H.WINTER HOLZTECHNIK

OPERATION MANUAL

High Efficient Multiple Blade Saw

WINTER MBS 600, MBS 930

WARNING!

The operator must thoroughly read this manual before operation.
Keep this manual for future reference.

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Remark:

1. **The machine’s driving force： 3 phase,380V,50Hz**
2. **The motor power of each dust catcher is not less 5.5KW, if the wood flour can’t be sacked timely, it will affect the product’s accuracy and the product’s using safety.**
3. **When the saw blades are installed beyond 20pcs, please adjust the feeding speed to be low 3.5m/min, and check the board if it is tight, so that it can avoid the safety trouble.**

1. Machine's main application and characteristic

This machine is a high-efficient, high quality, easy-operation and strong-practicality woodworking machine. This machine is suitable for the floor and furniture manufacturer 's usage. For example: the cutting of the solid wood composite floor base material, the processing of the stress groove， the fixed width cutting of the laminated wood or the plywood. This machine use the high quality parts and excellent processing technics, it achieves the high speed cutting, adjustable feeding speed, safety protector cover, so that it can assure the machine's functional performance.

1. Welding style body frame has the enough strong and stiffness, it is the base to achieve the strong cutting and smooth feeding.
2. The machine has the long feeding table and standard guide board, it can assure the machine's good processing accuracy.
3. There are each 3 groups of initiative feeding roller for the in feeding and out feeding table. It can assure the smooth feeding power. And the roller is dealed by the hardness, it can add the machine's using life.
4. The upper pressing roller adopt front and back synchronization and adjustable pressure structure, it can make the roller compress the board tightly always. It can assure each board can be delivered smoothly.
5. The enlarge suction hood and dust absorption hole can make the dust absorption to be more thorough, it can assure the good working environment.
6. The spindle speed 2600r/min and feeding speed 0-12m/min can suitable for the processing of the different wood.
7. This machine has the special characteristic is that the machine should be power off immediately when open the dust proof cover, it can assure that the operator should be safety.
8. The feeding motor can be dynamic operation, it is more easy to operate.
9. When the spindle stops, the feeding motor can't switch on. It is just to return of the material by the dynamic operation, it can assure the safety operation and it can protect the cutter and product.

2. Machine's main technical parameter

Width of processed material(mm):	200 - 930
Thickness of processed roughcase(mm):	5- 30
Min. Processing Length (mm):	550
Spindle Speed (r/min):	2600
Max. Number of Saw Blades (pcs):	30
Power of Feeding Motor (kw):	1,5
Feeding Speed (m/min.):	0-12
Outer Diameter of Scrap Pipe (mm):	150
Pair Number/Number of Feed Rolls:	6/12
Spindle Diameter (mm):	74
Saw Blade Diameter (mm):	205
Power of Spindle Motor (kw):	11
Total Power of Installed Motor (kw):	12,5
Pair Number/Number of Feed Rolls:	6/12

3. Machine's structure and operational principle

A. Machine's main structure and working principle

1. **Feeding structure**: Feeding structure use speed regulation motor variable speed system, Feeding speed is among 0-12m/min, it has the dynamic operation for the feeding and returning.
2. **Saw blade installation**: The machine must be power off. Please check the video of the saw blade installation.
3. **Dust proof cover:** The machine has the suitable cover which can have the function about safety protection, noise reduction and improving working environment. If the cover need to be opened, it should assure that the spindle must be stopped.

B. Machine's adjustment

1. When the machine is used at the first time, the machine should be adjusted to the level position, then connect the electric source and check if the turning direction of the spindle is correct, let the spindle to work for one minute under no loading.
2. The adjustment of the feeding wheel height position: The pressing frame should be adjusted up and down according to the processed material thickness size's requirement. Generally the distance between the up pressing roller and down pressing roller is the half of the thickness of the processed material.

C. Machine's usage and operation

The preparation before testing the machine

1. Clean the machine firstly. If there is rust, please use kerosene to remove the rust.
2. Connect the electric source and operate the saw spindle, check the turning direction of the spindle is right, otherwise, any two pieces of the power lines among three pieces of the power lines should be exchanging connection.

D. Saw blade installation:

Please check the video of the saw blade installation.

1. Cleaning the saw blade and the spacer sleeve, it should assure that there is not dirty foul on the spindle.
2. Choose the suitable spacer sleeve according to the processed board's width, when the width is fixed, install the spacer sleeve and the saw blade onto the spindle, then fasten the nut of the both ends and the nut of the spindle bearing seat. **Note:** screw thread of the spindle is cum sole.
3. Turning the spindle by the hand, check if there is some impacting between the blade saw and other. If there is nothing, install the cutter cover, then operate the machine to make it running about one minute under no loading.

Warning: The saw blade and the spacer sleeve clamping must be firmed. If there is loosed, it should be very dangerous.

