

## PD-110<sup>°</sup> / PD-140<sup>°°</sup> PD-200<sup>°°</sup>

## AIR-OPERATED POST DRIVER OWNERS MANUAL

CE MODELS: 070593, 070594, 070746, 070758



#### TAKE SAFETY SERIOUSLY

This book contains important safety information. Please read it carefully.



i

Your safety, and the safety of others, is very important. The proper and safe use of your Rhino<sup>®</sup> post driver is an important responsibility and should be taken seriously.

Keep this owner's manual available, so you can refer to it at any time. This owner's manual is considered a permanent part of the post driver and should remain with the post driver if resold.

The information and specifications included in this publication were in effect at the time of approval for printing. Rhino Tool Company, Inc. reserves the right, however, to discontinue or change specifications or design at any time without notice and without incurring any obligation whatever. No part of this publication may be reproduced without written permission from:

Rhino Tool Company

To help you make informed decisions about safety, you will find important safety information in a variety of forms, including:

- · Safety Labels on the post driver
- Safety Messages Preceded by a safety alert symbol and one of three signal words, DANGER, WARNING, or CAUTION. These signal words mean:



Immediate hazards that will result in severe personal injury or death.



Hazards or unsafe practices that could result in personal injury.

**▲** CAUTION

Hazards or unsafe practices that could result in injury, product or property damage.

- Safety Headings such as IMPORTANT SAFETY INFORMATION.
- · Safety Section such as POST DRIVER SAFETY.
- Instructions how to use this post driver correctly and safely.

#### CONTENTS

| SectionPa  | age |
|--|-----|
| Safety Symbol Description                                      | i   |
| Introduction   | 1   |
| Rhino <sup>®</sup> PD-110, PD-140 and PD-200 Safety            | 3   |
| Chuck Sizing Guide   | 6   |
| Assembling to PD-110, PD-140 and PD-200 to Post Driving System | 7   |
| Rhino® PD-110/PD-140/PD-200 Operating Instructions             | 11  |
| Rhino® PD-110/PD-140/PD-200 Service Instructions               | 13  |
| Rhino <sup>®</sup> PD-110 Parts List                           | 14  |
| Rhino <sup>®</sup> PD-140 Parts List                           | 16  |
| Rhino <sup>®</sup> PD-200 Parts List                           | 18  |
| Limited Warranty and Registration                              | 20  |
| Troubleshooting  | 21  |

#### INTRODUCTION

Congratulations on your selection of a Rhino<sup>®</sup> Post Driver. Our Air Operated Post Drivers are built with extremely high quality components. With proper care and maintenance, your Rhino<sup>®</sup> Post Driver will give you many years of trouble free service. See the chart on page 2 for post driving applications these drivers are designed for.

We suggest you read the warranty information fully and understand its coverage and your responsibilities of ownership. To receive a one-year warranty extension on the driver components, fill out the registration card supplied with your driver or log on to http://rhinotool.com/contact-support/warrantyinformation/ and fill out the owner's registration.

When your Rhino<sup>®</sup> post driver needs scheduled maintenance, our fully trained technical service staff here at Rhino Tool Company is standing by to assist you if you require assistance.

THANK YOU for choosing a genuine Rhino<sup>®</sup> post driver.

Kindest Regards, The Rhino Tool Team

| Model  | PD-110                        | PD-140                        | PD-200                        | PD-200                        |
|--|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Duty   | Heavy Duty                    | Heavy Duty                    | Heavy Duty                    | Heavy Duty                    |
| Air Consumption CFM@100 psi (6.9 Bar)            | 64 (1.81m <sup>3</sup> / min) | 64 (1.81m <sup>3</sup> / min) | 72 (2.04m <sup>3</sup> / min) | 72 (2.04m <sup>3</sup> / min) |
| Wt. lb (kg)                                      | 109.16 (49.5)                 | 138.4 (62.8)                  | 170 (77.11)                   | 177 (80.28)                   |
| Master Chuck inches (mm)                         | 4-1/4" ID (107.9 mm)          | 4-1/4" ID (107.9 mm)          | 5-1/2" ID (139.7 mm)          | 7" ID (177.8 mm)              |
| Applications - inches (mm)                       |                               |                               |                               |                               |
| 1-1/4" to 1-1/2" Pipe (31.75 to 38)              | X•                            |                               |                               |                               |
| 1-5/8" Round Post (40.6)                         | X•                            | X•                            |                               |                               |
| 2 - 2 1/2" Pipe (50.8 to 63.5)                   | X•                            | X•                            | X•                            | X•                            |
| 3" Pipe (76.1)                                   | X●∻♦                          | Xe**                          | X•*+                          | X•**                          |
| 3-1/2" Pipe (88.9)                               | X♦                            | X♦                            | X•**                          | X•**                          |
| 4" Pipe (101.6)                                  | X∎∻♦                          | X=**                          | Xe**                          | X•*+                          |
| 5" to 6" Pipe (127 to 152.39)                    |                               |                               |                               | X•*+                          |
| T-Posts  | X•                            | X•                            |                               |                               |
| Telespar Post                                    | X•                            | X•                            | X•                            | X•                            |
| Telespar Post Breakaway Anchor 2-1/2" (63.5)     | X●∻♦                          | Xe**                          | Xe**                          | X•**                          |
| Telespar Post Breakaway Anchor 3" (76.1)         |                               | Xe**                          | X•*+                          | X•*+                          |
| 1.2 to 4 lbs/ft Channel Post                     | Х•                            | X•                            |                               |                               |
| Channel Post Breakaway Anchor                    | Xe**                          | Xe**                          |                               |                               |
| C Post   | Х                             | Х                             | Х                             | Х                             |
| Super C Post                                     |                               | Х                             | Х                             | Х                             |
| Well Points (Sand Points)                        |                               | Х                             | Х                             | Х                             |
| 4" x 4" Wood Post (101.6 x 101.6)                | X                             | X                             | Х                             | Х                             |
| 4" x 6" H Column Guardrail Post (101.6 x 152.39) | X∎∻♠                          | X=**                          | X=**                          | X∎∻♦                          |
| 6" x 6" Wood Posts (152.39 x 152.39)             |                               |                               | X∎                            | X                             |
| 12" Sheet Piling (304.79)                        |                               | X                             | X                             | X                             |

■ An optional master chuck is required ● An adapter is required

#### RHINO<sup>®</sup> PD-110/PD-140, PD-200 SAFETY

The Rhino® PD-110, PD-140, and PD-200 Post Drivers are designed to drive many types of post and other like items into the ground. (See Chart on left) Uses, other than those intended, can result in injury to the operator, others near by, or damage to the driver and to the surrounding area may result as well.

This post driver is intended for use by professional installers. Never allow untrained personnel or children to operate this tool.

Most accidents can be prevented if you follow all instructions in this manual and on the post driver. The most common hazards are described in the following text, along with the best method to protect yourself and others. If you or any operator doesn't understand any of the instructions, call Rhino at (309) 853-5555 or toll free 866-707-1808. In Europe contact Eurogate Int. (0031) (0) 523 638286 or (0031) (0) 610 502607. It is VERY **IMPORTANT** to understand that your driver is a very powerful machine.



#### **AVOID SERIOUS INJURY OR DEATH, READ BEFORE USING YOUR POST DRIVER!**



#### **UNDERGROUND UTILITIES: Be**

absolutely sure you know location of all underground utilities before driving so you

can avoid hitting them while driving a post into the ground. Utilities include but are not limited to Electric, Gas, Telephone,

#### **IMPORTANT SAFETY INFORMATION**

Water, Sewer, TV Cable, Lawn Sprinklers, Etc. Hitting an underground utility could be EXTREMELY DANGEROUS for the operator and others.



