



# TORQUE WRENCH

34964

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



## INSTRUCTIONS

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.

# 1. TITLE PAGE

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## 1.1 INTRODUCTION:

**USER MANUAL FOR: Torque Wrench**

**Stock No: 34964**

**Part No: 3005A**

## 1.2 REVISIONS:

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**Date first published August 2019.**

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As our user manuals are continually updated, users should make sure that they use the very latest version.

**Downloads are available from:** <http://drapertools.com/manuals>

Draper Tools Limited

Hursley Road

Chandler's Ford

Eastleigh

Hampshire

SO53 1YF

UK

**Website:** [drapertools.com](http://drapertools.com)

**Product Helpline:** +44 (0) 23 8049 4344

**General Fax:** +44 (0) 23 8026 0784

## 1.3 UNDERSTANDING THIS MANUALS SAFETY CONTENT:

**WARNING!** – Information that draws attention to the risk of injury or death.

**CAUTION!** – Information that draws attention to the risk of damage to the product or surroundings.

## 1.4 COPYRIGHT © NOTICE:

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## 3. WARRANTY

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### 3.1 WARRANTY

Draper tools have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship.

Should the tool develop a fault, please return the complete tool to your nearest distributor 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.

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 warranty period covering labour is 12 months from the date of purchase except where tools are hired out when the warranty period is 90 days from the date of purchase. The warranty is extended to 24 months from the date of purchase for parts only. This warranty does not apply to any consumable parts, any type of battery or normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accidents, or repairs attempted or made by any personnel 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 warranty applies in lieu of any other warranty expressed or implied and variations of its terms are not authorised.

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

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

**Draper Tools Limited.**

# 4. INTRODUCTION

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## 4.1 SCOPE

This torque wrench is used to apply a specific torque to a fastener such as a nut or bolt. Any application other than that it was designed for is considered misuse.

## 4.2 SPECIFICATION

Stock no. ....	34964
Part no. ....	3005A
Torque range .....	65-450Nm
.....	48-331.9ft/lbs
Accuracy .....	+/- 4%
Square drive size .....	3/4"
Overall length approx .....	845mm

Manufactured and tested in accordance with ISO 6789-2003 Standards.

Whilst every effort has been made to ensure that the accuracy of information given in this manual is correct at time of going to print, the Draper Tools policy of continuous improvement determines the right to change specification without notice.

This torque wrench is accurate to  $\pm 4\%$  of the set load and has been manufactured and tested in accordance to ISO 6789-2003.

Torque tools are classified as test devices. If a calibration routine is required, the calibration interval shall be chosen on the basis of the factors of operation such as required accuracy, frequency of use, typical load during operation as well as ambient conditions during operation and storage conditions. The interval should be decided according to the user's procedures for the control of test devices and by the requirements of the user.

If the user does not use a control procedure, a period of use of 12 months, or approximately 5000 cycles can be taken as a default value of the recalibration interval. **For the first recalibration, the period of validity starts with user's first operation of the torque tool.**

In addition to these specifications, factory or legal regulations shall be observed.

The torque tool shall be recalibrated when it has been subjected to an overload greater than 125% of maximum rated load and after repair, or after any improper handling which might influence any errors in measurement.

## 4.3 HANDLING & STORAGE

Ensure you have a good stable position whilst using this product. Care should be exercised when using this product due to rotating parts etc.

Store the product together with this manual in its protective case in a cool dry place with the torque wrench set to its minimum setting.

This product should be cleaned, maintained and lubricated regularly to ensure it is operating at peak performance.

## 5. HEALTH & SAFETY INFORMATION

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⚠ **WARNING!** Never use the torque wrench to **undo** bolts, nuts or fasteners, as this will damage the calibrated setting

Always adjust the torque wrench upwards through the scale to reach the required torque.

Calibration will be affected if the torque required is set by coming down the scale.

**IMPORTANT:** Only pull the torque wrench in the direction of the arrow shown on the top face of the torque wrench.

Incorrect application of force in the wrong direction will permanently and irrevocably damage the torque wrench. Incorrect use of the torque wrench in this manner invalidates the warranty.

Always refer to manufacturer's literature, workshop manual, Autodata or Haynes manual for recommended **TORQUE SETTINGS** and if applicable the sequence for tightening and final torquing of fasteners.

If critical torque measurement is required, it is recommended the torque wrench is independently calibrated before first use and that the user puts in place a re-calibration schedule appropriate for the application.

# 6. TECHNICAL DESCRIPTION

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## 6.1 IDENTIFICATION



- ① Drive square.
- ② Direction arrow.
- ③ Torque scales.

- ④ Handle.
- ⑤ Locking screw.

