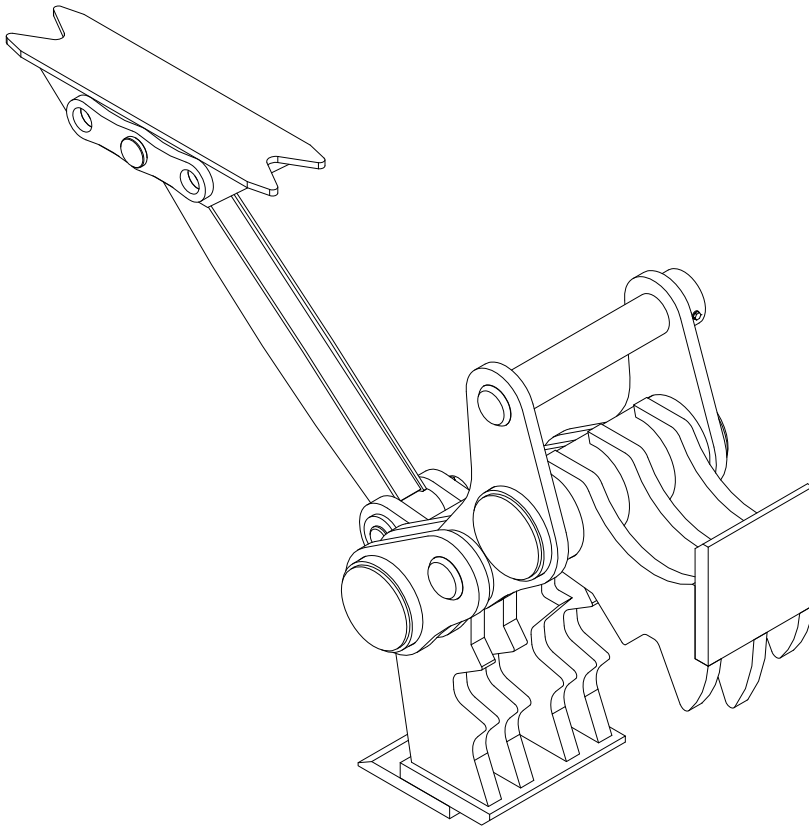


Mechanical Pulverizer



Mechanical Pulverizer

**AMP50
AMP70
AMP100
B-Series**

Safety, Operator, Maintenance & Parts Manual

All personnel associated with the administration of training, safety, operation and maintenance of this equipment should read and familiarize themselves with the contents of this manual.



AMP50B

AMP70B

AMP100B



TM577330

Contact Information / Revision History

3900 Kelley Ave

Cleveland, Ohio 44114

E-mail: sales@alliedcp.com

Tel: 216.431.2600

www.alliedcp.com

Tel: 800.321.1046

Revision History for Document No. TM577330



Continuous improvement of our products is an Allied policy. Allied reserves the right to change, edit, delete or modify the content of this document, including descriptions, illustrations and specifications without prior notification. The content of this publication describe the product at the time of its effective date, and may not reflect the product in the future. Specifications are based on published information at the time of publication. When changes become necessary, these will be noted in the table below. Earlier dated publications are immediately cancelled and superseded by publications with the most current date recorded. Material not in conflict with the most recent effective date shall remain in effect. For product or document updates go to www.alliedcp.com.

Table of Revision History for TM577330

<u>Effective Date</u>	<u>Page</u>	<u>Summary of Change</u>
15, Oct	Throughout	Minor revisions
14, May	15,16,17,18,19	Add hard surfacing instructions and figures for jaw and tooth.
14, Apr	All	Original issue of 577330. Includes AMP50B,70B,100B.

Safety Information

Safety messages appear throughout this manual and on labels affixed to the Allied equipment. Read and understand the information communicated in safety messages before any attempt to install, operate, service or transport the Allied equipment.

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

Purpose of Safety Messages

Information provided in safety messages is important to your safety. Safety messages communicate the extent, magnitude and likelihood of injury associated with unsafe practices such as misuse or improper handling of the Allied equipment. Safety messages also explain how injury from potential hazards can be avoided.

Safety messages presented throughout this manual communicate the following information:

1. **Alert** personnel to potential hazards
2. **Identify** the nature of the hazard
3. **Describe** the severity of the hazard, if encountered
4. **Instruct** how to avoid the hazard

Safety Alert Symbol

The safety alert symbol is represented by the exclamation point within an equilateral triangle. This symbol means - **ATTENTION, BECOME ALERT, YOUR SAFETY IS INVOLVED.**

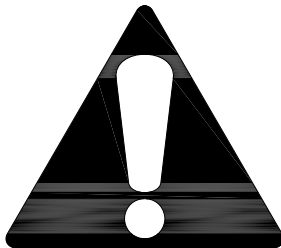


Fig. S1 Safety Alert Symbol

The Safety Alert Symbol (Fig. S1), either used alone or in conjunction with a signal word, is used to draw attention to the presence of potential safety hazards.

Signal Words

“DANGER”, “WARNING” and “CAUTION” are signal words used to express severity of consequences should a hazard be encountered.

DANGER - Indicates an imminent hazard, which, if not avoided, **will** result in death or serious injury.

WARNING - Indicates an imminent hazard, which, if not avoided, **can** result in death or serious injury.

CAUTION - Indicates hazards which, if not avoided, **could** result in serious injury or damage to the equipment.

Pictograms

Pictograms provide another element of information that further enhance the effectiveness of the hazard communication.

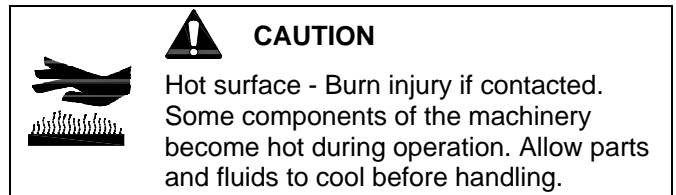


Fig. S-2 Elements of Safety Message - Typical

Signal Words Used for Non-Hazard Messages

Other message types appearing in this manual include 'IMPORTANT' and 'NOTE'. These communicate instructions and suggestions, but are not safety-related.




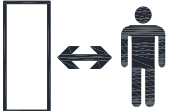
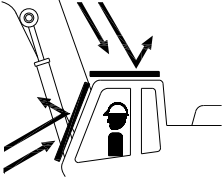







IMPORTANT – Special attention required. Contains information, which, if not followed, may diminish performance, interrupt reliability and production or cause equipment damage.


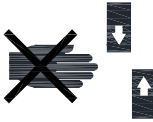









NOTE – Provides clarity and helpful tips. Highlight suggestions, which will enhance reliability and aid in operation.

Safety Information – [cont'd]

Meaning of Pictograms

Pictograms are used to rapidly communicate information. For the purposes of this manual and labels affixed to the Allied equipment, pictograms are defined as follows:

	Read / Refer to the manual for information
	Read / Refer to the Service Manual for information
	Shut off carrier & remove key before servicing
	<ul style="list-style-type: none"> • Stay clear • Maintain a safe distance
	Install proper guards on cab to shield operator against fragments / debris from processed material
	Debris becoming airborne projectiles
	Personal protection equipment
	Hearing protection
	Safety eyewear
	Gloves
	Safety shoes
	<ul style="list-style-type: none"> • Falling object • Unsupported loads

	<ul style="list-style-type: none"> • Crush point
	Moving parts (in direction indicated by arrow)
	<ul style="list-style-type: none"> • Falling part • Safety shoes
	Moving part (in direction indicated by arrow)
	Hot surface
	Leaking fluid under pressure - injection
	Electric Shock
	Lift point identified
	Prohibited action – a circle with diagonal slash.
	Prohibited action - the X-out
	The check mark symbol indicates actions that are correct, approved and recommended

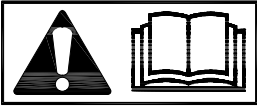

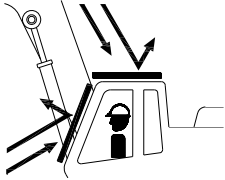


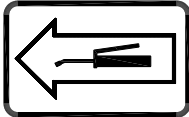

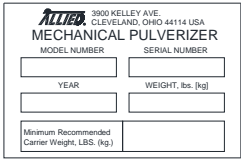
Safety Information – [cont'd]

Information Labels

Information labels affixed to the Allied equipment include safety warnings, identification and instructions important to operation and service.

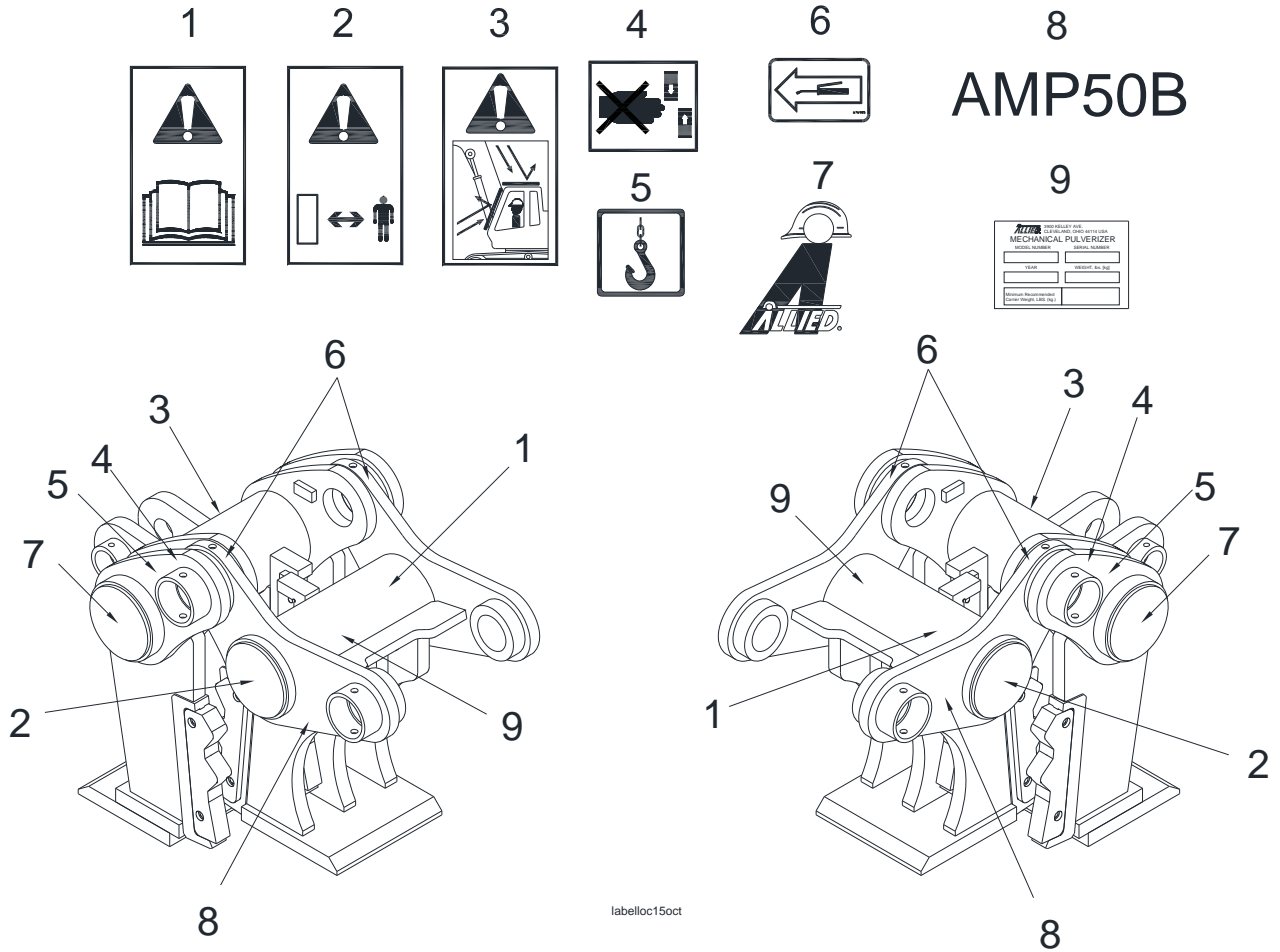
Keep all safety labels clean. Words and illustrations must be legible. Before operating this equipment, replace damaged or missing labels. To order replacements, refer to Table L.2. Refer to Fig L-8 for their location on the equipment.

Table L.1 Safety, Identification and Information Labels

<u>Fig.</u>	<u>Label</u>	<u>Description</u>
L1		SAFETY ALERT SYMBOL / READ INSTRUCTIONS - Directs personnel to the manual for further information / instructions.
L2		STAY CLEAR – Alerts personnel and by-standers to maintain a safe distance from the work tool during operation.
L3		Protective Guards - Fragments / debris that become airborne projectiles. Protective guards are required on cab when operating this work tool
L4		Keep Hands Clear - Alerts personnel to keep hands safely away from areas of moving parts or separation of parts if pins, fasteners or retainers are removed.
L5		Lift Point – Marks approved lift points for safe handling of the work tool.
L6		LUBE POINT - Indicates location of lube fittings to be greased.
L7		Company Logo – The Allied brand identifier and is a registered trademark of Allied Construction Products, LLL.
L8	AMP50B	The MODEL NUMBER decal indicates the attachment model number.
L9		EQUIPMENT ID LABEL - Contains identifying information about the equipment, including: Product name, model number, serial number, company name and address.

Safety Information – [cont'd]

Information Labels – [cont'd]



labelloc15oct

Fig. L-10 Label Positions Identified

Table L.2 Label Ordering Information

<u>Item</u>	<u>Type</u>	<u>Description</u>	<u>Part No.</u>	<u>Qty</u>	<u>Remarks / Specifications</u>
1	Safety	Read Instruction Manual	676984	1	
2	Safety	Stay Clear	840156	2	
3	Safety	Pictogram, Guards Installed	575948	1	
4	Safety	Pictogram, Keep Hands Clear	576737	2	
5	Safety	Lift Point	676982	2	
6	Service	Lube Point	563753	2	
7	Eq. ID	Company Logo	101031	2	
8.1	Eq. ID	Model MP50B	578038		
8.2	Eq. ID	Model MP70B	578039	2	
8.3	Eq. ID	Model MP100B	578040		
9	Eq. ID	Equipment I.D. Tag	573363	1	

Safety Information – [cont'd]**Attention Read the Manual**

Read and follow all safety precautions in this manual. Improper installation, operation or maintenance of the Allied equipment could result in serious or fatal injury. Only qualified personnel may operate and service the Allied equipment. Other manuals, such as those published by the machinery used in support of the Allied equipment, should also be read.

