

# Manual

## Pneumatic D-Ringer

### **WARNING**

Before operating this pneumatic D-ring, all operators should study this manual to understand and follow the safety warnings and instructions. Keep these instructions with the tool for future reference. If you have any question to contact your distributor.



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# Tool specifications

Dimensions(length\*height\*width):

PHD-A(STAND MAGAZINE): 246 MM\*255 MM\*55 MM

PHD-B(LONG MAGAZINE) : 246 MM\*363 MM\*55 MM

Weight(without D-Rings):

PHD-A : 1542 g

PHD-B : 1614 g

Air inlet.....1/4"NPT

Compressed air:

Maximum permissible operating pressure...8KG/CM<sup>2</sup> (110PSI)

Recommended operating pressure .....5-7 KG/CM<sup>2</sup> (70-100PSI)

Air consumption .....0.112M<sup>3</sup> (3.96 ft<sup>3</sup> )

Air pressure 7KG/CM<sup>2</sup> with 100 rings per minute

Staple's size .....SR15

Staple's capacity

PHD-A..... 50 PCS(1 STICK)

PHD-B.....100 PCS(2 STICKS)

# Safety instruction

## DANGER



1. Read this manual and understand all safety instructions before operation the tool.  
If you have any questions, please contact our authorized representatives.



2. Never allow to use type of flammable gases oxygen as a power source for the tool.  
Use filtered, lubricated, regulated compressed air only.



3. Never use gasoline or other flammable liquids to clean the tool. Vapors in the tool will ignite by a spark and cause the tool to explode.



4. Do not exceed maximum permissible operating pressure of the tool (8 kg/cm<sup>2</sup>)



5. Disconnect the tool from air supply before cleaning jams, servicing, adjusting, and during non-operation.

## WARNING



6. Do not pull the trigger when carrying or holding the tool. Never carry the tool by the hose or pull the hose to move the tool.



7. At the workplace, always wear the protective equipment such as safety glasses, hearing protection and head protection.



8. Do not use a check valve or any other fitting which allows air to remain in the tool.



9. Do not place your hand or any part of your body in the staple clinching area or adjustment window of the tool when connecting or disconnecting air supply.



10. Never point any operational driving tool at yourself or at any other person.

# LUBRICATION AND MAINTENANCE

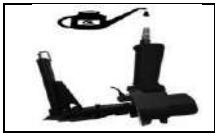
## NOTE



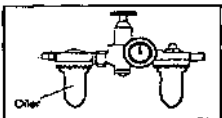
Your tool requires lubrication before you use it for the first time.



Disconnect the air supply from the tool before lubricating.



Turn the tool so the inlet is facing up and put one drop of high speed spindle oil, UNOCAL RX22, OR 3-IN-1 oil into air inlet. Never use detergent oil additives. Operate the tool briefly after adding oil.

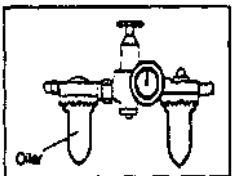
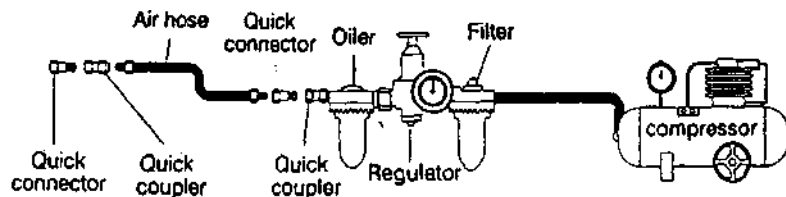


Wipe off excessive oil at the exhaust, excessive oil will damage o-rings of tool. If oil is used in-line feed. Manual lubrication through the air inlet is not required on a daily basis.

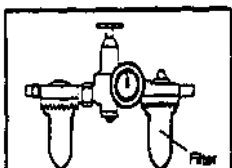
# AIR SUPPLY AND CONNECTIONS

## NOTE

The following illustration shows the correct mode of connection to the air supply system which will increase the efficiency and useful life of the tool.

