



PNEUMATIC D-RING TOOL TR315

SAFETY INSTRUCTIONS



WARNING:

The employer and/or user must ensure that proper eye protection is worn. Eye protection equipment must conform to the requirements of the American National Standard Institute, ANSI Z87.1-1989 and provide frontal and side protection. Eye protection should be worn by the operator and others in the work area when loading, operating, or servicing this tool. Eye protection is required to guard against possible flying particles and/or debris, which could cause severe eye injury.

NOTE: Non-side shielded prescription glasses and faceshields alone do not provide adequate protection.

WARNINGS

- **Always** read tool manual before operating.
- Always wear safety glasses while operating or while in the vicinity of a tool in operation.
- For testing, always cycle tool away from work to insure proper ring closure. For safety reasons, an improperly functioning tool **must not** be used. When operating tool, never point or actuate tool other than into work.
- Operate tool in an unobstructed work area.
- Disconnect air supply prior to maintenance and/or repair of tool.
- Use clean dry air to maximize efficiency. **Do Not Exceed 100 P.S.I. (7.0 kg/cm sq.)**
- Do not use bottled gases such as oxygen, hydrogen, carbon dioxide, acetylene, etc.
- Tools shall be operated with a fitting or hose coupling on or near the tool in such a manner that all compressed air in the tool is discharged at the time the fitting or hose coupling is disconnected.

OPERATION

▲WARNING:

Always handle tool with care:

- Never engage in horseplay.
- Never pull the trigger unless nose of tool is directed toward the work.
- Keep others at a safe distance from the tool while the tool is in operation as actuation occurs, possibly causing injury. Keep hands and body away from the jaw mechanism of the tool.

LOADING TOOL

▲WARNING:

When loading tool:

- Never place a hand or any part of body in jaw mechanism area of tool.
- Never point tool at anyone.
- Never actuate tool when loading, accidental injury may occur.

AIR CONSUMPTION

SC7 Series Tools require 3.3 cubic feet per minute (.093 cubic meters per minute) of free air to operate at a rate of 100 fasteners per minute, at 100 P.S.I. (7.0 kg/cm sq.).

STANLEY®

Fastening Systems

TO DISASSEMBLE

Magazine and front end assembly

1. Detach magazine by removing (4) screws and washers (#56 and #55) from carriage assembly (#42).
2. Remove (1) button head cap screw and washer (#20 and #37) from trigger guard (#19).
3. Remove (4) screws, washers and (2) spacers (#39, #37 and #38).
4. Pull front end assembly and trigger bracket assembly from cylinder housing.

Piston, jaws and teeth

1. Remove o-ring (#23) and gasket (#26).
2. Remove flexlock nut from piston rod (#24 and #45). Apply heat as needed to break down thread lock adhesive on threaded end of piston rod.
3. Remove stop spacer (#27).
4. Remove set screw (#29) from clevis (#32). Apply heat as needed to break down thread lock adhesive.
5. Remove clevis (#32) from piston rod (#45). Apply heat as needed to break down thread lock adhesive.
6. Remove compression spring (#54).
7. Push clevis (#32) forward and drive out roll pin (#30).
8. Remove arm links (#33 and #34) by driving out (2) roll pins (#31).
9. Drive out groove pin (#46) from carriage.
10. Remove slide and jaws (#36, #40 and #41) from carriage.
11. Drive (2) roll pins (#43) from carriage and remove teeth (#44).

Throttle

1. Detach trigger guard and trigger (#47 and #49) by removing (3) button head screws and washers (#20 and #37).
2. Loosen set screws (#22) on both ends. **Do not loosen center set screw #22.**
3. **Do not remove throttle valve bushing (#53), location is pre-set at Stanley Fastening Systems.**
4. Remove air deflector parts (#1, #2, #3 and #4).
5. Remove rear valve seat (#5).
6. Remove throttle spring and locator parts (#7 and #8).
7. Remove front valve seat (#16) and throttle stem (#17) using a 3/16" wrench.
8. Using two 9/64" Allen wrenches, unscrew throttle valve screws (#9) to remove valve units. **Hint:** Hold tool so that the valve is vertical to help prevent losing parts.
9. One valve screw will remain with other valve parts on spacer (#14), and can be disassembled after removal from housing.

TO RE-ASSEMBLE

1. Assemble one side of the o-ring support assembly (#9, #10, #11, #12, #13, #12, and #11) on spacer (#14). The chamfer on both washers (#10) should be installed, with chamfer side against cap screw head (#9).
2. Hold tool vertically and install o-ring support assembly with spacer into bushing from the top.
3. Holding cap screw with an Allen wrench, bring second o-ring support assembly (mounted on screw (#9)) in from the opposite side and complete valve assembly. The valve should have free motion of travel of about 3/32" [.09"(2.3mm)].

