

OPERATORS' GUIDE

HP4707 SERIES

HP4707SA

SINGLE ACTING
HYDRAULIC CUTTER



HP4707S

DOUBLE ACTING
HYDRAULIC CUTTER



The **HP4707 Series** hydraulic cutters will make a straight, clean cut every time. These cutters can be used for cutting a wide range of electrical conductors up to 1.25 inch.

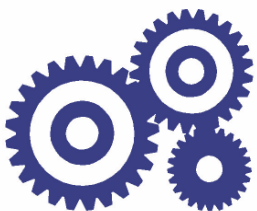


WARNING



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.

DISTRIBUTED BY

REGISTRATION

UPON RECEIPT OF THIS TOOL, COMPLETE THE REGISTRATION BELOW.

COMPANY _____

ADDRESS _____

PHONE _____ FAX _____

SERIAL NUMBER _____

DATE OF PURCHASE _____

DEALER NAME _____

TABLE OF CONTENTS

DISTRIBUTOR INFORMATION	2
REGISTRATION	2
TABLE OF CONTENTS.....	3
TOOL SPECIFICATIONS	4
SAFETY INFORMATION AND WARNINGS	5-8
OPERATING INSTRUCTIONS	9
DAILY MAINTENANCE	10
LABELS	10
HP4707S - PARTS DIAGRAMS	11-12
HP4707S - PARTS LIST	13
HP4707SA - PARTS DIAGRAM	14
HP4707SA - PARTS LIST	15
MAINTENANCE RECORDS	16
CONTACT INFORMATION	16



THIS SYMBOL INDICATES ITEMS OF EXTREME IMPORTANCE.

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

NOTICE

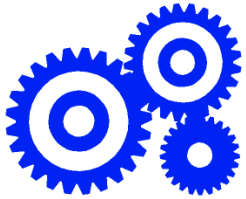
The information found in this manual is subject to change without notice.

Contact **RELIABLE EQUIPMENT** for an updated version of this manual.

RELIABLE EQUIPMENT & SERVICE CO., INC.
92 Steamwhistle Drive • Ivyland, PA 18974 • USA
Phone: 215-357-3500 • Fax: 215-357-9193

MODEL: :-3000
MAX. PRESSURE: 10,000 PSI
SERIAL NO.: _____
YEAR: _____





RELIABLE EQUIPMENT & SERVICE CO., INC.

HP4707 SERIES

10,000 PSI HYDRAULIC
CABLE CUTTERS



HP4707SA

HP4707S



The **HP4707 Series** hydraulic cable cutters are ideal for cutting individual conductors or communication cable.

Either **HP4707** model will cut individual copper or aluminum conductors up to 1,000 MCM, and can even cut ACSR up to 954 MCM with the standard ACSR blade set.

Simplicity, speed, and convenience make the **HP4707SA** cutter the perfect addition to any single-acting tool inventory.

The **HP4707S** offers double-acting operation to eliminate hang-up problems from metal flash, and offers full control of cutting action at all times.

MAXIMUM CONDUCTOR CAPACITY

Copper	1,000 MCM
Aluminum	1,033.5 MCM
Copper Weld	7/8 AWG
Alumoweld	7/8 AWG
ACSR	954 54/7
Comm. Cable	1 in.

SPECIFICATIONS

System	SA or DA	
Capacity (Jaw Opening)	1.25 in.	
Force @ 10,000 psi (690 bar)	17,720 lb.	
Return @ 5,000 psi (345 bar)	4,950 lb.	
Max. Operating Pressure	10,000 psi (690 bar)	
Max. Return Pressure	5,000 psi (345 bar)	
Couplers	S	Direct Connect
	SA	H/P Screw Type
Weight: 8.0 lb.	Length: 15 in.	Width: 4 in.



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92 Steamwhistle Drive • Ivyland, PA 18974
Phone: 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

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.



