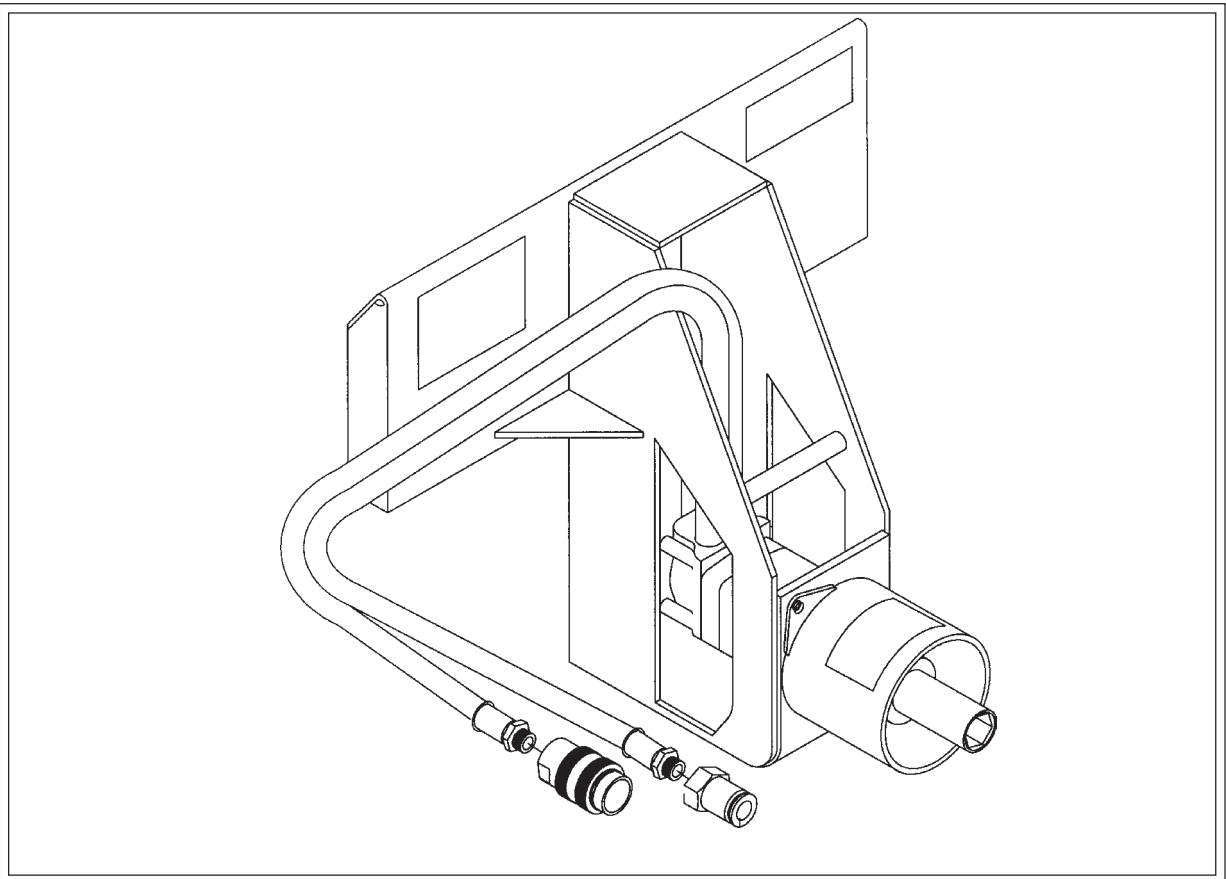




2006 Perimeter Rd. Greenville, SC 29605  
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email: mmole@mightymole.com

OPERATOR'S MANUAL  
CONTAINS:  
COMPONENTS AND  
REPAIR SECTIONS  
MODEL  
M450000, M4500ME, M4500MS  
& M4500SS  
MOLEING MACHINES

Manual Part No.: E250160



Machine Serial # \_\_\_\_\_

Purchased &  
Served Thru: \_\_\_\_\_

Purchase Date: \_\_\_\_\_

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Revision Date: 03.2005

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# MACHINE SAFETY AND OPERATION

## M-4500

### Hazard Alert Decals

**BE AWARE OF SAFETY INFORMATION:** This is the safety-alert sign. This symbol is placed in the manual and on your machine to alert you to potential bodily injury or death.

### SIGNAL WORDS

The safety-alert icon is used with the following signal words: DANGER, WARNING and CAUTION. When you see these words in the manual or on decals on your machine, carefully read and follow all instructions. Watch for these words and learn their meanings.

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

**WARNING** - Potentially hazardous situation which, if not avoided, could result in death or serious injury.

**CAUTION** - Potentially hazardous situation which, if not avoided, may result in minor personal injury or property damage.



**READ YOUR OPERATOR'S MANUAL:** This machine is designed to produce holes up to 2 1/2" by screw compaction in the advance direction, and up to 4 1/2" by screw compaction in the retract direction. It requires both an experienced operator and helper. **NEVER WORK ALONE. READ AND UNDERSTAND OPERATION MANUAL PROVIDED.**



### Specific Hazard Alert Decals

**UNDERGROUND UTILITIES:** Before starting work contact the local "one call" service in advance to mark all underground utilities. Make sure all underground utilities have been properly located, paying attention to any questionable areas in the immediate digging or boring area. Expose any utilities by non-destructive means before working.

Inadvertent contact with buried utilities may cause death or serious injury. Contact with electric lines can cause electrocution. Contact with gas lines can cause explosion or fire.

Know where and what type of utilities are in the area and how deep they are located.



# MACHINE SAFETY AND OPERATION

## M-4500

**ENTANGLEMENT HAZARD:** The normal use of this machine requires rotating parts, in the form of the drill string, cutting head and reamer, to be exposed in front of the machine.

The machine is to be shut down whenever work is required on the drill string, or any rotating parts. This machine is **NEVER** to be operated with personnel near the drill string, except for the initial start of the MOLEING HEAD.

Never stand on or straddle the drill string, and avoid gloves and loose clothing on the job.

Inadvertent contact with drill rod, cutting head or reamer will cause death or serious injury.

Always use a rod guide when positioning drill rods during operation.