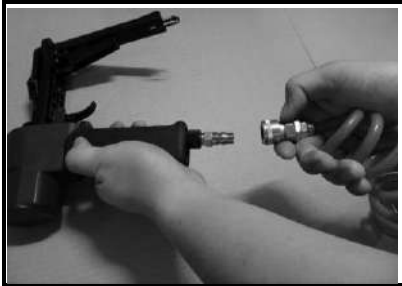


Many air tool users find it convenient to use oil to help provide oil circulation through tool and increase the efficiency and useful life of the tool. Check oil level in the oil daily.



Any air tool user find it convenient to use a filter to remove liquid impurities which can rust or wear internal parts of the tool. A filter also increase the efficiency and useful of the tool. The filter must be checked on a daily basis and if necessary drained.

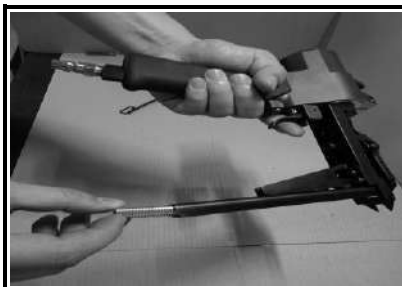
# Loading the tool



Disconnect the air supply.



Take away pusher unit(023).



Insert a stick of appropriate D-rings into the magazine unit(024) from back. Let the stick slide forward to the front of the magazine unit(024). Insert pusher unit (023) to against the end of stick.

# Operating the tool

## WARNING

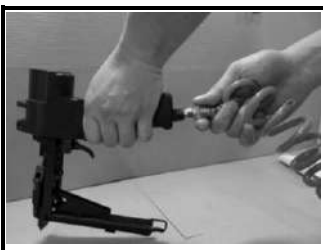
Protect your eyes and ears. Wear safety glasses with side shields. Wear hearing protection. Employers and users are responsible for ensuring the user or anyone near the tool wear this safety protection.

## WARNING

To prevent accidental injuries: Never, place a hand or any other part of body in clinching area. Never point tool toward anyone else. Never engage in horseplay. Always handle the tool with care. Never pull trigger unless tool is in working.



Insert D-rings into your tool following the instructions of loading the tool.



Connect the air supply.



Put the target into clinchers (018,021) then shooting.

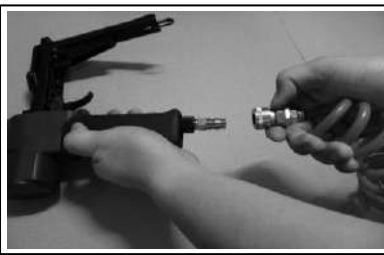
## Note

Check if target is closed by D-ring appropriately.

# Cleaning the tool

## DANGER

Never use gasoline or other flammable liquids to clean the tool. Vapors in the tool will ignite by a spark and cause the tool to explode and result in death or serious personal injury.



1. Disconnect the air supply from the tool.



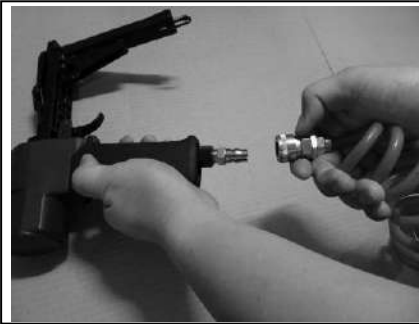
2. Take away puster unit (023).  
Move out remnant D-Ring from magazine unit (024).



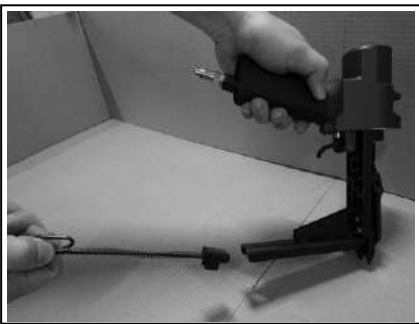
3. Remove tar buildup with kerosene #2 fuel oil or diesel fuel. Do not allow solvent to get into the cylinder or damage may occur. Dry off the tool completely before use.



