



PD-55™

**AIR-OPERATED POST DRIVER
OWNERS MANUAL**

MODEL: 070013



TAKE SAFETY SERIOUSLY

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



Your safety, and the safety of others, is very important. The proper and safe use of your Rhino® 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.

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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.



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.

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INTRODUCTION

Congratulations on your selection of the Rhino® PD-55 post driver. We are certain that you will be pleased with your purchase. Rhino® Air Operated Post Drivers are built with extremely high quality components. From the cast body to the piston, each component and alloy steel accessory for the drivers are first quality and when operated and stored properly will serve you for years. See the chart to the right for post driving applications these drivers are suited for.

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

When your Rhino® post driver needs scheduled maintenance, the technical service staff here at Rhino Tool Company is standing by to assist you. Our fully trained staff can walk you through the process of inspecting and maintaining your post driver if you experience difficulty. Again, congratulations on your selection and from the dedicated team here at Rhino Tool Company, THANK YOU for choosing a genuine Rhino® post driver.

Kindest Regards,
The Rhino Tool Team

Model	PD-55
Duty	Medium
Air Consumption CFM@90 psi (6.21 BAR)	42 (1.19m ³ /min)
Wt. lb (kg)	54.6 (24.8)
Master Chuck inches (mm)	3-7/8" ID (98.4)
Applications inches (mm)	
Fiberglass T Posts	X
3/4" (19) to 1" (25.4) Ground Rod	X
3/4" (19) to 1-1/2" (38) Reinforcing Bar Tent Stakes	X
1" (25.4) Concrete Form Pins	X
1" (25.4) Pipe	X
1-1/4" (31.75) to 1-1/2" (38) Pipe	X
1-5/8" (40.6) Pipe	X
2" (50.8) Pipe	X
2-1/2" (63.5)	X
3" (76.1) Pipe	X
T Posts	X
Telespar Posts	X
Telespar Post Breakaway Bases *	X
1.2 to 1.5 lbs/ft Channel Posts	X
2 to 2.75 lbs/ft Channel Posts	X
3 to 4 lbs/ft Channel Posts	X
Channel Post Breakaway Bases *	X
C Posts	X
Rectangular Posts	X

* To drive these type of posts close to the ground you will need to order a special driving cap or adaptor. Contact your Rhino servicing dealer for information.

Rhino® PD-55 SAFETY

The Rhino® PD-55 Post Drivers are designed to drive many types of post and other like items into the ground. (See Chart on page iii) 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.



DANGER

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



DANGER

UNDERGROUND UTILITIES: Be absolutely sure you know where all underground utilities are 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 in combination with your Rhino

Air Operated Post Driver. The use of the pressure regulator is required for safety. Set the pressure regulator at 90 PSI (6.2 bar). 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 or

PD-55 DRIVER SAFETY... continued

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 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.

WARNING **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, antivibration 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.

WARNING **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



WARNING

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



CAUTION

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 using a FRL, set the lubricator on your Filter-Regulator-Lubricator 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. (79 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 SECURING THE AIR LINE SO IT CAN'T WHIP AROUND TO INJURE SOMEONE**, open the lubricator wide open so that a steady

PD-55 DRIVER SAFETY... continued

stream of oil runs into the air stream after the throttle valve has been activated.

Actuate the air throttle valve and run the air through your hose (aimed at a piece of cardboard) until an oil film is seen 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 above 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 to 80° C (27° F) 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

IMPORTANT SAFETY INFORMATION

in the airstream.

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 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-55: 42 CFM (1.19 m³/min.) @ 90 PSI (6.2 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® PD-55 Chuck Sizing



WARNING

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!

Please note, chuck and chuck adapter sizes shown (**Chart 1**) are actual inside dimensions of the opening. To select the proper adapter, **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 illustrates how to measure your post outside dimensions to specify the appropriate adapter.

