

ACE Manufacturing & distributing, Inc. Gadsden, Al.., 35901\*1-800-538-1780

# Owner's Manual



### Warranty, Safety & Operating Instructions for:

- BM style hydraulic cutters (gear box)
- SL , MX & TAZ style hydraulic cutters (direct drive)
- TS direct drive tree cutters
- · RG series root grapples
- LM & SM forks and hay spears
- HH & TAZ post auger drive & bits

## LIMITED WARRANTY

#### **FREIGHT TERMS & CLAIMS:**

Title to the product and risk of loss transfers to the customer upon shipment from our dock, F.O.B. Gadsden, Al. BUSHMASTER is not responsible for product damage or lost in transit. Claims for product damage or lost in transit are the responsibility of the buyer and should be filed with the carrier immedediately.

#### WARRANTY

BUSHMASTER warrants each new product to be free from defects in material and workmanship.

For 90 days from the date of purchase, when the attachment has been maintained and lubricated in accordance with the operating and maintenance instructions in the Owner's Manual, BUSHMASTER will repair or replace free of charge, any defect in material or workmanship in this product.

#### This warranty does not cover:

This warranty excludes wear items such as, but not limited to, blades, blade bolts, spears, forks, etc. These items are expendable and may become worn during normal use.

Repairs on the motor, gearbox, bearing assemblies or couplers because of alteration, an accident, or operator abuse or negligence, including the failure to maintain and operate the equipment according to the instructions contained in the Owner's Manual, or if repairs have been made with parts other than those obtained through BUSHMASTER, Inc.

#### Disassembly of motor will void motor warranty.

Our obligation under this warranty shall be limited to repairing and replacing, free of charge to the original purchaser, any part that in our judgment shows evidence of a defect, provided the part is routed through the dealer and the distributor from whom the purchase was made, transportation charges prepaid.

This warranty shall not be interpreted to render us liable for injury or damages of any kind. This warranty does not extend to any expense or loss incurred for labor, supplies, substitute machine rental, or any other reason.

This warranty is subject to any existing condition of supply which may directly affect our ability to obtain materials or manufactured replacement parts.

BUSHMASTER, Inc. reserves the rights to make improvements in designs or changes in specifications at any time, without incurring any obligations to owners of units previously sold.

No one is authorized to alter, modify, or enlarge this warranty nor the exclusions, limitations and reservations.

Every BUSHMASTER product is the highest quality available. If you wish to contact us regarding this product, please call toll free between 8:30 a.m. and 4:30 p.m. CST, Monday through Friday, 1-800-538-1780.

# Thank You for purchasing a BUSHMASTER skid steer Attachment!

Please read this instruction manual and pay particular attention to the safety rules provided for your protection, and for the safety of others. The information in this manual will enable you to achieve the maximum performance from your BUSHMASTER product. All BUSHMASTER products are

engineered and built with high quality standards and will provide you with years of dependable, trouble free service.

If you have any questions or experience any problems, please contact BUSHMASTER at 1-800-538-1780 or E-mail:

sales@bushmasterequipment.com

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#### Safety instructions for all rotary cutters.



Look for this symbol to point out important safety precautions. Your safety or the safety of others is involved.

#### 1. DANGER LABEL

- A. Skid steer cutters discharges materials out the front. You should never operate the cutter in a manner that will discharge material toward bystanders or allow anyone near the machine while in operation.
- KEEP 100 FEET AWAY FROM MOWER WHEN OPERATING
- B. When cutting near bystanders is unavoidable, never cut in the direction of the bystander.
- C. Clear the work area of objects (rocks, fencing, bottles, wire, etc.) which may be picked up and thrown.

#### 2. DANGER LABEL

A. Always use the safety door supplied with your BUSHMASTER skid steer hydraulic rotary cutter. This will not only protect you from thrown objects, but primarily prevents overhanging or protruding objects such as tree limbs, rebar or other objects from entering the

#### 3. DANGER LABEL

- A. Disengage power to the BUSHMASTER and stop the engine before leaving the Operators cab.
- B. NEVER place hands or feet under the cutter or near any moving parts when the unit is running. always keep clear of the front discharge area when operating the cutter.

cab and causing operator injury.

