

Alcoa
Fastening
Systems

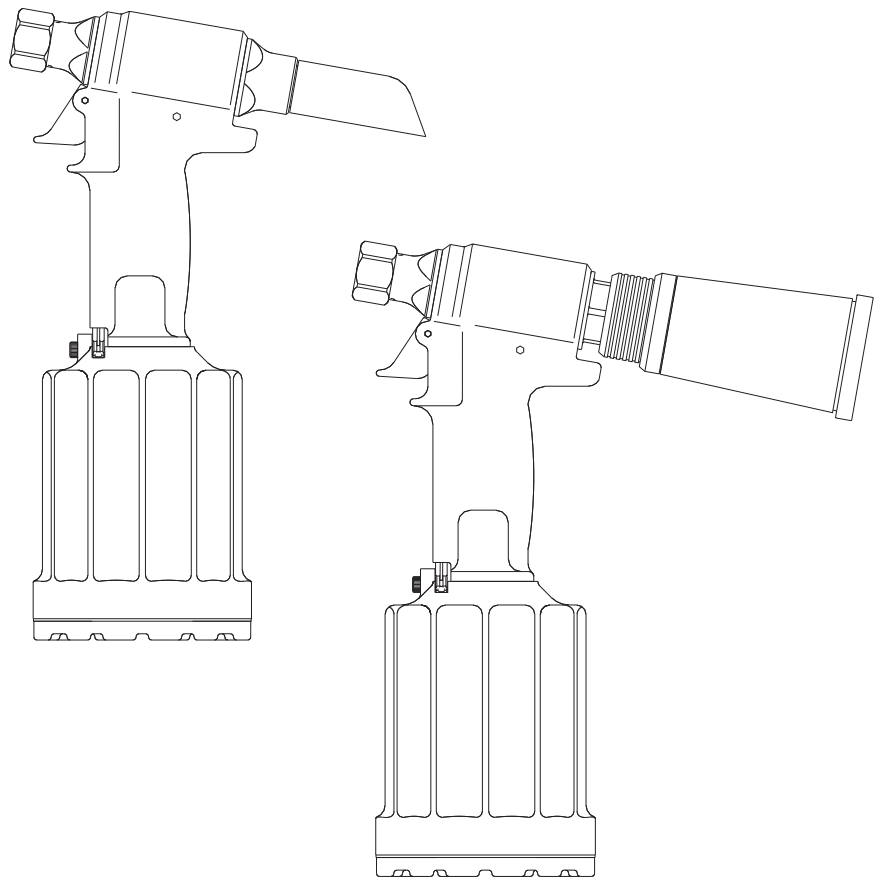


INSTRUCTION MANUAL

2024 SERIES

PNEUDRAULIC INSTALLATION TOOLS

ALL MODELS



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

01-23-2012
HK1077





EC Declaration of Conformity

Manufacturer:

Alcoa Fastening Systems, Industrial Products Group, 1 Corporate Drive, Kingston, NY, 12401, USA

Description of Machinery:

Model 2024 series and 2024V series Pneudraulic installation tools and specials based on thei 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 (EN 792-1)

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: Larry M. Krieg
 Position: Product Engineer
 Installation Systems Division
 Place: Kingston, New York, USA
 Date: January 2012

| Declared dual number noise emission values in accordance with ISO 4871 | |
|--|--|
| A weighted sound power level, LWA: 81 dB (reference 1 pW) Uncertainty, KWA: 3 dB | |
| A weighted emission sound pressure level at the work station, LpA: 70 dB (reference 20 µPa) Uncertainty, KpA: 3 dB | |
| C-weighted peak emission sound pressure level, LpC, peak: 115 dB (reference 20 µPa) 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: | .572 m/s ² |
| Uncertainty, K: | .279 m/s ² |
| 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.

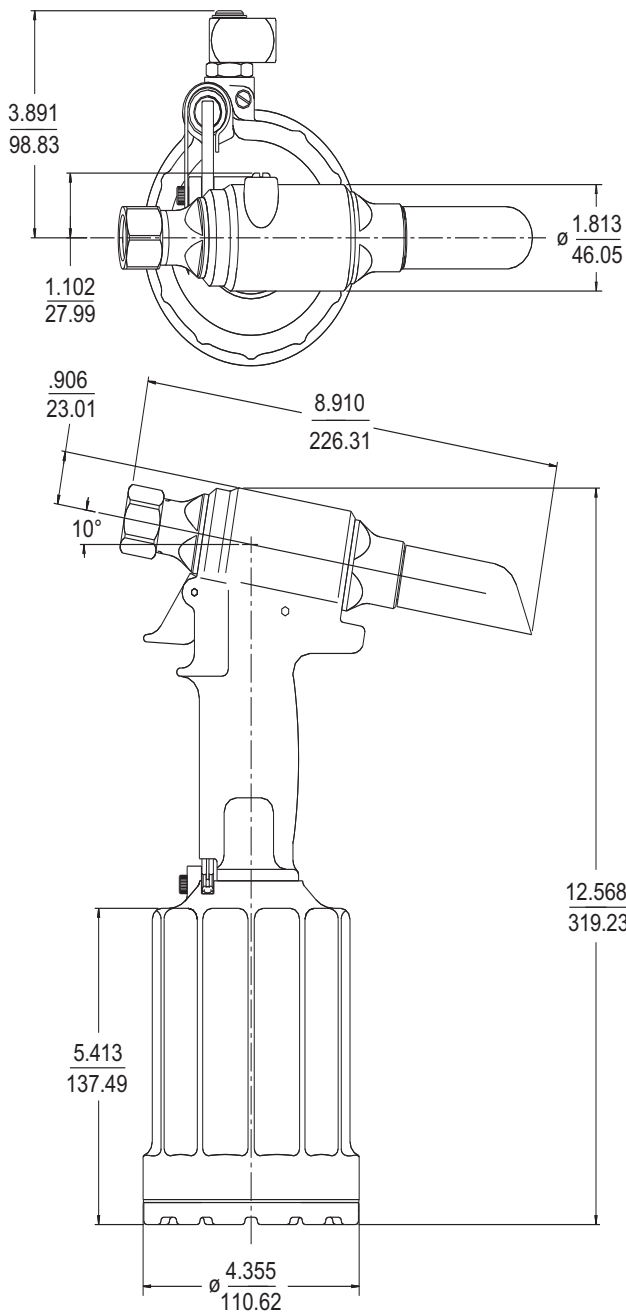
1. A half hour long hands-on training session with qualified personnel is recommended before using Huck equipment.
2. Huck equipment must be maintained in a safe working condition at all times. Tools and hoses should be inspected at the beginning of each shift/day for damage or wear. Any repair should be done by a qualified repairman trained on Huck procedures.
3. Repairman and Operator must read manual prior to using equipment. Warning and Caution stickers/labels supplied with equipment must be understood before connecting equipment to any primary power supply. As applicable, each of the sections in this manual have specific safety and other information.
4. Read MSDS Specifications before servicing the tool. MSDS Specifications are available from the product manufacturer or your Huck representative.
5. When repairing or operating Huck installation equipment, always wear approved eye protection. Where applicable, refer to ANSI Z87.1 - 2003
6. Only genuine Huck parts shall be used for replacements or spares. Use of any other parts can result in tooling damage or personal injury.
7. If a part affixed with warning labels is replaced, or labels are missing or damaged, the end user is responsible for replacement. Refer to assembly drawing and parts list for replacement part number and proper placement.
8. Disconnect primary power source before performing maintenance on Huck equipment or changing Nose Assembly.
9. Tools and hoses should be inspected for leaks at the beginning of each shift/day. If any equipment shows signs of damage, wear, or leakage, do not connect it to the primary power supply.
10. Mounting hardware should be checked at the beginning of each shift/day.
11. Make sure proper power source is used at all times.
12. Release tool trigger if power supply is interrupted.
13. Tools are not to be used in an explosive environment unless specifically designed to do so.
14. Never remove any safety guards or pintail deflectors.
15. Where applicable, ensure deflector or pintail collector is installed and operating prior to use.
16. Never install a fastener in free air. Personal injury from fastener ejecting may occur.
17. Where applicable, always clear spent pintail out of nose assembly before installing the next fastener.
18. There is possibility of forcible ejection of pintails or spent mandrels from front of tool.
19. Check clearance between trigger and work piece to ensure there is no pinch point when tool is activated. Remote triggers are available for hydraulic tooling if pinch point is unavoidable.
20. Unsuitable postures may not allow counteracting of normal expected movement of tool.
21. Do not abuse tool by dropping or using it as a hammer. Never use hydraulic or air lines as a handle or to bend or pry the tool. Reasonable care of installation tools by operators is an important factor in maintaining tool efficiency, eliminating downtime, and in preventing an accident which may cause severe personal injury.
22. Never place hands between nose assembly and work piece. Keep hands clear from front of tool.
23. There is a risk of crushing if tool is cycled without Nose Assembly installed.
24. Tools with ejector rods should never be cycled with out nose assembly installed.
25. When two piece lock bolts are being used always make sure the collar orientation is correct. See fastener data sheet for correct positioning.
26. Tool is only to be used as stated in this manual. Any other use is prohibited.
27. There is a risk of whipping compressed air hose if tool is pneudraulic or pneumatic.
28. Release the trigger in case of failure of air supply or hydraulic supply.
29. Use only fluids or lubricants recommended.
30. Disposal instruction: Disassemble and recycle steel, aluminum and plastic parts, and drain and dispose of hydraulic fluid in accordance with local lawful and safe practices.
31. If tool is fixed to a suspension device, ensure that the device is secure prior to operating the tool.



