




# Universal Tool

## Operator Instructions

Includes - Foreseen Use, Work Stations, Putting Into Service, Operating, Dismantling, Assembly and Safety Rules

## Important

Read these instructions carefully before installing, operating, servicing or repairing this tool. Keep these instructions in a safe accessible place.

Manufacturer/Supplier <b>Universal Air Tool Company Limited</b> <b>Unit 8</b> <b>Lane End Industrial Park</b> <b>High Wycombe</b> <b>Bucks</b> <b>HP14 3BY</b> Tel No (01494) 883300 Fax No (01494) 883237	Product Type <b>3/16" Air Hydraulic Blind Riveter</b>	RPM N/A Cycles Per Min N/A	
	Model No/Nos <b>UT40PPA</b>	Serial No	

Product Nett Weight <b>3.6</b> lbs <b>1.63</b> Kg	Recommended Use Of Balancer Or Support <b>No</b>	Recommended Hose Bore Size - Minimum <b>3/8</b> Ins <b>10</b> M/M	Recommended Max. Hose Length <b>30</b> Ft <b>10</b> M
---	---	--	--

Air Pressure Recommended Working <b>6.3</b> bar <b>90</b> PSI Recommended Minimum <b>n/a</b> bar <b>n/a</b> PSI Maximum <b>7</b> bar <b>100</b> PSI		Noise Level Sound Pressure Level <b>77.0 dB(A)</b>  Test Method Tested in accordance with Pneurop test code PN8NTC1 and ISO Standard 3744
--	--	---

Personal Safety Equipment Use - Safety Glasses <b>Yes</b> Use - Safety Gloves Use - Safety Boots Use - Breathing Masks Use - Ear Protectors	Vibration Level <b>1.6 Metres / Sec<sup>2</sup></b>  Test Method Tested in accordance with ISO standards 8662 Part 1
--	--

## Foreseen Use of the Tool

This tool is designed to place blind rivets, also known as pop rivets in pre-formed holes in sheet metal. The rivets are set in the sheet by a pulling force exerted by the tool under the action of a hydro-pneumatic cylinder. Upon placing the rivet correctly in the sheet, the stem of the blind rivet will break off when the rivet is placed. Do not use the tool for any other purpose than that for which it was designed unless first consulting the manufacturer or the manufacturer's authorised representative.

Do not modify the tool for any other purpose or its use as a blind rivet installation tool without first consulting the manufacturer or the manufacturer's representative.

## Putting Into Service

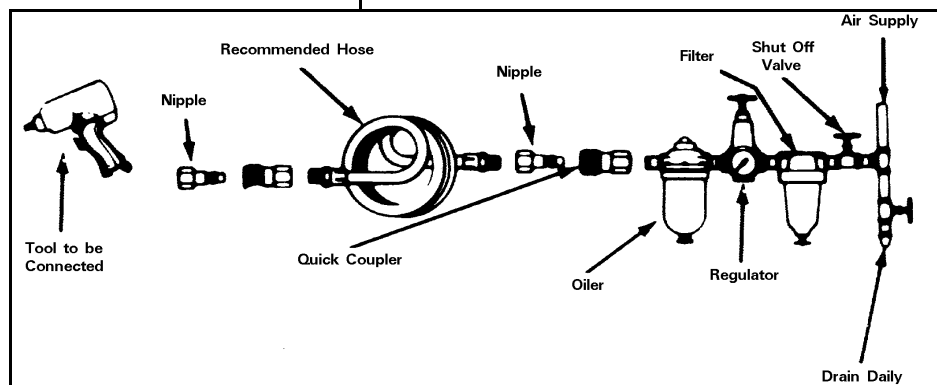
### Air Supply

Use a clean lubricated air supply that will give a measured air pressure at the tool of 90 p.s.i./6.3 bar when the tool is running with the trigger fully depressed. Use recommended hose size and length. It is recommended that the tool is connected to the air supply as shown in figure 1. Do not connect the tool to the air line system without incorporating an easy to reach and operate air shut off valve. The air supply should be lubricated. It is strongly recommended that an air filter, regulator, lubricator (FRL) is used as shown in Figure 1 as this will supply clean, lubricated air at the correct pressure to the tool. Details of such equipment can be obtained from your supplier. If such equipment is not used then the tool should be lubricated by shutting off the air supply to the tool, depressurising the line by pressing the trigger on the tool. Disconnect the air line and pour into the intake bushing a

## Work Stations

The tool should only be used as a handheld, hand operated tool.