E. Operating steps:

1. Adjusting the up pressing roller according to the processed material's thickness, then adjust the guiding rule of the feeding table to the same line with the fixed guiding rule.
2. Connect the electric source, set up the switch to " Electric source connection", it can make the machine under the working status.
3. Start the cutter spindle and feeding: Connect the electric source, choose the switch to " Electric source connection" firstly, press down " Start Spindle" button, then press down " Start Feeding" button. If the spindle and feeding work smoothly, the processed material can be processed. If the saw line is not straightness, the spindle and the verticality of the guiding rule should be adjusted.

F. The note of adjusting spindle' up and down

1. The spindle can't be up or down by operating if the spindle doesn't be stopped completely.
2. The spindle motor locking hand shank must be screwed off before the spindle's up & down adjustment, the spindle motor locking hand shank can be tightened after the spindle adjustment.

G. Hommization device

1. If the cover of the machine is opened, the spindle and the feeding will be stopped automatic, it can assure the human's safety.
2. Press down the urgent stop switch button, the whole machine can be stopped.
3. The feeding control is continuous feeding and inching returning. When the machine is under electric source connection, the spindle is running, press down " Start feeding" button on the control panel, the workpiece can be feeding continuously. Press down " Stop" button, the workpiece is stopped feeding. Press down " Inching returning" button on the control panel, the workpiece is returned intermittently.

   Note: The button of Start Feeding has two functions: One is that When the spindle is running, press down this button, it can feed continuously; The other is that when the spindle is stopped, press down the button, it can feed intermittently.

4- Machine's lubrication and maintenance

Lubrication Detail List		
Lubrication Part	Recommended Lubrication Oil	Lubrication Period
Spindle bearing	High speed lubricating grease Temperature resistance 120 degree	7-10 days
Feeding reduction box	#90 gear oil	One time each 1000 hours
Feeding roller bearing	Machine oil No.46	One time each shift

5. Machine's transportation and installation

1. **Transportation:** According to the indication, using the forklift to fork the machine by the machine's side, checking the balance to avoid the machine to be turnover during the transportation.
2. **Installation:** There are two ways for the installation: (1) Put the machine on the solid floor, then put the leveling instrument on the working table to make the machine to be the levelness within 0.08/100 levelness.
   (2) Using the foundation screw to firm the machine on the solid floor. Put the leveling instrument on the working table and use the wedge to adjust the machine to be the levelness within 0.08 /100 levelness, after adjusting, use the cement to pour the foundation screw, finally use the leveling instrument to re-check the levelness of the working table.

