

# Clarke®

## STRONG-ARM



## ELECTRIC HOIST

MODEL NO: CH2500C, CH4000C

PART NO: 7630388, 7630393

## OPERATION AND MAINTENANCE INSTRUCTIONS



ORIGINAL INSTRUCTIONS

GC03/23 - rev 1

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## INTRODUCTION

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Thank you for purchasing this CLARKE Electric Hoist.

Before attempting to use this product, 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.

## LIFTING OPERATIONS AND LIFTING EQUIPMENT REGULATIONS 1998

This hoist, depending on use, may fall within the scope of LOLER. It is the owner's responsibility to determine whether or not it does and, if so, to comply with any applicable requirements in LOLER, for having the hoist thoroughly examined.

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## GUARANTEE

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This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required as proof of purchase.

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

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission. This guarantee does not effect your statutory rights.

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## ENVIRONMENTAL PROTECTION

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Through purchase of this hoist, 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 hoist must not be discarded with general waste. Refer to the laws governing Waste Electrical and Electronic Equipment (WEEE) at a recognised disposal facility.

## SPECIFICATIONS

	<b>CH2500C</b>	<b>CH4000C</b>
Part Number	7630388	7630393
Load Capacity (Single Cable)	125 kg	200 kg
Lifting Speed (Single Cable)	10 m/min	10 m/min
Lifting Height (Single Cable)	12 m	12 m
Load Capacity (Double Cable)	250 kg	400 kg
Lifting Speed (Double Cable)	5 m/min	5 m/min
Lifting Height (Double Cable)	6 m	6 m
Cable Length	12 m	12 m
Cable Diameter	3 mm	3.8 mm
Duty Cycle	S3 20% - 10min	S3 20% - 10min
Electrical Supply	230V @ 50Hz	230V @ 50Hz
Power Rating	540 W	950 W
Ingress Protection	IP54	IP54
Sound Pressure Level	74.3 dB(A)	74.3 dB(A)
Sound Power Level	75.3 dB(A)	76.3 dB(A)
Sound Power Level Guaranteed	85dB	85dB
Uncertainty K	2 dB(A)	2 dB(A)

**DO NOT LEAVE THE HOIST EXPOSED TO THE ELEMENTS AND  
AVOID DIRECT SUNLIGHT, DIRECT HEAT AND MOISTURE**

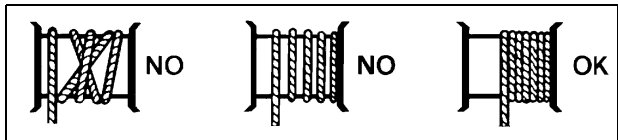
**THIS MACHINE IS FOR INDOOR USE ONLY**

## GENERAL SAFETY RULES

There is a serious risk of personal injury if you do not follow all instructions in this guide.

1. This hoist must only be used by a competent person who understands these instructions.
2. This hoist is for indoor, non-industrial use.
3. Keep children, animals and bystanders away from the work area.
4. DO NOT use this hoist if you are ill, tired, or under the influence of alcohol or drugs.
5. Before use, always examine the hoist and its mountings to make sure that they are in good condition. If you find any damaged or broken parts, withdraw the hoist from service and renew or repair the part before further use.

6. Before use, it is important to make sure that the steel cable is correctly wound around the drum.



7. Wear protective clothing, gloves, footwear and hard hat.
8. DO NOT wear loose clothing, jewellery and tie back long hair.
9. Protect the equipment from frost or excessively high temperatures.
10. If the capacity of the hoist is exceeded, the cutout will operate. Let the components cool down before continued use.
11. Make sure that the load is balanced, stable and that all personnel stay clear of the raised load.
12. Make sure that the switches are in good condition.
13. Use this hoist for vertical lifts only.
14. Attach the hoist to a horizontal beam/box section that can hold the weight of the load and the hoist.
15. When replacing parts, use only those supplied by Clarke International. Consult the CLARKE service department for any spare parts required.

