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 the 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 pinail 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 possibility of forcible ejection of pintails or spent mandrels from front of tool.
16. Whipping hoses can cause severe injury, always check for damaged or loose air lines as a handle or to bend or pry the tool. The grade of air under pressure can cause severe injury.
17. Never carry an air tool by the hose.
18. Whipping hoses can cause severe injury, always check for damaged or loose air lines as a handle or to bend or pry the tool. The grade of air under pressure can cause severe injury.
19. If the assembly power tool is fixed to a suspension device, make sure that fixation is secure.
20. Beware of the risk of crushing or pinching if nose assembly is not fitted.

II. PROJECTILE HAZARDS:
1. Risk of whipping compressed air hose if tool is pneumatic 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 pinail 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 assembly is not fitted.

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.

IX. Pneumatic / pneudraulic tool safety instructions:
1. Air under pressure can cause severe injury.
2. Always shut off air supply, drain hose of air pressure and disconnect tool from air supply when not in use, before changing accessories or when making repairs.
3. Never direct air at yourself or anyone else.
4. Whipping hoses can cause severe injury, always check for damaged or loose hoses and fittings.
5. Cold air should be directed away from hands.
6. Whenever universal twist couplings (claw couplings) are used, lock pins shall be installed and whip-check safety cables shall be used to safeguard against possible hose to hose or hose to tool connection failure.
7. Do not exceed normal maximum air pressure stated on tool.
8. Never carry an air tool by the hose.
Model HK150-S456 Installation Kit consists of a manually operated, hydraulically powered installation tool and nose assembly designed to install UNIMATIC (NAS 1919S and NAS 1921S) and Commercial Single Action (SC-SMLS) Blind Rivets. This kit is designed to install a few fasteners for emergency repair where compressed air is not available. Maximum grip for all diameters is 0.08.

A fastener is installed by squeezing pump handles until the pintail breaks. A release button on the under side of the tool allows tool piston and nose assembly to return, ready to install another fastener.

The tool has a rated pull pressure of 3,500 lbs (15.6 kN). One-handed operation gives access to tight areas.

The hydraulic system is sealed, oil cannot be added. If the HK-150 should become damaged and leaks oil from the tool, it should be returned to an authorized service center.

### Tool Specifications

Driving Anvils and Unitized Jaws are included to install fastener diameters and materials as shown in the table below.

<table>
<thead>
<tr>
<th>Nominal Diameter</th>
<th>Driving Anvils</th>
<th>Unitized™ Jaws</th>
<th>Materials</th>
<th>Unimatic</th>
<th>CSMLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8 (3.17mm)</td>
<td>111455</td>
<td>113220</td>
<td>Aluminum, Monel, A286</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>5/32 (3.96mm)</td>
<td>111456</td>
<td></td>
<td>Aluminum, Monel, A286</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>3/16 (4.76mm)</td>
<td>111457</td>
<td>Aluminum</td>
<td>Aluminum</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CAUTION:** The hydraulic system is sealed; hydraulic fluid cannot be added by the user. If the tool is damaged and/or leaks fluid, it must be returned to an authorized dealer for service.

**Pull Force:**
3,500 lbs. (15.6 kN)

**Weight:**
1.70 lbs. (.77 kg)

**Power Source:**
Manual

**Hydraulic Fluid:**
#5 Spindle Oil or equivalent
Operating Instructions

**WARNINGs:**
- Read full manual before using tool.
- A half-hour training session with qualified personnel is recommended before using Huck equipment.
- Tool piston must be returned to the starting position.

**CAUTIONs:**
- Be sure of adequate clearance for Operator's hands before proceeding with fastener installation.
- Tool shall not be operated if directed toward the operator or any person.
- Beware of ejection of fastener; turn head in each operation to avoid exposure.

This tool installs fasteners by a pull and release system. Pumping the handles will actuate tool and install fastener. Tool must also be actuated when changing noses. After installing fastener or changing nose assembly, tool piston must be returned to the starting position. To do this: Point tool downward, squeeze handles, and push in releasing button. See below for detailed instructions.

