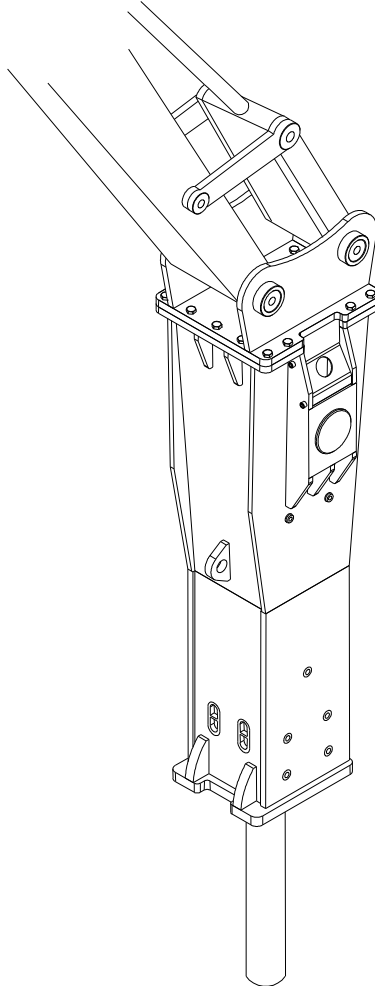


PARTS MANUAL

HYDRAULIC IMPACT HAMMER MODEL AR160B, AR160C



Rev. 11nov11

Parts Manual 572694
Supercedes 571523

DOCUMENT REVISIONS – AR160B

Date	Page	Change
Oct 20, 2005		Original Issue
Sep 08, 2006	5,6,11-14	Revise housing plug, lower bushing & o-ring
Aug 09, 2007		Revise Tune-Up Kit
Apr 28, 2008	11, 12, 13, 14	PN 571692 – Revise the following: Change quantity from 2 to 1, and change description to include “Seal Set”
Apr13, 2009		Inactivate AR160B Parts Manual 571523

DOCUMENT REVISIONS – AR160C

Date	Page	Change
Jan 30, 2007		Original Issue
Mar 20, 2007	13,14	Correct seal kit
Mar 26, 2007	10	New P/N for Item 44
Aug 09, 2007		Revise Tune-Up Kit
Aug 28, 2007	5 & 6	Revise housing assembly
Nov 29, 2007	20	Revise Table 4.9
Feb 27, 2008	4	Revise hydraulic adapter configuration
Apr 28, 2008	11, 12, 13, 14	572701 Revise part description to include “Set” Revise illustration – add detail of lower seals
Sep 10, 2008	14	Add illustration & table of parts for Tune-Up Kit
Apr13, 2009		Combine AR160B & AR160C Parts Manual
Nov 11, 2011	13	Part number of “B” & “C” cylinder reversed. AR160B cylinder = 571677 AR160C cylinder = 572692

TABLE OF CONTENTS

<u>SECTION</u>	<u>Page</u>	<u>SECTION</u>	<u>Page</u>
DOCUMENT REVISIONS.....	i	LIST of FIGURES	
TABLE of CONTENTS.....	ii	2-1 Identification Plate.....	2
1.0 INTRODUCTION.....	1	2-2 Identification Plate Location	2
1.1 About This Manual.....	1	3-1 Decal Locations.....	5
1.2 Additional Documentation.....	1	4-1 Hammer Housing & Components.....	6
2.0 PRODUCT IDENTIFICATION	2	4-2 Valve Housing & Components.....	8
2.1 Serial Number Identification...	2	4-3 Cylinder & Front Head.....	12
2.2 Identification Plate.....	2	4-4 Seal Kit & Tune-up Kit.....	16
2.3 Record the Serial Number.....	2	5-1 Types of Demolition Tools.....	20
3.0 Identification and Safety Labels.....	3	6-1 Hydraulic Connections.....	22
4.0 Parts Information.....	6	7-1 Accumulator Charging Kit.....	24
5.0 Demolition Tools.....	20		
5.1 Chisel Paste.....	21		
6.0 Hydraulic Connections.....	22		
6.0 Accumulator Charge Kit.....	24		

SECTION 1.0 INTRODUCTION

1.1 About this Manual

Manual Part Number: 572694

This manual contains information for replacement parts and is applicable to the following Allied product(s):

Product Name:	AR-Series Hammer	
Model(s):	AR160B, AR160C	
Serial Numbers:	00001 and above	
Years of Manufacture:	AR160B 2005 – 2007	AR160C 2007 and above

Check that the above information corresponds with the information stamped on the ID Plate. Refer to Section 2.0 for the location of the I.D. Plate.

The illustrations and parts descriptions contained in this manual are typical of the model AR160B and AR160C. Components used in the assembly of the hammer are available in various configurations. Pay special attention to the descriptions and figures in the Parts Information Section of this manual and match your equipment to the proper configuration.

The Parts Manual is an integral part of the product. Keep it in a convenient location so that it is easily accessible for future reference.

Notice: Material presented in this manual, including descriptions, illustrations specifications and designs, are subject to change without prior notice.

1.2 Additional Documentation

Further information on the AR-Series Hammer can be found in the following manuals:

Table 1-1 Additional Documentation		
Manual	Model	Part No.
Parts	AR160B, C	572694
The Parts Manual contains information for replacement parts. Illustrations used in the Parts Manual are representative of typical hammers. These illustrations are not intended for repair or service.		
Operator's	AR110B, 120B, 130, 130B, 140B, 160B, 160C, 170C, 180C	102706
The Operator's Manual outlines important information for the safe and proper use of the Allied Hammer. It also includes technical specifications, instructions to attach / remove equipment to / from carrier, tool replacement, maintenance, troubleshooting, lifting, transporting and storage.		
Repair	AR110B, 120B, 130, 130B, 140B, 160B, 160C, 170C, 180C	572591
The Repair Manual outlines important information for the safe and proper repair of the Allied Hammer.		

SECTION 2.0 PRODUCT IDENTIFICATION

2.1 Serial Number Identification

The Hammer is delivered assembled, lubricated, and factory tested. Upon receipt of the equipment, inspect for possible shipping damage.

The equipment serial number is stamped on the hammer. The model and serial number are also located on the identification plate. Verify that the model found on the ID Plate corresponds with the information provided in Section 1 of this manual.

2.2 Identification Plate

The equipment identification plate is affixed to the housing and contains the following information:

- Manufacturer's name
- Address
- Product name
- Model number
- Serial number
- Year of manufacture
- Weight

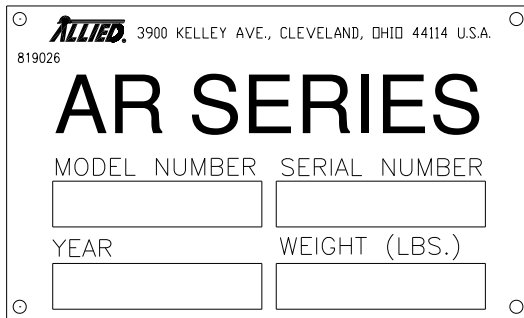


Figure 2-1 Identification Plate

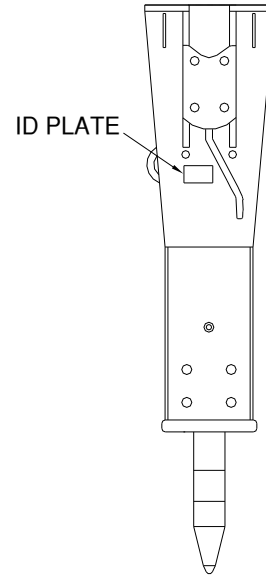


Figure 2-2 Location of Identification Plate

2.3 Record the Serial Number

Record the Model and Serial Number, as listed on the invoice, in the space provided below. Enter the date that the Allied equipment was put into service.

