

**Alcoa  
Fastening  
Systems**

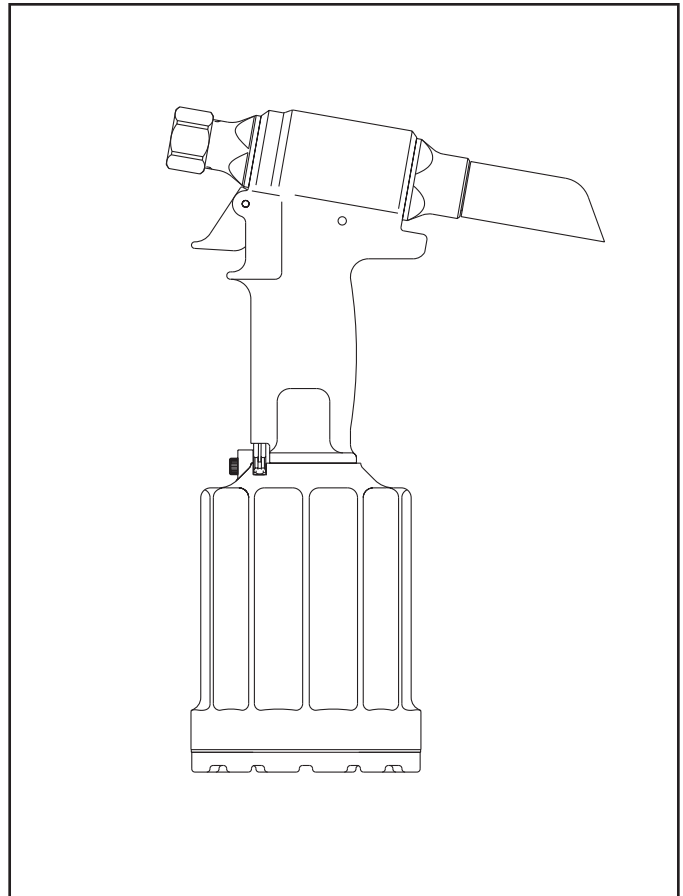


## ***INSTRUCTION MANUAL***

# **2022 & ERT9**

## ***ALL MODELS***

### ***PNEUDRAULIC INSTALLATION TOOL***



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

02-26-2004  
Form **HK1021**



# EU Declaration of Conformity

**Manufacturer:**

Huck International, Inc., Installation Systems Division, 1 Corporate Drive, Kingston, NY, 12401, USA

**Description of Machinery:**

Model number 2022 and ERT9 fastener installation tool

**Relevant provisions complied with:**

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

**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: Henk Rosier

Position: Engineering Manager  
Installation Systems Division

Place: Kingston, New York, USA

Date: August, 2001

**Huck Model 2022 & ERT9 Sound Power Level**

The sound level of the 2022 & ERT9 tool cycling without fastener is

Sound Exposure Level (SEL) = 74.3 dB (A)  
Peak Value = 94.2 dB (C)

The noise of the fastener being installed in structure is considered process noise, not tool noise. Sound measurements of simulated process noise are available upon written request from Huck International in Kingston, NY, USA.

**Huck Model 2022 & ERT9 Vibration Level**

For an eight hour work day, installing 3000 typical Huck fasteners will result in an equivalent weighted RMS vibration level (Aeq) of 12.75 m/s<sup>2</sup>.

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

Equivalent Vibration Level, Aeq (m/s<sup>2</sup>) = (n/480) x 2.04

where n = number of fasteners in eight hours, and 2.04 (m/s<sup>2</sup>) = Aeq for 60 seconds.

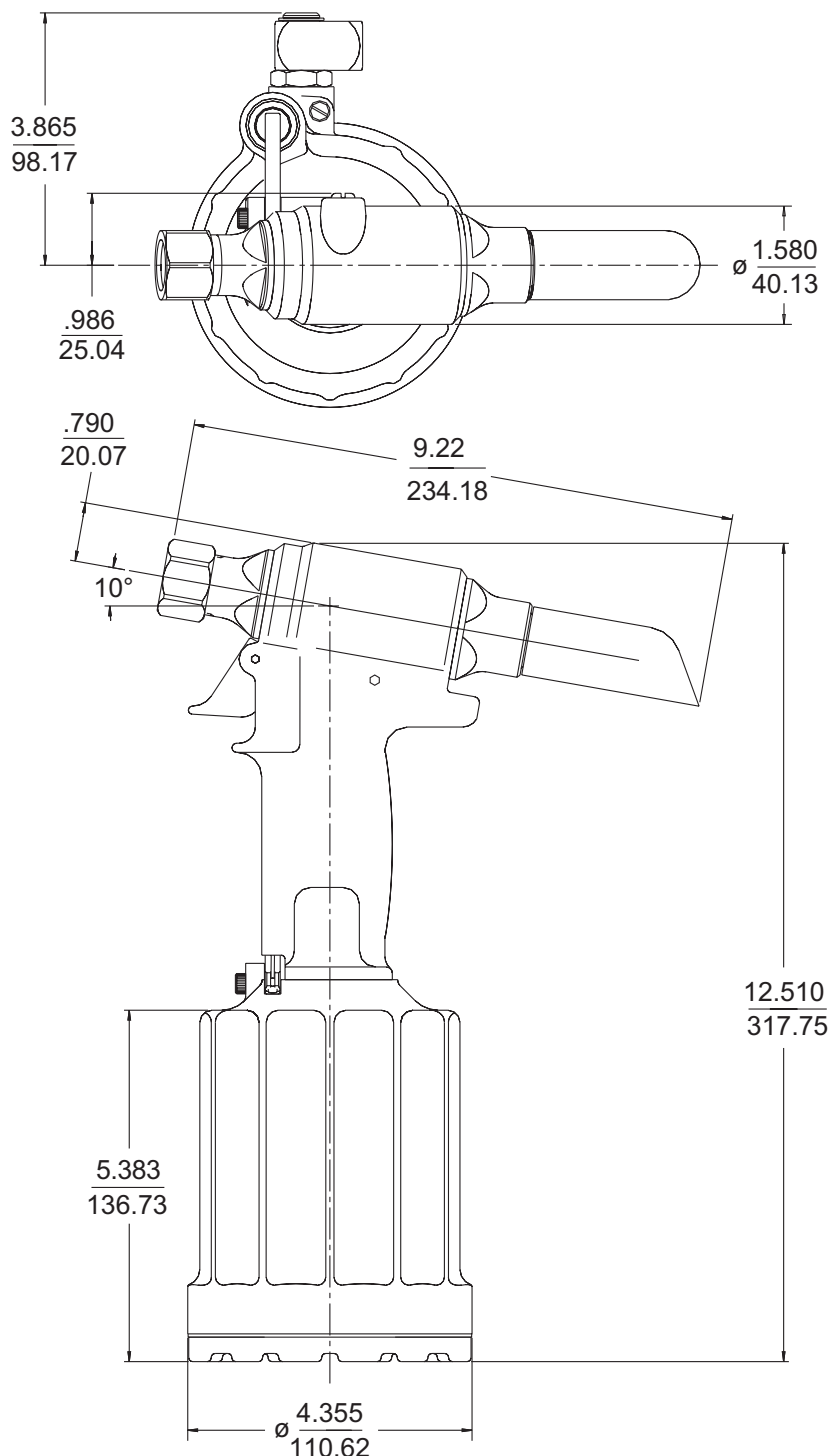
Test data to support the above information is on file at Huck International, Inc., Kingston, NY, USA. Vibration measurements are frequency weighted in accordance with ISO 8041 (1990).