**Note:** After use ALWAYS reset torque wrench to its lowest setting for storage. Storing at a level other than the lowest setting will affect torque wrench calibration.

## 7. UNPACKING & CHECKING

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### 7.1 PACKAGING

Carefully remove the Torque wrench from the packaging and examine it for any sign of damage that may have happened during shipping. If it is damaged; please contact the Draper Helpline (the telephone number appears on the title page).

**WARNING!** Some of the packaging materials used may be harmful to children. Do not leave any of these materials in the reach of children.

If any of the packaging is to be thrown away, make sure they are disposed of correctly; according to local regulations.



# 8. OPERATING INSTRUCTIONS

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## 8.1 OPERATION INSTRUCTIONS - FIG. 1

### **IMPORTANT:**

Always use the correct size socket.

Apply a steady pull to the handle of the torque wrench. When the required torque is reached, this will be indicated by the following:

#### **1. Audible click:**

**NOTE:** The click will be quieter at lower torque settings.

#### **2. Touch:**

The handle will be felt to "break away" at the point of the set torque.

**WARNING:** At low torque levels the "break away" will be very soft. Check on a non-critical fastener before use so that you can familiarise yourself with this.

#### **3. Visually:**

The handle will be seen to "break away" at the point of the set torque.

**WARNING:** At low torque levels the "break away" will be very soft. Check on a non-critical fastener before use so that you can familiarise yourself with this.

### **WARNING:**

Never continue to pull on the torque wrench once the set torque is reached, as this will result in an incorrect torque being applied and possible damage to parts.

If the torque wrench has not been used i.e. new or has been in storage for some time, operate it several times at a low torque setting, which allows the internal lubrication to recoat working parts.

When the torque wrench is not in use, adjust to the lowest torque setting for storage.

Do not turn adjustment below lowest torque setting.

Never use the torque wrench to undo nuts, bolts or fasteners. This will result in the mechanism being damaged.

The tool is rugged and designed for general use, but it is also a precision measuring instrument and should be treated as such.

Clean wrench by wiping. Do not immerse in any type of cleaner which will affect the internal lubrication.

Under no circumstances should any attempt be made to adjust or repair the torque wrench.

A full repair and calibration service is available on request. A charge will be made accordingly.

It is recommended that a re-calibration schedule is put in place by the user to ensure the torque wrench is performing within its design criteria.

## 8. OPERATING INSTRUCTIONS

### 8.2 GETTING TO KNOW YOUR TORQUE WRENCH

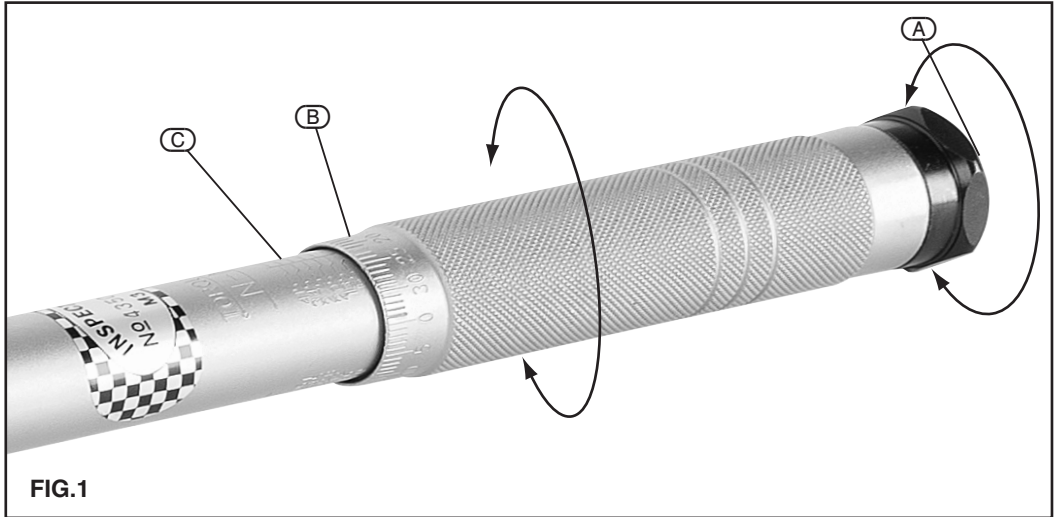


FIG.1

- **NOTE:** Always set by turning the handle in the clockwise direction.
  1. To unlock handle, turn locking screw anti-clockwise (A).
  2. Turn handle clockwise until the correct whole number of the setting is reached (B).
  3. Continue to turn the handle for any additional increments to obtain the final setting (C).
  4. Lock handle, turn locking screw clockwise (A).
  5. When the torque wrench is not in use, ensure adjustment at the lowest torque setting.

