

# CS 7,5 E 800

## OPERATING INSTRUCTIONS





# Declaration of conformity

The undersigned manufacturer:

**SAINT-GOBAIN ABRASIVES S.A.**  
**190, BD J.F. KENNEDY**  
**L- 4930 BASCHARAGE**

Declares that this product:

Floor saw: **CS 7,5 E 800**  
Code: **70184623924 CS 7,5 E 800**

is in conformity with the following Directives:

- ***European Machinery Directive 2006/42/EC***
- ***"LOW VOLTAGE" 2006/95/EC***
- ***Electromagnetic Compatibility Directive 2004/108/EC***

and European standard:

- ***EN 13862 Floor cutting-off machines - Safety***



Olivier Plenert  
Machine Design Manager



# CS 7,5 E 800

## OPERATING INSTRUCTIONS

<b>1</b>	<b>Basic Safety Instructions</b>	<b>6</b>
1.1	<i>Symbols</i>	6
1.2	<i>Machine plate</i>	7
1.3	<i>Safety instructions for particular operating phases</i>	7
<b>2</b>	<b>General description of the CS7,5E 800</b>	<b>8</b>
2.1	<i>Short description</i>	8
2.2	<i>Layout</i>	8
2.3	<i>Technical data</i>	9
<b>3</b>	<b>Assembly and commissioning</b>	<b>10</b>
3.1	<i>Operator's handle assembly</i>	10
3.2	<i>Tool assembly</i>	10
3.3	<i>Water cooling system</i>	10
3.4	<i>Electrical connections</i>	11
<b>4</b>	<b>Transport and Storing</b>	<b>12</b>
4.1	<i>Securing for transport</i>	12
4.2	<i>Transport procedure</i>	12
4.3	<i>Long period of inactivity</i>	12
<b>5</b>	<b>Operating the CS7,5E 800</b>	<b>13</b>
5.1	<i>Site of work</i>	13
5.2	<i>Cutting method</i>	13
<b>6</b>	<b>Maintenance and service</b>	<b>15</b>
<b>7</b>	<b>Faults: causes and cures</b>	<b>16</b>
7.1	<i>Fault-finding procedures</i>	16
7.2	<i>Trouble-shooting guide</i>	16
7.3	<i>Customer service</i>	17
<b>8</b>	<b>Appendix</b>	<b>19</b>
8.1	<i>Spare parts list</i>	19
8.2	<i>Exploded part drawings</i>	21

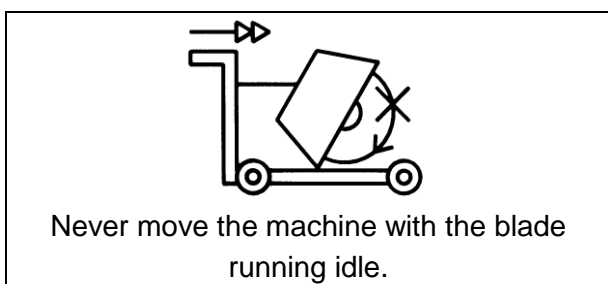
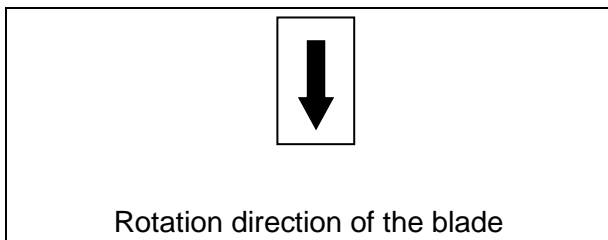
# 1 Basic Safety Instructions

The CS7,5E 800 is exclusively designed for the cutting of floors made of asphalt, green and cured concrete (reinforced or not) as well as of industrial cement.

Uses other than the manufacturer's instructions shall be considered as contravening the regulations. The manufacturer shall not be held responsible for any resulting damage. Any risk shall be borne entirely by the user. Observing the operating instructions and compliance with inspection and servicing requirements shall also be considered as included under use in accordance with the regulations.

