# CT 601 MP

## OPERATING INSTRUCTIONS

**Translation of the original instructions**


NORTON
SAINT-GOBAIN

clipper®

SAINT-GOBAIN
ABRASIVES

# CE Declaration of conformity

The undersigned manufacturer:

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

Declares that this product:
Power Float: ***CT 601 MP*** Code : ***70184629945***

is in conformity with the following Directives:

- ***"MACHINES" 2006/42/CE***
- ***"ÉLECTROMAGNÉTIC COMPATIBILITY" 2004/108/CE***
- ***"NOISE" 2000/14/CE***

And the European standard

- ***EN 12649 – Concrete compactors and resurfacing***

Valid for machines as of serial number:
70100000

Storage site for the technical documents :
Saint-Gobain Abrasives 190, Bd. J. F. Kennedy 4930 BASCHARAGE, LUXEMBOURG

This declaration of conformity loses its validity when the product is converted or modified without agreement.

Bascharage, Luxembourg, 01/02/2012

Olivier Plenert, executive officer.

# CT 601 MP
# OPERATING INSTRUCTIONS AND SPARE PARTS LIST

# 1 BASIC SAFETY INSTRUCTIONS

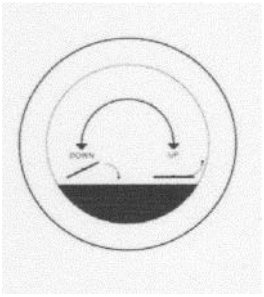
The CT601MP is exclusively designed for the finishing of wet concrete floors mainly on construction sites.
Uses other than the manufacturer's instructions shall be considered as contravening the regulations. The manufacturer shall not be held responsible for any resulting damage. Any risk shall be borne 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:

Read operator’s instructions

Ear protection and safety goggles must be worn

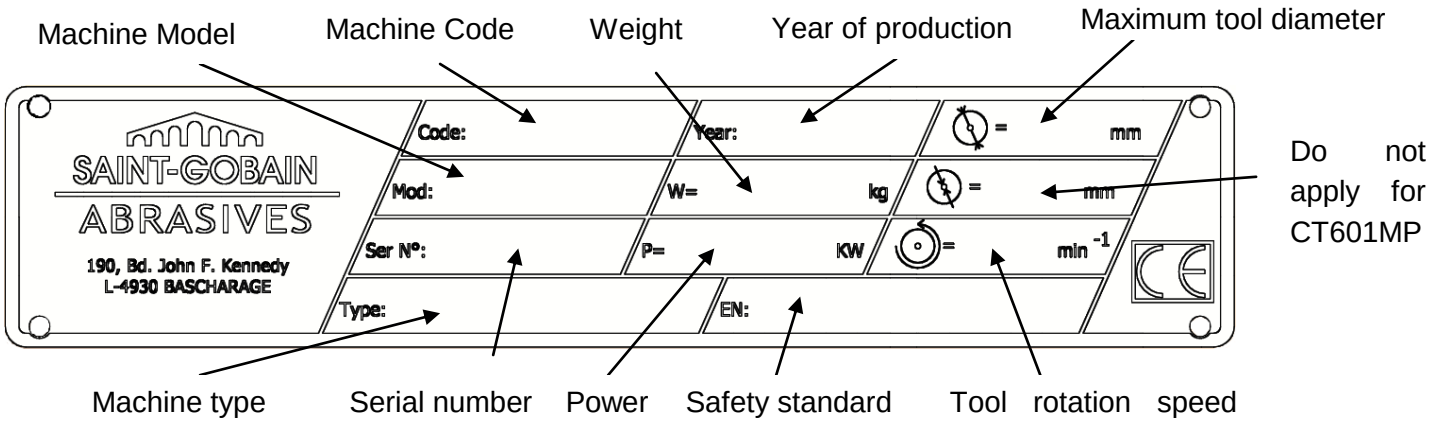


Turn the knob in the indicated direction to tilt (UP) or flatten (DOWN) the blades.


To prevent severe injuries, keep the feet and fingers away from the rotating tool

## *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**

- Read the present operator's instructions booklet carefully.
- 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 tool regularly.
- Immediately remove damaged or badly worn tools, as they endanger the operator whilst rotating.
- Always use the machine with the safety guard ring and protection guards in position.
- Only fit NORTON blades or plates 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.

