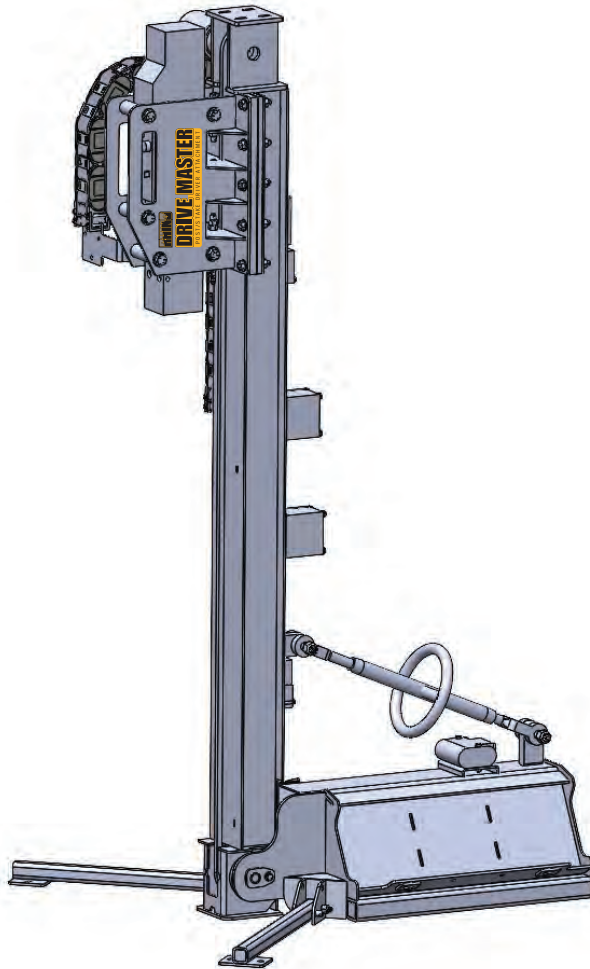




# **Rhino Drive Master Mini Skidsteer Post / Stake Driver**



## **Operation and Parts Manual**

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## 1. Introduction

Read and understand this manual before using the post driver and follow all of the safety instructions. Keep this manual with the post driver at all times.

Carefully examine the post driver upon receipt. Report any damage immediately to the freight carrier and register any claim.

Information provided in this manual was current as of the issue date. Rhino Tool Company reserves the right to make design changes without further notice or liability.

This manual explains the operation and routine maintenance of the Rhino Drive Master Post Driver.

Information furnished in this manual does not include all of the details of design, production, or variations of the equipment. It does not cover all the possible contingencies, which may arise during operation, setup, or maintenance. Should special issues arise, or further information be desired, please contact Rhino Tool at 1-866-707-1808 or your Rhino Tool Dealer.

The text contained in this manual is for current production models. Some instructions and maintenance procedures may not apply to your specific unit.

Equipment modifications from original design and specifications are strictly prohibited. Modifications or overloading may compromise safe operation of the post driver, subjecting users to serious injury or death and may void any remaining warranty.

Rhino Tool Company reserves the right to change, improve, modify or expand features of this equipment at any time. Specifications, models, or equipment are subject to change without notice, and without incurring any obligations to change, improve or expand features of previously delivered equipment. Because of the variations in optional equipment and continued design improvement, certain information contained within this manual may not apply.

This operators manual does not replace, nor does its use release the owner/operator from observing all safety codes or operating limitations as well as any applicable federal, state, provincial or local regulations.

The post driver is designed to be used by experienced operators, trained in the safe operation of a skidsteer and trained in the hazards related to using the post driver and the safe use of the post driver for the intended purpose.

Serious injury or death of the operator or bystanders may be caused if the post driver is misused. Misuse may also cause damage to the skidsteer carrying the post driver.

For the purpose of ordering parts or reporting theft, please record your serial number below:

Machine Serial Number: \_\_\_\_\_

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

Manufacturer Info: \_\_\_\_\_

Dealer Info: \_\_\_\_\_

Serial Number Plate Location:




*Drive Master Serial Plate Near top of Mast*

## 2. Safety

### 2.1 SAFETY ALERT SYMBOLS AND SIGNAL WORDS

Before setting up, operating or servicing the post driver, you must read, understand and follow the instructions and safety warnings in this manual. Your machine may not be equipped with some of the optional equipment described in this manual.

If you have any safety concerns or questions that are not covered by this manual, please contact your Rhino Tool dealer.

The safety information in this manual is denoted by the safety alert symbol:  This symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

The level of risk is indicated by the following signal words:

#### **DANGER**

Indicates a hazardous condition that will result in serious injury or death if not performed appropriately.

#### **WARNING**

Indicates a hazardous condition that could result in serious injury or death if not performed appropriately.

#### **CAUTION**

Indicates a hazardous condition that could result in serious injury if not performed appropriately.

#### **NOTICE**

Indicates a situation that could result in damage to the machine or other property.

### 2.2 OPERATIONAL HAZARDS

The following hazards are possible during the operation and maintenance of the post driver. All operators, maintenance and service personal, or any one working with or near the post driver must be familiar with all hazards.

Carefully read all safety messages in this manual and on post driver safety signs. Keep safety signs in good condition and replace missing or damaged safety signs.

New components and repair parts must include the current safety decal.

Keep post driver in proper working condition.

Know the regulations and laws that apply to you and your industry. This manual is not to replace any regulations or laws. Additional information may be found at: [www.asae.org](http://www.asae.org) or [www.osha.gov](http://www.osha.gov).

If you do not understand any part of this manual, contact Rhino Tool at [www.rhinotool.com](http://www.rhinotool.com)

#### 2.2.1 Properly Trained Operator

Operator must be properly trained and understand all operation manuals before using the post driver attachment or equipment used to operate the attachment. Do not allow untrained or unqualified people to operate the post driver attachment or the equipment powering/controlling the attachment.

It is your responsibility to operate this equipment safely. You must be familiar with the equipment and all safety practices before use.

#### **WARNING**

**Do not operate this post driver until you read and understand this manual and the manual provided for the hammer.**

#### **WARNING**

**Do not operate, work on or around post driver while fatigued, while under the influence of alcohol, prescription or nonprescription medication, or if feeling ill.**

## **WARNING**

**Prevent injury.**

**Keep bystanders at least 10 ft. (3 m) from the operating area during usage.**

### 2.2.2 Mount And Dismount Properly

When you enter or leave machine:

- Maintain a three-point hand/foot contact with the machine. Three-point contact is defined as using one hand and two feet or two hands and one foot at any single time. Use handholds or steps if provided.
- Never use control levers as handholds.
- Clean your boots and wipe your hands before mounting or dismounting.
- Never jump on or off of the machine.
- Never attempt to mount or dismount a moving machine.
- Never mount or dismount while carrying objects that prevent three-point contact.

