

# OPERATORS' GUIDE

REL-35T-PNC



35 TON HYDRAULIC PUNCH

## NOTICE

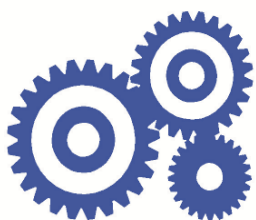
Sizes, weights and tool specifications listed in this manual are subject to change without notice. Please consult factory for information and updates.

## WARNING



All information found in this guide must be read and understood before use or testing of this tool.

Failure to read and understand these warnings and safe handling instructions could result in severe personal injury and or death.



# RELIABLE EQUIPMENT & SERVICE CO., INC.

35TN Manual %%%

# DISTRIBUTED BY

## REGISTRATION

UPON RECEIPT OF THIS TOOL, COMPLETE THE REGISTRATION BELOW.

COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

\_\_\_\_\_

PHONE \_\_\_\_\_ FAX \_\_\_\_\_

SERIAL NUMBER \_\_\_\_\_

DATE OF PURCHASE \_\_\_\_\_

DEALER NAME \_\_\_\_\_



CAUTION

The information in this manual is intended to guide the user in the use and application of this tool. It is not intended as a substitute for proper training and experience in safe work practices for this type of equipment.

Consult your supervisor or safety personnel if you have any questions regarding the safe operation of this tool.

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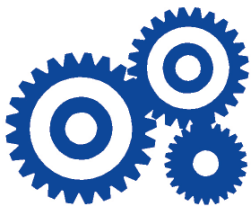
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If you have any questions regarding the information found in this manual please contact RELIABLE EQUIPMENT at 800-966-3530 or FAX 215-357-9193.



**THIS SYMBOL INDICATES ITEMS OF EXTREME IMPORTANCE.**

Safety of user and others may be in jeopardy if these instructions are not read and understood.



# RELIABLE EQUIPMENT & SERVICE CO., INC.

## REL-35T-PNC

### 35 TON HYDRAULIC STEEL PUNCH



## REL-35T-PNC HYDRAULIC PUNCH

The **REL-35T-PNC** hydraulic punch was designed to punch holes through 1/2" aluminum, copper, and mild steel. The punched hole size is 1/16" larger than your bolt size. A stripper guide extends on either side of the ram to strip the material after punching. This portable hand-held unit will operate from any 10,000 psi hydraulic pumping source.

Applications include punching of bus bars, tower iron, railing, I-beams and truck frames.

The **REL-35T-PNC** comes complete with four sets of punch and die sizes for 3/8", 1/2", 5/8", and 3/4" bolts and carrying case.

### NOTE: USE ONLY 10,000 psi RATED HOSE

Custom size punch and dies are available upon request. Oval and square sizes are also available. Consult factory for order information.

### SPECIFICATIONS:

Output	35 ton
Weight	28 lbs.
Capacity	1/2" Thick Mild Steel
Max. Hole	13/16" Diameter
Dimensions	14" x 8" x 3.5"
Throat Depth	2.75"
Order Data:	
Model#	Description
REL-70P	Steel Punch w/ Female Coupler

### ACCESSORIES

REL-716P	7/16 Punch & Die Set for 3/8" Bolt
REL-916P	9/16 Punch & Die Set for 1/2" Bolt
REL-1116P	11/16 Punch & Die Set for 5/8" Bolt
REL-1316P	13/16 Punch & Die Set for 3/4" Bolt



## RELIABLE EQUIPMENT & SERVICE CO., INC.

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Phone: 800-966-3530 • Fax: 215-357-9193  
Visit us on the web at [www.Reliable-Equip.com](http://www.Reliable-Equip.com)



## **WARNING**

BEFORE USING THIS TOOL, READ THE WARNINGS and the recommended practices described in this manual. Failure by the operator to read and fully understand these warnings will leave this person unqualified to use and operate this tool. Property damage, severe personal injury, and/or death could result by not following these warnings.

These warnings will appear in appropriate locations when they are pertinent to the particular subject being shown. Read each one carefully and follow them strictly.



## **Eye Protection**

### **WARNING**

Always wear eye protection to avoid injury from flying debris or hydraulic oil leaks. Failure to do so can result in serious personal injury.



## **Skin Irritation**

### **WARNING**

Hydraulic oil may cause irritation. Use care to prevent contact with skin. In case of accidental contact, wash affected area immediately



## **Hard Hat**

### **WARNING**

Always wear a hard hat to avoid injury from falling debris. Failure to do so can result in serious personal injury.