**DANGER** AIR PRESSURE: It is strongly recommended that you use a Filter-

Regulator-Lubricator combination with your Rhino Air Operated Post Driver. The use of the pressure regulator is required for safety. Set the pressure regulator at 100 PSI (7 kg/ cm<sup>2</sup>). Higher air pressures will not make your driver perform better. High air pressure could cause your post driver to lift off and fall from the post causing serious injury or death. DO NOT tie down the throttle valve so it will not shut off when released. If the throttle valve does not stop the unit immediately when released, repair or replace it. Slowly squeeze the air throttle valve lever to start the driver. Opening the throttle valve slowly will prevent a violent start of the driver. Never use anything to keep the throttle valve lever in the open position other than the operator's hand. For safety, the valve must close, stopping the drive, when the operator releases the valve lever.

## DANGER

CHUCK SIZING: A chuck or chuck adapter that is too large for the post being driven may contribute to a condition which would

allow the post driver to fall from the post causing serious injury or death. Do not use a chuck or chuck adapter that is too large for the post being driven. The post should be loose in the chuck

#### RHINO® PD-110/PD-140, PD-200 SAFETY

or chuck adapter with a minimum of 1/8" (3 mm) clearance and not over 5/8" (15.9 mm) clearance. The post driver piston should hit the post as squarely as possible. If the fit is too loose, damage may be caused to the driver, chuck, or chuck adapter causing them to fail. Chucks and chuck adapters wear out and should be replaced as needed. Inspect your post driver's chuck and chuck adapters frequently. If you are in doubt, return your chuck, chuck adapter, or any other part to the factory, freight prepaid, for a free inspection.

**SAFETY EQUIPMENT:** Always wear the proper safety equipment when operating the post driver. This includes hard hat, safety glasses, safety shoes, ear protection, back supports, anti-vibration gloves, and any other safety equipment for the operator and other personnel near the driver as advised by, ANSI, NIOSH, OSHA, or any other safety regulatory agency, or the employer or the owner of this post driver.

**SAFETY CHECKS:** Check your driver daily for loose bolts, cracks, bulges or abnormalities in welds, castings, chuck or chuck adapters, top cover, piston, air line, or any other part. Do not repair any parts. Immediately replace excessively worn or defective parts with new parts. Do not run the unit with damaged or defective parts. If you are in doubt, return your driver, chuck, chuck adapter, or any other part to the factory, freight prepaid, for a free inspection.

#### IMPORTANT SAFETY INFORMATION

### \land WARNING

**NING** REMEMBER ALWAYS PUT SAFETY FIRST! Do not operate the post driver if any unsafe conditions are present.



**ON** Do not put anything but a post into the chuck on your driver.

▲ CAUTION

Do not operate your post driver unless it is on a post to be driven. Operation of the driver without it driving on a post could damage it.

**WARNING LABELS:** If your post driver's warning label is marred or destroyed, replace it immediately. Simply call Rhino Tool Company and we will send you a new warning label at no charge.

**LUBRICATION: YOU MUST OIL YOUR POST DRIVER WHILE IT IS OPERATING.** If you are using a Rhino<sup>®</sup> Filter-Regulator-Lubricator, set the lubricator on your FRL in the air line to the post driver so it will deliver approximately 10 drops of oil per minute. Preferably the Filter-Regulator-Lubricator should not be separated from the driver by more than 25 ft (7.62 m) of hose. Make certain that any new air hose between the Filter-Regulator-Lubricator and the post driver has been thoroughly lubricated. The procedure for lubricating the hose is as follows: Remove the air hose from your post driver and AFTER SECUR-ING THE AIR LINE SO IT CAN'T WHIP AROUND TO INJURE SOMEONE, open the lubricator wide open so that a

#### RHINO® PD-110/PD-140, PD-200 SAFETY

steady stream of oil will run into the air stream when the throttle valve has been activated. Actuate the air throttle valve and run the air through your hose until an oil film is noticeably coming out of the air hose where it connects to the driver. Periodically check to make sure your driver is receiving oil. Air and oil will be exhausted through the chuck. If in doubt, remove the air line from the driver and using the same procedures stated previously check to see if an oil film is being exhausted from the hose end that connects to the driver. If oil is coming out of the hose, reconnect the air hose to the driver.

Use SAE 5 wt. oil in cold weather, SAE 10 wt. oil for mild weather up to  $80^{\circ}$ F (27° C) and SAE 20 wt. oil for hot weather. We recommend non-detergent oil to prevent degradation of the air hose. Do not use synthetic oil as it impedes atomization of the oil in the airstream.

#### IMPORTANT SAFETY INFORMATION

**AIR SUPPLY:** You must have an adequate supply of clean air at the proper pressure. Air supplied to your post driver must be filtered. Drain water from the air compressor air tank prior to use. It is recommended that you use a Filter-Regulator-Lubricator to help remove water, rust and other particulate from the air supply. It will greatly increase the life of your post driver and decrease maintenance costs.

#### AIR REQUIREMENTS

PD-110 and PD-140: 64 CFM (1.81 m<sup>3</sup>/min.) @ 100 PSI (7 kg/  $cm^2$  @ 6.9 Bar). PD-200: 72 CFM (2.04 m<sup>3</sup>/min.) @ 100 PSI (7 kg/cm<sup>2</sup> @ 6.9 Bar)

AIR HOSE: It is recommended that you use a 3/4" (19.05 mm) double braid air hose with an oil resistant lining to supply air to your post driver.

#### RHINO<sup>®</sup> PD-110/PD-140, PD-200 CHUCK SIZING

(See Warning "CHUCK SIZING") Please note, chuck and chuck adapter sizes shown (**Chart 1**) are actual inside dimensions of the opening. To select the proper adapter, (**Fig. 1**) **measure the longest outside dimension** of the post to be driven to confirm it will fit inside the opening. In the case of square or rectangular posts measure the longest diagonal from corner to corner.

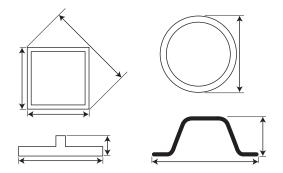


Fig. 1 - How to measure post to specify the appropriate chuck or chuck adapter  $% \left( {{{\mathbf{F}}_{i}}} \right)$ 

Chart 1 - Master chuck and chuck adapter sizes and part numbers.

Select the proper Chuck I.D. then order the part number under your post Driver's Model Number.

| Chuck/Adapter (mm)                    | PD-110   | PD-140   | PD-200<br>5-1/2"<br>(139.7) | PD-200<br>7" (177.8) |
|---------------------------------------|----------|----------|-----------------------------|----------------------|
| Description/Actual ID-in (mm)         | Part No. | Part No. | Part No.                    | Part No.             |
| 7" (177.8)                            |          |          |                             | Master               |
| 5-3/4" (146)                          |          |          |                             | 070791               |
| 5-1/2" (139.7)                        |          |          | Master                      |                      |
| 5-1/4" (133.4)                        |          |          |                             | 070790               |
| 5" (133.4)                            |          |          |                             | 070837               |
| 4-3/4" (120.6)                        |          |          | *070785                     | 070789               |
| 4-1/4" (107.9)                        | Master   | Master   | 070784                      | 070788               |
| 3-3/4" (95.3)                         |          |          | 070783                      | 070787               |
| 3-5/8" (92)                           | 070622   | 070634   |                             |                      |
| 3-1/8" (79.4)                         |          |          | 070782                      | 070786               |
| 3" (76.2)                             | 070623   | 070635   |                             |                      |
| 2-1/2 (63.5)                          | 070624   | 070636   | 070842                      | 070839               |
| 2 (50.8)                              | 070625   | 070637   |                             |                      |
| 1 to 1-1/2 lbs/ft Channel Post        | 070628   | 070640   |                             |                      |
| 2 to 2.75 lbs/ft Channel Post         | 070629   | 070641   |                             |                      |
| 3 to 4 lbs/ft Channel Post            | 070630   | 070642   |                             |                      |
| 4"x4" Square for Wood/Metal           |          | 070063   |                             | 070837               |
| Slotted Sheet Pile Chuck              |          | 070597   | 070597                      | 070597               |
| 4-3/4 Master Chuck                    | 070644   | 070644   | 070644                      | 070644               |
| 4"x6" Wood Master Chuck               | 071100   | 071100   | 071100                      | 071100               |
| 4"x6" Master Chuck H Column Guardrail |          | 070061   | 070061                      | 070061               |
| 6"x6" Square Master Chuck             |          |          | 070062                      | 070761               |

