

# OPERATORS' GUIDE

## REL-750DM

6.2 TON MANUAL HYDRAULIC  
DIELESS CRIMPING TOOL



**Compatible with Anderson and equivalent dieless connectors.**

### 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.

92 Steamwhistle Drive • Ivyland, PA 18974 • USA  
Phone: 215-357-3500 • Fax: 215-357-9193

MODEL: \_\_\_\_\_

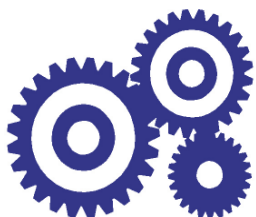
MAX. PRESSURE: \_\_\_\_\_

SERIAL NO.: \_\_\_\_\_

YEAR: \_\_\_\_\_

### NOTICE

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



# RELIABLE EQUIPMENT & SERVICE CO., INC.

REL-750DM Manual 12-06



# 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.

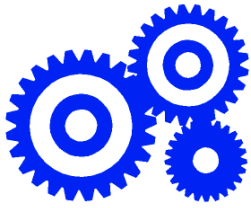
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If you have any questions regarding the information found in this manual please contact RELIABLE EQUIPMENT at 800-966-3530 or FAX 215-357-9193.



**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-750DM

6.2 TON MANUAL HYDRAULIC DIELESS CRIMPING TOOL



Compatible with Anderson and equivalent dieless connectors.



This **REL-750DM** compression head has been designed to crimp Anderson type and equivalent connectors manufactured to ANSI C119.4.

This model features a connector range up to 750 MCM and a 1.5 inch jaw opening providing ample space for easy die positioning. A two-stage advance piston. The first stage brings the crimp to the connector quickly, while the second stage provides the power to make the connection. The flip top design and 180° swivel head permit simple tool positioning, while the pull-pin closure will provide a safe positive lock.

### FEATURES:

- 6.2 Ton output**
- Compatible with Anderson & equivalent dieless connectors.**
- Flip top design and rotating head provide easy placement around crimp.**
- Two stage pumping system**
- Eliminate the need for dies under acceptable dieless applications.**
- Connector range from #10 to 750 MCM**
- Copper and Aluminum.**
- Carrying case included.**

### SPECIFICATIONS

<b>Length</b> 19.5"	<b>Width</b> 7.5"	<b>Weight</b> 9.5 lbs.
<b>Pressure</b>	6.2 tons @ 10,000 psi (manual)	
<b>Capacity</b>	Dieless connector range from # 10 to 750 MCM CU & AL	



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**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.



## COMPRESSION DANGER

This manual hydraulic crimping tool can injure and/or disable.  
**KEEP ALL PARTS OF THE BODY AWAY FROM MOVING PARTS.**

**WARNING**

Failure to observe this warning could result in serious injury



## ELECTRICAL SHOCK HAZARD

Always wear and use the necessary clothing, equipment and safety practices to protect against electrical shock. Failure to follow these rules can result in serious personal injury or death.

