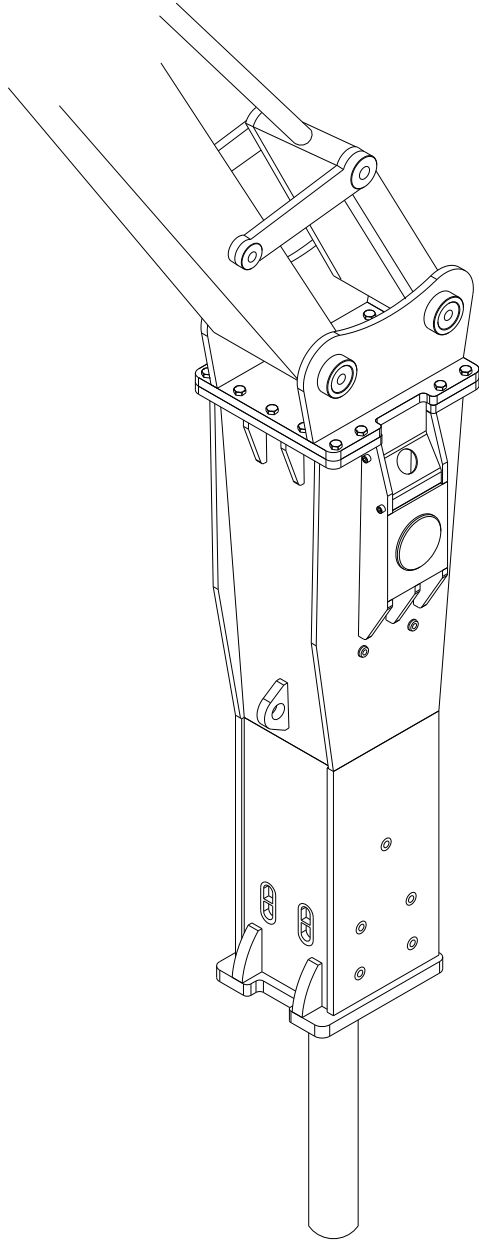


PARTS MANUAL

Part No. 573056-11jan



**HYDRAULIC
IMPACT
BREAKER
AR170C**



ALLIED®
Construction Products, LLC

Please note that material presented in this manual, including descriptions, illustrations and specifications, is subject to change without prior notice. Go to www.alliedcp.com for product or document updates.

Change Notice for Parts Manual 573056

<u>Date</u>	<u>Page</u>	<u>Description of Change</u>
Aug 08, 2007	---	Original Issue of Parts Manual 573056
Aug 28, 2007	5 & 6	Revise housing assembly
Oct 22, 2007	20	Revise tool part numbers and specs
Jan 02, 2008	12 & 14	Revise quantity of part number 573148
Feb 27, 2008	4	Revise hydraulic adapter configuration
May 6, 2008	11, 12, 13, 14	Correct part number for cylinder (573135) Revise illustrations for upper & lower piston seals Remove seal, item #30 & note for earlier s/n's
Aug 22, 2008	11, 13	Revise illustrations of seal carrier seals 11, 12
Sep 10, 2008	14	Add Tune-up Kit illustration & parts table
Jan 17, 2011	16	Correct part numbers of tune-up kit

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1.0 ABOUT THIS MANUAL

1.1 Purpose of This Manual

The Parts Manual identifies individual components for the purpose of replacement. It does not contain safety warnings, operating instructions or any information about maintenance and service. Illustrations and descriptions presented in the Parts Manual represent typical AR-Series breakers and are not intended for use in the maintenance or repair of the Breaker. This manual is an integral part of this product. Keep it in a convenient location so that it is easily accessible for future reference.

Table 1.1 Parts Manual No. 573056

Product Name:	AR-Series Breaker
Model(s):	170C
Years of Manufacture:	2007 & Above

Material presented in this manual, including illustrations, descriptions and parts information, is intended solely for use with the equipment identified in this table and may not be suitable for other models. Always refer to the correct manual to ensure the accuracy of your parts order. Prior to use, confirm that the information recorded on the Equipment Identification Plate corresponds with the above. For the location of the ID Plate, refer to Section 2.0.

Material presented in this manual, including descriptions, illustrations and specifications, is subject to change without prior notice. Amendments to this manual are noted in Section "Document Revisions".

1.2 Additional Manuals

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

Parts Manual 573056

The Parts Manual identifies individual components for the purpose of replacement. It does not contain safety warnings, operating instructions or any information about the maintenance and repair of this Allied product.

Operation & Maintenance 102706

The Operation & Maintenance Manual outlines important information for the safe and proper use of the AR-Series Breaker. It also provides:

- Technical specifications
- Lubrication of Tool & Bushing
- Instructions for changing the tool
- Inspection & Maintenance
- Troubleshooting
- Lifting, transporting & storage

Repair Manual 572591

The Repair Manual provides information for the safe and proper repair of the AR-Series Breaker. Contents of the Repair Manual include:

- Disassembly & Reassembly
- Tightening Torque of Threaded Fasteners
- Inspection of wear parts
- Accumulator charging instructions
- Bushing Replacement

2.0 EQUIPMENT IDENTIFICATION

2.1 Serial Number Location

Refer to Figure 2-2. The Serial Number assigned to this equipment can be found in the following locations:

1. Stamped on the Equipment Identification Tag
2. Stamped on the Valve Housing

2.2 Equipment Identification Tag

The Equipment Identification Tag is affixed to the housing plates. It provides the following information:

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

Figure 2-1
Equipment Identification Tag

Verify that the information contained on the Tag corresponds with the information provided in Section 1 of this manual.

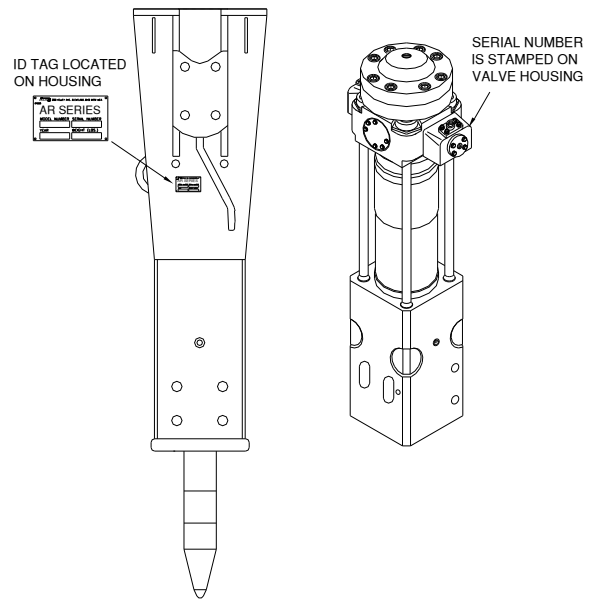


Figure 2-2
Equipment Identification 1) Equipment ID Tag,
2) Serial number located on valve housing

2.3 Record Equipment ID Information for Future Reference

- Copy the Model and Serial Number from the Equipment Identification Tag to the space provided below.
- Record the date in which the Allied equipment was placed into service.

Model: _____

Serial Number: _____

In service date: _____

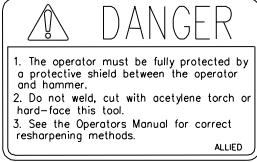



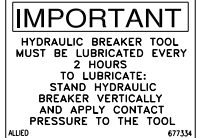

- Your local Allied dealer requires this information to better assist you with questions regarding parts, warranty, operation, maintenance, or repair.
- Register this equipment by returning the completed warranty registration form to Allied.

