# **AR Series**



# **Parts Manual**

Keep this manual in a convenient location so that it is easily accessible for future reference. Contact your Allied Dealer or the Allied Customer Service Department for replacement manuals. Inquiries regarding the content of this manual must include effective date shown on inside cover.



PM571827



#### **Contact Information**

3900 Kelley Ave Cleveland, Ohio 44114

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

www.alliedcp.com E-mail: sales@alliedcp.com

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Revision History of PM571827							
<b>Effective</b>	<u>Page</u>	Summary of Change					
2014, Mar	4,6,8	Revise Table 3.1 & 3.2. Revise Table 4.1 Items 211,232.					
2012, Nov	20,22	Add Parts Information for Model 110C. Seal set 571822 replaced by 576358.					
2011, Nov 22	25	Revise Fig 8-2 add note refer to O&M Manual for bolt hole dimensions					
2011, Nov 14	8,10,24	Table 4.1 revise 214, 215, 216 - Longer bolt, flat washer, double nut. Correct Table 4.2 Corrections to item 82 (was 571808), 97 (was 101839), correct 98 (was 101840). Add note: "Use of guide ring is discontinued". Revise Table 7.1 Hydraulic Connections - Removed items marked "Discontinued. Used w/ early SN's only." Removed BSPT threaded connecters. 571829, 67327, 659530, 656851, 667566, 814125, 719158.					
2008, Jun	10	Part number 571799 replaced by 573625					
	12, 14	571812 - Revise the following: Quantity from 2 to 1, Part description to include "Set"					
2008, Apr	10, 14	Part number 571818 replaced by 101840					
2008, Feb	4	Revise hydraulic adapter configuration					
2007, Oct	4 & 8	Revise adapter & flange port part numbers					
2007, Aug	5 & 6	Revise housing assembly					
2007, Aug		Revise Tune-Up Kit					
2006, Sep	5,6,11-14	Add housing plugs, lower bushing & o-ring					
2006, Jun	4	Add adapter & revise hose.					
2005, Nov		Original Issue of 571827					

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## 1.0 Introduction and Scope

#### 1.1 Purpose and Scope of This Manual

The material in this manual has been prepared in support of the product named in Table 1.1. It's intended solely for use with the product identified in Table 1.1 and may not be suitable for other models.

Materials presented in this manual, including figures, captions, descriptions and parts tables may show equipment that is optional. Figures depict views that are intended for parts identification and not for purposes of repair or service of the product. Parts Manuals do not include safety precautions or procedures for operation.

How to use this Manual:

- Assembly components are identified with the aid of figures, figure captions, item key, part name and quantity. When necessary, remarks and specifications further enhance part description.
- To assist you, a parts order form is provided at the back of this manual

Prior to ordering parts, confirm that the information recorded on the equipment's identification label corresponds with Table 1.1. For the location of this label, refer to Section 2.0 of this manual.

**Table 1.1 About This Manual** 

Document ID.	PM571827

Category Spare Parts

Current Status See Inside Cover

Product Name: Hydraulic Mounted Breaker

Series AR

Applicable Model[s]: AR110B, AR110C

Years of Manufacture: AR110B 2005-2012
AR110C 2013-current

he publication identified in Table 1.1 was created solely for information purposes and should not be considered all-inclusive. If further information is required, contact your local Allied dealer or the Allied Customer Service Department.

The content of this document has been reviewed for accuracy. Allied Construction Products, LLC has endeavored to deliver the highest degree of accuracy and has made every effort to provide information as complete as possible. However, continuous

improvement of our products is an Allied policy. The material in this publication, including figures, captions, descriptions, remarks and specifications, describe the product at the time of its printing, and may not reflect the product in the future. A summary of changes made to the content of this document can be found on the inside cover of this manual.

#### 1.2 How To Order Replacement Publications

This manual is an integral part of this product. Keep it in a convenient location so that it is easily accessible for future reference. If replacement manuals are required, they may be ordered by contacting your Allied dealer service center. Manuals may also be viewed and downloaded at: www.alliedcp.com

#### 1.3 Related Publications

Allied Construction Products, LLC offers the following publications for the product identified in Table 1.1.

# 1.3.1 Safety, Operation & Maintenance Manual 102706

Applicable Models: Medium & Large AR-Series

The <u>Safety, Operation and Maintenance Manual</u> has been prepared to assist the operator and maintenance personnel with the information necessary for the safe and proper use of the Allied work tool.

Content in the Safety, Operation & Maintenance Manual includes:

Safety Information

Equipment Serial Number and Model Identification

Technical Data (Weight & dimensions)

Basic Guidelines for Installation and Set-up

**Pre-Operation Inspection** 

How to Operate the Allied work tool

Maintenance Schedule

N2 Gas Charging Instructions

Tool and Guide Bushing - Lubrication, Inspection,

Wear Limits and Replacement

Troubleshooting

Removal From Carrier, Transporting, Lifting & Storage

#### 1.3.2 Repair Manual 572591

Applicable Models: Medium & Large AR-Series

# 1.0 Introduction and Scope - [cont'd]

The Repair Manual has been prepared to assist the Service Technician with the information necessary for the disassembly & reassembly of the Breaker. Content includes:

Safety Information
Disassembly & Reassembly
Bolt Torque Specifications
Wear Limits of Parts
N2 Gas Charging Instructions
Bushing Replacement

#### 1.3.2 AEM Safety Manual for Hydraulic Breakers

AEM Safety Manual for Hydraulic Breakers
The Association of Equipment Manufacturers offers a
safety manual designed for operators and
maintenance personnel of hydraulic mounted
breakers. The manual is available in Spanish, French
and English. It is published in an illustrated format of
sensible do's and don'ts, featuring typical daily
situations on the job site. Content includes safety tips
concerning the workplace and equipment, start up
and shut down guidelines and special operating and
maintenance precautions.

This publication is available by contacting: Association of Equipment Manufacturers Toll free 1-866-AEM-0442

E-mail: <a href="mailto:aem@aem.org">aem@aem.org</a>
Website: <a href="mailto:www.aem.org">www.aem.org</a>

Ask for FORM CMHB-1004, <u>Hydraulic Mounted</u> Breakers.

This publication is also available through Allied under part number 953076 (English). To order a copy, contact the Allied Customer Service Department.