CAUTION

HOSE INSTALLATION

ALWAYS ENSURE CONNECTORS ARE CLEAN

DOUBLE ACTING - Care must be taken to assure the correct connection of the hoses to the pressure and return (tank) ports. Connect the return hose to the return (tank) port on the power source, then to the return port on the tool.

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

Operation with hydraulic flow reversed can cause malfunction.

SINGLE ACTING - Connect the pressure hose to the pressure port on the tool, then to the "P" pressure port on the power source. Failure to fully comply can result in severe injury or death.



WARNING

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.



WARNING

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.



GENERAL SAFETY



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

ALWAYS INSPECT TOOL for wear or deterioration every day. Replace all parts that show signs of wear or damage.

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

KEEP HANDS OUT FROM BETWEEN FIXED AND MOVING BLADES AT TOOL HEAD.

HANDS SHOULD BE OUTSIDE DANGER ZONE PRIOR TO ACTIVATING BLADE.

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.

OPERATION



WARNING

Do not cut live conductors.

Hardened metals may fly when severed.

Take necessary precautions. wear safety glasses.

Keep all body parts away from cutting blades and moving parts.

Failure to follow these rules can result in serious personal injury or death.

Read entire manual prior to using this tool. (Refer to all safety recommendations and warnings)

Observe all safety precautions and procedures required by the operating company.

(Refer to GENERAL SAFETY on previous page)

Before cutting, ensure that material being cut is within the capacity listed for this tool.

Tool must be used in conjunction with a hydraulic system rated at, and adjusted to, 10,000 psi. Any system not operating at 10,000 psi may cause damage to the tool and result in serious injury to the operator.

Connect the tool head to the control valve or hose set. (Refer to warnings on page 6 & 7)

Insert material to be cut between cutting and fixed blades.

The material to be cut **MUST** be at a 90° angle to the blade. This will ensure a proper cut with minimal distortion. Severe blade damage may occur if material is cut at any other angle.

Operate pump or valve to slowly advance blade. If a hold feature is available, check for proper alignment (90° angle) of blade and material being cut.

Continue until cut is complete.

Double Acting: Use the valve or pump to retract the cutting blade.

Single Acting: Blade will return by internal spring.



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 application and safe operation of this tool.

NOTICE

If you have any questions regarding the information found in this manual please contact **RELIABLE EQUIPMENT** before continuing. **Toll Free: 800-966-3530**
Phone: 215-357-3500 Fax: 215-357-9193 E-Mail: tools@reliable-equip.com

DAILY MAINTENANCE

The life, reliability, and safety of the tool is dependent on proper maintenance. **Clean** all surfaces including head, blade, couplers (if coupled), threads, and handles. **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. Part #RL23400



IMPORTANT: The greatest cause of hydraulic pump failure is dirt. Prevent the introduction of foreign matter into the unit via hydraulic fluid, dirty connections or accumulation of sediment.

Part # RL20200

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



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.

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.