## ELECTRICAL CONNECTIONS



**WARNING: READ THESE ELECTRICAL SAFETY INSTRUCTIONS FULLY BEFORE CONNECTING THE HOIST TO THE MAINS SUPPLY.**

This hoist 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.

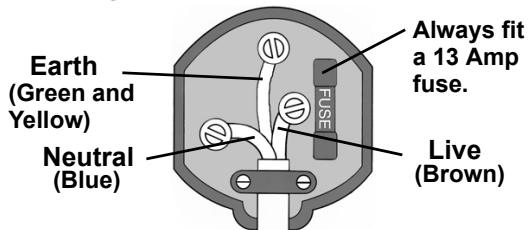


**WARNING: THE WIRES IN THE CABLE ARE COLOURED AS FOLLOWS:  
BLUE = NEUTRAL    BROWN = LIVE    YELLOW AND GREEN = EARTH**

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 marked **N**.
- Connect the **brown** wire to the terminal marked **L**.
- Connect the **yellow and green** wire to the terminal marked **E** or  $\perp$ .

**Plug must be BS1363/A approved.**



**make sure that the outer sheath of the cable is firmly held by the clamp**

**AN APPROVED RESIDUAL CURRENT DEVICE (RCD) WHICH HAS A TRIPPING CURRENT OF LESS THAN 30MA MUST BE USED.**

If you are not sure, consult a qualified electrician. **DO NOT** try to do any repairs.

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## UNPACKING

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Unpack the box and make sure that the items in the list below are included.

- 1 x Hoist
- 1 x Hook / Pulley
- 2 x Brackets
- 1 x Bag of fixings
- 1 x Instruction manual

If a part is damaged, consult your CLARKE supplier immediately.

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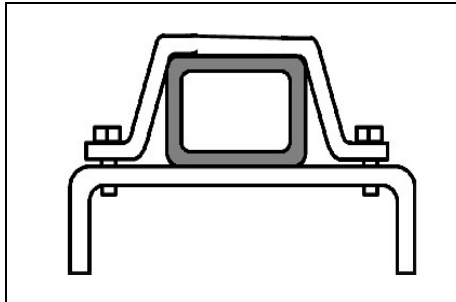
## INSTALLATION

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Mount the hoist to a box section beam using the brackets supplied.

- The box section must be able to support the weight of the hoist plus the maximum specified load.

If you are not sure, consult an approved structural engineer.



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# OPERATION

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## PRE-USE INSPECTION

Unwind the cable and examine for fraying, corrosion etc.

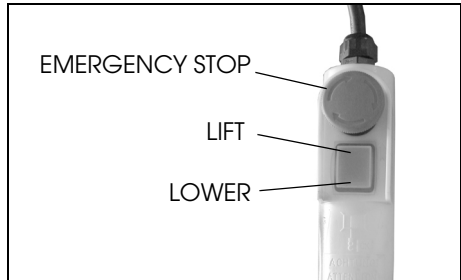
Check the condition of all brackets and fastenings.

When in constant operation, the hoist should be inspected frequently.

## HOIST CONTROL

### LIFT/LOWER SWITCH

1. Press one side of the rocker switch to lift the load.
2. Press the other side of the rocker switch to lower the load.
3. To stop the hoist release the switch.



**NOTE:** The load will not stop immediately when you release the switch. It can continue for a 3-4 mm before the motor brake takes effect.



**CAUTION:** MAKE SURE THE HOIST HAS STOPPED BEFORE MOVING IN THE OPPOSITE DIRECTION.

**CAUTION:** THIS HOIST IS FITTED WITH AN AUTO-STOP DEVICE. ENSURE THAT WHEN THE CABLE IS AT ITS HIGHEST POINT AND THE AUTO-STOP IS ACTUATED, THAT THE LIFT SWITCH IS RELEASED.

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## EMERGENCY STOP

Push the emergency stop to stop the hoist in an emergency.

- The emergency stop can be reset by turning it clockwise until it 'pops' out.

