

**NORTON**



# JUMBO 651 HONDA

OPERATING INSTRUCTIONS

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*clipper*<sup>®</sup>



# Declaration of conformity

The undersigned manufacturer:

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

Declares that this product:

Masonry Saws: ***Jumbo 651 P5.5 Honda***

Code: **70184610073**

is in conformity with the following Directives:

- ***European Machinery Directive 2006/42/EC***
- ***Electromagnetic Compatibility Directive 2004/108/EC***

and European standard:

- ***EN 12418 – Masonry and stone cutting-off machines – Safety***



Pierre Mersch  
Business Manager Machines Europe



# JUMBO 651 HONDA

## OPERATING INSTRUCTIONS AND SPARE PARTS LIST

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# 1 Basic Safety Instructions

The Jumbo 651 is exclusively designed for the cutting of construction products 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



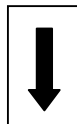
Ear protection must be worn



Hand protection must be worn



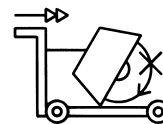
Eye protection shall be worn



Rotation direction of the blade



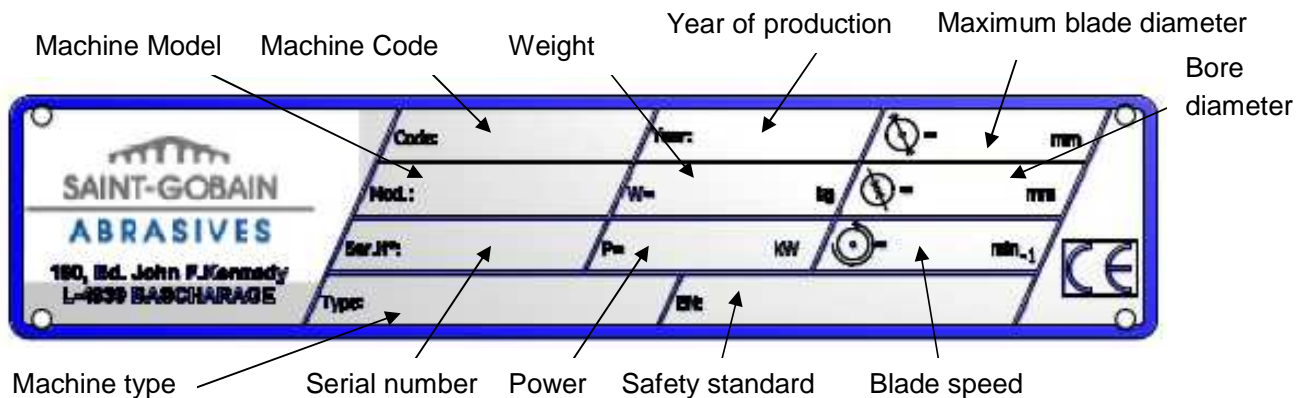
Danger: risk of cut



Never move the machine with the blade running idle.

## 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.
- Site the machine on an even, firm and stable base!
- During work, apply the brakes located on two of the four wheels.
- Check for correct mounting of the blade regularly.
- Immediately remove damaged or badly worn blades, as they endanger the operator whilst rotating.
- The material to be cut must be held securely in place on the conveyor cart to allow no movement during cutting operation.
- 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!
- Read the blades' specifications carefully to choose the correct tool for your application.
- 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 and diesel 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 motor part. Always wipe up spilled fuel.
- In case of danger, use the emergency stop button just in front of the machine.

## 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 JUMBO 651 block saw is designed for durability and high performance for onsite wet and dry cutting operations of a wide range of masonry, refractory and natural stone products.

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 machine is designed for cutting a large range of building and refractory materials. It is not designed for cutting wood or metals.

### 2.3 Layout





### **Frame (1)**

Jig-welded, reinforced and all-steel construction ensures perfect rigidity. The frame includes a large capacity water tray with drain plug. Frame has built-in lift brackets for easy transportation and is mounted on 4 wheels, 2 of which have a locking device to secure the machine during cutting.

### **Cutting head (2)**

Jig-welded steel console equipped with pivot bar fixed to frame upright and housed in heavy-duty bearings. Console supports the motor, the belt drive with its guard and the blade shaft assembly. Bearings are machined for perfect fit and alignment.

### **Blade shaft**

Precision-machined blade shaft, held in ballbearings and is driven by three heavy-duty V-section drive belts. The blade shaft assembly is completely enclosed in a cutting head console, accessible for inspection by way of a removable plate. The removable blade flange is tightened by means of a hexagonal nut.

