

OPERATORS' GUIDE

REL-BR

HYDRAULIC BREAKER

The REL-BR SERIES breaker is a medium-duty T handle hydraulic breaker for use in hydraulic D.O.T and street maintenance, utility construction, gas & water repair, and general contracting applications.

Options:

45 or 67 lb. Models
1-1/8" or 1-1/4" Hex Shank

NOTICE

Sizes, weights and specifications listed in this manual are subject to change without notice.

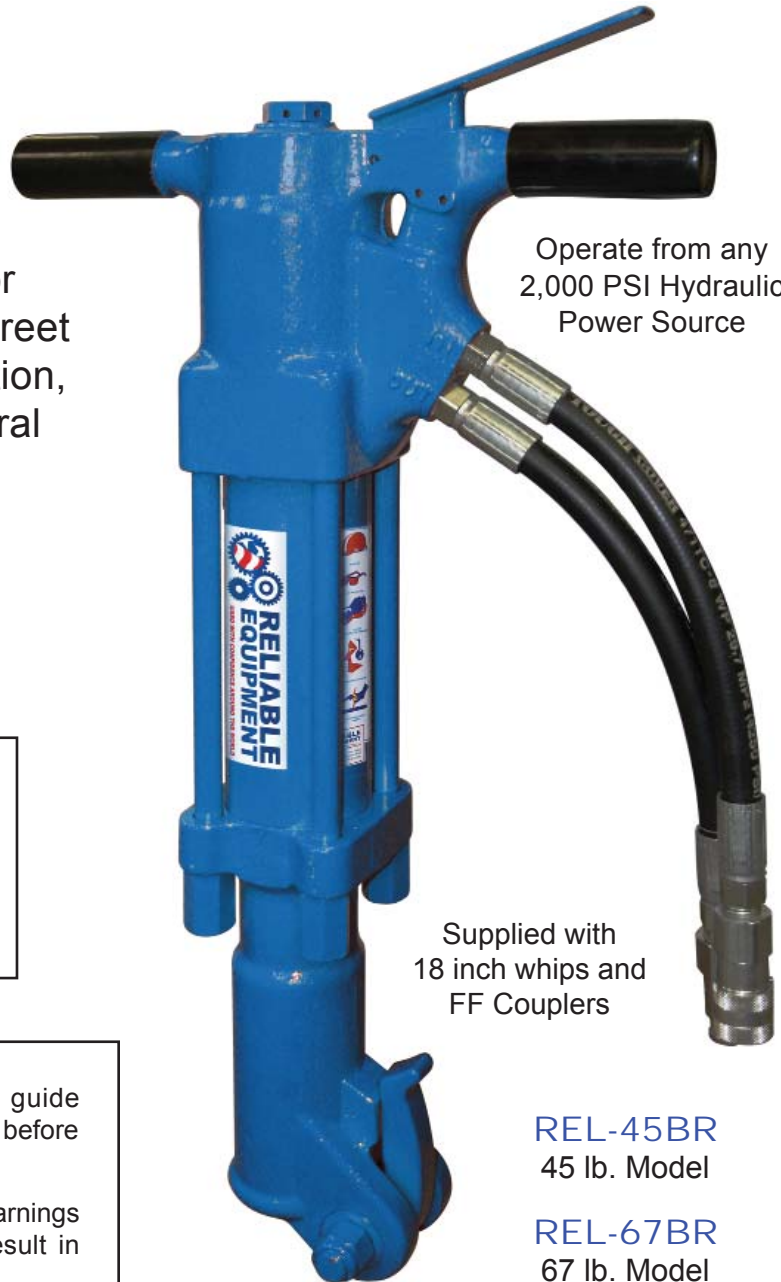
Please consult Reliable Equipment for information and product updates.

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.



Operate from any
2,000 PSI Hydraulic
Power Source

Supplied with
18 inch whips and
FF Couplers

REL-45BR
45 lb. Model

REL-67BR
67 lb. Model



RELIABLE EQUIPMENT & SERVICE CO., INC.

DISTRIBUTED BY

REGISTRATION

UPON RECEIPT OF THIS TOOL, COMPLETE THE REGISTRATION BELOW.