# 2.0 Equipment Identification

#### 2.1 Serial Number Location

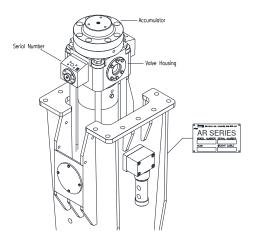


Fig 2-1 Equipment Identification

Refer to Figure 2-1. The Serial Number assigned to this equipment can be found in the following locations:

- 1. Stamped in the Equipment Identification Tag
- Stamped in the valve assembly housing.

## 2.2 Equipment Identification Tag



Fig 2-2 Equipment Identification Tag

The Equipment Identification Tag is affixed to the side of the housing box. It provides the following information:

- Allied logo and street address
- Product name
- Model number
- Serial number
- Year of manufacture
- Weight

Confirm that the information contained on the Tag corresponds with the information provided in Section 1, Table 1.1.

#### 2.3 Owner's Record of the Equipment

Your local Allied dealer requires complete information about the equipment to better assist you with questions regarding parts, warranty, operation, maintenance, or repair.

- Record the equipment's serial number to the space provided below. This information may be obtained from the Equipment Identification Tag. Refer to Fig 2-1 for the location of the tag.
- Indicate the date in which the Allied equipment was placed into service.
- Indicate the date in which the Warranty Registration form was completed and returned to Allied.

Product Name:	Hydraulic Breaker				
Series:	AR				
Model:	AR110B / AR110C				
Part Number:	571730 / 576080				
Serial Number:					
In Service Date:					
Registration Date:					

## 3.0 Safety, Identification and Information Labels

#### 3.1 Label Description and Location On Equipment

Labels affixed to the Allied equipment communicate important information. Safety warnings alert to potential hazards, while other labels provide equipment identification and instructions important to operation and service.

Keep safety labels clean. Words and illustrations must be legible. Replace damaged or missing labels before operating this equipment. Refer to Figure 3-14 for placement of label on the equipment and Table 3.2 for part numbers.

**Table 3.1 Description of Safety and Information Labels** 

#### Fig. Label Description **Read The Manual** - Safety Alert Symbol with pictogram of open book. Gives notice to personnel to refer to the manual(s) for 3-1 information and/or instructions. **Keep Clear** - Pictogram displays arrow distancing worker safely from recognized hazard which is represented by the box. Breakers. 3-2 or any other work tool, pose risk of injury to workers if they are not kept at a safe distance. Never operate the work tool with workers inside the work zone. Flying Debris Hazard – Alerts personnel to the hazard of fragments becoming projectiles. A protective guard to shield the operator must be installed before operation of the breaker. 3-3 Personnel are directed to the Operator's Manual for safety PROJECTILE FROM THE HAMMER, WI ID/OR A SWINGING OR FALLING HAMM FATAL TO THE OPERATOR OR BYSTAN instructions. NOTE: A smaller sized version of this decal is to 3. DO NOT OPERATE HAMMER WHEN BYSTANDERS ARE IN WORK AREA, be displayed in a conspicuous location inside the operator's RYANT: SEE OPERATOR'S MANUAL FOR SAFETY INSTRUCTION DETAILS cab. Personal Protection Equipment / Tool Re-sharpening – Alerts personnel to provide protective shielding between the operator and 3-4 breaker. It also warns against welding, cutting, or hard-facing the nd hammer. Do not weld, cut with acetylene torch ard—face this tool. tool. Personnel are directed to the Operator's Manual for approved i. See the Operators Manual for correct resharpening methods. re-sharpening methods. NARNING Pressurized Nitrogen Accumulator – Alerts personnel to the PRESSURIZED presence of the accumulator, warning of nitrogen gas under 3-5 ACCUMULATOR pressure. Directs personnel to the Operation and Maintenance Manual for safe handling and service instructions. 3-6 **Lift Point** – Pictogram of hook identifies approved lift points.

# 3.0 Safety and Information Labels [cont'd]

Table 3.1 Identification of Safety and Information Labels – cont'd

Fig.	<u>Label</u>	<u>Description</u>
3-7	IMPORTANT  HYDRAULIC BREAKER TOOL MUST BE LUBRICATED EVERY 2 HOURS TO LUBRICATE: STAND HYDRAULIC BREAKER VERTICALLY AND APPLY CONTACT PRESSURE TO THE TOOL ALLED	<b>LUBRICATION</b> – Decal provides re-lubrication frequency. Risk of equipment damage through unapproved methods. Strict attention to all procedures must be followed. Stand breaker upright with contact pressure applied at tool. OK to lube.
3-8		<b>Lubrication Point</b> – Pictogram of instruction manual and grease gun is used to identify lubrication points. Read the manual(s) for application instructions, grease type and relubrication schedule.
3-9		Allied "A" with Background Stripes
3-10	ALLIED	<b>ALLIED Logo</b> - Decal is the Allied brand identifier and is a registered trademark of Allied Construction Products, LLC.
3-11	AR110	<b>Model</b> – Decal identifies the specific model of the Allied equipment.
3-12	PRESSELINE 0	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.
3-13	AR SERIES  MODEL NUMBER SERIAL NUMBER  YEAR  WEIGHT (LBS.)	<b>Equipment ID Tag</b> - Contains identifying information about the Allied equipment, including: Manufacturer's name, address, product name, model number, serial number, year of manufacture, and weight.

# 3.0 Safety and Information Labels [cont'd]

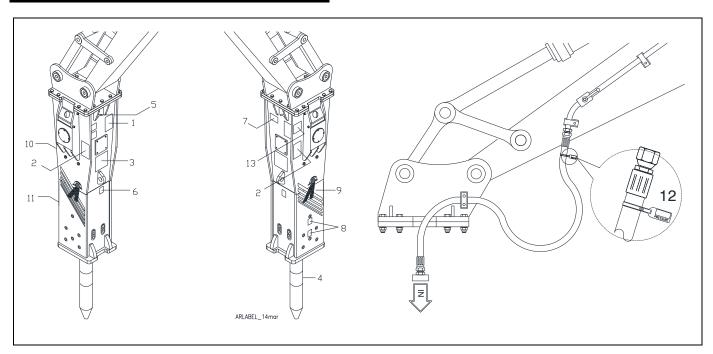


Fig. 3-14 Position of Labels on Equipment

Table 3.2

Pos.	Description	Part No.	Model*	Qty	Remarks/Specifications
	Decal Set – AR110B 57182  Decal Set – AR110C 57617		В	1-Set	Set includes 4.42
			С	1- <b>5e</b> t	Set includes 1-12
1	Read Manual / Instructions	676984		1	
2	Stay Clear	657841		2	
3.1	Thrown Debris – Projectile	657839		1	(Small) Display in conspicuous location inside operator's cab
3.2	Thrown Debris – Projectile	657840		1	(Large)
4	Tool Sharpening	657838		1	
5	Pressurized Accumulator	102756		1	
6	Lift Point	676982		1	
7	Tool Lubrication	677334		1	
8	Lubrication Points	A101725		2	
9	Allied Logo "A" w/Stripes	576281		2	
10	Allied Corporate Logo "A"	576292		1	
11.1	Model – AR110B	571828	В	1	
11.2	Model – AR110C	576176	С	1	
12	Pressure ID Tag	818676		1	Attach to pressure line - IN
13	Equipment ID Tag	819026		1	Item 13 is not included in Set

