

**DRAPER**

**EN**

Original Instructions  
Version 2 - March 2026

1/2" AIR IMPACT  
**WRENCH/  
KIT**

**83745/83985**

Stock No: 83745



Stock No: 83985

**UK  
CA** **CE**

# 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:** 1/2" Air Impact Wrench /  
1/2" Air Impact Wrench Kit

**Stock No:** 83745/83985

**Part No:** DAT-AIW12 / DAT-AIWK

## 1.2 Revisions

**Version 1:** November 2017  
First release

**Version 2:** March 2026

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

Please visit [drapertools.com/manuals](http://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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## 3.1 Intended Use

This air impact wrench 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.	83745/83985
Part No.	DAT-AIW12/DAT-AIWK
Square drive anvil size:	1/2"
Ultimate torque:	680Nm/500ft-lbs
Maximum operating air pressure:	90psi (6.2bars)
Average air consumption:	184L/min (6.5cfm)
Speed (no load):	7,000rpm
Minimum air line size:	3/8" ID
Air inlet size:	1/4" BSP
<b>Noise emissions:</b>	
Sound pressure level:	87dB (A)
Sound power level:	98dB (A)
<b>Vibration level:</b>	4.35m/s <sup>2</sup>
Net weight:	2.59kg

**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.

**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 impact wrench.
- **DO NOT** modify this impact wrench. 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 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 Impact Wrenches

 **WARNING!**

- There is a risk of crushing by torque between a reaction bar and the workpiece.
- Keep loose clothing, hair etc. away from the rotating spindle of the impact socket.
- **NEVER** hold by the anvil ring or socket.
- 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 impact wrench. The grade of protection required should be assessed for each use.
- 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.
- 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 wrench.

- Release the start and stop device in the case of an interruption of the energy supply.
- **ONLY** use lubricants recommended by the manufacturer.
- Impact 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.
- Ensure the anvil ring is correctly maintained and if damaged or missing, is replaced immediately before work commences. Missing or damaged anvil rings may lead to sockets detaching from the wrench while rotating at high speed.

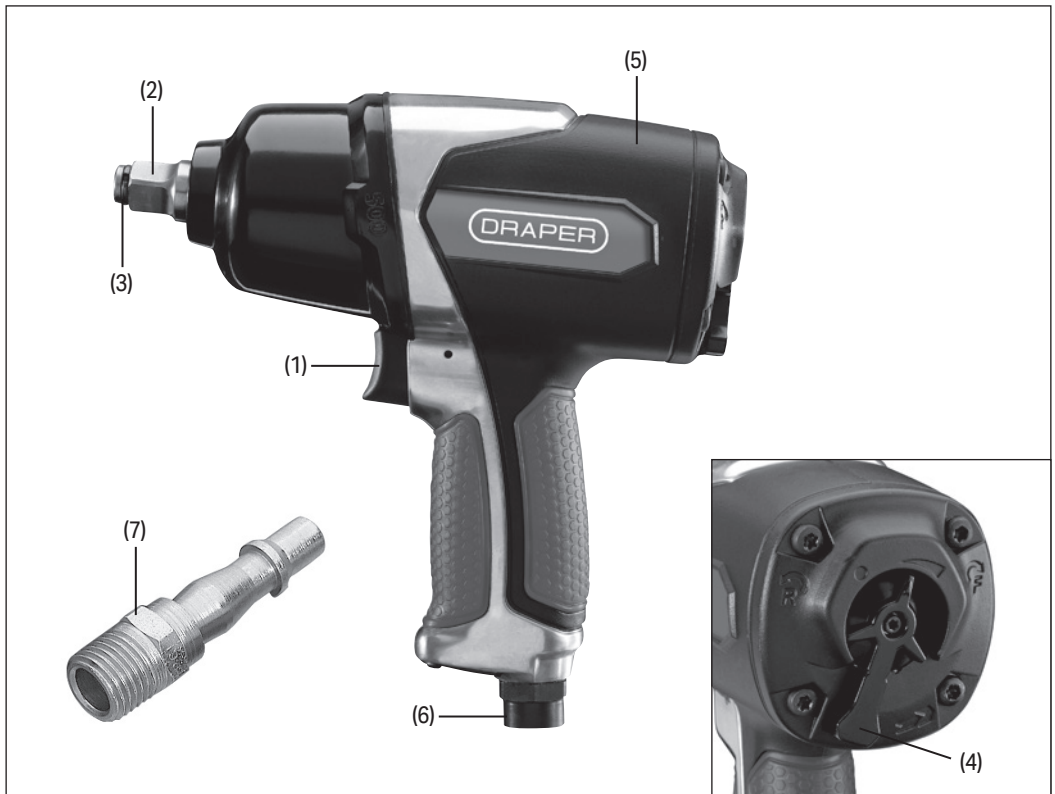
- **ONLY** use accessories specifically designed and hardened for impact use. **DO NOT** use standard chrome type hand tool sockets as they will shatter.
- When starting or finishing the removal and installation of fasteners there is a risk of crushing between the tool and the workpiece due to sudden movement or reaction forces.