### **Blade guard (3)**

Jig-welded steel construction with 650mm-diameter blade capacity, which offers maximum operator protection and increased visibility of the work piece. Incorporated in the blade guard is an outer detachable metal cover, which permits easy access to shaft for inspection and blade replacement when motor is switched off, while fully protecting the blade when in operation.

### **Down feed and cutting depth adjustment (4)**

The spring-loaded cutting head, activated by hand with the grip on the blade guard ensures smooth lowering of the cutting head for shock-free penetration of the work piece and improved control of the cutting pressure. A depth-locking device fixed to cutting head and frame enables the operator to set the cutting head to desired or to maximum cutting depth.

### **Conveyor cart (5)**

Large, heavy-duty and galvanised conveyor cart fitted with water flow-control vents, mounted on 2 locating rollers and 2 flat rollers to give maximum stability and smooth movement. The conveyor cart is equipped with graduated scale on the backstop and with a guide-a-cut device.

### **Water cooling system (6)**

The coolant system comprises:

- A powerful, submersible water pump
- Plastic suction pipe delivering the water from the water pan to the cutting head
- A large capacity water pan (pan is galvanised) supplied with drain plug
- A water-tap, fitted to the blade guard, permitting controlled water flow
- Two water nozzles located on the blade guard ensure adequate flow of water to both sides of the cutting blade
- 3 water curtains, fixed to frame and blade guard to restrict water spray and to minimise water loss

### **Petrol Motor**

The Honda GX160 motor is fitted out with an emergency stop button to ensure the safety of the operator while using the machine.

## 2.4 Technical Data

Motor	Honda GX200 4,8kW (6,5HP)
Fuel	Automotive unleaded gasoline
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). SAE 10W-30 recommended
Max. blade diameter	650 mm
Bore	25,4 mm
Cutting length mm	500 mm
Cutting depth mm	265 mm
Table dimension	600x500 mm
Flange diameter	118 mm
Blade shaft speed	1350 min <sup>-1</sup>
Machine dimensions	1700x800x1480 mm
Weight	212 kg
Max. operating weight	262 kg
Sound pressure level	93 dB (A) (following ISO EN 11201)
Sound energy level	105 dB (A) (following ISO EN 3744)

### 3 Assembly and commissioning

The machine is delivered fully equipped and assembled (although without diamond blade) and is ready for operation after connection to the appropriate power supply.

#### 3.1 Tool assembly

Only NORTON blades with a maximum diameter of 650 mm can be used with the Jumbo 651. All tools used must be selected with regard to their maximum permitted cutting speed for the machine's maximum permitted rotation speed.

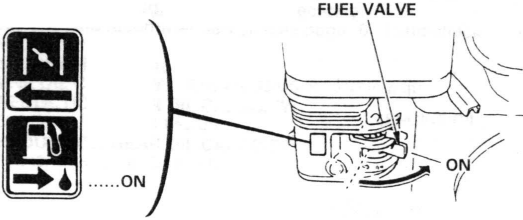
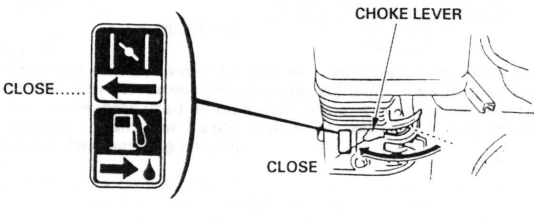
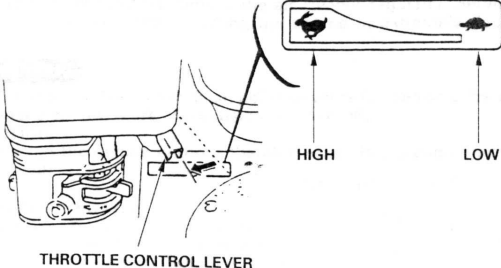
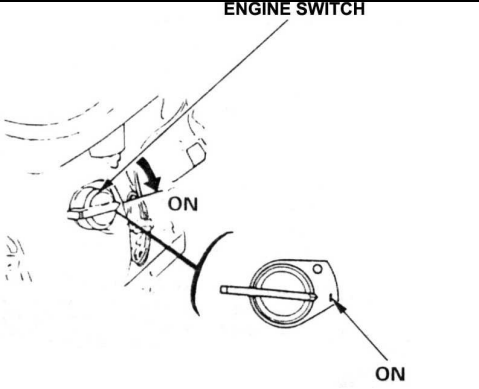
Before mounting a new blade into the machine, switch off the machine.