<sup>\*</sup>Model - Parts are common to both AR110B and AR110C except where noted B or C.

# 4.0 Parts Information

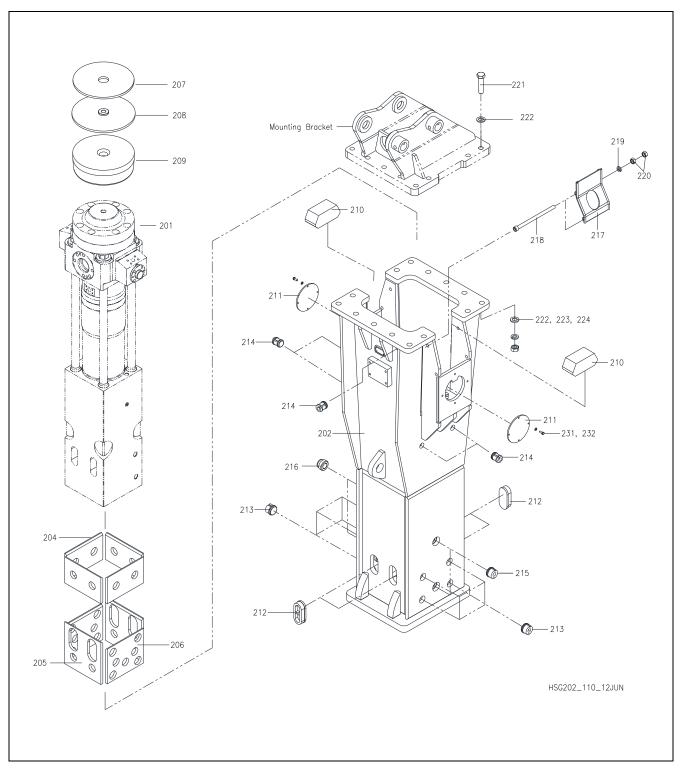


Fig. 4-1 Housing Box & Components

**Table 4.1 Housing & Buffer Components** 

Item	Description	Part N <sup>o</sup> .	Model*	QTY	Remarks/Specifications
	AR110 Breaker	571730	В		Standard Configuration
	AR110 Breaker	576080	С		Standard Configuration
201.1	Breaker Ass'y w/o Housing		В	1	
201.2	Breaker Ass'y w/o Housing		С	1	
202	Housing Box	571732		1	
203	Mounting Bracket	Varies			Order Separately Refer to Section 8
204	Wear Plate,	571737		4	Upper
205	Wear Plate,	571736		2	Front-Lower
206	Wear Plate,	571738		2	Side-Lower
207	Wear Plate,	571735		1	Тор
208	Damper,	571734		1	Top Plate
209	Buffer	571733		1	Тор
210	Buffer	571765		2	Side
211	Cover Plate	B150A240		2	
212	Rubber Plug	571767		4	
213	Rubber Plug	572390		8	
214	Rubber Plug	570998		5	
215	Rubber Plug	575360		2	w/ thru hole (lube)
216	Rubber Plug	B3200050		2	
217	Port Cover	571766		2	
218	Socket Head Bolt	575781		4	
219	Washer	575257		4	
220	Hex Nut	607264		8	
221	Bolt Set				221,222,223,224 Refer to Table 8.1
231	Hex Head Bolt	798062		8	
232	Lock Washer	940237		8	

<sup>\*</sup>Parts are common to both AR110B and AR110C except where denoted B or C.

