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

Universal Air Tool Company Limited
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Tel No **(01494) 883300** Fax No **(01494) 883237**

Product Type
3/4" Composite Pistol Grip Impact Wrench

RPM
4,000
Cycles Per Min

Model No/Nos
UT8326

Serial No

Product Nett Weight	Recommended Use Of Balancer Or Support	Recommended Hose Bore Size - Minimum	Recommended Max. Hose Length
8.36 lbs	**No**	**3/8** Ins **10** M/M	**30** Ft **10** M
3.8 Kg			

Air Pressure

Recommended Working	**6.3**	bar	**90**	PSI
Recommended Minimum	**n/a**	bar	**n/a**	PSI
Maximum	**7.0**	bar	**100**	PSI

Noise Level **Sound Pressure Level 85.0 dB(A)**

Test Method **Tested in accordance with Pneurop test code PN8NTC1 and ISO Standard 3744**

Personal Safety Equipment

Use - Safety Glasses	**Yes**
Use - Safety Gloves	
Use - Safety Boots	
Use - Breathing Masks	
Use - Ear Protectors	**Yes**

Vibration Level **4.2** Metres / Sec^2

Test Method **Tested in accordance with ISO standards 8662 Parts 1 & 7**

Foreseen Use Of Tool

The impact wrench is designed for the tightening and loosening of threaded fasteners within the range as specified by the manufacturer. It should only be used in conjunction with suitable impact type 3/4" square female drive nut running sockets. Only use sockets which are of the impact type.

It is allowed to use suitable extension bars, universal joints and socket adaptors between the square output drive of the impact wrench and the square female drive of the socket.

Do not use the tool for any other purpose than that specified without consulting the manufacturer or the manufacturer's authorised supplier. To do so may be dangerous.

Never use an impact wrench as a hammer to dislodge or straighten cross threaded fasteners. Never attempt to modify the tool for other uses and never modify the tool for even its recommended use as a nutrunner.

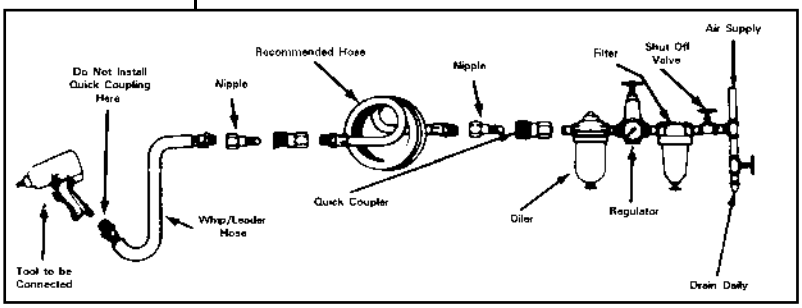
Work Stations

The tool should only be used as a handheld hand operated tool. It is always recommended that the tool is used when standing on the solid floor. It can be 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 that when loosening fasteners the tool can move quite quickly away from the fastener being undone. An allowance must always be made for this rearward movement so as to avoid the possibility of hand/arm/body entrapment.

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 and the air regulator in its maximum opening flow position. 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 a quick connect coupling directly to the tool but use a whip or leader hose of say approximately 12 inches length. 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(14) a 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. For a lower air pressure the tool will give a lower output for a given setting of the air regulator set for 90 psi operation and an increased output for higher pressures. Hence it is possible that changes in supply pressure can give situations where the fastener is under or over tightened. For changes in pressure, the regulator position and application should be reassessed.
It is recommended that joint tightness of the threaded fastener assembly be checked with suitable measuring equipment.

