

# HLS-2020(2400)

# BONE SAW

## OPERATION AND MAINTENANCE MANUAL

### ITEM

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## Warning

Please use the machine according to the cautions. **The user should carefully read the manual and understand all rules before operation.**

**The machine may harm to health if the user remove or change the safety-equip operation.**

We are not responsible for all hurting **caused by wrong operation.**

## Installation

**The machine is ready for using when it is well-packed arrived.** Please put it in plumb situation and keep the level when assemble or disassemble the machine.

The machine should be put on steady and even ground, if not, you could adjust the rubber feet.

Please check carefully the voltage and power **and make sure it** is the same as the label, to check it is single phase or three phase and whether with the earthing wire.

Please check **if** the power line is long enough **to connect the power and** satisfy the work condition.

When the machine **is turned on** by the user, please inspect saw belt length on the top and bottom **pulley**, it is must be parallel with the edge on the **pulley**.

Then close the door, please connect with the electric line, turn on the green switch, and then the machine works.

If you turn off the red switch, the machine stops, at once.

### **Please pay attention to these details:**

1: The machine should be running **correctly (clockwise rotation while facing with the machine)**. clockwise

2: If the saw blade of the machine need to be frapped, please take the handle on the top until the machine have a slicing sound.

This means the bone saw blade is in the correct tension position. Now the machine **is ready for operation.**

## Using condition

This saw blade on the machine machine is used for cutting fresh meat and bone. If you want to cut frozen meat and bones, the right saw blade should be chosen.

This machine should be operated according to this manual.

Service life of saw blade depends on the stuff it cuts and the pressure. Usually, it has standard **as** 1000kg to 2000kg, but if the machine **is used for cutting without the bone, the life span will be longer.** Undular saw blade can be used to cut fresh meat, so the saw blade will be used longer, because you can turn over the saw blade and using the other side to cut.

Please read the manual and **operate it accordingly before using.** When the door of machine is open, or there is no security pushing device (if suitable) or no saw blade

protection device, please stop using the machine.

## Operation instructions

When you stand on the operation place, please put the meat in middle of saw blade and the pushing handle with your right hand, hold the handle with your left hand. And then catch the stuff you want to cut by right hand, press pushing device by left hand. And then push the stuff to the saw blade and cut it into pieces. **If the meat is small piece, it must be hold by a transition, like the pushing board or pushing handle. It is strictly prohibited to take the meat with your hands directly.**

**Only when the pushing device come to the end and it keep plumb, you can use left hand to take out the meat from the machine. And then, please handle this device and pull to yourself again, and put meat at suitable position to wait for cutting next time. If the machine need to cut the meat with bone, you must put more pressure, so that the saw blade will be protected, and motor will not be over wore.**

When the machine is working, please **do not change** the cutting direction to avoid beakage of saw blade, **which may cause injury. It also avoids the skidding between the pulley and the belt.**

At any time, please try to put the stuff needed to be cut **at the suitable position to make the meat part to be cut before the bone.**

## Important notices

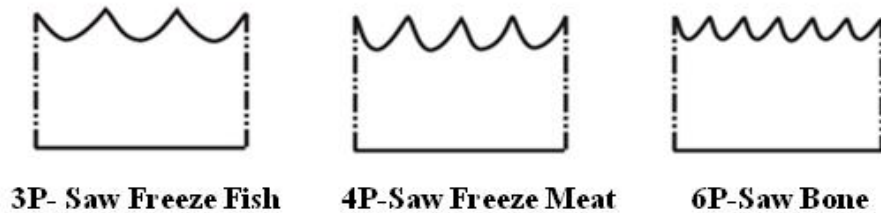
1. While installing, pay attention to the cutting edge of the saw blade, the sawtooth should be down on the right way.
2. The scrap must pin the saw blade, **but not touch the saw blade, otherwise** it will increase more noise and reduce the life span of saw blade.
3. **When the machine is not used, it's better to loose the tension handle on top of the machine by two circles, and tighten it next time when the machine is used. In this way, the life span of the saw blade can be increased.**
4. **When the door of machine is opened, the machine will be stopped by the security switch, but, the saw blade will still keep rotating because of inertia, it is forbidden to touch the saw blade by hands.**
5. **Please wear protective gloves when operating the machine.**
6. Please do not take and cut the meat by hands without any protective ways. **Especially when cut the meat in small pieces, like the pig hoof, the high-speed rotating saw blade may harm the fingers, even if the operator wearing protective gloves. Please be careful and be concentrated while operating.**

## Saw blade replacing

When you replace the saw blade, please loosen the tension device (anti-clockwise when looking from upper to down), then install the new saw blade, and pay attention to the saw blade direction (referring the important notice 1), otherwise the saw blade will be loosened. Make sure that the saw blade is correctly installed between the scrap, the top bulley and the bottom bulley, and the middle plate, and pass through guide

groove. If it is automatic tension device, the knob should be turned clockwise till the gear loosened and make a sound. It means saw blade is installed correctly. Different food for different saw blade.