6

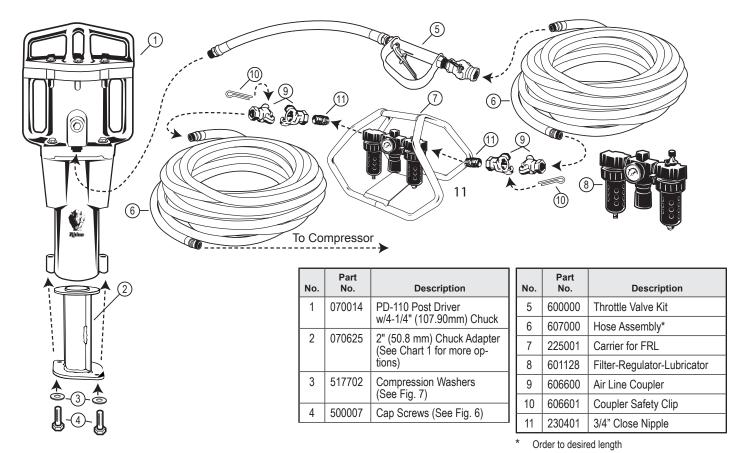


Fig. 2 - Connecting PD-110 to a post driving system.

7

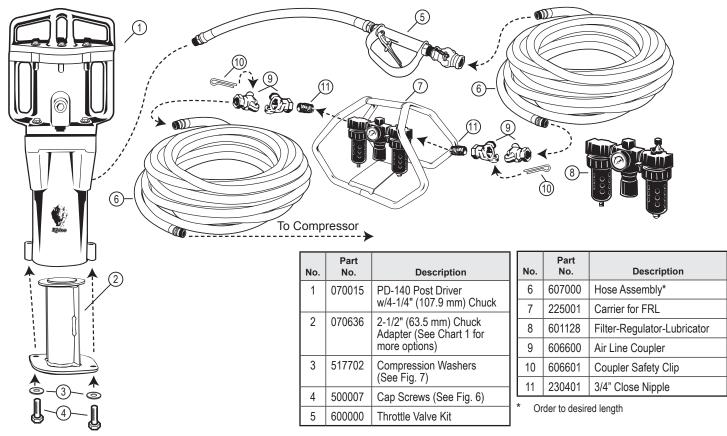


Fig. 3 - Connecting PD-140 to a post driving system.

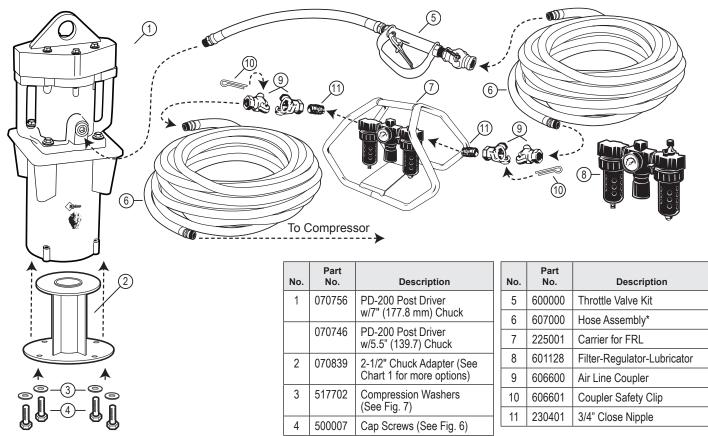


Fig. 4 - Connecting PD-200 to a post driving system.

\*Order to desired length

| No.    | Part<br>No. |                                 |
|--------|-------------|---------------------------------|
| 1      | 606600      | 00 Coupler                      |
| 2      | 606601      | 01 Safety Clip                  |
| 3      | 610024      | 24 Screen Filter Fitting        |
| 4      | 610026      | 26 Throttle Valve w/Lever Guard |
| 5      | 605006      | 06 3/4" (19 mm) Hose Per Foot*  |
| Air In | nlet        |                                 |

-

Fig. 5 - Assembly of the Throttle Valve.

#### RHINO® PD-110/PD-140, PD-200 SAFETY

It is very important to understand that your post driver is a very powerful machine. You must read and understand your post driver operating instructions before using the post driver. This post driver is intended for use by professional installers. Never allow untrained personnel or children to operate this tool.

Visually inspect your post driver before use. The interior of the chuck tube should be checked for obstructions or damage to the chuck tube. The outer surfaces of the driver should also be inspected for any defects. Check airlines for any abnormalities such as bulges, wear spots or tears and replace if necessary. Inspect all couplings are secure and safety clips are in place. Do not use if there is any damage or until the damage is corrected and repaired.

Keep the post driver lubricated per manufacturer's specifications.

1. Blow out air lines before coupling them to your post driver. This precaution will help remove any dirt that may have entered an open hose.



Do not turn on pressurized air through an unsecured air line; the air line could whip around causing serious injury.

2. If using a Rhino<sup>®</sup> FRL, check your Filter-Regulator-Lubricator. Make sure the regulator is set at no more than 100 PSI (7 kg/ cm<sup>2</sup>). See **DANGER: AIR PRESSURE** on page 3 for instructions. Make sure the filter bowl has been drained and the lubricator filled with the proper weight oil. See **LUBRICATION** on page 4.

#### **GENERAL OPERATING INSTRUCTIONS**

- 3. Do not use a chuck or chuck adapter that is too large for the post being driven. See **DANGER : CHUCK SIZING**, on page 3 for instructions. If the fit is too loose it is not safe to operate the driver, damage may occur to the driver and the driver may batter the end of the post.
- 4. Place the driver on the post to be driven. Position the driver (**Fig. 6**) aligned centered to the post. If not aligned properly, damage could be caused to the driver or the post. Slowly squeeze the air throttle valve lever to start the driver. Opening the throttle valve slowly will prevent a violent start of the driver. Never tape, wire, etc., the throttle valve lever open.

#### AIR REQUIREMENTS PD-110/PD-140: 64 CFM (1.81 m<sup>3</sup>/min.) @ 100 PSI (7 kg/cm<sup>2</sup>)

PD-200: 72 CFM (2.04 m<sup>3</sup>/min.) @ 100 PSI (7 kg/cm<sup>2</sup>)

Post Driver

**Fig. 6** - Proper alignment of driver and post.

#### RHINO® PD-110/PD-140, PD-200 SAFETY

#### **GENERAL OPERATING INSTRUCTIONS**

5. Keep dirt out of the chuck. It could enter the unit causing damage. If dirt gets into the chuck, disconnect the driver from the air supply, remove the chuck and clean out the dirt. Be careful to keep dirt out of the driver during reassembly and be sure the bolts holding the chuck are tight and properly torqued.

Make certain the surfaces are free of dirt, oil and grease. It is important to install compression washers properly or they will not lock the bolt securely. Place the compression washer with the center of the cone next to the bolt head being tightened (See Fig. 7). Then tighten the bolt with a torque wrench until the proper torque for the size of bolt being tightened is reached (See Fig. 8). Check bolt tightness daily.

If you are driving the same temporary posts time after time, the posts will tend to fill with dirt after a few drives. The dirt may be pumped out the top of the post into your driver, and could cause internal damage. Rhino Tool Company suggests you pinch the lower end of the post together, which will keep the dirt out.