**Petrol powered machines:**

- Always use the fuel advised.
- In confined areas, exhaust gases should be evacuated and the job site properly aerated.
- Petrol machines, which by their nature emit toxic exhaust gases, must not be used in places prohibited by the Health at Work etc. Act 1974 or which are prohibited by Factory Inspectors or Safety Officers.
- Fuel is flammable. Before filling the tank, shut down the engine, extinguish all open flames and do not smoke. Take care that no petrol is spilled on any engine part. Always wipe up spilled fuel.

# 2 MACHINE DESCRIPTION

Any modification, which could lead to a change in the original characteristics of the machine, may be done only by Saint-Gobain Abrasives who shall confirm that the machine is still in conformity with the safety regulations.

## *2.1 Short description*

The Mechanical Trowel CT601MP is designed for durability and high performance for onsite finishing operations on wet concrete floors.
As with all other NORTON products, the operator will immediately appreciate the attention given to detail and quality of materials used in construction. The machine and its component parts are assembled to high standards assuring long life and minimum maintenance.

## *2.2 Purpose of use*

The Clipper Mechanical Trowel CT601MP is designed for onsite finishing operations on wet concrete floors. It is not designed for any other purpose.

## *2.3 Layout*


**Handle (1)**
Jig welded steel construction including 2 rubber grips. A dead-man handle (7) allows the operator to work safely and to stop the machine at any moment. The angle of the machine arm can be adjusted to operate the machine comfortably.

**Pitch of the blades (2)**
The pitch of the blades is controlled over a knob on the handle.

**Belt drive and belt cover (3)**
A centrifugal clutch inside the engine pulley drives the gear shaft through V-Belts. It allows to gradually engage the tool rotation. The drive assembly is enclosed in a metal guard.

**Safety guard ring (4)**
A safety guard ring protects the operator from the rotation of the tool while offering an optimum view of the working progress. This ring can rotate, in order to ease the finishing of floor up to walls.

**Thermal Engine (5)**
The machine has a GX120 Honda engine, with 2,9kW. The dead-man handle (7) allows an immediate stop of the machine in case of danger.

**Lifting eye (6)**
To lift the machine easily and safely, a lifting eye is located over the engine. This allows a balanced lifting of the machine.

## *2.4 Technical Data*

| | |
|---|---|
| Engine | Honda GX120, 4 strokes, 1 cylinder, 4HP (2,9kW) |
| Filter | Dual Filter |
| Fuel | Regular unleaded |
| Oil | Honda 4-Stroke, or equivalent high detergent, premium quality motor oil certified to meet or exceed U.S. automobile manufacturer's requirement for service classification SG, SF. (SG, SF designated on the oil container).<br>SAE 10W-30 recommended |
| Starter | Manual pull chord |
| Type of spark plug | BPR6ES (NGK)<br>W20EPR-U (DENSO) |
| Type of tool | Blade or plate |
| Max. tool diameter | 600 mm |
| Blade shaft speed | 130 min-1 |
| Machine dimensions | 1560x650x1060 mm |
| Max. operating weight | 71 kg |
| Sound pressure level | 81 dB (A) (ISO EN 11201) |
| Sound energy level | 93 dB (A) (ISO EN 3744) |

## *2.5 Statement regarding the vibration emission*

Declared value of vibration emission following **EN 12096.**

| **Machine Model / code** | **Measured value of vibration emission at $m/s^2$** | **Uncertainty K $m/s^2$** | **Tool used Model / code** |
|---|---|---|---|
| **CT 601 MP** 70184629945 | <2.5 | 0.5 | Original Pale |

- The vibration value is lower and does not exceed 2.5 $m/s^2$.
- Values determined using the procedure described in the standard **EN 12649.**

- The measurements are made with new machines. Actual values may vary with site conditions, in terms of:
  - Materials worked
  - Wear Machine
  - Lack of maintenance
  - Inappropriate tool for application
  - Tool in poor condition
  - Unskilled operator
  - Etc…

- The exposure time to vibration is based on the performance of work (related to the adequacy Machine / Tool / worked material / operator)

- When evaluating risks due to hand-arm vibration, you need to take into account effective usage at rated power of machine during a full day of work; quite often you will realise that effective utilisation time represents around 50% of overall duration of work. You have to consider, of course, breaks, water feeding, preparation of work, time to move the machine, disk mounting…