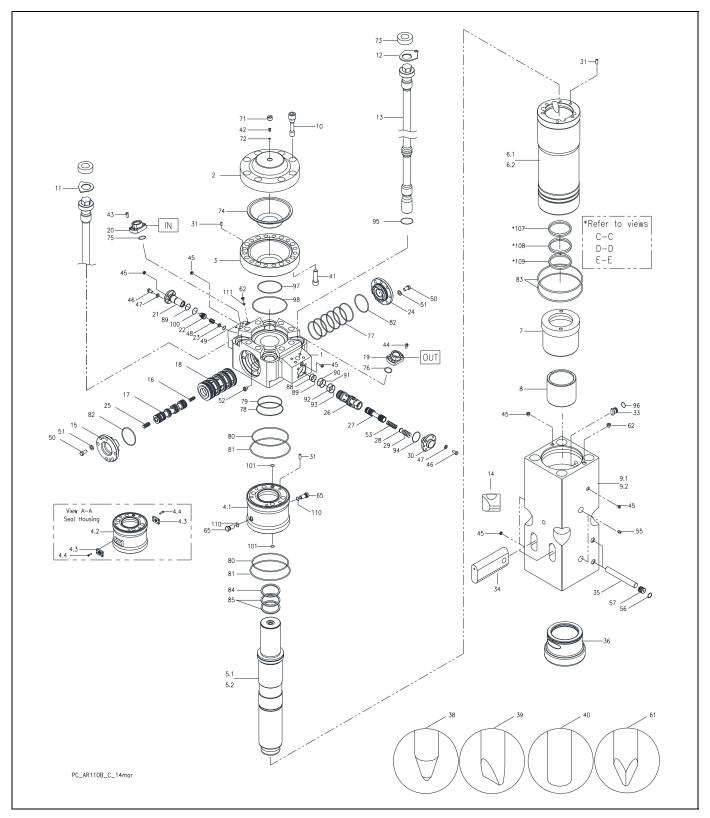


Fig. 4-2 Breaker Assembly

**Table 4.2 Breaker Assembly** 

Item	Description	Part N <sup>o</sup> .	Model*	QTY	Remarks/Specifications
1	Valve Housing	571769		1	
2	Accumulator Cover	571770		1	
3	Accumulator Bottom	571771		1	
4.1	Seal Housing	571772	С	1	Threaded plug type vent
4.2	Seal Housing	571772	В	1	Fig. 6-2 Detail A-A. Plate type vent
4.3	Breather Cover	102549	В	2	
4.4	Socket Head Bolt	940587	В	8	
5.1	Piston	571773	В	1	
5.2	Piston	B1606050	С	1	
6.1	Cylinder	571774	В	1	
6.2	Cylinder	B1606720	С	1	
7	Thrust Ring	571775		1	
8	Upper Bushing	571776		1	
9.1	Front Head	571777	В	1	
9.2	Front Head	B1606740	С	1	
10	Socket Head Bolt	571778		8	
11	Lock Plate	571779		3	
12	Lock Plate w/hole	571780		1	
13	Side Rod	571781		4	
14	Lower Nut, Side Rod	571782		4	
15	Control Valve Cover	571783		1	
16	Spool, Rear	571784		1	
17	Main Spool	571785		1	
18	Sleeve	571786		1	
19	Flange Adapter	572705		1	[OUT] Refer to Table 4.3
20	Flange Adapter	572838		1	[IN] Refer to Table 4.3
21	Check Valve Housing	102108		1	
22	Check Valve Spool	102109		1	
23	Check Valve Guide	102204		1	
24	Control Valve Cover	571787		1	
25	Spool, Front	101863		1	

<sup>\*</sup>Parts are common to both AR110B and AR110C except where denoted B or C.

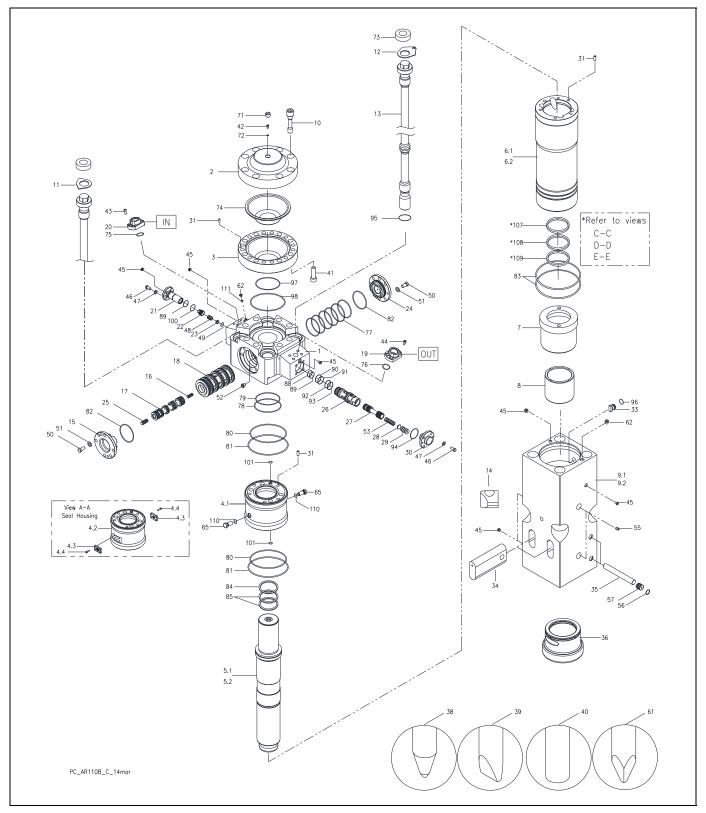


Fig. 4-2 Breaker Assembly

Table 4.2 Breaker Assembly – [cont'd]

<u>Item</u>	<u>Description</u>	<u>Part N<sup>o</sup>.</u>	Model*	QTY	Remarks/Specifications
26	Regulator Guide	571788		1	
27	Regulator Spool	571789		1	
28	Spring Guide	571790		1	
29	Shim	571791		1	1mm
30	Regulator Cover	571792		1	
31	Guide Pin	676183		3	
33	Wedge	A102558		1	
34	Tool Retainer Bar	571793		2	
35	Retainer Pin	571794		2	
36	Lower Bushing	571795		1	
38	Tool Selection	Varies			Items 38,39,40,61 Refer to Section 5
41	Socket Head Bolt	571796		12	M20 x 60
42	Gas Bolt	676161		1	
43	Socket Head Bolt	719733		4	M10 x 40
44	Socket Head Bolt	90564		4	M12 x 40
45	Hex Socket Plug	676159		5	04BSP Steel
46	Hex Head Bolt	900023		8	M12 x 30
47	Disc Spring Washer	571054		8	
48	Check Valve Spring	102212		1	
49	Lock Ring	102217		1	
50	Hex Head Bolt	571797		12	
51	Disc Spring Washer	571798		12	
52	Hex Socket Plug	676158		1	08BSP
53	Regulator Spring	573625		1	
55	Grease Nipple	816675		2	AR110B S/N 00019 & below qty 1
56	Snap Ring	571801		2	
57	Rubber Plug	571800		2	
62	Flange Plug	573577		2	06BSP (Plastic POM)
64	Flange Plug	676159		2	04BSP (Steel)
65	Air Vent Plug	B2006870	С	2	

<sup>\*</sup>Parts are common to both AR110B and AR110C except where denoted B or C.

