



## Safety, Operation & Maintenance Manual

# Mobile Demolition Processors

Part Number 513914

**STANLEY**



CE

## ***INTELLECTUAL PROPERTY – PATENT INFORMATION***

This product is covered by one or more of the following patents.

### U.S. PATENT NUMBERS:

5,474,242	7,240,869
5,531,007	7,487,930
5,992,023	7,578,461
7,322,273	7,832,130
8,146,256	8,104,384

### EPO Patent Numbers

435,702
737,107
1,682,299
1,789,225

## ***PREFACE***

This manual contains information for the safe and proper operation and maintenance of Mobile Demolition Processors. Read the entire manual before the initial start-up of the attachment. It is important to know the correct operating procedures of the attachment and all safety precautions to prevent the possibility of property damage and personal injury.

The instructions in this manual have been prepared to ensure that, when followed properly, the attachment will provide efficient and reliable service. Continuing product development and improvement may have caused changes in the attachment that are not reflected in this manual. If a question arises regarding the operation or maintenance of the attachment, contact a LaBounty dealer for the most current information available.

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# MOBILE DEMOLITION PROCESSORS

## **SECTION 1 INTRODUCTION TO SAFETY**

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# MOBILE DEMOLITION PROCESSORS

## **INTRODUCTION**

Your safety and the safety of others is a direct result of how you operate and maintain your equipment. Read and understand this manual and other safety information provided with the base machine and be sure that you understand all controls and operating instructions before attempting to operate this equipment. Failure to follow the safety precautions can result in personal injury, death or property damage.

Carefully read all safety messages in this manual and on your equipment safety signs. Keep safety signs in good condition; replace missing or damaged safety signs.

Because LaBounty cannot foresee all hazardous circumstances, the precautions listed in this manual and on the equipment are not all-inclusive. If a procedure, method, tool or part is not specifically recommended by LaBounty, determine whether it is safe for you and others, and that the equipment will not be damaged or made unsafe as a result of your decision to implement it.

The basic rules are summarized in this section of the manual. They also appear throughout the manual along with additional specific rules for safety and operation.

## **UNDERSTAND SIGNAL WORDS**

When you see the following symbols and signal words on your equipment or in this manual, be alert to the potential for personal injury or equipment or property damage. Follow recommended precautions and safe operating practices.



***Indicates immediate hazards that WILL result in severe personal injury or death.***



***Indicates hazards or unsafe practices that CAN result in severe personal injury or death.***



***Indicates hazards or unsafe practices that could result in damage to the machine or personal injury.***

**NOTICE**

*Indicates notes of importance to a procedure or part*



## SAFETY SUMMARY

### DANGER

If the attachment is not functioning properly, you **MUST** shut the machine down and follow lockout/tag out procedures.

### DANGER

**NEVER** operate equipment without the original equipment safety guards in place. If the cab glass is missing or damaged, check with your dealer or manufacturer for proper replacement.

### DANGER

Ensure that the cab is equipped with the proper safety guards for LaBounty applications. In addition, it is required that the cab be equipped with an approved Falling Object Protection Structure (FOPS) when processing materials. The FOPS must meet the requirements of SAE standard J1356. A transparent shatter-resistant shield covering the front of the cab is also required. Contact your base machine equipment dealer or manufacturer for more information on the availability of FOPS. **Lack of proper FOPS may result in injury or death.**

### DANGER

**DO NOT** process or handle material with the attachment over the operator's cab.

### DANGER

**DO NOT** attempt to shear brittle materials such as axles and railroad rail. Brittle material breaks or shatters instead of shearing. The material being processed could become a projectile and cause injury or death. **DO NOT** process any material in any position that may propel it toward operator, other workers, buildings or equipment.

### DANGER

**DO NOT** close the attachment on a structure and reverse the excavator in an attempt to pull down material.

### DANGER

Clear all persons and equipment from the area of operation and machine movement. **NEVER** move loads over people or equipment. When viewing the operation of the attachment, maintain a safe distance of at least 75 feet (22.9 meters).

### DANGER

**NEVER** approach power lines with any part of the machine. Keep clear at a minimum of 15 feet (5 meters).

### DANGER

Avoid tipping. The attachment will alter the lift capacities of the base machine. **DO NOT** overload the excavator or serious injury could result. Lift capacities will vary if the base machine is not on level ground. Carry loads in recommended positions for maximum stability. Use the recommended excavator counterweight. Use short slings and lift the load only as high as necessary.

### DANGER

**DO NOT** allow riders on the machine.

### DANGER

**NEVER** modify or mount the attachment to an excavator other than which it was originally designed for without consulting LaBounty. Rotation component failure may result, causing the attachment to fall to the ground.

# MOBILE DEMOLITION PROCESSORS

## **SAFETY SUMMARY** continued

### **⚠ WARNING**

**NEVER** remove any pins unless the attachment is on the ground and blocked up or serious injury or death could result. Metal chips or debris may fly when a connecting pin is struck. Use a brass drift when striking pins and always wear protective clothing and proper eye protection. Pins may fly when struck with force to drive them in or out. Keep people clear when removing or installing pins.

### **⚠ WARNING**

Under no circumstances should any modifications be made to LaBounty equipment without factory authorization.

### **⚠ WARNING**

**ALWAYS** lower the boom to the ground before leaving the cab. If it is necessary to work on an attachment off the ground, securely support the machine and attachment. **DO NOT** support the machine on cinder blocks, hollow tiles, or props that may crumble under continuous load. **DO NOT** rely on a cylinder to hold the attachment in the air. **DO NOT** work under a machine that is supported only by a jack.

### **⚠ WARNING**

**DO NOT** let hot hydraulic oil get in contact with the skin as it could cause severe burns. Wear adequate protective clothing and safety equipment. **DO NOT** tamper with any hydraulic line or component while it is pressurized. Escaping fluid under pressure can penetrate the skin, causing serious injury. Relieve pressure before unhooking hydraulic or other lines. **See Figure 1-3.** Tighten all connections before applying pressure. Keep hands and body away from pinholes and nozzles which eject fluids under high pressure. Use a piece of cardboard to search for leaks. If **ANY** fluid is injected into the skin, seek immediate medical assistance.

### **⚠ CAUTION**

**DO NOT** weld on any structural member unless specifically authorized by LaBounty. Any unauthorized welding or welding procedures will void the warranty, and may cause structural failure or result in personal injury.

### **⚠ CAUTION**

**ALWAYS** wear close-fitting clothing and safety equipment appropriate to the job. Safety equipment should be worn at all times when viewing, operating, or maintaining the attachment to prevent injury. Safety equipment includes eye protection, hard hat, steel toe shoes, gloves, and hearing protection.

### **⚠ CAUTION**

Keep clear of all potential pinch points, including the moving upper jaw, cylinder connections, bucket linkages or other moving parts.

### **⚠ CAUTION**

Before operating the attachment, read and observe all safety instructions in the Operation and Maintenance sections of this manual. If you are unfamiliar with any operation or maintenance procedure, seek instruction before proceeding.

**ATTACHMENT DECALS**

**STANLEY**



**STANLEY LABOUNTY BRAND DECALS  
(REPLACEMENT DECALS AVAILABLE UPON REQUEST)  
FIGURE 1-1**

**SAFETY FIRST**

**Read the Safety, Operation and  
Maintenance Manual before  
operating or servicing the equipment.  
Keep the manual with the attachment  
so it is available for reference.**

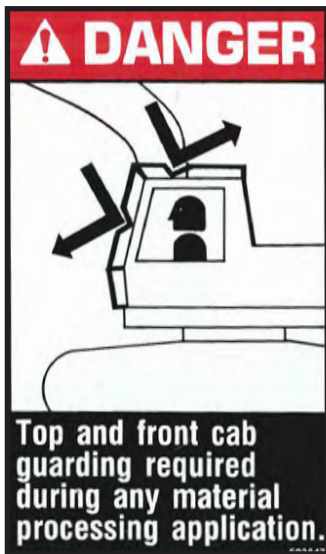
**SAFETY FIRST DECAL PART NUMBER 503590  
(INCLUDED WITH MANUALS)  
FIGURE 1-2**

# MOBILE DEMOLITION PROCESSORS

## ATTACHMENT DECALS continued



**GREASE DECAL**  
**PART NUMBER 116338**  
**FIGURE 1-3**



**SAFETY DECAL**  
**PART NUMBER 503647**  
**FIGURE 1-4**



**SAFE VIEWING DISTANCE DECAL**  
**PART NUMBER 116389**  
**FIGURE 1-5**

**STANLEY**



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 Two Harbors, MN 55616  
 tel: 1-800-522-5059  
 fax: 218-834-3879  
 www.stanleyhydraulic.com

Made in the U.S.A. with Global Materials

Attachment Model:

Serial Number:

Year of Manufacture:

Weight:

**MODEL/SERIAL NUMBER PLATE**  
**PART NUMBER 511045**  
**FIGURE 1-6**

U.S. PATENT NUMBERS		EPO PATENT NUMBERS
5,474,242	7,240,869	435,702
5,531,007	7,487,930	737,107
5,992,023	7,578,461	1,682,299
7,322,273	7,832,130	1,789,225
8,146,256	8,104,384	

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FOREIGN PATENTS AND OTHER PATENTS PENDING

**STANLEY**



116404

**PATENT PLATE**  
**PART NUMBER 116404**  
**FIGURE 1-7**



# MOBILE DEMOLITION PROCESSORS

## **SECTION 2 ABOUT THE ATTACHMENT**

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# MOBILE DEMOLITION PROCESSORS

## **MODEL DESCRIPTION**

MDP models are currently available for base machines with operating weights from 20,000- 70,000 lbs with jaw openings of up to 36" (0.9m). Call to check availability of models outside of these ranges. Both rotating and non-rotating models are available. Rotating models feature hydraulically powered 360° continuous rotation. This option allows the jaws to be positioned to cut at virtually any angle. MDPs feature high-strength, abrasion-resistant steel construction to assure long, uninterrupted service—even in the harshest conditions. The main pivot shaft of every model is manufactured for long life and pivots on Stanley LaBounty's specially designed bearings. The jaws are designed to draw the materials in to the point where the processor force is greatest, making them the most efficient cutting tool possible.

MDPs can crush concrete and cut a wide variety of materials including I-beams, H-beams, channel iron, steel plate, pipe, round stock, wire, rebar and concrete. They are ideal for processing, demolition work, road and bridge reconstruction, and jobs where torching is not feasible.

## **FEATURES**

- Patented quick change jaw pivot allows for interchangeable jaws with multiple jaw options (Figures 2-2 and 2-3, page 3)
- Easily removable main shaft
- 360° powered rotation
- Reversed cylinder
- Multiple machine mount capability
- Patented, Swift-Lock pin-on replaceable teeth offer long wear and impact resistance. One pin secures each tooth segment—a complete set of teeth can be replaced in minutes
- Made with high-strength steel for durability
- At-factory upgrading and rebuilding services available for extended life



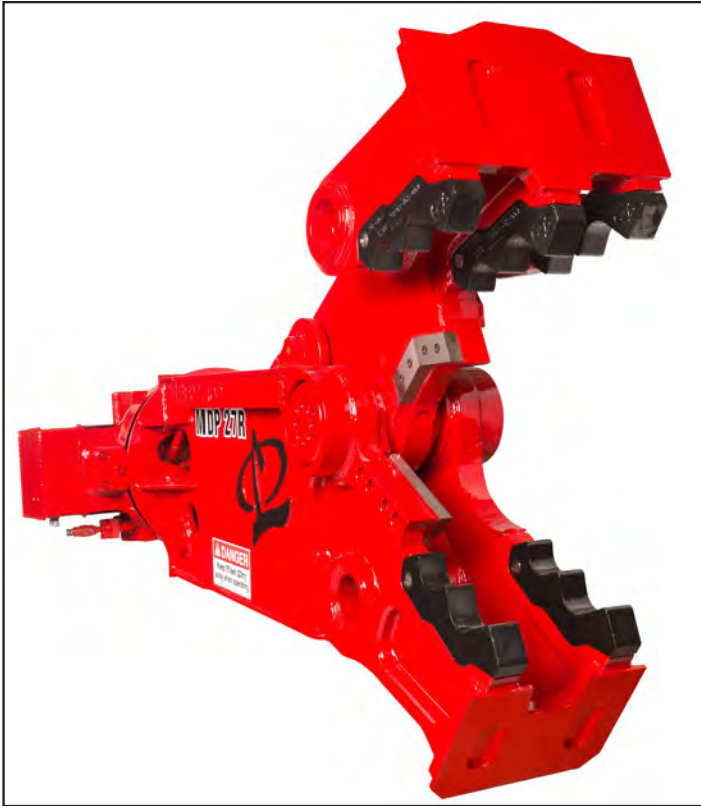
**FIGURE 2-1**

**JAW OPTIONS**



**CONCRETE CRACKER  
JAW**

**FIGURE 2-2**



**CONCRETE PULVERIZER  
JAW**

**FIGURE 2-3**



# MOBILE DEMOLITION PROCESSORS

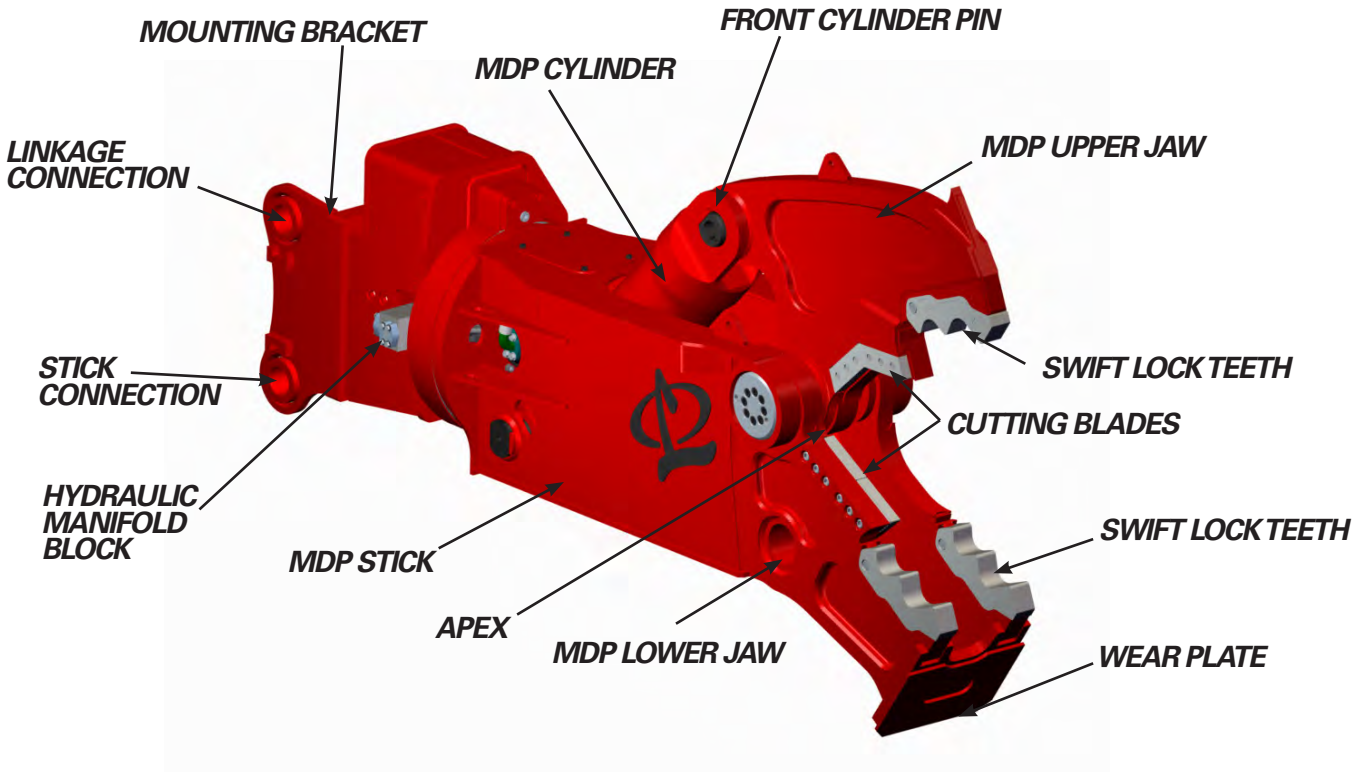


FIGURE 2-4

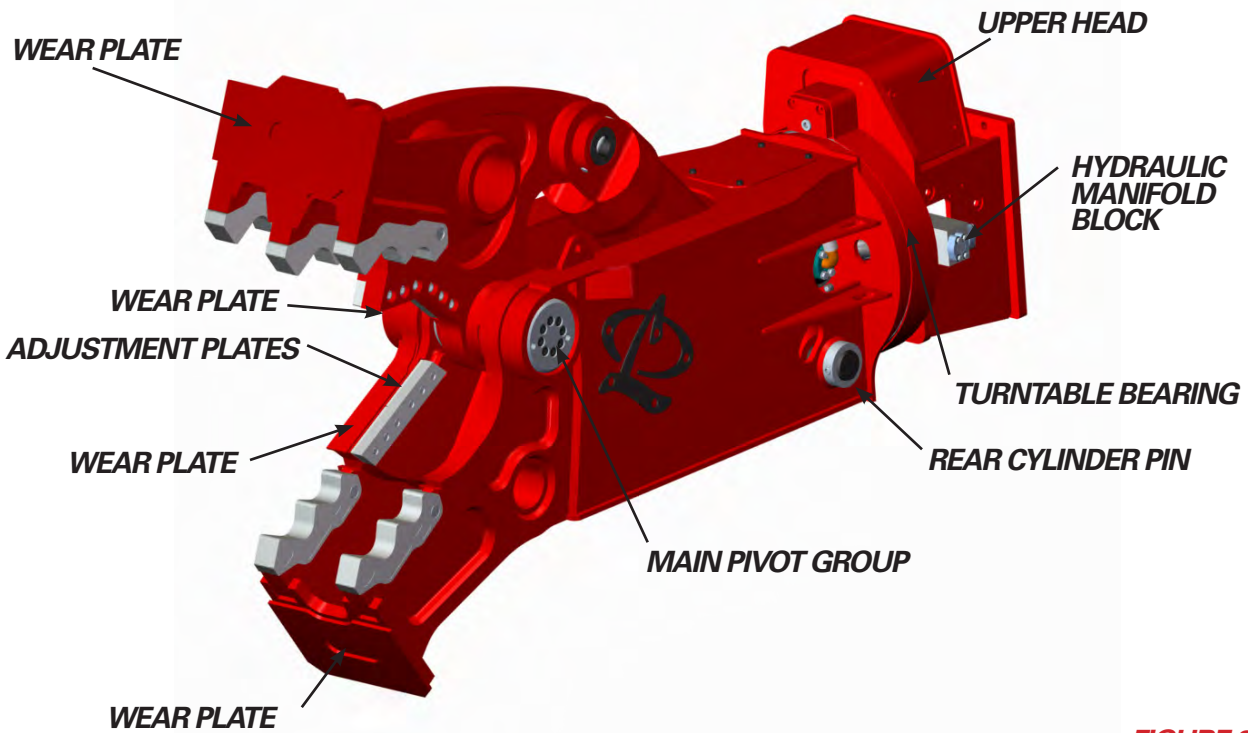


FIGURE 2-5



## ATTACHMENT GLOSSARY

<b>Adjustment Plates</b>	Plates that precisely adjust the lower cutting blades to the upper blades. These plates make it possible to achieve a uniform blade gap on the MDP.
<b>Apex</b>	The point where the primary and secondary cutting blades come together.
<b>Backdriving</b>	A condition that occurs when a force (such as a heavy, unbalanced load in the jaws) overpowers the rotation system and drives the attachment to rotate even though the rotation function is not being operated. Excessive backdriving is hard on the rotation system and can lead to premature wear of rotation components or even component failure and downtime.
<b>Boom Pivot</b>	Part of the Mobile Demolition Processor mounting bracket that attaches to the base machine's boom when mounting second member (in place of the stick).
<b>Case Drain</b>	Hydraulic hose that drains fluid from the rotation motor case.
<b>Cross Pattern Technique</b>	A method of torquing a circular pattern of bolts to achieve proper seating. Based on a clock face, the technique follows the order of 12, 6, 11, 5, 10, 4, 9, 3, 8, 2, 7, 1.
<b>Crossover Relief Valve</b>	A hydraulic component used in the rotation group of a rotating attachment that limits the amount of hydraulic pressure sent to the rotation assembly of the attachment. The crossover is preset at the factory and must not be tampered with.
<b>Cylinder</b>	Hydraulic component that actuates the jaw set. LaBounty cylinders are designed to withstand an extreme duty life.
<b>Cylinder Connection</b>	The excavator stick cylinder attaches to this part of the Mobile Demolition Processor mounting bracket to articulate the tip-up function of the attachment when mounted second member.
<b>End Cap</b>	Main pivot group component that fastens to the end of the main pin.
<b>External Rotation Control Kit</b>	An optional kit that provides a medium-pressure, low-flow hydraulic source to rotate the attachment. The kit taps the hydraulic system of the base machine and draws only enough fluid to charge an accumulator. When the rotation function is used, this pressurized fluid is released to the rotation motor to rotate the attachment. The external kit is mounted on the excavator with hydraulic lines running up the boom.
<b>Flow Control Valve</b>	A hydraulic component used in the rotation group of a rotating attachment that meters out the hydraulic fluid to the rotation motor of the attachment.
<b>Front Cylinder Pin</b>	The pin that connects the attachment cylinder to the wear jaw.
<b>Hydraulic Manifold Block</b>	Machined block located in the attachment mounting bracket that directs hydraulic flow from the base machine to the attachment cylinders. The port that feeds the Internal Rotation Control Kit is located in this manifold (if equipped).



# MOBILE DEMOLITION PROCESSORS

<b>Linkage Connection</b>	Part of the Mobile Demolition Processor mounting bracket that attaches to the base machine's bucket linkage when mounting third member (in place of the bucket).
<b>Lower Jaw</b>	The lower stationary jaw of the MDP. The lower jaw containing the lower cutting blades and Swift Lock teeth.
<b>Main Pivot Group</b>	Area where the jawset is pinned into the main body of the attachment. The main pivot group contains a main pin, end cap, thrust washers, and main bearings.
<b>Main Bearings</b>	Bushings installed into the main pivot bores of the lower jaw. The main pin passes through these bearings.
<b>Main Pin</b>	Pin that connects the jawset to the main body of the attachment. The upper jaw rotates on this pin when opening and closing.
<b>Motion Control Valve</b>	A manifold including two crossover relief valves and two brake valves that provides overload protection and a load control system for the rotator.
<b>Motor</b>	Hydraulic rotation component that drives the turntable bearing either directly or through a planetary gear box on rotating attachments.
<b>Mounting Bracket</b>	The bracket at the rear of the MDP that allows it to be attached to the excavator. For a typical second member mount, the mounting bracket pins to the excavator boom tip and stick cylinder.
<b>Planetary Gear Box</b>	Hydraulic rotation component on larger rotating attachments. The planetary gear box rotates the body of the attachment with the aid of the hydraulic motor. The output shaft of the component directly drives the turntable bearing of the rotating attachment.
<b>Rear Cylinder Pin</b>	The pin that connects the attachment cylinder end to the cylinder lug at the rear of the attachment stick. The rear cylinder pin has a grease fitting and must be greased according to the required maintenance.
<b>Relief Valve</b>	Valve used to protect the rotation motor from excessive pressure.
<b>Rotation Assembly</b>	Hydraulic assembly that allows full 360° continuous rotation of the attachment. This allows greater positioning capabilities when processing with the attachment.
<b>Second Member Mount</b>	When the attachment is mounted in place of the excavator stick at the end of the boom.
<b>Stick</b>	The main body of the attachment. The stick must be regularly inspected for any damage.
<b>Stick when Connection</b>	Part of the Mobile Demolition Processor mounting bracket that attaches to the base machine stick tip mounting third member (in place of the bucket).
<b>Swift-Lock™ Teeth</b>	Easily replaceable, pin-on wear parts on the upper and lower jaws for pulverizing concrete. Each tooth is fastened to its receptacle with a pin and retainer ring.
<b>Swivel Manifold</b>	Allows continuous rotation of attachment and fluid supply to attachment cylinders without twisting hoses.

