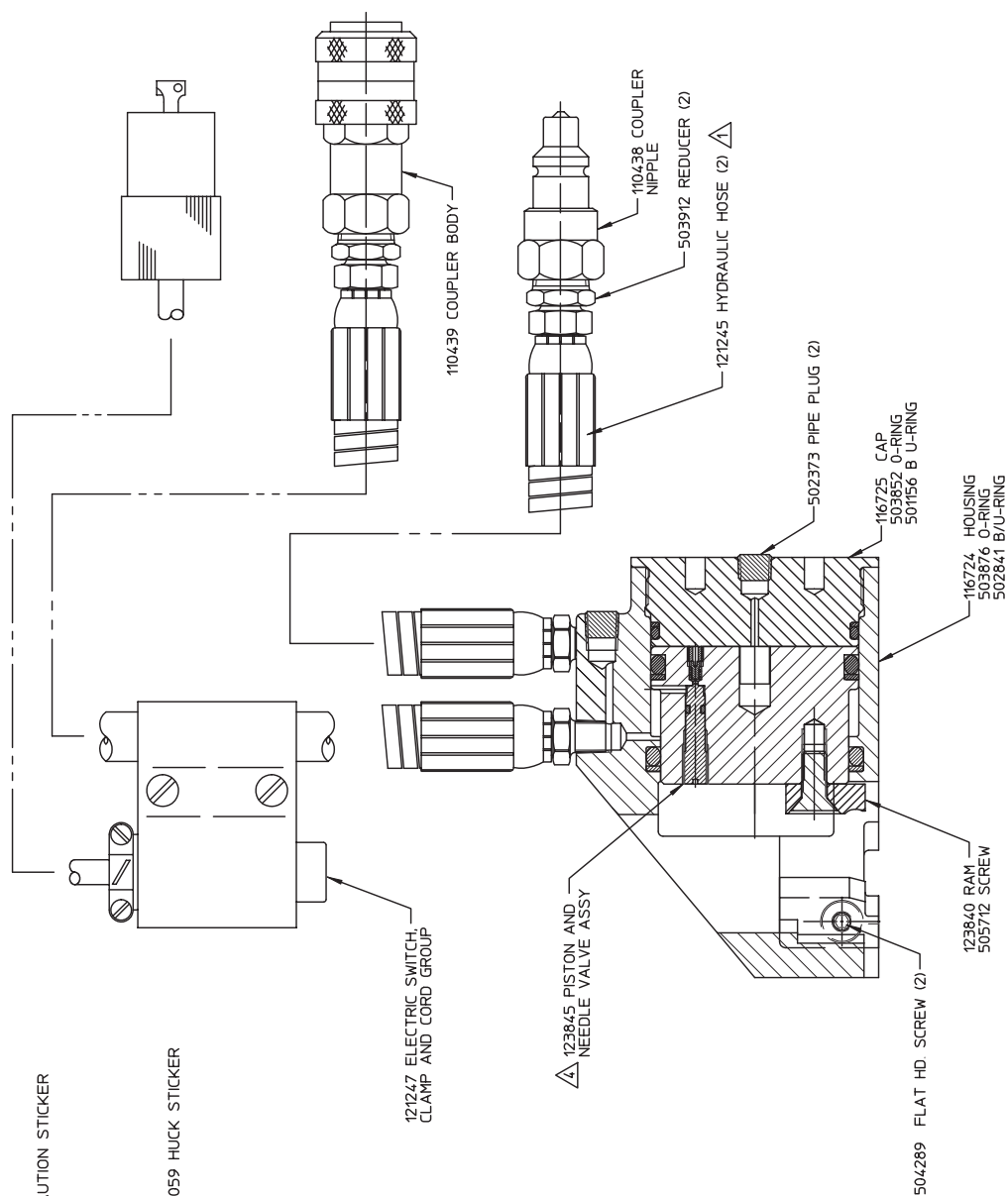
3 TEST PER HUCK SPEC 42-454.

4 123845 PISTON & NEEDLE VALVE ASSY INCLUDES:

- 123842 PISTON
- 123843 NEEDLE VALVE
- 123729 PIN VALVE
- 500772 O-RING
- 506507 SPRING
- 123844 RETAINING SCREW
- 503875 O-RING
- 505596 BACK-UP RING