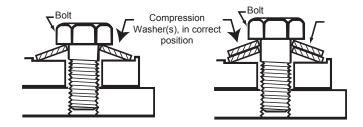


Fig. 7 - Proper installation of compression washer and bolts.

| Bolt Torque Chart |        |                |                  |  |  |
|-------------------|--------|----------------|------------------|--|--|
| Bolt Specifica    | ations | Maximum Torque | e Ft. Lbs. (N*m) |  |  |
| Thread Size Grade |        | Dry            | Lubed            |  |  |
| 7/16-14 UNC 5     |        | 49 (66.43)     | 37 (50.14)       |  |  |
| 1/2-13 UNC 5      |        | 75 (101.68)    | 57 (77.28)       |  |  |
| 7/16-14 UNC* 8    |        | 70 (94.9)      | 52 (70.5)        |  |  |
| 1/2-13 UNC* 8     |        | 105 (142.36)   | 80 (108.46)      |  |  |

\* PD-200 Only

Fig. 8 - Proper bolt torque. Refer to the data in the above chart when reconnecting the chuck to the driver after cleaning out dirt or foreign materials from inside the chuck.

#### RHINO<sup>®</sup> PD-110/PD-140, PD-200

SERVICE INSTRUCTIONS

Following the service requirements for the PD-110, PD-140, and PD-200 will insure years of trouble free post driving.



Before any service is performed ensure that the unit is disconnected from air supply and not under pressure.

Each Use:

- 1. Drain the water from the air compressor reservoir.
- 2. If using a Rhino<sup>®</sup> FRL, ensure the air pressure setting on the Filter Regulator Lubricator (FRL) is correct.
- 3. Check oil level on the FRL and fill when needed.

**NOTE** Please see the instructions in the Rhino<sup>®</sup> FRL owners manual for the FRL operation.

#### **Routinely:**

- 1. Drain the filter stage of the FRL regularly, especially in Summer. As needed clean the air filter element.
- 2. Check the bolts on your post driver to make sure they are tight. (See Fig. 8) Do not over torque the bolts.
- 3. If you suspect the piston is not moving freely, (See Warning above) disassemble the driver, inspect the piston and inside wall of the cylinder for galling. If evident, call Rhino Tool Company for assistance. If no damage is apparent, carefully insert the piston and position the driver body on its side. By

hand, cycle the driver's piston back and forth while rotating slightly to make sure it is not binding. Listen closely for scratching, and watch the inside wall of the cylinder for abrasion from the piston. If a new scratch appears, mark the location on the piston with a felt tipped marker. Carefully remove the piston, inspect the side aligned to the mark for nicks and use emery cloth to smooth out raised edges that are evident. Carefully reinsert the piston and repeat this process to ensure abrading is eliminated. Then reassemble and torque bolts accordingly. (See **Fig. 7 and 8**)

- 4. When storing the post driver for prolonged periods, add extra oil into the air inlet of the post driver. Slowly roll the driver over to allow the oil to coat all inside surfaces, then stand the driver upright, to allow any condensation to drain.
- 5. Immediately replace any damaged parts with new. If the driver is not performing properly, contact Rhino Tool Company. If the problem with your Rhino unit, any part or accessory is undetermined, contact Rhino Tool Company to obtain a "Return Goods Authorization" number (RGA), then send it freight prepaid to Rhino. Include your serial number if warranty is still in place. We will conduct a free examination to confirm what is wrong, advise you if unit can be repaired, and any costs to be incurred.
- 6. If warning labels are damaged, contact Rhino to receive free replacement labels.

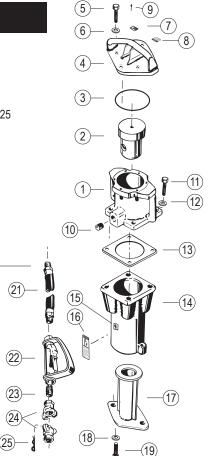
#### **RHINO® PD-110 DRIVER PARTS LIST**

| No.  | P/N    | Description   |  |  |  |
|------|--------|---|--|--|--|
|      | 070014 | Model PD-110 with 4-1/4" (107.9 mm) I.D. Master Chuck |  |  |  |
| 1    | 070585 | Body  |  |  |  |
| 2    | 070046 | Piston  |  |  |  |
| 3    | 499403 | D-ring  |  |  |  |
| 4    | 070595 | Top Cover   |  |  |  |
| 5    | 500022 | Cap Screw (6 per driver)                              |  |  |  |
| 6    | 517705 | Compression Washer (6 per driver)                     |  |  |  |
| 7    | 241    | Model/Serial No. Plate                                |  |  |  |
| 8    | 242    | Warning Plate   |  |  |  |
| 9    | 519004 | Metal Tack (8 per driver)                             |  |  |  |
| 10   | 230400 | Pipe Plug   |  |  |  |
| 11   | 500180 | Cap Screw (4 per driver)                              |  |  |  |
| 12   | 517702 | Compression Washer (4 per driver)                     |  |  |  |
| 13   | 700002 | Gasket  |  |  |  |
| 14   | 070593 | 4-1/4" (107.9 mm) I.D. Master Chuck Assembly*         |  |  |  |
| 15   | 135    | Rhino Decal   |  |  |  |
| 16   | 245    | Warning Label   |  |  |  |
| 17** | 070624 | (Optional) 2-1/2" (63.5 mm) I.D. Chuck Adapter        |  |  |  |
| 18   | 517702 | Compression Washer (2 w/optional adapter)             |  |  |  |
| 19   | 500007 | Cap Screw (2 w/optional adapter)                      |  |  |  |

\* Includes number 11, 12, 13, 14,

15, 16
\*\* See pages 4—6 for specifying Chuck Adapter to your application
\*\*\* Includes number 21, 22, 23,24, 25

(20)-



#### RHINO<sup>®</sup> PD-110 DRIVER PARTS LIST

| No.  | P/N    | Description   |  |  |  |  |
|--|--------|---|--|--|--|--|
| 20   | 600000 | Throttle Valve Kit w/ 5 ft. Hose Assembly***                      |  |  |  |  |
| 21   | 607000 | 3/4" (19 mm) Hose Assembly  |  |  |  |  |
|  | 605006 | 3/4" (19 mm) Hose Per Foot (Order Length Needed)                  |  |  |  |  |
| 22   | 610026 | Throttle Valve with Lever Guard                                   |  |  |  |  |
| 23   | 610024 | Screen Fitting  |  |  |  |  |
| 24   | 606600 | Coupler (2 per Throttle Valve Kit)                                |  |  |  |  |
| 25   | 606601 | Safety Clip   |  |  |  |  |
|  |        | Accessories   |  |  |  |  |
| 601128 Filter-Regulator-Lubricator                 |        |   |  |  |  |  |
| 225001 Carrier for the Filter-Regulator-Lubricator |        |   |  |  |  |  |
| 070622 PD 110 3 5/8" (92 mm) Chuck Adapter         |        | PD 110 3 5/8" (92 mm) Chuck Adapter                               |  |  |  |  |
| 070623 PD 110 3" (76 mm) Chuck Adapter             |        |   |  |  |  |  |
| 17   | 070624 | PD 110 2 1/2" (63.5 mm) Chuck Adapter                             |  |  |  |  |
|  | 070625 | PD 110 2" (50.8 mm) Chuck Adapter                                 |  |  |  |  |
|  | 070628 | PD 110 1-1 1/2# Channel Post Adapter                              |  |  |  |  |
|  | 070629 | PD 110 2-2 ¾# Channel Post Adapter                                |  |  |  |  |
| 070630 PD 110 3-4# Channel Post Adapter            |        | PD 110 3-4# Channel Post Adapter                                  |  |  |  |  |
|  | 071260 | 2" (50.8 mm) Drive Cap for Schedule 40 Pipe with T-Bar and Clip   |  |  |  |  |
|  | 071261 | 2 ½" (63.5 mm) Drive Cap for Schedule 40 Pipe with T-Bar and Clip |  |  |  |  |
|  | 071262 | 3" (76 mm) Drive Cap for Schedule 40 Pipe with T-Bar and Clip     |  |  |  |  |

