

**Alcoa
Fastening
Systems**



INSTRUCTION MANUAL

2015 SERIES

PNEUDRAULIC INSTALLATION TOOLS

ALL MODELS



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



EC Declaration of Conformity

Manufacturer:

Huck International, LLC, Industrial Products Group, 1 Corporate Drive, Kingston, NY, 12401, USA

Description of Machinery:

Models 2012, 2013, 2014, and 2015 series pneudraulic installation tools and specials based on their designs (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 Alcoa Fastening Systems
Kingston, New York, USA

Date: 27/02/2013


Declared dual number noise emission values in accordance with ISO 4871

A weighted sound power level, LWA: **80** dB (reference 1 pW)
Uncertainty, KWA: 3 dB

A weighted emission sound pressure level at the work station, LpA: **69** dB
(reference 20 μ Pa)
Uncertainty, KpA: 3 dB

C-weighted peak emission sound pressure level, LpC, peak: **106** dB
(reference 20 μ Pa)
Uncertainty, KpC: 3 dB

Values determined according to noise test code ISO 15744, using as basic standards ISO 3744 and ISO 11203. 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: **1.573** m/s²

Uncertainty, K: **.394** m/s²

Values measured and determined according to ISO 28662-1, ISO 5349-2, and EN 1033

Test data to support the above information is on file at Alcoa Fastening Systems, Industrial Products Group, Kingston Operations, Kingston, NY, USA.



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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.



WARNINGS: Must be understood to avoid severe personal injury.



CAUTIONS: show conditions that will damage equipment and or structure.

Notes: are reminders of required procedures.

Bold, Italic type and underlining: emphasizes a specific instruction.

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 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 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.

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 whipcheck safety cables shall be used to safeguard against possible hose to hose or hose to tool connection failure.
7. Do not exceed maximum air pressure stated on tool.
8. Never carry an air tool by the hose.



DESCRIPTION

The Model 2015 series tools are lightweight, high speed production tools designed to install 3/32 and 1/4 nail type blind fasteners. An integral nose assembly increases reliability and simplifies use of this tool.

The 2015V, with vacuum boost selector switch ON, has two functions:

1. With tool in any position, vacuum holds fastener firmly in nose assembly.
2. Vacuum expels broken pintail into pintail collector.

Pulling action of the pull piston is provided by a pneumatic-hydraulic (pneudraulic) intensifier system powered by 90-100 psi air pressure. The air inlet is equipped with a connector with 1/4-18 female pipe threads to accept your air hose or quick connect fitting. The piston return stroke is spring actuated.

PRINCIPLE OF OPERATION

When tool is connected to proper air supply, air pressure holds **throttle valve** in the up position. Air pressure is directed to the top of the **air piston** keeping it down. Depressing **trigger** moves **throttle valve** to the down position. Air is directed to the bottom of the **air piston** moving it upward, air from above the **air piston** is exhausted downward thru the **throttle valve** and exits the muffler at the bottom of the tool. The rod of the **air piston** is hydraulic. Pressurized fluid is forced into the **cylinder head** moving the **pull piston** rearward. The **nose**, which is connected to the **pull piston**, will install the fastener during the rearward piston movement.

When fastener installation is completed, and upon **trigger** release, air pressure causes the **throttle valve** to return to its up position. Air flow reverses. The **air piston** and rod move down to their starting position, exhausting air from below the **air piston** through the muffler at the bottom of the tool. As the rod moves downward and hydraulic pressure is released from the **pull piston**, a **return spring** behind the **pull piston** returns it to its starting position.

Main Components

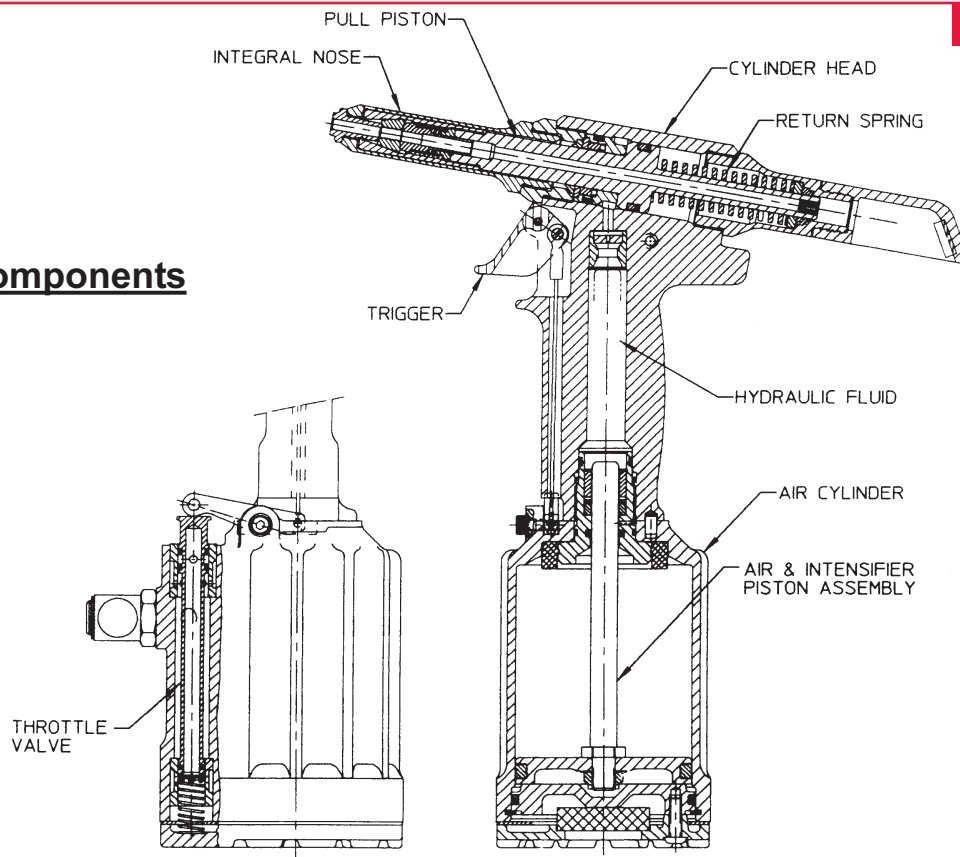


Figure 1



SPECIFICATIONS

POWER SOURCE:

90psi MAX shop air

HYDRAULIC FLUID:

ATF meeting DEXRON III, DEXRON IV, MERCON, Allison C-4 or equivalent specifications. Fire resistant hydraulic fluid may also be used, and is required to comply with OSHA regulation 1926.302 paragraph (d): "the fluid used in hydraulic power tools shall be fire resistant fluid approved under schedule 30 of the US Bureau of Mines, Department of Interior, and shall retain its operating characteristics at the most extreme temperatures to which it will be exposed."

MAX OPERATING TEMP: 125°F (51.7°C)

MAX FLOW RATE: 4.3 scfm (121.76 l/m)

MAX INLET PRESSURE: 90 psi (6.2 bar)

MIN PULL CAPACITY: 2670 lbs (11.88 kN) @ 90 psi

MIN STROKE: .683 inches (1.73 cm)

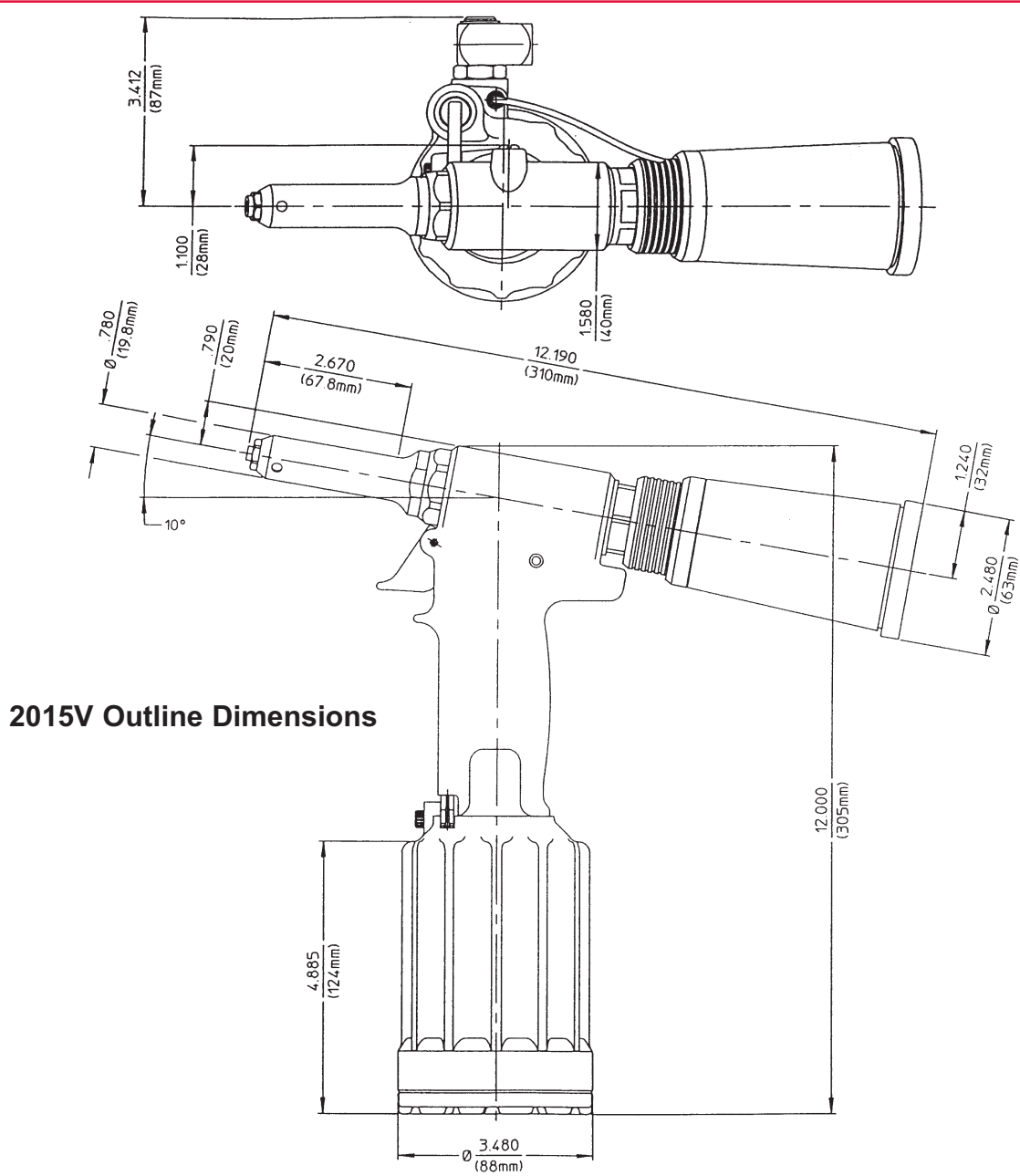
SPEED/CYCLES: 30 per minute

WEIGHT:

2015: 4.9 lbs (2.22 kg)

2015B & 5: 5.2 lbs (2.36 kg)

Figure 2

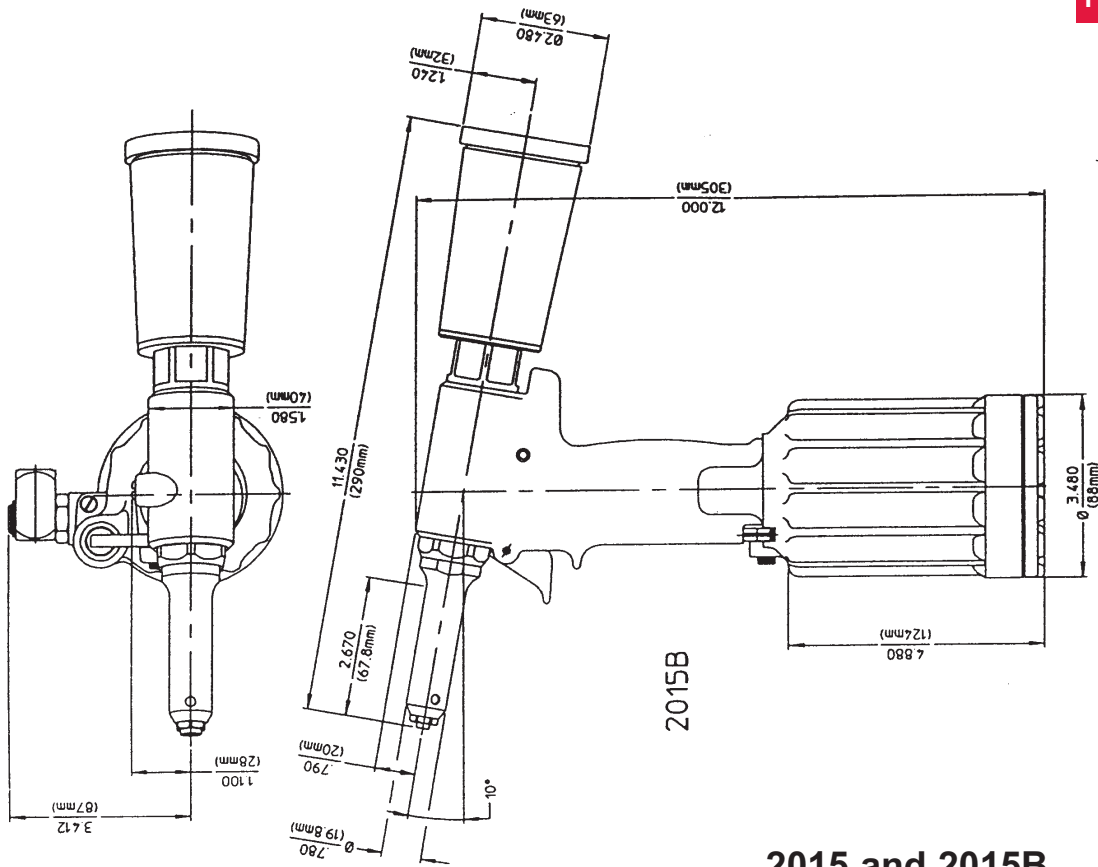


2015V Outline Dimensions



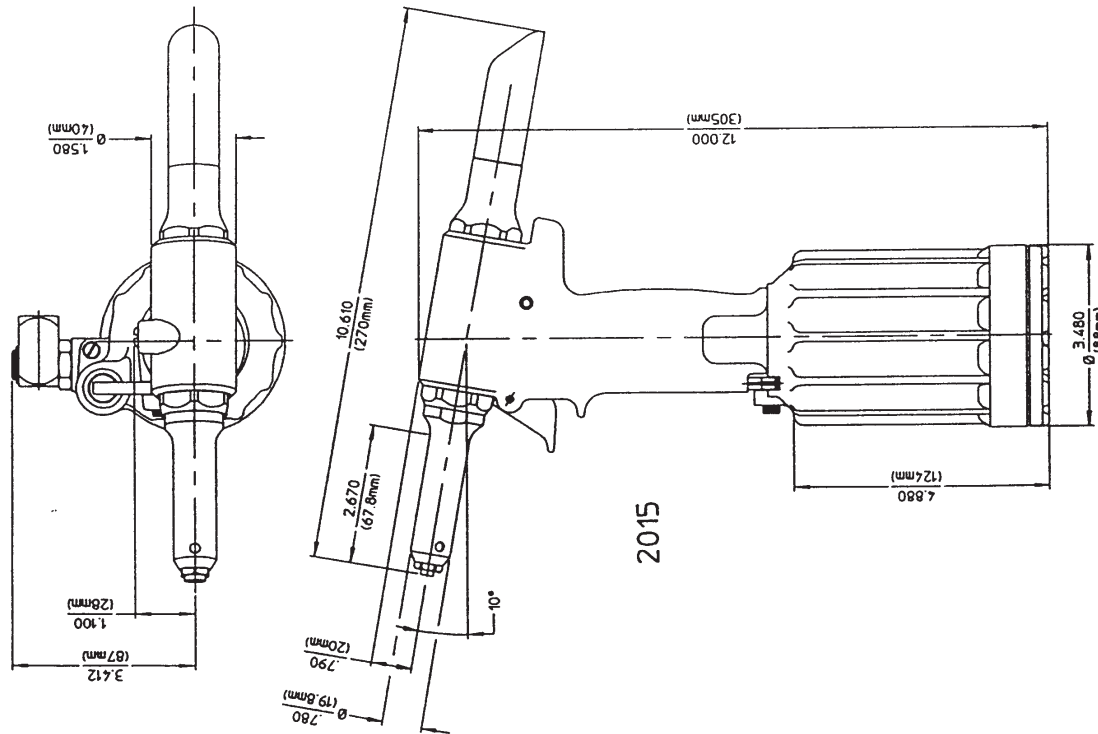
SPECIFICATIONS (continued)

Figure 2.1



2015B

**2015 and 2015B
Outline Dimensions**



2015



PREPARATION FOR USE



WARNING: *As applicable, do not use without deflectors or pintail bottles.* If deflectors are removed or damaged, separated pintails may eject forcibly from rear of tool.

Unshielded eyes, especially, may be permanently injured. Other severe injuries can be caused by flying pintails. If there is any chance of a projectile-like ejection, always point rear of tool in a safe direction, or be sure there is some structure that will stop ejecting pintails.



WARNING: To avoid pinch points, be sure there is adequate clearance for tool and operator's hands before proceeding. Tool moving toward structure may crush hands or fingers between tool and structure if clearance is limited.

The 2015 is shipped with a plastic plug in the air inlet connector. Connector has 1/4-18 female pipe threads to accept the hose fitting. Quick connect fittings and 1/4 inch inside diameter air hose are recommended. An air supply of 90-100 psi, capable of 2.9 CFM, must be available. Air supply should be equipped with a filter-regulator-lubricator unit.

1. Remove plastic plug from air inlet connector and drop in a few drops of Automatic Transmission Fluid, DEXRON III, or equivalent.

2. Screw quick-connect fitting into air inlet connector.
3. Set air pressure on regulator to 90-100 psi.
4. Attach optional air hose, part number 115436 (supplied with tool), to air inlet connector.
5. Connect air hose to tool.
6. Cycle tool a few times by depressing and releasing trigger.
7. Disconnect air hose from tool.
8. Remove retaining nut.
9. Select correct nose assembly from the available SELECTION CHARTS or speak with your Huck representative.

NOTE: Quick disconnect fittings and air hoses are not available from Huck.

OPERATING INSTRUCTIONS

NOTE: 2015V is sold with the ribbed vacuum control ON/OFF slide in the forward or OFF position. See FIGURE 6 for slides location which is shown in the ON (rear) position. While tool is not being used, move slide to the OFF (forward) position to prevent unnecessary air loss.

Blind Fastener Installation:

The fastener may be placed either in the work hole or in the end of the nose assembly. In either case, tool and nose assembly must be held against work and at right angles to it. Depress trigger and hold it depressed until fastener is installed and pintail breaks. Release trigger.



WARNING: Inspect tool for damage before each use. Do not operate if damaged as severe personal injury may occur.

Broken pintails eject from deflector with speed and force.

Be sure pintail deflector is directed safely away front operator or the personnel in the area. Ejecting pintails striking anyone may cause serious personal injury.

For Models 2015B and 2015V, pintail bottles must always be used. Replace damaged pintail deflectors and bottles as serious personal injury may occur from pintails when using these defective parts.



MAINTENANCE

Good Service Practices

Service Kits, 2015KIT and 2015VKIT, include perishable parts and should be on hand at all times. Other components, as experience dictates, should also be kept for replacements. **ALWAYS REPLACE O-RINGS AND BACK-UP RINGS WHEN TOOL IS DISASSEMBLED FOR ANY REASON.**

The efficiency and life of any tool depends upon proper maintenance and good service practices. Tool should be serviced by personnel who are thoroughly familiar with it and how it operates.