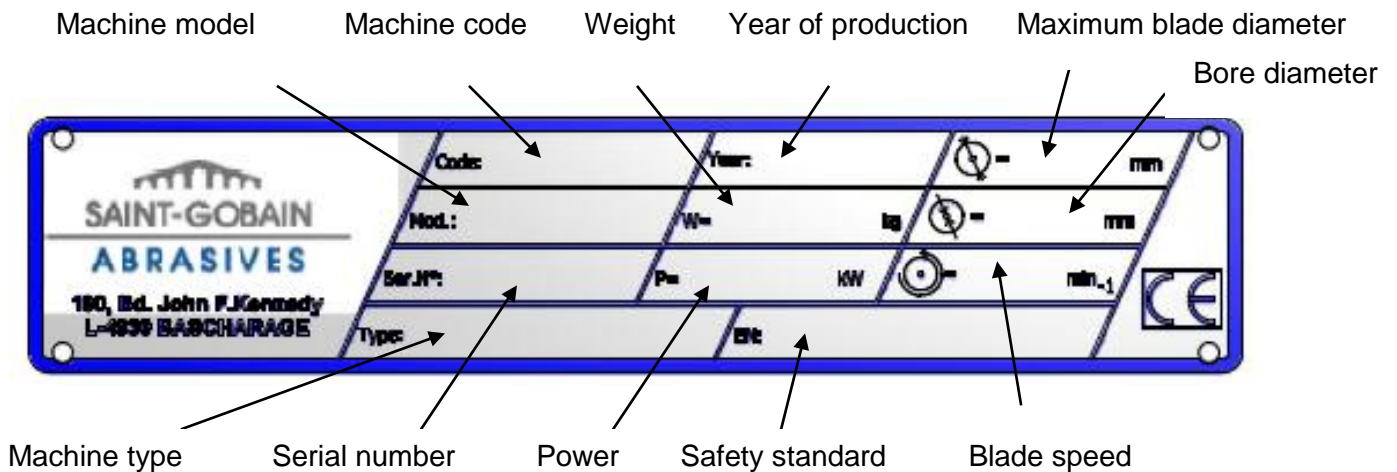
## 1.1 Symbols

Important warnings and pieces of advice are indicated on the machine using symbols. The following symbols are used on the machine:



## 1.2 Machine plate

Important data can be found on the following plate located on the machine:



## 1.3 Safety instructions for particular operating phases

### Before commencing work

- Before commencing work, make yourself familiar with the working environment at the place of use. The working environment includes: obstacles in the area of work and manoeuvre, the firmness of the floor, necessary protection at the site relating to public thoroughfares and the availability of help in the event of accidents.
- Check for correct mounting of the blade regularly.
- Immediately remove damaged or badly worn blades, as they endanger the operator whilst rotating.
- Always cut with the blade guard in position.
- Only fit NORTON diamond blades to the machine! The use of other tools can damage the machine!
- Attention is drawn to the use of BS2092 safety goggles in conformity with specified Processes No.8 of the Protection of Eyes Regulation 1974, Regulation 2(2) Part 1.
- For security reasons, never leave the machine unattended, untied or unlocked.

### While the engine is running

- Do not move the machine whilst the blade is running idle.
- Do not run the machine without the security guards in place.
- Apply cooling water continuously whilst cutting and in good time!

### Electrical powered machine

- Always turn off the machine and separate it from the main source of electricity before any work on the machine is done.
- Make all electrical connections securely to eliminate contact of live wires with spray water or dampness.
- When the machine is used with water, it is IMPERATIVE that you earth the machine properly.
- In the event of the machine breaking down or stopping for no apparent reason, switch off the main electricity supply. Only a qualified electrician is allowed to investigate the trouble and remedy the fault.

## 2 General description of the CS7,5E 800

Any modification, which could lead to a change in the original characteristics of the machine, may be done only by Saint-Gobain Abrasives S.A. who shall confirm that the machine is still in conformity with the safety regulations. Saint-Gobain Abrasives S.A. keeps the right of making technical or design modification without prior notification.

### 2.1 Short description

The **Floor Saw CS7,5E 800** you have chosen, is used for small repair works in concrete and asphalt, for cutting induction loops and installing cables as well as for cutting expansion joints. It can be used for either wet or dry cutting operations.

Being of small construction, it can be transported in a car or van, the handle can be removed, reversed or retracted.

All component parts on the **CS7,5E 800** are assembled to a high quality standard, ensuring long life, reliability and a minimum of maintenance.

Special types of blades are available for asphalt, green concrete, cured concrete (reinforced or not) as well as for industrial cement flooring.

### 2.2 Layout



Made of jig welded open profile steel, the CS7,5E 800 is stable but at the same time, easily transportable.

The blade guard (1) fully protects the operator and his working environment. It is firmly fixed to the main frame but can be removed to change blades. The front part of the blade guard can be opened to cut until walls. The blade guard can be assembled either on the left or the right hand side of the machine.

A manually operated hand wheel mechanism (2) enables graduated depth setting. Turning the hand wheel clockwise or anti-clockwise will lower or raise the cutting blade.



The handles (3) are detachable or can be reversed for easy transportation. The height is adjustable.

The pivoting frame (4), hinged on the rear axle, is supporting the motor, the blade shaft assembly, and the protecting guards. Three heavy-duty belts drive the blade.

The precisely manufactured blade shaft is fitted into two heavy-duty self-aligning pillow block bearings, including grease nipples. A three-belt taper lock pulley is fitted on one end. In case of wet cutting, the water runs through the blade shaft, and is fed to the blade through the inner collar.