20CC-3LC



EXAMPLE OF BLADE POSITION IN HOUSING

NOTES

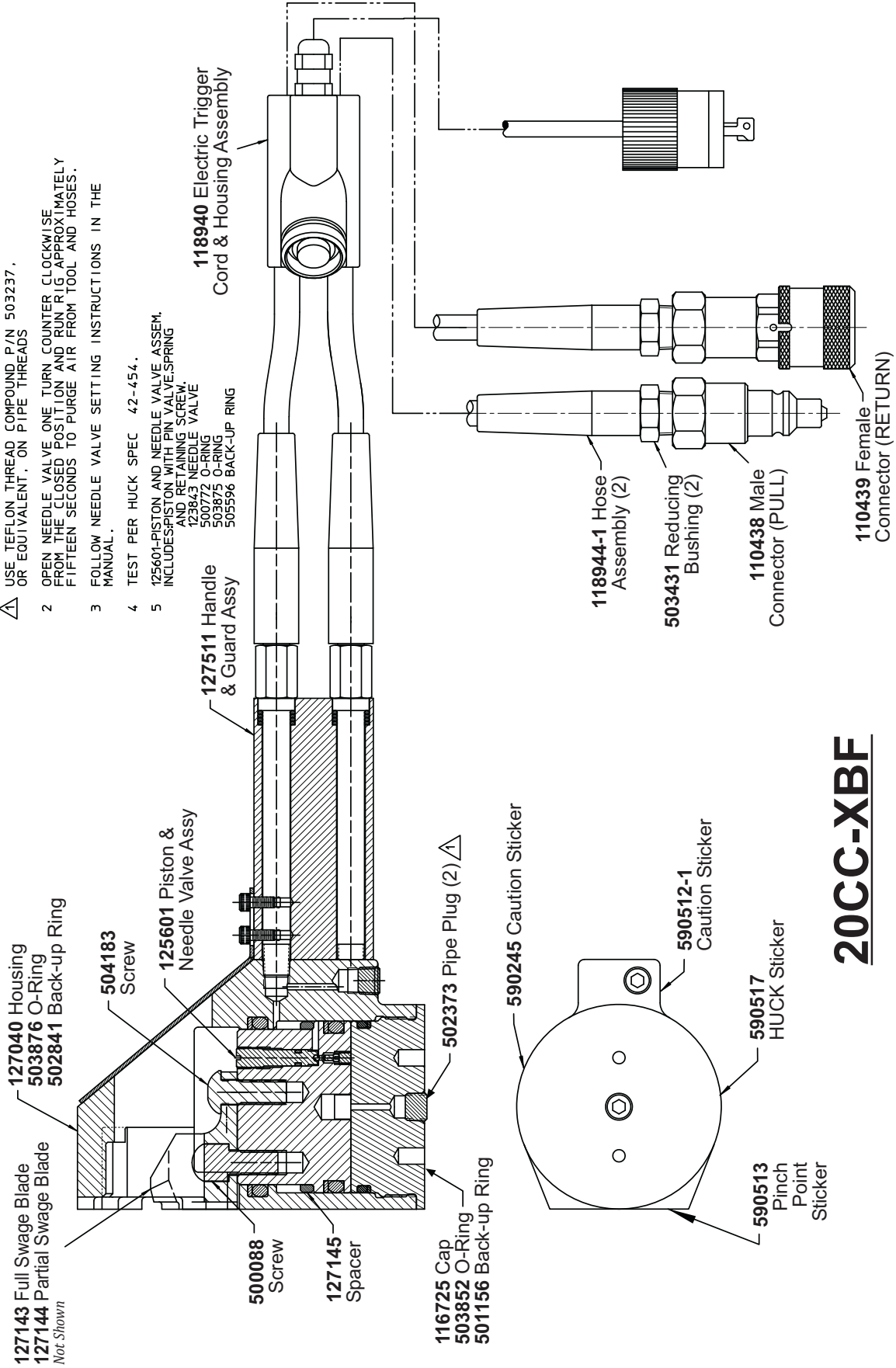
1. USE TEFLON THREAD COMPOUND P/N 503237, OR EQUIVALENT, ON PIPE THREADS
2. FILL PULL AND RETURN PORTS AND HOSES WITH HYDRAULIC FLUID PRIOR TO ASSEMBLY
3. TEST PER HUCK SPEC 42-454.
4. 123845 PISTON & NEEDLE VALVE ASSY INCLUDES:
 - 123842 PISTON
 - 123843 NEEDLE VALVE
 - 123729 PIN VALVE
 - 500772 O-RING
 - 506507 SPRING
 - 123844 RETAINING SCREW
 - 503875 O-RING
 - 505596 BACK-UP RING