Qualified Person

For purposes of this manual, “qualified person” is a person who has successfully demonstrated or completed the following:

- Has read, fully understands and adheres to all safety statements in this manual.
- Is competent to recognize predictable hazardous conditions and possess the authorization, skills and knowledge necessary to take prompt corrective measures to safeguard against personal injury and/or property damage.
- Has completed adequate training in safe and proper installation, maintenance and operation of this Allied equipment.
- Is authorized to operate, service and transport the Allied equipment identified in Table 1.1.

Safety Information Overview

This manual contains important instructions that should be followed during installation, operation and maintenance. When working with the Allied equipment all procedures and operations must be performed correctly so that unsafe situations may be avoided. Do not proceed beyond instructions or warnings that you do not fully understand. Read the entire manual to make sure you have a complete understanding of the requirements. Safety information becomes operation-specific in later sections of this manual.

Allied has made every effort to provide information as complete and accurate as possible for this document. Allied cannot anticipate every possible circumstance that might involve a potential hazard. The warnings in this manual and labels affixed to the Allied attachment are therefore not all inclusive.

General Construction Safety

Always follow procedures that promote safe conditions for workers and bystanders. The standard safety precautions expected and required of those working in construction shall include, but not limited to:

- Locate existing underground service and utility lines
- Erect barriers to prevent pedestrian access in to established work zone
- Use personnel protection equipment appropriate to working conditions, etc.

Federal, State, Local and OSHA Construction Guidelines and Regulations

Use the Allied equipment in accordance with all federal, state and local regulations regarding construction practices and public safety. Identification of, and compliance to, governing regulations are the responsibility of the owner and operator.

In the United States, comply with the recommendations of the Occupational Safety and Health Administration standards of the U.S. Department of Labor. For OSHA construction guidelines contact your local federal government office or write:

U.S. Government Printing Office Superintendent of Documents P.O. Box 371954 Pittsburgh, Pa. 15250-7954
Website: www.osha.gov

Ask for Construction Industry OSHA Standards Stock #869-034-00107-6.

Owner’s Responsibilities

Ensure that only qualified personnel operate and service the Allied equipment.

Ensure personnel protection equipment is available to personnel and enforce the use of PPE

Ensure equipment is kept in safe operating condition

Ensure safety-related materials such as instructions and including this manual are kept in a convenient location so that they are easily accessible to operators and maintenance personnel.

Safety Information – [cont'd]

Operational Safety Program

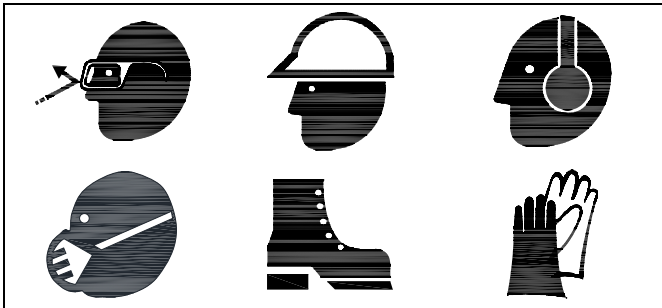
The safe and efficient use of the Allied equipment depends upon proper installation, operation, maintenance and repair. Operational safety programs must encompass all of these elements.

Accident prevention through operational safety programs is most effective when the equipment owner further develops the program by taking into account his own experience with using and maintaining equipment.

Developing such programs help minimize equipment downtime, while maximizing service life and performance. Most importantly, it will minimize the risk of personal injuries.

Personal Protective Equipment (PPE)

Personal protection equipment (PPE) shall be made available to any personnel operating or nearby the equipment that may be exposed to hazards such as falling, flying and splashing objects, or harmful dusts, fumes, mists, vapors, or gases. Approved PPE, when used correctly, helps protect against certain harmful effects from exposure with the identified hazard.



Examples of PPE include safety eyewear, safety hat, hearing protection, dust mask, safety footwear, and gloves. (Shown Pictograms of PPE is not all-inclusive).

Those responsible for administering PPE shall train personnel with the proper selection and use of PPE to protect against misuse.

Safety Guards and Protective Barriers

A safety guard is a physical barrier designed to prevent access to danger areas. Guards are fitted to the Allied equipment to protect against unsafe situations that could not be eliminated through design measures. Guards are only effective when properly installed and in place. Guards shall not be removed unless for the purpose of inspection and service of

components. Reinstall all guards after service or adjustments are completed.

Where it was not possible to prevent an unsafe situation by means of a guard, safety messages appear on the equipment, warning personnel of a recognized hazard.

Additional guarding, not included with the Allied equipment, is necessary at the operator's station to protect the operator and other nearby personnel against flying debris from material being cut or demolished. Do not handle, demolish or cut material overhead without proper guards installed.

Prevent accidental activation of the Allied work tool by locating the control switch in a guarded area.

Compatibility and Use With Other Equipment

Allied work tools are designed to deliver satisfactory performance over a broad range of equipment. In all instances it first must be confirmed through adequate research and testing, that the equipment is suitable to operate the Allied work tool. The technical data as well as information concerning connecting requirements can be found in this manual and shall be strictly observed.

Careful review of the equipment's specifications along with thorough knowledge of the system's operation, including hydraulic and electric is required. If in doubt, and further assistance is required, it is the responsibility of the equipment owner to contact their authorized Allied dealer or Allied's Product Support Department.

Unapproved Use or Modifications

In order to provide and maintain efficient operation with reliable service, while ensuring operator safety, the Allied equipment may not be used for any purpose other than, for which it was intended. Use of the Allied equipment, other than those cited in this manual, may place personnel at risk of injury and/or may subject the equipment to damage.

When making repairs, use only the manufacturer's genuine parts. Substitute parts may not meet the required standards for fit and quality, or may impair function, safety and performance. The Allied equipment shall not be modified or used in unapproved applications unless written consent is received from the Allied Engineering Department.

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1.0 Introduction and Scope

1.1 About This Manual

Table 1.1 About This Manual



Document ID.	TM577330
Type	Technical - Safety, Operation, Maintenance, Technical Data and Parts
Current Status	See Inside Cover
Product Name:	Mechanical Pulverizer
Applicable Model[s]:	MP50, 70 & 100 B-Series
Years of Manufacture:	Begin 2014
Serial Numbers:	Begin 00001

Prior to its use, verify 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.

1.2 Purpose of This Manual

The Technical Manual has been prepared to assist the operator and maintenance personnel with the information necessary for the safe and proper use of the Allied equipment identified in Table 1.1. Content includes:

- Safety Information
- Equipment Identification
- Main Component Familiarization
- Installation and Set-up
- Pre-Operation Inspection
- Operating Instructions
- Overview of Maintenance Schedule
- Basic Troubleshooting Procedures
- Technical Data (Weight & dimensions)
- Lifting, Transporting & Storage
- Spare Parts

At the back of this manual is the spare parts list. Illustrations depicted in the Parts Information Section are for purposes of parts identification and are not intended for use in repair or service of the equipment.

Material presented in this manual may show equipment that is optional. Figures, captions, parts tables and descriptions are intended solely for use with the product identified in Table 1.1 and may not be suitable for other models.

This document is published 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 every effort has been made 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.

1.3 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.

Replacement manuals can be ordered by contacting your Allied dealer service center. Manuals may also be viewed and downloaded at: www.Alliedcp.com

1.4 Related Documents

None Available

2.0 Equipment Identification

2.1 Location of Model & Serial Number

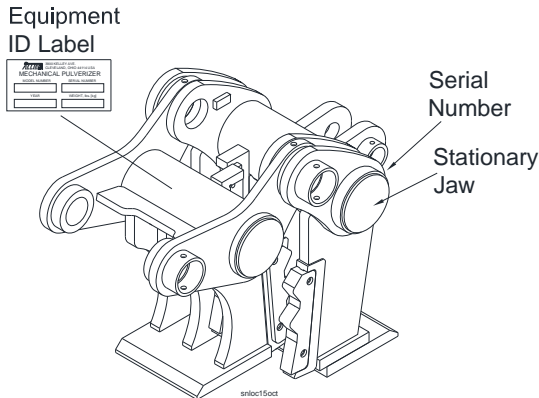


Figure 2-1 Equipment Identification

Fig. 2-1. The model and serial number assigned to this equipment is found in the following locations:

- On the Equipment ID Label (Fig. 2-2) that is affixed to the upper jaw.
- Stamped in the stationary jaw (Fig. 2-1).

2.2 Equipment Identification Plate

The equipment identification plate contains the following useful information:

- Company name and address
- Product name
- Model number
- Serial number
- Year
- Weight
- Min Recommended Carrier Range


 3900 KELLEY AVE. CLEVELAND, OHIO 44114 USA MECHANICAL PULVERIZER	
MODEL NUMBER	SERIAL NUMBER
[]	[]
YEAR	WEIGHT, lbs. [kg]
[]	[]
Minimum Recommended Carrier Weight, LBS. (kg.)	
[]	

Figure 2-2 Equipment Identification Label

2.3 Record Equipment ID Information for Future Reference

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

- Copy the Model and Serial Number from the Equipment Identification Tag to the space provided below.
- Indicate the date in which the Allied equipment was placed into service.
- Fill out the Warranty Registration form and return to Allied.

Product **Mechanical Pulverizer**

Series **B**

Model / Part Number: **MP50B / 577000C**
 MP70B / 577005C
 MP100B / 577010C

Serial Number: _____

In Service Date: _____

Registration Date _____

The Model Number signifies the following:

Example: AMP 50B

A	Allied
M	Mechanical
P	Pulverizer
50	50,000 Lb. Carrier Class
B	B-Series

3.0 Warranty Protection Summary

3.1 Overview

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

For new equipment, Allied requires that a Warranty Registration form be filled out. The form provides a section for information about the host machine that the work tool will be installed on. Complete all sections of the form and return to Allied.

Warranty does not cover failures of the equipment resulting from installation, incorrect operation, misuse, unapproved alterations by person other than authorized agents, abnormal operating conditions, use of non-Allied parts, accidents, negligence, missed (or unfulfilled) maintenance requirements or improper service methods.

For details regarding warranty terms and conditions, refer to document A100668.

3.2 Owner's Responsibilities

When properly installed, operated and maintained by qualified personnel, the Allied work tool will remain productive with a minimum of service.

Keep the Allied equipment operating within its performance limits by familiarizing yourself with the specifications provided in the technical data and specifications tables. Improper installation, including failure to calibrate the carrier correctly may result in loss of performance or subject the equipment to conditions beyond their design.

The following outlines general maintenance policies required for the Allied equipment. The owner is strongly encouraged to adopt these general guidelines and further develop them in order to manage particular applications and operating environments.

Ensure that personnel entrusted with installation, operation, maintenance and transporting of the Allied equipment adhere to the following:

- Read and thoroughly understand the information and procedures detailed in this manual.
- Understand proper operating techniques for all recommended applications.
- Use the Allied attachment only if it is in sound operating condition. Take prompt action to rectify

any faults that, if left uncorrected, could lead to personal injury or further damage.

- Use the Allied attachment only for the purpose for which it is intended.
- Understand that particular applications, such as working underwater, will require modifications to the standard breaker and additional training for operation and service.
- Appoint Who Does What. Ensure that all personnel understand what their specific responsibilities include.
 1. Establish maintenance responsibilities to be performed by the OPERATOR.
 2. Establish maintenance responsibilities to be performed by the SERVICE TECHNICIAN.
- Recognize problems and know how to take corrective action as detailed in Troubleshooting Section 11.
- Conduct regular checks and inspections as scheduled in the Care & Maintenance Section 9.
- Allow only qualified operators and Allied trained service technicians to perform maintenance and repair as specified in the care and maintenance schedule.
- Use only genuine Allied replacement parts and recommended lubricants to protect total warranty coverage.
- Maintain written records of equipment maintenance, service and repair. These records are helpful if warranty coverage is ever in question.
 - Each record shall include at least:
 - Date of service, maintenance or repair.
 - Description of the service, maintenance or repair performed. Include part numbers if applicable.
 - Copies of purchase order(s) and invoice(s) for repair parts and service.
 - The name and signature of the person performing the service, maintenance or repair.

3.0 Warranty Protection Summary – [cont'd]

3.3 Allied Product Policies

In this manual, Allied recommends the use, applications, maintenance and service consistent with industry practices.

Allied assumes no responsibility for the results of actions not recommended in this manual and specifically the results of:

- Improper installation, set-up, calibration
- Carelessness / Incorrect operating methods
- Inattention to re-lubrication and other maintenance requirements
- Misuse / Unapproved applications
- Inadequate or absence of training
- Use of non-genuine Allied replacement parts
- Unapproved modifications
- Use of grease, which is not or is only conditionally pumpable
- The use of a lubricant type that is unsuitable for the application.
- Contaminated lubricants.
- Improper disposal of used or contaminated lubricants.

These exclusions apply to damage to the Allied equipment, associated equipment and injury to personnel.

4.0 Product Description and Application

4.1 Mechanical Pulverizer

Allied's Mechanical Pulverizer is designed for controlled demolition of concrete slabs, walls and foundations. The Pulverizer is an ideal tool for separating and cleaning rebar from concrete.

The Pulverizer is designed for use with excavator type construction machinery. When installed, the machine's bucket cylinder is used to power the upper jaw, while the lower jaw is held stationary by the stiff arm.