C. Shut the cutter down and the engine off before performing any inspection or maintenance to



CLOSED BEFORE

**OPERATING** 

#### 4. DANGER LABEL

- A. There are rotating parts under the cover of all BM (gear box) style cutters. NEVER operate the cutter with the cover removed.
- B. Disengage power to the cutter and stop the skid steer engine before removing the cover to perform maintenance or inspection.
- C. Do not put hands or foreign objects under The cover when unit is running.



#### 5. CAUTION LABEL

If this label is on your machine, it means your machine was not equipped to operate with high-flow loaders. Use on high-flow loaders will cause motor failure.



Bushmaster is <u>NOT RESPONSIBLE</u> for damage incurred to the hydraulic motor due to high-flow usage.

#### 6. LIFT LIMIT WARNING LABEL

Insure that the LIFT LIMIT chain is fastened before operating the rotary cutter.

#### **WARNING**

Attach lift limit chain to skid steer prior to operating rotary cutter

# 7. Do not carry passengers on any Bushmaster skid steer attachment!

- 8. Never leave any Bushmaster skid steer attachment unattended in a raised position.
- The loader and the cutter should be stopped and inspected for damage after striking a foreign object, the damage should be repaired before restarting and continuing cutting.
- 10. Cut only in daylight or good artificial light.
- 11. Keep all nuts, bolts, and screws tight and be sure the equipment is in safe working condition.
- 12. Check the blade mounting bolts for proper tightness at frequent
- 13. When working under any Bushmaster skid steer attachment, ALWAYS securely block it up. If attached to your loader, visually inspect your lock-on pins to make sure the attachment is locked onto your loader. Remember: many of our skid steer attachments weigh in excess of 800 lbs.
- 14. Reduce speed on slopes and make gradual turns to prevent tipping or loss of control. Exercise caution when changing direction on slopes.
- 15. Stay alert for drop-offs or holes in the terrain.
- Use caution when walking on cutter deck. The may be slick when wet.
- 17. Never drive your skid steer loader with the cutter raised more than 2 feet off the ground. Children are small. Be aware of their presence and ALWAYS make sure you can see what you are cutting.

# OPERATING INSTRUCTIONS FOR SKID STEER CUTTERS

#### HOOKUP

The hookup procedure is the same as other attachments for your skid steer loader.

- A. Install safety door on hinge pins. See separate instruction sheet "Safety Door Installation" supplied with your door for proper procedure of the initial installation.
- B. Pull up and connect the cutter to your loader.
- C. Secure lock down levers.
- D. Connect (2) hydraulic hoses to flat face couplers.
- E. Connect lift limit chain to your skid steer loader. The back of the cutter (nearest to the operator) should never be raised more than 24 inches off the ground for proper and safe cutting operation.

#### 2. CUTTING OPERATION

The BUSHMASTER rotary cutter is capable of mulching trees and vegetation of varying height and depending on model, up to 8" trees. Designed to make your loader more versatile, the BUSHMASTER rotary cutter is intended to perform these functions without the deck being raised more than a vertical height greater than 3 feet.

As an additional safety feature, all BUSHMASTER rotary cutters have a cross-port relief valve, that not only protects your cutter, but also acts as a cushioning valve to provide a fast blade shut down. BM and MX models have a front edge chain curtain to reduce the likelihood of harm to bystanders from the discharge of materials. ALWAYS use the safety door to provide an additional level of protection to the operator.

- A. Raise the back of the cutter (nearest the operator) 4-5" off the ground. This is necessary for material to clear from under the cutting deck. Rotate the cutter up or down so that the skid rails are 2-3" off the ground. if unit is equipped with a gauge wheel, place it on the ground. The cutter will then be sloping front down (away) from the operator. This is the optimum method for cutting close to the ground.
- B. NEVER drive your loader with the cutting deck raised more than 2 feet or tilted to the point your view is obstructed. ALWAYS make sure you can see what you are cutting.
- C. NEVER operate the cutter in populated areas, or where thrown objects could injure persons or damage property.