When removing cutting head, operator must shut down machine and remove the key - then attend the removal of cutting head on exit side.

The drill rods are designed with a limited measure of flexibility to allow insertion into the ground with the machine at a different elevation than the tunnel. If an excessive amount of rod is exposed behind the pit, and the operator tries to aid the machine by pushing it, the rods may “whip.” McLaughlin Manufacturing Co. expressly limits the number of exposed rods behind the entrance pit to 2, during either insertion of the rods or removal of the rods.

Keep others away from machine when in operation.

### **AVOID DEATH OR SERIOUS INJURY**

Refer to warning decals on the machine for safety instructions and to the Accident Prevention page of this manual for safety instructions and safe operating procedures.



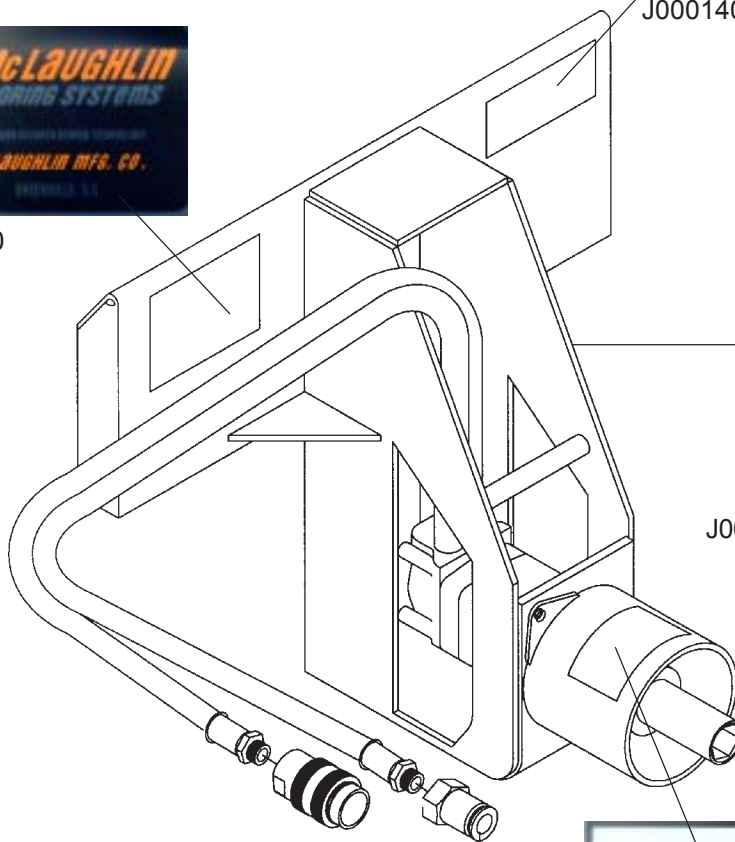
# MACHINE SAFETY AND OPERATION

## M-4500

### Hazard Alert Decal Placement



J100220



J000140



J000210



J000140

# MACHINE SAFETY AND OPERATION

## M4500

### JOBSITE

Before the entrance trench is constructed, contact the local “one call” service and all other underground plant owners to determine the location of existing services in the path of the proposed bore. **DO NOT** start excavating or boring until the area has been marked and cleared.

Working excavations more than 4 feet deep, must be constructed in accordance with Federal and Local regulations. This is the responsibility of the contractor. McLaughlin Group, Inc. recommends that the contractor be familiar with the requirements of (OSHA) regulations.

The working area at the site must be closed to all personnel not directly associated with the job. McLaughlin Group, Inc. recommends that the exposed rotating rod be **GUARDED BY A SAFE DISTANCE. ALL PERSONNEL NOT DIRECTLY ASSOCIATED WITH THE JOB SHOULD BE KEPT AT LEAST 10 FEET (3m) BACK FROM THE EXPOSED ROTATING ROD.**

### PIT SIZE (See Fig. 1)

An entrance trench will be required that is at least 6” (16 cm) wide and 10’ (3m) long using 5’ rods and 15’ (4.5m) using 10’ rods. Standard drill rod M1560 -7/8 (2.2cm dia.) requires an entrance pit length that is at least 6 times the depth of the entry point. (See Fig. 1)

Heavy duty rod M1575 -1” (2.5cm dia.) requires an entrance pit that is at least 10 times the depth of the entry point.

### OPERATION

The **ADVANCE** of the drill rod is caused by the “screw” action of the **MOLE** or **REAMER** selected for use. When **MOLEING**, the machine will **ADVANCE** when the drill string rotates clockwise as viewed from the operator controls at the machine. And will **RETRACT** when the drill string rotates counter-clockwise. When **REAMING**, the opposite action occurs and the machine will **RETRACT** when the drill string **rotates clockwise.**

Select the moleing head to be used, and couple it to the lead section of the rod. Couple additional rods as necessary to the lead section so that at least one full rod is on the ground behind the entrance trench. **NO MORE THAN 2 EXPOSED RODS, BEHIND THE**

**ENTRANCE TRENCH, ARE TO BE COUPLED TO THE MOLEING MACHINE AT ANY TIME.**

### ROD CONNECTION

McLaughlin drill rods use a snap button connector for assembly. This provides a secure, flush connection that will pass through the compacted hole without interference. **DO NOT SUBSTITUTE PINS OR BOLTS FOR McLAUGHLIN SPRING-LOADED BUTTONS.**

### STARTING THE MOLE

A Helper and an Operator are required to safely operate McLaughlin Moleing Units. The Helper is required to place the rods in starting position with the **ROD GUIDE TOOL.** (See Fig. 2)

**McLaughlin Group, Inc. prohibits the use of hands or any other tool other than the ROD GUIDE TOOL (provided) for starting the rods or aligning the MOLEING HEAD.**

The position for the Helper is on top of the bank, on the right side of the trench with the tool just behind the moleing head. **AT NO TIME, SHALL PERSONNEL, BE IN THE ENTRANCE TRENCH WHEN THE MACHINE IS IN OPERATION.**

The Operator is **ALWAYS** in attendance at the machine and the Helper is responsible for the direction of the bore, and attaching the tools and the service to be installed. As soon as the **MOELING HEAD** has entered the face, the machine is to be shut down, and the rod guide removed.

