

WOODFAST
WOOD LATHE
WL1220A

Instruction Manual

IMPORTANT

For your safety, read instructions carefully before assembling or using this product. Save this manual for future reference.



Original Instruction
V.2-201911

HEALTH AND SAFETY GUIDELINES

Always follow the instructions provided with the manual. Always wear safety glasses when using woodworking equipment. Always disconnect the power before adjusting any equipment. Failure to observe proper safety procedures and guidelines can result in serious injury.

WARNING: Do not allow familiarity (gained from frequent use of your machine and accessories) to become commonplace. Always remember that a careless fraction of a second is sufficient to inflict severe injury.



Always wear safety glasses when using woodworking equipment.



Always read the instructions provided before using woodworking equipment.

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1. GENERAL INFORMATION

1.1 FOREWORD

Some information and illustrations in this manual may differ from the machine in your possession, since all the configurations inherent in the machine complete with all the optionals are described and illustrated. Therefore, refer only to that information strictly connected with the machine configuration you have purchased.

With this manual we would like to provide the necessary information for maintenance and proper use of the machine. The distribution network is at your service for any technical problem, spare parts or any new requirement you may have for the development of your activity.

This manual must be read and understood before operating the machine. This will provide a better working knowledge of the machine, for increased safety and to obtain the best results.

To facilitate its reading, the manual has been divided into sections pointing out the most important operations. For a quick research of the topics, it is recommended to consult the index. To better stress the importance of some basic passages, they have been marked by some preceding symbols:



WARNING

Indicates imminent risks which may cause serious injury to the operator or other persons. Be careful and scrupulously follow the instructions.



CAUTION

A statement advising of the need to take care lest serious consequences result in harm to material items such as the asset or the product.

1.2 MACHINE IDENTIFICATION

There is an identification plate fixed to the machine, containing the manufacturer's data, year of construction, serial number and technical specifications.

1.3 CUSTOMER SERVICE RECOMMENDATIONS

Apply the machine to skilled and authorized technical staff to carry out any operation dealing with parts disassembly. Keep to the instructions contained in this manual for the correct use of the machine.



CAUTION

Only skilled and authorized staff shall use and service the machine after reading this manual. Respect the accident prevention regulations and the general safety and industrial medicine rules.

2. SAFETY PRECAUTIONS

2.1 SAFETY REGULATIONS



WARNING Read carefully the operation and maintenance manual before starting, using, servicing and carrying out any other operation on the machine.

The manufacturer disclaims all responsibilities for damages to persons or things, which might be caused by any failure to comply with the safety regulations.

- The machine operator shall have all necessary prerequisites in order to operate a complex machinery.
- It is prohibited to use the machine when under the influence of alcohol, drugs or medication.
- All the operators must be suitably trained for use, adjustment and operation of the machine.
- The operators must carefully read the manual paying particular attention to the warning and safety notes. Furthermore, they must be informed on the dangers associated with use of the machine and the precautions to be taken, and must be instructed to periodically inspect the guards and safety devices.
- Before carrying out adjustment, repair or cleaning work, disconnect the machine from the electric power by setting the main switch to stop.
- After an initial bedding-in period or many hours of operation, the driving belts may slacken; this causes an increase in the tool stopping time (the stopping time must be less than 10 seconds). Immediately tighten them.
- The working area around the machine must be kept always clean and clear, in order to have an immediate and easy access to the switchboard.
- Never insert materials which are different from those which are prescribed for the machine utilization. The material to be machined must not contain any metal parts.
- Never machine pieces which may be too small or too wide with respect to the machine capacity.
- Do not work wood which has evident defects (cracks, knots, metal parts, etc.)
- Never place hands among the moving parts and/or materials.
- Keep hands clear from the tool; feed the piece with the aid of a pusher.
- Keep the tools tidy and far away from those not authorized persons.
- Never employ cracked nor unbalanced, neither not correctly ground tools.
- Never use the tools beyond the speed limit recommended by the producers.
- Carefully clean the rest surfaces of tools and make sure that they find perfectly horizontally positioned, and with no dents at all.
- Always wear gauntlets when handling the tools.
- Mount the tools in the right machining direction.
- Never start the machine before having correctly installed all the protections.
- Connect the dust suction hoods to an adequate suction system; suction must always be activated when the machine is switched on.
- Never open doors or protections when the machine or the system is operating.
- Many unpleasant experiences have shown that anybody may wear objects which could cause serious accidents. Therefore, before starting working, take any bracelet, watch or ring off.
- Button the working garment sleeve well around the wrists.
- Take any garment off which, by hanging out, may get tangled in the MOVING UNITS.
- Always wear strong working footwear, as prescribed by the accident-prevention regulations of all countries.
- Use protection glasses. Use appropriate hearing protection systems (headsets, earplugs, etc.) and dust protection masks.
- Never let unauthorized people repair, service or operate the machine.
- The manufacturer is not responsible for any damage deriving from arbitrary modifications made to the machine.
- Any transport, assembly and dismantling is to be made only by trained staff, who shall have specific skill for the specified operation.
- The operator must never leave the machine unattended during operation.
- During any working cycle break, switch the machine off.
- In case of long working cycle breaks, disconnect the general power supply.

