

DRAPER®

INSTRUCTIONS FOR Composite Reversible Air Drills

Stock Nos. 14258
14265
14266

Part Nos. 5276K/PRO
5275K/PRO
5277K/PRO

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY TO ENSURE THE SAFE AND EFFECTIVE USE OF THIS TOOL.

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GENERAL INFORMATION

These instructions accompanying the product are the original instructions. This document is part of the product, keep it for the life of the product passing it on to any subsequent holder of the product. Read all these instructions before assembling, operating or maintaining this product.

This manual has been compiled by Draper Tools describing the purpose for which the product has been designed, and contains all the necessary information to ensure its correct and safe use. By following all the general safety instructions contained in this manual, it will ensure both product and operator safety, together with longer life of the product itself.

All photographs and drawings in this manual are supplied by Draper Tools to help illustrate the operation of the product. Whilst every effort has been made to ensure the accuracy of information contained in this manual, the Draper Tools policy of continuous improvement determines the right to make modifications without prior warning.



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Declaration enclosed



GUARANTEE

Draper air tools have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship for 6 months from the date of purchase except where tools are hired out when the guarantee period is ninety days from the date of purchase.

Should the machine develop any fault, please return the complete tool to your nearest authorised warranty repair agent or contact Draper Tools Limited, Chandler's Ford, Eastleigh, Hampshire, SO53 1YF. England. Telephone Sales Desk: (023) 8049 4333 or Product Helpline (023) 8049 4344.

A proof of purchase must be provided with the tool.

If, upon inspection it is found that the fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This guarantee does not apply to normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accident, or repairs attempted or made by any persons other than the authorised Draper warranty repair agent.

Note: If the tool is found not to be within the terms of warranty, repairs and carriage charges will be quoted and made accordingly.

This guarantee applies in lieu of any other guarantee expressed or implied and variation of its terms are not authorised.

Your Draper guarantee is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the guarantee period.

Please note that this guarantee is an additional benefit and does not affect your statutory rights.



SPECIFICATION

The Draper Tools policy of continuous improvement determines the right to change specification without notice.

Stock no.	14265.....	14258.....	14266.....
Part no.	5275K/PRO.....	5276K/PRO.....	5277K/PRO.....
Chuck capacity	0.8-6mm	1.0-10mm	1.5-13mm
Maximum operating air pressure	90psi (6.2bar)	90psi (6.2bar)	90psi (6.2bar)
Average air consumption	4.0cfm (113L/min)...	4.0cfm (113L/min)...	4.0cfm (113L/min)...
Revolutions per minute (no load).....	2600r/min.....	1800r/min.....	800r/min.....
Minimum air line size	$\frac{3}{8}$ " ID.....	$\frac{3}{8}$ " ID.....	$\frac{3}{8}$ " ID.....
Air inlet	$\frac{1}{4}$ " BSP	$\frac{1}{4}$ " BSP	$\frac{1}{4}$ " BSP
Sound pressure level†	91dB(A).....	85dB(A).....	86dB(A).....
Sound power level††	97dB(A).....	96dB(A).....	93dB(A).....
Vibration level	<2.5m/s ²	<2.5m/s ²	<2.5m/s ²
Weight	0.66kg	1.1kg	1.3kg

WARNING: WEAR APPROVED SAFETY GLASSES AND EAR DEFENDERS

† Continuous A-Weighted Sound Pressure Level at the workstation in accordance to prEN ISO 15744 and declared according to EN ISO 4871.

†† A-Weighted Sound Power Level in accordance to prEN ISO 15744 and declared according to EN ISO 4871.

FAILURE TO FOLLOW THESE INSTRUCTIONS WILL LEAD TO PREMATURE MALFUNCTION OF THE EQUIPMENT WHICH IS NOT COVERED BY THE GUARANTEE.

- **HYDRAULIC FLUID SPECIFICATION:**

Hydraulic fluid viscosity refers to its properties to flow and how it reacts with heat. A low viscosity is thinner than a high viscosity.

Hydraulic fluid becomes thinner as it heats so choosing the right viscosity is essential. If the viscosity is too low it may provide insufficient lubrication when heated. Equally if it is too high the fluid may provide excessive resistance to move through the lines when cold.

The ISO (International Standards Organisation) viscosity grading system measures the kinematic viscosity in centistokes (cSt) at 40° which is today's accepted standard. The SAE (Society of Automotive Engineers) viscosity grade value is based on a scale.