20CC-XBF

NOTES

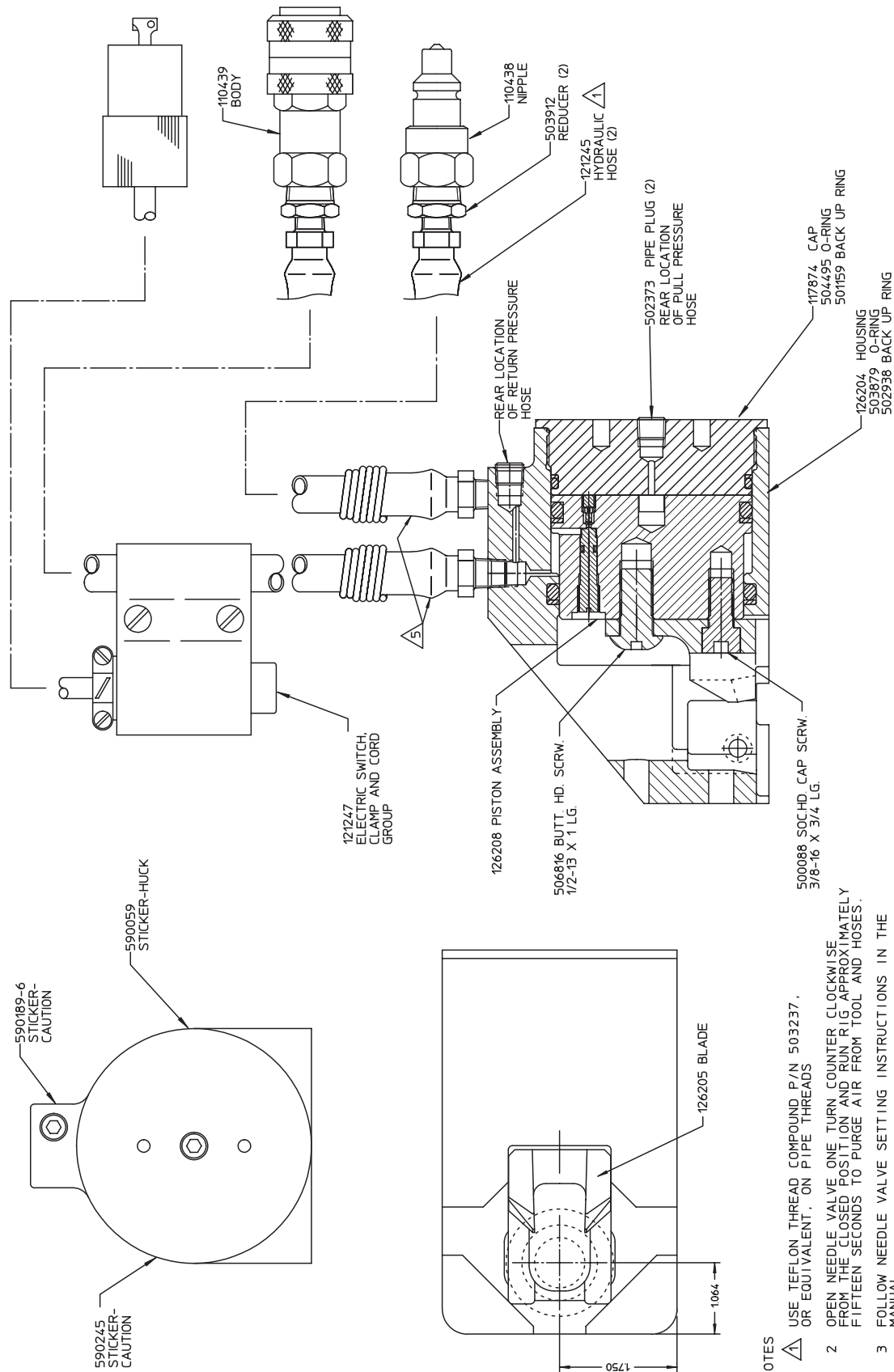
- 1 USE TEFLON THREAD COMPOUND P/N 503237, OR EQUIVALENT, ON PIPE THREADS.
- 2 OPEN NEEDLE VALVE ONE TURN COUNTER CLOCKWISE FROM THE CLOSED POSITION AND RUN RIG APPROXIMATELY FIFTEEN SECONDS TO PURGE AIR FROM TOOL AND HOSES.
- 3 FOLLOW NEEDLE VALVE SETTING INSTRUCTIONS IN THE MANUAL.
- 4 TEST PER HUCK SPEC 42-454.
- 5 125601-PISTON AND NEEDLE VALVE ASSEM. INCLUDES PISTON WITH PIN VALVE SPRING AND RETAINING SCREW.
123843 NEEDLE VALVE
500772 O-RING
503875 O-RING
505596 BACK-UP RING