# MOBILE DEMOLITION PROCESSORS

- Third Member Mount** When the attachment is mounted in place of the excavator bucket at the end of the stick.
- Thrust Washer** Main pivot group component located between the jawset and the stick.
- Turntable Bearing** Large rotation bearing used in rotating attachments. The turntable bearing is mounted to the attachment stick and is driven by hydraulic components in the upper head of the attachment.
- Upper Head** Mounting bracket portion of the MDP. Attaches to the turntable bearing that attaches to the rear of the MDP stick. The upper head contains the hydraulic manifolds and the swivel manifold.
- Upper Jaw** Moveable jaw of the MDP that contains cutting blades and Swift Lock teeth. The MDP cylinder articulates the upper processor into the lower processor to perform the cutting and crushing action of the MDP. Multiple jaw options are available.





# MOBILE DEMOLITION PROCESSORS

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# MOBILE DEMOLITION PROCESSORS

## **LIFTING THE ATTACHMENT**

Hooking points are integrated into the stick for safe lifting of the attachment. The small diameter eye in the lug prevents the use of hooks without shackles, threading the lugs with slings, and the use of the lug as a lifting eye for lifting other objects during operation.

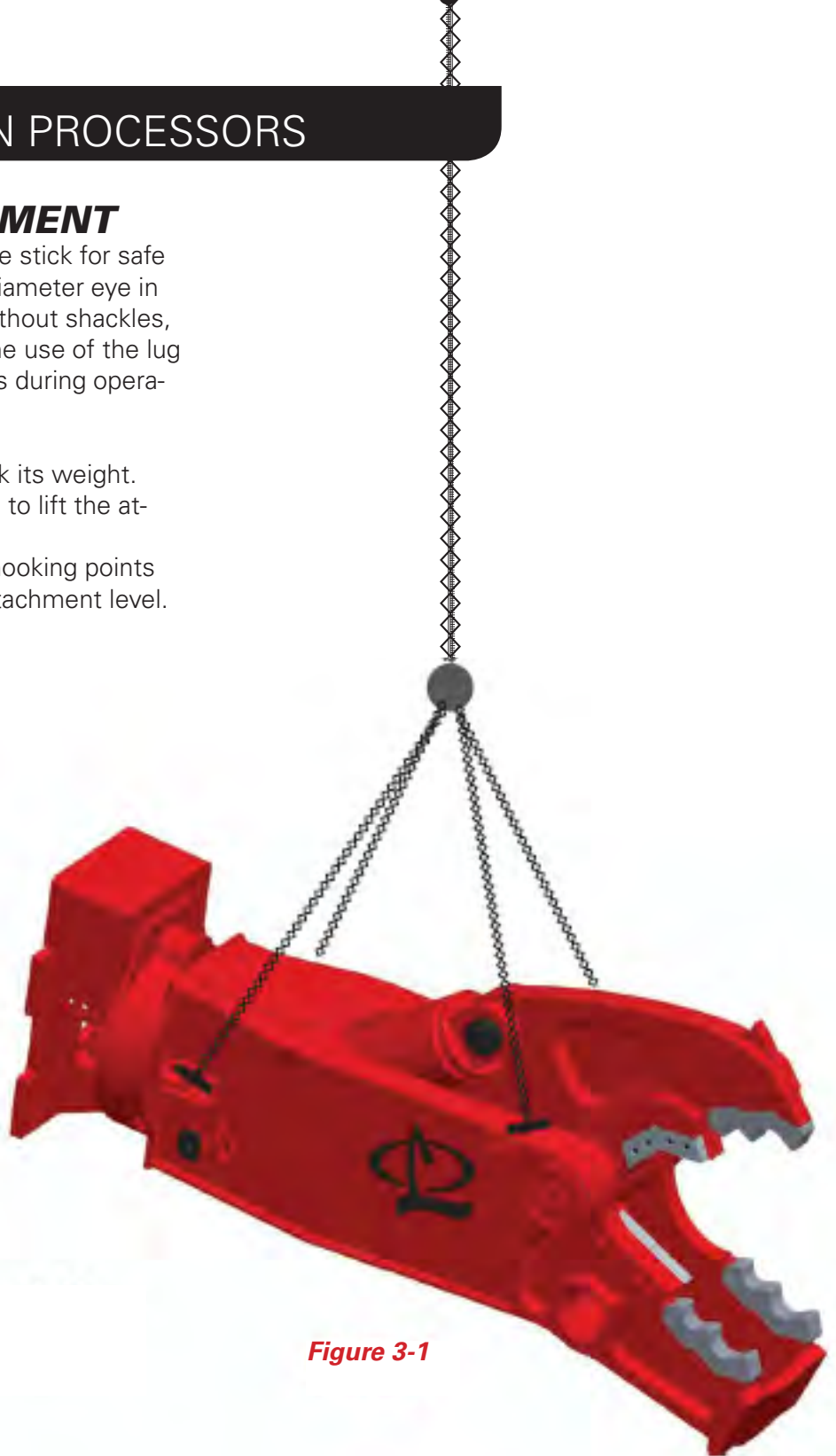
1. Before lifting the attachment check its weight. Use properly rated hooks and rigging to lift the attachment.
2. Lift the attachment using all four hooking points with rigging lengths that keep the attachment level. See Figure 3-1.

### **⚠ DANGER**

**Hooking points are for installing, transporting and moving the attachment only. DO NOT use them for lifting other objects or processing with the attachment in a cable-hung application. Contact the LaBounty Customer Service department for approval and evaluation before operating the attachment in a cable-hung application.**

### **⚠ WARNING**

**Use only approved rigging and hardware rated for loads greater than the weight of the attachment.**



**Figure 3-1**

## EXCAVATOR WEIGHT CLASS

1. See table below for general guidelines on excavator/attachment sizing. Please contact LaBounty with any questions.

Excavator Weight Class				
	2ND MEMBER		3RD MEMBER	
MODEL	MIN (lb / m ton)	MAX (lb / m ton)	MIN (lb / m ton)	MAX (lb / m ton)
MDP 20R	24,000 / 11	33,000 / 15	40,000 / 18	65,000 / 30
MDP 27R	40,000 / 18	60,000 / 27	55,000 / 25	80,000 / 36
MDP 35R	50,000 / 23	60,000 / 27	70,000 / 32	110,000 / 50
MDP 50R	70,000 / 32	88,000 / 40	100,000 / 45	140,000 / 65

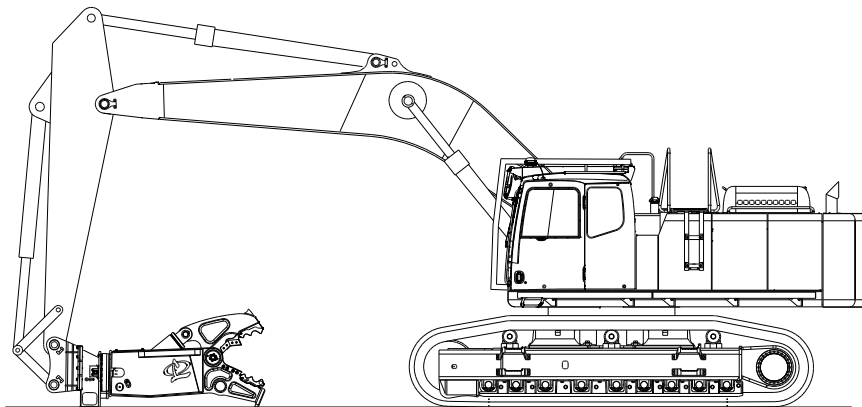
\* For short swing radius machines, consult LaBounty

\*\* For quick coupler mounts, consult LaBounty

## THIRD MEMBER ATTACHMENT MOUNTING PROCEDURE

1. Locate flat, hard ground (e.g., concrete floor) for installation. Place the attachment on the ground and use blocking if necessary.
2. Remove the bucket or other attachment from the end of the excavator stick following the manufacturer's recommended procedure.
3. Take care to properly plug any hydraulic hoses when disconnected to prevent contamination from entering the hydraulic system.
4. With the jaws of the attachment facing the excavator, bring the excavator into position, carefully lining up the stick tip with the proper connection on the attachment mounting bracket.
5. Pin the excavator stick tip to the mounting bracket stick connection using the pin provided.
6. Carefully extend the bucket cylinder to move the bucket linkage forward far enough to position the link into the mounting bracket linkage connection (see Figure 3-2). It may be necessary to use a lifting device (overhead hoist, forklift, etc.) to correctly position the link.
7. Pin the link to the linkage connection using the pin provided.

Figure 3-2



### NOTICE

On third member mounting brackets, the stick and link-age connections can be difficult to tell apart, because they often have the same dimensions. In nearly all cases, the linkage connection is the one closest to the rotation components.

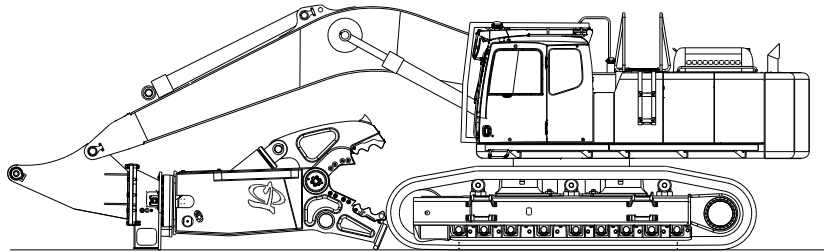
### WARNING

**Never move or operate the attachment without all collars and hardware installed on the connecting pins.**

# MOBILE DEMOLITION PROCESSORS

## **SECOND MEMBER ATTACHMENT MOUNTING PROCEDURE**

1. Locate flat, hard ground for installation. Place the attachment on the ground with blocking.
2. Remove the excavator stick following manufacturer's recommended procedure.
3. Take care to properly plug any hydraulic hoses when disconnected to prevent contamination from entering the hydraulic system.
4. With the jaws of the attachment facing the excavator, bring the excavator into position, carefully lining up the excavator boom tip with the boom pivot connection on the attachment mounting bracket (see Figure 3-3).



**Figure 3-3**

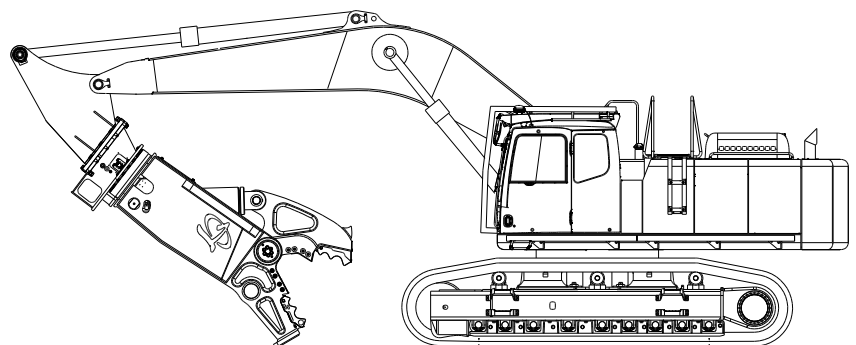
### **NOTICE**

*On a second member mount, it may be necessary to block the rear of the attachment in a position to allow boom pivot pin installation.*

5. Pin the excavator's boom and attachment boom pivot together using the same pin that was used for pinning on the stick.
6. Have all personnel stand clear and instruct the operator to slowly lift the attachment into a position where there will be enough clearance to pin the excavator cylinder to the cylinder connection on the mounting bracket (see Figure 3-4).
7. Extend the cylinder rod and position as necessary to connect to the cylinder connection of the attachment. Install the pin provided with the mounting bracket. It may be necessary to use a lifting device (over-head hoist, forklift, etc.) to position the cylinder correctly.

### **WARNING**

***Never move or operate the attachment without all collars and hardware installed on the connecting pins.***



**Figure 3-4**



## THIRD MEMBER ATTACHMENT REMOVAL PROCEDURE

1. Curl the attachment under until it is horizontal and lower the attachment to the ground (see figure 3-5).
2. Use blocking to support the bucket cylinder and linkage from the excavator stick.
3. Remove the linkage connection pin from the attachment mounting bracket.
4. Fully retract the bucket cylinder and linkage after it is detached from the attachment mounting bracket.
5. CAREFULLY remove the jumplines at the attachment manifold. See Figure 3-6.
6. Plug the open manifold ports and hose ends with pressure plugs to prevent contamination of the MDP hydraulic system.
7. At this point, be extremely sure that the attachment is stable before unpinning the stick pivot pin and releasing the weight of the attachment.
8. Remove the stick pivot pin from the attachment.

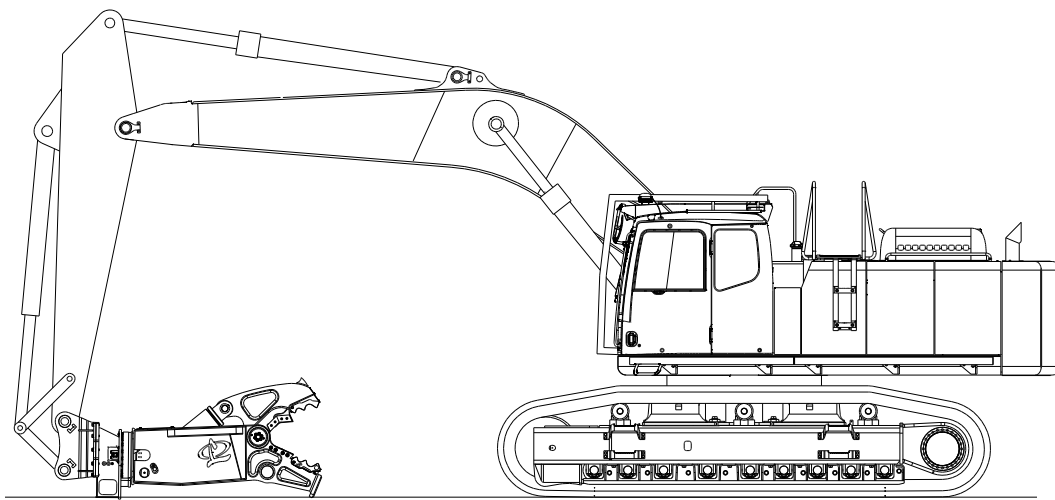


Figure 3-5

### **WARNING**

*Disassembly of any pin-connected attachment can be hazardous. Never remove any pins unless the attachment is on the ground (and blocked up if necessary) or serious injury could result.*

### **WARNING**

*Trapped hydraulic pressure may be present after the base machine is shut off. Extreme caution must be taken when removing attachment hydraulic hoses or possible injury or death could result.*

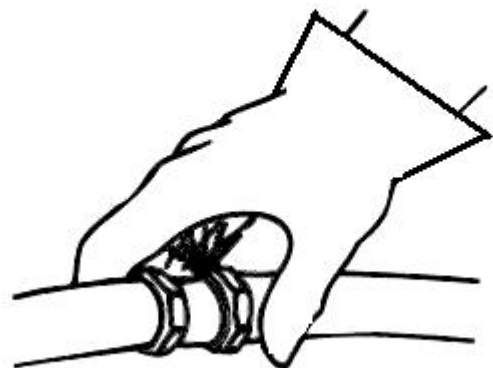
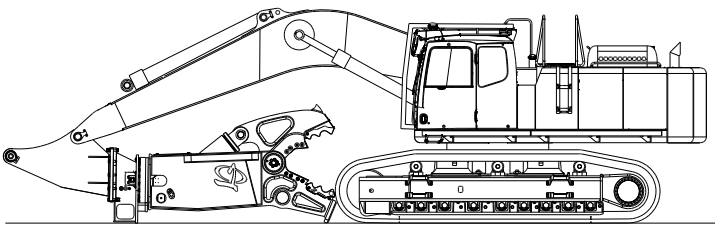


Figure 3-6

## **SECOND MEMBER ATTACHMENT REMOVAL PROCEDURE**

1. Curl the attachment under the boom of the excavator as far as the stick cylinder will extend and lower attachment and lower attachment to the ground (see Figure 3-7).
2. Use blocking to support the stick cylinder from the excavator boom.
3. Remove the stick cylinder pin from the attachment mounting bracket.
4. Fully retract the stick cylinder after it is detached from the attachment mounting bracket.
5. **CAREFULLY** remove the jumplines at the attachment manifold.
6. Plug the open manifold ports and hose ends with pressure plugs to prevent contamination of the hydraulic system.
7. Make certain that the attachment is stable before unpinning the boom pivot pin and releasing the weight of the attachment.
8. Remove the boom pivot pin from the attachment.



*Figure 3-7*

## **ATTACHMENT STORAGE**

1. Securely block the attachment up off the ground using wood blocking.
2. Plug all open hydraulic ports.
3. Grease the pins and machined bores of the mounting bracket of the attachment (refer to attachment lubrication section of the maintenance section). Then apply a generous amount of grease to processor blades, cylinder rods and all other exposed and unpainted surfaces.

### **WARNING**

*Trapped hydraulic pressure may be present after the base machine is shut off. Extreme caution must be taken when removing attachment hydraulic hoses or possible injury or death could result.*

### **WARNING**

*Disassembly of any pin-connected attachment can be hazardous. Never remove any pins unless the attachment is on the ground (and blocked up if necessary) or serious injury could result.*

### **NOTICE**

*Watch the boom to attachment pivot for any interference. If interference is present, **DO NOT** force the attachment under any further. Block the attachment up before it interferes with the boom, or stop.*

## **HYDRAULIC INSTALLATION REQUIREMENTS**

### **CYLINDER CIRCUIT**

#### **Recommended Flow**

<i>Recommended Flow</i>		
<b>MODEL</b>	<b>GPM</b>	<b>LPM</b>
MDP 20R	40-80	150-300
MDP 27R	50-80	190-300
MDP 35R	50-80	190-300
MDP 50R	70-110	265-415

#### **Recommended Pressure**

- Minimum 4350 psi (300 bar)
- Maximum 5500 psi (380 bar)

### **ROTATION CIRCUIT**

#### **Recommended Flow**

- 8-10 gpm (30-38 lpm)
- Maximum: 12 gpm (45 lpm)

The MDP 20R hydraulic rotation motor is equipped with factory adjusted flow controls. They are set for normal operation of the motor and are adjustable for speed preference. Maximum input flow is not advised for continuous duty due to inefficiency of the circuit. If an OEM auxiliary circuit is not available with these requirements, the LaBounty Rotation kit should be used.

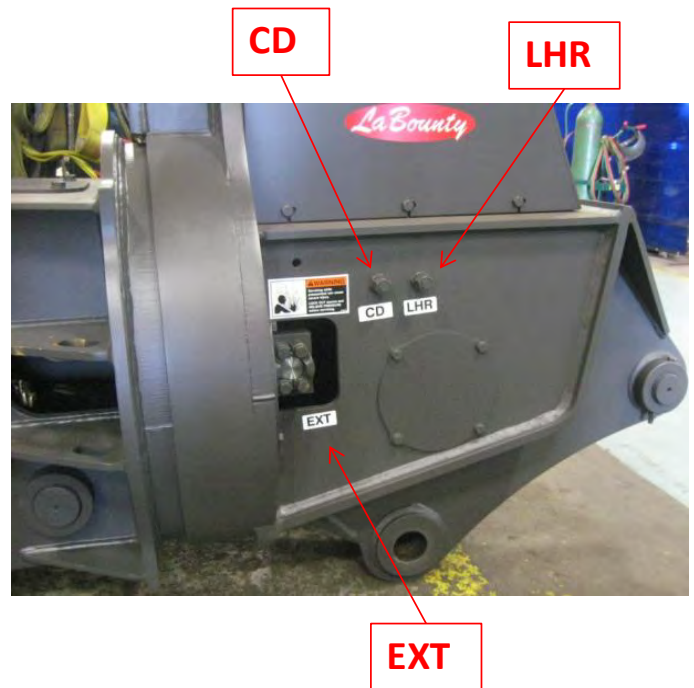
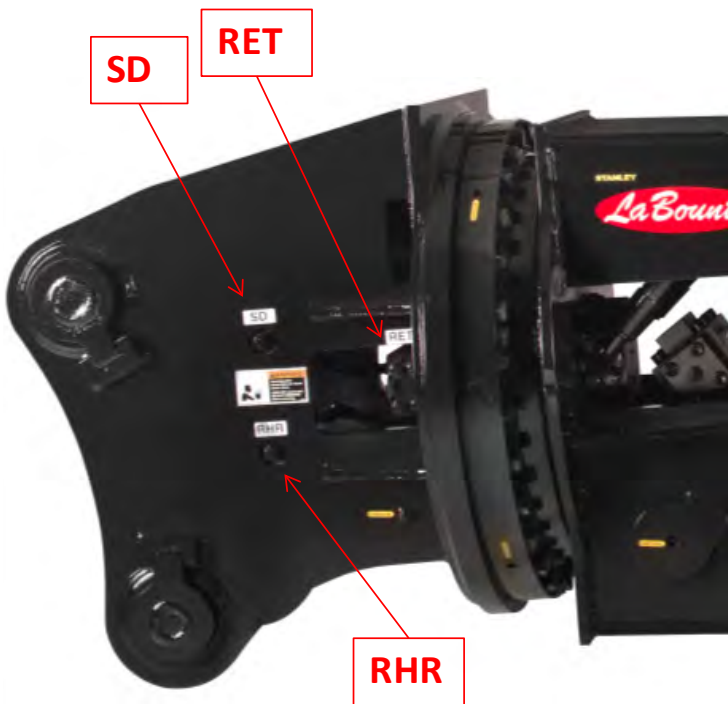
#### **Recommended Pressure**

- 2000-2500 psi (30-38 lpm)
- Maximum 2500 psi (172 bar)

The hydraulic rotation motor is equipped with a factory adjusted crossover relief valve. This valve has been installed to prevent damaging the motor due to excessive pressure from machine or overrunning loads. Any adjustment to valve without consulting the factory will void warranty.



# MOBILE DEMOLITION PROCESSORS



## Hydraulic Port Definition

PORT	FUNCTION	NOTES
EXT	Cylinder Extend	See page 3-7 for pressure/flow requirements
RET	Cylinder Retract	See page 3-7 for pressure/flow requirements
RHR	Rotate Clockwise	See page 3-7 for pressure/flow requirements
LHR	Rotate Counter-Clockwise	See page 3-7 for pressure/flow requirements
CD	Motor Case Drain	Model specific, plumbed to tank
SD	Rotary Swivel Drain	Optional, plumbed to tank

## HYDRAULIC PORT DEFINITION

The **CD (Motor Case Drain)** port is only required on specific models. The function of this port is to drain oil from the hydraulic motor case during back driving conditions. This serves to protect the hydraulic motor. If equipped with a CD port, a 1/2" (13 mm) hydraulic line will need to be plumbed from the CD port to tank.