This equipment is suited to an ISO grade 22-32 (SAE grade 5W-15W) hydraulic fluid or monograde oil.

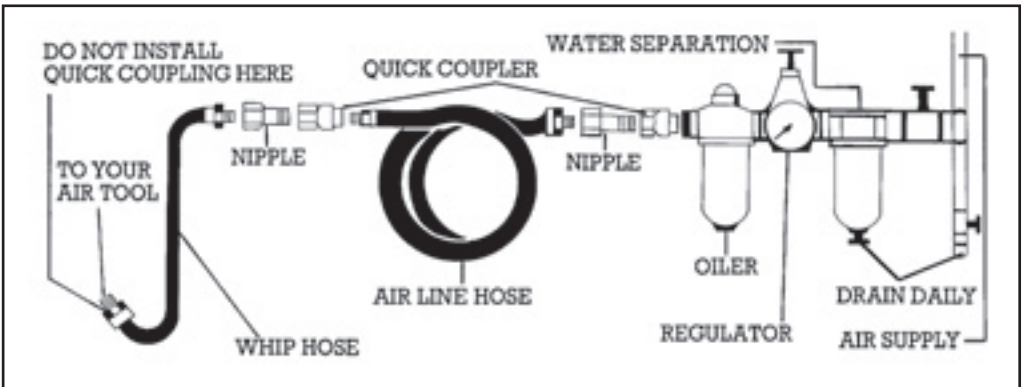
The fluid must be constantly supplied to the equipment during use to ensure complete lubrication and optimum performance is achieved. It also acts as a rust inhibitor when the equipment is not in use. Most of the major brand petroleum companies produce a suitable lubricant to the above specifications.

This air tool operates at a maximum pressure of 90psi and must be controlled via a combined regulator/oil/water separator such as the Draper ALFRL12 unit which with proper maintenance will ensure a constant supply of dry air and lubricating oil at all times (see illustration below). Always check machine operating pressure before use.

WATER IN THE COMPRESSOR TANK WILL CAUSE SERIOUS CORROSION TO YOUR AIR TOOLS AND SHOULD BE DRAINED DAILY TO AVOID EXCESSIVE WATER IN YOUR AIR SUPPLY. DIRTY WET AIR RAPIDLY SHORTENS THE LIFE OF YOUR AIR TOOL.

If you are using an air tool on a hose over 25ft. long it is advisable to increase the bore of the hose to the next larger size available i.e. 1/4" increases 3/8". This will ensure adequate pressure and volume of air to power the machine.

RECOMMENDED AIR SUPPLY SET UP



After each use and before prolonged storage lubricate the equipment with approximately 1.5ml of oil directly down the air inlet.

IMPORTANT:

Draper Tools Limited recommends that this machine should not be modified or used for any application other than that for which it was designed. If you are unsure of its relative applications do not hesitate to contact us in writing & we will advise you.

- Power tools shall not be used in potentially explosive atmospheres unless specifically designed for that purpose;
- Power tools shall be isolated from the energy source before changing or adjusting the inserted tool;
- **WARNING:**
 - There is a risk of loose clothing, hair, etc. being caught in the rotating spindle of the power tool;
 - Power tools are not generally insulated for coming into contact with electric power sources.
 - The application for which the power tool is being used may result in the reaction torque upon the operator exceeding 10Nm. Use auxiliary handle supplied with the tool. Loss of control can cause personal injury.
 - High reaction torque can be delivered in the case of stalling. Stalling can be caused by excessive loads being applied to the drill bit, the bit snags on the material being drilled into or when the drill bit breaks through the material being drilled.
 - Unexpected tool movement or breakage of inserted tool may cause injuries.
 - Unsuitable postures may not allow counteracting of normal or unexpected movement of the power tool.
 - There is a risk related to the rotating chuck & drill bit.
 - There is a risk of drawing in or trapping.
 - There is a risk of being injured by whipping air hoses.
- Unexpected direction of inserted tool movement can cause a hazardous situation.
- Release the start and stop device in the case of an interruption of the energy supply;
- Only lubricants/hydraulic fluids recommended by the manufacturer shall be used;
- Release pressure when not in use. Disconnect from the air line;
- Do not modify this drill in any way.
- Do not carry or move the tool by the air line.
- Only use genuine Draper replacement parts.

- In the event of hydraulic fluid/monograde oil contact or spillage refer to the manufacturer's datasheet. As a general guide refer below.

HYDRAULIC FLUID DATA SHEET:

Always wear gloves and goggles when dealing with hydraulic fluid.