3.0 SAFETY and IDENTIFICATION LABELS

3.1 Label Description and Location

This section reviews the description of the safety and identification labels required for this equipment. Refer to Table 3.1 for part number identification.

Keep all safety labels clean. Words and illustrations must be readable. Before operating this equipment, replace damaged or missing labels.

Figure	Label	Description
3-1		<p>TOOL SHARPENING – Decal warns against welding, cutting, or hard-facing the tool. It directs personnel to the Operation and Maintenance Manual for approved sharpening methods.</p>
3-2		<p>FLYING PROJECTILES – Decal indicates the need for a protective shield to protect the operator from projectiles thrown from the breaker. It directs personnel to the Operation and Maintenance Manual for safety instruction details. NOTE: Place the smaller size decal in a conspicuous location inside the operator's cab.</p>
3-3		<p>STAY CLEAR – Decal alerts personnel and bystanders to maintain a safe distance from the Breaker during operation.</p>
3-4		<p>MAXIMUM PRESSURE – Decal indicates the maximum operating pressure.</p>
3-5		<p>LUBRICATION – Decal identifies the lubrication point, frequency and importance of proper positioning with contact pressure applied to tool before lubricating.</p>
3-6		<p>LIFT POINT – Decal identifies approved lift points.</p>

3.0 SAFETY and IDENTIFICATION LABELS (Cont'd)





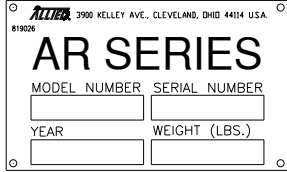
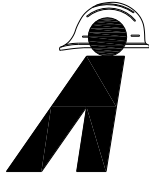
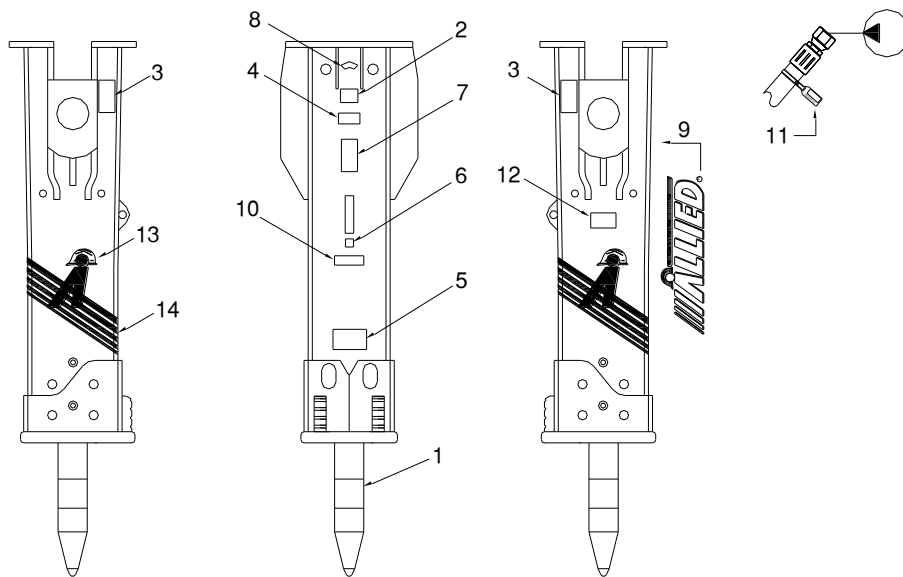
Figure	Label	Description
3-7		<p>READ INSTRUCTIONS - Decal indicates importance of reading the manual for further information and detailed instructions.</p>
3-8		<p>PRESSURIZED NITROGEN ACCUMULATOR – Decal warns of pressurized gas. Directs personnel to the Operation and Maintenance Manual for service instructions.</p>
3-9		<p>ALLIED LOGO – This decal is the Allied brand identifier and is a registered trademark of Allied Construction Products, LLC.</p>
3-10	<p style="text-align: center;">AR170C</p>	<p>MODEL – Decal identifies the specific model.</p>
3-11		<p>OIL SUPPLY LINE "PRESSURE" I.D. TAG – A red colored cable tie marked "PRESSURE LINE" is attached to the supply hose for ease of identification between hoses.</p>
3-12		<p>ID TAG - Contains identifying information about the equipment, including: Manufacturer's name, address, product name, model number, serial number, year of manufacture, and weight.</p>
3-13		<p>ALLIED LOGO – This decal is the Allied brand identifier and is a registered trademark of Allied Construction Products, LLC.</p>

Table 3.1 Decal Set

Item	Part No.	Description	Qty	Remarks / Specifications	
---	573136	Decal Set	1 (SET)	SET includes 1-11, 13,14	
1	657838	Decal – Tool Sharpening	1	Place in conspicuous location inside cab	
2	657840	Decal – Danger (Large)	1		
---	657839	Decal – Danger (Small)	1		
3	657841	Decal – Stay Clear	2		
4	659140	Decal – Max Operating Pressure	1		
5	677334	Decal – Lube w/ Tool In	1		
6	676982	Decal – Lift Point	1		
7	676984	Decal – Read Instructions	1		
8	102756	Decal – Warning Pressurized Accumulator	1		
9	676656	Decal – Allied	1		
10	573137	Decal – Model AR170C	1		
11	818676	Pressure ID Tag	1		Attach to pressure line
12	819026	Equipment ID Plate	1		This item is not included in SET
13	676649	Decal – Allied “A”	2		
14	TBD	Decal – Stripes	2		