**WARNING**



# GENERAL SAFETY



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

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

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

**KEEP HANDS OUT FROM BETWEEN CRIMPING NODES AT TOOL HEAD.**

**ALL BODY PARTS SHOULD BE OUTSIDE DANGER ZONE PRIOR TO COMPRESSION.**

**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.**

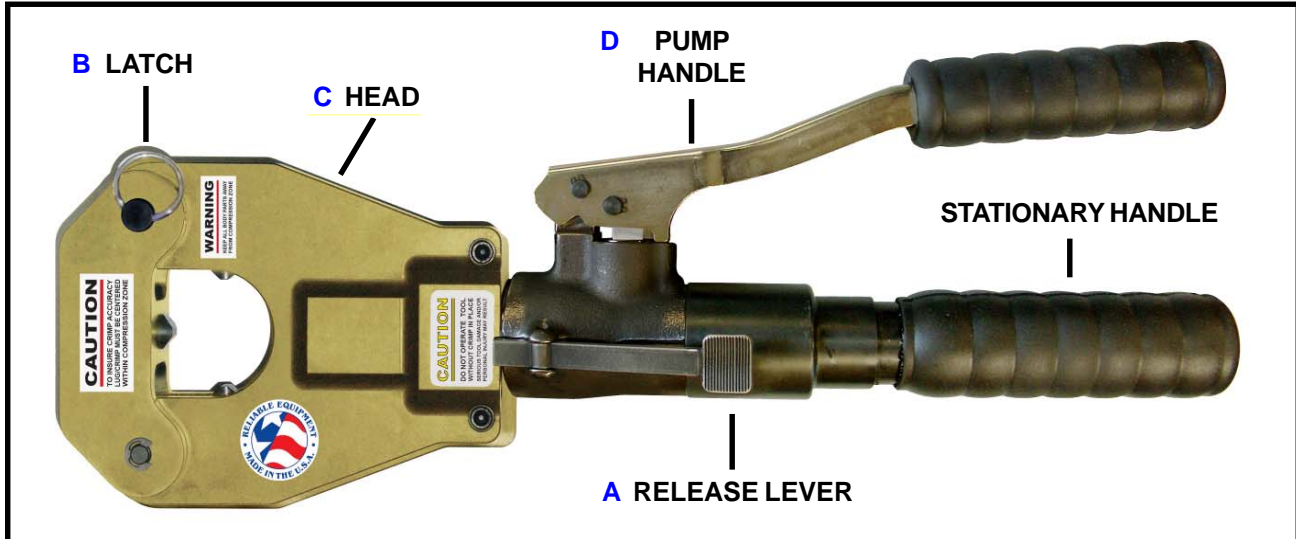
**OBSERVE CLOSELY ALL OF THE SAFETY RULES FOR A PARTICULAR JOB CLASS**

**Operation/Safety** methods may vary in accordance with the working guidelines established by each utility or contractor. Ensure that you fully comply with all safe operation guidelines required by your employer.

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

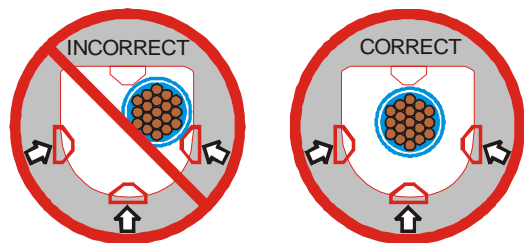
# OPERATION

Read entire manual prior to using this tool. Refer to all safety cautions and warnings. **Observe all safety precautions and procedures required by the operating company.**



1. Before crimping, ensure that subject is within the capacity listed for the tool. (see page 5) Ensure that Burndy or Anderson 6 ton **dieless type** compression sleeves are being used. **WARNING:** Crimping standard “H” Frame (Double Open Groove) connectors WILL cause tool damage and void warranty.
2. Retract compression nibs completely by pressing hydraulic release lever (A).
3. Release latch (B), and open tool head for simple tool positioning around compression. **NOTE:** Tool head rotates 180° to aid in proper compression alignment with less fatigue.
4. Place subject in tool head (C) and close latch securely. **NOTE:** Failure to secure latch may result in severe tool damage and/or personal injury.
5. Position subject at a 90° angle to the tool compression head as shown in Figure 2 .
6. Pump handle (D) to advance compression nibs up to subject. *Check tool alignment.*
7. Pump handles until tool pressure builds up and “pop off” is felt. Full crimping pressure has been obtained.
8. Retract compression nibs completely by pressing hydraulic release lever (A).
9. Repeat procedure as required by compression sleeve or regulating authority.
10. Visually inspect crimp for correctness.

## CONNECTOR POSITIONING



**FIGURE 2**

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



## WARNING

Inspection & Testing requirements 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.

## CONDUCTOR PREPARATION

Strip insulation from the conductor, beign careful not to nick the strands. Use of a proper insulation stripping tool, or using the “Pencil” shaving method is recommended. Thoroughly clean the conductor by wire brushing until a bright shiny surface is obtained. All oxides and foreign matter must be removed.