Hydraulic fluid composition is achieved when highly refining mineral oil by means of a solvent.

As a substance is not considered to be hazardous to health under normal conditions of use.

First Aid recommendations

- In case of ingestion:
Wash out mouth with clean water & seek medical advice. Do not induce vomiting.
- In case of contact with eyes:
Thoroughly flush eyes with clean water for 5 to 10 minutes and seek medical advice.
- In case of contact with skin:
Wash area with soap and water. Remove effected clothing & wash. If irritation persists, seek medical advice.
- Other:
Seek medical advice immediately.

Hydraulic fluid is a combustible and in the event of fire should be extinguished using a foam or dry powder fire extinguisher. Do not use water.

In the event of accidental release into the environment measures to prevent spread must be adhered. Do not contaminate rivers, water ways or drains. Spillage should be contained with sand, grit or other appropriate barriers. Warn bystanders as spillage may present a slip hazard.

Hydraulic fluid is not considered biodegradable and may in fact bioaccumulate.

IMPORTANT NOTE:

Residual Risk. Although the safety instructions and operating manuals for our tools contain extensive instructions on safe working with power tools, every power tool involves a certain residual risk which can not be completely excluded by safety mechanisms. Power tools must therefore always be operated with caution!



(5277K/PRO shown)

- ① Variable speed trigger switch.
- ② Keyless chuck.
- ③ Forward/reverse selector.
- ④ Handle.
- ⑤ ¼" BSP (female) air inlet.
- ⑥ Auxiliary handle (5277K/PRO only).

- **SCOPE:** This air drill is designed for boring, drilling and reaming applications (when fitted with a suitable tool) in metal, wood and other similar materials. Any other use is forbidden.
- **UNPACKING:** After removing the packing material, make sure the product is in perfect condition and that there are no visible damaged parts. If in doubt, do not use the product and contact the dealer from whom it was purchased.

The packaging materials (plastic bags, polystyrene, etc.), must be disposed of in an appropriate refuse collection container. These materials must not be left within the reach of children as they are potential sources of danger.

- **WHIP HOSE (FIG.1):**

To connect the air drill to an air line a ¼" BSP male thread whip hose† will be required. Wind a length of PTFE tape‡ around the thread before securing the hose in place. The connection must be tight for an airtight union.

† Draper Stock No.54438.

‡ Draper Stock No.63389.



FIG.1

- **AUXILIARY HANDLE - 5277K/PRO ONLY (FIG.2):**

- **WARNING:** Use auxiliary handle supplied with the tool. Loss of control can cause personal injury.

When fitting the auxiliary handle (A), ensure the handgrip is loose (screw anticlockwise to loosen) before sliding it over the drill's chuck onto the collar (B).

Select the required angle of the handle before tightening securely.

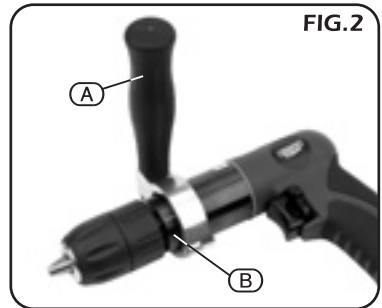


FIG.2

- **KEYLESS CHUCK (FIG.3):**

The drill is equipped with a keyless chuck, which negates the requirement for a separate key to secure the accessory in the jaws.

Selection of the correct accessory is dependant on material type and the job in hand. Ensure the selected accessory is suitable and speed compatible with the drill. Place the accessory into the chuck. Hold the back of the chuck (C) and rotate the body (D) as indicated to grip.

- **WARNING:** Prior to any drilling, carefully check the surface for the presence of electric cable, gas or water pipes and other dangerous or damaging contents. If unsure do not proceed.

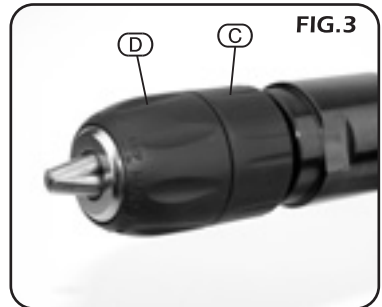


FIG.3

- **NOTE:**

Before connecting the drill to the air supply reduce the line pressure according to the specification.

- **TRIGGER (FIG.4):**

Confirm direction of rotation prior to starting. Pull trigger (E) to operate the drill.

Release the trigger to stop the drill.

- **CAUTION:**

Applying pressure on the machine as the drill bit breaks through can result in loss of control and injury.