20CC-XBF



24CC-HSHPCF

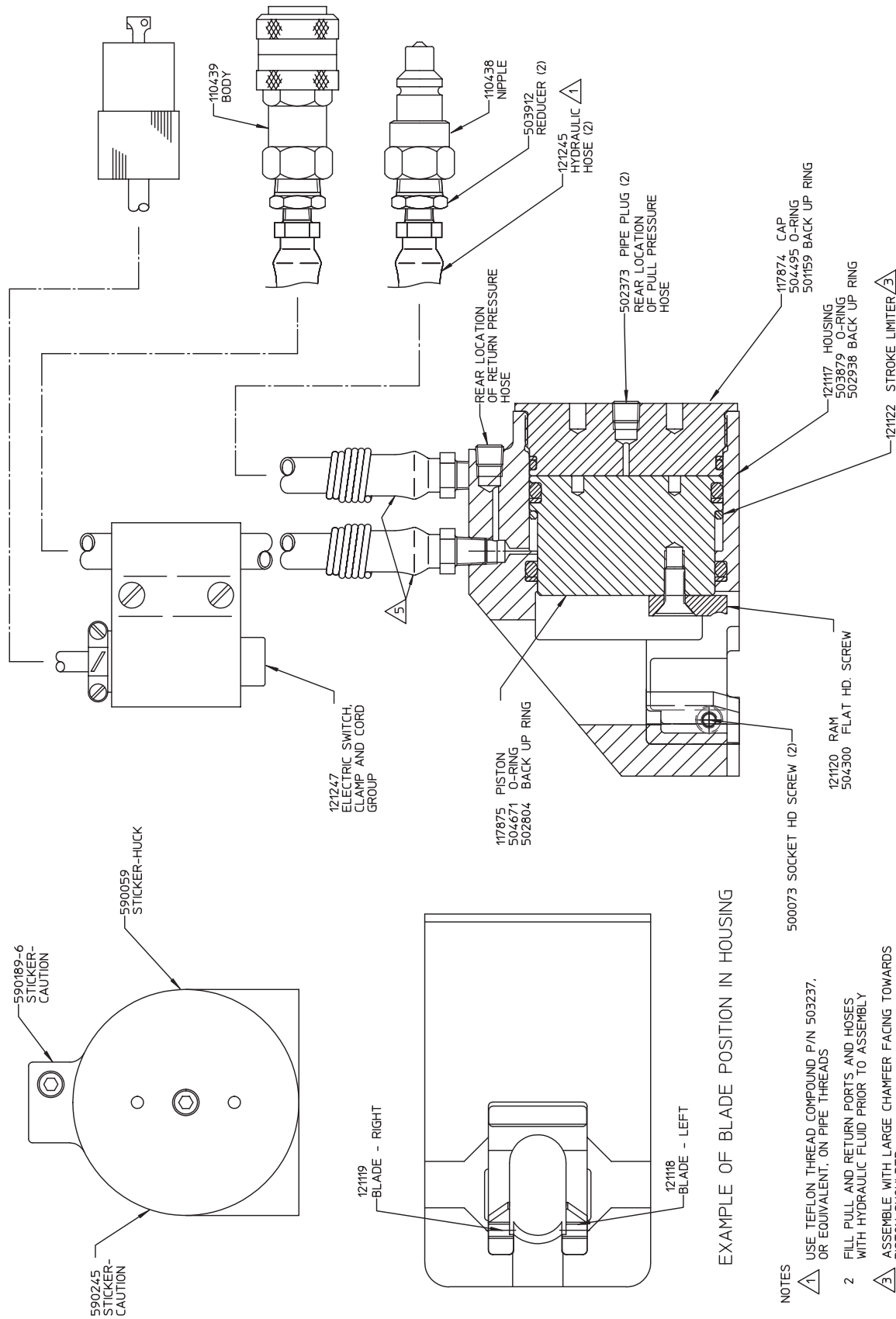


NOTES

- 1 USE TEFLON THREAD COMPOUND P/N 503237, OR EQUIVALENT, ON PIPE THREADS
- 2 OPEN NEEDLE VALVE ONE TURN COUNTER CLOCKWISE FROM THE CLOSED POSITION AND RUN RIG APPROXIMATELY FIFTEEN SECONDS TO PURGE AIR FROM TOOL AND HOSES.
- 3 FOLLOW NEEDLE VALVE SETTING INSTRUCTIONS IN THE MANUAL.
- 4 TEST PER HUCK SPEC 42-454.
- 5 126208-PISTON AND NEEDLE VALVE ASSEM. INCLUDES-PISTON WITH PIN VALVE-SPRING AND RETAINING SCREW. 123843 NEEDLE VALVE 500772 O-RING 504671 O-RING 502804 BACK-UP RING