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## USING THE HOIST



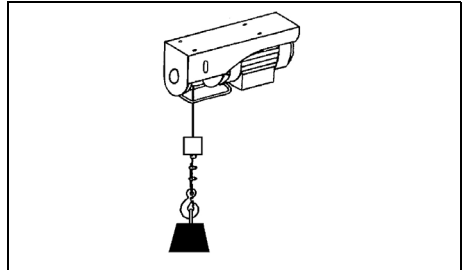
**WARNING:** LIFTING OPERATIONS MUST BE PLANNED, SUPERVISED AND CARRIED OUT SAFELY BY COMPETENT PERSONNEL.

- 
1. Pay out the cable.
    - Keep the cable in tension so that the coils on the drum remain neatly in place.

2. Attach the hook to the load. The hook must be placed -
  - Directly above the centre of gravity of the load and in line with the hoist.
  - Make sure that no obstruction will prevent a clean lift.

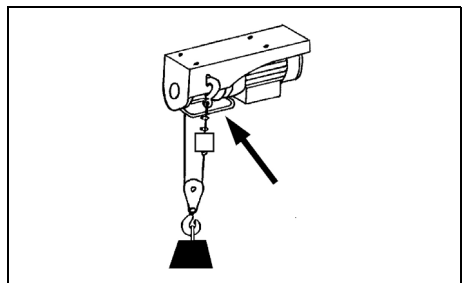
### HOIST CAPACITY

In the basic setup (shown on the right) the lifting capacity is 125 kg, (200 kg for the CH4000C)



It is possible to increase the capacity to 250 kg (400 kg for the CH4000C). To do this:

1. Loop the cable around the pulley supplied.
2. Attach the hook to the hoist as shown.



**WARNING: ALWAYS LOWER IN A SLOW AND CONTROLLED MANNER, AND ENSURE THAT THERE ARE NO OBSTACLES IN THE PATH OF THE LOAD'S DESCENT.**



## TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
When you press the switch the motor does not operate.	The power cable is not plugged in correctly	Connect the power cable correctly
	The cut out has operated	Let the motor cool down
	Power failure	Check plug fuse
Motor hums but does not lift	The motor is too hot	Let it cool down
	The load exceeds the capacity of the hoist	Decrease the load
	The motor brake has become stuck during storage.	Consult your CLARKE dealer for advice.
Brake does not operate and load slips	Brake is worn out.	DO NOT use the hoist and consult your CLARKE dealer.
The cable is twisted, frayed or kinked	Cable is incorrectly wound on the drum.	Replace the cable.
	The cable has been stored unwound or in poor conditions.	Replace the cable.

