

# Instruction Manual

Bond Saw - Models

SPA-282S

SPA-282LS



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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 CONSTATANTE EVOLUÇÃO DOS NOSSOS PRODUTOS, AS INFORMAÇÕES AQUI CONTIDAS PODEM SER MODIFICADAS SEM AVISO PRÉVIO.

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Table - 02		
Problems	Causes	Solutions
* The saw does not switch On	* The saw plug is off its socket .  * Electric energy shortage.  * Some problem with the internal circuits of the saw.	* Put the plug on its socket.  * Check other sources  * Call Technical Assistance.
* Smoke , or burnt smell .	* Some problem with the internals or externals circuits .	* Call Technical Assistance.
* The saw switches on , but when the meat touches the blade the blade stops or turns slowly	* The belt is slipping.  * The motor capacitor is failing.	* Adjust belt tension . See item 5.2.1.  * Call Technical Assistance.
* Unusual noises	* Blade slipping on wheels  * The blade is not correctly welded .	* Turn the blade tension regulator. 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 meat .	* The blade or the wheels are dirty.  * Wrong tension on the blade.  * The blade is off the wheels center.  * Blunt blade .	* Clean the saw . See item 3.2  *Regulate the blade tension. See item 5. 2. 2  * Proceed to adjust the lower bearing, see item 5.2.5 .if no improvement is obtained call Technical Assistance .  * Change the blade

Check the position of the blade : if it is displaced towards the front of the saw, using a screwdriver make a ¼ turn on the screw No.02 (Pict.03) counterclockwise . If the blade is displaced towards the back side of the saw, turn the screw ¼ turn clockwise .

Tight the three Nuts No.1 (Pict.03) .

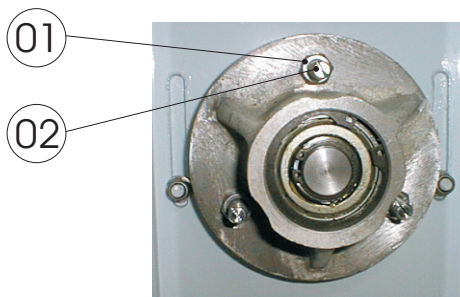
Adjust the blade as instructed at item 5. 2. 2 .

Using your hand make the wheel turn and check if the Blade is centralized on the wheel . Proceed the same way until the Blade stays in the central position .

**Picture - 02**



**Picture - 03**

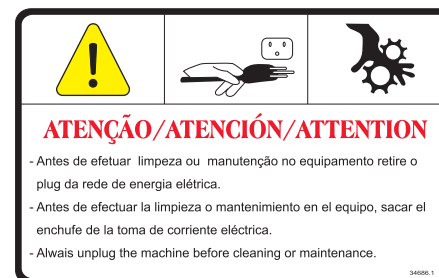


## 1.INTRODUCTION

### 1.1 SAFETY

If and when the Bone Saws Mod. SPA-282S / SPA-282LS , are not correctly used , they are potentially DANGEROUS machines . 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 :