**Nose Assembly Installation:**

1. Select the proper driving anvil.
2. Unscrew nose from tool.
3. Actuate tool until piston rod is fully extended. There should be a gap of approximately 7/8 inches (22.2mm) between reservoir shield and tool body. See illustration.
4. Release piston from forward position to rear starting position by **simultaneously squeezing the handles and pressing releasing button.**

**Fastener Installation:**

1. Insert pintail of fastener in to the nose assembly.
2. Position fastener into work piece to be fastened.
3. Hold the tool steady and 90° to structure.
4. Pump handles until fastener pintail is broken. (See specific steps for operation and maintenance.)
Tool Maintenance

1. Disassemble and clean nose components periodically or if the pintails do not drop out freely. Use a pick to clean the jaw grooves. **Do not let jaws soak in solvent** as urethane softens. Air dry components immediately.

2. **Do not use tool as a lever** if rivet pintail is jammed while regripping. Instead, squeeze handle and press the releasing button while pushing tool nose against work piece, which allows the jaws to get a deeper grip.

3. Before operating tool, make sure that all nose parts and adapter parts have been screwed in hand tight.

4. The tool has a 5/8 inches (15.9mm) work travel, the completion of which is indicated by a solid stop after approximately 12 pumps (one cycle). **Do not force beyond this point** to insure long life of tool.

5. Tool should not be used at temperatures below 35°F (1.7°C) unless it is first brought to room temperature and cycled several times. Normal use of the tool after warming should keep it warm enough for proper operation.

6. Frequently check that nose components do not vibrate loose during operation.

7. **Do not rock tool** when pumping it. This may cause pintails to prematurely break.

8. Large fasteners can be set one-handed in tight areas by using short pump strokes.

Data Sheet 122587 Nose/Tool Adapter

<table>
<thead>
<tr>
<th>NOSE ASSEMBLY</th>
<th>PRODUCT REVISION:</th>
<th>REVISED:</th>
</tr>
</thead>
<tbody>
<tr>
<td>122587</td>
<td>C</td>
<td>3/11/03</td>
</tr>
</tbody>
</table>

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Data Sheet 99-S456 Nose Assembly
Nose Assembly Maintenance

All parts should be inspected for wear and damage and replaced as necessary. Parts must be clean. Wash in mineral spirits and use a small pick to clean the grooves in the jaws. Part numbers etched on parts must match part numbers shown on other side of this sheet.

1. Use HK150 Installation Tool that has been properly prepared for operation per applicable Instruction Manual.

2. Unscrew Driving Anvil (1), (2) or (3) from Anvil Holder (4), with wrench, when changing fastener size or if driving anvil is worn or damaged.

3. Slide UNITIZED™ Jaws (6) into Collet (5).

4. Screw Drawbolt (7) into assembled collet. Tighten collet onto drawbolt threads with Collet Wrench, P/N 502912 (83659), using bar in drawbolt slot. Tighten collet wrench-tight.

5. Screw Spring Plunger (8) into collet until end of plunger body is slightly below edge of hole.


7. Slide Holder (4) over collet and drawbolt assembly. Screw holder in until it bottoms. Back holder out one-half turn, or less, until holder slot and drawbolt slot are aligned.

8. Install a fastener in test plate of proper thickness with proper size hole. Inspect installed fastener.

NOTES:

1. Disassemble and clean components periodically. Use pick to clean jaw grooves. Wash components in mineral spirits or isopropyl alcohol only. Do not let urethane jaw assemblies soak and do not use solvents that will cause urethane to swell. Dry components immediately after cleaning.

2. Spare parts recommended: UNITIZED jaws, driving anvils and spring plunger.

3. Service items recommended: Brush .3132 diameter Nylon bristles, part number 105805; Collet Wrench, part number 502912 (83659); Adjustable Wrench, part number 503044.