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MODEL: :-3000

MAX. PRESSURE: 10,000 PSI

SERIAL NO.: _____

YEAR: _____



**DANGER
BLADE
CLOSES**

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

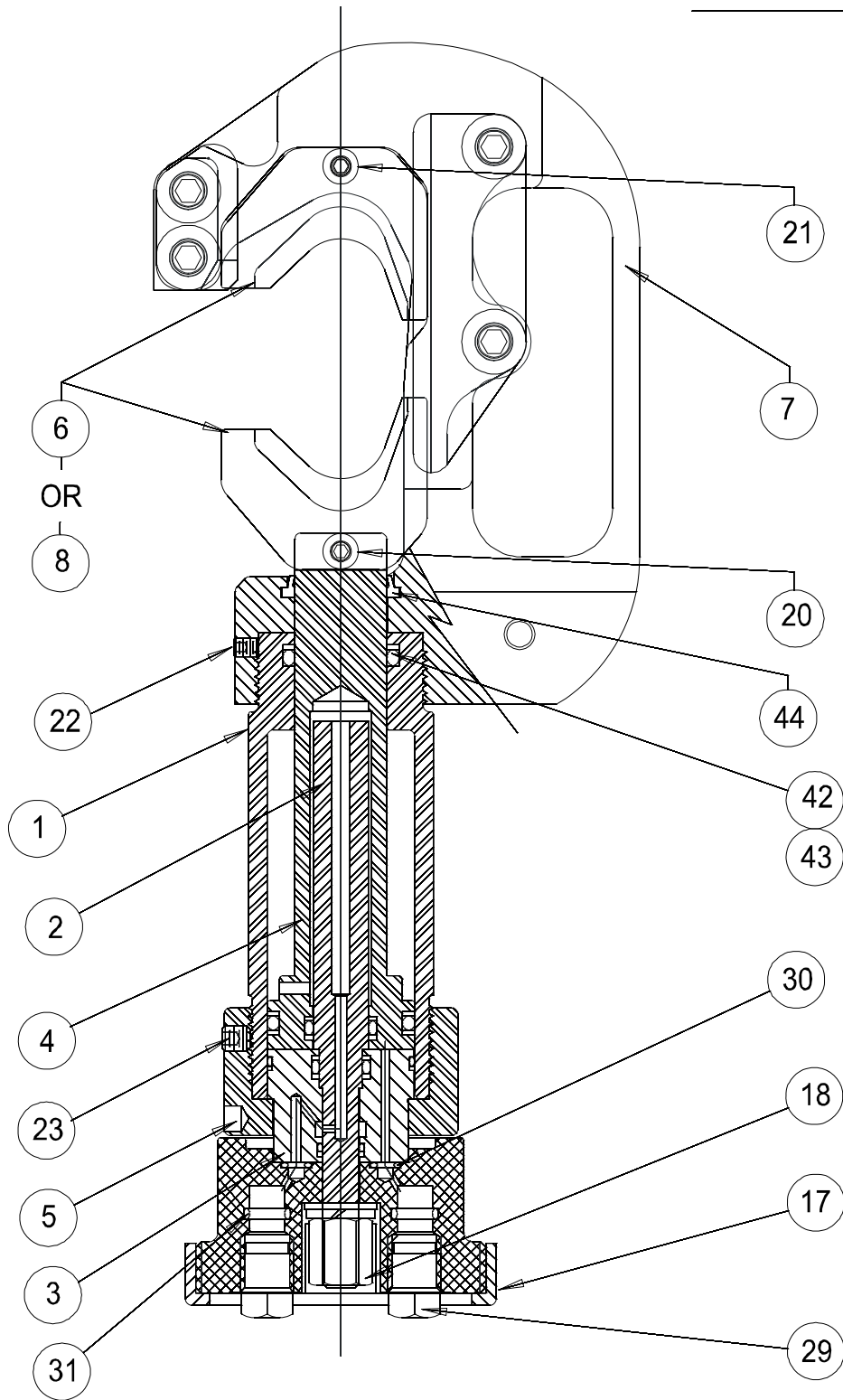
All maintenance or disassembly should take place on a flat, clean work surface covered with towels or wipers so as to have a clean space for the disassembled parts.

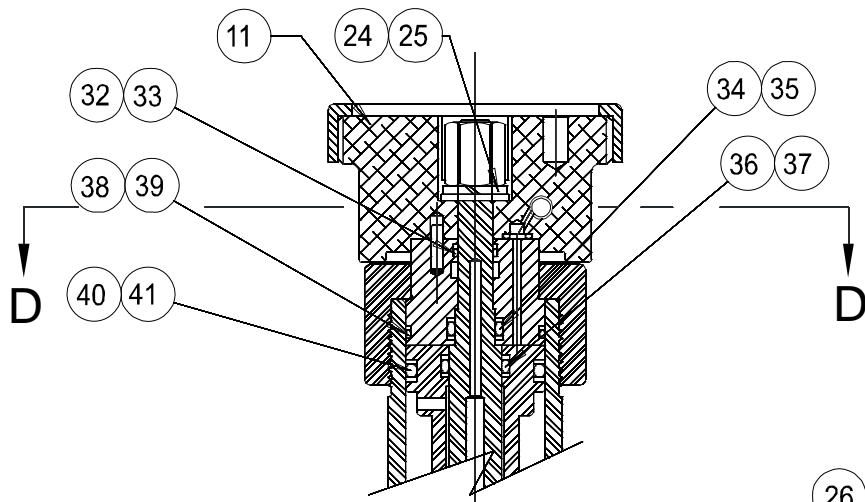
Inspect each part during disassembly for wear, scratches, and cuts. Discard the worn or damaged parts and replace with new factory authorized parts.