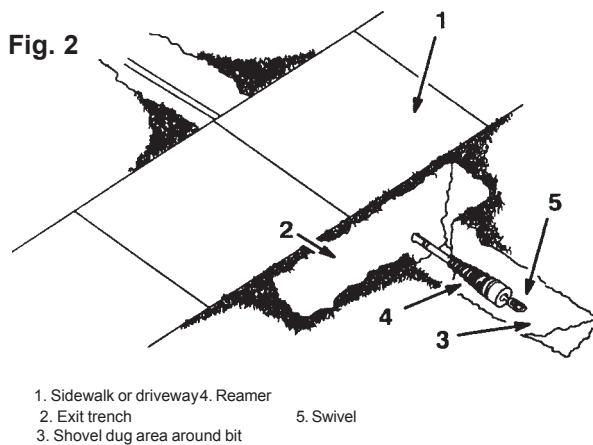
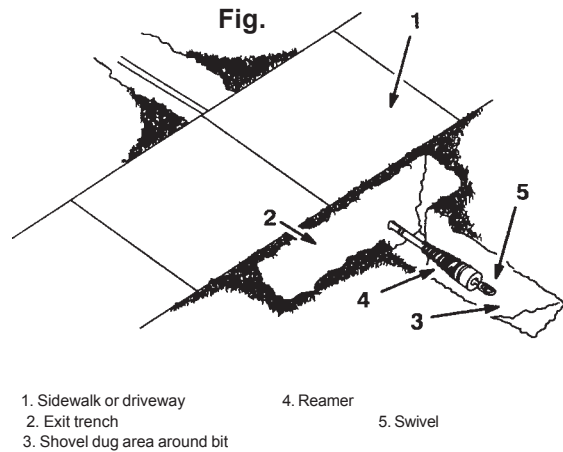
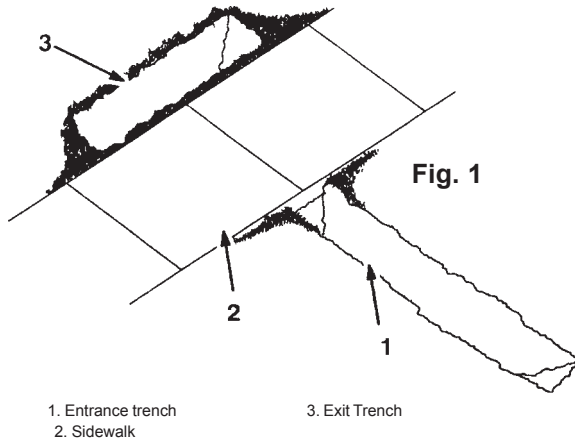
At this point, the grade of the rods should be checked with a **LEVELING TOOL** to assure that the bore has been started within specifications. If the **LEVELING TOOL** indicates that the first rod is not within grade tolerance, the rod should be withdrawn and restarted.

Clear the area and start the machine. Use clockwise rotation and the drill stem will advance itself into the face by the “screw” action of the **MOLEING HEAD.**

When using the M-4500 for **IN-LINE BORES**, (machine and bore on the same centerline) allow the machine to advance until approximately 6” (15.2 cm)

# MACHINE SAFETY AND OPERATION

## M4500



### REAMING OPERATION

The Operator must shut down the machine and **remove the key**. Then, with both the Operator and Helper, uncouple the MOLEING HEAD. Couple a REAMER to the end of the exposed rod and attach the service to be installed to the swivel on the REAMER.

The Helper **must not** have any contact with the service being installed. The Helper must stay 10' (3m) from the service being installed. The service can become an entanglement hazard if, for some unforeseen reason, it begins to rotate with the reamer. The Helper should instruct the operator to shut down the machine immediately, i.e. by radio, if this happens. Address the problem and do not continue to backream unless the service stays stationary.

Stop advancing, shut down the machine, uncouple the rod at the chuck using the UNCOUPLER, and move the machine back to install another rod section. Continue to install rods until the exit trench area has been reached.

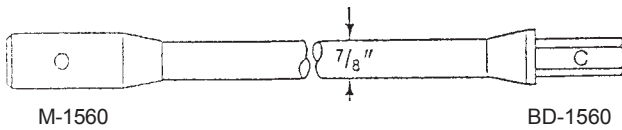
When using the M-4500 for SURFACE BORES (machine and bore on different centerlines) allow the machine to advance until it has reached the rear of the entrance trench. Stop advance, shut down the machine, uncouple the rod at the chuck using the UNCOUPLER and move the machine back to install another rod section. Continue to install rods until the exit trench area has been reached.

Station the Helper at the exit trench to watch the service if necessary, and to secure the area while the work is being done. He should be in radio contact with the Operator.

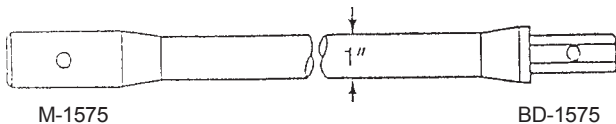
Clear the entrance trench area and start the machine. (See Fig. 3). Use clockwise rotation and the drill stem will RETRACT itself back into the entrance trench by the "screw" action of the REAMER. Allow the machine to RETRACT until the joint of the rod is beyond the end of the trench. Stop ADVANCE, shut down the machine, uncouple and remove the rod, and move the machine to the edge of the trench and couple it to the drill string.

# DESCRIPTION AND USE OF TOOLS

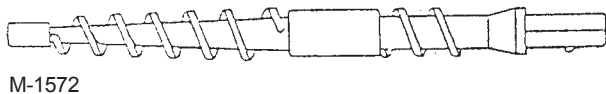
## M4500



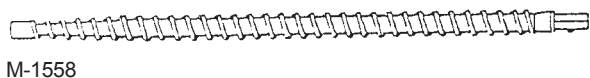
**Standard Drill Rod** 7/8" diameter (22.2mm), x 5', 10', and 20' lengths (1.5, 3, and 6 m). Supplied with either the standard 13/16" (20.64 mm) hex shank and socket with snap button connector, or the 1" (25.4 mm) hex Bulldog Connector.