A clean, well-lighted area should be available for servicing the tool. Special care must be taken to prevent contamination of pneumatic and hydraulic systems. Proper hand tools and soft materials to protect tools must be available. Use only standard hand tools, brass drift and wood block. Vise with soft jaws should be available. Unsuitable hand tools will cause installation tool damage. All parts must be handled carefully and examined for damage and/or wear. Components should be disassembled and assembled in a straight line without bending, cocking or undue force.

Disassembly and assembly procedures outlined in this manual should be followed. If Huck recommended procedures are not followed, the tool may be damaged.

Rub SLIC-TITE TEFLON* thread compound, or equivalent, on pipe plug threads and quic connect fitting.

CAUTION: Do not use TEFLON tape on pipe threads. Pipe threads may cause tape to shred resulting in tool malfunction. (SLIC-TITE is avail-

able in stick form, as 503237, from Huck.)

Smear LUBRIPLATE 130AA*, or equivalent lubricant, on O-rings and mating surfaces to aid assembly and to prevent damage to O-rings. (LUBRIPLATE 130AA is available in a tube, as 502723, from Huck.)

Use VIBRA-TITE* or equivalent on Gland Housing Assy, 116134-1, threads. Torque to 75-80 ft. lbs.

Apply LOCKTITE* #271 Adhesive/sealant to Locknut, 505420. (LOCKTITE is available from Huck, in a tube, as 503657.) Torque to 25-30 ft. lbs.

- * TEFLON is a trademark of E.I. DuPont de Nemours & Co.
- * LOCTITE is a trademark of Loctite Corp.
- * TRUARC is a trademark of Waldes Kohinoor, Inc.
- * VIBRA-TITE is a trademark of the Oakland Corporation.
- * LUBRIPLATE is a trademark of Fiske Brothers Refining Co.

Standard Tools Available from Huck

1/8 hex key 502294 used on button head screw 504127.

5/32 hex key 502295 used on socket cap screw 123756.

(0400) TRUARC pliers 502866 used on (N5100-I00) retaining ring.

PREVENTIVE MAINTENANCE

Tool Maintenance

The 2013 series require a minimum amount of maintenance. Regular inspection and correction of minor problems will keep the tool operating efficiently and prevent downtime.

Using filter-regulator-lubricator unit is highly recommended for safe and reliable tool operation. If a filter-regulator-lubricator unit is not being used in the air supply: (1) remove hose fitting from air inlet connector and drop in a few drops of automatic transmission fluid or light oil (2) blow out air line to remove dirt and water before connecting air hose to tool. At regular intervals, depending upon use, replace all seals in tool. Service Kits should be kept on hand. Inspect both hydraulic pistons, and their piston rods for scored surfaces, excessive wear or damage, and replace as necessary.

Always replace seals and back-up rings when tool is disassembled for any reason to assure proper sealing and tool function.

Nose Assembly Maintenance



CAUTION: Damaged jaw teeth, or debris packed between teeth, will result in failure to install fastener or improperly installed fastener.

Frequently cleaning the nose assembly is recommended. Remove nose assembly from tool and disassemble. See DISASSEMBLY Check components for any signs of damage, e.g. cracks, scores and spring damage. Check gripper teeth for damage. Remove any debris packed between teeth with a sharp pointed 'pick'. Periodically dip nose, while cycling tool, in mineral spirits, isopropyl alcohol or other suitable solvent, to clean jaws and wash away metal chips and dirt.



DISASSEMBLY



WARNING: Air hose must be disconnected before:

- Removing or attaching nose assembly.
- Cleaning tool and/or nose assembly.
- Replacing worn or damaged tool components.

Tool may be activated if not disconnected and cylinder is under pressure. Fingers may be severely pinched/lacerated. Other severe personal injury may result.

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

1. Disconnect tool from air source.
2. Unscrew Retaining Nut and remove nose assembly.
3. Unscrew Bleed Plug (*Figure 9*), including O-ring, from top of Handle/head. Turn tool over and allow fluid to drain into container. Tool may be cycled to clear tool more completely. Discard fluid.
4. Pull Pintail Deflector off End Cap.
5. Remove Throttle Arm Pivot Screw and lift out throttle arm. Disconnect ball end of Cable Assembly from throttle arm. (*Figures 7 & 8*)
6. Hold tool in vise with bottom up. Remove Button Head Screws (3) with 1/8 hex key. Remove End Cap and Gasket. Remove Muffler from end cap. Remove Spring from Throttle Valve.
7. To loosen Cylinder Head Retaining Ring in Cylinder, tap Cylinder Head with mallet. Remove Retaining Ring.
8. **NOTE:** Screw Button Head Screws back into Cylinder Head. Carefully pull or pry on screws to remove head.
9. To remove air piston from cylinder, pull on Locknut with vise-grip pliers. **Note:** Air piston and rod should not be disassembled. If lock nut loosens, apply LOCTITE #271 and tighten to 25-30 ft. lbs.



CAUTION: Do not scratch, nick or ding Piston Rod. This will cause permanent hydraulic leakage.

10. Remove Bumper from Gland Assembly. Unscrew gland with 1 3/8 socket wrench and extension bar.
11. Remove Retaining Ring from gland. Pull out Spacer and Polyseal.

12. Lift cylinder from handle/head.
13. Turn handle/head over and drain fluid into container. Discard fluid.
14. Pull Throttle Valve out of cylinder. Note: *Service on Throttle Valve Bushings is not normally required.*



CAUTION: Only if air leakage is not correctable with new Throttle Valve Seals, Bushings should be replaced in Cylinder.

15. Press out Lower Bushing and Upper Bushing. Use square ended brass rods at least six inches long. With proper diameter rod, press out lower bushing first, and *then* press out upper bushing using a larger size rod.
16. Place handle/head securely in vise. Remove End Cap with 15/16" open end wrench. Extract Spring, Washer and Wiper Seal.



CAUTION: If Piston Seals and Gland Seals must be reused, help prevent damaging them by installing optional Polyseal Insertion/removal Tool (121694-202) in rear of Handle/head.

REMOVAL OF PISTON AND FRONT GLAND (*Fig. 10*)

17. Thread Polyseal Insertion/removal Tool, 121694-202, into Handle/head.
18. Slide Spacer, 123112-3, onto piston. Thread Piston Assembly (bullet) Tool, 123111-4 onto piston.
19. Push complete piston from front using brass drift. Allow clearance, with stand-off, for piston as it leaves tool.
20. Remove Piston Assembly Bullet, Spacer and Polyseal Insertion/removal Tool. **NOTE:** Inspect hydraulic piston for wear, scoring or damage. Replace when necessary.
21. Unscrew Adapter, 125132, with wrench.
22. Inspect all seals and parts.
23. Remove trigger cable assembly by removing pin with parallel punch. Remove dowel pin to disconnect cable from trigger.

continued

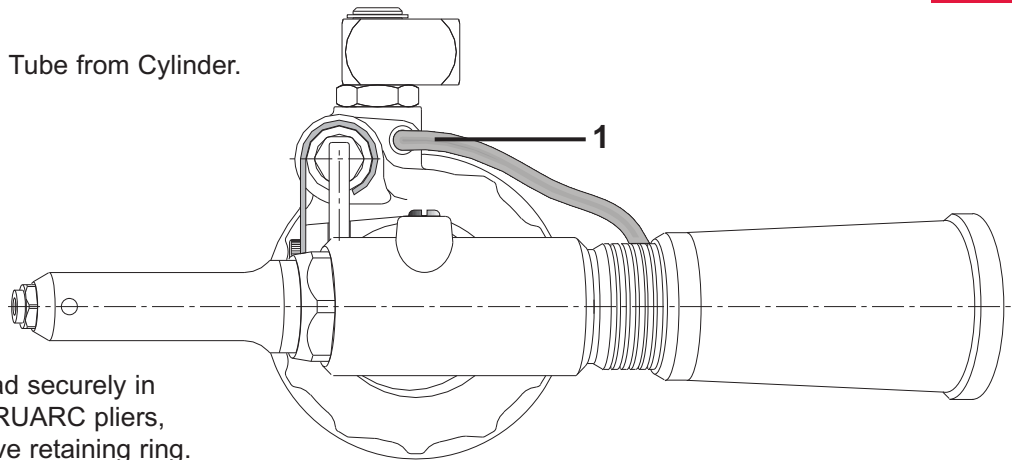


DISASSEMBLY (continued)

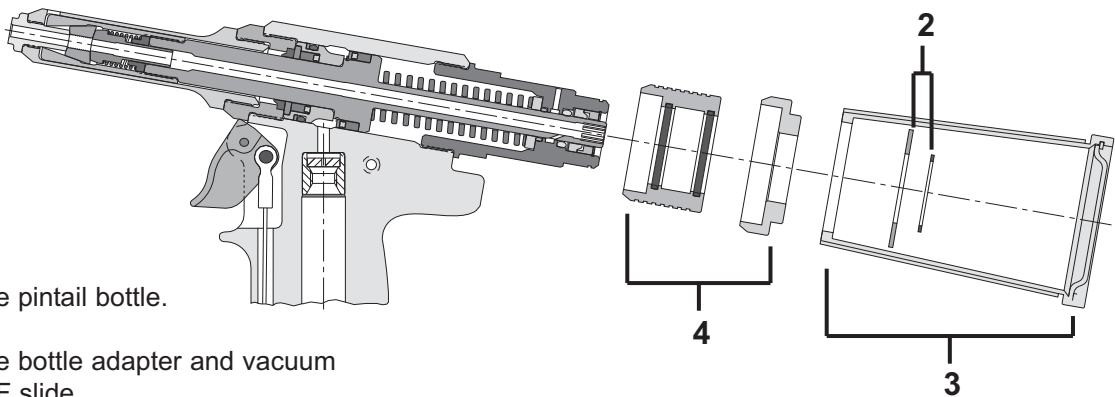
Special Disassembly Instructions for 2015B and 2015V