**Fig. 3-14
Decal Locations**

4.0 PARTS INFORMATION

4.1 HOUSING COMPONENTS

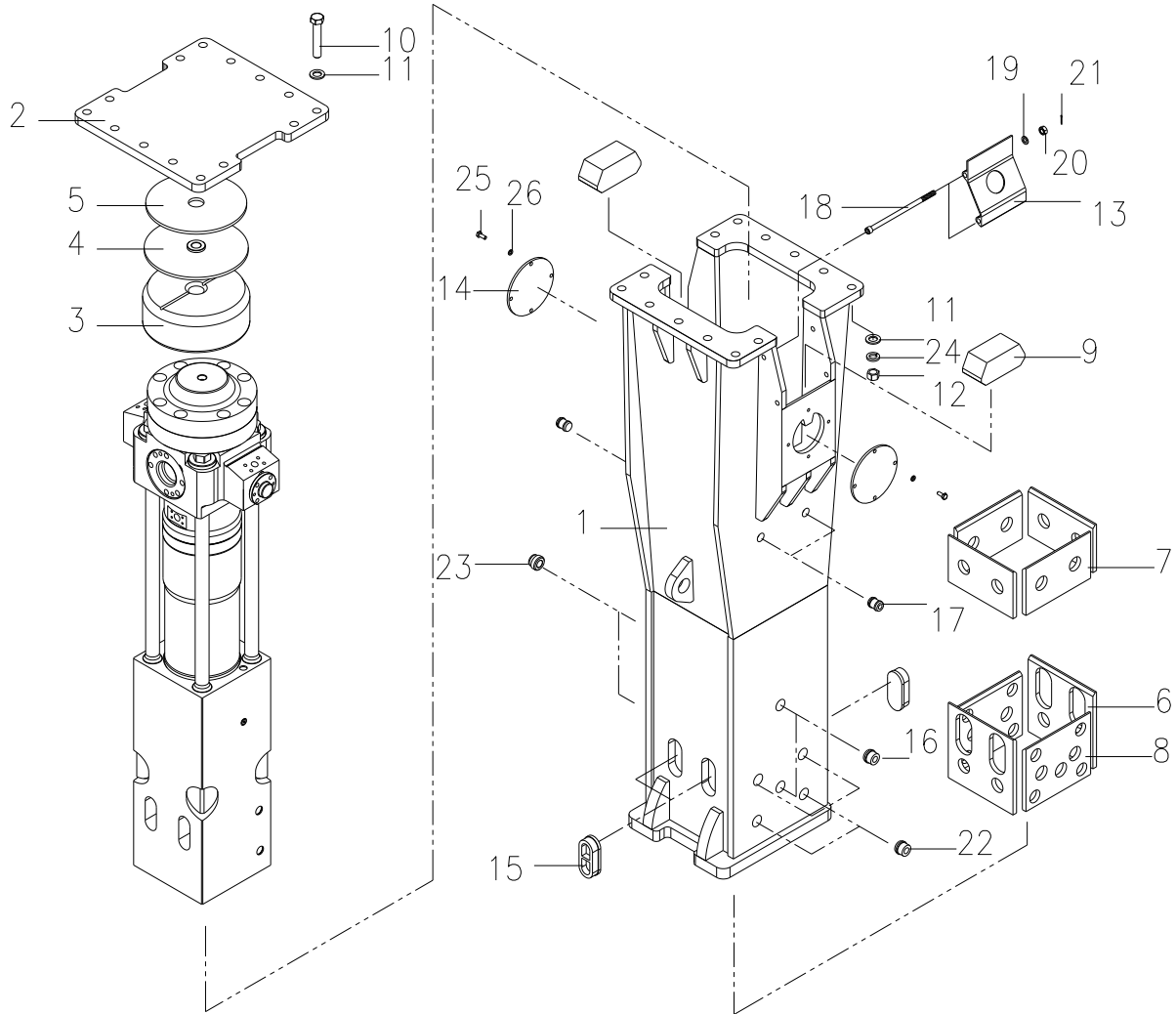


Fig. 4-1

Table 4.1 Housing Components (*Standard Configuration)

Item	Part No.	Description	Qty	Remarks / Specifications
1	573154	Housing Assembly	1	
2	570112	Top Cover Plate	1	
3	571509	Top Buffer	1	
4	571510	Top Buffer Plate Assembly	1	
5	571511	Wear Plate	1	Top
6	573156	Wear Plate	2	Front-Lower
7	573157	Wear Plate	4	Upper
8	573158	Wear Plate	2	Side-Lower
9	571515	Side Buffer	2	
10	573167	Bolt	14	
11	573029	Flat Washer	28	
12	90519	Nut	14	
13	571518	Port Cover	2	
14a	573166	Protective Plate	2	
14b	571519	Rubber Plug	2	Used on early housings
15	573159	Rubber Plug	4	
16	570997	Rubber Plug	2	
17	573150	Rubber Plug	4	
18	573163	Port Cover Bolt	4	
19	678476	Spring Washer	4	
20	607264	Nut	4	
21	571008	Cotter Pin	4	
22	571522	Rubber Plug	8	
23	572389	Wear Pin	2	
24	573028	Lock Washer	14	
25	798062	Bolt	8	For use with 14a. Not required for 14b
26	678458	Lock Washer	8	For use with 14a. Not required for 14b