## **Foot Protection**

### **WARNING**

Always wear foot protection. Failure to do so can result in serious personal injury.



## **Hearing Protection**

### **WARNING**

Always wear hearing protection, to avoid hearing loss due to long term exposure to high noise levels.



## **Protective Gloves**

### **WARNING**

Always wear protective gloves Failure to do so can result in serious personal injury.



## **WARNING**

### **SAFE OPERATION & CARE**

#### **USE THIS TOOL FOR ITS INTENDED PURPOSE ONLY**

Any other use can result in personal injury or property damage.

**INSPECT TOOL BEFORE USE.** Replace any worn, damaged or missing parts. A damaged or improperly assembled tool may malfunction, injuring operator and/or nearby personnel.

**INSPECT HYDRAULIC HOSES AND COUPLINGS** before each use. Repair or replace if any cracking, leakage, wear or damage is found. Worn or damaged hoses may fail resulting in personal injury or property damage.

**CLEAR WORK AREA** of all bystanders and unnecessary personnel before operating this tool.

**KEEP ALL PARTS OF THE BODY AWAY FROM MOVING PARTS.**

Failure to observe this warning could result in serious injury.



## **WARNING**

### **HYDRAULIC POWER SUPPLY**

**DO NOT** attempt to make any changes to any of the component parts or accessories when connected to the power source.

**DO NOT** adjust, inspect, or clean tool while the tool is connected to the power source. The tool could accidentally start up and cause serious injury.

**DO NOT** lock the tool in the On Position. In an emergency, serious damage or injury could occur during the time required to stop the tool.



## **WARNING**

### **OIL INJECTION INJURY**

Hydraulic oil or fluid under the skin is a serious injury. Oil under pressure can penetrate the skin and may cause dismemberment or loss of life. Seek medical assistance immediately if such an injury should occur.

Always wear safety gloves, eye protection and all required safety equipment when operating or handling this tool.

**DO NOT** use fingers or hands to attempt to locate a leak.

**DO NOT** handle hoses or couplers while system is pressurized.

**NEVER** open or service the system before depressurizing.





## WARNING

### HOSES AND FITTINGS

There exists the potential for shock in using anything other than certified nonconductive hoses and hydraulic oil with dielectric properties, when using system components near energized electrical lines. Failure to recognize these conditions could cause electrocution.

**Hoses and fittings used with this tool must comply with S.A.E. J1273** which covers recommended practice for selection, installation, and maintenance of hose and hose assemblies. The **correct hoses and fittings are available from your supplier.**

**WARNING:** Failure to comply with these warnings could result in severe bodily injury.



## WARNING

### UNIT/HOSE CONNECTIONS

**ALWAYS DISCONNECT** pump/power source and move toggle switch to **OFF** before connecting or disconnecting any components.

**ALWAYS DEPRESSURIZE** hydraulic system, before slowly disconnecting this unit or any of the systems components.

**ALWAYS TIGHTEN** couplings completely. Loose or improperly tightened couplings will not allow fluid to pass through the hose creating a blockage in the supply or return line.

**ALWAYS INSPECT HOSES AND CONNECTORS** before connection to tool. Replace or repair if any leakage is evident. Leakage is a sign of deterioration in component parts. Worn or leaking parts must be repaired or replaced, or tool damage or severe injury could result.



## WARNING

### CRIMP DANGER

**THIS PUNCHING TOOL CAN CRUSH AND/OR DISABLE.**

**KEEP ALL PARTS OF THE BODY AWAY FROM MOVING PARTS.**

**DO NOT** lock the tool in the **On Position**. Serious damage or injury could occur during the time required to stop the tool. Failure to observe this warning could result in serious injury.

**OPERATION/SAFETY METHODS MAY VARY** in accordance with the working guidelines established by each utility or contractor. For your own safety, ensure that you fully comply with all safe operation guidelines required by your employer.



## GENERAL SAFETY



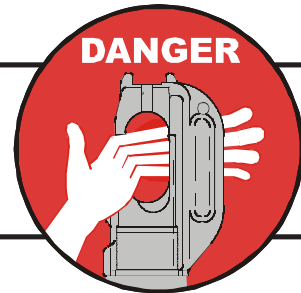
**USE ALL APPROPRIATE AND APPLICABLE PERSONAL SAFETY EQUIPMENT** as required by the operating company.

**ALWAYS INSPECT TOOL** for wear, damage or deterioration every day.

Replace all parts that show signs of wear or damage.