Figure 3

1. Remove Vacuum Tube from Cylinder.
(2015V only)

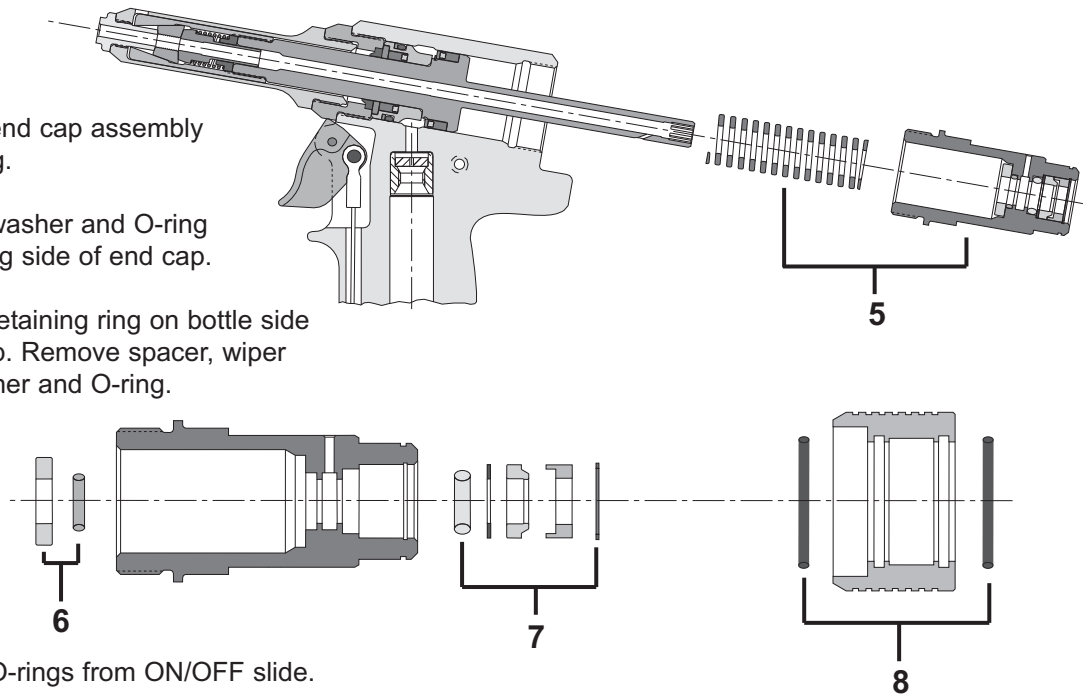


2. Place handle/head securely in vise. Use 0100 TRUARC pliers, 502857, to remove retaining ring. Reach through window of pintail bottle. Remove washer.



3. Remove pintail bottle.
4. Remove bottle adapter and vacuum ON/OFF slide.

5. Remove end cap assembly and spring.
6. Remove washer and O-ring from spring side of end cap.
7. Remove retaining ring on bottle side of end cap. Remove spacer, wiper seal, washer and O-ring.



8. Remove O-rings from ON/OFF slide.



ASSEMBLY

Figures 3 through 11

See *MAINTENANCE: GOOD SERVICE PRACTICE*. Clean all components with mineral spirits, and inspect for wear or damage. Replace as necessary.



CAUTION: Always replace all seals, wipers and back-up rings on/in disassembled components. These parts wear from friction and deteriorate with age. Replacement prevents potential leakage.

Use seals, wipers and back-up rings supplied in *SERVICE KIT, 2015KIT* and *2015VKIT* -see *NOTES*. Smear LUBRIPLATE 130AA or PARKER-O-LUBE on seals.

1. **If Bushings have been removed from cylinder:** Use an arbor press and apply LOCTITE #609, (503377) on bushings before being pressed into cylinder. Place chamfered end of Upper Bushing In top of Cylinder. Carefully press bushing squarely into cylinder. Repeat procedure for Lower Bushing.
2. Assemble Gland Assembly after replacing Polyseal, Spacer and Retaining Ring. *Figure 7*. **NOTE: Cup of POLYSEAL must face toward top of tool when installed in Gland.**
3. Install Adapter into cylinder handle/head.
4. Thread Polyseal insertion/removal tool, 121694-202 into handle/head.
5. Thread Piston Assembly Tool 123111-4, onto Piston Assembly.
6. Push front gland assembly onto piston, as shown.
7. Slide wiper onto piston, as shown.
8. Push assembled components in gently from rear of tool using a press or soft mallet and wood or brass drift.
9. Remove Piston Assembly Tool and Polyseal Insertion/removal Tool.
10. **For 2015:** Assemble Spring, Spacer, Rear Wiper Seal and End Cap into handle/head.
For 2015B or 2015V: Reverse the disassembly instructions in the Special Disassembly Instructions for 2015B and 2015V in the Disassembly section.
11. *Figure 5* - Position Cable Assembly in Trigger slot and push Dowel Pin through holes in trigger and cable assembly. Position assembled trigger in handle and drive Pin through holes in handle and trigger.
12. Hold handle/head in vise with lower end pointing up. Turn cylinder bottom up, and position on handle by lining up cylinder pin with handle hole.
13. Apply VIBRATITE or equivalent to threads of Gland Assembly. Screw gland into head/handle. Using a 1 3/8 socket wrench, tighten gland to 75-80 ft. lbs.
14. Push Bumper firmly over gland, slots must face toward bottom of tool.
15. Lubricate piston rod. Press assembled air piston/piston rod into cylinder just enough to allow installation of cylinder head.
16. Push Cylinder Head squarely into cylinder taking care not to damage O-ring. Install Retaining Ring. Align screw holes with muffler end cap.
17. Position Muffler in center of cylinder head. Position Gasket on cylinder.
18. Carefully position Muffler End Cap on cylinder. **Be certain that muffler is properly positioned in recess of muffler end cap.**
19. Muffler end cap is secured with three Button Head Screws. Tighten with 1/8 hex key.
20. Place tool upright on level surface. Drop Spring into throttle valve bore in cylinder. Push Throttle Valve into cylinder.
21. Place ball end of Throttle Cable in end of Throttle Arm.
22. Slide Throttle Arm into slot on Cylinder.
23. Install Pivot Screw in cylinder to retain Throttle Arm.
24. Follow FILLING AND BLEEDING PROCEDURE of this manual to fill tool.
25. Install Bleed Screw after filling and bleeding procedure.
26. Screw Anvil Insert into Anvil Holder.
27. Assemble components into Collet, as shown in *Figure 5*. Screw assembled collet onto piston rod. Tighten securely.
28. Screw assembled anvil holder and insert into Adapter.



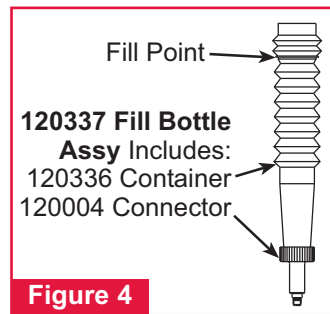
FILLING AND BLEEDING PROCEDURE

EQUIPMENT REQUIRED:

- Shop airline with 90 - 100 psi max.
- Air regulator
- Fill bottle, 120337, (supplied with tool).
- Large flat blade screwdriver
- Nose assembly or optional stall nut
- Fasteners (optional)
- Optional stall nut 125340 (used to load tool during bleeding and for measuring stroke) and stop 125341.

PREPARATION:

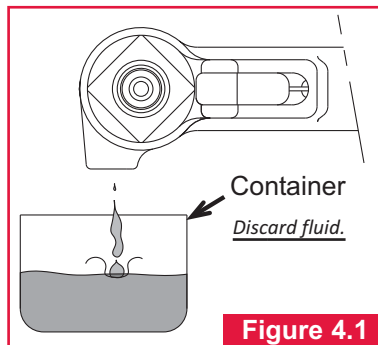
1. Install air regulator in airline and set pressure to 20-40 psi.
2. Fill bleed bottle almost full of DEXRON III ATF (automatic transmission fluid). *Figure 4*



PROCEDURE TO FILL EMPTY TOOL (NEW OR REBUILT):

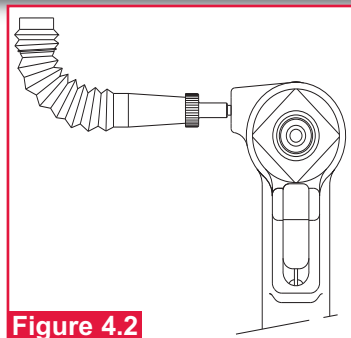
1. Attach the tool air source momentarily to seat air piston at bottom of cylinder and disconnect tool. With fillport facing up, lay tool on its side.

2. With a screwdriver, remove bleed plug from fillport.
3. Screw fill bottle into fillport in the head.
4. Set air pressure to 20-40 psi and connect airline to tool.



WARNING: Air pressure **MUST** be set to 20-40 psi to prevent possible injurious **high pressure spray**. **NEVER CYCLE TOOL WITHOUT: BLEED PLUG TIGHTENED, FILL BOTTLE TIGHTENED IN TOOL, OR FILLPORT HELD OVER A RECEPTACLE** *Figure 4.1* **When not properly contained any fluid present in tool will spray out. Severe injury may result.**

5. Stand tool upright on bench. While triggering tool slowly (20-30 cycles), bend fill bottle at right angles to tool. *Figure 4.2*. Air bubbles will emerge from tool. When bubbles stop, cycling may be discontinued.