## *2.6 Statement regarding noise emission*

Declared value of noise emission following **EN ISO 11201** and **NF EN ISO 3744.**

| **Machine Model / code** | **Sound Pressure level $L_{Peq}$ EN ISO 11201** | **Uncertainty K (Sound Pressure level $L_{Peq}$ EN ISO 11201)** | **Sound power level $L_{Weq}$ NF EN ISO 3744** | **Uncertainty K (Sound power level $L_{Weq}$ NF EN ISO 3744)** |
|---|---|---|---|---|
| **CT 601 MP** 70184629945 | 81 dB(A) | 2.5 dB(A) | 93 dB(A) | 4 dB(A) |

- Values determined using the procedure described in the standard **EN 12649.**

- The measurements are made with new machines. Actual values may vary with site conditions, in terms of:
  - Wear Machine
  - Lack of maintenance
  - Inappropriate tool for application
  - Tool in poor condition
  - Unskilled operator
  - Etc…

- Measured values relate to an operator in normal use, as described in the manual position.

# 3 ASSEMBLY AND COMMISSIONING

The machine is delivered fully equipped. It is ready for operation after assembly of the tool and adjustment of the machine arm, and after connection to the appropriate power supply.

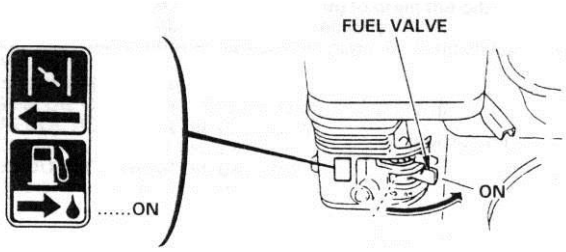
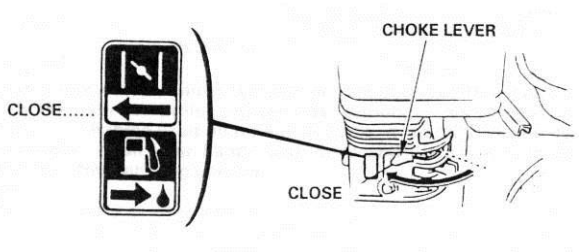
## *3.1 Handle*

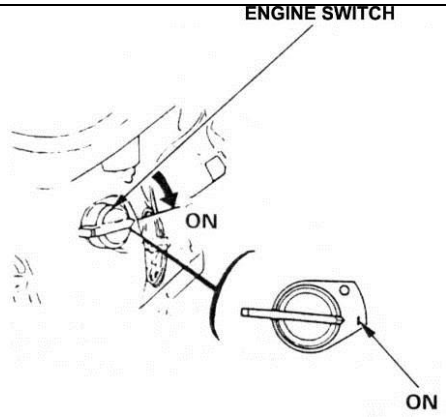
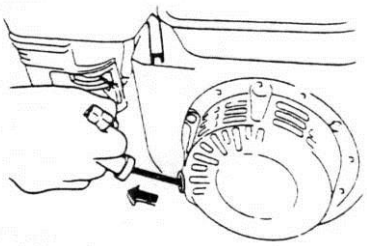
Set the machine arm in a comfortable position. To that purpose, loosen the handle on the arm and set the arm at the right angle, then retighten the handle.

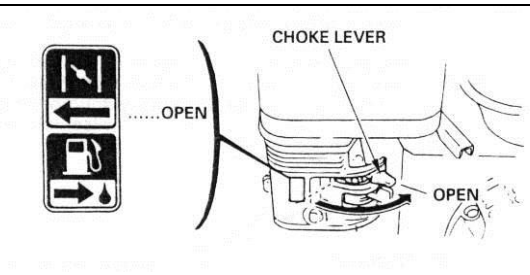
## *3.2 Tool assembly*

Only NORTON blades or plate with a maximum diameter of 600 mm can be used with the CT601MP.
Before mounting a new tool into the machine, switch off the machine and make sure the tools are not rotating anymore.
Screw 2 M6-screws per blade using a 10mm wrench to assemble the blade on the arm. To assemble a plate, place the machine with the blades assembled on the plate, and turn it until the blades are located in the hooks on the plate.

### *3.3 Starting the machine*

| | |
|---|---|
|  |  |
| Turn the fuel valve to the ON position. Fully press the dead-man handle against the main handle. | Move the choke lever to the CLOSED position. NOTE: do not use the choke if the engine is warm or the air temperature is high. |

| | |
|---|---|
|  |  |
| Move the throttle control lever slightly to the left. Put the engine switch on ON. | Pull the starter grip lightly until you feel resistance, then pull briskly.<br>CAUTION: Do not allow the starter grip to snap back against the engine. Return it gently to prevent damage to the starter. |

| |
|---|
|  |
| As the engine warms up, gradually move the choke lever to the OPEN position.<br>Position the throttle control lever for the maximum engine speed. |

To stop the engine, release the dead-man handle, move the throttle control lever fully to the right, then turn the engine switch to the OFF position. Turn the fuel valve to the OFF position.

