Instruction Manual

7142 & 8142
Hydraulic Installation Tool

January 12, 2019
HK606
Safety Instructions

GLOSSARY OF TERMS AND SYMBOLS:

- **CE**: Product complies with requirements set forth by the relevant European directives.
- **Manual**: Read manual prior to using this equipment.
- **Eye protection**: Eye protection is required while using this equipment.
- **Hearing protection**: 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.

NOTE: WARNING Sticker and HUCK Trademark Sticker must be in place and readable at all times.
Huck 7142 and 8142 Hydraulic Installation Tools install HUCKBOLT® Fasteners. These electric-triggered, inline tools are lightweight, compact, and designed to install fasteners in limited-clearance areas.

- Use the 7142 to install 3/4 inch (-24) fasteners
- Use the 8142 to install 7/8 inch (-28) fasteners

The tools operate on 7400 psi (510 bar) PULL and 3200 psi (220 bar) RETURN pressures as supplied by Huck POWERIG® Hydraulic Units models 913, 918, and 940—or an equivalent hydraulic unit.

The nose assembly is part of the tool. Basic sub-assemblies are a Cylinder/Cap Assembly, Piston Anvil Assembly, Collet/Jaws Assembly, and an Unloading Valve (to relieve hydraulic pressure at end of PULL stroke). The tool is complete with hydraulic hoses, couplings, and an electric trigger control assembly.

### Specifications

**Figure 1**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>7142</td>
<td>4.4 in. (11.3 cm)</td>
<td>1.8 in. (4.4 cm)</td>
<td>4.5 in. (11.4 cm)</td>
<td>4.3 in. (10.9 cm)</td>
<td>3.2 in. (8.2 cm)</td>
<td>2.8 in. (7.0 cm)</td>
<td>1.5 in. (3.8 cm)</td>
</tr>
<tr>
<td>7142-20</td>
<td>1.9 in. (4.8 cm)</td>
<td>4.3 in. (11.0 cm)</td>
<td>4.1 in. (10.4 cm)</td>
<td>3.3 in. (8.3 cm)</td>
<td>3.0 in. (7.6 cm)</td>
<td>2.2 in. (5.5 cm)</td>
<td></td>
</tr>
<tr>
<td>8142</td>
<td>5.2 in. (13.2 cm)</td>
<td>2.1 in. (5.4 cm)</td>
<td>4.3 in. (11.0 cm)</td>
<td>4.1 in. (10.4 cm)</td>
<td>3.3 in. (8.3 cm)</td>
<td>3.0 in. (7.6 cm)</td>
<td>2.2 in. (5.5 cm)</td>
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</table>

**MAX OPERATING TEMP:** 125° F (51.7° C)

**MAX FLOW RATE:** 2 gpm (7.6 l/m)

**WEIGHT:**
- 7142 & 7142-20: 14.25 lbs (6.46 kg)
- 8142: 18 lbs (8.16 kg)

**STROKE:** (all models) 1.4 in. (3.5 cm)

**MAX INLET (PULL) PRESSURE:** 7400 psi (510.2 bar)

**MAX RETURN PRESSURE:** 3200 psi (220 bar)

**PULL CAPACITY:**
- 7142: 40,800 lbs @ 8400 psi
- 8142: 54,318 lbs @ 8400 psi

**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. 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.

### Principle of Operation

**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.

**PULL PRESSURE**

Hydraulic hoses and trigger control cord are connected to the Huck POWERIG® Hydraulic Unit. The trigger controls the PULL and RETURN strokes of the tool. When the trigger is pressed, hydraulic pressure is directed to the PULL side of the anvil/piston and it moves forward. Fastener installation begins.

**RETURN PRESSURE**

When the fastener installation is completed, the trigger is released. The hydraulic pressure is directed to the RETURN side of the anvil/piston, moving the piston rearward. The tool and nose assembly are pushed off the installed fastener. At the end of the PULL stroke, the piston uncovers a flat on the unloading valve. When this occurs, the PULL pressure flows back to the POWERIG tank.
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.

**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.

**CAUTION:** Apply Parker Threadmate®, Loctite® 567, or Slic-Tite® to male pipe threads, hose fitting threads, and quick connect fittings (per manufacturer’s instructions) to prevent leaks and to ease assembly.

