

# ELECTRIC IMPACT WRENCH MODEL NO: CEW1000

PART NO: 6480300

# OPERATION & MAINTENANCE INSTRUCTIONS



**ORIGINAL INSTRUCTIONS** 

GC10/22 - rev 10

### INTRODUCTION

Thank you for selecting this Clarke impact Wrench.

Before attempting to use the machine, please read this manual thoroughly and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you, and you can look forward to your purchase giving you long and satisfactory service.

When unpacking, check for damage and /or shortages etc. Any found should be reported to your CLARKE dealer where the appliance was originally purchased. This CEW1000 Impact Wrench is delivered supplied with the following components:

- Impact Wrench
- 1 x 17mm Socket, Chrome Vanadium, black
- 1 x 19mm Socket, Chrome Vanadium, black
- 1 x 21mm Socket, Chrome Vanadium, black
- 1 x 22mm Socket, Chrome Vanadium, black
- Blow-Moulded Case

### GUARANTEE

The impact wrench is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Your receipt is required as proof of purchase.

This guarantee is invalid if the impact wrench is found to have been abused, tampered with, or not used for the purpose for which it was intended.

Faulty goods must be returned to their place of purchase, it must not be returned to us without prior permission.

This guarantee does not effect your statutory rights.

### ENVIRONMENTAL RECYCLING POLICY



Through purchase of this product, the customer is taking on the obligation to deal with the WEEE in accordance with the WEEE regulations in relation to the treatment, recycling & recovery and environmentally sound disposal of the WEEE.

In effect, this means that this product must not be disposed of with general household waste. It must be disposed of according to the laws governing Waste Electrical and Electronic Equipment (WEEE) at a recognised disposal facility.

### **GENERAL POWER TOOL SAFETY WARNINGS**



#### WARNING: READ ALL SAFETY WARNINGS AND ALL INSTRUCTIONS. FAILURE TO FOLLOW THE WARNINGS AND INSTRUCTIONS MAY RESULT IN ELECTRIC SHOCK, FIRE AND/OR SERIOUS INJURY.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated impact wrench

#### WORK AREA SAFETY

- 1. Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- 2. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- 3. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

#### **ELECTRICAL SAFETY**

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- 2. Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- 3. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- 5. When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- 6. If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of an RCD reduces the risk of electric shock.

### PERSONAL SAFETY

- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- 2. Use personal protective equipment. Always wear eye and ear protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- 3. Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- 4. **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- 5. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- 6. Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- 7. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.
- 8. Hold power tool by insulated gripping surfaces, when performing an operation where the fastener may contact hidden wiring or its own cord. Fasteners contacting a "Live" wire may make exposed metal parts of the power tool "Live" and could give the operator an electric shock.

### POWER TOOL USE AND CARE

- 1. Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- 2. Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- 3. Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.

- 4. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- 6. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- 7. Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be **performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

### IMPACT WRENCH SAFETY INSTRUCTIONS

- 1. Use the wrench correctly. Only use the impact wrench in the manner and for the functions described in these instructions.
- 2. Changing Sockets. Always disconnect the machine from the power supply when changing sockets etc. Use only Impact Wrench sockets....DO NOT use standard sockets.
- 3. Achieve the correct torque. Always finish tightening wheel nuts with a torque wrench or suitable spanner to the wheel-nut torque as recommended by the vehicle manufacturer.
- Avoid excessive use of the wrench. When tightening a nut or bolt, never allow the wrench to impact more than 8 times - to avoid over tightening - 3 to 4 impacts is sufficient.
- 5. Care of the mains cable. Keep the mains cable well away from the machine and ensure an adequate electrical supply is close at hand so that the operation is not restricted by the length of the cable.
- 6. Use outdoor extension leads. If working outdoors, always use an approved cable extension suitable for the power rating of this tool (see specifications), the conductor size should also be at least the same size as that on the machine, or larger. When using a cable reel, always unwind the cable completely.

#### SERVICING

1. Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

Please keep these instructions in a safe place for future reference.