The **SD (Rotary Swivel Drain)** port is only available on the MDP 35R and MDP 50R. The function of this port is to drain any oil leaking past the seals in the rotary manifold back to tank. Due to low volume of leakage, it is **optional** to plumb this port to tank. If desired, a 1/2" (13 mm) hydraulic line will need to be plumbed from the SD port to tank.

## HYDRAULIC INSTALLATION

1. Connect the hydraulic hoses to the hydraulic connections located on each side of the upper head. Remember to cap all hydraulic hoses and fittings immediately to prevent contamination of the hydraulic system.
2. After installing the hydraulic circuit on the base machine, install additional hydraulic lines up the boom if required—these will include two 1/2" (13 mm) diameter feed lines and one 1/2" (13 mm) diameter case drain line; these will terminate at the end of the boom.
3. Install jump lines from the above hydraulic lines to the attachment bulkhead or manifold fittings.
4. Check to make sure all bolts and nuts are properly installed and torqued.
5. Lift the attachment and slowly try the rotate function and open and close functions. Watch for any hydraulic oil leaks and interference.
6. Follow the hydraulic start-up procedure as described, next.

### NOTICE

*When installation is complete, slowly extend and retract the excavator cylinder to its limits to curl the attachment. Check for interference between the attachment and the excavator boom or stick. Check the hydraulic lines that connect to the attachment hydraulic connections to make sure they are not rubbing or getting damaged in any way. Contact your dealer immediately if any interference occurs.*

## HYDRAULIC START-UP PROCEDURE

Air must be bled out of the cylinder prior to operation of the attachment. Entrained air in the system leads to cavitation, oxidation of the oil and excessive heat, which promote hydraulic oil break-down, contamination, noise, sluggish operation, reduced component life and potential cylinder damage. This procedure needs to be followed upon installation, after hydraulic maintenance, or when the attachment has been stored or idled for an extended period of time.

Start with the attachment cylinder either fully retracted or extended. Shut off the excavator and operate the attachment jaw controls in order to relieve any existing hydraulic pressure.

Position the attachment so the cylinder is as horizontal as possible. Set the excavator at idle speed or slightly above idle speed.

### WITH CYLINDER FULLY RETRACTED

1. Slowly fill the rod end of the cylinder (open the jaws) until a noticeable change in tone of the excavator is heard, indicating full cylinder. Release the controls and do not continue to apply full operating pressure to the cylinder.
2. Change direction of oil flow; slowly fill the bore end of the cylinder (close the jaws) until the rod is extended approximately 1/4 of stroke.
3. Retract the cylinder rod all the way.
4. Repeat steps 2 and 3, extending rod to approximately 1/2 stroke, then 3/4 stroke, then full stroke.
5. When cylinder is full of oil, slowly cycle back and forth at least five times through full stroke. Be careful not to apply full operating pressure to the cylinder at this time.

### WITH CYLINDER FULLY EXTENDED

1. Slowly fill the bore end of the cylinder (close the jaws) until there is a noticeable change in the tone of the excavator, indicating full cylinder. Release the controls and do not continue to apply full operating pressure to the cylinders.
2. Change direction of oil flow; slowly fill the rod end of the cylinder (open jaws) until the rod is retracted approximately 1/4 stroke.
3. Extend the cylinder all the way.
4. Repeat steps 2 and 3, retracting rods to approximately 1/2 stroke, then 3/4 stroke, then full stroke.
5. When cylinder is full of oil, slowly cycle back and forth at least five times through full stroke. Be careful not to apply full operating pressure to the cylinders at this time.
6. Slowly cycle the cylinder five or more times reaching machine's normal operating pressure at end of each stroke, open or close. Listen for unusual noise and check for any hydraulic leaks.





# MOBILE DEMOLITION PROCESSORS

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# MOBILE DEMOLITION PROCESSORS

## **BEFORE YOU START**

### **KNOW YOUR SAFETY PROGRAM**

1. Read and understand the safety section of this manual and the base machine manual.
2. Know the employer's safety rules for your job. Consult your foreman for specific instructions and safety equipment required.
3. Learn the traffic rules at the work site.
4. Know the hand signals used on the job and who is responsible for signaling. Take signals from only ONE person.



### **KNOW YOUR EQUIPMENT**

1. Learn the location and function of all controls. Test all controls to ensure proper operation. If any malfunctions are found, shut the machine down and report the malfunction for repair.
2. Be familiar with the safety devices on the machine, indicators, warning devices and caution instructions. They will alert you to conditions that may make it hazardous to continue operating.
3. Wear proper protective clothing including hard hat, safety shoes, ear protectors, reflective clothing, safety goggles and work gloves. Loose clothing can get caught in machinery and cause injury. Wrist watches, rings and other accessories can be dangerous, as well.
4. Know the clearances in the work area.

## **FIRST THINGS FIRST**

1. Ensure all safe viewing distance decals are installed and legible; contact LaBounty for replacements as required.
2. Have a DAILY Safety Dialog with all those with whom you work. Inform them of any out-of-the-ordinary work that may be planned for the day. Remind them of the safe working distance.
3. Clear the area; inspect. **ALWAYS** look out for others. In any work area, people constitute a serious safety hazard. Before operating, walk completely around the machine to be sure there are no workers next to, under or on it. Warn nearby workers that you are starting up; **DO NOT** start up until they are out of danger.
4. Each day before starting, visually inspect the machine by walking around it entirely; check the location of cables, gas lines, and water mains before any operations. Make sure work site footing has sufficient strength to firmly support the machine. When working close to an excavation, position machine with the propel motors at the rear.
5. Once started, keep bystanders clear, especially before moving the boom, swinging the upper structure, or traveling. **ALWAYS** be alert for bystanders in or near the operating area.

## **SAFETY DEVICES YOU'LL NEED**

Seat belts  
Canopies  
Falling Objects Protective Structures (FOPS)  
Shields and guards  
Safety decals  
Visual or audible warning devices  
Flags and flares  
Barricades  
Signs and other markings  
Warning lights



## GENERAL RULES FOR SAFE OPERATION

1. Read the Operator's Manual for the excavator that the processor is on. Know the control levers and their functions. Note **ALL** safety devices on the machine and ensure that they are working properly.
2. **KNOW** the capacity of the excavator and its attachments. **DO NOT** overload the machine or serious injury could result.
3. It is required that a Falling Objects Protection Structure be installed surrounding the excavator cab for all material handling applications. Contact your excavator equipment dealer or OEM for more information.
4. The processor is for cutting and crushing material. **DO NOT** use attachment for anything except what it is intended for or warranty will be voided.
5. **DO NOT** operate a poorly maintained or damaged processor. Inspect and lubricate the processor daily.
6. **ALWAYS** maintain a safe operating distance between any material suspended and held by the processor and the cab of the machine.
7. **NEVER** leave a load suspended in the air, pass it over people, occupied vehicles or buildings or serious injury could result.
8. **ALWAYS** keep a watchful eye on exposed parts such as cylinder rods and hoses so as to not damage them when working in confined spaces.
9. **ALWAYS** maintain at least 15 feet (5 meters) between the processor and any nearby power lines or serious injury could occur.
10. When leaving the machine for any reason, **ALWAYS** lower the processor to the ground.
11. **DO NOT** close the processor on a structure and reverse the excavator in an attempt to pull down material.
12. **AVOID** collision of the boom or processor, especially when working with limited visibility or inside buildings. Know the height and reach of the processor during operation, travel and swinging upper structure.
13. **AVOID** contacting machine with the processor or any material held by the processor.
14. Use machine swing for positioning only. **DO**

**NOT** use the processor as a jack hammer or wrecking ball.

**15. AVOID** contact between boom arm or processor and overhead obstacles when you operate, move or haul the machine.

**16.** The processor is not a dozer. **DO NOT** position the lower (stationary) jaw of the processor on the ground and travel forward. Potential damage to the processor, excavator stick or boom may result, which will void the warranty.

## GETTING THE FEEL OF THE ATTACHMENT

Every part of any machine has a slightly different "operating feel"—an individual machine response to the movement of the controls. Before starting the first job with a new machine, it is suggested that the operator find an open spot on firm, level ground that is free of obstructions such as trees, buildings and other equipment—and safely away from other people. Move the machine to this area and spend some time just getting to know the operating feel of the machine and the processor in order to become familiar with the control levers and processor before beginning work.

The machine is exceedingly powerful. **DO NOT** operate carelessly; there is potential for personal injury and equipment damage. Be concerned about safety when preparing to operate the new machine. Ensure safe operation by inspecting the machine as stated in "Getting Started Safely," which includes a commonsense visual check of the machine at the beginning of every operation.



# MOBILE DEMOLITION PROCESSORS

## ATTACHMENT CONTROLS

The Stanley LaBounty Mobile Demolition Processor replaces the bucket of an excavator and operates with the same controls—no additional hydraulics are required. The bucket dump control opens the processor and the bucket curl control closes the processor; thus there are four movements of the MDP plus rotation. The attachment controls will vary depending on the base machine on which it is mounted and whether it is mounted as a second or third member. The MDP jaw and rotation systems are customized to each machine. Review these functions with your authorized dealer or installation technician before operating the attachment.

### **⚠ WARNING**

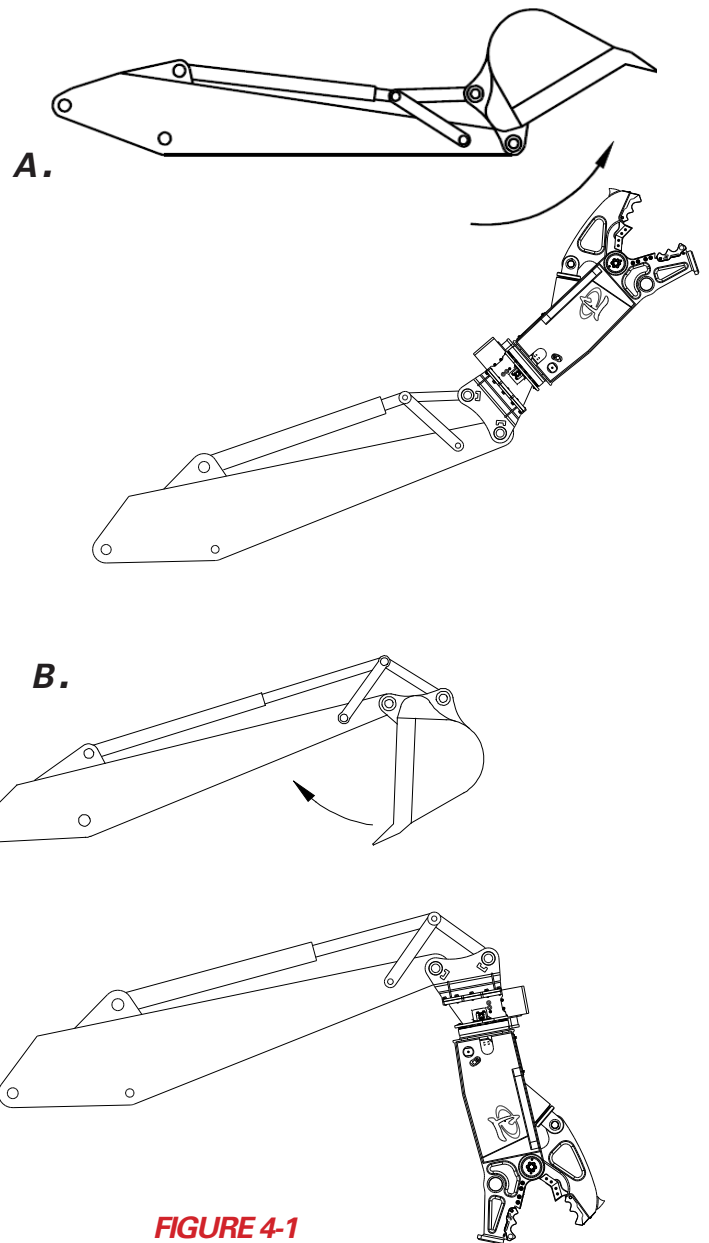
**Determine the control for each movement of the processor before attempting to operate.**

### THIRD MEMBER INSTALLATION

(attachment replaces bucket)

**A. BUCKET DUMP =  
ATTACHMENT OUT**

**B. BUCKET CURL =  
ATTACHMENT IN**



**FIGURE 4-1**

## **OPERATING THE ROTATOR**

### **if equipped**

The rotator gives the processor 360° of continuous rotation in both directions for easy, accurate processing at all angles. The rotator requires special attention when operating the processor. The rotator is to be used only to position the processor, not as a means of bending, twisting, or breaking material.

### **CAUTION**

***DO NOT use the processor rotator for any other purpose except to position the processor for a cut. Using the rotator for any other purpose, such as bending or twisting material, will damage the rotation components and may void the processor warranty.***

## **BACKDRIVING THE ROTATOR**

Backdriving occurs when an excessive, off-center force is applied to the processor. Examples of this are closing the jaws on a rigid member without the jaws being square to the member or handling a heavy load off-center in the jaws. **Backdriving puts undue stress on the rotation system and, if done continually, can lead to rotation component problems.** Follow the tips below to minimize backdriving as much as possible.

1. When handling a load in the jaws, try to grip it as close to its center of gravity as possible
2. When processing a long member that is suspended, make several shorter cuts rather than one long cut where the member can come loose and backdrive the rotator.
3. When processing any rigid member, use the rotator to square the jaws to the cut. If the jaws are not square, the rotator will backdrive to adjust to the cut.

## **SPEED VALVE OPERATING CHARACTERISTICS**

The function of the speed valve is to increase the processor closing speed (cylinder extend function) when the processor is not under a load, thereby reducing cycle times and increasing efficiency. The speed valve directs return flow from the rod side of the cylinder to the bore side as the cylinder extends. This function occurs only when the cylinder is extending in a "low to medium load" condition, which occurs as the upper processor jaw is moving toward the material to be cut. As the processor jaws close down on the material to be cut, the cylinder meets resistance and requires more operating pressure. The pilot valve on the speed valve senses this increased pressure and shifts the valve spool out of the speed mode. The rod side fluid is now directed back to the base machine reservoir and full system operating pressure can now be directed to the bore side of the cylinder, allowing the processor to cut the material with maximum force.

# MOBILE DEMOLITION PROCESSORS

## ***THE FEATHERING TECHNIQUE***

The fluid nature of hydraulic power requires a special operating approach to the processor that can be described as a smooth, even technique. The control levers should be moved in a gradual, deliberate way rather than with jerky, abrupt movements; jerky operation can cause damage and early wear to various parts of the machine, and can also overheat the hydraulic system.

As each control lever is moved forward or backward from the neutral position, the oil flows to the cylinder or motor controlling a function. The component (boom, processor, etc.) starts to move. The component moves faster as the control lever is moved further forward or backward. Holding the lever in the forward or backward position will hold that movement at a given rate of speed. To slow the movement down, gradually move the lever toward the neutral position. Movement is stopped at the neutral position. The position is maintained until the control lever is moved again.

“Feathering” the controls is a technique that will increase loading output and make operating the machine easier. To “feather” when starting any motion of the machine, move the control slightly from neutral until it starts to move, then smoothly move the control to increase motion to desired speed. Do the same when stopping a motion.

## ***OPERATING TIPS***

As an operator gains experience processing material with the Mobile Demolition Processor, he or she will learn what the machine’s capabilities and limitations are. Different techniques for processing various types and sizes of materials will be discovered and learned. We strongly suggest that these techniques be shared among operators to help achieve the greatest efficiency possible. The following operating tips are offered to help you get the most production and best service from your Mobile Demolition Processor.

- When processing oversized concrete, make partial bites to start the breakage and then back off before making the next partial bit. This will allow the broken material to fall away between bites.
- Keep the attachment properly maintained. Jaws with excessive blade gaps or dull teeth are much less effective; lack of proper maintenance can lead to greater problems and potential downtime.
- Avoid handling or processing long, heavy materials off center. Excessive weight held out to one side can force the attachment to rotate. This is known as “backdriving” the rotation system. Backdriving puts increased strain on the rotation system and, if done continually, can lead to rotation component problems. Remember, the rotator is intended for positioning the attachment only.
- When handling materials, keep the load as close to the base machine as safely possible. This will provide the greatest machine stability.

# MOBILE DEMOLITION PROCESSORS

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# MOBILE DEMOLITION PROCESSORS

## **MAINTENANCE SAFETY PROCEDURES**

Before attempting any maintenance procedure, read the entire Safety Manual carefully. If any question arises regarding a safety or maintenance procedure, contact your LaBounty dealer. For the nearest LaBounty dealer, see the Contact Information at the front of this manual.

- Inspect the attachment daily. DO NOT operate a poorly maintained or damaged attachment or major structural damage could result.
- ALWAYS lower the boom to the ground before leaving the cab. If it is necessary to work on an attachment off the ground, securely support the machine and attachment. DO NOT support the machine on cinder blocks, hollow tiles, or props that may crumble under continuous load. DO NOT rely on the cylinder to hold the attachment in the air. If a control is moved or hydraulic pressure is otherwise released, the attachment will drop. DO NOT work under a machine that is supported solely by a jack.
- DO NOT attempt to alter or change the physical, mechanical or hydraulic operation of the attachment during the warranty period without first consulting Stanley LaBounty as this could invalidate the Manufacturer's Warranty.
- NEVER operate the machine if an unsafe condition exists. Attach a "DO NOT OPERATE" tag to the machine.
- If more than one person is working on a machine, each must be familiar with the controls and aware of what the others are doing. Before working on a machine, BE SURE TO TAG THE CONTROLS SO NO ONE ELSE WILL START IT.
- ALWAYS use two people when making checks with the engine running – the operator at the controls must be able to see the person doing the checking.
- Keep hands away from moving parts. NEVER lubricate or work on a machine while it is moving.

- ALWAYS wear proper safety equipment when maintaining the attachment including safety glasses with side shields, hard hat, steel toe shoes, gloves, and hearing protection.
- Be sure you understand a service procedure before working on the machine. DO NOT ATTEMPT REPAIRS YOU DO NOT UNDERSTAND. ASK FOR HELP BEFORE STARTING IF YOU ARE UNSURE.

### **WARNING**

***During maintenance of the attachment, it is imperative that the excavator is turned OFF to prevent injury.***

## **GENERAL RULES FOR MAINTENANCE**

1. Read the maintenance procedures in this manual. Be sure all maintenance personnel read and understand all maintenance procedures before working on the equipment.
2. Use factory approved parts. Use of parts that are not factory approved by cause damage or unnecessary downtime and may void the attachment warranty.
3. Lubricate daily – follow the lubrications schedule as outlined in this manual.
4. Use the included Inspection Checklists during inspection to make sure all maintenance is complete.
5. In extremely cold temperatures work the attachment on lighter materials first before working up to heavier materials. This allows the attachment and jaws to warm up and makes them less susceptible to damage.
6. DO NOT weld on the excavator boom or stick without first consulting your dealer.



## **GENERAL RULES FOR MAINTENANCE**

continued

7. Properly torque bolted connections as prescribed in this manual. Specific bolt torques are included for hydraulic connections, turntable bearing bolts, blade bolts, and rotation motor/gearbox assembly bolts. Refer to page 5-8 for complete information on proper torque values for LaBounty Mobile Demolition Processors.
8. DO NOT disconnect any hydraulic hoses or fittings without first relieving machine hydraulic pressure.
9. DO NOT exert excavator weight on the attachment in order to free the jaws if they become jammed. Please consult your authorized LaBounty dealer if jamming occurs.
10. DO NOT let hot hydraulic fluid get in contact with the skin as it could cause severe burns.
11. DO NOT operate a rotating attachment without a case drain line connected back to the tank or return line filter or the rotation component will be damaged.

## **PERIODIC SERVICE SCHEDULE**

### **SERVICE THE ATTACHMENT AT SPECIFIED INTERVALS**

Inspect, lubricate, make service checks and adjustments according to the 8-hour and 80-hour Inspection Checklists reproduced from this manual.

A program of regular service should be established, using the machine hour meter to determine when the processor should be serviced. Use the intervals on the Service Schedule when operating in normal conditions. Service the attachment at shorter intervals when operating in extreme environmental or abrasive conditions.

### **USE CORRECT LUBRICANTS AND BOLT TORQUES**

Refer to the Lubrication and Bolt Torque instructions in this manual when performing maintenance on the attachment.

## **8-HOUR SERVICE RECOMMENDED**

Inspect the Processor. Look over the attachment for damage or any clues that might point out a potential problem.

**Grease Fittings.** Lubricate according to Lubrication Section of this manual. Replace broken or damaged grease fittings immediately.

**Connecting Pins.** Inspect the mounting bracket pins and cylinder pins for looseness or damage. Check pinheads and pinkeepers.

**Bolts.** Check for looseness or damage. Torque if necessary according to the proper torque chart in this manual.

**Hoses, Connections, Cylinders.** Inspect for leaks, wear and damage. Tighten, repair or replace.



# MOBILE DEMOLITION PROCESSORS

## 8-HOUR INSPECTION CHECKLIST

Attachment Model \_\_\_\_\_ Excavator Hour Meter \_\_\_\_\_

Attachment Serial Number \_\_\_\_\_ Date \_\_\_\_\_

- \_\_\_\_\_ 1. Inspect safety devices
- \_\_\_\_\_ a. All safety decals in place and legible—see decal and label maintenance section
  - \_\_\_\_\_ b. All cab protection in good condition
  - \_\_\_\_\_ c. Audible and visual warnings working
- \_\_\_\_\_ 2. Visually inspect attachment for any damage
- \_\_\_\_\_ 3. Grease all points. Refer to attachment lubrication in this section
- \_\_\_\_\_ a. Rear cylinder connection
  - \_\_\_\_\_ b. Front cylinder connection
  - \_\_\_\_\_ c. Main pivot area
  - \_\_\_\_\_ d. Mounting bracket—stick connection (if necessary)
  - \_\_\_\_\_ e. Mounting bracket—link connection (if necessary)
- \_\_\_\_\_ 4. Inspect connecting pins and pin retaining hardware
- \_\_\_\_\_ a. Stick connection or boom pivot pin
  - \_\_\_\_\_ b. Link connection or cylinder connection pin
  - \_\_\_\_\_ c. Front cylinder pin
  - \_\_\_\_\_ d. Rear cylinder pin
  - \_\_\_\_\_ e. Main pin
- \_\_\_\_\_ 5. Inspect all bolts
- \_\_\_\_\_ a. Visually inspect all bolts and replace any that are loose or damaged
- \_\_\_\_\_ 6. Inspect hydraulic system
- \_\_\_\_\_ a. Inspect hoses for wear and potential failure
  - \_\_\_\_\_ b. Inspect hose connections for leaks
  - \_\_\_\_\_ c. Inspect cylinder for leaks

### Rotator:

- \_\_\_\_\_ 1. Visually check all turntable bearing bolts and replace any that are loose or damaged
- \_\_\_\_\_ 2. Grease the turntable bearing. Refer to Rotator Maintenance section for procedure
- \_\_\_\_\_ 3. Inspect Hydraulic System
- \_\_\_\_\_ a. Inspect hoses for wear and potential failure
  - \_\_\_\_\_ b. Inspect hose connections for leaks
- \_\_\_\_\_ 4. Remove covers and inspect rotation component mounting bolts

Inspected by: \_\_\_\_\_



## 80-HOUR INSPECTION CHECKLIST

Attachment Model \_\_\_\_\_ Excavator Hour Meter \_\_\_\_\_

Attachment Serial Number \_\_\_\_\_ Date \_\_\_\_\_

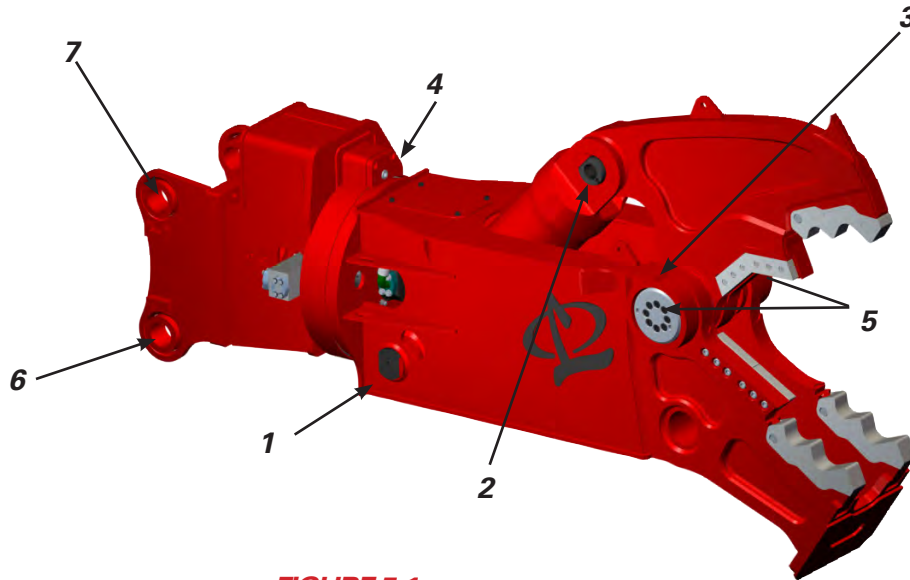
- \_\_\_\_\_ 1. Inspect blades
    - \_\_\_\_\_ a. Rotate or replace upper cutting blades
    - \_\_\_\_\_ b. Rotate or replace lower cutting blades
    - \_\_\_\_\_ c. Measure blade gap, refer to Section 7 of this manual for shimming procedure and tolerance range
  
  - \_\_\_\_\_ 2. Inspect upper jaw
    - \_\_\_\_\_ a. Replace Swift Locks if necessary
    - \_\_\_\_\_ b. Check for cracks
    - \_\_\_\_\_ c. Replace upper wear plates if necessary
  
  - \_\_\_\_\_ 3. Inspect lower jaw
    - \_\_\_\_\_ a. Build-up and replace Swift Locks and lower wear plate if necessary
    - \_\_\_\_\_ b. Check for cracks
    - \_\_\_\_\_ c. Replace lower wear plates if necessary
- If Rotator equipped:
- \_\_\_\_\_ 1. Inspect all bolts connecting the turntable bearing to the upper head and MDP
    - \_\_\_\_\_ a. Replace bolts if retorque is necessary

Inspected by: \_\_\_\_\_



# MOBILE DEMOLITION PROCESSORS

## ATTACHMENT LUBRICATION



**FIGURE 5-1**

1. Refer to Figure 5-1. Grease all points every 8 hours of attachment operation. Use premium grease No 2EP or equivalent.
2. Grease fitting locations are indicated on the illustrations and by yellow GREASE decals on the attachment.