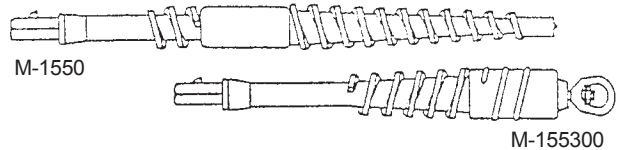
**Heavy Duty Drill Rod** 1" diameter (25.4mm), x 5', 10', and 20' lengths (1.5, 3, and 6m). Supplied with either the standard 13/16" (20.64 mm) hex shank and socket with snap button connector, or the 1" (25.4 mm) Bulldog Connector.



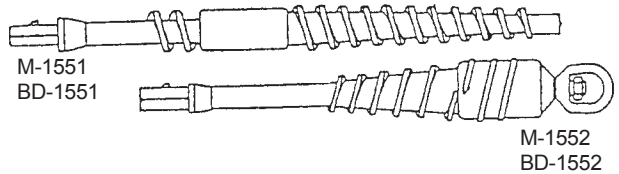
**1 1/4" Mole.** This is the smallest tool in the McLaughlin line. It is used primarily for the installation of small residential gas services (5/8" plastic). It is recommended for 25' to 30' (6.35 M - 7.62 M) (residential street crossings, with no reaming involved.) **THE SWIVEL SHANK CANNOT BE USED WITH THIS TOOL. NOT AVAILABLE WITH BULLDOG SHANK.**



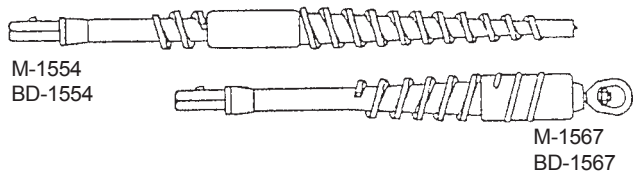
**1 3/8" Mole.** The Sand Mole is to be used only in sandy soil conditions where any degree of compaction is impossible. Usually no reaming pass is possible because the hole will collapse after the Sand Mole has passed through. The Swivel Shank can be used with this tool to retrieve small diameter electrical cable or similar services. **NOT AVAILABLE WITH BULLDOG SHANK.**



**1 7/16" Mole.** This tool is used in conjunction with the 2" Reamer. It is also used when the ground is very hard in the late fall and early winter. The reasoning behind this method is that there is very little displacement of the soil at any one time and the bore has a greater chance of success. **NOT AVAILABLE WITH BULLDOG SHANK.**



**1 3/4" Mole.** This tool is used in conjunction with the 2 1/2" Reamer, and is the most widely used tool. Most utility work will fall somewhere within this range. Installation of the service can be accomplished by reaming and pulling the service through simultaneously, or if the hole is large enough on the initial pass, the Swivel Shank can be used to pull the service through as the rods are withdrawn. Supplied with either the standard 13/16" (20.6 mm) hex shank, or the 1" (25.4mm) hex Bulldog Connector.

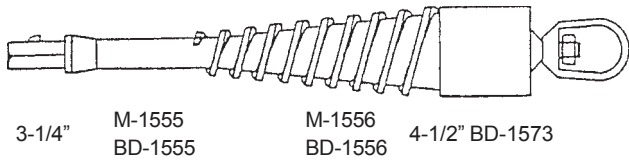


**2" Mole.** This Moleing Head is to be paired with the 2 7/8" Reamer for maximum effectiveness. It can also be used in conjunction with the Swivel Shank when enlarging the hole is not necessary. Supplied with either the standard 13/16" (20.6mm) hex shank, or the 1" (25.4mm) hex Bulldog Connector.



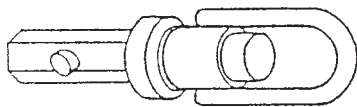
# DESCRIPTION AND USE OF TOOLS

## M4500



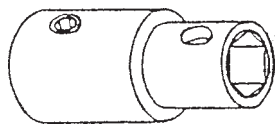
3-1/4" M-1555  
BD-1555      M-1556  
BD-1556      4-1/2" BD-1573

**3 1/4", 3 1/2" and 4 1/2" Reamers.** Whenever these tools are used, the soil condition must be ideal. By using these tools, 2" water and gas lines can be installed together with their connecting couplings. However, in some cases where the service is very heavy and awkward to handle underground, i.e. copper with large hex coupling, or plastic pipe that tends to snake in the hole, a cable or chain can be pulled through by the Reamer, and then attached to a backhoe to pull through the service. Supplied with either the standard 13/16" hex shank, or the 1" hex Bulldog Connector.



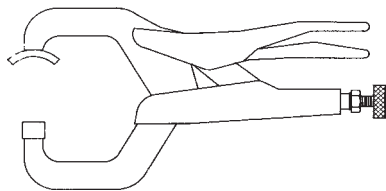
M-1557  
BD-1557

**Swivel.** This tool can be used with any Mole except the 1 1/4" (M-157200). Use this tool when no additional reaming is needed.



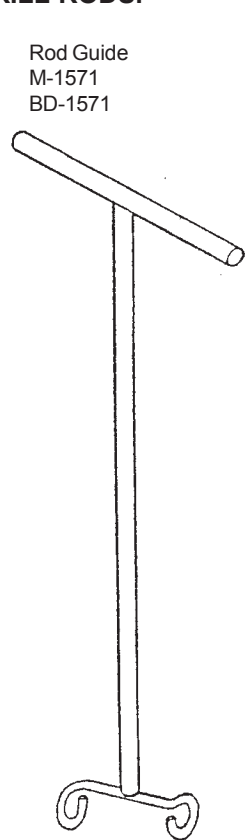
M-1559

**Adapter.** For M-1800, and M-427 Gasoline and Hydraulic Machines. This component is a replacement part normally permanently coupled to the machine.

