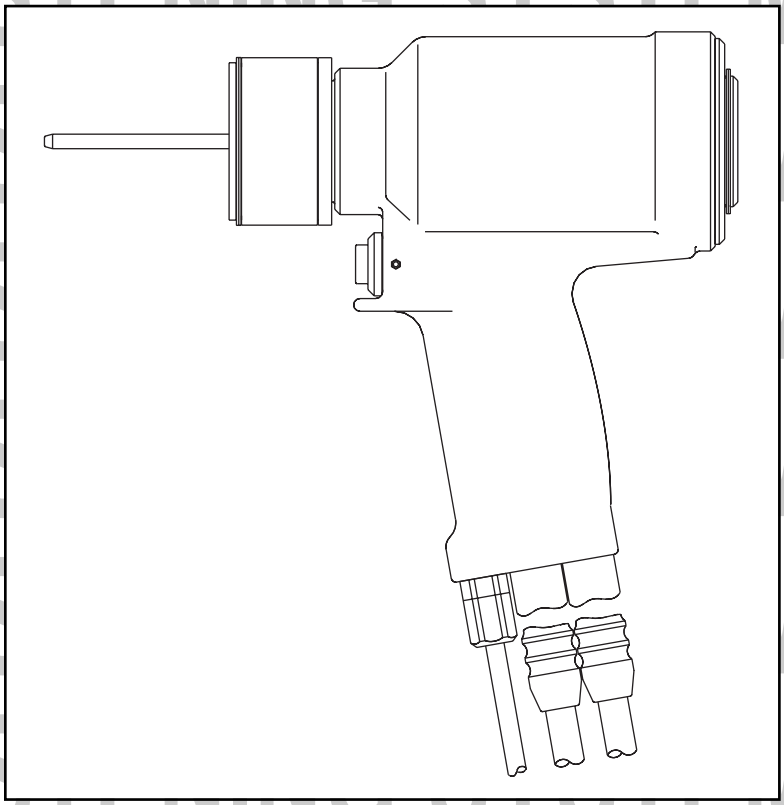
INSTRUCTION MANUAL

2620, A2620, 2620-PT, A2620-PT, 2624 & 2628

HYDRAULIC INSTALLATION TOOL



Alcoa Fastening Systems

ALCOA

CERTIFIED FACILITY INSTALLATION SYSTEMS DIVISION ISO 9001

06/26/2003 **HK1012**

EU Declaration of Conformity

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

Description of Machinery:
Model numbers 2620, A2620, 2620-PT, A2620-PT, 2624 and 2628 fastener installation tools

Relevant provisions complied with:
Council Directive related to Machinery, (89/392/EEC), (91/368/EEC), (93/44/EEC), (93/68/EEC)
Council Directive related to EMC/EMI, (89/336/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: September, 1999

Sound Levels

Models: 2620, A2620, 2620-PT, A2620-PT 2624 and 2628

The sound level of the tool cycling without fastener is too small to be measured above the background noise of the Powerig. The noise of the fastener being installed in structure is considered process noise, not tool noise. Process noise varies greatly from application to application. Sound measurements of simulated process noise are available upon written request.

Vibration Levels

Model: 2620, A2620, 2620-PT, A2620-PT 2624 and 2628

For an eight hour work day, installing 1000 typical Huck fasteners will result in an equivalent weighted RMS vibration level (Aeq) of 15.8 m/s^2 for 2620, and 10.2 m/s^2 for 2624.

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).

CONTENTS

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

⚠ **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 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 When repairing or operating Huck installation equipment always wear approved eye protection. Where applicable, refer to ANSI Z87.1 - 1989

5 Disconnect primary power source before doing maintenance on Huck equipment.

6 If any equipment shows signs of damage, wear or leakage, do not connect it to the primary power supply.

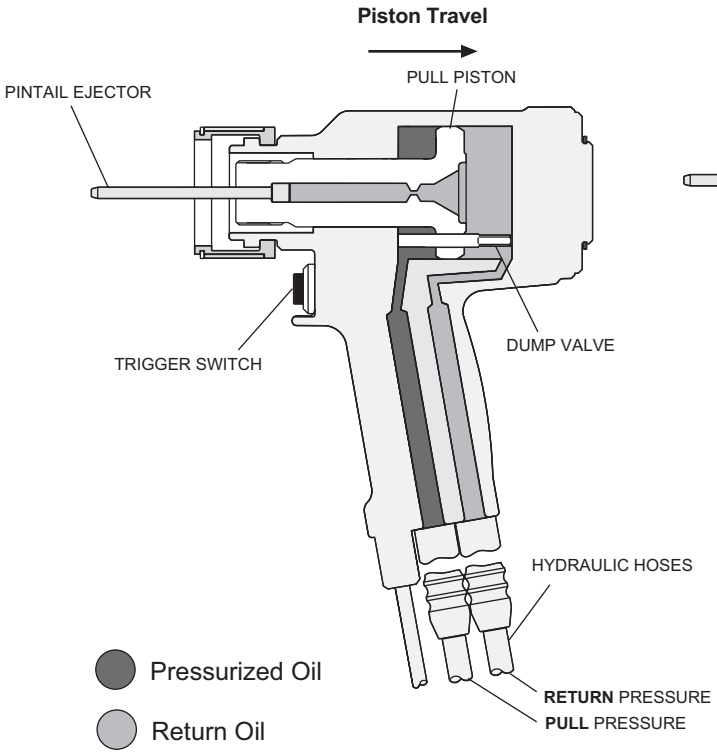
7 Make sure proper power source is used at all times.

8 Never remove any safety guards or pintail deflector.

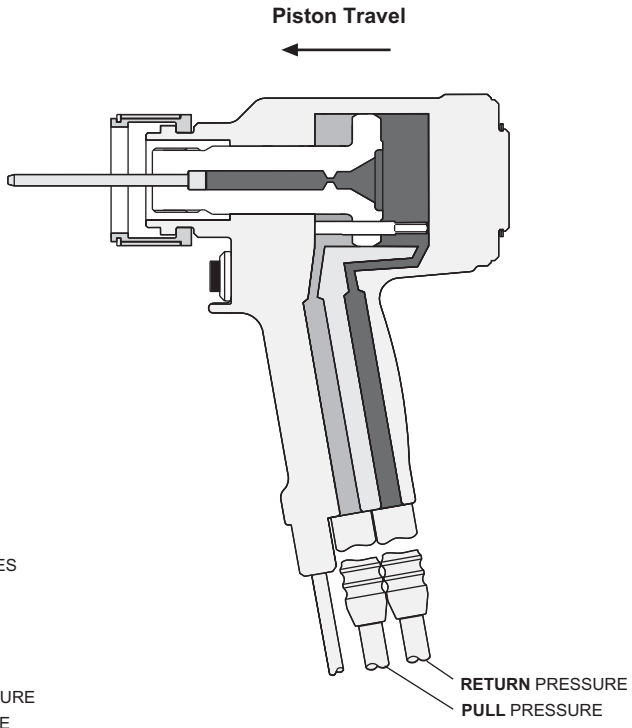
9 Never install a fastener in free air, personal injury from fastener ejecting may occur.

10 Do not abuse tool by dropping or using it as a hammer. 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.

PRINCIPLE OF OPERATION



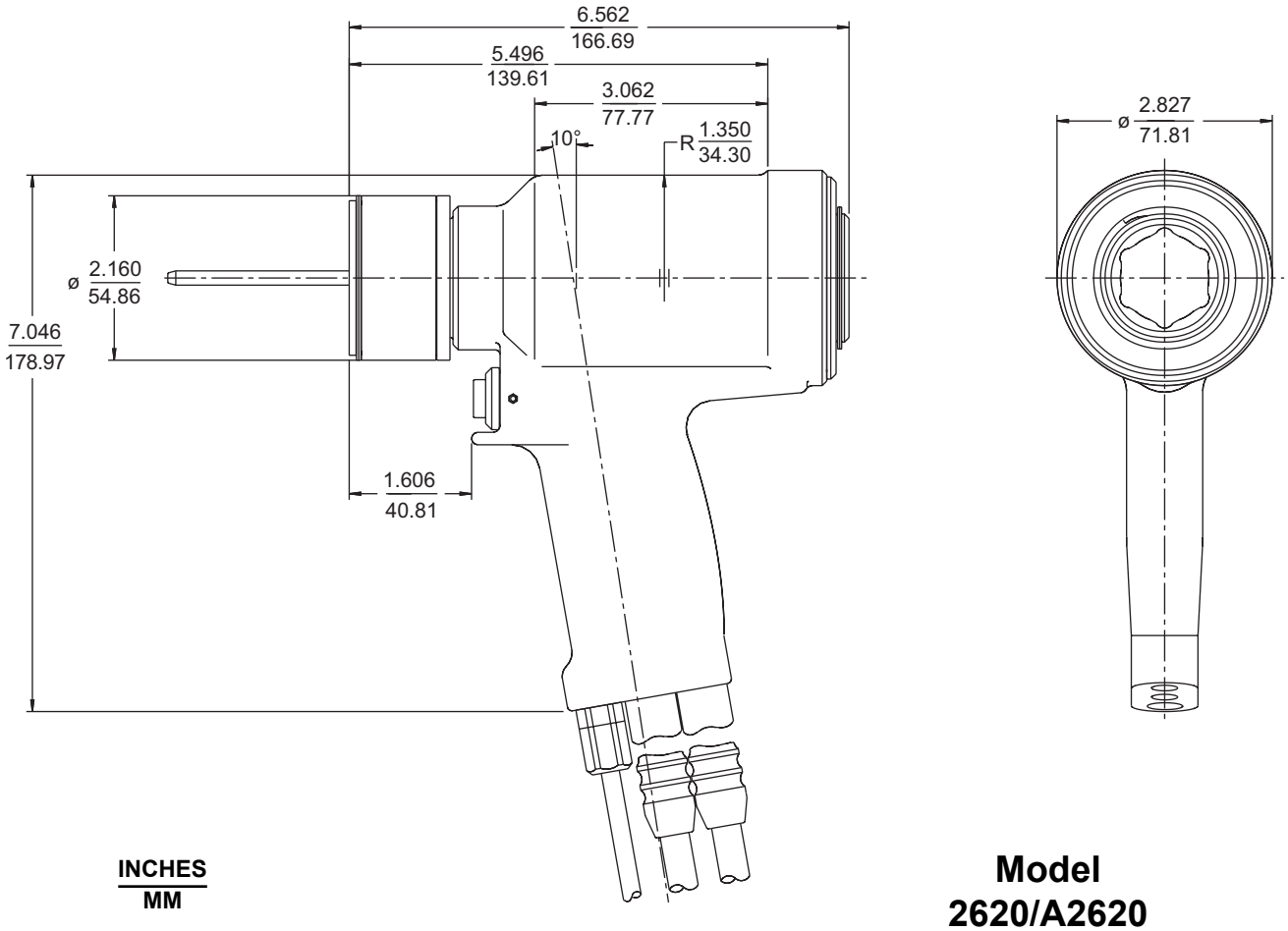
Pull Pressure (Pull Cycle)
Fig. 1(a)