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.

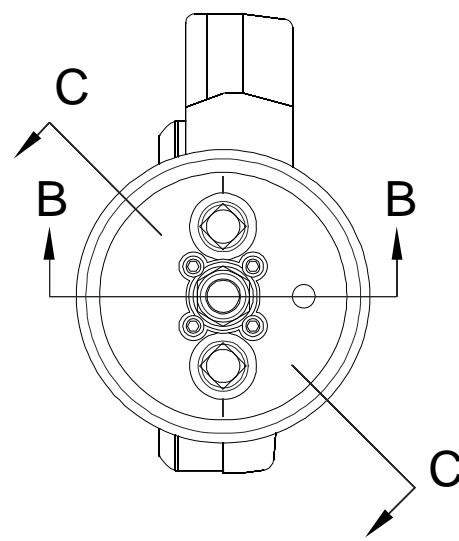
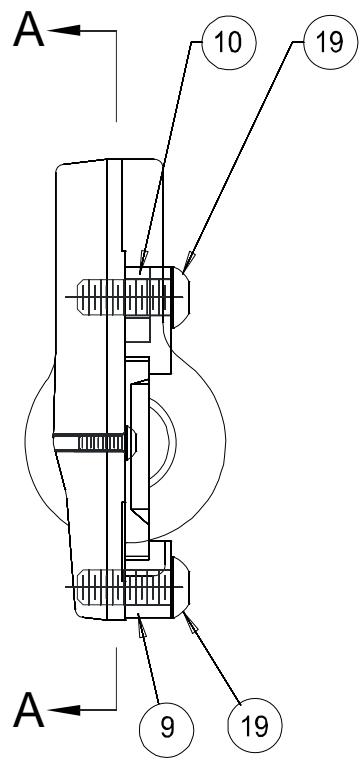
HP4704S PARTS DRAWING