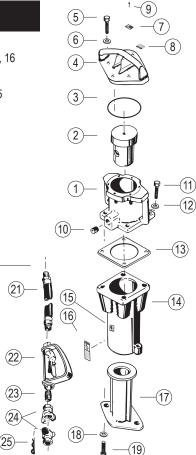
| No. | P/N    | Description  |
|-----|--------|--|
|     | 071263 | 3 ½" (89 mm) Drive Cap for Schedule 40 Pipe with Slammer Hammer                                  |
|     | 071264 | 4" (102 mm) Drive Cap for Schedule 40 Pipe with Slammer Hammer                                   |
|     | 070847 | PD 110 Adapter for the Channel Post Break-Away Anchor System                                     |
|     | 070836 | PD 55 Adapter for the Channel Post Break-Away Anchor System                                      |
|     | 071017 | PD 110 Adapter for the Square Tube Break-Away Anchor System                                      |
|     | 071004 | 1 ¼" (31.75 mm) Drive Cap for the Square Tube Break-Away Anchor System                           |
|     | 071005 | 1 ½" (38 mm)Drive Cap for the Square Tube Break-Away Anchor System                               |
|     | 071006 | 1 $\ensuremath{\overset{3}{\!$ |
|     | 071007 | 2" (50.8 mm) Drive Cap for the Square Tube Break-Away Anchor System                              |
|     | 071008 | 2 ¼" (57.15 mm) Drive Cap for the Square Tube Break-Away Anchor System                           |
|     | 071009 | 2 ½" (63.5 mm) Drive Cap for the Square Tube Break-Away Anchor System                            |
|     | 071217 | PDT 110 Transport Kit  |

#### **RHINO® PD-140 DRIVER PARTS LIST**

| No.  | P/N    | Description   | 1 |  |
|------|--------|---|---|--|
|      | 070015 | Model PD-140 with 4-1/4" (107.9 mm) I.D. Master Chuck | 1 |  |
| 1    | 070585 | Body  | ] |  |
| 2    | 070046 | Piston  | ] |  |
| 3    | 499403 | O-ring  |   |  |
| 4    | 070595 | Top Cover   |   |  |
| 5    | 500022 | Cap Screw (6 per driver)                              |   |  |
| 6    | 517705 | Compression Washer (6 per driver)                     | 1 |  |
| 7    | 241    | Model/Serial No. Plate                                | 1 |  |
| 8    | 242    | Warning Plate   | ] |  |
| 9    | 519004 | Metal Tack (8 per driver)                             | 1 |  |
| 10   | 230400 | Pipe Plug   | 1 |  |
| 11   | 500180 | Cap Screw (4 per driver)                              | 1 |  |
| 12   | 517702 | ompression Washer (4 per driver)                      |   |  |
| 13   | 700002 | Gasket  | 1 |  |
| 14   | 070594 | 4-14" (107.9 mm) I.D. Master Chuck Assembly*          | 1 |  |
| 15   | 135    | Rhino Decal   | ] |  |
| 16   | 245    | Warning Label   | ] |  |
| 17** | 070636 | (Optional) 2-1/2" (63.5 mm) I.D. Chuck Adapter        | 1 |  |
| 18   | 517702 | Compression Washer (2 w/optional adapter)             | 1 |  |
| 19   | 500007 | Cap Screw (2 w/optional adapter)                      | 1 |  |
| 20   | 600000 | Throttle Valve Kit w/ 5 ft. Hose Assembly ***         | 1 |  |

\* Includes numbers 11, 12, 13, 14, 15, 16 \*\* See page 4 for specifying Chuck Adapter to your application \*\*\* Includes number 21, 22, 23, 24, 25 (2)

(20)



#### RHINO<sup>®</sup> PD-140 DRIVER PARTS LIST

| No. | P/N    | Description   | No.    | P/N        | Description   |  |  |
|-----|--------|---|--------|------------|---|--|--|
| 21  | 607000 | 3/4" (19 mm) Hose Assembly  |        | 071263     | 3 1/2" (89 mm) Drive Cap for Schedule 40 Pipe with Slammer Hammer |  |  |
|     | 605006 | 3/4" (19 mm) Hose Per Foot (Order Length Needed)                  |        | 071015     | PD 140 Adapter for the Square Tube Break-Away Anchor System       |  |  |
| 22  | 610026 | Throttle Valve with Lever Guard                                   |        | 071004     | 1 ¼" (31.75 mm) Drive Cap for the Square Tube Break-Away Anchor   |  |  |
| 23  | 610024 | Screen Fitting  |        | 071005     | 1 1/2" (38.1 mm) Drive Cap for the Square Tube Break-Away Anchor  |  |  |
| 24  | 606600 | Coupler (2 per Throttle Valve Kit)                                |        | 071006     | 1 ¾" (44.45 mm) Drive Cap for the Square Tube Break-Away Anchor   |  |  |
| 25  | 606601 | Safety Clip   |        | 071007     | 2" (50.8 mm) Drive Cap for the Square Tube Break-Away Anchor      |  |  |
|     |        | Accessories   |        | 071008     | 2 ¼" (57.15 mm) Drive Cap for the Square Tube Break-Away Anchor   |  |  |
|     | 601128 | Filter-Regulator-Lubricator                                       |        | 071009     | 2 1/2" (63.5 mm) Drive Cap for the Square Tube Break-Away Anchor  |  |  |
|     | 225001 | Carrier for the Filter-Regulator-Lubricator                       |        | 070061     | 4x6 (101mm x 152mm) Master Chuck for H-Column Guardrail Post      |  |  |
|     | 070634 | PD 140 3 5/8" (92 mm) Chuck Adapter                               |        | 070062     | 4x6 (101mm x 152mm) Drive Cap for H-Column Guardrail Post         |  |  |
|     | 070635 | PD 140 3" (76.2 mm) Chuck Adapter                                 |        | 070063     | 4"x4" (101mm x 101mm) Wood/Metal Post Chuck                       |  |  |
|     | 070636 | PD 140 2 1⁄2" (63.5 mm) Chuck Adapter                             |        | 070597     | PD 140 Slotted Sheet Pile Master Chuck                            |  |  |
|     | 070637 | PD 140 2" (50.8 mm)Chuck Adapter                                  |        | 070644     | PD 140 4 ¾" Master Chuck Assy †                                   |  |  |
|     | 070640 | PD 140 1-1 1/2# Channel Post Adapter                              |        | 071264     | 4" (101.6 mm) Drive Cap for Schedule 40 Pipe with Slammer Hammer+ |  |  |
|     | 070641 | PD 140 2-2 3/4# Channel Post Adapter                              |        | 071218     | PDT 140 Transport Kit   |  |  |
|     | 070642 | PD 140 3-4# Channel Post Adapter                                  | . 0706 | 44 Require | d   |  |  |
|     | 070874 | PD 140 Adapter for the Channel Post Break-Away Anchor System      |        | des number |   |  |  |
|     | 070836 | Drive Cap for the Channel Post Break-Away Anchor System           |        |            |   |  |  |
|     | 071260 | 2" (50.8 mm) Drive Cap for Schedule 40 Pipe with T-Bar and Clip   |        |            |   |  |  |
|     | 071261 | 2 ½" (63.5 mm) Drive Cap for Schedule 40 Pipe with T-Bar and Clip | d Clip |            |   |  |  |
|     | 071262 | 3" (76.2 mm) Drive Cap for Schedule 40 Pipe with T-Bar and Clip   |        |            |   |  |  |

