



# Instruction Manual

## Band Saw

### Model

# SI-282HD

30200.7 - Março/2011



**METALÚRGICA SIEMSEN LTDA.**

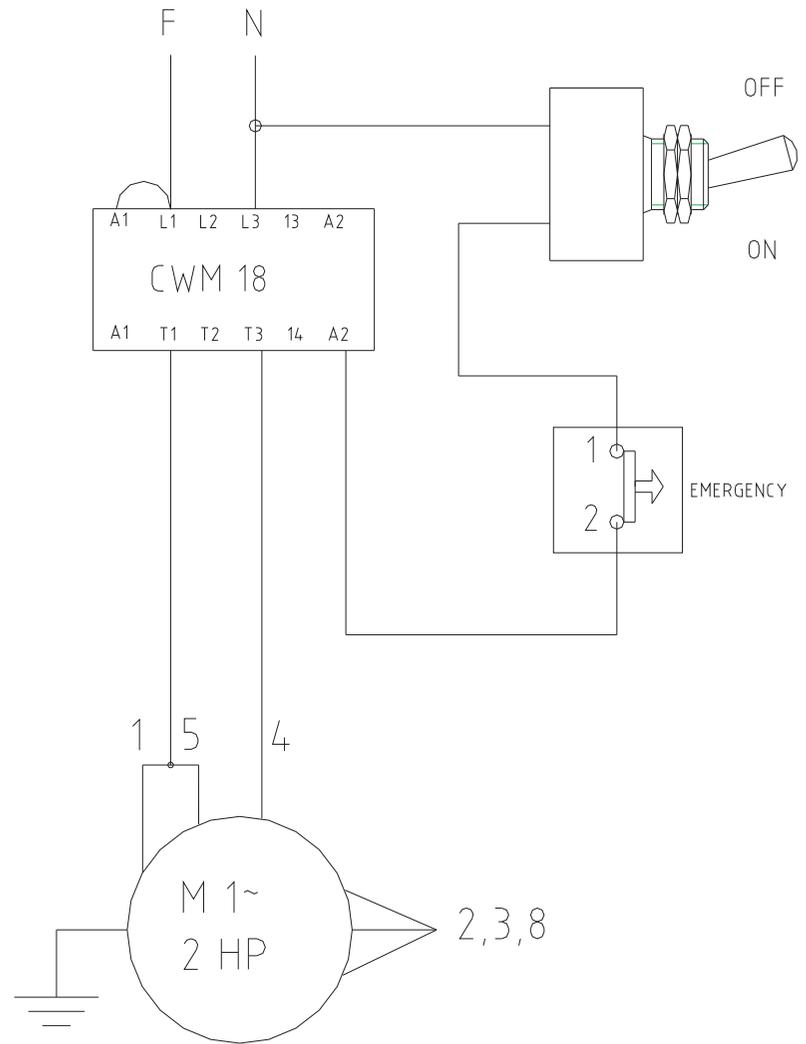
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- ALÉM DESTAS MÁQUINAS, FABRICAMOS UMA LINHA COMPLETA DE EQUIPAMENTOS. CONSULTE SEU REVENDEDOR.  
- ESTE PRODUTO CONTA COM ASSISTÊNCIA TÉCNICA, REPRESENTANTES E REVENDEDORES EM TODO TERRITÓRIO NACIONAL.  
DEVIDO À CONSTANTE EVOLUÇÃO DOS NOSSOS PRODUTOS,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

### 5.3 Electrical Diagram



Picture - 02



Table - 02

Problem	Causes	Solutions
* The saw does not switch on.	* The saw plug is off its socket. * Emergency button Blocked. * Lack of power. * Problem with the internal circuits of the saw.	* Put the Plug on its sochet. * Check the button. * Check if there is electric power. * Call Technical Assistance.
* Smoke or burn smell.	* Problem with the internal or external electric circuits of the saw.	* Call Technical Assistance.
* Unusual noises.	* Blade slipping on wheels. * The blade is not correctly welded.	* Turn the blade tension regulador . See item 5.2.2. * Change the blade.
*The 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 product.	* The blade or the wheels are dirty. * Wrong tension on the blade. * The blade is off the wheels center. * Blade blunt.	* Clean the machine saw. See item 3.2. * Regulate blade tension. See item 5.2.1. * Adust upper wheel. See item 5.2.4 when no improvement is obtained, call Technical assistance. * Change the blade.