Return Pressure (Return Cycle)
Fig. 1(b)

When the trigger is depressed, a solenoid operated valve in the POWERIG® directs pressurized hydraulic fluid through the PULL hose to the front side of the piston, and allows fluid on the RETURN side to flow back to the tank (Fig 1a). The piston and nose assembly collet moves rearward installing the fastener. When the piston reaches the end of the PULL stroke, it uncovers flats on the rear end of the unloading valve. These flats are designed to provide a passage for hydraulic fluid from the PULL side to the RETURN side of the piston, "unloading" or "dumping" the pressurized fluid back to the tank (Fig 1a). When the trigger is released the solenoid is de-energized and the valve directs pressurized fluid to the rear side of the piston and allows fluid on the PULL side to flow back to the tank (Fig. 1b). This causes piston and collet to move forward and pushes the nose assembly and tool off the swaged (installed) fastener. When the piston reaches the end of the return stroke, pressure is built up, causing the power rig to shut off, completing the cycle.

SPECIFICATIONS (2620/A2620)

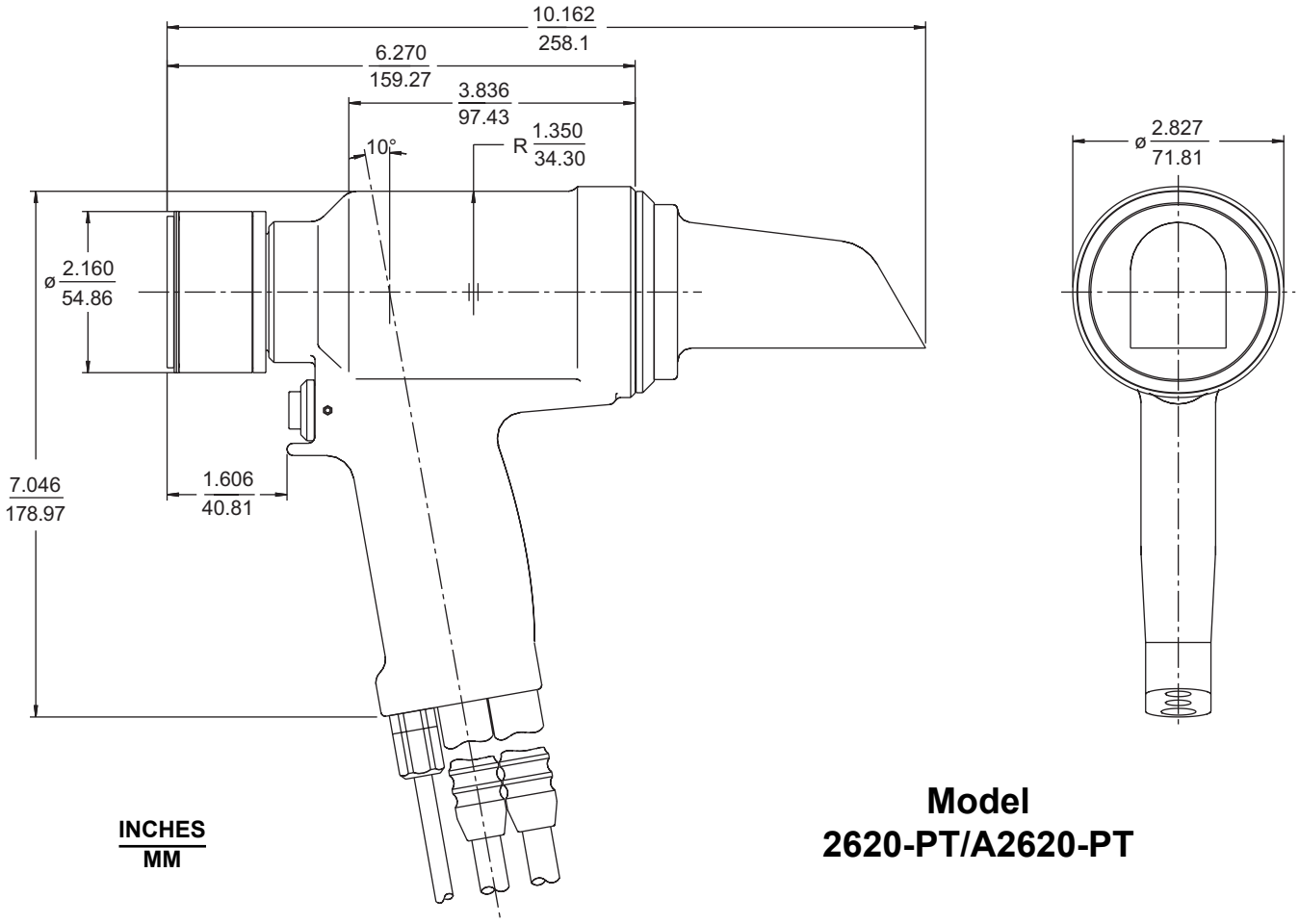


INCHES
MM

Model
2620/A2620

- **Stroke:** 1.437in
- **Weight:** 9 lbs 14oz
- **Pull Pressure**: 7,400 psi
- **Return Pressure**: 3,200 psi
- **Capacity:** 17,745 lbs @ 6,500 psi
- **Noise Level:** 75 dBA

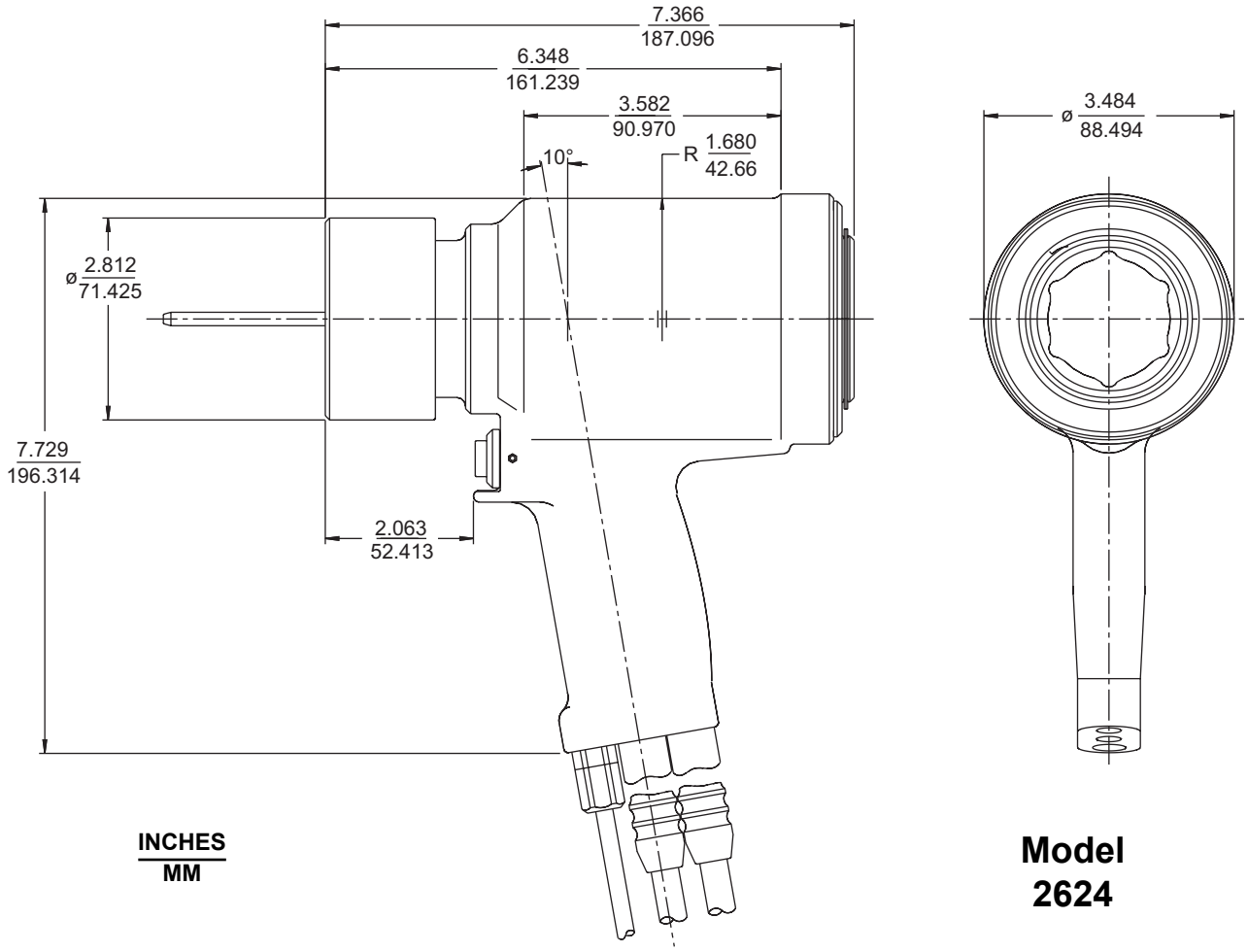
SPECIFICATIONS (2620-PT/A2620-PT)