To mount a new blade, follow these steps:

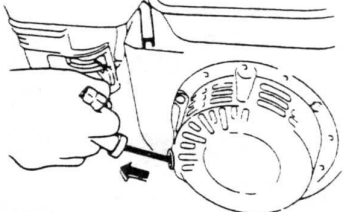
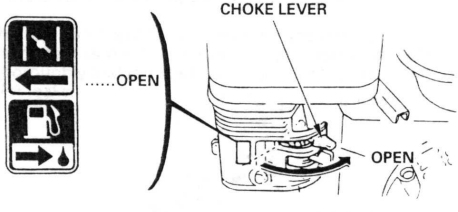
- Retract outside cover of blade guard.
- Loosen the hexagonal nut on the blade shaft, which holds the removable outer flange.
- Remove the outer flange.
- Clean the flanges and blade shaft and inspect for wear.
- Mount the blade on arbor ensuring that direction of rotation is correct. Wrong direction of rotation blunts the blade quickly.
- Replace outer blade flange.
- Tighten hexagonal nut with spanner supplied for this purpose.
- Shut retractable blade guard cover.

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

#### 3.2 Starting the machine

	
Turn the fuel valve to the ON position.	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, and make sure the emergency switch on the board of the machine is in the correct position.
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<p>Pull the starter grip lightly until you feel resistance, then pull briskly.  <b>CAUTION:</b> Do not allow the starter grip to snap back against the engine. Return it gently to prevent damage to the starter.</p>	<p>As the engine warms up, gradually move the choke lever to the OPEN position.  Position the throttle control lever for the maximum engine speed.</p>

To stop the engine, 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.

### 3.3 Water cooling system

Fill the water pan with clean water to approximately 2,5cm from top (ensure that bottom of pump is fully immersed in water).

Open water-tap at blade guard (note that handle on water-tap should be in line with water-flow).

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

The water pump must never run without water. Always make sure that there is enough water in the pan and refill if necessary. In case of frost, empty the water cooling system.

## **4 Transport and storing**

Take the following measures in order to transport the Jumbo 651 securely.

### **4.1 Securing for transport**

Before transporting or lifting the machine, always remove the blade and empty the water pan.

The conveyor cart must be secured:

- move the conveyor cart to the end of the machine
- fix it using the pin on the rear right post and the eye screw on the conveyor cart.

### **4.2 Transport procedure**

The machine can be moved on a flat surface using its wheels. Only use the lift brackets to lift the machine, as other parts of the machine are not designed for this purpose.

### **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
- Empty the water system
- Take the water pump out of the slurry and clean it thoroughly.

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

## 5 Operating the machine

### 5.1 Site of work

#### 5.1.1 Siting the machine

- 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!
- 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.

#### 5.1.2 Space required for operation and maintenance

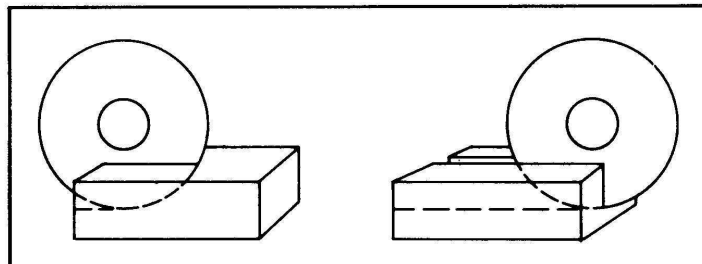
Leave 2 m in front of the machine and 1,5 m around it for usage and maintenance of the Jumbo 651.

### 5.2 Cutting methods

To use the machine correctly, you must face it with one hand on the handle of the cutting head, and the other on the handle of the conveyor cart. Always keep your hands away from the moving blade.

#### 5.2.1 Jam or fixed cutting

In jam or fixed cutting, the cutting head is locked in a fixed position and the material is pushed into it as shown.