### NOTICE

*Grease locations will vary slightly depending on the attachment model. Look for yellow grease decals when lubricating the attachment.*

#### LOCATION ON ATTACHMENT

1. Rear cylinder connection
2. Front cylinder connection
3. Thrust bearing
4. Turntable bearing
5. Main jaw pivot (2 fittings per side)

#### NUMBER OF SHOTS

- 6
- 6
- 6
- 6
- 6

#### LOCATION ON BRACKET

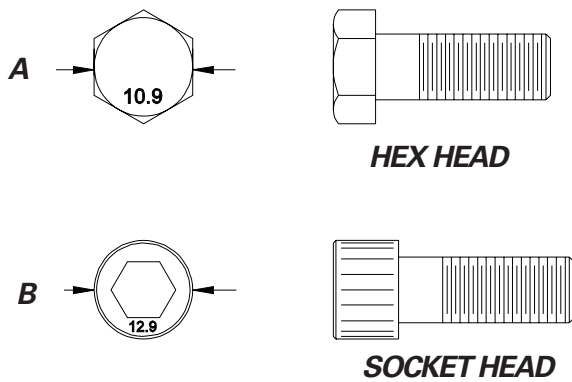
6. Stick connection (3rd member mount) or boom pivot connection (2nd member mount)
7. Linkage connection (3rd member mount) or cylinder pivot connection (2nd member mount)

## BOLT TORQUE GUIDELINES

Proper bolt installation is critical to ensure the safe and efficient operation of the processor. Carefully follow the steps below to properly install bolts.

1. Always replace bolts and nuts with the same size and class of fastener. Replacement fasteners can be ordered from the Stanley LaBounty Parts Department to ensure the correct part is used (refer to Figure 5-2). Unless otherwise specified, use class 10.9 metric hex head capscrews, class 10.9 metric flat head capscrews, and class 12.9 metric socket head capscrews.
2. Make sure bolts, nuts and bolt holes are free of dirt, oil, grease and other contaminants.
3. Use the Capscrew Size Guide on this page to help determine the size of the bolt being installed.
4. The torque values in this manual are for use with non-plated fasteners with clean, dry threads. These values are suitable for use with or without thread adhesives, such as Loctite products. Please note that proper torque values may vary depending on the specific area of the processor.

## METRIC CAPSCREW SIZE GUIDELINES



**FIGURE 5-2**

CAP-SCREW SIZE	A HEX HEAD	B SOCKET HEAD
M10	0.63" (16mm)	0.63" (16mm)
M12	0.71" (18mm)	0.71" (18mm)
M14	0.83" (21mm)	0.83" (21mm)
M16	0.94" (24mm)	0.94" (24mm)
M20	1.18" (30mm)	1.18" (30mm)
M24	1.42" (36mm)	1.42" (36mm)
M30	1.81" (46mm)	1.77" (45mm)

### **⚠ WARNING**

**Always replace bolts and nuts with the same size and class of fastener. Inferior fasteners can fail and cause injury or death and damage to the equipment.**

# MOBILE DEMOLITION PROCESSORS

## TORQUE VALUES FOR METRIC FASTENERS

### IMPORTANT

Please note that some parts of the MDP require special torque values. These parts are listed below with the page number where the proper torque values for that area can be found. They include:

- Hydraulic Connection Bolts (split flange connections) Page 5-18
- Turntable Bearing Bolts Page 5-21
- Rotation Assembly Bolts Page 5-21
- Blades Page 5-10
- Speed Valve Bolts Page 5-33-39

For all other bolts used in the LaBounty processor, use the Generic Torque Table, below.

SIZE	CLASS 10.9		CLASS 12.9	
	FT-LBS	N-M	FT-LBS	N-M
M10	41	55	49	67
M12	71	96	85	116
M16	173	235	207	281
M20	335	454	403	547
M24	579	785	693	939
M30	1164	1579	1391	1887

### WARNING

***Always replace bolts and nuts with the same size and class of fastener. Inferior fasteners can fail and cause injury or death and damage to the equipment.***

### NOTICE

*It is preferred to apply torque to the nut rather than the bolt head wherever possible.*

## **BLADE MAINTENANCE**

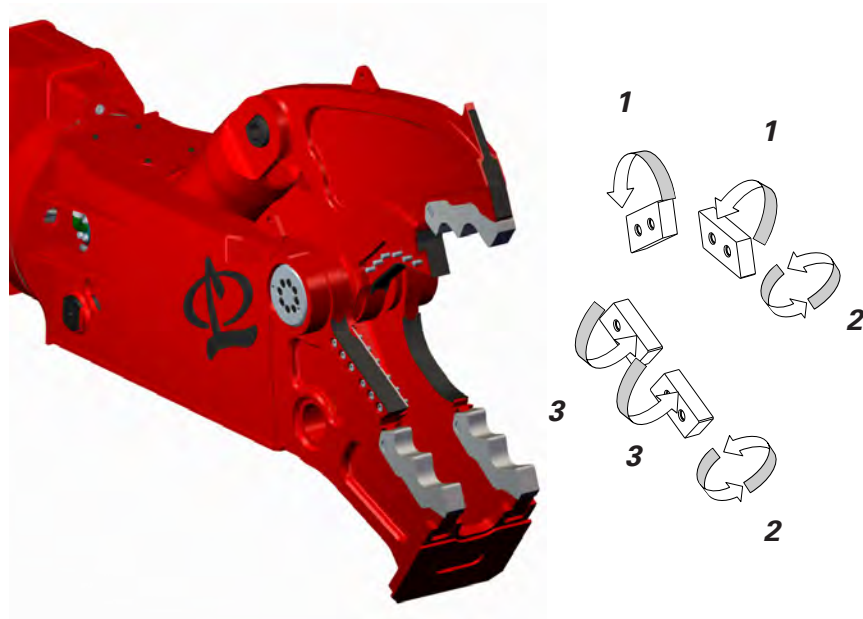
New blades in proper adjustment will increase the cutting performance. Proper rotation of blades will provide optimum use and the best performance. Recommended blade rotation is after approximately 80 hours of use depending on the material being processed.

1. To rotate the blades, remove the blade from the jaw set. Do one blade at a time.
2. Grind all rough edges from the blade.
3. Clean out the blade seat.
4. Reinstall the blade. See Figure 5-3. The blade should be turned end for end and reinstalled in the same blade seat. Torque the blade bolts according to the Dry Bolt Torque charts in this chapter.
5. For the second blade flip, turn the blades to a new face and reinstall in the same seats..
6. For the third blade flip, turn blades end for end and replace in blade seat.
7. When all possible edges of the blades have been worn to a ¼" (6.4 mm) radius or more, it will be necessary to replace the blades.

Remember, with damaged or badly worn blades, cutting ability decreases tremendously and it may eventually cause structural damage to the jaws. This condition also causes the attachment and base machine hydraulic systems to work harder resulting in premature wear.

### **CAUTION**

*During blade maintenance, leather work gloves must be worn to prevent injury.*



**FIGURE 5-3**

# MOBILE DEMOLITION PROCESSORS

## **BLADE BOLT SPECIFICATIONS**

Proper torque of the blade bolts is a crucial factor in extending the life of the processor and blade components. Maintaining the proper torque according to the specifications in this manual will help prevent loosening of blades and possible damage to the blade seats.

As described on page 5-9, processor blades can be rotated. Blades bolts and washer can typically be used for the life of the accompanying blade set. Due to the critical nature of these fasteners, Stanley LaBounty requires that blade fasteners (bolts and washers) be replaced with each set of new blades.

When using existing blade fasteners during blade rotations, always inspect the hardware for any imperfections or damaged and replace as necessary. If a bolt has become elongated or a washer has spun, it will be difficult or impossible to achieve proper torque to secure the blade in the seat.

Proper torque value for the bolts used in LaBounty Mobile Demolition Processors is listed below. This value should only be used for blade bolts. For torque information about other fasteners, please refer to page 5-8.

## **MOBILE DEMOLITION PROCESSOR BLADE BOLT TORQUE VALUE**

<b>SIZE</b>	<b>CLASS 10.9</b>	
M20	500 ft lbs	678 Nm
M24	900 ft lbs	1220 Nm

## **BLADE SHIMMING**

Blade rotating is recommended every 80 hours of jaw set use in order to assure uniform wear so shimming is possible.

After rotating or replacing the blades, there is a possibility there will be a gap between the blades, and shimming may be necessary. It is necessary to maintain a blade gap of 0.060" (1.50 mm) or less to prevent jamming and damage to the jaw set.

1. See Figure 5-4. To check for blade gap, cycle the jaws closed so the blades bypass. Use a feeler gauge between the blades to check the blade gap and record it.

### **WARNING**

***Do not move the attachment or jawset while checking with a feeler gauge.***

2. The amount of shims to install behind the blade should be approximately 0.010" (0.25 mm) less than the measurements you recorded earlier. Do not shim out the blade more than 0.125" (3.2 mm), or you may cause structural damage, and the warranty may be voided.

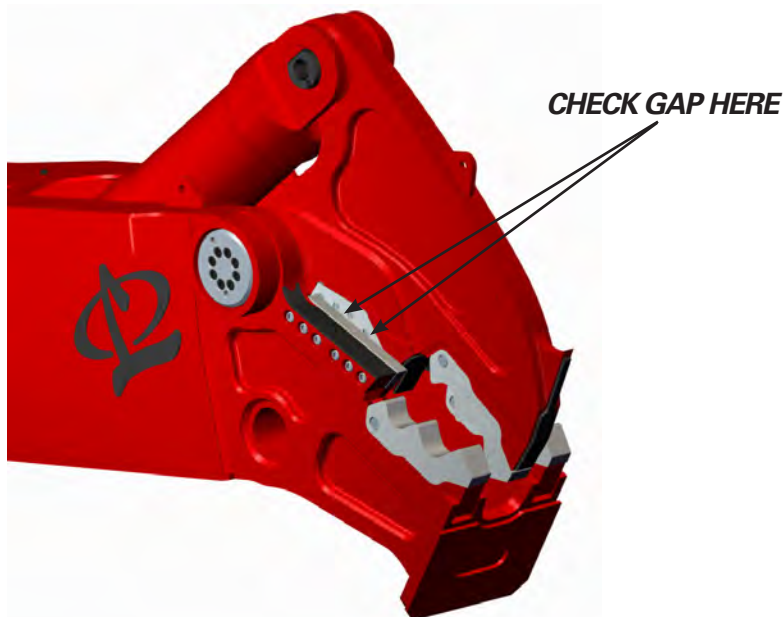
3. To install the shims, loosen the blade bolts and slide the shim between the blade and the blade seat. Tighten the blade bolts to the proper torque according to this manual.

4. Cycle the jaws slowly to ensure there is no blade interference, and then recheck tolerances.

Maintain this shimming procedure for maximum processing efficiency and blade life. If the blades are not rotated every 80 hours, shimming may not be possible because of uneven wear on the blades.

5. If after installing new blades the upper and lower blades interfere, refer to pivot adjustment, Section 6 (page 6-1).

**FIGURE 5-4**



# MOBILE DEMOLITION PROCESSORS

## **GENERAL GUIDELINES FOR BUILD UP AND WEAR PLATE REPLACEMENT**

Proper build up and wear plate replacement is done according to the inspection scheduled for each jaw type. If the jaws are in a severe application, the interval for maintenance may need to be shortened. Allow the wear plates to wear down, but not completely away, before installing new wear plates. The quality and attention to detail in welding can significantly affect the life of the jaws. LaBounty strongly recommends that only certified welders perform this procedure.

## **BUILD UP RECOMMENDATIONS**

The build up material acts to replace any parent material that has worn away. See the list of AWS classifications below to select a suitable build-up material for your processors. Weld products within these classifications meet the combined requirements for strength, toughness, and ductility that are essential for LaBounty applications.

Shielded Metal Arc Welding- Stick Electrodes

- E7018
- E8018-C 3

Gas Metal Arc Welding- Solid Wire Electrodes

- ER 70S-6

Gas Metal Arc Welding- Flux Cored Electrodes

- E71 T- 1
- E71T-1M
- E80T1-Ni1
- E80T1-Ni1M

Gas Metal Arc Welding- Metal Powder Cored Electrodes

- E70C-6M
- E80C-Ni1

## **BUILD UP PROCEDURE**

### **PREHEAT**

Preheat the general surrounding area to at least 200°F (100°C) to remove moisture from the base material. **Before ANY thermal process is applied to the processor steel, including welding, tack welding, torch cutting, and air-arcing, preheat the area within 6" (150 mm) of the local area to a minimum of 400°F (200°C) and a maximum of 450°F (230°C). This includes adding and removing lifting lugs.** Preheat must be uniform throughout the material thickness and maintained until all welding has been completed. Avoid cyclic heating and large temperature swings. Preheating may be done by localized gas torches, or thermal strip blankets.

### **POST HEAT**

If preheat has dropped below 400°F (200°C) within 6" (150 mm) of the weld area, post heat to 400° (200°C) and wrap with heat blanket to allow it to cool slowly to the ambient temperature. Plan to perform build up and hardsurfacing at the end of the day or when there will be adequate time for the welded areas to cool before placing the processor back into service.

## **HANDLING AND STORAGE OF WELD MATERIALS**

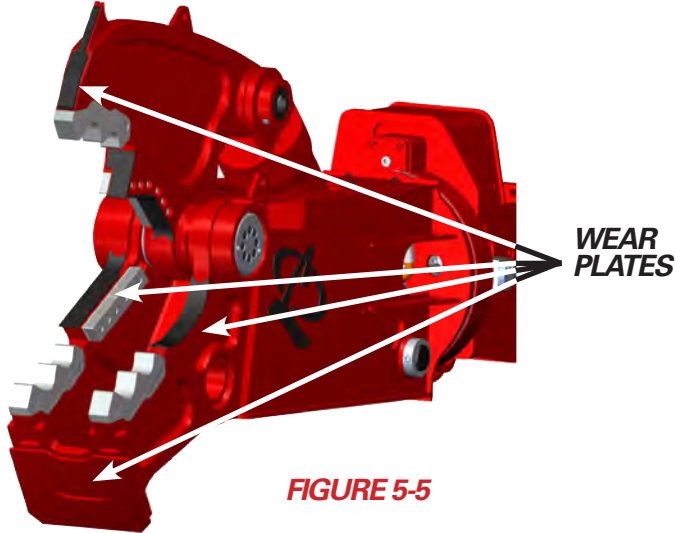
Follow the weld manufacturer's handling and storage instructions closely. Make sure the electrodes and/or wire are free of moisture. Moisture can cause cracks and porosity in the weld and in the base metal beneath the weld.

## **WELD QUALITY**

Quality and attention to detail in welding significantly affects the life of the MDP. Stanley LaBounty strongly recommends that only qualified and certified welders perform this work. Be sure the weld consumables and base material are clean and dry.



## **BUILD UP PROCEDURE** continued



**FIGURE 5-5**

### **CAUTION**

*DO NOT use stainless hardsurface rod. It will crack the base metal, which can cause a major structural failure of MDP jaws.*

### **CAUTION**

*Using improper build-up products may result in premature wear or increased potential for cracking and may compromise warranty coverage.*

## **WEAR PLATE REPLACEMENT**

See Figure 5-5 for specific areas with wear plates installed; refer to Parts Catalog for specific wear plate part numbers. Pay special attention to the preheat and post-heat instructions and follow them exactly.

1. Remove existing wear parts.
2. Clean the areas underneath old wear parts, removing any grease, paints, or other foreign materials that may be harmful to the weld.
3. Preheat the area to 200-300°F (100-150°C) and maintain this temperature throughout the build up and hardsurfacing procedure.
4. If necessary, build up along the top and front edges of the secondary blade seat flush with the blade. The blade should not stick out beyond the edge of the seat in this area. However, do not weld in the apex area.
5. If the temperature within 6" (150 mm) of the weld area has dropped below 400°F (200°C) during the weld process, post heat this area to 400°F (200°C).
6. Wrap with a heat blanket and allow the welded area to cool slowly to the ambient temperature. The MDP should not be put back into service until it has cooled completely.
7. If you have any questions, contact LaBounty Service Department (800-522-5059) for specific welding instructions.

## **HARDSURFACING RECOMMENDATIONS**

If hardsurfacing, Stanley LaBounty recommends Amalloy 814H rod or equivalent. It is important to always use a hardsurfacing weld material with a chromium content of less than .10% ( or less than one-tenth of one percent) and a severe impact-resistance rating to prevent cracking. If you have questions about what hardsurface material to use, please contact the Stanley LaBounty Customer Service Department. Failure to adhere to LaBounty hardsurfacing recommendations may compromise the attachment warranty. Before hardsurfacing, E7018 underlayment beads must be laid down. The hardsurfacing is then applied to the underlayment beads.

**Hardsurfacing must not be applied directly to the parent material.**

Amalloy Welding and Industrial Supply  
 Phone: 800-735-3040 (toll free)  
 Fax: 763-753-8263  
 Web site: amalloy.com



# MOBILE DEMOLITION PROCESSORS

## SWIFT-LOCK™ TOOTH REPLACEMENT

When the Swift-Lock teeth are badly worn or cracking performance is decreased, the teeth should be replaced. Depending on the type of concrete being processed, the interval between teeth changes will vary. It is recommended that the teeth be replaced as a set for even wear and the best performance.

1. Curl the attachment under and lay it down flat on a firm and level surface with the jaws open. Turn the base machine off. Make sure that the attachment is stable and will not drop or close.
2. Work only on the jaw closest to the ground with the tooth facing up. The tooth on this jaw will be properly supported when the tooth pin is removed.
3. Use a soft metal drift (such as brass) and a mallet to drive out the tooth pin (Figure 5-6).
4. If the tooth is loose in the receptacle, lift and slide it out. If necessary, use a pry bar to loosen the tooth from the receptacle. DO NOT lose the retainer ring.
5. Insert the new tooth by sliding it into the slot in the receptacle. Make sure the retainer ring is located in its seat in the receptacle before installing the tooth.
6. Use a mallet to insert the pin through the holes in the tooth and receptacle. Make sure to install the pin so the groove in the pin will line up with the retainer ring inside. The retainer ring should seat in the pin groove.
7. When this jaw is done, start up the base machine. With all personnel standing at a safe distance, lift the attachment and rotate it 180°. Lay the attachment back down on the ground and make sure it will not drop or close.
8. Use steps 3 through 6 to replace the tooth on the other jaw.

### CAUTION

*Safety equipment should be worn at all times when maintaining the attachment to prevent injury, and includes eye protection, hard hat, steel toe shoes, leather gloves, and hearing protection.*

### CAUTION

*Each tooth is very heavy. Removing a tooth pin when the tooth is not supported will cause the tooth to fall and could cause serious injury.*

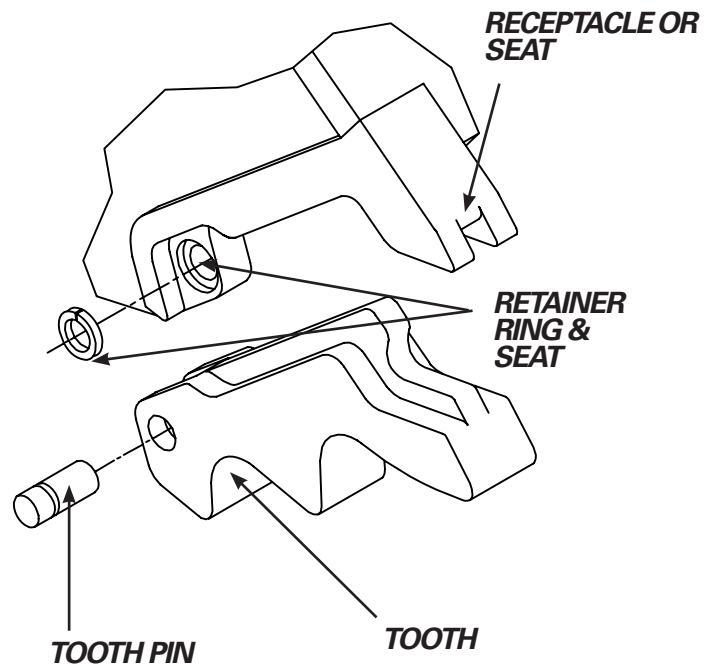


FIGURE 5-6

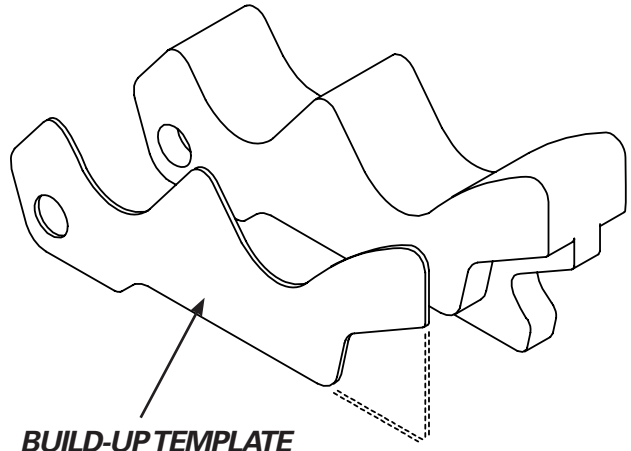
## TOOTH BUILD UP AND HARDSURFACING

If desired, Swift-Lock Teeth can be built up and hardsurfaced to increase their life. Depending on the situation, it may be more cost-effective to replace the teeth when they become worn rather than build them up.

