



Clarifire®



CHAINSAW SHARPENER

MODEL: ECSS-1

Part No: 3402075

ASSEMBLY & INSTRUCTION MANUAL



LS0409



INTRODUCTION

Thank you for purchasing this CLARKE product

Before attempting to use the product, it is essential that you read this manual thoroughly and carefully follow all instructions given. In doing so you will ensure the safety of yourself and that of others around you, and you can also look forward to the product giving you long and satisfactory service.

GUARANTEE

This CLARKE product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt 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.

ENVIRONMENTAL PROTECTION



Do not dispose of this product with general household waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of appropriately.

PARTS & SERVICE

For parts & Servicing, please contact your nearest dealer, or CLARKE International, on one of the following numbers.

PARTS & SERVICE TEL: 020 8988 7400

PARTS & SERVICE FAX: 020 8558 3622

or e-mail as follows:

PARTS: Parts@clarkeinternational.com

SERVICE: Service@clarkeinternational.com



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SAFETY PRECAUTIONS

- Ensure your mains voltage corresponds to the voltage mentioned on the rating plate.
- Persons with limited physical or mental abilities should not be allowed to use this chainsaw sharpener, unless they are supervised by a qualified person.
- The unit is designed for sharpening all common chainsaw chains. Do not use it for any other purpose.
- Do not sharpen damaged chainsaw chains.
- Do not operate the unit without the protective cover in place and make sure that all parts are firmly assembled before starting the unit.
- When sharpening, always wear protective goggles. Wear suitable clothes. Take off jewellery and tie long hair back.
- Protect your ears by wearing ear protectors.
- Do not operate the unit if it does not work correctly or has been dropped.
- Do not disassemble the unit and do not try to repair it yourself. Contact your customer support.



OPERATING HINTS

- Before you sharpen the chainsaw chain check it for damages, such as:
 - bent or abraded chain links.
 - broken cutting teeth, loose rivets or broken rivet heads.

If any damage is found, replace the entire chain.

- A sharp chainsaw produces wood chips and pulls itself into the timber being cut. When it becomes blunt, sawdust will start being produced during cutting operations.
- You should sharpen the chain if you notice that you have to use force to cut through the timber, i.e. if the saw does not "pull" anymore.

Fig 1

Cutting tooth is damaged Cutting tooth is OK



- Sharpen all cutting teeth as uniformly as possible. This will ensure smooth operation with a minimum of vibration. See Fig 1

- Blunt cutting teeth or parts damaged by stones may cause an inclined cut during chain saw operation and may also increase the wear on the running face of the cutting teeth.

Fig 2



Depth limiting bar

- The depth limiter bars must be profiled by hand. Ensure that all depth limiter bars are equal in height. See Fig 2
- Ensure that all cutting teeth are sharpened to the same cutting angle.
- During sharpening occasionally check that the cutting-angle is set correctly, as this setting may go out of adjustment due to vibration.
- Make sure that all teeth are sharpened as evenly as possible. Only sharpen the teeth, never the chain links.
- Sharpening teeth to unequal blade lengths can cause a side drift when sawing, see Fig 3.

Fig 3

Tooth size unequal



X



Tooth size equal

✓

ELECTRICAL CONNECTIONS



WARNING! READ THESE ELECTRICAL SAFETY INSTRUCTIONS THOROUGHLY BEFORE CONNECTING THE PRODUCT TO THE MAINS SUPPLY.

Before switching the product on, make sure that the voltage of your electricity supply is the same as that indicated on the rating plate. This product is designed to operate on 230VAC 50Hz. Connecting it to any other power source may cause damage.

This product may be fitted with a non-rewireable plug. If it is necessary to change the fuse in the plug, the fuse cover must be refitted. If the fuse cover becomes lost or damaged, the plug must not be used until a suitable replacement is obtained.

If the plug has to be changed because it is not suitable for your socket, or due to damage, it should be cut off and a replacement fitted, following the wiring instructions shown below. The old plug must be disposed of safely, as insertion into a mains socket could cause an electrical hazard.