# OPERATING INSTRUCTIONS FOR SKID STEER LOADERS

- D. <u>NEVER raise the back of the cutter more than 2 feet off the ground.</u> NEVER expose yourself or anyone else to the rotating blades. If you can see the rotating blades of the cutter when operating the unit, the back of the cutter is raised too high.
- E. When cutting large brush with BM, MX and TAZ models, operate the cutter in the following manner: Roll the front of the cutter up 1 or 2 feet. Do not lift the back of the cutter, just use the roll function to rotate the front up. Slowly drive into the tree, and use the hydraulic tilt (roll) hydraulics to bend or push the tree over. As you bend the tree, the blades will cut the tree off. The tree can now be mulched by rotating the front up, driving forward several feet, roll the front down onto the tree and back drag.
- F. When cutting large brush with a TS or SL models, simply cut the tree at the base with the front of the cutter slightly lower than the back, then drive over the brush to mulch.



## MAINTENACE FOR SKID STEER AND EXCAVATOR CUTTERS

#### A. General

1. Always block up mower and remove key before servicing.

#### B. Daily maintenance

- **1.** Check Gearboxes and overhead load bearings for proper lube levels.
- **2.** Thoroughly check cutter for loose bolts and nuts and check for damage before operation.
- **3.** Check all safety devices for damage and wear, make sure they are in good working condition.
- 4. Make sure all safety decals are undamaged and legible.
- **5.** Check blades for proper sharpness and for damage or excessive wear.

#### C. Periodic maintenance

- **1.** Check cutter deck for cracks or other damage and fix as needed.
- 2. Check hydraulic motor for signs of fatigue or excessive wear.
- **3.** Check hydraulic lines, fittings and couplers for leaks and/or excessive wear.
- **4.** Check blade carrier for damage or excessive wear, and repair or replace as needed.

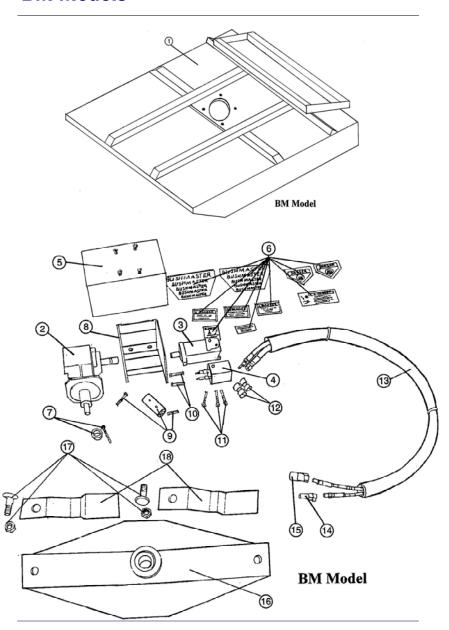
#### D. Blade maintenance

- 1. Sharpen blades as required.
- **2.** Never sharpen severely worn or damaged blades.
- 3. Always use a grinder to sharpen blades.
- **4.** Weigh blades separately to maintain proper balance.
- **5.** Always follow original pattern of cutting kerfs.
- 6. Never straighten, heat bend or weld cutter blades.
- 7. Never hard surface cutter blades, this could cause failure.

#### E. Blade replacement

- **1.** Use only original equipment blades on all cutters.
- **2.** Always replace all blades at one time to ensure balance of blade carrier.

