



# RATCHET

84122 / 84126





# 1. Preface

These are the original product instructions. This document is part of the product; retain it for the life of the product, passing it on to subsequent holders. Read this manual in full before attempting to assemble, operate or maintain this product.

This Draper Tools manual describes the purpose of the product and contains all the necessary information to ensure its correct and safe use. Following all the instructions and guidance in this manual will ensure the safety of both the product and the operator and increase the lifespan of the product.

All photographs and drawings within this manual are supplied by Draper Tools to help illustrate correct operation of the product.

Every effort has been made to ensure the information contained in this manual is accurate. However, Draper Tools reserves the right to amend this document without prior warning. Always use the latest version of the product manual.

## 1.1 Product Reference

User Manual for: Air Ratchet

Stock No: 84122, 84126

Part No: DAT-AR12, DAT-AR38

### 1.2 Revisions

Version 1: October 2017

First release

Version 2: December 2022

Version 3: August 2025

As our manuals are continually updated, always ensure that the latest version is used.

Please visit drapertools.com/manuals for the latest version of this manual and the associated parts list, if applicable.

# 1.3 Understanding the Safety Content of This Manual



WARNING! - Situations or actions that may result in personal injury or death.



CAUTION! - Situations or actions that may result in damage to the product or surroundings.

Important: - Information or instructions of particular importance.

# 1.4 Copyright © Notice

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# 3. Product Introduction

### 3.1 Intended Use

This air ratchet is designed to remove and install threaded fasteners.

Any other application beyond the conditions established for use will be considered misuse. Draper Tools accepts no responsibility for improper use of this product.

Read this manual in full before attempting to assemble, operate or maintain the product, and retain it for later use.

# 3.2 Specification

Stock No.	84122	84126
Part No.	DAT-AR12	DAT-AR38
Square drive	1/2"	3/8"
Maximum torque	85Nm/60lb-ft	85Nm/60lb-ft
Maximum operating air pressure	90psi (6.2bar)	90psi (6.2bar)
Average air consumption	113L/Min (4cfm)	113L/Min (4cfm)
Speed (no load)	160rpm	160rpm
Maximum air line size (ID)	3/8" (10mm)	3/8" (10mm)
Air Inlet	1/4" BSP	1/4" BSP
Noise emissions		
Sound pressure level	87dB (A)	87dB (A)
Sound power level	98dB (A)	98dB (A)
Vibration level	4.35M/S <sup>2</sup>	4.35M/S <sup>2</sup>
Net weight	1.22kg	1.21kg

Important: The declared vibration total values and noise emissions values have been measured in accordance with a standard test method and may be used for comparing one tool with another. These values may also be used in a preliminary assessment of exposure.



**WARNING!** The vibration and noise emissions during actual use of the product can differ from the declared values depending on the type of work and the area upon which it is used. Before each use, estimate the likely exposure resulting from the actual conditions of use. Take into account all parts of the operation cycle in order to identify any safety measures required to protect the operator.

# 4. Health and Safety Information



**Important:** Read all the Health and Safety instructions before attempting to operate, change accessories, maintain or repair this product. Failure to follow these instructions may result in injury or damage to the user, the product or the workpiece.

# 4.1 General Health and Safety Precautions

- Only qualified and trained operators should use or adjust the ratchet for threaded fasteners.
- DO NOT modify this ratchet. Modifications can reduce the effectiveness of safety measures and increase the risks to the operator.
- Retain the safety instructions for future reference and use by the operator.
- DO NOT use the tool if it has been damaged.
- Inspect the tool periodically to verify that the ratings and markings required are attached and legible.
- Keep bystanders away during operation.
- ALWAYS Wear appropriate personal protective equipment (PPE) including eye, ear and hand protection.
- Have your tool serviced by a qualified repair person using only identical replacement parts.

# 4.2 Additional Safety Instructions for Compressed Air



### WARNING!

Compressed air can cause severe injury.

- ALWAYS turn off and disconnect the air supply before changing accessories, making any adjustments to the product or leaving it unattended.
- **NEVER** direct this product towards yourself or others.
- Ensure that compressed air is not blocked by or in contact with any part of your body.
- ONLY use clean, dry and regulated compressed air.



WARNING! NEVER use oxygen, combustible a gases or other bottled gases as a supply for this product. Use of these substances may cause the product to explode.

 Draper Tools recommends the use of a whip hose between the tool and the air supply to reduce vibration.



# WARNING! Whipping hoses can cause severe injury. Always check for and replace damaged or loose hoses and fittings.

- Ensure that the product is compatible with the air supply before use.
- · Ensure all connections are securely tightened.
- Where universal twist couplings (claw couplings) are used, lock pins must be installed and whip check safety cables must be used to safeguard against possible hose-to-tool or hose-to-hose failure.
- DO NOT exceed the maximum stated air pressure.
- The use of an inline water separator, lubricator and pressure regulator should be used to control the pressure of the air being supplied to the tool.
- DO NOT obstruct the ability of the trigger to release once depressed.
- . **NEVER** carry the tool by the air line.