**SUMMARY**

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# 1. INTRODUCTION

## 1.1 Safety

If and when the Bone Saws Mod. SI-282HD, are not correctly used, they are potentially DANGEROUS machines. Cleaning, maintenance and any other service in the machine shall be carried out by duly trained people, and with the plug off its socket. The instructions below, must to be always followed to avoid ACCIDENTS:

- 1.1.1 Take the electric plug off its socket, before withdrawing any moving part, before cleaning, maintenance or any other kind of service.
- 1.1.2 Never use any kind of tools, not belonging to the saw to help cutting.
- 1.1.3 Never touch the blade, even with the saw switched OFF, because the blade has sharp edges.
- 1.1.4 Never adjust the blade guide, nor the cut regulator with the saw blade in movement.
- 1.1.5 During cutting operation, never wear loose clothes with wide sleeves principally around the wrists.
- 1.1.6 Wear steel gloves during cutting operation.
- 1.1.7 Keep hands away from moving parts.
- 1.1.8 Never switch ON the saw with any open doors.



## 1.2 Main Components

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

## 5. 2 Adjustment and Components Substitution

### 5. 2. 1 Blade regulation

With daily use the Band Saw model SI-282HD 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 No.01 (Pict.01) until the Blade is at the right working tension.

### 5. 2. 2 Cut Regulator Adjustment

The Cut Regulator has been developed to help cutting and for the operator safety. Its main purpose is to assure meat slices homogeneous thickness.

To adjust the Cut Regulator proceed as follows:

Turn the Handle No. 16 (Pict.01) counter clockwise to be able to move the Cut Regulator.

Using the Spherical Handle No. 16 (Pict.01) move the Cut Regulator on the Fixed Table, increasing or decreasing the distance from the Blade, as it is needed.

Finally, turn the Handle No. 16 (Pict.01) clockwise to block it at the desired position.

### 5. 2. 3 Blade Guide Adjustment

The Blade Guide No. 08 (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 No. 08 (Pict.01) the Blade must be still and the Band Saw switched off. Proceed as follows:

Turn the Handle No. 17 (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 No. 17 (Pict.01) clockwise to block the Blade Guide at the desired height.

### 5. 2. 4 Upper Wheel Adjustment

Upper Wheel 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 Band Saw disconnected from power source:

Loose the Blade No. 09 (Pict.01) using the Blade Tension Regulator No. 01 (Pict.01), turning it counter clockwise as described in item 3.2.3.

Take away the Frame Back Lid.

Loose Nut No. 01 (Pict.02) with 13mm spanner.

Using a 13mm fixed spanner turn Screw No. 02 (Pict.02) counter clockwise if the Blade No. 09 (Pict.01) is bending backwards, or turn Screw clockwise if the Blade is bending towards the front of machine.

Tight the Nut No. 01 (Pict.02) with the above mentioned spanner.

Adjust the Blade tension as described in 5.2.1.

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

## 4. 5 AFTER THE WORK ENDS

### 4. 5. 1 Cares

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

Never clean the Band Saw BEFORE IT IS COMPLETELY STOPED.  
Fit all the Band 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

### 4. 6. 1 Cares and Dangers

Any maintenance is dangerous if made with the Band 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 plug out of its socket.

## 4. 7 ADVICES

Electrical or mechanical maintenance shall be made by qualified persons.  
The person in charge of the maintenance shall check the Band Saw for perfect safety conditions, before starting.