COMPANY _____

ADDRESS _____

PHONE _____ FAX _____

SERIAL NUMBER _____

DATE OF PURCHASE _____

DEALER NAME _____



THIS SYMBOL INDICATES ITEMS OF EXTREME IMPORTANCE.

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



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.

TABLE OF CONTENTS

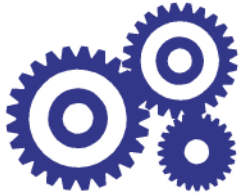
Registration	2
Table of Contents	3
Description	4
General Safety	5-7
SPECIFICATIONS	
General Tool, Hydraulic Power Source, Hydraulic Fluid	8
Hoses & Fittings, Connections, Installation	9-10
Operational Safety	11
Breaker Operation	12
Disconnecting Hoses, General Maintenance, Labels	13
REL-45BR	
Parts Drawing	14
Parts List.....	15
REL-67BR	
Parts Drawing	16
Parts List.....	17
Read Before Disassembly	18
Maintenance Records	18-19
User Notes	20
Contact Information & Illustrated Warnings	20



WARNING

Operation/Safety methods may vary in accordance with the working guidelines established by each utility or contractor and/or local authorities.

For your own safety, ensure that you fully comply with all safe operation guidelines required by your employer.



RELIABLE EQUIPMENT & SERVICE CO., INC.

REL-BR-SERIES HYDRAULIC BREAKER



Operate from any
2,000 PSI Hydraulic
Power Source

Supplied with
18 inch whips and
FF Couplers

REL-45BR
45 lb. Model

REL-67BR
67 lb. Model

The REL-BR (45 or 67 lb. Models available) is a medium-duty T handle hydraulic breaker (70-90 pound class) designed for use in D.O.T and street maintenance, repair of gas & water mains, utility construction, and general contracting applications.

Reliable Equipment has streamlined breaker selection, making your choice simple, while meeting the requirements of your application. The REL-BR operates on open- or closed-center systems and is sold standard with a 1-1/8" hex chuck. The 67BR Model is also available with 1-1/4" chuck. The feathering feature of the On/Off Valve controls blow speed at Startup making initial tool placement easy.

The diaphragm type accumulator provides consistent, dependable tool operation with system back pressures up to 250 psi (17 bar).

Steels for breaking, cutting and driving are available from your Reliable representative.

SPECIFICATIONS

ITEM	U.S.A.	METRIC
INPUT FLOW RANGE	7 - 9 gpm	26 - 34 lpm
INPUT PRESSURE	1500 - 2000 psi	105 - 140 bar
MAX. BACK PRESSURE	250 psi	17 bar
OPTIMUM FLOW	8 gpm	30 lpm
WEIGHT	55LB. / 67 lbs.	25 / 30 kg
LENGTH	27 in.	68 cm
WIDTH (at handles)	16 in.	41 cm

STEEL CAPACITY

6 (15.2 cm) x 1-1/8 in. Hex

6 (15.2 cm) x 1-1/4 in. Hex

Please specify when ordering

Contact your Reliable representative for a complete listing of steels and accessories.

RELIABLE EQUIPMENT & SERVICE CO., INC.
301 IVYLAND ROAD • WARMINSTER, PA 18974
TOLL FREE: 800-966-3530 • FAX: 215-357-9193
Visit us on the web at 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.



Dust Mask

WARNING

Always wear a dust mask. Failure to observe this warning may result in serious health issues and/or breathing difficulty.



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 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

Safety

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

Burn Hazard

Do Not connect or disconnect tool, hoses or fittings while power source is running or while hydraulic fluid is hot. Hot hydraulic fluid may cause serious burns.

Failure to observe this warning could result in serious injury.



WARNING

Electrical Shock Hazard

Certified non-conductive hoses and fittings are recommended. Always wear and use the necessary clothing, equipment and safety practices to protect against electrical shock.

Failure to observe rules may result in serious injury or death.



CAUTION

Dangerous Terrain

The operator must be aware of dangerous work areas and unsafe conditions. (i.e. excessive slopes, loose/soft soil, etc.)

Failure to observe this warning could result in serious personal injury and/or damage to the tool.