Model: _____

Serial Number: _____

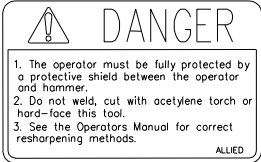



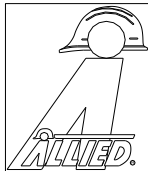

In service date: _____

Retain this information for future reference. When ordering replacement parts, or if there are questions or concerns regarding operation, service, repair or warranty, please contact your local dealer. It is important to make correct reference to the model and serial number of your Allied product.



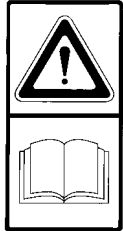

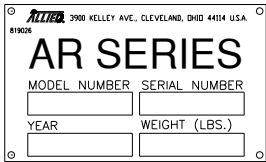
SECTION 3.0 IDENTIFICATION and SAFETY LABELS

IMPORTANT

Safety messages are affixed to the Allied equipment. Be sure all safety decals can be clearly read and understood. Replace decals if missing or difficult to read.

1		<p>DANGER TOOL SHARPENING – This decal indicates the need for an operator’s protective shield and warns against welding, cutting, or hard-facing the tool. Refer to the Operator’s Manual for tool re-sharpening methods.</p>
2, 3		<p>DANGER – This decal warns against the risk of injury from projectiles and indicates the need for a shield to protect the operator during operation.</p>
4		<p>The STAY CLEAR decal indicates that personnel and by-standers are to maintain a safe distance from the Hammer during operation.</p>
5		<p>MAXIMUM PRESSURE –This decal indicates the maximum supply oil pressure.</p>
6		<p>The ALLIED LOGO decal is the Allied brand identifier and is a registered trademark of Allied Construction Products, LLC.</p>
7		<p>LUBRICATION – This decal identifies the location and frequency of required lubrication.</p>

3.0 IDENTIFICATION and SAFETY LABELS (Cont'd)

8		<p>The LIFT POINT decal identifies the location of the recommended lifting points of the Ho-Pac.</p>
9	<p style="text-align: center;">AR160B AR160C</p>	<p>The MODEL decal indicates the specific hammer model.</p>
10		<p>PRESSURIZED NITROGEN ACCUMULATOR – This decal directs personnel to the hammer operator's manual for charging or servicing directions.</p>
11		<p>The READ INSTRUCTION decal indicates that it is important to read the manual for detailed explanations and instructions.</p>
12		<p>The PRESSURE I.D. tag is attached to the hydraulic supply hose for ease of identification between hoses.</p>
13		<p>ID PLATE - The identification plate contains the following information: Manufacturer's name and address, product name and model number, serial number, year of manufacture, and weight.</p>

3.0 IDENTIFICATION and SAFETY LABELS (Cont'd)

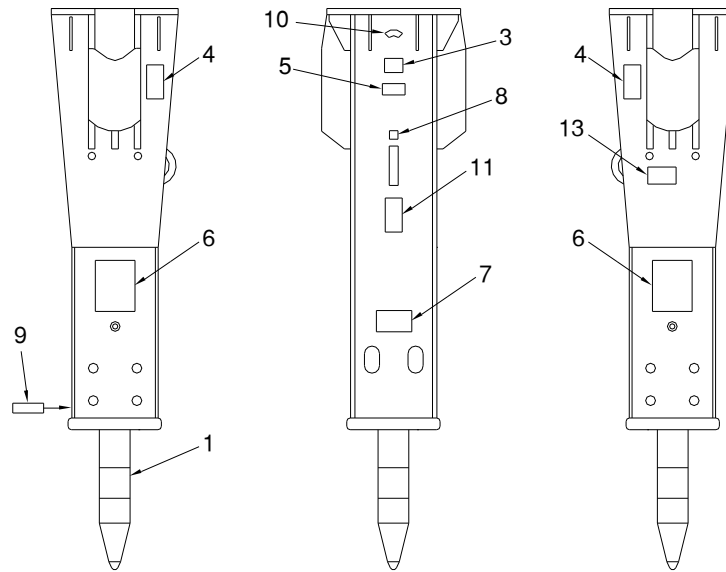


Figure 3-1: Decal Locations

ITEM	QTY	PART NO.	DESCRIPTION	■ 160B
				○ 160C
1-11	1	571716	Decal Package - Includes 1 thru 11	■
1-11	1	572696	Decal Package - Includes 1 thru 11	○
1	1	657838	Decal – Tool Sharpening	■ ○
2	1	657839	Decal – Danger (to be installed in conspicuous location inside operator's cab)	■ ○
3	1	657840	Decal – Danger (Large)	■ ○
4	2	657841	Decal – Danger Stay Clear	■ ○
5	1	659140	Decal – Max Pressure 2200 psi	■ ○
6	2	676649	Decal – Allied “A”	■ ○
7	1	677334	Decal – Lube w/ Tool In	■ ○
8	1	676982	Decal – Lift Point	■ ○
9	1	571686	Decal – Model AR160B	■ ○
		572695	Decal – Model AR160C	■ ○
10	1	102756	Decal – Accumulator Safety Warning	■ ○
11	1	676984	Decal – Read Instructions	■ ○
12	1	818676	Pressure ID Tag (located on hydraulic supply hose)	■ ○
13	1	819026	ID Plate (Not part of decal package)	■ ○

SECTION 4.0 PARTS INFORMATION

The illustrations shown in the Parts Information Section are not intended for use in the repair or service of the hammer. Illustrations are representative of typical AR-Series hammers. Specific assemblies and mounting configurations may vary.