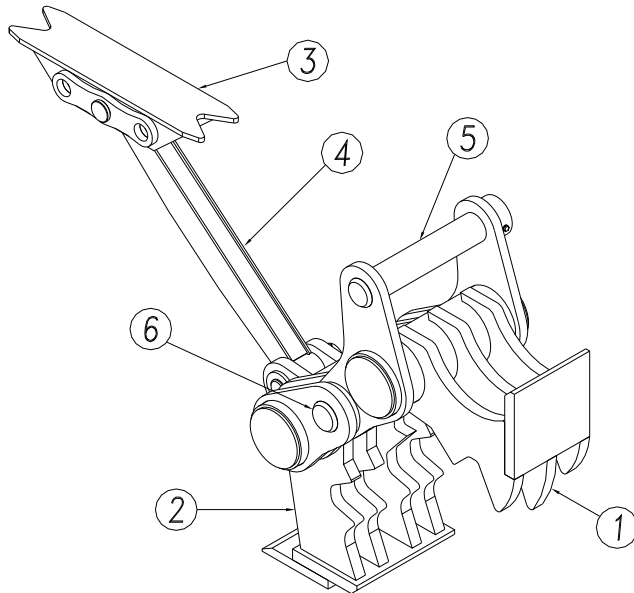


Fig. 4-1 Main Components of Pulverizer

Item	Part Description
1	Upper Jaw
2	Lower Jaw
3	Mounting Pad
4	Stiff Arm
5	Mounting Pin – Link
6	Mounting Pin – Stick

4.2 Main Components

1 & 2 – The Upper and Lower Jaws are made from high-strength, abrasion resistant steel for maximum life and performance. Rebar cutting blades are located in the throat of the jaws.

3 – The Mounting Pad is welded to the underside of the carrier's stick. The position of the lower jaw is adjustable to optimize gripping power. The best position for the lower jaw depends on the size of the material being crushed and whether the material is on the ground, part of a structure, etc.

4 – The Lower Jaw is held stationary by the Stiff Arm connected to the adjustable Mounting Pad.

5 & 6 – The Pulverizer is attached to the carrier with the included Mounting Pins.

5.0 Installation – General



CAUTION

The Pulverizer is designed for use with excavator type construction machinery. The carrier must have adequate lift capacity to properly and safely operate the Pulverizer.

5.1 Mounting the Pulverizer

The Allied Pulverizer utilizes pin-on type mounting arrangement. A set of mounting pins, bushings and spacers come furnished with the Pulverizer assembly.

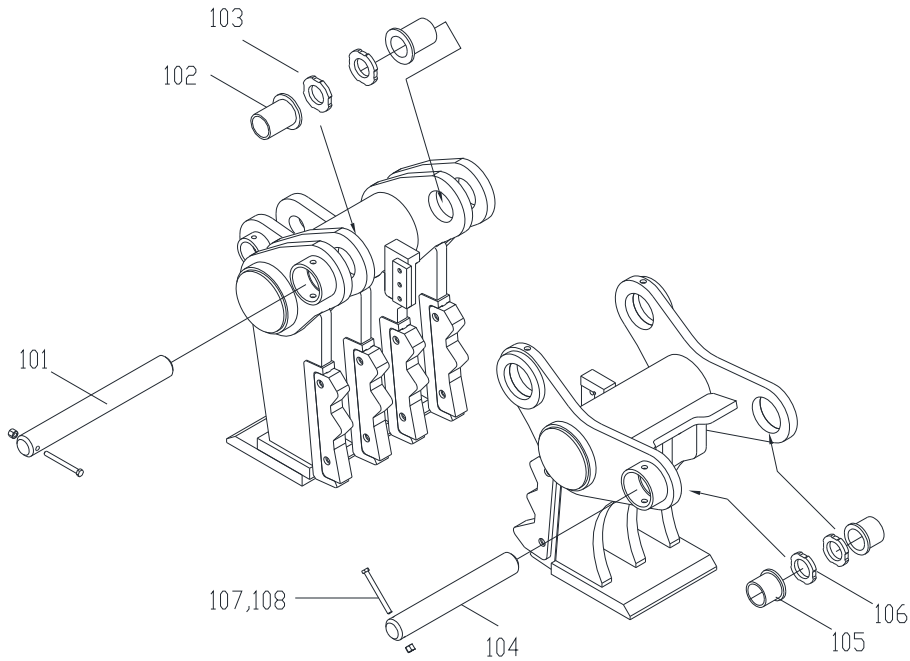


Fig. 5-1 Pulverizer "B" Series Mounting – Typical

Item	Description	Item	Description
101	Mounting Pin – Stick Position	105	Flange Bushing – Link Position
102	Flange Bushing – Stick Position	106	Spacer
103	Spacer	107	Bolt
104	Mounting Pin – Link Position	108	Nut

5.1.2 Pulverizer Mounting – Typical

- **Mounting Pins – Stick and Link** – A set of mounting pins are supplied with the pulverizer to attach it to carrier.
- **Flange Bushing – Stick Position** – These adapters are machined to match the carrier's bucket pin diameter and width of the carrier's stick.

- **Flange Bushing – Link Position** – These adapters are machined to match the carrier's bucket pin diameter and width of the carrier's link.
- **Spacer** – Welded to the flange bushing to help shim inside of lugging to the proper width of the carrier's stick and link.
- **Nut and Bolt** - Pin keeper

5.0 Installation – General – [cont'd]

5.2 Pulverizer and Carrier Compatibility

The Pulverizer is designed for use with excavator type construction machinery. The recommended carrier weight and other important information about the Allied work tool are discussed in Table 10.1. The provided 'Minimum Carrier Weight' is for general guideline only. Always consult the manuals provided by the carrier manufacturer to learn the operating specifications, capacities and limitations of your machine. Lift capacities decrease as the load moves further from the machine. Do not exceed the limits. Factors such as stick length, undercarriage, counterweights, etc., all affect the lifting capacity of the carrier. Any modifications made to the carrier or the Pulverizer must all be taken into consideration.



CAUTION

Do not attach the Pulverizer to any machine that cannot adequately lift the combined weight of the Pulverizer and payload. Always adhere to the safe working methods established by the carrier manufacturer.

5.3 Installing the Pulverizer to the Carrier



CAUTION



Risk of eye injury from flying debris. Wear personal protective equipment, including appropriate clothing, gloves, safety eyewear and shoes when handling, installing and servicing the equipment.

IMPORTANT

Damage may result if improperly installed. Installing the Pulverizer requires the use of standard mechanic's techniques and tools. Thoroughly read all instructions prior to installing and removing this equipment.

5.3.1 Tools Required to Mount Pulverizer On Carrier

No special tools are required, but the following tools should be available:

- PPE including Safety eyewear & gloves
- Sledge Hammer
- Drift pin / Alignment bar
- 3/4 drive socket wrench
- 3/4 drive metric sockets
- Welder
- Grease gun

- Standard & Metric open end wrenches
- Rags
- Suitable container to collect fluids

Refer to Fig. 5-1 for a list of the mounting parts that are furnished with the Pulverizer assembly. Before starting, check that all parts are on hand.

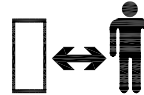
Remove the bucket following the instructions from the carrier manufacturer.

The Allied Pulverizer utilizes pin-on type mounting arrangement and is attached to the stick and link in the same manner as mounting a bucket. The upper jaw is powered by the carrier's bucket cylinder. No additional hydraulics are required to operate the Allied Pulverizer.

The following instructions describe a typical pin on type installation. Some procedures may vary and you should always refer to the instructions in the manual that is provided by the carrier manufacturer.



CAUTION



Some procedures, such as attaching the work tool to and from the carrier, will require an assistant. Both the operator and assistant must be qualified in these procedures.

Take all necessary precautions. Throughout the procedure the machine operator shall be seated in the operator's seat and maintain full control of the machine. All directions and signals must be agreed upon in advance. Take signals from only ONE person.



Crush hazard. Keep hands clear of crush points and moving parts. Use sufficient blocking to avoid accidental or sudden movement.

The mounting pin holds the jaws of the Pulverizer together. Use caution. Proper support and blocking of the jaws is required to prevent sudden or unexpected movement during installation and removal of this pin.

The machine operator and an assistant shall perform the following procedure:

Operator: Move carrier and Pulverizer to a firm level surface. Position with the lower jaw closer to carrier.

5.0 Installation – General – [cont'd]

Assistant: Check that the Pulverizer is stable and all loads are supported.

Center the Jaws and measure the gaps between the lug faces. Prepare Shims to allow a final assembly gap of 1/8" (3mm) overall. Use grease or tape to hold the shims in place while inserting the Flange adapters.

Operator: Maneuver the stick in between the mounting lugging. Align the pin holes of stick and Pulverizer.

Assistant: Pins must be free of rust and debris before they are installed. Insert the stick pin and secure with keepers.

Repeat procedure for installing link pin.

Lubricate pins.

Align and insert flange adapter into the bore of Lower Jaw from the inside face of the lug.

Ensure shims remain in place. Insert until fully engage.

5.4 Mounting Pad Installation

Prior to installation:

- Confirm mounting pad and stiff arm, are a correct match. Use dimensions provided in Tables 10.2 and 10.3 to identify components.
- Carefully inspect all mounting components for damage. Repair or replace as necessary.

The position of the lower jaw is adjustable to optimize gripping power. The best position for the lower jaw depends on the size of the material being crushed and whether the material is on the ground, part of a structure, etc.

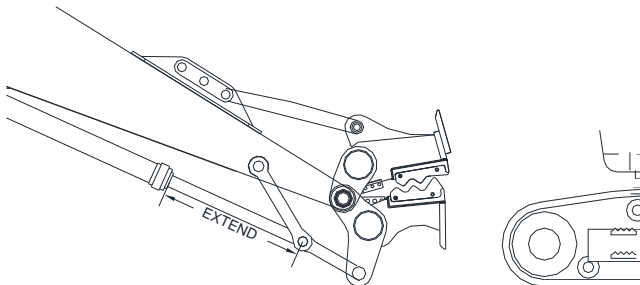


Fig. 5-2 Mounting Pad Installation

1. Position the stick as shown in Fig. 5-2.
2. Clean the area where the mounting pad will be attached of all moisture, grease, dirt, paint and rust.
3. Locate the mounting pad on the stick. Center the mounting pad from side to side. The mounting plate is symmetrical and can be installed in either direction.

IMPORTANT

Ensure that the holes in the Mounting Pad are parallel to the Stick Pin.

4. Tack weld in several places.
5. Before final welding, verify correct position of mounting pad by briefly operating the Pulverizer without a load.



CAUTION



Crush hazard. Keep all personnel at a safe distance. The Mounting Pad is not fully welded and could break loose.

1. After operation check is complete, perform final welding of the mounting pad as follows:
2. Heat the welding zone to remove moisture, to 200-300 degrees Fahrenheit [93-149C].
3. Using AWS E -7018 low hydrogen rod for stick welding, or AWS E-70T-1 for semi-automatic gas shielding, arc weld a 1/2" [1.27 mm] fillet all around the mounting pad, periodically alternating from side to side to control warping and cracking.



CAUTION




Hot surface - Burn injury if contacted. Some components of the machinery become hot during operation. Allow parts and fluids to cool before handling.

IMPORTANT

After installation and prior to use, briefly operate the Pulverizer without a payload. Check for any signs of any binding or distortion.

5.0 Installation – General – [cont'd]

5.5 Removal from Carrier

	<p>CAUTION</p> <p>Risk of eye injury from flying debris. Wear personal protective equipment, including appropriate clothing, gloves, safety eyewear and shoes when handling, installing and servicing the equipment.</p>
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1. Move carrier and Pulverizer to flat stable ground. Lower the Pulverizer safely on the ground as shown in Figure 5-6. Do not work on the Pulverizer before ensuring it will not move.

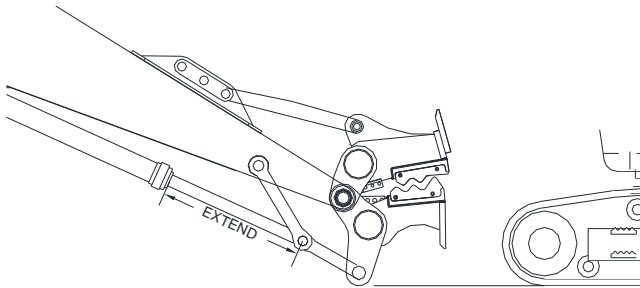




Fig. 5-3 Remove Stiff Arm

	<p>CAUTION</p> <p>Crush hazard. Keep hands clear of moving parts. Instruct operator to move controls only when directed by the attachment installer.</p>
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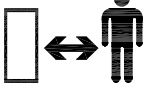

2. Position the Pulverizer with all loads removed off the Stiff Arm.
3. Remove keeper bolts and nuts from both Stiff Arm pins.
4. Ensure Stiff Arm is supported and remove pin at Mounting Pad and Lower Jaw. Set Stiff Arm aside.
5. Remove keeper bolts and nuts from the Link Pin. Remove load from link pin. Remove link pin.
6. Remove keeper bolts and nuts from the Stick Pin.


	<p>CAUTION</p> <p>Crush hazard. The jaw pin functions to hold the upper and lower jaws together. Jaws are heavy. Use proper support to prevent jaws from sudden or unexpected movement.</p>
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7. Position stick section to remove the load from Stick Pin. Remove Stick Pin.

NOTE: Reinstall mounting pins and hardware on attachment to avoid loss or damage.

5.6 Mounting Kit Removal

	<p>CAUTION</p> <p>Some procedures, such as attaching the work tool to and from the carrier, will require an assistant. Both the operator and assistant must be qualified in these procedures.</p> <p>Take all necessary precautions. Throughout the procedure the machine operator shall be seated in the operator's seat and maintain full control of the machine. All directions and signals must be agreed upon in advance. Take signals from only ONE person.</p> <p> Crush hazard. Keep hands clear of crush points and moving parts. Use sufficient blocking to avoid accidental or sudden movement.</p> <p>The jaws of the Pulverizer are held together by the mounting pin. Remove with caution. Proper support and blocking of the jaws is required to prevent sudden or unexpected movement with pin removed.</p>
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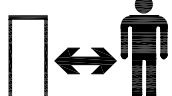
	<p>CAUTION</p> <p>Wear personal protective equipment, including appropriate clothing, gloves, safety eyewear and shoes when handling, installing and servicing the equipment.</p>
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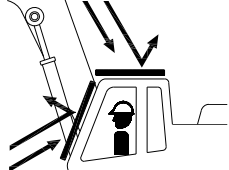
1. Remove the Pulverizer from the carrier as directed in Section 5.5.
2. Do not work on the Pulverizer before ensuring it will not move.
3. Flange Adapters are a slip fit. With the Jaws adequately supported, remove flange adapter.