CAUTION

Safe Handling

HYDRAULIC FLUID MAY CAUSE SKIN IRRITATION.

Prevent hydraulic fluid from making contact with skin.

IN THE EVENT OF SKIN CONTACT immediately wash thoroughly.

Failure to observe this warning could result in injury.



CAUTION

General Safety

Ensure that all fellow employees and bystanders are clear and protected from possible injury caused by this tool or the operations being performed. Persons in close proximity could be injured and property damaged if the tool were to malfunction.

This tool should always be used within the limits and purposes stated by the product manufacturer. Abuse or usage beyond the manufacturers' intended purposes could cause damage to the tool and/or severe injury to the operator.

TOOL SPECIFICATIONS

SPECIFICATIONS

Length	27 in.	68 cm
Width (at Handles).....	16 in.	41 cm
Weight REL-45BR	55 lbs.	25 kg
REL-67BR	67 lbs.	30 kg

HYDRAULIC POWER SOURCE SPECIFICATIONS

The following requirements are essential for the safe operation of this tool.

Optimum Flow Range	7-9 gpm	30 lpm
Operating Pressure	1,800 - 2,200 psi	105-140 bar
Filtration	10 Micron	Nominal
Back Pressure.....	250 psi	17 bar (Max*)
Pressure Port Thread.....	3/8" NPT	Female
Return Port Thread.....	3/8" NPT	Female

* 200 psi (1,379 kPa) is the maximum agreed standard for the HTMA
HTMA (Hydraulic Tool Manufacturers Association).



WARNING

These specifications must be strictly adhered to for the safe and effective operation of this tool.

HYDRAULIC FLOW MUST NOT EXCEED 9 GPM

LIMIT RELIEF SETTINGS TO 2,000 PSI (13,790 kPa)

Any deviation may result in tool damage, severe injury or death to the operator and or extraneous personnel.



WARNING

HYDRAULIC FLUIDS

All hydraulic fluids that meet these listed specifications or the listed HTMA specifications may be used for this tool.

S. U. S.

@ 100° F (38° C) 140 TO 225

@ 210° F (99° C) 40 minimum

FLASH POINT 340° F min. (170° C min.)

POUR POINT -30° F min. (-34° C min.)

HOSES AND FITTINGS

Care must be exercised in the use of hose and fittings for use on hydraulic tools, especially in confined areas. Any obstruction or abrasive surrounding could damage the hose and cause a serious accident. Always use the recommended hose for the tool that is being used. Always consult the dealer or distributor for the correct hoses and purchase from him to ensure, from a safety standpoint that the materials used in the manufacture of the hoses is to the correct specification for the application. Fittings must meet the standards established by the industry to adequately assure safety. Poor quality or low rated fittings are not to be used. They invite a serious accident.

Length: Hose must be the correct length for the general use of the tool or for the specific function it is to provide. Pressure surge is an important factor in the selection of hoses. The hose should be rated above the expected surge pressure to ensure adequate safety. Hoses that are too long will have a tendency to coil, kink, or move in multiple directions creating a safety hazard. Hoses that are too long will rub or chafe against the ground or projecting objects, seriously shortening the life of the hose. It may be advisable to carefully restrain a hose which is temporarily too long for the current application. Pressure surge can cause whipping, and seriously damage the hose. Always keep the hose length as short as possible for the operation which is it intended.

Size: The hose must be large enough to carry the pressurized flow of fluid to the end application without creating undue heat generation or excessive turbulence. These factors could cause excessive wear to the hose from any or all of the above reasons.

Pressure: Hose selection must be made so that the *recommended maximum operating pressure is greater than the system pressure*. A surge or sudden drop in pressure will cause the hose to deteriorate faster if the maximum pressure of the hose is significantly below the surge pressure. A hose with a top rate of pressure as the line pressure of the installation is not an accepted safety practice. Always err on the side of safety.

Temperature: Hose can be seriously damaged by passing over or near hot objects. Avoid any situation that will heat the hose. Serious damage and/or failure will occur.

Unusual Applications: Careful thought and research should precede installation of hoses. Thorough and protected testing, with appropriate safety guards, must be done to avoid injury before general use.