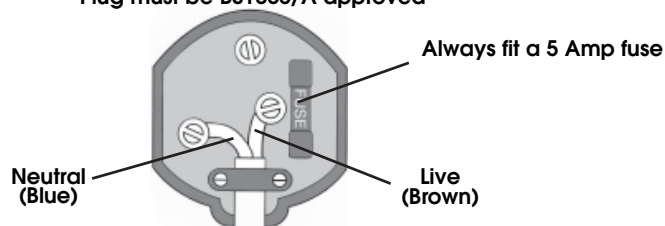


**WARNING! THE WIRES IN THE POWER CABLE OF THIS PRODUCT ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE:
BLUE = NEUTRAL BROWN = LIVE**

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

- The wire which is coloured Blue must be connected to the terminal which is marked N or coloured Black.
- The wire which is coloured Brown must be connected to the terminal which is marked L or coloured Red.

Plug must be BS1363/A approved



Ensure that the outer sheath of the cable is firmly held by the clamp

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

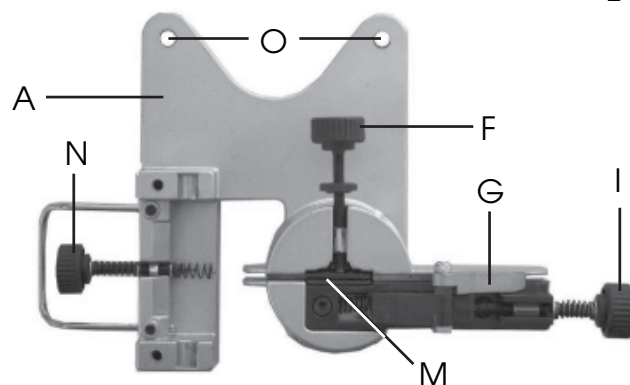
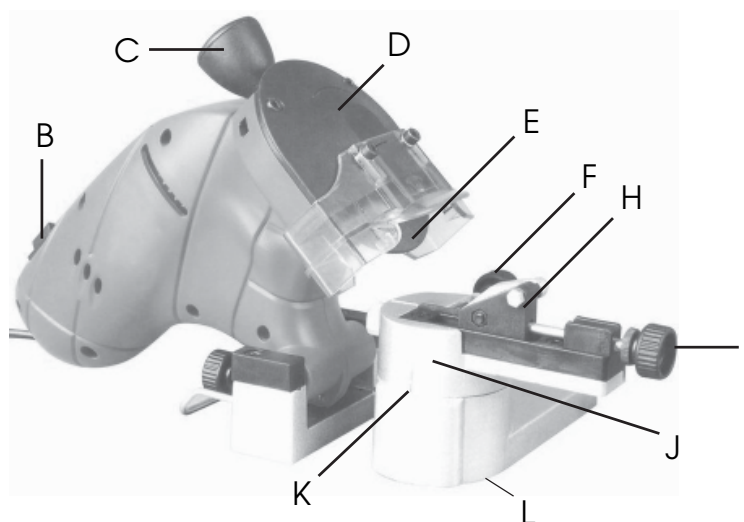
If in any doubt, consult a qualified electrician. DO NOT attempt any repairs yourself.



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



PARTS IDENTIFICATION



A	Base Plate	I	Adjusting Screw
B	ON/OFF Switch	J	Chain Holder Assembly
C	Handle	K	Angle Indicator
D	Protective Cover	L	Angle Adjustment Screw
E	Grinding Disc	M	Guide Boards
F	Fastening Screw	N	Depth Limiter
G	Adjustment Wedge	O	Mounting Holes
H	Chain Holder		

ASSEMBLY

The chain saw sharpener is supplied only partly assembled.

1. Remove the bolts from both pivot clamps as shown in Fig 4.
2. Insert the axle into the body of the chainsaw sharpener. Fig 5.
3. Place the chainsaw sharpener on the base plate.
 - Make sure the nipple on the chainsaw sharpener is positioned inside the depth limiter (N) spring as shown in Fig 6.
4. Replace the pivot clamps and secure in place using the bolts removed in step 1.

Note: Before starting the unit, make sure the grinding disc is fixed firmly. Never operate the unit without the protective cover.