2.2 RESIDUAL RISKS

Despite observance of all the safety regulations, and use according to the rules described in this manual, residual risks may still be present, among which the most recurring are:

- contact with tool
- contact with moving parts (belts, pulleys, etc..)
- recoil of the piece or part of it
- accidents due to wood splinters or fragments
- tool insert ejection
- electrocution from contact with live parts
- danger due to incorrect tool installation
- inverse tool rotation due to incorrect electrical connection
- danger due to dust inhalation in case of working without vacuum cleaner.

Bear in mind that the use of any machine tool carries risks.

Use the appropriate care and concentration for any type of machining (also the most simple).

The highest safety is in your hands.

2.3 SAFETY AND INFORMATION SIGNALS

This signals may be applied on the machine; in some cases they indicate possible danger conditions, in others they serve as indication.

Always take the utmost care.

SAFETY SIGNALS:



Risk of eye injury. Wear eye protection.



Wear hearing protection systems.



Danger of electric shock. Do not access the area when the machine is powered.



Carefully read and understand the manual before using the machine.

INFORMATION SIGNALS:

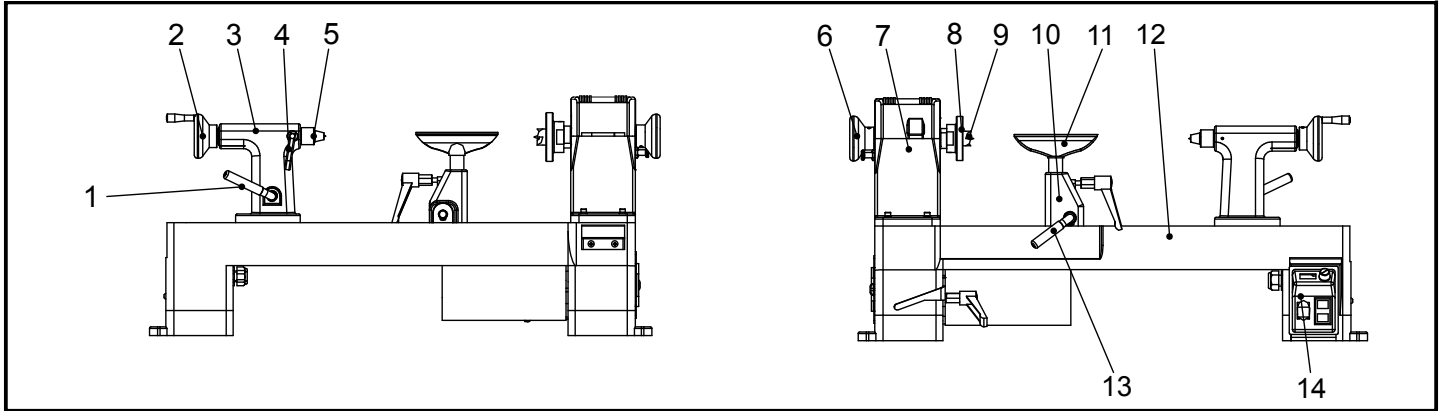
Indicate the technical characteristics, direction of rotation and inclination, block and release, etc.

Carefully following the directions to simplify the use and adjustment of the machine.

The signals are graphically described and do not require further explanation.