Please see the following fig.:



### Saw blade adjusting

In order to make the machine work normally, it must be make sure that the saw blade is rotating around the pulley. The edge of the saw tooth must be kept in line with the front edge of the pulley. If not in a line, it must be adjusted. The slope knob can be adjusted by following ways:

You can loosen the nut through lever in order to loose the slope knob. You can find when you are tightening the knob while adjusting the saw blade, the blade edge is moving backward. Just like this, when the knob is loosened, the blade will move forward.

Operate the machine must through tightening or loosening the knob, and it will make the error of the blade installing minimum and make sure it does not take off. When you adjust the slope knob, please rotate the pulley by hands.

After replacing the saw blade, ensure the saw blade can run normally before operate the machine.

### Cleaning

Please cut off the power before cleaning the machine. Open the door of machine, and loosen the pushing device and take off the saw blade. Loosen the scrap protection knob to take off the scrap. It is better to clean the machine with hot water and hard brush.



Also wet slip and hot water and scour can be used to wash the main spare parts ,belt

and protective device. Finally, please wipe off all water from the machine by dry cloth.

Attentions must be paid to clean the dead angles, pulleys, pulley grooves, bottom scrappers and rear bearing covers.



Dead angle part

In order to take out of the bottom bulley, the bolt must be pulled out. Due to the left hand thread, it must be loosened clockwise.

Water must be prevented from splashing on the electric part.