## Clearing a jam from the tool



Disconnect the air supply.



Take away push unit (023) and move out remnant D-rings from magazine unit (024).



Clearing jam by pliers.

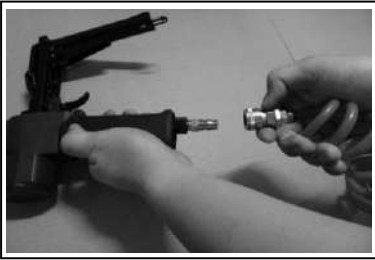
# Trouble shooting

Problem	Cause	Solution
D-ring is too loosen after clinching	Left link (017) right link (020) worn	Replace left link (017) right link (020)
	Spring pin (520) worn	Replace spring pin (520)
	Left teeth (018),right teeth (021) worn	Replace left teeth (018) right teeth (021)
	Spring pin (519) worn	Replace spring pin (519)
	Piston rod (013) is too short	Replace piston rod (013)
	Low power: 1. Air pressure set too low  2. Air leaks in supply hose 3. Air leak in tool	Verify pressure: 1.Check air pressure setting (Operator Manual) 2.Replace air supply hose 3.See page 11
	Defective rings: 1. Wire too hard 2. Rough surface 3. Cut-off burrs	Return sample of rings to your distributor to be tested
Rings jam	Worn magazine unit (024)	Replace magazine unit (024)
	Worn pusher unit (023)	Replace pusher unit (023)
	Loose or lost magazine unit (024) fixed screw (516)	Tightin or replace screw (516)
	Worn left teeth (018) and right teeth (021)	Replace left teeth (018) and right teeth (021)
	Defective rings 1. Burrs 2. Rings skewed on stick 3. Rings out of line on stick 4. Rings twisted 5. Rings not symmetrical 6. Rings strip flare at the ends	Return sample of rings to your distributor to be tested

Problem	Cause	Solution
Rings don't feed down magazine unit (024)	Spring of pusher unit (023) 1.Spring too loose 2.Spring broken	Replace pusher unit (023)
	Damaged or bent magazine unit (024)	Replace magazine unit (024)
	Defective rings 1.Burrs 2.Rings skewed on stick 3.Rings out of line on stick 4.Rings twisted 5.Rings not symmetrical 6.Rings strip flare at the ends	Return sample of rings to your distributor to be tested
Ring spitting	Air pressure too high	Verify proper air pressure
	Spring of pusher unit (023) too loose	Replace pusher unit (023)
	Worn left teeth (018) and right teeth (021)	Replace left teeth (018) right teeth (021)
	Worn left link (017) right link (020)	Replace left link (017) right link (020)
	Worn spring pin (519)(520)	Replace spring pin (519)(520)
	Defective rings 1.Burrs 2.Rings skewed on stick 3.Rings out of line on stick 4.Rings twisted 5.Rings not symmetrical 6.Rings strip flare at the ends	Return sample of rings to your distributor to be tested

Problem	Cause	Solution
Leaking when no fighting	Worn O-ring (507)	Replace O-ring (507)
	Worn O-ring (509)	Replace O-ring (509)
	Worn O-ring (511)	Replace O-ring (511)
	Worn O-ring (512)	Replace O-ring (512)
	Worn O-ring (515)	Replace O-ring (515)
Leaking when fighting	Worn O-ring (507)	Replace O-ring (507)
	Worn O-ring (508)	Replace O-ring (508)
	Worn O-ring (510)	Replace O-ring (510)
	Worn O-ring (512)	Replace O-ring (512)
	Worn O-ring (515)	Replace O-ring (515)

# Replace Teeth



Disconnect air supply.



Take away pusher unit (023) and move out remnant D-rings from magazine unit (024).



Take away spring pin (519) with  $\phi$  5mm shaft and hammer.



Loosen screw (505) with 5MM Hex wrench key.