3. SPECIFICATIONS

3.1 MAIN COMPONENTS



- 1. Tailstock Locking Lever
- 2. Tailstock Hand Wheel
- 3. Tailstock Assembly
- 4. Tailstock Locking Handle
- 5. Live Center
- 6. Spindle Hand Wheel
- 7. Headstock

- 8. Face Plate
- 9. Spur Center
- 10. Tool Rest Base
- 11. Tool Rest
- 12. Lathe Bed
- 13. Tool Rest Locking Level
- 14. Electronic Controls

3.2 TECHNICAL SPECIFICATION

Volts, Hertz	230V/50HZ
Amps.....	6A
Motor Power.....	750W
Swing over Bed.....	318mm
Distance between Centers.....	508mm
Spindle Speeds.....	250-750/550-1650/1300-3850rpm
Spindle Taper.....	MT30X3.5
Tailstock Ram Travel.....	63mm
Number of Indexing Positions.....	24

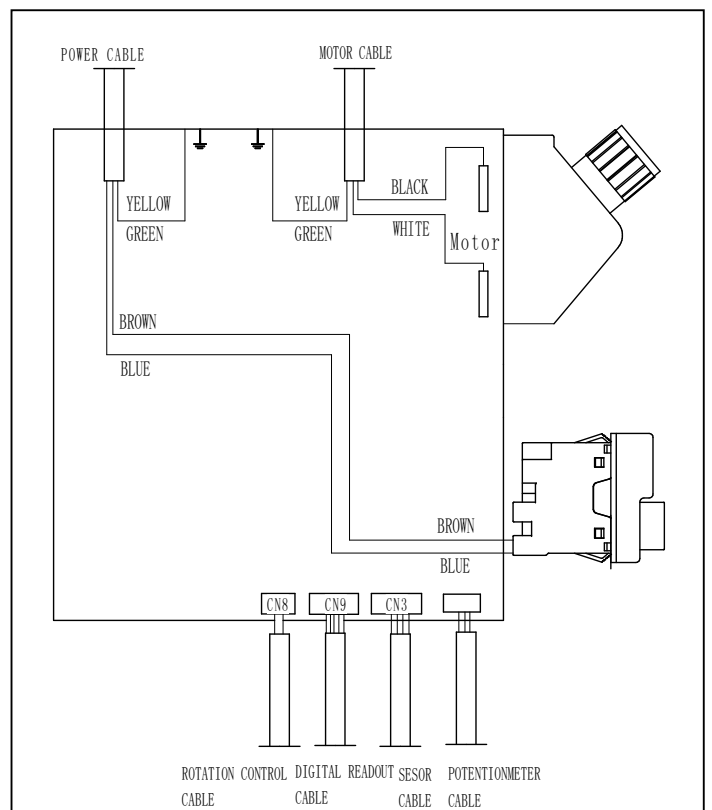
3.3 ELECTRICAL CONNECTION

- Electrical installation should be carried out by competent, qualified personnel.
- The mains connection should be made using the terminal box.
- Replacement of the power supply cable should only be done by a qualified electrician.



WARNING

To avoid electrocution or fire, any maintenance or repair to electrical system should be done only by qualified electricians using genuine replacement parts.



3.4 NOISE LEVEL

	No load	Load
Sound Pressure Level	< 80dB(A)	< 90dB(A)
Sound Power Level	< 90dB(A)	< 100dB(A)

The noise levels measured are emission levels and not necessarily the safe working level. Although there is a correlation between the emission levels and the exposure levels, this cannot be used reliably to determine whether or not further precautions are required. The factors which affect the actual level of operator exposure include the duration of exposure, the ambient characteristics and other sources of emission, for example, the number of machines and other adjacent machining. The permitted exposure values may also vary from country to country. Nevertheless, this information allows the user of the machine to better evaluate the dangers and risks.

Other factors which reduce exposure to noise are:

- correct tool choice
- tool and machine maintenance
- use of hearing protection systems (e.g. headsets, earplugs,...)



WARNING

Please use the hearing protection systems if the above mentioned noise levels exceed 95dB(A).

4. INSTALLATION



WARNING

The machine must not be plugged in and the power switch must be in the OFF position until installation is complete.