Connections: Hoses must have the proper end fittings in order to mate correctly with connectors. Worn or damaged connectors and worn end fittings on the ends of the hose can cause a failure. Pressure surge can cause a slow or sudden failure at the connection causing serious damage or injury.

Safety Check: Before using any installation, perform a thorough checkout to determine if any of the above or unforeseen problems occur. Initial testing with safety guards is an invaluable safety precaution.

Always consult the distributor or manufacturer for the correct specifications regarding any of the items discussed above. **The correct hoses and fitting are available from your supplier.**

There exists the potential for **SHOCK** in using anything other than certified non-conductive 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** recommended practice for selection, installation, and maintenance of hose assemblies.



WARNING

UNIT/HOSE CONNECTIONS

ALWAYS SHUT OFF pump/power source and move flow selector to **OFF** before connecting or disconnecting system 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.



CAUTION

HOSE INSTALLATION

Care must be taken to assure the correct connection of the hoses to the pressure “P” and return “R” ports.

Connect the return hose to the return port on the power source, then to the return “R” port on the tool.

Connect the pressure hose to the pressure port “P” on the tool, then to the pressure port on the power source.

Operation with hydraulic flow reversed can cause malfunction. Failure to fully comply can result in tool damage, injury, or death.



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.

OPERATIONAL SAFETY WARNINGS

SHOCK, ELECTRICAL: This is a non-insulated tool. The need for keeping the tool dry and clean is imperative. Using this tool in an energized electrical environment could be dangerous to the user. Failure to take this into account could result in electrocution.

NEVER CONNECT components or fittings to this unit unless power/pump source is turned off or disconnected.

ALWAYS INSPECT hydraulic hoses and fittings for wear or deterioration every day. Replace all parts that show signs of leaking, wear, or damage.

KEEP ALL PARTS OF THE BODY AWAY from moving parts of the tool when connected to the power source for the tool.

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

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 having the tool slip out of the hands during an set-up and installation, causing a serious injury.

DEPRESSURIZE THE UNIT before attempting to disassemble, connect, or disconnect any of the components. Check oil temperature before disconnecting or disassembling this unit. A serious burn could result from this exposure.

SEE A DOCTOR IMMEDIATELY, if a hot oil injury should occur.

SEE A DOCTOR IMMEDIATELY, if a pressurized oil injury should occur.

Infection or serious reaction could result from any hydraulic pressure injury.


USE THIS TOOL FOR THE MANUFACTURERS' INTENDED PURPOSE ONLY.

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

OBSERVE CLOSELY ALL SAFETY RULES FOR A PARTICULAR JOB CLASS

THE PURCHASER/OWNER of this unit must be certain that all the users of this unit are properly trained in it's use and in compliance with all appropriate industrial codes and/or practices.

FAILURE TO HEED THESE WARNINGS COULD RESULT IN SERIOUS PERSONAL INJURY AND/OR PROPERTY DAMAGE.

	<p><u>DO NOT</u> connect hoses or fittings to this unit before completing all of the instructions in this section.</p> <p>Ensure power source is <u>OFF</u>, and hydraulic flow is lever is turned <u>OFF</u>.</p> <p>WARNING Failure to comply with this warning can result in severe injury or death.</p>
---	---



WARNING

Safety

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.

OPERATION

Read and understand this manual, all Safety Information, Labels and Instructions.

Wear all safety items required and make sure that the working area is satisfactory (Refer to ALL Warnings) and clear of obstructions and non essential personnel.

INSTALL TOOL BIT

Release the latch at the foot of the breaker. (rotate downward) Pointing away from the breaker. Insert the tool bit into the base of the breaker and close the latch. (rotate upward)

Ensure that the tool is properly installed and locked in.

CONNECT HOSE SET (refer to all related WARNINGS and Instructions in this manual)

Make sure Power source is on the OFF position.

Connect return and pressure hoses from source to “R” and “P” ports on the tool.

OPERATION

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.

Turn on hydraulic power source and turn on FLOW control valve at the source.

During cold weather preheat the hydraulic fluid at low engine speed until the fluid reaches 50° F (10° C). (Refer to Hydraulic Fluids in this manual)

Position the bit firmly on the working surface to be broken.

Squeeze the trigger to start the breaker while maintaining downward pressure on the tool.