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# TOOL SPECIFICATIONS

## Model 2022 & 2022A



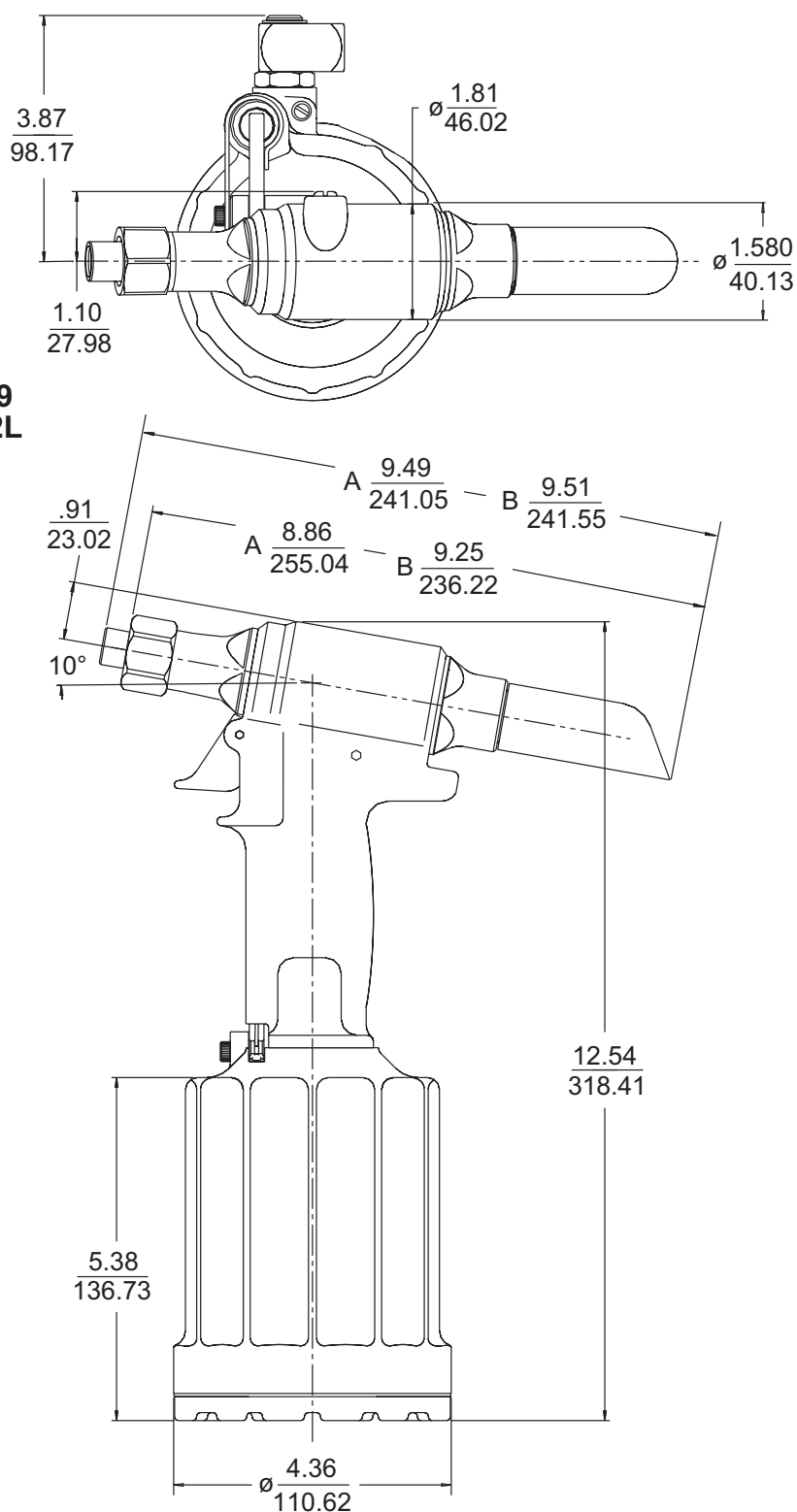
- **Stroke:** 1.026 in/26.06 mm (nom.)
- **Weight:** 5.4 lbs./2.5 kg
- **Air Pressure:** 90 psi
- **Capacity:** 3477 lbs @ 90 psi
- **Speed/Cycles:** 30 per minute
- **Noise Level:** 75 dBA @ 90 psi

# TOOL SPECIFICATIONS

## Model ERT9 & 2022L

A = ERT9  
B = 2022L

- **Stroke:** 1.026 in/26.06 mm (nom.)
- **Weight:** 5.4 lbs./2.5 kg
- **Air Pressure:** 90 psi
- **Capacity:** 3477 lbs @ 90 psi
- **Speed/Cycles:** 30 per minute
- **Noise Level:** 75 dBA @ 90 psi