CAUTION: when the machine is switched off, the tools will continue turning slowly to complete stop. Be therefore very careful to avoid injuries.

# 4 TRANSPORT AND STORING

## *4.1 Securing for transport*

Before transporting the machine, always remove the blades and the plate.

## *4.2 Transport procedure*

Conform yourself to work regulations, in order to transport the machine safely.
To lift the machine, use the lifting eye. Make sure that your lifting device is securely fastened to the lifting eye.

## *4.3 Long period of inactivity*

If the machine is not going to be used for a long period, completely clean the machine and disassemble the tools. The storage site must be clean, dry and at a constant temperature.

# 5 OPERATING THE MACHINE

## *5.1 Site of work*

- Remove from the site anything, which might hinder the working procedure!
- Make sure the site is sufficiently well lit!
- 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.

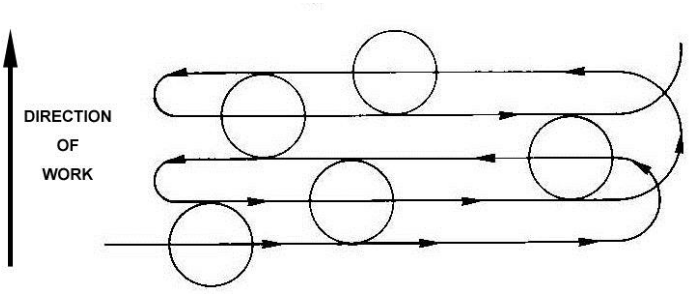
## *5.2 Preparing the site*

Prepare the concrete as for manual trowelling. Assure a well levelled surface (we recommend the use of a beam or better a vibrating screeder). When slab has set sufficiently firm so that the operator can walk on it, leaving only a slight impression (approx.3mm), it is ready for the floating operation.

## *5.3 Floating and finishing operation*

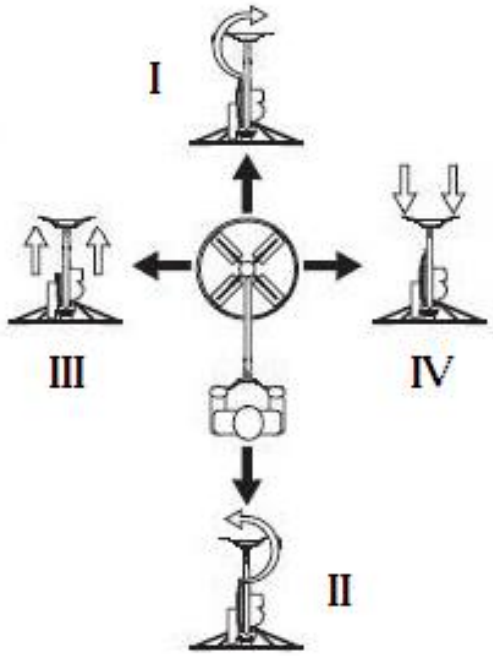
To use the machine correctly, you must face it with the two hands on the handle.

**Handling the machine**
Operate the machine from right to left as shown in the following drawing:




To move the machine:

- Forward (I on the following drawing), turn the handle clockwise.
- Backward (II), turn the handle counterclockwise.
- To the left (III), pull up the handle.
- To the right (IV), push down the handle.




**Tilting the blades**

Floating the slab is done with the blades nearly flat on the surface of the concrete; however it is recommended that the blades are just slightly tilted to avoid the suction and drag created in normal operation of float blades on wet concrete. For the finishing operation, tilt the blades. Start with a small pitch of 4 to 6 mm. After each finishing pass, continue to tilt blades.

**Depression or high spot**

To fill a depression or cut down a high spot, simply move the machine back and forward over the area until the desired surface is obtained.

IMPORTANT: Do not allow the machine to stand in one spot on wet concrete – remove the machine from the slab when it is not used.

CAUTION: when the machine is switched off, the tools will continue turning slowly to complete stop. Be therefore very careful to avoid injuries.