4.2 VALVE ASSEMBLY

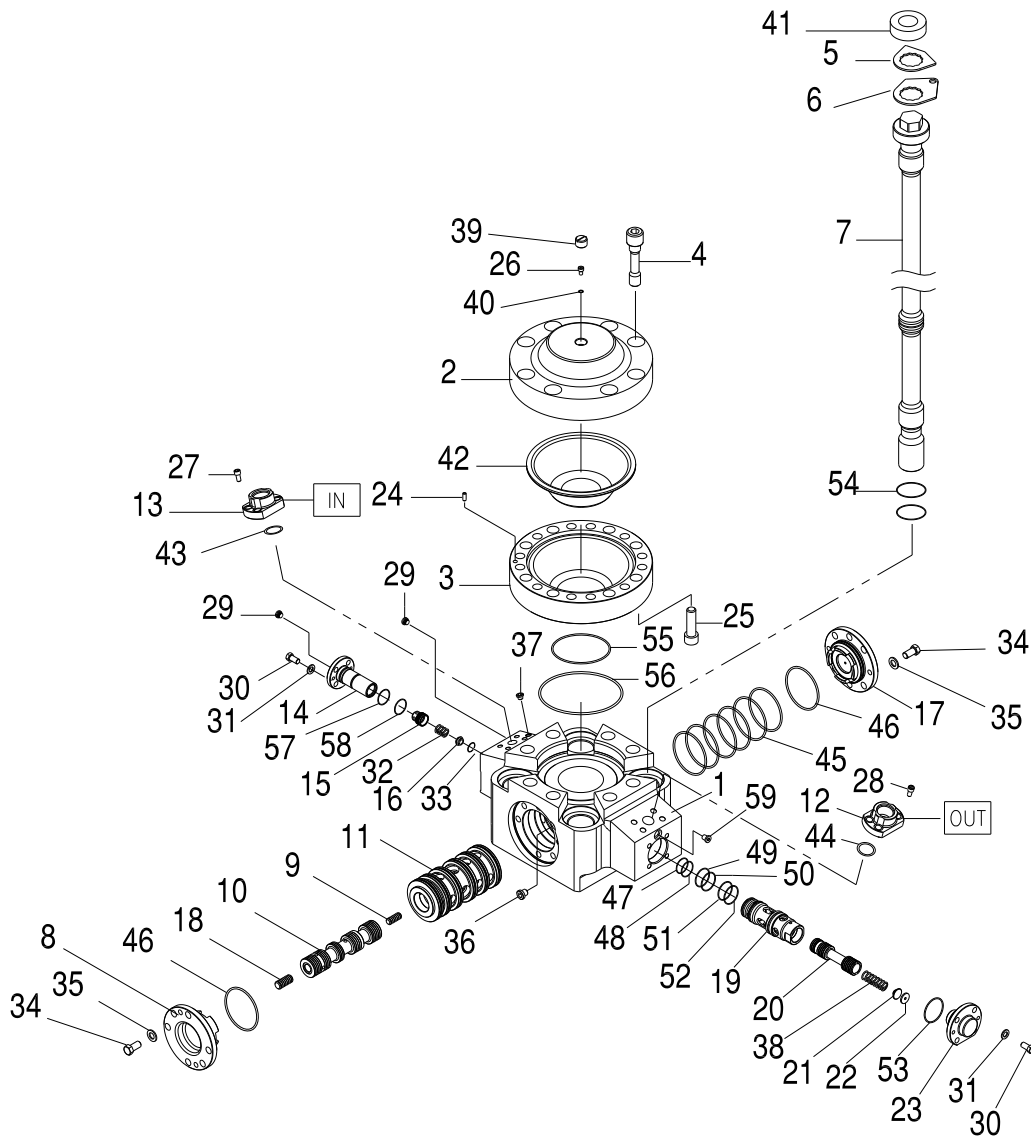


Fig. 4-2

Table 4.2 Valve Assembly

Item	Part No.	Description	Qty	Remarks / Specifications
1	573124	Valve Housing	1	
2	573125	Accumulator Cover	1	
3	573126	Accumulator Bottom	1	
4	572972	Accumulator Cover Bolt	8	
5	572973	Lock Plate	3	
6	573132	Lock Plate	1	
7	573133	Side Rod	4	
8	571529	Control Valve Cover	1	
9	571531	Spool, Rear	1	
10	571532	Main Spool	1	
11	571533	Sleeve	1	
12	572704	Flange #20	1	
13	572705	Flange #16	1	
14	571534	Check Valve Housing	1	
15	571535	Check Valve Spool	1	
16	571536	Check Valve Spring Guide	1	
17	571530	Control Valve Cover	1	
18	571537	Spool, Front	1	
19	571538	Regulator Guide	1	
20	571539	Regulator Spool	1	
21	571540	Regulator Spring Guide	1	
22	571670	Regulator Shim Plate	1	
23	571671	Regulator Cover	1	
24	676183	Accumulator Guide Pin	1	
25	572982	Accumulator Bottom Bolt	12	
26	676161	Accumulator Gas Bolt	1	
27	90564	Flange Bolt	4	
28	103002	Flange Bolt	4	
29	676159	Hex Socket Plug	2	
30	900017	Regulator Cover Bolt	8	

4.2 VALVE ASSEMBLY (cont'd)

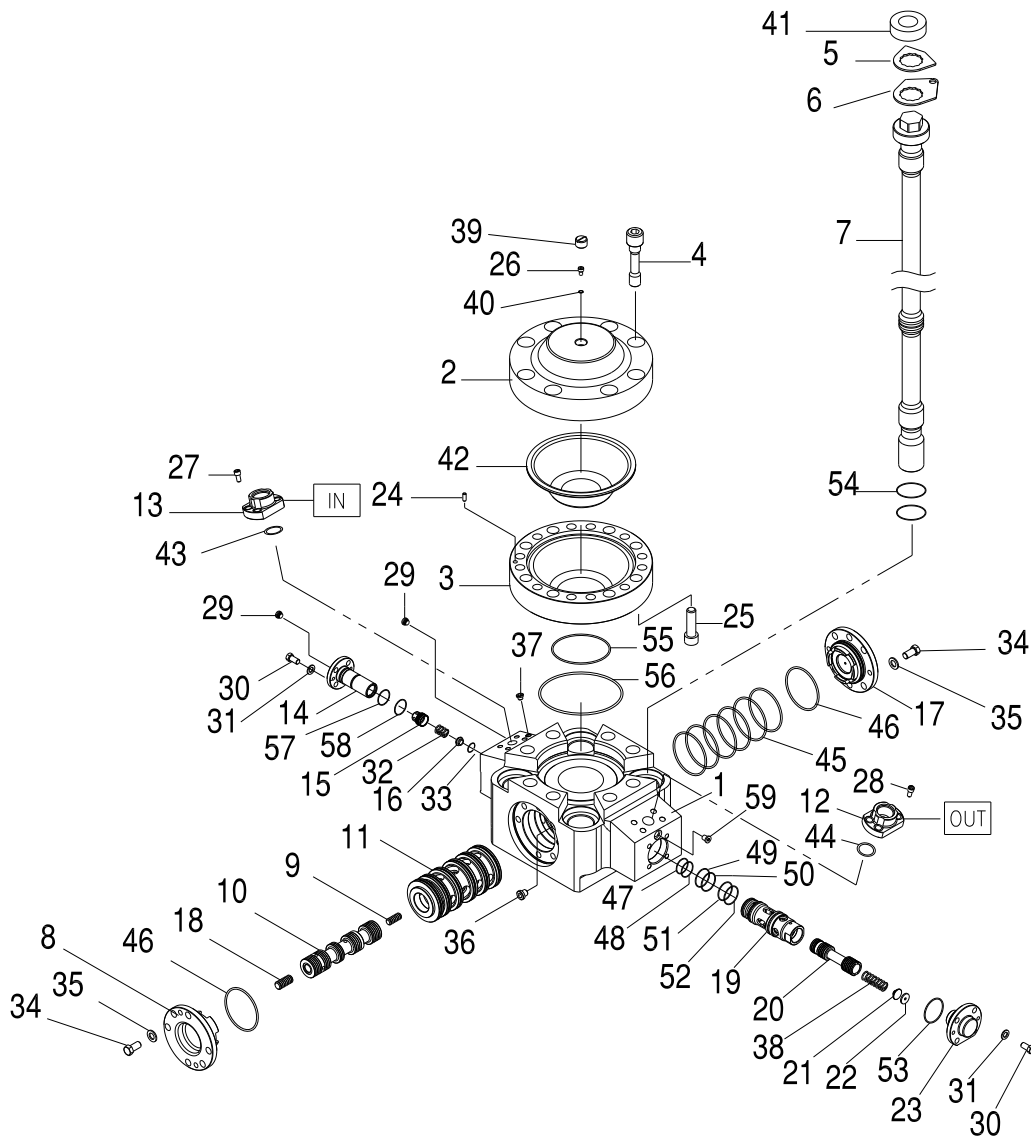


Fig. 4-2

Table 4.2 Valve Assembly

Item	Part No.	Description	Qty	Remarks / Specifications
31	571055	Disc Lock Washer	8	
32	571672	Check Valve Spring	1	
33	571673	Lock Ring	1	
34	90518	Sleeve Cover Bolt	12	
35	571674	Disc Lock Washer	12	
36	571708	Hex Socket Plug	1	
37	102241	Hex Socket Plug	1	
38	571675	Regulator Spring	1	
39	102262	Accumulator Cap	1	
40*	676201	Usit-Ring	1	
41	572983	Rubber Ring	4	
42**	573141	Membrane	1	
43*	677977	O-Ring	1	
44*	659275	O-Ring	1	
45*	571693	O-Ring	6	
46*	571696	O-Ring	2	
47*	101788	Back-up Ring	1	
48*	100109	O-Ring	1	
49*	676203	O-Ring	1	
50*	676205	Back-up Ring	1	
51*	100107	O-Ring	1	
52*	571705	Back-up Ring	1	
53*	676248	O-Ring	1	
54*	573020	O-Ring	8	
55*	571699	O-Ring	1	
56*	571706	Back-up Ring	1	
57*	571700	O-Ring	1	
58*	572734	O-Ring	1	
59	676158	Hex Socket Plug	1	