- **NOTE:**

Before tool operation and work commences ensure the compressor reservoirs are drained of condensate along with all connected air lines. Check and drain the air line regulator's water trap & fill up the lubrication reservoir.

- **DIRECTION CONTROL:**

Rotate the switch (F) fully up or down to engage forward or reverse.

Use the trigger to adjust the speed setting most appropriate for the application.

- **DUST AND SWarf:**

A correctly fitted dust mask, suitable for the activity and in accordance to the relevant standard, must be worn

For work activities involving exposure to fine wood dust, a mask rated to at least FFP2 should be used.

Swarf produced by metal drilling is extremely sharp. Take precautions when clearing swarf.

The burr left on the workpiece edge is also sharp and should be removed with a suitable tool.

Always wear safety goggles.

- **DRILLING WOOD AND PLASTIC:**

To prevent splitting around the drill holes on the reverse side, place a piece of scrap timber under the material to be drilled.

- **DRILLING METAL:**

Metals such as sheet steel, aluminium and brass may be drilled. Mark the point to be drilled with a centre punch to help the drill bit tip to locate. A drop of oil on the cutting point will help aid penetration and prolong the life of the drill bit.

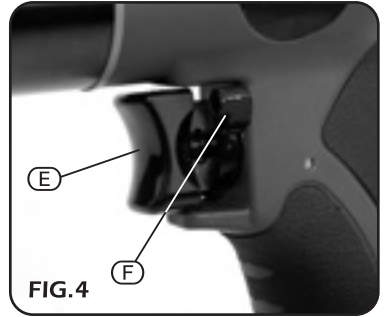
- **SCREWDRIVING:**

To prevent slip or damage to the screwhead, match the screwdriver bit to the screwhead size.

To remove screws, move the direction switch to the reversing position and apply pressure to the screwhead and depress the trigger slowly.

- **NOTE:**

Disconnect from the air supply before carrying out adjustment, servicing or maintenance.



- **Every Day:**

Before connection to the air supply;

- Drain the compressor reservoir of condensate.
- Drain the air lines of condensate.
- Drain the combined separator filter, regulator, water trap.
- Fill up the combined separator filter, regulator, lubricant reservoir.
- Check the line pressure is correct for the tool.

- **After Daily Use:**

- Repeat the above procedures.
- Lubricate the tool with approximately 1.5ml of oil directly down the air inlet.

- Only use genuine Draper replacement parts.

PROBLEMS	POSSIBLE CAUSE	REQUIRED ACTION
<ul style="list-style-type: none"> ■ Tool will not operate. ■ Air flows slightly from exhaust. ■ Spindle turns freely. 	<ul style="list-style-type: none"> ■ Motor or throttle seized with dirt. 	<ul style="list-style-type: none"> ■ Check for dirt in air inlet. ■ Pour air tool lubricating oil into air inlet. ■ Operate trigger in short bursts. ■ Disconnect air line supply, then turn drill chuck by hand. Reconnect air supply. ■ If motor fails to turn, return to service centre.
<ul style="list-style-type: none"> ■ Tool will not operate. ■ Air flows slightly from exhaust. ■ Spindle turns freely. 	<ul style="list-style-type: none"> ■ Rotor vane seized. 	<ul style="list-style-type: none"> ■ Pour air tool lubricating oil into air inlet. ■ Operate trigger in short bursts. ■ Disconnect air supply, rotate drill by hand. Reconnect air supply. ■ If still not functional, return tool to service centre.
<ul style="list-style-type: none"> ■ Spindle seized. 	<ul style="list-style-type: none"> ■ Motor vane broken. ■ Gears broken or jammed by foreign object. 	<ul style="list-style-type: none"> ■ Return to service centre.
<ul style="list-style-type: none"> ■ Tool will not shut off. 	<ul style="list-style-type: none"> ■ 'O' rings throttle valve dislodged from seat inlet valve. 	<ul style="list-style-type: none"> ■ Replace 'O' ring or return to service centre.

- During decommissioning of the equipment certain hazards should be understood and avoided:
- Dealing with hydraulic fluid - refer to the data sheet section for details.
 - Only with the line pressure released shall the equipment be disassembled. Goggles should be worn.



The operator's instruction manual must be read before work starts.



Wear safety glasses.



Wear ear defenders.

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- **Service/Warranty Repair Agent**
For aftersales servicing or warranty repairs, please
contact the Draper Tools Helpline for details of an
agent in your local area.

YOUR DRAPER STOCKIST

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