Operating

The output of the impact wrench in prime working condition is governed by mainly three factors
a) the input air pressure
b) the time the impact wrench is operated on the joint. Normal time for joints of average tension requirement 3 to 5 seconds
c) the setting of the air regulator for a given joint at a given pressure operated for a given time.
The reverse switch (17) can be used to regulate the output of the impact wrench if no other control means is available. It is strongly recommended that an external pressure regulator ideally as part of a filter/regulator/lubricator (FRL) is used to control air inlet pressure so that the pressure can be set to help control the tension required to be applied to the threaded fastener joint.
There is no consistent reliable torque adjustment on an impact wrench of this type. However, the air regulator can be used to adjust torque to the approximate tightness of a known threaded joint. To set the tool to the desired torque, select a nut or screw of known tightness of the same size, thread pitch and thread condition as those on the job. Turn air regulator to low position, apply wrench to nut and gradually increase power (turn regulator to admit more air) until nut moves slightly in the direction it was originally set. The tool is now set to duplicate that tightness, note regulator setting for future use. When tightening nuts not requiring critical torque values, run nut up flush and then tighten an additional one-quarter to one-half turn (slight additional turning is necessary if gaskets are being clamped). For additional power needed on disassembly work, turn regulator to its fully open position. This impact wrench is rated a 3/4" bolt size. Rating must be down graded for spring U bolts, tie bolts, long cap screws, double depth nuts, badly rusted conditions and spring fasteners as they absorb much of the impact power. When possible, clamp or wedge the bolt to prevent spring back.
Soak rusted nuts in penetrating oil and break rust seal before removing with impact wrench. If nut does not start to move in three to five seconds use a larger size impact wrench. Do not use impact wrench beyond rated capacity as this will drastically reduce tool life.
NOTE: Actual torque on a fastener is directly related to joint hardness, tool speed, condition of socket and the time the tool is allowed to impact.
Use the simplest possible tool-to-socket hook up. Every connection absorbs energy and reduces power.

Dismantling and Assembly Instructions

Disconnect from air supply
Grip housing (1) in a vice then loosen 4 cap screws (5) and take off hammer case (45) and end cap (21). Pull out the complete air motor and dismantle by removing the retaining ring (24). Tap off the front end plate (32) and pull out the rotor (28) then remove the 6 rotor blades (29). Take out the hammer cage (36) from the hammer case (45) and remove the gasket (35)pull out 2 hammer pins (38) then slide out the anvil (39) it is now possible to remove the 2 hammer dogs (37) from the hammer cage (36).
To remove the trigger assembly first knock out the spring pin (2) from the housing (1) then you can pull out the trigger (16) and o-ring (15).
Removing the throttle assembly, first unscrew the inlet bushing (14) them take out throttle spring (11) throttle valve (10) and finally the valve seat (9).

Reassembly

Clean all component parts and examine for wear and cracks etc. before reassembling. Look in particular to wear and cuts on o-rings and oil seals, wear on rotor blades and wear and cracks on hammer dogs (37) and anvil (39) particular around the square drive. Check carefully cage (36) Make sure that the faces of the end plate (32) abut cylinder (26) are flat and free from burrs and surface marking. If necessary lap faces on a flat, very fine grade of abrasive paper. Lightly coat all parts with suitable pneumatic tool lubricating oil and reassemble in the reverse order. Take out screw (47) and pour lubrication oil about 30cc into the hammer case (45) then replace screw (47) Connect tool to suitable air supply and run the tool slowly for 5 seconds to allow the oil to circulate.

Safety Rules When Using an Impact Wrench

1) Read all the instructions before using this tool. All operators must be fully trained in its use and aware of these safety rules. All service and repair must be carried out by trained personnel.
2) The socket used must be of the correct drive size and the "impact" type. Never use sockets other than impact type.
3) Do not use sockets with excessive wear to the input and output drives. Check that the square on any other type of drive or the impact wrench is not cracked or excessively worn before fitting or changing socket, extension, etc. Make sure that the socket is firmly fixed to the tool.
4) Always ensure that a stable position or footing is adopted before using the tool.
5) Ensure that the tool has been correctly set up on a test joint. Incorrect set up could cause joint breakage with sudden and unexpected movement of the tool.
6) Use only correct spare parts for repair.
7) Always ensure that the reverse valve is in the correct position before operating the tool. Do not run the tool unless the socket is first located on the joint.
8) Check hose and fittings regularly for wear. Use quick connect couplings only as recommended. See "Putting into Service". Do not carry the tool by the hose and ensure that the hand is away from the on/off valve when carrying.
9) Do not attempt to hold or guide the socket by hand when the tool is running.
10) Do not exceed maximum recommended air pressure.
11) Use safety equipment as recommended.
12) The tool is not electrically insulated. Do not use where there is a possibility of coming into contact with live electricity.
13) Preferably shut off the air supply before changing sockets or at least ensure that the hands are well clear of the operating trigger.
14) Take care against entanglement of moving parts of the tool with clothing, ties, hair, cleaning rags, etc.
15) When loosening fasteners first ensure that there is sufficient clearance behind the tool to avoid hand entrapment. The tool will move away from the threaded joint as the nut/bolt etc. is loosened and rides up the thread moving the tool with it.
16) Only use extensions, adaptors and universal joints suitable for use with impact wrenches.
17) If the tool appears to malfunction remove from use immediately and arrange for service and repair.

