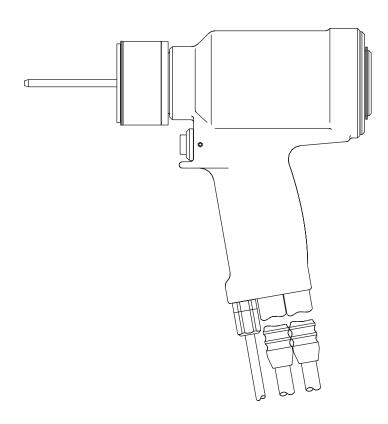


Instruction Manual 2620, A2620, 2620-PT, and A2620-PT Hydraulic Installation Tools



EC Declaration of Conformity

Safety Instructions 3-4

Description

Specifications

Principle of Operation

Preparation for Use

Operating Instructions8

Maintenance 9-10

Hydraulic Couplings10

Sticker Locations 10

Disassembly 11

Assembly 12-13

Components Drawings and Parts Lists 14-18

Troubleshooting19

Kits and Accessories 20





EC Declaration of Conformity

Manufacturer:

Huck International, LLC, Industrial Products Group, 1 Corporate Drive, Kingston, NY, 12401, USA **Description of Machinery:**

Models 2600, 2620, 2624, 2630 family of hydraulic installation tools and specials based on their design (e.g. PR####).

Relevant provisions complied with:

Council Directive related to Machinery (2006/42/EC)

British Standard related to hand held, non-electric power tools (ISO 11148-1:2011)

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: Robert B. Wilcox

Position: Engineering Manager

Location: Huck International, LLC d/b/a Arconic Fastening Systems and Rings

Kingston, New York, USA

Date: 01/11/2016 (November 1, 2016)

Declared dual number noise emission values in accordance with ISO 4871

A weighted sound power level, LWA: 89 dB (reference 1 pW) Uncertainty, KWA: 3 dB

A weighted emission sound pressure level at the work station, LpA: **78** dB (reference 20 µPa) Uncertainty, KpA: 3 dB

C-weighted peak emission sound pressure level, LpC, peak: 119 dB (reference 20 µPa) Uncertainty, KpC: 3 dB

Values determined according to noise test code ISO 3744. The sum of a measured noise emission value and its associated uncertainty represents an upper boundary of the range of values which is likely to occur in measurements.

| Declared vibration emission values in accordance with EN 12096 | | |
|--|----------|--|
| Measured Vibrations emission value, a: | .40 m/s² | |
| Uncertainty, K: | .02 m/s² | |

Test data to support the above information is on file at: Arconic Fastening Systems and Rings, Kingston Operations, Kingston, NY, USA.







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.
- 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.
- Be aware that failure of the workpiece, accessories, or the inserted tool itself can generate high velocity projectiles.
- 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:

- Use of tool can expose the operator's hands to hazards including: crushing, impacts, cuts, abrasions and heat. Wear suitable gloves to protect hands.
- Operators and maintenance personnel shall be physically able to handle the bulk, weight and power of the tool.
- 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.
- 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.
- The assembly power tool is not intended for use in potentially explosive environments.
- 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

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.

Where the following trade names are used in this manual, please note:

DEXRON is a registered trademark of General Motors Corporation.

Loctite is a registered trademark of Henkel Corporation, U.S.A.

LUBRIPLATE is a registered trademark of Fiske Brothers Refining Co.

MERCON is a registered trademark of Ford Motor Corp. Never-Seez is a registered trademark of Bostik, Inc.

Quintolubric is a registered trademark of Quaker Chemical Corp.

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

Spirolox is a registered trademark of Smalley Steel Ring Company

Teflon is a registered trademark of E. I. du Pont de Nemours and Company.

Threadmate is a registered trademark of Parker Intangibles LLC. **TRUARC** is a trademark of TRUARC Co. LLC.

Vibra-Tite is a registered trademark of ND Industries, Inc. USA.



Specifications

MAX OPERATING TEMP: 125° F (51.7° C)

MAX FLOW RATE: 2 gpm (7.5 l/m)

MAX PULL PRESSURE: 7400 psi (510 bar)
MAX RETURN PRESSURE: 3200 psi (220 bar)

PULL CAPACITY: 17,745 lbs @ 6500 psi

(78.93 kN @ 448 bar)

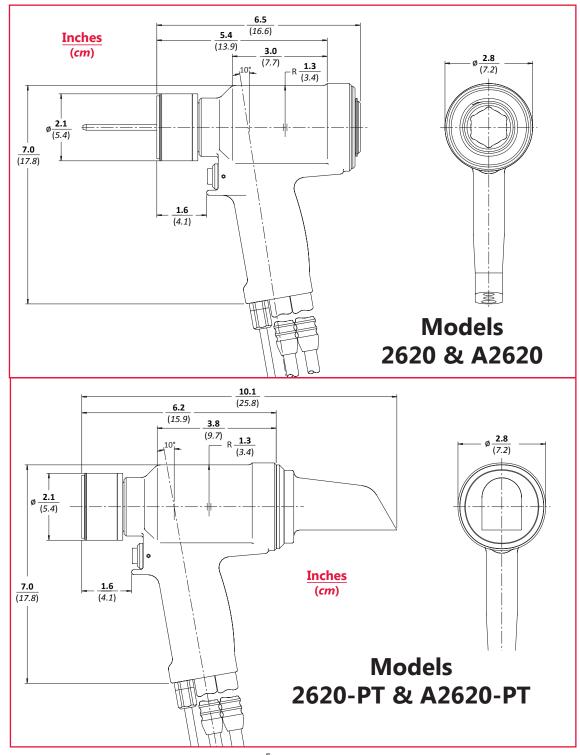
STROKE: 1.437 inches (3.65 cm) **WEIGHT**: 9.87 lbs (4.48 kg)