It is necessary to build up and hardsurface the teeth when there is adequate time for them to cool slowly before they are put back into service.

Use the following process to build up and hardsurface the teeth:

1. Clean all dirt and grease from the areas to be built up. If any old hardsurfacing still exists, remove it down to the base metal by grinding.
2. Place the build-up template (supplied by LaBounty) along the tooth to determine the amount of build-up required (Figure 5-7).
3. Preheat the tooth to about 200° F (100° C) to remove moisture. Preheat the area to be built up to 300°- 400° F (150°- 200° C). DO NOT exceed 450° F (230° C). Use a temperature stick to test the area frequently, because overheating can harm the tooth. Temperature sticks are available from LaBounty.
4. Using AWS E7018 welding rod or equivalent, make side-by-side passes down the face of the cutting edge until the area is covered. Stress relieve and remove slag after each pass by peening vigorously. Continue to do this until the profile of the tooth matches the template as closely as possible. Grind the edges square to match the template profile.



**BUILD-UP TEMPLATE**

**FIGURE 5-7**

### **CAUTION**

- **Remove paint before welding or heating. Hazardous fumes can be generated when paint is heated.**
- **When sanding or grinding paint, do not breathe the dust. Wear an approved respirator.**
- **If you use solvent or paint stripper, remove the stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from the area.**
- **Have a fire extinguisher nearby during all cutting and welding operations. Clean areas to be cut or welded of oil and flammable materials. Protect all flammable areas from sparks.**
- **Do all work in a well-ventilated area. Dispose of paint and solvent properly.**
- **Check the temperature often during this procedure to maintain 300-400°F (150-200°C), but DO NOT exceed 450°F (230°C).**

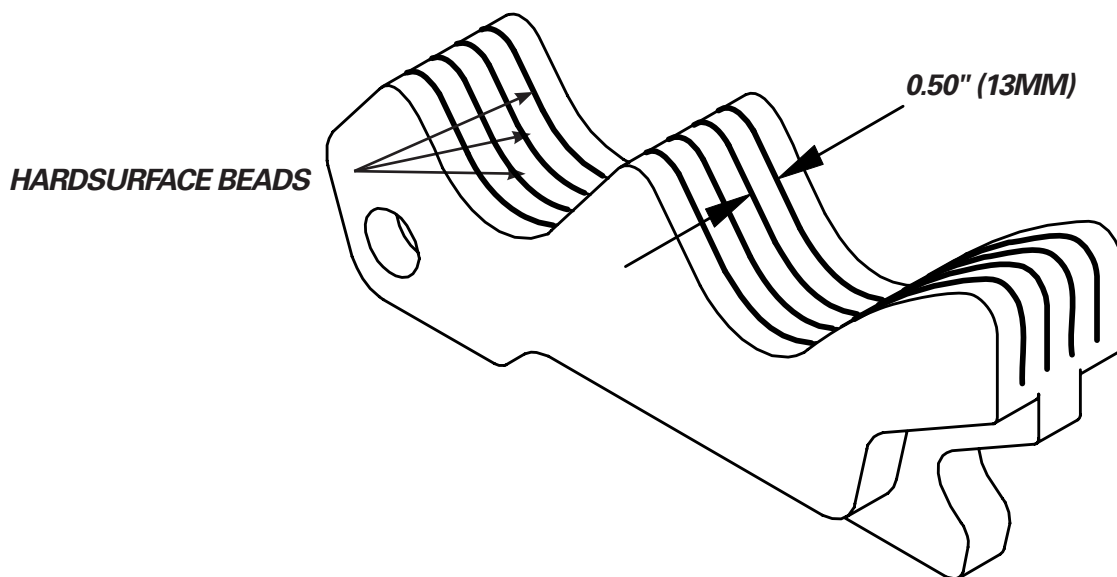
# MOBILE DEMOLITION PROCESSORS

## **TOOTH BUILD-UP AND HARDSURFACING** continued

5. To hardsurface the tooth, start by applying parallel passes of AWS E7018 build up running the length of the tooth (Figure 5-8). These single passes should be approximately 1/2" (13 mm) apart and will serve as an underlayment for the hardsurface rod.
6. Apply a bead of Amalloy 814H rod or equivalent directly on top of each of the underlayment beads. It is important to use an air-operated slag peener on each pass of weld to relieve stress.
7. Taper the ends of each hardsurface bead by grinding in line with the cutting edges. Do not undercut the weld with the grinder.
8. When welding and grinding is complete, peen the welded area until it is shiny or until the peener cannot dent the weld anymore (typically 5 to 10 minutes). This will harden the welded area.
9. When finished, be sure to cover the reworked teeth with a heat blanket to allow them to cool slowly.

### NOTICE

**DO NOT** apply the hardsurface directly to the parent material.



**FIGURE 5-8**

## HYDRAULIC SYSTEM MAINTENANCE

1. Always relieve all hydraulic pressure of the excavator before attempting to work on any hydraulic component. **Relieve hydraulic pressure before working on machine** by working controls in both directions with the engine off and the ignition switch in the off position.
2. Shut off the base machine and check the hydraulic system pressure. It should be zero (0) PSI. There is a diagnostic port on the processor manifold to check the pressure; the ¼" NPT (¼- 18) plug will need to be replaced with an adapter fitting for your test gauge.
3. Hydraulic oil becomes hot during operation. DO NOT let hot hydraulic oil get in contact with the skin as it could cause severe burns.
4. Check all hydraulic components (split flanges, hoses, fittings, mounting hardware, etc.) every 80 hours.

### **WARNING**

***Escaping fluid under pressure can penetrate the skin causing serious injury. Relieve pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Keep hands and body away from pin holes and nozzles that eject fluids under high pressure. Use a piece of cardboard to search for leaks. If ANY fluid is injected into the skin, medical attention is required immediately by a doctor familiar with this type of injury or gangrene may result.***

5. The hydraulic manifold is equipped with a diagnostic fitting to check the pressure coming from the base machine. Maintaining proper operating pressure will result in optimum cutting performance and also as a quick check to see if the base machine is performing up to manufacturer's recommendations.
6. Whenever hydraulic lines are disconnected, hoses must be capped and ports must be plugged to prevent contamination of the hydraulic system.

### **WARNING**

***NEVER adjust pressure relief valves to get higher operating pressures. The manufacturer's recommended pressures give the safest performance with the longest life.***

# MOBILE DEMOLITION PROCESSORS

## FLANGE TYPE HOSE FITTINGS

Check flange fittings for smooth, tight fit of matching surfaces. If any capscrews are loose or if matching surfaces are not tight, tighten the loose screw then tighten the diagonally opposite cap screw. Tighten the two remaining capscrews, then torque all four screws as specified in the Torque Chart in this manual.

Tolerance is  $\pm 10\%$ . The torques given are enough for the given size connection with the recommended working pressure. Torques can be increased to the maximum shown for each screw size if desired.

DO NOT use these values if a different torque value or tightening procedure is listed for a specific application. Torque values listed are for general use only. Check tightness of cap screws periodically.

Processor bolts are designed to fail under predetermined loads. Always replace bolts with the identical grade.

Make sure fastener threads are clean and properly engaged. This will prevent them from failing when tightening.

### CAUTION

**Do not use air wrenches. Tighten each bolt equally in an alternating pattern. Do not overtighten.**

### CAUTION

**Use only metric tools on metric hardware. Other tools may not fit properly. They may slip and cause injury.**

## TORQUE VALUES FOR FOUR-BOLT FLANGE FITTINGS

### CODE 62 FLANGES

NOMINAL FLANGE SIZE	CAPSCREW SIZE (CLASS 10.9)	TORQUE FT LBS	TORQUE NM
1"	M12 X 1.75	70	95
1 ¼"	M12 X 1.75	70	95
1 ½"	M16 X 2.00	224	304
2"	M20 X 2.50	435	590

## TORQUE VALUES FOR FOUR-BOLT FLANGE FITTINGS

### CODE 61 FLANGES

NOMINAL FLANGE SIZE	CAPSCREW SIZE (CLASS 10.9)	TORQUE FT LBS	TORQUE NM
¾"	M10 X 1.50	42	57
1"	M10 X 1.50	42	57
1 ¼"	M12 X 1.75	70	95
1 ½"	M12 X 1.75	70	95
2"	M12 X 1.75	70	95



## **THE ROTATOR**

The rotator gives the attachment 360° of continuous rotation in both directions for easy, accurate processing at all angles. The hydraulic rotation circuit consists of a hydraulic motor driving a turntable bearing, either directly or through a planetary gearbox. It is necessary to regularly maintain this system to ensure long life and good performance. The maintenance requirements of the rotator are outlined in the following pages. The rotator requires special attention when operating the attachment. The rotator is to be used only to position the attachment, not as a means of bending, twisting, or breaking material. Use of the rotation feature for any other purpose may damage the rotation components and may compromise the attachment's warranty.

## **BACKDRIVING THE ROTATOR**

It is possible to force the attachment to rotate even when the rotation circuit is not operated. This is known as backdriving the rotation system. Backdriving puts undue stress on the rotation system and, if done excessively, can lead to rotation component problems. Backdriving occurs when an excessive force is applied to the attachment jaws and the force is off-center. Examples of this are closing the jaws on a rigid member without the jaws being square to the member or handling a heavy load off-center in the jaws. Follow the tips below to minimize backdriving as much as possible.

1. When handling a load in the jaws, try to grip it as close to its center of gravity as possible.
2. When processing a long member that is suspended (for example, a horizontal beam in a structure), make several shorter cuts rather than one long cut where the member can come loose and backdrive the attachment.
3. When processing any rigid member, use the rotator to square the jaws to the cut. If the jaws are not square, the rotator will backdrive to adjust to the cut.

## MAJOR COMPONENTS OF TYPICAL ROTATION SYSTEMS

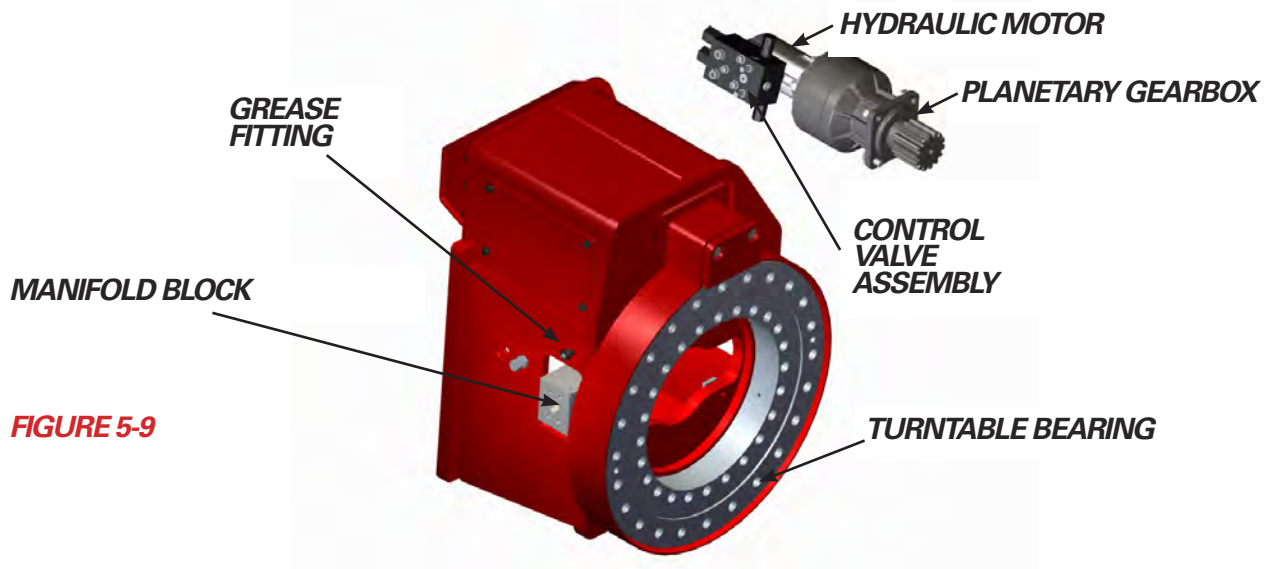


FIGURE 5-9

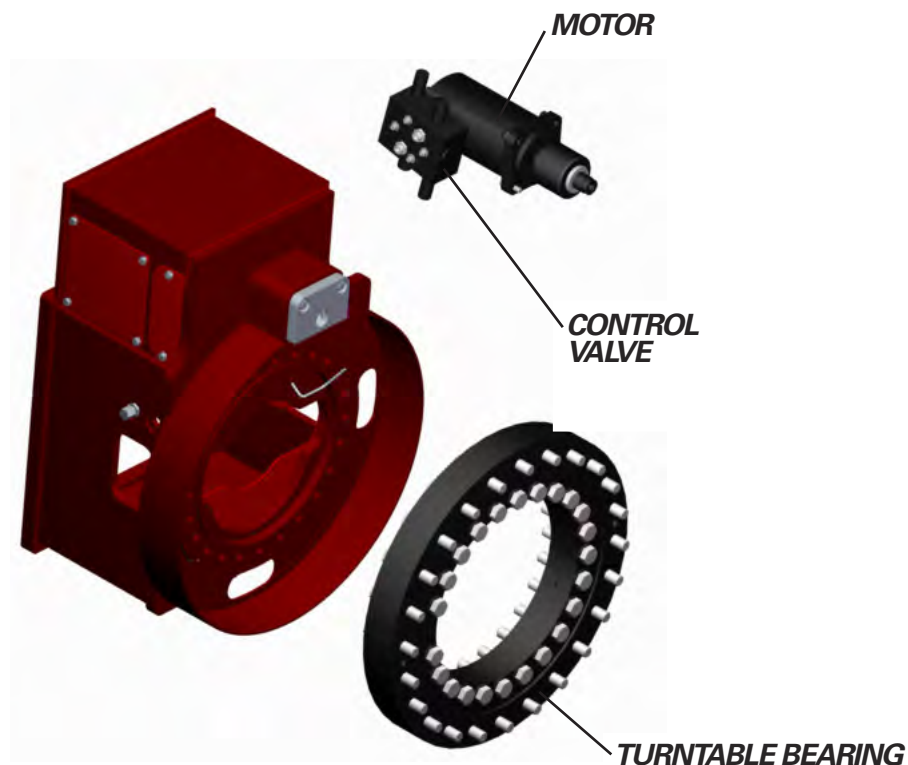


FIGURE 5-10



## **BOLT TORQUING**

The bolts connecting the turntable bearing are an important maintenance area. These bolts must be inspected each 8 hours of operation. Damaged fasteners must always be replaced with the same size and grade of fastener. If bolts are found to be loose after operation, they should never be retorqued more than once before they are replaced.

These bolts should be inspected daily and replaced after 1500 hours or 12 months.

## **TORQUE VALUES FOR TURNTABLE BOLTS**

SIZE	CLASS	FT-LBS	NM
M20	10.9	435	590
M24	10.9	752	1020
M30	10.9	1511	2049
1"	L9	900	1220
1½"	ZN - L9	2600	3525

## **TORQUE VALUES FOR ROTATION ASSEMBLY BOLTS**

SIZE	CLASS	FT-LBS	NM
M10	12.9	64	87
M12	10.9	92	125
M16	10.9	224	304
M20	10.9	435	590
.38"	Gr 8	63	85
½"	Gr 8	154	209
¾"	Gr 8	380	515

### **WARNING**

**ALWAYS** replace bolts and nuts with the same size and class of fastener. Inferior fasteners can fail and cause injury or death and damage to the equipment.

### **CAUTION**

Use of the rotation feature for any purpose other than positioning may damage the rotation components and may void the attachment warranty.

### **NOTICE**

- Make sure to use the proper torque value for the size, class and type of bolt.
- It may be necessary to rotate the attachment to access all the bolts connecting the attachment, turntable bearing and rotating head.

# MOBILE DEMOLITION PROCESSORS

## **PLANETARY GEARBOX LUBRICATION** if equipped

The planetary gearbox is used if changes in gear ratios are required between the hydraulic motor and turntable bearing to rotate the attachment. Correct lubricant and change-out procedures are critical to maintain dependable gearbox operation. The Planetary Gearbox Lubricants charts on page 24 specify correct lubricants for various operating temperatures.

### NOTICE

*The gearbox lubricant must be changed after the first 50 hours of operation to remove metal filings from the gearbox break-in period; thereafter, refer to the following change-out schedule. Regular recommended inspection of the gearbox fluid level is every 250 hours or 6 months.*

### **CAUTION**

**Support the attachment with blocking in this position and be sure the base machine is shut off.**

## **LUBRICANT CHANGE-OUT PROCEDURE**

1. Position attachment at a comfortable working height and in a position where gearbox is near level (gearbox rotational axis level with respect to horizontal).
2. Remove the upper head top access cover.
3. Place a lubricant catch basin below the drain plug capable of holding more than 2 quarts.
4. Remove the drain plug (bottom) and the visible top plug. These plugs are magnetic and will attract metal filings from inside the gearbox. These filings should be removed from the plugs before reinstalling.
5. Reinstall the drain plug once the gearbox is fully drained.
6. Add the applicable gearbox lubricant through top plug hole.
7. Remove lubricant catch basin.
8. Reinstall top plug and gearbox access cover.

Recommended interval for gearbox lubricant change-out:

<b>GRADE</b>	<b>TIME</b>
SAE 80W-90	500 hours or one year
Synthetic ISO 150 @ 104°F	1000 hours or two years
Synthetic ISO 460 @ 104°F	1000 hours or two years

# MOBILE DEMOLITION PROCESSORS

## PLANETARY GEARBOX LUBRICANTS

OPERATING AMBIENT TEMPERATURE RANGE	RECOMMENDED GRADES
5°F TO 120°F /-14°C TO 49°C -50° TO 120°F /-46°C TO 49°C -25°F TO 180°F /-32°C TO 82°C	SAE 80W- 90 Synthetic ISO 150@104°F Synthetic ISO 460@104°F
APPROVED SOURCE/GRADE	GRADE
Manufacturers of approved SAE lubricants Mobile Oil Corp- Mobilube SHC 75W- 90 Mobile Oil Corp- Mobilube SHC 80W- 140	SAE 80W- 90 Synthetic ISO 150 @ 104°F Synthetic ISO 460 @ 104°F

## SYNTHETIC SPECIFICATION

MOBILUBE SHC	75W- 90	80W- 140
Product Number	51100-6	51101-4
SAE Number	75W- 90	80W- 140
Gravity, API	29.8	30.2
Flash PT, °C (°F), Min.	204(400)	218(425)
Pour PT, °C (°F), Max.	-48(-55)	-43(-45)
Viscosity		
cP @-40°C	109,000	---
cP @-26°C	---	80,000
cSt @40°C	117	312
cSt @ 100°C	15.5	31.3
Viscosity Index	139	139

## GEARBOX FILL CAPACITIES

The fill capacity for the rotation gearbox is approximately  $\frac{3}{4}$  full. Use the table below for actual fill capacities for your specific gearbox. Refer to the Parts Catalog for the processor to determine the LaBounty part number of your gearbox.

LABOUNTY PART NUMBER	FILL CAPACITY
512565	2.20 pints (1.04 liter)
511488	2 pints (1 liter)

### NOTICE

*Lubrication of the gearbox output shaft bearing is accomplished with the lubricant in the gearbox housing.*



# MOBILE DEMOLITION PROCESSORS

## **TURNTABLE BEARING LUBRICATION** LUBRICATION FREQUENCY

Equipment operating frequently in extreme environments should be lubricated at least every eight hours. If the old grease is noted to be in good condition and free of contamination, the interval may be extended. Conversely, if the old grease is contaminated or deteriorated, the interval should be shortened. Rotating attachments in storage should be lubricated at least every six months.

## LUBRICATION PROCEDURES

Bearings are equipped with one to four grease fittings, depending upon the model. The grease fittings will be located either on the outside of the bearing (if it is an internal drive rotator) or on the upper head side plate (external drive). To lubricate the bearing, grease a fitting and then stand clear to rotate the attachment. This will uniformly distribute the grease and effectively flush out the old grease and contaminants. Grease the same fitting again after rotating before moving on to the next fitting. Grease each fitting a total of eight pumps of the grease gun or until grease escapes through the bearing seals. On an internal drive rotator there are also two grease fittings in the base plate of the rotating head. These provide grease to the gear teeth and pinion gear.



***Stand clear of the attachment while rotating. Grease a fitting and then stand clear to rotate the bearing to distribute the grease. DO NOT attempt to grease the bearing while the attachment is rotating or severe injury could occur.***

## **TURNTABLE BEARING LUBRICANTS**

For normal operating conditions, periodic lubrication with lithium Grade 2 extreme pressure grease is recommended. For operation below 32F (0°C), Grade 0 is recommended. The following table lists typical lubricants for turntable bearings:

<b>APPROVED SOURCE</b>	<b>TRADE NAME</b>	<b>FOR OPERATION BELOW 32° (0°) OR STORAGE</b>	<b>FOR OPERATION ABOVE 32°F (0°C)</b>
AMOCO	Rycon	EPO	EP2
CHEVRON	Dura Lith	EPO	EP2
EXXON	Lidok	EPO	EP2
MOBIL	Mobilux	EPO	EP2
SHELL	Alvania	EPRO	EP2
SOHIO	Bearing Guard	LTO	2
SUN	Prestige	740EP	742EP
TEXACO	Multifak	EPO	EP2
UNION	Unoba	EPO	EP2

## HYDRAULIC REQUIREMENTS

The rotating attachment requires an auxiliary hydraulic circuit in order to operate the rotator. This circuit will need to be a medium pressure (2000-2500 PSI / 138-172 BAR), low flow (8-10 GPM / 30-38 LPM) hydraulic circuit. There are minimum and maximum pressure and flow requirements that may vary depending on the model of the attachment. These requirements are listed in the Hydraulic Installation Requirements sheet in the Parts Catalog for the attachment. The rotation motor on the attachment is equipped with manifold mounted load controls. The design of the load control manifold varies depending upon the type of the rotation system and the particular requirements for the rotation circuit. The two designs currently used are referred to as the "Crossover Relief/ Flow Control Valve" and the "Motion Control Valve." Adjustment procedures for the load control manifolds are given below. After identifying which manifold is on the attachment, determine which of the procedures follow.

## CROSSOVER RELIEF / FLOW CONTROL MANIFOLD

The Crossover Relief / Flow Control Manifold is mounted directly to the hydraulic port of the rotation motor. The manifold controls rotation speed with flow control valves and overload protection with crossover relief valves to govern pressure at both motor ports. The valves have been adjusted at the factory to provide optimal performance of the rotation motor.