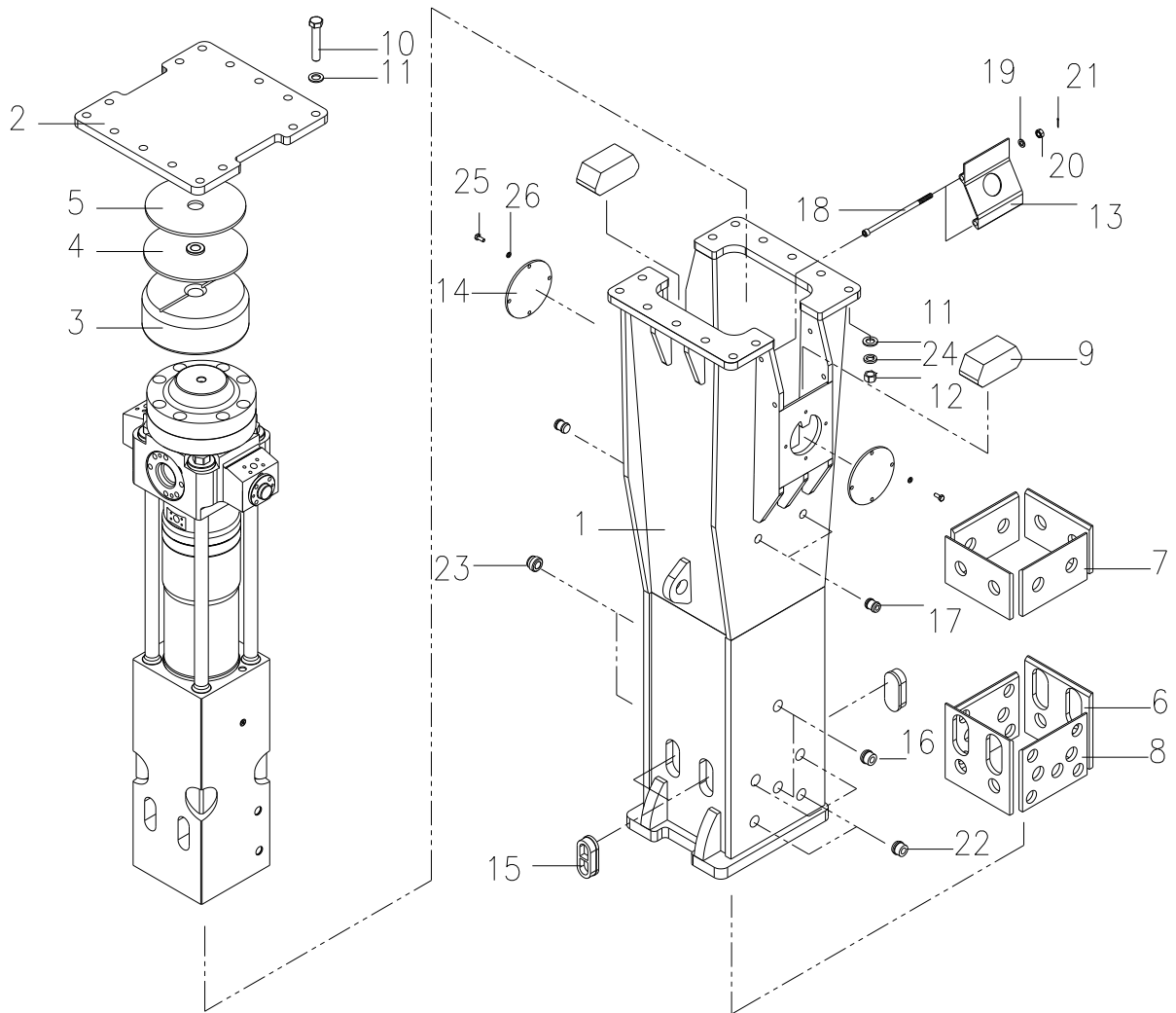


Figure 4-1: Hammer Housing and Components

**Table 4.1
Hammer Housing & Components**

ITEM	QTY	PART NO.	DESCRIPTION	■ 160B
				○ 160C
1	1	571508	Housing Assembly	■○
2	1	570112	Base Plate LR9	■○
3	1	571509	Top Buffer	■○
4	1	571510	Top Buffer Plate Assembly	■○
5	1	571511	Wear Plate (Top)	■○
6	2	571512	Wear Plate (Front-Lower)	■○
7	4	571513	Wear Plate (Upper)	■○
8	2	571514	Wear Plate (Side-Lower)	■○
9	2	571515	Side Buffer	■○
10	14	571516	Bolt	■○
11	28	573029	Flat Washer	■○
12	14	90519	Nut	■○
13	2	571518	Port Cover	■○
14	2	571519	Rubber Plug (○ Early versions only)	■○
		573166	Protective Plate	○
15	4	571520	Rubber Plug	■○
16	2	570997	Rubber Plug	■○
17	4	570998	Rubber Plug	■○
18	4	571521	Port Cover Bolt	■○
19	4	678476	Spring Washer	■○
20	4	607264	Nut	■○
21	4	571008	Cotter Pin	■○
22	8	571522	Rubber Plug	■○
23	2	572389	Wear Pin	■○
24	14	573028	Lock Washer	■○
25	8	798062	Bolt (Not required with Item 14, 571519)	○
26	8	678458	Lock Washer (Not required with Item 14, 571519)	○