# 4.3 Additional Safety Instructions for Air Ratchets



# WARNING!

- · Wear suitable gloves to protect hands.
- Keep hands, loose clothing, hair etc. away from the rotating spindle or drive of the impact socket.
- NEVER hold the drive, socket or drive extension.
- There is a risk of injury if hands are not kept away from the impact socket especially in confined spaces.
- Failure of the workpiece, accessories or even of the inserted socket itself can generate high-velocity projectiles.
- Always wear impact-resistant eye protection during the operation of the ratchet. The grade of protection required should be assessed for each use.
- Direct the exhaust port away from yourself and to minimise disturbance of dust in the work area.
- Ensure that the workpiece is securely fixed.
- Disconnect the tool from the energy supply before changing the inserted tool or accessory.
- DO NOT touch sockets or accessories during impacting, as this increases the risk of cuts, burns or vibration injuries.
- Use only sizes and types of accessories and consumables that are recommended by the tool manufacturer.

# 4. Health and Safety Information

- Unexpected direction of inserted tool movement can cause a hazardous situation.
- Use only impact sockets and adaptors which are in good condition and are intended for use with this tool.
- Adopt a suitable posture to counteract normal or unexpected movement due to reaction forces from the tool.
- Release the start and stop device in the case of an interruption of the energy supply.
- Only use lubricants recommended by the manufacturer.
- Ratchets 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.
- Ensure the drive is correctly maintained and if damaged or missing, is replaced immediately before work commences. Missing or damaged drives may lead to sockets detaching while rotating at high speed.
- Only use accessories specifically designed and hardened for impact use. DO NOT use standard chrome type hand tool sockets as they may shatter and splinter.
- 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.
- The ratchet is not intended for use in potentially explosive atmospheres and is not insulated against coming into contact with electric power.
  - Ensure there are no electrical cables, gas pipes, etc., that can cause a hazard if damaged by use of the tool.

### Noise Hazards

- Exposure to high noise levels can cause permanent hearing loss and other problems.
   Perform a risk assessment and implement any appropriate controls for identified hazards before performing any operation.
- Use appropriate hearing protection in accordance with local occupational health and safety regulations.
- Operate and maintain the tool appropriately to prevent unnecessary increase in noise emissions.

### Vibration Hazards

- Exposure to vibration can cause disabling damage to the nerves and blood supply of the hands and arms.
- Wear warm clothing when working in cold conditions and keep your hands warm and dry.
- If you experience numbness, tingling, pain or whitening of the skin in your fingers or hands, stop using the tool and consult a qualified health professional.
- Operate and maintain the tool appropriately to prevent unnecessary increase in vibration emissions.
- The risks from vibration hazards are increased when grip force on the tool is higher. – Hold the tool with a light but safe grip, keeping in mind that your grip may need to be altered to react to unexpected forces.

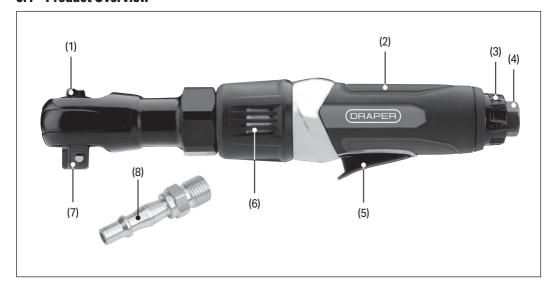
### 4.4 Residual Risk

The safety instructions in this manual cannot account for all possible conditions and situations that may occur. Exercise common sense and caution when using this product and protect against any additional conceivable risks.

# 5. Identification and Unpacking



### 5.1 Product Overview



- (1) (R) Reverse/(F) Forward selector
- (2) Low vibration soft grip
- (3) 4 Speed selector
- (4) 1/4" BSP air inlet

- (5) Trigger switch
- (6) 360° adjustable exhaust port
- (7) Square drive
- (8) Air line coupling screw adaptor

# 5.2 Packaging

Keep the product packaging for the duration of the warranty period for reference should the product need to be returned for repair.

WARNING! Keep packaging materials out of reach of children. Dispose of packaging correctly and responsibly and in accordance with local regulations.

Please visit **drapertools.com** for our full range of accessories and consumables.

# 6. Preparation Instructions

**Important:** Before preparing or adjusting this product, read and understand all the safety instructions listed in this manual.

# 6.1 Preparing the Air Supply for Use

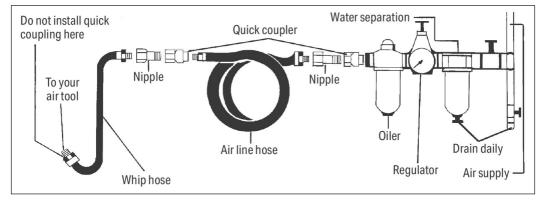
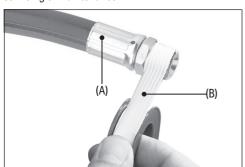


Fig. 1

- This air tool operates at a max. pressure of 6.2bar (90psi).
- ISO grade 22–32 (SAE grade 5W–15W) monograde oil should be used in this air tool.
- During use, the oil must be constantly supplied to the equipment to ensure complete lubrication and optimum performance.
- The compressed air system must be controlled by a combination pressure regulator, in-line lubricator and moisture filter. This will ensure a constant supply of dry air at all times, provided it is properly maintained. Important: Always check the machine operating pressure before use.
- Water in the compressor tank may cause considerable corrosion to air tools; the compressor should be drained daily to avoid excessive water in the air supply. Dirty or wet air can significantly shorten the lifespan of the product.
- When using an air tool with a hose over 25ft long, Draper Tools recommends increasing the bore of the hose to the next largest available size (i.e. increase 3/8" to 1/2"). This will ensure adequate pressure and volume of air to power the tool.