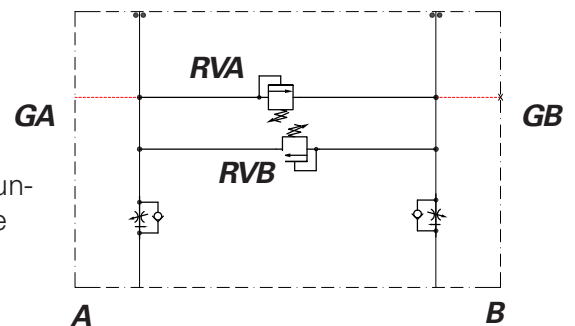
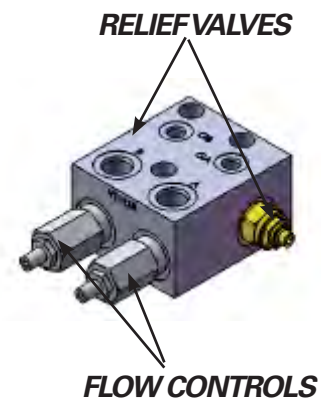
The flow control valves "meter-out" flow from the rotation motor—they are factory adjusted to a recommended rotation speed of 3 to 4 RPM. They may be adjusted to suit a speed preference; however, keep in mind that the rotation feature is to be used only as a positioning device. Operating in excess of 10 RPM may damage the hydraulic and mechanical components of the attachment.

Adjusting the flow controls:

1. See Figure 5-11 for the relief valve used on the MDP 20. Loosen the jamnut locking the adjustment screw.
2. To increase speed, turn the adjustment screw (Allen head) clockwise; check rotation speed at each 1/8 turn interval. Recommended rotation speed is four to six RPM. If the attachment fails to increase in speed, it may be that all of the circuit flow is being used. Check the supply circuit flow with a flow meter to verify whether or not more flow is available.
3. To decrease speed, turn the adjustment screw (Allen head) counterclockwise; check rotation speed at each 1/8 turn interval. If the rotation speed does not decrease, replace the flow control valve
4. Retighten the jamnut after the adjustment has been made.

## NOTICE

*The motion control manifold does not provide directional control of hydraulic fluid; an auxiliary hydraulic circuit is required to operate the rotator.*



**FIGURE 5-11**

# MOBILE DEMOLITION PROCESSORS

## **THE CROSSOVER RELIEF VALVE** continued

The crossover relief valve provides overload protection for the rotator. See Figure 5-12. This is not intended to replace the circuit relief valve on the base machine. This valve has been preset at the factory and requires no adjustment. DO NOT tamper with the crossover relief valve. If a malfunction is suspected due a lack of rotator performance, a pressure check should be performed. Diagnostic fittings\* are installed in the manifold to provide a means of checking pressure. Contact the Stanley LaBounty Service Department for the proper procedure for performing this check.

## **MOTION CONTROL VALVE MANIFOLD**

One of two motion control valves are installed on the attachment depending on the size of the rotation motor. The motion control valve manifold provides overload protection and a load control system for the rotator with two crossover relief valves and two brake valves. The crossover relief valves and brake valves have been preset at the factory and require no adjustment; do not tamper with these valves. If a malfunction is suspected due to a lack of performance in the rotator, a pressure check should be performed. Diagnostic fittings\* are installed in the manifold to provide a means of checking pressure. Contact the LaBounty Service Department for the proper procedure for performing this check.

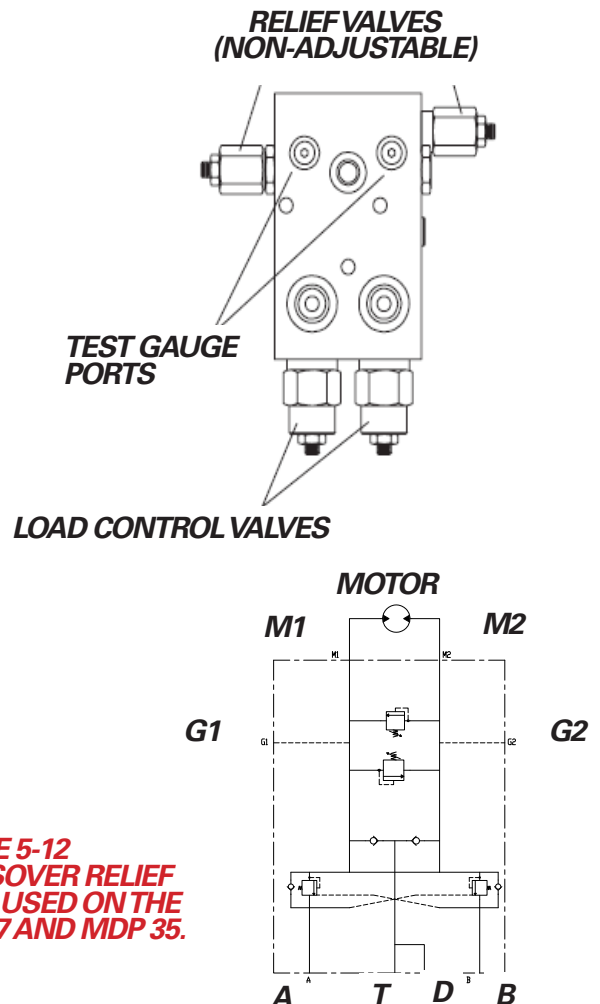
\* Diagnostic fittings require a Parker PD series coupler on gauge.

## **CASE DRAIN (IF EQUIPPED)**

A case drain is required to relieve the back pressure that develops in the hydraulic motor case as a result of metering flow out of the motor. Depending on the model, this port is located on the motor or is routed to a bulkhead in the upper head side plate or port block. A ½" hydraulic line should be connected to this port and routed back directly to the tank via a return line filter or a filter of its own. The maximum allowable back pressure in this line should not exceed 300 PSI.



**The case drain line must be connected to prevent failure to the case or motor seals.**



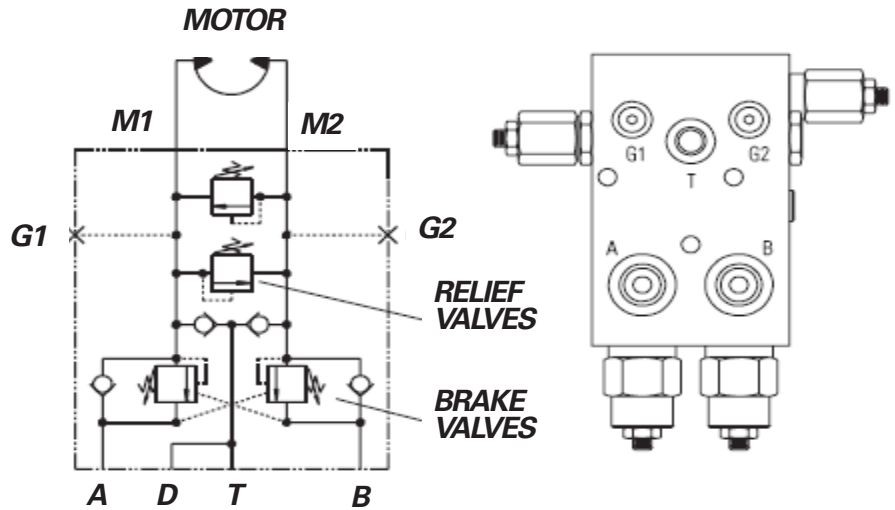
**FIGURE 5-12  
CROSSOVER RELIEF  
VALVE USED ON THE  
MDP 27 AND MDP 35.**

# MOBILE DEMOLITION PROCESSORS

## CONTROL VALVE ASSEMBLY SCHEMATIC AND DESCRIPTION

See Figure 5-13. Crossover Relief Flow Control Valve used on MDP 50 Mobile Demolition Processors.

- Work Ports (A&B)
- SAE #8 O-Ring Boss Ports
- Gauge Ports (G1 & G2)
- SAE #4 O-Ring Boss Ports
- Drain Ports (D & T)
- SAE #4 O-Ring Boss Ports



**FIGURE 5-13**



# MOBILE DEMOLITION PROCESSORS

## **SPEED VALVE ADJUSTMENT**

The speed valve on LaBounty® processors is factory adjusted by Stanley LaBounty technicians prior to shipment. Field adjustments of the valve should only be necessary if the operator senses that the valve is not functioning properly. Some indicators of a poorly functioning valve are:

- The processor does not consistently shift into speed mode when closing the jaw
- The processor jaw continues to close after the operator has let go of the controls
- The processor shifts into speed mode, but seems to lack power

Follow the procedure below if speed valve adjustment is necessary.

## **TOOLS NEEDED**

The following tools are recommended for speed valve adjustment on any Stanley LaBounty Saber Series Hydraulic Cylinder:

1. Open-end or box end wrenches (12-19 mm sizes)
2. Digital gauge kit (Stanley LaBounty P/N 169832)
3. Allen wrenches (4-12 mm sizes)

## **SAFETY POINTS**

Stanley LaBounty recommends that the following safety precautions be followed when adjusting the speed valve on any Stanley LaBounty Saber Series Hydraulic Cylinder.

Reminder: Always wear the proper personal protection equipment including the following:

1. Steel toe safety shoes or boots.
2. Shatter proof safety glasses and head wear such as a hard hat.

3. Insulating gloves for low and high temperatures.
4. Overalls or other uniform—no loose fitting clothing that may become entangled in machinery
5. Hearing protection—ear muffs or plugs.

### **⚠ WARNING**

**Relieve pressure before disconnecting hydraulic lines. Tighten all connections before applying pressure. Keep hands and body away from pin holes and nozzles, which can eject fluids under high pressure. Use a piece of cardboard to search for leaks. Escaping fluid under pressure can penetrate the skin and cause serious injury. If ANY fluid is injected into the skin, seek immediate medical attention.**

### **⚠ WARNING**

**DO NOT let hydraulic oil get in contact with the skin as it could cause severe burns. Hydraulic oil becomes hot during operation. Wear adequate protective clothing and safety equipment.**

### **⚠ CAUTION**

**Chemicals used on Stanley LaBounty Saber Series hydraulic cylinders include hydraulic oil; refer to the excavator operator's manual and have MSDS sheets and proper treatment equipment available.**



## **SPEED VALVE ADJUSTMENT** continued

### **REGENERATIVE VALVE DESIGN**

The design of the regenerative flow valve used in Stanley LaBounty Mobile Processors consists of a pilot valve mounted onto a spool valve. The pilot valve is used for regulating the movement of the spool valve in shifting the valve into and out of regenerative mode. See Figure 5-46. The only component that is in the working flow path of the fluid to the processor cylinder is the valve spool. The valve spool is of similar construction to that of the excavator's main control valve spool. Therefore, it is considerably larger than the components found in a typical cartridge type regenerative valve.

### **OPERATING CHARACTERISTICS**

The function of the regenerative valve is to provide for rapid advance of the processor hydraulic cylinder during the closing phase of the processor cycle. The valve accomplishes this function by shifting a valve spool to open the rod side of the cylinder to the bore side of the cylinder, thus allowing the fluid in the rod side to fill the bore side when the cylinder is extending. This function only occurs when the cylinder is advancing in a "low load" condition, which occurs as the processor jaw is closing down onto the material that it is about to be cut. As the processor enters the cutting phase, the operating pressure requirements increase. The pilot valve portion of the regenerative valve, which in turn causes the valve spool to shift out of regenerative mode, senses the increased pressure. During this phase, the rod-side fluid is directed to the work line and back to the base machine's reservoir (low pressure). Meanwhile, only the flow from the excavator's control valve is directed to the bore side of the cylinder, allowing it to reach full system operating pressure. This allows the processor to cut by utilizing the full power of the excavator with resistance coming only from the material being cut by the processor.

### **TROUBLESHOOTING**

There are two operating conditions that affect the performance of the speed valve and will require some troubleshooting by an equipment mechanic or service representative. These conditions are:

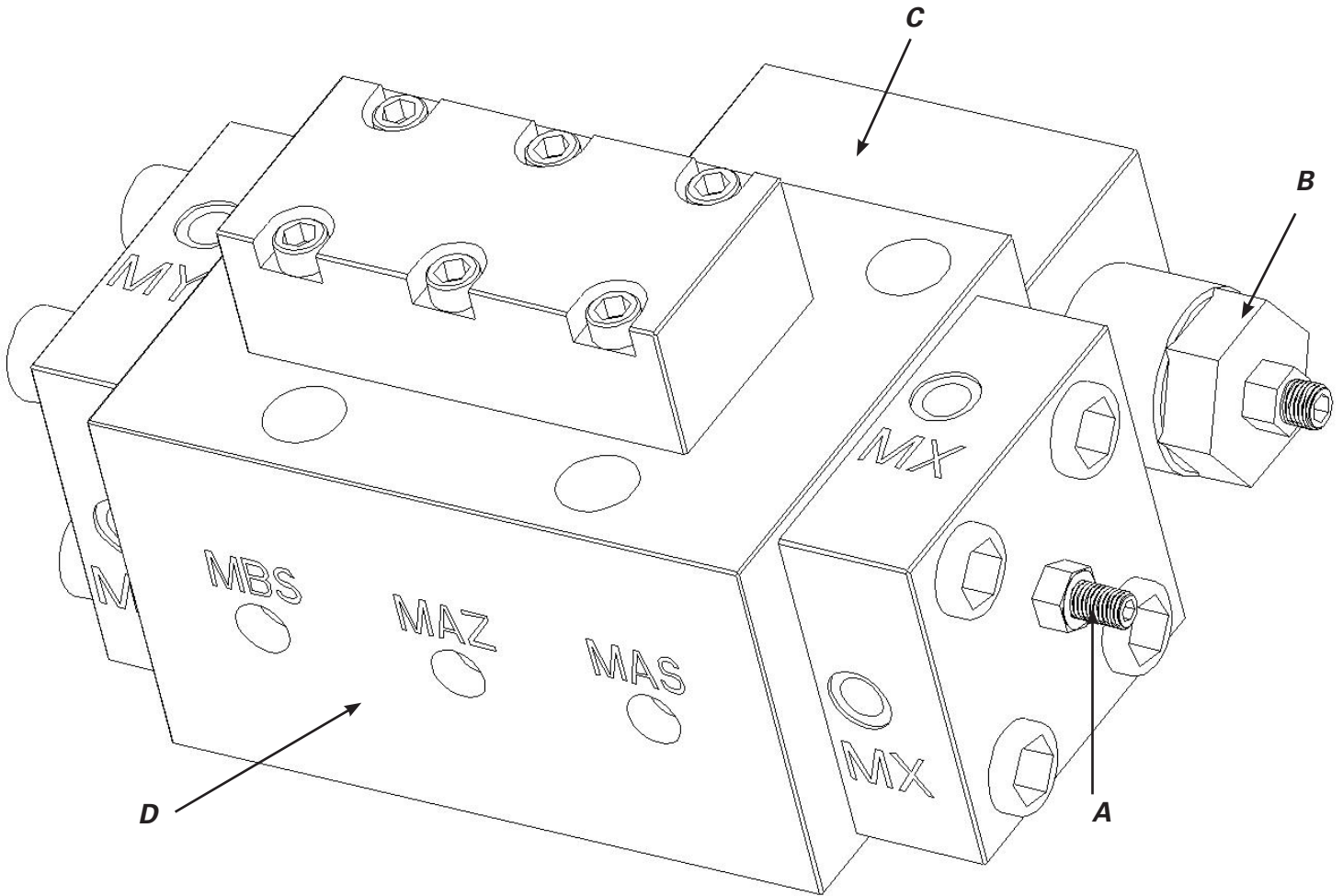
- a. The speed valve does not seem to shift out of regenerative mode at the appropriate time resulting in the processor appearing to lose cutting power, or
- b. The speed valve does not appear to shift into regenerative mode resulting in a slow closing movement of the processor jaw. Both of these conditions can be remedied by following the speed valve adjustment procedure discussed on the following pages.

### **NOTICE**

*If making the appropriate adjustments does not remedy the above conditions, refer to page 6-11 of this manual for further troubleshooting guidelines. If further difficulties are encountered, the speed valve may require replacement of the hydraulic seals. Seal kits are available from the Stanley LaBounty Customer Service Department. Processor serial number will be required when ordering.*



## **SPEED VALVE ADJUSTMENT** continued



**FIGURE 5-46\***

- A. MAIN SPOOL VALVE ADJUSTMENT**
- B. PILOT VALVE**
- C. PILOT VALVE HOUSING**
- D. MAIN SPOOL HOUSING**

\*Your speed valve may vary slightly from this isometric illustration, which is not to scale.

## **SPEED VALVE ADJUSTMENT**

continued

The following procedure is recommended by Stanley LaBounty for speed valve adjustment on any fully assembled and installed Saber Series Hydraulic Cylinder. Prior to making any adjustments to the valve, verify whether the valve is operating properly by checking the following operational conditions. For condition "a" (as described on page 5-43), install a pressure gauge into the MAZ test port to see if the pressure drops to zero when fully closing the processor jaw. For condition "b" (as described on page 43), compare the closing speed of the processor to the opening speed. If the closing speed is equal to, or less than the opening speed, then the valve is shifting properly into the regenerative speed mode.

### **WARNING**

***This procedure requires more than one individual in close proximity to the processor and processor operation. Keep within sight when operating the processor. Ensure all persons are clear before cycling the processor. This procedure requires adjustments to be performed with the hydraulic system pressurized.***

1. Position the attachment on firm, level ground so the speed valve is easily accessible.
2. Turn the excavator off and release all hydraulic pressure to the processor by working the excavator controls in all directions. Be certain to relieve the air pressure in the excavator reservoir. Refer to the excavator operator's manual for proper excavator hydraulic pressure relief procedures.
3. Slowly remove the plugs from the MBS port and the MAZ port on the speed valve. Turn the plugs counterclockwise until fluid begins to seep from the port. Allow the fluid seepage to slow before continuing.
4. Continue to slowly turn the plugs counterclockwise, pausing momentarily in 1/4 to 1/2 turn intervals until the plug is removed. This ensures all residual pressure is relieved from the speed valve. Refer to the illustration on page 5-44 of this section

for port locations. Place a drainage basin below the ports to capture all escaping fluid.

5. Install the test fittings supplied with the Stanley LaBounty Digital Gauge Kit, P/N 169832 into the MBS and MAZ ports on the Speed Valve. If the MAZ port is too difficult to access for test fitting installation, the MX port on the speed valve may also be used to monitor valve pressure.
6. Attach the digital gauge and pressure line to the MAZ test port on the speed valve. If two gauges are available, install the second digital gauge and pressure line to the MBS test port on the speed valve. If only one digital gauge is available, the MBS test port on the speed valve must be plugged at this time with the MBS port plug. Mechanical, liquid filled dial gauges may be used to monitor pressure in place of the digital gauges.
7. Reset the main spool valve adjustment by loosening the 19mm lock nut on the main spool valve, and turning the 6mm socket head adjustment screw counter-clockwise. Continue to turn the socket head adjustment screw until the end of its travel is reached, then turn the adjustment clockwise until you feel the spring tension of the main spool, after tension is felt turn the adjustment one full turn clockwise. Re-tighten the 19mm lock nut.
8. Loosen the 19mm lock nut on the pilot valve, but DO NOT turn the 6mm socket head pilot valve adjustment screw.
9. Have a co-worker restart the excavator. Check for leaks in the test fittings by using a piece of cardboard or other rigid material. Repair all leaks before proceeding.

### **NOTICE**

*Note that turning the pilot valve adjustment screw past the locking nut could cause severe damage to the pilot valve.*



## **SPEED VALVE ADJUSTMENT**

continued

10. Have the excavator operator cycle the processor to the fully closed position and set the pilot valve to its maximum setting. Turn the pilot valve adjustment screw clockwise until the cylinder just fails to shift out of speed mode. You may need to open and close the processor multiple times to reach the pilot valve maximum setting. The pressure gauge attached to the MAZ port should read approximately 400 psi or higher when in speed mode.

### **NOTICE**

*DO NOT make adjustments to the speed valve while the cylinder is extending.*

11. Have the excavator operator cycle the processor to the fully closed position then set the pilot valve to its minimum setting. Turn the pilot valve adjustment screw counter-clockwise until the cylinder just fails to shift into speed mode. You may need to open and close the processor multiple times to reach the pilot valve minimum setting. The pressure gauge attached to the MBS port should read approximately full system pressure when not in speed mode. Pay careful attention to the number of turns required to reach this setting.

12. Have the excavator operator return the processor to the fully open position a second time. Re-adjust the pilot valve adjustment screw to the final setting by turning the adjustment screw clockwise 1/2 of the number of turns required to reach the minimum setting and tighten the lock nut. This brings the valve to its median setting, which is optimum for most operating conditions.

13. Test the adjustments by cycling the processor to the closed position six times normally and six times with the processor stalled in the closed position. Monitor the gauge attached to the MAZ carefully. During normal cycling, the gauge should read 400psi (26 bar) or higher. When stalling the processor, gauge pressure should drop to zero.

14. Verify the shift pressure. Have the excavator operator cycle the processor to the fully closed position and carefully monitor the pressure gauge attached to the MAZ test port. Note the pressure reading immediately before the processor stalls. This pressure is the shift pressure required to shift the speed valve out of speed mode. Shift pressure should be 3600 – 3700 PSI. (248- 255 BAR).

15. Turn the excavator off and release all hydraulic pressure to the processor by working the excavator controls in all directions. Be certain to relieve the air pressure in the excavator reservoir. Refer to the excavator operator's manual for proper excavator hydraulic pressure relief procedures. Detach the digital pressure gauge(s) and pressure line(s) from the MBS and /or MAZ test fitting(s). Slowly remove the test fitting(s) from the test port(s) as in step 3 of this procedure and replace the MBS and/or MAZ port plug(s).

16. Restart the excavator. Check for leaks by using a piece of cardboard or other rigid material. Repair all leaks before using the processor. Re-apply the correct torque to all speed valve fasteners including split flanges if found leaking. Use the table on page 8-26 for correct torque values.

17. Speed valve troubleshooting procedures can be found on page 7-10 in the Troubleshooting section in the back of this manual.

## **SPEED VALVE ADJUSTMENT** continued

### **SPEED VALVE ASSEMBLY TORQUE VALUES: *MDP 35R - MDP 50R***

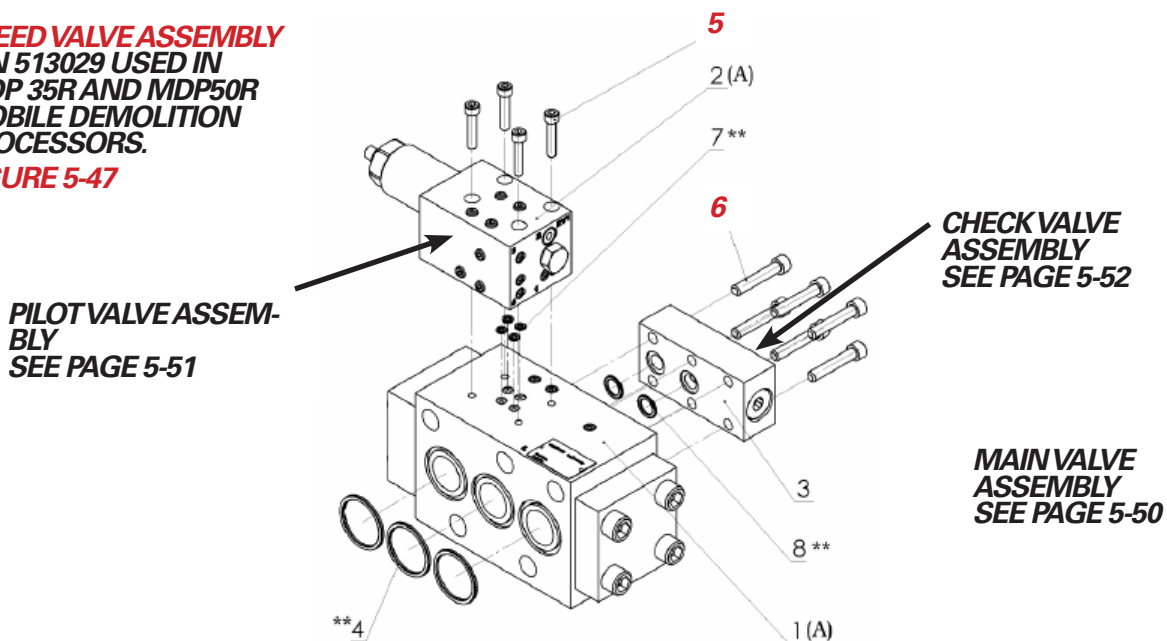
Proper bolt installation is critical to ensure the safe and efficient operation of the speed valve. Carefully follow the steps below to properly install bolts.