Model
2620-PT/A2620-PT

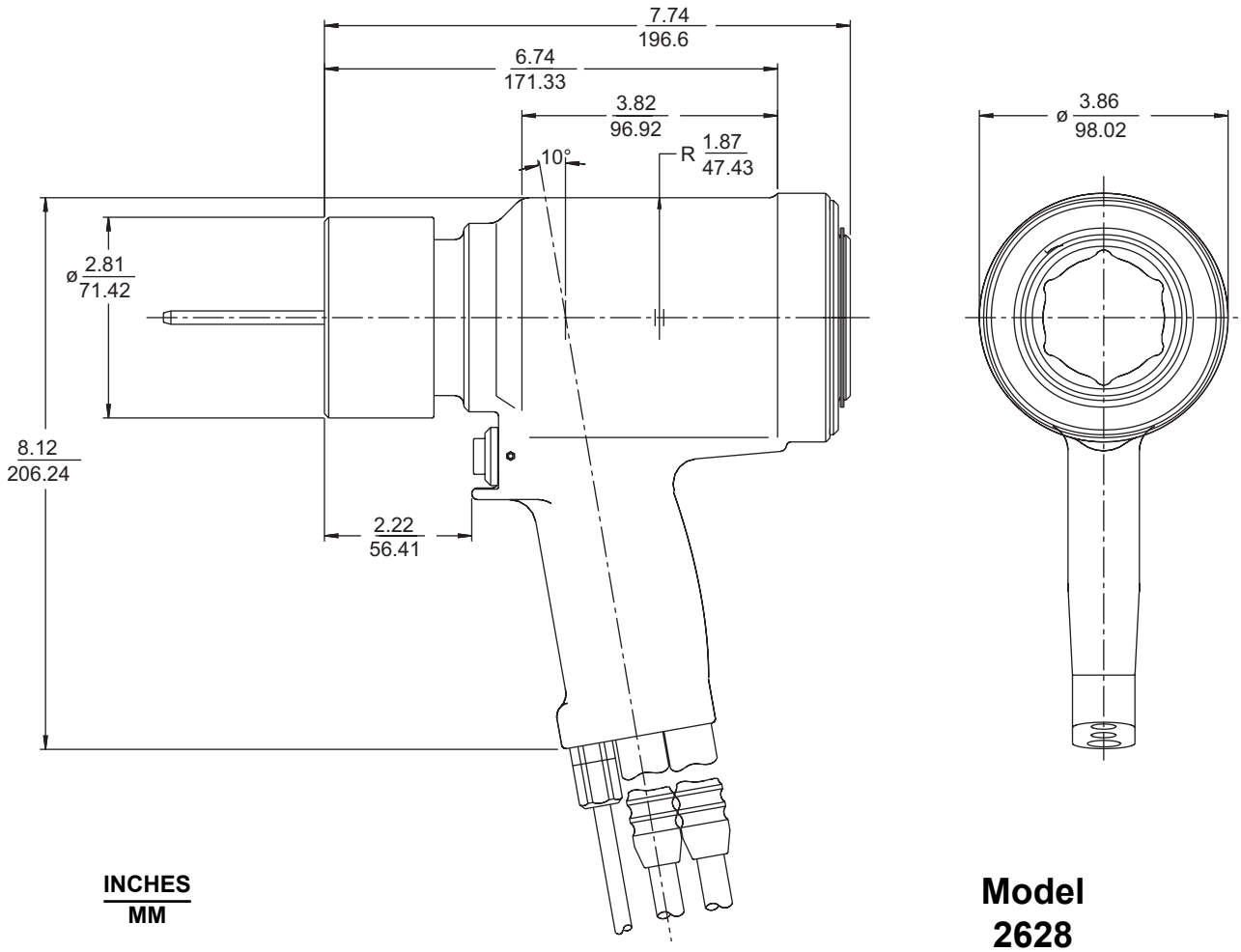
- **Stroke:** 1.437 in
- **Pull Pressure**: 7,400 psi
- **Capacity:** 17,745 lbs @ 6,500 psi
- **Weight:** 9 lbs 14oz
- **Return Pressure**: 3,200 psi
- **Noise Level:** 75 dBA

SPECIFICATIONS (2624)



- **Stroke:** 1.687 in
- **Weight:** 14 lbs
- **Pull Pressure**: 7,400 psi
- **Return Pressure**: 3,200 psi
- **Capacity:** 30,356 lbs @ 6,500 psi
- **Noise Level:** 75 dBA

SPECIFICATIONS (2628)



INCHES
MM

Model 2628

- **Stroke:** 1.812 in.
- **Pull Pressure**: 7,400 psi
- **Capacity:** 39,858 lbs @ 6,500 psi
- **Weight:** 17 lbs.
- **Return Pressure**: 3,200 psi
- **Noise Level:** 75 dBA

Note: *When installing 20mm Grade 8 fasteners, the Powerig® pressure should be set to 8,400 psi.* ***(FOR REPAIR APPLICATIONS ONLY)***

PREPARATION FOR USE

1. Use Huck POWERIG Hydraulic Unit, or equivalent, that has been prepared for operation per applicable ***instruction manual***. Check both PULL and RETURN pressures, and if required, adjust to pressures given in ***specifications of this manual***.

WARNING - Proper PULL and RETURN pressures are important for proper function of Installation Tools. Severe personal injury or damage to equipment may occur without correct pressures. Huck Pressure Gauge P/N T-10280 (old style) or the new T124833 is now available for checking these pressures using instructions furnished with the gauge and in applicable POWERIG® Hydraulic Unit instruction manuals. See Specifications.

2. First, turn hydraulic unit to OFF, and then, disconnect power supply from unit. Connect tool's hoses to unit.

WARNING - Be sure to connect tool hoses to hydraulic unit BEFORE connecting tool electrical switch cord to unit. Hoses and switch must be connected in this order and disconnected in the reverse order to prevent possible severe personal injury.

3. Connect tool's control switch electrical cord to hydraulic unit.

4. Connect hydraulic unit to power supply. Turn unit to ON. Hold tool trigger depressed for 30 seconds; depress trigger a few times to cycle tool and to circulate hydraulic fluid. Observe action of tool and check for leaks. Turn unit to OFF.

5. Select nose assembly for fastener to be installed. Disconnect tool's control switch electrical cord from hydraulic unit; disconnect unit from power supply. Attach nose assembly to tool per instructions on ***Nose Assembly Data Sheet***.

6. Reconnect hydraulic unit to power supply; reconnect tool's switch control cord to unit. Check operation of nose assembly - - see ***Nose Assembly Data Sheet*** - - install fasteners in test plate of correct thickness with proper size holes. Inspect installed fasteners. If fasteners do not pass inspection, see ***Troubleshooting*** to locate and correct tool malfunction.

SERVICING THE TOOL

GOOD SERVICE PRACTICES

CAUTION: *Keep dirt and other harmful material out of hydraulic system - - this includes tool, hoses, couplers and POWERIG® Hydraulic Unit. Parts must be kept away from unclean work surfaces. Dirt in hydraulic system causes valve failure in hydraulic unit.*

Individual parts must be handled carefully and examined for damage or wear. Replace parts where required. Always replace O-rings and Back-up Rings when tool is disassembled for any reason. See applicable Service Kit.

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

- The efficiency and life of your tool depends on proper maintenance. Using the manual will help give a clear understanding of the tool and basic maintenance procedures. Please read this page completely before proceeding with maintenance and repair. Use proper hand tools in a clean and well-lighted area. Only standard hand tools are required in most cases. Where a special tool is required, the description and part number are given.
- While clamping tool or parts in a vise, and when parts require force, use suitable soft materials to cushion impact. For example, using a half-inch brass drift, wood block and vise with soft jaws greatly reduces possibility of damaging tool. Remove components in a straight line without bending, cocking or undue force. Reassemble tool with the same care.
- Consult manuals *TROUBLESHOOTING* if a

SERVICING THE TOOL (CONT.)

malfunction occurs and then see appropriate section of *DISASSEMBLY; ASSEMBLY;* Assembly and/or Components (illustration).

Sealants, Lubricants, Hydraulic Fluid and Service Kits

- Rub SLIC-TITE TEFLON thread compound, or equivalent, on pipe threads to prevent leaks and for ease of assembly. **CAUTION:** *Do not use TEFLON tape on pipe threads.* Particles of shredded tape cause hydraulic unit valve failure. (SLIC-TITE in stick form, 503237).

