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
Unit 8
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Tel No **(01494) 883300** Fax No **(01494) 883237**

Product Type
9" Dia Wheel Vertical Grinder

RPM
6,000
Cycles Per Min

Model No/Nos
UT919C

Serial No

Product Nett Weight	Recommended Use Of Balancer Or Support	Recommended Hose Bore Size - Minimum	Recommended Max. Hose Length
12.76 (less wheel) lbs **5.8 (less wheel)** Kg	**No**	**3/8** Ins **10** M/M	**30** Ft **10** M

Air Pressure

Recommended Working	**6.3**	bar	**90**	PSI
Recommended Minimum	**n/a**	bar	**n/a**	PSI
Maximum	**7.0**	bar	**10.0**	PSI

Noise Level **Sound Pressure Level 89.7 dB(A)**
Sound Power Level 100.7 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	**Yes**
Use - Safety Boots	
Use - Breathing Masks	**Yes**
Use - Ear Protectors	**Yes**

Vibration Level **4.9** Metres / Sec^2

Test Method **Tested in accordance with ISO standards 8662/1 & 8662/4**

Foreseen Use of Tool

This vertical grinder is designed to be used with reinforced resin bonded depressed centre grinding wheels that have a permitted rotational speed in excess of 6,000 RPM.
The tool is designed to be used for grinding and dressing of welds, etc. but not for cutting off. The grinder must never be used if a wheel guard (disc cover) item (33) is not fitted.

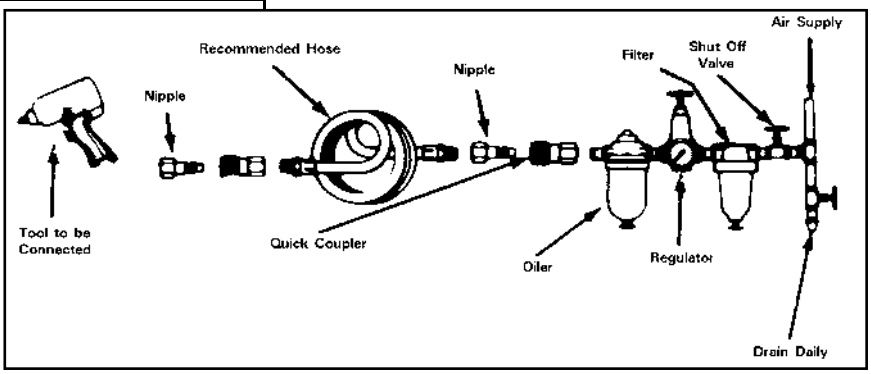
Work Stations

The tool should only be used as a hand held 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 the safety rules to be obeyed when using the sander.

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/lever 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, de pressurising the line by pressing the trigger on the tool. Disconnect the air line and pour into the air inlet bushing 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 bar.



Operating

With the grinder correctly connected to the air supply, check the speed of the grinder with an inlet pressure of 100 psi/7.0 bar measured at the tool inlet. Check with a calibrated tachometer. Check that the guard is in position and securely fixed. Check that the grinding wheel is of correct dimensions, is not cracked or chipped and has a permitted speed rating higher than the maximum permissible running speed of the grinder which is 6,000 RPM. Check that item wheel receiver (36) or (37) is the correct type as parts list and is located to the shaft and locates the bore of the grinding wheel on the spigot of the wheel nut (36) or (37) and screw on wheel nut (36) or (37) using the spanners provided. Do not over tighten as this could crack the wheel. It should be tight enough to prevent wheel spin off when the air supply is shut off. Lock screw (38) in place.

When first starting the grinder with a new or changed wheel fitted, the grinder should first be started in a protected area, i.e. such as under a heavy bench well away from other persons and run for, say, one minute. This will provide protection if the wheel should break because some fault was not detected.

Always use eye protection and wear protective gloves if there are sharp edges in the working area. The tool and the grinding process can create a noise level such that ear protectors should be worn.

If the grinding process creates a dust then use a suitable breathing mask.

Check that the material being worked will not cause harmful dust or fumes. If this is so then special breathing apparatus may be required. Seek advice before starting work.

If the grinder vibrates when first fitting the wheel or during use, remove from service immediately and arrange for the fault to be corrected before continuing to use.

Do not apply excessive pressure as this will reduce the cutting efficiency. Apply light loads and allow the wheel to cut.

Handle the grinder with care. If the grinder is dropped, carefully examine the wheel for damage and replace if necessary. Start the machine as if for the first time of fitting a wheel, i.e. under a bench.

Make sure the object to be ground is in a firm fixed position.

Dismantling & Assembly Instruction

Disconnect tool from air supply.