NOTE: Secure loose shims to attachment to avoid loss or damage.

6.0 Operation


6.1 Operation

 CAUTION	
	Injury from flying debris. Keep a safe distance from workers. Never operate with workers in close proximity. Erect barricades to prevent workers from entering work zone. Stop operation if workers enter into work zone.
	

 CAUTION	
	The operator must be shielded against injury from flying debris. Appropriate PPE, including eye protection, must be worn when operating this equipment.

The Allied Pulverizer is designed for controlled demolition and recycling of concrete slabs, walls and foundations. Reposition the Stiff Arm in the Mounting Pad, if necessary, to optimize gripping power. The best position for the lower jaw depends on the size of the material being crushed and whether the material is on the ground, part of a structure, etc.

6.1 Pre-operation Checks, Testing and Adjusting

 CAUTION	
Repair or replace any damaged components prior to operation. Do not operate attachment until all faults are corrected.	

For safe and proper operation, precautions must be taken before each use to ensure the Pulverizer is in sound operating condition and not damaged.

- Prior to operating the attachment, carefully inspect the following:
 - Check Jaws, Stiff Arm and Mounting Pad for cracks and distortion
 - Check Blades and Teeth for wear or damage
 - Check Threaded fasteners for tightness and damage
 - Check mounting hardware. Ensure Pulverizer is securely attached to the carrier. Check

mounting pins, bushings and keepers for wear or damage


- Raise the attachment off the ground. Slowly stroke the bucket cylinder to open and close the upper jaw. Ensure components pivot smoothly without binding or interference.
- Repair as necessary. Do not operate the attachment until all faults are corrected.

NOTE: See Section 7 for further maintenance details.

6.2 Operation

NOTE: To maximize the equipment's service life, pay particular attention to correct working methods.

IMPORTANT
Do not operate attachment beyond its performance limits. Adhere to the specifications listed in Section 10 of this manual.

 CAUTION	
Never activate the attachment unless the operator is seated in the operator's seat and in full control of the machine. Follow operating instructions found in the carrier's Operator's Manual.	

IMPORTANT	
To avoid equipment damage, follow these instructions carefully.	
<ul style="list-style-type: none"> At temperatures below 32°F (0°C), allow the oil to warm before crushing material. Cycle the bucket cylinder for a few minutes without any load until normal operating temperature is reached. Do not allow jaws to contact each other. Do not use the attachment to lift or sweep materials. Do not operate the attachment without teeth or cutting blades. 	

- Before operation, clear all personnel from the work area.

6.0 Operation – [cont'd]

2. With the attachment low to the ground, move carrier into the work zone.
3. Check ground conditions. Be aware of all obstacles such as slopes, ditches. Avoid unstable or slippery ground conditions.
4. Check clearances in the work area. Locate and mark all hazards, such electrical wires, etc.
5. Position the excavator so the operator is in full view of the Pulverizer. The jaws must be in full contact with the work surface for maximum effectiveness.
6. After crushing is complete, re-position the attachment and/or carrier to continue working.

6.0 Operation – [cont'd]

6.2 Operation – Prohibited Actions

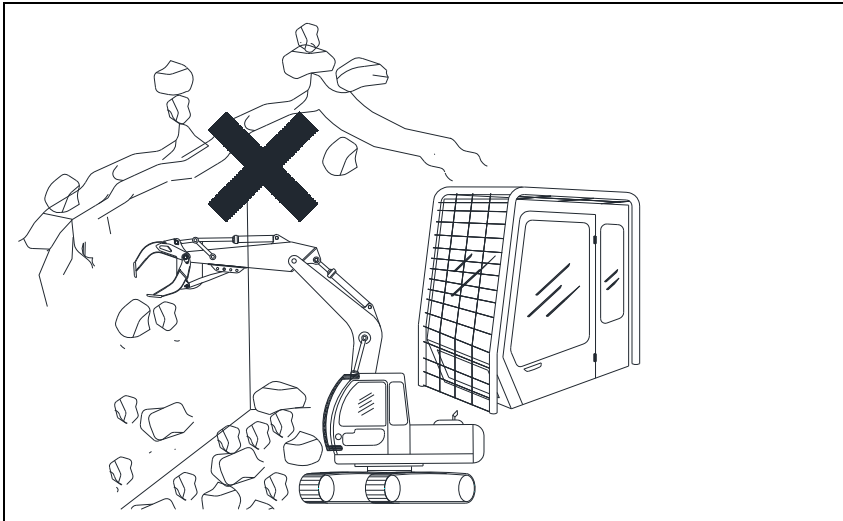


Fig. 6-1
Protect Against Falling and Flying Debris.

Do Not Use This Work Tool If Machine is Not Equipped with Approved Protective Structures, Guarding and Shields

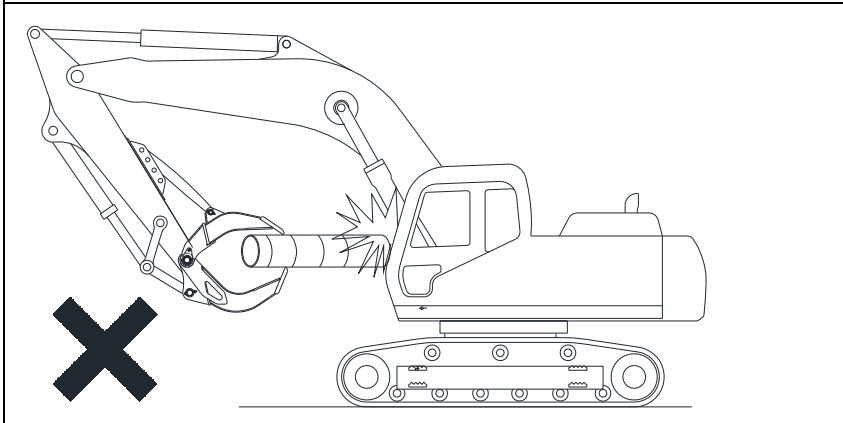


Fig. 6-2
Do Not Strike Machine With Material

Operate With Care and Maintain Control While Positioning to Prevent Contact Between the Work Tool and Machine

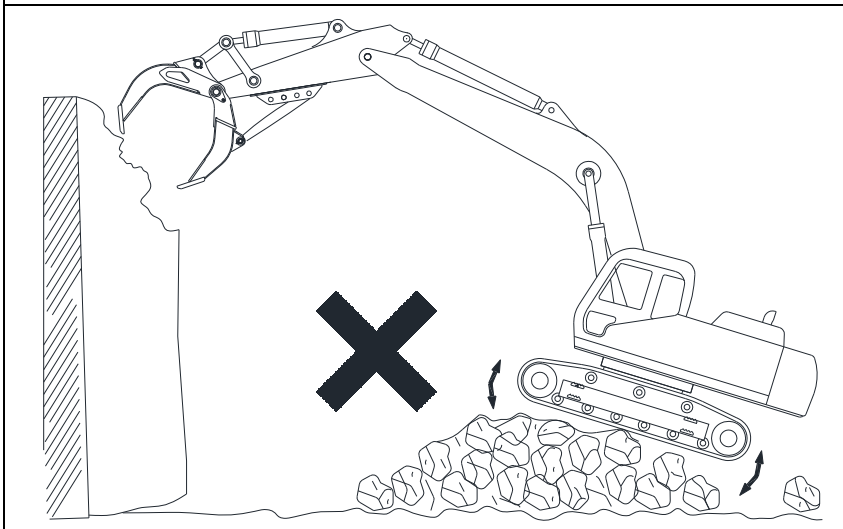


Fig. 6-3
Do Not Operate Machine On Unstable Surface

6.0 Operation – [cont'd]

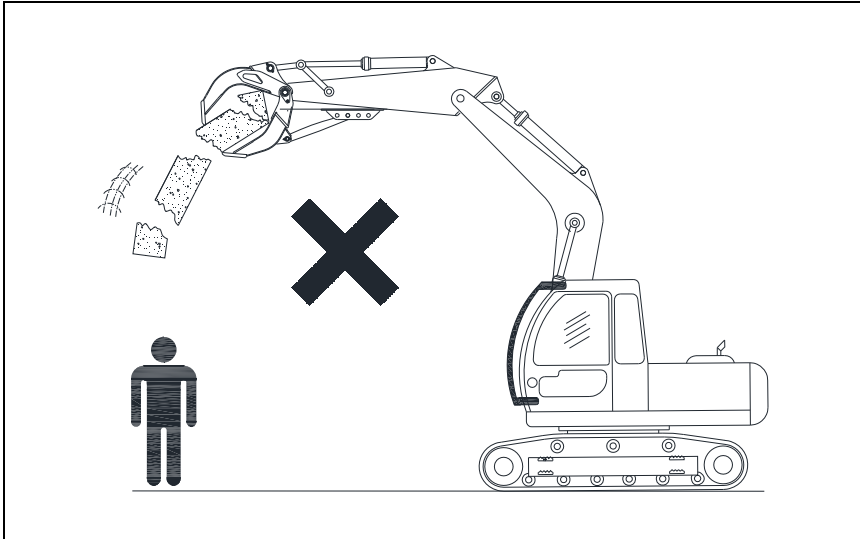


Fig. 6-4
Do Not Carry Loads Over the Machine or Over Workers

Do Not Operate With Workers Inside Work Zone

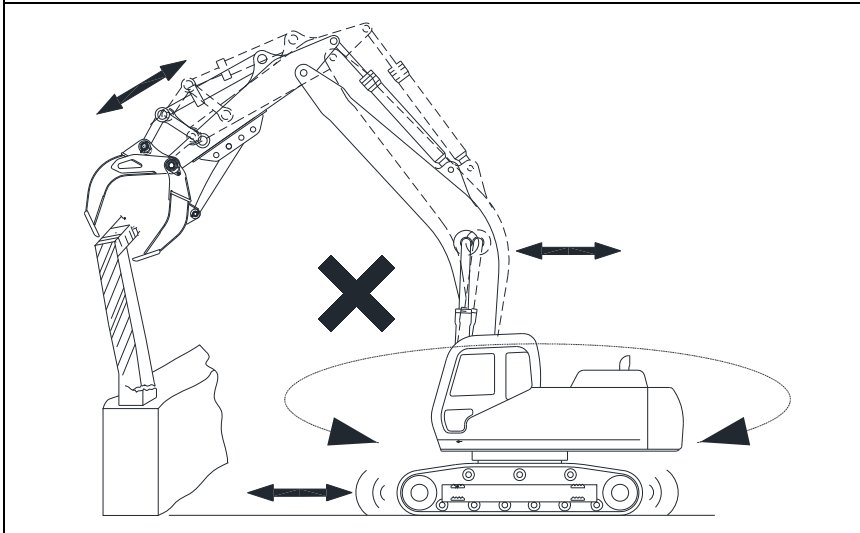


Fig. 6-5
Do Not Use Machine to Twist or Lever Objects

Do Not Overload the Jaws. Keep Load Centered Evenly Across Jaws

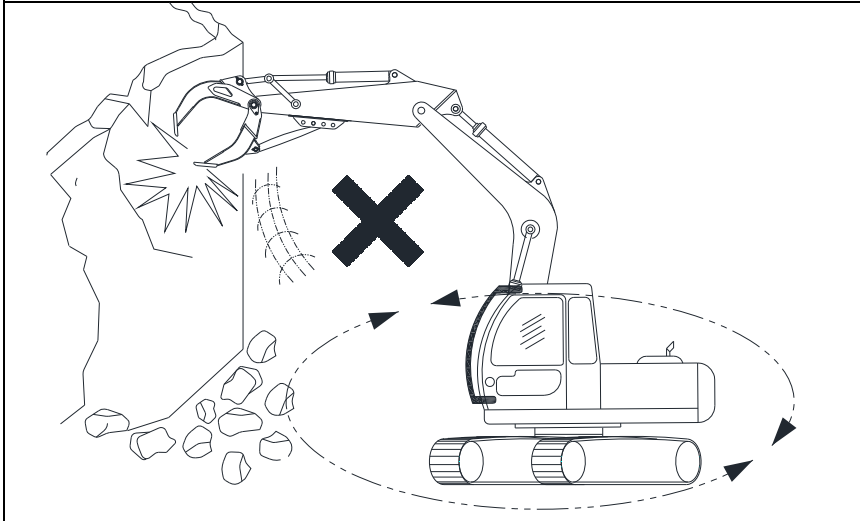


Fig. 6-6
Do Not Drop, Strike, Hack or Pound Objects With the Work Tool

Do Not Swing Into Structures

6.0 Operation – [cont'd]

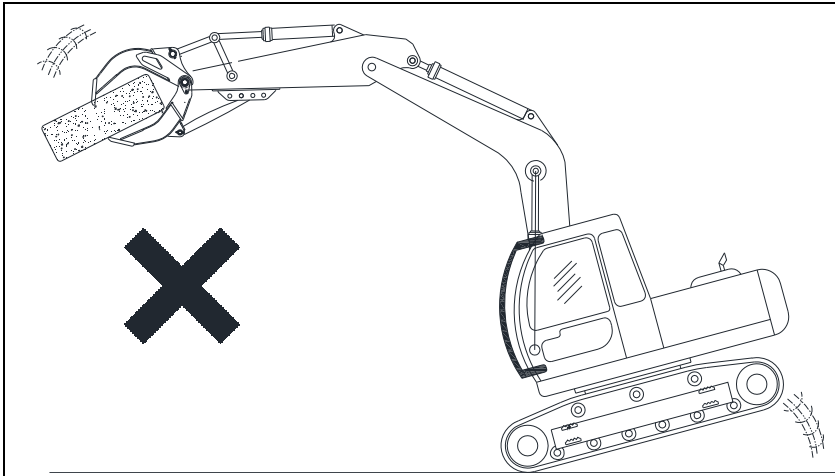


Fig. 6-7
Do Not Overload Beyond Capacity Which Could Lead to Tipping.