VIEW A-A

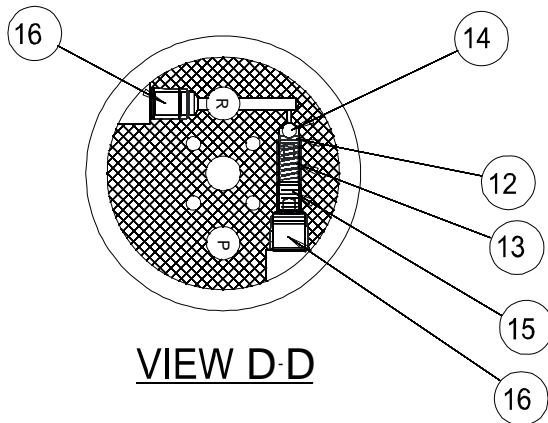




VIEW B-B



VIEW C-C

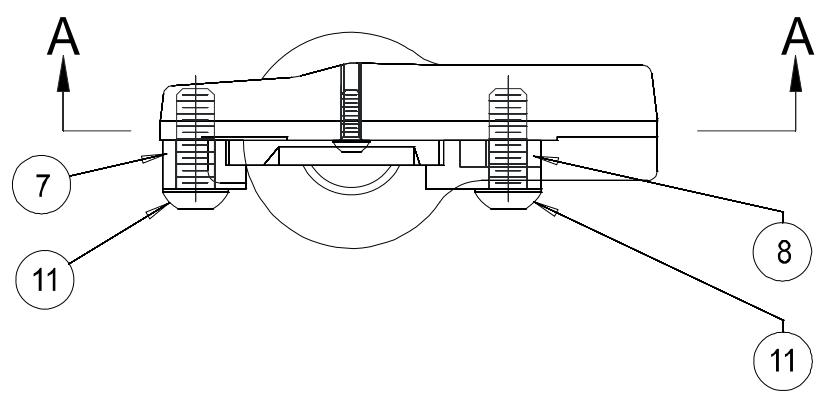
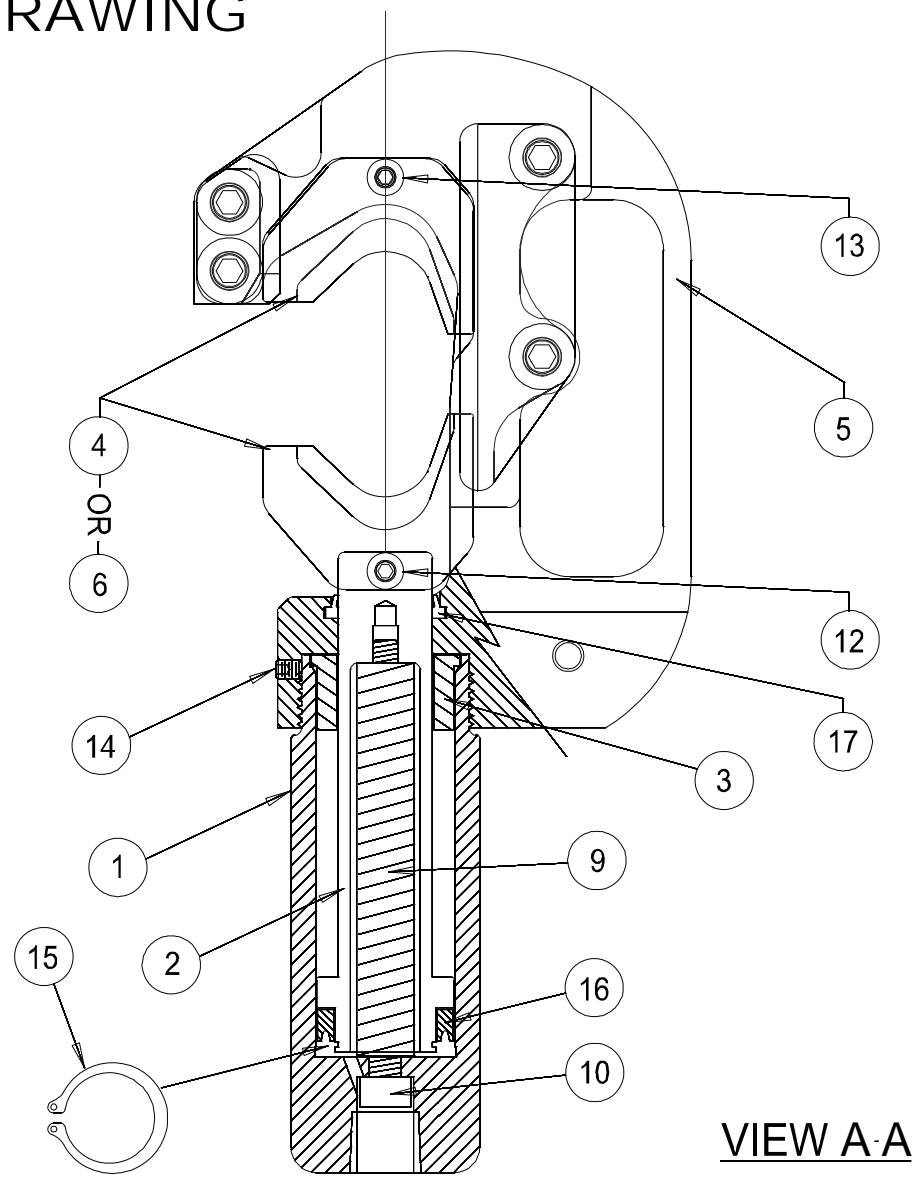