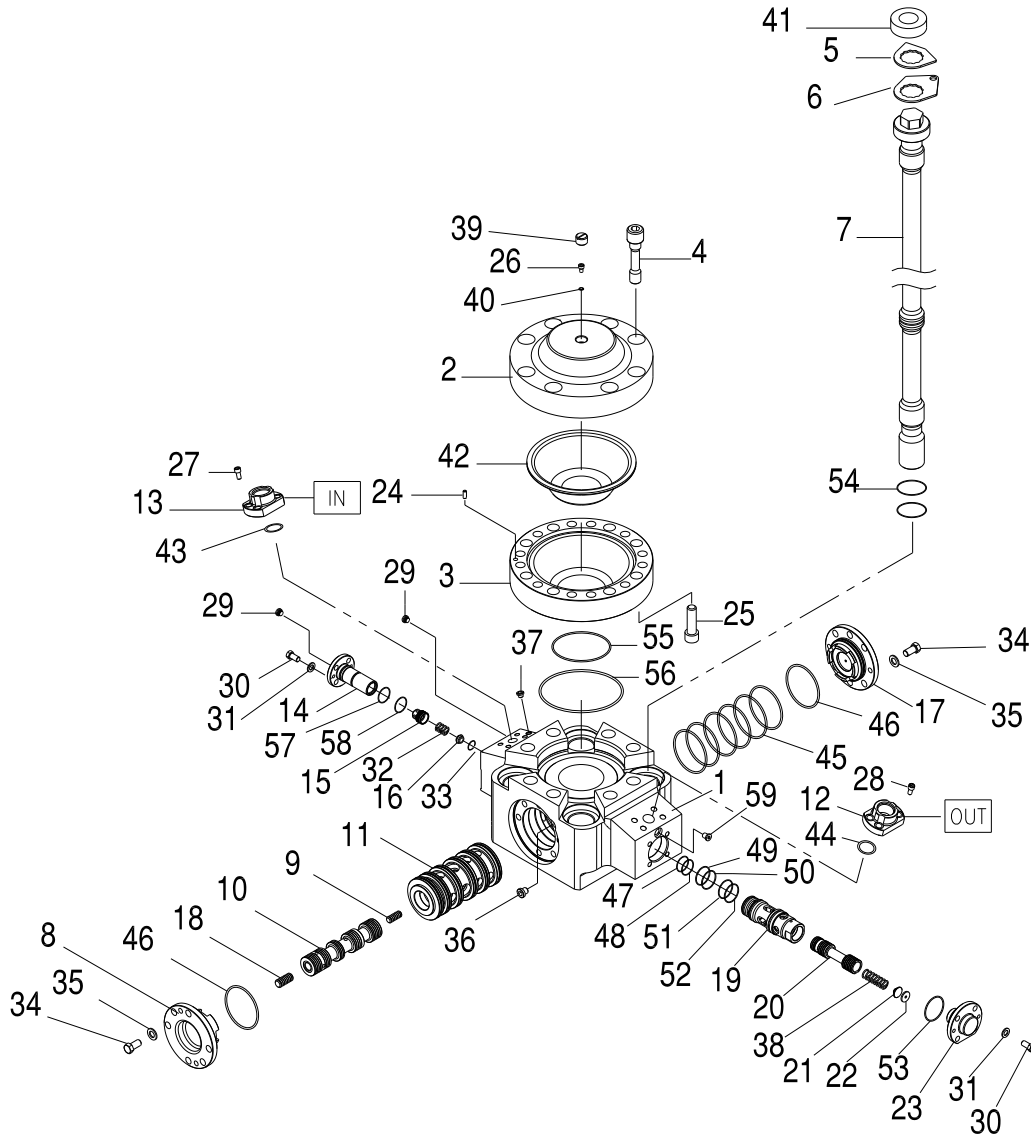


Figure 4-2: Valve Housing & Components

**Table 4.2
Valve Housing & Components**

ITEM	QTY	PART NO.	DESCRIPTION	■ 160B
				○ 160C
1	1	571524	Valve Housing	■○
2	1	571525	Accumulator Cover	■○
3	1	571526	Accumulator Bottom	■○
4	8	571527	Accumulator Cover Bolt	■○
5	7	101586	Lock Plate	■○
6	1	570988	Lock Plate	■○
7	4	571528	Side Rod	■○
8	1	571529	Control Valve Cover	■○
9	1	571531	Spool, Rear	■○
10	1	571532	Main Spool	■○
11	1	571533	Sleeve	■○
12	1	570975	Flange Adapter 20 x 20 BSPT	■
		572704	Flange Adapter 20 x 20 SORB	○
13	1	A101582	Flange Adapter 16 x 16 BSPT	■
		572705	Flange Adapter 16 x 16 SORB	○
14	1	571534	Check Valve Housing	■○
15	1	571535	Check Valve Spool	■○
16	1	571536	Check Valve Spring Guide	■○
17	1	571530	Control Valve Cover	■○
18	1	571537	Spool, Front	■○
19	1	571538	Regulator Guide	■○
20	1	571539	Regulator Spool	■○
21	1	571540	Regulator Spring Guide	■○
22	1	571670	Regulator Shim Plate	■○
23	1	571671	Regulator Cover	■○
24	1	676183	Accumulator Guide Pin	■○
25	12	570980	Accumulator Bottom Bolt	■○
26	1	676161	Accumulator Gas Bolt	■○
27	4	90564	SHCS M12 X 1.75	■○
28	4	103002	SHCS M12 X 2.0	■○
29	2	676159	Hex Socket Plug	■○
30	8	900017	Regulator Cover Bolt	■○

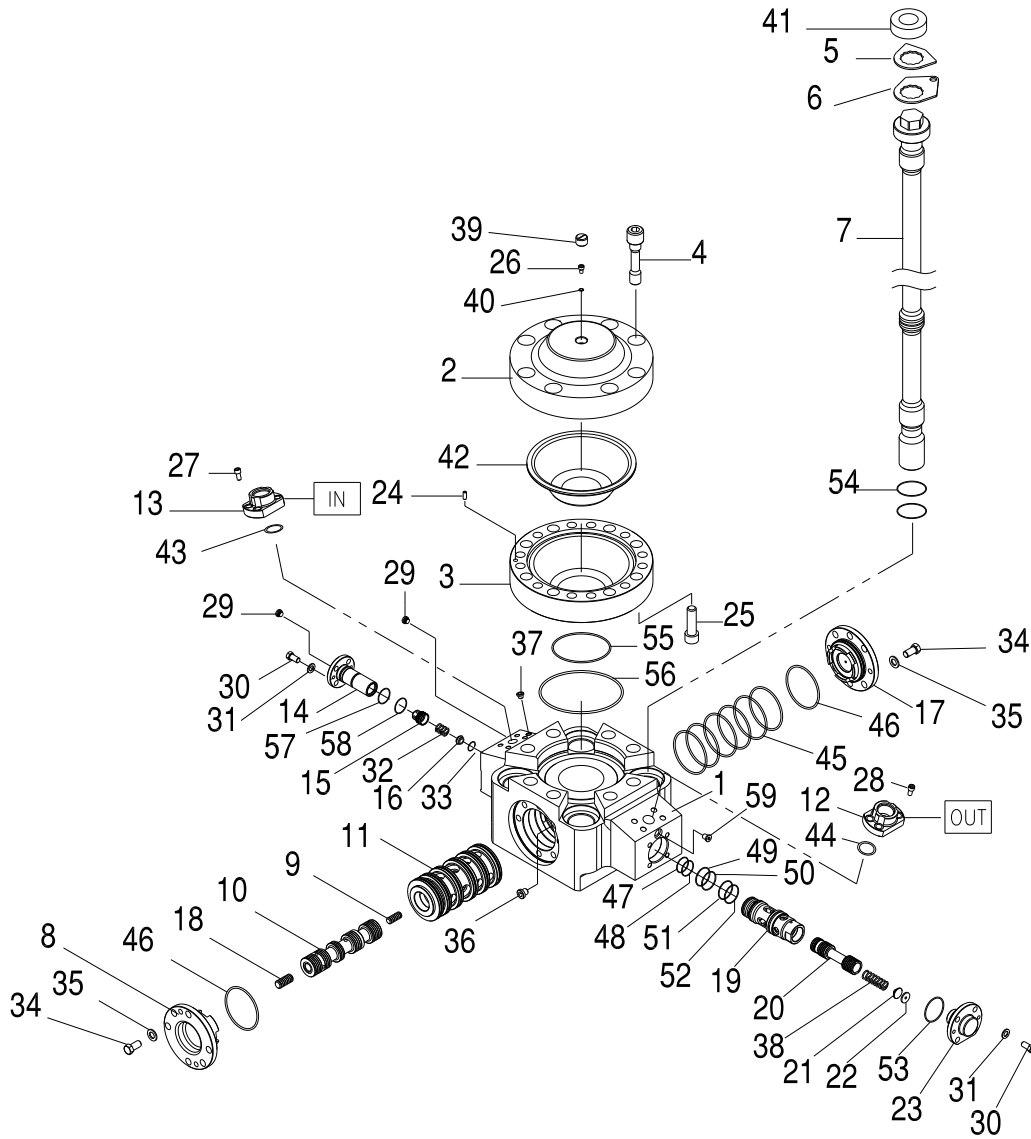


Figure 4-2: Valve Housing & Components

**Table 4.2
Valve Housing & Components**

ITEM	QTY	PART NO.	DESCRIPTION	■ 160B
				○ 160C
31	8	571055	Disc Lock Washer	■○
32	1	571672	Check Valve Spring	■○
33	1	571673	Lock Ring	■○
34	12	90518	Sleeve Cover Bolt	■○
35	12	571674	Disc Lock Washer	■○
36	1	571708	Hex Socket Plug	■○
37	1	102241	Hex Socket Plug	■○
38	1	571675	Regulator Spring	■○
39	1	102262	Accumulator Cap	■○
40	1	676201	Usit-Ring	■○
41	4	101585	Rubber Ring	■○
42	1	570979	Membrane	■○
43	1	677977	O-Ring	■○
44	1	659275	O-Ring	■○
45	6	571693	O-Ring	■○
46	2	571696	O-Ring	■○
47	1	101788	Back-up Ring	■○
48	1	100109	O-Ring	■○
49	1	676203	O-Ring	■○
5	1	676205	Back-up Ring	■○
51	1	100107	O-Ring	■○
52	1	571705	Back-up Ring	■○
53	1	676248	O-Ring	■○
54	8	571698	O-Ring	■○
55	1	571699	O-Ring	■○
56	1	571706	Back-up Ring	■○
57	1	571700	O-Ring	■○
58	1	659275	O-Ring	■
		572734	O-Ring	○
59	1	676158	Hex Socket Plug	■○