**CONNECTION THE TOOL**
Remove the shipping caps from the ends of the pipe plug fittings. Use a Huck POWERIG® Hydraulic Unit, or equivalent, that has been suitably prepared for operation.
Check the PULL and RETURN pressures and, if required, adjust to pressures given in Specifications section of this manual.

1. **WHERE TO CONNECT**
   - **Thread Size**
   - **Final thread engagement at full make-up**
   - 1/8-27 NPTf .235 inch (.59 cm)
   - 1/4-18 NPTf .339 inch (.86 cm)
   - 3/8-18 NPTf .351 inch (.89 cm)

2. **AIR FITTINGS**
   1) Apply TEFLON® stick to male threads which do not have pre-applied sealant per manufacturer’s recommendations. (Proceed to All Fittings step 2)
   2. **HYDRAULIC FITTINGS**
   1) Apply Threadmate™ to male and female threads which do not have pre-applied sealant per manufacturer’s recommendations. (Proceed to All Fittings step 2)
   3. **ALL FITTINGS:**
   2) Tighten to finger-tight condition.
   3) Wrench tighten to 2-3 turns past finger-tight condition.

4. **Final thread engagement can be checked (optional)**
   by measuring the dimension from the flange of male fitting to the end of the thread before assembly and subtracting the distance under the flange after assembly.

**NOTICE:** Use a fine India stone to remove nicks or burrs from diameter A and leading edge to prevent damage to O-ring.

**TIP:** Use a fine India stone to remove nicks or burrs from O-ring.
Operating Instructions

**WARNINGS:**
- Wear approved eye and hearing protection.
- Ensure adequate clearance for the tool and operator’s hands before installing fasteners.
- If applicable, 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**
- 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.
- The length of the tool increases during fastener installation. Allow adequate tool and anvil clearance before installing fasteners.
- Before starting, hold trigger down for approximately one minute to be sure tool is filled with air-free hydraulic fluid.

**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 to use as a handle for carrying.

**To install a HuckBolt® Fastener:**

1. Check pin for correct grip. 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.
   **NOTE:** If the pintail does not break off, operate the trigger to recycle the tool until the pintail breaks and the tool is released from the fastener.

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.

**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.

CAUTION: Tilt tool downward so that the broken-off pintail can drop out.

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

CAUTION: If the pintail does not break off, operate the trigger to recycle the tool until the pintail breaks and the tool is released from the fastener.

Release the trigger; the tool will perform its RETURN stroke.

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**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.
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:** Turn OFF the POWERIG before removing the tool or nose assembly for maintenance or servicing.

### SYSTEM INSPECTION

- Inspect the tool and nose assembly daily for damage and wear. Before each use, verify that hoses, fittings, couplings, and trigger connections are secure, and free of leaks and damage; replace when necessary. 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 hoses, parts, and components for damage and wear; replace when necessary.
- Inspect the tool, hoses, and POWERIG during operation to detect abnormal heating, leaks, or vibration.
- 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.

### 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.

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

- 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, correct the misalignment, and start over.

### STANDARD SEALANTS, LUBRICANTS

- Assemble the Release and Ejector Kit with Loctite® adhesive sealant.
- 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 damage on rough and sharp surfaces.

Forsupplementary information, see Troubleshooting, the Disassembly and Assembly procedures, and the 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 7142KIT or 8142KIT) should be kept on hand.

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

### 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.

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.

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

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

The 7142 and 8142 series tools are labeled with important stickers on the outside of the cylinder. These stickers contain safety and pressure-settings information. These stickers must remain on the tool and be legible. If the stickers become damaged or worn, or if they are removed from the tool, they must be replaced.

Disassembly

This procedure is for complete disassembly of the tool. Disassemble only those components necessary to replace damaged rings and worn or damaged components. The retainer is removed for jaw maintenance; the collet and release assembly are removed to service the release/ejector assembly.