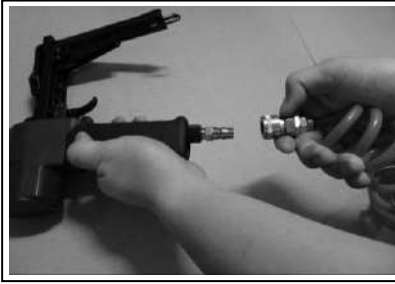


Take away teeth unit and guide (019).

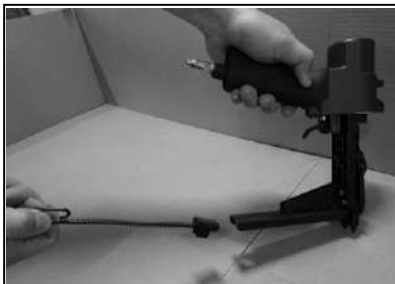


Take away spring pin (520) .Then replace left teeth (018) and right teeth (021).

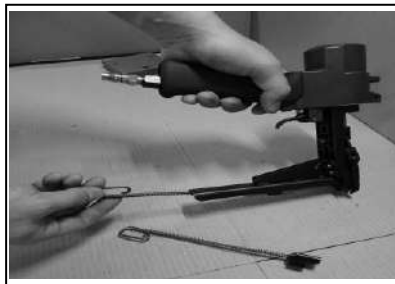
# Replace Pusher Unit



Disconnect air supply.

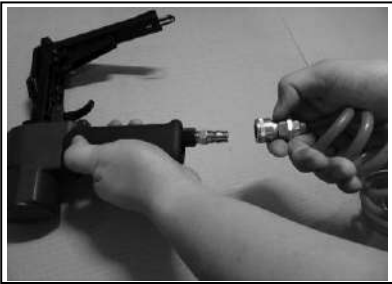


Take away pusher unit (023).

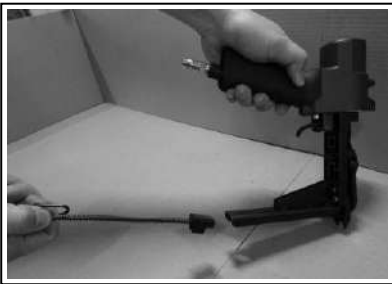


Load the new pusher unit (023).

# Replace Magazine Unit



Disconnect air supply.



Take away pusher unit (023).



Move out remnant D-rings from magazine unit (024).



Separate screw (516) and magazine unit (024) with 3MM Hex, wrench key.

# Replace Hook



Disconnect air supply.



Take away pusher unit (023) .



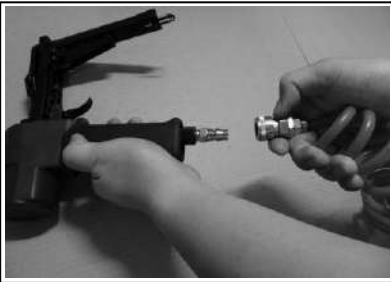
Move out remnant D-rings from magazine unit (024).



Separate spring pin (521) and hook (022) with  $\phi$  2.8MM shaft and hammer.



## Replace piston's O-ring



Disconnect air supply.



Take away pusher unit (023).



Move out remnant D-rings from magazine unit (024).



Loosen screw (505) with 5MM Hex wrench key.

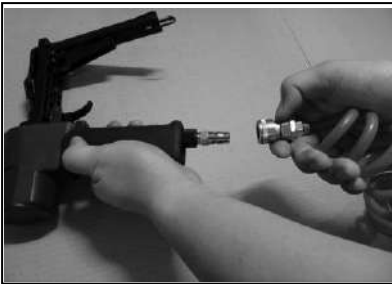


Take away block unit (015).



Replace piston's O-ring (507).

# Replace valve's O-ring



Disconnect air supply.



Take away pusher unit (023).



Move out remnant D-rings from magazine unit (024).



Separate spring pin (504) and trigger (003) with  $\phi$  2.8MM shaft and hammer.



Take away C-ring (513) with pliers.



Separate valve unit (009), tube unit (008) and spring (004), Then replace valve's O-ring (512).