POWER SOURCE: Huck POWERIG® Hydraulic Unit

HOSE KITS: Use only genuine HUCK Hose Kits rated @

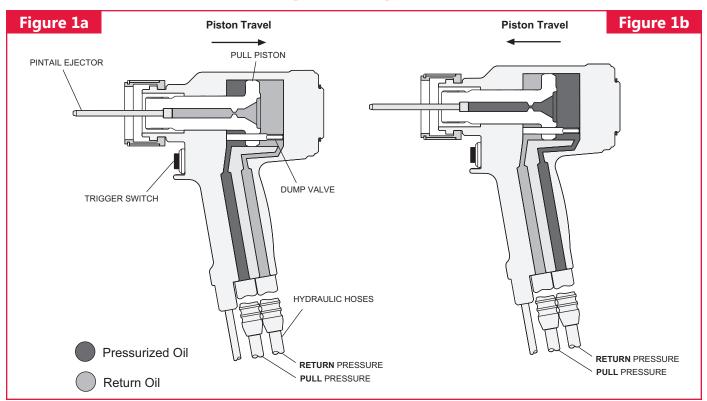
10,000 psi (689.5 bar) working pressure.

HYDRAULIC FLUID: Hydraulic fluid shall meet DEXRON® III, DEXRON VI, MERCON®, Allison C-4 or equivalent Automatic Transmission Fluid (ATF) specifications. Fireresistant 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.





Principle of Operation



PULL PRESSURE

PULL Cycle (Figure 1a)

When the **Trigger Switch** is pressed, a solenoid-operated valve in the POWERIG® directs pressurized hydraulic fluid through the PULL hose to the front side of the **Piston**; fluid on the RETURN side flows back to the tank (Figure 1A). The piston and nose assembly collet move rearward, installing the fastener.

When the piston reaches the end of the PULL stroke, it uncovers flats on the rear side of the **Dump Valve**. These flats provide a passage for the hydraulic fluid from the PULL side to the RETURN side of the piston, "unloading" or "dumping" the pressurized fluid back to the tank POWERIG (Figure 1A).

RETURN PRESSURE

RETURN Cycle (Figure 1b)

When the trigger is released, the solenoid is de-energized and the valve directs pressurized fluid to the rear side of the piston; fluid on the PULL side flows back to the POWERIG tank (Figure 1B). The piston and collet to move forward, and the tool and nose assembly are pushed off the swaged (installed) fastener. When the piston reaches the end of the RETURN stroke, pressure builds up causing the POWERIG to shut off, completing the cycle.



Preparation for Use



WARNINGS:

- Read entire manual before using tool.
- A 30-minute training session with qualified personnel is recommended before using Huck equipment.
- When operating Huck equipment, always wear approved eye and hearing protection.
- Be sure there is adequate clearance for the operator's hands before proceeding.
- Connect the tool's hydraulic hoses to the POWERIG® Hydraulic Unit before connecting the tool's switch control cord to it. If not connected in this order, severe personal injury may occur.



CAUTION: Keep disconnected hoses, couplers, and hydraulic fluid away from dirty surfaces and free of foreign matter. Contaminated fluid can cause tool and POWERIG valve failures.

POWER SOURCE CONNECTIONS

Use a Huck POWERIG® Hydraulic Unit, or equivalent, that has been suitably prepared for operation.

NOTE: Review all WARNINGs on this page.



CAUTION: Apply Parker Threadmate[®], Loctite[®] 567, or Slic-Tite[®] to male pipe threads (per manufacturer's instructions) to prevent leaks and to ease assembly.

 Turn OFF the POWERIG and disconnect its power supply. Connect the tool hoses to the POWERIG.



WARNING: Connect the tool's hydraulic hoses to the POWERIG <u>before</u> connecting tool's trigger control system to the POWERIG. If not connected in this order, severe personal injury may occur.

- Connect tool's control switch electrical cord to the POWERIG.
- 3. Connect the POWERIG to the power supply. Turn ON the POWERIG. Press and hold the tool trigger for 30 seconds; then press the trigger a few times to cycle the tool and circulate the hydraulic fluid. Observe the action of the tool and check for leaks. Turn OFF the POWERIG.



WARNING: Huck recommends that a Huck POWERIG® be used to power Huck tools. (Only use the POWERIG as indicated in its instruction manual.) Hydraulic power units that deliver high PULL and RETURN pressures—but which are NOT equipped with RELIEF VALVES—are specifically NOT RECOMMENDED and may be dangerous.

Set the PULL and RETURN pressures as specified in <u>Specifications</u>. Failure to properly set these pressures could result in serious personal injury.

Use Huck Pressure Gauge (P/N T-124883CE) as indicated in its instruction manual. Improper pressure settings may result in severe personal injury.

- 4. Disconnect the tool's control switch electrical cord from the POWERIG. Disconnect the POWERIG from its power supply. Select the correct nose assembly for the fastener to be installed (see *Nose Assembly Selection Chart*). Attach the nose assembly.
- 5. Re-connect the POWERIG to the power supply. Reconnect the tool's trigger control system to the POWERIG. Check the operation of nose assembly; install fasteners in a test plate of correct thickness with proper size holes. Inspect installed fasteners.