It is always recommended that the tool is used when standing on a solid floor. It can be used in other positions but before any such use, the operator must be in a secure position having a firm grip and footing and be aware of a reaction force on the hand as result of the tool doing work.



teaspoonful (5ml) of a suitable pneumatic motor lubricating oil preferably incorporating a rust inhibitor. Reconnect tool to air supply and run tool slowly for a few seconds to allow air to circulate the oil. If tool is used frequently lubricate on daily basis and if tool starts to slow or lose power.

It is recommended that the air pressure at the tool whilst the tool is running is 90 p.s.i./6.3 bar. The tool can run at lower and higher pressures with the maximum permitted working air pressure of 100 p.s.i./7.0 bar.

## Operating

Connect the tool to a clean supply of compressed air set at the right pressure. Ensure that the tool is equipped with the correct nose equipment to fit the rivet being placed. It is necessary to match the nose equipment to the diameter size of the rivet being placed.

To place rivets with the tool, insert the rivet body into the prepared hole in the application, apply the tool so that the stem of the rivet enters the nose of the tool, press the tool and rivet firmly against the application, pull the trigger and the rivet will place. If the stem of the rivet fails to break off, it may be necessary to increase the supplied air pressure up to the maximum pressure allowed for the tool of 100 p.s.i. (7.0 bar). Ensure that the broken off stem is clear of the nose end of the tool before proceeding to place the next rivet. This is best achieved by tipping the nose of the riveter downwards so that the broken stem may fall out clear of the tool. Failure to do this could result in the broken off stems jamming in the riveter.

## Dismantling & Assembly Instructions

Disconnect tool from air supply.

Pull off stem catcher (22). Using the spanners provided, unscrew nosepiece (1) and head (2). Unscrew plug screw (39) with O-ring (7) and remove spring (38) with valve plate (37). Remove pin (24) and pin (28) and take off trigger (25) with pin (23), trigger rod (26) and trigger lever (27). Take out valve tube (34) with O-ring (35) and spring (49). Unscrew air cylinder cap (47) with O-ring (46). Take out oil plug (13) with O-ring (54) from hydraulic section (12). Grip the head of screw (45) and pull out the piston disc (12). Grip the head of screw (45) and pull out the piston disc assembly and allow the oil contained in the hydraulic section (12) to drain into a suitable container. Carefully grip plunger rod (41) as near as possible to piston disc (42) [so as not to damage the end of the plunger that enters the seals] and unscrew screw (45) with spring washer (44) to separate piston disc (42), air piston ring (43) and plunger (41). Remove air piston ring seal (43) from piston disc (42). Take out set screw (50) and take out damping ring (40) from air cylinder (32). Grip hydraulic section (12) and unscrew lock nut (33) and separate hydraulic section (12) and air cylinder (13). With a wide bladed screwdriver, unscrew screw plug (30) with O-ring (31), O-ring (29), 2 off 'X' ring seals (10) and 2 off ring washers (11). Prise out (10) and (11) from screw plug (30). Unscrew jaw housing (3) from jaw housing coupler (8) and take out 2 off jaws (4), jaw pusher (5) and spring (6). Unscrew jaw housing coupler (8) and nut (9) from hydraulic plunger (14). Unscrew screw plug (21) and take out hanging ring (20), O-ring (19), spring (18) and spring (17). Push out hydraulic plunger (14), complete with O-ring seal (15) and O-ring washer (16). O-ring seal (15) and O-ring washer (16) may be removed from hydraulic plunger (14) and 2 off 'X' ring seals (10) and 2 off ring washers (11) from hydraulic section (12).

## Reassembly

Clean all parts and examine for damage and wear. Replace any parts with parts obtained from the manufacturer or an authorised distributor and assemble in the reverse order. \*See Note Repriming Instructions.