The steel belt guard (5) is bolted to the mainframe of the machine. Covering the three drive belts and pulleys, it is can be removed for control or change of the belts.

The electric motor (6) with 7,5kW is connected to a delta-star switch (7). An emergency shut down switch is located on the cover of the switch. This allows an immediate stop of the machine in case of danger.

The pointer (8) allows the operator to make precise cut easily. The machine can be lifted using the lifting hook (9).

### **2.3 Technical data**

Motor	3-phases electric motor with 7,5kW, 400V and No Volt Release switch
Motor protection	IP54
Max. blade diameter	800 mm
Bore	25,4 mm
Max. cutting depth mm	320 mm
Flange diameter	160 mm
Blade shaft speed	1460 min <sup>-1</sup>
Driving belts	1 Poly-V
Machine dimensions (length x width x height)	1270 x 580 x 1000 mm in cutting configuration
Weight	118 kg
Max. operating weight	133 kg
Sound pressure level	80 dB (A) (ISO EN 11201)
Sound energy level	94 dB (A) (ISO EN 3744)

### **3 Assembly and commissioning**

Before beginning the work with the CS7,5E 800, you have to assemble some parts.

#### **3.1 Operator's handle assembly**

Secure the operator's handle in a comfortable user position by using the locking handles on each side of the machine.

#### **3.2 Tool assembly**

Only use NORTON blades with the CS7,5E 800.

A blade with a maximum diameter of 800 mm can be fitted. All tools used must be selected with regard to their maximum permitted cutting speed for the machine's maximum permitted rotation speed.

Before mounting a new blade into the machine, switch off the machine and isolate it from the main source of electricity.

To mount a new blade, follow these steps:

- Turn the wheel until the cutting head is in the raised position.
- Loosen the screw maintaining the guard and remove the guard.
- Loosen the screw on the blade shaft, which holds the removable outer flange.
- Remove the outer flange.
- Clean the flanges and blade shaft and inspect for wear.
- Mount the blade on the shaft ensuring that direction of rotation is correct. Wrong direction of rotation blunts the blade quickly.
- Replace outer blade flange.
- Tighten hexagonal screw with spanner supplied for this purpose.
- Assemble the blade guard on the machine again, and make sure it is held firmly.

The blade bore must correspond exactly to the blade shaft. Cracked or damaged bore is dangerous for the operator and for the machine.

#### **3.3 Water cooling system**

Open water-tap on the frame (note that handle on water-tap should be in line with water-flow).

Ensure that water is flowing freely in the circuit and delivered adequately to both sides of the blade, as insufficient water supply may result in premature failure of the diamond blade.

In case of frost, empty the water cooling system.

### **3.4 Electrical connections**

#### **Electrical connections**

Check that,

- the voltage/phase supply corresponds to the information indicated on the motor plate.
- Available power supply must have ground connection in conformity with safety regulations.
- The connecting cables should have at least a 2.5mm<sup>2</sup>-section per phase.

#### **Switch on the machine**

Make sure that the emergency stop button is switched on ON. Then put the Star-Triangle-Switch on Y. If the blade turns in the wrong direction, switch back on 0, and switch on Y in the other direction. Wait until the blade reaches its maximum rotational speed, and then turn the Star-Triangle-switch on  $\Delta$ .

#### **Emergency Stop**

You can stop the machine in case of emergency by pressing the button on the cover of the switch. To restart the machine after an emergency stop, turn the Star-Triangle-Switch on "0". Then put the emergency stop button back on ON.

## **4 Transport and Storing**

Take the following measures in order to transport and store the CS7,5E 800 securely.

### **4.1 Securing for transport**

Before transporting the machine:

- Remove the blade.
- Reverse the handles in their fixing tubes and secure it using the locking handles.
- Raise the guide-a-cut in its upright position.
- Raise the pivoting frame to its highest position using the handwheel.

### **4.2 Transport procedure**

The machine can be moved on a flat surface using its wheels. Use the metal hook to move the machine with a crane.

### **4.3 Long period of inactivity**

If the machine is not going to be used for a long period, please take the following measures:

- Completely clean the machine.
- Loosen the drive belts.
- Grease the threaded shaft.
- Empty the water system.

The storage site must be clean, dry and at a constant temperature.

## 5 Operating the CS7,5E 800

### 5.1 Site of work

Before you start working, please check the following points:

- Remove from the site anything, which might hinder the working procedure.
- Make sure the site is sufficiently well lit.
- Observe manufacturer's conditions for connecting to power supplies!
- Place electric cables in such a way that damage by the device is excluded!
- Make sure you have a continual adequate view of the working area so you can intervene in the working process at any time.
- Keep other staff out of the area, so you can work securely.

### 5.2 Cutting method

In this section, you can find instructions to make a straight cut at the desired depth.

