

Alcoa  
Fastening  
Systems



## *INSTRUCTION MANUAL*

# **2015** *ALL MODELS*

### *PNEUDRAULIC INSTALLATION TOOL*



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

07-15-2005  
HK958



# EU Declaration of Conformity

**Manufacturer:**

Huck International Inc., Installation Systems Division, 85 Grand Street, Kingston, NY, 12401, USA

**Description of Machinery:**

Model number 201 family of fastener installation tools

**Relevant provisions complied with:**

Council Directive related to Machinery, (89/392/EEC), (91/368/EEC), (93/44/EEC), (93/68/EEC)

**European Representative:**

Rob Pattendon, 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:

Renno Budziak

Position:

Vice President of Engineering, Installation Systems Division

Place:

Kingston, New York, USA

Date:

November, 1995

## Huck Model 201 (family) Sound Level

SEL --- 75.7 dB (A)  
peak value = 104.4 dB (C)

For an eight hour work day, installing 3000 typical Huck fasteners will result in an equivalent noise level (Leq) of 65.9 dB (A).

To calculate equivalent noise level for other quantities of fasteners in an eight hour period, use the formula:

$$Leq = SEL + 10 \log (n/28,800)$$

where n = number of fasteners in eight hours.

## Huck Model 201 (family) Vibration Level

For an eight hour work day, installing 3000 typical Huck fasteners will result in an equivalent weighted RMS vibration level (Aeq) of 12.25m/s<sup>2</sup>.

To calculate the equivalent vibration level for other quantities of fasteners in an eight hour period, use the formula:

$$\text{Equivalent Vibration Level, } Aeq (m/s^2) = (n/480) \times 1.96$$

where n = number of fasteners in eight hours, and 1.96 (m/s<sup>2</sup>) = Aeq for 60 seconds

Test data to support the above information is on file at Huck International, Inc. Kingston, N.Y. Vibration measurements are frequency weighted in accordance with ISO 8041 (1990).

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# SAFETY

*This instruction manual must be read with particular attention to the following safety guide lines, by any person servicing or operating this tool.*

## 1. Safety Glossary



— Product complies with requirements set forth by the relevant European directives.



— Read manual prior to using equipment.



— Eye protection required while using this equipment.



— Hearing protection 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.

2. Huck equipment must be maintained in a safe working condition at all times and inspected on a regular basis 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 and understand any Warning and Caution stickers/labels supplied with equipment before connecting equipment to any primary power supply. As applicable, each of the sections in this manual have specific safety and other information.
4. See MSDS Specifications before servicing the tool. MSDS Specifications are available from you Huck representative or on-line at [www.huck.com](http://www.huck.com). Click on Installation Systems Division.
5. When repairing or operating Huck installation equipment, always wear approved eye protection. Where applicable, refer to ANSI Z87.1 - 1989
6. Disconnect primary power source before doing maintenance on Huck equipment.
7. If any equipment shows signs of damage, wear, or leakage, do not connect it to the primary power supply.
8. Make sure proper power source is used at all times.
9. Never remove any safety guards or pintail deflector.
10. Never install a fastener in free air. Personal injury from fastener ejecting may occur.
11. When using an offset nose always clear spent pintail out of nose assembly before installing the next fastener.
12. If there is a pinch point between trigger and work piece use remote trigger. (Remote triggers are available for all tooling).
13. Do not abuse tool by dropping or using it as a hammer. Never use hydraulic or air lines as a handle. 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.
14. Never place hands between nose assembly and work piece.
15. Tools with ejector rods should never be cycled with out nose assembly installed.
16. When two piece lock bolts are being used always make sure the collar orientation is correct. See fastener data sheet of correct positioning.

## 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.

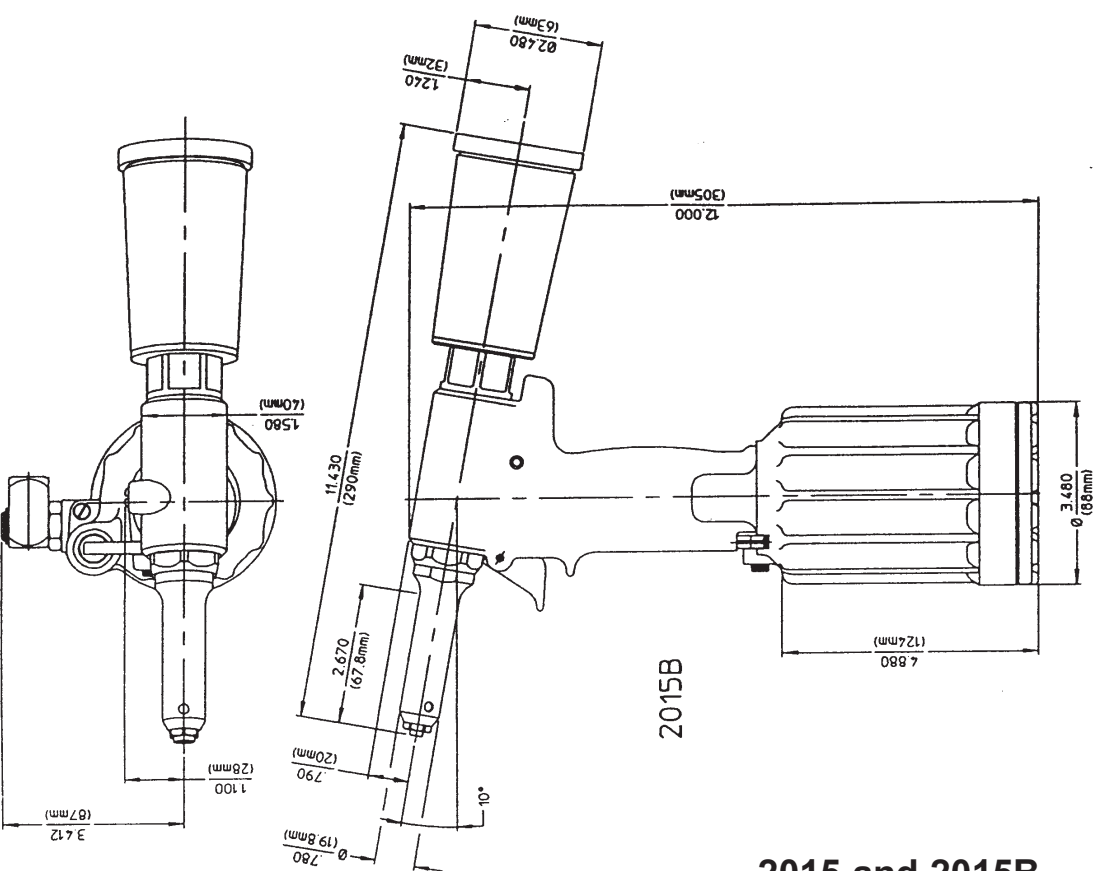
## SPECIFICATIONS

- **Min. Stroke:** .683
- **Air Pressure:** 90-100 psi
- **Speed/Cycles:** 30 per minute
- **Air Consumption:** 4.3 CFM
- **Weight of 2015:** 4.9 lbs
- **Weight of 2015B & 2015V:** 5.2 lbs
- **Min. Capacity:** 2670 lbs @ 90 psi

