



INSTRUCTION MANUAL

Band Saw
Model

SI-315HD



METALÚRGICA SIEMSEN LTDA.
Rua Anita Garibaldi, nº 262 – Bairro: São Luiz – CEP: 88351-410
Brusque – Santa Catarina – Brasil
Fone: +55 47 3255 2000 – Fax: +55 47 3255 2020
www.siemsen.com.br - comercial@siemsen.com.br



E-mail: at@siemsen.com.br

- ALÉM DESTAS MÁQUINAS, FABRICAMOS UMA LINHA COMPLETA DE EQUIPAMENTOS. CONSULTE SEU REVENDEDOR.
- ESTE PRODUTO CONTA COM ASSISTÊNCIA TÉCNICA, REPRESENTANTES E REVENDEDORES EM TODO TERRITÓRIO NACIONAL.
DEVIDO À CONSTANTE EVOLUÇÃO DOS NOSSOS PRODUTOS, AS INFORMAÇÕES AQUI CONTIDAS PODEM SER MODIFICADAS SEM AVISO PRÉVIO.

30691.6 - Março/2011

SUMMARY

1. INTRODUCTION	02
1.1 Safety	02
1.2 Main Components	02
1.3 Technical Characteristics	04
2. INSTALLATION and PRE OPERATION	04
2.1 Installation	04
2.2 Pre Operation	05
3. OPERATION	05
3.1 Operation Process	05
3.2 Cleaning	05
4. GENERAL SAFETY RULES	07
4.1 Operation Fundamentals Practices	08
4.2 Cares and Observations before to Switch On the Saw	09
4.3 Routine Inspection	09
4.4 Operation	10
4.5 After the Work Ends	10
4.6 Maintenance Performance	10
4.7 Advices	10
5. PROBLEMS ANALYSIS and SOLUTIONS	11
5.1 Problems, Causes and Solutions	11
5.2 Adjustment and Components Replacement	11
5.3 Electrical Diagram	15

1. INTRODUCTION

1.1 Safety

If and when the Band Saw Model SI-315HD is not correctly used, it is potentially **DANGEROUS** machine. Cleaning and any other maintenance service shall be carried out by duly trained people, and with the plug off its socket. To avoid **ACCIDENTS** follow the instructions below:

- 1.1.1** Take the electric plug off its socket, before to withdraw any moving part, before cleaning or any other maintenance operation.
- 1.1.2** Never use any kind of tools, not belonging to the saw to help cutting.
- 1.1.3** Never touch the saw Blade N°08 (Pct.01), even with the Saw switched off because the Blade has sharp edges.
- 1.1.4** Never adjust the Blade Guide N°07 (Pct.01) nor the Cut Regulator N°15 (Pct.01) with the Blade in movement.
- 1.1.5** During cutting operation, never use loose clothes with wide sleeves specially around the wrists.
- 1.1.6** Use steel gloves during cutting operation.
- 1.1.7** Keep hands away from moving parts.
- 1.1.8** Never switch on the Saw with any of its Doors open N°04 or N° 17 (Pct.01).