- Smear LUBRIPLATE 130AA, or equivalent, on O-rings and mating surfaces to prevent damaging O-rings on rough or sharp surfaces. Also, increases ease of assembly. (LUBRIPLATE in a tube, 502723).

- Each Service Kit contains perishable parts for your specific tool. As foreseeable use may indicate, keep extra kits (O-rings, Back-up Rings, other standard items) and tool parts in stock. When stock is depleted, you can get kit items from any regular retailer of these items. See kit parts list for: O-ring size (AS568- number); material; durometer. For kit parts lists and related information, see General Notes.

PREVENTIVE MAINTENANCE

System Inspection

Operating efficiency of the tool is directly related to the performance of the complete system, including the tool with nose assembly, hydraulic hoses, trigger switch and control cord, and POWERIG Hydraulic Unit. Therefore, an effective preventive maintenance program includes scheduled inspections of the system to detect and correct minor troubles.

- Inspect tool and nose assembly for external damage.

- Verify that hydraulic hose fittings and couplings, and electrical connections are secure.

- Inspect hydraulic hoses for damage and deterioration. Do not use hoses to carry tool. Replace hoses if damaged.

- Observe tool, hoses and hydraulic unit during operation to detect abnormal heating, leaks or vibration.

POWERIG Hydraulic Unit Maintenance

Refer to the applicable POWERIG instruction manual.

Tool Maintenance

Whenever disassembled and also at regular intervals (depending on severity and length of use) replace all seals, wipers and back-up rings in tool. Service Kits, hoses and extra parts should be kept in stock. Inspect cylinder bore, pistons and piston rods for scored surfaces and excessive wear or damage. Replace as necessary.

Nose Assembly Maintenance

Clean nose often - - dip in mineral spirits, or similar solvent, to clean jaws and wash away metal chips and debris. At regular intervals, as experience shows, disassemble nose and use a sharp "pick" to remove imbedded particles from grooves of jaws. See appropriate NOSE ASSEMBLY DATA SHEET.

DISASSEMBLY All Models

(Refer to Figures 2 - 4, 8 -13)

For component identification and Parts list refer to Figure (8 - 11).

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.

WARNING: Be sure to disconnect tool's electric control trigger system from Hydraulic Unit before disconnecting tool's hoses from unit. Before any maintenance is done, DISCONNECT IN THIS ORDER (RECONNECT IN THE OPPOSITE ORDER) to avoid possible severe personal injury.

1. Disconnect electrical or air connector from Powerig. Uncouple tool hydraulic hoses.

2. Remove nose assembly.

SERVICING THE TOOL (CONT.)

3. Unscrew coupling nipple and coupling body. Drain hydraulic hoses into container. Discard fluid.

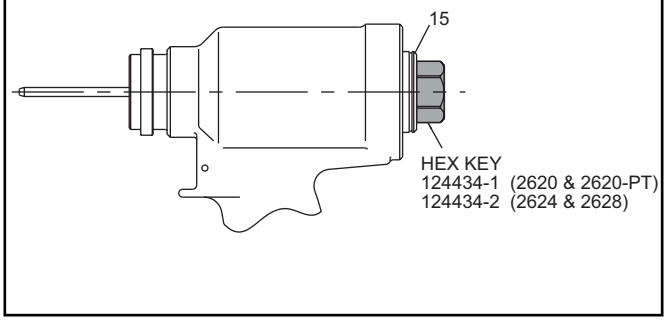
4. Push rearward on Piston (4) until remaining hydraulic fluid is drained into container. Discard fluid.

5. ***NOTE:*** *Do not remove hydraulic hoses from tool unless replacing hoses. If necessary to remove hoses, uncover hose fittings by sliding plastic shrouds back.*

6. ***NOTE:*** *Use the following steps* ***only*** *if the switch, wire or connector needs repair.*
   2620, 2620-PT, 2624 & 2628 Models Only
   Remove Retaining Nut and Locking ferrule from Strain Relief (20). Loosen set screw (37) and remove switch (21). Loosen and remove the two wires from the switch. Remove cord from tool. Disassemble electrical connector (110686) (Figs. 8,9&12).
   A2620, A2620-PT Models Only
   Unscrew and remove Air Switch (21). Remove Retaining Nut and Locking ferrule from Air Fitting (20). Remove plastic tubing and unscrew remaining part of fitting (20) from handle (Fig. 10,11&13).

7. Standard Models: (Fig. 8 & 10)
   Remove Retaining Ring (17), cover plate (16) and Locking Disk (18).
   2620-PT Model: (Fig. 9 & 11)
   Remove Deflector (32), Screws (31), Barbed Retainer (30) and locking disk (18).

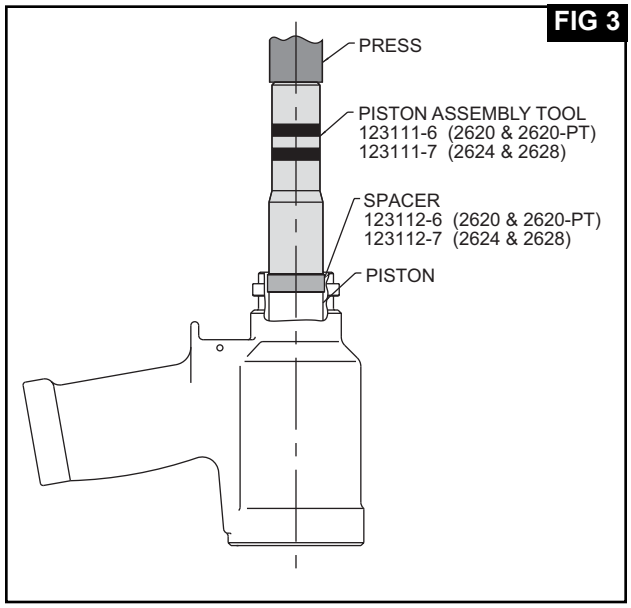
FIG 2



8. Insert hex key in End Cap (15) as shown in **Fig.2**. Using a wrench unscrew end cap from cylinder.

9. Standard Models: (Fig. 8 & 10)
   Remove O-ring (9) and Back-up Ring (8)
   2620-PT Model: (Fig.9 & 11)
   Remove O-ring (9), Back-up Ring (8), retaining ring (36), washer (35), polyseal (34) and wiper seal (33).

FIG 3



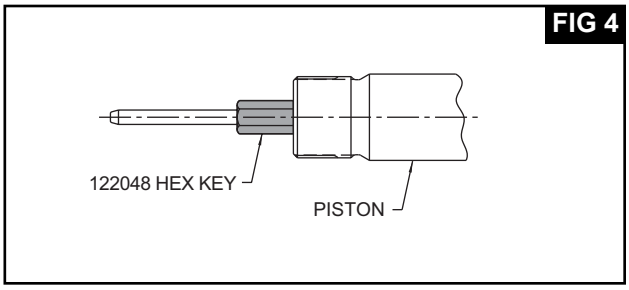
10. Remove Dump Valve (19) from rear of cylinder.

11. Slide Spacer (123112-6/7) over piston and thread on Piston Assembly Tool (123111-6/7). Using a press push front gland and piston assemblies out of the back of the cylinder. (Fig. 3)

12. Remove Piston Assembly Tool (123111-6/7) and Spacer (123112-6/7) (Fig.3).

13. Slide Front Gland (11) off of Piston (4) and remove Wiper (6), Wiper Housing (7), Back-up Ring (8), O-ring (9) and Polyseal (10) (Fig. 8 - 11).

FIG 4



14. Remove GLYD Ring (13) from Piston (4) (Fig. 5).

15. Standard Models Only: (Fig. 4, 8 & 10)
    Hold Piston (4) in a vise with soft jaws and remove Ejector Gland Assembly (22) with Hex Key 122048

16. Standard Models Only: (Fig. 4, 8 & 10)
    Remove from gland, Ejector Rod (29), Washer (23), O-rings (24), Wiper (26) Quad-Ring (28) and Back-up Ring (27).

SERVICING THE TOOL (CONT.)

ASSEMBLY All Models

(Refer to Figures 2, 4, 5, 8 -13)

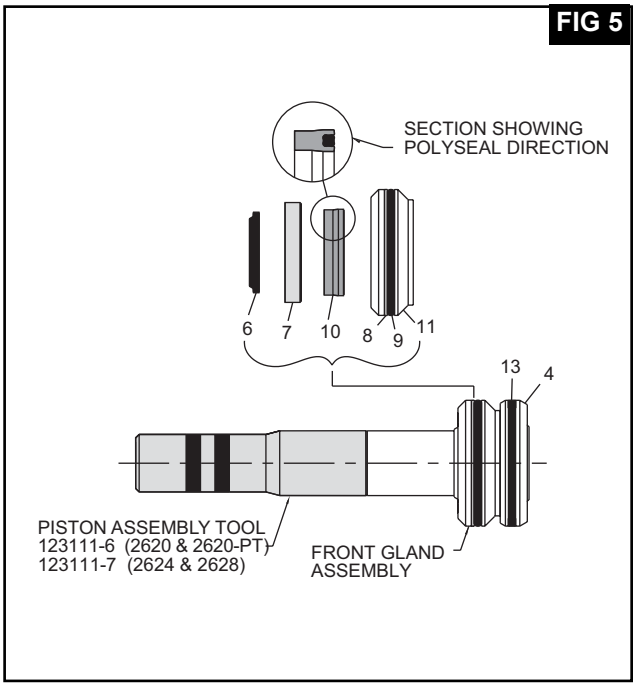
For component identification and Parts list refer to Figure (8 - 11).