28CC

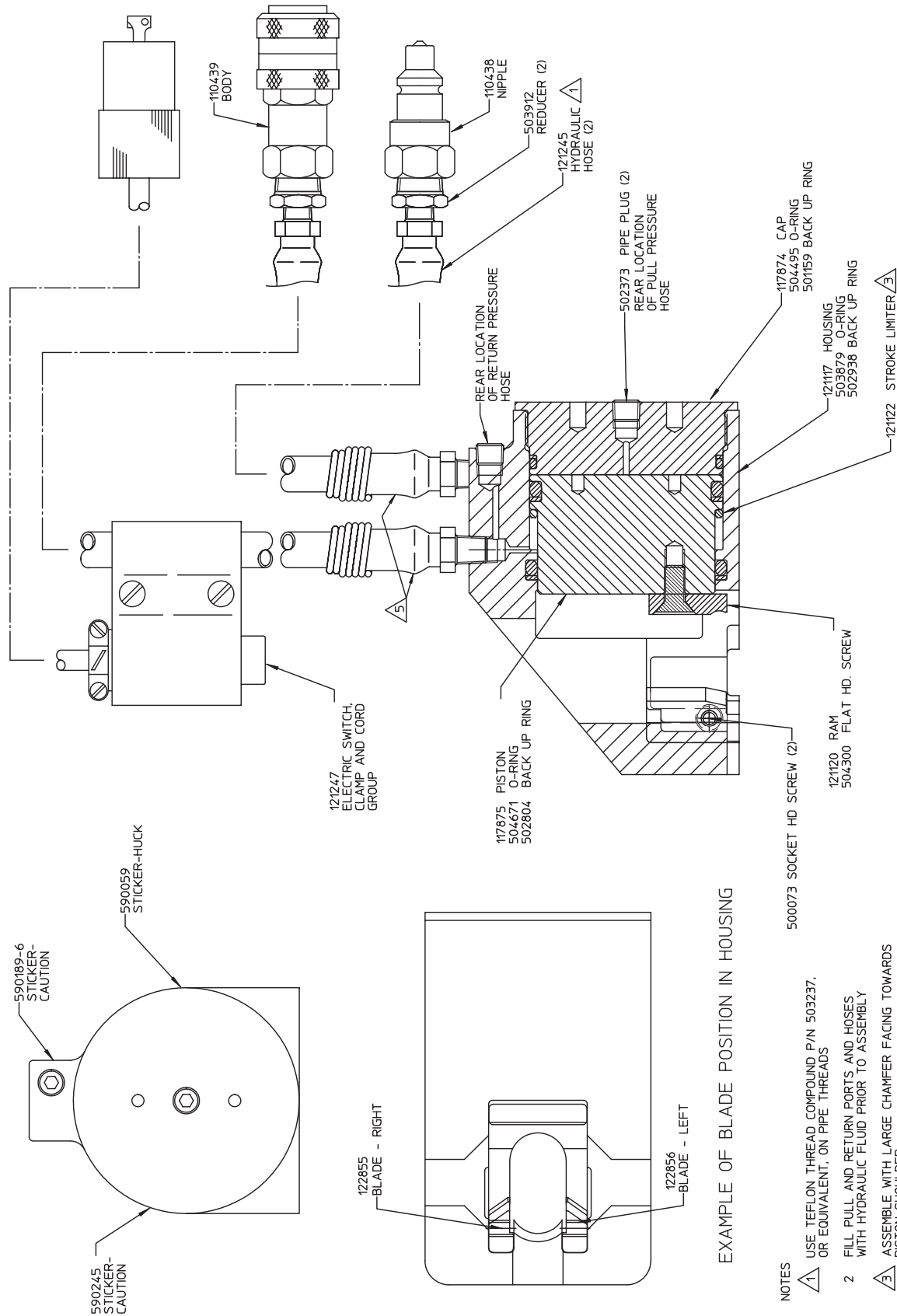


NOTES

1. USE TEFLON THREAD COMPOUND P/N 503237, OR EQUIVALENT, ON PIPE THREADS
2. FILL PULL AND RETURN PORTS AND HOSES WITH HYDRAULIC FLUID PRIOR TO ASSEMBLY
3. ASSEMBLE WITH LARGE CHAMFER FACING TOWARDS PISTON SHOULDER.
- TEST PER HUCK SPEC. 42-454.
5. ASSEMBLE TOOL WITH HYDRAULIC HOSES ATTACHED TO REAR PORTS OF TOOL.