Carry Loads Close to Ground Level
Avoid Operating / Travelling Across Slope
Clear All Obstacles In Path of Machine

Keep a Safe Distance from Excavations, Cliff, or Overhang

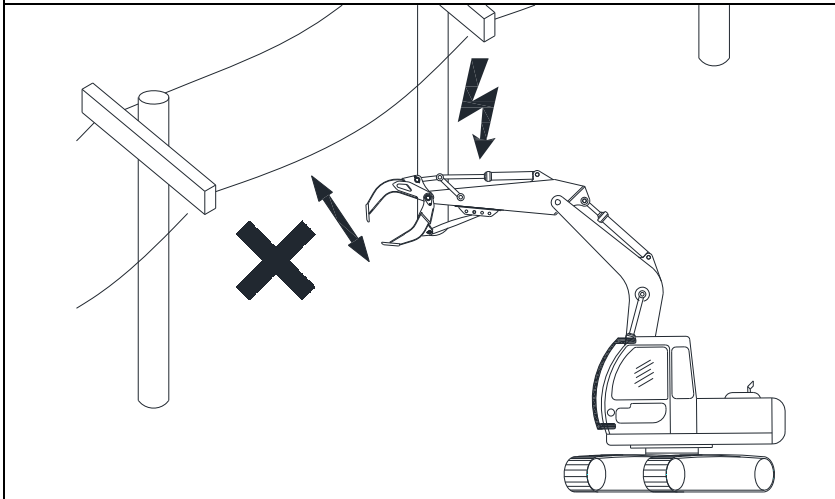


Fig. 6-8
Be Aware of Your Surroundings.

Erect Barriers and Signs That Will Keep Machines At a Safe Distance From Hazards Such as Utilities.


7.0 Maintenance and Service

When properly installed, operated and maintained by qualified personnel, the Allied Pulverizer requires a minimum of service. **Service intervals are to be used as a guide. Service should be performed more frequently as determined by operating conditions.**



Item	Daily 10 hrs	Weekly 50 hrs	Monthly 250 hrs	3-Months 500 hrs	6-Months 1000 hrs	Note
Visual inspection - Walk around	X					A, B, D
Re-lubricate All Pin Joints	X5					B, D
Check Fasteners / Keepers		X				C, B, D

- A) Refer to the list of parts to include during the inspection.
- B) Recommendation for Normal (Standard) operating conditions.
- C) After first 50 hours of use
- D) Under extreme conditions or if a change in performance is observed, shorten intervals.
- E) Twice Daily. At Long Term Storage.

7.1 Safety Precautions

	CAUTION
<p>When working with the Allied equipment all procedures and operations must be performed correctly so that unsafe situations may be avoided. Do not attempt any repairs unless you have proper training, skills and tools. Understand all procedures before doing work. Do not proceed beyond instructions or warnings that you do not fully understand.</p>	

	CAUTION
	<p>To avoid the risk of injury, wear protective equipment, including appropriate clothing, gloves, safety eyewear and shoes when handling the Pulverizer.</p>

	CAUTION
	<p>Crush hazard. Provide adequate load support when service work is performed.</p>

7.2.1 Lubrication

Table 7.1 Recommended Grease
<p>Use a premium quality, EP #2 grease with lithium and anti-rust additives. Minimum oil viscosity shall be 14.5 cSt at 212° F (100° C).</p> <ul style="list-style-type: none"> • Shell Oil – Alvania EP2 • Mobile Oil Co. – Mobilux EP2 • Texaco Inc. – RB2

The bushing in the upper jaw is lubricated through standard grease fittings located at the main pivot.

Under normal operating conditions, lubricate the bushings every 2 hours of operation. Frequent greasing will flush foreign material from the bushings.

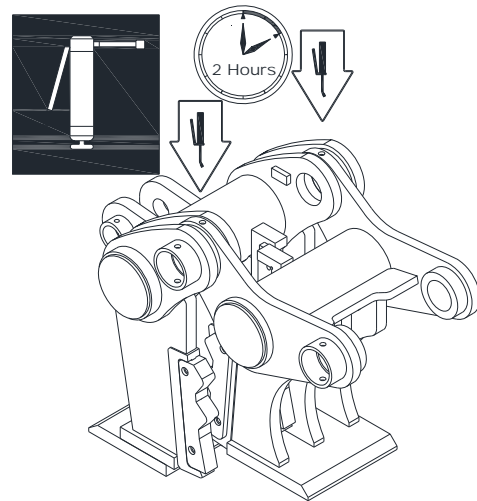


Fig. 7-1 Lubrication Points Identified

IMPORTANT
<p>Contamination can shorten bearing life. Prevent dirt and debris from entering bushing. Always clean grease fitting and surrounding area prior to connecting the grease gun.</p>

1. Move carrier and Pulverizer to flat stable ground. Position the Allied Pulverizer for easy access to lubrication fittings.
2. Do not work on the Pulverizer before ensuring it will not move.
3. Clean grease fitting.

7.0 Maintenance and Service – [cont'd]

- Inject grease using standard manual grease gun until clean grease ring forms from the bushing.

7.4 Bearing Inspection

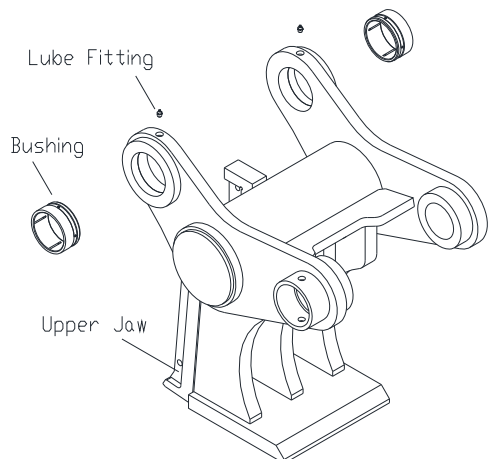



Fig. 7-2 Main Pivot Bearings Identified

A scraping or squeaking sound is an indication of dry bearings.

Visually inspect the bearings for broken or damaged components to determine if replacement is necessary.

7.4.1 Bearing Replacement



CAUTION
Crush hazard. Components are heavy and require the use of proper lifting equipment and load supports during service work.

Use standard mechanic's techniques and tools to disassemble and assemble the attachment. Bearing service shall be performed in a properly equipped workshop.

IMPORTANT

Modifications may create unwanted safety hazard or impair the function and performance of the Allied work tool. Do not make any alterations without written authorization from the Allied Engineering Department. When making repairs, use only the manufacturer's genuine parts. Substitute parts may not meet the required standards for fit and quality, or may impair function, safety and performance.

7.4.2 Bearing Removal

- Position the Pulverizer on flat, stable surface.
- Do not begin work without first safeguarding against movement. Use sufficient blocking to support weight.
- With the upper jaw properly supported, press out bearing. Press only against the bearing's inner race.

NOTE: Do not pry out the bearing. Place a small weld bead, 1/8 inch (3 mm) along the inside diameter. Allow it to cool, then remove.

7.4.3 Bearing Installation

- Clean the bore for the bearing.
 - Apply a light coating of oil to the outside of the bearing
 - Slowly press bearing into housing.
- NOTE:** Bearings are interference press fit.
- Repeat steps 1-3 with other bearing.

7.5 Cutter Blade Replacement

The cutter blades are subject to wear. Add shims when gap between blades is greater than 0.078" [2mm].

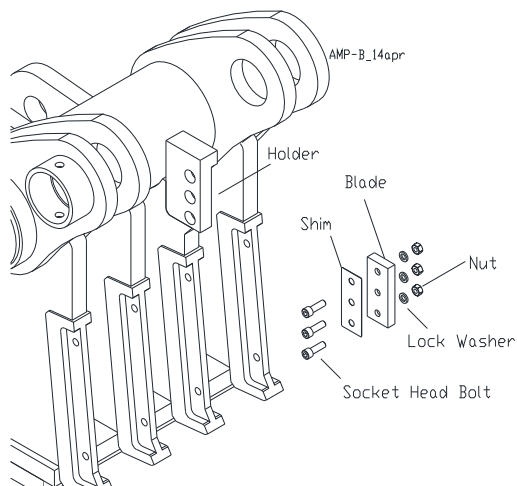


Fig. 7-3 Cutter Blade Identified

7.0 Maintenance and Service – [cont'd]

1. Position Pulverizer on flat, stable surface.
2. Loosen and remove nuts that secure the cutter blade to holder.
3. Remove blade from holder.
4. Install new blade with shim into holder. Install bolt, lock washer and nut. Tighten to 250 ft./lbs. [340 N·m].

7.6 Tooth Replacement

The teeth are subject to wear and require periodic replacement.

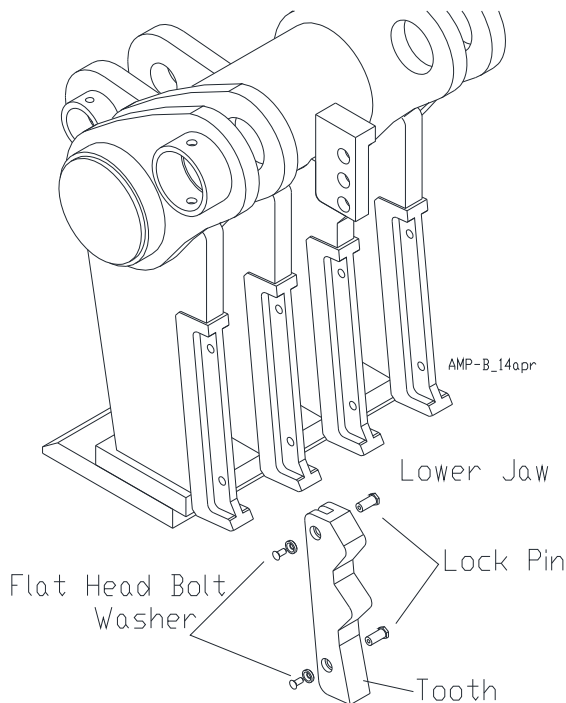


Fig. 7-4 Tooth & Retainers Identified

1. Position Pulverizer on flat, stable surface.
2. Use sufficient blocking to support weight and prevent movement.
3. Loosen the flat head bolt and remove the lock pin and lock pin washer that secures the tooth to jaw.
4. Remove tooth.
5. Install new tooth with insert lock pin, washer and bolt. Tighten to 50 ft./lbs. [67 N·m].

7.7 Threaded Fasteners

IMPORTANT

Keep fasteners tight. Replacement fasteners must be the same size, type and grade.

- Clean threaded fasteners and surfaces to be bolted.
- Lubricate threads and washer faces with light coat of grease.
- Tighten to specified torque.

NOTE: After bolt installation, operate the Pulverizer for a few hours, then re-check bolt torques.

7.8 Welding Maintenance

IMPORTANT

Regularly inspect welds and all surfaces of the Pulverizer for cracks. Make repairs immediately. Repairs are easier when cracks are smaller. Left unattended, cracks will further expand, creating an unsafe operating condition and expensive repairs.

7.8.1 General Guidelines for Build-Up and Hard-Surfacing

Hard facing protects the parent material of the jaws from wear. Perform hard facing as needed. The wear resistant used in the pulverizer requires special attention during maintenance. Preheat and post-heat instructions must be followed to avoid damage and shortened life. Review the following guidelines carefully. Detailed instructions for maintaining specific areas of the pulverizer are provide below.

IMPORTANT

The build-up and hard-surface procedure must be performed when there is adequate time for the jaw to cool slowly prior to use.

IMPORTANT

Preheat and post-heat instruction must be followed. Failure to do so can compromise product integrity and void the product warranty.

7.0 Maintenance and Service – [cont'd]

7.8.2 Preheat

- Preheat general surrounding area to approximately 200F (100C) to remove any moisture.
- Before beginning any welding, tack welding, torch cutting or air-arcing, locally preheat the areas within 6 inches (150 mm) to a minimum of 400F (200C) and a maximum of 450F (230C).
- Preheat shall be uniform throughout the material thickness and maintained until all welding is completed. Avoid cyclic heating and large temperature variations.

7.8.3 Post-Heat

If the temperature of the preheated area within 6 inches (150 mm) of the weld area drops below 400F (200C), post heat the area to 400F (200C) and wrap with a heat blanket allowing it to cool slowly to ambient temperature.

7.8.4 Handling and Storage of Weld Materials

Follow the weld manufacturer’s handling and storage instructions carefully. Insure the electrodes, or wire, are free of moisture. Moisture can cause cracks or porosity in the weld or base metal beneath the weld.

7.8.5 Weld Quality

Weld quality and attention to detail can significantly affect the life of the pulverizer.

- Only allow qualified and certified welders to perform this work.
- Insure weld consumables and base materials are clean, dry and free of grease, paint, dirt and other foreign substances that may contaminate the weld.

7.8.6 Weld Material Recommendations

IMPORTANT

Improper build-up or hard-surfacing products may result in premature wear, increased cracking potential and void the product warranty.

Select a suitable build-up material from the list of AWS classifications table. Your local welding supplier can assist in identifying product in accordance with these classifications.

Table 7.2 Build-up Material

Shielded Metal, Arc Stick Electrodes:	E7018, E8018-C3
Gas Metal Arc, Solid Wire Electrodes:	ER70S
Gas Metal Arc, Flux Core Electrodes:	E71T, E71T-1M, E80T1-Ni, E80T1-Ni1M
Gas Metal Arc, Metal Powder Core Electrodes:	E70C-6M, E80C-Ni1

Table 7.3 Hard-surfacing Material

Amalloy 814H rod	(or equivalent)
------------------	-----------------

IMPORTANT

To prevent cracking, always use a hard-surfacing weld material with a chromium content of less than 10% and a severe impact resistance rating. Do not use stainless steel hard-surface rod/wire. It is too brittle and has a tendency to crack, weakening the base metal.

Only apply hard-surface welds directly on top of build-up welds. The build-up weld acts as a bonding surface or underlayment. This layering reduces the chances of hard-surface weld cracking.

7.8.7 Tooth Build-Up and Hard-Surfacing

The teeth of the crusher can be built-up and hard-surfaced to increase life. Depending on the extent of the wear, it may be more cost effective to replace the teeth rather than reconstruct.

IMPORTANT

The build-up and hard-surface procedure must be performed when there is adequate time for the teeth to cool slowly prior to use.