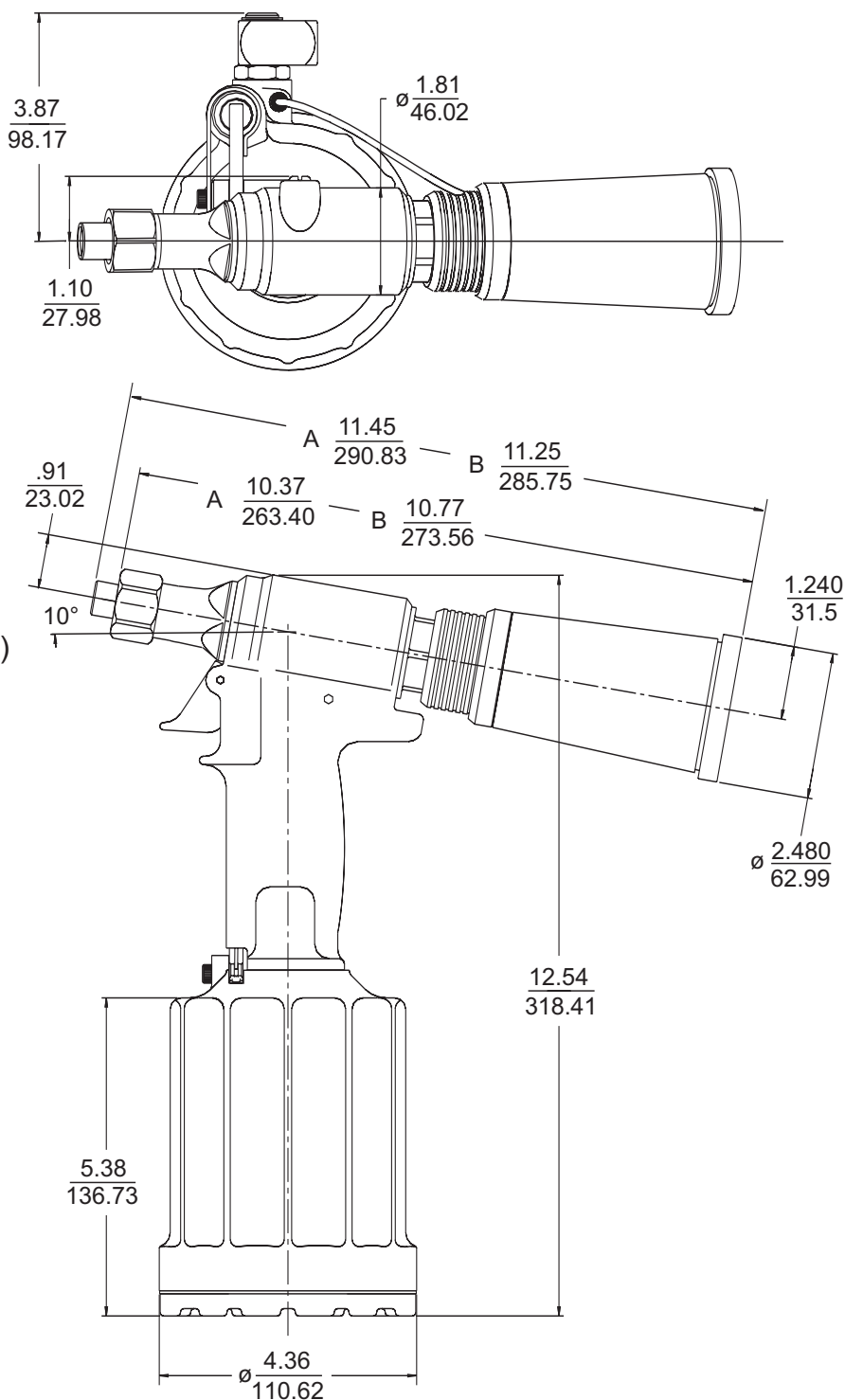


# TOOL SPECIFICATIONS

## Model ERT9V & 2022LV

A = ETR9V  
B = 2022LV

- **Stroke:** 1.026 in/26.06 mm (nom.)
- **Weight:** 5.4 lbs./2.5 kg
- **Air Pressure:** 90 psi
- **Capacity:** 3477 lbs @ 90 psi
- **Speed/Cycles:** 30 per minute
- **Noise Level:** 75 dBA @ 90 psi



# 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 daage equipment and or structure.

**Notes** - are reminders of required procdures.

**Bold, Italic type and underlining** - empha sizes 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 deflectors.
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.

# PRINCIPLE OF OPERATION

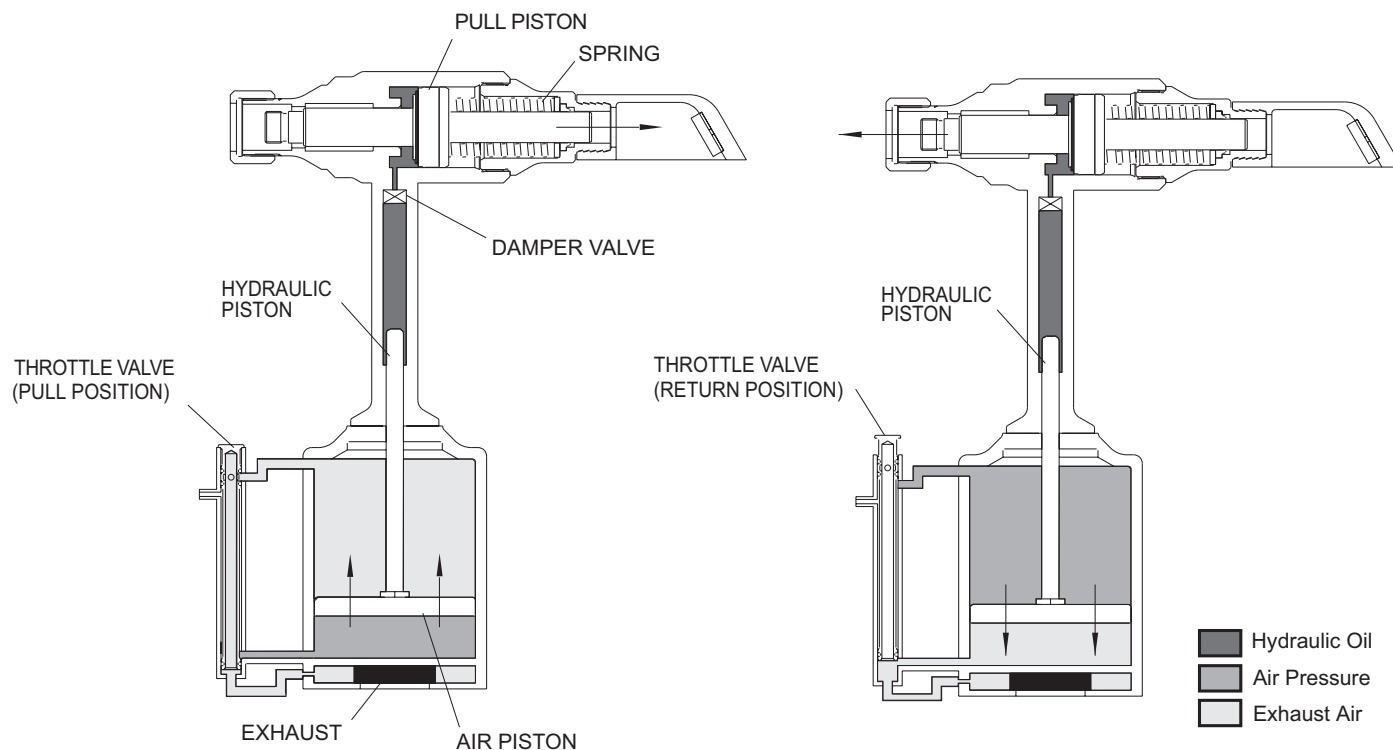


Fig. 1(a)

Fig. 1(b)

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 2022 & ERT9 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 - 100 psi capable of 20 CFM 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. (Retaining Nut not required for E or EV models)
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 or equivalent** should be used on collect threads, since there is no staking hole provided on the 2022 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 2022KIT & ERT9KIT** 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 and clean nose assemblies and reassemble per applicable NOSE ASSEMBLY DATA SHEET.
2. Check the tool and all connecting parts for damage or oil/air leaks, tighten or replace if necessary.

## DISASSEMBLY INSTRUCTIONS 2022 &amp; ERT9 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 Figure (14).

### General

(Refer to Figures 2 & 14)

#### 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) (*Retaining Nut not required on ERT9 & ERT9V models*) 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. Pull Pintail Deflector (24) off End Cap.

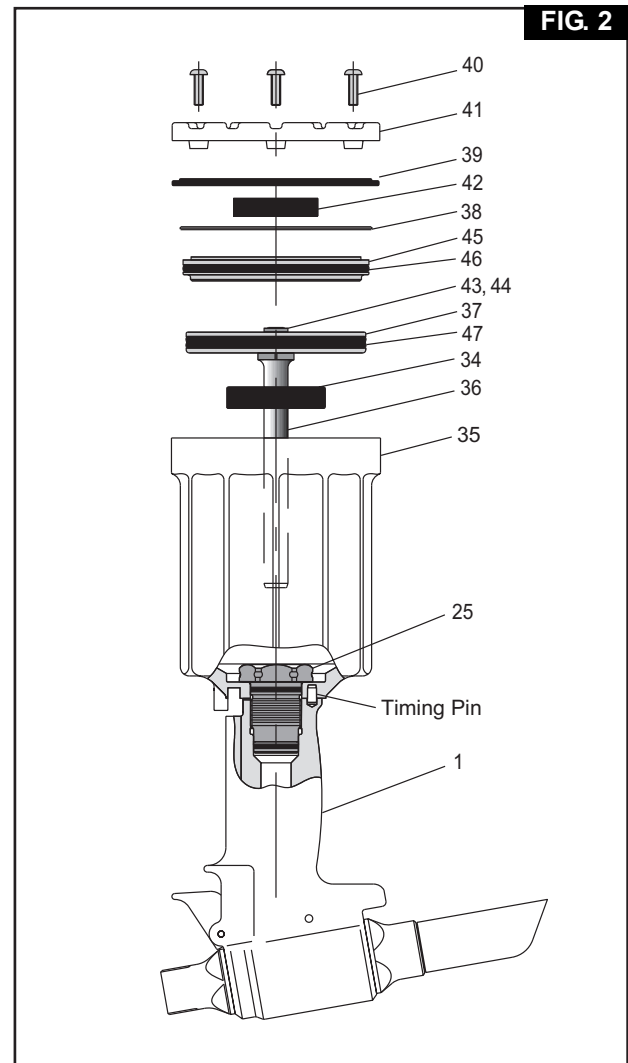
#### NOTE:

For ERT9V & 2022LV, please reference Disassembly of Pintail Bottle and Vacuum System Procedure.