28CC-3LC



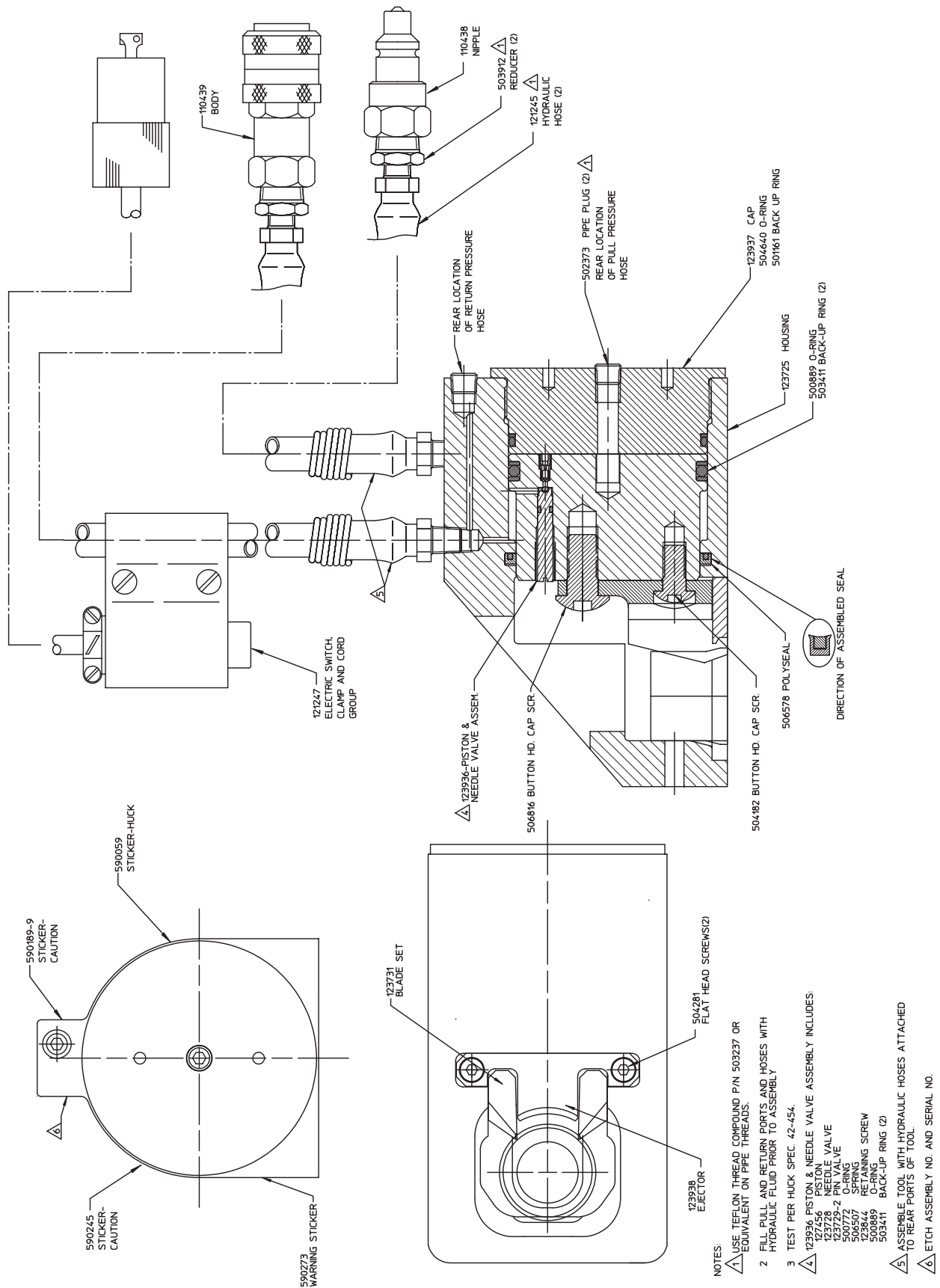
EXAMPLE OF BLADE POSITION IN HOUSING

NOTES

- 1 USE TEFLON THREAD COMPOUND P/N 503237, OR EQUIVALENT, ON PIPE THREADS
- 2 FILL PULL AND RETURN PORTS AND HOSES WITH HYDRAULIC FLUID PRIOR TO ASSEMBLY
- 3 ASSEMBLE WITH LARGE CHAMFER FACING TOWARDS PISTON SHOULDER.
- TEST PER HUCK SPEC. 42-454.
- 5 ASSEMBLE TOOL WITH HYDRAULIC HOSES ATTACHED TO REAR PORTS OF TOOL.