A damaged or improperly assembled tool may injure operator and/or nearby personnel.

**THIS TOOL CAN CAUSE SEVERE INJURY  
PUNCH/JAW CLOSES (SEE WARNINGS)**



**KEEP ALL PARTS OF THE BODY AWAY** from moving parts.

**KEEP HANDS OUT FROM BETWEEN PUNCH JAWS AT TOOL HEAD.**

**ALL BODY PARTS MUST BE OUTSIDE DANGER ZONE PRIOR TO OPERATING PUNCH.**

**MAKE SURE** there is no person in close proximity to you or the tool who could be injured by any operation being performed, tool malfunction or flying debris.

**DO NOT OVEREXTEND** your position by overreaching or unbalancing the footing necessary to maintain physical control of your body and the tool.

**ALWAYS MAINTAIN** a firm grip on the tool to avoid loss of control during an operation, causing property damage, serious injury or death.

**USE THIS TOOL FOR THE MANUFACTURERS' INTENDED PURPOSE ONLY.**

**OBSERVE CLOSELY ALL SAFETY RULES FOR A PARTICULAR JOB CLASS**

**FAILURE TO HEED THESE WARNINGS COULD RESULT IN  
PROPERTY DAMAGE, SERIOUS PERSONAL INJURY OR DEATH.**

## DAILY MAINTENANCE

The life, reliability, and safety of the tool is dependent on proper maintenance. Clean all surfaces including head, punch and die seats, ram, and body.

Inspect for wear and damage. Worn or damaged parts may malfunction during operation.

**All parts must be replaced with new parts if signs of wear or damage are evident.**

Keep Label Set clean and legible. Replace decals when necessary.



# OPERATION

Read entire manual prior to using this tool. (See safety recommendations and warnings)  
Observe all safety precautions and procedures required by the operating company.  
Also refer to SAFETY information found on pages 5,6,7 and 8)

Before punching, ensure that punch is within the capacity listed for the tool.

Ensure that you are using the proper punch and die set, as required by the application

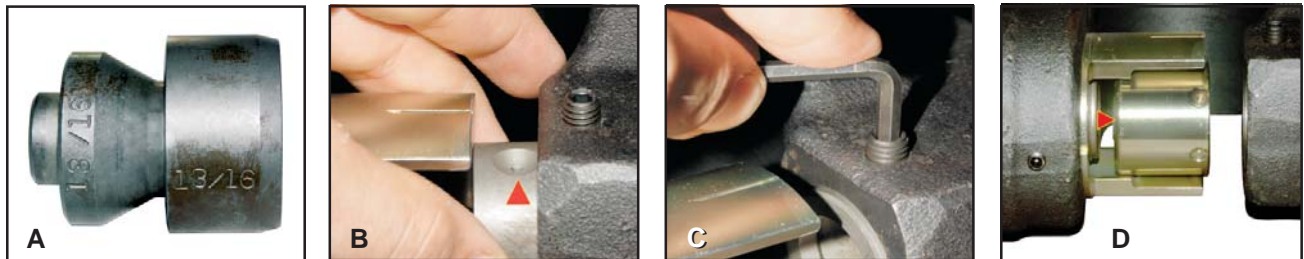
Always match punch and die. Mismatched sets may cause damage or injury. (Figure A)

Insert proper die into die seat (Note: screw indent position), tighten set screw. (Figure B,C)

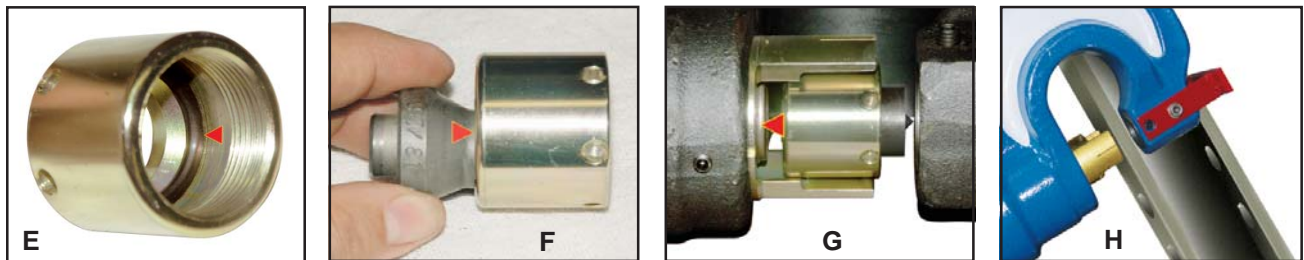
Release & unscrew retainer from ram (key provided) located inside work holder. (Figure D)

O-ring inside ensures secure fit with punch installed. (check & replace if needed) (Figure E)

Place punch into retainer and screw onto ram. (Figure F, G)



**NEVER OPERATE TOOL WITHOUT PUNCH & DIE**  
Serious damage or personal injury could occur.



Place work into punch head. Align and advance work holder. (Figure H)

(Do not place body parts in DANGER ZONE during operation)

**NOTE:** Punch may be released as needed at any point in the cycle.

Continue with punch operation until complete.