# 6 MAINTENANCE AND SERVICING

## *6.1 Maintenance of the machine*

To ensure a long-term quality from the use of the CT601MP, please follow the maintenance plan below:

| | | Begin of the day | During the changing of tool | End of the day or more often if required | Every week | After a fault | After a damage |
|---|---|---|---|---|---|---|---|
| Whole machine | Visual control (general aspect, water tightness) | ■ | | | | ■ | ■ |
| | Clean | | | ■ | | | |
| Surface of blades or plate | Clean | ■ | ■ | | | | |
| Tension of the blade | Check | | | | ■ | ■ | ■ |
| Engine housing | Clean | | | | ■ | | |
| Reachable nuts and screws | Tighten up | | | | ■ | | |

**Maintenance of the machine**
Always perform the maintenance with the machine switched off and the tools idle.

**Lubrication**
The CT601MP uses life-lubricated bearings. Therefore, you don’t need to lubricate the machine at all.

**Control and change of the belt**
To control the tension of belts, open the belt guard, and push on the belts. You should be able to gape the belt as thick as a finger. If the tension is incorrect, loosen the nuts securing the engine on the machine and move the engine until the correct tension is reached. Make sure that the pulleys are aligned correctly. Then retighten the nuts.
To change the belts, loosen the nuts securing the engine on the machine and move the engine forward until you can remove the old belts and put a new set of belts on the pulleys. Move the engine in order to tighten the belts in a suitable way. Make sure the pulleys are aligned correctly. Then retighten the nuts to assemble the engine securely.
After the control or the change of the belts, always reassemble the belt guard.

**Cleaning of the machine**
Your machine will last longer if you clean it thoroughly after each day of work, especially engine and blades or pan.

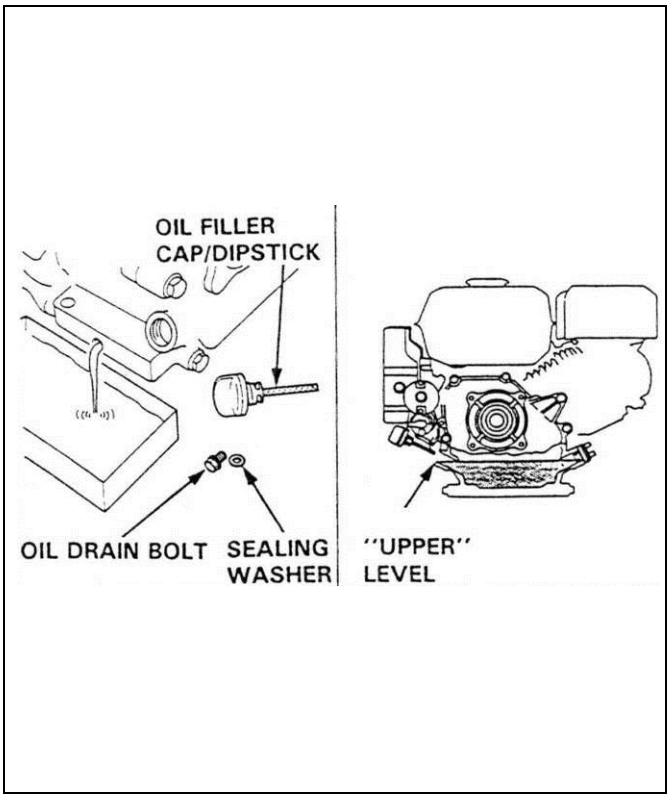
## *6.2 Maintenance of the engine*

| | **Regular service period**<br>Perform at every indicated month or operating hour interval, whichever comes first → | Each use | First month or 20 hours | Every 3 months or 50 hours | Every 6 months or 100 hours |
|---|---|---|---|---|---|
| Engine oil | Check level | ■ | | | |
| | Change | | ■ | | ■ |
| Air cleaner filter | Check | ■ | | | |
| | Clean | | | ■ | |
| Fuel strainer cup | Clean | | | | ■ |
| Spark plug | Check-Clean | | | | ■ |
| Fuel line | Check (Replace if necessary) | Every 2 years | | | |