SPECIFICATIONS

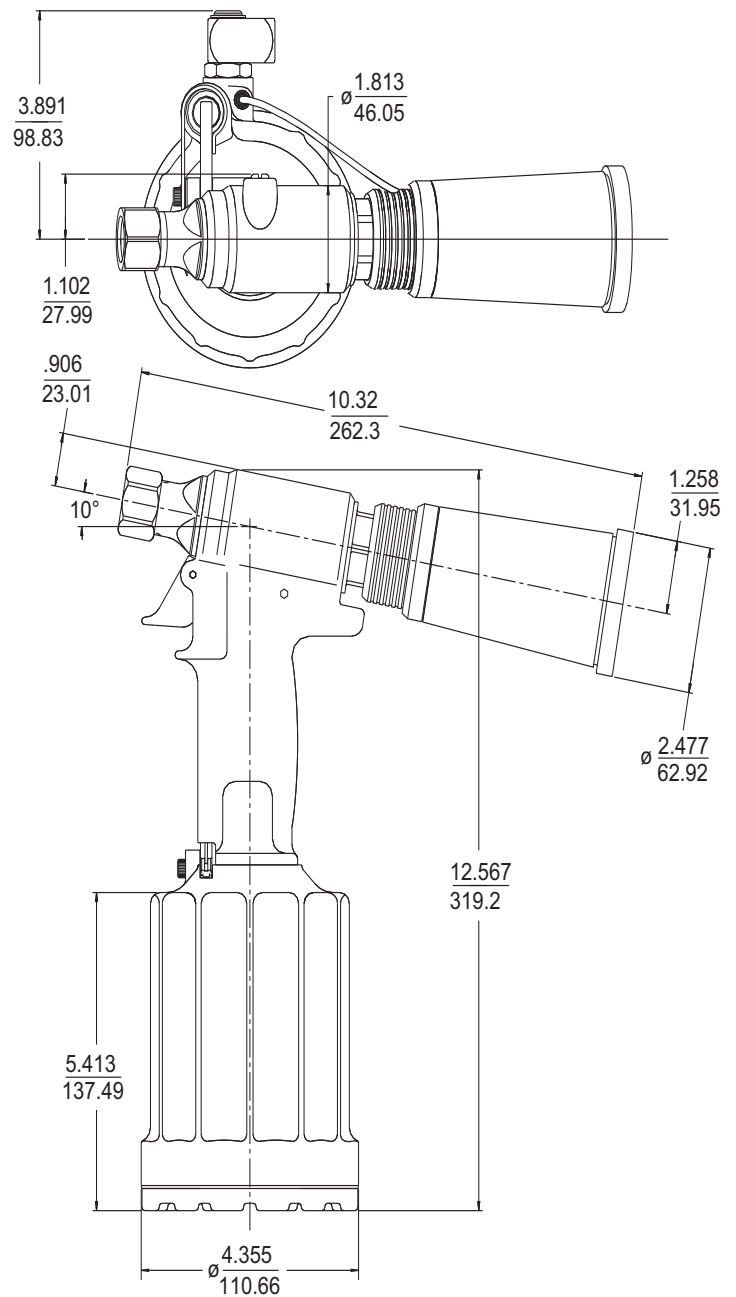
MODELS 2024 & 2024L

- **Stroke:** .850 in (2.16 cm)
- **Air Pressure:** 90 psi (6.2 bar) MAX
- **Capacity:** 3993 lbs @ 90 psi
(1811.2 kg @ 6.2 bar)
- **Weight:** 5.5 lbs. (2.5 kg)
- **MAX Temp:** 125° F (51.7° C)



MODELS 2024V & 2024LV

- **Stroke:** .850 in (2.16 cm)
- **Air Pressure:** 90 psi (6.2 bar) MAX
- **Capacity:** 3993 lbs @ 90 psi
(1811.2 kg @ 6.2 bar)
- **Weight:** 5.5 lbs. (2.5 kg)
- **MAX Temp:** 125° F (51.7° C)



PRINCIPLE OF OPERATION

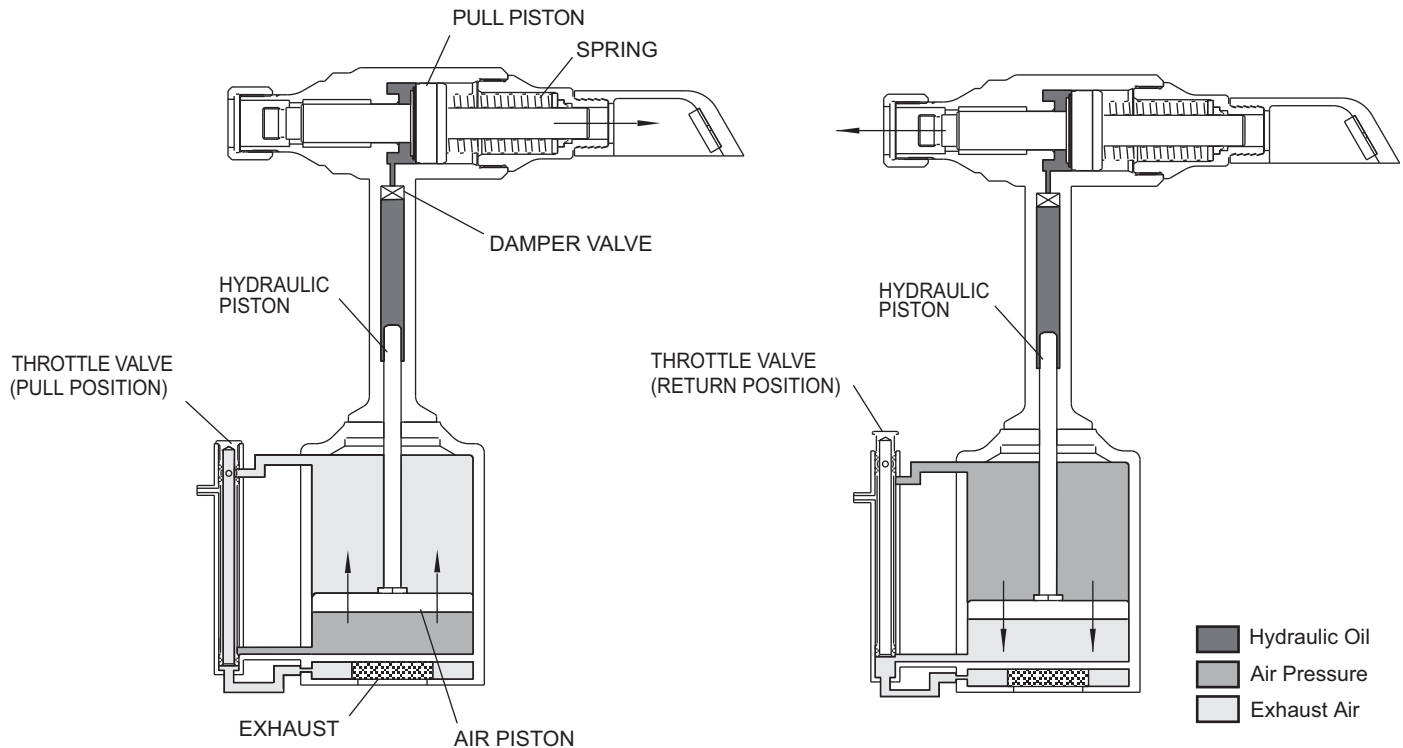


Fig. 1a

Fig. 1b

When the trigger is depressed the throttle valve moves to down position, pressurized air is directed to the bottom of the air piston, causing the piston to move upward (Fig.1a).