4.3 CYLINDER AND FRONT HEAD

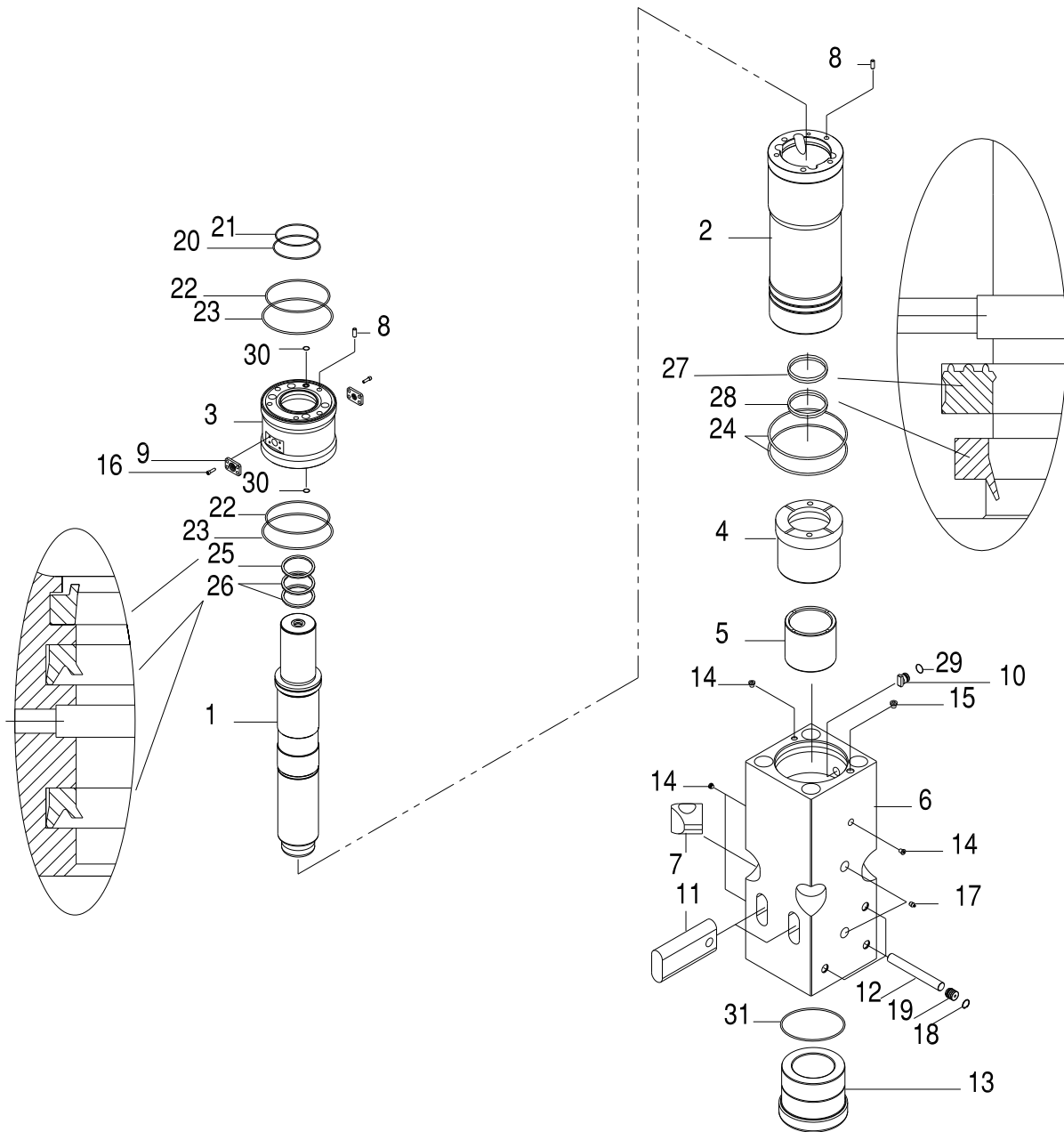


Fig. 4-3

Table 4.3 Cylinder and Front Head

Item	Part No.	Description	Qty	Remarks / Specifications
1	573128	Piston	1	
2	573135	Cylinder	1	
3	573127	Seal Housing	1	
4	573129	Thrust Ring	1	
5	573130	Upper Bushing	1	
6	573131	Front Head	1	
7	573134	Side Rod Nut	4	
8	102545	Valve Housing Guide Pin	2	
9	102549	Air Breather Cover	2	
10	A102558	Wedge	1	
11	573138	Tool Retainer Bar	2	
12	573139	Bushing Pin	3	
13	573140	Lower Bushing	1	
14	676159	Hex Socket Plug	4	
15	102241	Hex Socket Plug	1	
16	965306	Air Breather Cover Bolt	8	
17	816675	Grease Nipple	2	
18	572997	Snap Ring	3	
19	573021	Rubber Plug	3	
20	572360	O-Ring	1	
21	573142	Back-up Ring	1	
22	573143	O-Ring	2	
23	573144	Back-up Ring	2	
24	573145	O-Ring	2	
25	573146	Wiper	1	
26	573147	Seal	2	
27	573148	Seal	1	
28	571695	Wiper	1	
29	676200	O-Ring	1	
30*	571004	O-Ring	2	
31*	572388	O-Ring	1	