6. When trigger is released, pull piston returns to idle position (full forward). Disconnect tool from airline.

7. Lay tool on its side. Remove fill bottle. Top off fluid in fillport. Install bleed plug and tighten.
8. Connect airline to tool. There is a choice of two procedures for measuring the stroke: with and without a stall-nut. See appropriate section and follow the selected procedure. If stroke is less than specified, remove bleed plug and top off fluid. Reinstall bleed plug.
9. Increase air pressure to specification. Install two fasteners to check function and installation in a single stroke, or cycle tool with stall-nut fully threaded onto piston to load up tool. Measure stroke again. Remove plug and top off fluid. Reinstall plug and cycle again. Measure again. Continue this process until stroke meets minimum requirements.

BLEEDING A PARTIALLY FILLED TOOL IN FIELD USE:

1. Disconnect tool from airline. With fillport facing up, lay tool on its side.
2. Remove bleed plug from bleed port.
3. Hold tool over suitable container with fillport facing into container.
4. Connect tool to airline. Cycle tool several times to drain the old fluid, air and foam.
5. Screw fill bottle into fillport.
6. See **WARNING**. With air pressure set at 20-40 psi, connect airline to tool.
7. Stand tool upright on bench. While actuating the trigger slowly (20-30 cycles), bend fill bottle at right angles to tool. *Figure 4.2*. Observe that air bubbles emerge from tool. When bubbles are no longer observed, cycling may be discontinued.
8. When trigger is released, pull piston returns to idle position (full forward). Disconnect tool from airline with piston full forward.
9. Lay tool on its side. Remove fill bottle. Top off fluid in fillport. Install bleed plug and tighten with screwdriver.
10. Connect airline to tool. There is a choice of two procedures for measuring the stroke: With and without a stall-nut. See appropriate section and follow the selected procedure. If stroke is less than specified, remove bleed plug and top off fluid. Reinstall bleed plug.
11. Install two fasteners to check function and installation in a single stroke, or cycle tool with stallnut fully threaded onto piston. Measure stroke again. Remove plug and top off fluid. Reinstall plug and cycle again. Measure again. Continue this process until stroke meets minimum requirements.

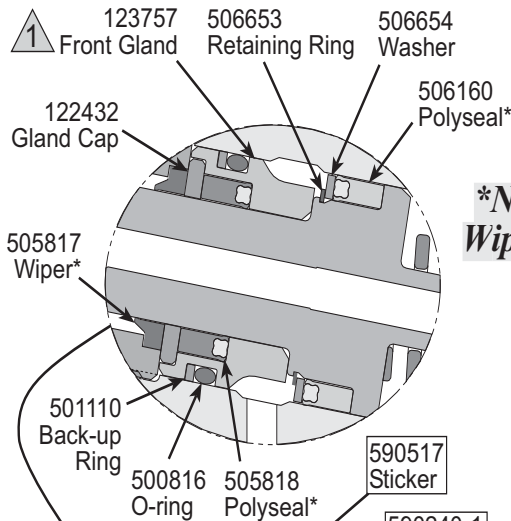


HEAD/HANDLE ASSEMBLY DRAWING 2015 & 2015B

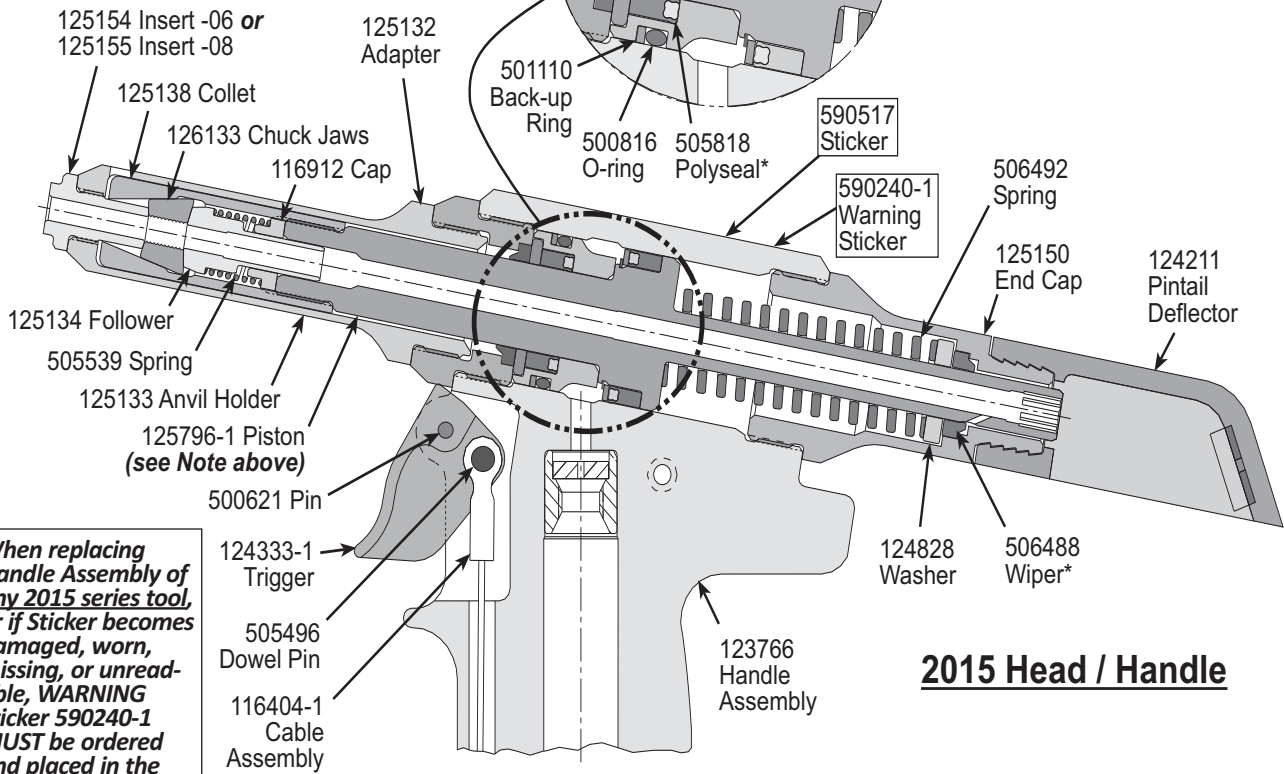
Figure 5

Note:
Piston 125796 is not sold separately.
It may be purchased as: Piston
Assembly 125156, which includes the
Piston along with Polyseal 506160,
Retaining Ring 506653, and Washer 506654.

1 For other available assemblies,
 see Subassembly Part Numbers
 and Notes section of this manual.

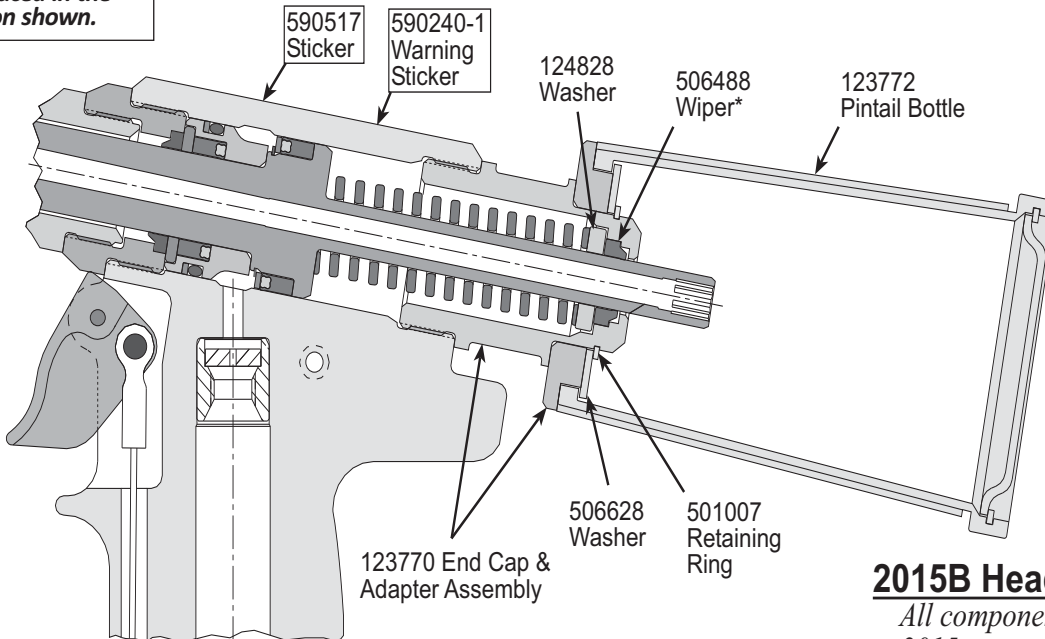


***Note orientation of Wipers and Polyseals.**



2015 Head / Handle

When replacing Handle Assembly of any 2015 series tool, or if Sticker becomes damaged, worn, missing, or unreadable, WARNING Sticker 590240-1 MUST be ordered and placed in the location shown.