The air above the piston is exhausted and directed through the center of the throttle valve and out the bottom of the tool.

As the hydraulic rod moves upward, a column of fluid is forced into head, which moves the pull piston back.

The attached nose assembly moves with the pull piston to start fastener installation.

When fastener installation is completed, the trigger is released.

Air pressure with the assistance of a spring causes the throttle valve to return to its up position. Pressurized air is re-directed to the top of the air piston (Fig.1b), causing the air piston and hydraulic rod to move downward.

The air from below the piston is exhausted through the bottom of the tool. Spring pressure returns the pull piston to its home position.

The damper valve impedes oil flow at pinbreak helping prevent “Tool Kick”.



PREPARATION FOR USE

The Model 2024 Installation Tool is shipped with a plastic plug in the air inlet connector. The connector has 1/4-18 female pipe threads to accept the air hose fitting. Quick disconnect fittings and 1/4" inside diameter air hose are recommended. An air supply of 90 psi (6.2 bar) capable of 20 ft³/s (.57 m³/s) must be available. Air supply should be equipped with a filter-regulator-lubricator unit.

1. Remove plastic shipping plug from Air Inlet Connector and put in a few drops of Automatic Transmission Fluid, DEXRON III, or equivalent.
2. Screw quick disconnect fitting into Air Inlet Connector.



CAUTION: Do not use TEFLON tape on threads. Use TEFLON in stick form only: Huck P/N 503237

3. Set air pressure on regulator to 90-100 psi.
4. Connect air hose to tool.
5. Cycle tool a few times by depressing and releasing trigger.
6. Disconnect air hose from tool.

7. Remove Retaining Nut.
8. Select proper Nose Assembly from **NOSE ASSEMBLY SELECTION CHART** for fastener to be installed.
9. Screw Collet Assembly (including lock collar and shim if applicable) onto Spindle. (Wrench Tight)
10. Slide Anvil over Collet Assembly and into counterbore.
11. Slide Retaining Nut over Anvil and screw Nut onto Head.
12. Connect air hose to tool and install fastener(s) in test plate of proper thickness with proper size holes. Inspect fastener(s).

NOTES:

- 1 Air quick disconnect fittings and air hoses are not available from Huck International, Inc.
- 2 On old style nose assemblies with lock collars, **Vibra-TITE** should be used on collect threads, since there is no staking hole provided on the 2024 pull piston. Refer to nose assembly data sheets.

SERVICING THE TOOL

GENERAL

1. The efficiency and life of any tool depends upon proper maintenance. Regular inspection and correction of minor problems will keep tool operating efficiently and prevent downtime. The tool should be serviced by personnel who are thoroughly familiar with how it operates.
2. 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.
3. Proper hand tools, both standard and special, must be available.
4. All parts must be handled carefully and examined for damage or wear. Always replace Seals, when tool is disassembled for any reason. 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.
5. **Service Parts Kit 2024KIT** includes consumable parts and should be available at all times. Other components, as experience dictates, should also be available.



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

DAILY

1. If a Filter-Regulator-Lubricator unit is not being used, uncouple air disconnects and put a few drops of Automatic Transmission Fluid or light oil into the air inlet of the tool. If the tool is in continuous use, put a few drops of oil in every two to three hours.
2. Bleed the air line to clear it of accumulated dirt or water before connecting air hose to the tool.
3. Check all hoses and couplings for damage or air leaks, tighten or replace if necessary.
4. Check the tool for damage or air/hydraulic leaks, tighten or replace if necessary.
5. Check the nose assembly for tightness or damage, tighten or replace if necessary.
6. Check stroke periodically, if stroke is short add oil.

WEEKLY

1. Disassemble, clean, and reassemble nose assemblies per applicable nose assembly instructions.
2. Check the tool and all connecting parts for damage or oil/air leaks, tighten or replace if necessary.



DISASSEMBLY INSTRUCTIONS 2024 ALL MODELS



WARNING: Be sure air hose is disconnected from tool before cleaning, or performing maintenance. Severe personal injury may occur if air hose is not disconnected.

For component identification and Parts list refer to Figures 2, 14, & 15.

NOTE: The following procedure is for complete disassembly of tool. Disassemble only components necessary to replace damaged O-rings, Quad rings, Back-up rings, and worn or damaged components. Always use soft jaw vice to avoid damage to tool.

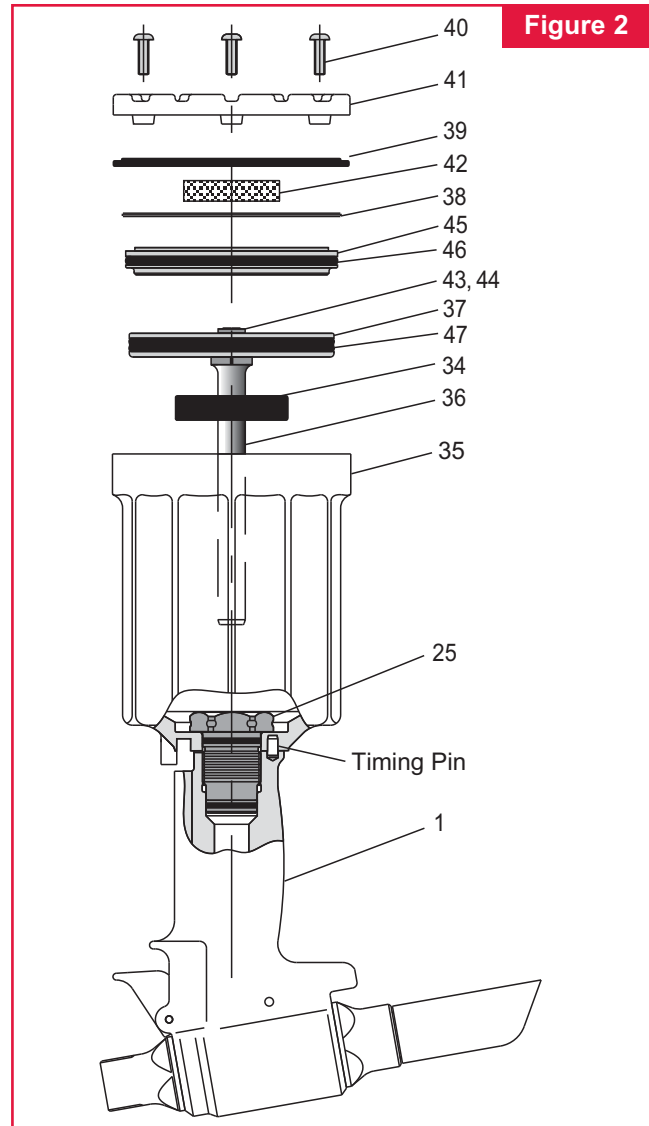
1. Disconnect tool from air source.
2. Unscrew Retaining Nut (7) and remove nose assembly.
3. Unscrew Bleed Plug (55), from top of Handle/head. Turn tool over and allow fluid to drain into container (Fig. 10 & 14).
4. **2024 & 2024L:** Pull Pintail Deflector (24) off End Cap (21).
2024V & 2024LV: Please reference *Disassembly of Pintail Bottle and Vacuum System Procedure*.
5. Remove Throttle Arm Pivot Screw (48) and Lever Guard (73), and lift out Throttle Arm (53). Disconnect ball end of Cable Assembly (2) from throttle arm.
6. Hold tool in vise with bottom up. (Fig. 2) Remove Button Head Screws (40) with 1/8 hex key, then End Cap (41) and Gasket (39). Remove Muffler (42) from end cap and Spring (49) from Throttle Valve (Fig.14).
7. Tap Cylinder Head (45) down with soft mallet (to take pressure off ring), and remove Retaining Ring (38) (Fig.2).
8. Screw Button Head Screws (40) back into Cylinder Head. Carefully pry on screws to remove head. Remove O-ring (46).
9. To remove air piston from cylinder, pull on Lock Nut (43) with VISE-GRIPS. Remove Piston Quad Ring (47).



CAUTION: Care must be given not to scratch piston rod or cylinder during removal.

10. Remove Bumper (34) from Gland Assembly. Unscrew Gland Assembly (25) with 1 3/8 socket wrench and extension bar.

11. Remove SPIRO-LOX Retaining Ring (30) from gland (26), pull out Spacer (29) and POLYSEAL (28). Then remove O-rings (31 & 27), Quad Ring (33) & Back-up Ring (32) (Fig. 14).
12. Lift cylinder (35) from handle/head (1) (Fig. 2).