**Engine oil**

To change the oil,

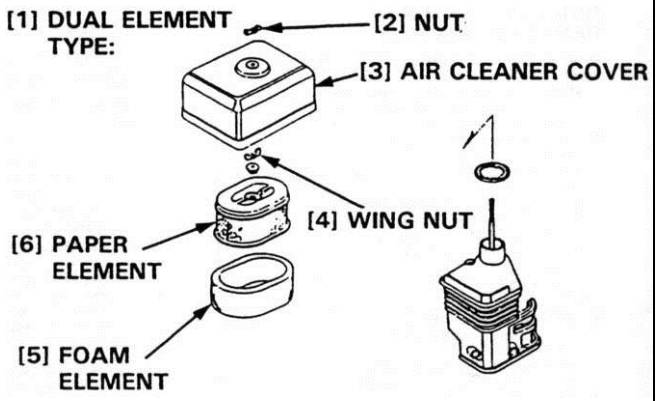
- Remove the oil filler cap/dipstick and drain bolt.
- Allow the oil to drain completely.
- Dispose of used engine oil in a manner that is compatible with the environment. We suggest you to take used oil in a sealed container to your local recycling centre or service station for reclamation. Do not throw it in the trash, pour it on the ground or down in a drain.
- Reinstall the drain bolt, and tighten it to 18 N.m.
- Fill the crankcase with the engine oil to the outer edge of the oil filler neck.
- Reinstall the filler cap/dipstick.



**Air cleaner**

To service the air cleaner filter, follow these instructions:

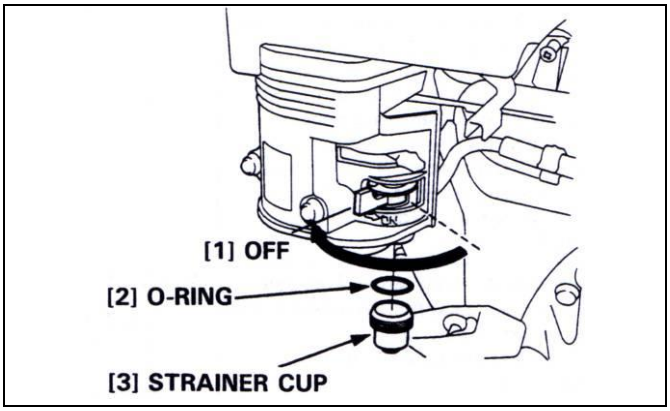
- Remove the nut, air cleaner cover and wing nut.
- Remove the pre air cleaner elements and separate them.
- Carefully check both elements for holes or tears and replace if damaged.
- **Paper element**: tap element lightly several times on a hard surface to remove excess dirt or blow compressed air lightly through the filter from the inside out. Never brush the dirt off; brushing will force dirt into the fibres.
- **Foam element**: clean in warm soapy water, rinse and allow to dry thoroughly. Dip the element in clean engine oil and squeeze out all the excess. The engine will smoke during initial start-up if too much oil is left in the foam.
- Shine a light through the elements, and inspect them carefully. Reinstall the elements if they are free of holes and tears.



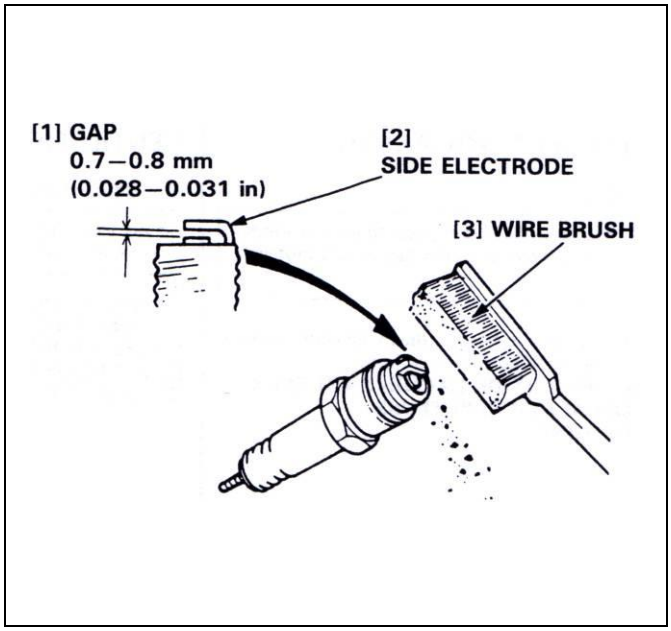

**Fuel strainer cup**

To service fuel strainer cup, follow these instructions:

- Turn off the fuel valve and remove the strainer cup.
- Clean the strainer cup with solvent.
- Install the O-ring and strainer cup.
- Tighten the strainer cup to 4N.m.