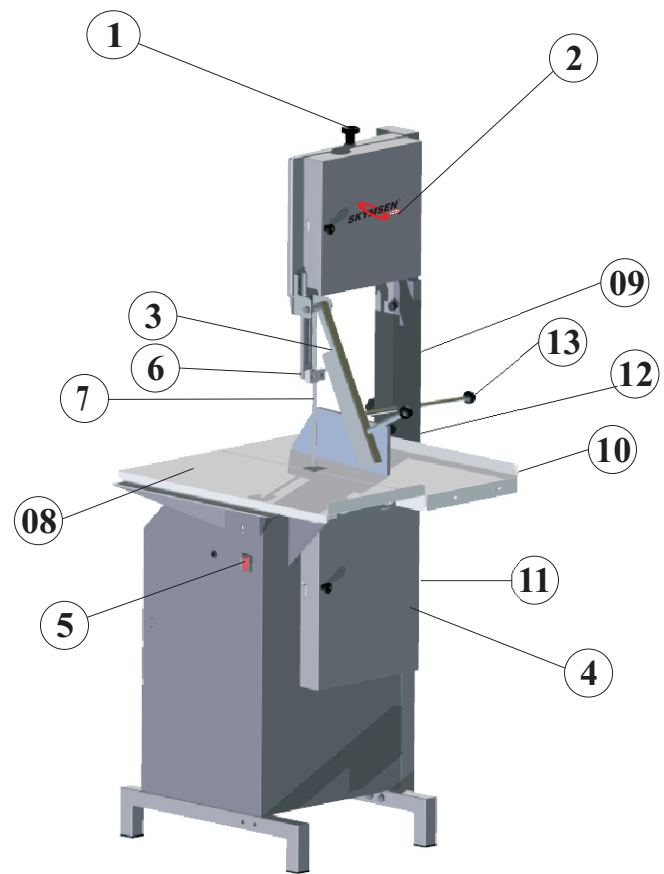
- 1.1.1 Take the electric plug off its socket , before to withdraw any moving part , before cleaning or any other maintenance operation .
- 1.1.2 Never use any kind of tools , not belonging to the saw to help cutting .
- 1.1.3 Never touch the saw blade , even with the saw switched off , because the blade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



### 1.2 MAIN COMPONENTS

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

Picture - 01



- |                            |                               |
|----------------------------|-------------------------------|
| 01.Blade Tension Regulator | 08.Movable Table              |
| 02.Upper Door              | 09.Frame                      |
| 03.Pusher ( optional )     | 10.Fixed Table                |
| 04.Lower Door              | 11.Voltage Selector Switch    |
| 05.ON/Off switch           | 12.Cut Regulator ( optional ) |
| 06.Blade Guide             | 13.Spherical Handle           |
| 07.Blade                   |                               |

Using the Spherical Handle No.13 (Pict.01) move the Cut Regulator on the fixed table No. 10 (Pict.01) , increasing or decreasing the distance from the blade , as it is needed.

5. 2. 4 Blade Guide Adjustment

The Blade Guide No.06 (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.06 (Pict.01) the blade must be still and the saw switched off . Proceed as follows :

Turn the handle counterclockwise to allow the 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 clockwise to block the blade guide at the selected height .

5. 2. 5 Lower Bearing Adjustment

Lower Bearing Adjustment is aiming to centralize the Blade on wheels avoiding the Blade to fall off .

To adjust the Lower Bearing proceed as follows with the saw disconnected from electricity source :

Loosen the Blade No.07(Pict.01) using the Blade Tension Regulator , as explained on item 5.2.3

Take away the upper back lid , loosening its screws

Loose the three nuts No.01 (Pict.03)

5.2 Adjustment and Components Substitution

5. 2. 1 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 worn out to fast.

To adjust the belt proceed as follows :  
Take away the lower back lid loosening the Screws  
Loose the motor nuts No.02 (Pic. 02 ) .  
With the help of a wooden lever, move the motor No. 01 (Pict.02) to tighten the Belt, keep it in the new position and tight the nuts No. 02 (Pict.02) .

**Observation**  
**Adjusting the Belt , check the wheels perfect alignment**

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 to start to work . Turn clockwise the Blade Tension Regulator No.01 (Pict.01) until you ear it snap , then the blade will be at the right working tension .

5.2.3 Cut Regulator Adjustment

The Cut Regulator is an optional accessory , developed to help cutting and for the operator safety . Its main purpose is to produce meat slices with an even thickness .  
To adjust the Cut Regulator proceed as follows :  
Turn the handle No.13 (Pict.01) counterclockwise to move the Cut Regulator.