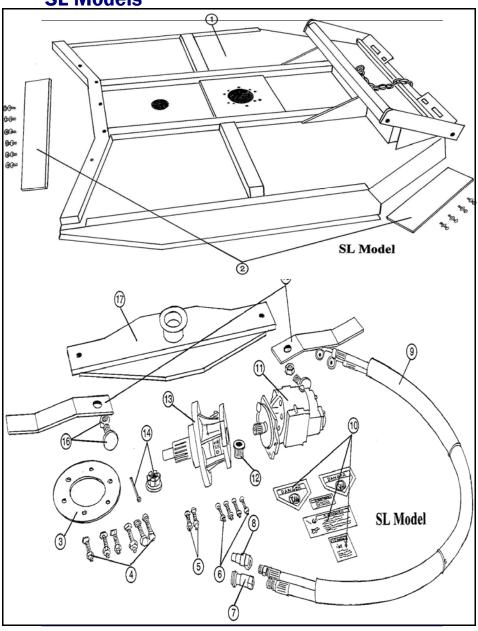
# **BM Models**



# **BM Part Numbers** Description

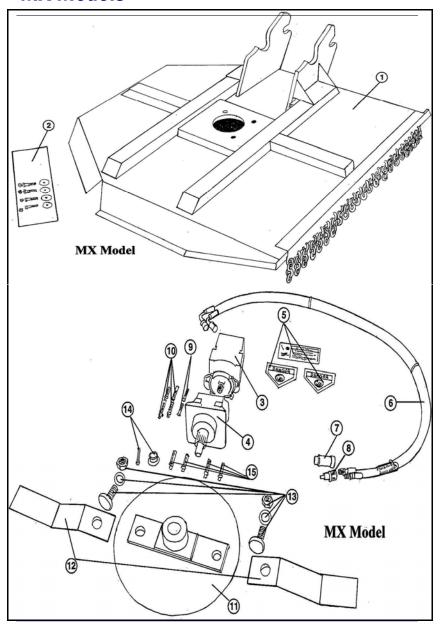
	•
BM501 BM601 RC51 HM CVM MC BM-DECAL CN GBB SC Gr. 5 Gr. 5 6400-10-10 HH-BM FF 08-12N FF 08-12C DBA-5BM DBA-6BM BBN BBN BL	60" Galv. Deck 72" Galv. Deck Right Angle Gear Box Char-Lynn Hyd. Motor Cross Port Relief Valve Motor Cover, Painted Decal Kit For BM Models Castle nut & Cotter pin Gear Box/Motor Bracket Straight Coupler 1 1/4" x 1 3/8" 1/2 X 2 1/4" Hex bolts (2) 3/8" x 3" Hex bolts (3) 5/8 JIC x 5/8" STO Male/Male 80" Hyd. Hose Set W/Sheath 1/2" FF Coupler body x 3/4" NPT 1/2" FF Nipple x 3/4" NPT 60" Devastator Blade Assembly 72"Devastator Blade Assembly Blade Bolt & Nut (1 set of 2 ea.) Set Of 2 Blades (5' & 6')
	BM601 RC51 HM CVM MC BM-DECAL CN GBB SC Gr. 5 Gr. 5 6400-10-10 HH-BM FF 08-12N FF 08-12C DBA-5BM DBA-6BM BBN