13. Turn handle/head (1) over and drain fluid into container. Discard fluid.
14. Pull Throttle Valve (52) out of air cylinder (35). Remove O-Rings (50) (Fig. 14).

HEAD/HANDLE 2024 & 2024L:

(See Figures 3, 4 & 14)

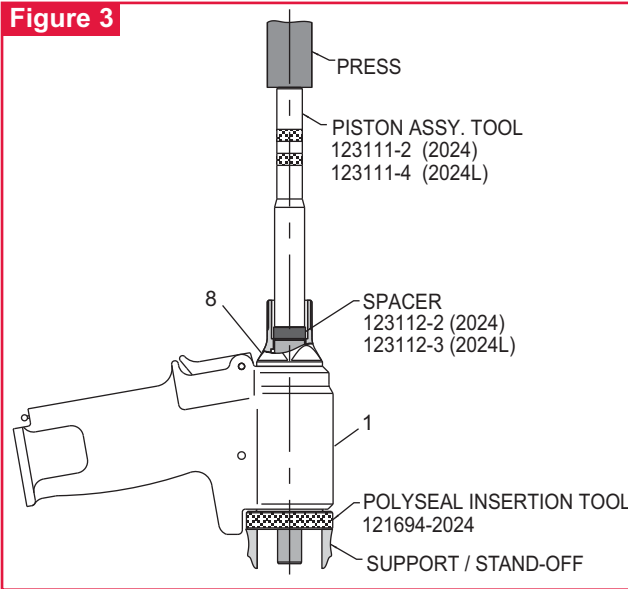
15. Unscrew End Cap (21) and remove Spring (19), Spacer (22) and Wiper Seal (23).
NOTE: For 2024V, reference *DISASSEMBLY OF PINTAIL BOTTLE AND VACUUM SYSTEM* procedure.



DISASSEMBLY INSTRUCTIONS *continued*

16. Thread POLYSEAL Insertion/removal Tool (121694-2024), into rear of Handle/head. (Fig. 3)

Figure 3



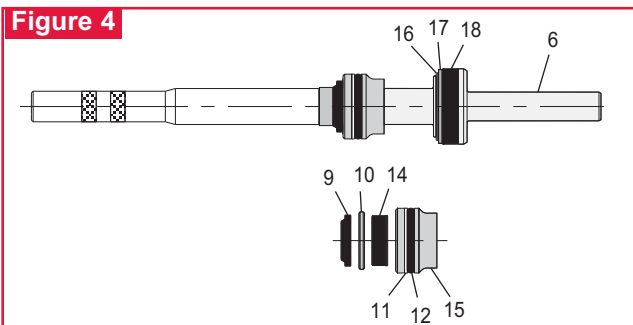
17. Slide Spacer (123112-2 for 2024 or 123112-3 for 2025L) onto piston.

18. Thread Piston Assembly Tool (123111-2 for 2024 or 123111-4 for 2024L) onto piston.

19. Push piston and front gland assemblies out the back of the Handle/Head (1). Allow clearance, with stand-off, for piston as it leaves the tool (Fig. 4).

20. Remove piston assembly tool and spacer from piston. Rethread on the piston assembly tool only, then slide the front gland assembly off the Piston (6) (Fig. 4).

Figure 4



21. Remove Piston Assembly Tool from Piston (6). Remove POLYSEAL Insertion/removal Tool from rear of Head/Handle (1).

23. Remove Retaining Ring (16), Washer (17) and POLYSEAL (18) from piston.

NOTE: Inspect hydraulic piston for wear, scoring or damage. Replace when necessary.

24. Unscrew Adapter (8) (Fig. 14).

25. Inspect all seals and parts.

24. If frayed or broken, remove trigger Cable Assembly (2) by driving Pin (4) out with punch. Remove Dowel Pin (3) to disconnect cable from trigger.

PINTAIL BOTTLE/VACUUM SYSTEM 2024V & 2024LV

(See Figures 5, 6 & 15)

NOTE: The following steps are for disassembly of the 2025V and 2025LV models only. Please use these steps in conjunction with the General and Head/Handle disassembly sections of this manual.

1. By reaching through the window of Pintail Bottle (24) remove Retaining Ring (62) and Washer (63) (Fig. 5).

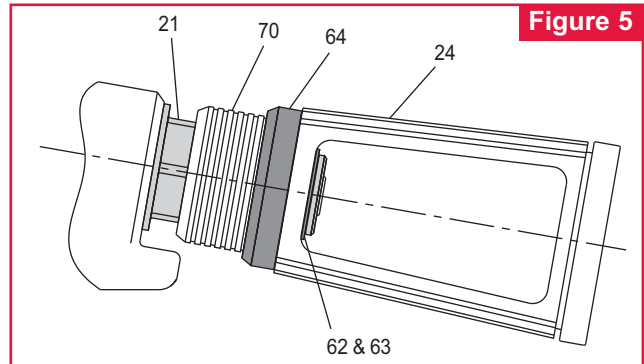


Figure 5

2. Remove Pintail Bottle (24).

3. Disconnect tube from connector (54) (Fig. 15).

4. Remove Adapter (64) and Tube/ Slide Assembly (70).

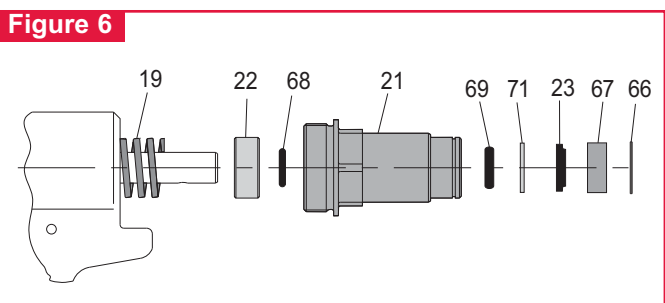
5. Remove End Cap (21) and Spring (19) (Fig. 6).

6. Remove Spacer (22) and O-Ring (68) from spring side of end cap.

7. From bottle side of end cap, remove Retaining Ring (66), Wiper Housing (67), Wiper Seal (23), Washer (71) and O-Ring (69).

8. Remove the O-Rings (65) from the inside of the Adapter and Tube/Slide Assembly (70) (Fig 15).

Figure 6





ASSEMBLY INSTRUCTIONS 2024 ALL MODELS

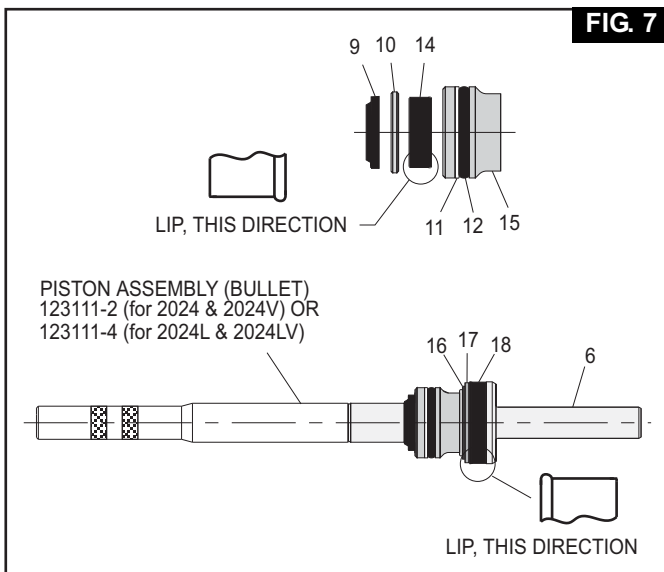
Head/handle 2024, 2024L

(Refer to Figures (7, 8 & 14))

NOTE:

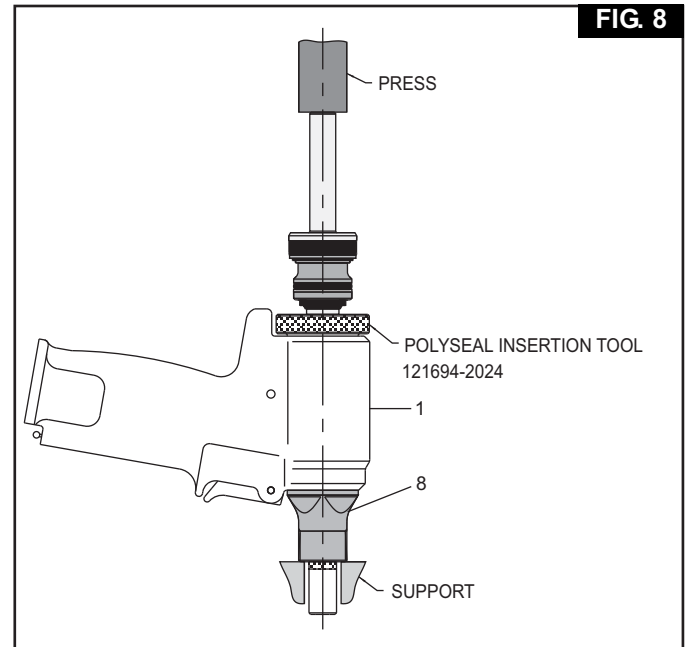
Clean components with mineral spirits, or similar solvent; inspect for wear/damage and replace as necessary. Replace all seals of disassembled components. Use O-rings, QUAD rings and Back-up rings in **Service Parts Kit, P/N 2024KIT or 2024VKIT**. Smear LUBRIPLATE 130AA or PARKER-O-LUBE on O-rings, QUAD rings, Back-up rings and mating parts to ease assembly. Assemble tool taking care not to damage O-rings, QUAD rings, or Back-up rings.