Partially depressing the trigger (feathering) will permit easier starting of the tool bit into the working surface.

Release the trigger and reposition the steel as needed when the tool breaks through the surface or becomes bound.

After making the initial hole or opening in the work surface, break portions “BITES” from around the initial hole, into the hole.

Harder or reinforced materials using wire or rebar will require a smaller bite. Begin with a bite of 2 inches or smaller and gradually increase the bite to a comfortable size that does not require excessive time or effort to break off.

If the bite is too large the tool may stick or become trapped in the surrounding material increasing fatigue on the operator.



WARNING: DO NOT disconnect the tool, hoses, or fittings while the tool is running, hot, or under pressure. Serious injury or burns could result.

DISCONNECT HOSES

Move the flow lever on the power source to the **OFF** position.

Stop hydraulic power source. **(Operate valve several times to relieve any residual pressure)**

Disconnect the pressure hose from the pressure “P” port on the power source, then disconnect the hose from the pressure port on the tool.

Disconnect the return hose from the return “T” port on the tool, then disconnect the hose from the return port on the power source.

Install dust caps on all connectors to prevent dirt and contaminants from entering the hydraulic system.

MAINTENANCE

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

Clean all surfaces including body, handle, valve, fittings, hoses and adaptors

Inspect tool and adapters for wear and/or damage.

Worn or damaged parts can cause malfunction during operation.

Inspect for cracked hoses and leaking fittings.

Check fluid level of the power source reservoir frequently.

All the above items must be replaced with new parts if signs of wear are evident.

FLUID CONTAMINATION: Cover the ends of fittings with a dust cap when disconnected. This will help keep the fluid from contamination. **KEEP HYDRAULIC SYSTEM FLUIDS CLEAN**

MONTHLY MAINTENANCE: Inspect per Appendix A, SAE Standard J1273, 5/86 for hose or fitting damage such as wear, cracks or leakage, replace the necessary parts.