CAUTION

Hazardous fumes are generated when paint is heated. Remove paint before heating and welding. When sanding or grinding paint, do not breathe the dust. Wear an approved respirator.



CAUTION

If solvent or paint stripper is used, remove residual liquids with soap and water prior to heating/welding. Remove solvent/stripper container and other flammable materials from the area. Have an approved fire extinguisher nearby during all cutting and welding operations.

7.0 Maintenance and Service – [cont'd]



CAUTION

Do all work in a well-ventilated area. Dispose of paint and solvent properly.

IMPORTANT

Protect non-work surfaces and surrounding areas from sparks.

7.8.8 Build-up Procedure for Tooth

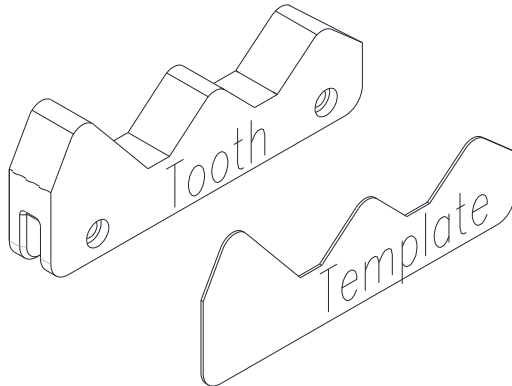


Fig. 7-5 Template for Tooth Build-up

- Use a build-up template to determine the amount required.
- Clean all dirt and grease from work surfaces. If old hard-surfacing exists, remove it with a grinder to expose base metal.
- Preheat the tooth to approximately 200F (100C) to remove any moisture. Preheat the rebuild area to 300-400F (150-200C).

IMPORTANT

Overheating can damage the tooth. Use a temperature stick or thermal temperature gun to frequently test the area often during this procedure to maintain 300-400F (150-200C). Do not exceed 450F (230C).

- Use AWS E7018 welding rod or equivalent.
- Apply side-to-side passes down the face of the cutting edge until the area is covered.
- After each pass, peen the area vigorously to stress relieve and remove slag.
- Repeat this process until the profile closely matches the template profile.

- Grind the edges square to match the template profile.

7.8.9 Hard-surface Procedure for Tooth

To hard-surface the tooth:

- Apply parallel passes of AWS E7018 running the length of the tooth.
- Space single passes approximately ½" [13mm] apart. These serve as an underlayment for the hard-surface material.

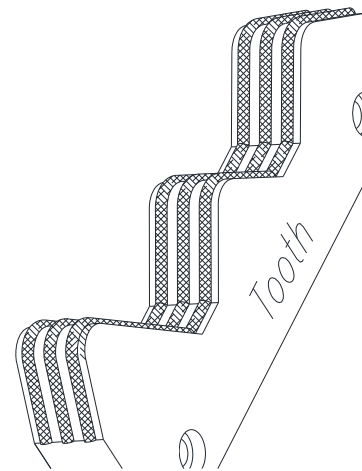


Fig. 7-6 Tooth Hard Surfacing

IMPORTANT

Do not apply the hard-surface material directly to the parent metal.

- Apply a bead of Amalloy 814H rod (or equivalent) directly on top of each underlayment bead. It is important to stress relieve each weld pass with an air-operated slag peener.
- Taper the ends of each hard-surface bead with a grinder. Grind parallel to the weld bead. Do not uncut the weld.
- When welding and grinding is complete, peen the welded area until shiny of weld surface can no longer be dented, typically 5 to ten minutes. This further hardens the weld surface.

When finished, cover the reworked area with a heat blanket to slow cooling.

7.0 Maintenance and Service – [cont'd]

7.8.10 Pulverizer Jaw Build-Up and Hard-Surfacing

Surrounding areas of the lower and upper jaw can be built-up and hard-surfaced to increase life.

IMPORTANT
The build-up and hard-surface procedure must be performed when there is adequate time for the jaw to cool slowly prior to use.

CAUTION
Remove paint before heating and welding. When sanding or grinding paint, do not breathe the dust. Wear an approved respirator. Hazardous fumes are generated when paint is heated. Perform all work in a well-ventilated area.

CAUTION
If solvent or paint stripper is used, remove residual liquids with soap and water prior to heating/welding. Remove solvent/stripper container and other flammable materials from the area. Have an approved fire extinguisher nearby during all cutting and welding operations.

IMPORTANT
Dispose of paint and solvent properly.

CAUTION
Protect non-work surfaces and surrounding areas from sparks.

IMPORTANT
Check the temperature often during this procedure to maintain 300-400F (150-200C). Do not exceed 450F (230C).

IMPORTANT
Do not apply the hard-surface material directly to the parent metal.

CAUTION
Only certain areas of the pulverizer can be hard-surfaced. Serious damage and reduced life will result if hard-surfacing is applied to unapproved area. Refer to the figure for approved surfaces.

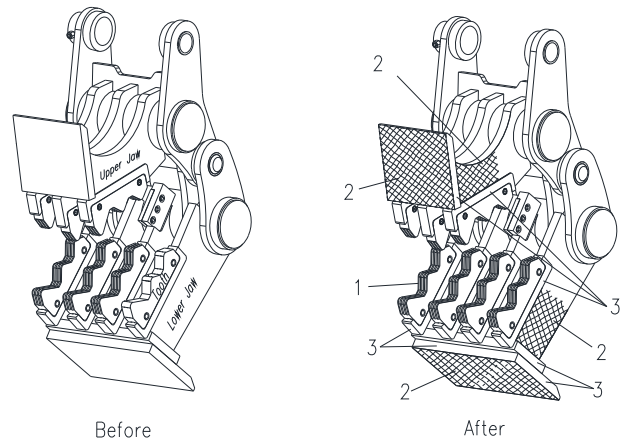


Fig 7-7 Hard Surfacing - Approved Areas Identified

7.8.11 Pulverizer Jaw Build-up Procedure

- Clean all dirt and grease from work surfaces. If old hard-surfacing exists, remove it with a grinder to expose base metal.
- Use a build-up template to determine the amount of build-up required.
- Preheat the tooth to approximately 200F (100C) to remove any moisture. Preheat the rebuild area to 300-400F (150-200C).

IMPORTANT
Overheating can damage the heat treat. Use a temperature stick or thermal temperature gun to frequently test the area often during this procedure to maintain 300-400F (150-200C). Do not exceed 400F (200C).

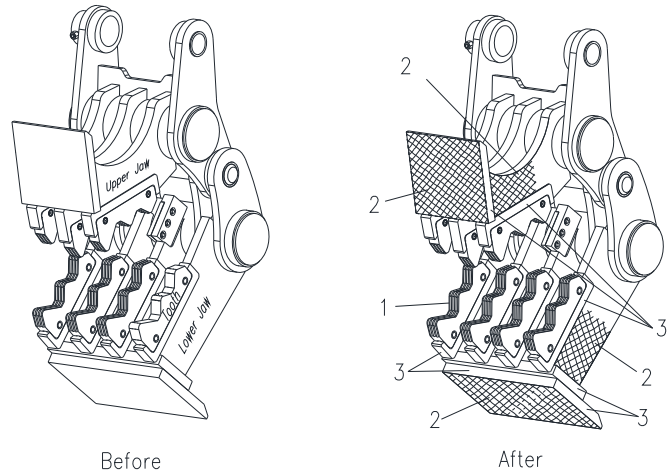
- Use AWS E7018 welding rod or equivalent. Apply side-to-side passes down the face of the cutting edge until the area is covered.
- Apply passes of AWS E7018 to create 45° degree cross-hatch or diamond pattern on the approved surfaces.
- Space the single passes shall approximately 1" (25mm) apart. These serve as an underlayment for the hard-surface material.
- Vigorously peen the area after each pass to stress relieve and remove slag. Repeat this process until the profile closely matches the template profile.

7.0 Maintenance and Service – [cont'd]

Refer to the figure for areas approved for hard-surfacing.

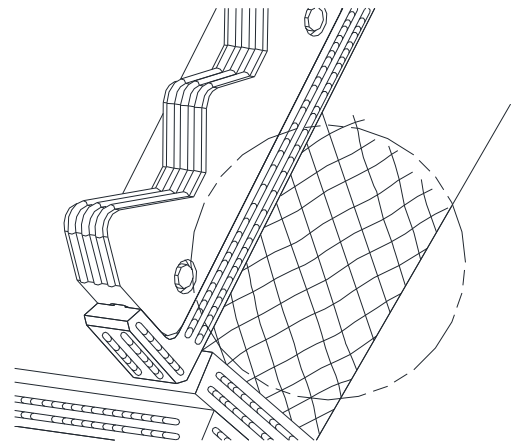
- Area 1. Tooth
- Area 2. Crosshatch Jaws
- Area 3. Stringers at Plates / Blade Holders

Serious damage and reduced life will result if hard-surfacing is applied to unapproved area.



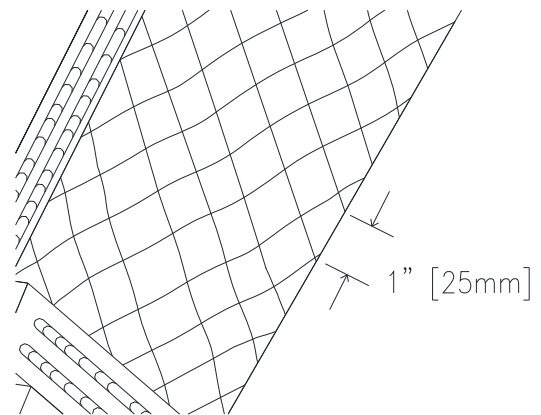
To hard-surface the jaw area – apply underlayment:

- Apply passes of AWS E7018 to create 45° cross-hatch or diamond pattern on the approved surfaces.
- Space the single passes approximately 1" (25mm) apart. These serve as an underlayment for the hard-surface material.
- Peen the area vigorously after each pass to stress relieve and remove slag. Repeat this process until the surfaces closely match the figures.



To hard-surface the jaw area:

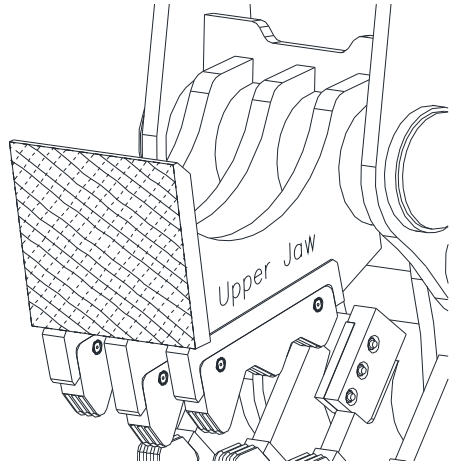
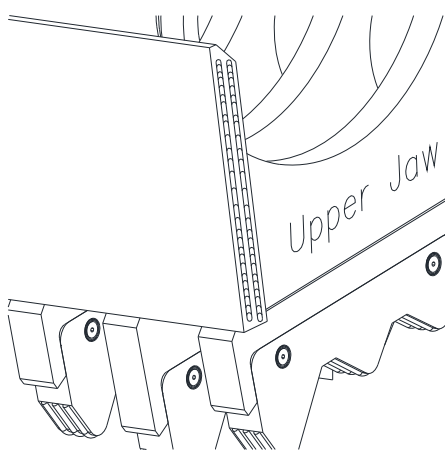
- Apply a bead of Amalloy 814H rod (or equivalent) directly on top of each underlayment bead. It is important to stress relieve each weld pass with an air-operated slag peener.
- Taper the ends of each hard-surface bead with a grinder. Grind parallel to the weld bead. Do not uncut the weld.
- When welding and grinding is complete, peen the welded area until shiny of weld surface can no longer be dented, typically 5 to ten minutes. This further hardens the weld surface.
- When finished, cover the reworked area with a heat blanket to slow cooling.



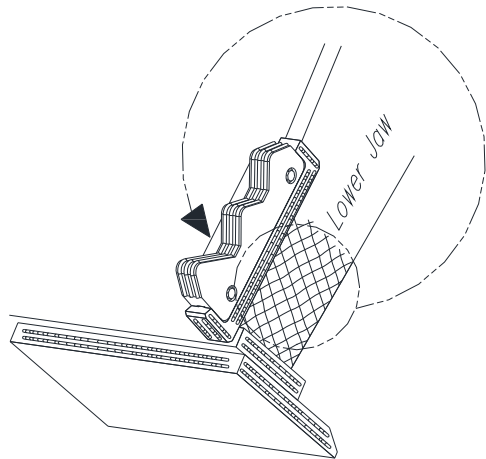
7.0 Maintenance and Service – [cont'd]

Apply two stringers to all four edges on top plate.

Crosshatch the plate of the upper jaw at 45° angles to form 1" squares.

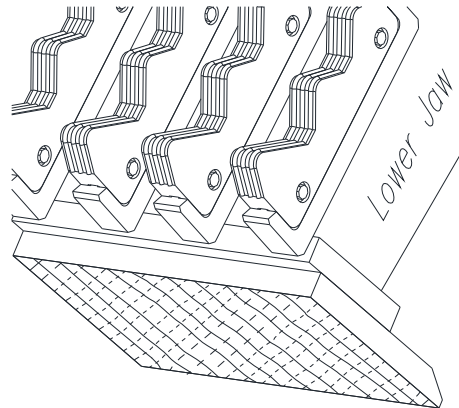
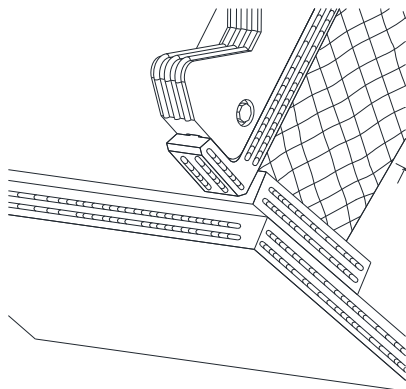


Crosshatch the upper jaw at 45° angles to form 1" squares. Apply to outside and inside surfaces.






Apply two stringers to all four sides on bottom plate.



Crosshatch the bottom plate at 45° angles to form 1" squares.