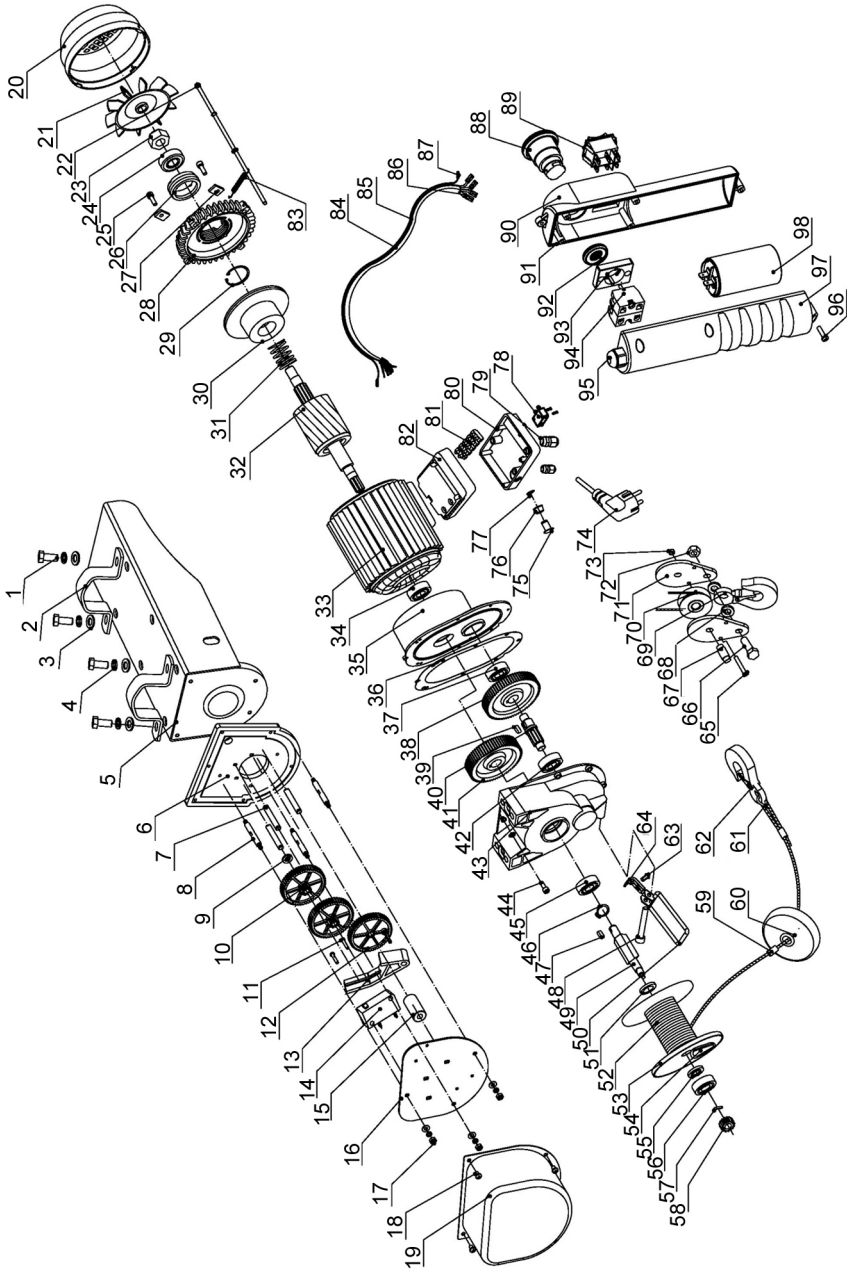
If this does not solve your problem, please consult the CLARKE service department.

## MAINTENANCE

***IMPORTANT: Only fully qualified personnel should attempt repairs.***

1. Always visually inspect the hoist before use, to ensure that all parts are correctly located and secure. Check for signs of damage or worn parts. **Do not use the hoist unless it is perfectly serviceable.**
2. Check the cable for signs of fraying especially at the connecting parts.