VIEW D-D

HP4707S PARTS LIST

#	PART #	QTY	PART #	DRAWING
1	20251	1	CYLINDER BODY	A-A
2	20252	1	INNER PISTON	A-A
3	20253	1	RETAINER, PISTON	A-A
4	20254	1	PISTON	A-A
5	20255	1	CAP - CYLINDER END	A-A
6	20256	2	BLADE, BURNDY CUAL	A-A
7	20258	1	HEAD	A-A
8	20282	2	BLADE, BURNDY ACSR	A-A
9	20281	1	GUIDE, SMALL BLADE	A
10	20280	1	GUIDE, LARGE BLADE	A
11	13812	1	DIRECT CONNECT	B-B
12	12125	1	SPRING GUIDE	D-D
13	12126	1	SPRING	D-D
14	12129	1	BALL	D-D
15	12124	1	ADJUSTING SCREW	D-D
16	12127	2	PIPE PLUG	D-D
17	1220-19	0	THREAD PROTECTOR (SUPPLIED BY RELIABLE)	A-A
18	23010	1	CLAMP NUT	A-A
19	20285	4	BUTTON HEAD SCREW, GUIDE	A
20	20283	1	BUTTON HEAD SCREW, LOWER BLADE	A-A
21	20284	1	BUTTON HEAD SCREW, UPPER BLADE	A-A
22	20286	1	SOCKET SET SCREW, HEAD	A-A
23	20287	1	SOCKET SET SCREW, CAP CYLINDER	A-A
24	20288	1	WASHER, 3/8 DIA. FLAT	B-B
25	20289	1	WASHER, 3/8 DIA. LOCK	B-B
26	20290	4	SCREW	C-C
27	20291	4	WASHER, #6 LOCK	C-C
28	20292	4	WASHER, #6 NARROW FLAT	C-C
29	20293	2	CAP PLUG	A-A
30	13838	3*	O-RING, FACE SEAL	A-A
31	13837	2*	O-RING, STATIC SEAL	A-A
32	20265	1*	O-RING	B-B
33	20266	1*	RING, BACK-UP	B-B
34	20267	1*	O-RING	B-B
35	20268	2*	RING, BACK-UP	B-B
36	20269	1*	O-RING	B-B
37	20270	2*	RING, BACK-UP	B-B
38	20263	1*	O-RING	B-B
39	20264	1*	RING, BACK-UP	B-B
40	20259	1*	O-RING	B-B
41	20260	2*	RING, BACK-UP	B-B
42	20261	1*	O-RING	A-A
43	20262	1*	RING, BACK-UP	A-A
44	20257	1*	WIPER	A-A
20400	*	SEAL KIT (* ITEMS INCLUDED IN KIT)		

HP4707SA PARTS DRAWING



HP4707SA PARTS LIST

#	PART #	QTY	DESCRIPTION
1	20501	1	CYLINDER
2	20502	1	RAM
3	20503	1	COLLAR
4	20256	2	BLADE, BURNDY CUAL
5	20258	1	HEAD
6	20282	2	BLADE, BURNDY ACSR
7	20281	1	BLADE GUIDE, SMALL
8	20280	1	BLADE GUIDE, LARGE
9	20510	1	SPRING, ASSY
10	20509	1	SCREW, SPRING
11	20285	4	BUTTON HEAD SCREW, GUIDE
12	20283	1	BUTTON HEAD SCREW, LOWER BLADE
13	20284	1	BUTTON HEAD SCREW, UPPER BLADE
14	20286	1	SOCKET SET SCREW, HEAD
15	20505	1	SNAP RING
16	20504	1*	SEAL
17	20257	1*	WIPER
	20550	*	SEAL KIT (* ITEMS INCLUDED IN KIT)

OPERATOR'S NOTES

