

## Trouble Shooting for Milling Machine

<b>Trouble</b>	<b>Analysis</b>	<b>Solution</b>
The workpiece milled is not flat	The spindle bearing is loose	Adjust the spindle bearing gap
	The gibs of X、 Y axis are loose	Adjust the gibs' gap
	The processing amount is too much	Choose reasonable processing amount
	The tools are damaged	Change the tools
The machine shakes when cutting workpiece	The machine is located unsteadily	Retighten the machine
	The cutting condition is not good	Choose suitable cutting feed
Handle feeling is heavy	the wedge is too tight	Adjust the wedge
	The gap between lead screw and screw nut is not right	Adjust the gap
	Oil line blocked	Check the oil line and repair it
	No oil in oil pump	Add oil
	The oil pump does not work	check the oil pump and oil line
The spindle sleeve is tight	The spindle sleeve lacks of oil	Add oil
	The spindle sleeve is dirty	Clean the spindle sleeve and repair it
No coolant liquid	The water pump does not work	Check the water pump
	The water pump turns in reverse direction	Change its rotation direction
The spindle feed is not smooth	The fixed bar of hi-lo sleeve is not loosened	Loosen the fixed bar
The spindle brake does not work normally	The brake circle is damaged	Change the brake circle
The spindle does not rotate	The switch has poor contact	Check the power switch
	The belt is too tight	Adjust it
	Something with the motor	Repair it
Wrong rotation direction	The power switch turns to the wrong direction	Change the switch indication position

## **2. Maintenance**

### **2.1 Everyday maintenance**

- 1) Check the coolant liquid level, and decide whether the liquid should be added.
- 2) Check the lubrication pump's oil level, and decide whether the oil should be added.
- 3) Clean the spindle hole with clean cloth, then sprinkle some light oil.
- 4) Clean the scraps in the chuck to assure the accuracy.
- 5) Clean the exposed limited switch to keep it from damage.
- 6) When choosing the coolant system, clean the messes in the chip tray in case of liquid outlet blocking.
- 7) Keep the environment all round the machine clean.
- 8) The working light should be turned off in ten minutes after it is used for eight hours constantly, for fear that it works long time in high temperature and decrease the lifetime.

### **2.2 Quarterly maintenance**

- 1) Clean or change the coolant liquid to keep it clean.

### **2.3 Semiannual maintenance**

- 1) Check whether the scraper of every axis is ok and its effect.
- 2) Check whether the milling motor running normally.
- 3) Check whether the mechanical feed and travel switch are normal.
- 4) Check and adjust the machinery horizontal.

### **2.4 Annual maintenance**

- 1) Check the vertical accuracy of every axis, then adjust it.
- 2) Check whether the lubrication oil tube and connector are good, and whether there are oil leak or damage