5. Remove Throttle Arm Pivot Screw (48) 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. Remove End Cap (41) and Gasket (39). Remove Muffler (42) from end cap. Remove 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 taken 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).

## DISASSEMBLY INSTRUCTIONS 2022 &amp; ERT9 ALL MODELS (CONTINUED)

**Head/handle 2022 & ERT9 (All Models):**

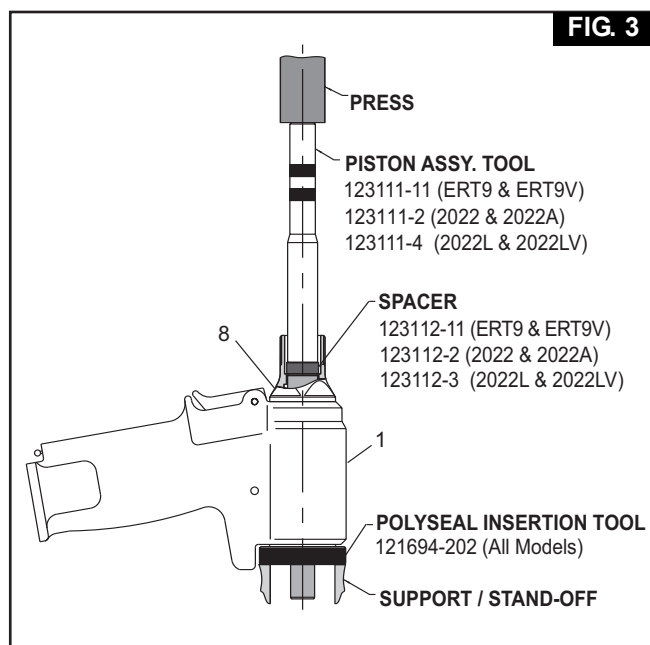
(Refer to Figures 3, 4 &amp; 14)

15. Unscrew End Cap (21) and remove Spring (19), Spring (76), 3-Washers (22) and Wiper Seal (23).

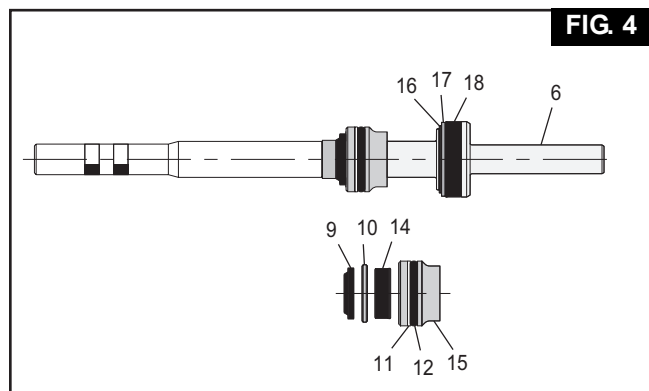
**NOTE:**

For ERT9V & 2022LV please reference Disassembly of Pintail Bottle and Vacuum System procedure.

16. Thread POLYSEAL Insertion/removal Tool (121694-202), into rear of Handle/head. (Fig. 3)
17. Slide Spacer (123112-11 for ERT9 & ERT9V, 123112-2 for 2022, 2022A or 123112-3 for 2022L & 2022LV) onto piston.
18. Thread Piston Assembly Tool (123111-11 for ERT9 & ERT9V, 123111-2 for 2022, 2022A or 123111-4 for 2022L & 2022LV) onto piston. (**Note:** Adapter (66) must be removed on ERT9 models to use Assembly tool 123111-11)



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).

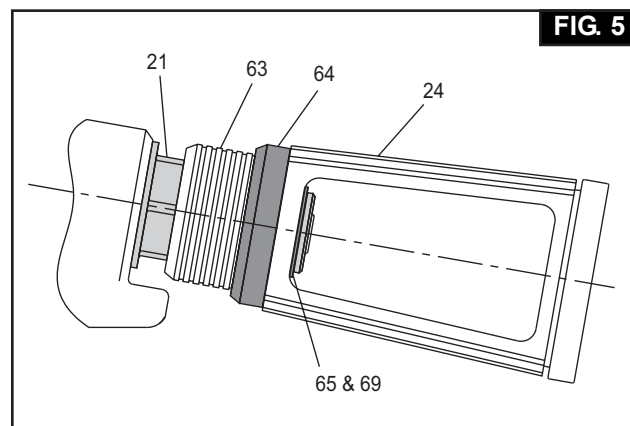


20. Remove piston assembly tool and spacer from piston. Rethread on the piston assembly tool only, then slide the front gland assembly off the piston (6) (Fig. 4).
21. Remove Piston Assembly Tool from Piston (6). Remove POLYSEAL Insertion/removal Tool from rear of Head/Handle (1).
23. Remove Retaining 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****2022LV & ERT9V**(Refer to Figures 5, 6 & 15)**NOTE:**

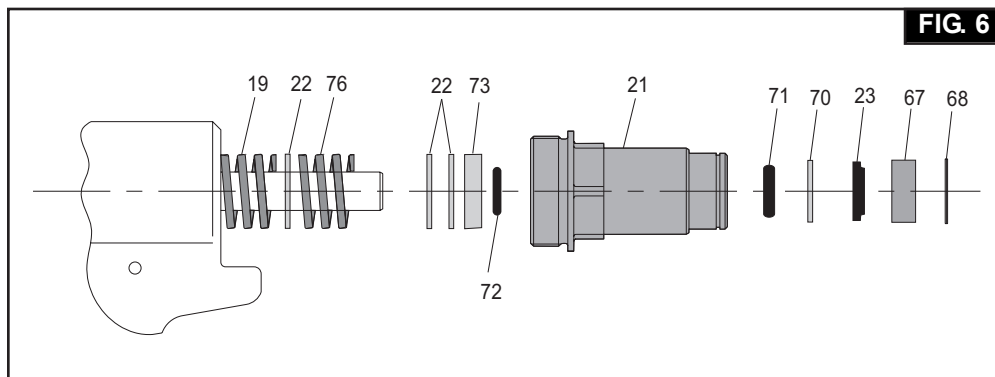
The following steps are for the disassembly of the 2022LV and ERT9V models only. Please use these steps in conjunction with the General and Head/Handle disassembly sections of this manual.

1. By reaching through the window of Pintail Bottle (24) remove Retaining Ring (69) and Washer (65) (Fig. 5).
2. Remove Pintail Bottle (24).
3. Disconnect tube from connector (54) (Fig. 15).
4. Remove Adapter (64) and Tube/ Slide Assembly (63).
5. Remove End Cap (21)(Fig. 6).