1.3 Technical Characteristics

Table - 01

Caracteristics	Unit	SPA-282S	SPA-282LS
Voltage	V	110 / 220	110 / 220
Frequency	Hz	50 ou 60 (*)	50 ou 60 (*)
Power Rating	CV	1	1
Consumption	kWh	0,73	0,73
Height	mm	1720	1720
Width	mm	735	735
Depth	mm	900	900
Net Weight	kg	90	90
Gross Weight	kg	124	124
Maximum Cutting Width	mm	290	290
Maximum Cutting Height	mm	420	420

\* The Frequency will be 50 hz or 60 hz in accordance with the motor characteristic .

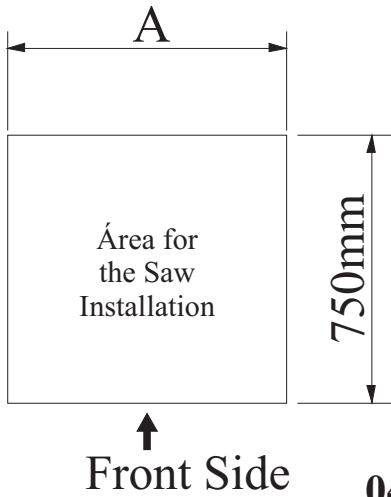
2 INSTALLATION and PRE OPERATION

2.1 INSTALLATION

The bone saws must be installed over a firm working floor .Check if the electric supply voltage is 110 V or 220 V then switch the Voltage Selector Switch on the same voltage No. 11 ( Pict. 01 ) .  
The electric supply cord has three pins , one of them is the grounding pin .The three pins shall be properly connected before to start the machine ..

A = 1600mm (With Cut Regulator)

A = 1240mm (Without Cut Regulator)



## 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 No.01 (Pict.01) handle until it begins to snap .**

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

To regulate ( stretch ) the blade , turn clockwise the Regulator No. 01 (Pict.01) handle , until it starts to snap , so the Blade tension will be optimal , as recommended by the manufacturer .

## 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 No. 06 (Pict.01) and the Cut Regulator No. 12 (Pict.01) .

To switch on the saw , put the On/Off switch No. 05 (Pic.01) to the “On” position .  
Put the product to be processed on the fixed Table ( or the optional movable table ) , and push it towards the Blade leaning it on the Cut Regulator ( optional ) to have a uniform thickness slice .

Withdrawing the meat , do be careful that it does not be to close on the back side ( smooth side ) of the Blade , doing such the Blade will have no risk to jump out of the wheels .

### SKYMSSEN ADVICE

**To ease the meat to slide on the fixed table , spray the table with a very thin water layer.**

## 4.4 Operation

### 4.4.1 Advice

Be sure your hair is not loose in order to avoid getting caught by turning parts which could lead to a serious accident. Tie your hair well up and/or cover your head with a scarf.

The operation performed by not trained or skilled personnel shall be forbidden.

Never touch turning parts with your hands or in any other way.

NEVER operate machine without all original safety devices under perfect conditions.

## 4.5 After Finishing The Work

### 4.5.1 Precautions

Always TURN THE MACHINE OFF by removing the plug from the socket before cleaning the machine. Never clean the machine unless it has come to a complete stop.

Put all components back to their functional positions before turning it ON again.

Check level of oil. DO NOT place your fingers in between belts and pulleys nor chains and gears.

## 4.6 Maintenance

### 4.6.1 Danger

Any maintenance with the machine in working situation is dangerous. TURN IT OFF BY PULLING THE PLUG OFF THE SOCKET DURING MAINTENANCE.

## 4.7 Advice

Electrical or mechanical maintenance must be done by qualified personal for such operation.

Person in charge has to be sure that the machine is under TOTAL SAFETY conditions when working.

## 5 Analysis and Problems Solving

### 5.1 Problem, causes and solutions

The Bone Saws have been designed to need minimum maintenance , however, some performance failures may happen due mainly to natural wear 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 and the Company Technical Assistance network .