### 2.2.3 Electrical Line And Underground Utility Hazard

## **DANGER**

**Prevent electrocution and/or explosion.**

**Death or serious injury can result if equipment comes near or contacts electrical lines.**

**Electrocution can occur without direct contact. Maintain a 20 ft. (6 m) clearance from any electrical line.**

**Contacting a gas line can result in an explosion.**

Check clearance before raising or moving post driver attachment.

Have underground utilities located before beginning work. In the US or Canada, call 811 (US) or 888-258-0808 (US and Canada).

Also contact any local utilities that do not participate in the One-Call service. In countries that do not have a One-Call service, contact all local utility companies to have underground utilities located.

**The following shall be adhered to when working around electrical lines:**

- Any electrical line or overhead line shall be considered to be an energized electrical line unless and until the person owning the line or the electric utility authority indicates that the line is not an energized electrical line.
- If any part of the skidsteer or post driver contacts an energized electrical line, the skid steer operator must not attempt to get off the skidsteer. Warn others to leave the area. Contact utility company to de-energize the line. The skid steer operator shall remain at the controls until utility company informs that it is safe to exit the machine.
- Do not return to job site or allow anyone into area until utility company informs that it is safe to do so.

**If you suspect a gas line has been damaged:**

- Immediately shut off skid steer engine.
- Remove any ignition sources.
- Warn others that a gas line has been damaged and that they should leave the area.
- Leave the area as quickly as possible.
- Immediately call the local emergency phone number and the utility company.
- Do not return to area until given permission by emergency personnel and utility company.

### 2.2.4 Personal Protective Equipment Required

All operators must wear ear and eye protection, safety shoes, hard hat and gloves.

Prolonged exposure to loud noise can cause hearing impairment or loss of hearing.

Workers and bystanders must use ear protection while post driver is in operation.



## 2.2.5 Pressurized Fluids

### **WARNING**

**Hydraulic oil injected into your skin can cause serious injury or death.**

**Keep your hands and body away from any pressurized leak. Tighten connections before applying pressure.**

**Lower attachment to ground before checking for leaks.**

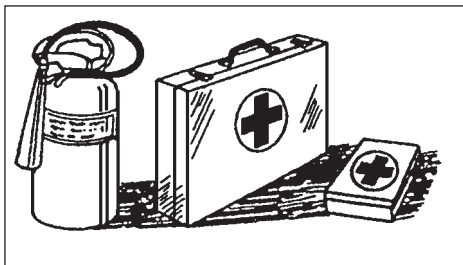
**Never use your hand to check for leaks; use a piece of wood or cardboard. If fluid of any kind is injected into the skin, seek immediate medical attention.**

## 2.2.6 Prepare For Emergencies

Be prepared in case of emergencies.

Keep a fire extinguisher and first aid kit close to the machine.

Keep emergency phone numbers in your phone. Know your address so emergency services can locate you if an emergency arises.



## 2.2.7 Replace Safety Signs

Replace missing or damaged safety signs. Safety signs are identified in this manual. Replacement safety signs are available from Rhino Tool at [www.rhinotool.com](http://www.rhinotool.com)

## 2.2.8 Do Not Allow Riders

Never lift or carry anyone on the post driver. Never use the post driver as a work platform. Never allow riders on the post driver.

## 2.2.9 Hazards From Modifying Equipment

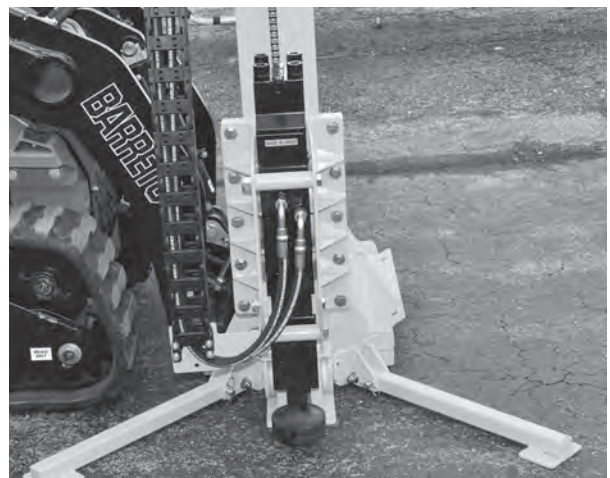
Do not make any alterations to the post driver. Altering the post driver may cause unsafe conditions and may void the manufacturer's warranty. Always use Rhino Tool Company replacement parts.

## 2.2.10 Detaching From Skid Steer

### **WARNING**

**Tip over hazard.**

**The Drive Master Stabilizing Legs must be in the locked down position, the hammer lowered and hydraulic pressure relieved BEFORE releasing and removing the attachment from the mini skid steer. The unit, the attachment, and the legs should be on level, solid ground.**



*Drive Master Position for repair or storage*

## 2.3 MAINTENANCE HAZARDS

The following maintenance and service hazards are in addition to those found while operating the post driver. All operators, maintenance and service personnel, or any one working with or near the post driver must be familiar all hazards. If you do not understand any part of this manual, contact your Rhino Tool Dealer or contact Rhino at [www.rhinotool.com](http://www.rhinotool.com).

After performing inspections, service or maintenance, all guards and parts, must be reinstalled. Verify all safety devices are functional.

Wear personal protective equipment appropriate for the job.

Always use Rhino Tool Company replacement parts. Not using Rhino Tool parts may cause harm to personnel and may void the warranty.

### **WARNING**

**Crush hazard.**

**A raised post driver can fall, resulting in death or serious injury.**

**Never enter the area under a raised post driver.**

### **WARNING**

**Moving parts can crush and dismember.**

**Disconnect and lockout power source before adjusting or servicing.**

### **WARNING**

**Prevent injury.**

**Wear personal protective equipment appropriate for the job.**

### **WARNING**

**Hydraulic oil injected into your skin can cause serious injury or death.**

**Keep your hands and body away from any pressurized leak. Tighten connections before applying pressure.**

**Lower attachment to ground before checking for leaks.**

**Never use your hand to check for leaks; use a piece of wood or cardboard. If fluid of any kind is injected into the skin, seek immediate medical attention.**

### **WARNING**

**Cancer and reproductive harm.  
For more information go to  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).**

## 2.3.1 Lockout/Tagout

### **WARNING**

**Crush and pinch hazard.**

**Keep all personnel clear of all moving components.**

**Verify all guards are in place.**

**Follow lockout/tagout procedure before performing service, inspections or maintenance.**

Before performing service or maintenance:

- **If post driver is connected to skid steer:**
  1. Park on a firm and level surface.
  2. Lower post driver to ground.
  3. Unlock and lower stabilizing legs to ground.
  4. Re-insert lock pin to lock legs in place.
  5. Lower the hammer from the top of the mast.
  6. Engage mini skid steer parking brake, stop engine and remove key.
  7. Place a Do Not Operate tag on control panel.