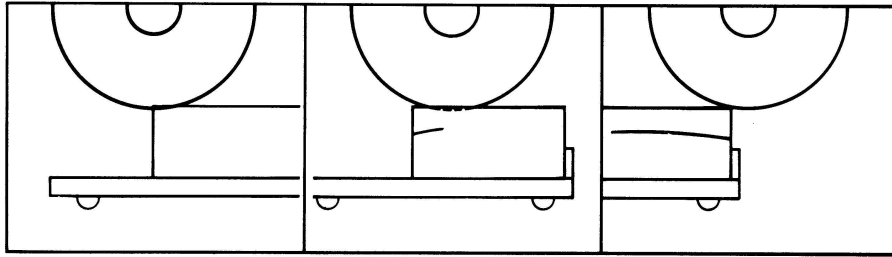
- Lower the cutting head to the desired cutting depth (in “through cutting”, lower cutting head until blade periphery reaches max. 3-5mm under the surface of the conveyor cart) by means of the handle on the blade guard
- Fix position by tightening the clamping device
- Put material on conveyor cart
- Push the conveyor cart slowly and without undue pressure towards the rotating blade and cut the material.

NOTE: While recommended, it is not absolutely necessary to lock the cutting head into a given depth position when jam cutting. The desired cutting depth can be maintained by holding firmly the depth feed handle on the blade guard.

If the full depth of cut requires excessive pressure (on very dense material e.g.) make 2 or 3 shallow cuts.

### 5.2.2 Multiple step cutting

Multiple step cutting consists of moving the conveyor cart with the material to be cut back and forward under the rotating blade,



- Place the material to be cut on the conveyor cart firmly against the guide-a-cut and the backstop, keeping the hands well away from the blade.
- Move conveyor cart forward near the blade and pull down the cutting head until blade is lowered to a point where it will lightly contact the surface of the material.
- Then pass the material beneath with rapid full length strokes, taking a shallow cut (approximately 3 mm deep) on the forward. On the backward stroke, lift the blade just clear over the cutting line.
- Complete each rapid stroke backward and forward by passing the material beyond the centre of the blade before starting the reverse movement of the conveyor cart.

NOTE: the harder the material, the more rapid should be the forward and backward strokes.

Step cutting lessens the area of the blade circumference in contact with the material, keeping the blade cool, running free and cutting at peak efficiency.

### 5.2.3 General advice for the cutting

- Material weighing under 50 kg and having dimensions smaller than 600x500x265mm can be cut with the Jumbo 651.
- Before commencing work make sure tools are firmly seated!
- Select the right tools 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 required efficiency.
- Apply cooling water continuously whilst cutting and in good time!
- When dry cutting, ensure sufficient dust extraction!
- When cutting work is finished, close the water-tap so you can remove the cut pieces from the conveyor cart without getting wet.

## 6 Maintenance and servicing

### 6.1 Maintenance of the machine

To ensure a long-term quality from the cutting with the Jumbo 651, please follow the maintenance plan below:

		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						
Belts tension	Check tension and adjust						
Water pan	Clean						
Water pump	Clean						
Water hoses and nozzles	Clean						
Water pump filter	Clean						
Cart guiding bars	Clean						
Engine housing	Clean						
Reachable nuts and screws	Tighten up						

#### Maintenance of the engine

Always perform the maintenance of the motor with the machine switched off.

#### Adjustment and replacement of the belts

To adjust the belts, firstly remove the belt guard by unscrewing the 6 nuts. Loose the 4 engine bolts and shift the engine by using the two screws on the side.

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

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

#### Lubrication

The Jumbo 651 uses life-lubricated bearings. Therefore, you don't need to lubricate the machine at all.

#### Cleaning of the machine

Your machine will last longer if you clean it thoroughly after each day of work, especially water pump, water pan, motor and blade flange.



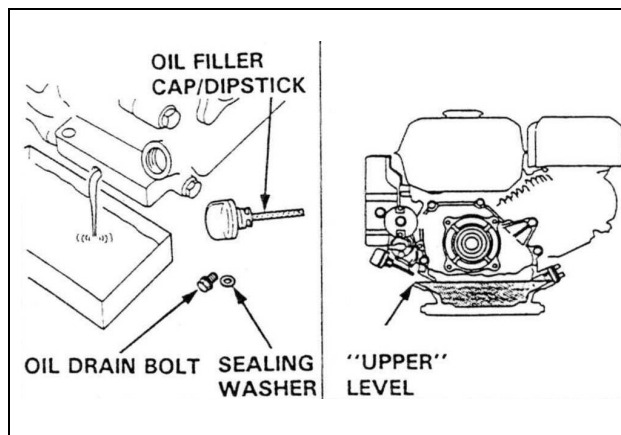
## 6.2 Maintenance of the engine

		Regular service period	Each use	First month or 20 hours	Every 3 months or 50 hours	Every 6 months or 100 hours
		Perform at every indicated month or operating hour interval, whichever comes first				
		→				
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