## DISASSEMBLY INSTRUCTIONS 2022 &amp; ERT9 ALL MODELS (CONTINUED)

6. Remove O-Ring (72), Washer (73), 3-Washers (22) Spring (76) and Spring (19) from tool side of end cap.
7. From bottle side of end cap, remove Retaining Ring (68), Wiper Housing (67), Wiper Seal (23), Washer (70) and O-Ring (71).
8. Remove the O-Rings (62) from the inside of the Adapter and Tube/Slide Assembly (63) (Fig 15).



## ASSEMBLY INSTRUCTIONS 2022 &amp; ERT9 ALL MODELS

**Head/handle 2022 & ERT9 (All Models):**

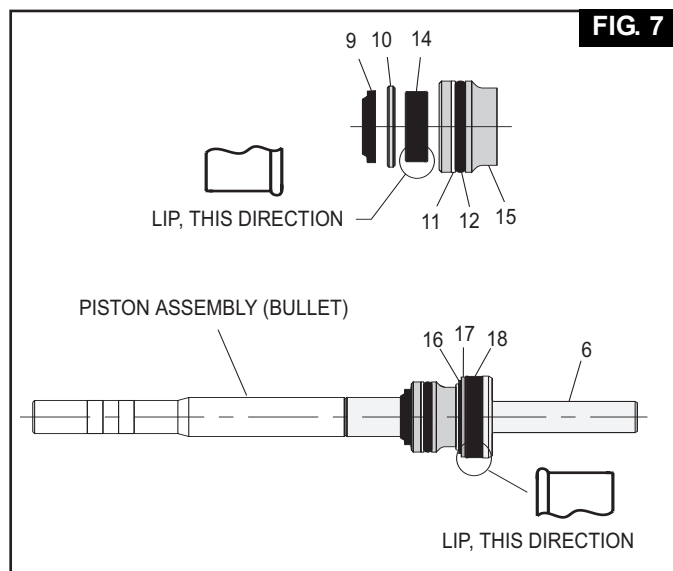
(Refer to Figures (7, 8 & 14))

**NOTE:**

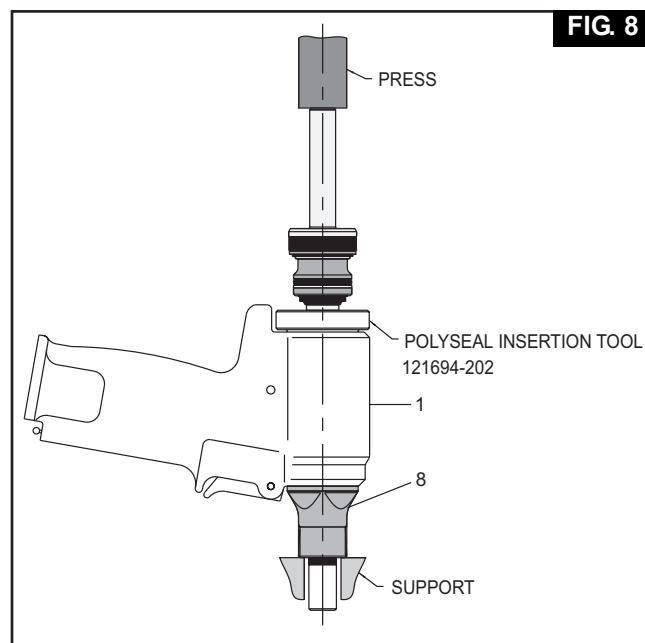
Clean components with mineral spirits, or similar solvent; inspect for wear/damage and replace as necessary. Replace all seals of disassembled components. Use O-rings, QUAD rings and Back-up rings in **Service Parts Kit, P/N 2022KIT or ERT9KIT**. Smear LUBRIPLATE 130AA or PARKER-O-LUBE on O-rings, QUAD 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 (121694-202) into head. (Fig 8.)
4. Assemble piston (6), Polyseal (18), Washer (17) 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. (Fig 7)
6. Thread Piston Assembly Tool (123111-11 for ERT9 & ERT9V, 123111-2 for 2022, 2022A or 123111-4 for 2022L & 2022LV) onto Piston (6). ( **Note: Adapter (66) must be removed on ERT9 models to use Assembly tool 123111-11**) Slide complete Gland Assembly and Wiper Seal (9) onto Piston (6). (Fig.7)



## ASSEMBLY INSTRUCTIONS 2022 &amp; ERT9 ALL MODELS (CONTINUED)

7. Install assembled components in gently from rear of tool using a press as shown in (Fig. 8).
8. Remove Piston Assembly Tool (123111-11, 123111-2 or 123111-4) and POLYSEAL Insertion / removal (121694-202) Tool. ( **Note:** Adapter (66) must be reinstalled on E & EV models after use with Assembly tool 123111-11)
9. Install Rear Wiper Seal (23) into End Cap (21) (Fig. 14).
10. Slide 2- Washers (22) and Spring (76) into End Cap (21). Slide Spring (19) and Washer (22) over rear of piston (6) and then thread End Cap assembly into rear of Head.  
**NOTE:**  
For 2022LV & ERT9V please reference Assembly of Pintail Bottle and Vacuum System procedure. (Refer to Figures 5, 6 & 15)
11. Secure the bottom plate with the three Button Head Screws (40) using 1/8 hex key (Fig. 2).
12. Assembly O-Rings (50) on Throttle Valve (52). (Fig. 14)
13. Place the tool upright on a level surface, drop Spring (49) into throttle valve bore in cylinder (35). Push Throttle Valve into cylinder.
14. Place ball end of Throttle Cable (2) into end of Throttle Arm (53)., then slide Throttle Arm into slot on Cylinder (Fig. 14).
15. Install Pivot Screw (48) in cylinder to retain throttle arm (53).
16. Push Deflector (24) onto End Cap (21).  
**NOTE:** For 2022LV and ERT9V, please reference Disassembly of Pintail Bottle and Vacuum System Procedure.
17. Tool is now completely assembled and needs to be filled with oil. Please refer to the fill and bleed section next.

**General:**

(Refer to Figures 2 & 14)

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. 14). Note orientation of polyseal. Apply VIBRATITE or equivalent to threads of Gland Assembly. Screw gland into head/handle and Torque to 75-80 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.
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 & 14) 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) ( Fig 2 & 14).
19. Assemble Adapter and Tube/Side Assembly (63) with 2 - O-Rings (62).
20. From bottle side of End Cap (21) install O-Ring (71), Washer (70), Wiper Seal (23), Wiper Housing (67) and Retaining Ring (68) as shown in (Fig. 6).
21. From tool side of end cap install O-Ring (72), Washer (73), 3-Washers (22), Springs (76) and Spring 19. (as shown in Fig. 6) Screw entire assembly into head and tighten.
22. Slide complete Tube/Slide assembly (63) onto End Cap (21) and push tube into connector (54) (Fig.15).
23. Position Adapter (64) and pintail bottle (24) on End Cap (21) (Fig. 5 & 15).
24. By reaching through the window of the Pintail Bottle (24), install Washer (65) and Retaining Ring (69) as shown in (Fig. 5).

**Pintail Bottle/Vacuum 2022LV & ERT9V:**

(Refer to Figures 6 & 15 )

The following steps are for the assembly of the 2022LV & ERT9V models only. Please use these steps in conjunction with the General and Head/Handle disassembly sections of this manual.