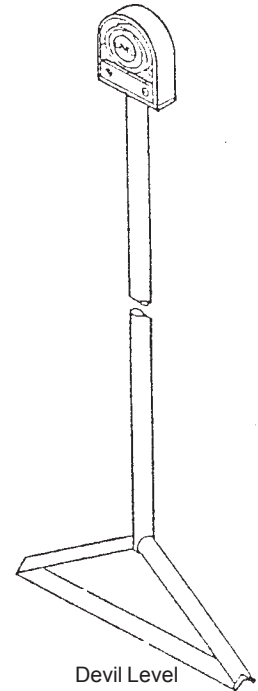


**Uncoupler.** Used for disengaging 13/16" (20.6mm) and 1" (25.4mm) snap button connectors on standard or heavy duty drill rods.

**Rod Guide.** PT# M157100 - Used at the start of the bore to locate and level the Mole and first rod at the entry face. At all times the helper is out of the trench and holding the ROD GUIDE while standing on the right hand side of the trench. **ROD GUIDE IS REMOVED AFTER 1/2 OF THE LENGTH OF THE FIRST ROD HAS BEEN INSTALLED. ALWAYS USE GUIDE TOOL WHEN POSITIONING ROTATING DRILL RODS.**



Rod Guide  
M-1571  
BD-1571



Devil Level  
M-1569  
BD-1569

**Devil Level.** Used to determine the difference between the angle to the rod being installed and actual horizontal level. Always shut down the machine before using the level. Check as close to the face as practical. Keep base of tool clean to obtain accurate readings. Each one degree is a rise or fall of approximately 20 inches (50.8 cm) in 100 feet (25.4 M).

Moleing heads, reamers, adapters, and swivels are supplied with the proper hex size to match the rods being used. Always use a complete string of either standard or heavy duty rods, and select the tool with

**Refer to McLaughlin's Drilling Tools catalog for the complete line of moleing tools and accessories.**

# MACHINE SPECIFICATIONS

## M4500

	ENGLISH	METRIC
M450000		
Overall width:	6"	16 cm
Overall length:	19"	49 cm
Overall height:	13"	33 cm
Weight:	50 lbs	23 kg
M4500SS		
Overall width:	6"*	16 cm
Overall length:	19"	49 cm
Overall height:	22 1/4	57 cm
Weight:	120 lbs	55 kg
* Does not include quick-attach plate dimensions.		
M4500MS		
Overall width:	6"*	16 cm
Overall length:	19"	49 cm
Overall height:	21	53 cm
Weight:	105 lbs	48 kg
* Does not include quick-attach plate dimensions.		

# **MACHINE SPECIFICATIONS**

## **M4500**

Boring diameter range: 1.25" - 3.50" 3 cm - 9 cm

Rotation speed: 100 rpm

(@ 9 gpm)

(341 lpm)

Torque: 430ft\*lbs 583 Nm

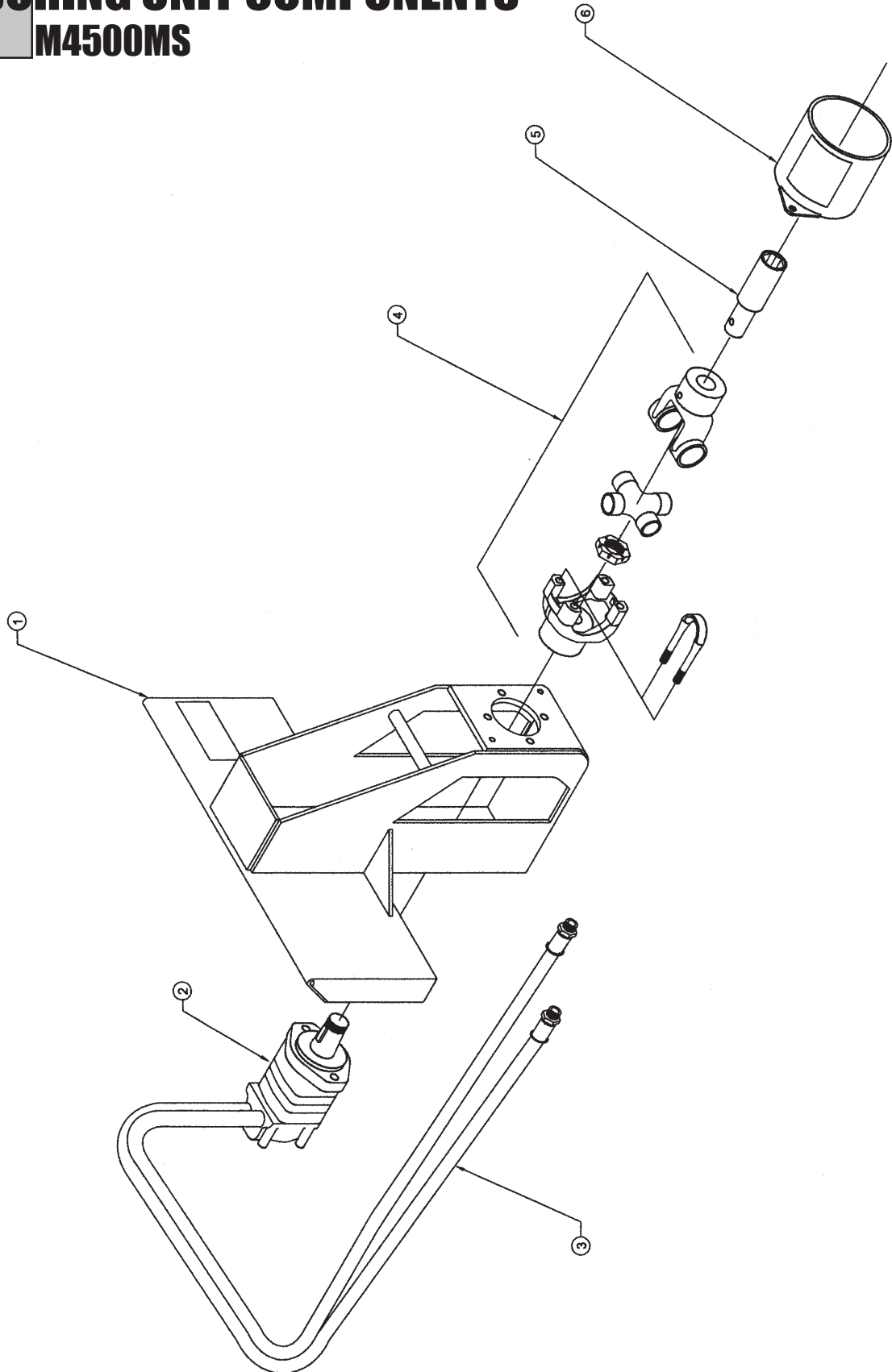
(@ 2000 psi)