### SAFETY SYMBOLS

Read instruction manual before use	Wear ear defenders
Wear safety glasses	Class II insulation with no earth connection

## **ELECTRICAL CONNECTIONS**



#### WARNING: READ THESE ELECTRICAL SAFETY INSTRUCTIONS FULLY BEFORE CONNECTING THE IMPACT WRENCH TO THE MAINS SUPPLY.

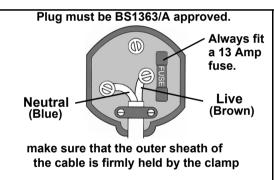
This impact wrench is provided with a standard 13 amp, 230 volt (50Hz), BS 1363 plug, for connection to a standard, domestic electrical supply. Should the plug need changing, make sure that a plug of identical specification is used.



WARNING: THE WIRES IN THE CABLE ARE COLOURED AS FOLLOWS: BLUE = NEUTRAL BROWN = LIVE

If the colours of the wires in the power cable do not correspond with the markings on the terminals of your plug, proceed as follows.

- Connect the **blue** wire to the terminal which is marked **N**.
- Connect the brown wire to the terminal which is marked L.



We recommend that this machine is connected to the mains supply via a Residual Current Device (RCD)

If in doubt, consult a qualified electrician. DO NOT attempt any repairs yourself



This symbol indicates that this is a Class II product, and does not require an earth connection.

### CABLE EXTENSION

Always use an approved cable extension suitable for the power rating of this tool (see specifications), the conductor size should also be at least the same size as that on the machine, or larger. When using a cable reel, always unwind the cable completely

### **OVERVIEW**

The CLARKE CEW1000 Impact Wrench is equipped with a 3-position Forward/ Reverse/Neutral trigger switch (item 4 below). When the trigger is squeezed downwards, rotation is forward (clockwise). When squeezed upwards, the direction of rotation is reversed (anti-clockwise), and when in the centre position the tool is stopped.



- 1. 1/2" Square Socket Drive
- 2. Metal Gear Housing
- 3. Ventilation Slots
- 4. Forward / Reverse Trigger Switch
- 5. Hand Grip
- 6. Plug & Cable
- 7. Brush replacement openings
- 8. Sockets

### **OPERATING INSTRUCTIONS**



WARNING: ALWAYS MAKE SURE THAT THE IMPACT WRENCH IS DISCONNECTED FROM THE POWER SUPPLY BEFORE CHANGING THE SOCKET.

WARNING: WHEN CHANGING DIRECTION ALWAYS MAKE SURE THAT THE IMPACT WRENCH HAS STOPPED BEFORE SWITCHING TO THE OTHER DIRECTION.

WARNING: ONLY SPECIAL SOCKETS THAT ARE DESIGNED FOR IMPACT TOOLS SHOULD BE USED WITH THIS IMPACT WRENCH. STANDARD SOCKETS MAY SHATTER.

#### LOOSENING A NUT

1. Remove any wheel trim, before selecting the appropriate socket and placing firmly on the square drive of the wrench.



WARNING: ENSURE THAT THE CORRECT SOCKET IS BEING USED FOR THE NUTS ON YOUR PARTICULAR VEHICLE. AN INCORRECT SOCKET SIZE IS LIKELY TO DAMAGE THE HEADS OF THE BOLTS OR NUTS.

- 2. With the FORWARD/NEUTRAL/REVERSE switch in the REVERSE (R) position, and holding the wrench firmly in BOTH HANDS, pull the trigger fully. The nut will be impacted repeatedly until it is loosened. IMPORTANT! Release the trigger immediately the nut begins to loosen.
- 3. Jack up the vehicle according to the vehicles handbook so that the wheel is clear of the ground, then proceed to fully undo the wheel nuts.

### TIGHTENING A NUT

- 1. Start the nut by hand, ensuring it is not cross threaded, then with the appropriate socket installed on the wrench, place it on the nut.
- 2. With the FORWARD/NEUTRAL/REVERSE switch in the FORWARD (F) position, and holding the wrench firmly in BOTH HANDS, pull the trigger gently.
- Run each nut up in turn until it is `nipped' up only do not tighten. When all
  nuts are nipped up, tighten progressively by pulling the trigger fully and
  allowing the action to operate for 3 to 4 impacts only to prevent
  overtightening.
- 4. ALWAYS finish tightening with a torque wrench or suitable spanner. The weight of the vehicle will need to be placed on the wheel to prevent it from rotating while the nuts are tightened. Ensure the final torque applied to the nuts meets the vehicle manufacturer's recommendations.