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

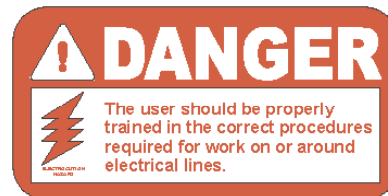


WARNING

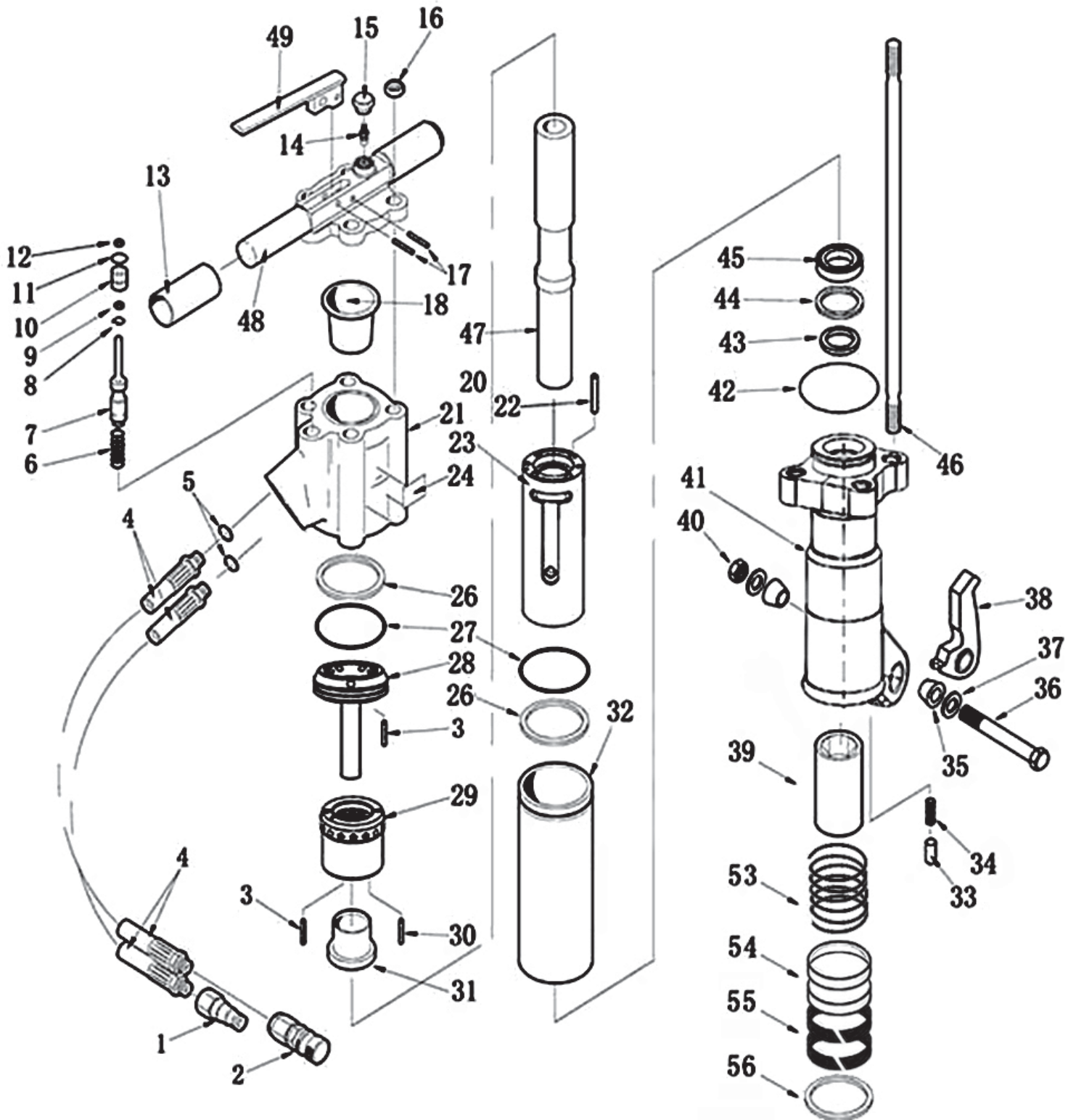
Failure to observe all warnings and instructions could result in property damage, severe personal injury, and/or death.

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.