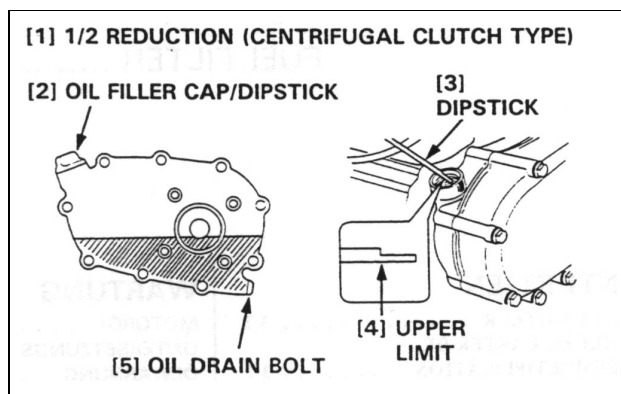
To change the oil,

- Remove the oil filler cap/dipstick and drain bolt.
- Allow the oil to drain completely.
- 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.



### Reduction case oil

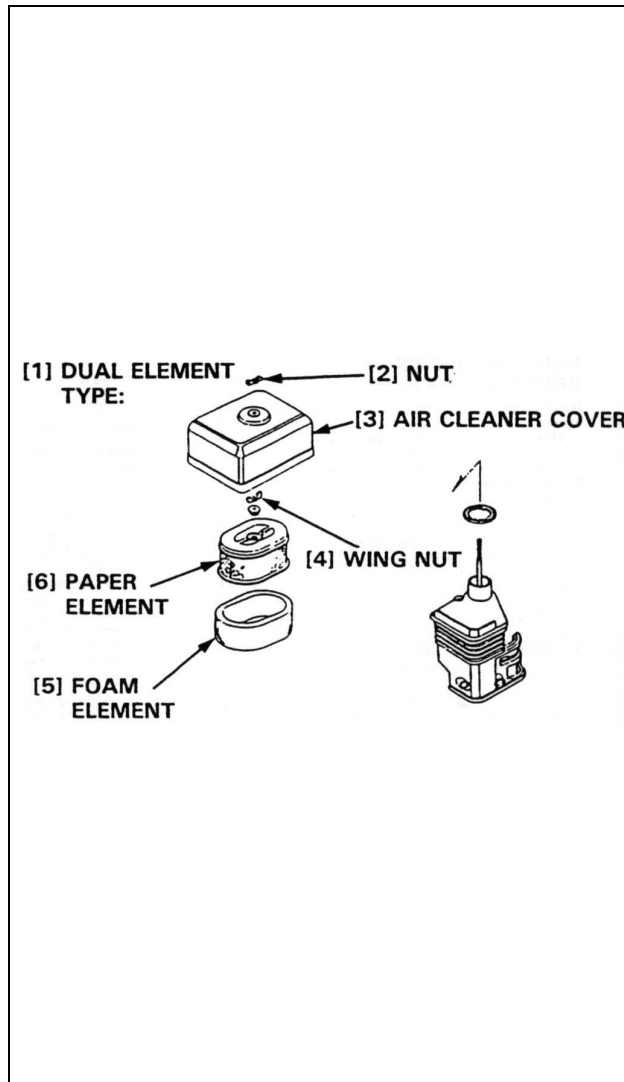
- Remove the oil filler cap/dipstick and drain bolt.
- Allow the oil to drain completely.
- Reinstall the drain bolt, and tighten it to 18 N.m.
- Fill the reduction case with the same oil that is recommended for the engine. Fill to the upper limit mark on the dipstick.



### Air cleaner

The Jumbo 651 has a dual type filter. To service the air cleaner filter, follow these instructions:

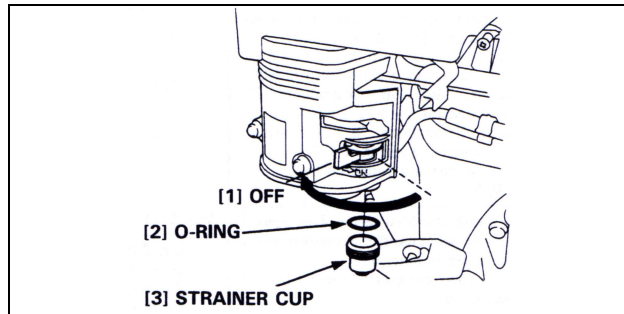
- Remove the nut, air cleaner cover and wing nut.
- Remove the pre air cleaner elements and separate them.
- Carefully check both elements for holes or tears and replace if damaged.
- **Paper element:** tap element lightly several times on a hard surface to remove excess dirt or blow compressed air lightly 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:

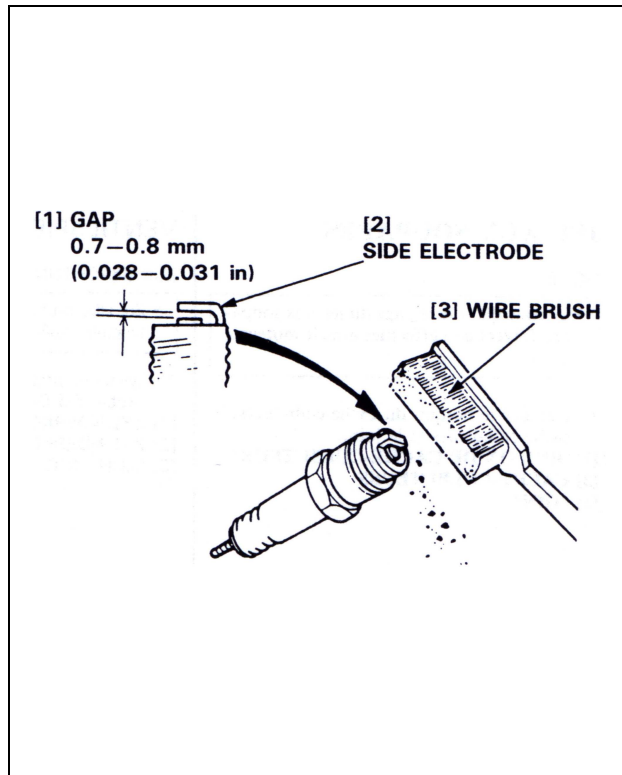
- Turn off the fuel valve and remove the strainer cup.
- Clean the strainer cup with solvent.
- Install the O-ring and strainer cup.
- Tighten the strainer cup to 4N.m.



### Spark plug

To service the spark plug, follow these instructions:

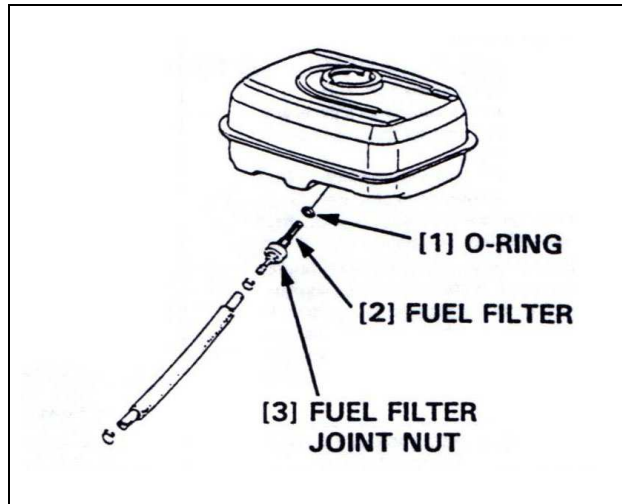
- Visually inspect the spark plug. Discard the plug if the insulator is cracked or chipped.
- Remove carbon or other deposits with a stiff wire brush.
- Measure the plug gap with a wire-type feeler gauge. If necessary, adjust the gap by bending the side electrode.
- Make sure the sealing washer is in good condition; replace the plug if necessary.
- Install the plug fingertight to seat the washer, then tighten with a plug wrench (an additional  $\frac{1}{2}$  turn if a new plug) to compress the sealing washer. If you are reusing a plug, tighten  $\frac{1}{8}$ - $\frac{1}{4}$  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.

### 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
Blade is not turning	Belts not tightened or defective	Check the belts tension and change them if needed
Engine lacks power	Air filter restricted	Clean or replace air filter
	Stronger fault	Contact nearest engine maintenance centre
No water on the blade	Not enough water in the pan	Refill the water pan
	Water tap is closed	Open tap on blade guard
	Water supply system is blocked up	Clean water supply system
	Water pump is not working	<ul style="list-style-type: none"> <li>• Check if pump pulley is driven by the belts</li> <li>• Change the pump</li> </ul>

### 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.

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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 S.A.

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)

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