5. Place the base plate (A) on a solid, level surface, e.g. a workbench. Fig 7.
 - Ensure that the base plate extends out far enough over the edge of the work bench so that the chain can hang down freely and you can easily access the angle adjustment screw (L) at the bottom.
6. Mount the base plate (A) using the mounting holes (O).

The chain saw sharpener is now ready for use.

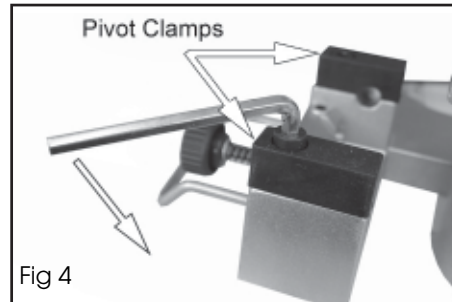


Fig 4

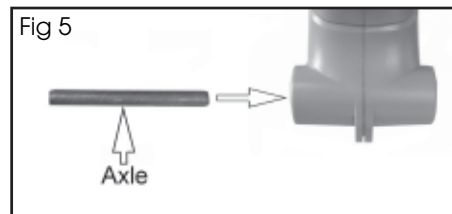


Fig 5

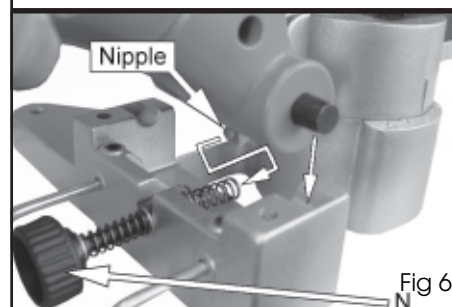


Fig 6



Fig 7

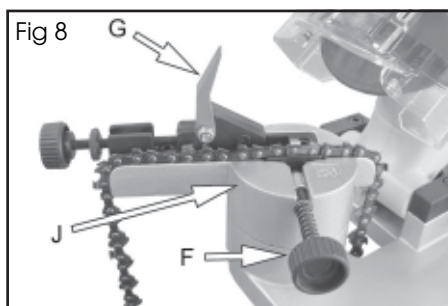
OPERATING



WHEN SHARPENING, ALWAYS WEAR SAFETY GOGGLES.

FITTING THE CHAIN TO THE SHARPENER

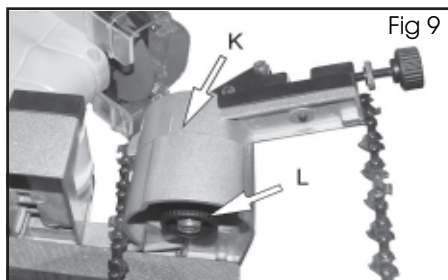
1. Lift up the adjustment wedge (G) and unscrew the fastening screw (F), see Fig 8.
2. Place the chainsaw chain on the chain holder assembly (J).
 - There is a diagram on the chainsaw holder indicating which way the teeth should be facing



ADJUSTMENTS

ADJUSTING THE GRINDING ANGLE

1. Rotate the chain holder assembly (J) to the required angle.
 - Most chainsaw chains have a cutting tooth angle of 15° or 30°. Check the chain packaging for information.
2. Tighten the angle adjustment screw (L).
 - Do not over tighten. The chain holder assembly should be able to move when required but it must stay in the set position when sharpening.
 - Do not rotate the chain holder assembly (J) when the grinding disc is moving.
 - The chain holder assembly (J) clicks into place at 15° or 30° degrees, shown by the angle indicator (K), see Fig 9.



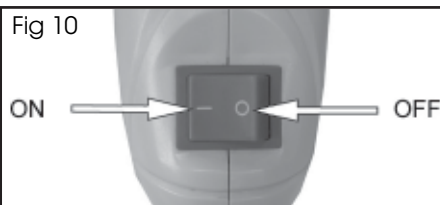
ADJUSTING THE MAXIMUM SHARPENING DEPTH

3. Adjust the maximum sharpening depth using the depth limiter (N).
 - Start grinding with the most worn-out tooth and sharpen all other teeth to the same depth.