Release in-line valve or turn off power source, punch will retract prior to releasing work.

Ram will retract automatically when pressure is released.

Repeat steps above as necessary.

Manufacturer recommends regular testing for proper pressure alignment and operation.

Test at least every 6 months, test more often under heavy usage.

**IF YOU HAVE ANY QUESTIONS REGARDING THE PROPER USE  
AND/OR OPERATION OF THIS TOOL, CONSULT YOUR AREA SUPERVISOR,  
OR CONTACT RELIABLE EQUIPMENT AT 800-966-3530**

# MAINTENANCE

**NOTE:** Use supplied tools when performing any maintenance on this product.



COLLAR KEY  
Part # 38012

5/32" HEX KEY  
PART # \_\_\_\_\_



**Complete disassembly is not recommended. Return the unit to an authorized dealer for total disassembly and/or repair.**

All maintenance or disassembly should take place on a flat, clean work surface covered with towels or wipers so as to have a clean space for the disassembled parts.

Inspect each part during disassembly for wear, scratches, and cuts. Discard the worn or damaged parts and replace with new factory authorized parts.

O-rings are sensitive to sharp edges. Inspect closely for cuts or damage. A small cut will cause a leak. When assembling or disassembling O-rings, use hydraulic fluid as a lubricant to help disassembly or installation.

**IF YOU HAVE QUESTIONS REGARDING THE REPAIR AND MAINTENANCE OF THIS TOOL CONTACT RELIABLE EQUIPMENT AT 800-966-3530**

**NOTE:** Keep Label Set # R38100 clean and legible. Replace decals when necessary.



## WARNING

Failure to observe all warnings and instructions could result in property damage, severe personal injury, and/or death.

BEFORE USING THIS PRODUCT READ THE SAFETY WARNINGS and recommended practices described in the manual. Failure by the operator to read and fully understand the warnings will leave this person unqualified to use and operate the tool.

## DANGER



## RAM CLOSES

Keep Body Parts Away

## CAUTION

Operation and safety methods may vary in accordance with the guidelines established by each utility. For your safety, ensure that you fully comply with all safe operation guidelines established by your respective power utility.