4. Insert valve spring locator and spring (#8 and #7) into the rear of the valve.
5. Screw rear valve seat with lubricated o-ring (#5 and #6) into rear of the valve port.
6. Insert throttle stem (#17) into front valve seat (#16) and slowly screw front valve seat with lubricated o-ring (#6) into front of the valve port. (See Throttle Valve Adjustment).
7. Insert teeth (#44) into slot in front of carriage (#42), securing with (2) roll pins (#43).
8. Assemble arm link (#33) to jaw (#40) with roll pin (#31).
9. Assemble arm link (#34) to jaw (#41) with roll pin (#31).
10. Place jaws (#40 and #41) onto slide post (#36).
11. Place slide and jaws into carriage (#42) and push completely forward.
12. Drive groove pin (#46) into carriage.
13. Assemble arm links (#33 and #34) and clevis (#32) together with roll pin (#30).
14. Insert short threaded end of piston rod (#45) through back side of carriage.
15. Apply Loctite #242 or equivalent onto short threaded end of piston rod.
16. Place compression spring (#54) onto piston rod between carriage and clevis then screw piston rod into clevis.
17. Lock clevis onto piston rod with clevis lock screw (#29) (apply Loctite #242 or equivalent onto threads of screw).
18. Slide stop spacer assembly (#27) onto piston rod aligning holes in the carriage.
19. Apply Loctite #242 or equivalent onto long threaded end of piston rod.
20. Slide piston (#25) onto piston rod and secure with flexlock nut (#24).
21. Install gasket (#26) onto stop spacer assembly aligning holes.
22. Install o-ring (#23) onto piston (#25).
23. Assemble trigger guard bracket, trigger guard and trigger (#47, #19 and #49) with (3) roll pins (#48).
24. Insert carriage assembly into the cylinder housing. Be careful not to damage o-ring (#23) when pushing piston into the cylinder bore, use lubrication.
25. Place trigger bracket assembly (#19, #47, #48 and #49) onto carriage assembly, aligning lower screw holes.
26. Secure carriage assembly and trigger bracket assembly with (4) lock washers, (4) cap screws and (2) spacers (#37, #39 and #38).
27. Leave trigger guard loose for adjusting the valve. See throttle valve adjustment procedure for proper valve adjustment instructions.
28. Attach the magazine assembly (#50) to the carriage (#42) with (4) lock washers and cap screws (#55 and #56).
29. Install pusher assembly (#51) magazine assembly.
30. After all adjustments to the tool are made, the trigger guard is secured with button head screw and washer (#20 and #37).

THROTTLE VALVE ADJUSTMENT

Follow these steps after completing tool assembly in order to minimize the time and effort required for optimum throttle valve adjustment:

1. Using the valve stem, slowly screw in the front valve seat (#16) until it bottoms, then back it out 1-1/2 turns.
2. Do the same with the rear valve seat (#5).
3. Attach an air line and fully depress the trigger. **AIR SHOULD LEAK OUT THE REAR VALVE SEAT. While depressing the trigger**, slowly turn in the rear valve seat (#5) until the air stops leaking.
4. Release the trigger. **AIR SHOULD LEAK OUT OF THE HANDLE.** Place a 3/16 wrench on the trigger valve stem (#17) and turn the front valve seat (#16) in slowly until the air stops leaking from the handle.
5. Gently depress the trigger. Air should flow evenly from the rear exhaust to the handle exhaust.
6. The valve should now be adjusted - test the tool
7. Tighten the front and rear valve seat locking set screws (#22) and re-test the tool.
8. **Do not loosen or tighten center locking set screw (#22) it is pre-set from Stanley Fastening Systems.**
9. Do not screw set screw (#1) in too far or it will result in the tool running sluggish by restricting the air flow.

TOOL LEAKS AIR OR IS SLUGGISH

1. If tool is leaking air in the throttle area, see “Throttle Valve Adjustment” section.
2. Should the tool leak air in both the triggered and rest positions, a damaged piston o-ring may be the cause. Once the piston o-ring has been replaced, lubricate with lithium grease. Tilt the front of the tool to one side to allow the o-ring on the piston to pass the notch on the cylinder liner. If this procedure is not followed, the o-ring may be damaged during the insertion of the piston assembly into the cylinder housing.
3. If the tool still continues to leak, the liner may be leaking between the housing. The tool should be sent back to Stanley Fastening Systems for repair.
4. Put a few drops of light oil into the inlet fitting to lubricate the piston o-ring if the tool is running sluggish.
5. In the event the rear throttle valve screw is turned in too far, the tool will operate slowly or in a sluggish manner during the opening/loading sequence. This screw controls the amount of rear exhaust. When properly adjusted, two or three threads should be exposed once the nut and washer are in place.

FILTER AND REGULATOR

1. The air line should always contain a filter and regulator unit to provide the tool with a constant flow of clean, dry air. If moisture and contaminants are allowed to enter the tool, the tool’s serviceable life will be decreased.
2. The regulator should be set between 70 and 90 psi. (4.8 to 6.2 bar). Never operate this tool beyond 100 psi. (6.9 bar).