#### 5.2.1 Preparing your cut

Before starting the machine,

- Draw a line on the floor over the cutting length.
- Make sure you have mounted the correct blade as recommended by the manufacturer depending on the material to be worked, the working procedure (dry or wet cut) to be carried out, and the efficiency required.
- Make sure that the flanges securely hold the diamond blade.
- Make sure that the blade is not touching the floor before starting.
- Adjust the handle to a comfortable position.
- Roll the machine until the blade is over the line.
- Lower the guide-a-cut so it touches the line.

#### 5.2.2 Cutting the floor

You can now start the engine.

To make your cut,

- Turn the depth hand wheel until the blade slightly touches the floor.
- Open water valve to control the amount of water required for the type of blade, using 15 to 25l/min for wet and 1-2l/min for dry cutting, dust control. Check for minimum water level regularly.
- To lower blade into the cut, turn hand wheel clockwise.
- Once the required depth of cut is reached, push the machine forward with steady and gentle pressure and follow the line with the pointer. The feed speed must be adjusted depending on the material being cut, and depth of cut.
- If the thermal protection trips, wait a few minutes to allow the motor to cool down before restarting the machine.
- At the finish of the cut, raise the blade out of the cut by turning the hand wheel anti-clockwise, shut-off the water and switch off the motor.

### 5.2.3 Cutting left or right of the machine

You can cut either left or right of the machine. To change from one side to the other, switch the machine off, and place the guard and the outer collar on the side you want. Also set the seal collar on the other side, otherwise, the water will get out of the blade shaft on the wrong side of the machine.

## 6 Maintenance and service

**ATTENTION** : to perform maintenance on the machine, always switch it off. Always wear a face mask and safety goggles while performing the maintenance of machine. To ensure a long-term quality from the cutting with the CS7,5E 800, please follow the maintenance plan below:

Regular service period Perform at every indicated period →		After one hour of work	Begin of the day	During the changing of the tool	End of the day	Every week	After a fault	After a damage
		Whole machine	Visual control (general aspect, watertightness)					
	Clean							
Flange and blade fixing devices	Clean							
Motor cooling fans	Clean							
Belts tension	Control							
Water hoses and nozzles	Clean							
Depth screw	Grease							
Engine housing	Clean							
Reachable nuts and screws	Tighten up							

### Maintenance of the motor

Always perform the maintenance of the motor with the machine isolated from the electrical supply.

### Adjustment and replacement of the belts

After one hour of work, the belts heat and stretch. Therefore, you have to re-tension them.

To adjust the belts, firstly remove the belt guard by unscrewing the nuts. Loose the 4 engine bolts and shift the engine by using the screw on the front.

To replace the belts, move the engine completely to the front. Adjust the belts and retighten them by shifting the motor to the rear.

Always use a matched set of belts. Do not replace single belts.

### Lubrication

The CS7,5E 800 uses life-lubricated bearings. Therefore, you don't need to lubricate them at all. Grease the depth screw every day.

### Cleaning of the machine

Your machine will last longer if you clean it thoroughly after each day of work.

## 7 Faults: causes and cures

### 7.1 Fault-finding procedures

Should any fault occur during the use of the machine, turn it off, and isolate it from the electrical supply. Any works dealing with the electrical system or supply of the machine can only be carried out by a qualified electrician.

### 7.2 Trouble-shooting guide

Trouble	Possible source	Resolution
Wrong direction of rotation	Wrong motor polarity	Invert polarity on by switching in the other direction
Motor is not running	No electricity	Check the electrical supply (fuse for example)
	Connection cable section too small	Change connection cable
	Defective connection cable	Change connection cable
	Defective switch	CAUTION : can only be solved by qualified electrician
	Defective motor	Change motor or contact motor manufacturer
Motor stops during the cutting, but can be restarted after a short period	Cutting advance too quick	Cut slowly
	Blade is blunt or glazed	Sharpen the blade in calcareous stone
	Defective blade	Change blade
	Wrong blade corresponding to the application	Change blade



### **7.3 Customer service**

When ordering spare parts, please mention:

- The serial number (7 digits).
- The code of the part.
- The exact denomination.
- The number of parts required.
- The delivery address.
- Please indicate clearly the means of transportation required such as "express" or "by air".  
Without specific instructions, we will forward the parts through the means which seem appropriate to us and but which is not always the quickest way.

Clear instructions will avoid problems and faulty deliveries.

If not sure, please send us the defective part.

In the case of a warranty is claim, the part must always be returned for evaluation.

Spare parts for the engine can be ordered with the manufacturer of the engine or with their dealer, which is often quicker and cheaper.

This machine has been manufactured by Saint-Gobain Abrasives S.A.

190, rue J.F.Kennedy

L- 4930 BASCHARAGE

Grand-Duché de Luxembourg.