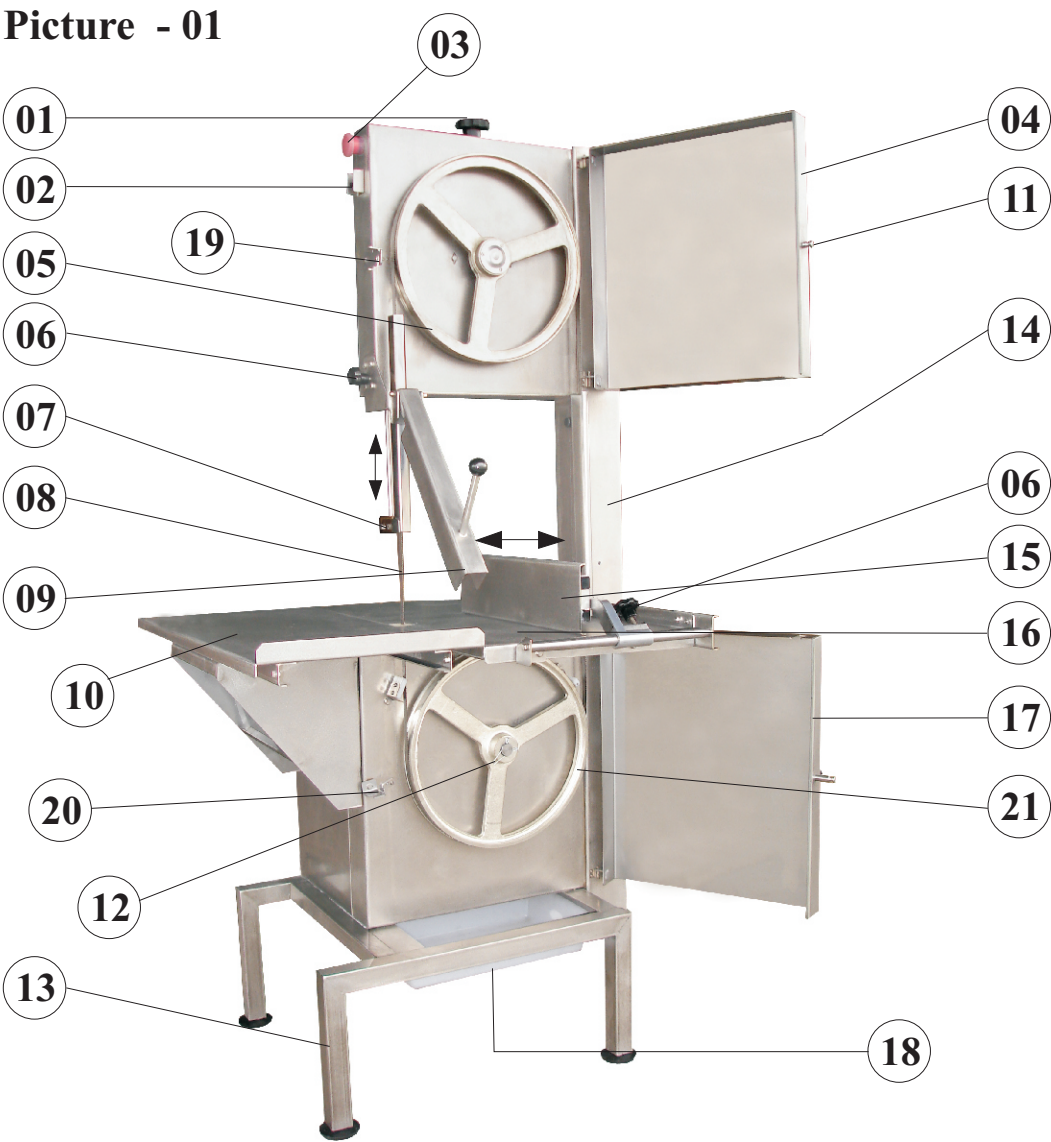


IMPORTANT
IN AN EMERGENCY CASE USE THE EMERGENCY BUTTON N°03 (Pct.01). To restart the Band Saw turn the On/Off Switch N°02 (Pct.01) to OFF position and unlock the emergency button turning it clockwise.