If fasteners do not pass inspection, see **Troubleshooting** to investigate possible causes.



Operating Instructions



WARNINGS:

- Wear approved eye and hearing protection.
- Ensure adequate clearance for operator's hands before installing fasteners.
- Be sure that pintail deflector is attached to the tool and directed away from all personnel.
- Do not pull on a pin without placing a fastener/collar in a workpiece. Make sure that the collar chamfer is out, toward the tool. Pins eject with great velocity when pintails break off or teeth/grooves strip, which could cause serious injury.

Review all CAUTIONs and WARNINGs prior to installing fasteners. If the tool malfunctions, consult the **Troubleshooting** section before attempting any repairs.

GENERAL



CAUTIONS:

- To avoid structural and tool damage, be sure there is sufficient clearance for the nose assembly at full stroke.
- Do not abuse the tool by dropping it, using it as a hammer, or otherwise causing unnecessary wear and tear.
- Do not connect tool's hoses to each other or use hoses as a handle for carrying.
- Operators should receive training from qualified personnel.
- Do not bend tool to free if stuck.
- Tool should only be used to install fasteners. Never use as a jack/spreader or hammer.
- Reasonable care of tools by operators is an important factor in maintaining efficiency and reducing downtime.

TO INSTALL A HUCKBOLT® FASTENER:



CAUTION: Remove the excess gap from between the sheets to ensure that enough of the pintail emerges from the collar for ALL chuck jaw teeth to engage with the pintail. If ALL teeth do not engage properly, chuck jaws will be stripped and/ or damaged.

NOTE: "Gap" is the space between sheets. Gap is "excessive" if not enough pintail sticks through the collar for the nose assembly jaws to grip.

1. Place a fastener in the workpiece and place the collar over the fastener.

NOTE: If the collar has one tapered end, that end must be out toward tool; not next to the sheet.

- 2. Hold the fastener in the hole and push the nose assembly onto the fastener protruding through the collar until the nose assembly anvil touches the collar. Hold the tool at a right-angle (90 degrees) to the work.
- 3. Move hands away from fastener and structure. Keep hands away from the front of the tool during operation; the tool anvil advances forward.
- 4. Press and hold the trigger until the collar is swaged and the pintail breaks. Release the trigger; the tool will perform its RETURN stroke.

The pressure is re-directed; the piston moves forward; and the tool is pushed off the fastener and ready for the next installation cycle.







Maintenance

<u>^!\</u>

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®.

Check the Assembly Drawings in this manual for the proper direction of the flats on the dump valve.

Always replace all seals, wipers, O-rings, and Back-up rings when the tool is disassembled for any reason.

Do NOT use Teflon® tape on pipe threads. Tape can shred and break free into fluid lines, resulting in malfunctions.

The operating efficiency of your tool is directly related to performance of the entire system, including the tool and nose assembly, hydraulic hoses, control trigger assembly, and the POWERIG® Hydraulic Unit. Therefore, an effective preventive maintenance program includes scheduled inspections of the system to detect and correct minor troubles. NOTE: Where a part number (P/N) is given, Huck sells that part.

SYSTEM INSPECTION

Inspect the tool daily. Check hoses, fittings, and couplings for leaks and damage. Clear air-lines of dirt and water.

Service the tool in a clean, well-lighted area. Take special care to prevent contamination of pneumatic and hydraulic systems.

Carefully handle all parts and components. Before reassembly, examine them for damage and wear; replace when necessary. Replace O-rings and Back-up rings when the tool is disassembled for any reason.

Have available all necessary hand tools (standard and special); a half-inch brass drift and wood block; an arbor press; and a soft-jaw vise. Unsuitable hand tools could cause tool damage. See **KITS & ACCESSORIES**.

Follow the disassembly and assembly procedures in this manual. If Huck recommended procedures are not followed, the tool could be damaged.

Disassemble and assemble tool components in a straight line. Do NOT bend, twist, or apply undue force.

Apply continuous steady pressure to disassemble a component. An arbor press provides steady pressure to press a component into or out of an assembly.

Never force a component if it is misaligned. Reverse the procedure to correct misalignment and start over.

FLUID MAINTENANCE

See **Specifications** for fluid type. For fluid maintenance, refer to NAS 1638 class 9, ISO CODE 18/15, or SAE level 6. Dispose of fluid in accordance with local environmental regulations. Recycle steel, aluminum, and plastic parts in accordance with local lawful and safe practices.

STANDARD SEALANTS, LUBRICANTS

Apply Parker Threadmate[®], Loctite[®] 567, or Slic-Tite[®] to male pipe threads per manufacturer's instructions (to ease assembly and to prevent leaks).

Smear LUBRIPLATE® 130-AA or SUPER-O-LUBE® on rings and mating parts to ease assembly and to prevent damaging rings on rough and sharp surfaces.

PREVENTIVE MAINTENANCE

Huck recommends that you: Inspect the tool and nose daily for damage and wear. Inspect the tool before each use for leaks.

Verify that hoses, fittings, and trigger connections are secure and free of leaks.

Inspect hydraulic hoses for signs of damage. Replace if necessary.

Inspect the tool, hoses, and POWERIG during operation to detect abnormal heating, leaks, or vibration.

For supplementary information, see **Troubleshooting**, **Disassembly**, **Assembly**, and **Assembly Drawings** in this manual.

POWERIG MAINTENANCE

Maintenance instructions and repair procedures are in the appropriate POWERIG Instruction Manual.