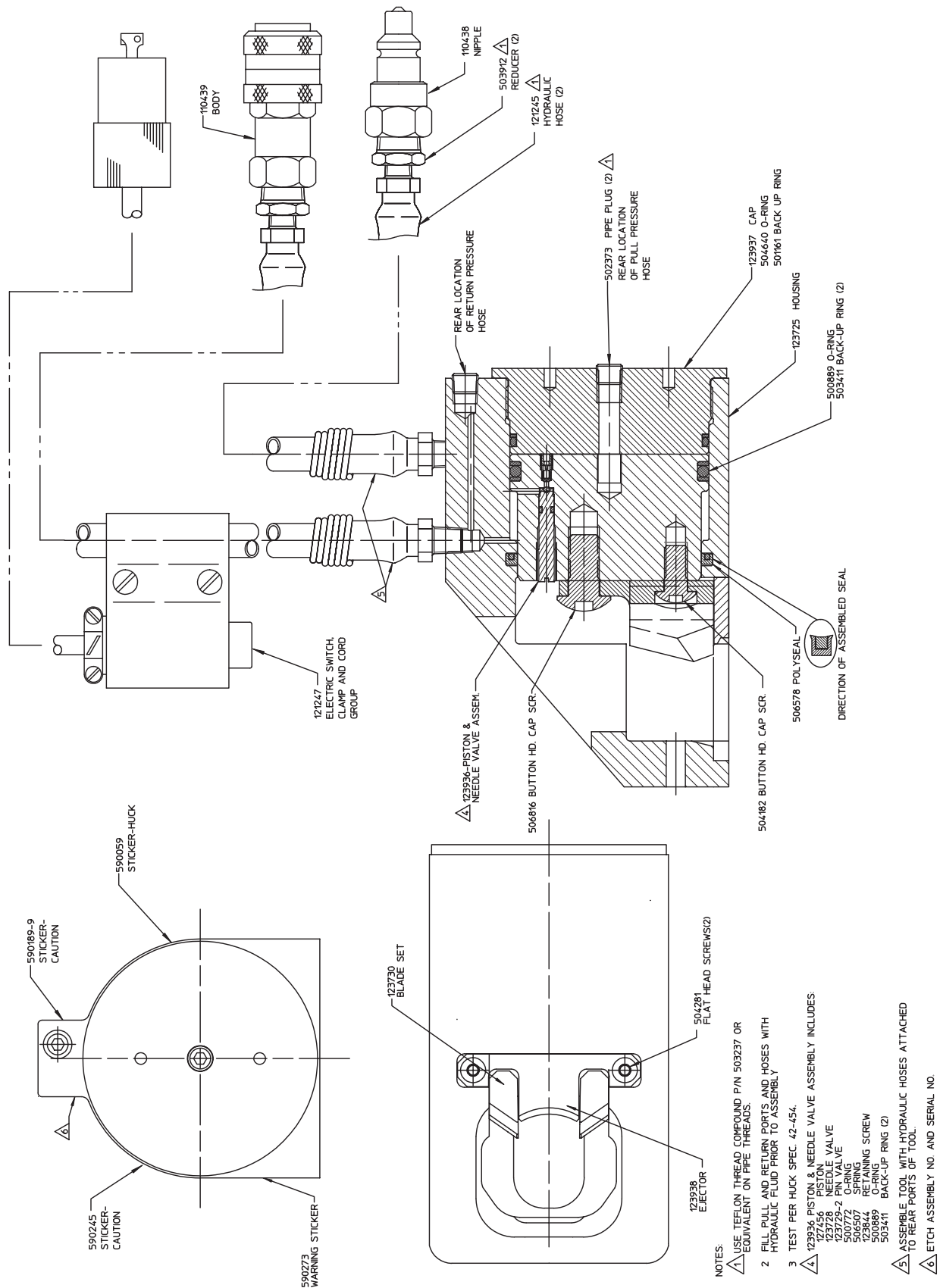


32CC-LC



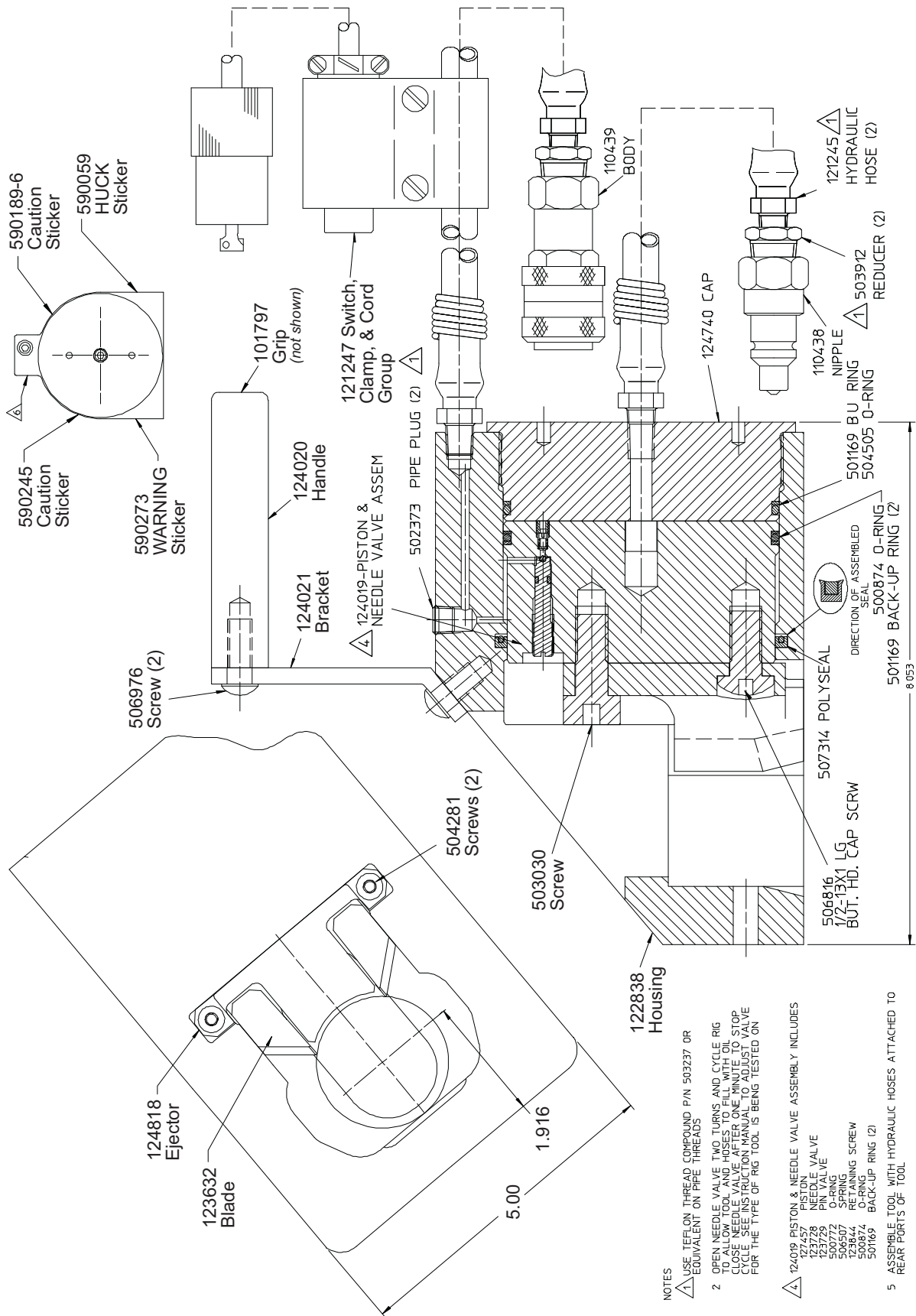


32CC-3LC





44CC-LC





Troubleshooting

Always check the simplest possible cause (such as a loose or disconnected trigger line) of a malfunction first. Then proceed logically, eliminating other possible causes until the cause is discovered. Where possible, substitute known good parts for suspected defective parts. Use this Troubleshooting information to aid in locating and correcting trouble.

1. Cutter fails to operate when trigger is pressed.

- a. Inoperative Powerig® hydraulic power source. See applicable instruction manual.
- b. Loose electric connections.
- c. Damaged trigger assembly.
- d. Loose or faulty hydraulic hose coupling.

2. Cutter blades do not cut through collar.

- a. Reversed hydraulic hose connections between Powerig and tool.
- b. Insufficient pressure.

3. Cutter leaks hydraulic fluid.

- a. Defective seals or loose hose connections at tool.

4. Hydraulic couplers leak fluid.

- a. Replace coupler.

5. Hydraulic fluid overheats.

- a. Powerig hydraulic unit not operating properly and tool.
- b. Pump motor rotation reversed.

6. Cutter operates erratically and fails to quickly cut collar.

- a. Low or erratic hydraulic pressure supply -- air in system.
- b. Damaged or worn piston seals in cutter.
- c. Needle valve not set correctly. See NEEDLE VALVE ADJUSTMENT.
- d. Excessive wear of blades or damage.

7. Cutter blades fail to open when trigger is released.

- a. Needle valve not set correctly. See NEEDLE VALVE ADJUSTMENT.



