

DRAPER®

INSTRUCTIONS FOR Composite Stubby Air Ratchets

Stock No. 14199 Part No. 5219PRO
14210 5218PRO

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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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 (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.	14199	14210
Part no.	5219PRO	5218PRO
Anvil size.....	1/4"	3/8"
Maximum torque	30ft-lbs (40.7Nm)	30ft-lbs (40.7Nm)
Maximum operating air pressure	90psi (6.2bar).....	90psi (6.2bar)
Average air consumption	4.0cfm (113L/min)	4.0cfm (113L/min)
Revolutions per minute (no load)	350r/min	350r/min
Minimum air line size.....	3/8" ID	3/8" ID
Air inlet	1/4" BSP.....	1/4" BSP
Sound pressure level†	85dB(A)	85dB(A)
Sound power level††	96dB(A)	96dB(A)
Vibration level.....	2.6m/s²	2.6m/s²
Weight	0.4kgs	0.4kgs

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.

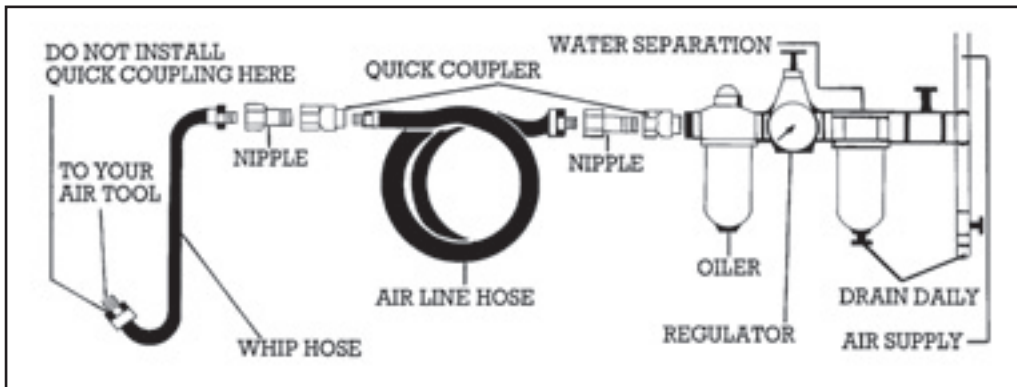
The fluid must be constantly supplied to the equipment during use to ensure complete lubrication and optimum performance is achieved. It also acts as a rust inhibitor when the equipment is not in use. Most of the major brand petroleum companies produce a suitable lubricant to the above specifications.

This air tool operates at a maximum pressure of 90psi and must be controlled via a combination pressure regulator, in-line lubricator and moisture filter such as the Draper range (see your local Draper stockist) 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.



GENERAL SAFETY INSTRUCTIONS

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 and we will advise you.

- Power tools shall not be used in potentially explosive atmospheres unless specifically designed for that purpose;
- Unexpected tool movement due to reaction forces or breakage of inserted tool or reaction bar may cause injuries;
- Power tools shall be isolated from the energy source before changing or adjusting the inserted tool;
- **WARNING:**
 - There is a risk of crushing by torque between a reaction bar and the workpiece;
 - There is a risk of loose clothing, hair, etc. being caught in the rotating spindle of the power assembly tool;
 - There is a risk of being injured if hands are not kept away from the reaction bar, specially observed when unscrewing in confined work places.
 - There is a risk of being injured if hands are not kept away from the nutrunner sockets;
 - There is a risk of danger to persons from high speed splinters being emitted from ratchet wrenches in the case of nutrunner socket failure;
 - There is a risk of being injured by whipping air hoses.
- Unexpected direction of inserted tool movement can cause a hazardous situation.
- Use only sockets and adapters which are in good condition and are intended for use with power tools;
- Adopt a suitable posture to counteract normal or unexpected movement of the power tool due to reaction forces from the power assembly tool;
- Release the start and stop device in the case of an interruption of the energy supply;
- Only lubricants recommended by the manufacturer shall be used;
- Release pressure when not in use. Disconnect from air line;
- Ratchet wrenches are not torque wrenches and are not designed or capable of installing fasteners to a specified torque. For fasteners requiring a specific torque, install the fastener to well below the required value then complete the task with a hand torque wrench to avoid damaging the fastener or workpiece.
- Only use accessories specifically hardened for impact use. Do not use standard chrome type hand tool sockets as they will shatter and splinter causing injury.

- Do not modify this ratchet wrench in any way.
- Do not carry or move the tool by the air line.
- Use only genuine Draper replacement parts.
- When starting or finishing the removal and installation of fasteners there is a risk of crushing between the tool and the workpiece due to sudden movement or reaction forces.
- 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 and 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 and 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. Air tools must therefore always be operated with caution!



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- ① Trigger switch.
- ② Drive anvil.
- ③ Reverse/forward selector.
- ④ Composite body.
- ⑤ 1/4" BSP (female) air inlet.

- **SCOPE:** This air ratchet is designed for removal and installation of threaded fasteners. 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 ratchet 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

- NOTE:

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

- TRIGGER (FIG.2):

Confirm direction of rotation prior to starting. Pull trigger (A) to operate the ratchet wrench.

Release the trigger to stop the ratchet wrench.

- NOTE:

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



FIG.2



OPERATION AND USE

- **NOTE:**

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

- **FORWARD/REVERSE SELECTION (Fig.3):**

- **NOTE:**

Air ratchets are not torque wrenches and are not designed or capable of installing fasteners to a specified torque. For fasteners requiring a specific torque, use a hand torque wrench.

Rotate the selector (B) anti-clockwise to select forward or clockwise for reverse operations.

- **ANVIL (Fig.4):**

Ensure the socket correctly locates on the anvil firmly engaging on the locating ball (C).

- **WARNING:**

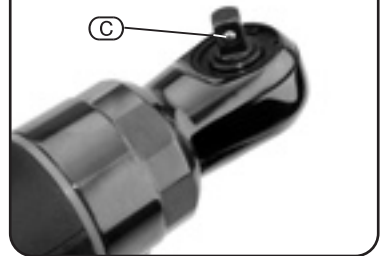
Only use accessories specifically hardened and designed for use with impact tools.

Do not use standard chrome type hand tool sockets and accessories as they may shatter and splinter.

FIG.3



FIG.4





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.
- Use only genuine Draper replacement parts.



TROUBLESHOOTING

PROBLEMS	POSSIBLE CAUSE	REQUIRED ACTION
■ Motor turns. Spindle doesn't run or runs erratically.	■ Worn teeth on ratchet or pawl. ■ Weak or broken pawl pressure spring. ■ Weak drag springs fail to hold spindle while pawl advances for another bite.	■ Replace worn parts.
■ Motor seized - ratchet head rotates by hand.	■ Blocked motor.	■ Pour a liberal amount of air tool lubricating oil into air inlet. ■ Operate throttle in short bursts with socket engaged on the bolt. ■ If motor remains jammed return to service centre.



DISPOSAL

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.



EXPLANATION OF SYMBOLS/PICTOGRAMS



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



WARNING: Risk of crushing.



Wear safety glasses.



Wear ear defenders.



NOTES

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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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