1. If removed, position Cable Assembly (2) in Trigger (5) slot and slide Dowel Pin (3) through holes in trigger and cable assembly. Position assembled trigger in handle and drive Pin (4) through holes in handle and trigger (Fig. 14).
2. Screw Nose Adapter (8) into Head (1) and tighten.
3. Thread POLYSEAL Insertion/removal Tool (121694-2024) into head.



4. Assemble piston (6), Polyseal (18) and retaining ring (16) (Fig 7). Note Polyseal orientation.
5. Assemble front gland (15), O-ring (12), Back-up ring (11), Polyseal (14) and Gland Cap (10). Note Polyseal orientation.
6. Thread Piston Assembly Tool (123111-2 for 2024, & 2024V) or (123111-4 for 2024L, & 2024LV) onto Piston (6). Slide complete Gland Assembly and Wiper Seal (9) onto Piston (6).

7. Install assembled components in gently from rear of tool using a press as shown in (Fig. 8).



8. Remove Piston Assembly Tool (123111-2 or 123111-4) and POLYSEAL Insertion / removal (121694-2024) Tool.
9. Install Rear Wiper Seal (23) into End Cap (21) (Fig. 14).
10. Slide Spacer (22) and Spring (19) into End Cap (21) and then thread End Cap assembly into rear of Head. **NOTE: For 2024V please reference Assembly of Pintail Bottle and Vacuum System procedure.** (Refer to Figures 5, 6 & 10)

General:

(Refer to Figures 2 & 9)

11. Hold Head/Handle (1) inverted in vice (with soft jaws). Place inverted Cylinder Assembly (35) on base of handle. Timing pin maintains orientation.
12. Assemble Gland assembly (25) with new seals (Fig. 9). Note orientation of polyseal. Apply Anti-Seize Compound (Huck P/N 508183) to threads of Gland Assembly. Screw gland into head/handle and Torque to 50 ft. lbs. using 1 3/8 socket wrench.
13. Push Bumper (34) firmly over gland. **NOTE: The side of the bumper with two slots must face toward the bottom of the tool.**



ASSEMBLY INSTRUCTIONS *continued*

General Assembly (continued):

(Refer to Figures 2 & 9)

14. Install Quad Ring (47) onto Air Piston (37).
15. Lubricate piston rod. Press assembled air piston/rod into cylinder just enough to allow installation of cylinder head (45).
16. Assemble O-Ring (46) onto Cylinder Head (45) and then push Cylinder Head squarely into cylinder taking care not to damage O-ring (46). Install Retaining Ring (38). *(Align screw holes with muffler end cap)*
17. Position Muffler (42) in center of cylinder head. Position Gasket (39) on cylinder. (Refer to Fig 2 & 9) Note direction of Lip
18. Carefully position Bottom Plate (41) on cylinder. **NOTE: Make sure that the muffler is properly positioned in recess of Bottom Plate (41).** (Figures 2 & 14).
19. Secure the bottom plate with the three Button Head Screws (40) using 1/8 hex key (Fig. 2).
20. Assembly O-Rings (50) on Throttle Valve (52). (Fig. 14 Section CC)
21. Place the tool upright on a level surface, drop Spring (49) into throttle valve bore in cylinder (35). Push Throttle Valve into cylinder.
22. Place ball end of Throttle Cable (2) into end of Throttle Arm (53), then slide Throttle Arm into slot on Cylinder (Fig. 9).
23. Snap Lever Guard (73) in place, and install Pivot Screw (48) in cylinder to retain throttle arm (53).
24. **For 2024 & 2024L:** Push Pintail Deflector (24) onto End Cap (21).

For 2024V & 2024LV: *Please reference Disassembly of Pintail Bottle and Vacuum System Procedure.*

25. Tool is now completely assembled and needs to be filled with oil. Please refer to the fill and bleed section next.

Pintail Bottle/Vacuum 2024V & 2024LV:

(Refer to Figures 6 & 15)

The following steps are for the assembly of the 2024V & 2024LV models only. Please use these steps in conjunction with the General and Head/Handle disassembly sections of this manual.

1. Assemble Adapter and Tube/Side Assembly (70) and new O-Rings (65).
2. From bottle side of End Cap (21) install O-Ring (69), Washer (71), Wiper Seal (23), Wiper Housing (67) and Retaining Ring (66) as shown in (Fig. 6).
3. From tool side of end cap install O-Ring (68), Spacer (22) and Spring (19). (as shown in Fig. 6) Screw entire assembly into head and tighten.
4. Assemble Tube/Slide Assembly and O-rings (65), slide complete assembly onto End Cap (21) and push tube into connector (54) (Fig.15).
5. Position Adapter (64) and pintail bottle (24) on End Cap (21) (Fig. 5 & 15).
6. By reaching through the window of the Pintail Bottle (24), install Washer (63) and Retaining Ring (62) as shown in (Fig. 5).



FILL AND BLEED 2024 ALL MODELS

Equipment Required:

- Shop airline with 90 - 100 psi max.
- Air regulator
- Fill bottle, 120337, (supplied with tool).
- Large flat blade screwdriver
- Optional Stall Nut 124090 or 125340
- Nose assembly
- Fasteners (optional)



WARNING: Avoid contact with hydraulic fluid. Hydraulic fluid must be disposed of in accordance with Federal, State and Local Regulations. Please see MSDS for Hydraulic fluid shipped with tool.

Preparation:

- Install air regulator in airline and set pressure to 20-40 psi.
- Fill bleed bottle almost full of DEXRON III ATF or equivalent.

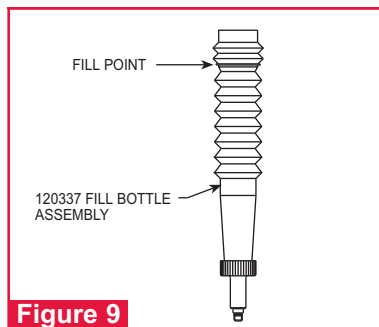


Figure 9



CAUTION: Refill using Automatic Transmission Fluid DEXRON III or equivalent for optimal performance.

Step 1

With fill port facing up, lay tool on it's side, and remove bleed plug (55) from bleed port.

Step 2

Connect tool to shop air set at 20 to 40 psi. If fluid is present, hold tool over suitable container with fill port facing into container. Cycle tool several times to drain the old fluid, air and foam (Fig. 10)



WARNING: WARNING: Air pressure MUST be set to 20 to 40 psi to prevent possible injury from high pressure spray. If plug (55) is removed, fill bottle must be in place before cycling tool.

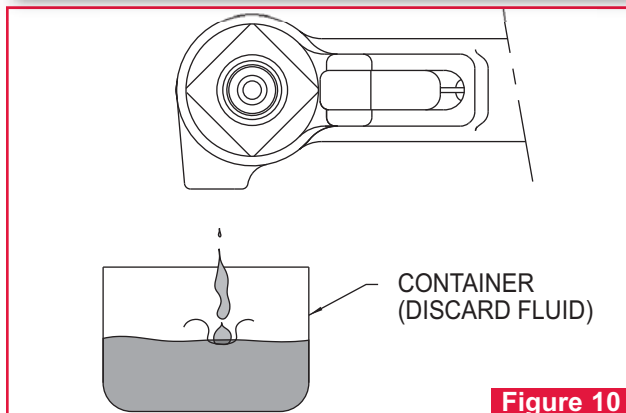


Figure 10



CAUTION: All oil must be purged from tool before Fill & Bleed process. Tool stroke will be diminished if oil is aerated.