Standard Tools & Accessories

<u>Description</u>	<u>Used On</u>
502294 - 1/8 hex key.....	504126; 504127; 504281; 505554
502295 - 5/32 hex key.....	505555
502296 - 3/16 hex key.....	500073; 502373; 504300; 505709
502297 - 7/32 hex key.....	504182
502443 - 1/16 hex key.....	501900
502446 - 5/16 hex key.....	506816

Hose Kits of various lengths are available from your HUCK distributor. Yellow Hose Kits are available to reduce trip hazard.



Limited Warranties

Limited Lifetime Warranty on BobTail® Tools:

Huck International, Inc. warrants to the original purchaser that its BobTail® installation tools manufactured after 12/1/2016 shall be free from defects in materials and workmanship for its **useful lifetime**. This warranty does not cover special order / non-standard products, or part failure due to normal wear, tool abuse or misapplication, or user non-compliance with the service requirements and conditions detailed in the product literature.

Two Year Limited Warranty on Installation Tools:

Huck International, Inc. warrants that its installation tools and Powerigs® manufactured after 12/1/2016 shall be free from defects in materials and workmanship for a period of two years from date of purchase by the end user. This warranty does not cover special order / non-standard products, or part failure due to normal wear, tool abuse or misapplication, or user non-compliance with the service requirements and conditions detailed in the product literature.

90 Day Limited Warranty on Nose Assemblies and Accessories:

Huck International, Inc. warrants that its nose assemblies and accessories shall be free from defects in materials and workmanship for a period of 90 days from date of purchase by the end user. This warranty does not cover special clearance noses, or special order / non-standard product, or part failure due to normal wear, abuse or misapplication, or user non-compliance with the service requirements and conditions detailed in the product literature.

Useful lifetime is defined as the period over which the product is expected to last physically, up to the point when replacement is required due to either normal in-service wear, or as part of a complete overhaul. Determination is made on a case-by case basis upon return of parts to Huck International, Inc. for evaluation.

Tooling, Part(s) and Other Items not manufactured by Huck:

HUCK makes no warranty with respect to the tooling, part(s), or other items manufactured by third parties. HUCK expressly disclaims any warranty expressed or implied, as to the condition, design, operation, merchantability, or fitness for use of any tool, part(s), or other items thereof not manufactured by HUCK. HUCK shall not be liable for any loss or damage, directly or indirectly, arising from the use of such tooling, part(s), or other items or breach of warranty or for any claim for incidental or consequential damages.

Huck shall not be liable for any loss or damage resulting from delays or non-fulfillment of orders owing to strikes, fires, accidents, transportation companies or for any reason or reasons beyond the control of the Huck or its suppliers.

Huck Installation Equipment:

Huck International, Inc. reserves the right to make changes in specifications and design and to discontinue models without notice.

Huck Installation Equipment should be serviced by trained service technicians only.

Always give the serial number of the equipment when corresponding or ordering service parts.

Complete repair facilities are maintained by Huck International, Inc. Please contact one of the offices listed below.

Eastern

One Corporate Drive Kingston, New York 12401-0250
Telephone (845) 331-7300 FAX (845) 334-7333

Outside USA and Canada

Contact your nearest Huck International location (see reverse).

In addition to the above repair facilities, there are Authorized Tool Service Centers (ATSC's) located throughout the United States. These service centers offer repair services, spare parts, Service Parts Kits, Service Tool Kits and Nose Assemblies. Please contact your Huck Representative or the nearest Huck International location (see reverse) for the ATSC in your area.



ARCONIC

Innovation, engineered.

Arconic Inc. (NYSE: ARNC) creates breakthrough products that shape industries. Working in close partnership with our customers, we solve complex engineering challenges to transform the way we fly, drive, build and power.

Through the ingenuity of our people and cutting-edge advanced manufacturing, we deliver these products at a quality and efficiency that ensures customer success and shareholder value.

Arconic Fastening Systems and Rings world-wide locations:

AMERICAS

Kingston Operations

1 Corporate Drive
Kingston, NY 12401
800-278-4825
845-331-7300
FAX: 845-334-7333

Tucson Operations

3724 East Columbia
Tucson, AZ 85714
800-234-4825
520-747-9898
FAX: 520-748-2142

Carson Operations

900 Watson Center Rd.
Carson, CA 90745
800-421-1459
310-830-8200
FAX: 310-830-1436

Acuña Operations

Hidalgo #120
Parque Industrial Amistad
26220 Acuña Coahuila
Mexico
FAX: 525-515-1776
TELEX: 1173530 LUKSME

Waco Operations

PO Box 8117
8001 Imperial Drive
Waco, TX 76714-8117
800-388-4825
254-776-2000
FAX: 254-751-5259

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Telford, Shropshire
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01952-290011
FAX: 0952-290459

Us Operations

BP4
Clos D'Asseville
95450 Us par Vigny
France
33-1-30-27-9500
FAX: 33-1-34-66-0600

FAR EAST

Melbourne Operations

11508 Centre Road
Clayton, Victoria
Australia 3168
03-764-5500
Toll Free: 008-335-030
FAX: 03-764-5510

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regard to properties of the products shown and/or the means for selecting such products, and is not intended to create any warranty, express, implied, or statutory; all warranties are contained only in Huck's written quotations, acknowledgments, and/or purchase orders. It is recommended that the user secure specific, up-to-date data and information regarding each application and/or use of such products.