1.2 Main Components

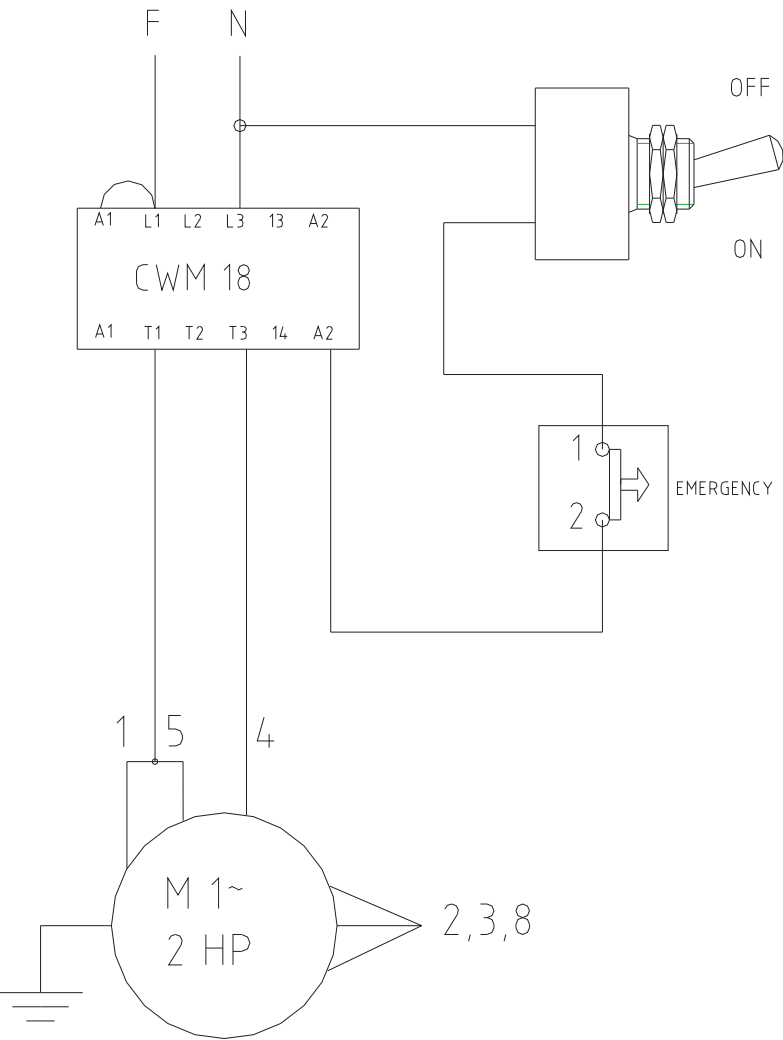
All components are manufactured with carefully chosen raw materials in accordance with Siemens experience and testing standards.

Picture - 01



- | | |
|----------------------------|----------------------|
| 1. Blade Tension Regulator | 12. Staple |
| 2. On/Off Switch | 13. Leg |
| 3. Emergency Button | 14. Structure |
| 4. Front Upper Door | 15. Cut Regulator |
| 5. Upper Wheel | 16. Fixed Table |
| 6. Blade Guide Knob | 17. Front Lower Door |
| 7. Blade Guide | 18. Waste Pan |
| 8. Blade (Width 3/4") | 19. Upper Door Lock |
| 9. Pusher | 20. Lower Door Lock |
| 10. Movable Table | 21. Lower Wheel |
| 11. Door Handle | |

5.3 Electrical Diagram



1.3 Technical Characteristics

Table – 01

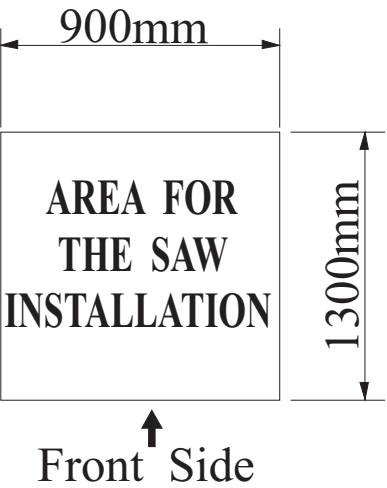
Characteristics	Unit	SI-315HD
Average Production	kg/h	Up to 1000
Voltage	V	110 or 220 or 220/380(*)
Frequency	Hz	50 or 60 (**)
Power Rating	HP	2 or 3
Consumption	kW/h	1,47 or 2,2
Height	mm	1850
Width	mm	915
Depth	mm	850
Net Weight	kg	123
Shipping Weight	kg	165
Maximum Cutting Width	mm	385
Maximum Cutting Height	mm	315

(*) The Voltage will be 110V or 220V or 220V/380V in accordance with the motor characteristic.
(**) The Frequency will be 50 Hz or 60 Hz in accordance with the motor characteristic.