#### **RHINO® PD-200 DRIVER PARTS LIST**

| No. | P/N    | Description  |  |  |  |
|-----|--------|--|--|--|--|
|     | 070745 | Model PD-200 with 5-1/2" (139.7 mm)<br>I.D. Master Chuck |  |  |  |
| 1   | 070585 | Body   |  |  |  |
| 2   | 070046 | Piston   |  |  |  |
| 3   | 499403 | O-ring   |  |  |  |
| 4   | 070750 | Top Cover  |  |  |  |
| 5   | 500027 | Cap Screw (6 per driver)                                 |  |  |  |
| 6   | 517705 | Compression Washer (12 per driver)                       |  |  |  |
| 7   | 241    | Model/Serial No. Plate                                   |  |  |  |
| 8   | 242    | Warning Plate  |  |  |  |
| 9   | 519004 | Metal Tack (8 per driver)                                |  |  |  |
| 10  | 230400 | Pipe Plug  |  |  |  |
| 11  | 500180 | Cap Screw (4 per driver)                                 |  |  |  |
| 12  | 517702 | Compression Washer (4 per driver)                        |  |  |  |
| 13  | 700008 | Gasket   |  |  |  |
| 14  | 070746 | 5-1/2" (139.7 mm) I.D. Master Chuck<br>Assembly*         |  |  |  |
| 15  | 135    | Rhino Decal  |  |  |  |

|      |        | 1   |  |  |  |
|------|--------|---|--|--|--|
| No.  | P/N    | Description   |  |  |  |
| 16   | 245    | Warning Label   |  |  |  |
| 17** | 070782 | (Optional) 3-1/8" (79.4 mm) I.D. Chuck<br>Adapter for 5-1/2" Master** |  |  |  |
| 18   | 517702 | Compression Washer (4 w/optional adapter)                             |  |  |  |
| 19   | 500007 | Cap Screw (4 w/optional adapter)                                      |  |  |  |
| 20   | 600000 | Throttle Valve Kit w/ 5 ft. Hose Assembly ***                         |  |  |  |
| 21   | 607000 | 3/4" (19 mm) Hose Assembly  |  |  |  |
|      | 605006 | 3/4" (19 mm) Hose Per Foot (Order Length Needed)                      |  |  |  |
| 22   | 610026 | Throttle Valve with Lever Guard                                       |  |  |  |
| 23   | 610024 | Screen Fitting  |  |  |  |
| 24   | 606600 | Coupler (2 per Throttle Valve Kit)                                    |  |  |  |
| 25   | 606601 | Safety Clip   |  |  |  |
|      | 070756 | Model PD-200 with 7" (177.8 mm) I.D.<br>Master Chuck                  |  |  |  |

6 8 3 2 1 (10)13 (15) (14) 16 (23 17 B (24 (18)

19

20

25

5

\* Includes numbers 11, 12, 13, 14, 15, 16 \*\* See page 4 for specifying Chuck Adapter to your application \*\*\* Includes number 21, 22, 23, 24, 25 † Includes number 11, 12

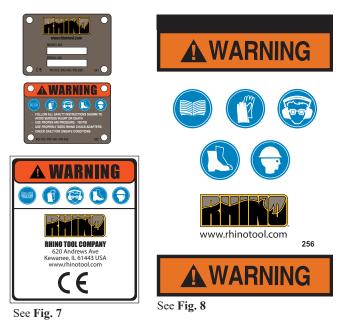
| No. | P/N    | Description   | No.    | P/N              |               |
|-----|--------|---|--------|------------------|---------------|
|     |        | Accessories (mm)  | 5-1/2" | (139.7 mn        | n) Mas        |
|     | 601128 | Filter-Regulator-Lubricator                                       |        | 070842           | PD 2          |
|     | 225001 | Carrier for the Filter-Regulator-<br>Lubricator                   |        | 071080           | PD 2          |
|     | 071260 | 2" (50.8) Drive Cap for Schedule 40<br>Pipe with T-Bar and Clip   | 17     | 070782<br>070783 | PD 2<br>PD 2  |
|     | 071261 | 2 ½" (63.5) Drive Cap for Schedule 40<br>Pipe with T-Bar and Clip |        | 070784<br>070785 | PD 2<br>PD 2  |
|     | 071262 | 3" (76.2) Drive Cap for Schedule 40<br>Pipe with T-Bar and Clip   |        | 071034           | PD 2<br>the 3 |
|     | 071263 | 3 ½" (89) Drive Cap for Schedule 40<br>Pipe with T-Bar and Clip   |        | 071039           | Awa           |
|     | 071264 | 4" (101.6) Drive Cap for Schedule 40<br>Pipe with T-Bar and Clip  |        | 070836           | Brea<br>Drive |
|     | 070061 | 4"x6" (101mm x 152mm) H Column<br>Chuck** †                       |        | 071043           | Awa           |
|     | 070062 | 4"x6" (101mm x 152mm) H Drive Cap                                 |        |                  | Brea          |
|     | 070063 | 4"x4" (101mm x 101mm) Wood Post<br>Chuck** †                      |        | 071004           | 1 ¼"<br>Tube  |
|     | 070761 | PD 200 6x6 Master Chuck Assy                                      |        | 071005           | 1 ½"<br>Tube  |
|     | 070597 | PD 200 Slotted Sheet Pile Master<br>Chuck                         |        | 071006           | 1 ¾'<br>Tube  |