REL-SM

## DANGER



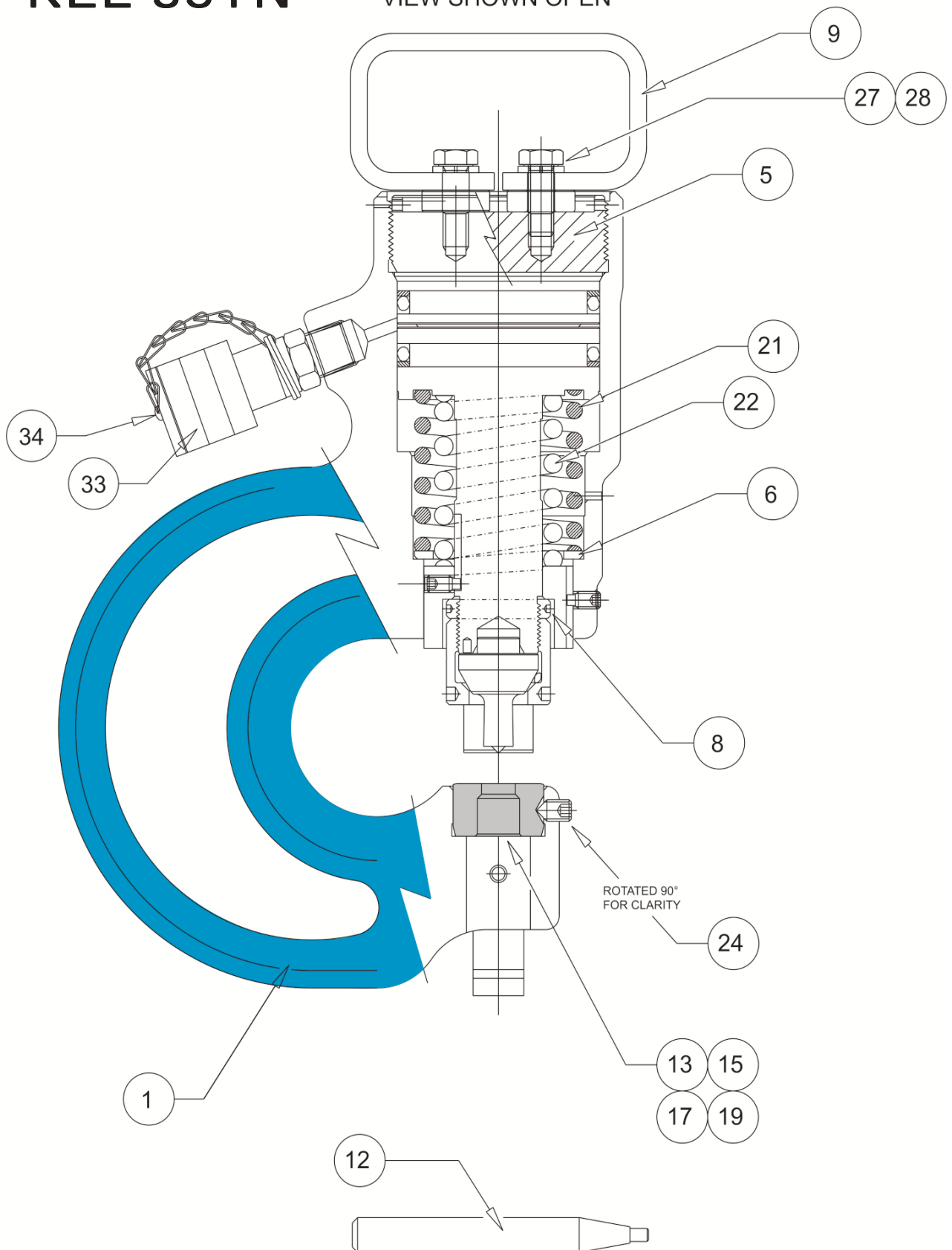
The user should be properly trained in the correct procedures required for work on or around electrical lines.

## CAUTION

Do not this operate tool without punch & die set.