# **SL Models**



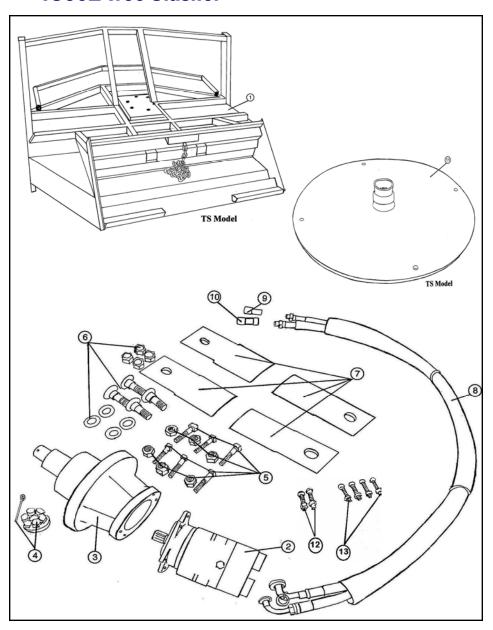
#### **SL Part Numbers Description SL501** 60" Galv. Deck 1 **SL601** 72" Galv. Deck 2 SBR-5SL 1/2 x 6" Rubber for 60" Deck SBR-6SL 1/2 x 6" Rubber for 72" Deck <u>3</u> SP-SL Round Spacer plate 3/4" x 2 3/4" Hex Bolt (6) W/nuts 4 5 6 7 8 9 **Gr.** 5 5/8" x 2 1/4" Hex Bolts Bolt (2) **Gr.** 5 Gr. 5 1/2" x 2 1/4" Hex Bolt (4) W/Nuts FF 08-12C 1/2" FF Coupler body x 3/4" NPT 1/2" FF Nipple x 3/4" NPT FF 08-12N HH-SL 80" Hyd. Hose Set W/Sheath HH-SL-100 100"Hyd. Hose Set W/Sheath <u>10</u> **SL-**Decal **Decal Kit For SL Models** GT8321 11 **Direct Drive Motor (10-15 GPM)** GT8093 **Direct Drive Motor (14-19 GPM)** GT8263 **Direct Drive Motor (18-24 GPM) SPL-ADPT** Spline adapter for MDH-65 **MDH-65** Overhead Load Bearing/Spindle **CN-65** Castle Nut & Cotter pin (MDH-65) 15 BL **Set Of 2 Blades (4',5' & 6')** BBN 16 Blade Bolt & Nut (1 set of 2 ea.) **DBA-5SL 60"** Devastator Blade Assembly 17 **DBA-6SL** 72"Devastator Blade Assembly

# **MX Models**



MX	Part Numbers	Description
1	MX401-42	42" Galvanized Deck
<del></del>	MX401	48" Galvanized Deck
	MX501	60" Galvanized Deck
<u>2</u>	SBR-MX42	1/2 x 6" Rubber for 42" Deck
	SBR-MX60	1/2 x 6" Rubber for 60" Deck
<u>3</u>	GT8321	Direct Drive Motor (10-15 GPM)
	GT8093	Direct Drive Motor (14-19 GPM)
	GT8263	Direct Drive Motor (18-24 GPM)
<u>4</u>	MDH-40B	Overhead Load Bearing-42"
	MDH-40C	Overhead Load Bearing-48" & 60"
<u>5</u> <u>6</u>	MX-Decal	Decal kit for MX Models
<u>6</u>	<u>HH-TAZ</u>	80" Hyd. Hose Set W/Sheath
	HH-TAZ-100	100"Hyd. Hose Set W/Sheath
	<u>HH-TAZ-120</u>	120"Hyd. Hose Set w/Sheath
<u>7</u>	FF08-08C	1/2" FF Coupler body x 1/2" NPT
7 8 9 10	FF08-08N	1/2" FF Nipple x 1/2" NPT
<u>9</u>	<u>Gr. 5</u>	1/2" x 1 1/2" Hex Bolts (2)
	<u>Gr. 5</u>	1/2" x 1 1/2" Hex Bolts (4)
<u>11</u>	BC-4	Blade carrier for 42" & 48"
	DBA-5SL	60" Devastator Blade Assembly
<u>12</u>	BL-TAZ	Set Of 2 Blades -42"
	BL	Set Of 2 Blades (4',5' & 6')
<u>13</u>	BBN	Blade Bolt & Nut (1 set of 2 ea.)
<u>14</u>	CN	Castle nut & Cotter pin
<u> 15</u>	<u>Gr. 5</u>	5/8" x 2 1/4" Hex Bolts ( <u>4)</u>