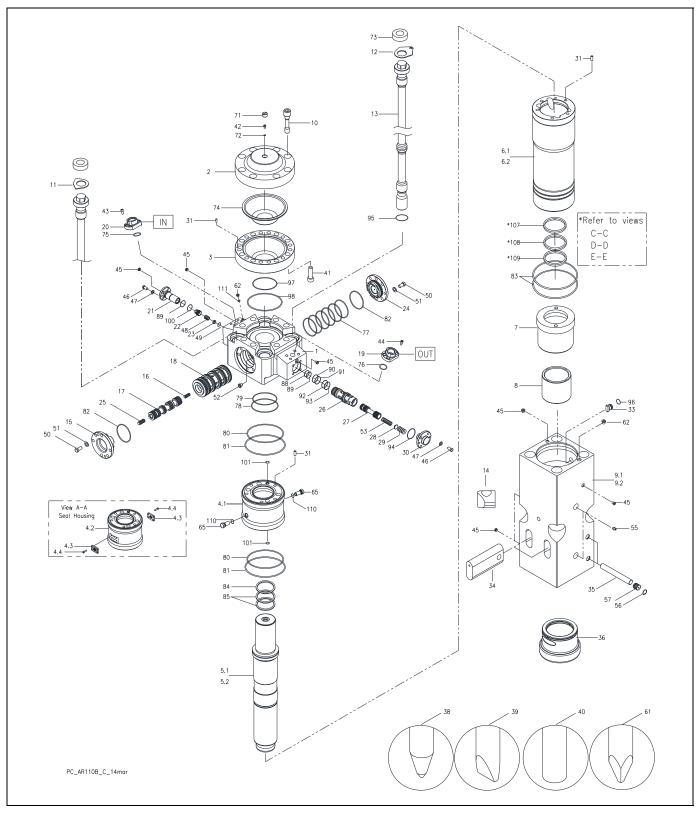


Fig. 4-2 Breaker Assembly

Table 4.2 Breaker Assembly – [cont'd]

<u>Item</u>	<u>Description</u>	Part N <sup>o</sup> .	Model*	<u>QTY</u>	Remarks/Specifications
71	Threaded Cap	102262		1	
72	Usit-Ring	676201		1	
73	Rubber Ring	571802		4	
74	Membrane	571803		1	
75	O-Ring	814788		1	
76	O-Ring	677977		1	
77	O-Ring	571804		6	
78	O-Ring	679036		1	
79	Back-up Ring	571805		1	
80	O-Ring	571806		2	
81	Back-up Ring	571807		2	
82	O-Ring	101338		2	
83	O-Ring	571809		2	
84	Wiper	571810		1	Fig. 6-3 Detail B-B
85	Seal	571811		2	Fig. 6-3 Detail B-B
88	Back-up Ring	571814		1	
89	O-Ring	676206		2	
90	O-Ring	571815		1	
91	Back-up Ring	571816		1	
92	O-Ring	101781		1	
93	Back-up Ring	571817		1	
94	O-Ring	676203		1	
95	O-Ring	571819		4	Qty was 8 now 1 for each side rod
96	O-Ring	676200		1	
97	O-Ring	575737		1	
98	Back-up Ring	571818		1	
100	O-Ring	676245		1	
101	O-Ring	571820		2	

<sup>\*</sup>Parts are common to both AR110B and AR110C except where denoted B or C.

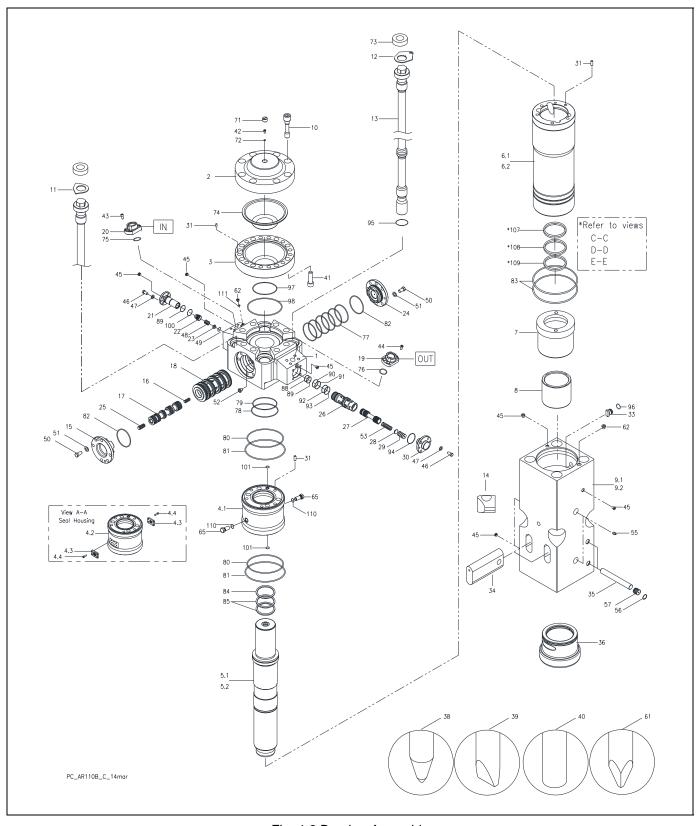


Fig. 4-2 Breaker Assembly

Table 4.2 Breaker Assembly – [cont'd]

<u>Item</u>	<u>Description</u>	Part N <sup>o</sup> .	Model*	<u>QTY</u>	Remarks/Specifications
106	O-Ring	572360	В	1	O-ring groove on bushing (36) discontinued
107.1	Step Seal	B1607370	С	1	Fig. 6-3 Detail E-E
107.2	Guide Ring		В		Fig. 6-3 Detail D-D. Use is discontinued
108.1	U-Packing	B1607380	С	1	Fig. 6-3 Detail E-E
108.2	Seal w/ Anti-Extrusion Ring	571812	В	1	Fig. 6-3 Detail C-C, D-D
109.1	Wiper	B1607390	С	1	Fig. 6-3 Detail E-E
109.2	Wiper	571813	В	1	Fig. 6-3 Detail C-C, D-D
110	O-Ring	676209		2	Fig. 6-3 Detail A-A

<sup>\*</sup>Parts are common to both AR110B and AR110C except where denoted B or C.

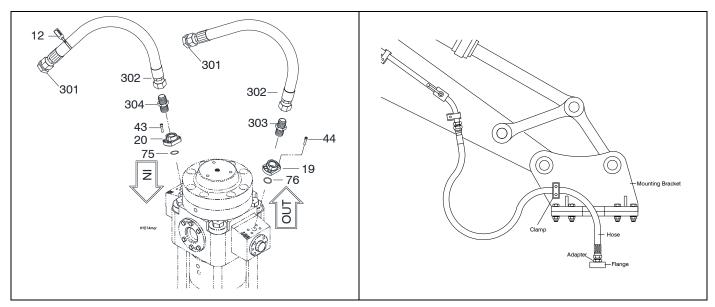


Fig. 4-3 Hydraulic Connections

Fig. 4-4 Hose Routing To Excavator - Typical

**Table 4.3 Hydraulic Connections** 

	,				
<u>ltem</u>	<u>Description</u>	Part No.	Model*	<u>Qty</u>	Remarks/Specifications
12	Pressure "IN" ID Tag	818676		1	Identifies the oil supply line "IN"
19	Flange Adapter [OUT]	572705		1	[OUT] #16
20	Flange Adapter [IN]	572838		1	[IN] #12
43	Socket Head Bolt	719733		4	M10
44	Socket Head Bolt	90564		4	M12
75	O-Ring	814788		1	
76	O-Ring	677977		1	
301	Plug	814454		2	
302	Hose	676124		2	
303	Adapter	656745		1	16x16
304	Adapter	798275		1	12x16
	Hose Clamp w/ #16 Insert	054010		2	Fig 4-3 Part of Mounting Bracket
	Rubber Insert - #16	542004		2	

<sup>\*</sup>Parts are common to both AR110B and AR110C except where denoted B or C.