6. Machine's safety operation rules

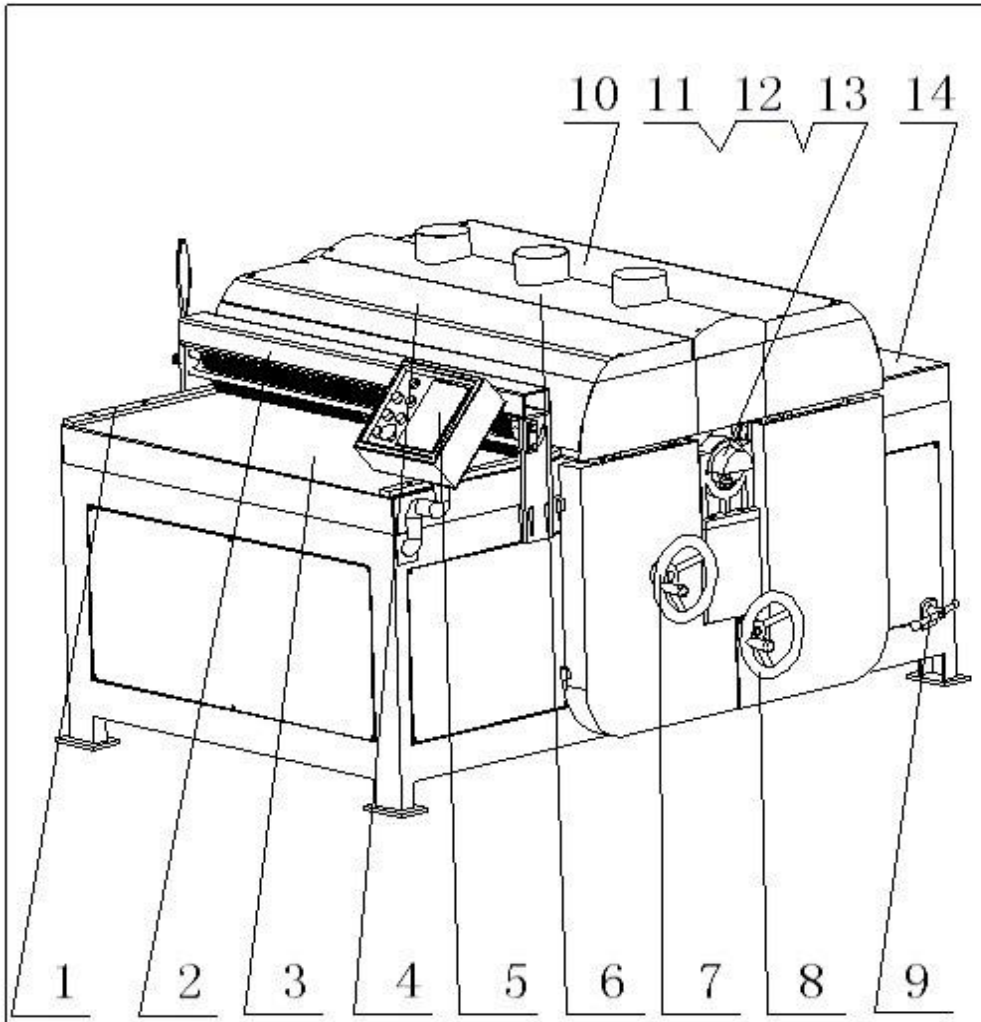
1. This machine is the equipment by the cutting's high speed working. If the machine don't be used as per the requirement or it isn't be operated by the professional person, it will be dangerous. Before using the machine, each operator should read the instruction manual and understand the full contents, comply with the operation rule strictly, otherwise, the machine can't be used.
2. The operator must comply with the machine maintenance and the all operating rule.
3. The machine must be electrical grounding reliably to avoid the leakage of electricity.
4. The electric source should be power off before adjusting, repairing or installing the cutter. Normally, the key of the electric box door should be kept by the professional person or the electrician, other peoples can't open the electric box informally, it can avoid the danger of the electric shock.
5. Before using the machine, please check the spindle, Spacer sleeve and nut if they are locking.
6. The height position of the feeding wheel and the pressure of pressing spring should be adjusted before using the machine, make sure they are suitable for the processed material's height and it can cause the enough feeding propulsive force. The processed wood can't have the iron nail, dinas and other hard thing.
7. During the operation, any protection safety device for example the safety cover can't be putted off.
8. If need to check the processed wood, it must make sure the machine stop completely firstly. When install or change the saw blade, the operator have to wear the gloves, it can avoid the saw to hurt the finger.
9. During the operation or before the machine can't stop, the operator can't leave the machine.
10. The automatic operation way can't be used if the manual operation way can't be used firstly.
11. Before start the machine, the all safety protection device should be tested. After start the machine, it should change the feeding speed for several times during the running free. But when the machine is stopped, the feeding speed can't be changed.
12. It is prohibited to put any thing onto the working table of the machine. And any unconcerned people can't stay around the machine during the operation.
13. The machine's lubrication rule and cleaning rule should be complied strictly, It should make sure the commodious operation position and not any obstruction.
14. After the machine is dismounting, the nut of the spindle can't be swap or misloading, otherwise, the nut will be loose during the high speed running, it will cause the serious aftermath.
15. When open the cover to check the machine, it should hang the warning plate and strictly forbid other people to change the status of the machine.
16. The electric source should be cut off if changing any parts of the machine, otherwise it will be danger.

7. Machine's fault & removing method

No.	Fault Name	Removing method
1	The machine can't be feeding or it is not smooth for the feeding	A. Check the spindle if it is started. B. Check the feeding motor and electrical appliance if they are electrified. C. Check the switching belt pulley if it works normally. D. Check the rotating reduction box if it is smooth.
2	The whole feeding structure can't be adjusted.	A. Check the lifting nut if it is weared or non-oil. B. Check if there is rim charge to be seizing-up.
3	There is a big noisy for the spindle.	A. Check the bearing if it is damaged. B. Check the cutter if it is installed rightly. C. The cutter is weared seriously.
4	The cutter edge is broken.	A. Sharpening the cutter by using the suitable knife grinder. B. The speed during sharpening the cutter can't be quick, and should pay attention to make it cool.
5	The cutter can't work smoothly	A. Make the dynamic balance testing for the cutter. B. Install the cutter by equilibration. C. Use the unified specification cutter. D. Clean the faying surface before installing the cutter. E. Check the spindle seat if it is locked.
6	The machine can't be started	A. Check if the main switch is closed. B. Check the fuse wire. C. Check if the emergent stopping switch is replacing, if it isn't, the switch can be loosed by the right rotating. D. The voltage of the main line is too low or lack of one phase at least.

Declaration: The user should comply with the above operation rules。If the user operate the machine by the wrong way and it causes the trouble, it should be undertaked by the user.

8. Machine's Parts List



No	Name
1	Left fence
2	Anti kick back device
3	Working Table
4	Front Top Cover
5	Electrical control box
6	Dust Collector
7	Adjust wheel of top pressure roller
8	Adjust wheel of spindle
9	Fixed wheel of spindle motor
10	Back top cover
11	Protect cover of end spindle
12	Spindle of saw
13	Bearing seat of spindle
No	Out-feed table

9. Machine's Circuit Diagram

Incoming line	Voltage switch and protect	Feeding motor	Control switch and protect	Speed regulation source	Electric source pilot light	Emergent Stop	Overload protect	Spindle control	Feeding control	Returning control