To disassemble the tool:

1. Disconnect the electric trigger control cord, then uncouple the hydraulic hoses.
2. Unscrew both couplers (nipple & body) from the hoses; drain the hoses into a container; discard fluid.
3. To remove the retainer, thread it out of the collet. Pull out the follower with O-rings; remove the jaws.
4. Remove the cap screw and lockwasher that holds the lock cap.
5. Using a sliding pin spanner, remove the lock cap.
6. **7142 & 7142-20**: Remove the cap screw from the split lock nut. Unscrew it from the collet.
   **8142**: Remove the setscrew from the collet lock ring. Unscrew the ring from the collet.
7. Using an arbor press and suitable stand-off, press the piston anvil and front gland out of the cylinder.
8. Remove the dump valve from the piston anvil.
9. Typically, the ejector and release cannot be disassembled by unscrewing. Hold the collet in a toolmaker’s vise, and using a hack saw, band saw, or abrasive cutting wheel, cut at a point between the flange of ejector and the end of the collet.
10. Loosen the two screws on the cord grip. Loosen the cup-point setscrew. Pull the switch from the housing.
11. Loosen the two screws at the rear of the switch to remove the switch from the electrical cord. Remove two #6-32 socket setscrews to dismantle the switch for cleaning. Remove the cord grip from the housing.
12. Remove the socket-head cap screw from the handle assembly.
13. Disassemble the electrical connector to replace or rewire the connector.

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

Before re-assembling tool:

a) Clean components in mineral spirits, or other solvent compatible with O-ring seals.

b) Clean out O-ring grooves.

c) Inspect components for scoring, excessive wear, and damage. Replace as required.

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

d) Replace all O-rings and Back-up rings. See Figures 4–6 for guidance on positioning these rings. Take care not to damage rings. Use the rings that are in the Spare Parts Service Kit (7142KIT or 8142KIT).

e) Smear Lubriplate 130AA on O-rings and mating surfaces to prevent damage to O-rings and to aid assembly.

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

To re-assemble the tool:


2. Press collet into cylinder; press anvil down over collet.

3. With flats toward the front of the tool, as shown on the components drawing, slide Dump Valve into Anvil.

4. Press cylinder gland into cylinder.

5. Install lock cap retainer screw and lockwasher.


   8142: Thread split lock ring onto collet. Tighten lock ring against cylinder. Install setscrew.

7. Place jaws in collet. Push follower and O-ring assembly into collet. Use flat bar in slots to tighten gland/retainer into collet.

8. If hydraulic hoses have been removed, tighten hoses into cylinder.

9. Screw male coupler onto PULL pressure hose (from “P” port) and female coupler onto RETURN pressure hose.

10. If necessary, rewire and assemble electrical connector. Screw cord grip into housing.

11. Assemble switch, installing two #6 setscrews. Attach cord using two screws at rear of switch.

12. Push switch into housing and tighten cup point setscrew to hold switch. Tighten two screws on cord grip.

13. Connect the hydraulic hoses to the POWERIG; then connect the electrical control cord, before testing the tool on the hydraulic unit.

Proceed to Preparation for Use.

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

WARNING: Be sure to connect the hydraulic hoses to the POWERIG® Hydraulic Unit before connecting the electrical control trigger system to it.

If not connected in this order, severe personal injury may occur.

WARNING: Make sure that the tool is fully and properly assembled—with all components included—prior to testing or operating.
Assembly Drawing 7142

See Figure 7 for Trigger, Hose, and Fitting part numbers.

Alternate Collet stack configuration using Collet Stack Kit 123100
Assembly Drawing 7142-20

Figure 5

Alternate Collet stack configuration using Collet Stack Kit 123100

See Figure 7 for Trigger, Hose, and Fitting part numbers.
Assembly Drawing 8142

See Figure 7 for Trigger, Hose, and Fitting part numbers.
Assembly Drawing Trigger, Hose, & Fittings