Step 3

Screw fill bottle (120337) into fillport.

Step 4

Stand tool upright on bench. While triggering tool slowly (20 - 30 cycles), bend fill bottle at right angles to tool (Fig. 11). Air bubbles will accumulate at top of the bottle. When bubbles stop, cycling may be discontinued.

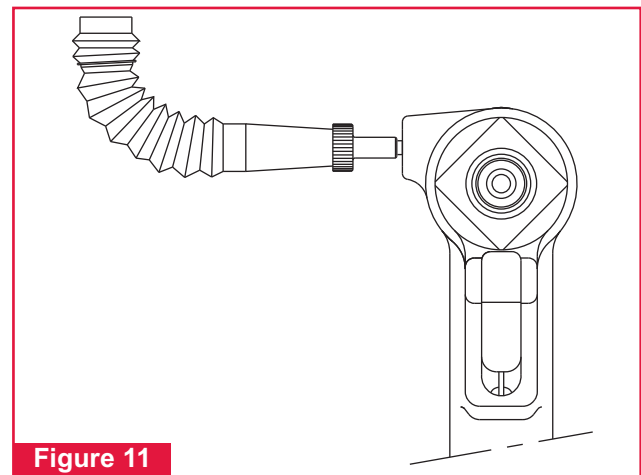


Figure 11

Step 5

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

Step 6

Lay tool on it's side and remove fill bottle. Top off fluid in fill port, install bleed plug and tighten.

Step 7

Connect airline to tool and measure the tools stroke, refer to the Measuring Tool Stroke section. If stroke is less than specified, remove bleed plug and top off fluid. Reinstall bleed plug and recheck stroke.

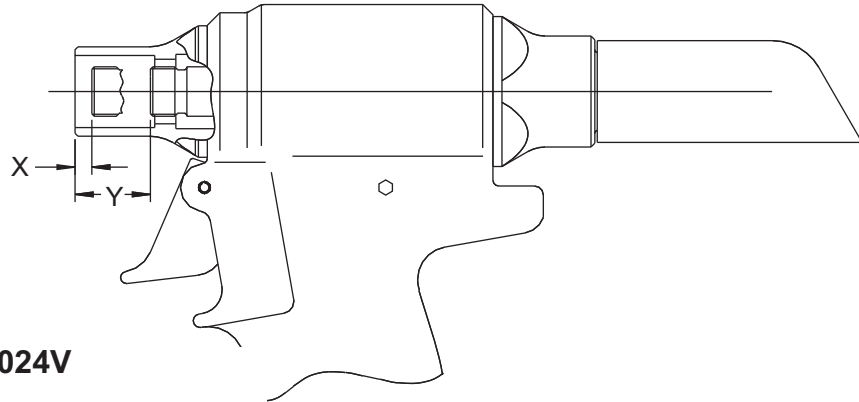
Step 8

Increase air pressure to specifications. 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 and measure again. Continue this process until stroke meets minimum requirements.



MEASURING TOOL STROKE

Figure 12



2024 & 2024V

Step 1

Cycle Piston all the way forward and measure X.

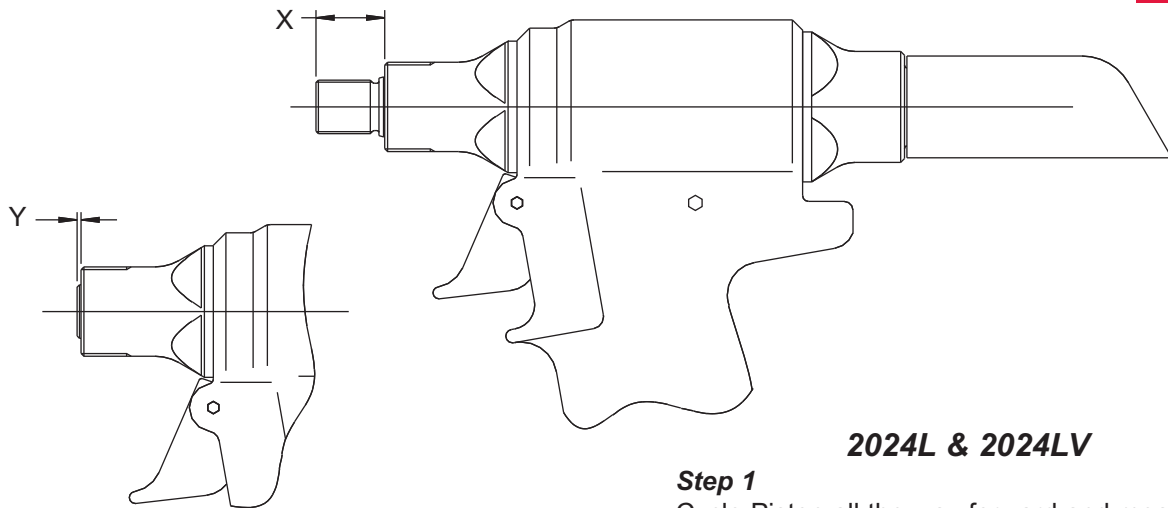
Step 2

Cycle and hold piston back and measure Y.

Step 3

Stroke = Y-X

Figure 13



2024L & 2024LV

Step 1

Cycle Piston all the way forward and measure X.

Step 2

Cycle and hold piston back and measure Y.