TOOL MAINTENANCE

Whenever disassembled, and at regular intervals, depending on use, replace all O-rings and Back-up rings. Tool-specific Spare Parts Service Kits (P/N **2620KIT** or **2620-PTKIT**) should be kept on hand.

Inspect cylinder bore, piston, piston rod, and unloading valve for scored surfaces, excessive wear, and damage; replace as necessary.

continued...



Maintenance (continued)

NOSE ASSEMBLY MAINTENANCE

Clean nose assemblies daily in mineral spirits to clear jaws and rinse metal chips and dirt. For a more thorough cleaning, disassemble the nose assembly. Use a pointed "pick" to remove embedded particles from the pull grooves of the jaws.



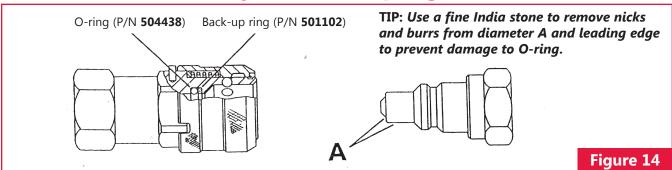
CAUTION: Damaged jaw teeth, or debris packed between teeth, will result in fastener not being installed or being improperly installed.

Clean all parts of any assembly with UNITIZED™ Jaws in mineral spirits or isopropyl alcohol only; do not let jaws come in contact with other solvents. Do not let jaws soak; dry them *immediately* after cleaning. Huck recommends drying other parts before re-assembling. For additional information, see the appropriate *Nose Assembly Data Sheet*.

SPARE PARTS SERVICE KITS

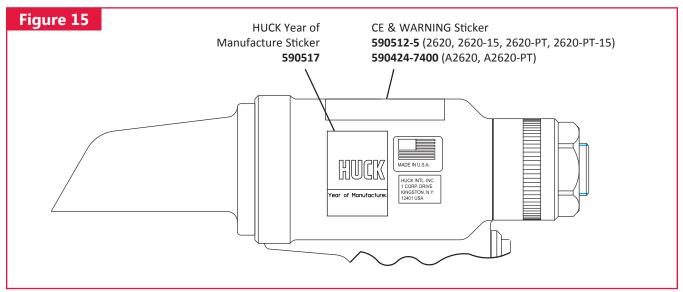
Spare Parts Service Kits contain perishable parts (O-rings, Back-up rings, and other standard items) for your tool (see Kits & Accessories). For convenience, and as experience indicates, keep extra kits and tool parts on hand. As an alternative, you can obtain O-rings and Back-up rings from any regular retailer of these items.

Hydraulic Couplings



Sticker Locations

The 2620 series tools are labeled with stickers that contain safety and pressure-settings information. These stickers must remain on the tool and be legible. Any sticker that becomes damaged or worn, or has been removed from the tool, or when replacing the cylinder, **MUST** be ordered and placed in the location shown below.





Disassembly

This procedure is for complete disassembly of the tool. Disassemble **only** those components necessary to replace damaged rings and worn or damaged components. Always replace seals, wipers, and rings of disassembled components. Always use a soft-jaw vise to avoid damaging the tool.

For component identification, see Figures 2–5, 8–13, and **Parts List**.



WARNING: Disconnect the tool control trigger system from the POWERIG® before disconnecting the hydraulic hoses from it. If not disconnected in this order, serious personal injury may occur.

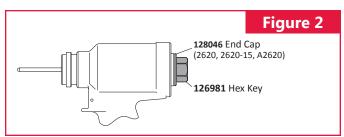
TO DISASSEMBLE THE TOOL:

- 1. Disconnect the electrical or air connector from the POWERIG, and then uncouple the hydraulic hoses.
- 2. Remove the nose assembly from the tool.
- 3. Unscrew both couplers (nipple & body) from the hoses; drain the hoses into a container.
- 4. Push rearward on the piston until the remaining fluid has drained into the container. Discard the fluid.

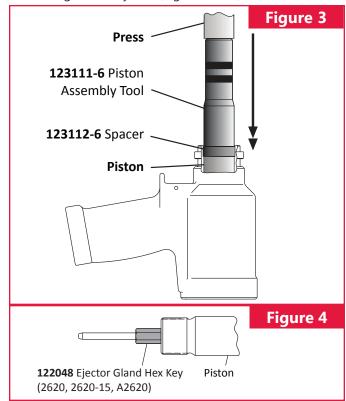
NOTE: Do NOT remove the hydraulic hoses from the tool unless replacing them. To access the hose fittings, slide back the plastic shrouds.

NOTE: Complete step 5 only if the switch, wire, or connector is to be repaired.