(@ 138 bar)

Max. Pressure 3000 psi 207 bar

# BORING UNIT COMPONENTS

## M4500MS



# **BORING UNIT COMPONENTS**

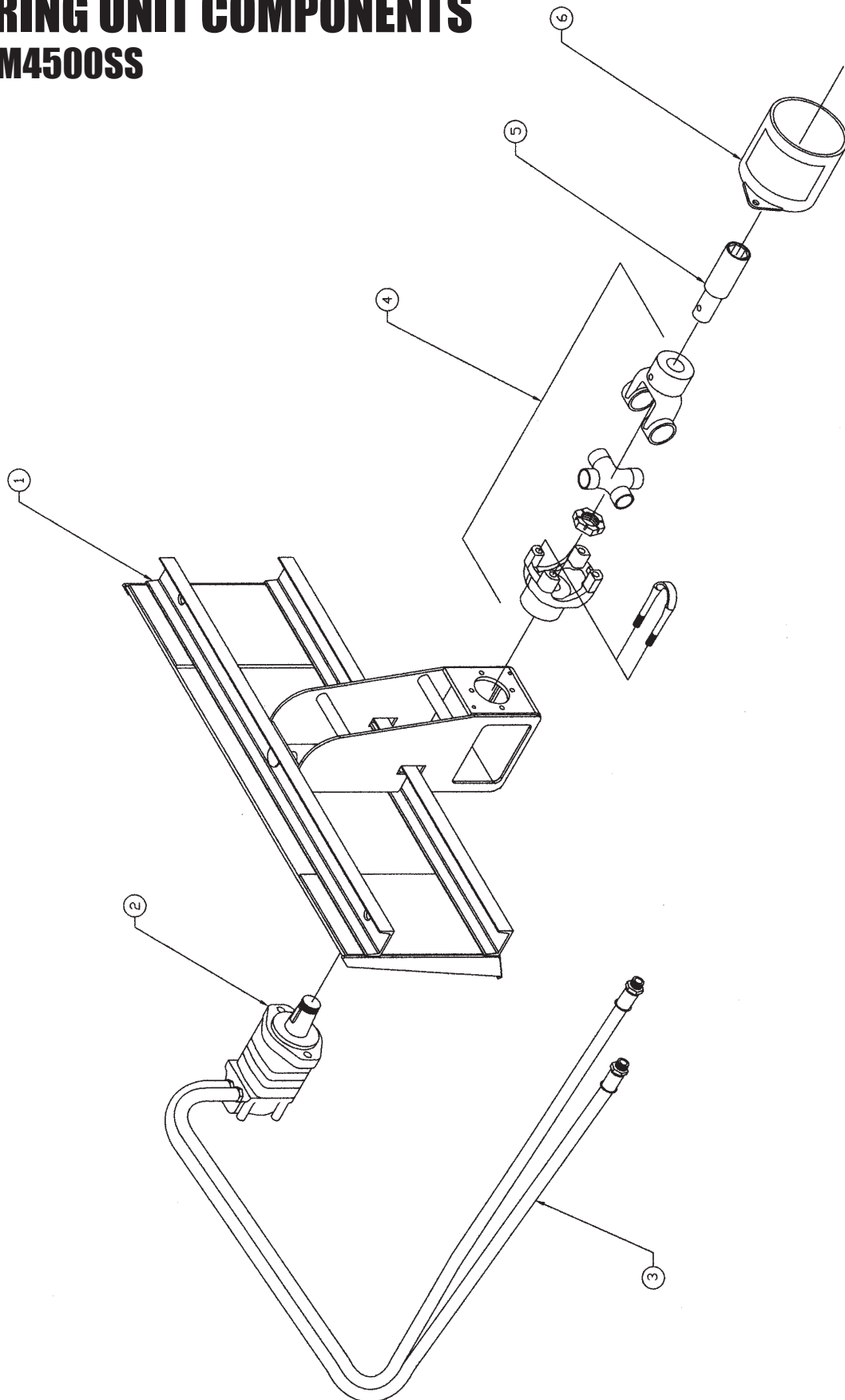
## **M4500MS**

<u>ITEM #</u>	<u>QTY.</u>	<u>NUMBER</u>	<u>DESCRIPTION</u>
1	1	M450051	Frame Assembly
2	1	M450015	Hydraulic Motor
	2	T400160	Union, 5/8"MB-1/2"MJ
	2	U070020	Screw, CB, .500-13 X 1.50
	2	U100120	Washer, Lock, 1/2
3	1	TH99000	Hose Assembly
4	1	M450052	Universal Joint Assembly
	1	M450016	Yoke, 1 1/4" Shaft
	1	M450017	Yoke, 1" Bore
	1	M450018	Cross T
	1	M450019	Bearing Strap Kit
5	1	M002624	Adapter, 1" Rd - 13/16 Hex
	1	U000785	Screw, HC .438-14 X 2.50
	1	J000140	Nut, Lock, .438-14
6	1	M450009	Chuck Guard
	2	U000400	Screw, .375-16 X .75
	2	U210060	Washer, Lock, .375
7*	1	M157100	Rod Guide

\* Not Shown

# BORING UNIT COMPONENTS

## M4500SS



# BORING UNIT COMPONENTS

## M4500SS

<u>ITEM #</u>	<u>QTY.</u>	<u>NUMBER</u>	<u>DESCRIPTION</u>
1	1	M450050	Attach Plate
	1	M450108	Clevis Pin
	1	R700180	R-Clip Pin
	1	M450197	Frame Weldment , 15 Degree
2	1	M450015	Hydraulic Motor
	2	T400160	Union, 5/8"MB-1/2"MJ
	2	U070020	Screw, CB, .500-13 X 1.50
	2	U100120	Washer, Lock, .500
3	1	TH99000	Hose Assembly
4	1	M450052	Universal Joint Assembly
	1	M450016	Yoke, 1 1/4" Shaft
	1	M450017	Yoke, 1" Bore
	1	M450018	Cross T
	1	M450019	Bearing Strap Kit
5	1	M002624	Adapter, 1" Rd - 13/16 Hex
	1	U000785	Screw, HC .438-14 X 2.50
	1	J000140	Nut, Lock, .438-14
6	1	M450009	Chuck Guard
	2	U000400	Screw, .375-16 X .75
	2	U210060	Washer, Lock, .375
7*	1	M157100	Rod Guide
*	Not Shown		