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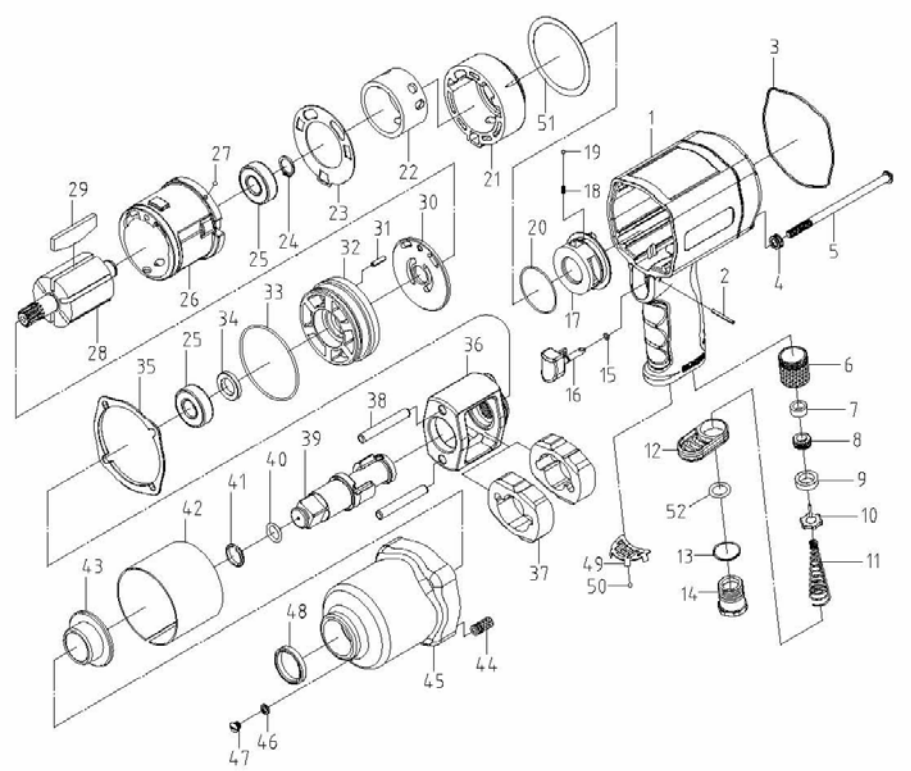
UT8326 3/4" Composite Pistol Grip Impact Wrench



Ref No	Part No	Description
1	56101-06	Housing
2	56102	Spring Pin
3	56103-04	Ornamental Gasket
4	56104	Bushing (4)
5	56105	Screw (4)
6	56106	Bushing
7	56107	Seal
8	56108	Screw
9	361A05	Valve Seat
10	361A06	Throttle Valve
11	56111	Valve Spring
12	361A08	Exhaust Deflector
13	56113	Washer
14	56114-02	Air Inlet Bushing
15	102112	O-Ring
16	56116	Trigger
17	56117-01	Reverse Switch
18	106021H	Spring
19	106022H	Steel Ball
20	56120	O-Ring
21	56121	Reverse Bushing
22	56122	Valve Bushing
23	56123	Gasket
24	56124	Retainer Ring
25	56125	Ball Bearing (2)
26	56126	Cylinder

Ref No	Part No	Description
27	102111H	Steel Ball (2)
28	56128	Rotor
29	56129	Rotor Blade (7)
30	56130	Washer
31	56131	Dowel Pin
32	56132	Front End Plate
33	56133	O-Ring
34	76349	Oil Seal
35	56135-04	Ornamental Gasket
36	56136	Hammer Cage
37	56137	Hammer Dog (2)
38	56138	Hammer Pin (2)
39	56139-01	Anvil
40	16107	O-Ring
41	46135	Socket Retainer
42	56142	Steel Sleeve
43	56143	Anvil Bushing
44	56144	Steel Pipe (4)
45	56145	Hammer Case
46	16544	Seal
47	16510	Screw
48	56148	Oil Seal
49	56149	Muffler Cover
50	56150	Ceramic Balls (20)
51	56151	Gasket
52	66021	O-Ring

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 UT8326 3/4 Impact Wrench, 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 Parts 1 & 7, Pneurop PN8NTC1

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

Lane End — Place and date of issue

D.H.Moppett (Man. Director) — Name and signature or equivalent marking of authorised person

Accessories

Notes

Distributor