4.4 SEAL KIT

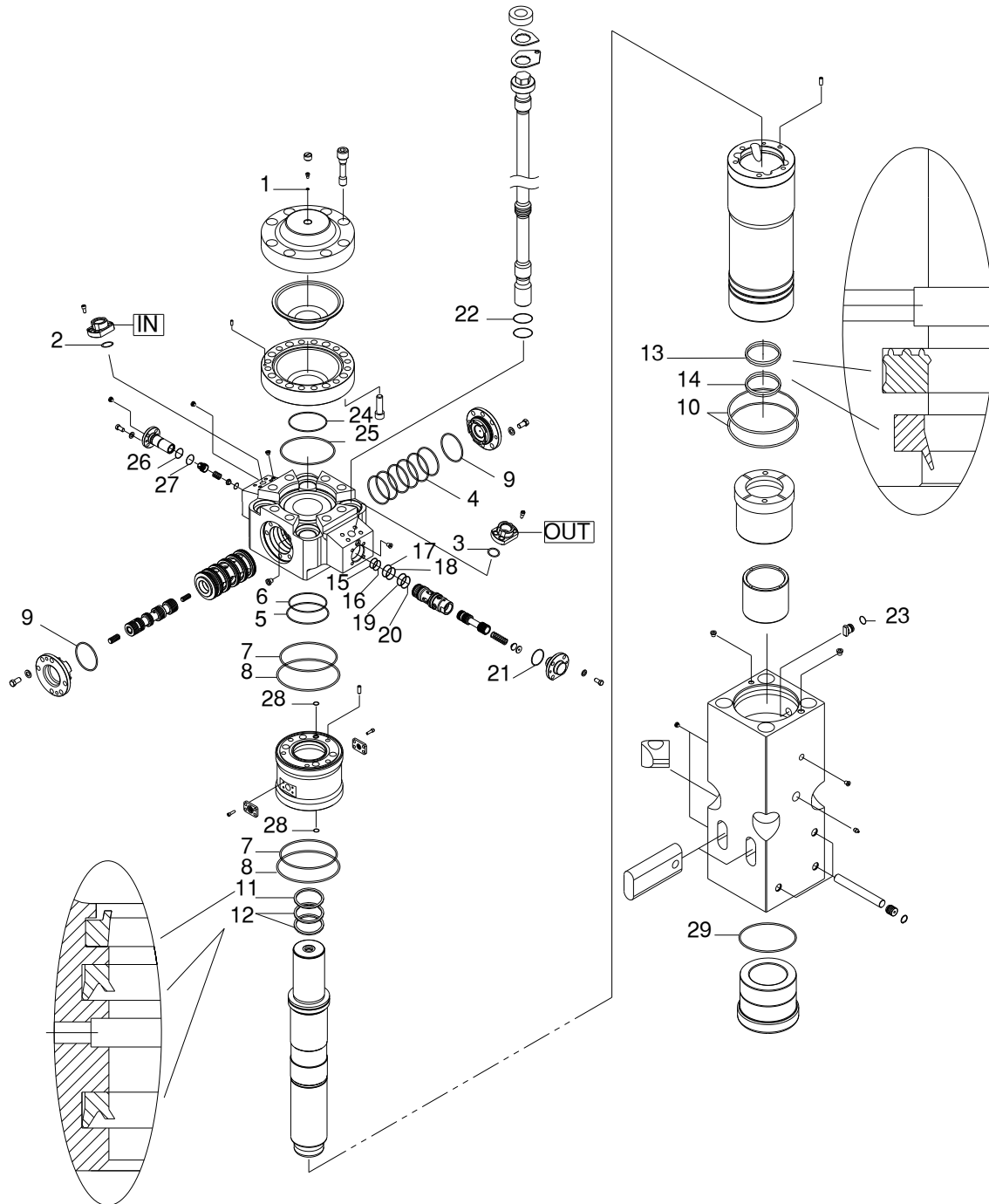


Fig. 4-4

Table 4.4 SEAL KIT

Item	Part No.	Description	Qty	Remarks / Specifications
---	573120	SEAL KIT	---	573120 INCLUDES THE FOLLOWING ITEMS
1	676201	Usit-Ring	1	
2	677977	O-Ring	1	
3	659275	O-Ring	1	
4	571693	O-Ring	6	
5	572360	O-Ring	1	
6	573142	Back-up Ring	1	
7	573143	O-Ring	2	
8	573144	Back-up Ring	2	
9	571696	O-Ring	2	
10	573145	O-Ring	2	
11	573146	Wiper	1	
12	573147	U-Cup Seal	2	
13	573148	Seal	1	
14	573149	Wiper	1	
15	101788	Back-up Ring	1	
16	100109	O-Ring	1	
17	676203	O-Ring	1	
18	676205	Back-up Ring	1	
19	100107	O-Ring	1	
20	571705	Back-up Ring	1	
21	676248	O-Ring	1	
22	573020	O-Ring	8	
23	676200	O-Ring	1	
24	571699	O-Ring	1	
25	571706	Back-up Ring	1	
26	571700	O-Ring	1	
27	572374	O-Ring	1	
28	571004	O-Ring	2	
29	571695	O-Ring	1	
---	676927	Thread Lubricant 2 oz	1	Thread Lube is provided for SIDE RODS. DO NOT apply Thread Lube to seals!

4.5 TUNE-UP KIT

Tune-up kits restore performance and maintain the reliability of the breaker by replacing common wear items.

The Tune-up kit includes a full set of o-rings and seals, accumulator diaphragm, lower tool bushing and tool retaining pin.

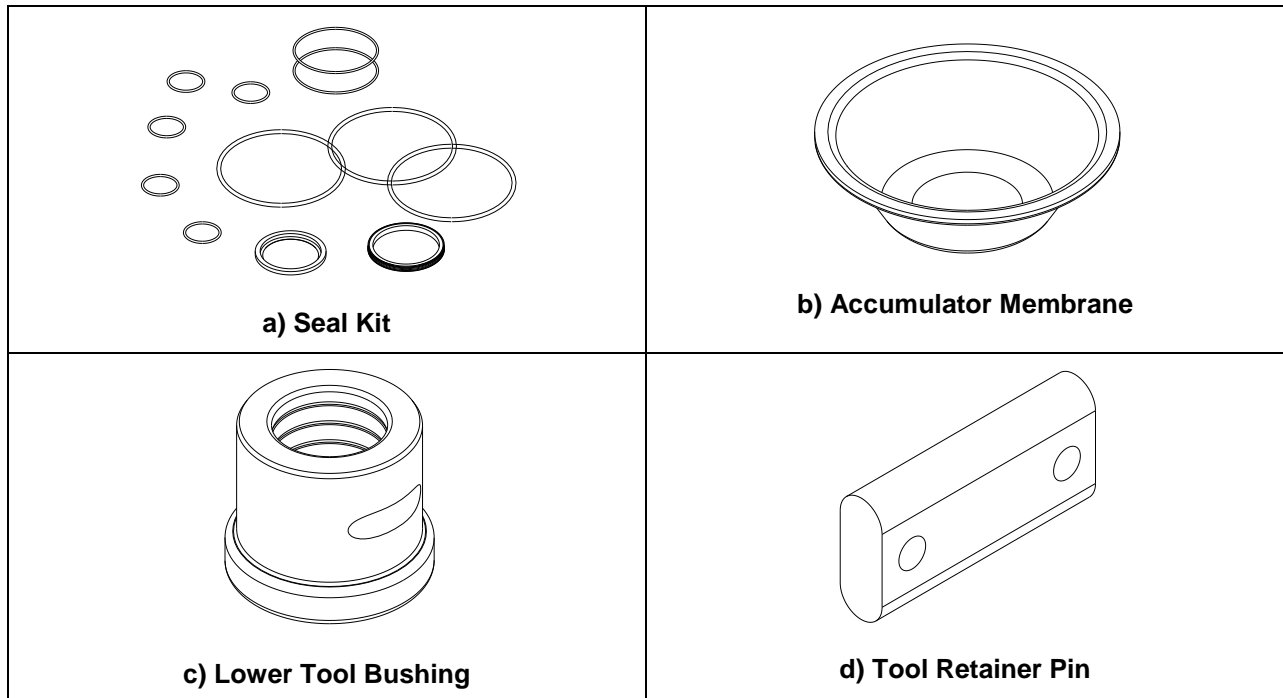


Fig. 4-5

Table 4.5 TUNE-UP KIT

Item	Part No.	Description	Qty	Remarks / Specifications
---	573122	TUNE-UP KIT	1	573122 INCLUDES ITEMS a,b,c,d
a	575134	Seal Kit	1	
b	573141	Accumulator Membrane	1	
c	573140	Lower Tool Bushing	1	
d	573138	Tool Pin	2	

4.6 HYDRAULIC CONNECTIONS

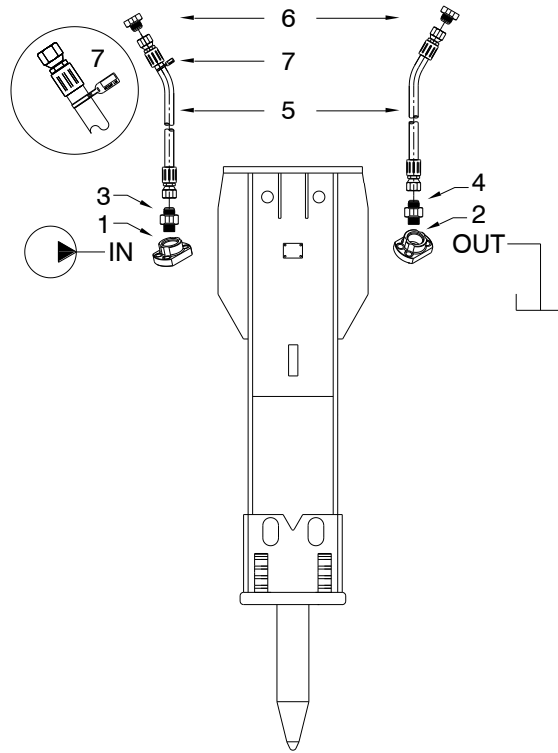


Fig. 4-5

Table 4.6 Hydraulic Connections (*Standard Configuration)

Item	Part No.	Description	Qty	Remarks / Specifications
1	572705	Flange Adapter	1	1"
2	572704	Flange Adapter	1	1 1/4"
3	719320	Adapter	1	
4	719151	Adapter	1	
5	678011	Hose	2	1 1/4 x 102"
6	815152	Plug	2	
7	818676	Pressure ID Tag	1	Attach to Pressure Line

5.0 BREAKER TOOLS

5.1 Standard Tools

The three most commonly used tool points for concrete and rock demolition are the Chisel, Conical and Blunt.