# ROD AND REAMER KITS

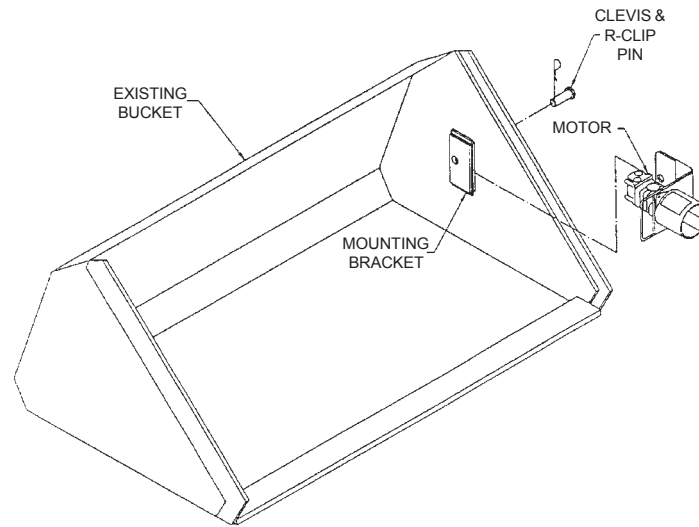
## M4500

<u>PART NUMBER</u>	<u>DESCRIPTION</u>
M451000	<p>Moleing Package for Standard Skid Steer</p> <p><b>Includes:</b></p> <p>6-M156010 Drill Rod 7/8" x 1/2" x 10' Long            1-M155100 Mole, 1-3/4" Diameter            1-M155200 Reamer, 2-1/2" Diameter            1-M155700 Swivel Shank            1-M156600 Button Kit 13/16" Connection            1-M156801 Uncoupler, 13/16" Connection</p>
M451000K	<p>Moleing Package for Kanga Skid Steer</p> <p><b>Includes:</b></p> <p>5-M157505 Drill Rod 1" x 9/16" x 5' Long            1-M155100 Mole, 1-3/4" Diameter            1-M155200 Reamer, 2-1/2" Diameter            1-M155700 Swivel Shank            1-M156600 Button Kit 13/16" Connection            1-M156801 Uncoupler, 13/16" Connection</p>
M451000T	<p>Moleing Package for Toro Skid Steer</p> <p><b>Includes:</b></p> <p>5-M156005 Drill Rod 7/8" x 1/2" x 5' Long            1-M155100 Mole, 1-3/4" Diameter            1-M155200 Reamer, 2-1/2" Diameter            1-M155700 Swivel Shank            1-M156600 Button Kit 13/16" Connection            1-M156801 Uncoupler, 13/16" Connection</p>
M451000ME	<p>Moleing Package for Mini Excavator</p> <p><b>Includes:</b></p> <p>8-M157505 Drill Rod 1" x 9/16" x 5' Long            1-M155100 Mole, 1-3/4" Diameter            1-M155200 Reamer, 2-1/2" Diameter            1-M155700 Swivel Shank            1-M156600 Button Kit 13/16" Connection            1-M156801 Uncoupler, 13/16" Connection</p>
M451000MS	<p>Moleing Package for Mini Skid Steer</p> <p><b>Includes:</b></p> <p>8-M156005 Drill Rod 7/8" x 1/2" x 5' Long            1-M155100 Mole, 1-3/4" Diameter            1-M155200 Reamer, 2-1/2" Diameter            1-M155700 Swivel Shank            1-M156600 Button Kit 13/16" Connection            1-M156801 Uncoupler, 13/16" Connection</p>
M451010MS	<p>Moleing Package for 10' Mini Skid Steer</p> <p><b>Includes:</b></p> <p>4-M156010 Drill Rod 7/8" x 1/2" x 10' Long            1-M155100 Mole, 1-3/4" Diameter            1-M155200 Reamer, 2-1/2" Diameter            1-M155700 Swivel Shank            1-M156600 Button Kit 13/16" Connection            1-M156801 Uncoupler, 13/16" Connection</p>



# MOUNTING BRACKET PLACEMENT AND MOTOR INSTALLATION

## M4500



### MOUNTING BRACKET PLACEMENT

1. Locate the mounting bracket so its shortest side is parallel with the bottom of the bucket.
2. Locate the mounting bracket so that the motor, when installed, is completely below the outer perimeter of the bucket.
3. Mark an outline of the bracket onto the bucket inner side wall.
4. Remove any paint, rust and grease from the mounting surface.
5. Clamp the bracket, in its proper location, to the inner side of the bucket.
6. Weld the bracket to the mounting surface. Use a 1/4" fillet weld all around.
7. Once the bracket is in place, use a 25/32" drill bit to drill a hole through the bucket side wall. Check the fit with the clevis pin.
8. Add touch-up paint to all surfaces to prevent rust.

### MOTOR INSTALLATION

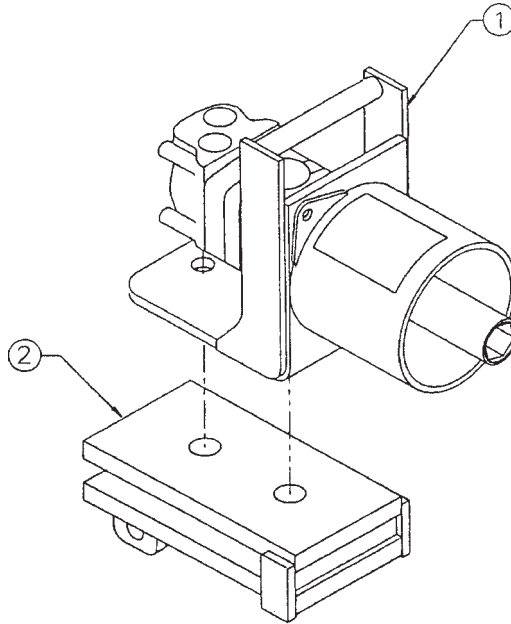
NOTE: ALWAYS CONNECT THE HYDRAULIC HOSES AS THE LAST STEP TO PREVENT ACCIDENTAL ENGAGEMENT OF THE MOTOR.