2. INSTALLATION and PRE OPERATION

2.1 Installation

The Band Saw must be installed over a firm working floor. Check if the electric supply voltage is 110V or 220V or 380V.
The electric supply cord is fitted with a plug, which has a ground connection. The ground connection may be a pin or an earth wire. Be sure that the ground connection is properly grounded before using the Saw.



2.2 Pre Operation

IMPORTANT

Be sure that the Blade N°08 (Pct.01) has the right tension before operating the Saw. Turn clockwise the Blade Tension Regulator N°01 (Pict.01) handle to adjust Blade Tension.

First of all check if the machine is firmly standing in its position. Before using it clean the Blade N°08, the Wheels N°05 and N°21 and the Doors N°04 and N°17 (Pict.01) with water and neutral soap.

To regulate (stretch) the Blade N°08 (Pict.01) turn clockwise the Regulator N°01 (Pict.01) handle.

3. OPERATION

3.1 Operation Process

IMPORTANT

Under no circumstances your hand is to be placed in front of the Blade to push the meat to be cut.

With the machine switched off regulate the Blade Guide N°07 (Pict.01) and the Cut Regulator N°15 (Pict.01).

To switch on the Saw, turn the On/Off Switch N°02 (Pct.01) located on the upper side of the machine to “On” position.

Put the product to be processed on the Movable Table N°10 (Pict.01) and push it towards the Blade N°08 (Pict.01) aligning it using the Cut Regulator N°15 (Pict.01) to have a uniform thickness slice.

Withdrawing the MEAT do be careful not to touch the back side (smooth side) of the Blade N°08 (Pict.01), doing so the Blade will have no risk to jump out of the Wheels N°05 and N°21 (Pict.01).

3.2 Cleaning

To clean the Saw, first switch it off from electric source. All the parts in direct contact with the meat have to be cleaned.

To remove the movable parts, please proceed as follows.

* Unusual noises	* Blade slipping on Wheels * The Blade is not correctly welded	* Use the Blade Tension Regulator. See item 5.2.2 * Change the Blade
* Blade frequently tears	* The Blade or the Wheels are dirty * Faulty Wheels	* Clean the Saw. See item 3.2. * Change the Wheels
* Difficulty to cut the meat	* Blade or the Wheels are dirty * Wrong tension on the Blade. * Blade is off the Wheels center * Blade unsharpened	* Clean the Saw. See item 3.2. * Regulate the Blade tension. See item 5.2.2 * Proceed to adjust the upper bearing. See item 5.2.5. When no improvement is obtained call Technical Assistance. * Change the Blade.

Picture - 03



01

02

Picture - 04



01

02

TABLE - 02

Problems

Causes

Solutions

* The Saw does not switch on	* Saw plug is off its socket	* Put the plug on its socket
	* Emergency Button Locked.	* Unlock Emergency Button
	* Lack of power	* Check other sources
	* Problem with the internal circuits of the Saw	* Call Technical Assistance
* Smoke or burn smell	* Problem with the internal or external circuits	* Call Technical Assistance
* The Saw switches on, but when the meat touches the Blade N°08 (Pict.01) the Blade stops or turns slowly	* Belt is slipping	* Adjust Belt tension See item 5.2.1
	* The motor capacitor is failing.	* Call Technical Assistance

3.2.1 Remove the Upper Door N°04 (Pict.01). To do so unlock it using the Upper Door Lock N°19 (Pict.01), and lift it.

3.2.2 Remove the Lower Door N°17 (Pict.01) as above explained.

3.2.3 Loose the Blade turning the Regulator N°01 (Pict.01) counter clockwise and take the Blade off the Wheels N°05 and N°21 (Pict.01).