4. All part numbers shown are available from Huck Manufacturing Company, Installation Equipment Division.
## Troubleshooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
</table>
| 1.) Rivet pintail is stuck in tool | **First Step:**
Lightly tap nose against a hard surface while after breaking squeezing HANDLES and pressing down the RELEASING BUTTON with tool pointing downward Pintail should then fall out, see fig. 4. *If that does not work try Second Step.*

**Second Step:** *(Use this only if first step does not work)*
Remove NOSE TUBE and JAW HOLDER (for help see figure 5) take out pintail and reassemble. |
| 2.) Tool will not reverse | Push on the handles until you feel a slight give, then press the RELEASING BUTTON and continue pushing on the handles, the tool should then reverse. If this does not work Remove NOSE TUBE and inspect for any foreign matter that may have cause the jamming between JAW HOLDER and the inside of NOSE TUBE. |
| 3.) Fastener does not pull rivet | The JAW HOLDER is loose. Remove the NOSE TUBE and tighten the JAW HOLDER by turning it counterclockwise (see (See Three Piece Jaw Installation and Removal)). |
| 4.) The rivet does not fit into the tool | The rivet is to large, or the wrong NOSE PIECE is on the tool. To find the correct NOSE PIECE (see chart on page 11). If you do not have the needed NOSE PIECE, See next page for how to order the correct one. |
| 5.) Premature breaking | See solution for problem 4. Also verify the grip of the fastener and make sure you are not rocking the tool during installation. |
| 6.) Jamming of tool | See solution for problem 4. Also verify that you have the proper jaw engagement and that all parts are hand tight and that the jaws are cleaned and properly assembled in jaw pusher (See Three Piece Jaw Installation and Removal) |
| 7.) Rivet not installed properly | See solution for problem 4. Also verify jaw grip and that the appropriate fastener is being used. |
| 8.) Jaws breaking | See solution for problem 4. Check to see all parts are properly assembled and hand tight. |
| 9.) Damaged jaw pusher | See solution for problem 4. Check to see if all parts are properly assembled. |
90 Day Warranty on HK150-S456

All Alcoa Fastening Systems tools and parts have been carefully tested and checked at the factory and are guaranteed to be free from defects in material and workmanship, subject to the following conditions.

A.) The tools manufactured by Alcoa Fastening Systems will be repaired free of charge or replaced at our discretion within 90 days of sale to the first user if, upon examination at our service center, we find a defect in material or workmanship in the hydraulic system.

B.) The tool must be returned intact and prepaid to one of our service centers. Proof of date of sale must accompany any tool returned. This warranty will be void if repairs have been made or attempted by others, or if the tool has been subject to abuse, neglect, accident or improper application.

C.) The foregoing obligation is Alcoa Fastening Systems’ sole liability under this or any implied warranty, and no one is authorized to vary its terms or conditions.

D.) If you have any problems please contact Customer Service at the factory: (800) 278-4825.

Before returning tools to the service center, please use the operation and maintenance tips on page 9 of this manual. If the tool continues to malfunction call the Customer Technical Support at Alcoa Fastening Systems (888) 482-5435 for additional assistance.

Authorized Tool Service Centers:

Central Fastening Systems
801 McCann Road
Rogers, AR 72758
479 936 7577
888 370 1894 (Toll Free)
479 636 2119 (Fax)

Professional Tool Center
2236 S.116th Street
West Allis, WI  53227
414 321 1234
414 321 2524 (Fax)

FSI
1206 East Mac Arthur St
Sonoma, CA  95476
707 935 1170
800 344 2394 (Toll Free)
707 935 1828 (Fax)

Universal Repair Shop
1611 Boylston Avenue
Seattle, WA  98122
206 322 2726
206 322 2126 (Fax)

J.O. King
1265 Alpharetta Road
Alpharetta, GA  30201
770 751 1875
800 241 2681 (Toll Free)
770 442 0950 (Fax)

Cooper Aviation Limited
Station Field Industrial Estate
Kidlington, Oxford  OX54 1JD
United Kingdom
01865 375 111
Limited Warranties

Limited Lifetime Warranty on BobTail® Tools:

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

Two Year Limited Warranty on Installation Tools:

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

90 Day Limited Warranty on Nose Assemblies and Accessories:

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

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

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

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

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

Huck Installation Equipment:

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

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

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

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

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

Outside USA and Canada
Contact your nearest Huck International location (see reverse).

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

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**Kingston Operations**
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Kingston, NY 12401
800-278-4825
845-331-7300
FAX: 845-334-7333

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

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

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

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FAX: 33-1-34-66-0600

**FAR EAST**

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


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