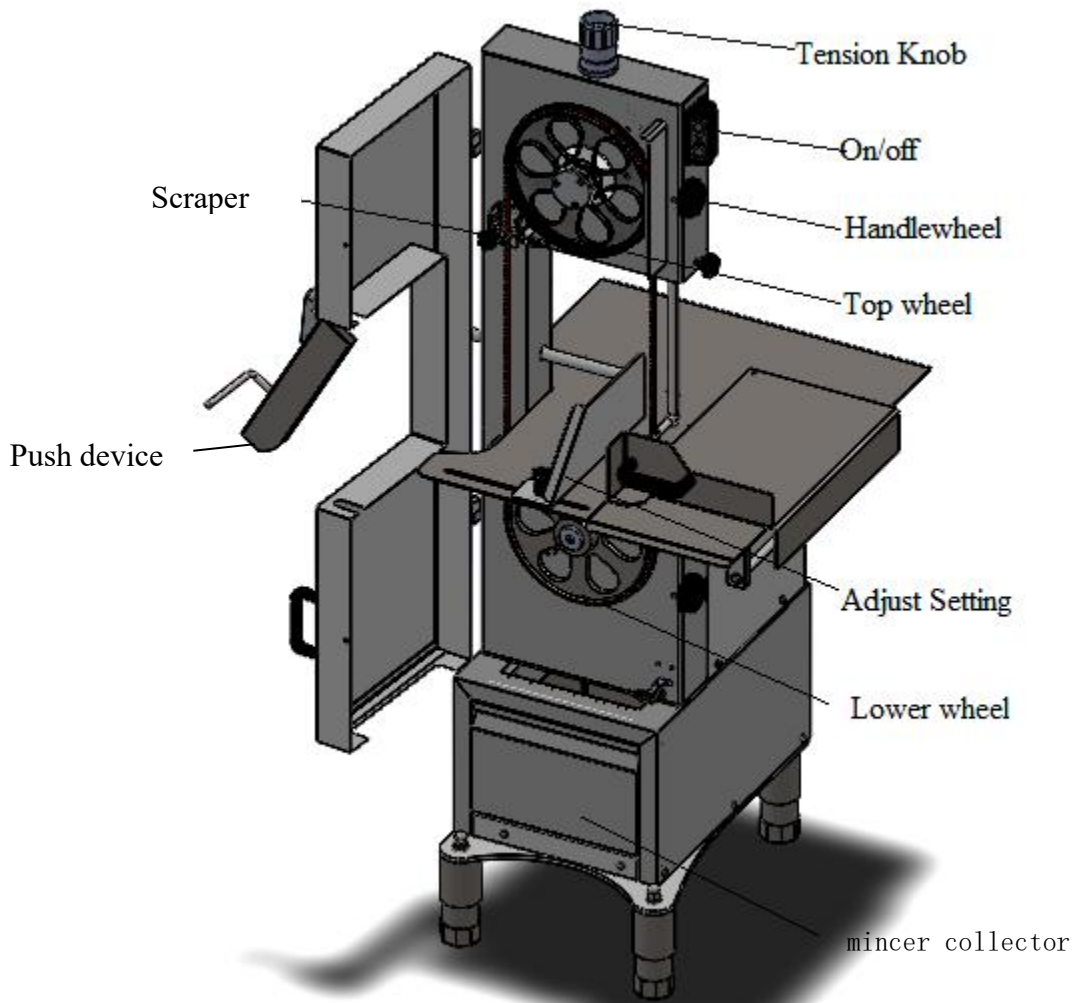
## Maintenance

After working for 200 hours, eatable lube oil should be added on guide apparatus of tightening device. Same as this situation, please take off the tightening device, oil the spring and thread line. **The bulley bearing is suggested to be changed after using for 5000 hours.**

## Voice class

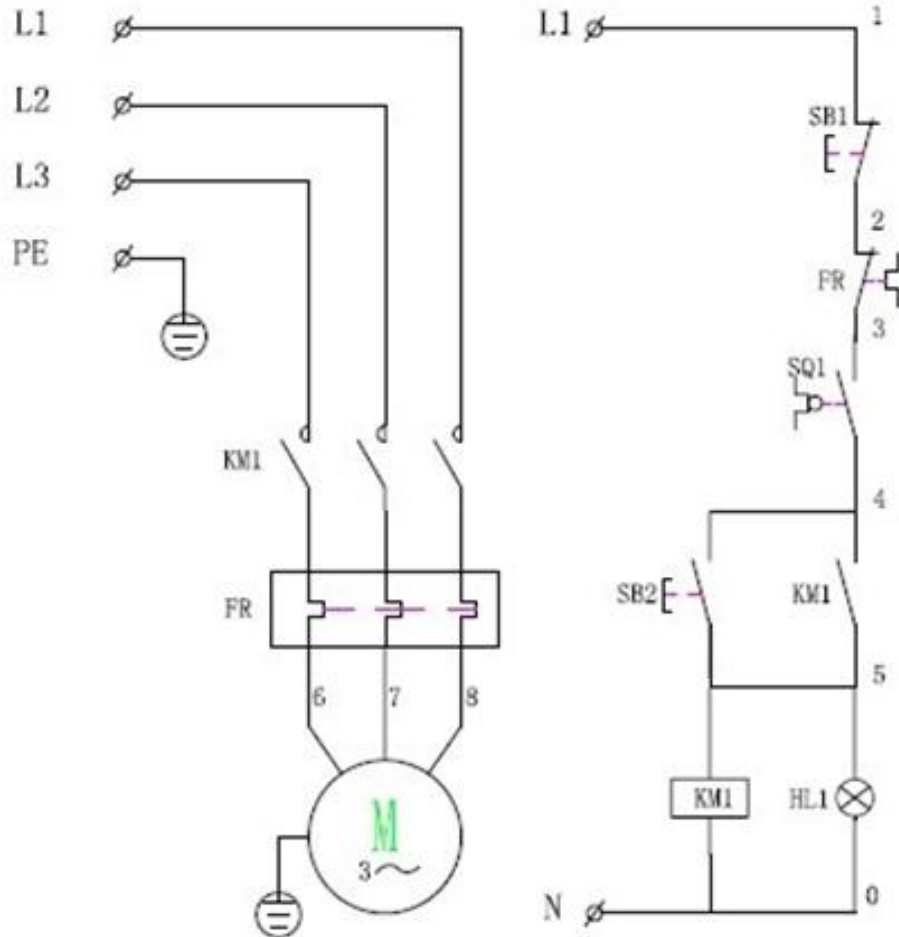
The highest voice class is 75 dB ( A)

2020/2400-instruction



Model	HLS-2020	HLS-2400
Electric source	3N~,380-400V,50Hz	3N~,380-400V,50Hz
	3N~,220-240V,60Hz	3N~,220-240V,60Hz
Power	1.5kw	2.2kw
Lenght of Blade	2020mm	2400mm

## 2020/2400 Circuit Diagram



Ps:1. Europe standard voltage:  $3N\tilde{,} 380\text{--}400\text{V}, 50\text{Hz}$

2. US standard voltage:  $3N\tilde{,} 220\text{--}240\text{V}, 60\text{Hz}$

M: Motor

SB1: Stop button

KM1: contactor

FR: Overload protection

SB2: Start button

HL1: Indicator light

SQ1: switch