- 5. Models **2620 & 2620-PT**: Remove the retaining nut and locking ferrule from the strain relief. Loosen the setscrew and remove the switch. Loosen and remove the two wires from the switch. Remove the cord from the tool. Disassemble the Electrical Connector (P/N **110686**). (Figures 8, 9, & 12) Models **A2620 & A2620-PT**: Unscrew and remove the air switch. Remove the retaining nut and locking ferrule from the air fitting. Remove the plastic tubing and unscrew the remaining part of the fitting from the handle. (Figures 10, 11, & 13)
- 6. Standard Models: Remove the retaining ring, cover plate, and locking disk. (Figures 8 & 10)
 Model **2620-PT**: Remove the deflector, screws, barbed retainer, and locking disk. (Figures 9 & 11)
- 7. Insert a hex key in the end cap. (Figure 2) Use a



- wrench to unscrew the end cap from the cylinder.
- 8. Standard Models: Remove the O-ring and Back-up ring. (Figures 8 & 10)
 Model **2620-PT**: Remove the O-ring, Back-up ring, retaining ring, washer, Polyseal, and wiper seal.
- 9. Remove the dump valve from rear of the cylinder.
- Slide the Spacer (P/N 123112-6) over the threaded end of the piston. Screw the Piston Assembly Tool (P/N 123111-6) onto the piston. Press the front gland and piston assemblies out the rear of the cylinder. (Figure 3)
- 11. Remove the Piston Assembly Tool and the spacer. (Figure 3)
- 12. Slide the Front Gland Assembly off the piston and remove the wiper, wiper housing, Back-up ring, O-ring, and Polyseal. (Figures 8–11)



- 13. Remove the GLYD Ring from the piston. (Figure 5)
- 14. Standard Models: Hold the piston in a soft-jaw vise and remove the Ejector Gland Assembly with the Hex Key (P/N **122048**). (Figures 4, 8 & 10)
- 15. Standard Models: Remove from gland, ejector rod, washer, O-rings, wiper, Quad-ring, and Back-up ring. (Figures 4, 8 & 10)

The tool has been properly disassembled. Store all *re-usable* parts (screws and disassembled components) in a clean, dry area.



Assembly

This section details the re-assembly of the tool. For component identification, see Figures 2, 4–13, and PARTS LIST.

BEFORE RE-ASSEMBLING THE TOOL:



CAUTION: When re-assembling the tool, always replace damaged and defective parts, and all seals, wipers, and rings of sub-assemblies.

 Inspect components for scoring, excessive wear, and damage; replace as necessary. Clean components in mineral spirits or other solvent compatible with O-ring seals. Clean O-ring grooves.



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

- Replace all O-rings, Quad-rings, and Back-up rings.
 See Assembly Drawings for guidance on positioning these rings. Take care not to damage rings. Use the rings that are supplied in Spare Parts Service Kit
 2620KIT. Smear LUBRIPLATE® 130-AA or SUPER-O-LUBE® on rings and mating parts to ease assembly.
- Apply Parker Threadmate[®], Loctite[®] 567, or Slic-Tite[®] to male pipe threads (per manufacturer's instructions) to prevent leaks and ease assembly.

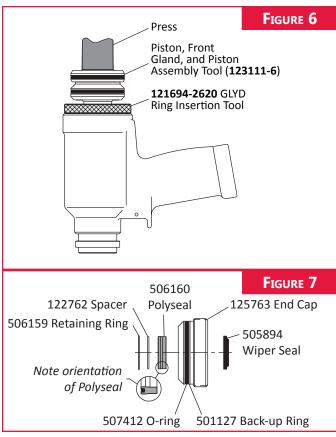


CAUTION: Do NOT use Teflon® tape on pipe threads. Tape can shred and break free into fluid lines, resulting in malfunctions.

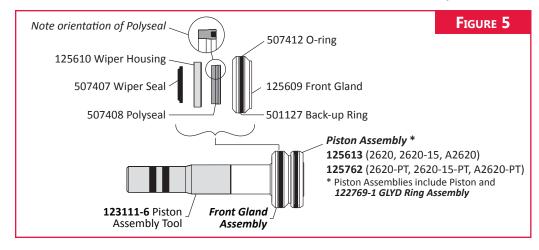
TO RE-ASSEMBLE THE TOOL:

- 1. **Standard Models Only**: Install the Back-up Ring, Quad-ring, wiper, O-rings, washer, and Ejector Rod into the Ejector Gland. (Figures 8 & 10)
- 2. **Standard Models Only**: Hold the piston in a soft-jaw vise and install the assembled Ejector Gland. Use Hex Key (P/N **122048**) to tighten. (Figures 4, 8, & 10)

- Thread the Piston Assembly Tool (P/N 123111-6) onto the piston. (Figure 5)
 NOTE: Do NOT install Spacer 123112-6.
- 4. Install the GLYD Ring onto the piston.
- 5. Install the Polyseal, O-ring, Back-up Ring, wiper housing, and wiper into the Front Gland.



- 6. Lubricate the Piston Assembly Tool and the piston; then slide the assembled gland over the Piston Assembly Tool onto the piston.
- 7. Thread the GLYD Ring Insertion Tool (P/N **121694-2620**) into the back of the cylinder. (Figure 6)
- 8. Use a press to carefully push piston and front gland assembly into the back of the cylinder. (Figure 6)



continued...



Assembly (continued)

- 9. Remove the Piston Assembly Tool and the GLYD Ring Insertion Tool from the back of the cylinder. (Figure 6)
- 10. From the rear of the cylinder, install the dump valve with four flats facing rear of the tool. (Figures 8–11)
- Standard Models Only: Install the O-ring and Back-up ring on the End Cap. (Figures 8 & 10)
 Model 2620-PT: Install Back-up Ring, O-ring, wiper, Polyseal, washer, and retaining ring into the End Cap. (Figures 7, 9, & 11)
- 12. Insert the hex key into the end cap. Use a wrench to thread the end cap into the back of the cylinder and tighten. (Figure 2)
- 13. **Standard Models Only**: Install the locking disk, cover plate, and retaining ring. (Figures 8 & 10) **Model 2620-PT**: Install the locking disk, barbed retainer, screws, and deflector. (Figures 9 & 11)
- 14. If removed, reinstall the electrical/air connector.