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 2620KIT(all models), 2620-PTKIT(all models), 2624KIT and 2628KIT** 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. Standard Models Only: (Fig. 8 & 10)
   Install Back-up Ring (27), Quad-Ring (28), Wiper (26), O-rings (24), Washer (23) and Ejector Rod (29) into Ejector Gland (25).

2. Standard Models Only: (Fig. 4, 8 & 10)
   Hold Piston (4) in a vise with soft jaws and install assembled Ejector Gland (22). Use Hex Key 122048 to tighten.

FIG 5



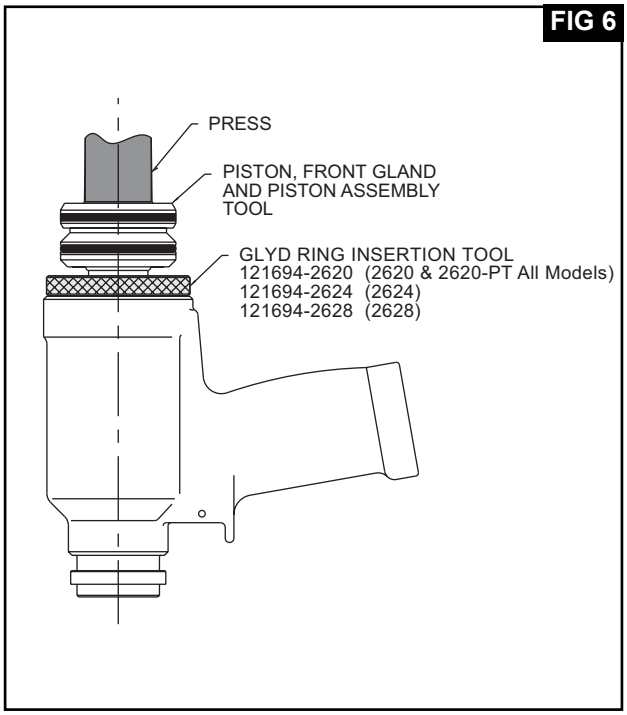
3. Thread Piston Assembly Tool (123111-6/7), onto piston (4) (Fig. 5). ***Note:*** *Do not install spacer 123112-6/7.*

4. Install GLYD Ring (13) onto Piston (4) (Fig. 5).

5. Install Polyseal (10), O-ring (9), Back-up Ring (8), Wiper Housing (7) and Wiper (6) into Front Gland (11) (Fig.5).

6. Lube Piston Assembly Tool and Piston, then slide assembled Gland (11) over Piston Assembly Tool onto Piston (Fig. 5).

FIG 6



7. Thread GLYD Ring Insertion Tool (121694-2620/2624/2628) into the back of the Cylinder (Fig. 6).

8. Using a press, push Piston and Front Gland Assemblies into the back of Cylinder (5). (Fig. 6)

9. Remove Piston Assembly Tool (123111-6/7) (Fig. 5).

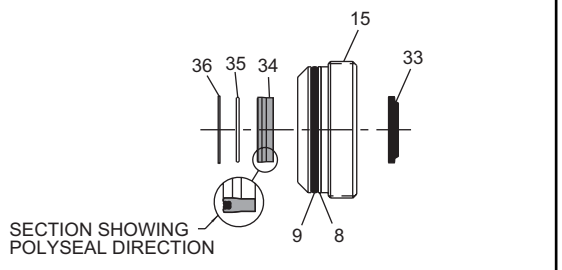
10. Remove the GLYD Ring Insertion Tool (121694-2620/2624/2628) from the back of the Cylinder (Fig.6).

11. From the rear of Cylinder, install Dump Valve (19) with the four flats facing the rear of the tool (Figs. 8 - 11).

SERVICING THE TOOL (CONT.)

12. Standard Models: (Fig. 8 & 10)
    Install O-ring (9) and Back-up Ring (8) on End Cap (15).
    2620-PT Model: (Fig.7, 9 & 11)
    Install Back-up Ring (8), O-ring (9), Wiper Seal (33), Polyseal (34), Washer (35) and Retaining Ring (36) into End Cap (15).

FIG 7



13. Insert Hex Key into the End Cap (15). Using a wrench thread the End Cap into the back of the Cylinder and tighten (Fig. 2).

14. Standard Models: (Fig. 8 & 10)
    Install Locking Disk (18), Cover Plate (16) and Retaining Ring (17).
    2620-PT Model: (Fig. 9 & 11)
    Install Locking Disk (18), Barbed Retainer (30), Screws (31) and Deflector (32).

15. If removed, reinstall Electrical/Air Connector (Fig.12 & 13).

16. ***NOTE:*** *If switch or wire have been removed, replace as follows:*
    2620, 2620-PT, 2624 & 2628 Models Only
    Slide Retaining Nut and Ferrule onto Electrical Wire. Feed Wire through Handle and pull out through the Trigger Switch hole. Attach Wires to Switch (21) and push the assembly back into the Handle. Tighten Screw (37) to hold Trigger Switch in place. Slide Ferrule into Strain Relief Housing, then thread and tighten Retaining Nut (Fig. 8,9 & 12).
    A2620, A2620-PT Models Only
    Install fitting (20) into handle. Slide retaining nut and ferrule over plastic tubing. Slide tubing into fitting (20) and tighten retaining nut. Screw in air trigger (21) and tighten(Fig. 8,9 & 13).

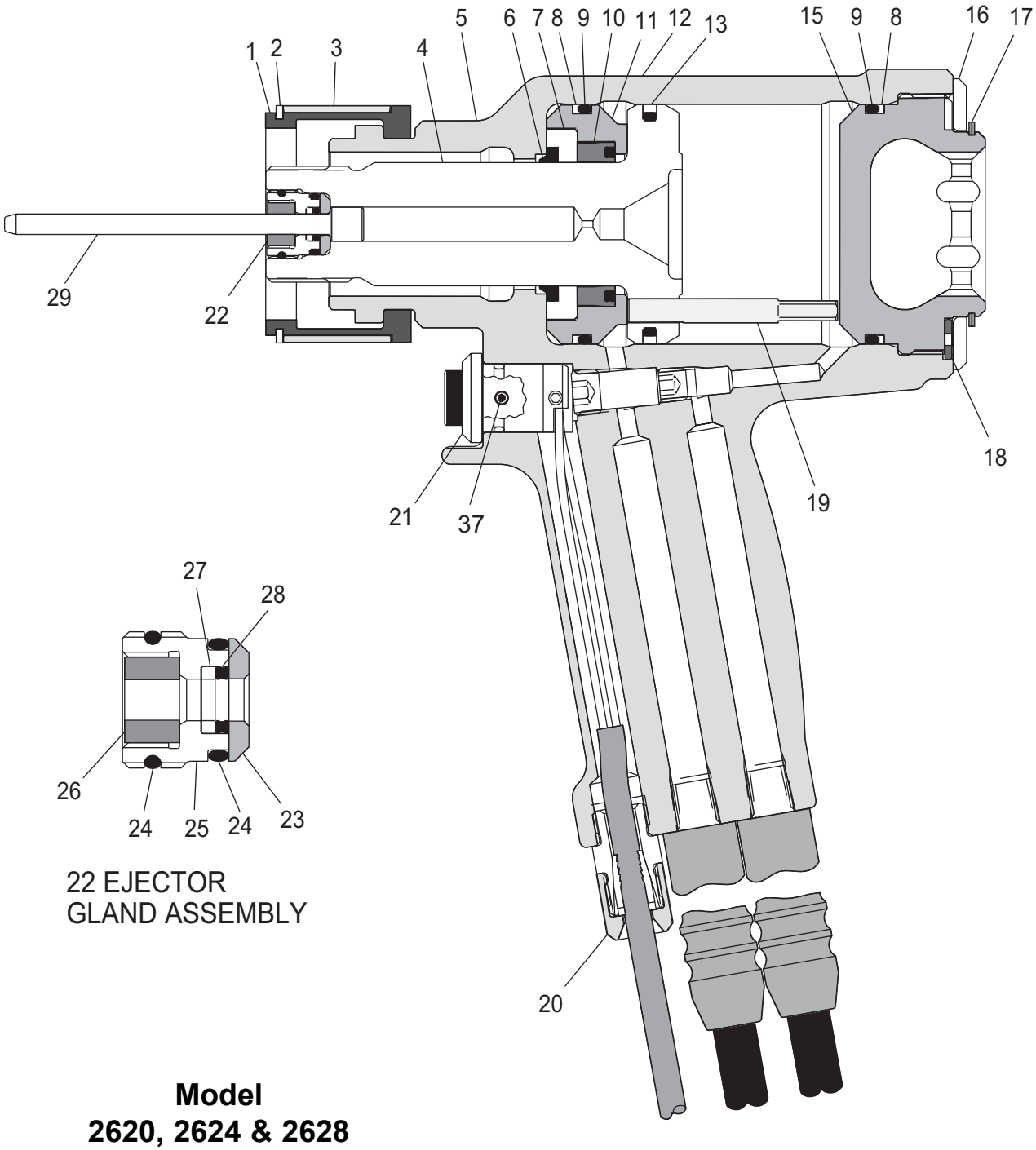
17. If removed, install one hydraulic Hose in Handle port marked "P" and one in port marked “R”.
    CAUTION: *Do not use TEFLON tape on pipe threads.(See Good Service Practices Page 9)*