## 5.0 Tool Selection

#### 5.1 Standard Tools

The three most commonly used tool points for concrete demolition and rock cutting and boulder reduction 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** Designed for impact breaking. The blunt tool is effective in secondary breaking of oversize rock or boulder reduction.

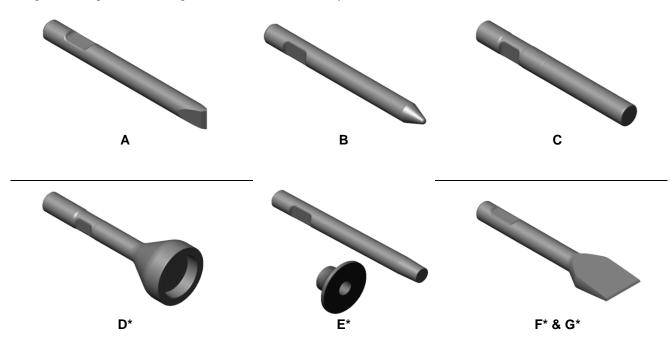


Fig. 5-1 Tool Selection - Standard and Specialty\* (\*Shown are general illustrations. Actual tool design may vary)

#### 5.2 Specialty Tools\*

Specialty tools have a specific purpose or function designed into each tool. These tools can extend the versatility of a breaker, thus increasing productivity and eliminating the need for additional equipment. For availability of tool types not listed, contact Allied. \*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.

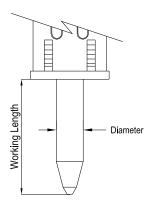


Fig. 5-2 Tool Diameter & Working Length

#### 5.0 Tool Selection

Table 5.1 Tool Selection (Tools are common to both AR110B and AR110C)

<u>ltem</u>	Description	Part No.	TD-in (mm) x WL-in (mm)	Weight-lbs. [kg.]
38-B	Conical Point	571729	4.33 [110] x 27 (686)	132 (60)
39-A 1)	Chisel Cross Cut	571728	4.33 [110] x 27 (686)	132 (60)
	Chisel In-Line	<sup>2)</sup>		
40-C	Blunt End	571731	4.33 [110] x 24 (610)	121 (55)
61 <sup>2)</sup>	Pyramid (Not Pictured)	2)		

<sup>1)</sup> Standard tool supplied with Breaker shown in Bold

#### 5.3 Bushing and Tool Lubrication

When choosing a grease to lubricate the bushing and tool, it's important to emphasize that the "right type" is equally important as "how much" and "how often".

Everyday wear-and-tear is unavoidable and no other component receives more punishment than the bushing and tool. Each time the breaker is put to work, the tool and bushing are subjected to extreme pressure, heat and abrasive debris. These parts are made of high quality, heat-treated alloy steel, yet, inattention to re-lubrication schedules or using a lubricant that's insufficiently formulated for this application will cause rapid wear and render parts unusable. Replacing these parts can be costly, both in terms of down time and price.

When applied regularly, Allied Chisel Paste provides the contact surfaces between the bushing and tool with superior protection against friction related damage. It's formulated of a unique blend of high-viscosity petroleum oil and solid lubricants. Solids are essential additives in applications that involve sliding with heavy side loading. Solids provide a high-strength boundary between the bushing and tool that effectively reduce metal-to-metal contact and thereby reduce heat-generated damage from friction.

Allied Chisel Paste is specifically formulated for the lubrication of the bushing and tool. In comparison, greases labeled "General Purpose" or "Multi-Purpose" are less expensive because they typically contain fewer additives and are unlikely to possess any solid content. When General or Multi-purpose grease is subjected to heavy side loading, the oil is squeezed out, leaving the bushing and tool unprotected against friction related damage.

Grease that fails to stay put under conditions of heavy vibration and high temperatures loses its effectiveness to lubricant. The better the ability of the grease to stay put on critical surfaces, the better the protection against friction. Allied chisel paste out performs General or Multi-purpose grease that lack sufficient additives critical for clinging. Special thickening agents in chisel paste help ensure that the lubricant adheres to metal surfaces as temperatures get hot.

Many factors, including operator technique, determine whether the breaker will remain productive. But with attention to preventive maintenance practices, including timely lubrication, and through the regular use of Allied Chisel Paste, the usable service life of these parts can be maximized while the cost to replace them and loss of production from down time is minimized.

#### **Allied Chisel Paste Specifications**

- NLGI Grade No. 2
- Thickener Type Calcium sulfonate complex
- Solids include graphite and copper
- Dropping Point ° F (° C), min. 500 (260)
- Oil Viscosity @ 100° F (40° C) 200-240 Application methods include brushing, grease gun and all Allied automatic grease dispensers

**Table 6-1 Chisel Paste Ordering Information** 

<u>Container</u>	<u>Packaging</u>	Part No.
14.5 oz Tubes*	Qty x 10	574430
14.5 oz Tubes*	Qty x 30	574431
35 lb Bucket	Qty x 1	676698
120 lb Drum	Qty x 1	679968

<sup>\*</sup>Fits standard hand operated grease guns.

<sup>&</sup>lt;sup>2)</sup> For availability of tool types not listed, contact Allied

# 6.0 Service Kits and Tools

## 6.1 Tune-up Kit

All breakers require regular maintenance and periodic parts replacement. Follow the recommended service schedule to maintain reliable service.

Tune-up kits can help restore performance by replacing common wear parts. Tune-up kits offer the convenience of combining parts that usually need to be replaced at the same time into a single package.