8.0 Handling & Storage

8.1 Lifting & Transport

 WARNING	
 	Crush hazard. Injury may result if the attachment shifts or falls. The LIFT POINT decal identifies the recommended lifting points. Lifting devices must safely carry the loads to which they will be subjected. Lift away from people. Do not enter the danger zone while the attachment is being lifted.

 WARNING	
	Injury from falling object/debris. Hoisted items can be hazardous to bystanders or to the machine itself. Remove all unsecured items including loose parts, service tools and debris before item is hoisted.

 CAUTION	
	Crush hazard. Keep hands and feet clear of crush points. Prevent accidental or sudden movement with sufficient support and blocking.

Adhere to all federal, state and local regulations and laws when transporting machinery. Use extra care when loading and unloading onto truck or trailer. Be sure to use sturdy tie down equipment to secure load.

8.1.1 If the attachment is to be transported independent of the carrier;

- Remove all loose debris from the Allied Pulverizer.
- Follow removal instructions in Section 6.4.
- Lift the Allied Pulverizer only with appropriate lifting equipment.
- Adequately stabilize and secure Pulverizer for transport.

8.1.2 If the attachment is transported while installed on the carrier:

- Remove all loose debris from Allied Pulverizer.

- Inspect the mounting pins and hardware for damage and integrity.
- Transport carrier in accordance with carrier manufacturer's recommendations.

8.2 Storage

Several simple precautions are necessary for storage of the Allied Pulverizer.

- Adequately stabilize and secure Pulverizer.
- Lubricate pins and bushings.
- Avoid wet or damp conditions to minimize rust.

NOTE: Reinstall mounting pins and hardware on attachment to avoid loss or damage.

9.0 Troubleshooting



CAUTION

When working with the Allied equipment all procedures and operations must be performed correctly so that unsafe situations may be avoided. Do not attempt any repairs unless you have proper training, skills and tools. Understand all procedures before doing work. Do not proceed beyond instructions or warnings that you do not fully understand.

The Troubleshooting guide is designed to help diagnose possible causes of several commonly encountered conditions. For conditions other than these, contact the Allied Technical Service Department.

<u>Fault</u>	<u>Cause</u>	<u>Remedy</u>
Mounting kit doesn't fit Pulverizer	Wrong mounting kit.	Measure carrier's stick width and pin diameters. Order correct kit.
	Debris, galling or burrs on pins and/or bushing.	Clean. Remove burrs. Replace damaged parts.
	Lugs distorted due to overload.	Record measurements, take pictures; Contact Allied
Assembled Pulverizer doesn't fit the carrier	Wrong mounting kit.	Measure carrier stick width and pin diameters. Order correct kit.
Jaws don't close evenly and/or completely. One side closes first.	Jaws distorted due to over-load.	Record measurements, take pictures; Contact Allied
Pulverizer jaw or lugs appear to be twisted.	Pulverizer is distorted due to over-load.	Record measurements, take pictures; Contact Allied
Jaws squeak when operated.	Pivot bearings not lubricated.	Lube pivot points with approved grease.
	Mounting components are galled.	Repair / replace parts that are severely galled.
Stiff Arm does not line up with Mounting Pad.	Lower Jaw is distorted due to over-load.	Record measurements, take pictures; Contact Allied
	Mounting pad installed on an angle	Remove and re-install.

10.0 Technical Data

Table 10.1 General Specifications

		MP50B	MP70B	MP100B
Service Weight ^{a)} lbs. [kg]		3,920 [1,778]	4,660 [2,113]	6,780 [3,075]
Recommended Carrier Weight ton [metric-t]	Minimum ^{b)}	22 [20]	33 [30]	42 [38]
	Maximum	33 [30]	42 [38]	55 [50]
Crushing Force ^{c)} ton [metric-t]		39 [35]	42 [38]	63 [45]
Cutting Force ^{c)} ton [metric-t]		110 [100]	121 [110]	143 [130]

^{a)} Weight includes jaws, arm, pad, pins and typical mounting kit.

^{b)} Mount only to carriers having adequate load-carrying capabilities. Always adhere to the safe working load set by the carrier manufacturer. Figure shown is provided as a general guideline.

^{c)} Typical values. Full Open, Crushing Force, and Cutting Force are carrier linkage and mounting pad dependent.

Table 10.2 Dimension Diagram

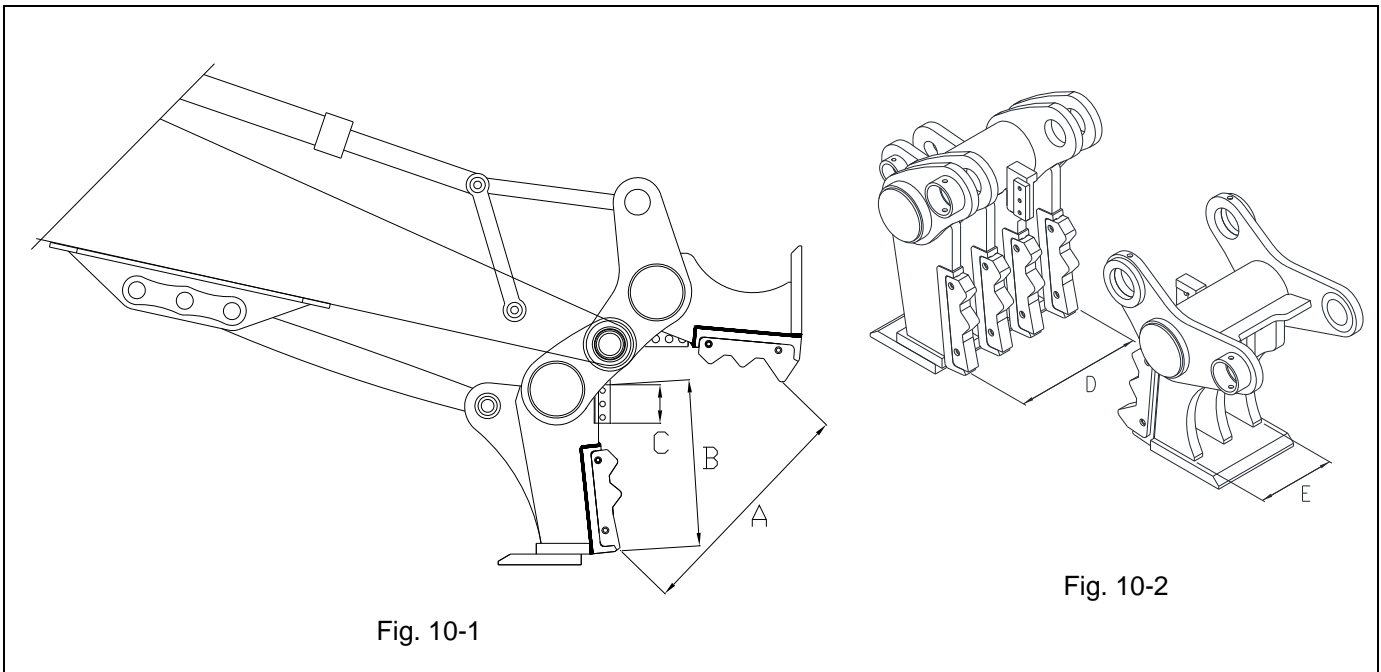


Fig. 10-1

Fig. 10-2

Item	Description	inch [mm]	MP50B	MP70B	MP100B
A	Jaw	Open ^{c)}	42 [1,067]	46 [1,180]	59 [1,495]
B		Depth	29 [740]	31 [800]	35 [878]
C	Cutter	Length	6.5 [164]	7.1 [180]	7.9 [200]
D	Jaw Width	Lower	20.3 [516]	27.2 [690]	31.2 [793]
E		Upper	13.8 [350]	15.9 [404]	19.3 [490]

^{c)} Typical values. Full Open, Crushing Force, and Cutting Force are carrier linkage and mounting pad dependent.

10.0 Technical Data – [cont'd]

Table 10.3 Dimension Diagram

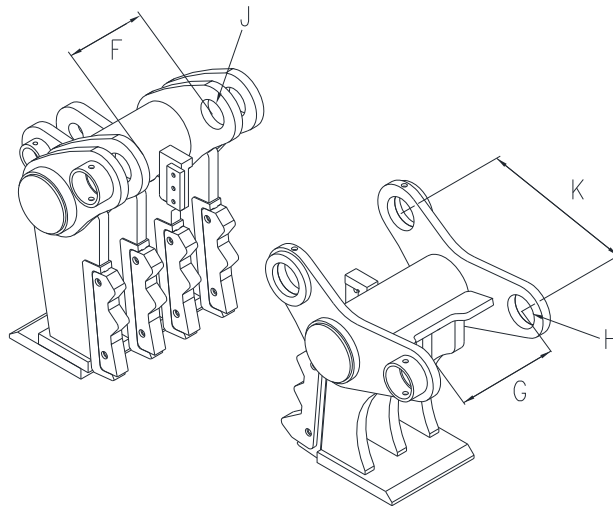


Fig. 10-3

Item	Description	inch [mm]	MP50B	MP70B	MP100B
F	Inside Width (max) ^a	Stick	18.63 [473]	18.63 [473]	20.31 [516]
G		Link	18.63 [473]	18.63 [473]	20.31 [516]
H	Pin Diameter (max) ^a	Link	4.33 [110]	4.33 [110]	4.72 [120]
J		Stick	4.33 [110]	4.33 [110]	4.72 [120]
K	Pin Ctr-Ctr		22.46 [570.5]	26.18 [665]	29.66 [753.5]

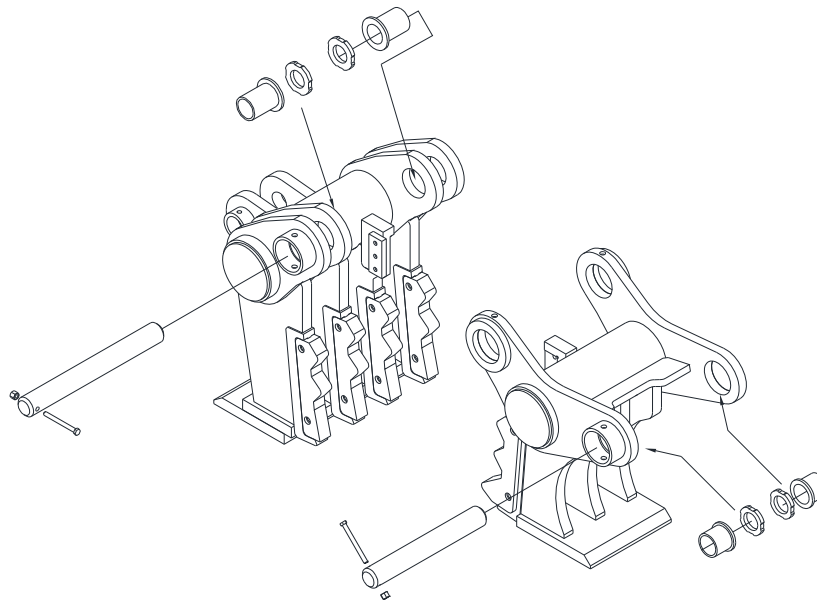


Fig. 10-4 Pin Kit – Typical

10.0 Technical Data – [cont'd]

Table 10.4 Dimension Diagram

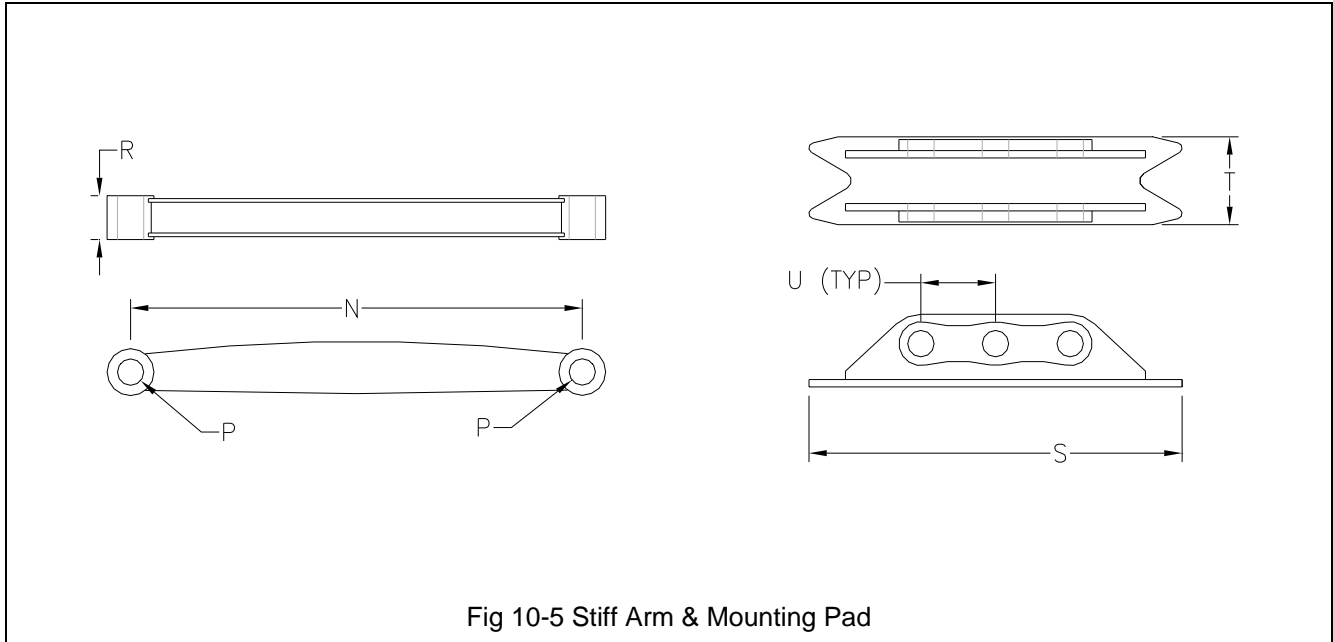


Fig 10-5 Stiff Arm & Mounting Pad

Item	Description	Inch [mm]	<u>MP50B</u>	<u>MP70B</u>	<u>MP100B</u>
N	Stiff Arm	Length Pin Ctr-Ctr	48.62 [1235]	56.50 [1435]	66.14 [1680]
P		Pin Diameter	2.83 [72]	3.15 [80]	3.55 [89]
R		Width	4.72 [120]	5.30 [135]	5.90 [150]
S	Mounting Pad	Length	40.20 [1021]	53.20 [1351]	59.10 [1501]
T		Width	9.50 [241]	10.90 [277]	11.80 [300]
U		Pin Ctr-Ctr	8.00 [203]	9.10 [231]	10.00 [254]

11.0 Spare Parts Information

IMPORTANT

When making repairs, use only the manufacturer's genuine parts. Substitute parts may not meet the required standards for fit and quality, or may impair function, safety and performance.