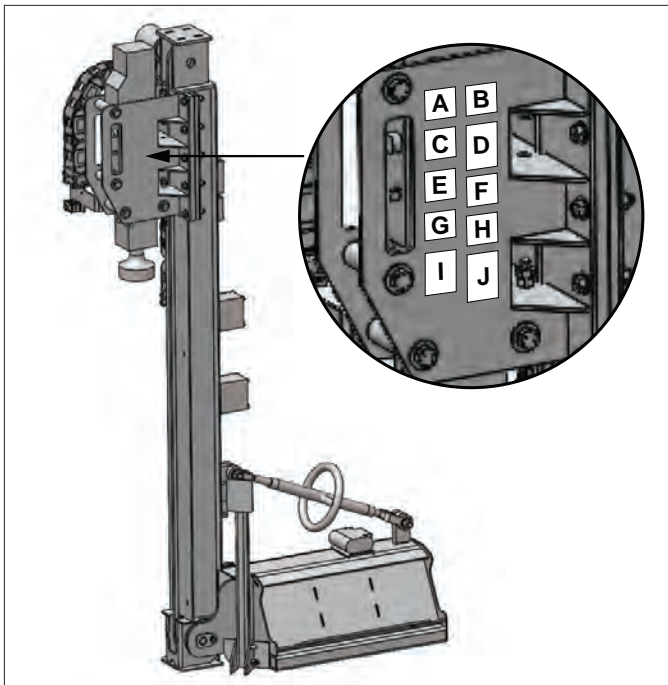
- **If post driver is not connected to skid steer:**
  8. The Drive Master Stabilizing Legs must be down, lock pin engaged, and sitting on firm and level ground.
  9. Use a lifting device, and straps to secure the driver, if moving an unattached post driver.

## 2.4 SAFETY DECALS

Safety decals are located on the post driver to identify both operational and maintenance hazards. These safety decals are placed according to the hazard in that area of the machine.

Read and understand each safety decal and the hazard it references. These safety messages are additional information to the safety content already described in this section of the operators manual.

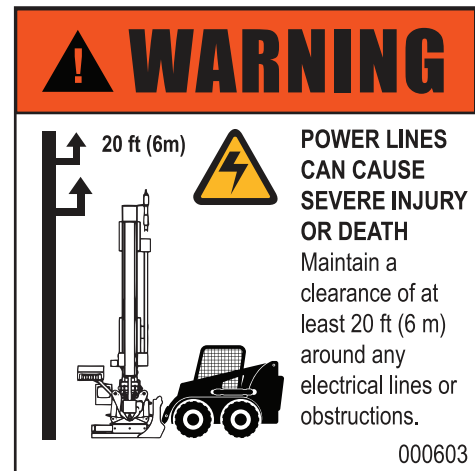
All safety decals must be legible at all times. Keep them clean by using soap and water, avoid using harsh chemicals or pressure washing. If the safety decal is no longer legible, replace it with a new one. Contact your Rhino Tool dealer or [rhinotool.com](http://rhinotool.com) for new decals. The part number of the decal is located on the decal and on the images of the safety decals that follow.



Decal A - 00601



Decal B - 00603



Decal C - 00606



Decal D - 00627



Decal E - 00608



Decal F - 00604



Decal G - 00609



Decal H - 00605



Decal I - 00624



Decal J - 00622



## 3. Specifications

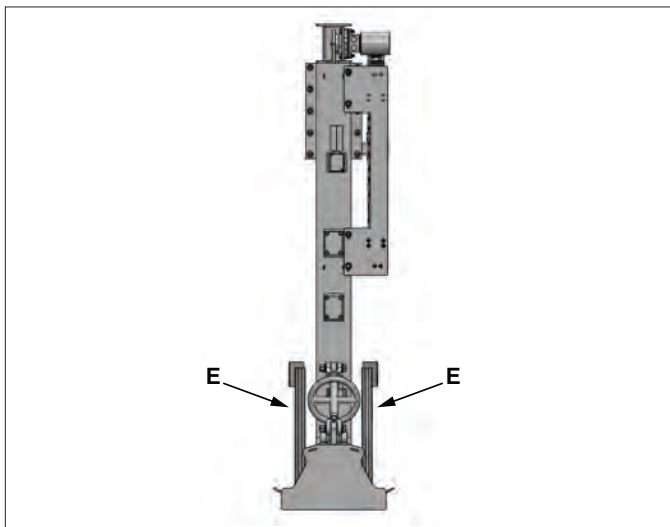
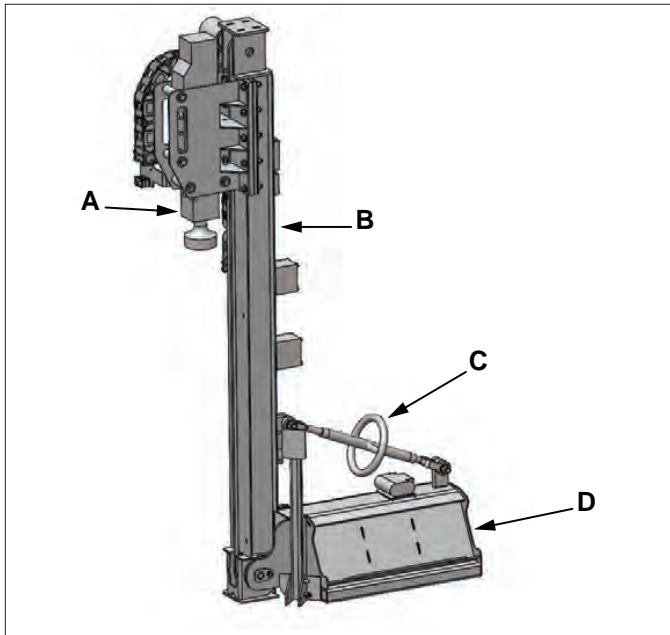
### 3.1 POST DRIVER

Part Number	361150
Weight	525 lbs (238 kg)
Pile Driving Impact Energy	150 ft-lbs (203 joules) Per Stroke
Blows Per Minute	Approximately 700 to 1,200
Adjustment for positioning the mast	7° out (away) from the operator
	15° (in) towards the operator
Operating Hydraulic Pressure	1,015 - 2,030 psi (7 - 14 mpa)
Hydraulic Hammer	Toku TNB-1M
Post driver Dimensions	Height = 84 in. (2134 mm)
	Width = 46 in. (1168 mm)
	Length = 21 in. (534 mm)
Driving Cup I.D.	4" (102 mm)
Max Post/Stake Height	10' (3 m)

### 3.2 MINI SKIDSTEER REQUIREMENTS

Minimum Operating Weight	1,000 lbs (454 kg)
Minimum Machine Lift Capacity	800 lbs (363 kg)
Hydraulic Oil Flow Range	Varies - check Mini Skid Steer operation manual
Minimum Oil Flow	5.3 gpm (20 lpm)
Operating Hydraulic Pressure	Varies - check Mini Skid Steer operation manual
General Hydraulic Pressure Range	1,015 - 2,030 psi (7 - 14 mpa)

## 4. Components



- A. Hammer
- B. Mast
- C. Mast Adjustment Turnbuckle
- D. Quick Attach Frame
- E. Stabilizer Legs

## 5. Transporting

1. Refer to post driver specifications for weight and dimensions to determine truck or trailer needed to transport post driver.