**NOTE:** Do not wire brush tin-plated conductors or tinned connectors.

## INSTALLATION OF SLEEVE CONNECTORS

1. Place sleeve in the nib opening. (strip off insulation jacket where applicable using the center band mark on the sleeve as a strip gauge.)

**WARNING:** Certain small service sleeve connectors can severely damage this tool by becoming wedged between nibs of the tool head. Observe warnings and connector positioning instructions as shown in Figure 2 on page 8

2. Using the pump handle, close the nibs until they contact the sleeve loosely.

3. Positioned the sleeve so that the nibs will make the first crimp adjacent to the center band mark.

4. Insert the conductor into the connector socket making sure that the conductor is pushed fully in against the center barrier.

5. Actuate the Pump handle and the nibs will start compressing the sleeve. A positive trip accompanied by a distinct “click” will occur when the crimp is fully made. Stop pumping.

6. Release the compressed nibs from the sleeve by compressing the release lever. The nibs should open sufficiently to allow the sleeve to be repositioned for the next crimping operation.

7. After the second conductor has been installed and crimped, remove the tool by pulling the latch pin out and opening the compression head.

## INSTALLATION OF OPEN GROOVE (TAP) CONNECTORS

1. The tool head may be rotated to any desired position when the compression nibs are fully retracted. Prior to installing tap conectors, the tool head should be positioned at an angle which relieves awkwardness and operator fatigue.

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

2. Place the tape side of the connector full into the tool so that the open side in the connector is facing between the top nib and either side nib. Close the nibs closely onto the conector with the rapid advanced handle making sure that the positioning grooves mate with two of the nibs. Follow the same instructions for compressing and releasing the connector as previously described for sleeve connectors.

3. Place the main groove of the connector full into the tool with the open side facing between the top nib and either side nib. Close the nibs loosely. Place the positioned connector against the main conductor by applying firm pressure with the tool handles. Compress the nibs for specified number of crimps.

4. Remove the connector by retracting the nibs and opening the latch.

# DAILY MAINTENANCE

**The life, reliability, and safety of the tool is dependent on proper use and maintenance.**

STORE THE TOOL PROPERLY . . . Before storing tools release pressure so that the crimping nibs fully retract. This protects the operating ram from moisture and condensation.

**NOTE:** When the tool has been stored for extended period of non-use, the tools should be activated approximately every 3 weeks to keep o-rings and seals lubricated.

Clean and inspect all surfaces including head, latch mechanism, ram, and body.

Particularly avoid joint compounds from building up on the crimping nibs.

**WARNING:** Head and/or handles may cut or pinch. Please use extreme caution.

Worn or damaged parts may malfunction during operation, causing more extensive damage to the tool and/or severe injury to the operator or bystander.

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

Check relief valve pressure setting regularly, using the optional pressure gauge. (Optional - may be purchased from Reliable Equipment or your local Reliable representative).

Valve should be adjusted or replaced by a trained service technician if necessary.

DO NOT MAKE ADJUSTMENTS TO THE TOOL . . . There are no adjustments on this tool which can be made in the field. If a tool becomes inoperative and the instructions in this booklet do not correct the malfunction have the tool serviced by RELIABLE EQUIPMENT or an authorized service provider.

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

## GENERAL MAINTENANCE

This tool requires well-trained experienced personnel for major repairs, adjustments or maintenance. **Complete disassembly is not recommended. Return the unit to an authorized dealer for total disassembly and/or repair.** It is suggested that tools requiring repairs be returned to Reliable Equipment for correction unless overall local conditions are adequate and service training has been provided. Reliable Equipment is set up to provide quick maintenance and overhaul service. Contact your Reliable Equipment representative if service is required.

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.