**Fasteners installed:** Consult your Huck representative or available FASTENER SELECTION CHARTS.

**Hydraulic Fluid:** Automatic Transmission Fluid, DEXRON III, or equivalent.

Fig. 1



**2015 and 2015B  
Outline Dimensions**

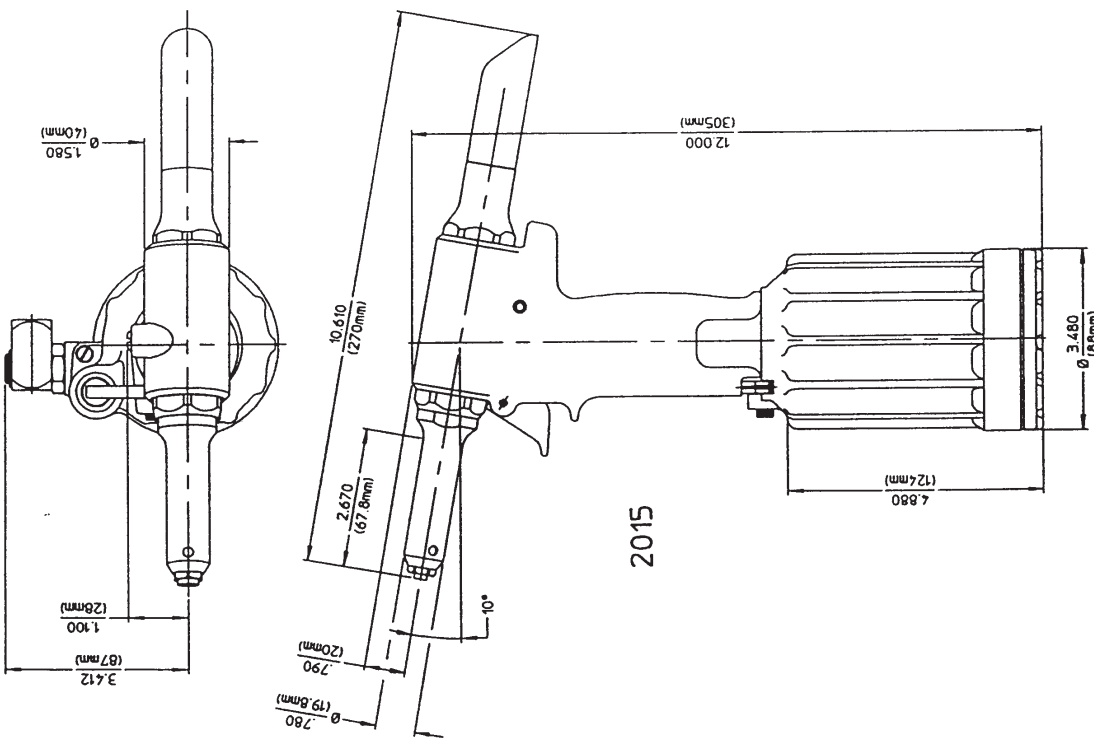
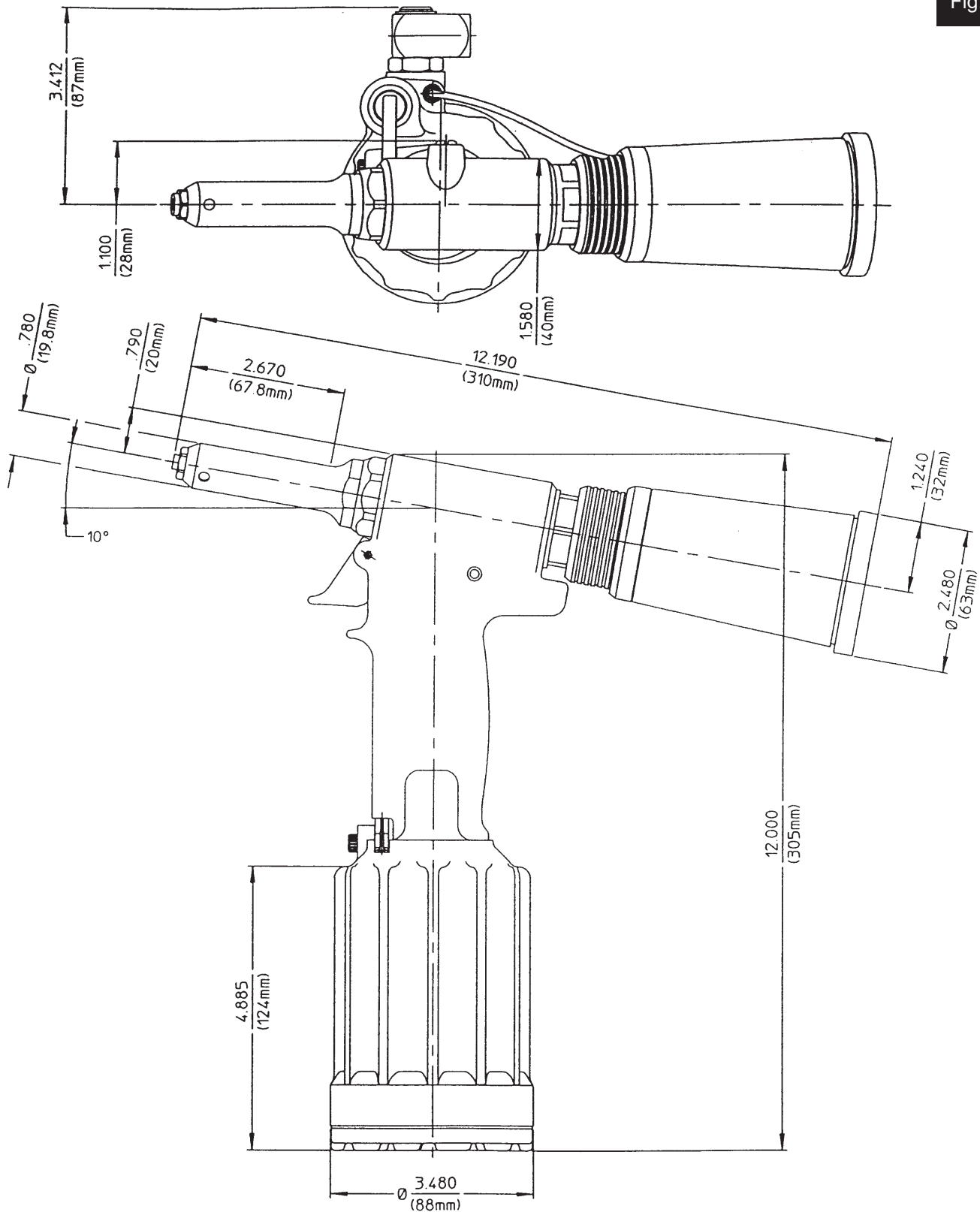


Fig. 1A



2015V Outline Dimensions

## 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 piston keeping it down. Depressing trigger moves throttle valve to the down position. Air is directed to the bottom of the piston moving it upward, air from above piston is exhausted downward thru the throttle valve and exits the muffler at bottom of tool. Air piston rod is a hydraulic piston. Pressurized fluid is forced into the cylinder head moving 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 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 piston through the muffler at bottom of tool. As rod moves downward and hydraulic pressure is released from pull piston, a spring behind pull piston returns it to its starting position.