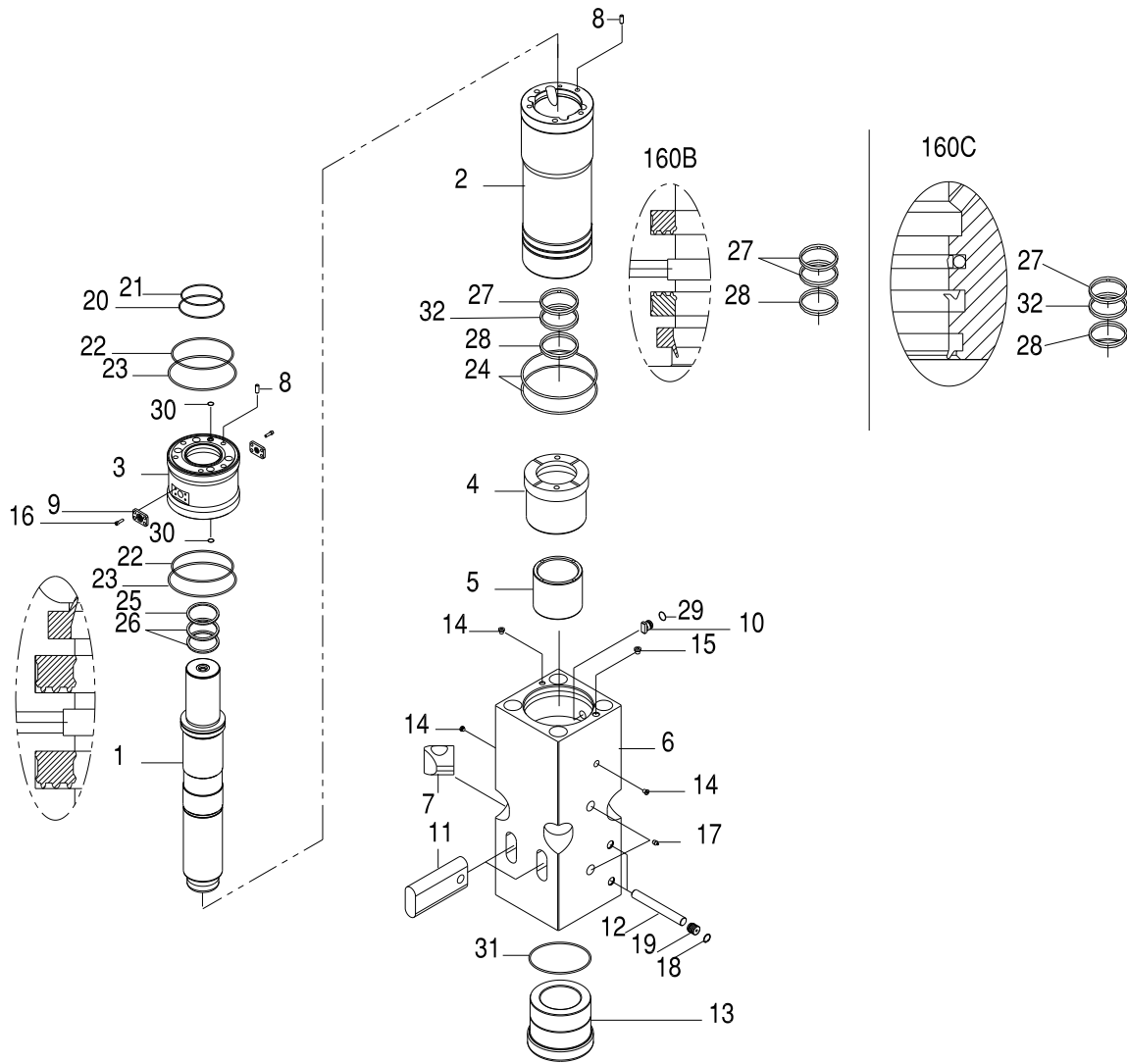


Figure 4-3 Cylinder & Front Head

**Table 4.3
Cylinder & Front Head**

ITEM	QTY	PART NO.	DESCRIPTION	■ 160B
				○ 160C
1	1	571676	Piston	■
		572693	Piston	○
2	1	571677	Cylinder	■
		572692	Cylinder	○
3	1	571678	Seal Housing	■○
4	1	571679	Thrust Ring	■○
5	1	571680	Upper Bushing	■○
6	1	571681	Front Head	■○
7	4	571682	Side Rod Nut	■○
8	2	102545	Valve Housing Guide Pin	■○
9	2	102549	Air Breather Cover	■○
10	1	A102558	Wedge	■○
11	2	571683	Tool Retainer Bar	■○
12	2	571684	Bushing Pin	■○
13	1	571685	Lower Bushing	■○
14	3	676159	Hex Socket Plug	■○
15	1	102241	Hex Socket Plug	■○
16	8	940587	Air Breather Cover Bolt	■○
17	1	816675	Grease Nipple (SN-00009 & below)	■○
	2	816675	Grease Nipple (■ SN-00010 & above)	■○
18	2	570072	Snap Ring	■○
19	2	102412	Rubber Plug	■○
20	1	571694	O-Ring	■○