NOTE: If the switch or wire were removed, replace as follows:

Models 2620 & 2620-PT: Slide the retaining nut and ferrule onto the electrical wire. Feed the wire through the handle and pull out through the trigger switch hole. Attach the wires to the switch and push the assembly back into the handle. Tighten the screw to hold the trigger switch in place. Slide the ferrule into the strain relief housing, then thread and tighten the retaining nut (Figure 12).

Models A2620 & A2620-PT: Install the fitting into the handle. Slide the retaining nut and ferrule over the plastic tubing. Slide the tubing into the fitting and tighten the retaining nut. Screw in the air trigger and tighten (Figure 13).



CAUTION: Do NOT use Teflon® tape on pipe threads. Tape can shred and break free into fluid lines, resulting in malfunctions.

15. If removed, install one hydraulic hose in the handle port "P" and one in port "R".



WARNING: Connect the tool's hydraulic hoses to the POWERIG® <u>before</u> connecting the (air or electric) trigger assembly to it. If not connected in this order, serious personal injury could occur.

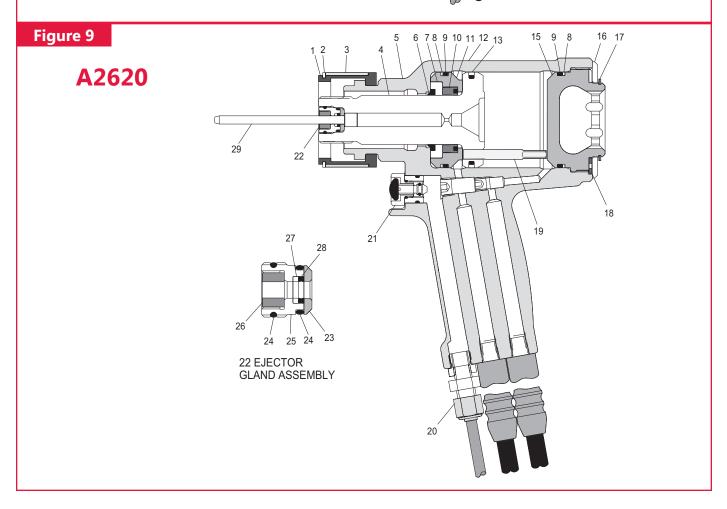
16. Screw the coupling nipple (P/N **110438**) onto the PULL pressure hose (from port **P** of tool). Screw the coupling body onto the RETURN pressure hose (from port **R** of tool). (Figures 12 & 13)

The tool is now assembled and ready for use.



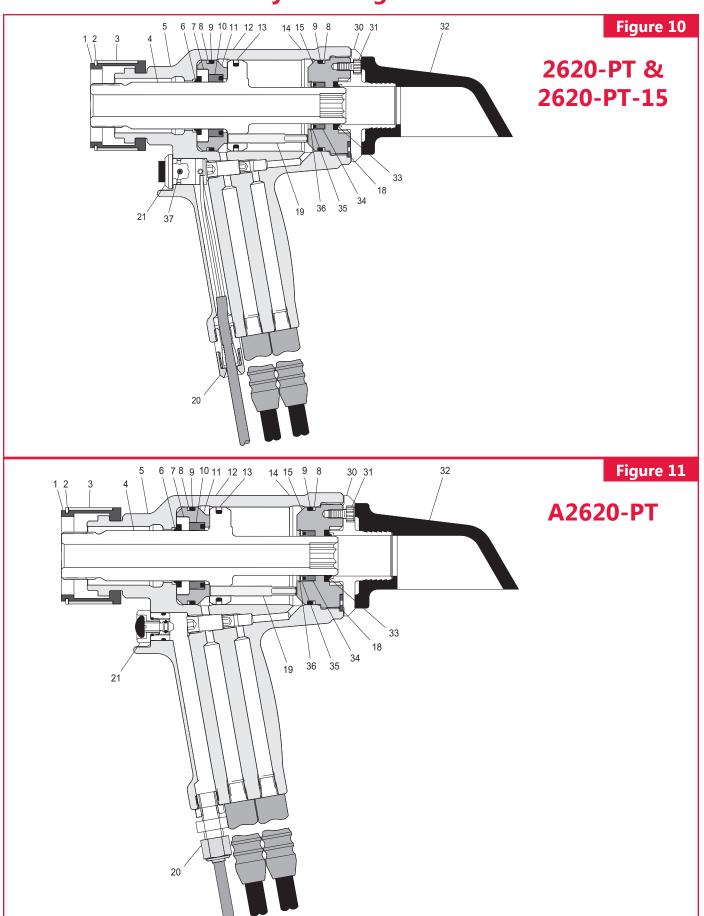
Assembly Drawings Standard Models

2620 & 2620-15 2620 & 2620-15 29 22 22 EJECTOR GLAND ASSEMBLY





Assembly Drawings PT Models





Parts List

The numerical references in the **Item** column are to the parts labels in Figures 8–11.