A. Chisel (Wedge – Cross Cut or In-Line)

– Suitable applications include soft rock and general demolition of concrete. The tool penetrates into the material, forcing it to separate. Useful when cutting action is required, e.g. benching and trenching.

B. Conical Point - Same applications as the chisel. The conical tool also penetrates, but unlike the chisel, the rounded shape resists twisting that can cause burring in the tool's retainer pin area.

C. Blunt Tool – Designed for impact breaking. The blunt tool is effective in secondary breaking of oversize rock or boulder reduction.

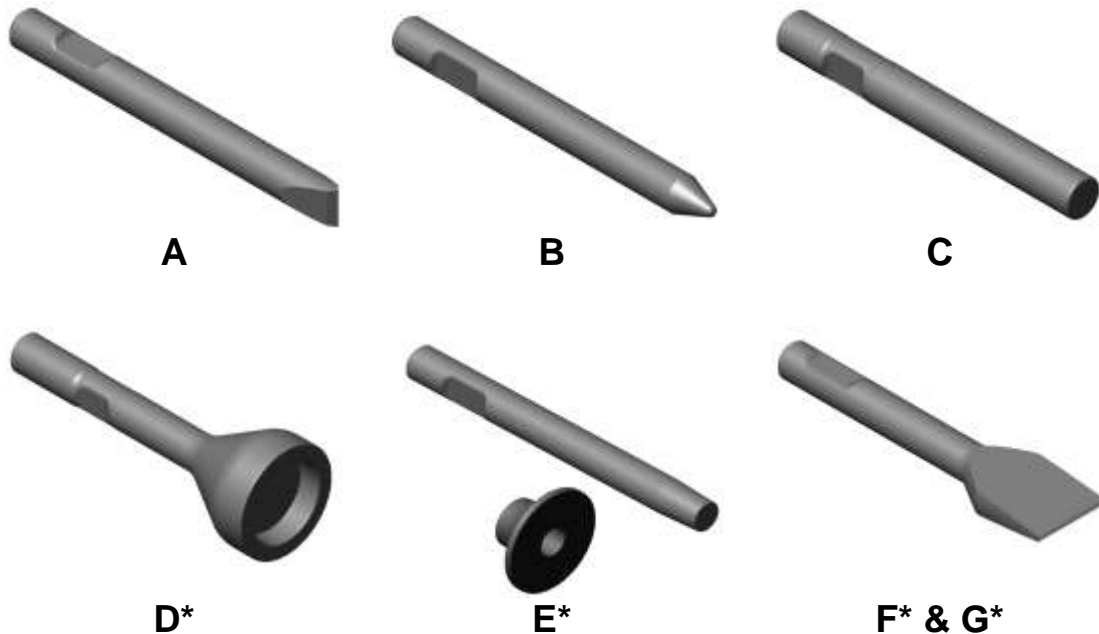


Fig. 5-1 Standard and Specialty Tools

5.2 Specialty Tools*

Specialty tools have a specific purpose or function designed into each tool. These tools can extend the versatility of a hammer, thus increasing productivity and eliminating the need for additional equipment. *Not available for all models.

D. Post Driver – For driving posts, pipes, etc.

E. Tamper – Designed to compact loose material.

F. Frost Cutter – For cutting into frozen ground.

G. Asphalt Cutter – Designed to cut seams in asphalt for removal. Useful when removing asphalt to dig a trench. Available in Cross-Cut and In-Line configurations.

Table 5.1 Standard & Specialty Tools

Tool Diameter = 6.69 in [170mm]

Item	Description	Part No.	Length	Weight
34-B	Conical Point	573057	31 in. (794mm)	495lbs. (225 kg.)
35-A ¹	Chisel Cross Cut	573055	31 in. (794mm)	495lbs. (225 kg.)
---	Chisel In-Line	--- ²	---	---
36-C	Blunt End		25 in. (644mm)	405 lbs. (205 kg.)
---	Moil (Not Pictured)	--- ²	---	---

¹⁾ Standard tool supplied with Breaker

²⁾ For availability of tool types not listed, contact Allied

5.3 Allied Chisel Paste

A key element in improving the wear resistance of the bushing and tool is through the regular use of a high-quality lubricant. Allied Chisel Paste performs exceptionally well in this application because it's a "specialty" lubricant, formulated for use in heavy loaded reciprocating motion and high heat applications. Allied Chisel Paste is a unique blend of liquid and solid lubricants.

Solid lubricants, which include particles of molybdenum, copper and graphite, form a highly effective structure that resists being squeezed out during periods of heavy loading.

"General Purpose" grease typically contains little or no solid lubricants. That means once the liquid lubricant is squeezed out, there is a loss of lubrication between the bushing and tool. The result is metal-to-metal contact, which quickly leads to friction related wear and damage.

Packaging & Ordering Information

Table 5.2 Chisel Paste

Part No.	Packaging
574430	Case of 10 cartridges*
574431	Case of 30 cartridges*
676698	Bucket, 5 gallons
679968	Keg, 120# (15 gallons)

* 14 oz. cartridge fits standard grease gun

6.0 N2 GAS CHARGE KIT

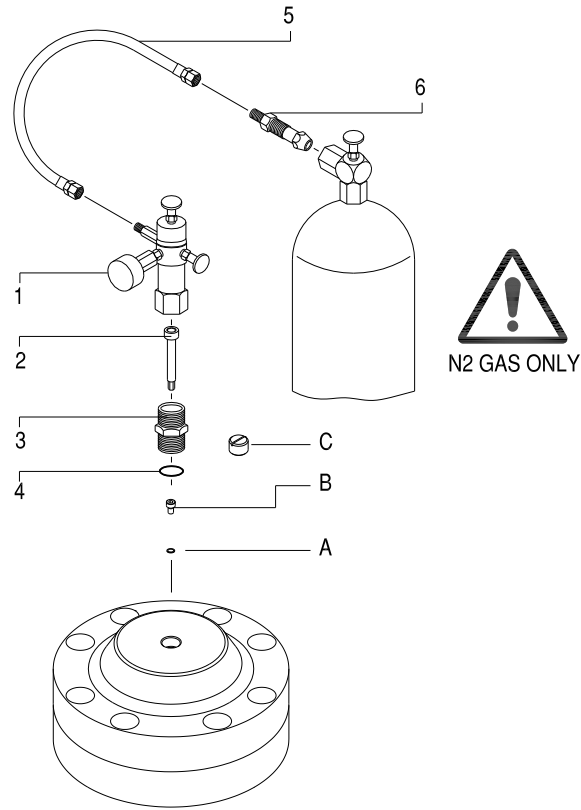


Fig. 6-1

Table 6.1 N2 GAS CHARGE KIT

Item	Part No.	Description	Qty	Remarks / Specifications
---	N/A	NITROGEN GAS BOTTLE	1	NOT SUPPLIED (SOURCE LOCALLY)
---	570071	N2 Gas Charge Kit	1 (Kit)	Kit includes 1,2,3,4,5,6
1	100527	Charge Valve with Gauge	1	Includes 2-6 and storage case
2	40601	Socket Bolt	1	
3	R101635	Adaptor	1	
4	901135	O-ring	1	
5	5 & 6 Not Sold Separately	Hose	1	8 Ft. [2.5 M]
6		Gas Bottle Adapter	1	
A,B,C	---	U-sit ring, Bolt, Cap	---	A,B,C shown for reference only. These items are not included in charge kit



Read, understand and follow all instructions given in Repair Manual 572591 for the safe and proper use of this tool.