1. Line-up the motor with the mounting bracket.
2. Slide the motor into the bracket until the holes in the motor line-up with the holes in the mounting bracket.
3. Insert the clevis pin from the outside of the bucket through the bracket and the motor mounting plate. Secure the clevis pin with the R-clip pin.
4. Connect the hoses to the hydraulic power source.

### MOTOR REMOVAL

1. Shut-off power source.
2. Relieve system pressure.
3. Disconnect rods from the machine.
4. Disconnect the hydraulic hoses.
5. Remove R-clip pin and clevis pin.
6. Slide the motor out of the bracket.

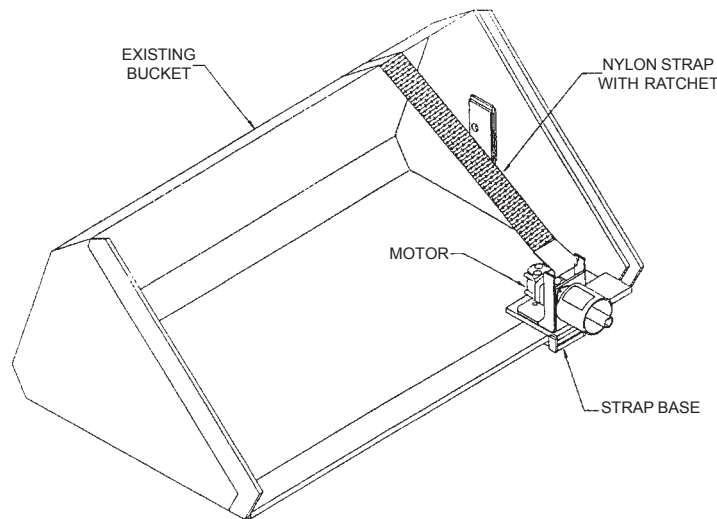
# OPTIONAL STRAP MOUNT M4500



<u>ITEM #</u>	<u>QTY.</u>	<u>NUMBER</u>	<u>DESCRIPTION</u>
1	1	M450000	Skid Steer Moleing Motor Assembly
2	1	M450040	Strap Mount Base Assembly
	1	U450041	Strap Assembly
	2	U001360	Screw, HC 3/4-10 x 1-1/2"
	2	U210160	Washer, Lock 3/4

# STRAP MOUNT MOTOR

## M4500



### STRAP MOUNT MOTOR INSTALLATION

NOTE: ALWAYS CONNECT THE HYDRAULIC HOSES AS THE LAST STEP TO PREVENT ACCIDENTAL ENGAGEMENT OF THE MOTOR.

1. Bolt the motor to the strap mount base. Face the chuck of the motor away from the open end of the base.
2. Slide the mounting base onto the bottom plate of the bucket.
3. Attach the hook of the strap of the bottom of the strap mount base cross bar. Bring strap up over the top of the bucket.
4. Attach the hook of the ratchet to the top of the motor frame.
5. Thread the ratchet with the strap attached to the bottom.
6. Ratchet the strap mount so it is tight on the bucket. Make sure the strap does not interfere with the hydraulic hose.
7. Connect the hoses.

### MOTOR REMOVAL

1. Shut-off power source.
2. Relieve system pressure.
3. Disconnect rods from the machine.
4. Disconnect the hydraulic hoses.
5. Remove R-clip pin and clevis pin.
6. Slide the motor out of the bracket.

# WARRANTY & RETURN GOODS POLICY

## LIMITED WARRANTY

The Manufacturer warrants its products to be free from defects in material and workmanship for a period of twelve months from the date of shipment from the factory. Hole Hammer pistons, bodies, and nose pieces are warranted to be free from defects in material and workmanship for a period of three years from the date of shipment from the factory. The Manufacturer shall not be responsible for any damage resulting to or caused by its products by reason of installation, improper storage, unauthorized service, alteration of the products, neglect or abuse, or use of the product in a manner inconsistent with its design. This warranty does not extend to any component parts not manufactured by Manufacturer; however, Manufacturer's warranty herein shall not limit any warranties made by manufacturers of component parts which extend to Buyer.

Claims for defects in material and workmanship shall be made in writing to Manufacturer within ten days of discovery of defect. Manufacturer may either send a service representative or have the product returned to its factory at Buyer's expense for inspection. Upon notification of defect, Manufacturer will issue a return goods authorization number to Buyer. The return goods authorization number must accompany the product returned. If judged by the Manufacturer to be defective in material or workmanship, the product will be replaced or repaired at the option of the manufacturer, free from all charges except authorized transportation. Buyer shall be responsible for all maintenance services consisting of lubrication and cleaning of equipment, replacing expandable parts, making minor adjustments, and performing operating checks, all in accordance with procedures outlined in Manufacturer's maintenance literature.

THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES AND NO REPRESENTATIONS, GUARANTEES, OR WARRANTIES, EXPRESS OR IMPLIED, (INCLUDING BUT NOT LIMITED TO A WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), ARE MADE BY THE

February 8, 2005

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## GENERAL RETURNS OF MERCHANDISE

1. All returns must be pre-authorized
  - A. Please call our parts department for an RGA number
  - B. Please include RGA number on the outside of box
  - C. Include any required paper work or special instructions
  - D. Items returned without an RGA number will not be accepted
2. All returns are subject to a 20% restock charge.
3. Special items are non-returnable
  - A. Non-stock parts
  - B. Custom parts
  - C. If you are unsure about a parts status when ordering, ask your McLaughlin representative if the item fits on of the above conditions.
4. Items must be returned within thirty days of original order date.
5. Items not returned within 30 days from the date of RGA is issued will not be accepted.
6. The item(s) must be in new condition. Used item(s) are not returnable.