11.1 General

This section provides spare parts information for the Allied equipment described in Section 1. When ordering mounting parts, it's important to provide information about the carrier to determine their correct size.

The figures, tables and descriptions contained in this section are typical of the model(s) identified in Section 1 of this manual. Carefully view figures, tables and descriptions to verify that they match your Pulverizer. Pay special attention to any special notations that describe parts or assemblies that may not be applicable with all configurations.

To order replacement parts, Allied recommends contacting the dealer from which the equipment was purchased.

To expedite the ordering process and ensure accuracy, please provide your dealer with the following information-

- Manufacturer – Allied
- Product name – Mechanical Pulverizer
- Model number
- Serial number
- Description of the part
- Part number
- Quantity

11.2 Equipment Identification – Model and Serial Number Location

The serial number for this equipment is found in two locations. Figure 11-1, location 1 is the ID Tag. Location 2, the serial number is stamped into the movable jaw.

Equipment ID Label

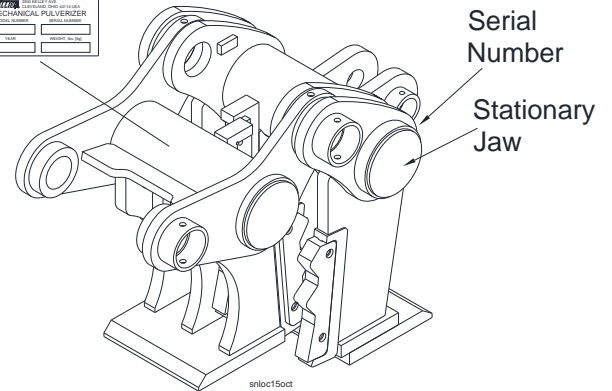


Fig. 11-1 Equipment Identification

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

The ID tag also includes model identification.

The Model Number represents the following:

Example: AMP 50B

A	Allied
M	Mechanical
P	Pulverizer
50	50,000 Lb. Carrier Class
B	B-Series

NOTE: Check that the model number of your Pulverizer corresponds to the one given in Section 1 of this manual.

11.0 Spare Parts Information – [cont'd]

Spare Parts Information – [cont'd]

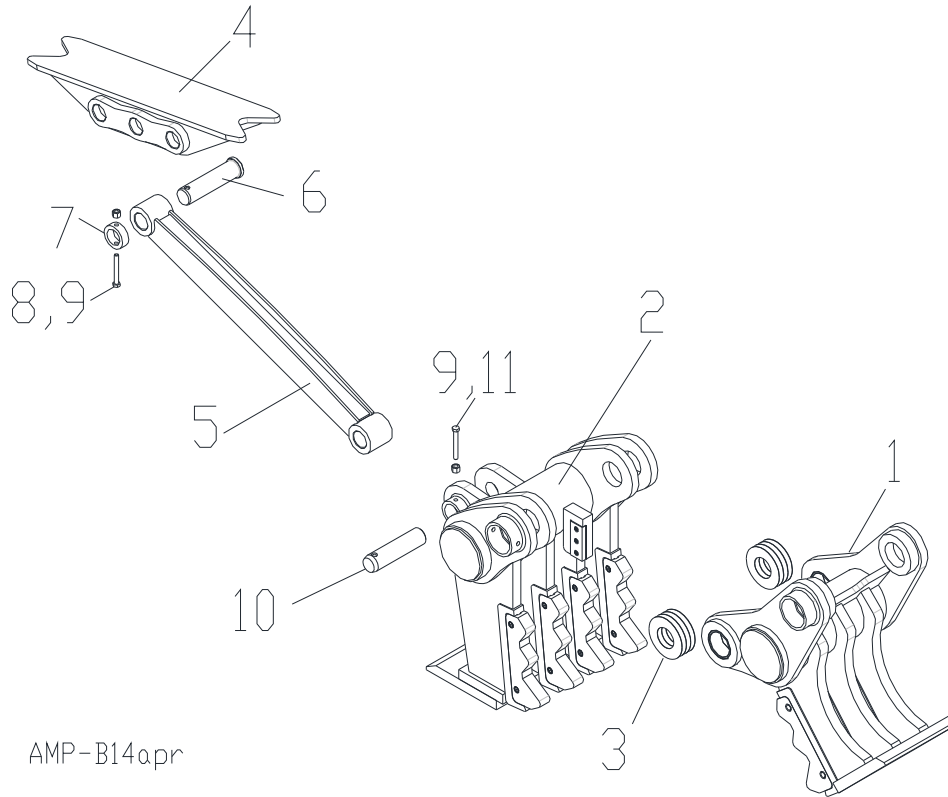
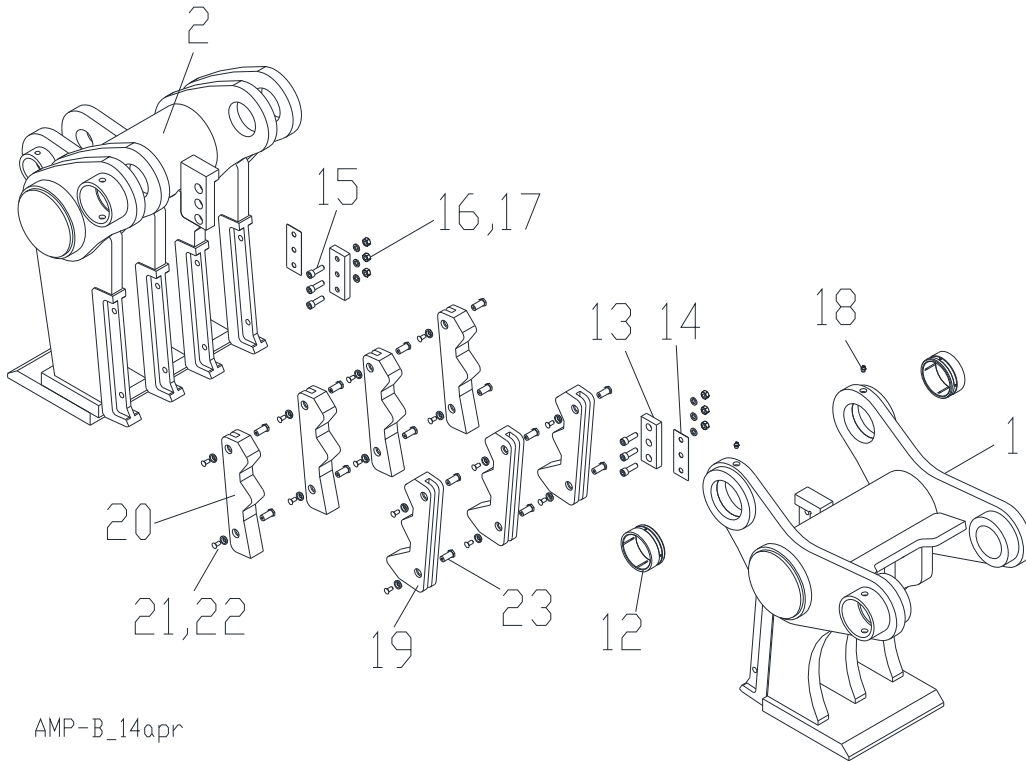


Fig. 11-2 MP- B-Series Parts Identification

Table 11.1 Parts Identification

Item	Description	Qty	Part Number		
			MP50B	MP70B	MP100B
1-23	Mechanical Pulverizer – Standard Assembly	1	577000C	577005C	577010C
1	Upper Jaw	1	The upper and lower jaw assemblies are a matched set. The serial number is required.		
2	Lower Jaw	1			
3	Shim – Main Pivot	8	840160	840160	840112
4	Mounting Pad	1	572779	572788	572797
5	Stiff Arm	1	572769	572787	572796
6	Pin (Stiff Arm to Mounting Pad)	1	572782	572791	572800
7	Collar, Mounting Pad Pin	1	573185	573186	573187
8	Hex Bolt	1	056197	573852	100557
9	Hex Nut	4	657428	657428	100087
10	Pin (Stiff Arm to Lower Jaw)	1	572783	572792	572801
11	Hex Bolt	1	573742	573742	100557

11.0 Spare Parts Information – [cont'd]



AMP-B_14apr

Fig. 11-3 MP- B-Series Parts Identification

Table 11.2 Parts Identification

Item	Description	Qty	Part Number		
			MP50B	MP70B	MP100B
1-23	Mechanical Pulverizer – Standard Assembly	1	577000C	577005C	577010C
12	Bushing - Main Pivot	2	572784	572793	572802
13	Cutting Blade	2	573336	573344	573352
14	Blade Shim	4	573337	573345	573353
15	Socket Head Bolt	6	681067	573851	679037
16	Lock Nut	6	90548	90548	90548
17	Lock Washer	6	056245	056245	056245
18	Lube Fitting	2	798197	798197	798197
19	Tooth – Upper Jaw	3	573857	573859	573858
20	Tooth – Lower Jaw	4	573857	573859	573858
21	Flat Head Bolt	14	573737	573737	573737
22	Lock Pin Washer	14	573738	573738	573738
23	Lock Pin	14	573855	573739	573856

11.0 Spare Parts Information – [cont'd]

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 Mechanical Pulverizer – B Series
 Model _____
 Serial No. _____

Please fill out completely

Line	Description	Part Number	Quantity	Price
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Your contact information

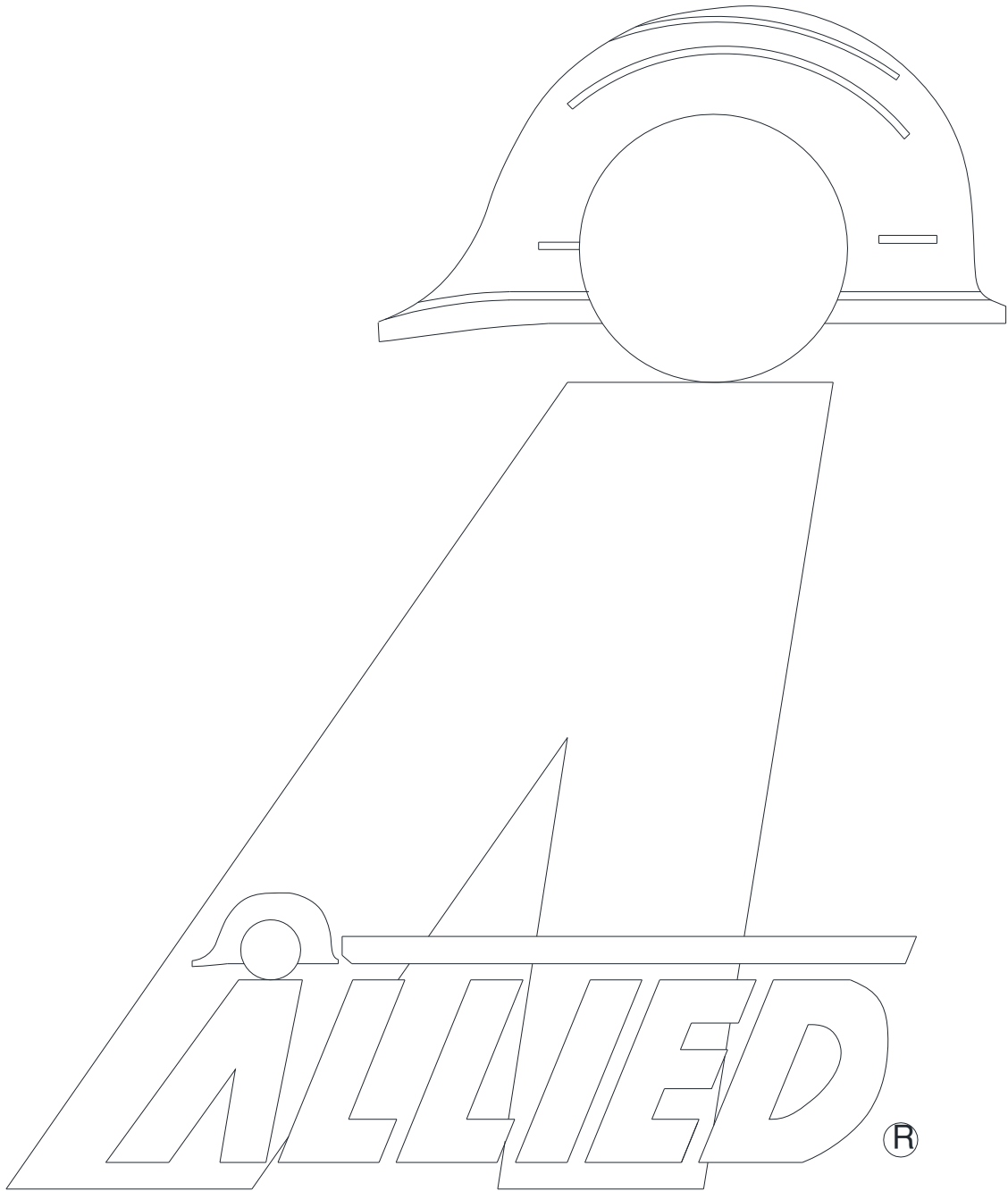
Your Name _____ Company Name _____
 Phone _____ Account Number _____
 Fax _____ Purchase order _____
 Email _____ Shipping carrier _____

*See note below

Billing Address _____ Shipping Address _____

***Note: All backordered parts will be shipped when available via the same method as the original order unless initialed and checked below:**

Initials _____
 Ship complete order only
 Ship available parts and contact customer on disposition of backordered parts
 Other – specify below



3900 Kelley Avenue, Cleveland, Ohio 44114
Tel: 216-431-2600 Fax: 216-431-2601
e-mail: Sales@AlliedCP.com
website: <http://www.AlliedCP.com>