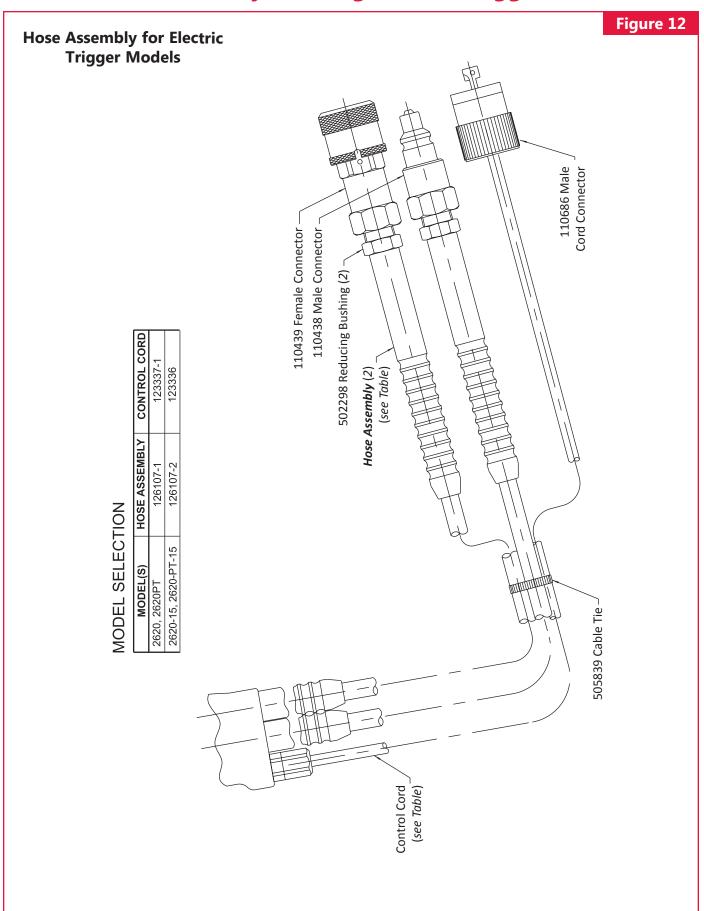
| ITEM | DESCRIPTION | QTY. | 2620 & 2620-15 | A2620 | 2620-PT & 2620-PT-15 | A2620-PT |
|------|------------------------------|------|-------------------|-------------|----------------------|-------------|
| 1 | Split Ring | 1 | 102147 | 102147 | 102147 | 102147 |
| 2 | Retaining Ring | 1 | 501514 | 501514 | 501514 | 501514 |
| 3 | Retaining Sleeve | 1 | 102148 | 102148 | 102148 | 102148 |
| 4 | Piston | 1 | 125612* | 125612* | 125761** | 125761** |
| 5 | Cylinder Assembly | 1 | 126152 | 126152 | 126152 | 126152 |
| 6 | Wiper Seal | 1 | 507407 | 507407 | 507407 | 507407 |
| 7 | Wiper Housing | 1 | 125610 | 125610 | 125610 | 125610 |
| 8 | Back-up Ring | 2 | 501127 | 501127 | 501127 | 501127 |
| 9 | O-ring | 2 | 507412 | 507412 | 507412 | 507412 |
| 10 | Polyseal | 1 | 507408 | 507408 | 507408 | 507408 |
| 11 | Front Gland | 1 | 125609 | 125609 | 125609 | 125609 |
| 12 | HUCK Sticker | 1 | 590517 | 590517 | 590517 | 590517 |
| 13 | GLYD Ring Assembly | 1 | 122769-1 | 122769-1 | 122769-1 | 122769-1 |
| 14 | CE & WARNING Sticker | 1 | 590512-5 | 590424-7400 | 590512-5 | 590424-7400 |
| 15 | End Cap | 1 | 125614 | 125614 | 125763 | 125763 |
| 16 | Cover Plate | 1 | 125617 | 125617 | | |
| 17 | Retaining Ring | 1 | 507406 | 507406 | | |
| 18 | Locking Disc | 1 | 122764 | 122764 | 122764 | 122764 |
| 19 | Dump Valve | 1 | 125616 | 125616 | 125616 | 125616 |
| 20 | Strain Relief or Air Fitting | 1 | 505344 | 503902 | 505344 | 503902 |
| 21 | Trigger Switch Assembly | 1 | 120361 | 119345-1 | 120361 | 119345-1 |
| 22 | Ejector Gland Assembly | 1 | 120653 | 120653 | | |
| 23 | Ejector Washer | 1 | 120652 | 120652 | | |
| 24 | O-ring | 2 | 500779 | 500779 | | |
| 25 | Gland | 1 | 122047 | 122047 | | |
| 26 | Rod Wiper | 1 | 122742 | 122742 | | |
| 27 | Back-up Ring | 1 | 501080 | 501080 | | |
| 28 | Quad-Ring | 1 | 501411 | 501411 | | |
| 29 | Pintail Ejector | 1 | 122705 | 122705 | | |
| 30 | Barbed Retainer | 1 | | | 125765 | 125765 |
| 31 | Screws | 3 | | | 500060 | 500060 |
| 32 | Pintail Deflector | 1 | | | 122766 | 122766 |
| 33 | Wiper Seal | 1 | | | 505894 | 505894 |
| 34 | Polyseal | 1 | | | 506160 | 506160 |
| 35 | Spacer | 1 | | | 122762 | 122762 |
| 36 | Retaining Ring | 1 | | | 506159 | 506159 |
| 37 | Set Screw | 1 | 501731 | 501731 | 501731 | 501731 |

^{*} Piston 125612 is not sold individually. It is included in Piston Assembly (P/N 125613), which also contains GLYD Ring Assembly (P/N 122769-1).

^{**} **Piston 125761** is not sold individually. It is included in **Piston Assembly** (P/N **125762**), which also contains **GLYD Ring Assembly** (P/N **122769-1**).