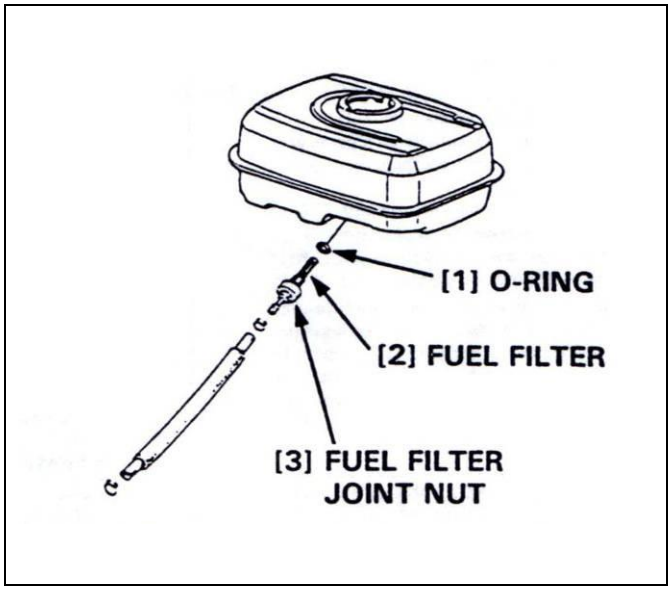
**Spark plug**




To service the spark plug, follow these instructions:

- Visually inspect the spark plug. Discard the plug if the insulator is cracked or chipped.
- Remove carbon or other deposits with a stiff wire brush.
- Measure the plug gap with a wire-type feeler gauge. If necessary, adjust the gap by bending the side electrode.
- Make sure the sealing washer is in good condition; replace the plug if necessary.
- Install the plug fingertight to seat the washer, then tighten with a plug wrench (an additional ½ turn if a new plug) to compress the sealing washer. If you are reusing a plug, tighten 1/8-1/4 turn after the plug seats.

**Fuel line**




To service the fuel line, follow these instructions:

- Drain the fuel into a suitable container, and remove the fuel tank.
- Disconnect the fuel line, and unscrew the fuel filter from the tank.
- Clean the filter with solvent, and check, that the filter screen is undamaged.
- Place the O-ring on the filter and reinstall. Tighten the filter to 2N.m. After reassembly, check for fuel leaks.

**Further maintenance**

For further maintenance, please contact the nearest engine maintenance centre

# 7 FAULTS: CAUSES AND CURES

## *7.1 Fault-finding procedures*

Should any fault occur during the use of the machine, turn it off. Any works dealing with the engine of the machine can only be carried out by a qualified technician.

## *7.2 Trouble-shooting guide*

| Trouble | Possible source | Resolution |
|---|---|---|
| Hard starting | Not enough fuel | Fill fuel tank |
| | Fuel filter clogged | Clean fuel filter |
| | Spark plug faulty | Inspect spark plug |
| | Stronger fault | Contact nearest engine maintenance centre |
| Engine lacks power | Air filter restricted | Clean or replace air filter |
| | Stronger fault | Contact nearest engine maintenance centre |

## *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 --- 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 claim, the part must always be returned for evaluation. Spare parts for the motor can be ordered with the manufacturer of the motor or with their dealer, which is often quicker and cheaper.

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

190, Bd. J.F. Kennedy
L- 4930 BASCHARAGE
Grand-Duché de Luxembourg.
Tel.: 00352-50401-1
Fax: 00352- 50 16 33
http://www.construction.norton.eu
e-mail: 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:

SAINT-GOBAIN ABRASIVES NV/SA
INDUSTRIELAAN 129
1070 ANDERLECHT/BRUSSEL
BELGIUM
TEL: +32 (0)2 267 21 00
FAX: +32 (0)2 267 84 24

SAINT-GOBAIN ABRASIVES, S.R.O.
POČERNICKÁ 272/96, MALEŠICE
108 00 PRAHA 10
CZECH REPUBLIC
TEL: +420 255 719 326
FAX: +420 255 719 321

SAINT-GOBAIN ABRASIVES A/S
ROBERT JACOBSENS VEJ 62A
2300 KØBENHAVN S
DENMARK
TEL: +45 4675 5244

PO BOX 643706
FORTUNE TOWER OFFICE 2106
JLT BLOCK C
(NEXT TO METRO STATION)
JUMEIRA LAKE TOWER, DUBAI
UNITED ARAB EMIRATES
TEL: +971 4 431 5154
FAX: +971 4 431 5434

SAINT-GOBAIN ABRASIFS
RUE DE L'AMBASSADEUR - B.P.8
78 702 CONFLANS CEDEX
FRANCE
TEL: +33 (0)1 34 90 40 00
FAX: +33 (0)1 39 19 89 56