### **WARNING**

**Collision hazard.**

**The Drive Master Attachment should be in the down position, with the hammer lowered, when transporting. Travel slowly and allow for ground clearance. Follow mini skid steer operation manual instructions for transport.**



*Drive Master Position for transport*

2. Position post driver on truck or trailer.

### **WARNING**

**Collision hazard.**

**Failure to secure post driver with adequately rated devices may result in post driver falling off truck or trailer.**

**Verify tie down devices are adequately rated to secure the post driver.**

3. Connect properly rated tie down devices to post driver and to truck or trailer.
4. Tighten tie down devices as instructed by the manufacturer to secure post driver to truck or trailer.

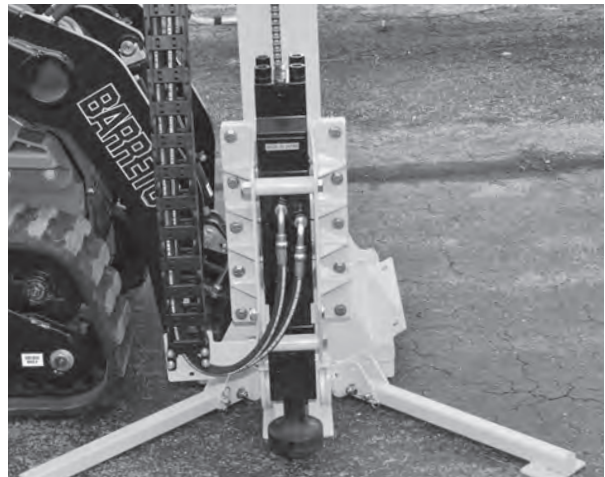
## 6. Storage

### **WARNING**

**Tip over hazard.**

**The Drive Master Stabilizing Legs must be locked in the down position, with the hammer lowered, when the attachment is removed from the mini skid steer.**

1. The attachment should be stored indoors on a flat, level surface. Securely support the attachment.





## 6. Operation

### 6.1 DAILY INSPECTIONS

Thoroughly inspect the post driver before each operation.

Check that all hoses are properly hooked up before engaging the hydraulics.

#### **WARNING**

**Hydraulic oil injected into your skin can cause serious injury or death.**

**Keep your hands and body away from any pressurized leak. Tighten connections before applying pressure.**

**Lower mast, and hammer to the ground before checking for leaks.**

**Never use your hand to check for leaks; use a piece of wood or cardboard. If fluid of any kind is injected into the skin, seek immediate medical attention.**

Verify all safety decals are in place and clearly visible.

Check for loose or missing parts and any damage that may have occurred during operation, moving or shipping.

Review all mini skid steer pre-start instructions and verify that all recommended steps and procedures have been followed.

### 6.2 POST DRIVER OPERATION

#### **DANGER**

**Prevent electrocution and/or explosion.**

**Death or serious injury can result if equipment or post comes near or contacts electrical lines.**

**Electrocution can occur without direct contact. Maintain a 20 ft. (6 m) clearance from any electrical line.**

Contacting a gas line can result in an explosion.

#### **WARNING**

**Prevent injury.**

**Do not position or hold the post by hand when the hammer is driving the post.**

#### **WARNING**

**Prevent injury.**

**Keep bystanders at least 10 ft. (3 m) from the operating area during usage.**

#### **WARNING**

**Do not operate this post driver until you read and understand this manual and the manual provided for the hammer.**

#### **WARNING**

**Do not operate, work on or around post driver while fatigued, while under the influence of alcohol, prescription or nonprescription medication, or if feeling ill.**

#### **CAUTION**

**Prevent injury.**

**All operators must wear ear and eye protection, safety shoes, helmet and gloves.**

**Prolonged exposure to loud noise can cause hearing impairment or loss of hearing.**

**Bystanders must use ear protection while post driver is in operation.**

#### **NOTICE**

**Prevent hammer damage.**

Hammer should be in contact with post before moving hammer lever to on position. Dry firing hammer without a post engaged may damage hammer.

## 6.2.1 Drive Post

1. Have underground utilities located before beginning work. In the US or Canada, call 811 (US) or 888-258-0808 (US and Canada).

Also contact any local utilities that do not participate in the One-Call service. In countries that do not have a One-Call service, contact all local utility companies to have underground utilities located.

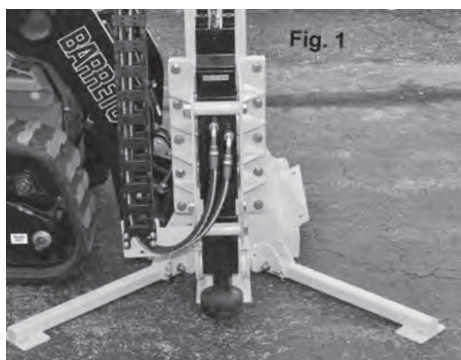
2. Following instructions in your mini skid manual for attachments, attach mini skidsteer to post driver attachment mounting plate. The post driver attachment should be in the storage position with both stabilizing legs locked down on a solid, level surface.

### **WARNING**

**Tip over hazard.**

**The Drive Master Stabilizing Legs must be in the locked down position, with the hammer lowered BEFORE attaching to the mini skid steer.**

3. The attachment and hammer should be lowered, each stabilizing leg should be down and locked. The unit, the attachment, and the legs should be on level, solid ground. (Fig. 1)



4. Before hooking the attachment to your mini skid, follow procedures for releasing hydraulic pressure, and connecting couplers.

### **DANGER**

**Prevent electrocution and/or explosion.**

**Follow the instructions outlined in your mini skid steer manual for hooking up a wiring harness to your mini skid steer battery.**

5. The attachment has a wire harness that will need to be attached to your mini skid loader's battery. Ring terminals will be supplied. It is the owner's responsibility to adjust, and secure wires, and hook up to the mini skid steer battery. Read the mini skid manual for specifics on attaching the wiring harness.