# 6.2 Connection to the Air Supply

**Important:** Always disconnect from the air supply before assembling, carrying out adjustments, servicing or maintenance.



To connect the air ratchet to an air line, a 1/4" BSP male thread whip hose (A) will be required.

- Wind a length of PTFE tape (B) around the thread of the whip hose.
- Unscrew and remove the bung from the air inlet (4).
- Attach the hose via the 1/4" BSP air inlet (4).
   The connection must be tight for an airtight union.

Fig. 2

# 7. Operating Instructions



**Important:** Before operating this product, read and understand all the safety instructions listed in this manual.

### Note:

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

# 7.1 Trigger Switch



Fig. 3

- · Confirm direction of rotation prior to starting.
- Squeeze the trigger (5) to operate the air ratchet.
- · Release the trigger to stop the ratchet.

# 7.2 Forward/Reverse Selection

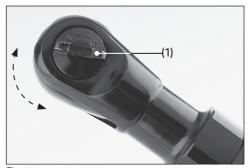


Fig. 4

 Turn the selector (1) to select (F) forward or (R) reverse operation.

# 7.3 Speed Selector

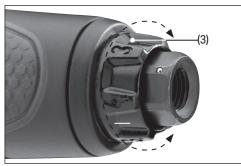


Fig. 5

 Turn the selector (3) between speed 1 and 4 to choose the most appropriate speed for the application.

# 7.4 Square Drive

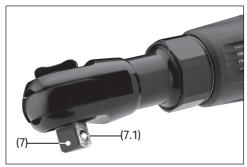


Fig. 6

 Ensure the socket is located correctly and firmly engaged on the drive (7) and engages with the locating ball (7.1).

## 7.5 Exhaust Port

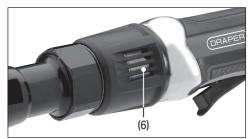


Fig. 7

 Adjust the exhaust port (6) away from yourself and ensure it does not disturb any dust in close proximity.

# 8. Maintenance and Troubleshooting

# <u>^</u>

# **WARNING!**

- Disconnect from the air supply before carrying out any adjustments, servicing or maintenance.
- Replace the bung in the end of the air line inlet (4) when the tool is disconnected from the air supply and before storing.

# 8.1 Every-Day Maintenance Checks

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.

### 8.2 After Use Maintenance Checks

- · Repeat the above procedures.
- Lubricate the tool with approximately 1.5ml of oil directly down the air inlet.
- When not in use store in a dry clean place out of the reach of children.

# 8.3 Troubleshooting

Problem	Possible Cause	Remedy
Tool will not operate.	Motor or throttle seized with dirt.	Check for dirt in air inlet. Pour air tool lubricating oil into air inlet. Operate tool in short bursts. If motor fails to operate, contact Draper Tools for advice.
Tool operates slowly.	Rotor vane seized.	Pour air tool lubricating oil into air inlet. Operate tool in short bursts. If still not functional, contact Draper Tools for advice.
Spindle seized.	Motor vane broken.	Contact Draper Tools for advice.
Tool will not switch off.	'O' ring throttle valve dislodged.	Replace 'O' ring or contact Draper Tools for advice.

# 9. Spares, Returns and Disposal

For spare parts, servicing, and repair and replacement options, please contact the Draper Tools Product Helpline for details of your nearest authorised agent.

Draper Tools will endeavour to hold any spare parts, if applicable, for seven years from the date that it sells the final matching stock item.

Any servicing or repairs carried out by unauthorised personnel or installation of spare parts not supplied by Draper Tools will invalidate your warranty.

At the end of its working life, dispose of the product responsibly and in line with local regulations. Recycle where possible.



6 months from date of purchase – Visit **drapertools.com/warranty** for more information.

However, if the tools are hired out, the warranty period is 90 days from the date of purchase.

### **Draper Tools Limited**

# 11. Explanation of Symbols



Read the instruction manual



Wear safety glasses



Wear ear defenders



Wear protective gloves



Warning!



Warning! Risk of crushing



Direction of rotation

1/2" SQ DR

Square drive



Maximum torque



Maximum torque

160 R/min

Speed (no load)



Maximum air line size

**90** psi

Maximum operating air pressure

**6.2** bar

Maximum operating air pressure

4.0 cfm

Average air consumption

113 L/min

Average air consumption

1/4" BSP

Air Inlet



Net weight



European conformity



**UK Conformity Assessed** 

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