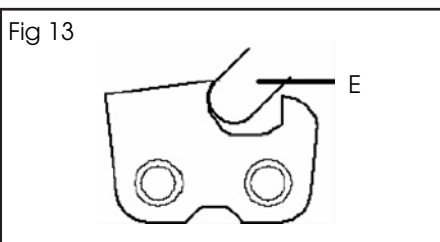
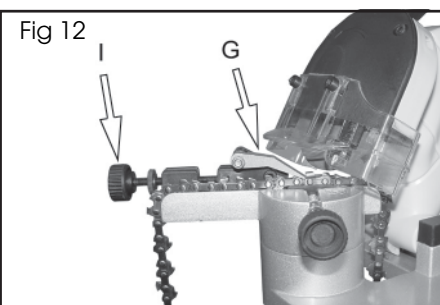
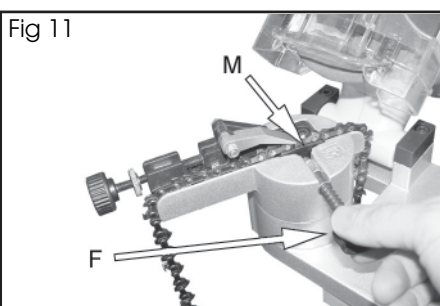
SWITCHING ON/OFF

6. To switch on, set the ON/OFF switch to the (I) position. see Fig 10
7. To switch off, set the ON/OFF switch to the (O) position. see Fig 10



SHARPENING THE CHAIN

8. Make sure the chainsaw chain is held securely between both guide boards (M). Tighten with the fastening screw (F) if necessary. see Fig 11.
 9. Position the tooth being sharpened near to the grinding disc.
 10. Put the adjustment wedge (G) down into position (fig 12) and move the tooth forward with the adjusting screw(I) until the bottom of the grinding disc (E) can be positioned inside the cutting edge of the tooth. See Fig 13.
- Before moving the chain to the next tooth, switch the unit off and wait until the grinding disc comes to a complete stop.
 - First sharpen all teeth in one direction i. e. every second tooth.
 - Then change the sharpening angle to the opposite direction.
 - Make sure that all teeth are sharpened as evenly as possible.
 - Only sharpen the teeth, never the chain links.



MAINTENANCE AND CLEANING

- Use a dry paint-brush to clean the unit and remove grinding residues.
- Do not clean the unit with aggressive detergents or chemicals.
- The unit does not require any lubrication.

CHANGING THE GRINDING DISC



BEFORE CARRYING OUT ANY WORK ON THE CHAIN SAW SHARPENER DISCONNECT THE PLUG FROM MAINS SUPPLY.

1. Unscrew the bolts indicated using the hexagonal key supplied and remove the protective cover (D). See Fig 14.

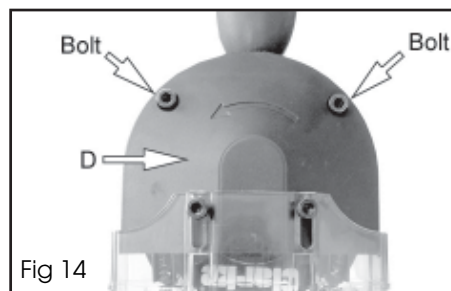


Fig 14

2. Use the wrench supplied to lock the spindle and then loosen the nut with the socket wrench.
3. Place the new grinding disc over the spindle.
 - Only use grinding discs with a diameter of 100 mm.
 - Replacement grinding disc speed must meet or exceed the RPM rating of the unit.

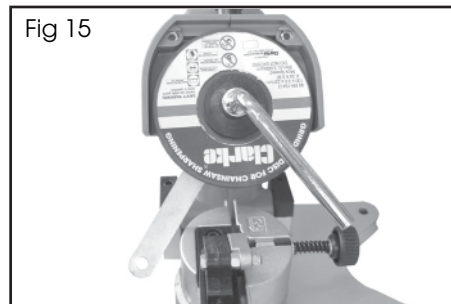


Fig 15

Note: Replacement discs are available from your Clarke dealer part number (3402076)