Model	PD-55
Description/Actual ID in (mm)	Part No.
4-1/4 (107.9)	Optional Master
3 7/8 (98.4)	Master
3-1/2 (88.9)	070609
3 (76.2)	070610
2-1/2 (63.5) Adapter	070611
2 (50.8) Heavy Adapter	070615
2 (50.8) Adapter	070612
1-1/2 (38.1) Adapter	070613
1 (25.4) Adapter	070614
1.2 to 1.5 Channel	070617
2 to 2.75 Channel	070618
3 to 4 Channel	070619
4-1/16 (103.2) Square Wood Post Chuck	070590

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

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

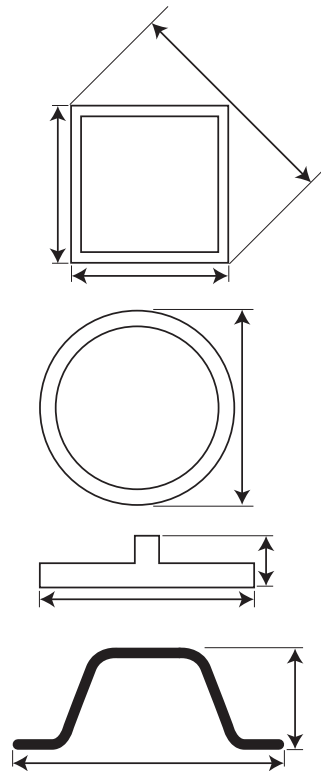


Fig. 1 - How to measure post to specify the appropriate chuck or chuck adapter

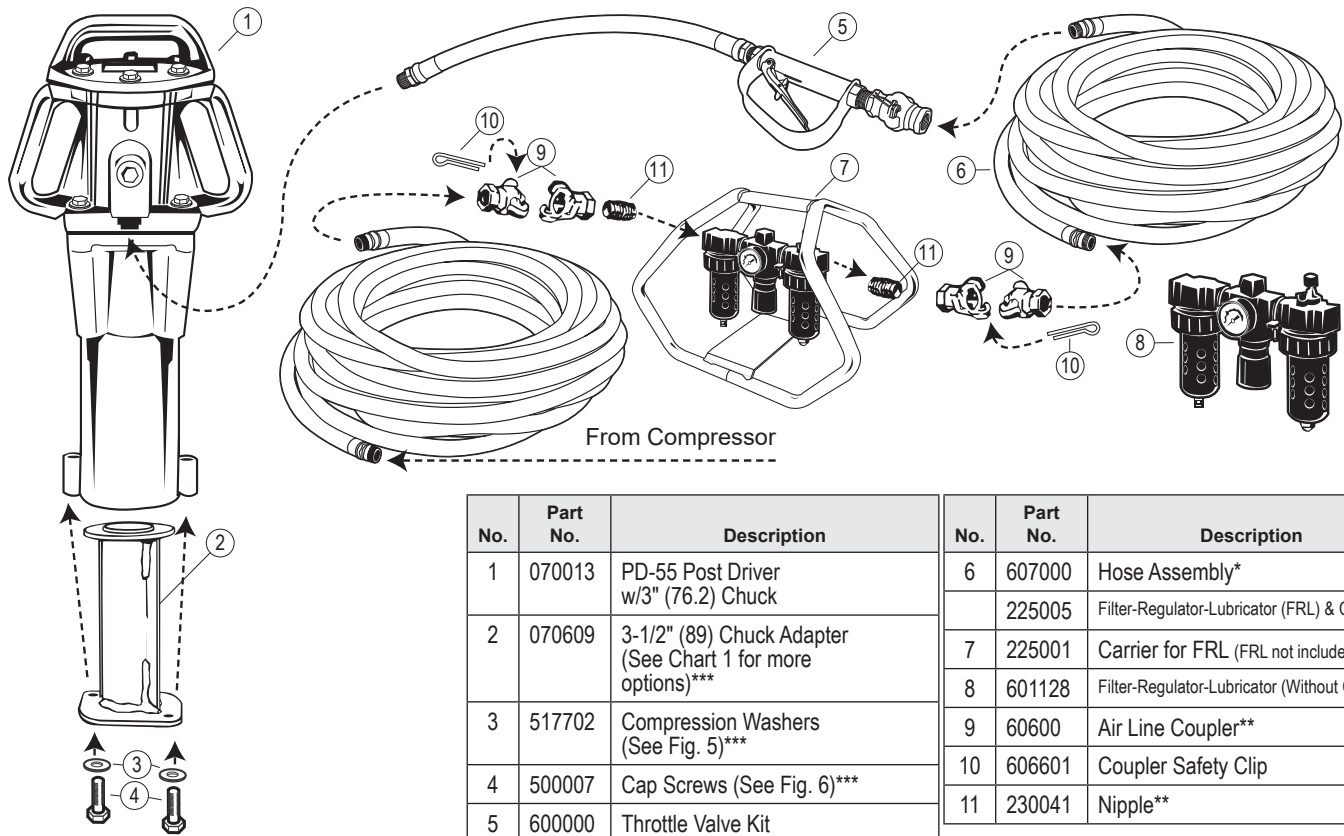


Fig. 3 - Connecting PD-55 to a post driving system.