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 Safety Procedures and Notes Before Switching Machine ON

### IMPORTANT

Carefully read ALL INSTRUCTIONS of this manual before turning the machine ON. Be sure to be familiar with the instructions and that you have well understood all information contained in this manual. If you have any question contact your supervisor or your nearest Dealer

### 4.2.1 Danger

An electric cable or electric wire with damaged jacket or bad insulation could cause electrical shocks as well as electrical leak. Before use, check conditions of all wires and cables.

### 4.2.2 Advices

Be sure ALL INSTRUCTIONS in this manual have been thoroughly understood. Every function and operational procedure have to be very clear to the operator. Contact your nearest Dealer for further questions.

Any manual command (switch, button or lever) shall be given only after being sure it is the correct one.

### 4.2.3 Precautions

The electric cable has to be compatible with the power required by the machine. Cables touching the floor or close to the machine need to be protected against short circuits.

Oil reservoir has to be full up to the required level as indicated. Check level and add oil if necessary.

## 4.3 Routine Inspection

### 4.3.1 Advice

When checking the tension of the belts or chains, DO NOT introduce your fingers between the belts and the pulleys and nor between the chain and the gears.

### 4.3.2 Precautions

Check if motors, belts, chains or gears and sliding or turning parts of the machine produce abnormal noises.

Check the tension of the belts and chains and replace the set when belt, chain or gears show signs of being worn out.

When checking tensions of belts or chain DO NOT introduce your fingers between belts and pulleys, nor between the chains and gears.

Check protections and safety devices to make sure they are working properly.

## 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 :

3. 2. 1 Remove the Upper Door No. 02 (Pict.01) , pull the door Handle , and lift the door .

3. 2. 2 Remove the Lower Door No. 4 (Pict.01) , pull the door handle and lift the door .

3. 2. 3 Loose the Blade , turning the Regulator N. 01 (Pict.01) counter clockwise and take the Blade off the Wheels .

3. 2. 4 Take away the staples that tie the Wheels , and take the Wheels off pulling them out .

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 .

### IMPORTANT

Put Vaseline in the Wheels hole each 15 days . Check the Blade position. The right position is with its teeth towards the front side of the saw, with the points looking down .

### 3.2.8 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 Practices

#### IMPORTANT

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

The following safety instructions are addressed to both the operator of the machine as well as the person in charge of maintenance. The machine has to be delivered to the operator in perfect conditions of use, the Distributor must instruct the Dealer about the machine operation and safety. The user shall operate the machine only after being well acquainted with the safety procedures described in the present manual. READ THIS MANUAL WITH ATTENTION.

### 4.1 Basic Operation Practices

#### 4.1.1 Dangerous parts

Some parts of the electric devices are connected to high voltage points. These parts when touched may cause severe electrical shocks or even be fatal.

Never touch commands such as buttons, switches and knobs with wet hands, wet clothes and/or shoes. By not following these instructions operator could be exposed to severe electrical shocks or even to a fatal situation.

#### 4.1.2 Warnings

The operator has to be well familiar with the position of ON/OFF Switch to make sure the Switch is easy to be reached when necessary. Before any kind of maintenance, physically remove plug from the socket.

Provide space for a comfortable operation thus avoiding accidents.

Water or oil spilled on the floor will turn it slippery and dangerous. Make sure the floor is clean and dry.

Before giving any manual command (switch, buttons, turn keys or lever) be sure the command is the correct one. Check this manual for further details if necessary.

Never use a manual command (switch, buttons, lever) unadvisedly.

If any work is to be made by two or more persons, coordination signs will have to be given for each operation step. Every step of the operation shall be taken only if a sign has been made and responded.

#### 4.1.3 Advices

In case of power shortage, immediately turn the machine OFF.

Use recommended or equivalent lubricants, oils or greases.

Avoid mechanical shocks as they may cause failures or malfunction.

Avoid penetration of water, dirt or dust into mechanical or electrical components of the machine.

DO NOT modify original characteristics of the machine.

DO NOT remove, tear off or maculate any labels stuck on the machine. If any label has been removed or is no longer legible, contact your nearest dealer for replacement.