7.0 MOUNTING INFORMATION

7.1 Mounting Brackets

A mounting bracket is required to attach the Allied Breaker to a carrier. Allied offers an array of mounting brackets to fit virtually any carrier, including those equipped with quick mounting couplers.

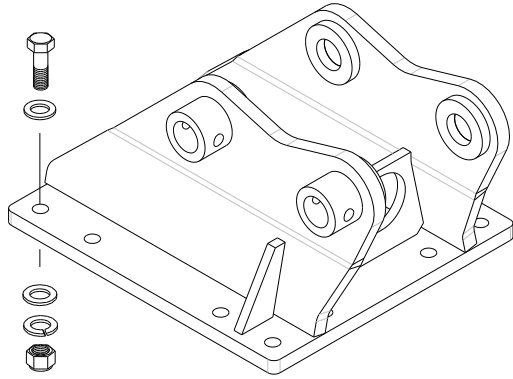


Fig. 7-1
Typical Mounting Bracket & Hardware

Refer to Figure 7-2. Located at the top of the housing is the connection plate for the mounting bracket. The thickness of the connection plate as well as other dimensions, including the quantity, diameter and spacing of the bolt holes will vary between breaker models.

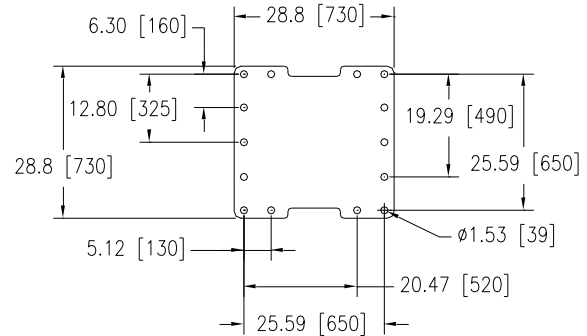


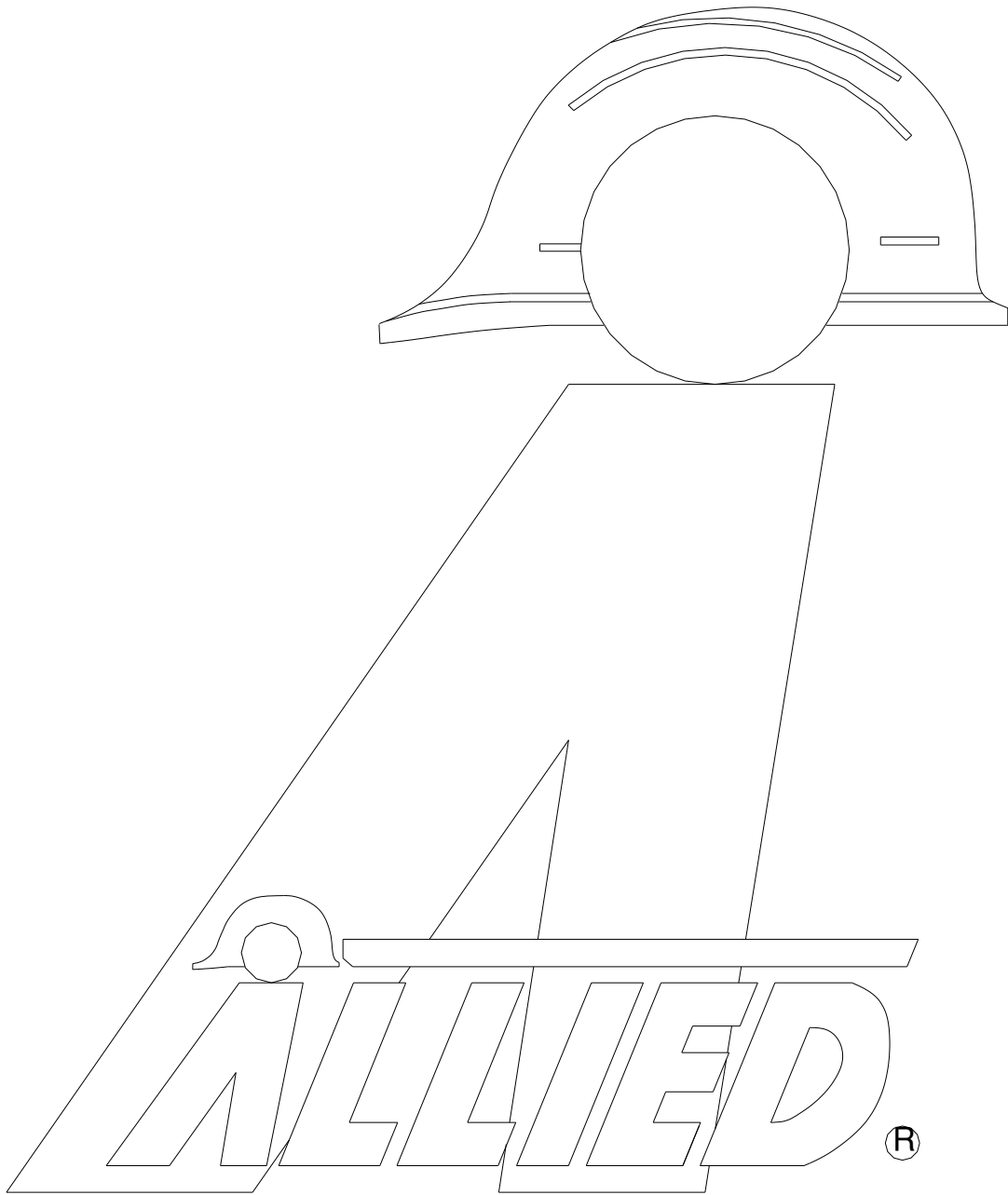
Fig. 7-2
Connection Plate on Bracket

Refer to Table 7.1. “Family” identifies the connection plate used by the Allied mounting bracket. These same families are utilized to mount other Allied attachments, including the Ho-Pac®.

Table 7.1 Mounting Family & Hardware

Model	Family	Bolt	FL Washer	LK Washer	Nut
AR70C, A75B	BR	90566 (12)	--- (0)	90597 (24)	91000 (12)
AR85B, AR95B	SR	572352 (10)	679422 (20)	571027 (10)	572353 (10)
AR110B, AR120B	MR	101765 (14)	901291 (28)	658529 (14)	90507 (14)
AR130B, AR140B	LR8	101765 (14)	901291 (28)	658529 (14)	90507 (14)
AR160C, AR170C, AR175	LR9	573167 (14)	573029 (28)	573028 (14)	90519 (14)
AR180C	LR10	570030 (14)	573029 (28)	573028 (14)	90519 (14)

See Operation & Maintenance Manual for Tightening Torque



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