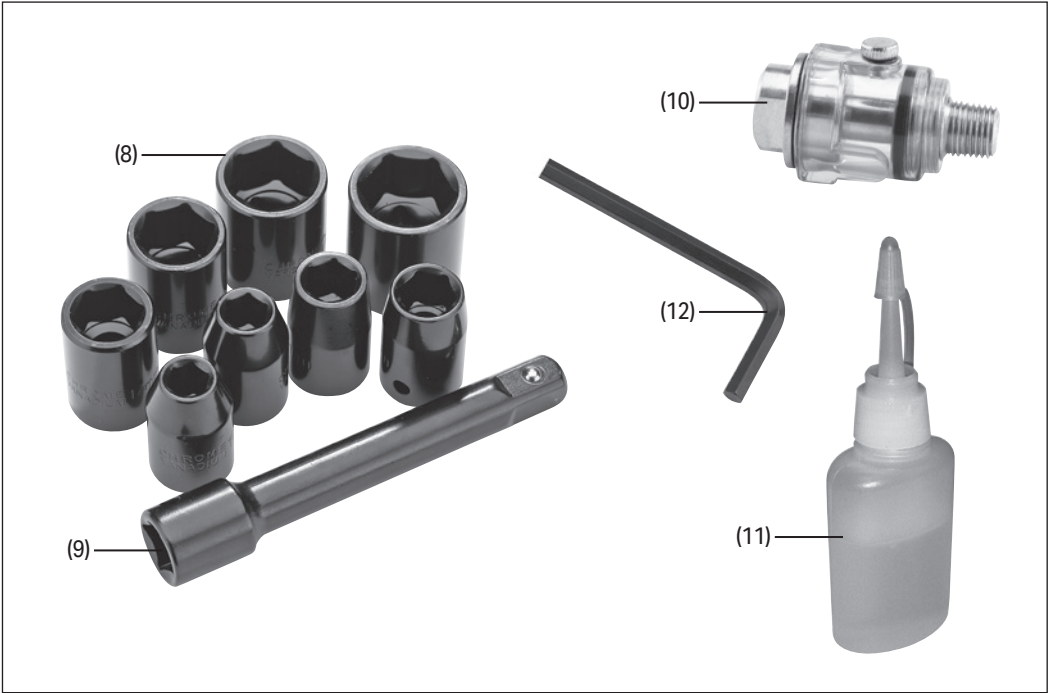
### 4.4 Residual Risk

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) Variable speed trigger
- (2) Square drive anvil
- (3) Anvil ring
- (4) Reverse/forward speed selector
- (5) Body
- (6) 1/4" BSP (female) air inlet
- (7) 1/2" BSP male air line coupling screw adaptor

### 83985 Kit only

- (8) 8 X Impact sockets (10,11,13,14,17,19,22 & 24mm)
- (9) 1/2" X 200mm Extension bar
- (10) Mini oiler
- (11) Oil pot
- (12) Hex key

## 5.2 Packaging

Keep the product packaging for the duration of the warranty period in case the product needs 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](http://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.