## FILL AND BLEED 2022 &amp; ERT9 (ALL MODELS)

**Equipment Required:**

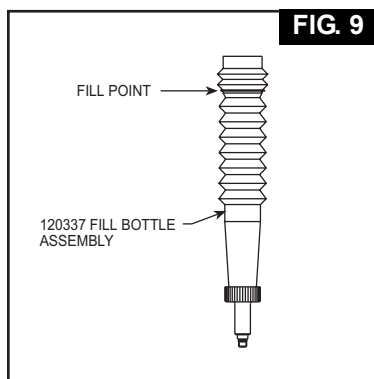
- Shop airline with 90 - 100 psi max.
- Air regulator
- Fill bottle, 120337, (Supplied with tool).
- Large flat blade screwdriver
- Stall Nut (Optional - See Accessories for Part Number)
- Nose assembly
- Fasteners (optional)



**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:**

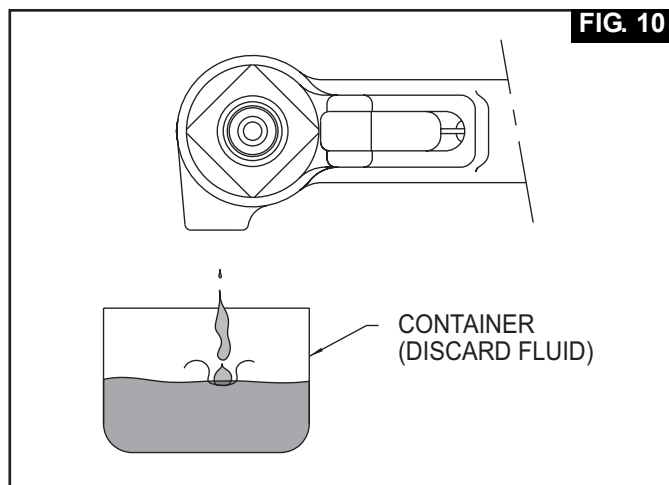
- Install air regulator in airline and set pressure to 20-40 psi.
- Fill bleed bottle almost full of DEXRON III ATF or equivalent.



**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: 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.**

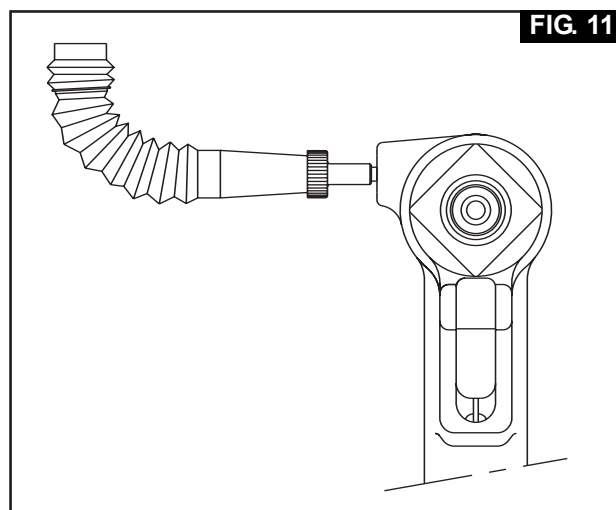
**Caution** - All oil must be purged from tool before Fill & Bleed process. Tool stroke will be diminished if oil is aerated.

**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.

**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 10**

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

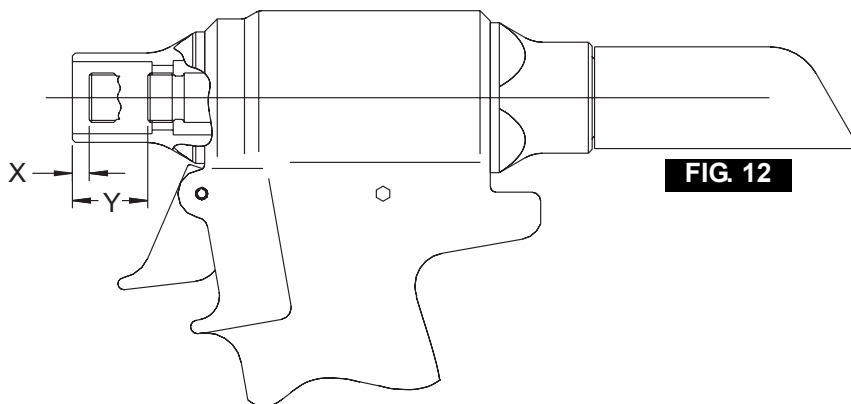


FIG. 12

## 2022 & 2022A

### 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

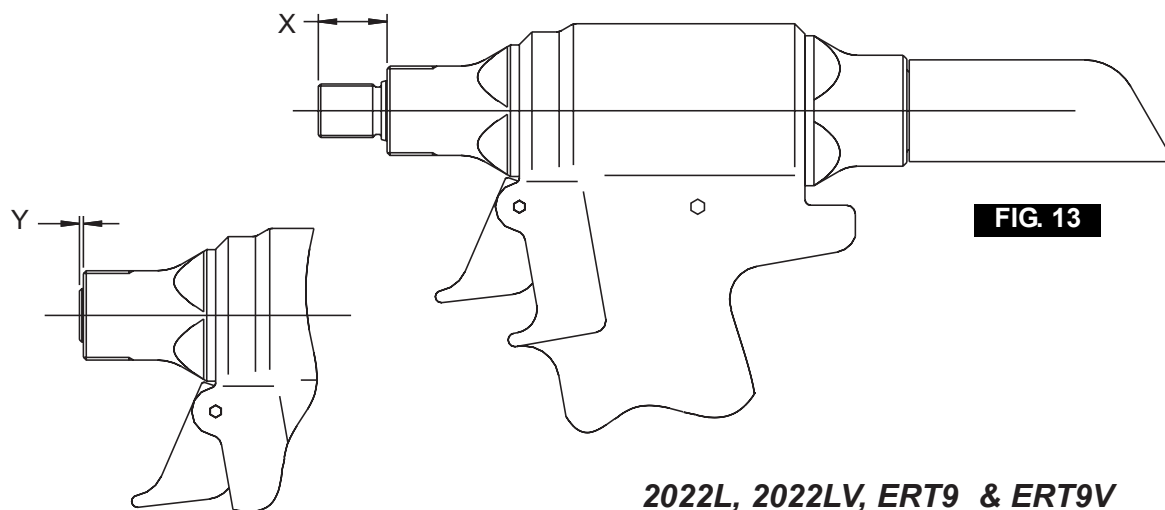


FIG. 13

## 2022L, 2022LV, ERT9 & ERT9V

### Step 1

Cycle Piston all the way forward and measure X.