# COMPONENT PARTS - CH2500C



## COMPONENT PARTS CH2500C

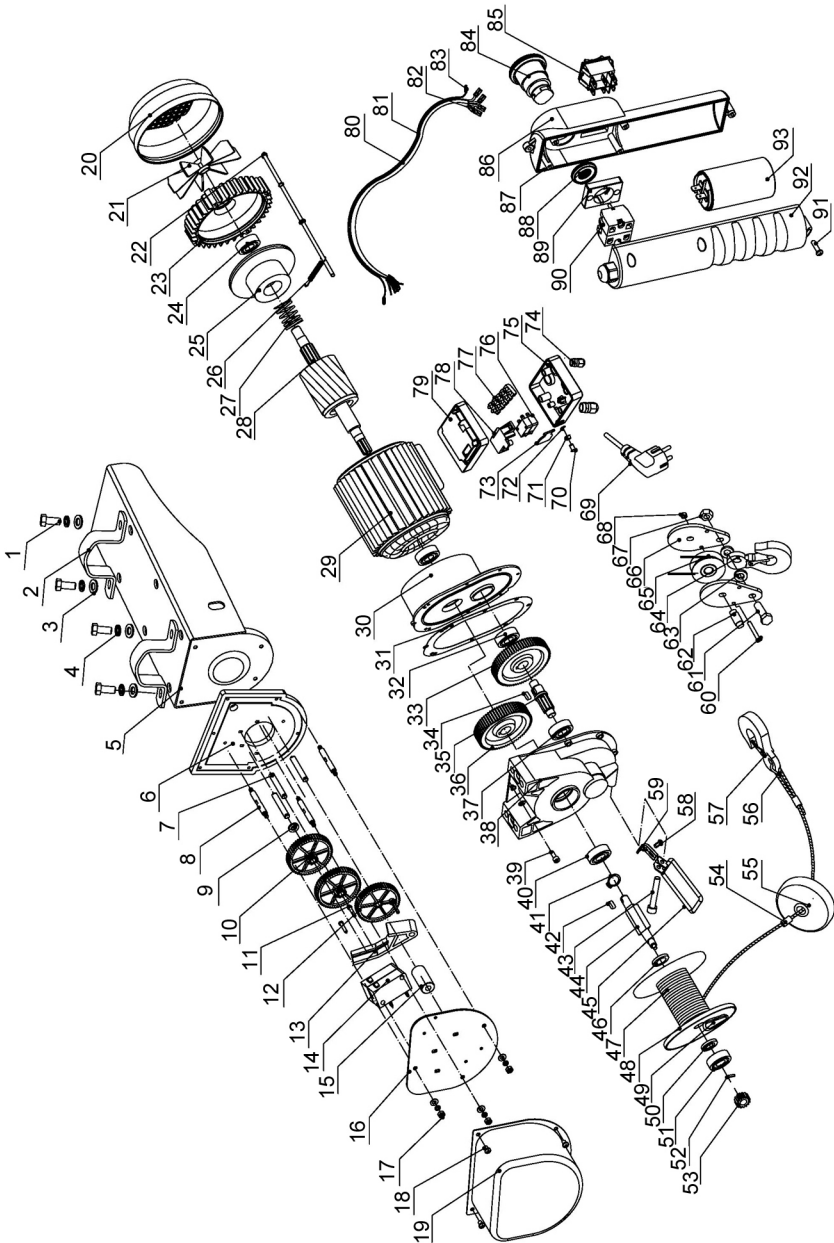
No	Description
1	Hexagon Bolt
2	Bracket
3	Flat Washer
4	Spring Washer
5	Support /Carriage Casing
6	End Panel
7	Locating Shaft
8	Gear Shaft
9	Flat Washer
10	Silent Gear
11	X-Head screw
12	Driven Gear
13	Turn Plate
14	Limit Switch
15	Axle Sleeve
16	Limit Switch Plate
17	Nut
18	X-Head Bolt
19	Gear Cover
20	Fan Housing
21	Fan Blade
22	Hex Bolt
23	Locknut
24	Bearing
25	Socket Head Cap Screw
26	Bearing Sleeve
27	Clamp
28	Rear Enclosure

No	Description
29	Internal Circlip
30	Motor Brake Disc
31	Tripping Spring
32	Rotor
33	Stator Casing Assembly
34	Bearing
35	Front Cover
36	Paper Gasket
37	Bearing
38	First Gear
39	Flat Key
40	Gear Shaft
41	Second Gear
42	Bearing
43	Gear Case
44	Socket Head Cap Screw
45	Bearing
46	O-ring
47	Flat Key
48	Socket Head Cap Screw
49	Drum Shaft
50	Limit Switch Arm
51	Drum Inner Washer
52	Wire Rope
53	Cable Drum
54	Wedge
55	Drum External Washer
56	Bearing

No	Description
57	Straight Pin
58	Driving Gear
59	Aluminium Ferrule
60	Block
61	Rope Thimble
62	Hook Assembly Complete
63	X-head Bolt
64	Plastic Limit Piece
65	Bolt
66	Bolt
67	Spindle
68	Washer
69	Hook
70	Pulley Wheel
71	Side Plate
72	Nut
73	Locknut
74	Mains Plug
75	Limit Shaft
76	Waterproof Gland
77	Plastic Closing Ring