Step 3

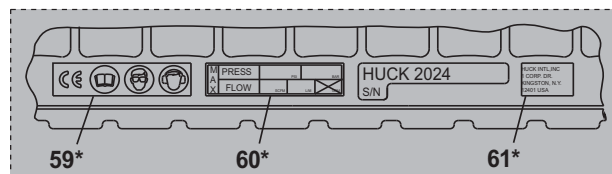
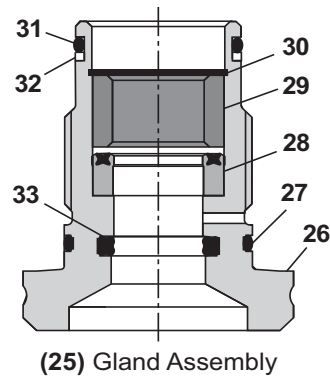
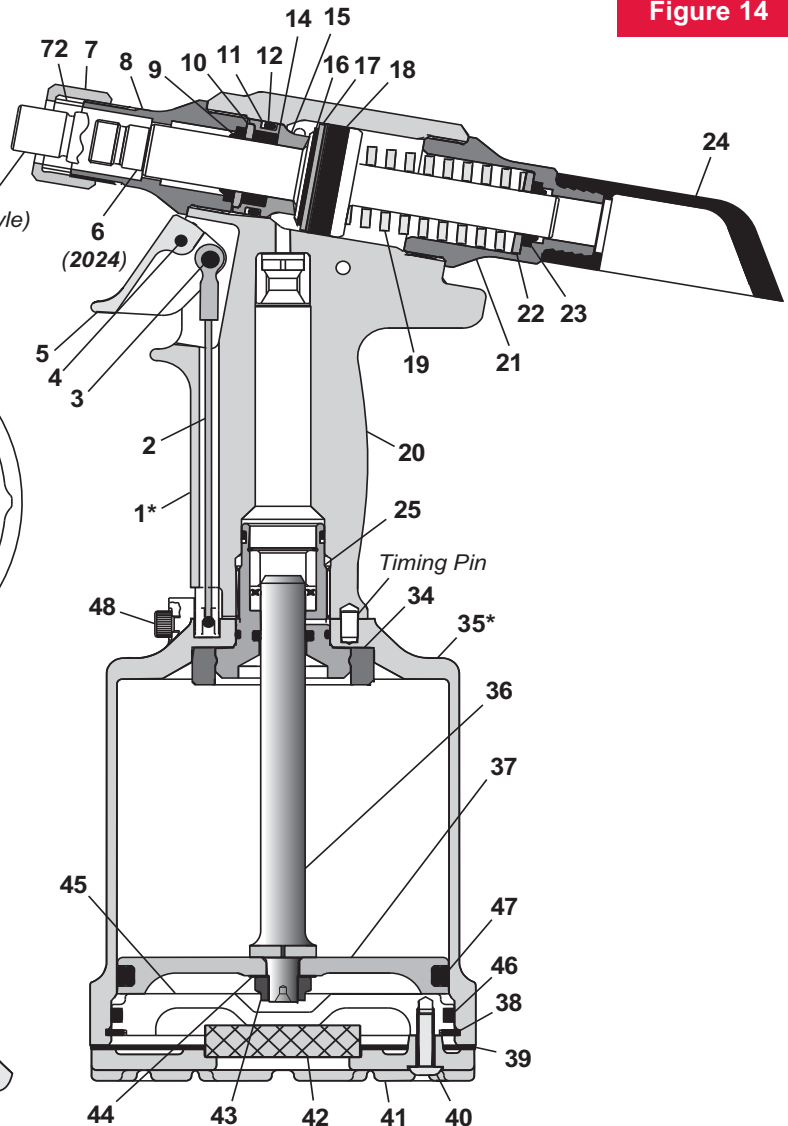
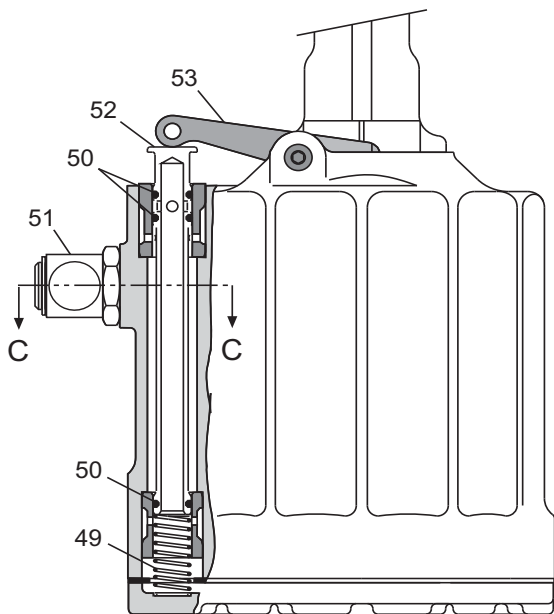
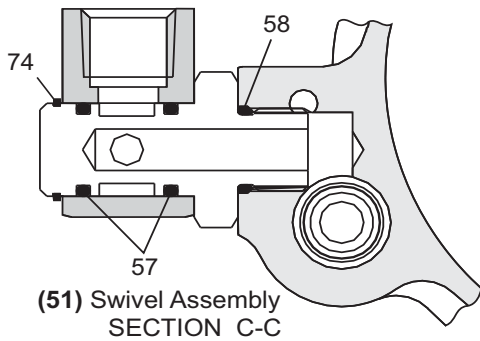
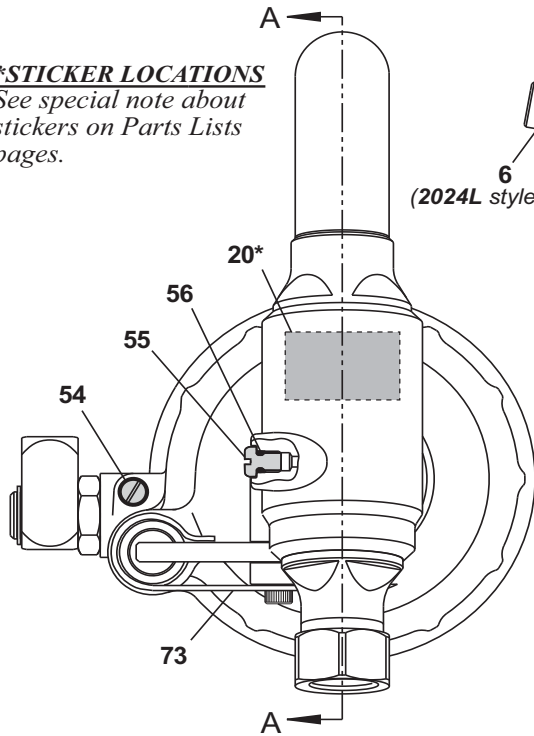
Stroke = X-Y



ASSEMBLY DRAWING (Refer to Parts Lists on following pages)

Figure 14

***STICKER LOCATIONS**
See special note about stickers on Parts Lists pages.

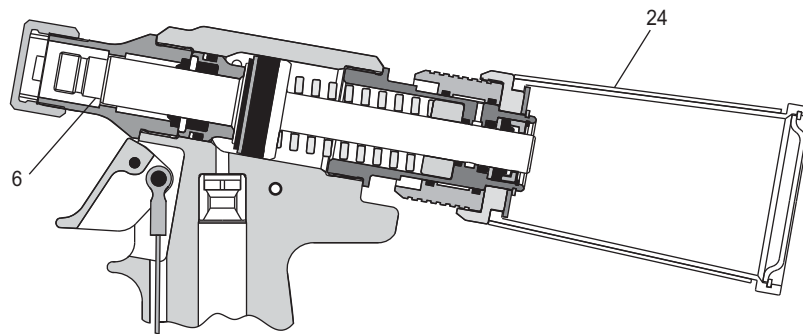
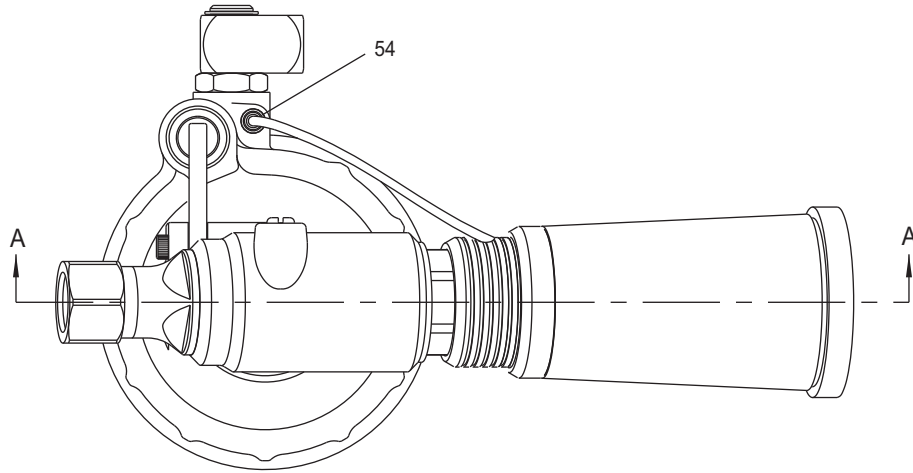




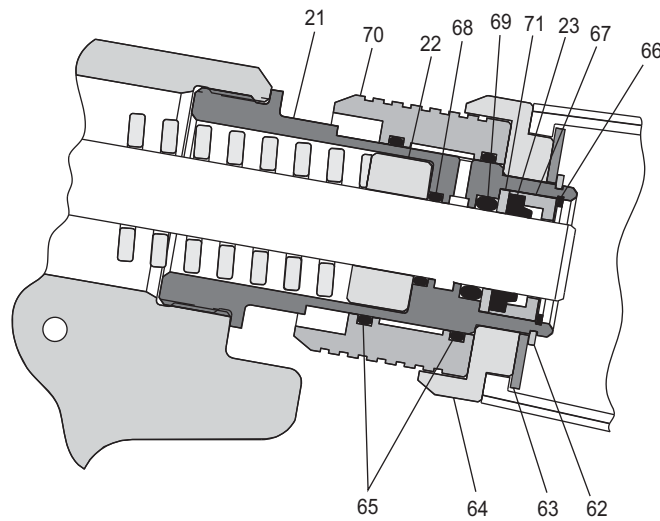
ASSEMBLY DRAWING

(Refer to Parts Lists on following pages)