## 8. OPERATING INSTRUCTIONS

### - SETTING EXAMPLE $\frac{3}{4}$ " SQUARE DRIVE (Figs.2-5):

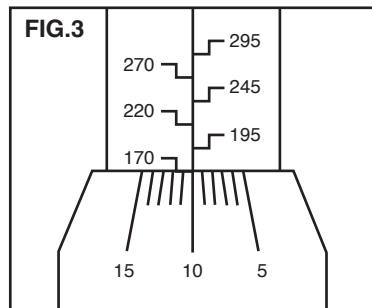
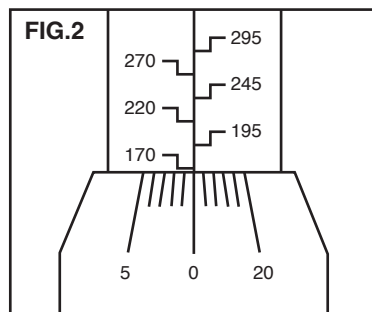
Stock No.34964 Part No.3005A

- Torque wrench set to 180Nm.
  1. Unlock handle (Fig.1) (Page 10).
  2. 170Nm. whole number (Fig.2).
  3. 1 div. on handle = 1Nm.

10 div. = 10Nm.

170 + 10 = 180Nm (Fig.3).

4. Lock handle (Fig.1) (Page 10).

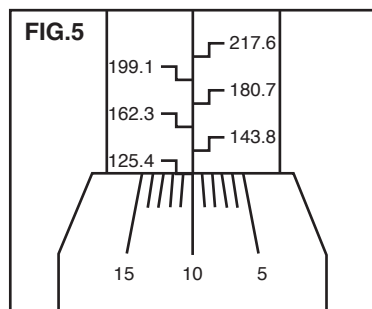
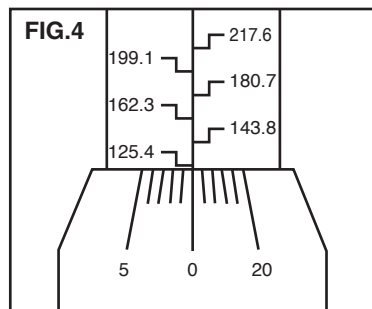


- Torque wrench set to 132.8 ft-lb.
  1. Unlock handle (Fig.1) (Page 10).
  2. 125.4 ft-lb. whole number (Fig.4).
  3. 1 div. on handle = 0.74 ft-lb.

10 div. = 7.4 ft.lb.

125.4 + 7.4 = 132.8 ft.lb (Fig.5).

4. Lock handle (Fig.1) (Page 10).



## 8. OPERATING INSTRUCTIONS

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When the correct torque level has been reached stop pulling!

If you continue to apply torque after you can hear, feel and see the torque wrench “CLICK” you will damage your fixings. DO NOT apply torque again to “test” if the torque has been applied as this may damage the fixing.

After use ALWAYS rest the torque wrench to its lowest setting, clean with a soft dry cloth and return the torque wrench to its storage case for protection.

## 9. CONVERSION CHART

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	mN/m millinewton- metre	cN/m centinewton- metre	N/m newton- metre	daN/m decanewton- metre	cm/kg centimetre- kg	m/kg metre- kg	in-oz inch- ounce	in-lb inch- pound	ft-lb foot- pound
1mN/m	1	0.1	0.001	0.0001	0.0102	0.000102	0.1416	0.00885	0.000738
1cN/m	10	1	0.01	0.001	0.102	0.00102	1.416	0.0885	0.00738
1N/m	1000	100	1	0.1	10.2	0.102	141.6	8.85	0.738
1daN/m	10000	1000	10	1	102	1.02	1416	88.5	7.38
1cm/kg	98	9.8	0.098	0.0098	1	0.01	13.9	0.868	0.0723
1m/kg	9810	981	9.81	0.98	100	1	1390	86.8	7.23
lin-oz	7.06	0.706	0.00706	0.0007	0.072	0.00072	1	16	192
lin-lb	112.9	11.29	0.1129	0.01129	1.152	0.0115	0.063	1	12
lft-lb	1355	35	1.355	0.1135	13.8	0.138	0.0052	0.083	1





# CONTACTS

Draper Tools Limited, Hursley Road,  
Chandler's Ford, Eastleigh, Hampshire. SO53 1YF. U.K.

Helpline: (023) 8049 4344

Sales Desk: (023) 8049 4333

Internet: [drapertools.com](http://drapertools.com)

E-mail: [sales@drapertools.com](mailto:sales@drapertools.com)

General Enquiries: (023) 8026 6355

**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

DBTL0819

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