**CONTACT RELIABLE PARTS - 800-966-3530
TO RE-ORDER LABEL SET FOR THIS TOOL**



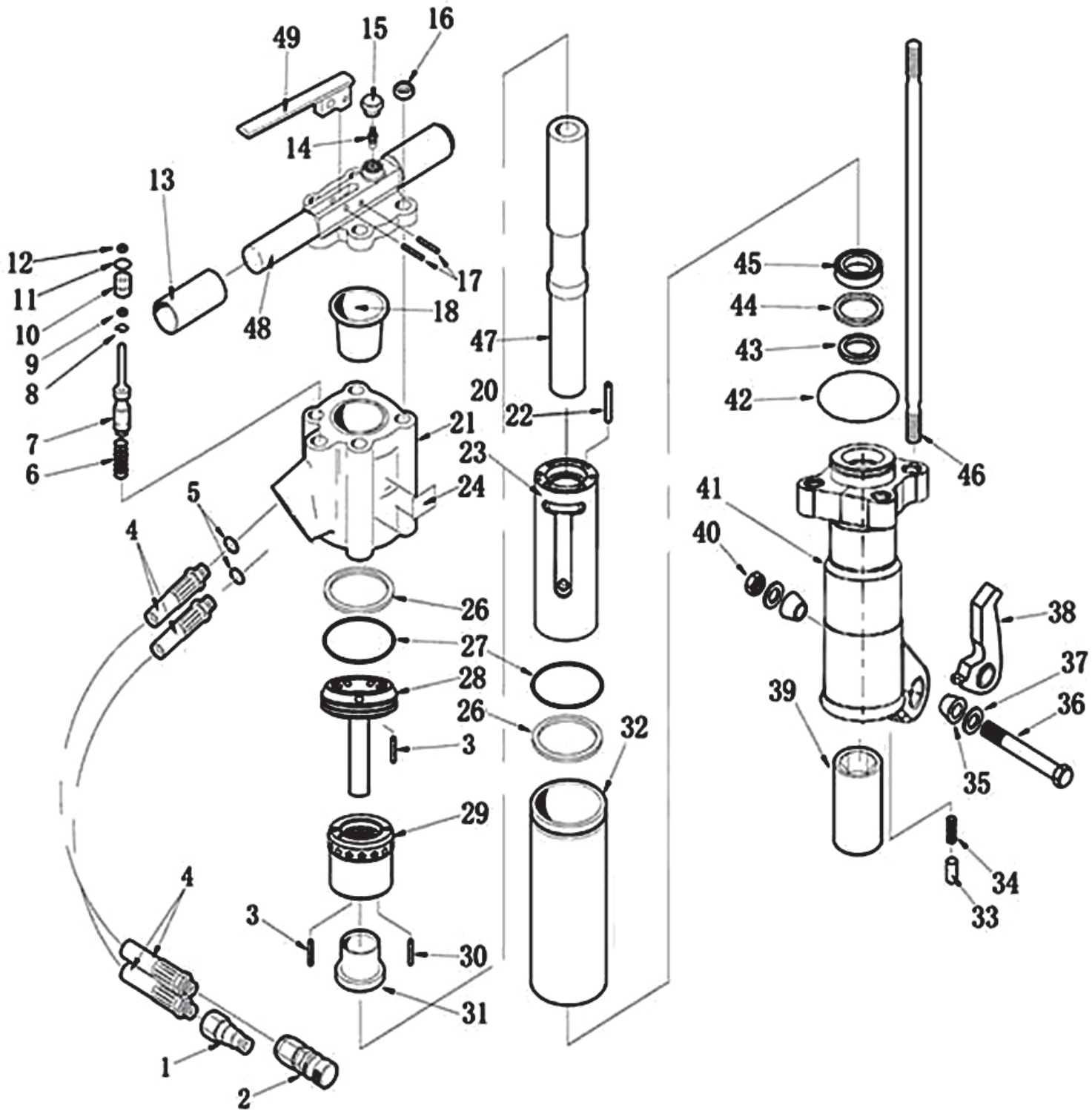
REL-45BR SERIES PARTS DRAWING



REL-45BR PARTS LIST

No.	Part No.	Qty.	Description	No.	Part No.	Qty.	Description
1	LBK18034	1	Male Coupler Set	36	BZJ0209	1	Bolt
2	LBK18033	1	Female Coupler Set	37	BZJ0210	2	Gasket
3	BZJ0419	2	Roll pin	38	LBK28010	1	Latch
4	BBK1803701	2	Hose tail	39	BBK260006	1	Sleeve(1-1/8)
5*	MFJ0007	2	O ring		BBK260004	1	Sleeve (1-1/4)
6	BZJ0011	1	Spring	40	BZJ0212	1	Locknut
7	LBK18012	1	Switch Valve	41	BBK260002	1	Lower Body
8	BZJ0001	1	Dust Seal (Black)	42*	MFJ0005	1	O-ring
9*	MFJ0002	1	U-ring	43*	MFJ0130	1	Dust Seal
10	LBK18010	1	Seal Block	44	LBK18023	1	Gasket
11*	MFJ0003	1	O-ring	45*	MFJ0134	1	Oil Seal
12*	MFJ0001	1	Rod Wiper	46	BBK2000502	4	Long Bolt
13	LBK18005	2	Handle Grip	47	LBK20001	1	Piston
14	LBK18003	1	Charge Valve	48	LBK18001	1	Handle
15	LBK18036	1	Charge Valve Assy	49	LBK18004	1	Trigger
16	BBK2000502	4	Nut	53	BZJ0017	1	Spring
17	BZJ0420	2	Spiral Pin	54	LBK26061	1	Nylon Sleeve (1-1/8)
18	LBK18009	1	Accumulator Diaphragm		LBK260002	1	Nylon Sleeve (1-1/4)
21	LBK18006	1	Upper Body	55	LBK260003	2	Guide Tape
22	LBK18018	4	Push Pin	56	BZJ0078	1	Back up Ring
23	LBK18019	1	Flow Sleeve	* REL-BKSK-45 Seal Kit Includes			
26*	MFJ0006	2	Back-up Ring	5	MFJ0007	2	O ring
27*	MFJ0005	2	O-ring	9	MFJ0002	1	U-ring
28	LBK18008	1	Oil Distribution Device	11	MFJ0003	1	O-ring
29	LBK18014	1	Automatic Valve Body	12	MFJ0001	1	Rod Wiper
30	LBK18017	2	Push Pin	26	MFJ0006	2	Back-up Ring
31	LBK18015	1	Automatic Valve Core	27	MFJ0005	2	O-ring
32	LBK18020	1	Flow Sleeve Tube	42	MFJ0005	1	O-ring
33	LBK28012	1	Detent	43	MFJ0130	1	Dust Seal
34	BZJ0017	1	Spring	45	MFJ0134	1	Oil Seal
35	LBK28014	2	Tapered Pad				