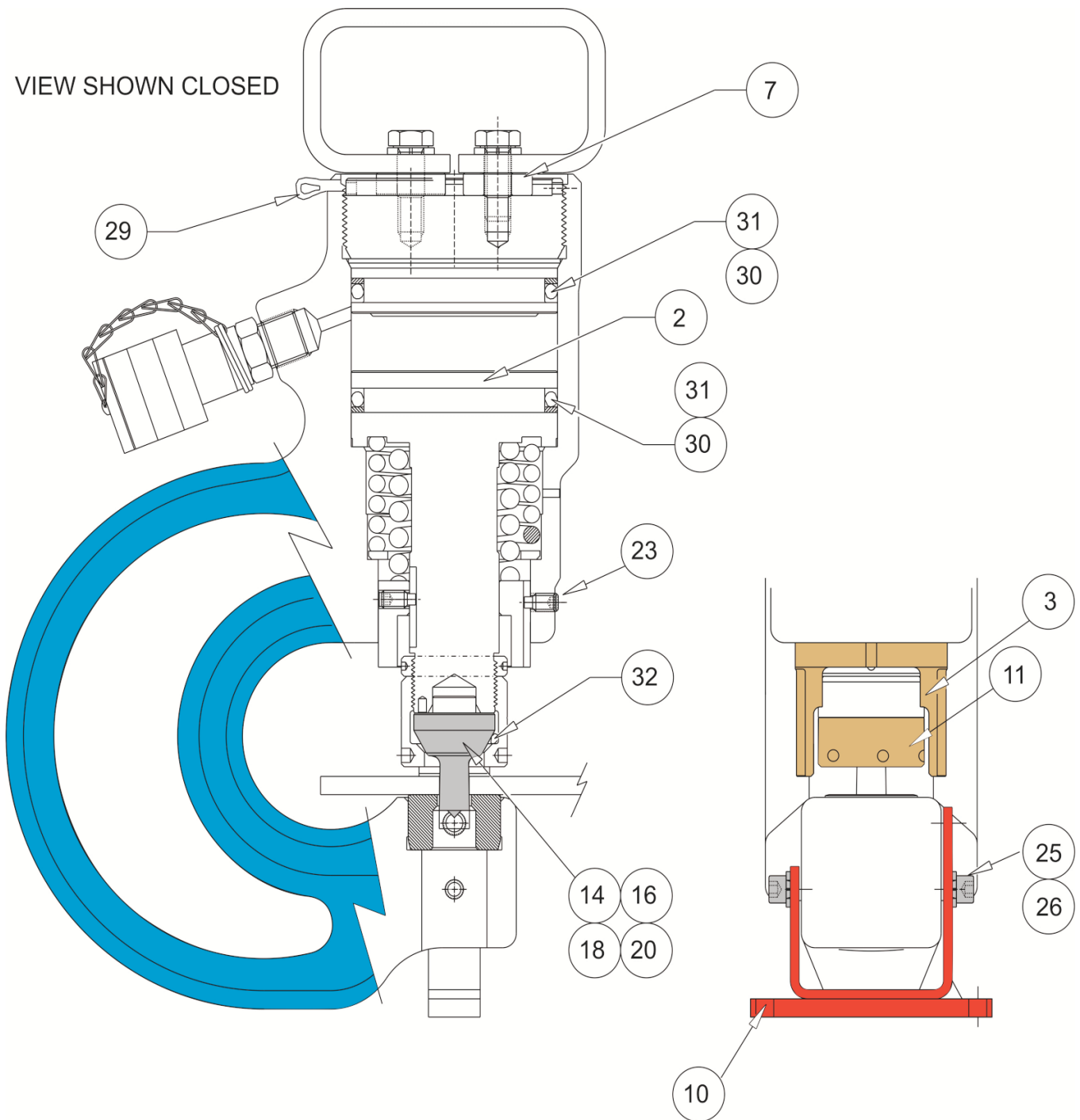
# REL-35TN

VIEW SHOWN OPEN



# REL-35T-PNC

VIEW SHOWN CLOSED



**IF YOU HAVE ANY QUESTIONS REGARDING THE PROPER  
MAINTENANCE AND/OR REPAIR OF THIS TOOL, CONSULT  
RELIABLE EQUIPMENT AT 800-966-3530**

# REL-35T-PNC PARTS LIST

ITEM	QTY	PART NO	DESCRIPTION	DRAWING #
1	1	R38001	MAIN FRAME	
2	1	R38002	PISTON ROD	2
3	1	R38003	PUSHING RING	2
4	-	N/A	NOT USED	
5	1	R38005	END PLUG	1
6	1	R38006	LINER RING	1
7	2	R38007	SPACER	2
8	1	R38008	STOPPER NUT	1
9	1	R38009	HANDLE	1
10	1	R38010	SUPPORTER	2
11	1	R38011	CAP NUT	2
12	1	R38012	HAND PIN	1
13	1	R38013	DIE BUTTON, 13/16"	1
14	1	R38014	PUNCH, 13/16"	2
15	4	R38015	DIE BUTTON, 11/16"	1
16	1	R38016	PUNCH, 11/16"	2
17	1	R38017	DIE BUTTON, 7/16"	1
18	1	R38018	PUNCH, 7/16"	2
19	1	R38019	DIE BUTTON, 9/16"	1
20	1	R38020	PUNCH, 9/16"	2
21	1	R38021	PISTO RETURN SPRING	1
22	1	R38022	STRIPPER SPRING	1
23	2	R38023	SOCKET HEAD SET SCREW	2
24	1	R38024	SOCKET HEAD SET SCREW	1
25	2	R38025	SOCKET HEAD CAP SCREW	1
26	2	R38026	LOCK WASHER	1
27	2	R38027	HEX HEAD SCREW	1
28	2	R38028	LOCK WASHER	1
29	1	R38029	COTTER PIN	2
30*	2	R38030	O-RING	2
31*	2	R38031	BACK UP RING	2
32*	1	R38032	O-RING	2
33	1	3050-3	FEMALE COUPLER	1
34	1	3005-3	CAP, COUPLER	1
*		R38099	SEAL KIT	
	1	R38100	Contains all items above as indicated with an * LABEL KIT Contains Safety & Warning Labels. See page 10	

## Maintenance Records

Date	Parts or Service Required

If you have any questions regarding the information found in this manual please contact RELIABLE EQUIPMENT at the address, phone or fax numbers shown below.



**RELIABLE EQUIPMENT  
& SERVICE CO., INC.**

301 Ivyland Road • Warminster, PA 18974

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Visit us on the web at [www.Reliable-Equip.com](http://www.Reliable-Equip.com)