18. Install Coupler Nipple 110438, (PULL pressure hose); Coupler Body 110439, (RETURN pressure hose) (Fig. 12 & 13).

• Use Area Below for Service Notes: •

ASSEMBLY DRAWING 2620, 2624 & 2628

FIG 8

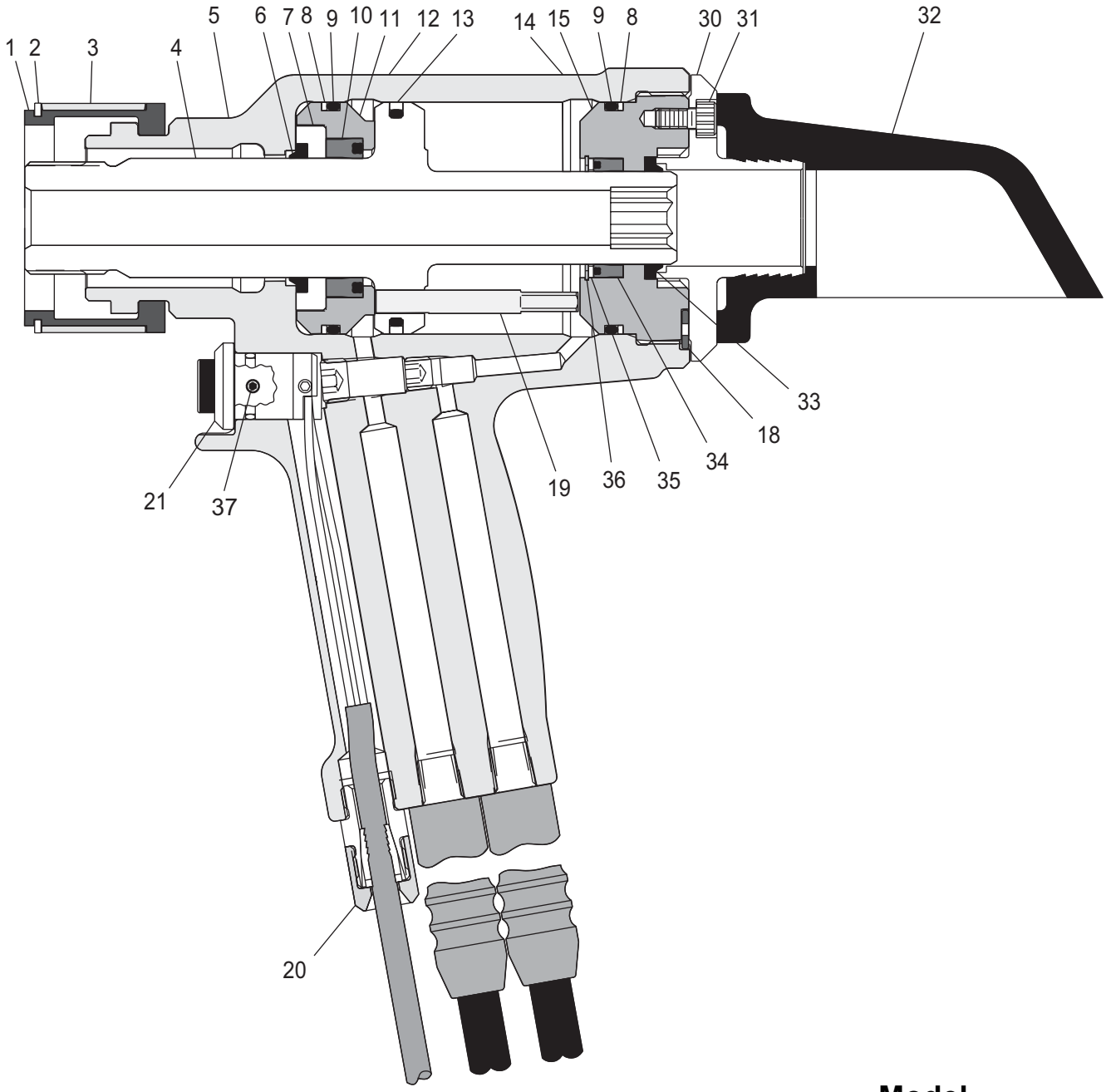


22 EJECTOR
GLAND ASSEMBLY

Model
2620, 2624 & 2628

ASSEMBLY DRAWING 2620-PT

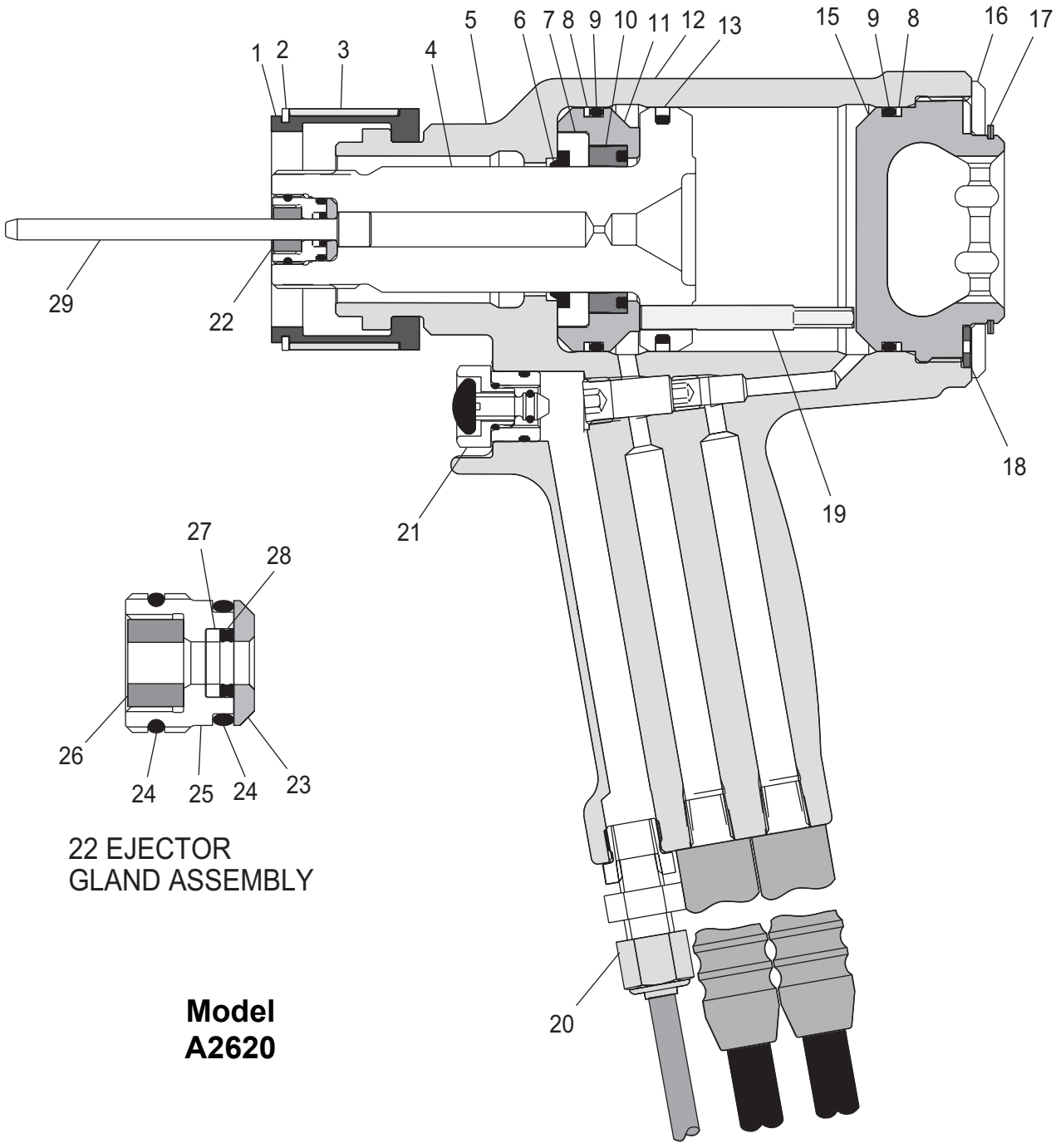
FIG 9



Model 2620-PT

ASSEMBLY DRAWING A2620

FIG 10

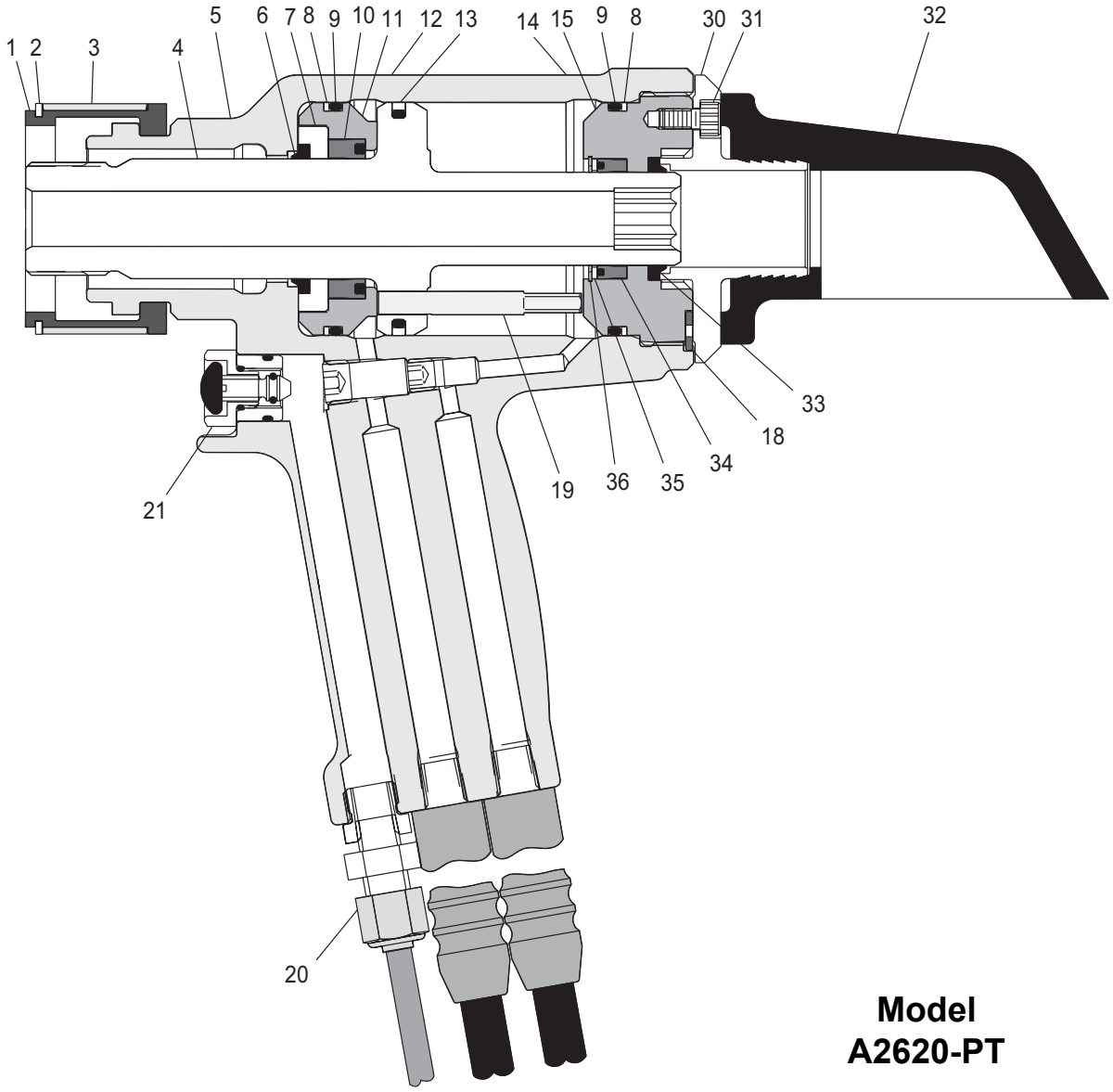


22 EJECTOR
GLAND ASSEMBLY

Model
A2620

ASSEMBLY DRAWING A2620-PT

FIG 11



Model A2620-PT

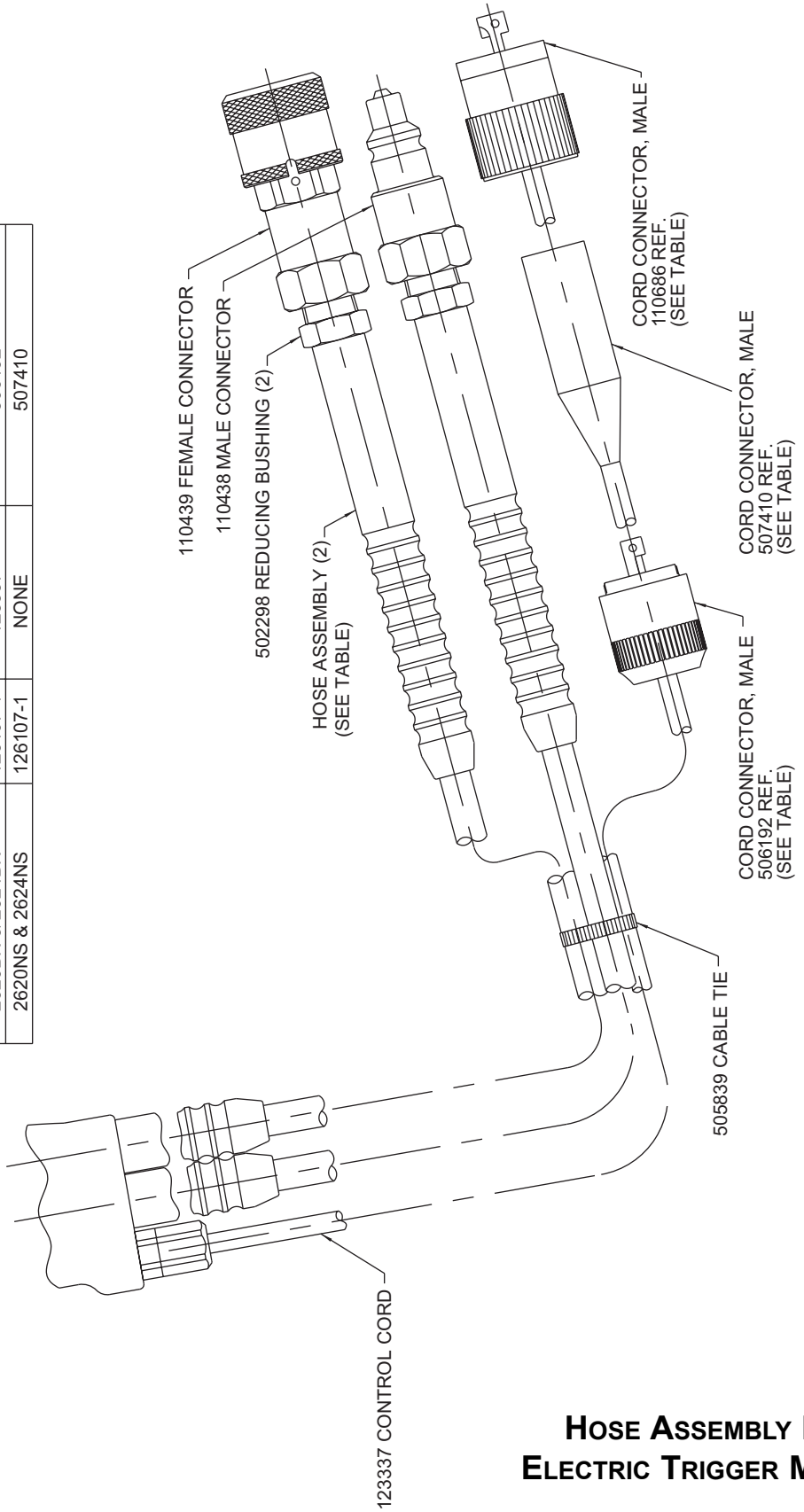
Parts List

ITEM	PART NUMBER						DESCRIPTION	QTY
	2620	A2620	2620-PT	A2620-PT	2624	2628		
1	102147	102147	102147	102147	100247	100247	Split Ring	1
2	501514	501514	501514	501514	----------	----------	Retaining Ring	1
3	102148	102148	102148	102148	100248	100248	Retaining Sleeve	1
4	125612	125612	125761	125761	125685	126193	Piston	1
5	126152	126152	126152	126152	126108	126197	Cylinder Assembly	1
6	507407	507407	507407	507407	506001	506001	Wiper Seal	1
7	125610	125610	125610	125610	125683	125683	Wiper Housing	1
8	501127	501127	501127	501127	125691	501160	Back-up Ring	2
9	507412	507412	507412	507412	500862	500865	O-ring	2
10	507408	507408	507408	507408	507417	507417	Polyseal	1
11	125609	125609	125609	125609	125682	126195	Front Gland	1
12	590189-2	590189-2	590189-2	590189-2	590189-1	590189-2	Caution Sticker	1
13	122769-1	122769-1	122769-1	122769-1	122769-2	126199	GLYD Ring Assembly	1
14	----------	----------	590240	590240	----------	----------	Warning Sticker	1