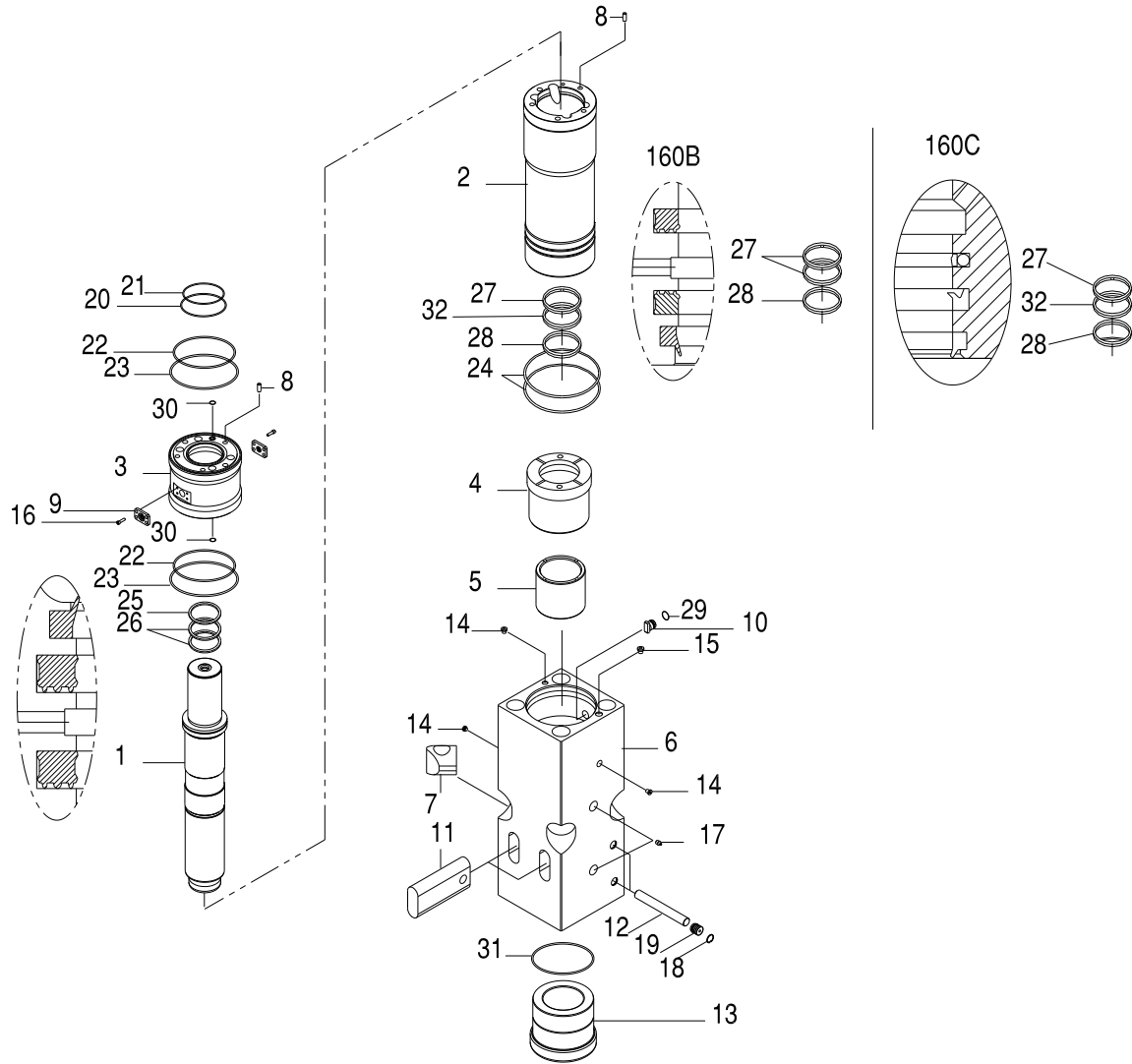


Figure 4-3 Cylinder & Front Head

**Table 4.3
Cylinder & Front Head (Cont'd)**

ITEM	QTY	PART NO.	DESCRIPTION	■ 160B
				○ 160C
21	1	571703	Back-up Ring	■○
22	2	571695	O-Ring	■○
23	2	571704	Back-up Ring	■○
24	2	571697	O-Ring	■○
25	1	571689	Wiper	■○
26	2	571691	Seal	■○
27	1	571692	Seal Set – Guide Ring & Seal	■
		572701	Seal Set – Seal & O-ring	○
28	1	571690	Wiper	■
		572703	Wiper	○
29	1	676200	O-Ring	■○
30	2	571004	O-Ring	■○
31	1	572388	O-Ring	■○
32	1	572702	U-Ring	○