| 5-1/2" (139.7 mm) Master Chuck           070842         PD 200 2 ½" (63.5) Chuck Adapter           071080         PD 200 2 ½" (63.5) Funnel Adapter           17         070782         PD 200 3 1/8" (79) Chuck Adapter           070783         PD 200 3 ½" (86) Chuck Adapter           070784         PD 200 4 ¼" (105) Chuck Adapter           070785         PD 200 4 ¼" (105) Chuck Adapter           070786         PD 200 4 ¼" (121) Chuck Adapter           070787         PD 200 4 ¼" (121) Chuck Adapter           070788         PD 200 - 5 ½"MC (139.7) Adapter for the 3" Heavy Square Tube Break-Away Anchor System           071039         PD 200 Adapter for the Channel Post Break-Away Anchor System           070836         Drive Cap for the Channel Post Break-Away Anchor System           071043         PD 200 Adapter for the Square Post Break-Away Anchor System           071043         PD 200 Adapter for the Square Post Break-Away Anchor System           071043         PD 200 Adapter for the Square Post Break-Away Anchor System           071041         1¼" (31.75) Drive Cap for the Square Tube Break-Away Anchor System           071005         1½" (38) Drive Cap for the Square Tube Break-Away Anchor System           071005         1½" (38) Drive Cap for the Square Tube Break-Away Anchor System           071006         1¼" (44.45) Drive Cap for the Square Tube Break-Away An | No.    | P/N       | Description                         |
|--|--------|-----------|-------------------------------------|
| 071080         PD 200 2 ½" (63.5) Funnel Adapter           17         070782         PD 200 3 1/8" (79) Chuck Adapter           070783         PD 200 3 ¼" (86) Chuck Adapter           070784         PD 200 4 ¼" (105) Chuck Adapter           070785         PD 200 4 ¼" (105) Chuck Adapter           070786         PD 200 4 ¼" (121) Chuck Adapter           070785         PD 200 4 ¼" (121) Chuck Adapter           071034         PD 200 - 5 ½"MC (139.7) Adapter for<br>the 3" Heavy Square Tube Break-<br>Away Anchor System           071039         PD 200 Adapter for the Channel Post<br>Break-Away Anchor System           071036         Drive Cap for the Channel Post Break-<br>Away Anchor System           071043         PD 200 Adapter for the Square Post<br>Break-Away Anchor System           071043         PD 200 Adapter for the Square Post<br>Break-Away Anchor System           071004         1 ¼" (31.75) Drive Cap for the Square<br>Tube Break-Away Anchor System           071005         1 ½" (38) Drive Cap for the Square<br>Tube Break-Away Anchor System           071005         1 ½" (34) Drive Cap for the Square<br>Tube Break-Away Anchor System           071006         1 ¾" (44.45) Drive Cap for the Square   | 5-1/2" | (139.7 mm | n) Master Chuck                     |
| 17         070782         PD 200 3 1/8" (79) Chuck Adapter           070783         PD 200 3 ¾" (86) Chuck Adapter           070784         PD 200 4 ¾" (105) Chuck Adapter           070785         PD 200 4 ¾" (121) Chuck Adapter           070786         PD 200 4 ¾" (121) Chuck Adapter           070787         PD 200 4 ¾" (121) Chuck Adapter           070786         PD 200 - 5 ½"MC (139.7) Adapter for<br>the 3" Heavy Square Tube Break-<br>Away Anchor System           071039         PD 200 Adapter for the Channel Post<br>Break-Away Anchor System           070836         Drive Cap for the Channel Post Break-<br>Away Anchor System           071043         PD 200 Adapter for the Square Post<br>Break-Away Anchor System           071041         1¼" (31.75) Drive Cap for the Square<br>Tube Break-Away Anchor System           071005         1½" (38) Drive Cap for the Square<br>Tube Break-Away Anchor System           071005         1½" (34.5) Drive Cap for the Square<br>Tube Break-Away Anchor System           071006         1¾" (44.45) Drive Cap for the Square  |        | 070842    | PD 200 2 1/2" (63.5) Chuck Adapter  |
| 070783       PD 200 3 ¾" (86) Chuck Adapter         070784       PD 200 4 ¼" (105) Chuck Adapter         070785       PD 200 4 ¾" (121) Chuck Adapter         070786       PD 200 4 ¾" (121) Chuck Adapter         070787       PD 200 4 ¾" (121) Chuck Adapter         070788       PD 200 - 5 ½"MC (139.7) Adapter for<br>the 3" Heavy Square Tube Break-<br>Away Anchor System         071039       PD 200 Adapter for the Channel Post<br>Break-Away Anchor System         070836       Drive Cap for the Channel Post Break-<br>Away Anchor System         071043       PD 200 Adapter for the Square Post<br>Break-Away Anchor System         071041       1¼" (31.75) Drive Cap for the Square<br>Tube Break-Away Anchor System         071005       1½" (38) Drive Cap for the Square<br>Tube Break-Away Anchor System         071005       1½" (38) Drive Cap for the Square<br>Tube Break-Away Anchor System         071005       1½" (34.45) Drive Cap for the Square         071006       1¾" (44.45) Drive Cap for the Square   |        | 071080    | PD 200 2 1/2" (63.5) Funnel Adapter |
| 070784       PD 200 4 ¼" (105) Chuck Adapter         070785       PD 200 4 ¼" (121) Chuck Adapter         070785       PD 200 - 5 ½"MC (139.7) Adapter for<br>the 3" Heavy Square Tube Break-<br>Away Anchor System         071039       PD 200 Adapter for the Channel Post<br>Break-Away Anchor System         070836       Drive Cap for the Channel Post Break-<br>Away Anchor System         071043       PD 200 Adapter for the Square Post<br>Break-Away Anchor System         071043       PD 200 Adapter for the Square Post<br>Break-Away Anchor System         071004       1 ¼" (31.75) Drive Cap for the Square<br>Tube Break-Away Anchor System         071005       1 ½" (38) Drive Cap for the Square<br>Tube Break-Away Anchor System         071006       1 ¾" (44.45) Drive Cap for the Square  | 17     | 070782    | PD 200 3 1/8" (79) Chuck Adapter    |
| 070785       PD 200 4 ¾" (121) Chuck Adapter         071034       PD 200 - 5 ½"MC (139.7) Adapter for<br>the 3" Heavy Square Tube Break-<br>Away Anchor System         071039       PD 200 Adapter for the Channel Post<br>Break-Away Anchor System         070836       Drive Cap for the Channel Post Break-<br>Away Anchor System         070836       Drive Cap for the Square Post<br>Break-Away Anchor System         071043       PD 200 Adapter for the Square Post<br>Break-Away Anchor System         071004       1 ¼" (31.75) Drive Cap for the Square<br>Tube Break-Away Anchor System         071005       1 ½" (38) Drive Cap for the Square<br>Tube Break-Away Anchor System         071006       1 ¾" (44.45) Drive Cap for the Square  |        | 070783    | PD 200 3 ¾" (86) Chuck Adapter      |
| 071034       PD 200 - 5 ½"MC (139.7) Adapter for the 3" Heavy Square Tube Break-Away Anchor System         071039       PD 200 Adapter for the Channel Post Break-Away Anchor System         071039       PD 200 Adapter for the Channel Post Break-Away Anchor System         070836       Drive Cap for the Channel Post Break-Away Anchor System         071043       PD 200 Adapter for the Square Post Break-Away Anchor System         071043       PD 200 Adapter for the Square Post Break-Away Anchor System         071004       1 ¼" (31.75) Drive Cap for the Square Tube Break-Away Anchor System         071005       1 ½" (38) Drive Cap for the Square Tube Break-Away Anchor System         071006       1 ¾" (44.45) Drive Cap for the Square  |        | 070784    | PD 200 4 ¼" (105) Chuck Adapter     |
| the 3" Heavy Square Tube Break-<br>Away Anchor System         071039       PD 200 Adapter for the Channel Post<br>Break-Away Anchor System         070836       Drive Cap for the Channel Post Break-<br>Away Anchor System         071043       PD 200 Adapter for the Square Post<br>Break-Away Anchor System         071043       PD 200 Adapter for the Square Post<br>Break-Away Anchor System         071004       1 ¼" (31.75) Drive Cap for the Square<br>Tube Break-Away Anchor System         071005       1 ½" (38) Drive Cap for the Square<br>Tube Break-Away Anchor System         071006       1 ¾" (44.45) Drive Cap for the Square  |        | 070785    | PD 200 4 ¾" (121) Chuck Adapter     |
| Break-Away Anchor System           070836         Drive Cap for the Channel Post Break-<br>Away Anchor System           071043         PD 200 Adapter for the Square Post<br>Break-Away Anchor System           071004         1 ¼" (31.75) Drive Cap for the Square<br>Tube Break-Away Anchor System           071005         1 ½" (38) Drive Cap for the Square<br>Tube Break-Away Anchor System           071006         1 ¾" (44.45) Drive Cap for the Square  |        | 071034    | the 3" Heavy Square Tube Break-     |
| Away Anchor System       071043     PD 200 Adapter for the Square Post<br>Break-Away Anchor System       071004     1 ¼" (31.75) Drive Cap for the Square<br>Tube Break-Away Anchor System       071005     1 ½" (38) Drive Cap for the Square<br>Tube Break-Away Anchor System       071005     1 ½" (38) Drive Cap for the Square<br>Tube Break-Away Anchor System       071006     1 ¾" (44.45) Drive Cap for the Square  |        | 071039    |                                     |
| Break-Away Anchor System           071004         1 ¼" (31.75) Drive Cap for the Square<br>Tube Break-Away Anchor System           071005         1 ½" (38) Drive Cap for the Square<br>Tube Break-Away Anchor System           071006         1 ¾" (44.45) Drive Cap for the Square   |        | 070836    |                                     |
| Tube Break-Away Anchor System           071005         1 ½" (38) Drive Cap for the Square<br>Tube Break-Away Anchor System           071006         1 ¾" (44.45) Drive Cap for the Square  |        | 071043    |                                     |
| Tube Break-Away Anchor System           071006         1 ¾" (44.45) Drive Cap for the Square   |        | 071004    |                                     |
|  |        | 071005    |                                     |
|  |        | 071006    |                                     |

| No.     | P/N                      | Description  |  |
|---------|--------------------------|--|--|
|         | 071007                   | 2" (50.8) Drive Cap for the Square<br>Tube Break-Away Anchor System                              |  |
|         | 071008                   | 2 ¼" (57.15) Drive Cap for the Square<br>Tube Break-Away Anchor System                           |  |
|         | 071009                   | 2 <sup>1</sup> / <sub>2</sub> " (63.5) Drive Cap for the Square<br>Tube Break-Away Anchor System |  |
| 7" (178 | 7" (178 mm) Master Chuck |  |  |
|         | 070758                   | 7" (178 mm) I.D. Master Chuck As-<br>sembly*   |  |
|         | 070839                   | PD 200 2 1/2" (63.5) Chuck Adapter   |  |
|         | 070786                   | PD 200 3 1/8" (79) Chuck Adapter   |  |
|         | 070787                   | PD 200 3 ¾" (86) Chuck Adapter   |  |
|         | 070788                   | PD 200 4 ¼" (105) Chuck Adapter  |  |
|         | 070789                   | PD 200 4 ¾" (121) Chuck Adapter  |  |
|         | 070790                   | PD 200 5 ¼" (133) Chuck Adapter  |  |
|         | 070791                   | PD 200 5 ¾" (146) Chuck Adapter  |  |