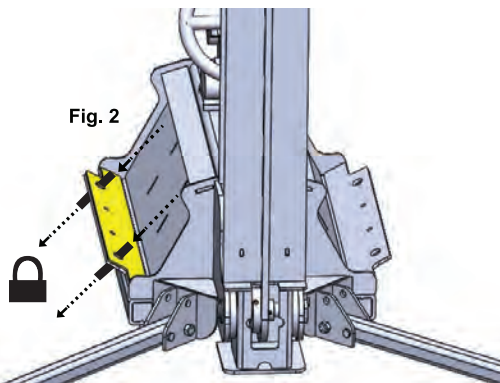
### **WARNING**

**Crush hazard.**

**Do not operate the attachment until the attachment and mini skid mounting plate are aligned properly. Pins should align completely through all pin slots on the mounting plate and attachment. If shims are used, all pins must align completely through shims, attachment and mounting plate. Check that pins are in good condition, without signs of damage or wear. Check that the mini skid mounting pins are able to lock completely before operating the attachment. An improperly aligned attachment and mounting plate could unattach and fall causing injury to bystanders.**

6. Before lifting the attachment, make sure all parts of the mounting plate and attachment are securely locked to the mini skid mounting plate. Follow instructions in your mini skid manual for hooking up an attachment.
7. If the Drive Master attachment does not fit your mini skid mounting plate, or the fit is loose, use the Drive Master Shim Kit shipped with the Drive Master attachment to align the mounting plate and the Drive Master attachment plate. All pins must protrude completely through the alignment holes of the Drive Master Attachment, Shims, and Mini Skid Mounting Plate. Pins should be able to fully engage through the

attachment and lock into position. (Fig.2)  
Check that the fit is snug without excess space between the attachment and mount plate.

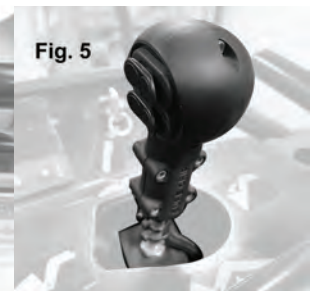


8. Remove leg locking pins, and raise stabilizer legs on each side of the mast. Re-insert leg pins.
9. Before moving the post driver, maintain proper travel height by keeping the post driver attachment lowered and the hammer down allowing for ground clearance when traveling.
10. Check overhead and side clearances before raising the skid steer arms and mast of the post driver. Verify there is clearance above the post driver to safely raise the mast.
11. Position the post driver on the side of the desired location to drive the post.
12. Engage skid steer parking brake if dismounting or stopped for an extended length of time.
13. To adjust the mast, to better position the hammer over the post, rotate the turnbuckle clockwise or counter clockwise to the desired position. (Fig. 3)



Turnbuckle rotation Fig. 3

14. Set skid steer engine to low/medium speed and turn on auxiliary hydraulics. Refer to Mini Skid Operation Manual for how to engage hydraulics.



15. Refer to your Mini Skid Steer Operation Manual for operation of lifting arms.
16. With the Auxillary Hydraulics engaged, push button ① (one) forward to move the hammer up the mast. The hammer may need to be raised and lowered to get the correct height for driving your post. Push button ① (one) back towards the operator to lower the hammer down the mast. (Fig. 4)
17. Push the Lift Arm Joystick back towards the operator to lift the Drive Master Attachment and Mini Skid Steer lift arms.(Fig. 5)



18. A second person will need to hold the post in position under the driving cup while standing clear of the post driver. Do not stand under the attachment. Use a level to check for plumb. (Fig. 6)
19. If post is not plumb, use the turnbuckle to adjust the mast left/right if needed to plumb the post. Use the turnbuckle, or move the position of the mini skid steer to center the driving cup over the post. Check that all bystanders are clear of the area before moving the mini skid steer.
20. Once the post is plumb, apply slight downward pressure on the post by pressing button ① (one) back toward the operator. The



post should now be held by the pressure between the driving cup and the ground.

21. The second person must step away from the post before engaging the hammer. Do not have anyone support the post while it is being driven. Do not allow anyone except the operator near the machine while the post is being driven.
22. With the joystick engaged back towards operator and held (DETENT position if possible) for continuous auxillary hydraulic flow, push both buttons ① (one) and ② (two) back towards the operator to begin driving the post. If pushing both buttons causes too much down pressure (skid steer lifting when driving post) alternate pushing buttons ① (one) and ② (two) for better control when driving the post. (Fig. 4)

## NOTICE

**Hammer controls will not function if hydraulic flow is reversed.**

## ⚠ WARNING

**Tip over hazard.**

23. Depending on ground conditions some lift may occur due to down pressure when driving the post. Use caution and do not continue driving the post if the ground conditions are unsuitable.

## NOTICE

**Prevent hammer damage.  
Hammer should be in contact with post before moving hammer lever to on position.  
Dry firing without a post engaged may damage hammer. (Fig. 7)**



*Hammer engaged on post (Fig. 7)*

24. Release buttons ① (one) and ② (two) when post is driven to desired depth. (Fig. 4)



*Left side shows proper travel height (Fig. 8)*



25. To travel a short distance to the next post location mast and hammer should be lowered. (Fig. 8) DO NOT travel with mast raised. (Fig. 9) Always verify there are no overhead obstructions in the travel path. Travel at a slow speed. Take turns slowly. Refer to Mini Skid Operation Manual for amount of incline permitted for your mini skid.

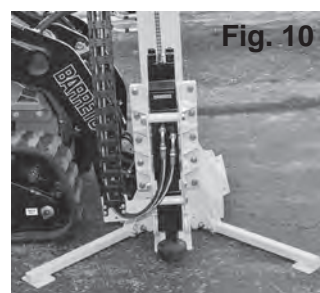
26. Repeat steps 5-21 for each additional post.

## ⚠ WARNING

**Tip over hazard.**

**The Drive Master Stabilizing Legs must be in the locked down position with hydraulic pressure relieved BEFORE releasing and removing the attachment from the mini skid steer.**

27. The attachment should be lowered, each stabilizing leg should be down and locked. The unit, the attachment, and the legs should be on level, solid ground. (Fig. 10)



## 7. Maintenance

### **WARNING**

**Crush and pinch hazard.**

**Keep all personnel clear of all moving components.**

**Verify all guards are in place.**

**Follow lockout/tagout procedure before performing service, inspections or maintenance.**

### **WARNING**

**Crush hazard.**

**A raised post driver can fall, resulting in death or serious injury.**

**Never enter the area under a raised post driver.**

### **WARNING**

**Moving parts can crush and dismember.**

**Disconnect and lockout power source before adjusting or servicing.**

### **WARNING**

**Hydraulic oil injected into your skin can cause serious injury or death.**

**Keep your hands and body away from any pressurized leak. Tighten connections before applying pressure.**

**Lower mast and hammer to ground position before checking for leaks.**

**Never use your hand to check for leaks; use a piece of wood or cardboard. If fluid of any kind is injected into the skin, seek immediate medical attention.**

Before performing service or maintenance:

1. Visually inspect the attachment for damage.
2. Inspect hose covers for signs of wear.
3. Check that all fittings are connected.