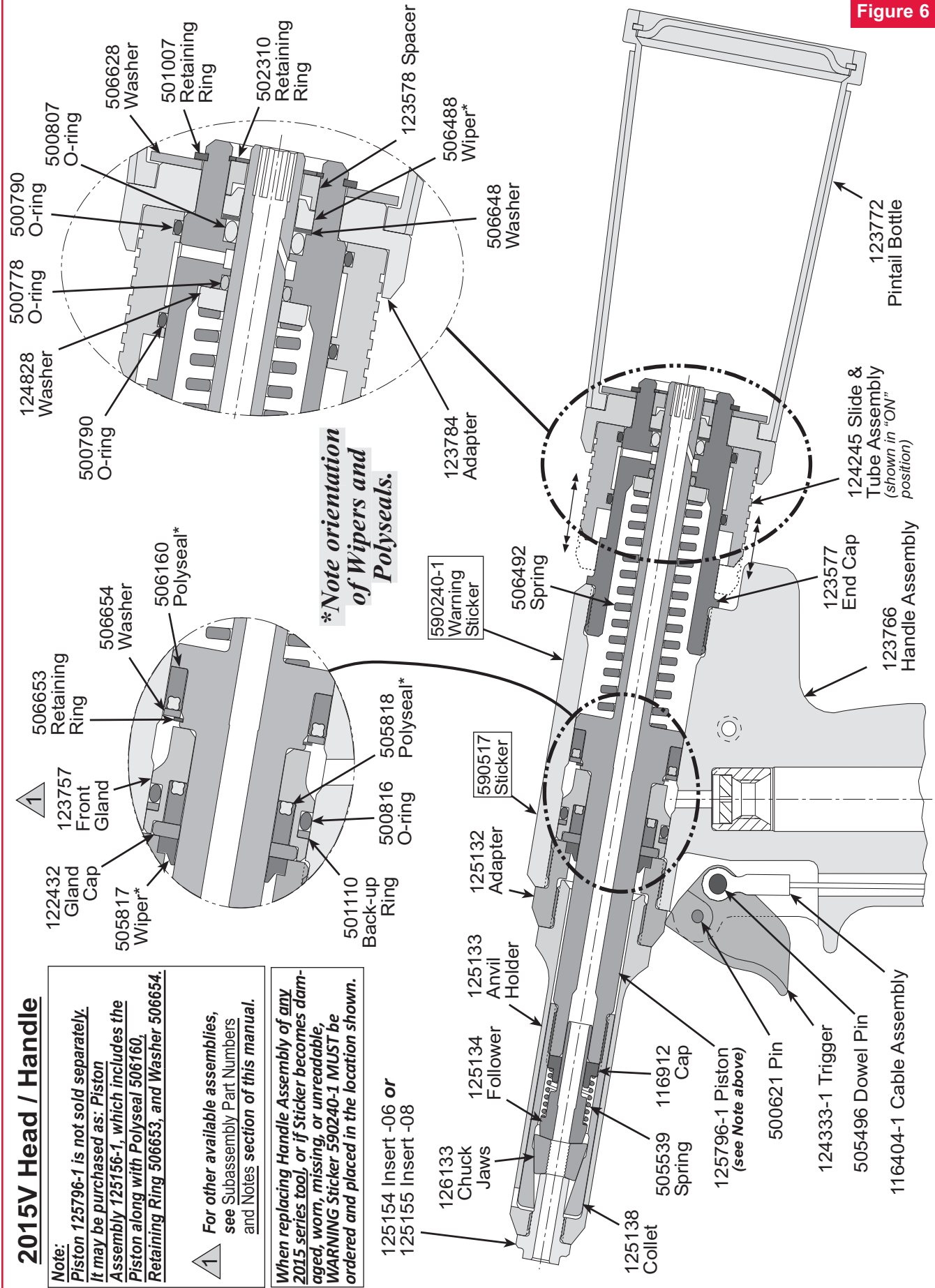
2015B Head / Handle

All components same as 2015 excepted as listed.



HEAD/HANDLE ASSEMBLY DRAWING 2015V

Figure 6





AIR CYLINDER AND THROTTLE VALVE ASSEMBLY DRAWINGS

Figure 7

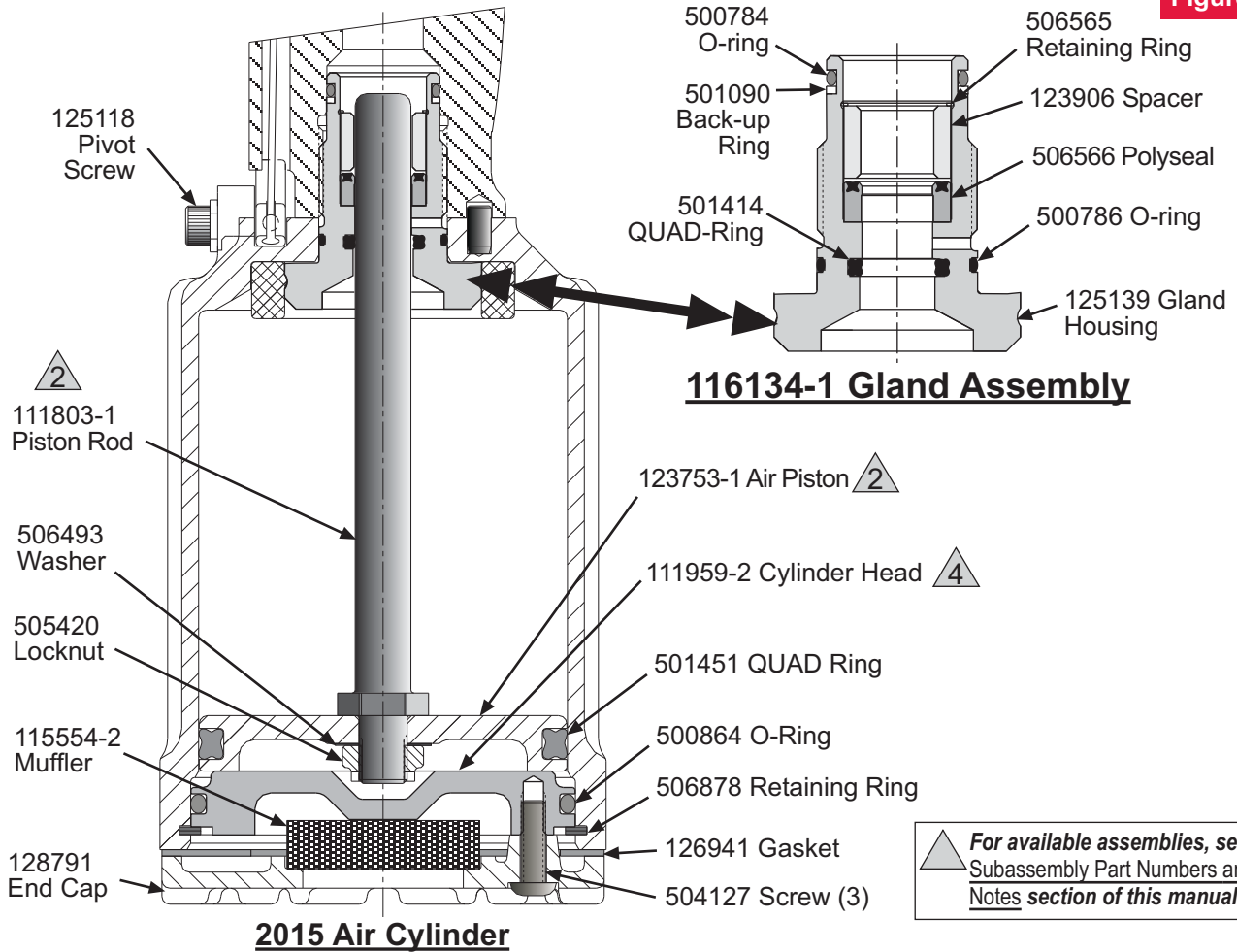
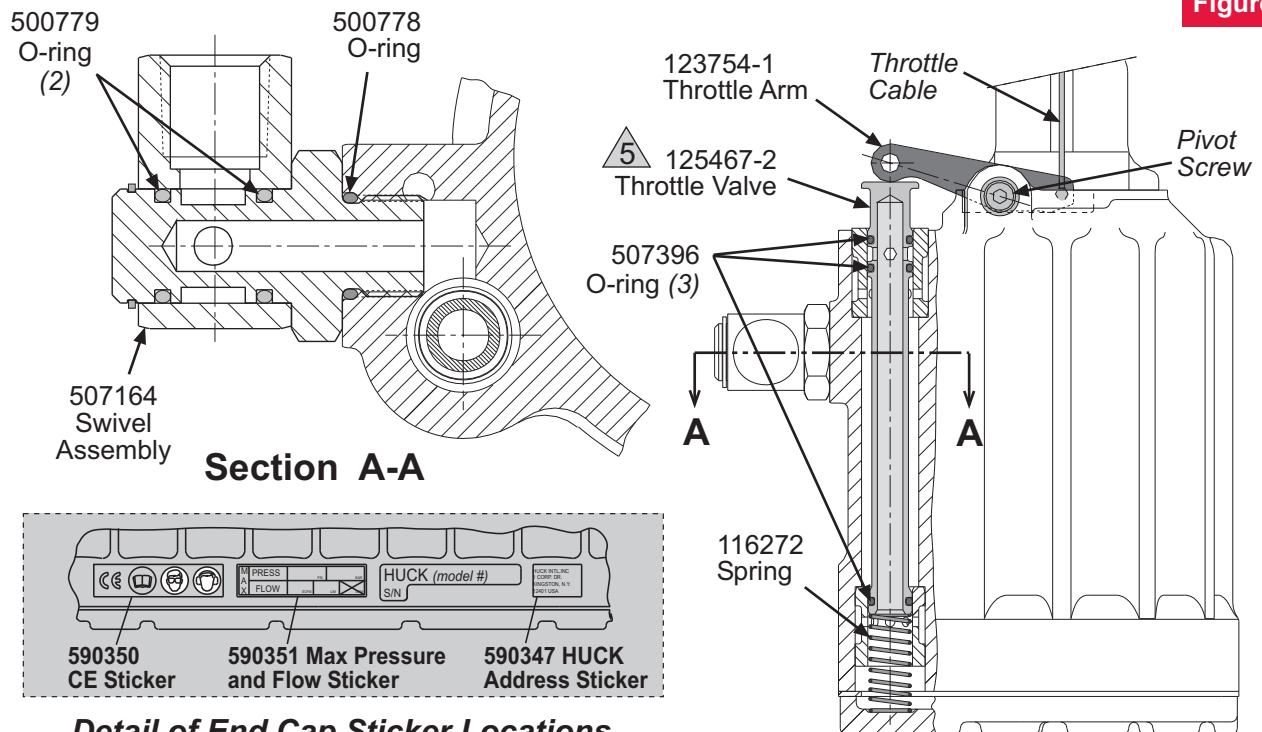