No.	Part No.	Description	No.	Part No.	Description
1	070013	PD-55 Post Driver w/3" (76.2) Chuck	6	607000	Hose Assembly*
2	070609	3-1/2" (89) Chuck Adapter (See Chart 1 for more options)***		225005	Filter-Regulator-Lubricator (FRL) & Carrier
3	517702	Compression Washers (See Fig. 5)***	7	225001	Carrier for FRL (FRL not included)
4	500007	Cap Screws (See Fig. 6)***	8	601128	Filter-Regulator-Lubricator (Without Carrier)
5	600000	Throttle Valve Kit	9	60600	Air Line Coupler**
			10	606601	Coupler Safety Clip
			11	230041	Nipple**

* Order to desired length

** Optional on FRL

*** Optional - includes items 3 and 4

Rhino® PD-55 General Operating Instructions

It is very important to understand that your post driver is a very powerful machine. With proper care and maintenance, your Rhino® PD-55 will give you many years of trouble free service. 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.



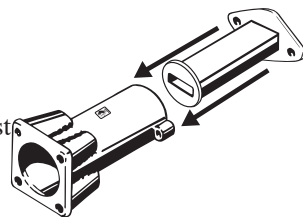
CAUTION

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

2. Check your Filter-Regulator-Lubricator. Make sure the regulator is set at no more than 90 PSI (6.2 bar). See **WARNING: AIR PRESSURE** on page 1 for instructions. Make sure the bowl has been drained and the lubricator filled with the proper

weight oil. See **LUBRICATION** on page 2.

3. Do not use a chuck or chuck adapter that is too large for the post being driven. See **WARNING: CHUCK SIZING**, on page 2 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. 4) 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.

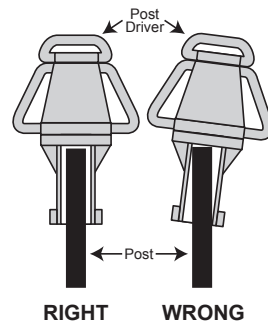


Fig. 4 - Proper alignment of driver and post.

AIR REQUIREMENTS

PD-55: 42 CFM (1.19 m³/min.) @ 90 PSI (6.2 bar)

Rhino® PD-55 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.

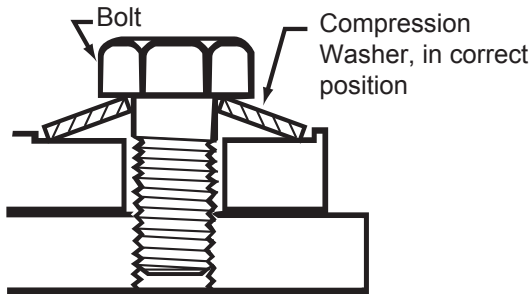


Fig. 5 - Proper installation of compression washer and bolts.

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. 5**). Then tighten the bolt with a torque wrench until the proper torque for the size of bolt being tightened is reached (See **Fig. 6**). 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. Rhino Tool Company suggests you pinch the lower end of the post together, which will keep the dirt out.

There are several benefits to doing this. It will decrease the weight of your temporary post stock by hundreds of pounds making it easier to handle the posts, it eliminates the mess of dried dirt falling out of the posts and eliminates hundreds of pounds of extra weight being hauled time and again by your trucks and trailers which saves you fuel.

Bolt Torque Chart		
Thread Size	Maximum Torque Ft. Lbs. (N*m)	
(Grade 5)	Dry	Lubed
7/16-14 UNC	49 (66.43)	37 (50.14)
1/2-13 UNC	75 (101.68)	57 (77.28)
3/8-16 UNC	31 (42.03)	23 (31.18)

Fig. 6 - 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® PD-55 Service Instructions

Following the service requirements for the PD-55 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. Ensure the air pressure setting on the FRL is correct.