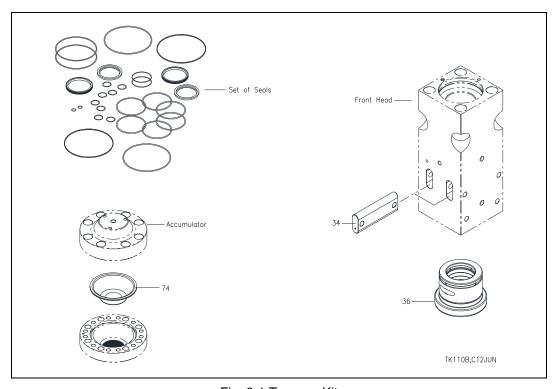


Fig. 6-1 Tune-up Kit

Table 6.1 Tune-up Kit

<u>ltem</u>	<u>Description</u>	Part N <sup>o</sup> .	<u>Model*</u>	<u>QTY</u>	Specifications
	Tune-up Kit	571824		1-Kit	Kit includes - Seal set, 34,36,74
	Seal Set	576358		1	Refer to Table 6.2
34	Tool Retainer Bar	571793		2	
36	Lower Bushing	571795		1	
74	Membrane	571803		1	

<sup>\*</sup>Parts are common to both AR110B and AR110C except where denoted B or C.

# 6.0 Service Kits and Tools

# 6.0 Seal Set 576358

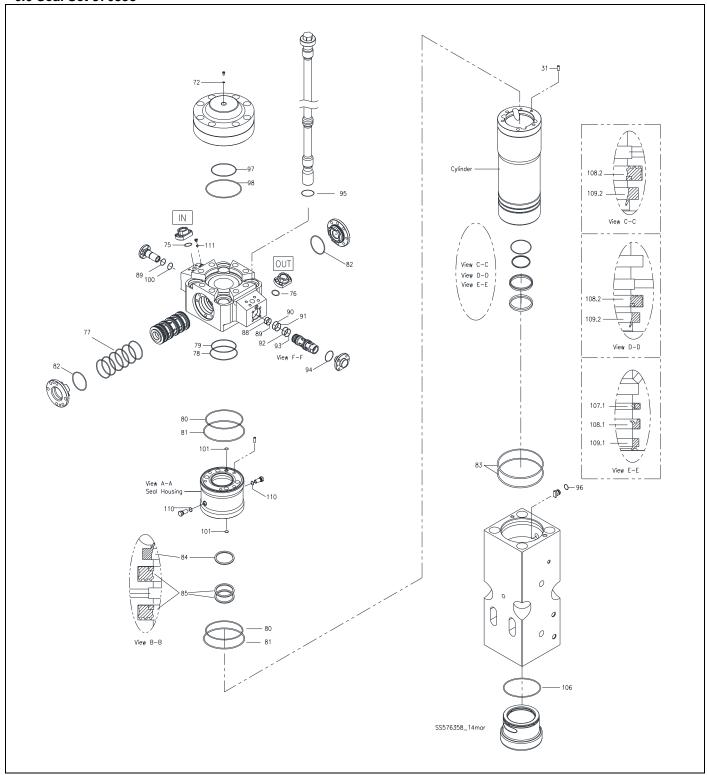


Fig. 6-2 Seal Positions





Refer to the instructions given in Repair Manual 572591 for proper installation of parts.

# 6.0 Service Kits - [cont'd]

Table 6.2 Seal Set

Table	6.2 Seal Set				
<u>Pos</u>	<u>Description</u>	Part N <sup>o</sup> .	<u>Model*</u>	<u>QTY</u>	<u>Specifications</u>
	Set of Seals	576358		1	Includes all items listed in Table 6.2
72	Usit-Ring	676201		1	
75	O-Ring	814788		1	
76	O-Ring	677977		1	
77	O-Ring	571804		6	
78	O-Ring	679036		1	
79	Back-up Ring	571805		1	
80	O-Ring	571806		2	
81	Back-up Ring	571807		2	
82	O-Ring	101338		2	
83	O-Ring	571809		2	
84	Wiper	571810		1	Fig. 6-3 View B-B
85	Seal w/Anti-Extrusion Ring	571811		2	Fig. 6-3 View B-B
88	Back-up Ring	571814		1	
89	O-Ring	676206		2	
90	O-Ring	571815		1	
91	Back-up Ring	571816		1	
92	O-Ring	101781		1	
93	Back-up Ring	571817		1	
94	O-Ring	676203		1	
95	O-Ring	571819		4	Qty was 8 now 1 for each side rod
96	O-Ring	676200		1	
97	O-Ring	575737		1	
98	Back-up Ring	571818		1	
100	O-Ring	676245		1	
101	O-Ring	571820		2	
106	O-Ring	572360	В	1	O-ring groove on earlier design bushing – 36
	-				





Refer to the instructions given in Repair Manual 572591 for proper installation of parts.

Table 6.2 Continued on following page

<sup>\*</sup>Parts are common to both AR110B and AR110C except where denoted B or C.

# 6.0 Service Kits - [cont'd]

Table 6.2 Seal Set - [cont'd]

<u>Pos</u>	<u>Description</u>	Part N <sup>o</sup> .	Model*	<u>QTY</u>	<u>Specifications</u>
107.1	Step Seal	B1607370	С	1	Fig. 6-3 View E-E
107.2	Guide Ring		В		Fig. 6-3 View D-D. Use is discontinued
108.1	U-Packing	B1607380	С	1	Fig. 6-3 View E-E
108.2	Seal w/ Anti-Extrusion Ring	571812	В	1	Fig. 6-3 View C-C, D-D
109.1	Wiper	B1607390	С	1	Fig. 6-3 View E-E
109.2	Wiper	571813	В	1	Fig. 6-3 View C-C, D-D
110	O-Ring	676209		2	Fig. 6-3 View A-A