Tel. : 00352-50401-1

Fax : 00352- 50 16 33

<http://www.norton-diamond.com>

e-mail: [sales.nlx@saint-gobain.com](mailto:sales.nlx@saint-gobain.com)

Guarantee can be claimed and technical support obtained from your local distributor where machines, spare parts and consumables can be ordered as well:

#### **Benelux and France:**

From Saint-Gobain Abrasives  
in the Grand-Duché de Luxembourg

Free telephone numbers:

Belgium : 0 800 18951

France: 0 800 90 69 03

Holland: 0 8000 22 02 70

e-mail: [sales.nlx@saint-gobain.com](mailto:sales.nlx@saint-gobain.com)

#### **Germany**

Saint-Gobain Diamond Products GmbH  
Birkenweg 45-49,

D-50389 WESSELING

Tel : (02236) 8911 0

Fax : (02236) 8911 30

e-mail: [sales.ngg@saint-gobain.com](mailto:sales.ngg@saint-gobain.com)

#### **Spain**

Saint-Gobain Abrasivos S.A.

Ctra Guipuzcoa km7,5

31195 BERRIOPLANO (Navarra)

Tel: 0034 948 30 3000

Fax: 0034 948 30 6042

e-mail : [Comercial.sga-apa@saint-gobain.com](mailto:Comercial.sga-apa@saint-gobain.com)

#### **Hungary**

Saint-Gobain Abrasives KFT.

Budafoki u. 111

H-1117 BUDAPEST

Tel: ++36 1 371 2250

Fax: ++36 1 371 2255

e-mail: [nortonbp@axelero.hu](mailto:nortonbp@axelero.hu)

#### **Czech Republic**

Norton Diamantove Nastroje Sro

Vinohradska 184

CS-13000 PRAHA 3

Tel: 0042 0267 13 20 21

Fax: 0042 0267 13 20 21

e-mail: [norton.diamonds@komerce.cz](mailto:norton.diamonds@komerce.cz)

#### **United Kingdom**

Saint-Gobain Abrasives Ltd.

Unit 2, meridian West

Meridian Business Park

Leicester

LE19 1WX

Tel : 0116 2632 302

Fax : 0800 622 385

e-mail : [nortondiamonduk@saint-gobain.com](mailto:nortondiamonduk@saint-gobain.com)

#### **Italy**

Saint-Gobain Abrasivi S.p.A.

Via per Cesano Boscone, 4

I-20094 CORSICO-MILANO

Tel: 0039 02 44 851

Fax: 0039 0245 101238

e-mail: [Norton.edilizia@saint-gobain.com](mailto:Norton.edilizia@saint-gobain.com)

#### **Austria**

Saint-Gobain Abrasives GmbH

Telsenberggasse 37,

A-5020 SALZBURG

Tel: 0043 662 43 00 76 77

Fax: 0043 662 43 01 75

e-mail: [office@sga.net](mailto:office@sga.net)

#### **Poland**

Saint-Gobain Diamond Products Sp.zO.O.

AL. Krakowska 110/114

PL-00-971 WARSZAWA

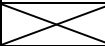
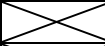
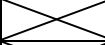
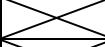
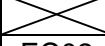
Tel: 0048 22 868 29 36

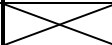

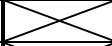
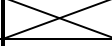
Tel/Fax: 0048 22 868 29 27

e-mail: [norton-diamond@wp.pl](mailto:norton-diamond@wp.pl)

## 8 Appendix

### 8.1 Spare parts list

POS	PAGE	REF	DENOMINATION	TYPE
1	EC01	510111022	Pivoting frame	R
2	EC01	310007154	Lowering screw complete (inc. Pos.3 to 8)	R
3	EC01	310007155	Handwheel cpl.	R
4	EC01	510114082	Handle	R
5	EC01	310007156	Bearing UCUP202	U
6	EC01	310007157	Spindle	U
7	EC01	310007158	Spindle nut	U
8	EC01	510114083	Pin	R
10	EC01	510114104	Depth gauge	R
11	EC01	510114105	Belt guard	R
12	EC01	510114106	Screw for belt guard	R
13	EC01	510107700	Fixing axle guide-a-cut	R
14	EC01	510107701	Cutting guide complete	R
15	EC01	510107702	Guide-a-cut	R
16	EC01	310007159	Wheel for guide-a-cut	U
17	EC01	310007160	Pointer for guide-a-cut	R
18		510114144	Cutting guide base	R
19		510114145	Cutting guide rope	R
20		510114174	Blade guard Ø800 mm	R
21		310079153	Wall edge blade guard Ø800 mm	R
22		510114175	Wall edge splash guard Ø800 mm	R
30	EC02	510111124	Main frame	R
31	EC02	310007161	Rear axle	R
32	EC02	310007162	Bush bearing	U
33	EC02	310007163	Rear wheel	U
34	EC02	510114151	Washer for wheel	R
35	EC02	510114152	Pin	R
36	EC02	310007164	Front wheel	U
37	EC02	310007165	Bush bearing	U
39	EC02	510114153	Left handle	R
40	EC02	510114154	Right handle	R
41	EC02	510114155	Plastic handle	R
42	EC02	310405357	Screw M10x20	R
43	EC02	310405356	Brake handle	R
44	EC02	510114157	Locking pin	R
45	EC02	310007166	Water tap	U
51	EC03	510114176	Blade shaft Ø800 mm	R
52	EC03	310007167	Screw (right threaded) M14x30	R
53	EC03	310007168	Screw (left threaded) M14x30	R
54	EC03	310007169	Blade shaft bearing UCP207	U
55	EC03	310361380	Poly-V pulley for Ø800 mm	R
56	EC03	510114163	Poly-V belt protection	R
57	EC03	510114159	Key for pulley	R