### **WARNING**

**Prevent injury.**

**Wear personal protective equipment appropriate for the job.**

## 7.1 HAMMER LUBRICATION

Lubricate hammer per the OEM manufacturers recommendations. See hammer operators manual.

### **WARNING**

**Tip over hazard.**

**Keep all personnel clear of all moving components.**

**Verify all guards are in place.**

**Follow lockout/tagout procedure before performing service, inspections or maintenance.**

Before performing service or maintenance:

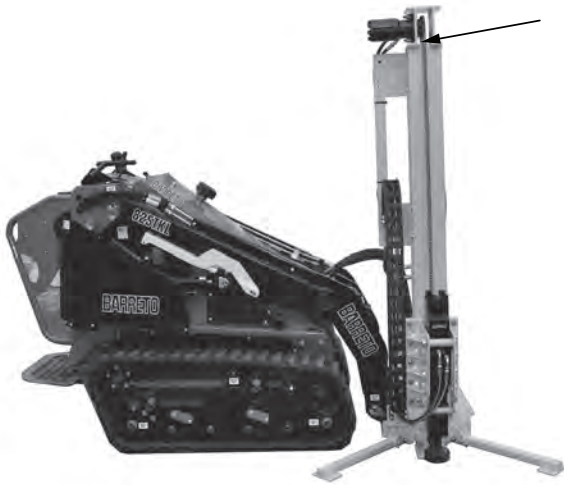
- **If post driver is connected to skid steer:**
  1. Park on a firm and level surface.
  2. Lower post driver to ground.
  3. Unlock and lower stabilizing legs to ground.
  4. Re-insert lock pin to lock legs in place.
  5. Lower the hammer from the top of the mast.
  6. Engage mini skid steer parking brake, stop engine and remove key.
  7. Place a Do Not Operate tag on control panel.
- **If post driver is not connected to skid steer:**
  8. The Drive Master Stabilizing Legs must be down, lock pin engaged, and sitting on firm and level ground.
  9. Use a lifting device, and straps to secure the driver, if moving an unattached post driver.

## 7.2 LUBRICATE MAST CHAIN

Lubricate mast chain based on your usage and how the post driver is stored.

- Stored outside and heavy/daily use - Weekly.
- Stored inside and heavy use - Every 2 weeks.
- Stored inside and light use - Every 3-4 weeks.

Use a lithium spray grease suitable for chains.



## 7.4 HAMMER DOWN PRESSURE

Hammer down pressure is set at the factory and should not be adjusted.

Contact your Rhino Dealer or Rhino Tool at 1-866-707-1808 if you have questions about your pressure settings.

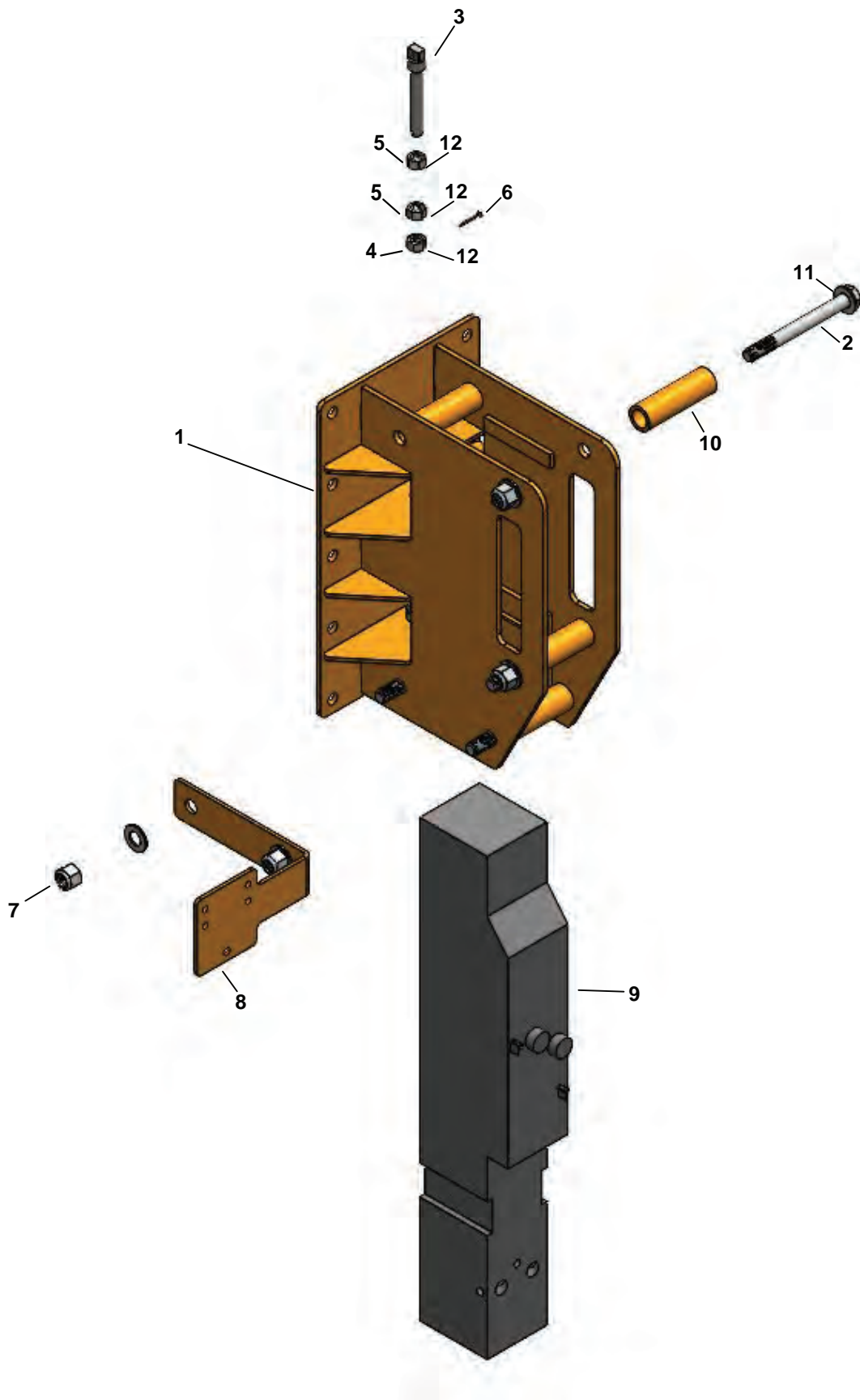


## 8. Troubleshooting

Problem	Possible Cause	Solution
Hydraulics do not function.	Skid steer hydraulics not engaged.	Engage skid steer hydraulics.
	Hydraulic couplers not fully seated.	Check hydraulic couplers.
	Low oil level.	Check skid steer hydraulic oil level, add amount recommended by skid steer operation manual.
	Auxiliary hydraulics not engaged.	Engage auxiliary hydraulics. See Operation instructions in this manual and skid steer manual.
Difficulty unhooking hydraulic hoses.	Auxiliary hydraulics are engaged.	Shut off auxiliary hydraulics. Check that all hydraulic pressure is released.
Post Driver fails to strike post.	Insufficient hydraulic oil	Refer to skid steer manual for recommended hydraulic oil level.
	Oil Temperature is too low.	Refer to skid steer manual for recommended hydraulic oil temperature.
Mini Skid lifting off ground during operation.	Too much down pressure.	Back off driving speed. Determine if there is an obstruction (rock, debris) or if soil composition is not suitable. The larger the post diameter the more resistance applied to the post and hammer. Call Rhino Service if lifting continues to be an issue.
Hammer not staying in contact with post during operation.	Not enough down pressure.	Call Rhino Service at 1-866-707-1808 or <a href="mailto:service@rhinotool.com">service@rhinotool.com</a> Mon. thru Fri., 7 am to 3:30 p.m.