# \*Parts are common to both AR110B and AR110C except where denoted B or C.

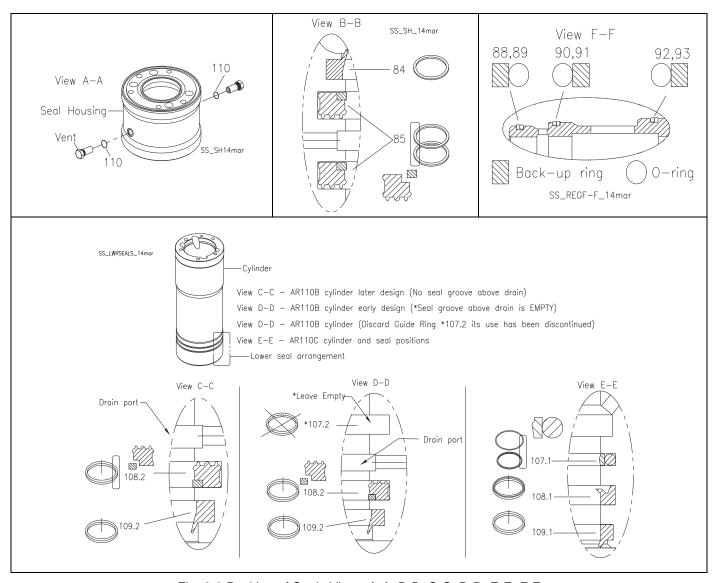


Fig. 6-3 Position of Seals Views A-A, B-B, C-C, D-D, E-E, F-F

# 7.0 N2 Gas Charge Kit

## 7.1 General Description

The accumulator is a self-contained pressure vessel with an elastic membrane dividing the inner chamber. The lower chamber is used to receive, store and discharge pressurized oil. Nitrogen gas (N2) under pressure is stored in the upper chamber.

Proper function of the accumulator along with optimal membrane life is accomplished through accurate charging by means of the charging unit (Fig. 7-1) and a commercially available nitrogen bottle. Table 7.1 lists items included in the charge kit.

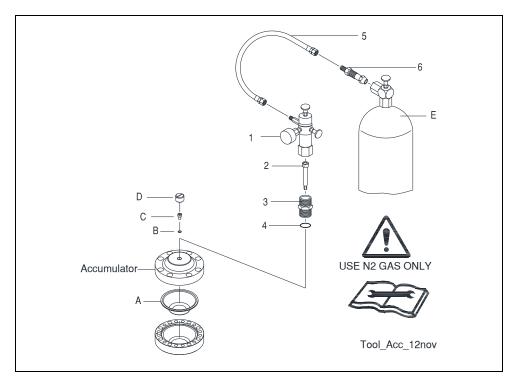


Fig. 7-1 N2 Gas Charge Tool

Table 7.1 N2 Gas Charge Kit

<u>Item</u>	Part No.	Description	<u>Qty</u>	<u>Specifications</u>		
	570071	N2 Gas Charge Tool	1-Kit	Kit includes 1,2,3,4,5,6		
1	100527	Charge Valve with Gauge	1	Includes 2-6 (& storage case – not shown)		
2	40601	Socket Bolt	1			
3	R101635	Adaptor	1			
4	901135	O-ring	1			
5	N/A	Hose	1	8 Ft. [2.5 M] Not Sold Separately		
6	N/A	Gas Bottle Adapter	1	Not Sold Separately		
E	N/A	Nitrogen Gas Bottle		Not Supplied (Source Locally)		
A,B,C, D,E		Accumulator, Membrane, U-sit ring, Bolt, Cap, N2 Bottle		Items A,B,C,D,E not included in charge kit. They are shown for reference only.		
$\triangle$		Read, understand and follow all instructions given in Repair Manual 572591 for the safe and proper use of this tool.				

## 8.0 Breaker Mounting Information

#### 8.1 Mounting Brackets

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

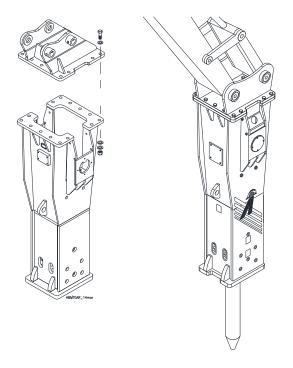


Fig. 8-1 Housing Box, Mounting Bracket (Typical) & Bolt Set

#### 8.2 Connection Plate

The mounting bracket is bolted to the connection plate located at the upper end of the housing box. Dimensions of the connection plate, including thickness, spacing, quantity and diameter of the bolt holes, will vary between small, medium and large size breakers. Dimensions for the connection plate can be found in Operation & Maintenance Manual.

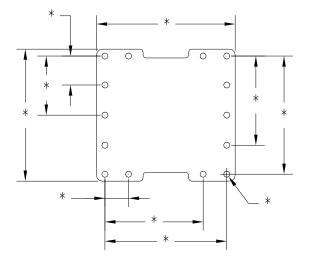


Fig. 8-2 Connection Plate on Mounting Bracket

In Table 8.1, "Family" identifies the connection plate used on each of the AR-Series models.

Other work tools from Allied, including the Ho-Pac® (vibratory plate compactor) will use these same mounting families.

**Table 8.1 Mounting Family & Hardware** 

<u>Model</u>	<u>Family</u>	<u>Bolt</u>	FL Washer	LK Washer	<u>Nut</u>
AR70C, A75B	BR	90566 (12)	921825 (24)	100088 (12)	90548 (12)
AR85B, AR95B	SR	572352 (10)	679422 (20)	571027 (10)	572353 (10)
AR110B, AR110C, AR120B	MR	101765 (14)	901291 (28)	658529 (14)	90507 (14)
AR130B, AR140B	LR8	101765 (14)	901291 (28)	658529 (14)	90507 (14)
AR160C, AR165, AR170C, AR175	LR9	573167 (14)	573029 (28)	573028 (14)	90519 (14)
AR180C	LR10	573030 (14)	573029 (28)	573028 (14)	90519 (14)





See Operation & Maintenance Manual for Tightening Torque

# 9.0 How To Order Spare Parts

Your local Allied dealer requires the Product Name, Model and Serial Number to better assist you with questions regarding parts, warranty, operation, maintenance, or repair. This information should be noted in Section 2.3 of this manual.

Product	Hydraulic Impact Breaker
Series /	
Model	AR
Serial No.	

Please fill out completely

Description	on	Part Number		Quantity	Price
· Name ne il		Account Number Purchase order Ship Method	*See note below	N	
led and che	cked below: Ship complete order only Ship available parts and contact custo				iless
	tact information Name ne sil	e: All backordered parts will be shipped when availed and checked below:    Ship complete order only	tact information  Name  Perchase order  Ship Method  Company Name  Account Number  Purchase order  Ship Method  Shipping Address  Example and checked below:  Ship complete order only  Ship available parts and contact customer on disposition of	tact information  Name  Company Name  Account Number  Purchase order  Ship Method  *See note below  ag Address  Shipping Address  Shipping Address  Example Address  Shipping Address	tact information  Name

NOTES	