**NOTICE:** When disposing of hydraulic fluid, parts or components observe all federal, state, and local guidelines.

**IF YOU HAVE QUESTIONS REGARDING THE REPAIR AND MAINTENANCE OF THIS TOOL CONTACT RELIABLE EQUIPMENT OR YOUR RELIABLE EQUIPMENT REPRESENTATIVE.**



### WARNING

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.

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

Secure latch before operating. Failure to secure latch can result in severe tool damage and personal injury.

### 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.

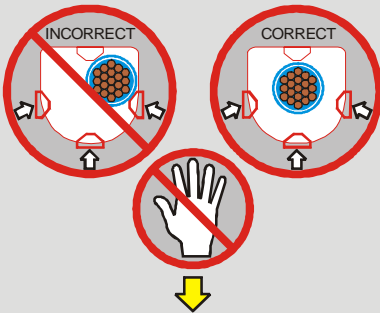
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### DANGER



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

#### CONNECTOR POSITIONING



Secure latch before operating. Failure to secure latch may result in severe tool damage and/or personal injury.



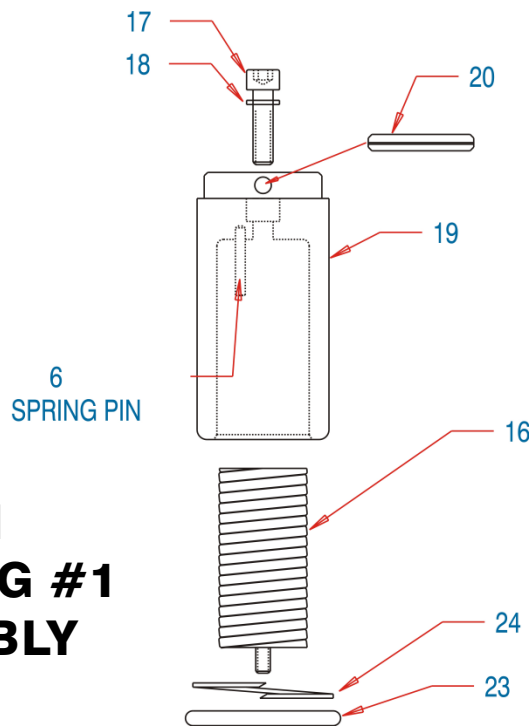
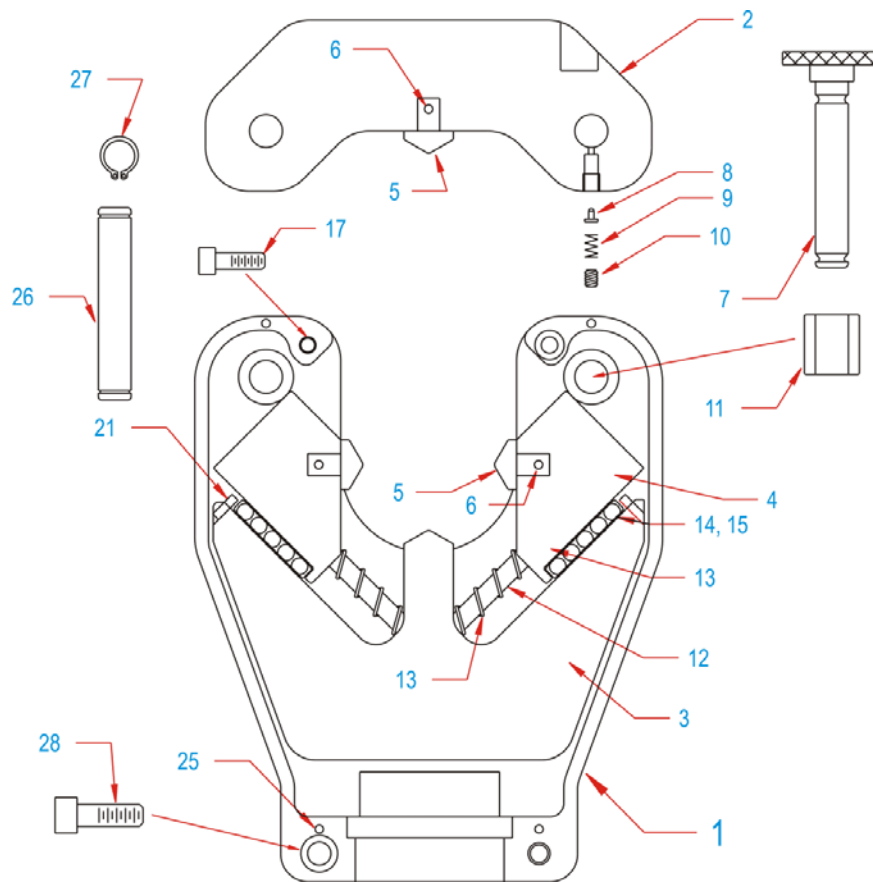
### WARNING