## Priming

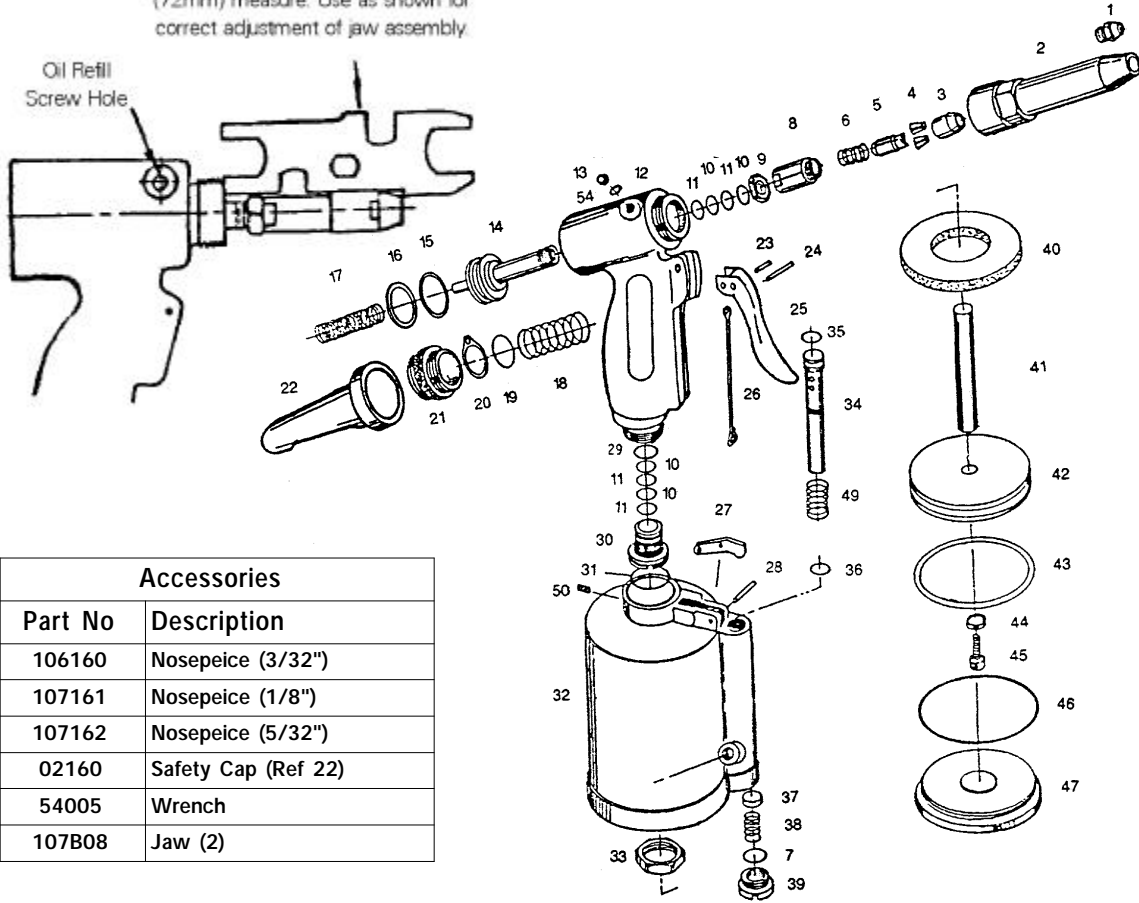
When reassembling it is important to ensure that piston disc (42) is in its lowest position where the piston disc assembly abuts air cylinder cap (47). Remove oil plug (13) with O-ring seal (54) and lay the tool at an angle of approximately 45° to the horizontal so that the hole from where plug (13) was removed is uppermost. Slowly pour into the hole "Shell Rotella X 30 Oil" [or suitable equivalent] until the chamber is full. Leave for a few minutes so all air bubbles can escape before replacing plug (13) and seal (54). Top up if air bubbles escaping reduce the oil level. Select nosepiece to suit size of rivet being placed and set position of jaw housing (3) by using adjusting nut (9) and wrench gauge (48) as shown in diagram.