Figure 8

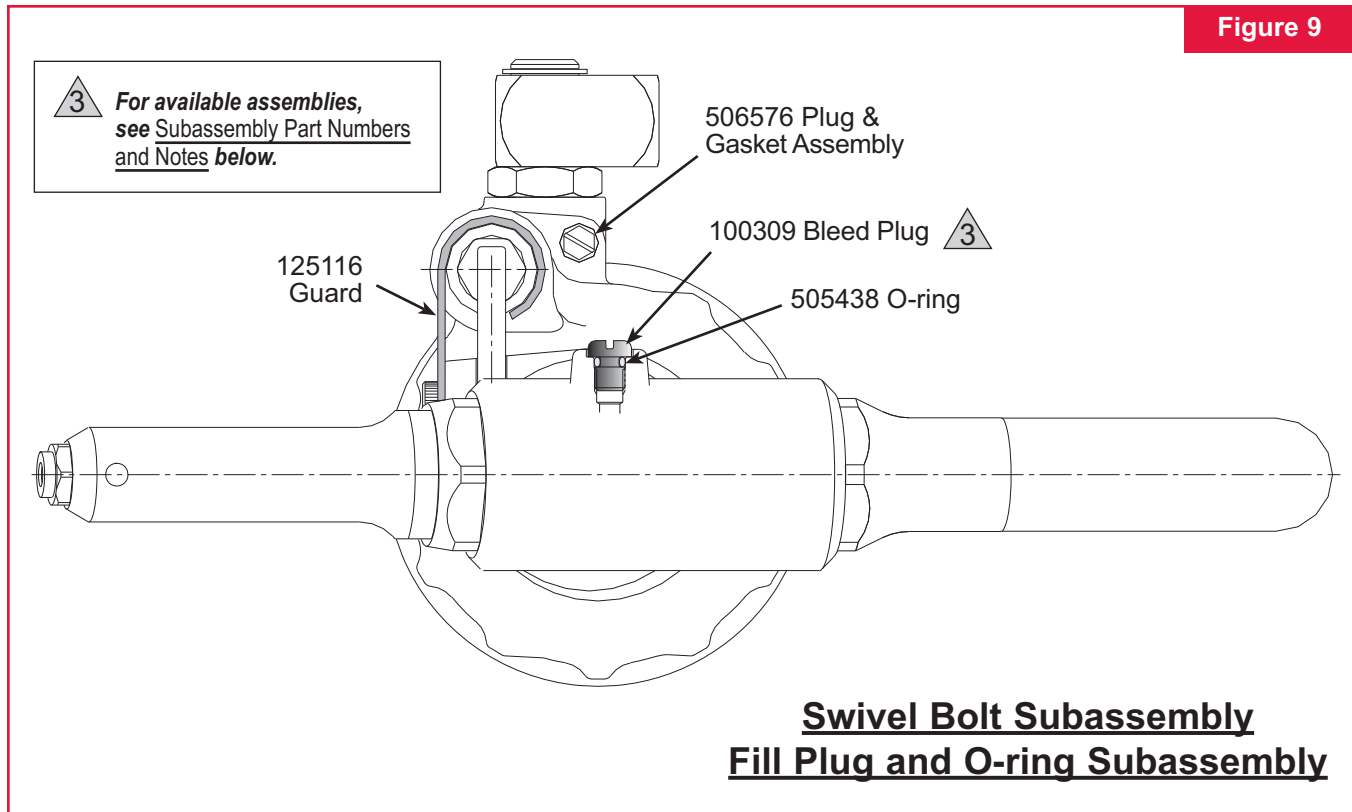


When replacing Cylinder Assembly, or if these Stickers become worn, damaged, missing, or unreadable, they MUST be ordered and placed in the locations shown.



SWIVEL BOLT AND BLEED PLUG ASSEMBLY DRAWING

Figure 9



SUBASSEMBLY PART NUMBERS AND NOTES

Some parts are available separately as well as in subassemblies. Refer to figures 5, 6, 7, 8, and 9 on the previous and following pages for these parts listed below.

1 **123775 Front Gland Assembly** contains:
 123757 Front Gland
 500816 O-ring
 501110 Back-up Ring
 505818 Polyseal
 122432 Gland Cap
 505817 Wiper

2 **123777-2 Air Piston and Rod Assy** contains:
 123776-1 Air Piston Assembly
 111803-1 Piston Rod
 506493 Washer
 505420 Self-locking Nut

3 **104293 Bleed Plug Assembly** contains:
 100309 Bleed Plug
 505438 O-ring

4 **123778-1 Cylinder Head Assy** contains:
 111959-2 Cylinder Head
 500864 O-ring

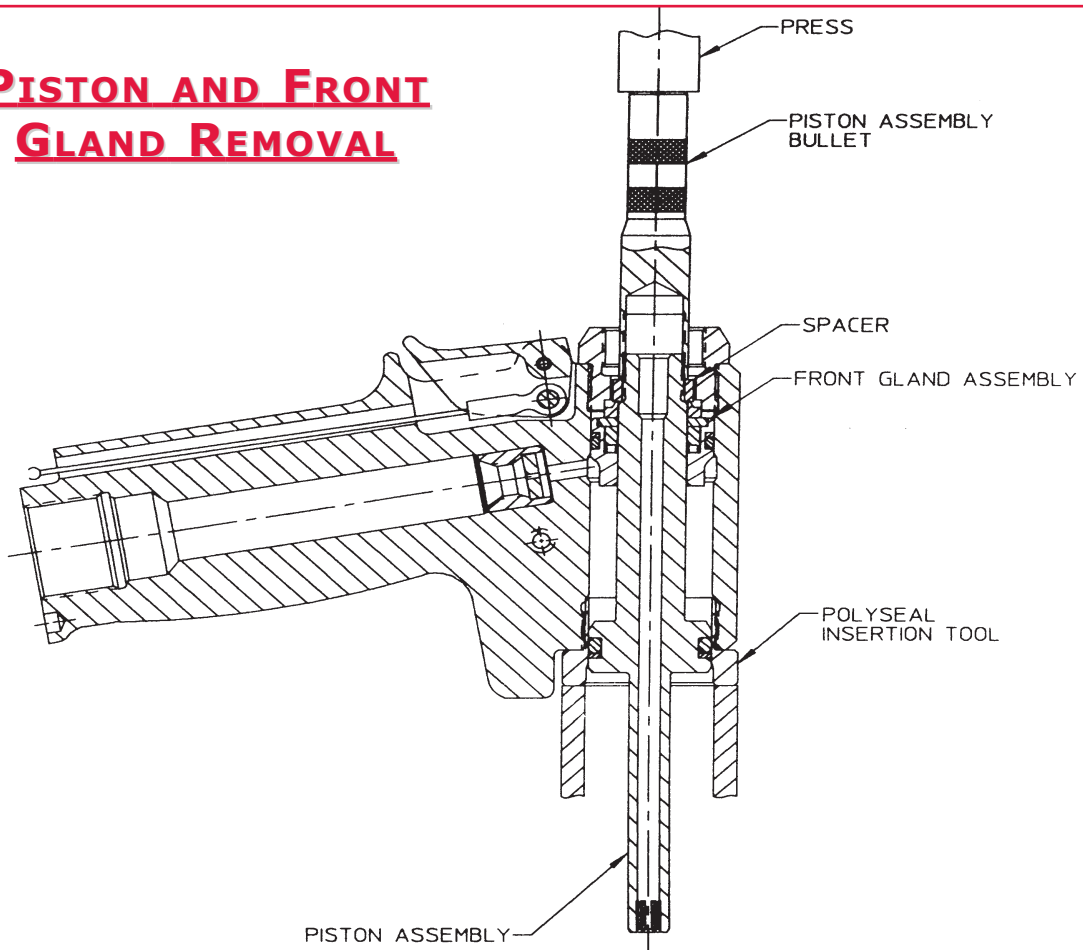
5 **125472-2 Throttle Valve Assembly** contains:
 125467-2 Throttle Valve
 507396 O-rings (qty. 3)

NOTE: Install cups of POLYSEALS positioned as shown. Position wipers as shown.