### MAINTENANCE AND SERVICING

### STORAGE

- 1. Make sure that the impact wrench is stored in a clean, dry place, out of reach of children when not in use.
- 2. Always store the impact wrench and its sockets in the case supplied.

### CLEANING

- 1. Always examine the tool before use and make sure that it is in good condition.
- 2. Make sure that all air vents are clear, (use compressed air to clean the impact wrench if possible).
- 3. Do not use solvents to clean plastic parts, most plastics are damaged by solvents.

### GENERAL MAINTENANCE

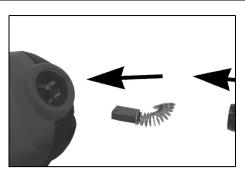
- 1. Make sure that all nuts, bolts and screws are tight.
- 2. Refer to your CLARKE dealer if internal maintenance is necessary.
- 3. Make sure that the power cable is free from cracks, bare wires etc.
- 4. If it i necessary to replace the power cable, this must be done by the manufacturer.
- 5. The bearings in this tool are lubricated for the tools lifetime in usual operating conditions, no more lubrication is necessary.

### REPLACE THE CARBON BRUSHES

1. Use a screwdriver to remove the carbon brush holder covers from the machine body



- 2. Remove and examine the carbon brushes after long periods of operation.
- 3. Replace them when they have worn down.
  - The brushes must be kept clean and free to move up and down in the holders.
  - Both brushes must be replaced at the same time.



- Only use brushes supplied by your Clarke dealer.
- 4. Replace the carbon brush holder covers.

### **FAULT FINDING**

#### MACHINE DOES NOT OPERATE WHEN SWITCHED ON

Check to ensure the fuse is sound and replace if necessary. If the fuse is sound or blows repeatedly, consult your CLARKE dealer.

#### **EXCESSIVE SPARKING OCCURS**

This indicates worn brushes. This problem is quickly remedied by replacing the brushes as on page 10, or alternatively consult your CLARKE dealer for their replacement.

## **TECHNICAL SPECIFICATIONS**

Item	Item Specification
Model	CEW1000
Weight	3.9 kg
Dimensions	295 x 95 x 230 mm
Voltage	230v / 50 Hz
Max Power Output	1.01 kW
No-load Speed	0-2200 rpm
Max Torque	450 Nm
Sound Pressure	113 dB(A)
Sound Power	102 dB LpA
Vibration	6.55 m/s <sup>2</sup>
Uncertainty Factor (K)	1.5m/s <sup>2</sup>

Please note that the details and specifications contained herein, are correct at the time of going to print. However, CLARKE International reserve the right to change specifications at any time without prior notice. Always consult the machine's data plate.

A wide range of accessories is available from your nearest CLARKE dealer, for further information, contact your nearest dealer, or telephone CLARKE International Sales department on 01992 565300.

