Supplemental Instruction Manual*

940SV
940 Powerig® Hydraulic Unit with Selector Valve 129174

*This instruction manual is intended for use in conjunction with the 940 Powerig® Hydraulic Unit instruction manual (HK496).
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Safety Instructions

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. Repairman and Operator must read manual prior to using equipment. Warning and Caution stickers/labels supplied with equipment must be understood before connecting equipment to any primary power supply. As applicable, each of the sections in this manual have specific safety and other information.

4. Read MSDS Specifications before servicing the tool. MSDS Specifications are available from the product manufacturer or your Huck representative.

5. When repairing or operating Huck installation equipment, always wear approved eye protection. Where applicable, refer to ANSI Z87.1 - 2003.

6. Only genuine Huck parts shall be used for replacements or spares. Use of any other parts can result in tooling damage or personal injury.

7. If a part affixed with warning labels is replaced, or labels are missing or damaged, the end user is responsible for replacement. Refer to assembly drawing and parts list for replacement part number and proper placement.

8. Disconnect primary power source before performing maintenance on Huck equipment or changing Nose Assembly.

9. Tools and hoses should be inspected for leaks at the beginning of each shift/day. If any equipment shows signs of damage, wear, or leakage, do not connect it to the primary power supply.

10. Mounting hardware should be checked at the beginning of each shift/day.

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

12. Release tool trigger if power supply is interrupted.

13. Tools are not to be used in an explosive environment unless specifically designed to do so.

14. Never remove any safety guards or pintail deflectors.

15. Where applicable, ensure deflector or pintail collector is installed and operating prior to use.

16. Never install a fastener in free air. Personal injury from fastener ejecting may occur.

17. Where applicable, always clear spent pintail out of nose assembly before installing the next fastener.

18. There is possibility of forcible ejection of pintails or spent mandrels from front of tool.

19. 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.

20. Unsuitable postures may not allow counteracting of normal expected movement of tool.

21. 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 in preventing an accident which may cause severe personal injury.

22. Never place hands between nose assembly and work piece. Keep hands clear from front of tool.

23. There is a risk of crushing if tool is cycled without Nose Assembly installed.

24. Tools with ejector rods should never be cycled with out nose assembly installed.

25. When two piece lock bolts are being used always make sure the collar orientation is correct. See fastener data sheet for correct positioning.

26. Tool is only to be used as stated in this manual. Any other use is prohibited.

27. There is a risk of whipping compressed air hose if tool is pneumatic or pneumatic.

28. Release the trigger in case of failure of air supply or hydraulic supply.

29. Use only fluids or lubricants recommended.

30. Disposal instruction: Disassemble and recycle steel, aluminum and plastic parts, and drain and dispose of hydraulic fluid in accordance with local lawful and safe practices.

31. If tool is fixed to a suspension device, ensure that the device is secure prior to operating the tool.
Operating Instructions

The selector valve is used to select any of four preset PULL pressures. It consists of a manifold and a rotating barrel with four pressure-relief valves. The relief valves are independently adjustable, and are labeled 1, 2, 3, and 4.

NOTE: The relief valve number that is aligned with the arrow on the marking plate on the front of the barrel, coincides with the opposite adjustment port that is accessible at the bottom of the barrel. (Figure 1)

Setting Individual Pressures
Some selector valves ship with preset individual PULL pressures. The working plates on these units will be marked with the preset pressures. If your selector valve is not preset, or if you have to calibrate or change preset pressures, use the following procedure for any of the selector valve positions.

(Refer to Figure 2, Partial Section A-A)

NOTE: This procedure requires the use of a T-gauge, HUCK p/n T-124833CE, and auxiliary trigger, HUCK p/n 113056. See operating instructions for the T-gauge.

1. With the Powerig® OFF, turn the selector valve to the position needing adjustment.
2. Connect the T-gauge to the Powerig quick-disconnect couplings.
3. Open the valve on the T-gauge.
4. Loosen the jam nut on the setscrew in the rear hole of the barrel.
5. Plug the auxiliary trigger into the 24V AC outlet on the Powerig, and press and hold the auxiliary trigger button to start and maintain the Powerig in PULL mode.
6. Slowly close the valve on the T-gauge.
7. When the valve on the T-gauge is closed, read the PULL pressure and, if necessary, adjust the pressure by turning the Upper Adjustment setscrew on the bottom of the rear hole of the barrel.
   NOTE: Turn the setscrew clockwise (looking from the bottom) to increase the PULL pressure; turn it counterclockwise to decrease the pressure.
8. When the correct pressure is set, release the trigger, and tighten the jam nut on the rear to lock in the adjustment.
9. Verify the PULL pressure by following steps a through d:
   a. open the valve on the T-gauge, then
   b. press and hold the auxiliary trigger, then
   c. close the valve on the T-gauge, then
   d. read the PULL pressure.
10. Repeat the above procedures for all of the selector positions which need adjusting.

CAUTION: Do not rotate the barrel when it is under pressure. Also, make sure the Powerig is OFF before rotating the barrel.

When the barrel is not under pressure, rotate it to select a position; it will click into place. The selected position is indicated by the arrow on the marking plate.

After the selector valve has been set for the required PULL pressures, further adjustments should not be necessary, other than selecting the correct position for the tool being used.
Components Drawing

Figure 2

- 3/8 NPTF
- 1/4 NPTF
- 129139 End Cap
- 129172 Manifold
- 502513 Ball (4)
- 508403 Spring (4)
- 508408 Screw (4)
- 508410 Setscrew (4)
- 129134 Barrel
- 129173 Marking Plate
- 508770 Jam Nut (4)
- 508400 Screw Torque to 32-34 ft-lb
- 129143 Gland Bushing
- 201040 Polyseal
- 129142 Poppet Check
- 129141 Poppet
- 129136 Seat
- 508406 O-ring
- 508407 Back-up Ring
- 129137 Plug
- 129135 Seat
- 508400 Screw
- 129139 Plug
- 129134 Barrel
- 129138 Spring

NOTES:
1. USE LUBRIPASTE ALL SEALS PRIOR TO ASSEMBLY
2. TIGHTEN SHOULDER SCREW TO 32-34 FT-LB.
3. MAXIMUM PRESSURE 8800 PSI.
4. MAXIMUM RETURN PRESSURE 7000 PSI.
5. MAXIMUM OPERATIONAL FLOW 0.33 GPM.
6. THIS UNIT ASSEMBLES TO 940 POWERIG USING 2 CAP SCREWS
   AND 2 CONNECTING GLANDS FROM THE 940 DIG, THIS UNIT REPLACES
   THE BLOCK ON WHICH THE PRESSURE SWITCH AND QUICK-DISCONNECTS
   ARE SCREWED INTO.

PARTIAL SECTION A-A
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 Powerig® hydraulic power sources manufactured after December 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.

Arconic Fastening Systems Tooling Support Locations

**INDUSTRIAL NORTH AMERICA**

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<tr>
<th>Kingston Operations</th>
<th>Tracy Operations (IDG)</th>
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<td><a href="http://www.afs-simivalley.com">www.afs-simivalley.com</a></td>
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Huck provides technical assistance regarding the use and application of Huck fasteners and tooling. **NOTICE:** The information contained in this publication is only for general guidance with 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.