FIG. 15



PARTIAL SECTION AA





PARTS LIST

| ITEM | Description | 2024 | 2024L | 2024V | 2024LV | QTY |
|------|--|----------|--------|----------|----------|-----|
| 1* | Handle Assy | 127748 | | 128132 | | 1 |
| 2 | Cable Assy | 116404-1 | | | | 1 |
| 3 | Dowel Pin | 505496 | | | | 1 |
| 4 | Pin | 500621 | | | | 1 |
| 5 | Trigger | 124333-2 | | | | 1 |
| 6 | Piston Assy (<i>includes Items 16, 17, & 18</i>) | 127743 | 127744 | 127744-2 | 127744-1 | 1 |
| 7 | Retaining Nut | 111795 | | | | 1 |
| 8 | Adapter | 123761 | | | | 1 |
| 9 | Wiper Seal | 505817 | | | | 1 |
| 10 | Gland Cap | 122432 | | | | 1 |
| 11 | Back-up Ring | 501110 | | | | 1 |
| 12 | O-Ring | 500816 | | | | 1 |
| 13 | n/a | n/a | | | | n/a |
| 14 | Polyseal | 505818 | | | | 1 |
| 15 | Front Gland | 123757 | | | | 1 |
| 16 | Retaining Ring | 502827 | | | | 1 |
| 17 | Washer | 127749 | | | | 1 |
| 18 | Polyseal | 508188 | | | | 1 |
| 19 | Compression Spring | 508187 | | | | 1 |
| 20* | WARNING Sticker | 590240-1 | | | | 1 |
| 21 | End Cap | 127742 | | 125862 | | 1 |
| 22 | Spacer | 507323 | | 125866 | | 1 |
| 23 | Wiper Seal | 507351 | | | | 1 |
| 24 | Pintail Deflector | 124210 | | n/a | | 1 |
| | Pintail Bottle | n/a | | 123772 | | |
| 25 | Gland Assy | 125742 | | | | 1 |
| 26 | Gland Housing | 125740 | | | | 1 |
| 27 | O-Ring | 500787 | | | | 1 |
| 28 | Polyseal | 507447 | | | | 1 |
| 29 | Spacer | 125741 | | | | 1 |
| 30 | Retaining Ring | 506876 | | | | 1 |
| 31 | O-Ring | 500785 | | | | 1 |
| 32 | Back-up Ring | 501091 | | | | 1 |
| 33 | QUAD Ring | 501075 | | | | 1 |
| 34 | Bumper | 116408 | | | | 1 |
| 35* | Cylinder Assy | 125733 | | | | 1 |
| 36 | Piston Rod | 125743 | | | | 1 |
| 37 | Air Piston | 125744 | | | | 1 |
| 38 | Retaining Ring | 507445 | | | | 1 |
| 39 | Gasket | 126941-4 | | | | 1 |
| 40 | Screw | 504127 | | | | 3 |

Continued on next page

- * When replacing Cylinder (Item 35), Stickers (Items 59, 60, and 61) must be ordered and placed in the locations shown in Figure 14. When replacing Handle Assembly (Item 1), WARNING Sticker (Item 20) must be ordered and placed in the location shown in Figure 14.



PARTS LIST *continued*

| ITEM | Description | 2024 | 2024L | 2024V | 2024LV | QTY |
|------|--------------------------------------|------------|-------|----------|------------|-----|
| 41 | Bottom Plate | | | 128792 | | 1 |
| 42 | Muffler | | | 115554-1 | | 1 |
| 43 | Lock Nut | | | 505420 | | 1 |
| 44 | Washer | | | 506493 | | 1 |
| 45 | Cylinder Head | | | 125747 | | 1 |
| 46 | O-Ring | | | 500871 | | 1 |
| 47 | QUAD Ring | | | 501458 | | 1 |
| 48 | Pivot Screw | | | 125118 | | 1 |
| 49 | Spring | | | 116272 | | 1 |
| 50 | O-Ring | | | 507396 | | 3 |
| 51 | Swivel Assy | | | 507164 | | 1 |
| 52 | Throttle Valve | | | 125562-1 | | 1 |
| 53 | Throttle Arm | | | 125751 | | 1 |
| 54 | Plug Assy | 506576 | | | <i>n/a</i> | 1 |
| | Tubing Connector | <i>n/a</i> | | 506675 | | |
| 55 | Plug | | | 100309 | | 1 |
| 56 | O-Ring | | | 505438 | | 1 |
| 57 | O-Ring | | | 500779 | | 2 |
| 58 | O-Ring | | | 500778 | | 1 |
| 59* | CE Sticker | | | 590350 | | 1 |
| 60* | MAX Pressure and Flow Sticker | | | 590351 | | 1 |
| 61* | HUCK Address Sticker | | | 590347 | | 1 |
| 62 | Retaining Ring | <i>n/a</i> | | 501007 | | 1 |
| 63 | Washer | <i>n/a</i> | | 506628 | | 1 |
| 64 | Adapter | <i>n/a</i> | | 123784 | | 1 |
| 65 | O-Ring | <i>n/a</i> | | 500790 | | 2 |
| 66 | Retaining Ring | <i>n/a</i> | | 502317 | | 1 |
| 67 | Wiper Housing | <i>n/a</i> | | 125864 | | 1 |
| 68 | O-Ring | <i>n/a</i> | | 500780 | | 1 |
| 69 | O-Ring | <i>n/a</i> | | 500809 | | 1 |
| 70 | Tube and Slide Assy | <i>n/a</i> | | 128044 | | 1 |
| 71 | Washer | <i>n/a</i> | | 125865 | | 1 |
| 72 | Stop | | | 120588 | | 1 |
| 73 | Lever Guard | | | 126439 | | 1 |
| 74 | Retaining Ring | | | 502274 | | 1 |

* When replacing Cylinder (Item 35), Stickers (Items 59, 60, and 61) must be ordered and placed in the locations shown in Figure 14. When replacing Handle Assembly (Item 1), WARNING Sticker (Item 20) must be ordered and placed in the location shown in Figure 14.



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 cause is located. Where possible, substitute known good parts for suspected bad parts. Use TROUBLESHOOTING as an aid in locating and correcting malfunction.

- 1. Tool fails to operate when trigger is depressed.**
 - a) Air line not connected
 - b) Throttle Valve O-rings (50) worn or damaged.
 - c) Throttle Valve Cable (2) is broken.
- 2. Tool does not complete fastener installation and break pintail.**
 - a) Air pressure too low
 - b) Air Piston Quad-ring (47) worn or damaged.
 - c) Tool is low on hydraulic fluid, refer to Fill and Bleed section.
 - d) Air in hydraulic system, refer to Fill and Bleed section.
- 3. Pintail stripped and/or swaged collar not ejected.**
 - a) Check for broken or worn jaws in nose assembly, refer to nose assembly data sheet.
 - b) Check for worn anvil, refer to nose data sheet.
- 4. Hydraulic fluid exhausts with air or leaks at base of handle.**
 - a) Worn or damaged Gland Assembly (25), inspect Polyseal (28), O-rings (31 & 27), Quad-ring (33) and Back-up ring (32) replace if necessary.
- 5. Hydraulic fluid leaks at rear of Pull Piston (6)**
 - a) Worn or damaged piston Polyseal (18), replace if necessary.
- 6. Hydraulic fluid leaks at front of Pull Piston (6).**
 - a) Worn or damaged Front Gland (15), inspect Polyseal (14), O-ring (12) and Back-up Ring (11) replace if necessary.
- 7. Pull Piston (6) will not return.**
 - a) Throttle Valve (52) stuck: Lubricate O-rings (50).
 - b) Throttle Arm (53), Cable (2) or Trigger (5) binding.
- 8. Air leaks at air Cylinder Head (45).**
 - a) Worn or damaged O-ring (46) replace if necessary.

ACCESSORIES

- | | | |
|---|---|------------------|
| Fill and Bleed Bottle (Fig. 9) | - | 120337 |
| Stall Nut (2024 & 2024V) | - | 124090 |
| Stall Nut (2024L & 2024LV) | - | 125340 |
| 2024 & 2024V | | |
| Assembly Tool Kit | - | 123110-17 |
| <i>Includes: (Fig. 3)</i> | | |
| Piston Assembly (Bullet) | - | 123111-2 |
| Spacer | - | 123112-2 |
| POLYSEAL Tool | - | 121694-2024 |
| 2024L & 2024LV | | |
| Assembly Tool Kit | - | 123110-17 |
| <i>Includes: (Fig. 3)</i> | | |
| Piston Assembly (Bullet) | - | 123111-4 |
| Spacer | - | 123112-3 |
| POLYSEAL Tool | - | 121694-2024 |
| Conversion Kit | - | 126190 |
| <i>(To convert 2024L to 2024LV)</i> | | |
| <i>Includes:</i> | | |
| Pintail Collection Bottle | - | 123772 |
| Tubing and Slide Assembly | - | 124245 |
| Piston Assembly | - | 125738-3 |
| End Cap Assembly | - | 125863 |
| Conversion Kit | - | 126432 |
| <i>(To convert 2024 to 2024V)</i> | | |
| <i>Includes:</i> | | |
| Pintail Collection Bottle | - | 123772 |
| Tubing & Slide Assy | - | 124245 |
| Piston Assy | - | 125738-2 |
| End Cap Assembly | - | 125863 |
| Vacuum Attach Adapter | - | 123784 |
| Retaining Ring Ext | - | 501007 |
| Flat Washer | - | 506628 |
| Straight Connector | - | 506675 |
| Service Kit (2024 & 2024L) | - | 2024KIT |
| Service Kit (2024LV & 2024V) | - | 2024VKIT |



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