Remove allen head screw (38). Grip wheel flange (36) with spanner (67) and by using spanner (66) unscrew wheel flange (37). Unscrew 4 off hex bolts and remove wheel guard (33). Remove dead handle (55) and take off washers (56 & 57). Unscrew bolts (53 & 54) and remove exhaust cover (47). Take off muffler spring (51) pull out roll pin (50) and take out muffler plate (49) and exhaust valve (48). To remove throttle valve assembly, first unscrew inlet bushing (46) take out throttle valve spring (45) sub throttle valve (44) throttle valve washer (43) throttle valve (42) throttle valve rod (41) and throttle valve rod bushing (40).

To remove the throttle valve body (39), first unscrew 2 off bolts (64) and remove the O-ring (62) set bolt (61) lock key (59 and lock spring (60).

Remove 4 off bolts (2) and take off the housing cover (1). Pull out the governor assembly comprising of parts (7,8,9,10,11,12,13,14 & 15) then pull out the motor assembly, unscrew the rotor nut (30) remove bearing spacer (29) and bearing (28). Grip cylinder lower plate (26) by hand and tap the spindle end of rotor (20) with a non metallic (lead or aluminium) hammer so as to drive the rotor through the cylinder lower plate and bearing assembly. Remove rotor blades (21) from the rotor (20) then take off the cylinder upper plate (18) and remove bearing (17) and bearing cover (16).

Reassembly

All parts should be examined for damage and wear before reassembling. Only manufacturer or authorised distributor parts should be used – see note re speed controller. All parts should be coated with a pneumatic tool lubricating oil and reassembled in reverse order. Before the tool is returned to service it should be examined by a competent person trained to do so. The speed of the tool must be checked and the speed must not exceed 6,000 RPM with the air pressure measured at the tool inlet of 100 lbf per sq ins (6.3 bar).

Safety Rules For A Grinder

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) A grinding wheel should only be fitted by a competent person trained to do so. The wheel must be of the correct size and speed rating.
20) Check the speed of the grinder at least once per week, if it is in regular use, with an accurate tachometer.
21) The tool must only be used with the grinding wheels as set out in section "Foreseen Use of the Tool" and shown on parts list. Never fit any other device.
22) Carry out the instructions as set out in "Putting into Service".
23) Many countries have local or national rules re the use and fitting of grinding wheels. Make sure such rules are observed.
24) Use a barrier to prevent sparks causing a hazard to the operator, any other person or anything within the vicinity of the sparks.
25) If a wheel guard becomes damaged or has withstood a wheel breakage, the guard must be changed.
26) Do not use chipped or cracked grinding wheels.
27) Always wear impact resistant eye protection.
28) Use only the wheel receivers (36) & (37) provided with the grinder for locating and clamping the wheel. Never use substitutes. Use the paper blotter fixed to the wheel as this ensures even tightness when the wheel is secured.
29) Tighten the wheel plates sufficiently to prevent wheel spin off when the grinder is turned off. Do not tighten excessively as this may crack the wheel.
30) The noise from the tool or the process noise of the grinding operation may be such that hearing protection should be worn.
31) Avoid inhaling dust from the grinding process. Wearing of a breathing mask is recommended. Grinder certain materials may mean that special breathing precautions are necessary. Seek advice before using the tool.
32) Always ensure that the workpiece is firmly supported so that it

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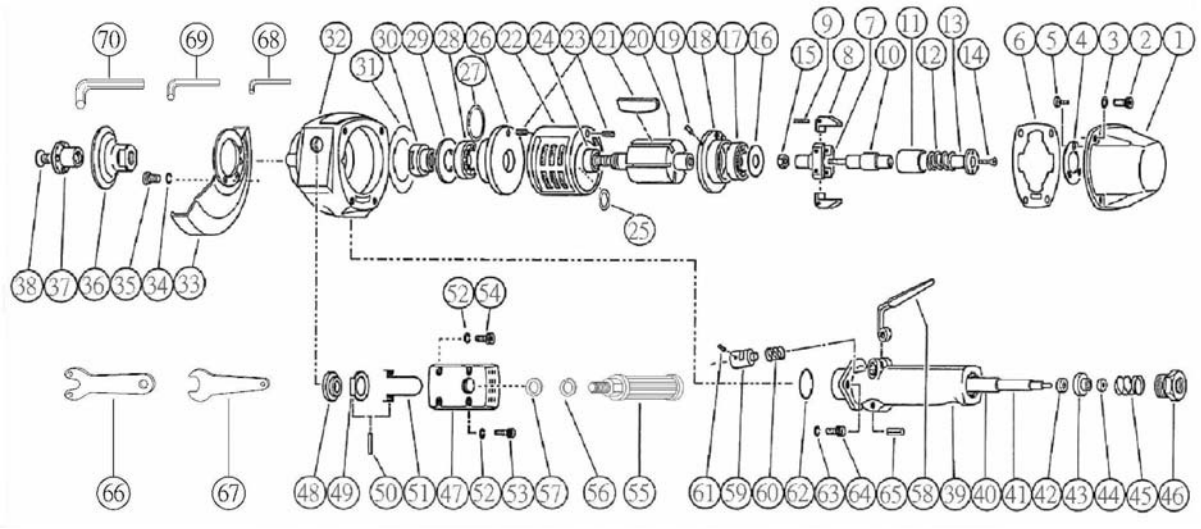
UT919C 9" Dia Wheel Vertical Grinder