3. Check oil level on the FRL and fill when needed.

Please see the instructions in the Rhino® FRL owners manual for the FRL operation.

Routinely:

1. Drain the filter stage of the FRL regularly, especially in winter. As needed clean the air filter element.
2. Check the bolts on your post driver to make sure they are tight. (See **Fig. 6**) Do not over torque the bolts.
3. If you suspect the piston is not moving freely, 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 posi-

tion 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. 6**)

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 or your Rhino representative. 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® Limited Warranty

Air Operated Post Drivers

Warranty: RHINO TOOL COMPANY warrants to the original purchaser for a period of One Year (12 months) 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.

Transferability: The above Warranty is non-transferable.

Important Instructions for obtaining warranty:

For Warranty Claims contact your dealer or distributor. Proof of purchase date and serial number is required. In the event of a warranty repair, the post driver should be returned to Rhino Tool Company. Rhino's obligation under this

Limited Warranty is expressly limited to the repair or replacement, at Rhino's election, of such defective Air Post Driver, which is proved to be defective upon inspection by a Rhino-certified/authorized technician.

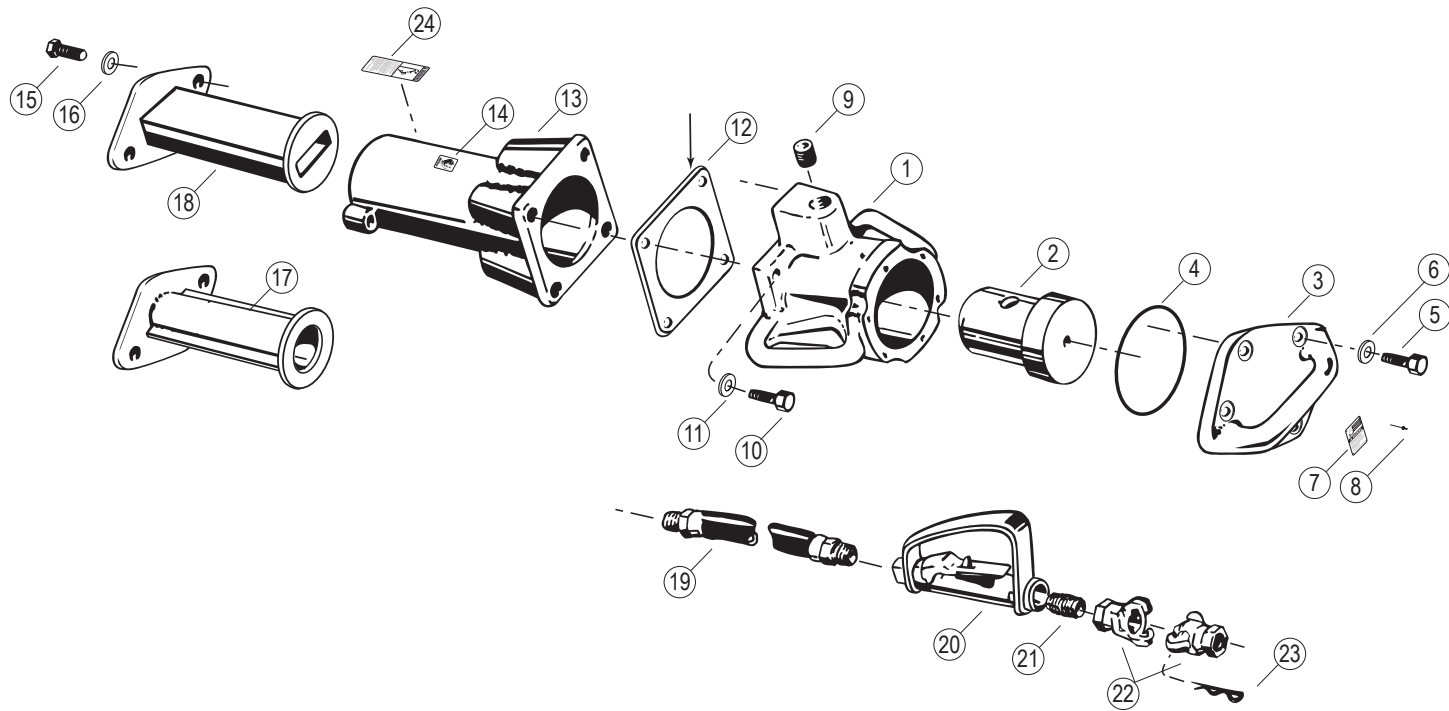
This Limited Warranty does not extend to an Air Powered Post Driver which has been subject to misuse, neglect, or accident, nor does it extend to any Air Powered Post Driver which has been repaired, altered, or serviced by unauthorized persons. This Limited Warranty does not cover any damage or adjustments required to any Air Powered Post Driver if such damage or adjustment is caused by the use of supplies, parts, or attachments not sold or approved by Rhino.