No	Description
78	Limit Switch
79	Cable Entry
80	Junction Box Cover
81	Terminal
82	Junction Box Base
83	Upper Limit Spring
84	Connecting Cable Sleeve
85	Connecting Cable
86	Socket
87	Spade Connector
88	Emergency Stop Button
89	Rocker Switch
90	Pendant Casing - Front
91	Pendant Seal
92	Adjusting Locknut
93	Switch Base
94	Emergency Stop Switch
95	Cable Entry
96	Screw
97	Pendant Casing - Rear
98	Capacitor

# COMPONENT PARTS - CH4000C



## COMPONENT PARTS CH4000C

No	Description
1	Hexagon Bolt
2	Bracket
3	Spring Washer
4	Flat Washer
5	Support /Carriage Casing
6	End Panel
7	Locating Shaft
8	Gear Shaft
9	Flat Washer
10	Silent Gear
11	X-Head screw
12	Driven Gear
13	Turn Plate
14	Limit Switch
15	Axle Sleeve
16	Limit Switch Plate
17	Nut
18	X-Head Bolt
19	Gear Cover
20	Fan Housing
21	Fan Blade
22	Hex Bolt
23	Rear Enclosure
24	Bearing
25	Motor Brake Disc
26	Tripping Spring
27	Spring
28	Rotor

No	Description
29	Stator Casing Assembly
30	Front Cover
31	Paper Gasket
32	Bearing
33	First Gear
34	Flat Key
35	Gear Shaft
36	Second Gear
37	Bearing
38	Gear Case
39	Socket Head Cap Screw
40	Bearing
41	Circlip
42	Flat Key
43	Socket Head Cap Screw
44	Drum Shaft
45	Limit Switch Arm
46	Drum Inner Washer
47	Wire Rope
48	Cable Drum
49	Wedge
50	Drum External Washer
51	Bearing
52	Straight Pin
53	Driving Gear
54	Aluminium Ferrule
55	Block
56	Rope Thimble

No	Description
57	Hook Assembly
58	X-head Bolt
59	Plastic Limit Piece
60	Bolt
61	Bolt
62	Spindle
63	Washer
64	Hook
65	Pulley Wheel
66	Side Plate
67	Locknut
68	Nut
69	Mains Plug
70	Limit Shaft
71	Waterproof Gland
72	Plastic Closing Ring
73	Switch Connector
74	Cable Clamp
75	Junction Box Cover

No	Description
76	Limit Switch
77	Terminal
78	Switch Plate
79	Junction Box Base
80	Connecting Cable Sleeve
81	Connecting Cable
82	Socket
83	Spade Connector
84	Emergency Stop Button
85	Rocker Switch
86	Pendant Casing - Front
87	Pendant Seal
88	Adjusting Locknut
89	Switch Base
90	Emergency Stop Switch
91	X-Head Screw
92	Pendant Casing - Rear
93	Capacitor

# DECLARATIONS OF CONFORMITY - CH2500C



# Clarke<sup>®</sup> INTERNATIONAL

Hemnall Street, Epping, Essex CM16 4LG

## DECLARATION OF CONFORMITY

**This is an important document and should be retained.**

**We hereby declare that this product(s) complies with the following statutory requirement(s):**

*Electromagnetic Compatibility Regulations 2016*

*Supply of Machinery (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(s):**

*EN 55014-1:2017+A11, EN 55014-2:2015, EN IEC 61000-3-2:2019, EN 61000-3-3:2013+A1,*

*EN ISO 12100:2010, EN 14492-2:2019, EN 60204-32:2008, IEC 62321-1:2013, IEC 62321-2:2013,*

*IEC 62321-3-1:2013, IEC 62321-4:2013, IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-7-1:2015,*

*IEC 62321-7-2:2017.*

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned legislation has been compiled and is available for inspection by the relevant enforcement authorities.