4.1 INSTALL TOOL REST AND BASE ON LATHE BED

- Remove the tailstock assembly by releasing the locking handle and sliding the assembly off the end of the lathe bed.
- Slide the tool rest base onto the lathe bed and reinstall the tailstock assembly.
- Loosen locking handle and insert tool rest into tool rest base, adjust height up or down and tighten locking handle.

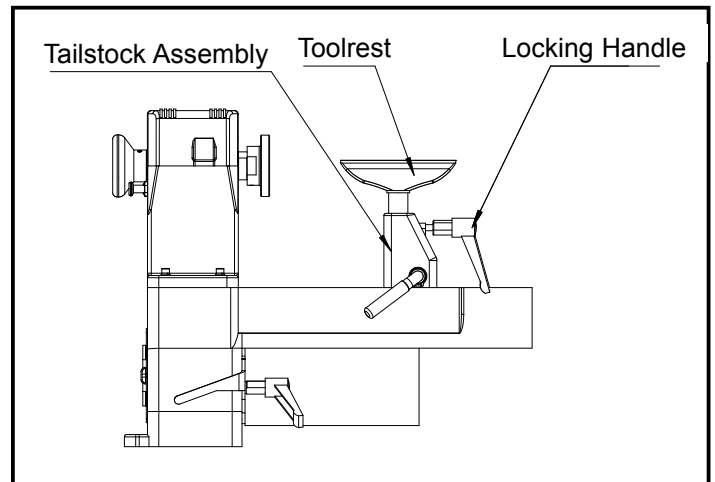


Fig.4.1

4.2 SPINDLE LOCK

Indexing is a useful feature of the M320 lathe, allowing accurate pattern work on projects such as straight fluting, grooving, drilling, lay out and more.



WARNING

The indexing system must only be used when the lathe is stationary and the power is turned off.



WARNING

Please note: The indexing system must not be used as a method of holding the spindle while removing accessories such as face plates, chuck etc. Damage caused to the machine by doing so is not covered by the warranty.

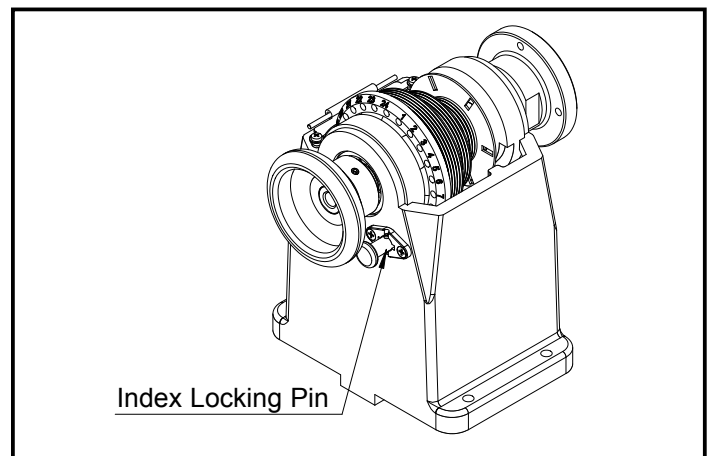


Fig.4.2

4.3 ATTACHING SPUR CENTER ON THE HEADSTOCK

- Insert spur center, with a No.2 Morse Taper shank, into the headstock spindle.

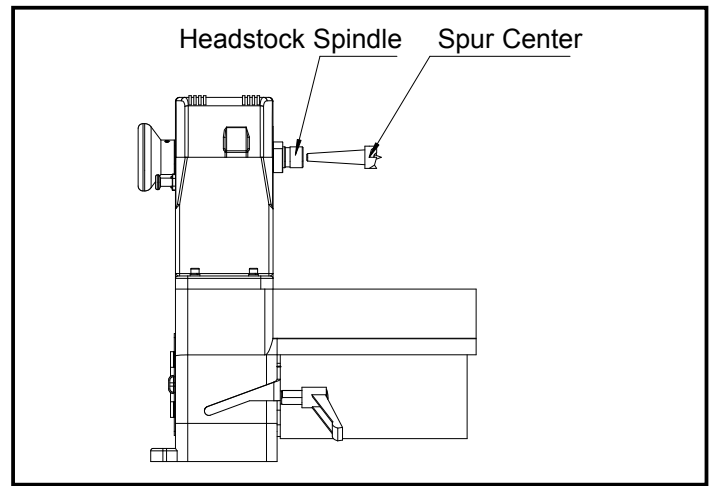


Fig.4.3

4.4 KNOCKOUT BAR

- The knockout bar is used to remove the spur center from the headstock spindle. Insert knockout bar into hole at opposite side from spur center.