3.2.4 Loose the Nut N°01 (Pict.04) with a 13mm fixed key. Using the same key turn counter clockwise the Screw N°02 (Pct.04) until it comes out of the Wheel shaft hole. Remove the Upper Wheel N°05 (Pict.01) pulling it out.

3.2.5 Remove the Staple N°12 (Pct.01) that locks the Lower Wheel N°21 (Pct.01) and pull it out.

3.2.6 Wash all the parts with water and neutral soap and dry them.

3.2.7 Never use hard or sharp objects such as: KNIVES, HOOKS, or similar, to clean meat hanging on the Saw Doors. Use a plastic brush to remove it and to clean.

3.2.8 To reassemble the removable parts, proceed the inverse path.

IMPORTANT

Put Vaseline in the Wheels N°05 and N°21 (Pict.01) hole each 15 days. Check the Blade N°08 (Pict.01) position. The right position is with its teeth towards the front side of the Saw and pointed down.

3.2.9 Cautions with Stainless Steel:

The Stainless Steel may present rust signs, which ARE ALWAYS CAUSED BY EXTERNAL AGENTS, especially when the cleaning or sanitization is not constant and appropriate.

The Stainless Steel resistance towards corrosion is mainly due to the presence of chrome, which in contact with oxygen allows the formation of a very thin protective coat. This protective coat is formed through the whole surface of the steel, blocking the action of external corrosive agents.

When the protective coat is broken, the corrosion process begins, being possible to avoid it by means of constant and adequate cleaning.

Cleaning must always be done immediately after using the equipment. For such end, use water, neutral soap or detergent, and clean the equipment with a soft cloth or a nylon sponge. Then rinse it with plain running water, and dry immediately with a soft cloth, this way avoiding humidity on surfaces and especially on gaps.

The rinsing and drying processes are extremely important to prevent stains and corrosion from arising.

IMPORTANT

Acid solutions, salty solutions, disinfectants and some sterilizing solutions (hypochlorites, tetravalent ammonia salts, iodine compounds, nitric acid and others), must be AVOIDED, once it cannot remain for long in contact with the stainless steel:

These substances attack the stainless steel due to the CHLORINE on its composition, causing corrosion spots (pitting).

Even detergents used in domestic cleaning must not remain in contact with the stainless steel longer than the necessary, being mandatory to remove it with plain water and then dry the surface completely.

Use of abrasives:

Sponges or steel wool and carbon steel brushes, besides scratching the surface and compromising the stainless steel protection, leave particles that rust and react contaminating the stainless steel. That is why such products must not be used for cleaning and sanitization. Scrapings made with sharp instruments or similar must also be avoided.

Main substances that cause stainless steel corrosion:

Dust, grease, acid solutions such as vinegar, fruit juices, etc., saltern solutions (brine), blood, detergents (except for the neutral ones), common steel particles, residue of sponges or common steel wool, and also other abrasives.

4. GENERAL SAFETY RULES

IMPORTANT

If any item from the GENERAL SAFETY NOTIONS section is not applicable to your product, please disregard it.

These Safety Rules were made to orient and to instruct the users of the Saw, and the people who will be responsible for its maintenance.

The Saw shall only be delivered to the user in good use conditions, and the user shall be instructed by the dealer, about how to use safely the Saw.

The user shall only operate the Saw after complete knowledge of the cares to be taken, after reading carefully the present Instructions Manual.

5.2.2 Blade Regulation

With daily use the Saw Blade may suffer a light stretching, because the Blades are elastic. Therefore check the Blade tension before starting to work. Turn clockwise the Blade Tension Regulator N°01 (Pict.01) until Blade is at right working tension.