#### **RHINO® PD-110-140-200 SERVICE INSTRUCTIONS**

The labels on the PD-110-140-200 contain important information about operating the machine safely. If these labels are missing or unreadable, new labels can be ordered, free of charge, from Rhino Tool Company. Refer to the spare parts list at the back of this manual. (See **Fig.7 and 8**)



#### Storage:

To clean the machine before storing; pour 1/2 oz (1.5 cl or 15ml) of oil directly into the air inlet nipple, connect the air hose to the compressed air source, and run the unit briefly. The machine should be stored in a dry place.

#### **Disposal:**

Dispose of the machine in a manner that as much of the machine materials are recycled and any effects on the environment are minimized as much as possible. **Warranty:** RHINO TOOL COMPANY warrants to the original purchaser for a period of thirty (30) days from the date of purchase that its Air Operated Post Driver is free from defects in manufacture and materials. In the event of a manufacturing defect during the Warranty period, the Post Driver must be returned freight prepaid to RHINO TOOL COMPANY. If inspection shows a defect in material or workmanship, RHINO will repair or replace without charge.

**Exclusive Remedy:** The sole and exclusive remedy under this Warranty is repair or replacement of the product by RHINO TOOL COMPANY.

Disclaimer: In no event shall RHINO TOOL COMPANY be liable for indirect, incidental or consequential damages arising from the sale or use of this product, at any time. RHINO TOOL COMPANY disclaims liability for any implied warranties, including implied warranties of "Merchantability" and "Fitness for a Specific Purpose".

**Limitation:** This Warranty **DOES NOT APPLY** to the physical appearance of any product or to any product that has been misused, abused, improperly maintained, altered or repaired by unauthorized persons, or to repairs required by normal wear and tear.

**Extended:** The purchaser may extend the original LIMITED WARRANTY above to **ONE YEAR** from the date of purchase, by registering the equipment with **RHINO TOOL COMPANY WITHIN THIRTY (30) DAYS OF DATE OF PURCHASE.** 

Transferability: The above Limited Warranty is non-transferable.

#### IMPORTANT

Instructions for obtaining optional extended warranty:

You must complete your Owner Registration by filling out the registration card supplied or the on-line warranty form within thirty (30) days of purchase. If you do not have internet access call us toll-free at 866-707-1808 and we will assist you.

Rhino will confirm your extended warranty after receiving your online submission or Owner Registration Card.

#### To register your product online visit:

http://rhinotool.com/contact-support/warranty-information/

#### **RHINO® PD-110-140-200 EC DECLARATION OF CONFORMITY**

#### Best practices for reducing vibration exposure:

- Wear full finger anti-vibration gloves.
- Place hand on post for only as long as required to stabilize the post in the ground. Once the post is stable, the operator's hand should be removed, so that the machine can drive the post to depth.
- Take frequent work breaks if using the post driver throughout the day.



| Model  | PD-110                       | PD-140                       | PD-200                       |
|--|------------------------------|------------------------------|------------------------------|
| Duty   | Heavy                        | Heavy                        | Heavy                        |
| Air Consumption CFM@90 psi (6.21 BAR)                    | 64 (1.81m <sup>3</sup> /min) | 64 (1.81m <sup>3</sup> /min) | 72 (2.04m <sup>3</sup> /min) |
| Wt. lb (kg)  | 109.16 (49.5)                | 138.4 (62.8)                 | 170(77.11)                   |
| Master Chuck inches (mm)                                 | 4-1/4" ID (107.9 mm)         | 4-1/4" ID (107.9 mm)         | 3-7/8" ID (98.4)             |
| Guaranteed sound power level (Lw guarantteed dB (A)      | 109 dB                       | 110 dB                       | 112 dB                       |
| Vibration Declared Three Axes values A (8)(m/s^2 value)* | 13.8 m/s^2                   | 15.8 m/s^2                   | 17.8 m/s^2                   |

\* Actual values may vary based on the type of ground into which the post is being driven and the material of the post.



# EC DECLARATION OF CONFORMITY

We declare under our sole responsibility that the products described as:

Pneumatic Post Driver, of the type: PD-55, PD-110, PD-140, PD-200

manufactured by:

Rhino Tool Company 620 Andrews Avenue Kewanee, Illinois 61443 United States of America

ited within the European Community by: repres

EuroGate Internationa Galileistraat 6 7701 SK Dedemsvaa The Netherlands

Directi the Machinery 5 are meeting the applicable p to which this declaration relates, 2006/42/EC.

were applied: Harmonised standards which

NEN-EN-ISO 4414:2010

NEN-EN-ISO 12100:2010

leral rules and safety requirements for

Safety of machinery - General principles for design - Risk and risk reduction

Pneumatic fluid power – Gener systems and their components

Rhino Tool Company Inc. On behalf of:

Name: James Martin

JANK

Name: Busine Signal

EuroGate International PIETER

On behalf of:

D.D

position:

Business position: President

Signature:

Rhino Tool Company 5/5/2017 Place, bate:

alps/2017.

DEDETSUAAR

Place, Date

#### NOTES:

| Symptom  | Explanation/Procedure  |
|--|--|
| Post lodged in the driver                                | <ol> <li>Remove the 2 bolts that secure the adapter and separate the driver from the adapter.</li> <li>Slide the adapter down the post to expose the top of the post. With the proper cutting tool for the type of post, cut through the post below the flared portion.</li> <li>Once the deformed portion is removed, slide the adapter off the post and reassemble it to the driver. Please follow bolt tightening procedure.</li> </ol>   |
| Drives post slow<br>or sluggish<br>performance           | <ol> <li>Inspect the chuck to see if there is any foreign material blocking the piston.</li> <li>Check to see if piston is moving freely by disconnecting the driver from air, tipping upside down and back upright.<br/>You should be able to hear the piston moving freely.</li> <li>Check to ensure the rate of lubrication is adequate.</li> <li>If using a FRL, inspect the filter on the FRL, if impacted with residue replace with new filter.</li> <li>Inspect the filter on the Throttle. If clogged, blow off debris with air hose, or clean with a common cleaning solvent.</li> <li>Check to see if air pressure is correct</li> <li>Check output on compressor</li> <li>In temperatures under 40°F (4°C) or high humidity conditions check air lines and tool for icing.</li> </ol> |
| Noticeable air passing<br>through driver or<br>"blow by" | To confirm this condition exists, connected to air source, place driver on a post, while activating the throttle lift the driver slightly if the piston increases in activity blow by is confirmed. This indicates there is most likely damaged or worn parts inside the driver. In this event the driver should be sent to Rhino Tool Company to be inspected and we will report if the driver is repairable.   |
| Other problems or technical questions                    | Other problems or technical questions: Document your serial number and contact Rhino Tool Company. Phone: 309.853.5555 or Toll Free 866-707-1808, Fax:309.856.5905, Email: service@rhinotool.com. In Europe contact Eurogate Int. F: (0031) (0) 523 638286, M: (0031) (0) 610 502607.  |



#### A TRADITION OF QUALITY AND SERVICE SINCE 1975

WWW.RHINOTOOL.COM

Form 000307-01/2017

Rhino Tool Company, Inc. | P.O. Box 111 | Kewanee, IL 61443 | 309.853.5555 | 866-707-1808