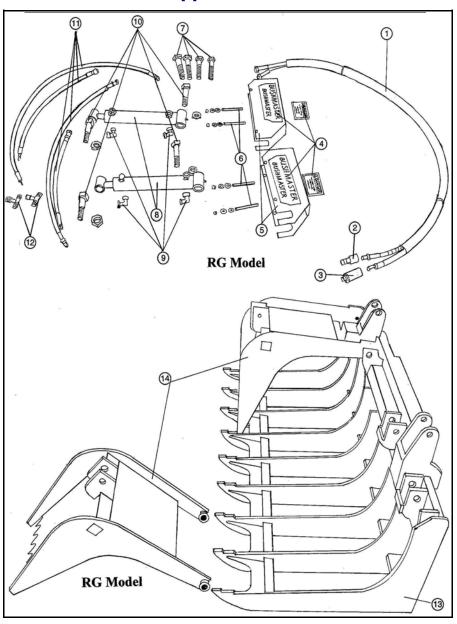
# **TS601** Tree Slasher



# TS Parts Numbers Description

<u>1</u>	TS601	72"Galvanized Deck W/Guard
<u>2</u>	GT8190	Direct Drive Motor (23-32 GPM)
<u>2</u> <u>3</u>	MDH-100	Overhead Load Bearing
<u>4</u>	<u>CN-100</u>	Castle Nut & Cotter Pin-TC
<u>5</u>	<u>Gr. 5</u>	7/8" X 3" Hex Bolts (6) w/nuts
<u>6</u>	BBN-TC	Blade Bolts & Nut (1 set of 4 ea.)
<u>7</u>	BL-TC	Set of 4 Blades-TC
<u>8</u>	HH-SL	80" Hyd. Hose Set W/Sheath
	HH-SL-100	100"Hyd. Hose Set W/Sheath
<u>9</u>	FF-12-12-N	3/4" FF Nipple x 1/2" NPT
<u>10</u>	FF-12-12-C	3/4" FF Coupler body x 1/2" NPT
<u>11</u>	BC-TC	50" Blade carrier W/Hub & Star
<u>12</u>	<u>Gr. 5</u>	3/4" x 2 3/4" Hex Bolts w/nuts(2)
<u>13</u>	<u>Gr.5</u>	1/2" x 2 1/4" Hex Bolts w/nuts (4)

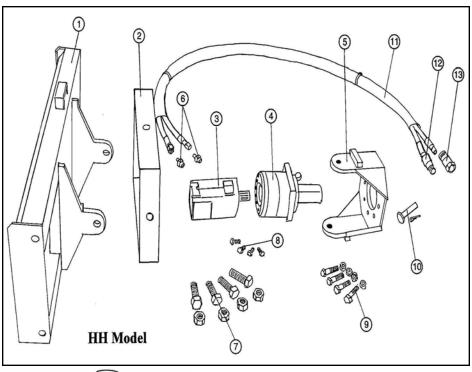
# **RG602 Root Grapple Parts**

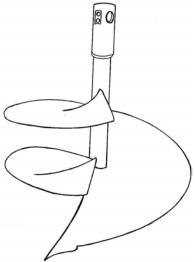


# **HH Parts Numbers** Description

<u>1</u>	HH-RG	80" Hyd. Hose Set W/Sheath
2	FF08-08N	1/2" FF Nipple x 1/2" NPT
<u>2</u> <u>3</u>	FF08-08C	1/2" FF Coupler body x 1/2" NPT
<u>4</u> <u>5</u>	RG-Decal	Decal Kit For Root Grapple
<u>5</u>	<u>CYLCV</u>	Cylinder Cover For RG602
<u>6</u>	<u>Gr. 5</u>	5/16" x3 1/2" Hex Bolts W/ Nuts(4)
	<u>Gr. 5</u>	1 1/4" x 5 1/2" Hex Bolt W/ Nuts (6)
7 8 9	<b>RGCYL</b>	4000 PSI Hydraulic Cylinder (2)
<u>9</u>	<u>6801-8-8</u>	1/2" Male JIC x 1/2" STO 90% Elbow
<u>10</u>	<u>Gr. 5</u>	1 1/4" x 6 1/2" Hex Bolt W/ Nuts (2)
<u>11</u>	HH-RG-4	Hydraulic Hoses For cylinders (4)
<u>12</u>	<del>2703-8-8-8</del>	1/2" Male JIC "T" (2)
<u>13</u>	RG602-Bottom	72" Galvanized Grapple Bottom
14	RG-Top	Galvanized Grapple Tops (2)