Ref No	Part No	Description
1	A-109001	Housing Cover
2	A-905031	Hex Bolt (4)
3	R-852024	Spring Washer (4)
4	A-109002	Washer
5	A-905047	Eillister (3)
6	A-109003	Packing
7	A-109004	Governor Cage
8	A-109005	Governor Weight (2)
9	B-609023	Roll Pin (2)
10	A-109006	Governor Shaft
11	A-109007	Governor Valve
12	A-109008	Governor Valve Spring
	A-109009	Governor Valve Spring
13	A-109010	Governor Valve Spring Holder
14	A-109011	Flat Head
15	A-109012	"U" Nut
16	A-109013	Bearing Cover
17	A-109014	Bearing
18	A-109015	Cylinder Upper Plate
19	A-109016	Roll Pin
20	A-109017	Rotor
21	A-109018	Rotor Blade (5)
22	A-109019	Cylinder
23	A-107009	Roll Pin (2)
24	A-109020	Adjusting Collar
25	A-109021	Adjusting Washer
	A-109022	Adjusting Washer
26	A-109023	Cylinder Lower Plate
27	A-109024	Adjusting Washer
28	A-109025	Bearing
29	A-109026	Bearing Spacer
30	A-109027	Rotor Nut
31	A-109028	Adjusting Washer
	A-109029	Adjusting Washer
	A-109030	Adjusting Washer
32	A-109031	Housing
33	A-109032	Wheel Guard
34	R-852024	Spring Washer (4)

Ref No	Part No	Description
35	A-109033	Hex Bolt (4)
36	A-109034	Wheel Flange
37	A-109035	Wheel Flange
38	A-109036	Head Screw
39	A-109037	Throttle Valve Body
40	A-109038	Throttle Valve Rod Bushing
41	A-109039	Throttle Valve Rod
42	A-109040	Throttle Valve
43	A-109041	Throttle Valve Washer
44	A-109042	Sub Throttle Valve
45	A-109043	Throttle Valve Spring
46	A-109044	Inlet Bushing
	A-109045	Inlet Bushing
47	A-109046	Exhaust Cover
48	A-109047	Exhaust Valve
49	A-109048	Muffler Plate
50	B-609023	Roll Pin
51	A-109049	Muffler Spring
52	A-905055	Spring Washer (4)
53	A-109050	Hex Bolt (2)
54	A-109051	Hex Bolt (2)
55	A-107039	Dead Handle
56	A-107042	Spring Washer
57	A-107049	Washer
58	A-109052	Throttle Valve Lever
59	A-109053	Lock Key
60	A-109054	Lock Spring
61	A-109055	Set Bolt
62	P-000034	O-Ring
63	R-852024	Spring Washer (2)
64	A-905031	Hex Bolt (2)
65	A-109056	Pin
66	A-109057	Spanner
67	A-109058	Spanner
68	A-109059	Allen Wrench (M4)
69	A-109060	Allen Wrench (M5)
70	A-109061	Allen Wrench (1/4)

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 UT919C 9" Vertical Grinder, 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 & 4, 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

cannot move during the grinding process.

33) If the grinder is dropped do not use unless the wheel is first checked for damage by a competent person.

34) When not in use the grinder should be stored in a safe place where it will not be damaged. If a tool has not been used for a period of time check the tool as for the first time of using.

35) Be aware that if the grinding process causes high vibration, special precautions should be taken.

36) The operator should be aware that the grinding wheel will continue to rotate after the power supply has been shut off. This could cause a hazard.

37) Always store grinding wheels in accordance with the manufacturer's instructions.

38) Check frequently that the spindle thread has not become damaged or worn.

39) Always ensure that the grinding wheel has a higher permissible running speed to the speed of the grinder.

Accessories

Notes

Distributor

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