### Step 2

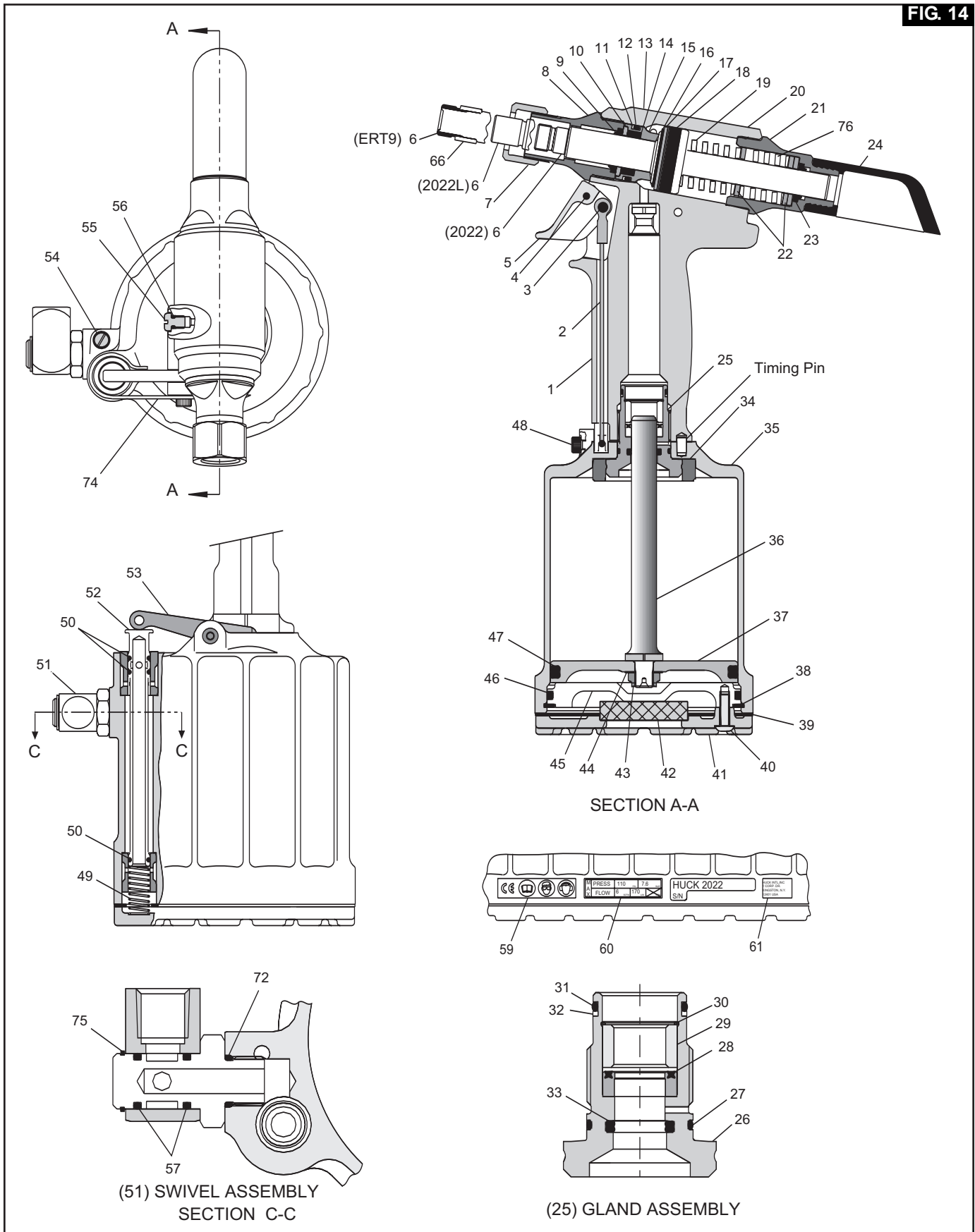
Cycle and hold piston back and measure Y.