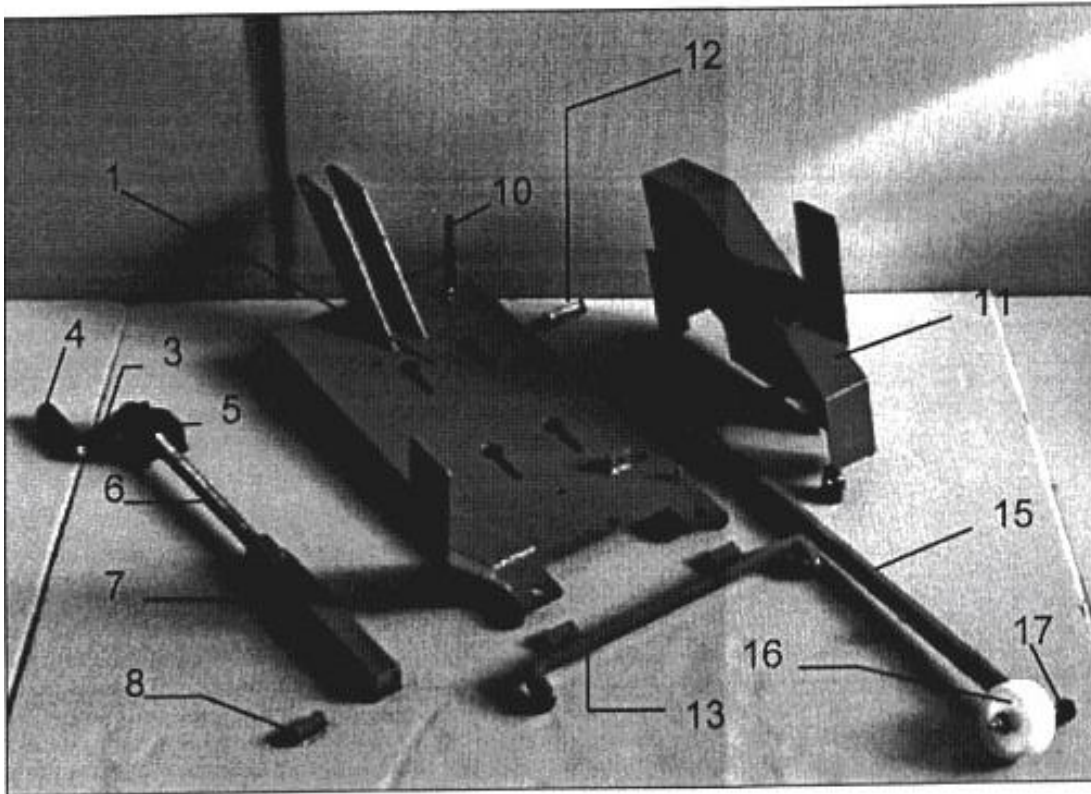
58	EC03	510114160	Key for inner collar	R
59	EC03	510105270	Fix flange	R
60	EC03	310007172	Outer collar	R
61	EC03	310007173	Seal collar	R
62	EC03	310007174	Seal for seal collar	U
63	EC03	310007079	Outer collar for near-wall-cuts	R
65	EC03	310007175	Bush for water system	U
66	EC03	510114179	Bearing 6007 2 RS	U
67	EC03	510100997	Gasket 42/52/4	U
68		310007294	Spacer 23 mm (Bearing-Pad)	R
69		510103628	Washer 45/35/1 mm (Pad-Fix flange)	R
70		510103629	Spacer 9 mm (Pulley-Fix flange)	R
71		510114161	Connection pipe	R
80	EC04	310048567	Electric motor 7,5kW 400V	R
81	EC04	510112774	Poly-V motor pulley	R
82	EC04	310301266	Poly-V belt 320J PJ813	U
83	EC04	510111126	Motor support (rear part)	R
84	EC04	510111127	Motor support (left part)	R
85	EC04	310007179	Switch	U
86	EC04	510101694	Fixing part for switch (rear)	R
87	EC04	510101695	Fixing part for switch (front)	R
88	EC04	510101696	Rubber part	R