### Main Components

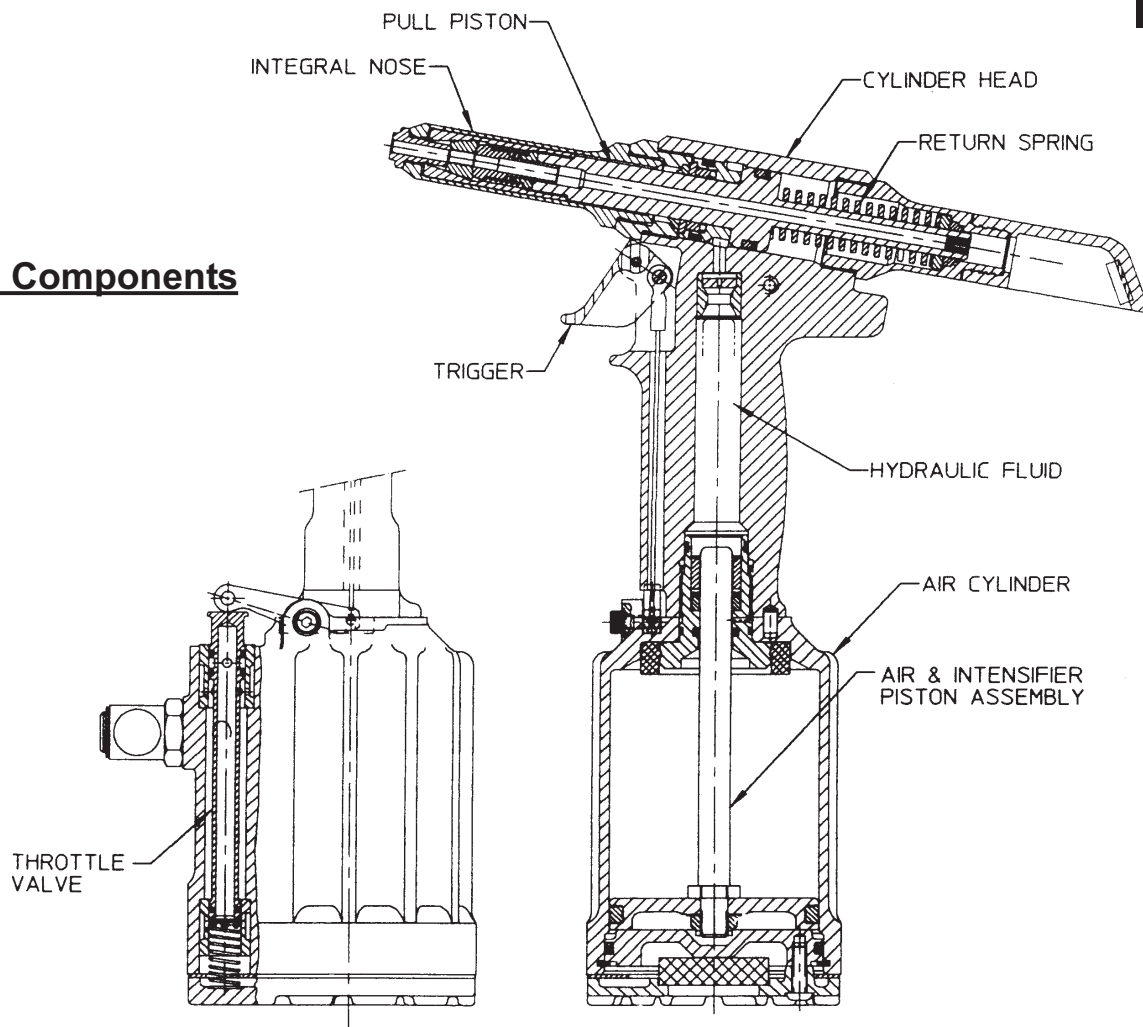


Fig. 2





## 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.



### WARNINGS

**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 available 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. (See SPARE PARTS AND SERVICE KITS.) 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 7), 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 8 & 9)
  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** (Figure 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**

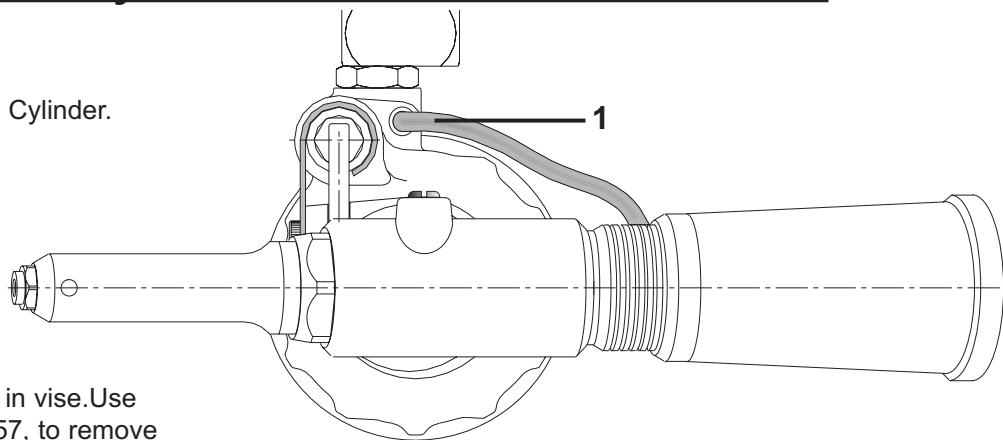


## **DISASSEMBLY** *(continued)*

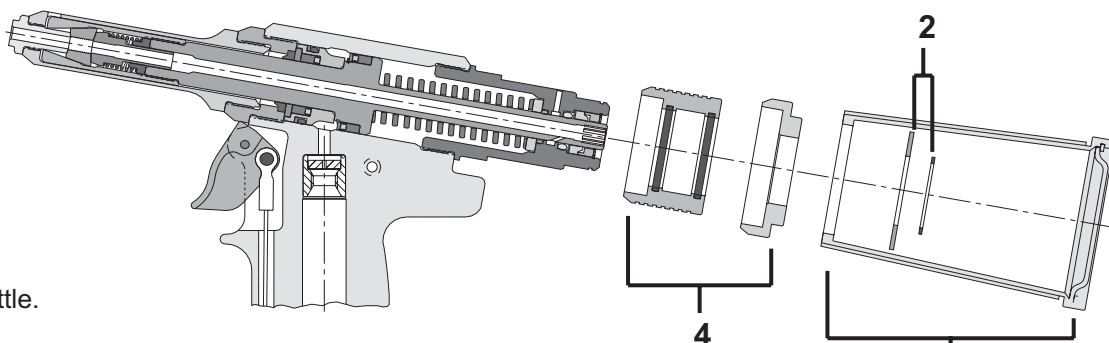
### **Special Disassembly Instructions for 2015B and 2015V**

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.



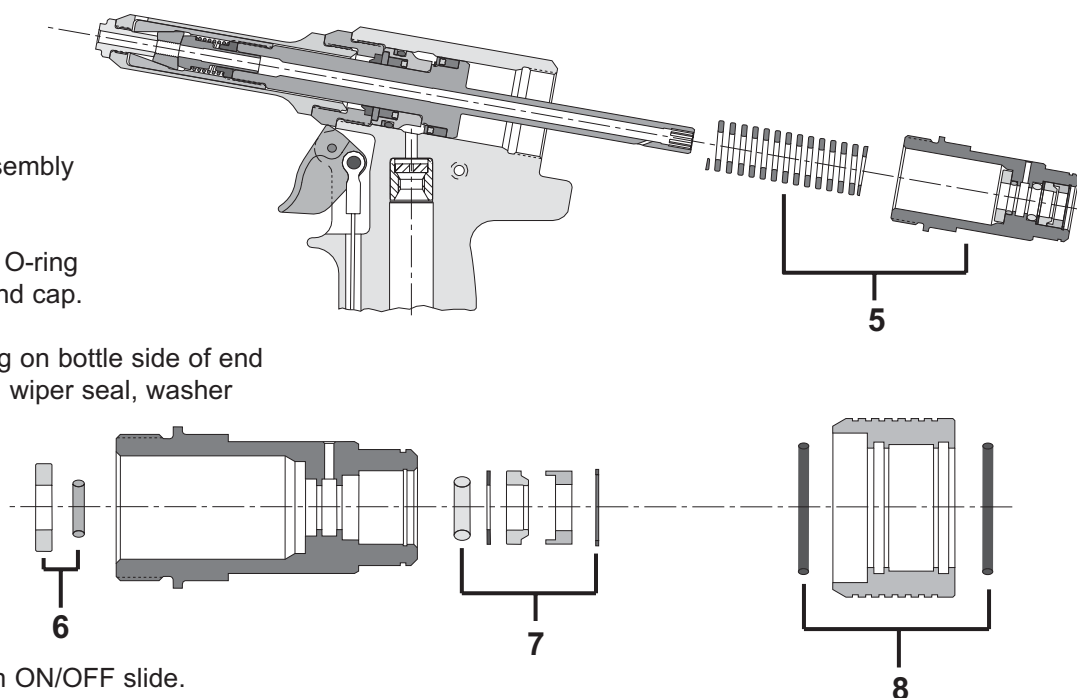
3. Remove pintail bottle.

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

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.

Figures 3 through 12.

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 8. 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

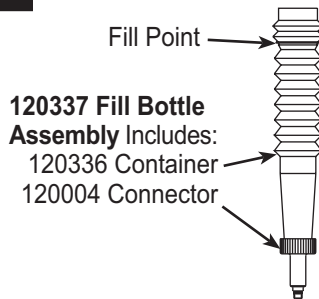
### Equipment Required:

- 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 and stop  
Stall nut, 125340 and stop, 125341  
Stall nut is used to load tool during bleeding and for measuring stroke.