**The UKCA mark was first applied in: 2022**

**Product Description:** 125/250kg / 200/400kg Electric Hoist

**Model number(s):** CH2500C / CH4000C

**Serial / batch Number:** N/A

**Date of Issue:** 28/11/2022

**Signed:**

**J.A. Clarke  
Director**



# DECLARATIONS OF CONFORMITY - CH2500C



**Clarke**<sup>®</sup>  
**INTERNATIONAL**

Fitzwilliam Hall, Fitzwilliam Place, Dublin 2

## DECLARATION OF CONFORMITY

**This is an important document and should be retained.**

**We hereby declare that this product(s) complies with the following directive(s):**

2014/30/EU *Electromagnetic Compatibility Directive*  
2006/42/EC *Machinery Directive*  
2011/65/EU *Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Directive*

**The following standards have been applied to the product(s):**

EN 55014-1:2017+A11, EN 55014-2:2015, EN IEC 61000-3-2:2019, EN 61000-3-3:2013+A1,  
EN ISO 12100:2010, EN 14492-2:2019, EN 60204-32:2008, IEC 62321-1:2013, IEC 62321-2:2013,  
IEC 62321-3-1:2013, IEC 62321-4:2013, IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-7-1:2015,  
IEC 62321-7-2:2017.

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned directive(s) has been compiled and is available for inspection by the relevant enforcement authorities.

**The CE mark was first applied in: 2009**

**Product Description:** 125/250kg / 200/400kg Electric Hoist  
**Model number(s):** CH2500C / CH4000C  
**Serial / batch Number:** N/A  
**Date of Issue:** 28/11/2022

**Signed:**

**J.A. Clarke**  
**Director**

# DECLARATIONS OF CONFORMITY - CH4000C



Hemnall Street, Epping, Essex CM16 4LG

## DECLARATION OF CONFORMITY

**This is an important document and should be retained.**

**We hereby declare that this product(s) complies with the following statutory requirement(s):**

*Electromagnetic Compatibility Regulations 2016*

*Supply of Machinery (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(s):**

*EN 55014-1:2017+A11, EN 55014-2:2015, EN IEC 61000-3-2:2019, EN 61000-3-3:2013+A1,*

*EN ISO 12100:2010, EN 14492-2:2019, EN 60204-32:2008, IEC 62321-1:2013, IEC 62321-2:2013,*

*IEC 62321-3-1:2013, IEC 62321-4:2013, IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-7-1:2015,*

*IEC 62321-7-2:2017.*

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned legislation has been compiled and is available for inspection by the relevant enforcement authorities.

**The UKCA mark was first applied in: 2022**

**Product Description:** 125/250kg / 200/400kg Electric Hoist

**Model number(s):** CH2500C / CH4000C

**Serial / batch Number:** N/A

**Date of Issue:** 28/11/2022

**Signed:**

**J.A. Clarke**

**Director**

# DECLARATIONS OF CONFORMITY - CH4000C



**Clarke**<sup>®</sup>  
**INTERNATIONAL**

Fitzwilliam Hall, Fitzwilliam Place, Dublin 2

## DECLARATION OF CONFORMITY

**This is an important document and should be retained.**

**We hereby declare that this product(s) complies with the following directive(s):**

- 2014/30/EU *Electromagnetic Compatibility Directive*
- 2006/42/EC *Machinery Directive*
- 2011/65/EU *Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Directive*

**The following standards have been applied to the product(s):**

EN 55014-1:2017+A11, EN 55014-2:2015, EN IEC 61000-3-2:2019, EN 61000-3-3:2013+A1,  
EN ISO 12100:2010, EN 14492-2:2019, EN 60204-32:2008, IEC 62321-1:2013, IEC 62321-2:2013,  
IEC 62321-3-1:2013, IEC 62321-4:2013, IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-7-1:2015,  
IEC 62321-7-2:2017.

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**Signed:**

**J.A. Clarke**  
**Director**

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# Clarke®

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[Parts@clarkeinternational.com](mailto:Parts@clarkeinternational.com)

### **Servicing & Technical Enquiries**

[Service@clarkeinternational.com](mailto:Service@clarkeinternational.com)

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

**Clarke** INTERNATIONAL Hemnall Street, Epping, Essex CM16 4LG  
[www.clarkeinternational.com](http://www.clarkeinternational.com)