## **DECLARATIONS OF CONFORMITY**

<b>CG</b> <b>CG</b> <b>CG</b> <b>CG</b> <b>CG</b> <b>CG</b> <b>CG</b> <b>CG</b>	We hereby declare that this product(s) complies with the following directive(s): 2014/30/EU Electromagnetic Compatibility Directive 2014/35/EU Low Voltage Directive 2004/2FC Machinery Directive 2011/65/EU Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment (R0HS) Directive	The following standards have been applied to the product(s): EN 55014.1:2017, EN 55014.2:2016, EN IEC 61000-3-2:2019, EN 61000-3-3:2013 + A1, EN 23841-1:2015, EN 62841-3-2:2014, IEC 63231-1:2013, EC 63231-2:2013, IEC 62221-3-1:2015, IEC 63231-4:2:2013 + AMD1:2:2017, CSV, IEC 62221-6:2015, IEC 63231-6:2015, IEC 62221-7:1:2015, IEC 62321-7:2:2017, IEC 62231-4:2:2017, ISO 117075:2017.	The technical documentation required to demonstrate that the produci(s) meek(s) the requirement(s) of the aforementioned directive(s) has been compled and is available for inspection by the relevant enforcement authorities. The CE mark was first applied in: 2008	Product Description: Electric Impact Wench (1000W) Model number(s): CEV1000 Serial / batch Number: NA Date of Issue: 2010/2022 Signet: J.A. Clarke Director Director
BACTOR CONFORMATION OF CONFORMITY This is an important document and should be retained.	We hereby declare that this product(s) complies with the following statuary requirement(s): Electromagnetic Compatibility Regulations 2016 Electrical Equipment (Safety) Regulations 2016 Supply of Machimery (Safety) Regulations 2008 The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012	The following standards have been applied to the product(a): EN 55014-1:2017, EN 55014-2:2016, EN IEC 61000-3-2:2019, EN 61000-3-3:2013 + A1, EN 62841-1:2015, EN 62841-2:22014, IEC 62321-1:2013, IEC 62321-2:2013, IEC 62321-3:1:2013, IEC 62321-4:2013 + AMD1:2017 C5V, IEC 62321-6:2015, IEC 62321-6:2015, IEC 62321-7:1:2015, IEC 62321-7:2:2017, IEC 63231-8:2017, ISO 17075-2017.	The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned legislation has been complied and is available for inspection by the relevant enforcement authorities. The UKCA mark was first applied in: 2022	Product Description: Electric Impact Wrench (1000W) Model number(s): CEV1000 Serial / batch Number: NA Date of fesue: 20/02022 Signed: J.A. Clarte Date of fesue: J.A. Clarte Director Director

Parts & Service: 020 8988 7400 / E-mail: Parts@clarkeinternational.com or Service@clarkeinternational.com

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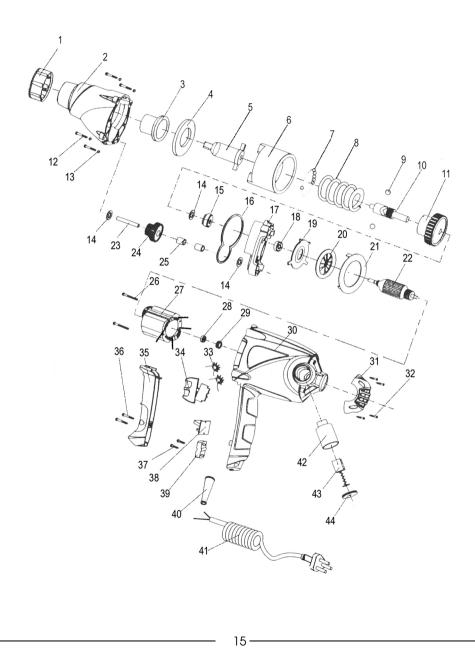
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### **COMPONENT PARTS**

No	DESCRIPTION	Qty
1	Plastic collar	1
2	Gear housing	1
3	Bearing sleeve	1
4	Thrust washer	1
5	Spindle	1
6	Impact driver	1
7	Ball bearings	24
8	Impact spring	1
9	Steel ball	2
10	Clutch spindle	1
11	Large gear	1
12	Screw	4
13	Spring washer	4
14	Washer	3
15	Ball race	1
16	Paper gasket	1
17	Centre cover	1
18	Bearing	1
19	Bearing cover	1
20	Fan	1
21	Air tight closure	1
22	Armature assembly	1

No	DESCRIPTION	Qty
23	Spindle	1
24	Spur gear	1
25	Bearing	2
26	Cross-head screw	2
27	Stator assembly	1
28	Motor bearing	1
29	Bearing cap	1
30	Main housing	1
31	Rear cover	1
32	Cross-head screw	4
33	Inductor	1
34	On/off switch	1
35	Hand grip	1
36	Cross-head screw	2
37	Cross-head screw	2
38	Connecting block	1
39	Anchor block	1
40	Cable entry sleeve	1
41	Power cable with plug	1
42	Brush holder	2
43	Motor brush	2
44	Brush cover	2

### **COMPONENT PARTS**





## PARTS & SERVICE: 0208 988 7400

**Parts Enquiries** Parts@clarkeinternational.com

**Servicing & Technical Enquiries** Service@clarkeinternational.com

SALES: UK 01992 565333 or Export 00 44 (0)1992 565335