5.2.3 Cut Regulator Adjustment

The Cut Regulator is developed to help cutting and for the operator safety. Its main purpose is to produce meat slices with same thickness.

To adjust the Cut Regulator proceed as follows:

Turn the Handle N°06 (Pict.01) counter clockwise to be able to move the Cut Regulator.

Using the Spherical Handle N°18 (Pict.01) move the Cut Regulator on the Fixed Table N°16 (Pict.01), increasing or decreasing the distance from the Blade, as it is needed.

Finally turn the Handle N°18 (Pict.01) clockwise to block it at the desired position.

5.2.4 Blade Guide Adjustment

The Blade Guide N°07 (Pict.01) shall be adjusted in accordance with the height of the product to be cut. Its purpose is to keep the Blade inflexible and perpendicular to the Table.

To adjust the Blade Guide N°07 (Pict.01) the Blade must be still and the Saw switched off. Proceed as follows:

Turn the Handle N°06 (Pict.01) counter clockwise to allow a vertical movement.

Adjust the guide as near as possible to the upper height of the product to be cut. However the guide shall not impeach the free product movement.

To end it, turn the Handle N°06 (Pict.01) clockwise to block the Blade Guide at the desired height.

5.2.5 Upper Wheel Adjustment

Upper Wheel N°05 (Pct.01) Adjustment has the purpose to centralize the Blade on Wheels avoiding it to fall off.

To adjust the Upper Wheel proceed as follows with the Saw disconnected from power source:

Loose the Blade N°08 (Pict.01) using the Blade Tension Regulator N°01 (Pict.01), turning it counter clockwise as described in item 3.2.3.

Take away the Structure Back Lid.

Loose Nut N°01 (Pict.04) with a 13mm spanner.

Using a 13mm fixed spanner turn Screw N°02 (Pct.04) counter clockwise if the Blade N°08 (Pct.01) is inclined backwards, or turn Screw clockwise if the Blade is inclined towards the front of machine.

Tight the Nut N°01 (Pct.02) with the above mentioned spanner.

Calibrate Blade tension as described in 5.2.2.

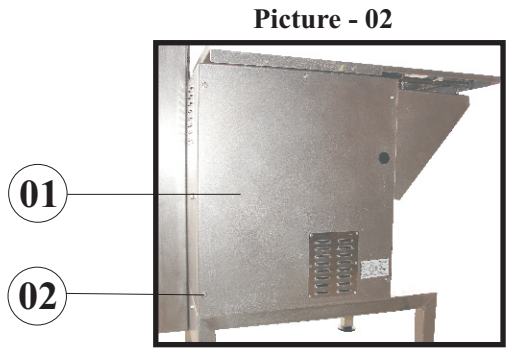
Turn Upper Wheel manually and check if the Blade is centralized on the Wheel. Keep turning the Wheel until Blade is centralized.

5. PROBLEMS ANALYSIS and SOLUTIONS

5.1 Problems, Causes and Solutions

The Bone Saw has been designed to need minimum maintenance, however, some performance failures may happen due mainly to natural worn out, caused by the use of the Saw.

If some problem arises with your Bone Saw, check Table – 02 in the next pages, where there are detailed some possible solutions.



5.2 Adjustment and Components Replacement

5.2.1 Transmission Belts

To obtain a long life for the Belt and to achieve the saw best performance, the Belt shall be perfectly regulated. If the Belt is loose it will slip during operation.

Do be careful to not over tighten it because the bearing will wear out too fast.

To adjust the Belt proceed as follows:

- Take away the Lower Back Lid N°01 (Pct.02) loosening the Screws N°02 (Pct.02) with a 10 mm spanner.
- Loose the Nuts N°02 (Pct.03) that fix the Motor N°01 (Pct.03) with a 13mm spanner.
- With the help of a wooden lever, move the Motor N°01 (Pct.02) in order to tighten the Belt, keep it in this position while tightening the Nuts N°02 (Pict.03).