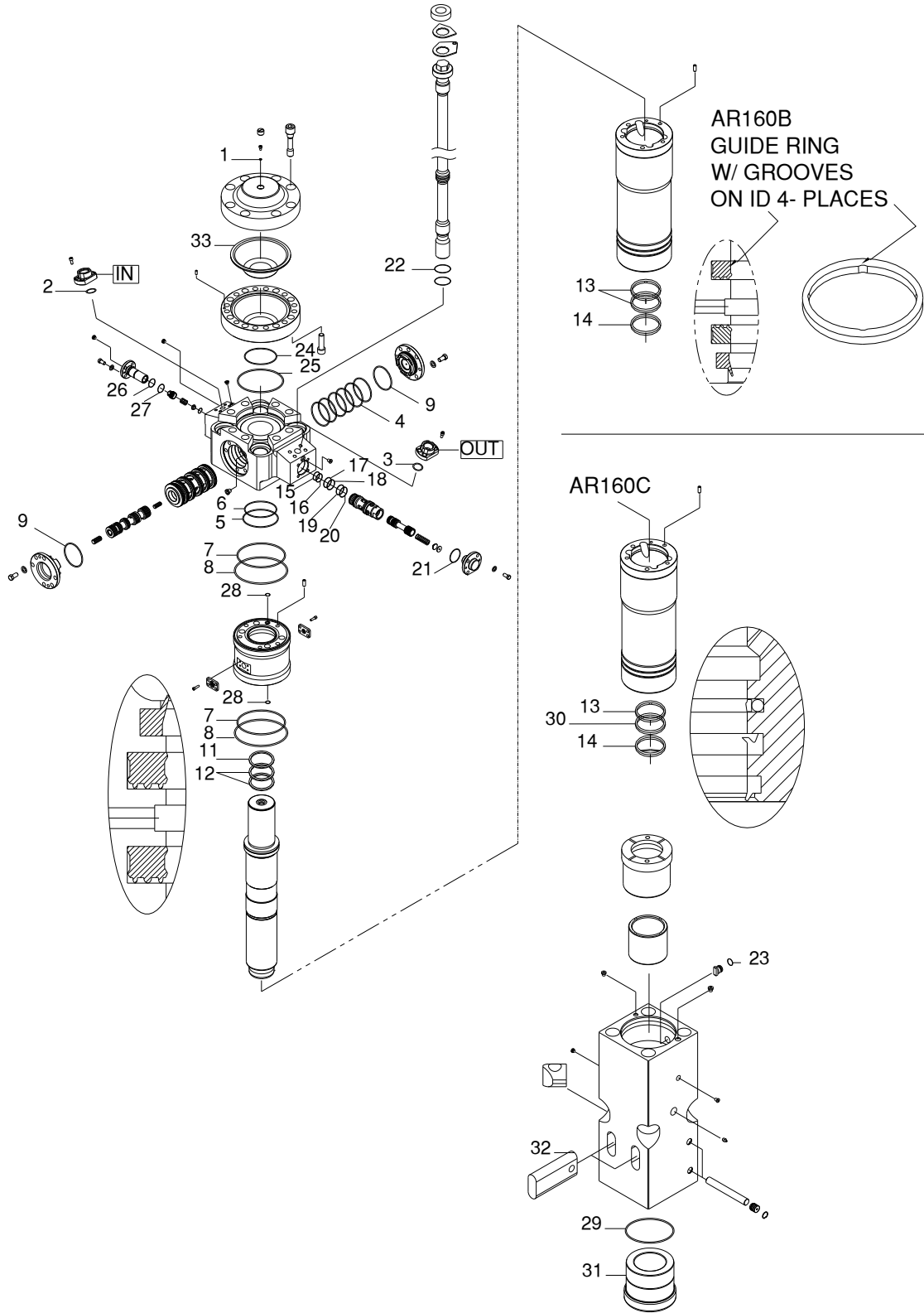


Figure 4-4 Seal Kit / Tune-Up Kit

Table 4.4 Seal Kit & Tune-up Kit				
ITEM	QTY	PART NO.	DESCRIPTION	■ 160B
				○ 160C
1-30	1	571713	Seal Kit – (Includes items 1-30)	■
1-30	1	572698	Seal Kit – (Includes items 1-30)	○
1-33	1	571715	Tune-up Kit – (Includes items 1-33)	■
1-33	1	572697	Tune-up Kit – (Includes items 1-33)	○
1	1	676201	Usit-Ring	■○
2	1	677977	O-Ring	■○
3	1	659275	O-Ring	■○
4	6	571693	O-Ring	■○
5	1	571694	O-Ring	■○
6	1	571703	Back-up Ring	■○
7	2	571695	O-Ring	■○
8	2	571704	Back-up Ring	■○
9	2	571696	O-Ring	■○
10	2	571697	O-Ring	■○
11	1	571689	Wiper	■○
12	2	571691	Seal	■○
13	1	571692	Seal Set – Guide Ring & Seal	■
		572701	Seal Set – Seal & O-ring	○
14	1	571690	Wiper	■
		572703	Wiper	○
15	1	101788	Back-up Ring	■○
16	1	100109	O-Ring	■○
17	1	676203	O-Ring	■○
18	1	676205	Back-up Ring	■○
19	1	100107	O-Ring	■○
20	1	571705	Back-up Ring	■○

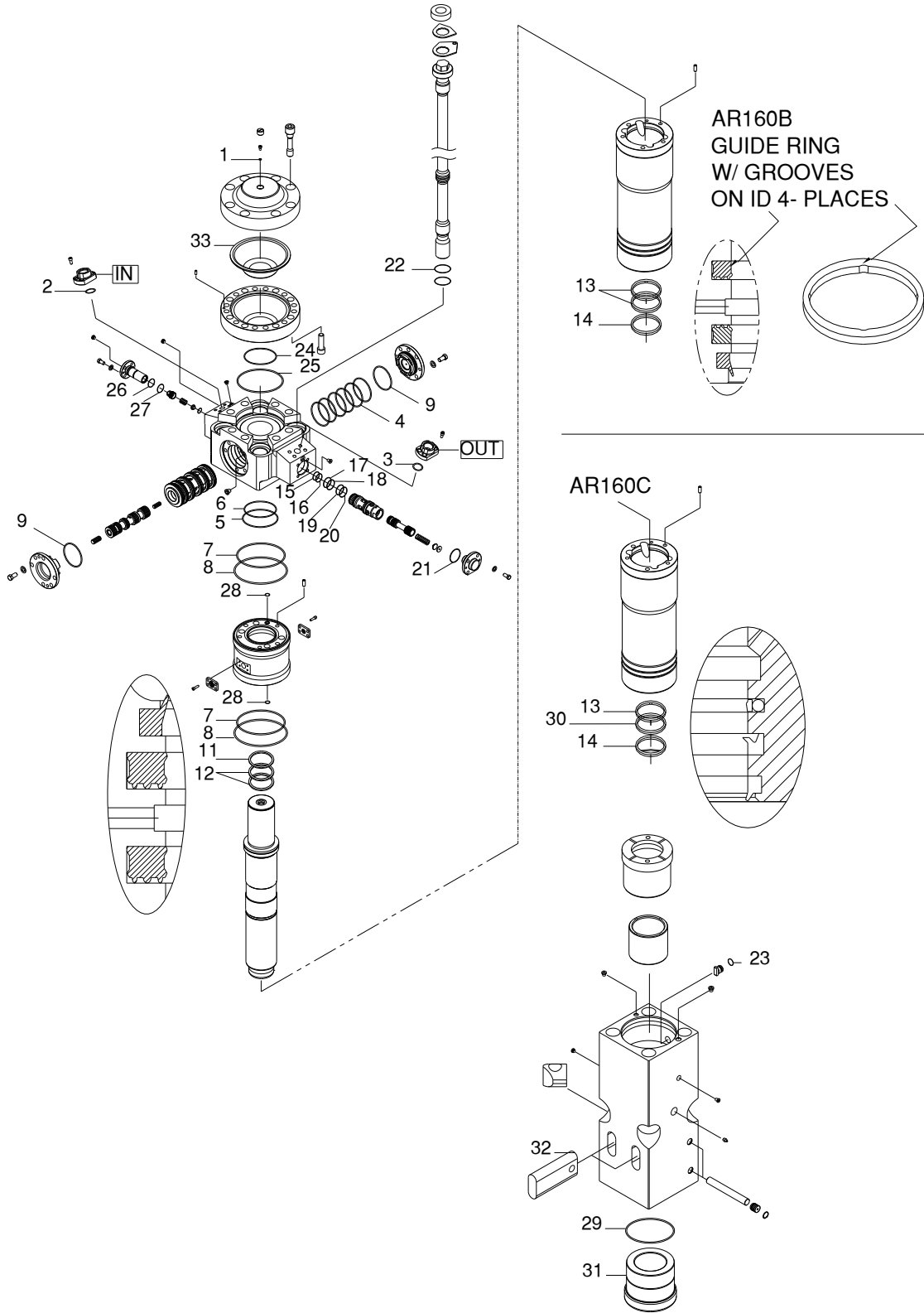


Figure 4-4 Seal Kit / Tune-Up Kit

Table 4.4
Seal Kit & Tune-up Kit (Cont'd)

ITEM	QTY	PART NO.	DESCRIPTION	■ 160B
				○ 160C
21	1	676248	O-Ring	■○
22	8	571698	O-Ring	■○
23	1	676200	O-Ring	■○
24	1	571699	O-Ring	■○
25	1	571706	Back-up Ring	■○
26	1	571700	O-Ring	■○
27	1	659275	O-Ring	■○
		572734	O-Ring	○
28	2	571004	O-Ring	■○
29	1	572388	O-Ring	■○
30	1	572702	U-Ring	○
---	1	676927	Thread Lube - IMPORTANT For side rod threads only. Do NOT use on seals!	■○
31	1	571685	Lower Tool Bushing	■○
32	2	571683	Tool Retainer Bar	■○
33	1	570979	Accumulator Membrane	■○

SECTION 5.0 DEMOLITION TOOLS

Demolition tools are designed for efficient breaking and size reduction of materials. Whether these materials are rock or concrete, the same goal exists for the hammer, to separate and reduce the size of the material.

Dependent on application, selection of a tool for a particular hammer and job is very important. Differences in material to be broken, carrier size, and operator experience and/or preference and

desired fragment size are all important considerations when purchasing a tool for a particular hammer.

Specialty tools have a special purpose or function designed into each tool. These tools can extend the versatility of a hammer, thus increasing productivity and decreasing cost. The following are examples of various tools available for different uses.

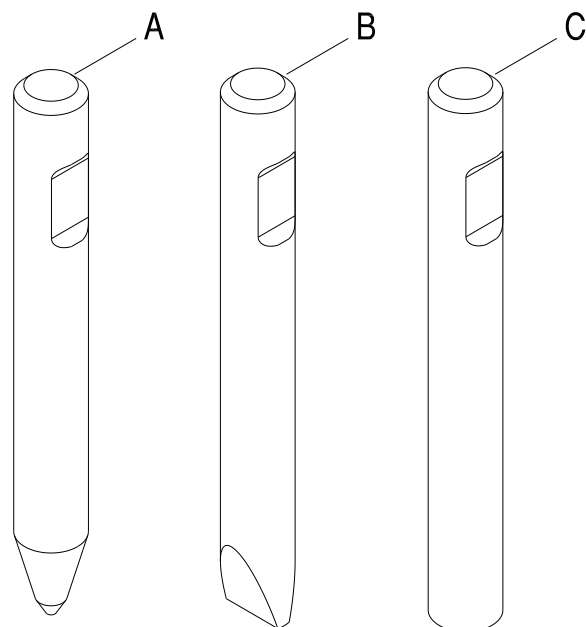


Figure 5-1 Types of demolition tools

- A. **Conical Point** - For general demolition work where penetrative breaking is required. Soft and non-abrasive rock and general demolition of concrete.
- B. **Chisel** – Same use as points, but also where cutting action is

required, e.g. benching and trenching.