REL-67BR SERIES PARTS DRAWING



REL-67BR PARTS LIST

No.	Part No.	Qty.	Description
1	LBK18034	1	Male Coupler Set
2	LBK18033	1	Female coupler Set
3	BZJ0419	2	Roll pin
4	LBK18032	2	Hose tail
5*	MFJ0007	2	O ring
6	BZJ0011	1	Spring
7	LBK18012	1	Switch Valve
8	BZJ0001	1	Dust Seal Black
9*	MFJ0002	1	U-ring
10	LBK18010	1	Seal Block
11*	MFJ0003	1	O-ring
12*	MFJ0001	1	Rod Wiper
13	LBK18005	2	Handle Grip
14	LBK18003	1	Charge Value
15	LBK18002	1	Charge Valve Assembly
16	BZJ0244	4	Nut
17	BZJ0420	2	Spiral Pin
18	LBK18009	1	Accumulator Diaphragm
21	LBK28002	1	Upper Body
22	LBK18018	4	Push Pin
23	LBK28007	1	Flow Sleeve
26*	MFJ0006	2	Back-up Ring
27*	MFJ0005	2	O-ring
28	LBK28003	1	Oil Distribution Device
29	LBK28004	1	Automatic Valve Body
30	LBK18017	2	Push Pin
31	LBK28005	1	Automatic Valve Core
32	LBK28008	1	Flow Sleeve Tube
33	LBK28012	1	Detent
34	BZJ0017	1	Spring
35	LBK28014	2	Tapered Pad
36	BZJ0212	1	Bolt
37	BZJ0213	2	Gasket
38	LBK28010	1	Latch
39	LBK28013	1	Sleeve(1-1/8)
	BBK260004	1	Sleeve (1-1/4)
40	BZJ0211	1	Locknut
41	LBK28009	1	Lower Body
42*	MFJ0009	1	O-ring
43*	MFJ0137	1	Dust Seal
44	LBK28016	1	Gasket
45*	MFJ0136	1	Oil Seal
46	LBK28015	4	Long Bolt
47	LBK28006	1	Piston
48	LBK28001	1	Handle
49	LBK18004	1	Trigger
* REL-BKSK-67 Seal Kit Includes			
5	MFJ0007	2	O ring
9	MFJ0002	1	U-ring
11	MFJ0003	1	O-ring
12	MFJ0001	1	Rod Wiper
26	MFJ0006	2	Back-up Ring
27	MFJ0005	2	O-ring
42	MFJ0005	1	O-ring
43	MFJ0130	1	Dust Seal
45	MFJ0134	1	Oil Seal

READ BEFORE DISASSEMBLY

Before any disassembly, disconnect hoses from the tool! Any residual pressure within the unit can spray at high velocity, injuring the person doing the disassembly.

Hot or pressurized hydraulic fluid will cause serious injury to the body!

Complete disassembly is not recommended and will VOID the tool Warranty.

Return the unit to an authorized dealer or repair center 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 parts.

Use only factory specified parts when repairing and/or replacing. Severe damage to the tool can occur with non-specified 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.

MAINTENANCE RECORDS

Date	Parts or Service Required

USER NOTES

If you have any questions regarding the information 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
Phone: 800-966-3530 • Fax: 215-357-9193
Visit us on the web at www.Reliable-Equip.com



Read Manual



Protective Head Wear



Protective Eye Wear



Protective Clothing



Hearing Protection



Protective Foot Wear



Electrical Shock



Hot Surfaces



Hydraulic Injection