4.1 Operation Fundamental Practices

4.1.1 Dangers

Some of the electric parts commands have points or terminals with high voltages. Those when touched may cause electric shock, and even DEATH.

Never touch a manual electric command (button, switch, etc) with wet hands, clothes or shoes. To not observe such recommendation may also cause electric shock, and even Death.

4.1.2 Warnings

The On/Off Switch position shall be well known, to allow at any moment a fast switching, without the necessity to look for the Switch.

Before any maintenance, take away the cord plug from the electricity network socket.

Have enough working space around the Saw to avoid dangerous falls.

Water or oil may turn the floor slippery and dangerous. To avoid accidents keep the floor dry and clean.

Never inadvertently touch or operate a manual command (button, switch, etc).

If any kind of work has to be done by two or more people, coordination signals shall be accorded for each step of the work. The next step shall not be started unless the signal is given and acknowledged.

4.1.3 Notices

In case of an electric energy supply failure, switch off the On/Off Switch.

Avoid mechanical shocks, since they may cause failures or wrongs to the saw good operation.

Avoid water, dirt or dust inside the mechanical or electrical components.

DO NOT ALTER the saw original characteristics.

DO NOT SOIL, TEAR OR REMOVE, ANY SAFETY OR IDENTIFICATION LABEL. If a label is illegible or lost, ask your Technical Assistant to supply a new one.

4.2 Cares and Observations Before Switching ON the Saw

IMPORTANT

Read carefully and with attention the present instructions before switching ON the Saw.
Be sure to have a right understanding of all the information given in the Instruction Manual. In case of doubt, consult the Technical Assistant or the Seller.

- 4.2.1

Danger

The electric cord or any electric wire if damaged may cause electric shock. Before to use them be sure they are in perfect conditions.
- 4.2.2

Notices

Be sure that the Instructions given in the Instruction Manual have been perfectly understood. Each function or operation process must be perfectly clear.

Before operating a Manual Command (button, switch, etc), be sure the command is the right one.
- 4.2.3

Cares

The electricity supply source shall have the right size to support the current required by the Saw electric motor.

Any electric cable lying on the floor, or near the Saw, must be well protected to avoid short circuits.

4.3 Routine Inspection

- 4.3.1

Notice

When checking the Belt tightness be careful to not have a finger caught between the Belt and the Wheel.
- 4.3.2

Cares

When abnormal noises are heard check the electric motor or any sliding or rotating part of the saw.

Check from time to time the Belt tightness; change the Belt if it is worn out.

Check safety and protections devices to have them always in good working conditions.

4.4 Operação

- 4.4.1

Notices

Do not work with loose long hair that could touch any part of the saw, because they may cause serious accidents. Thigh them behind and above the head, or cover them with a scarf.

Only qualified and well trained operator may operate the Saw.

NEVER operate the Saw without any one of its safety devices.

4.5 After the Work Ends

- 4.5.1

Cares

Always clean the Saw, to do the cleaning SWITCH IT OFF, AND TAKE OUT THE PLUG FROM THE ELECTRICITY SUPPLY SOCKET.

Never clean the Saw BEFORE IT IS COMPLETELY STOPPED.

Fit all the Saw components in their due places, before switching it on again.

When checking the Belt tightness, do be careful to not have a finger caught between the Belt and the Wheel.

4.6 Maintenance Performance

- 4.6.1

Cares and Dangers

Any maintenance performance is dangerous if made with the Saw in movement.

SWITCH IT OFF AND, AND TAKE OUT THE PLUG FROM THE SOCKET, DURING ALL THE MAINTENANCE OPERATION.

IMPORTANT

In any emergency situation take the pug out of its socket.

4.7 Advices

- Electrical or mechanical maintenance shall be made by qualified persons.

The person in charge of the maintenance performances shall check the Saw for perfect safety devices conditions before starting.