### 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.*

**Fig. 4**



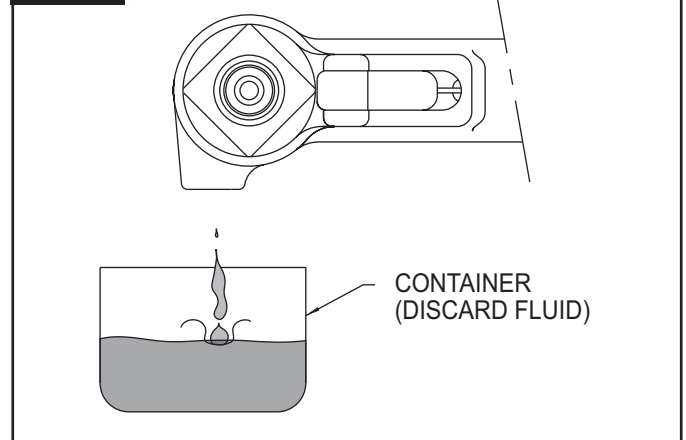
### Procedure to Fill Empty Tool (new or rebuilt):

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 airline pressure to 20-40 psi and connect airline to tool.



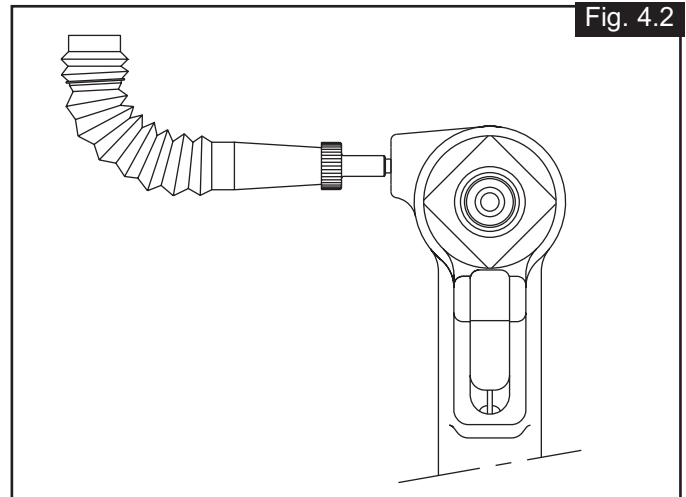
**WARNING: Air pressure *MUST* be set to 20-40 psi to prevent possible injurious high pressure spray. Never cycle tool without bleed plug tightened, fill bottle tightened in tool, or fillport held over a receptacle *Figure 4.1* When not properly contained any fluid present in tool will spray out. Severe injury may result.**

**Fig. 4.1**



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.

**Fig. 4.2**



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.

**continued**



## **FILLING AND BLEEDING PROCEDURE** *(continued)*

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.

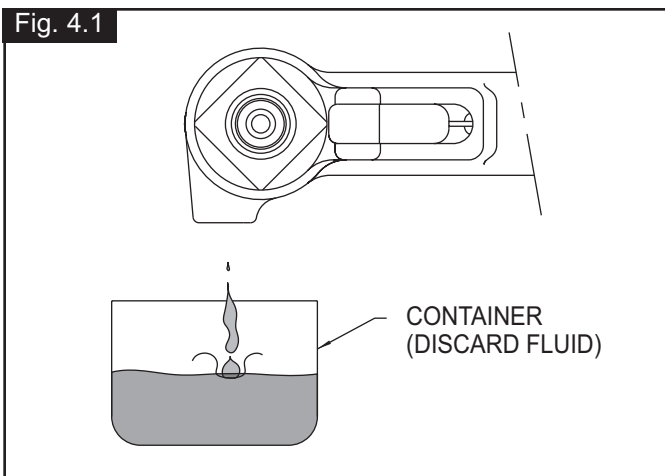
### **Bleed Procedure for Partially Filled Tool in Field Use:**

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.



**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.***

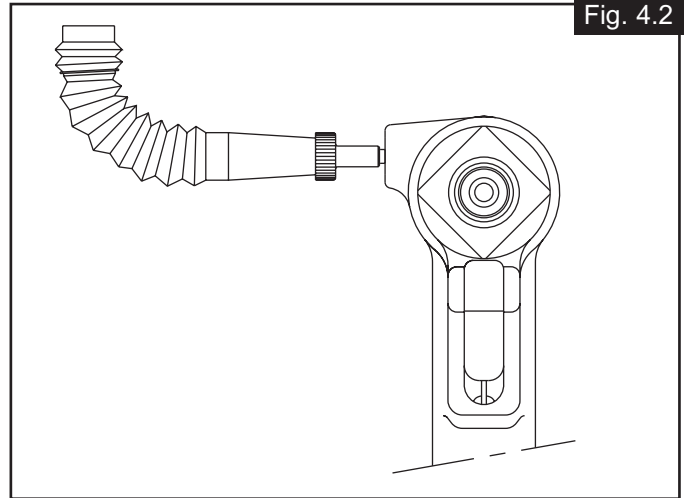
Fig. 4.1



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** above. 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.

Fig. 4.2



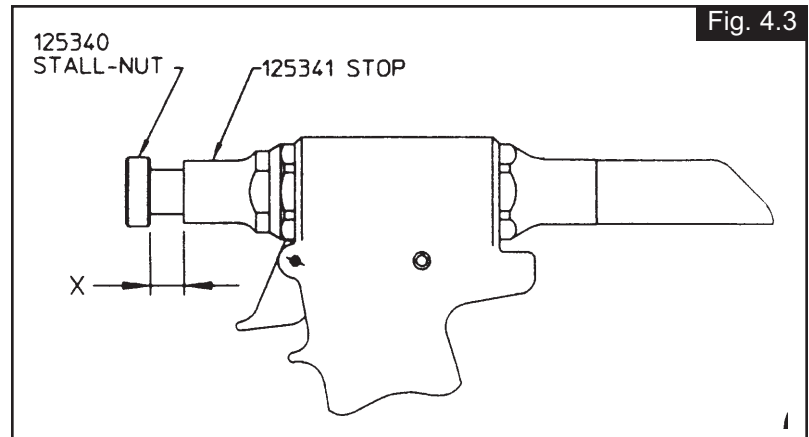
8. When trigger is released, pull piston returns to idle position (full forward). Disconnect tool from airline with piston full forward.
9. Lay tool on its side. Remove fill bottle. Top off fluid in fillport. Install bleed plug and tighten with screwdriver.
10. Connect airline to tool. There is a choice 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.



## 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 4.3* 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 4.4*.
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.