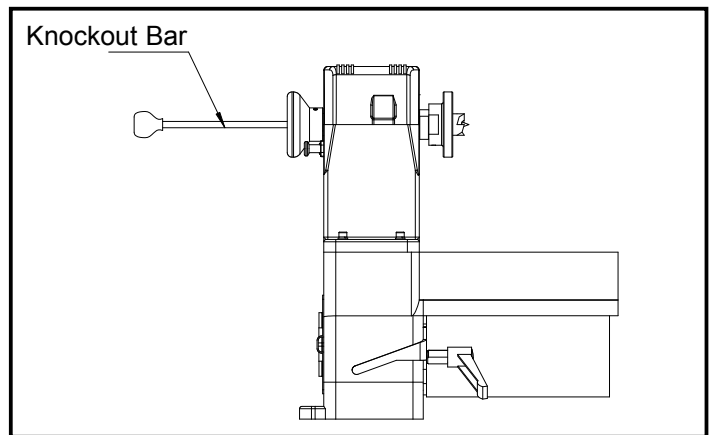


Fig.4.4

4.5 ATTACHING LIVE CENTER ON THE TAILSTOCK

- Insert the live center, with a No.2 Morse Taper shank into the tailstock spindle.
- To remove live center from the tailstock spindle, loosen locking handle and rotate the hand wheel counterclockwise to retract spindle into the body of the tailstock. The live center will be pushed out of the spindle.

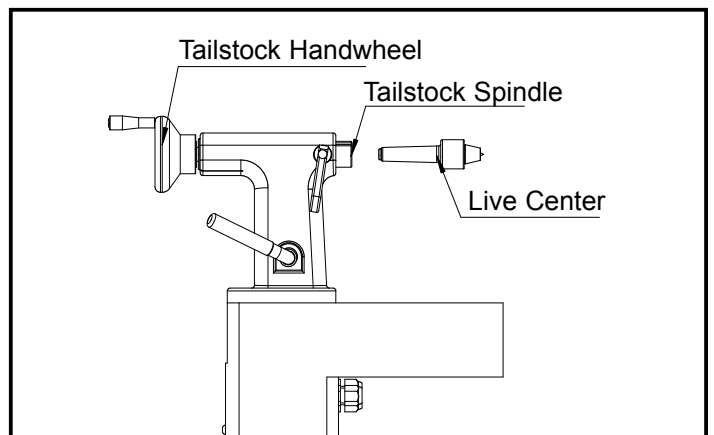


Fig.4.5

4.6 INSTALL THE FACEPLATE TO THE HEADSTOCK

- Thread the faceplate clockwise onto the headstock spindle. Next, tighten faceplate with supplied wrench.

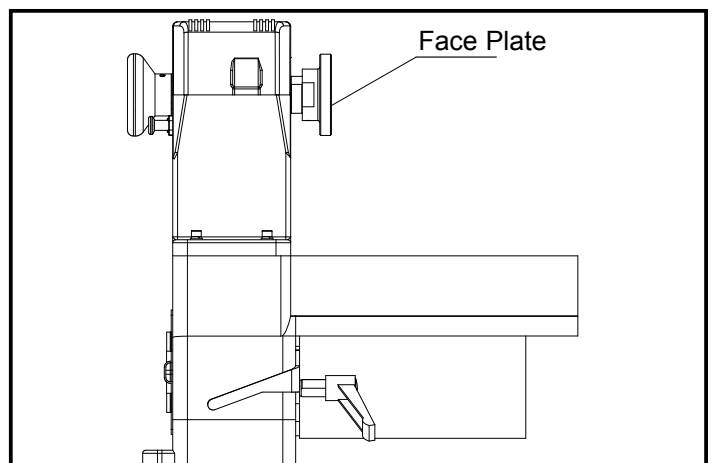


Fig.4.6

4.7 INSTALL TOOL HOLDER ON THE LATHE BED

- Located the tool holder from the carton, and install it onto the lathe bed with two pan head screws.