4. Tighten the nut and mount the protective cover (D) on the unit.

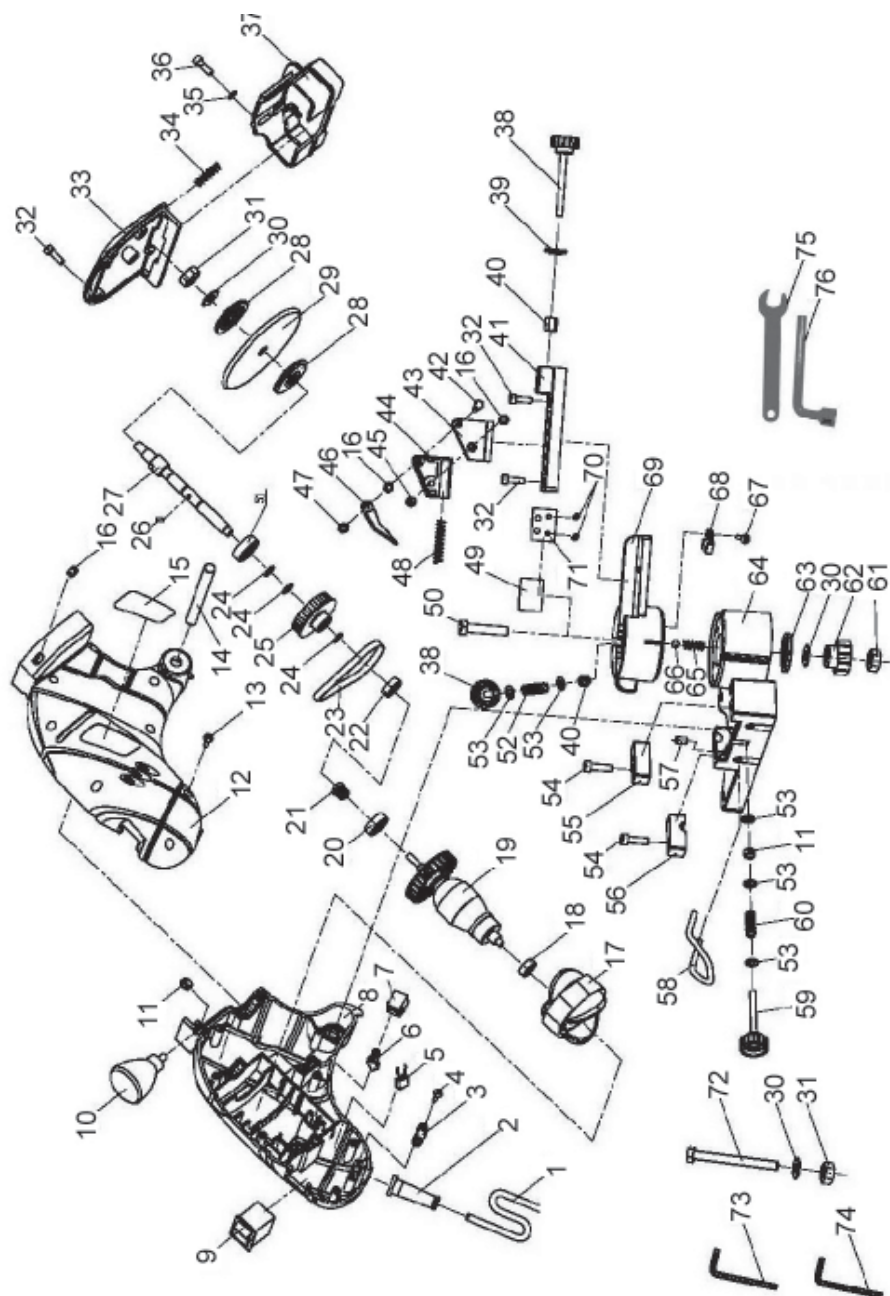


SPECIFICATION

Nominal Voltage	230 V
Frequency	50 Hz
Nominal Power	130 W
No Load Speed	3000 rpm
Disc Diameter	Ø 100 mm
Weight	2.5 kg
Protection Class	II
Sound Pressure Level	85.8 dB(A)
Sound Power Level	98.8 dB(A)
Hand Arm Vibration	3,168 m/s ²