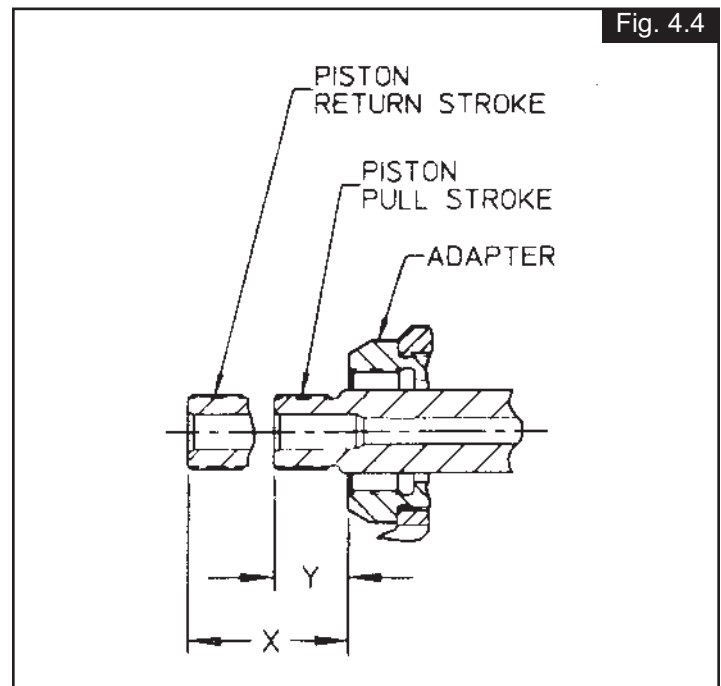




Figure 5

**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.

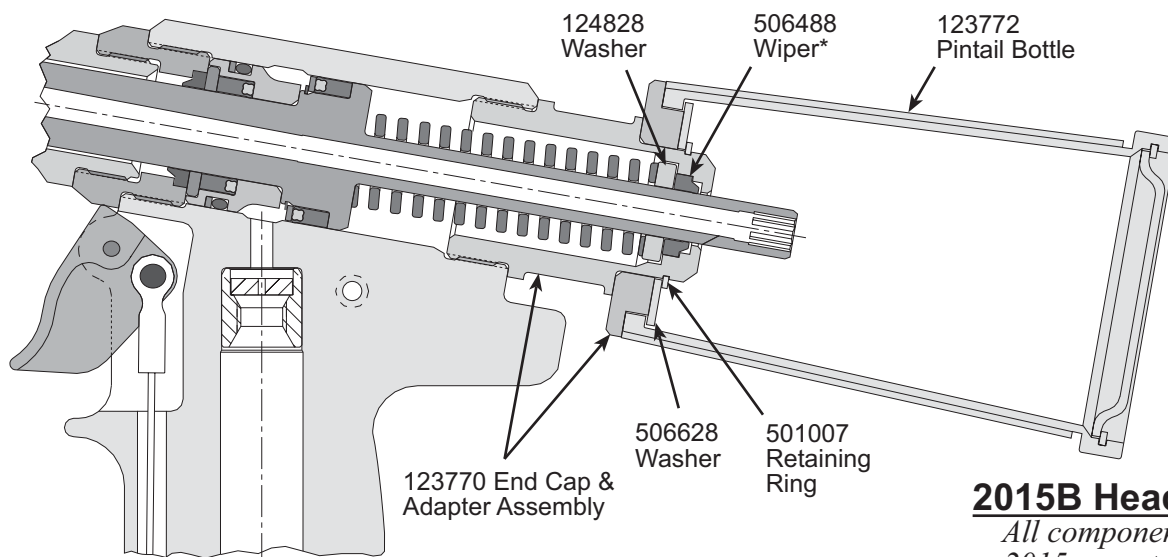
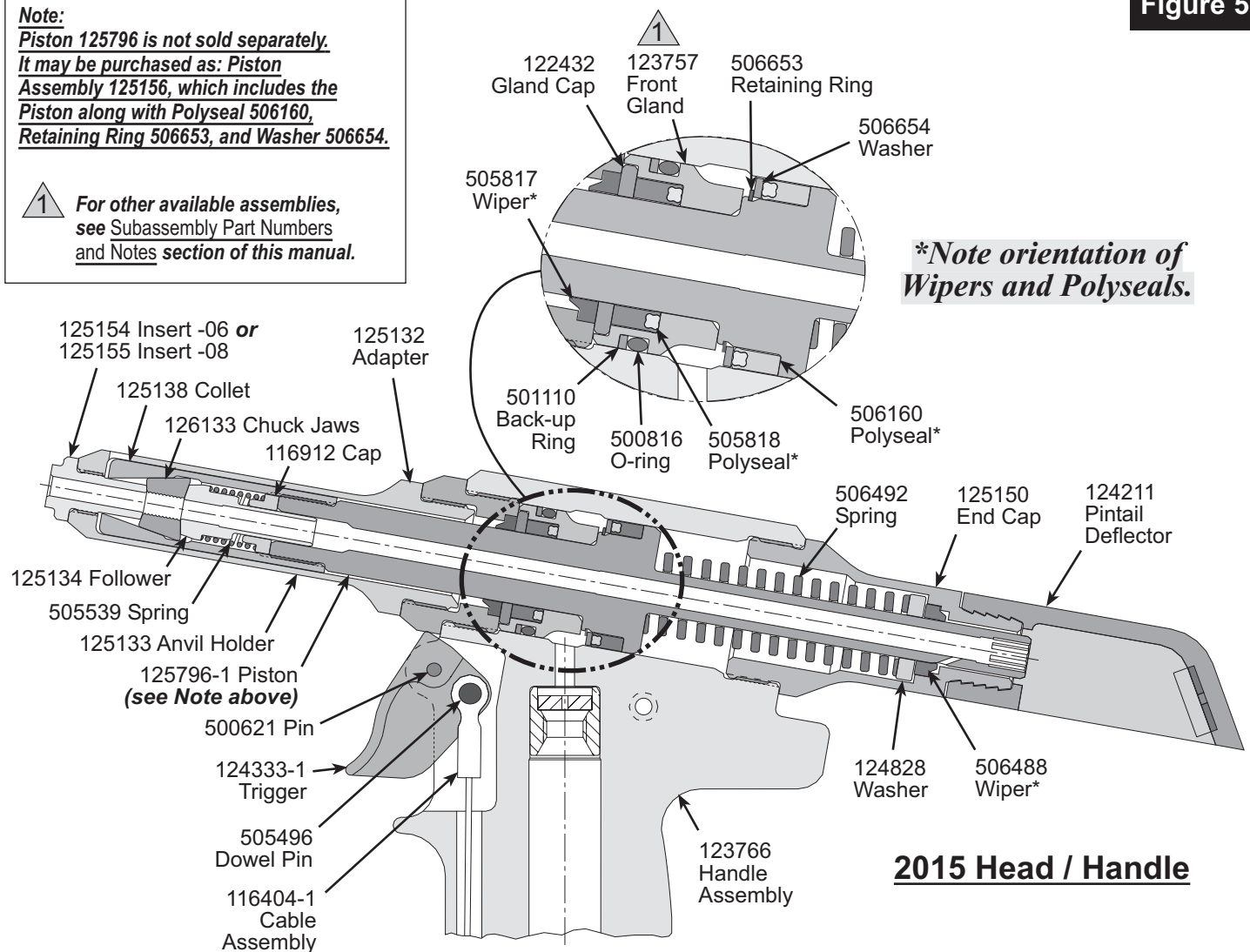