(\*): R = Spare part, U = Wear part

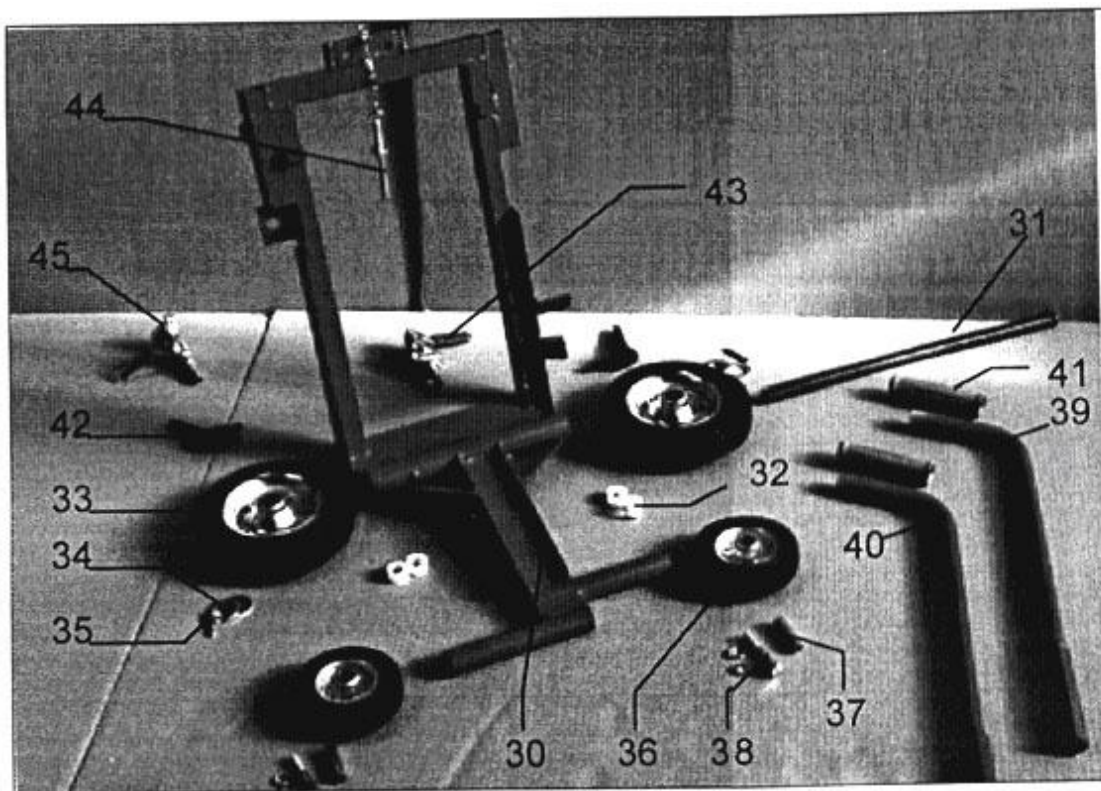
Wear parts are worn out through normal use of the machine. The wear period depends a lot on the intensity of use of the machine. Wear parts must be serviced, used and eventually changed following the indications of the manufacturer. Any wear due to normal use of the machine will not be considered as a case of warranty. Genuine Clipper replacement parts should always be used.