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

## 6.1 Preparing the Air Supply for use (Fig.1)

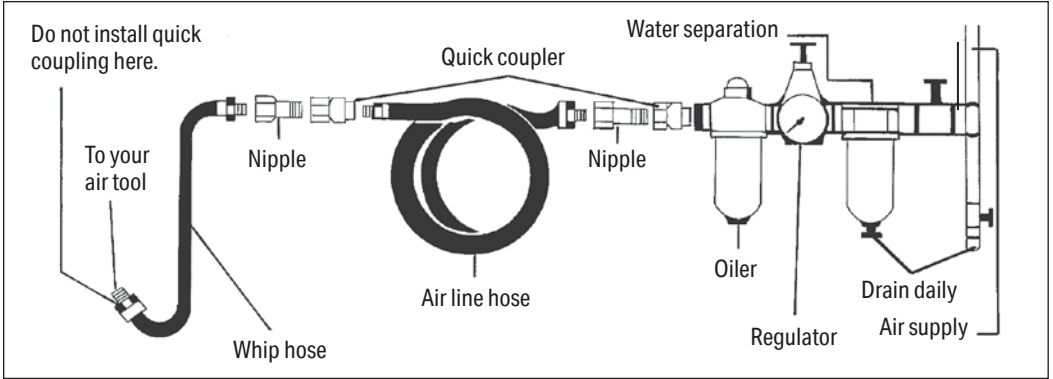


Fig.1

- 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 (Fig.2)

- To connect the air impact wrench 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.
  - Attach the hose via the 1/4" BSP (female) air inlet (6). The connection must be tight for an airtight union.

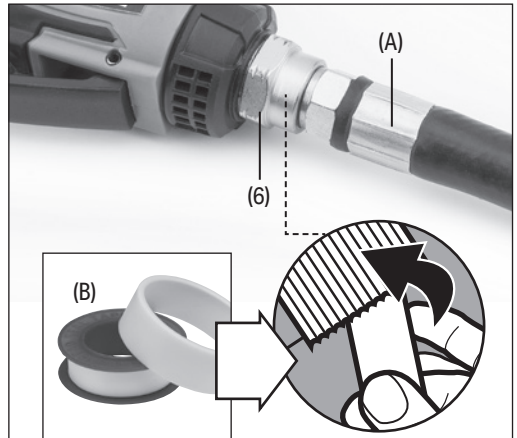


Fig.2

### 6.3 Installing and Removing Sockets (Fig.3)

- This wrench is supplied with a 1/2" square drive anvil (2).
  - **NEVER** use any sockets or accessories that are not hardened for impact use.
1. Push fit the socket over the anvil. The friction based ring will hold the socket securely in place.
  2. To remove a socket, pull the socket away from the anvil.

**Note:** When fitting or removing brand new sockets extra effort may be required.

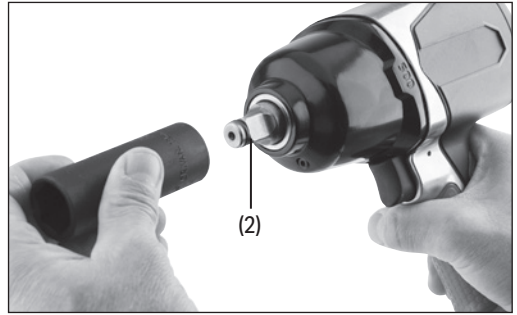


Fig.3

### 6.4 Attaching the Mini Oiler (Fig.4) (Stock No 83985 kit only)

- Attach the mini oiler (10) to extend the life of your air wrench.