15	125614	125614	125763	125763	125687	126194	End Cap	1
16	125617	125617	----------	----------	125690	126196	Cover Plate	1
17	507406	507406	----------	----------	507418	507418	Retaining Ring	1
18	122764	122764	122764	122764	122764	122764	Locking Disc	1
19	125616	125616	125616	125616	125689	126198	Dump Valve	1
20	505344	503902	505344	503902	505344	505344	Strain Relief/Air Fitting	1
21	120361	119345-1	120361	119345-1	120361	120361	Trigger Switch Assembly	1
22	120653	120653	----------	----------	120653	120653	Ejector Gland Assembly	1
23	120652	120652	----------	----------	120652	120652	Ejector Washer	1
24	500779	500779	----------	----------	500779	500779	O-ring	2
25	122047	122047	----------	----------	122047	122047	Gland	1
26	122742	122742	----------	----------	122742	122742	Rod Wiper	1
27	501080	501080	----------	----------	501080	501080	Back-up Ring	1
28	501411	501411	----------	----------	501411	501411	Quad-Ring	1
29	122705	122705	----------	----------	122705	122705	Pintail Ejector	1
30	----------	----------	125765	125765	----------	----------	Barbed Retainer	1
31	----------	----------	500060	500060	----------	----------	Screws	3
32	----------	----------	122766	122766	----------	----------	Deflector	1
33	----------	----------	505894	505894	----------	----------	Wiper Seal	1
34	----------	----------	506160	506160	----------	----------	Polyseal	1
35	----------	----------	122762	122762	----------	----------	Spacer	1
36	----------	----------	506159	506159	----------	----------	Retaining Ring	1
37	501731	501731	501731	501731	501731	501731	Set Screw	1