## 9. Parts

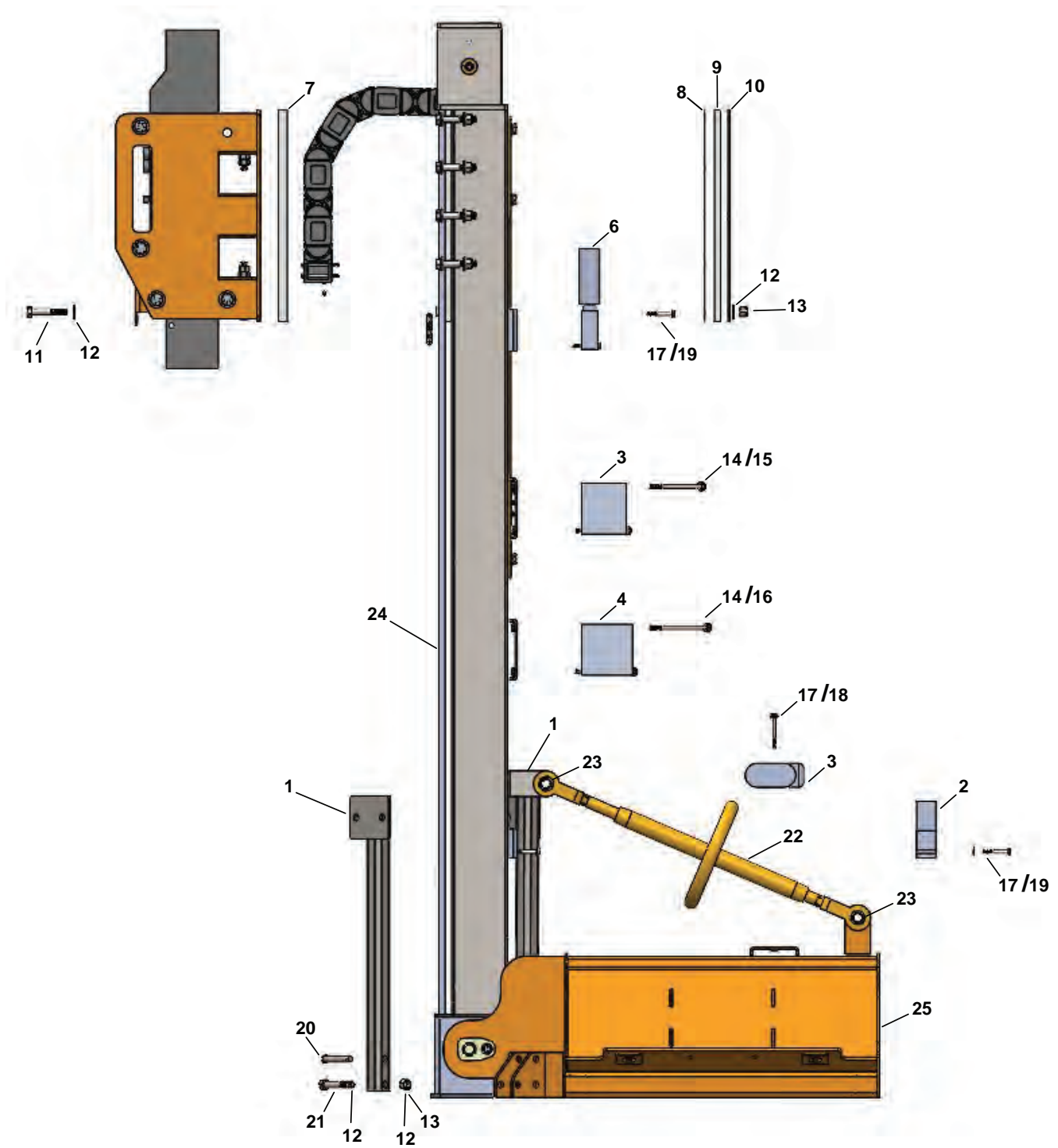
### 9.1 HAMMER AND CARRIER



## 9.1 CARRIER PARTS

Item	Part Number	Description	Qty
1	361003	Carrier for Hammer	1
2	504040	5/8 - 11 x 6.0" HHCS	5
3	361068	Anchor Pin, Threaded Chain	2
4	518824	1/2"-13 Distorted Nut	2
5	518823	Hex Nut 1/2" - 13	4
6	551306	1/8" dia x 1" cotter pin	2
7	518822	Locknut 5/8" - 11	5
8	361030	Breaker Hose Mount Bracket	1
9	361132	Breaker, Toku TNB-1M	1
10	361042	Tube - Spacer	5
11	504036	SAE 5/8" Flat Washer YZ	10
12	504000	SAE 1/2 Flt Wshr Thru HardYZ	32