### Step 3

Stroke = X-Y

# ASSEMBLY DRAWING 2022 & ERT9 ALL MODELS

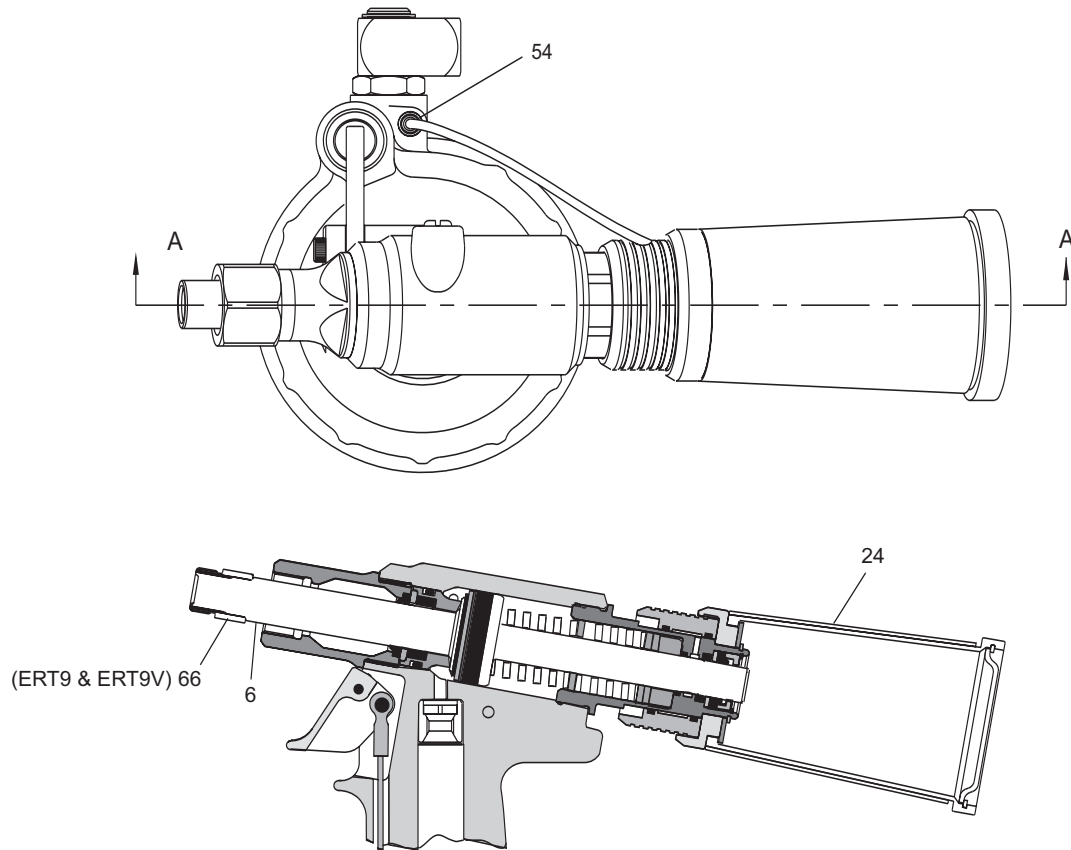
FIG. 14



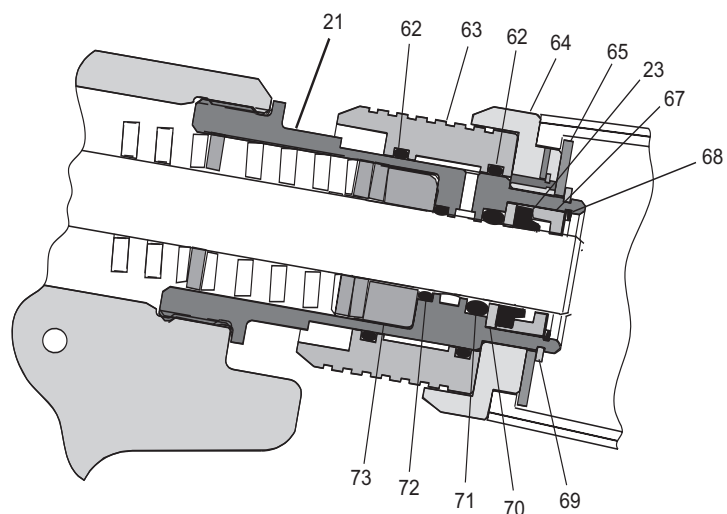


# ASSEMBLY DRAWING 2022LV & ERT9V

FIG. 15



PARTIAL SECTION AA



## PARTS LIST

I T E M	PART NUMBER						DESCRIPTION	Q T Y
	2022	2022L	2022LV	ERT9	ERT9V	2022A		
1	126221	126221	126221	126221	126221	126221	Handle Assembly	1
2	116404-1	116404-1	116404-1	116404-1	116404-1	116404-1	Cable Assembly	1
3	505496	505496	505496	505496	505496	505496	Dowel Pin	1
4	500621	500621	500621	500621	500621	500621	Pin	1
5	124333-1	124333-1	124333-1	124333-1	124333-1	124333-1	Trigger	1
6	126222	126635	126671	126643	126681	126222	Piston Assy (Includes Items 16,17 &18)	1
7	111795	111795	111795	-----	-----	111795	Retaining Nut	1
8	126217	126217	126217	126640	126640	126217	Adapter	1
9	505817	505817	505817	505817	505817	505817	Wiper Seal	1
10	122432	122432	122432	122432	122432	122432	Gland Cap	1
11	501110	501110	501110	501110	501110	501110	Back-Up Ring	1
12	500816	500816	500816	500816	500816	500816	O-Ring	1
13	590247	590247	590247	590247	590247	507560	Sticker	1
14	505818	505818	505818	505818	505818	505818	Polyseal	1
15	123757	123757	123757	123757	123757	123757	Front Gland	1
16	506653	506653	506653	506653	506653	506653	Retaining Ring	1
17	506654	506654	506654	506654	506654	506654	Washer	1
18	506160	506160	506160	506160	506160	506160	Polyseal	1
19	507558	507558	507558	507558	507558	507558	Compression Spring	1
20	590240-1	590240-1	590240-1	590240-1	590240-1	590240-1	Sticker	1
21	125150	125150	123577	125150	123577	125150	End Cap	1
22	507560	507560	507560	507560	507560	507560	Washer	3
23	506488	506488	506488	506488	506488	506488	Wiper Seal	1
24	124211	124211	123772	124211	123772	124211	Pintail Deflector/Bottle	1
25	125742	125742	125742	125742	125742	125742	Gland Assembly	1
26	125740	125740	125740	125740	125740	125740	Gland Housing	1
27	500787	500787	500787	500787	500787	500787	O-ring	1
28	507447	507447	507447	507447	507447	507447	Polyseal	1
29	125741	125741	125741	125741	125741	125741	Spacer	1
30	506876	506876	506876	506876	506876	506876	Retaining Ring	1
31	500785	500785	500785	500785	500785	500785	O-Ring	1
32	501091	501091	501091	501091	501091	501091	Back-Up Ring	1
33	501075	501075	501075	501075	501075	501075	Quad Ring	1
34	116408	116408	116408	116408	116408	116408	Bumper	1
35	125733	125733	125733	125733	125733	125733	Cylinder Assembly	1
36	125743	125743	125743	125743	125743	125743	Piston, Rod	1
37	125744	125744	125744	125744	125744	125744	Piston, Air	1
38	507445	507445	507445	507445	507445	507445	Retaining Ring	1
39	125724-4	125724-4	125724-4	125724-4	125724-4	125724-4	Gasket	1

## PARTS LIST

I T E M	PART NUMBER						DESCRIPTION	Q T Y
	2022	2022L	2022LV	ERT9	ERT9V	2022A		
40	504127	504127	504127	504127	504127	504127	Screw	3
41	125750	125750	125750	125750	125750	125750	Bottom Plate	1
42	115554-1	115554-1	115554-1	115554-1	115554-1	115554-1	Muffler	1
43	505420	505420	505420	505420	505420	505420	Lock-nut	1
44	506493	506493	506493	506493	506493	506493	Washer	1
45	125747	125747	125747	125747	125747	125747	Cylinder Head	1
46	500871	500871	500871	500871	500871	500871	O-Ring	1
47	501458	501458	501458	501458	501458	501458	Quad Ring	1
48	123756	123756	123756	123756	123756	123756	Pivot Screw	1
49	116272	116272	116272	116272	116272	116272	Spring	1
50	507396	507396	507396	507396	507396	507396	O-Ring	3
51	507164	507164	507164	507164	507164	507164	Swivel Assembly	1
52	125562-1	125562-1	125562-1	125562-1	125562-1	125562-2	Throttle Valve	1
53	125751	125751	125751	125751	125751	125751	Throttle Arm	1
54	506576	506576	506675	506576	506675	506576	Plug Assy/Tubing Connector	1
55	100309	100309	100309	100309	100309	100309	Plug	1
56	505438	505438	505438	505438	505438	505438	O-Ring	1
57	500779	500779	500779	500779	500779	500779	O-Ring	2
58	500778	500778	500778	500778	500778	500778	O-Ring	1
59	590350	590350	590350	590350	590350	590350	Sticker	1
60	590351	590351	590351	590351	590351	590351	Sticker	1
61	590347	590347	590347	590347	590347	590347	Sticker	1
62	-----	-----	500790	-----	500790	-----	O-Ring	2
63	-----	-----	124245	-----	124245	-----	Slide & Tube Assembly	1
64	-----	-----	123784	-----	123784	-----	Adapter	1
65	-----	-----	506628	-----	506628	-----	Washer	1
66	-----	-----	-----	126641	126641	-----	Collet Adapter	1
67	-----	-----	123578	-----	123578	-----	Spacer	1
68	-----	-----	502310	-----	502310	-----	Retaining Ring	1
69	-----	-----	501007	-----	501007	-----	Retaining Ring	1
70	-----	-----	506648	-----	506648	-----	Washer	1
71	-----	-----	500807	-----	500807	-----	O-Ring	1
72	-----	-----	500778	-----	500778	-----	O-Ring	2
73	-----	-----	124828	-----	124828	-----	Washer	1
74	126439	126439	126439	126439	126439	126439	Lever Guard	1
75	502274	502274	502274	502274	502274	502274	Retaining Ring	1
76	507559	507559	507559	507559	507559	507559	Compression Spring	1

# 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 CHART 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 (46) 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.

## 5 Hydraulic fluid exhausts with air or leaks at base of handle.

- a) Worn or damaged Gland Assembly (25), inspect Polyseal (28), O-rings (31 and 27), Quad-ring(33) and Back-up ring (32) replace if necessary.

## 6 Hydraulic fluid leaks at rear of Pull Piston (6)

- a) Worn or damaged piston Polyseal (18), replace if necessary.

## 7 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.

## 8 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.

## 9 Air leaks at air Cylinder Head (45).

- a) Worn or damaged O-ring (46) replace if necessary.

# ACCESSORIES

Fill and Bleed Bottle	- 120337
Stall Nut (2022 & 2022A)	- 124090
Stall Nut (2022L & 2022LV)	- 125340
Stall Nut (ERT9 & ERT9V)	- 124090-5
Service Kits	- 2022KIT
	- ERT9KIT
Suspension Spring	- 124447

## **Assembly Tool Kit (2022& 2022A)** - 123110-2

Includes: (Fig. 3)

Piston Assembly (Bullet)	- 123111-2
Spacer	- 123112-2
POLYSEAL Tool	- 121694-202

## **Assembly Tool Kit (2022L & 2022LV)** - 123110-4

Includes: (Fig. 3)

Piston Assembly (Bullet)	- 123111-4
Spacer	- 123112-3
POLYSEAL Tool	- 121694-202

## **Assembly Tool Kit (ERT9& ERT9V)** - 123110-15

Includes: (Fig. 3)

Piston Assembly (Bullet)	- 123111-11
Spacer	- 123112-11
POLYSEAL Tool	- 121694-202

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

### Canada

6150 Kennedy Road Unit 10, Mississauga, Ontario, L5T2J4, Canada.  
Telephone (905) 564-4825 FAX (905) 564-1963

### 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.



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