EXCEPT AS OTHERWISE PROVIDED HEREIN, RHINO DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. UNDER NO CIRCUMSTANCES SHALL RHINO BE LIABLE FOR ANY LOSS OF BUSINESS, REVENUES, OR PROFIT OR OTHER INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES OR LOSS ARISING OUT OF ANY DEFECTS IN OR PERFORMANCE OF THE AIR POWERED POST DRIVER, HOWSOEVER CAUSED.

IMPORTANT The purchase of a Rhino Tool, as outlined in the warranty terms, automatically serves as the product registration and the start of the customer's One year (12 months) warranty. The Rhino Service Technician will use our number marking on the tool and proof of purchase supplied by the customer, to determine if the tool is still covered by warranty.

To submit a warranty claim online: www.rhinotool.com/service/warranties/

Rhino® PD-55 Driver Parts List



Rhino® PD-55 Driver Parts List

Number	Part No.	Name	Number	Part No.	Name
	070013	Model PD-55 with 3-7/8" (98.4.2 mm) I.D. Master Chuck	15	500178	Cap Screw (2 w/optional adapter)
1	070580	Body	16	517702	Compression Washer (2 per driver) w/adapter
2	070034	Piston	17	070609	3 1/2" (88.9 mm) I.D. Chuck Adapter**
3	070581	Top Cover	18	070617	Channel Post Chuck Adapter**
4	499401	O-ring		600000	Throttle Valve Kit w/ 5 ft. Hose Assembly ***
5	500021	Cap Screw (6 per driver)	19	607000	3/4" (19 mm) Hose Assembly
6	517705	Compression Washer (6 per driver)	19	605006	3/4" (19 mm) Hose Per Foot (Order Length Needed)
7	000235	Model/Serial No./Warning Plate	20	610026	Throttle Valve with Lever Guard
8	519004	Metal Tack (4 per driver)	21	610024	Screen Fitting
9	230400	Pipe Plug	22	606600	Coupler (2 per driver)
10	500178	Cap Screw (4 per driver)	23	606601	Safety Clip
11	517702	Compression Washer (4 per driver)	24	000244	Warning Label
12	700001	Gasket			* Includes number 10, 11, 12, 13, 14, 24
13	070592	3" (76.2 mm) I.D. Master Chuck Assembly*			** See page 4 for specifying Chuck Adapter to your application
14	000135	Rhino Decal			*** Includes number 19, 20, 21, 22, 23

Symptom	Explanation/Procedure
Post lodged in the driver	<ol style="list-style-type: none"> 1. Remove the 2 bolts that secure the adapter and separate the driver from the adapter. 2. 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. 3. Once the deformed portion is removed, slide the adapter off the post and reassemble it to the driver. Please follow bolt tightening procedure.
Drives post slow or sluggish performance	<ol style="list-style-type: none"> 1. Inspect the chuck to see if there is any foreign material blocking the piston. 2. Check to see if piston is moving freely by disconnecting the driver from air, tipping upside down and back upright. You should be able to hear the piston moving freely. 3. Check to ensure the rate of lubrication is adequate. 4. If using a FRL, inspect the filter on the FRL, if impacted with residue replace with new filter. 5. Inspect the filter on the Throttle. If clogged, blow off debris with air hose, or clean with a common cleaning solvent. 6. Check to see if air pressure is correct 7. Check output on compressor 8. In temperatures under 40°F (4°C) or high humidity conditions check air lines and tool for icing.
Noticeable air passing through driver or “blow by”	<p>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.</p>
Other problems or technical questions	<p>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.</p>



A TRADITION OF QUALITY AND SERVICE SINCE 1975

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