LUBRICATION

1. The “TR” series D-Ring tools are designed for long, trouble-free service with minimal air line lubrication. (If an in-line lubricator is used, it should be set at the minimum rate of flow.)
2. Excess oil in the tool will attract dirt, lint, and the adhesive material used in collating the fasteners, preventing smooth operation. When lubrication is used, always use a good **grade of 5W non-detergent oil with no additives.**
3. When servicing or repairing tool use **lithium grease** on all moving parts.

TIPS ON EXTENDING TOOL LIFE

The serviceable life of the “TR” series tools can be extended greatly by using the following guidelines:

1. Always use Stanley Fastening Systems brand fasteners. Never replace worn or broken parts with anything other than genuine Stanley Fastening Systems parts. **Generic fasteners** may shorten the life of your D-Ring tool and **will void** the manufacturer’s warranty.
2. Keep your tool(s) clean and dry. Always use clean, dry air and never exceed the recommended air pressure noted above.
3. Use of this tool at minimum air pressure required for the work at hand will greatly extend the life of the tool.
4. Exercise caution not to drop equipment. Tools dropping onto the floor or ground is a primary reason for parts replacement.

HELPFUL HINTS FOR FIELD SERVICE TOOL JAMS

The most common reason for jamming problems in the TR tool is worn parts. The two most common replaced parts are the jaws and the pusher assembly.

If tool begins to close ring poorly or spit rings, check for worn parts.

CARRIAGE ASSEMBLY ROTATION INSTRUCTIONS

The carriage is normally shipped in position #1, magazine pointing downward, parallel to the handle.

To rotate the carriage to positions #2 through #4, remove (4) cap screws (#39). Grasp the handle firmly in one hand, and the carriage (#42) in the other hand.

With steady force, pull the two sections apart. This will enable you to rotate the front carriage assembly into any of the remaining three positions. Reassemble in reverse order.

DO NOT use excessive force when tightening any of the screws. Screws should be snug but not over-torqued.

SPECIFICATIONS AND TYPES OF MATERIALS AVAILABLE BY PART NUMBER							
Part Number	Per Strip #	Per Box #	Material	Wire Diameter	Ring I.D.	Ring Leg Opening	Operating Range of Tool TR315
RINGSR15	50	10,000	Bright Basic	0.070	0.75	0.46	1/4-3/8
RINGSR15SS	50	10,000	Stainless Steel	0.070	0.75	0.46	1/4-3/8

RINGS ARE ONLY AVAILBLE IN SHARP POINTS

RING DOES NOT CLOSE COMPLETELY

1. Check air pressure. Line pressure at the tool should be between 70 and 90 psi (4.8 - 6.2 bar) for most applications. The tool should never be operated at pressures exceeding 100 psi (6.90 bar).
2. A 3/8" (9.5 mm) or larger air line should be used with the "TR" Series Tools. Air lines in excess of 100' (30.5 meters) in length can cause air volume deficiencies at the tool which will prevent normal operation.
3. Check for foreign debris in the jaw area. This is especially true in the area between the jaws and the carriage.
4. The jaws may be worn from extended use. Check the ring groove of the jaws. If the grooves are worn excessively or have a chip out of them, replacing the jaw(s) is recommended.
5. The arm links or pivot pins may be worn excessively, replacing the part(s) is recommended.
6. When the tool is used in corrosive applications, light oil should be applied on a regular basis to the carriage, jaws, linkages and pins. Unlubricated and/or corroded jaw linkages may cause the tool to function poorly.

FEEDING PROBLEMS

1. If rings do not feed smoothly through the magazine, check pusher spring for proper tension. If the magazine is covered with dirt from field use, clean the magazine and apply a light coating of oil.
2. When rings feed properly through the magazine but do not feed into the jaws without spitting out of the tool, or if the rings sit in the jaw grooves on an angle, check jaws to insure freedom of movement.
3. **NEVER USE LOOSE RINGS IN THE TR TOOL.**

NOTE:

Tool model number TR313 used a short magazine/pusher combination, part numbers TR417051F and TR105A027F, measuring 6 inches long and capable of holding up to 50 rings. This tool can no longer be ordered, but the magazine and pusher can be ordered.

Tool model number TR315 uses a long magazine/pusher combination, part numbers TR419051F and TR107A027F, measuring 11.25 inches long and capable of holding up to 100 rings.

LIMITED WARRANTY

Stanley Fastening Systems warrants to the original retail purchaser that this product is free from defects in material and workmanship, and agrees to repair or replace, at Stanley Fastening Systems' option, any defective product within 60 days from the date of purchase. This warranty is not transferable. It only covers damage resulting from defects in material or workmanship, and it does not cover conditions or malfunctions resulting from normal wear, neglect, abuse, or accident.

THIS WARRANTY IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES. ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS LIMITED TO THE DURATION OF THIS WARRANTY. STANLEY FASTENING SYSTEMS SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

To obtain warranty service, you must return the product at your expense together with proof of purchase to a Stanley-Bostitch Regional warranty repair center or you may call us at 1-800-556-6696 or 1-800-832-3080 for the location of additional authorized warranty service locations in your area.