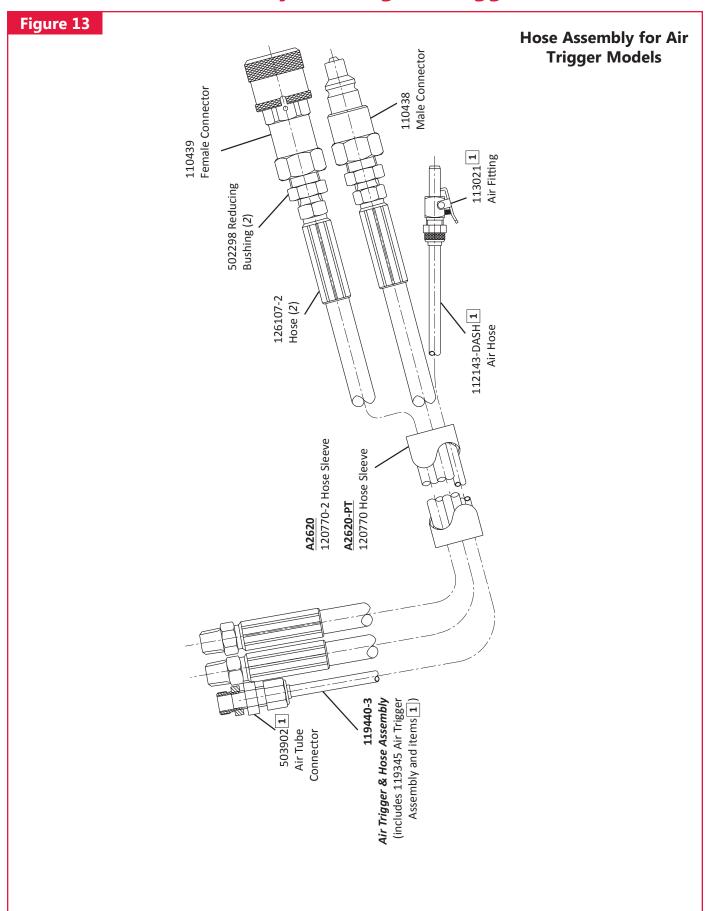


Assembly Drawing Electric Trigger





Assembly Drawing Air Trigger





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. 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 hydraulic hose coupling.

2. Tool operates in reverse.

a. Reversed hydraulic hose connections between POWERIG and tool.

3. Tool leaks hydraulic fluid.

a. Defective or worn O-rings or loose hose connections at tool.

4. Hydraulic couplers leak fluid.

a. Damaged or worn O-rings in coupler body (P/N 110440).

5. Hydraulic fluid overheats.

- Hydraulic unit not operating properly; see unit's manual.
- Unit running in reverse (918 & 918-5 only). See unit's manual.

6. Tool operates erratically and fails to properly install fastener.

- a. Low or erratic hydraulic pressure supply; air in system. See applicable instruction manual.
- b. Damaged or excessively worn piston O-ring.
- c. Excessive wear on or scoring of 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 accumulated in pull grooves of jaw segments.
- e. Excessive sheet gap.

8. Collar of fastener not completely swaged.

- a. Improper tool operation. See Trouble 6.
- b. Scored anvil in nose assembly.

9. Tool "hangs-up" on swaged collar of fastener.

- a. Improper tool operation. See Trouble 6.
- b. RETURN pressure too low.
- c. Not enough collar lubricant.
- d. Nose assembly not properly attached; see *Nose Assembly Data Sheet*.

10. Pintail of fastener fails to break.

- a. Improper tool operation. See Trouble 6.
- b. Pull grooves on fastener stripped. See Trouble 7.
- c. PULL pressure too low.

11. Nose will not release broken pintail.

a. Nose assembly incorrectly installed; see *Nose Assembly Data Sheet*.



Kits & Accessories

Huck has created product-specific **Spare Parts Service Kits** that contain various perishable parts. The types and quantities of spare parts that should be available vary with the application and tools in use. Have the appropriate kit accessible when using this tool and when performing maintenance on it.

Huck also recommends having the following **Accessories** available when preparing, using, and performing maintenance on this tool.

| Service Kit All models | - 2620KIT |
|--------------------------------------|------------|
| Assembly Tool Kits (Figures 3 and 6) | |
| 2620, 2620-15, A2620 | - 123110-7 |
| 2620-PT, 2620-PT-15, A2620-PT | - 123110-6 |
| These kits contain one (1) each of: | |

| P/N | DESCRIPTION |
|-------------|---------------------------------|
| 121694-2620 | GLYD Ring Insertion Tool |
| 123111-6 | Piston Assembly Tool |
| 123112-6 | Spacer |

ACCESSORIES

| Ejector Gland Hex Key | - 122048 |
|---|-------------|
| (models 2620, 2620-15, A2620; Figure 4) | |
| End Cap Hex Key | - 126981 |
| (all models; Figure 2) | |
| Remote Trigger | - 123381-24 |
| (electric-trigger models) | |
| Pintail Deflector | - 122766 |
| (models 2620-PT, 2620-PT-15, A2620-PT) | |
| Parker Threadmate® (4 oz. tube) | - 508517 |
| Slic-Tite® (stick) | - 503237 |
| Loctite [®] | - 503657 |
| Loctite® 271 (5 ml tube) | - 50365 |
| Loctite® 242 (50 ml bottle) | - 505016 |
| SUPER-O-LUBE® | - 505476 |
| LUBRIPLATE® 130-AA | - 502723 |







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 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.

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Waco Operations

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