**Figure 7**

Partial View of Trigger/Hose & Clamp Assembly

123749-5 Hose (2)
110438 Male Coupler
110439 Female Coupler

Top View

123380 Trigger/Hose Clamp Assembly

Side View

123381 Trigger/Cord Assembly

See Top View

See Side View

7142 & 8142
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 air or electric connections.
   c. Damaged trigger assembly.
   d. Loose or faulty hydraulic hose couplings.
   e. Unloading valve not installed in tool.
2. **Tool operates in reverse or stops in back position.**
   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. See **Hydraulic Couplings**.
5. **Hydraulic fluid overheats.**
   a. Hydraulic unit not operating properly; see unit’s manual.
   b. Unloading valve incorrectly installed.
   c. POWERIG 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.
   b. Damaged or excessively worn piston/anvil O-ring.
   c. Unloading valve incorrectly installed.
   d. Excessive wear on or scoring of sliding surfaces of tool parts.
   e. Excessive wear of unloading valve.
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 HUCKBOLT® fastener not completely swaged.**
   b. Scored anvil in nose assembly.
9. **Jaw segments do not maintain proper position in collet.**
   a. Improper operation of jaw follower. Check number of follower rings.
10. **Tool “hangs-up” on swaged collar of fastener.**
    b. RETURN pressure too low.
11. **Pintail of fastener fails to break.**
    a. Improper tool operation. See Trouble 5.
    b. Pull grooves on fastener stripped. See Trouble 7.
    c. PULL pressure too low.
    d. Worn unloading valve.
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 Kits**

Service Kits **7142KIT** (7142 and 7142-20) & **8142KIT** (8142) contain perishable seals, O-rings, and Back-up rings. Keep the appropriate kit on hand.

**Collet & Release Assemblies**

**NOTE:** Release & Ejector Assembly parts are not sold separately.

Assembly **7142** (P/N 112135) includes:
- Collet
- Release & Ejector Assembly

Assembly **7142-20** (P/N 128322) includes:
- Collet
- Release & Ejector Assembly

Assembly **8142** (P/N 111869) includes:
- Collet
- Release & Ejector Assembly

**Accessories**

- Loctite 271 (5 ml tube) - 503657
- Loctite 242 (50 ml bottle) - 505016
- LUBRIPLATE® 130-AA - 502723
- Parker Threadmate® (4 oz. tube) - 508517
- Slic-Tite® (stick) - 503237
- SUPER-O-LUBE® - 505476

**Release-and-Ejector Tool, P/N 124751**

This tool is for disassembling and assembling -20 (5/8”) and -24 (3/4”) release-and-ejector assemblies for the 99-5000 series. (The tool is also used with the 582/682 and 6304 through 8304 tools.) The locking taper locks into the taper of the release. This prevents the release from turning while the ejector is unscrewed.

**To disassemble:**

1. Lock the tool in a vise as shown.
2. Place the collet assembly over the taper. Use a soft mallet (or hammer) to tap the assembly firmly onto the taper to ensure that the tapers are locked together.
3. Use an open-end wrench (on the ejector flats) to unscrew the ejector from the release.
4. Lift the collet off the release. Use a soft mallet to tap the release from the tool.

**NOTE:** Assemble in reverse order.

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

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

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

**SUPER-O-LUBE** is a registered trademark of Parker Hannifin Corp.

**LUBRIPLATE** is a registered trademark of Fiske Brothers Refining Co.
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 Tooling Support Locations

**INDUSTRIAL NORTH AMERICA**

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<thead>
<tr>
<th>Location</th>
<th>Address</th>
<th>Phone Number</th>
<th>Fax Number</th>
<th>Email Address</th>
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<tbody>
<tr>
<td>Kingston Operations</td>
<td>1 Corporate Drive, Kingston, NY 12401</td>
<td>+1-800-278-4825</td>
<td>+1-845-334-7333</td>
<td><a href="mailto:afs.sales.kingston@arconic.com">afs.sales.kingston@arconic.com</a></td>
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<td>+1-800-798-4825</td>
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**INDUSTRIAL GLOBAL**

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<tr>
<td>Kolkata Operations</td>
<td>Unit No. 28, 2nd Floor, 55/1, Chowringhee Rd, Kolkata 700071, West Bengal, India</td>
<td>+91-33-40699170</td>
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<td>+44-(0)-1952-207701</td>
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</tr>
<tr>
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<td>Rodovia Anhanguera, s/n, KM 17, Parque São Domingos - Complexo Anhanguera - Galpão 1 Seção III (Módulo III) Box 11, CEP 05112-000, São Paulo – SP Brazil</td>
<td>+55-11-3583-7061</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tokyo Operations (Japan and Korea)</td>
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<td>+81-3-3539-6594</td>
<td>+81-3-3539-6585</td>
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**AEROSPACE NORTH AMERICA**

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<tr>
<td>Aichach Operations</td>
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<td>+33-1-34-33-98-00</td>
<td>+33-1-34-33-97-77</td>
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<tr>
<td>Hong Kong Operations</td>
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<td>+852-2864-2012</td>
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