KEEP BODY PARTS OUT OF COMPRESSION ZONE

### CAUTION

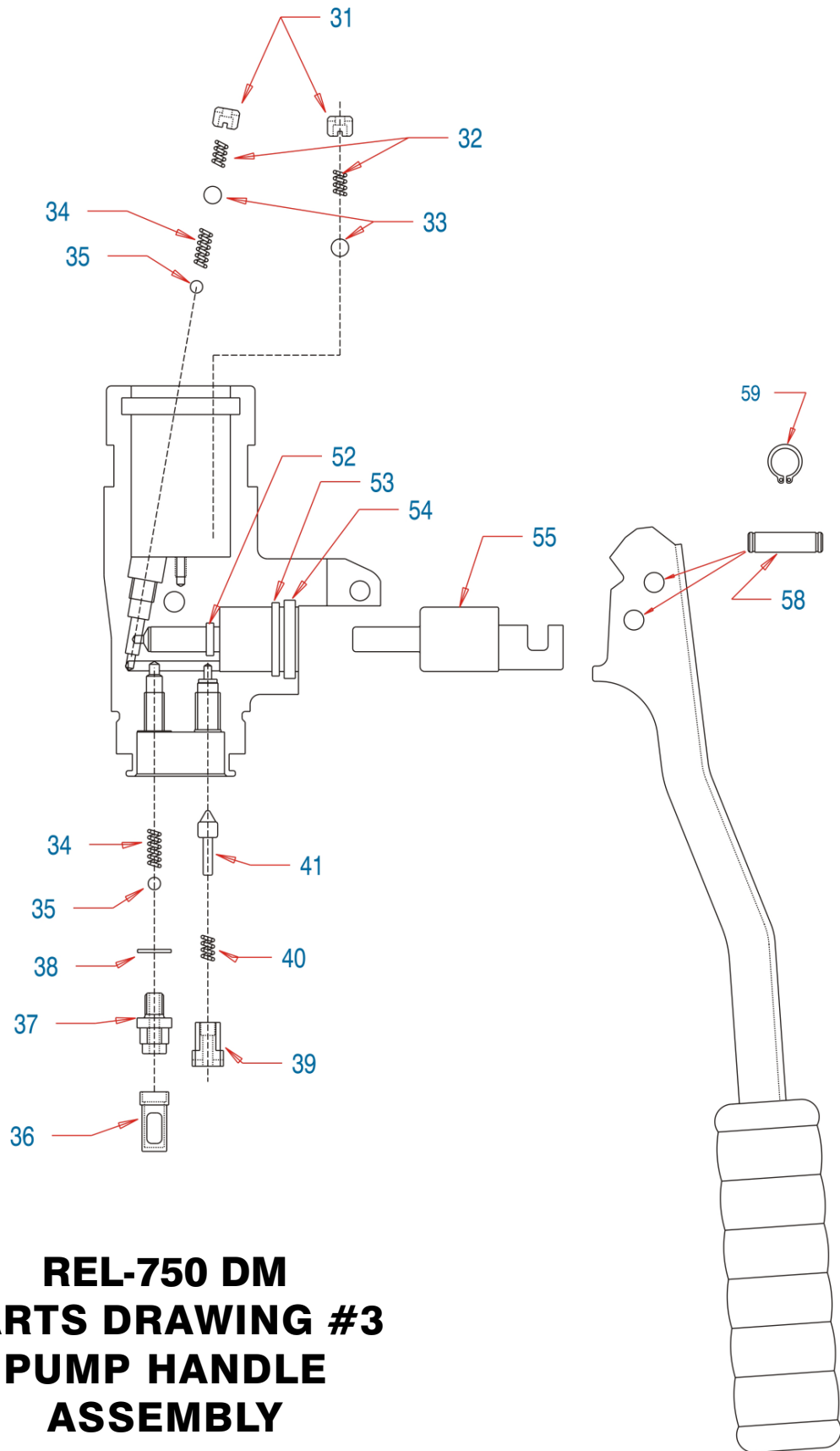
DO NOT OPERATE TOOL WITHOUT CRIMP IN PLACE