## 8.2 Exploded part drawings

EC01

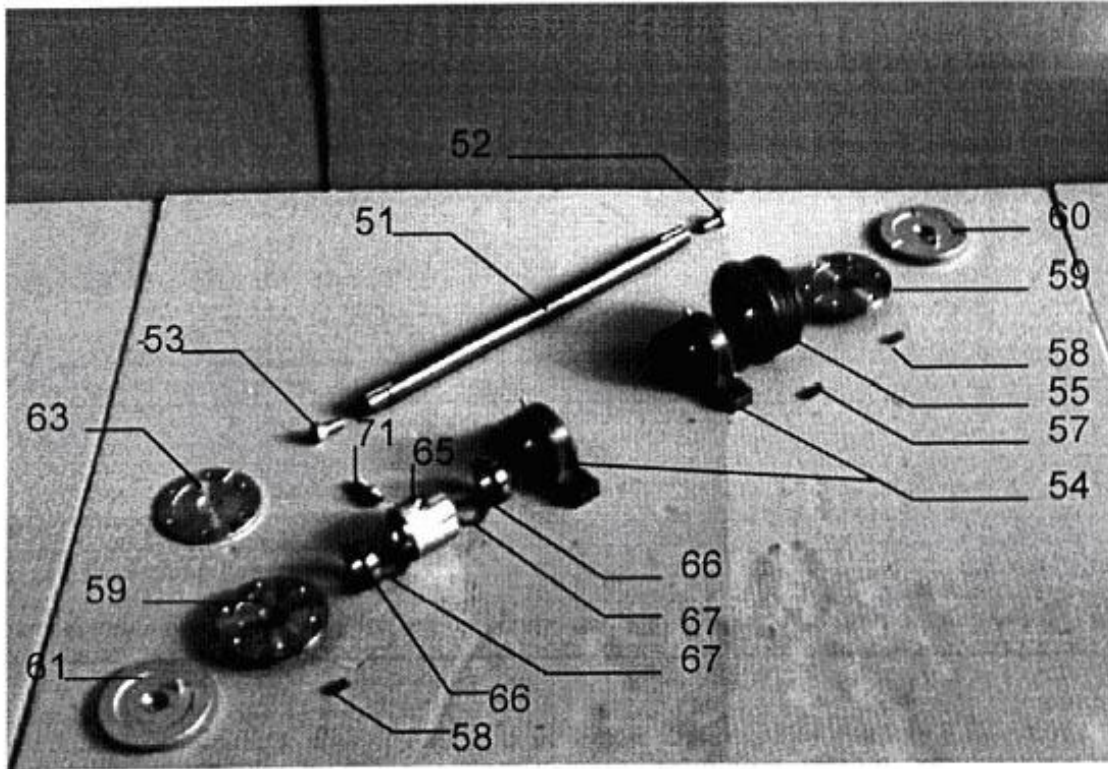


EC02

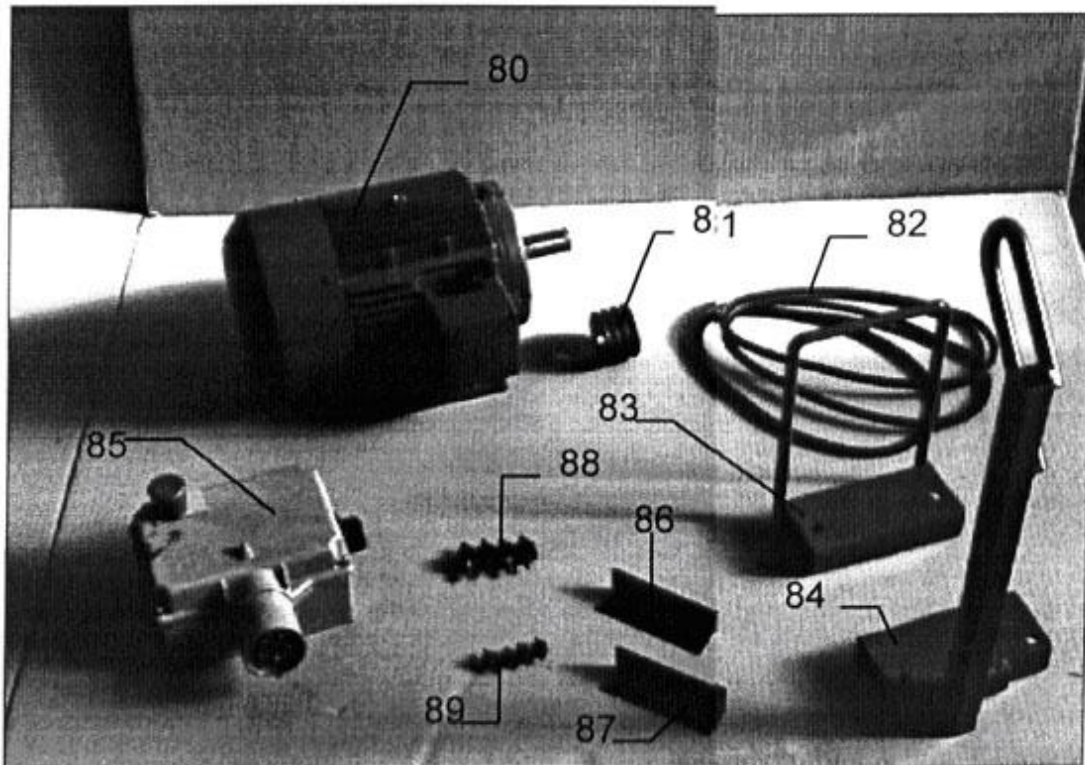


EC03





EC04





[www.construction.norton.eu](http://www.construction.norton.eu)

**Saint-Gobain Abrasives**

190, Bd. J. F. Kennedy  
L-4930 BASCHARAGE  
LUXEMBOURG

Tel: ++352 50401-1

Fax: ++352 501633

e-mail: [sales.nlx@saint-gobain.com](mailto:sales.nlx@saint-gobain.com)