FIG 12

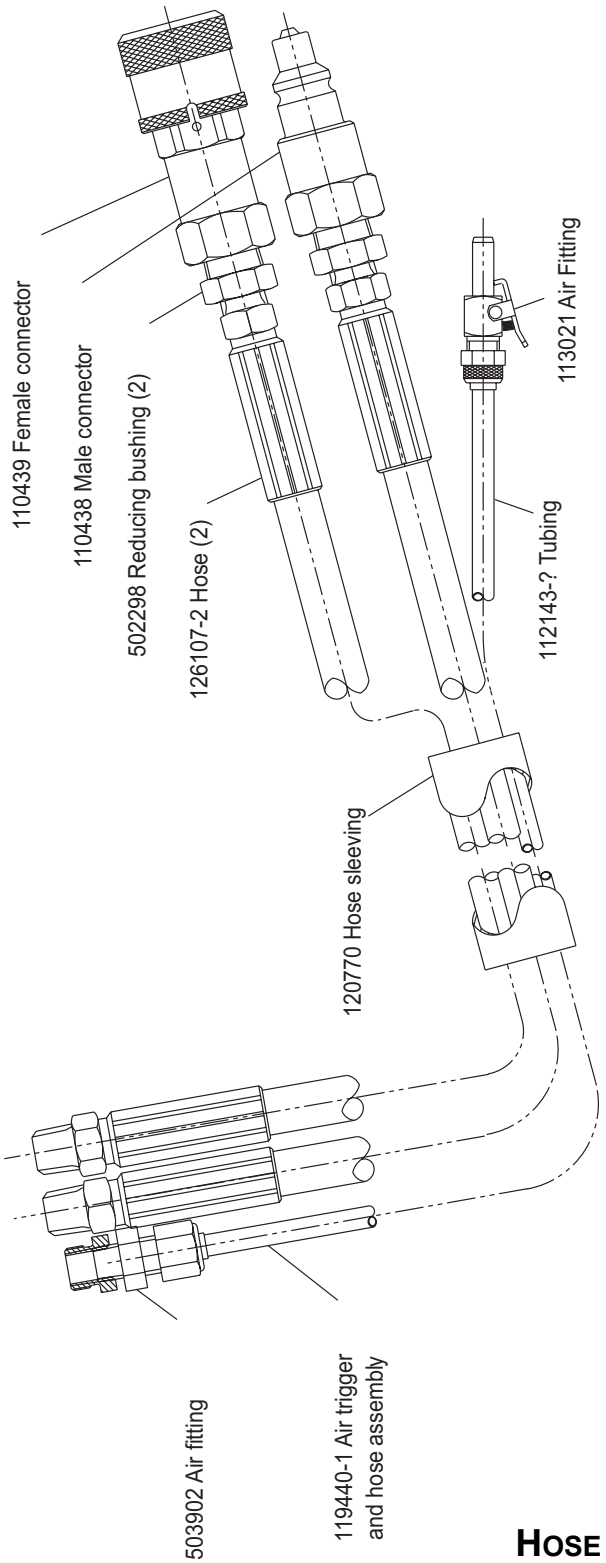
MODEL SELECTION

MODEL	HOSE	CONTROL CORD	ELECTRICAL CONNECTOR
2620	126107-1	123337	110686
2624	126107-1	123337	110686
2628	126107-1	123337	110686
2620BN & 2624BN	126107-1	123337	506192
2620NS & 2624NS	126107-1	NONE	507410



HOSE ASSEMBLY FOR ELECTRIC TRIGGER MODELS

FIG 13



HOSE ASSEMBLY FOR AIR TRIGGER MODELS

TROUBLESHOOTING

Always check the simplest possible cause of a malfunction first. For example, a loose or disconnected trigger line. Then proceed logically and eliminate each possible cause until the defect is found. Where possible, substitute known good parts for suspected defective parts. Use the following steps as an aid in troubleshooting.

1. *Tool fails to operate when trigger is pressed.*
   a. Inoperative POWERIG® Hydraulic Unit. See applicable instruction manual.
   b. Loose electrical connections.
   c. Damaged trigger assembly.
   d. Loose or faulty hose coupling.

2. *Tool operates in reverse.*
   a. Reversed hose connections between hydraulic unit and tool.

3. *Tool leaks hydraulic fluid.*
   a. Defective tool O-rings or loose connections at tool.

4. *Hydraulic couplers leak fluid.*
   a. Damaged or worn O-rings in Coupler Body Coupler P/N 110440.

5. *Hydraulic fluid overheats.*
   a. Unit not operating properly - - see units manual.
   b. Unit running in reverse (918; 918-5 only) - - see units manual.

6. *Tool operates erratically and fails to install fastener properly.*
   a. Low or erratic hydraulic pressure - - air in system.
   b. Damaged or worn Piston O-ring in tool.
   c. Excessive wear on sliding surfaces of tool parts.

7. *Pull grooves on fastener pintail stripped during PULL stroke.*
   a. Operator not sliding anvil completely onto fastener pintail.
   b. Incorrect fastener grip.
   c. Worn or damaged jaw segments.
   d. Metal particles in jaw grooves.
   e. Excessive sheet gap.

8. *Collar of fastener not completely swaged.*
   a. Improper tool operation - - see No. 6.
   b. Scored anvil.

9. *Tool "hangs up" on swaged collar of fastener.*
   a. Improper tool operation - - see No. 6.
   b. RETURN pressure too low.
   c. Not enough collar lubricant.
   d. Nose assembly not installed per NOSE ASSEMBLY DATA SHEET.

10. *Pintail of fastener fails to break.*
   a. Improper tool operation - - see No. 6.
   b. Pull grooves on fastener stripped - - see No. 7.
   c. PULL pressure too low.

11. *Nose will not release broken pintail.*
   a. Nose assembly not installed per NOSE ASSEMBLY DATA SHEET.

KITS AND ACCESSORIES

Service Kits:

2620/A2620	-	2620KIT
2620-PT/A2620-PT	-	2620-PTKIT
2624	-	2624KIT
2628	-	2628KIT

Assembly Tool Kits:

2620/A2620 & 2620-PT/A2620-PT Tool Kit	-	123110-7
Includes: (Fig. 3 & 6))		
Spacer	-	123112-6
Piston Assembly Tool	-	123111-6
GLYD Ring Insertion Tool	-	121694-2620
2624 Tool Kit	-	123110-9
Includes: (Fig. 3 & 6))		
Spacer	-	123112-7
Piston Assembly Tool	-	123111-7
GLYD Ring Insertion Tool	-	121694-2624
2628 Tool Kit	-	123110-12
Includes: (Fig. 3 & 6))		
Spacer	-	123112-7
Piston Assembly Tool	-	123111-7
GLYD Ring Insertion Tool	-	121694-2628

Accessories:

Ejector Hex Wrench (All Models)	-	122048
End Cap Hex Wrench		
2620 & 2620-PT	-	124434-1
2620-PT/A2620-PT	-	124434-1
2624 & 2628	-	124434-2

LIMITED WARRANTIES

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

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

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. HUCK MAKES NO OTHER WARRANTIES AND EXPRESSLY DISCLAIMS ANY OTHER WARRANTIES, INCLUDING IMPLIED WARRANTIES AS TO MERCHANTABILITY OR AS TO THE FITNESS OF THE TOOLING, OTHER ITEMS, NONSTANDARD OR CUSTOM MANUFACTURED PRODUCTS FOR ANY PARTICULAR PURPOSE AND HUCK SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, DIRECTLY OR INDIRECTLY, ARISING FROM THE USE OF SUCH TOOLING, OTHER ITEMS, NONSTANDARD OR CUSTOM MANUFACTURED PRODUCTS OR BREACH OF WARRANTY OR FOR ANY CLAIM FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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

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

HUCK MAKES NO WARRANTY WITH RESPECT TO THE TOOLING, PART(S) OR OTHER ITEMS MANUFACTURED BY THIRD PARTIES. HUCK EXPRESSLY DISCLAIMS ANY WARRANTY EXPRESSED OR IMPLIED, AS TO THE CONDITION, DESIGN, OPERATION, MERCHANTABILITY OR FITNESS FOR USE OF ANY TOOL, PART(S), OR OTHER ITEMS THEREOF NOT MANUFACTURED BY HUCK. HUCK SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, DIRECTLY OR INDIRECTLY, ARISING FROM THE USE OF SUCH TOOLING, PART(S) OR OTHER ITEMS OR BREACH OF WARRANTY OR FOR ANY CLAIM FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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

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

Huck Installation Equipment

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

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

Always give the Serial Number of the equipment when corresponding or ordering service parts.

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

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

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.

Huck Acceptance is World-wide

Huck Fastener maintains company offices throughout the United States and Canada with subsidiary offices in many other countries. Sales engineers and systems specialists located in your area can help in solving your fastener problems.

Huck Fasteners world-wide locations:

Americas

Huck International, Inc.
World Headquarters
3724 East Columbia
Tucson, AZ 85714
800-234-4825
520-747-9898
FAX: 520-748-2142

Huck International, Inc.
Aerospace Fastener Division
3724 East Columbia
Tucson, AZ 85714
800-234-4825
520-747-9898
FAX: 520-748-2142

Huck International, Inc.
Aerospace Fastener Division
PO Box 5268
900 Watsoncenter Rd.
Carson, CA 90749
800-421-1459
310-830-8200
FAX: 310-830-1436

Huck International, Inc.
Industrial Fastener Division
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8001 Imperial Drive
Waco, TX 76714-8117
800-388-4825
254-776-2000
FAX: 254-751-5259

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FAX: 845-334-7333
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FAX: 905-564-1963

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