## **NOTICE**

Please note that the parts illustrated below (Figure 5-47) and on pages 5-50 through 5-51 are for #513029, which is used in MDP 35R and MDP 50R Mobile Demolition Processors. MDP 20R Mobile Demolition Processor models do not have speed valves.

1. Always replace bolts and nuts with the same size and class of fastener. Replacement fasteners can be ordered from the Stanley LaBounty Parts Department to ensure the correct part is used. Unless otherwise specified, use class 10.9 metric hex head capscrews, class 10.9 metric flat head capscrews, and class 12.9 metric socket head capscrews.
2. Make sure bolts, nuts and bolt holes are free of dirt, oil, grease and other contaminants. .
3. The torque values in this manual are for use with non-plated fasteners with clean, dry threads. These values are suitable for use with or without thread adhesives, such as Loctite™ products.

**SPEED VALVE ASSEMBLY**  
**P/N 513029 USED IN**  
**MDP 35R AND MDP50R**  
**MOBILE DEMOLITION**  
**PROCESSORS.**  
**FIGURE 5-47**

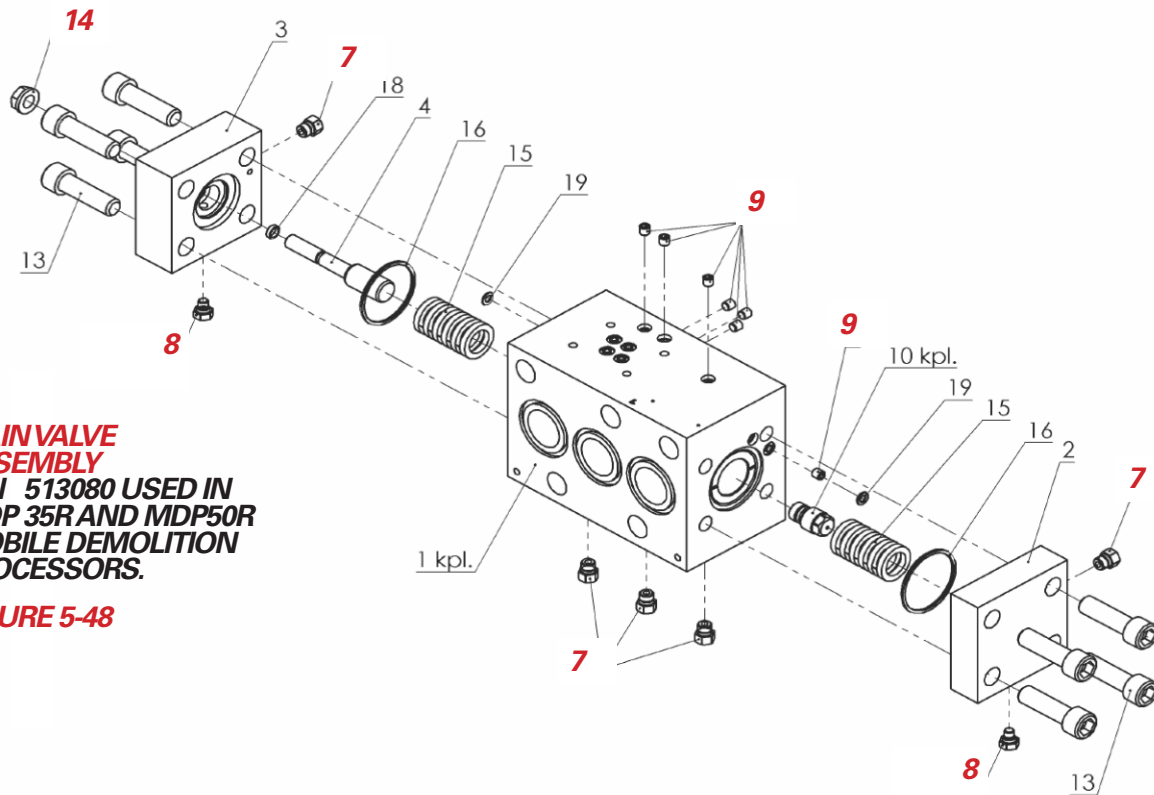


ITEM	PART NUMBER	DESCRIPTION	QTY	TORQUE
<b>5</b>	512210	Socket Head Screw M8X35	4	32 ft lb/43 Nm
<b>6</b>	513133	Socket Head Screw M10X45	6	62 ft lb/84 Nm

# MOBILE DEMOLITION PROCESSORS

## **SPEED VALVE ADJUSTMENT** continued

SPEED VALVE ASSEMBLY TORQUE VALUES: **MAIN VALVE ASSEMBLY**



**MAIN VALVE ASSEMBLY**  
**P/N 513080 USED IN**  
**MDP 35R AND MDP50R**  
**MOBILE DEMOLITION**  
**PROCESSORS.**

**FIGURE 5-48**

ITEM	PART NUMBER	DESCRIPTION	QTY	TORQUE
<b>7</b>	511515	Hex Nut	5	15 ft lbs/20 Nm
<b>8</b>	513086	Hex Nut	2	15 ft lbs/20 Nm
<b>9</b>	513087	Screw Plug (Allen)	7	7 ft lbs/10 Nm
<b>14</b>	511504	Hex Nut	1	22 ft lbs/30 Nm

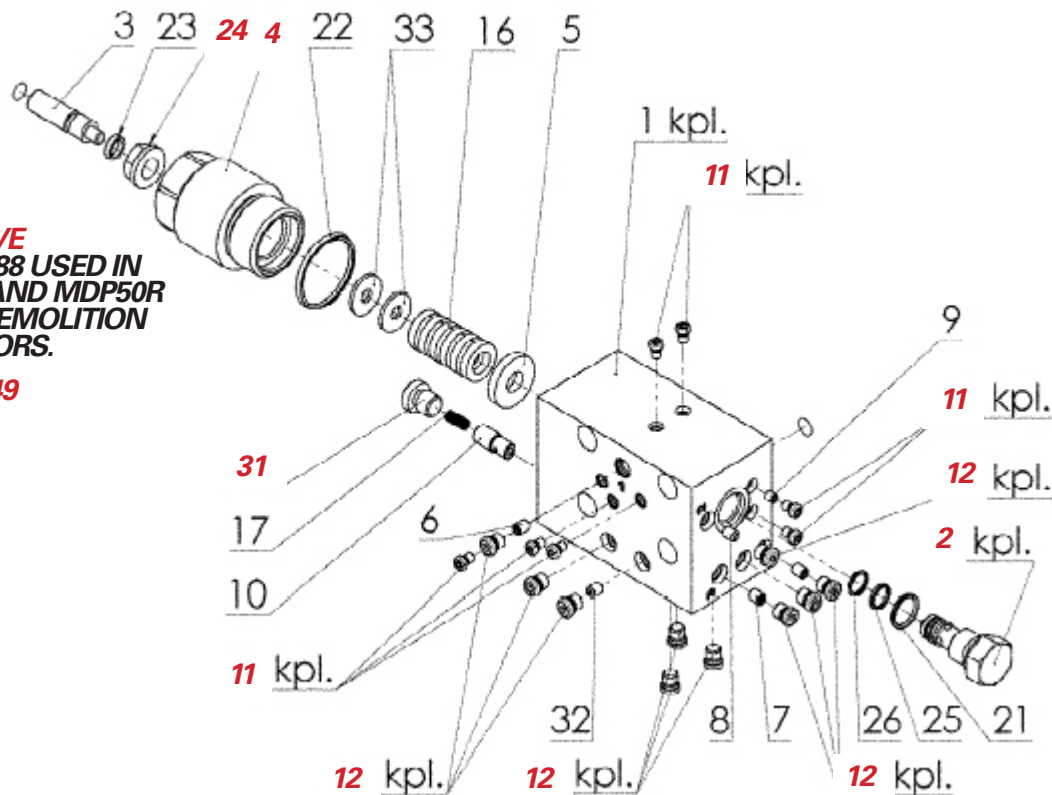


## **SPEED VALVE ADJUSTMENT** continued

SPEED VALVE ASSEMBLY TORQUE VALUES: **PILOT VALVE ASSEMBLY**

**PILOT VALVE**  
P/N 512288 USED IN  
MDP 35R AND MDP50R  
MOBILE DEMOLITION  
PROCESSORS.

**FIGURE 5-49**



ITEM	PART NUMBER	DESCRIPTION	QTY	TORQUE
<b>2</b>	512317	Valve Seat	1	73 ft lbs/100 Nm
<b>4</b>	512318	Spring Cap	1	162 ft lbs/220 Nm
<b>11</b>	512323	Capscrew	8	1.5 ft lbs/2 Nm
<b>12</b>	511514	Screw Plug	10	7.5 ft lbs/10 Nm
<b>24</b>	511504	Seallock Nut	1	22 ft lbs/30 Nm
<b>31</b>	511563	Screw	1	18 ft lbs/25 Nm



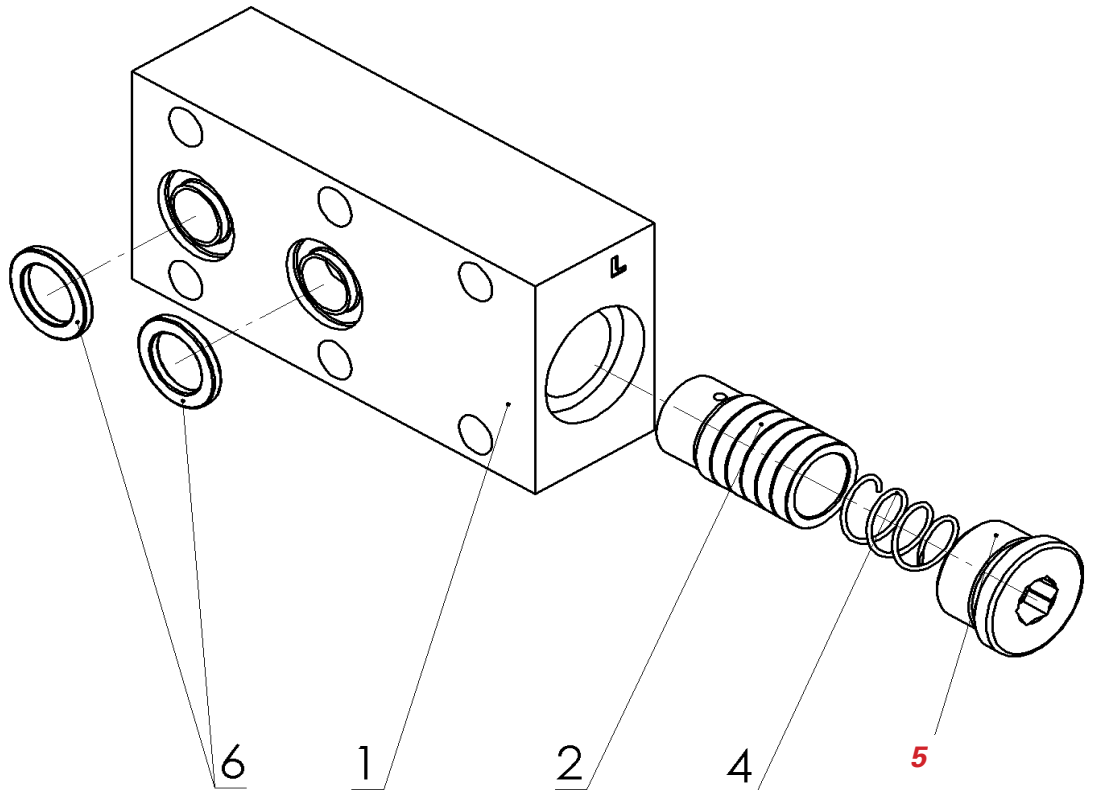
# MOBILE DEMOLITION PROCESSORS

## **SPEED VALVE ADJUSTMENT** continued

SPEED VALVE ASSEMBLY TORQUE VALUES: **CHECK VALVE ASSEMBLY**

**CHECK VALVE ASSEMBLY**  
**P/N 511540 USED IN**  
**MDP 35R AND MDP50R**  
**MOBILE DEMOLITION**  
**PROCESSORS.**

**FIGURE 5-50**



ITEM	PART NUMBER	DESCRIPTION	QTY	TORQUE
<b>5</b>	511579	Screw Plug	1	103 ft lbs/140 Nm

# MOBILE DEMOLITION PROCESSORS

<b>SERVICE AND MAINTENANCE PROCEDURES</b>	<b>8 HOURS</b>	<b>80 HOURS</b>	<b>2,000 HOURS</b>
Visually inspect MDP for damage	•		
Inspect all safety decals	•		
Inspect cab protection on excavator	•		
Confirm all excavator warning systems are operational	•		
Lubricate each side of main pivot group (2 each side)	•		
Lubricate thrust washer (RH side)	•		
Lubricate end of front cylinder pin	•		
Lubricate end of rear cylinder pin	•		
Lubricate stick or boom pivot connection	•		
Lubricate link or cylinder pivot connection	•		
Inspect pinheads and pinkeepers	•		
Inspect all bolts for looseness or damage	•		
Inspect hoses for wear and potential failure	•		
Inspect cylinder for leaks	•		
<b><i>If rotator equipped:</i></b>			
Grease turntable bearing	•		
Inspect rotation hoses (and hose connections) for wear, leaks, potential failure	•		
Check rotation assembly bolts	•		
Inspect all bolts connecting turntable bearing to upper head and processor; replace as needed		•	
Rotate or replace cutting blades		•	
Inspect upper and lower jaws; check build up and wear plates		•	
Inspect Swiftlock teeth and tooth seats		•	
Replace wear plates on upper and lower if necessary		•	
Check split flanges and fitting for looseness; tighten if necessary		•	
Replace processor cylinder seals			•
Replace swivel manifold seals (if equipped)			•





# MOBILE DEMOLITION PROCESSORS

## **SECTION 6 PIVOT ADJUSTMENT AND JAW CHANGEOUT GUIDE**

Safety Points.....	6-2
Pivot Adjustment.....	6-2
Isometric Drawing of MDP Pivot Assembly.....	6-3
Lower Jaw Preparation.....	6-4
Upper Jaw Preparation.....	6-5
Main Shaft Installation.....	6-6
Pivot Shimming and Assembly.....	6-7
Endplay Check.....	6-12
Blade Installation.....	6-13



# MOBILE DEMOLITION PROCESSORS

## SAFETY POINTS

### REQUIRED PERSONAL PROTECTIVE EQUIPMENT

1. Steel toe safety shoes or boots
2. Shatter proof safety glasses
3. Insulating gloves for low and high temperatures
4. Overalls or specified work uniform

### HEAVY LIFT

1. Heavy lifting is required for this operation. Any item 30 lbs and greater in weight requires the use of a lifting device.

### PINCH POINTS

1. Manual movement of the processor's cutting surfaces/components is required for this operation. Keep hands, fingers, and other appendages clear.
2. Press fit tolerances are required for this operation. Keep hands, fingers, and other appendages clear.

## ⚠ DANGER

NEVER remove any pins unless the attachment is on the ground and blocked or serious injury or death could result. Metal chips or debris may fly when a connecting pin is struck. Use a brass drift when striking pins and always wear protective clothing and proper eye protection. Pins may fly when struck with force to drive them in or out. Keep people clear when removing or installing pins.

## ⚠ WARNING

Do not remove the cylinder pin until the cylinder and upper jaw are safely supported. If the cylinder and upper jaw are not properly supported, they may drop causing serious injury.

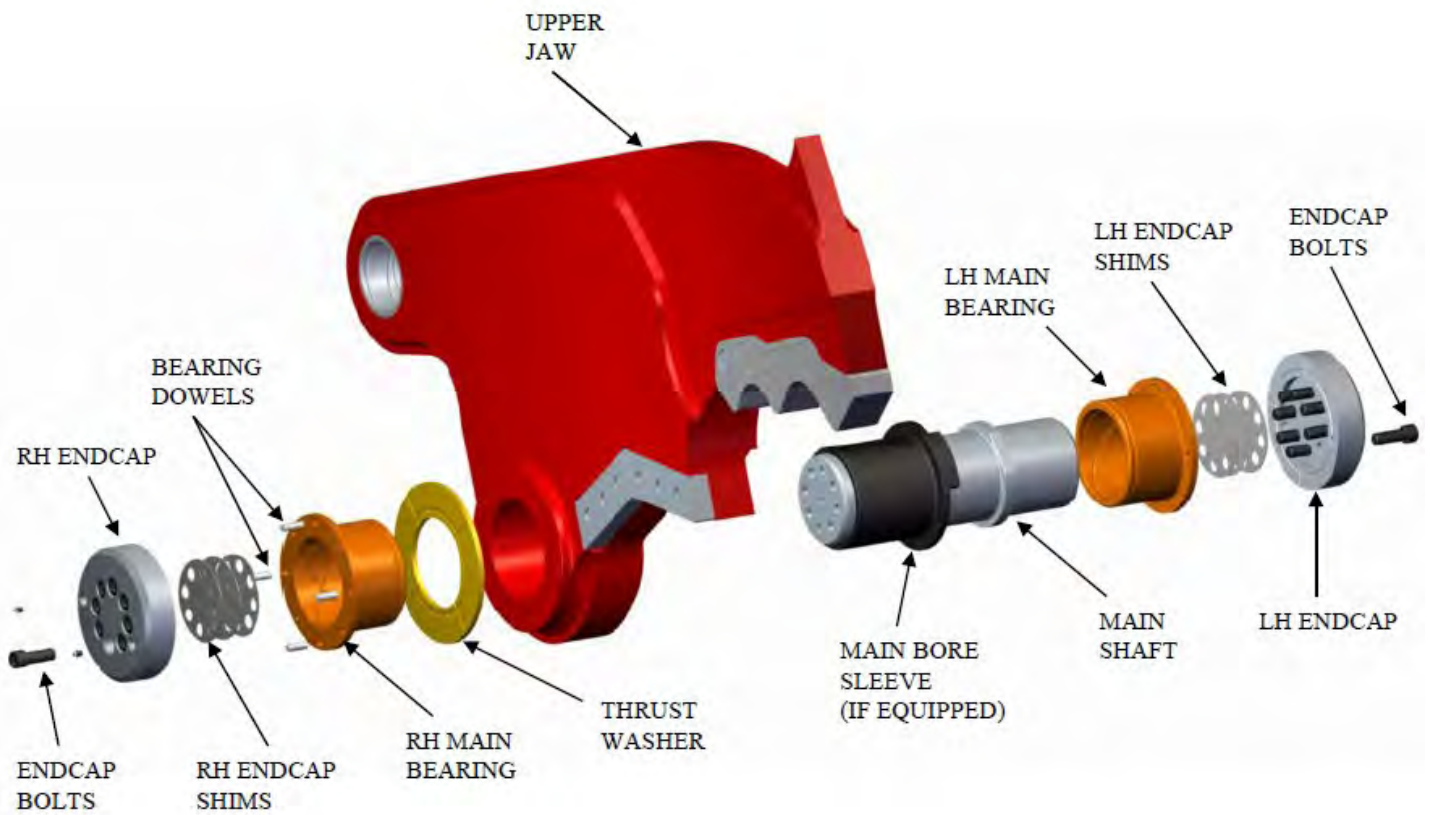
## ⚠ WARNING

Make sure that the lifting strap and crane are rated to safely lift the cylinder and upper jaw.

## PIVOT ADJUSTMENT

Every 1,500 hours, remove the upper jaw and check the thrust washer thickness. Limit of use is shown on page 6. After that, either use existing thrust washer or install new and follow steps 11- 35.

# MOBILE DEMOLITION PROCESSORS



# MOBILE DEMOLITION PROCESSORS

## LOWER JAW PREPARATION

1.) With the lower jaw assembly in the upright position, inspect all bolt holes and bores for debris or machining burrs. Remove any burrs that exist.

2.) Using a hammer, drive the bearing dowel pins into position on the lower jaw assembly's main pivot bore machined face. Align the dowel clearance holes on the bearing with the pins on the lower jaw assembly, perform a dry fit check of the main pivot bearings in the main pivot bore. This should be a slip fit and the bearings should seat flush against the machined inner surface of the lower jaw assembly main pivot.

3.) If the bearing fit is snug, use the pneumatic die grinder fitted with the abrasive flapper wheel to polish the bores. Re-fit the main pivot bearings to ensure a good fit is achieved following each polish. Use a rubber mallet to lightly tap the bearings into the bores if needed.





## UPPER JAW PREPARATION

4

4.) Lubricate upper bore with LPS spray grease or lightly coat with standard grease.



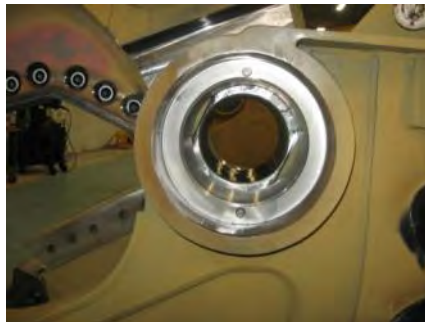
5.) Dry fit shaft into upper jaw: Using the overhead hoist and main shaft hook, perform a dry fit check of the Upper Weldment on the main shaft. Position the upper on the table as shown and lower the main shaft into the upper bore. This should be a slip fit. If this fit is tight, notify engineering if measurements are out of tolerance. Make sure the shoulder of the shaft seats properly with the counter-bore in the upper. If not, look for interference areas and fix them. Make sure chamfer on upper bore clears the shaft radius.

5



6.) Hang upper jaw from the crane and place into the lower jaw. "Eyeball" the bores to try and center them as best as possible.

6



# MOBILE DEMOLITION PROCESSORS

## MAIN SHAFT INSTALLATION

7.) Ensure all required components are present and quantities are correct prior to beginning assembly. Consult the item Bill of Materials (BOM) for correct component part numbers.

8.) Ensure main pivot bearings have been inspected thoroughly. Bores should be free of burrs near the grease passages and cleaned thoroughly. Clean all debris and build-up from the bores using a shop rag if not sufficiently clean.

9.) Using the large micrometer, measure the diameter of the main shaft and record the data on the inspection sheet.

10.) Install the main shaft into the upper, by going through the lower bore (from the guide side). Next, install the thrust washer between the upper and the blade side of the lower jaw.