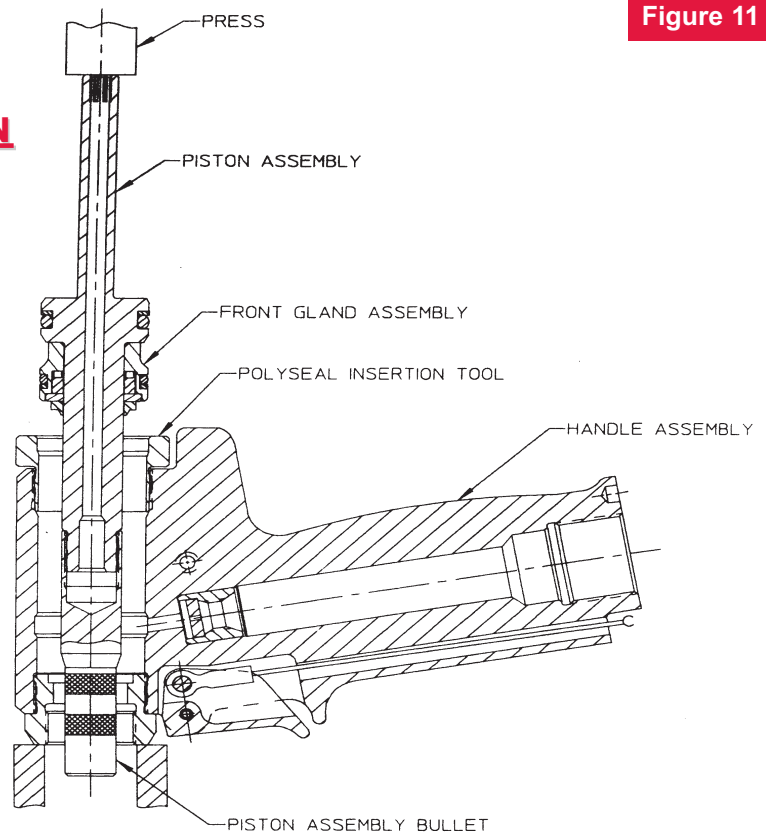
PISTON AND FRONT GLAND REMOVAL

Figure 10



PISTON AND FRONT GLAND INSTALLATION

Figure 11

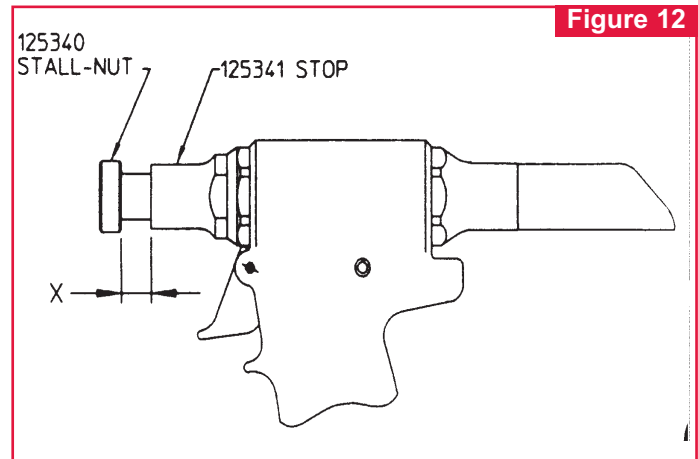




HOW TO MEASURE STROKE

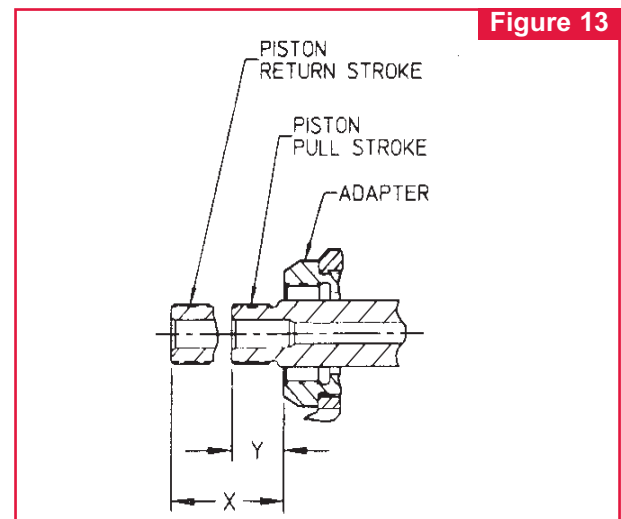
TO MEASURE STROKE OF TOOL WITH STALL-NUT THREADED ONTO PISTON:

1. Disconnect tool from airline and remove nose from tool.
2. Reconnect tool to airline. Cycle tool and hold trigger depressed. This keeps piston fully to the rear and at end of PULL stroke. Thread stall-nut back onto piston until it contacts stop.
3. Release trigger. Stall-nut will move forward with piston. *Figure 12* and measure "X" dimension. This is the tool's stroke.
4. If stroke is less than .650, refer to appropriate previous section. Follow filling and topping off instructions.



TO MEASURE STROKE OF TOOL WITHOUT STALL-NUT:

1. Disconnect tool from airline and remove nose from tool.
2. Reconnect tool to airline, with piston fully forward (end of RETURN stroke), measure and record "X" dimension. *Figure 13*.
3. Hold trigger depressed. Piston is now fully to the rear and at end of PULL stroke. Measure and record "Y" dimension.
4. Subtract "X" dimension from "Y" dimension.
5. If stroke is less than .650, refer to appropriate previous section. Follow filling and topping off instructions.



TROUBLESHOOTING THE TOOL

Always check out the simplest possible cause of a malfunction first. For example, an air hose not connected. Then proceed logically, eliminating each possible cause until the defective part is located. Where possible, substitute known good parts for suspected bad parts. Use this chart to help locate and correct malfunction:

- 1. Tool fails to operate when triggered.**
 - a. Throttle valve O-rings (3) worn or damaged.
 - b. Air pressure too low.
 - c. Throttle cable assembly broken.
- 2. Tool does not complete fastener installation or break pintail.**
 - a. Air pressure too low.
 - b. Hydraulic fluid low, causing short stroke.
 - c. Air piston QUAD ring worn or damaged.
 - d. Air in hydraulic system. See FILLING AND BLEEDING.
 - e. Collet backed off from Piston.
- 3. Hydraulic fluid exhausts with air.**
 - a. Worn or damaged O-rings, Polyseal and/or QUAD ring in Gland Assembly 116134-1
- 4. Hydraulic fluid leaks at Cylinder Head End Cap.**
 - a. Worn or damaged Pull Piston O-ring/back-up ring.
- 5. Hydraulic fluid leaks at Pull Piston Rod.**
 - a. Worn or damaged Front Gland Polyseal and wiper, and/or O-ring.
- 6. Pull Piston will not return.**
 - a. Broken or weak Return Spring.
 - b. Collet backed off from Piston.
- 7. Air leaks at Air Cylinder Head.**
 - a. Cylinder Head O-ring damaged.



ACCESSORIES

Pintail Collection Bag:

- >Tailor made to fit the tool
- >Made from tough, lightweight material.
- >Fits over the Pintail Deflector.
- >Velcro closure for secure fit /easy removal.

125652 Pintail Collection Bag

Accessory Spring:

124447 Suspension Spring (Figure 14)

Assembly Tools:

- 124090-2 Stall Nut Assembly
- 123110-4 Assembly Tool Kit Includes:
 - 121694-202 POLYSEAL Insertion Tool
 - 123111-4 Piston Assembly Tool
 - 123112-3 Spacer

Service Kits:

- 2015KIT Seals kit for 2015 and 2015B
- 2015VKIT Seals kit for 2015V

Accessories for 2015VP:

- 125693 -06 Insert
- 125694 Anvil Holder

Also available are various anvil insert kits as shown in Figure 15 below.

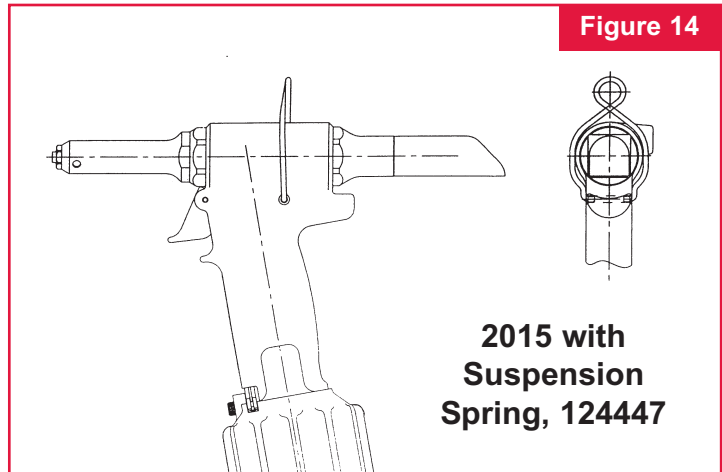


Figure 14

2015 with Suspension Spring, 124447

-03 to -08 Nail Type Product

Included with Original Tool Purchase

-06
125154

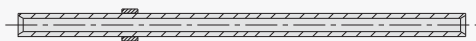
-08
125155

KIT 125273

-03
125151

-04
125152

-05
125153



125135 Pintail Tube Assembly

Figure 15

2015 Style Insert Kits

-06 & -08 MAGNATITE Product

-06 KIT 125366

125280
-06 Protruding Head

125281
-06 Button Head

125154
-06 Flat Head

-08 KIT 125366-1

125282
-08 Protruding Head

125155
-08 Flat Head

NOTE:

Pintail Tube 125135-1, which is supplied with the tool, must be used with all -06 product.

-06 & -08 PEEL Rivets Kit 125367

-06 PEEL Rivet
125283

-08 PEEL Rivet
125284

-06 MGL Product Kit 125365

-06 Truss Head
125279

-06 Countersunk
125154



LIMITED WARRANTIES

TOOLING WARRANTY:

Huck warrants that tooling and other items (excluding fasteners, and hereinafter referred as "other items") manufactured by Huck shall be free from defects in workmanship and materials for a period of ninety (90) days from the date of original purchase.

WARRANTY ON "NON STANDARD OR CUSTOM MANUFACTURED PRODUCTS":

With regard to non-standard products or custom manufactured products to customer's specifications, Huck warrants for a period of ninety (90) days from the date of purchase that such products shall meet Buyer's specifications, be free of defects in workmanship and materials. Such warranty shall not be effective with respect to non-standard or custom products manufactured using buyer-supplied molds, material, tooling and fixtures that are not in good condition or repair and suitable for their intended purpose.

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Huck's sole liability and Buyer's exclusive remedy for any breach of warranty shall be limited, at Huck's option, to replacement or repair, at FOB Huck's plant, of Huck manufactured tooling, other items, nonstandard or custom products found to be defective in specifications, workmanship and materials not otherwise the direct or indirect cause of Buyer supplied molds, material, tooling or fixtures. Buyer shall give Huck written notice of claims for defects within the ninety (90) day warranty period for tooling, other items, nonstandard or custom products described above and Huck shall inspect products for which such claim is made.

TOOLING, PART(S) AND OTHER ITEMS NOT MANUFACTURED BY HUCK:

HUCK MAKES NO WARRANTY WITH RESPECT TO THE TOOLING, PART(S) OR OTHER ITEMS

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The only warranties made with respect to such tool, part(s) or other items thereof are those made by the manufacturer thereof and Huck agrees to cooperate with Buyer in enforcing such warranties when such action is necessary.

Huck shall not be liable for any loss or damage resulting from delays or nonfulfillment 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 Office, see back cover.

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 Tools Kits and Nose Assemblies. Please contact your Huck Representative or the nearest Huck office listed on the back cover for the ATSC in your area.

Applifast.

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