SAINT-GOBAIN ABRASIVES GMBH
BIRKENSTRASSE 45-49
D-50389 WESSELING
GERMANY
TEL: +49 (0) 2236 703-1
+49 (0) 2236 8996-0
+49 (0) 2236 8911-0
FAX: +49 (0) 2236 703-367
+49 (0) 2236 8996-10
+49 (0) 2236 8911-30
FÜR DEN FACHHANDEL
ÖSTERREICH
TEL: +43 (00) 662 430 076

SAINT-GOBAIN ABRASIVES KFT.
1225 BUDAPEST
BÁNYALÉG U. 60/B.
HUNGARY
TEL: +36 1 371 22 50
FAX: +36 1 371 22 55

SAINT-GOBAIN ABRASIVI S.P.A
VIA PER CESANO BOSCONE 4
I-20094 CORSICO MILANO
ITALY
TEL: +39 02 44 851
FAX: +39 02 44 78 266

SAINT-GOBAIN ABRASIVES S.A.
190 RUE J.F. KENNEDY
L-4930 BASCHARAGE
GRAND DUCHE DE LUXEMBOURG
TEL: +352 50 401 1
FAX: +352 50 16 33
NO. VERT (FRANCE) 0800 906 903

SAINT-GOBAIN ABRASIFS, S.A.
2 ALLÉE DES FIGUIERS
AIN SEBAÂ - CASABLANCA
MOROCCO
TEL: +212 5 22 66 57 31
FAX: +212 5 22 35 09 65

SAINT-GOBAIN ABRASIVES BV
GROENLOSEWEG 28
7151 HW EIBERGEN
P.O. BOX 10
7150 AA EIBERGEN
THE NETHERLANDS
TEL: +31 545 466466
FAX: +31 545 474605

SAINT-GOBAIN ABRASIVES AS
POSTBOKS 11, ALNABRU,
0614 OSLO
BROBEKKVEIEN 84,
0582 OSLO
NORWAY
TEL: +47 63 87 06 00
FAX: +47 63 87 06 01

SAINT-GOBAIN HPM POLSKA SP. Z O.O.
UL. NORTON 1
62-600 KOŁO
POLAND
TEL: +48 63 26 17 100
FAX: +48 63 27 20 401

SAINT-GOBAIN ABRASIVOS, L. DA
ZONA INDUSTRIAL DA MAIA
I-SECTOR VIII, NO. 122
APARTADO 6050
4476 - 908 MAIA
PORTUGAL
TEL: +351 229 437 940
FAX: +351 229 437 949

SAINT-GOBAIN GLASS
BUSINESS UNIT ABRASIVI
PUNCT DE LUCRU: LOC.VETIS, JUD.
SATU MARE 447355
STR. CAREIULUI 11
PARC INDUSTRIAL RENOVATIO
ROMANIA
TEL: 0040-261-839.709
FAX: 0040-261-839.710

SG HPM RUS
58, F. ENGELS STR.
STROENIE 2
105082 MOSCOW
RUSSIA
TEL: +74 955 408 355
FAX: +74 959 373 224

SAINT-GOBAIN
ABRASIVES (PTY) LTD
2 MONTEER ROAD
ISANDO 1600
P.O. BOX 67
SOUTH AFRICA
TEL: +27 11 961 2000
FAX: +27 11 961 2184/5

SAINT-GOBAIN ABRASIVOS, S.A.
CTRA. DE GUIPÚZCOA, KM. 7,5
E-31195 BERRIOPLANO (NAVARRA)
SPAIN
TEL: +34 948 306 000
FAX: +34 948 306 042

SAINT-GOBAIN ABRASIVES AB
BOX 495
SE-191 24 SOLLENTUNA
SWEDEN
TEL: +46 8 580 881 00
FAX: +46 8 580 881 01

SAINT-GOBAIN INOVATIF
MALZEMELER VE AŞINDIRICI
SAN. TIC. A.Ş.
GOLD PLAZA, ALTAY ÇEŞME
MAHALLESI, ÖZ SOKAK, NO:19/16
34843 MALTEPE-ISTANBUL,
TURKEY
TEL: 0090-216-217 12 50
FAX: 0090-216-442 40 74

SAINT-GOBAIN ABRASIVES LTD.
DOXEY RD
STAFFORD
ST16 1EA
UNITED KINGDOM
TEL: +44 1785 222 000
FAX: +44 1785 213 487

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