SERIOUS TOOL DAMAGE AND/OR PERSONAL INJURY MAY RESULT



**REL-750 DM  
PARTS DRAWING #1  
HEAD ASSEMBLY**





**REL-750 DM  
 PARTS DRAWING #3  
 PUMP HANDLE  
 ASSEMBLY**

# REL-750DM

## MANUAL HYDRAULIC DIELESS COMPRESSION TOOL PARTS LIST

1	R41001	COVER	2
2	R41002	LATCH	1
3	R41003	YOKE	1
4	R41004	SLIDE JAW	2
5	R41005	NIB	3
6	R41006	SPRING PIN	4
7	R41007	PULL PIN	1
8	R41008	DETENT	1
9	R41009	SPRING	1
10	R41010	SET SCREW	1
11	R41011	ROLLER	2
12	R41012	GUIDE PIN	2
13	R41013	SPRING	2
14	R41014	CARRIAGE	2
15	R41015	PIN	10
16	R41016	SPRING ASSY	1
17	R41017	SCREW SHCS	3
18	R41018	COPPER WASHER	1
19	R41019	PISTON	1
20	R41020	SPRING PIN	1
21	R41021	STOP PIN	2
22			
23	R41023	O-RING	1
24	R41024	B/U RING	1
25	R41025	LOCATING PIN	4
26	R41026	HINGE PIN	1
27	R41027	RETAINING RING	2
28	R41028	SCREW	2
-	-	-	-

30	R41101	BODY	1
31	R36038	POSITIONING SCREW	2
32	R36036	SPRING	2
33	R36041	7/32 BALL	2
34	R36033	SPRING	2
35	R36032	5/32 BALL	2
36	R36055	FILTER	1
37	R36054	INLET CHECK BODY	1
38	R36053	COPPER WASHER	1
39	R36050	FAST ADVANCE SCREW	1
40	R36052	SPRING	1
41	R36051	FAST ADVANCE PINTLE	1
42	R36042	BALL SUPPORT	1
43	R36043	SPRING	1
44	R36044	BOLT	1
45	R36045	O-RING	1
46	R36046	PIN	1
47	R36047	SPRING	1
48	R36039	PRESSURE RELEASE PIN	1
49	R18013	O-RING	1
50	R36034	RELIEF VALVE	1
51	R18208	O-RING	1
52	R36059	O-RING	1
53	R36060	O-RING	1
54	R36037	WIPER	1
55	R36018	INJECTOR	1
56	R41104	LEVER	1
57	R36031	SPRING PIN	1
58	R36019	PIN	2
59	R36020	C-CLIP	4
60	R36021	PUMP HANDLE	1
61	R36023	SMALL GRIP	1
62	R36024	OIL RESERVOIR	1
63	R36025	O-RING	1
64	R18026	PLUG WITH MAGNET	1
65	R36058	SET SCREW	1
66	R36027	LARGE HANDLE	1
67	R36022	LARGE GRIP	1
-	-	-	-

Please consult RELIABLE EQUIPMENT with any parts questions.



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