# **HH100 Hole Hawg Auger**





**HH Model Parts** 

**Description** 

#### SSHUP Skid Steer hook up w/ears 2345678 **PBR Pivoting Box Rail** SSE203A Hydraulic motor SS0603A Planetary gear box 2 9/16" shaft **GBMP G**ear Box Mounting Plate 6400-8-10 1/2" male JIC x 5/8" male STO (2) **Gr.** 5 1" x 3" Hex Bolt w/Nuts (4) 1/2"-13 x 1 1/4" socket head cap **Gr.** 5 Screws (4) **Gr.** 5 5/8" x 2 3/4" Hex Bolts w/Nuts (4) 9 10 HHRPIN 7/8" x 5" Bit Retaining Pin w/Clip 11 HH-RG-100 100"Hyd. Hose Set W/Sheath 12 FF08-08N 1/2" FF Nipple x 1/2" NPT 13 FF08-08C 1/2" FF Coupler body x 1/2" NPT 6" Aggressor Auger Bit **AB-6 AB-9** 9" Aggressor Auger Bit **AB-12** 12" Aggressor Auger Bit 15" Aggressor Auger Bit **AB-15 AB-18** 18" Aggressor Auger Bit **AB-24** 24" Aggressor Auger Bit **AB-30** 30" Aggressor Auger Bit **AB-36** 36" Aggressor Auger Bit

# **REPLACEMENT PARTS FOR LM101 & SM101**



B2B48SD

1 1/2" x 4" x 48" Replacement Fork





1 SP Replacement Bale Spear

2 SP-SL Weld on sleeve for Spear



#### Installation Instructions for Skid Steer Cab

The cab door should consist of two pieces, a door and a hinge. The lexan glass on the door may have protective sheeting on both sides. Peal off the coating in order to see through the operation window.

Step 1- Take the door and hinge and fit them together. The two welded pins on the hinge should have the narrowest part of the pin pointing upward. The door has two round bushings welded on it that slide over the hinge pins. This action should identify the top of the door.

Step 2- "You may need another person for this step", Hold the door with hinge attached in position on the outside of the cab. (The door should fit between the cab entrance handles but still be on the outside of the cab) Hold the door and hinge in place and open the door. (Make sure the door is raised as high as possible without any obstructions during the opening and closing process).

Step 3- After you have determine the proper placement of the door mark the position of the hinge so you can replace it in the same position

Step 4- Separate the door from hinge and place the 1" hinge post back in the same position as marked. At this time you have two options for mounting the hinge post.

Option A – Weld the hinge posts to the cab in the position it should be as determined in previous steps. Any welds or tacks should be on the top, bottom and outside of the hinge so as to not interfere with the opening and closing of the door.

Option B – Drill two  $\frac{1}{4}$ " holes through the hinge and cab approximately 1  $\frac{1}{2}$ " from top and bottom of hinge post. Bolt the hinge to the cab using the  $\frac{1}{4}$ " bolts.

Step 5- Hang the door on the secured hinge. The door should now open and close freely without hitting any of the skid steer.

Step 6- The door has a handle for opening and closing. This handle is adjustable and is also used to secure the door in place during operation. By twisting the handle, inside the cab, this should secure the door in place with the hinge behind the entrance lip of the cab. If this is not a good fit loosen or tighten the nuts on both sides of the handle to achieve the proper fit.



Model #	
Serial #	
Date mfg	
Date of purchase	
Motor #	
Do not exceed	GPM.

### ACE Manufacturing & distributing, Inc.

P.O. Box 1188 137 Ewing Ave. Gadsden, Al. 35901

Phone: 800-538-1780 Fax: 256-549-5502

E-mail: sales@bushmasterequipment.com