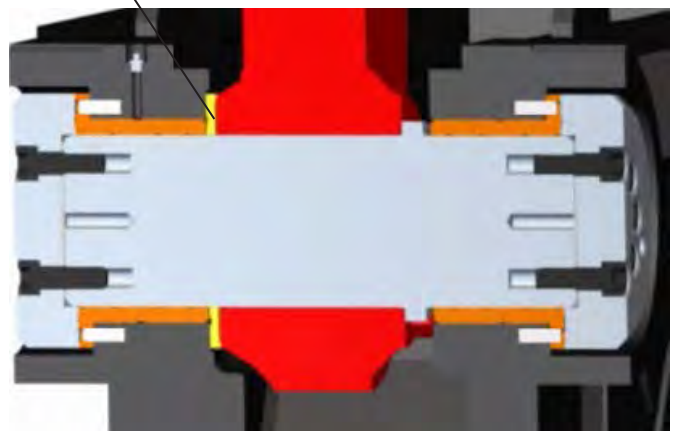
11.) Slide the shaft through the blade side bore of the lower jaw, making sure the shoulder on the shaft seats in the counter-bore of the upper.



**If the thrust washer has been used, check the thickness.**

**Limit of use:  
MDP 20/27/35/50: .376/.355 in.**

THRUST  
WASHER



## ***PIVOT SHIMMING AND ASSEMBLY***

12.) Install (2) bolts into shaft on the guide side to act as "handles" for maneuvering the shaft.

13.) Partially install the left hand side main bearing in order to start centering the shaft and upper.

14.) Fully install the right hand side main bearing. This may take some maneuvering with the crane in order to center the upper in the lower.





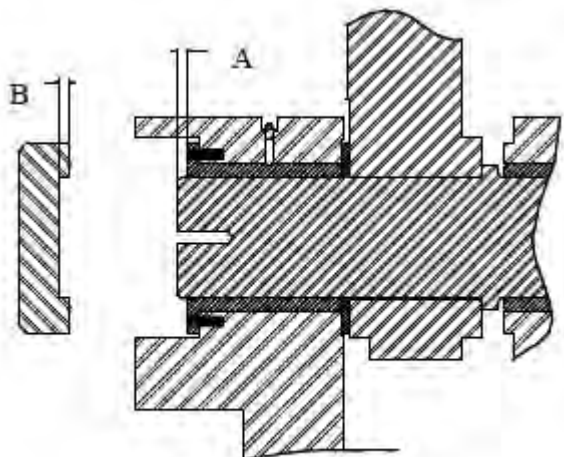
# MOBILE DEMOLITION PROCESSORS

## ASSEMBLY CONTINUED

- 15.) Fully install the left hand side main bearing.
- 16.) Wedge the main shaft and upper over tight against the thrust washer.
- 17.) Mic the shaft stick out on the RH side. Record Dimension A (diagram Pivot Section 2)
- 18.) Mic the right hand endcap depth. B (diagram Pivot Section 2) Record Dim B.



CLEAN UP ANY BURS ON THE END CAPS WITH A 90° GRINDER AND BUFFING DISC



**Pivot Section 2**

## ASSEMBLY CONTINUED

19.) Set preliminary right hand side shims =  $B - A$ . Double check shim stack thickness with a caliper. Place preliminary shims in the right hand end cap. (blue = .005, brown = .010, yellow = .020, steel = .060)

20.) Install the right hand end cap w/ shims onto the main shaft.

21.) Check to see how the upper moves from its own weight. Using the crane, slowly lower the upper. When the tip is about to go into the lower, the upper should have a slight "drag". If you need to slightly help the upper move, that is about right.





# MOBILE DEMOLITION PROCESSORS

## ASSEMBLY CONTINUED

22.) If the upper moves "easily", remove .005" shims from the right hand side and repeat step 20 & 21.

23.) When the proper amount of movement is reached, Torque all right hand end cap bolts. Use Permatex removable thread locker (#24225). First torque bolts in a star pattern, then go around one more time in a circular pattern.

MDP 20/27/35 Torque = 403 ft-lb

MDP 50 Torque = 693 ft-lb



**NOTE: ALL BOLTS WITH CORRECT TORQUE APPLIED, SHOULD BE IDENTIFIED BY A WHITE GREASE PEN MARK ACROSS THE BOLT HEAD.**



## ASSEMBLY CONTINUED

24.) Repeat steps 17 – 23 for the left hand side.



**NOTE: ALL BOLTS WITH CORRECT TORQUE APPLIED, SHOULD BE IDENTIFIED BY A WHITE GREASE PEN MARK ACROSS THE BOLT HEAD.**





# MOBILE DEMOLITION PROCESSORS

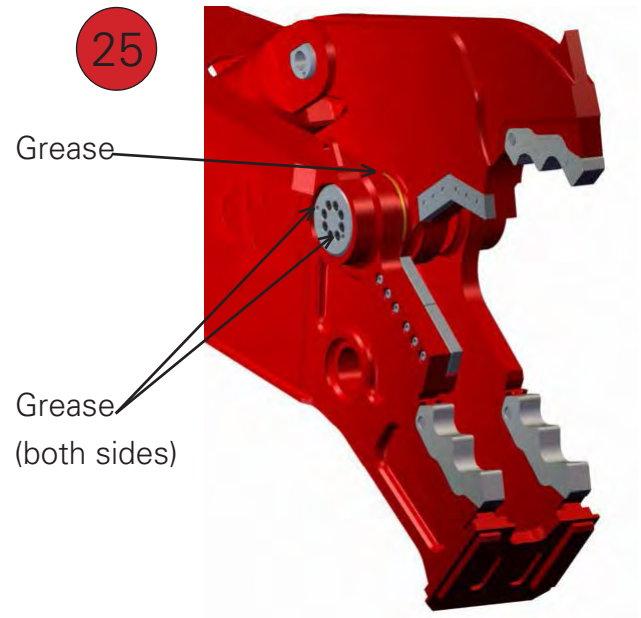
## ENDPLAY CHECK

25.) Grease the pivot: RH/LH end caps – 2 zerks each.  
Lower Stick Top RH – 1 zerk.

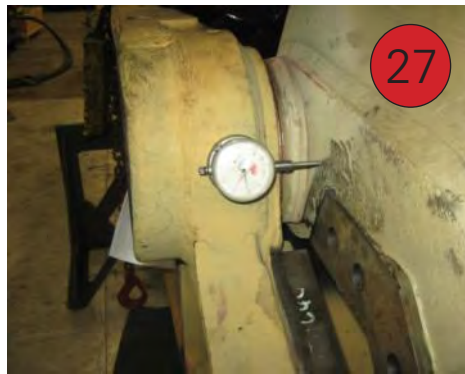
26.) Using a large pry bar between the LH side of the upper jaw and the stick, pry the upper jaw towards the RH side (thrust washer side).

27.) Install a magnetic dial indicator on the RH side and set the indicator to zero.

28.) Next, with the pry bar on the RH side of the upper, pry the upper jaw towards the LH side. While prying, watch the indicator. It should read between .000" - .005"; then return to zero when done prying. If the indicator stays greater than .005" after prying, repeat steps 22 & 23.



**\* IF THE INDICATOR READS .020" OR GREATER WHILE PRYING, CONTACT THE LABOUNTY SERVICE DEPT. (800-522-5059)**



## BLADE INSTALLATION

29.) Install the upper blades per the procedure in the Safety Operations and Maintenance Manual (SOM).

30.) Slowly cycle the upper jaw until the upper and lower blades just bypass each other.

31.) Remove the adjustment plates from behind the lower blades and tighten the blades but do not torque.

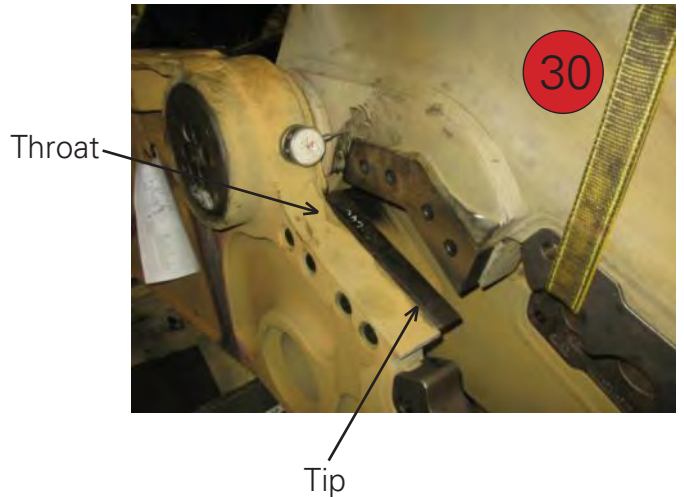
32.) Measure the gap (Z) between the upper and lower blades at both the throat and tip as well as the adjustment plate thickness (T).

33.) Initial Blade Gap =  $Z - T$

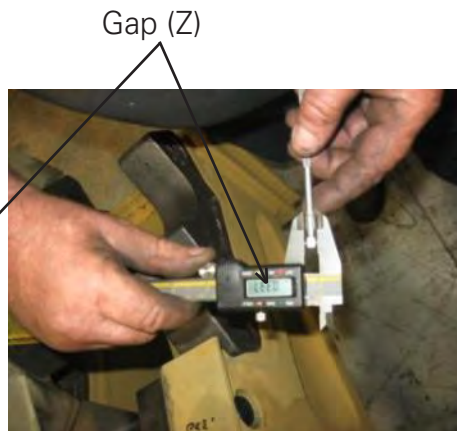
\* If  $Z - T$  is less than zero or exceeds .13",  
contact the LaBounty Service Dept.  
(800-522-5059)

34.) Install the adjustment plates and shim the lower blades until the Final Gap is .005" min- .030" max. The same thickness blade shims must be used behind both blades.

35.) After installing the blade shims, torque the bolts to their proper value.  
MDP 20/30 Torque: 500 ft-lb



Adjustment Plate  
Thickness (T)



# MOBILE DEMOLITION PROCESSORS

**MDP UPPER JAW INSTALLATION DONE AND READY TO GO!**



**PLEASE CONTACT THE LABOUNTY SERVICE DEPARTMENT  
WITH ANY QUESTIONS. 800-522-5059**

# MOBILE DEMOLITION PROCESSORS

## **SECTION 7 TROUBLESHOOTING**

General Troubleshooting Checklist.....	7-2
Hydraulic Performance Troubleshooting Guide .....	7-3
Rotation Circuit Troubleshooting Guide.....	7-5
Speed Valve Troubleshooting Guide .....	7-7



# MOBILE DEMOLITION PROCESSORS

## **GENERAL TROUBLESHOOTING CHECKLIST**

The General Troubleshooting Checklist is provided as a guide in checking the general condition of the attachment. This checklist should be incorporated in a periodical preventive maintenance program as part of the 80-hour inspection.

### **UPPER WELDMENT**

- a. Throat Area ..... Inspect for cracks
- b. Apex ..... Inspect for cracks
- c. Bolt Holes ..... Inspect for cracks
- d. Blade Seats ..... Inspect for material cracks, weld cracks and excessive wear
- e. Swift Lock Seats..... Inspect for material cracks, weld cracks and excessive wear
- f. Wear Plates ..... Inspect for wear; replace if necessary

### **LOWER WELDMENT**

- a. Cross Plate ..... Inspect for weld failure and excessive wear
- b. Blade Seats ..... Inspect for material cracks, weld failure and excessive wear
- c. Bolt Holes ..... Inspect for cracks
- d. Swift Lock Seats..... Inspect for material cracks, weld cracks and excessive wear
- e. Wear Plates ..... Inspect for wear; replace if necessary

### **GENERAL WEAR AND MAINTENANCE ITEMS**

- a. Blades. .... Inspect for excessive wear, broken pieces, or cracks
- b. Blade Gap. .... Inspect to make sure the blade gap is 0.060" or less



## HYDRAULIC PERFORMANCE TROUBLESHOOTING GUIDE

The information contained in this guide provides for troubleshooting the LaBounty attachment only. Any references to the base machine are made only to give some guidance as to where a problem may exist. Any specific maintenance and/or troubleshooting information will need to be provided by the base machine original equipment manufacturer or authorized dealer.

<b>SYMPTOM</b>	<b>PROBABLE CAUSE</b>	<b>REMEDY</b>
1. Jaw will not move	a. No hydraulic fluid to the attachment cylinder b. Broken hydraulic swivel	i. Check for hydraulic flow at the hydraulic lines to the manifold ii. Check base machine hydraulic circuit  i. Replace swivel and flush hydraulic circuit
2. Jaw speed is extremely slow	a. Base machine oil supply (flow) too low b. Hydraulic cylinder seal bypass c. Hydraulic lines are kinked d. Hydraulic swivel seal bypass	i. Check flow to attachment; compare with recommended flow (see Hydraulic Letter for attachment) ii. Check for excessive back pressure iii. Check base machine's hydraulic system  i. Check for cylinder seal bypass; replace seals if necessary  i. Check hydraulic lines; replace any damaged lines  i. Check for seal bypass (consult your dealer service department for instructions). Install new seal kit if necessary
3. Jaw moves too rapidly	a. Hydraulic flow to attachment is excessively high	i. Reduce flow to the attachment NOTE The attachment may be damaged if flow exceeds the recommended GPM.
4. Jaw drifts open or close	a. Excavator hydraulic valve is open-center type b. Excavator control valve is faulty c. Hydraulic cylinder seal bypass d. Hydraulic swivel bypass (if rotor)	i. Check hydraulic circuit to verify. Replace with closed-center spool type  i. Refer to excavator maintenance manual for correct procedures -check sticky spool -check for circuit relief valve bypass -check for spool seal bypass (if applicable)  i. Check for seal bypass; replace seals if necessary  i. Check swivel for bypass; replace seals if necessary

continued page 7-4





# MOBILE DEMOLITION PROCESSORS

## HYDRAULIC PERFORMANCE TROUBLESHOOTING GUIDE

<b>SYMPTOM</b>	<b>PROBABLE CAUSE</b>	<b>REMEDY</b>
5. Will not process or hold material in jaws	<p>a. Wrong type or size of material for attachment</p> <p>b. Hydraulic lines are kinked</p> <p>c. Hydraulic pressure at attachment is too low</p> <p>d. Excessive back pressure on the return side (rod)</p> <p>e. Cylinder seal bypass</p> <p>f. Pivot out of adjustment</p>	<p>i. Check material size and type, then consult factory</p> <p>i. Check the lines feeding oil to the attachment, replace any kinked lines</p> <p>i. Compare with base machine's specific operating pressure</p> <p>ii. Check the attachment cylinder</p> <p>iii. Check the attachment rotation manifold, if rotor equipped</p> <p>iv. Check the base machine's hydraulic system</p> <p>i. Check for kinked lines</p> <p>ii. Check the size of the lines</p> <p>iii. Check for restrictor valve in the circuit</p> <p>iv. Check the return filter, replace if necessary</p> <p>v. Check the control valve</p> <p>i. Replace seal kit and inspect for any necessary repairs to the cylinder</p> <p>i. Follow shim procedure section 6</p>
6. Individual hydraulic function is slow	<p>a. Pilot control hoses pinches</p> <p>b. Jumpline or connections leaking</p> <p>c. Base machine hydraulic malfunction</p> <p>d. Circuit relief valve for function is set low or malfunctioning</p>	<p>i. Inspect and correct</p> <p>i. Inspect and correct</p> <p>i. Check base machine hydraulic system</p> <p>i. See your base machine dealer</p>



## ROTATION CIRCUIT TROUBLESHOOTING GUIDE

The information contained in this guide provides for troubleshooting the LaBounty attachment only. Any references to the base machine are made only to give some guidance as to where a problem may exist. Any specific maintenance and/or troubleshooting information will need to be provided by the base machine original equipment manufacturer or authorized dealer.

<b>SYMPTOM</b>	<b>PROBABLE CAUSE</b>	<b>REMEDY</b>
1. Attachment will not rotate	<ul style="list-style-type: none"> <li>a. Operating flow is too low</li> <li>b. Crossover relief valve is bypassing oil</li> <li>c. Operating pressure is too low</li> <li>d. System hydraulic fluid</li> <li>e. Broken output shaft drive</li> <li>f. Internal leakage in manifold block on motor</li> <li>g. Excessive wear on motor rotating components</li> <li>h. Speed reducer gearbox shaft broken</li> <li>i. Internal leakage in valve supplying oil</li> <li>j. Valve supplying hydraulic flow is faulty</li> </ul>	<ul style="list-style-type: none"> <li>i. Flow control valve needs adjustment</li> <li>ii. Check supply flow</li> <li>i. Replace crossover relief valve</li> <li>i. Check crossover relief valve</li> <li>ii. Check supply pressure</li> <li>i. Check base machine hydraulic system temperature excessively high</li> <li>i. Replace or rebuild the hydraulic motor</li> <li>i. Replace manifold block on motor</li> <li>ii. Check cartridge valve seals for damage</li> <li>i. Replace or reseal the hydraulic motor</li> <li>ii. To check this remove the case drain line and measure the amount of flow out of the case</li> <li>i. Rebuild or replace the gearbox</li> <li>i. Check base machine hydraulic system</li> <li>i. Check base machine hydraulic system</li> </ul>
2. Rotation is excessively slow	<ul style="list-style-type: none"> <li>a. Operating pressure too low</li> <li>b. Operating flow is too low</li> <li>c. Crossover relief valve bypassing oil</li> <li>d. Operating flow is too low</li> <li>e. Internal leakage in manifold block on motor</li> <li>f. Motor is worn out</li> </ul>	<ul style="list-style-type: none"> <li>i. Replace crossover relief valve to increase pressure</li> <li>i. Flow control valve needs adjustment</li> <li>ii. Check supply flow</li> <li>i. Replace crossover relief valve</li> <li>i. Adjust control to increase flow to rotation group</li> <li>i. Replace manifold block on motor</li> <li>ii. Check cartridge valve seals for damage</li> <li>i. Rebuild or replace the motor</li> </ul>



# MOBILE DEMOLITION PROCESSORS

## **ROTATION CIRCUIT TROUBLESHOOTING GUIDE** CONTINUED

<b>SYMPTOM</b>	<b>PROBABLE CAUSE</b>	<b>REMEDY</b>
2. Rotation is excessively slow, continued	f. Supply pressure too low g. Supply flow too low h. Internal leakage in valve i. Valve supplying hydraulic fluid is not working	i. Check base machine hydraulic system i. Check base machine hydraulic system i. Check base machine hydraulic system i. Check base machine hydraulic system
3. Rotation speed excessively high	a. Operating flow too high b. Supply flow too high	i. Adjust flow control to decrease flow to rotation group i. Check base machine hydraulic system
4. Rotation erratic	a. Crossover relieve valve cartridge is faulty b. Flow control valve cartridge is faulty c. Valve spool sticking in valve supplying oil d. Faulty electrical signal at control valve (if electrically controlled) e. Planetary gearbox binding f. Motor binding in planetary gearbox g. Fault circuit relief valve h. Varying pilot pressure to control valve	i. Replace crossover relief valve i. Replace flow control valve i. check base machine hydraulic system i. Replace electric solenoid i. Rebuild or replace gearbox i. Disassemble motor from gearbox and inspect to determine cause of binding Check base machine hydraulic system i. Check base machine hydraulic system
5. Rotation drifts	a. Control valve ports are open to tank with spool in neutral position b. Excessive leakage in control valve spool c. Crossover relief valve is leaking excessively d. Crossover relief valve set too low	i. Check base machine hydraulic system i. Check base machine hydraulic system i. Replace crossover relief valve i. Replace crossover relief valve

## ***SPEED VALVE TROUBLESHOOTING GUIDE***

There are two basic operating conditions of the speed valve that have a negative effect on processor performance and require troubleshooting and adjustment or repair. The first condition occurs when the speed valve does not seem to shift into the regenerative or speed mode, resulting in the processor closing slowly. The second condition occurs when the speed valve does not shift out of the speed mode at the appropriate time, resulting in a loss of processor cutting force. These conditions are referred to below with corrective actions listed to remedy the problem. For complete step-by-step instructions on adjusting the speed valve, please refer to page 4-37. If the problem still exists after attempting these adjustments, please contact your Stanley LaBounty dealer or the Stanley LaBounty Customer Service Department for further instructions.

The following tools and equipment are needed to properly troubleshoot and adjust the speed valve:

- pressure gauges- two are recommended so that two test ports can be checked simultaneously
- diagnostic test fittings and tools for installing the fittings
- a set of open or box end wrenches (12mm- 19mm)
- a set of Allen wrenches (4mm- 12 mm)

<b><i>SYMPTOM</i></b>	<b><i>PROBABLE CAUSE</i></b>	<b><i>REMEDY</i></b>
1. Processor does not shift consistently into speed mode when closing the jaw	a. Pilot pressure setting is too high	i. Adjust the pilot valve adjustment screw counterclockwise in increments of 1/8 of a turn (45°) until corrected.
2. Processor shifts into speed mode when jaw has been fully opened, but will not shift if jaws have only been opened partially	a. Too much back pressure in the base machine return line	i. Minimize back pressure if possible by using lines with larger diameters ii. If (i.) is not possible or does not completely solve the problem, adjust the main spool and then close adjustment screw clockwise in increments of 1/8 of a turn (45°) until corrected.
3. Processor jaw continues to close after the processor has shifted into speed mode and the operator has let go of the control	a. The main valve spool in the speed valve is not fully shifting out of speed mode	i. Adjust the main spool adjustment screw clockwise in increments of 1/8 of a turn (45°) until corrected.
4. Processor properly shifts into speed mode but seems to lack power	a. The main valve spool is not fully shifting out of speed mode	i. Adjust the pilot valve adjustment screw counterclockwise in increments of 1/8 of a turn (45°) until corrected.

# LIMITED WARRANTY

## New Attachment

Stanley LaBounty warrants its manufactured products against deficiency in material or workmanship for a period of 12 months from the date of first use, rental or sale, or 1500 hours of operation, whichever occurs first.

### LIMITATIONS

- Remanufactured or used product or service repair are not warranted under this Limited Warranty.
- Product that is damaged by alteration, improper maintenance, unauthorized service, abuse, misuse, or contamination by the base machine is not warranted.
- This Limited Warranty is the exclusive warranty. Stanley LaBounty makes no representations, expressed or implied, of merchantability or fitness for a particular purpose.
- Agents of Stanley LaBounty have no authority to make representations beyond those contained herein.

### EXCLUSIVE REMEDY

The exclusive remedy for a product Stanley LaBounty determines deficient in material or workmanship is repair or replacement at Stanley LaBounty's option. The following procedure governs a repair or replacement warranty claim:

1. All warranty claims require a claim number provided by Stanley LaBounty Service Department.
2. A factory-issued Return Material Authorization tag (RMA) must accompany returned product.
3. Returned product found deficient by Stanley LaBounty will be replaced or repaired without charge FOB Distributor/Customer or will be credited to account balance.
4. Authorized repair can occur at the Stanley LaBounty factory or authorized Stanley LaBounty Dealer. Labor for warranty repair will be paid under a formula determined by Stanley LaBounty.

Stanley LaBounty is not liable for incidental or consequential costs or losses incurred by the product, purchaser or user.

### LIMITED WARRANTY

To validate the Limited Warranty, a completed warranty certificate and delivery inspection report must be returned to Stanley LaBounty. Prohibited operation and/or unauthorized adjustment or assembly will void this Limited Warranty. See the Operation, Maintenance and Safety Manual.

### CONTACT INFORMATION

Contact your Stanley LaBounty Dealer or Stanley LaBounty regarding warranty questions. All requests for information, service or spare parts should include model and serial numbers. For the nearest Stanley LaBounty dealer contact:

Stanley LaBounty  
1538 Highway 2  
Two Harbors, MN 55616-8015 USA  
Phone: (218) 834-2123 or (800) 522-5059  
FAX: (218) 834-3879  
E-mail: [labounty@stanleyworks.com](mailto:labounty@stanleyworks.com)  
Website: [www.stanleyhydraulic.com](http://www.stanleyhydraulic.com)



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