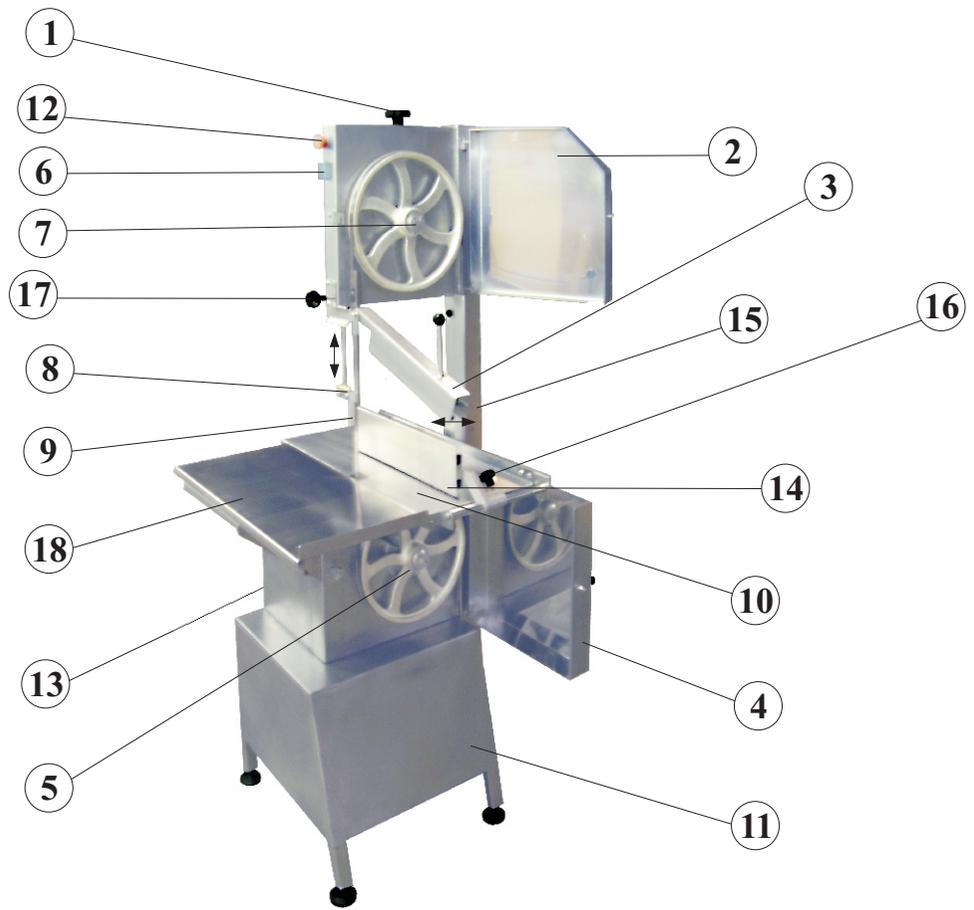
## 5 . PROBLEMS ANALYSIS and SOLUTIONS

### 5. 1 Problems , Causes and Solutions

The Band Saws have 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.  
Besides, the Company is ready to assist you through your Dealer.

Picture - 01



- |                             |  |
|-----------------------------|--|
| 01. Blade Tension Regulator | 10. Fixed Table  |
| 02. Upper Door              | 11. Frame  |
| 03. Pusher                  | 12. Emergency Button Switch                                  |
| 04. Lower Door              | 13. 220/380 Voltage Selector Switch(only three phase motors) |
| 05. Lower Wheel             | 14. Cut Regulator ( slices thickness Regulator)              |
| 06. On/off Switch           | 15. Blade Guide  |
| 07. Upper Wheel             | 16. Cut Regulator Handle                                     |
| 08. Blade Guide             | 17. Blade Guide Handle                                       |
| 09. Blade ( Width 3/4'')    | 18. Fixed Table  |

## 1.3 Technical Characteristics

**Table - 01**

Characteristics	Unit.	SI-282HD Three Phase	SI-282HD Single Phase
Voltage	V	220/380	110 or 220
Frequency	Hz	50 or 60 (*)	50 or 60 (*)
Power Rating	CV	2	2
Consumption	kWh	1,47	1,47
Height	mm	1870	1870
Width	mm	805	805
Depth	mm	755	755
Net Weight	kg	105	105
Gross Weight	kg	126	126
Maximum Cutting Width	mm	335	335
Maximum Cutting Height	mm	305	305

\* **Single phase motors:** The voltage will be only one, the motor rated voltage- 110V or 220V.

\***Three Phase motor:** The voltage may be adjusted 220 or 380v by means of the voltage selector switch.

\*\* **The Frequency will be 50Hz or 60Hz, in accordance with the motor Frequency.**

## 2 INSTALLATION and PRE OPERATION

### 2.1 INSTALLATION

The Bone Saws must be installed over a firm working floor.