Figure 6

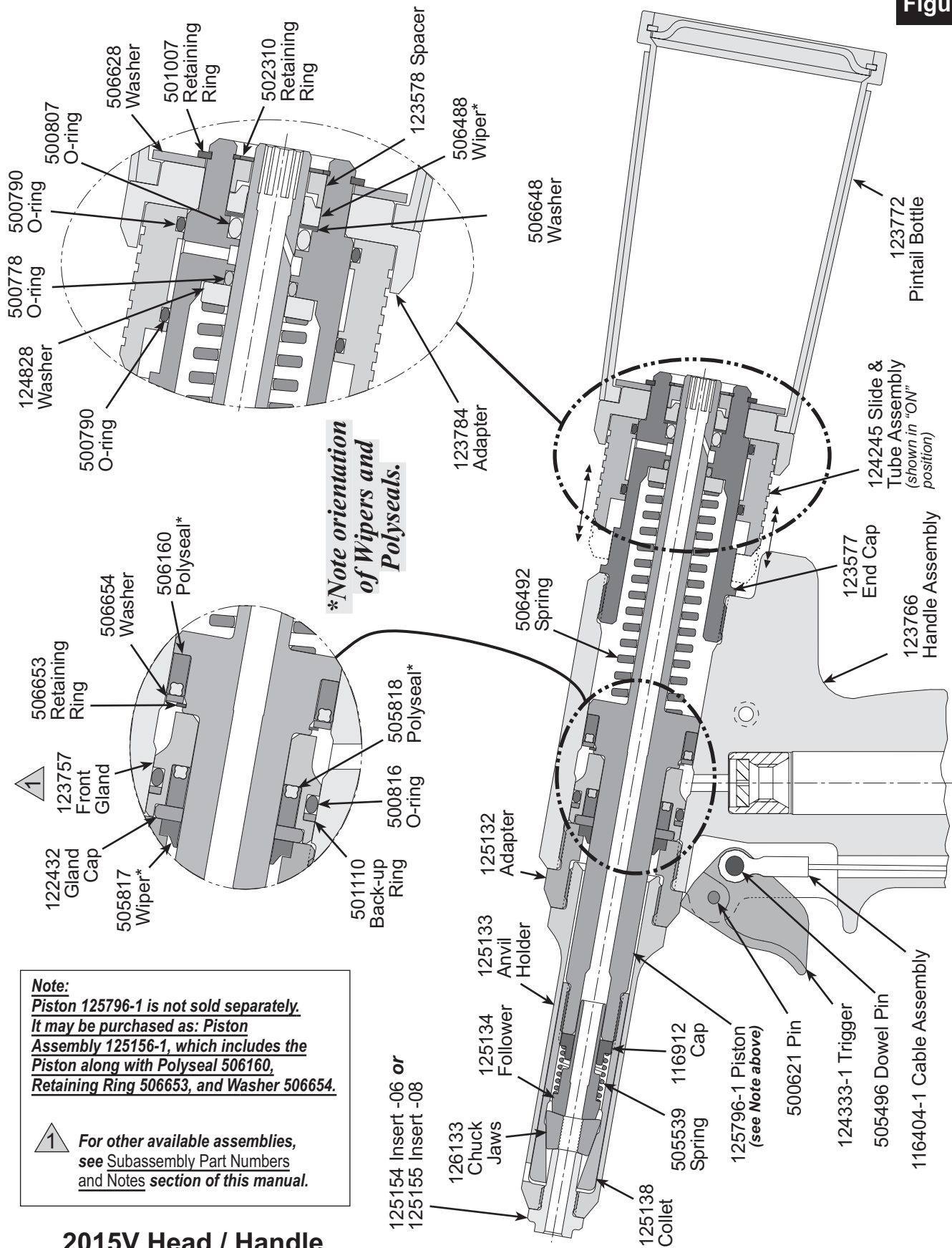
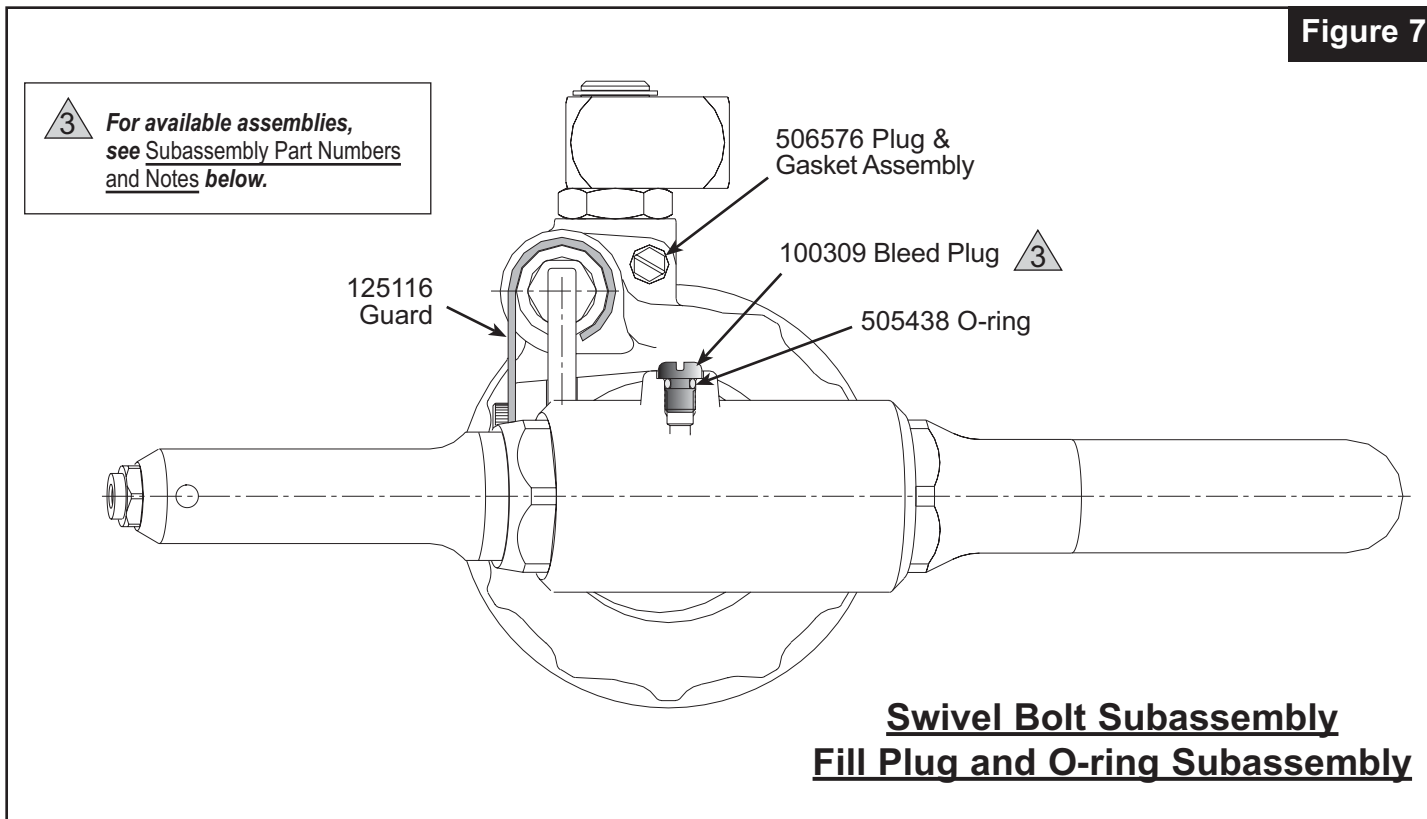


Figure 7



## 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.

<p><b>1</b> <b>123775</b> 123757 500816 501110 505818 122432 505817</p>	<p><b>Front Gland Assembly</b> contains: Front Gland O-ring Back-up Ring Polyseal Gland Cap Wiper</p>	<p><b>3</b> <b>104293</b> 100309 505438</p>	<p><b>Bleed Plug Assembly</b> contains: Bleed Plug O-ring</p>
<p><b>2</b> <b>123777-2</b> 123776-1 111803-1 506493 505420</p>	<p><b>Air Piston and Rod Assy</b> contains: Air Piston Assembly Piston Rod Washer Self-locking Nut</p>	<p><b>4</b> <b>123778-1</b> 111959-2 500864</p>	<p><b>Cylinder Head Assy</b> contains: Cylinder Head O-ring</p>
		<p><b>5</b> <b>125472-2</b> 125467-2 507396</p>	<p><b>Throttle Valve Assembly</b> contains: Throttle Valve O-rings (qty. 3)</p>