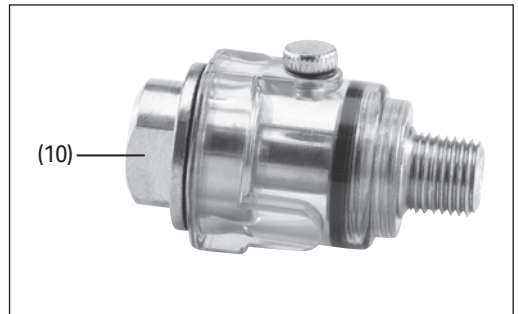


Fig.4

## 7.1 Trigger Switch (Fig.5)

**Note:** Before connecting the impact wrench to the air supply reduce the line pressure according to the specification.

- Confirm direction of rotation prior to starting. Press trigger (1) to operate the impact wrench.
- Release the trigger to stop the impact wrench. The anvil and accessory will continue to rotate briefly after the trigger has been released.

**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.

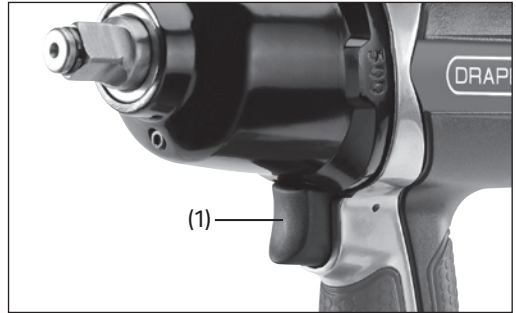


Fig.5

## 7.2 Forward/Reverse Speed Selection

(Fig.6 – Fig.7)

- The impact wrench has three forward speeds and two reverse speeds. Turn the combined directional speed switch (4) to engage the direction and speed appropriate for the task in hand.

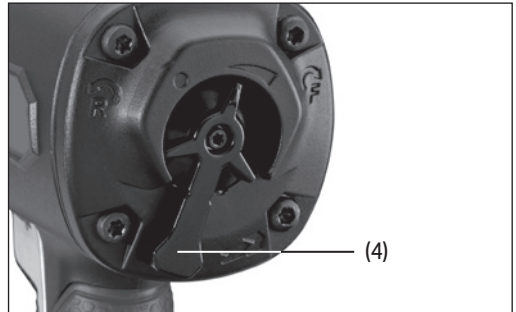


Fig.6

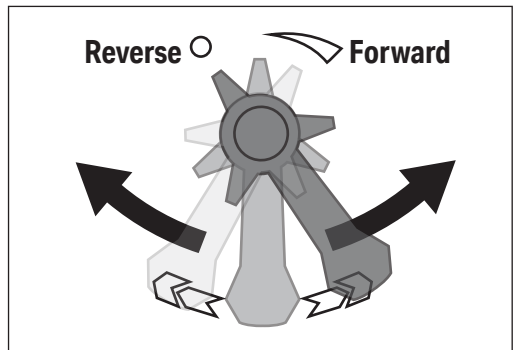


Fig.7

### WARNING!

- Disconnect from the air supply before carrying out any adjustments, servicing or maintenance.
- **NEVER** use any sockets or accessories that are not hardened for impact use.

### 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 Anvil Care (Fig.8)

- Ensure the anvil ring (3) is correctly maintained and if damaged or missing is replaced immediately before work commences.
- Ensure the socket correctly locates on the anvil and firmly engaging on the anvil ring (3).