- C. **Blunt Tool** – Designed for impact breaking. Boulder breaking or concrete demolition.

Table 5.1 Demolition Tools					
ITEM	TYPE	PART NO.	WORKING LENGTH	WEIGHT	■ 160B
					○ 160C
A	Conical Point	571687	30 in (758 mm)	385 lbs (175 kg)	■○
B ⁽¹⁾	Cross Cut Wedge	571058	30 in (758 mm)	385 lbs (175 kg)	■○
C	Blunt End	571688	24 in (608 mm)	350 lbs (160 kg)	■○

⁽¹⁾ Standard equipped tool.

5.1 Allied Chisel Paste

The use of Allied chisel paste will extend hammer bushing and tool life. Allied chisel paste is specially formulated with copper and graphite ingredients that distinguish it from other lubricants on the market. Allied chisel paste provides superior and longer lasting lubrication properties over a wide range of operating temperatures.

Table 5.2 Chisel Paste	
Part No.	Description
100057	Std *14.5 oz. tube (Box of 12 tubes)
A100058	Std *14.5 oz. tube (Case of 36 tubes)
676698	Bucket (5 Gal.)
679968	Keg, 15 gallons

*14.5 oz. tubes fit BreakerLube and standard hand operated grease guns.

SECTION 6.0 HYDRAULIC CONNECTIONS

The following illustrations and parts lists are typical models of the AR160B and AR160C Hammer. Specific assemblies and mounting configurations may vary.

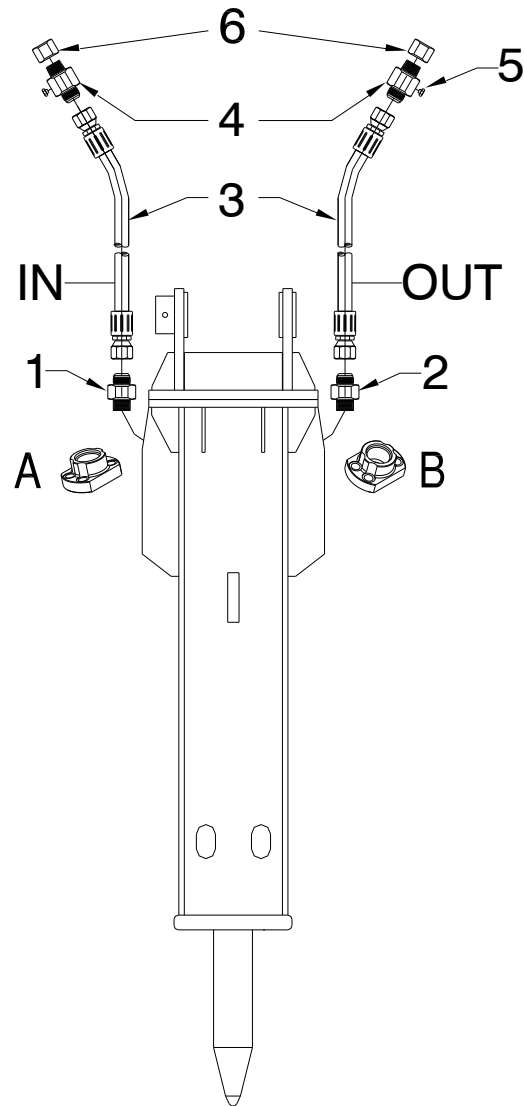


Figure 6-1: Hydraulic Connections – NOTE: Shown as “Left-Hand” Pressure (As viewed from the operator’s cab)

**Table 6.1
Hydraulic Connections**

ITEM	QTY	PART NO.	DESCRIPTION	■ 160B
				○ 160C
A	1	---	Flange Adapter (Refer to Table 4.2 Valve Housing & Components)	---
B	1	---	Flange Adapter (Refer to Table 4.2 Valve Housing & Components)	---
1	1	571007	Adapter #16	■
		719320	Adapter #16	○
2	1	053755	Adapter #20	■
		719151	Adapter #20	○
3	2	678011	Hose	■○
4	2	677828	Adapter w/ port (Discontinued. Early SN's only.)	■
5	2	667566	Hex Plug (Discontinued. Early SN's only.)	■
6	2	677811	Cap Nut (Discontinued. Early SN's only.)	■
	2	815152	Plug	○

SECTION 7.0 ACCUMULATOR CHARGE KIT

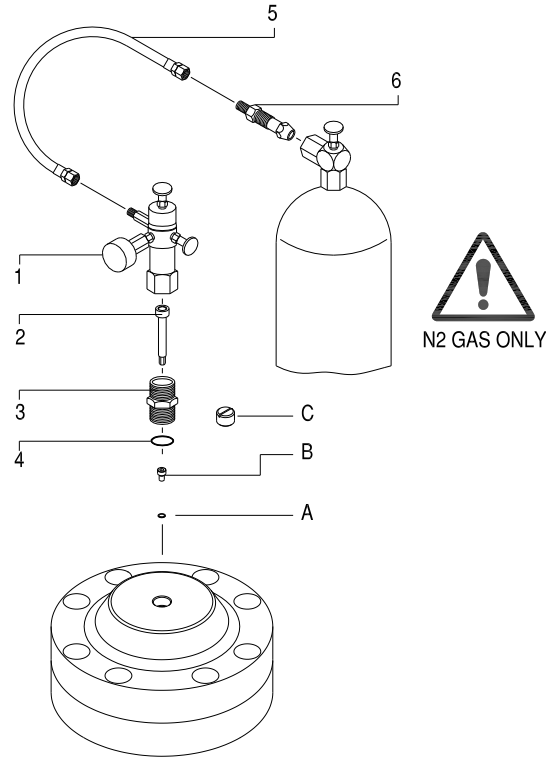



Figure 7-1 Accumulator Charging Kit

Table 7.1 Accumulator Charge Kit			
ITEM	QTY	PART NO.	DESCRIPTION
1-6	1	570071	Accumulator Charging Kit (Nitrogen tank not included)
1	1	100527	N2 Charge Valve w/o Adapter & Socket Bolt
2	1	40601	Socket Bolt
3	1	R101635	Adapter
4	1	901135	O-Ring
5	1	Not Sold Separately	Hose
6	1		Adapter
		Use only nitrogen gas to charge hammer accumulator. Refer to Medium & Large AR Series Repair Manual for accumulator charging instructions.	



3900 Kelley Avenue, Cleveland, Ohio 44114

Tel: 216-431-2600 Fax: 216-431-2601

e-mail: Sales@AlliedCP.com

website: <http://www.AlliedCP.com>