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

Figure 8

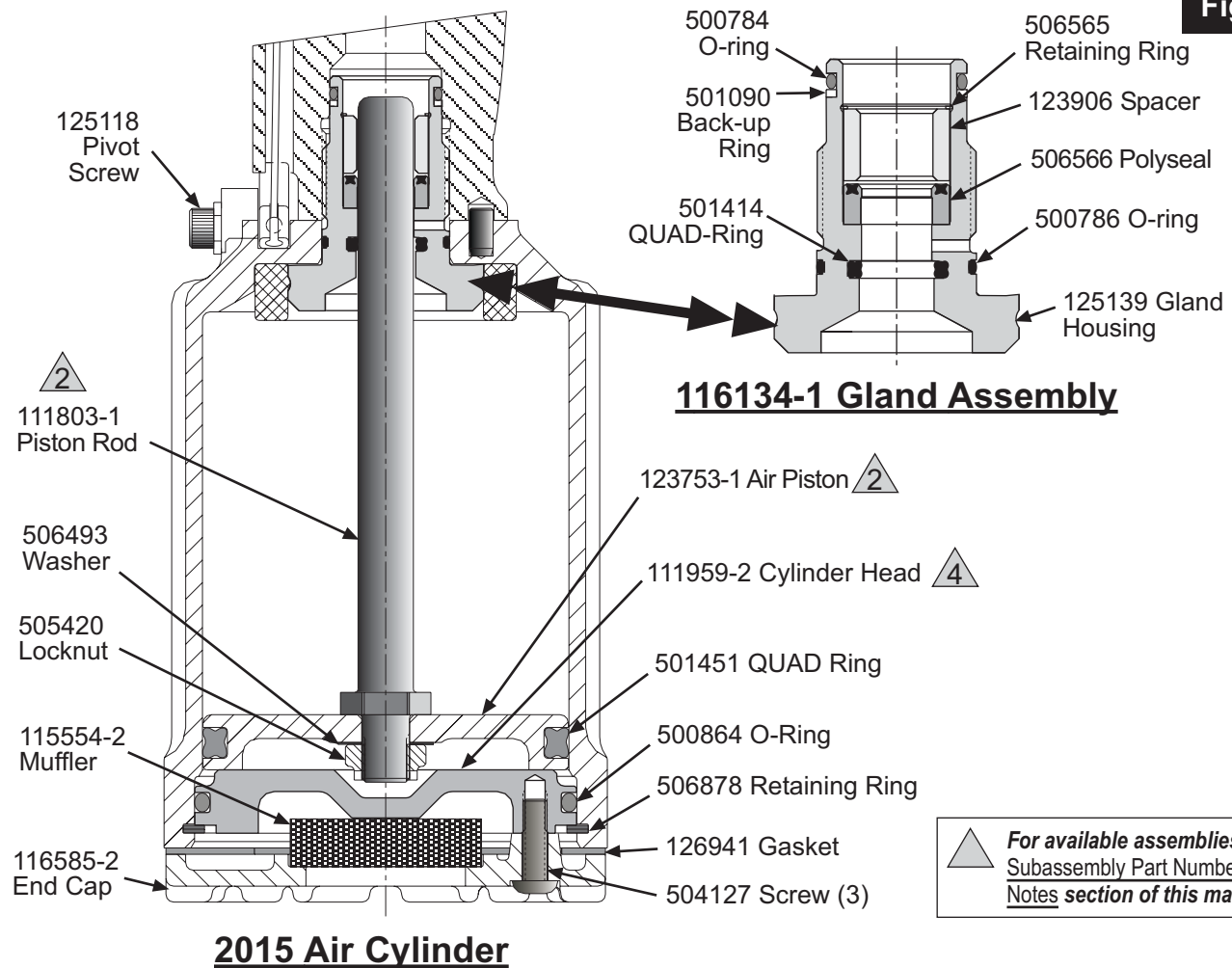


Figure 9

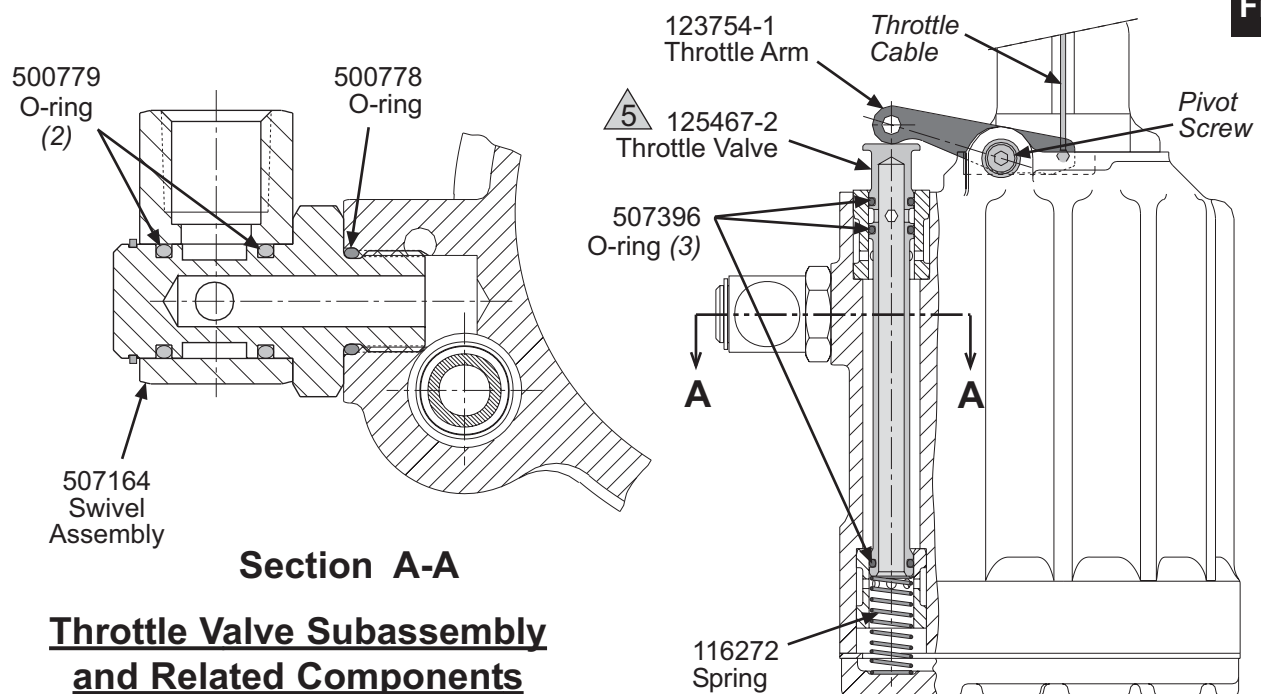


Figure 10

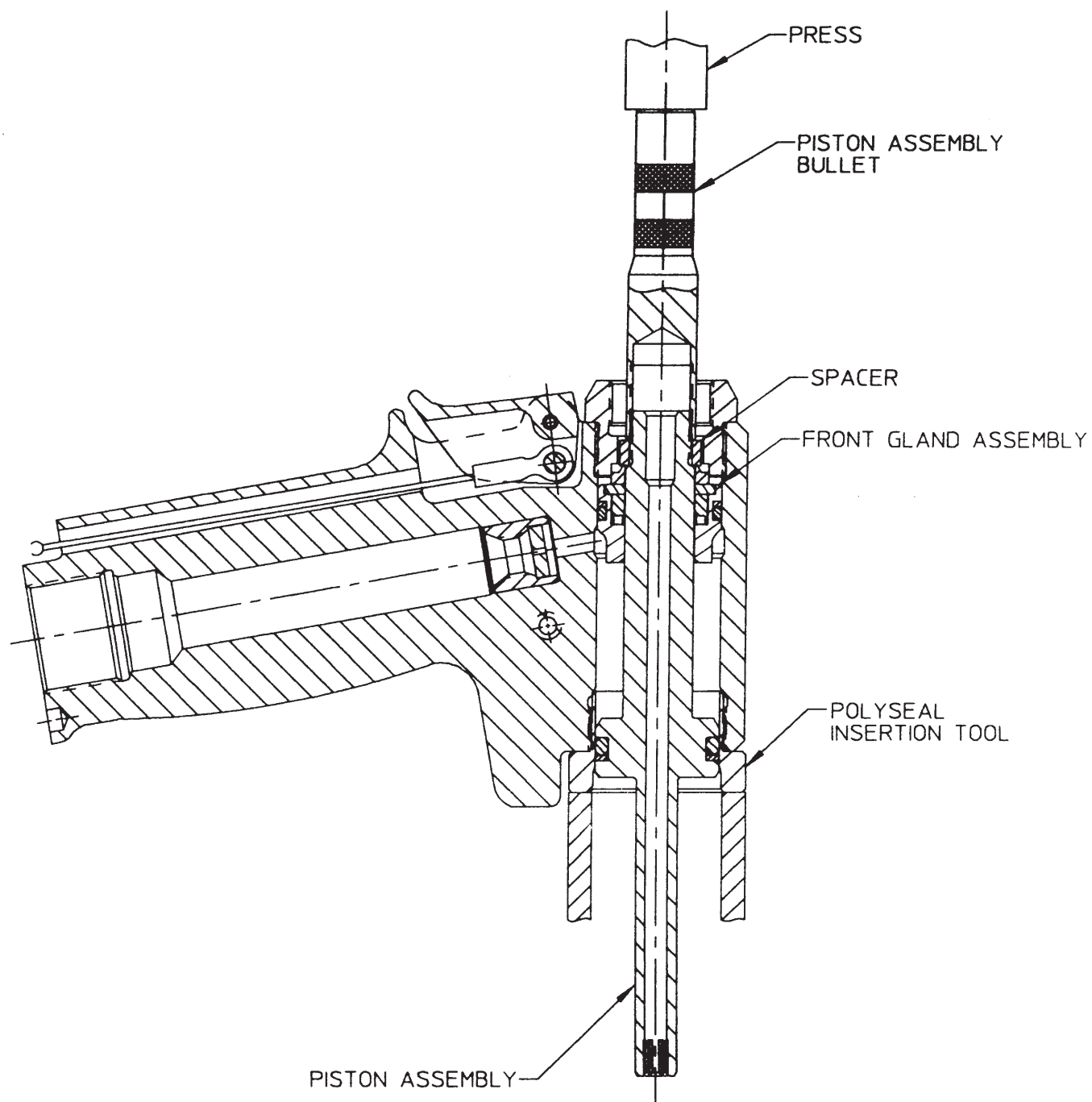
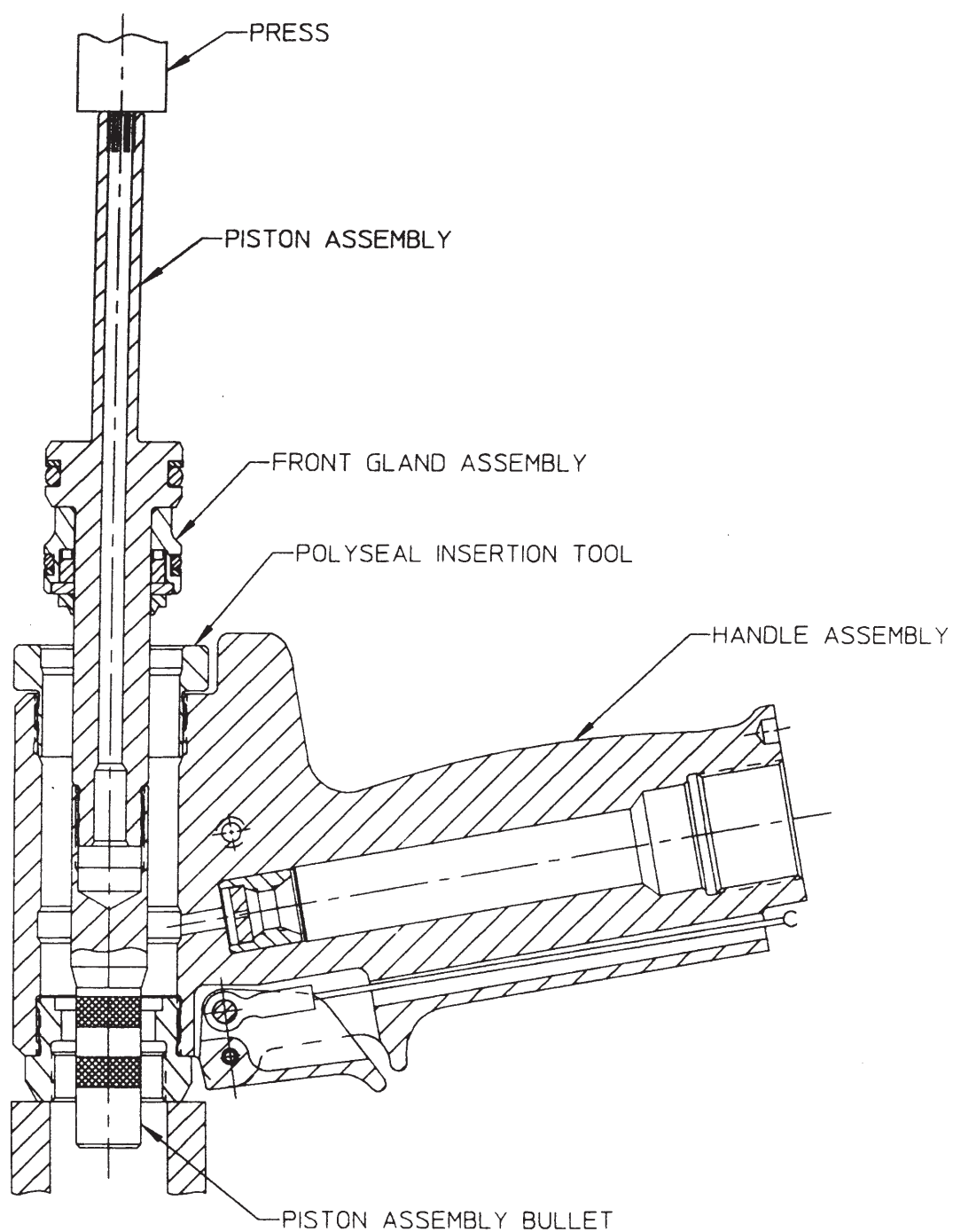
**Removing Piston and Front Gland**

Figure 11



## Installing Piston and Front Gland

# 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 12)

## 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 13 below.

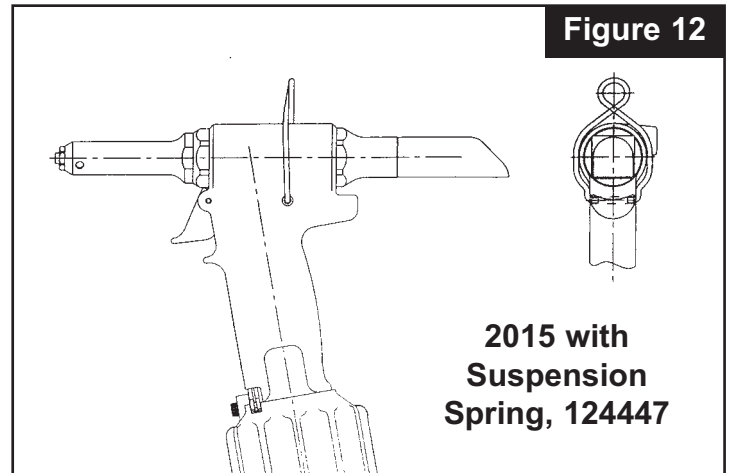


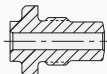
Figure 12

2015 with  
Suspension  
Spring, 124447

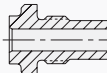
## -03 to -08 Nail Type Product

Included with  
Original Tool  
Purchase

-06  
125154

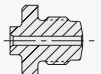


-08  
125155

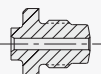


### KIT 125273

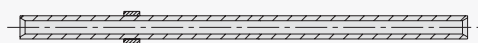
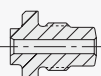
-03  
125151



-04  
125152



-05  
125153



125135 Pintail Tube Assembly

## 2015 Style Insert Kits

### -06 & -08 MAGNATITE Product

#### -06 KIT 125366

125280  
-06 Protruding  
Head



125281  
-06 Button  
Head



125154  
-06 Flat Head

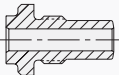


#### -08 KIT 125366-1

125282  
-08 Protruding  
Head



125155  
-08 Flat Head

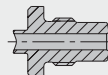


## NOTE:

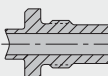
Pintail Tube 125135-1,  
which is supplied with the  
tool, must be used with all  
-06 product.

### -06 & -08 PEEL Rivets Kit 125367

-06 PEEL Rivet  
125283

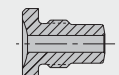


-08 PEEL Rivet  
125284



### -06 MGL Product Kit 125365

-06 Truss Head  
125279



-06 Countersunk  
125154

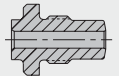


Figure 13



## TROUBLESHOOTING

*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:*

<b><u>Symptom</u></b>	<b><u>Probable cause</u></b>
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 <i>FILLING AND BLEEDING</i> . 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 POLY-SEAL 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.

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## Canada

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Telephone (905) 564-4825 FAX (905) 564-1963

## Outside USA and Canada

Contact your nearest Huck International Office, see back cover.

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