## Safety Rules For A Riveter

- 1) Read all the instructions before using this tool. All operators must be fully trained in its use and aware of these safety rules.
- 2) Do not exceed the maximum working air pressure.
- 3) Use personal safety equipment.
- 4) Use only compressed air at the recommended conditions.
- 5) If the tool appears to malfunction remove from use immediately and arrange for service and repair.
- 6) If the tool is used with a balancer or other support device ensure that it is fixed securely.
- 7) Always keep hands away from the working attachment fitted to the tool.
- 8) The tool is not electrically insulated. Never use the tool if there is any chance of it coming into contact with live electricity.
- 9) Always when using the tool adopt a firm footing and/or position and grip the tool firmly to be able to counteract any forces or reaction forces that may be generated whilst using the tool.
- 10) Use only correct spare parts. Do not improvise or make temporary repairs.
- 11) Do not lock, tape, wire, etc. the on/off valve in the run position. The trigger/lever etc. must always be free to return to the 'off' position when it is released.
- 12) Always shut off the air supply to the tool, and depress the trigger/lever etc. to exhaust air from the feed hose before fitting, adjusting or removing the working attachment.
- 13) Check hose and fittings regularly for wear. Replace if necessary. Do not carry the tool by its hose and ensure the hand is remote from the on/off control when carrying the tool with the air supply connected.
- 14) Take care against entanglement of moving parts of the tool with clothing, ties, hair, cleaning rags, etc. This will cause the body to be drawn towards the tool and can be very dangerous.
- 15) It is expected that users will adopt safe working practices and observe all relevant legal requirements when installing, using or maintaining the tool.
- 16) Do not install the tool unless an easily accessible and easily operable on/off valve is incorporated in the air supply.
- 17) Take care that the tool exhaust air does not cause a problem or blows on another person.
- 18) Never lay a tool down unless the working attachment has stopped moving.
- 19) The tool should not be operated without the safety cap fixed to the rear end of the tool.
- 20) Do not operate the tool if the frame head is not fitted.
- 21) Care must be taken to ensure that broken stems from the installed rivets do not cause a hazard.
- 22) Excessive contact with hydraulic oil should be avoided. Wash hands after any such contact.

**UT40PPA 3/16" Air Hydraulic Blind Riveter**

Gauge of wrench 48 is a 2"-13/16 (72mm) measure. Use as shown for correct adjustment of jaw assembly.



Accessories	
Part No	Description
106160	Nosepeice (3/32")
107161	Nosepeice (1/8")
107162	Nosepeice (5/32")
02160	Safety Cap (Ref 22)
54005	Wrench
107B08	Jaw (2)

Ref No	Part No	Description
1	107163	Nosepeice (3/16")
2	02115	Head
3	10709	Jaw Housing
4	107B08	Jaw (2)
5	107B07	Jaw Pusher
6	02105	Spring
7	10548	O-Ring Seal (3)
8	02106	Jaw Housing Coupler
9	02104	Nut
10	11558	Ring Washer (4)
11	11520	X Ring Seal (4)
12	02102	Hydraulic Section
13	02171	Oil Plug
14	02151	Hydraulic Plunger
15	11501	O-Ring Seal
16	11549	O-Ring Washer
17	02152	Return Spring
18	02153	Return Spring
19	02127	O-Ring Seal
20	02159	Hanging Ring
21	02110	Screw Plug
23	02168H	Pin
24	02169	Pin
25	02138H	Trigger
26	02133	Trigger Rod

Ref No	Part No	Description
27	02134	Trigger Lever
28	02167	Pin
29	25022	O-Ring Seal
30	02157	Screw Plug
31	02116	O-Ring Seal
32	02101	Air Cylinder
33	02121	Lock Nut
34	02139	Valve Tube
35	02197	O-Ring Seal
36	11560	O-Ring Seal
37	10442	Valve Plate
38	10544	Spring
39	10550	Plug Screw
40	02130	Damping Ring
41	02122	Plunger Rod
42	02123	Piston Disc
43	02124	Air Piston Ring
44	76527	Spring Washer
45	10427	Screw
46	10431	O-Ring Seal
47	02103	Air Cylinder Cap
48	10647	Wrench
49	11541	Valve Tube Spring
50	02172	Set Screw
54	20412	O-Ring Seal

**Declaration of Conformity**  
**Universal Air Tool Company Limited**  
**Unit 8, Lane End Industrial Park, High Wycombe, Bucks, HP14 3BY, England**

declare under our sole responsibility that the product

**Model UT40PPA 3/16" Riveter, Serial Number**

to which this declaration relates is in conformity with the following standard(s) or other normative document(s)

**EN792 (Draft), EN292 Parts 1 & 2, ISO 8662 Part 1, Pneurop PN8NTC1**

following the provisions of **89/392/EEC as amended by 91/368/EEC & 93/44/EEC Directives**

**Lane End**

Arthur Paterson



Place and date of issue

Name and signature or equivalent marking of authorized person

Specifications	
Riveting Capacity	All Material 3/32", 1/8", 2.4mm, 3.2mm 5/32", 3/16", 4.8mm, 4mm
Traction Power	2000 lbs, 900Kg
Air Consumption	0.17 cu ft, 5 l/rivet
Overall Length	10 7/8", 276mm
Air Inlet	1/4" NPT

**Notes**

**Accessories**

**Distributor**

© Copyright of Universal Air Tool Company Limited, established in the United Kingdom, 1994  
 This document may not be copied wholly or in part by anyone without the consent of the Directors of Universal Air Tool Company Limited