PARTS DIAGRAM



Clarke

PARTS LIST

No	Description	Part number	No	Description	Part number
1	Cable	KPECSS1001	39	Nut M6	KPECSS1039
2	Strain Relief	KPECSS1002	40	Nut M6x12	KPECSS1040
3	Cable Pressboard	KPECSS1003	41	Chain Guide	KPECSS1041
4	Screw ST 4x14	KPECSS1004	42	Bolt M5x35	KPECSS1042
5	Capacitance 0.33 μ F	KPECSS1005	43	Left Chain Holder	KPECSS1043
6	Carbon Brush	KPECSS1006	44	Right Chain Holder	KPECSS1044
7	Carbon Brush Holder	KPECSS1007	45	Bolt M5x10	KPECSS1045
8	Motor Housing Left	KPECSS1008	46	Adjustment Wedge	KPECSS1046
9	ON/OFF Switch	KPECSS1009	47	Nut M5	KPECSS1047
10	Handle	KPECSS1010	48	Spring 1	KPECSS1048
11	Nut M6	KPECSS1011	49	Guide Board	KPECSS1049
12	Motor Housing Right	KPECSS1012	50	Bolt M8x50	KPECSS1050
13	Screw ST 4x16	KPECSS1013	51	Bearing 6000Z	KPECSS1051
14	Axis	KPECSS1014	52	Spring 2	KPECSS1052
15	Label	KPECSS1015	53	Gasket 6	KPECSS1053
16	Nut M5	KPECSS1016	54	Bolt M6x16	KPECSS1054
17	Stator	KPECSS1017	55	Right Pivot Clamp	KPECSS1055
18	Bearing 606Z	KPECSS1018	56	Left Pivot Clamp	KPECSS1056
19	Rotor	KPECSS1019	57	Pin M6x12	KPECSS1057
20	Bearing 608Z	KPECSS1020	58	Bracket	KPECSS1058
21	Small Wheel	KPECSS1021	59	Adjusting Screw 2	KPECSS1059
22	Bearing 607Z	KPECSS1022	60	Spring 3	KPECSS1060
23	Drive Belt	KPECSS1023	61	Nut M8	KPECSS1061
24	Retainer Ring 10	KPECSS1024	62	Locknut	KPECSS1062
25	Big Wheel	KPECSS1025	63	Swivel Plate	KPECSS1063
26	Pin 3x5	KPECSS1026	64	Base	KPECSS1064
27	Spindle	KPECSS1027	65	Spring	KPECSS1065
28	Press Plate	KPECSS1028	66	Steel Ball SØ5	KPECSS1066
29	Grinding Disc Ø100	KPECSS1029	67	Bolt M4x10	KPECSS1067
30	Gasket 8	KPECSS1030	68	Splint	KPECSS1068
31	Nut M8	KPECSS1031	69	Chain Holder Assy	KPECSS1069
32	Bolt M5x16	KPECSS1032	70	Spring	KPECSS1070
33	Protective Cover	KPECSS1033	71	Press Board	KPECSS1071
34	Spring	KPECSS1034	72	Bolt M8x80	KPECSS1072
35	Gasket 5	KPECSS1035	73	Wrench 4x22x60	KPECSS1073
36	Bolt M5x20	KPECSS1036	74	Wrench 5x22x65	KPECSS1074
37	Transparent Cover	KPECSS1037	75	Jaw Wrench	KPECSS1075
38	Adjusting Screw 1	KPECSS1038	76	Socket Wrench	KPECSS1076



DECLARATION OF CONFORMITY



Clarke[®]
INTERNATIONAL

Hemnal 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 directive(s):

2006/95/EEC *Low Voltage Equipment Directive*
98/37/EC *Machinery Directive*
2002/95/EC *Restriction of Hazardous substances*

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

EN 61029-1:2000+A11:2003+A12:2003, EN 61029-2-10:1998,
BS EN 55014-1:2000+A1:2001+A2:2002, BS EN 55014-2:1997+A1:2001,
BS EN 61000-3-2:2000+A2:2005, BS EN 61000-3-3:1995+A1:2001+A2:2005.

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: 2007

Product Description: Chain Saw Sharpener
Model number(s): ECSS-1
Serial / batch Number: 3402075
Date of Issue: 16/06/09

Signed:

J.A. Clarke
Managing Director

08-0402 CECSS-I(rv1) (2)

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