**Note:** It is natural for the socket to resist removal.

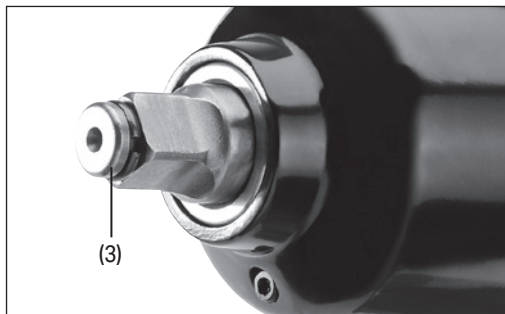


Fig.8

## 8.4 Troubleshooting

Problem	Possible Cause	Remedy
Tool runs slowly. Air flows slightly from exhaust.	<ul style="list-style-type: none"> <li>- Motor parts jammed with dirt particles.</li> <li>- Power regulator in closed position.</li> <li>- Air flow blocked by dirt.</li> </ul>	<ul style="list-style-type: none"> <li>- Check air inlet filter for blockage.</li> <li>- Pour 1.5ml air tool lubricating oil into air inlet.</li> <li>- Operate tool in short bursts, quickly reversing rotation back and forth.</li> </ul>
Motor will not run. Exhaust air flows freely.	<ul style="list-style-type: none"> <li>- One or more motor vanes stuck due to material build up.</li> <li>- Motor seized due to rust.</li> </ul>	<ul style="list-style-type: none"> <li>- Pour air tool lubricating oil into air inlet.</li> <li>- Operate tool in short bursts of forward and/or reverse rotation (where applicable).</li> <li>- Tap motor housing gently with plastic mallet.</li> <li>- Disconnect supply, free motor by rotating drive shank manually.</li> <li>- If tool remains jammed, return to service centre or contact Draper Tools for advice.</li> </ul>
Sockets will not stay on.	<ul style="list-style-type: none"> <li>- Worn anvil ring.</li> </ul>	<ul style="list-style-type: none"> <li>- Replace anvil ring.</li> </ul>
Drive shank wear.	<ul style="list-style-type: none"> <li>- Worn sockets or using conventional chrome plated sockets.</li> </ul>	<ul style="list-style-type: none"> <li>- <b>DO NOT</b> use chrome plated conventional sockets under any circumstances as this is a highly dangerous practice.</li> <li>- Use only high quality impact sockets as recommended by Draper Tools. Chrome plated sockets can shatter and cause injury.</li> </ul>
Tool runs at normal speed but loses power under load.	<ul style="list-style-type: none"> <li>- Motor parts worn.</li> </ul>	<ul style="list-style-type: none"> <li>- Return to service centre or contact Draper Tools for advice.</li> </ul>
Tool will not shut off	<ul style="list-style-type: none"> <li>- Throttle valve 'O' ring broken or unseated.</li> <li>- Throttle valve stem bent or jammed with dirt particles.</li> </ul>	<ul style="list-style-type: none"> <li>- Replace 'O' rings.</li> <li>- Lubricate trigger with air tool lubricating oil. If trigger remains jammed return to service centre or contact Draper Tools for advice.</li> </ul>

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

- **DO NOT** dispose of this product with domestic waste; most local authorities provide appropriate recycling facilities.
- **DO NOT** incinerate.
- During decommissioning of the equipment, certain hazards should be understood and avoided:
  - Only with the line pressure released shall the equipment be disassembled.
  - Goggles should be worn.

This warranty covers parts and labour for 6 months from date of purchase – visit [drapertools.com/warranty](https://www.drapertools.com/warranty) for more information. However, if the tools are hired out, the warranty period is 90 days from the date of purchase.

Should the tool develop a fault within the warranty period, return the complete tool to the place of purchase or contact Draper Tools directly. Proof of purchase must be provided.

This warranty does not apply to any consumable parts or normal wear and tear.

It also does not cover any damage caused by misuse, careless or unsafe handling, modifications, or repairs carried out by any personnel other than an authorised Draper Tools repair agent.

Please note that this guarantee is in addition to and does not affect your statutory rights.

### **Draper Tools**

# 11. Explanation of Symbols



Read the instruction manual



Direction of rotation



Wear safety glasses



European conformity



Wear ear defenders



UK Conformity Assessed



Wear protective gloves



Do not abandon in the environment



**Warning!**



**Warning! Risk of crushing!**

## Contact Details

### **Draper Tools**

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