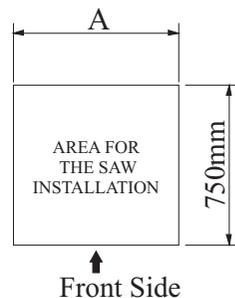
Check the electric network voltage.

Single Phase Motors: The network voltage and the motor voltage must be the same.

Three Phase Motors: The motor input voltage may be adjusted to match the network voltage. use the voltage selector switch N°13 (Pic.01) to adjust voltage-220 or 380v.

The electric supply cord is fitted with a plug which has a ground connection. The ground connection may be a pin or a earth wire. Be sure that the ground connection is actually connected to earth, before to use the saw.

**A = 1240mm (without cut regulador)**



### 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 Band Saw electric motor .

Any electric cable lying on the floor, or near the Band 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 OPERATION

### 4. 4. 1 Notices

Do not work with loose long hair, that could touch any part of the Band 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 Band Saw. NEVER operate the Band Saw, without any one of its safety devices.

#### 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 Band 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 Band Saw good operation.

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

DO NOT ALTER the Band 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.

READ CAREFULLY AND WITH ATTENTION THE SAFETY OR OPERATION INSTRUCTIONS LABELS DISPLAYED ON THE MACHINE, AS WELL AS THE INSTRUCTION MANUAL AND THE TECHNICAL CHARACTERISTICS WRITTEN INSIDE.

## 4. 2 CARES AND OBSERVATIONS BEFORE TO SWITCH ON THE BAND SAW

#### IMPORTANT

Read carefully and with attention the present instructions before to switch ON the band saw. Be sure to have a right understanding of all information given in the instruction manual. In case of doubt, consult the technical assistant or the seller.

## 2.2 Pre Operation

#### IMPORTANT

Be sure that the Blade has the right tension before to operate the saw. Turn clockwise the Blade Tension Regulator N°01 (Pict.01), handle to tighten the blade.

First of all check if the Band Saw is firmly standing in its position . Before to use it clean the Blade, the wheels and the doors with water and neutral soap.

To adjust (stretch) the blade, turn clockwise the blade tension Regulator N° 01 (Pict.01),handle, to tighten the blade.

## 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 cutted.

With the machine switched OFF, regulate the Blade Guide No. 08 (Pict. 01) and the Cut Regulator No. 14 (Pict.01) .

To switch on the Band Saw, put the ON/OFF switch No. 06 (Pict. 01) to the upper side to the "ON" position .

Put the product to be processed on the movable Table, and push it towards the Blade leaning it on the Cut Regulator to have a uniform thickness slice.

Withdrawing the product, be careful that it does not touch on the back side (flat side) of the Blade, doing such will avoid the blade to jump out of the wheels.

#### MANUFACTOR HINT

To make easier to slide the product to be processed on the table, spray a thin water layer over the table.

### 3. 2 CLEANING

To clean the Band Saw, first of all, switch it off from electric source. All the parts in direct contact with the meat must be cleaned .

To remove the movable parts, please proceed as follows:

3. 2. 1 Remove the Upper Door N° 02 (Pict.01), to do so, vertically lift the door .
3. 2. 2 Remove the Lower Door N° 04 (Pict.01), same as above explained .
3. 2. 3 Loose the Blade , turning the blade tension Regulator N° 01 (Pict.01) handle counter clockwise and take the Blade off the Wheels.
3. 2. 4 Take the Upper Wheel N°. 07 (Pict.01) away, pulling it out to the front. The Lower Wheel is not removable.
3. 2. 5 Wash all the parts with water and neutral soap, then dry them .
3. 2. 6 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. 7 To assemble the several parts removed, proceed the inverse path as above described.

**IMPORTANT**

**Check the Blade position. The right position is with its teeth towards the front side of the Band Saw, and bent down .**

### 3.3.2 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.**

The safety rules were made to orient and to instruct users of the band saw, and the people who will be responsible for its maintenance.

The band 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 band saw.

The user shall only operate the band saw after complete knowledge of the cares to be taken, after reading carefully the present instruction manual.

### 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 (buttons, switches, etc.) with wet hands, clothes or shoes. To not observe such recommendation may also cause electric shock, and even death.