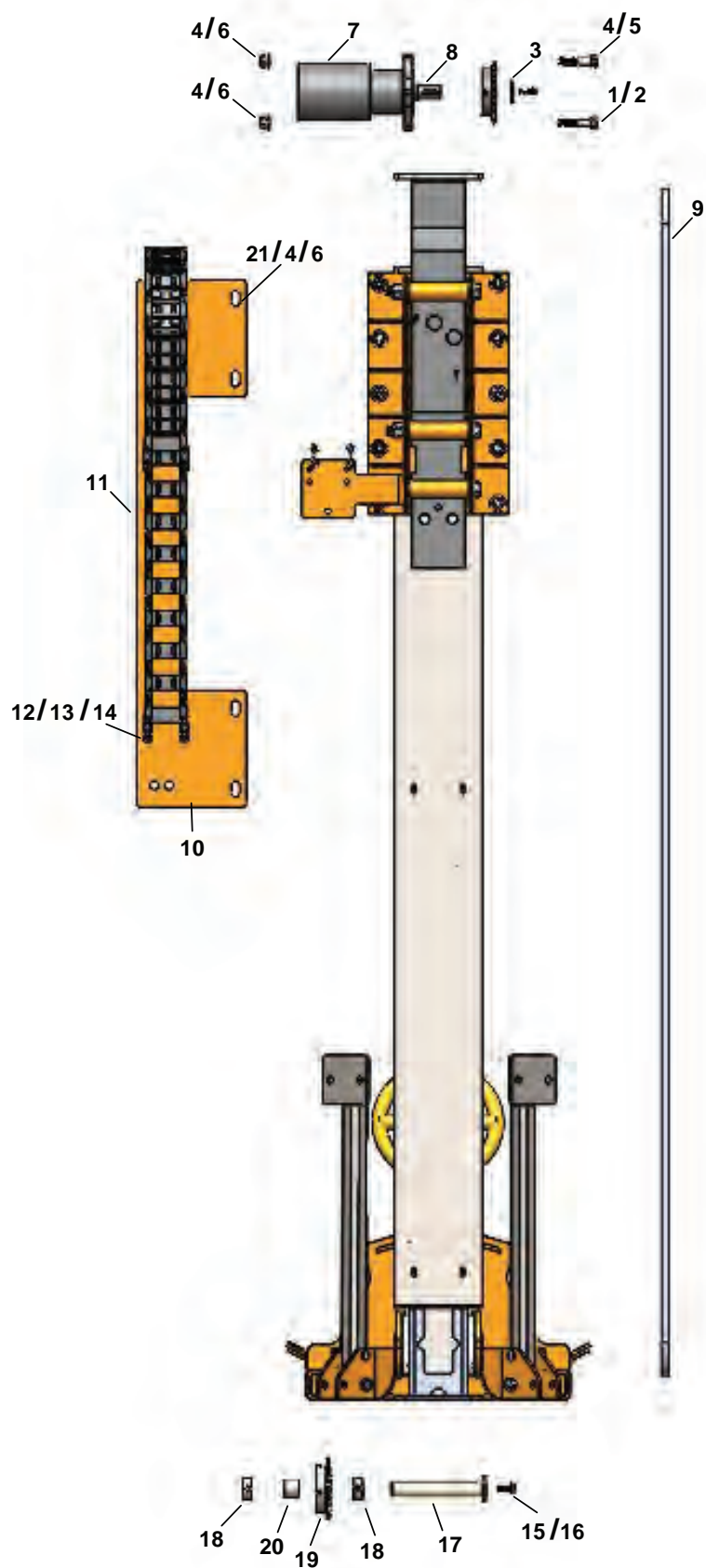
## 9.2 MAST PARTS



## 9.2 MAST PARTS

Item	Part Number	Description	Qty
1	361140	Weldment, Outrigger Leg	2
2	361092	Valve, Electric Solenoid, DM	1
3	361094	Valve, 60/40 DM	1
4	361090	Valve, Motor, DM	1
5	361091	Valve, Hammer, DM	1
6	361093	Valve, Electric Solenoid, DM	1
7	361043	Pad, Notched Wear UHMW	2
8	361045	Plate, Spacer, Toku Mount	2
9	361044	Pad, Wear UHMW	2
10	361028	Plate, Toku Mount, Rear	2
11	504003	1/2-13 x 2.75L HHCS Gr. 8 YZ	10
12	504000	SAE 1/2 Flt Wshr Thru HardYZ	32
13	518806	1/2 - 13 UNC Nylon Hex Nut YZ	14
14	504018	5/16 SAE Flt Wshr Thru HrdYZ	8
15	518827	5/16-18 x 4.0L HHCS GRD 8 YZ	4
16	518826	5/16-18 x 4.5L HHCS GRD 8"	4
17	504022	1/4" SAE Flt Washer	5
18	518828	1/4-20 x 2.5L HHCS GRD 8"	2
19	504020	1/4-20 X 2 HHCS GR8 YZ	4
20	504042	1/2 Dia x 2.5" Clevis Pin with Locking Pin	2
21	504019	1/2-13 x 3 HHCS GRD 8 YZ	2
22	361145	Turnbuckle Assembly (with Hardware)	1
23	361143	Spacer, Turnbuckle	4
24	361154	Mast	1
25	361156	Base	1

## *Parts*





## 9.3 MAST PARTS

Item	Part Number	Description	Qty
1	500001	1/4-20 x 1.0L HHCS GR8 YZ	1
2	504022	1/4" SAE Fit Wshr Thru Hard YZ	5
3	361078	Plate, Stop, DM Motor Sprocket	1
4	504000	SAE 1/2 Flt Wshr Thru HardYZ	32
5	500029	1/2-13 x 2-1/4 Gr 8 HHCS YZ	2
6	518806	1/2-13 UNC Nylon Hex Nut YZ	14
7	361035	Motor-Drive Master	1
8	361066	Woodruff Key - Hydraulic Motor	1
9	361034	Chain, ANSI 40 Roller	1
10	361128	Plate, Hose Guide	1
11	361032	Hose Cable Chain	1
12	504043	5mm SAE Washer	16
13	504035	M5 x 0.8mm x 70mm HHCS ZINC	8
14	518825	M5x0.8mm Class 8 Zinc Nylock	8
15	504005	SAE 3/8 Flt Wshr Thru Hard YZ	1
16	551308	3/8-16 x 1 IN HHCS	1
17	361135	Weldment, Pivot Pin	1
18	361065	Shaft Collar 1 Diam	2
19	361067	Sprocket, DM Mast	1
20	361113	Bearing - High Load Oil	1
21	500178	1/2-13 x 1-1/2" Gr 5 HHCS	4

## 10. Warranty

Rhino Tool Company warrants the original purchaser, purchasing the equipment in new condition, that the Rhino Skid Steer Attachment will be free from defects in workmanship and materials, for a period of one (1) year. This warranty is non-transferable, and does not include the Toku Hydraulic Hammer, which is backed by Toku's Warranty.

This Limited Warranty does not cover damage resulting from improper use, improper maintenance, or lack of maintenance/neglect, nor standard wear items (hydraulic hoses, etc.) from normal wear. Additionally, the Warranty does not extend to any product which has been subject to accident, nor does it extend to a unit that has been repaired, altered, or serviced by unauthorized persons. This Limited Warranty does not cover any damage or adjustments required, if such damage or adjustment is caused by the use of supplies, parts, or attachments not sold or approved by Rhino Tool.

EXCEPT AS OTHERWISE PROVIDED HERIN, RHINO TOOL DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. UNDER NO CIRCUMSTANCES SHALL RHINO TOOL BE LIABLE FOR ANY LOSS OF BUSINESS, REVENUES, OR PROFIT OR OTHER INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGE OR LOSS ARISING OUT OF ANY EFFECTS IN OR PERFORMANCE OF THE Post driver ATTACHMENT, HOWEVER CAUSED.

## NOTES

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