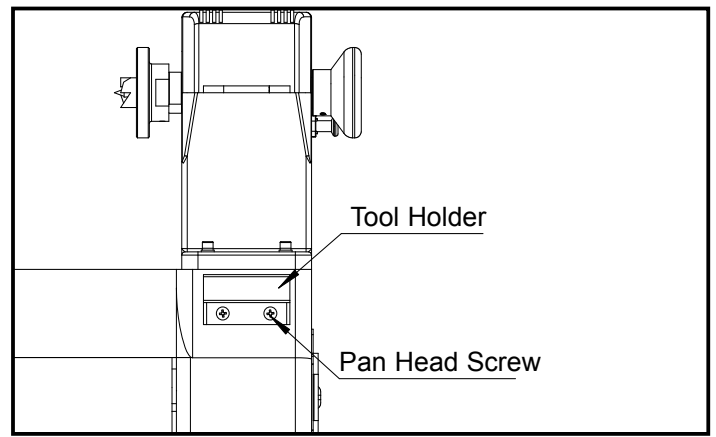


Fig.4.7

4.8 SECURE LATHE TO A SOLID WORK SURFACE

- The lathe must be attached to a solid work surface or stand. Four mounting holes are easily accessible at the base of the lathe.

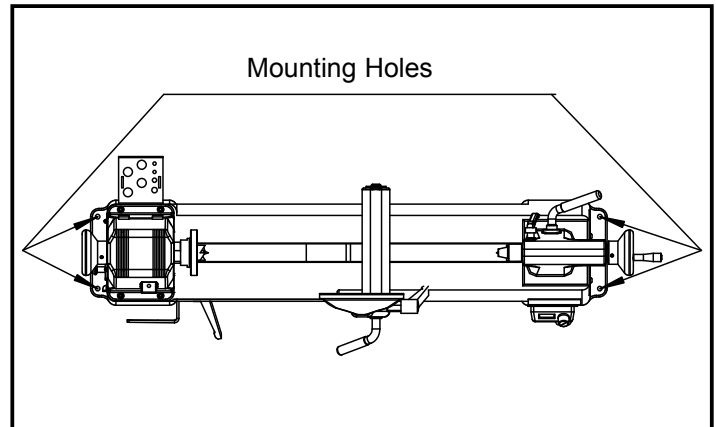


Fig.4.8

5. ADJUSTMENTS AND OPERATIONS

5.1 ADJUSTING THE TOOL REST

- The tool rest base can be easily moved along the lathe bed. Loosen locking lever counter clockwise, slide tool rest base to new position, and tighten locking lever clockwise.

- NOTE: Position the tool rest as close to the work piece as possible. It should be 1/8" above the centerline of the workpiece.

- To adjust clamping action of the tool rest base, remove base and adjust nut clockwise to tighten and counterclockwise to loosen.

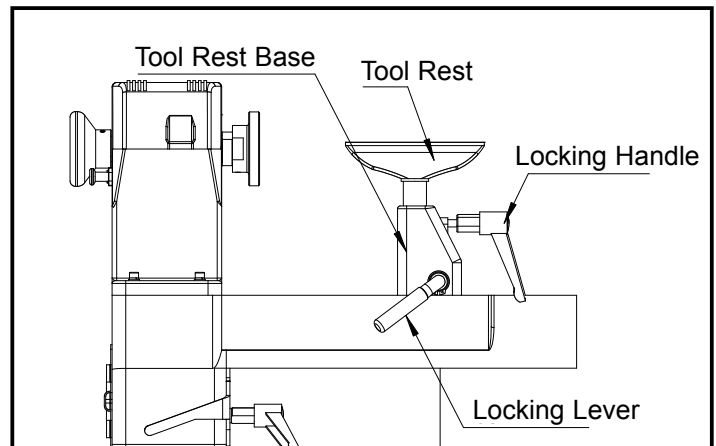


Fig.5.1

5.2 ADJUSTING TAILSTOCK

- Loosen locking lever to move the tailstock along the lathe bed to desired position. Tighten lever.

- To adjust clamping action of the tailstock, remove it from lathe bed and adjust nut clockwise to tighten and counterclockwise to loosen.

- To adjust tailstock spindle in or out, loosen locking handle and turn handwheel. When the tailstock spindle is in a desired position, tighten locking handle.

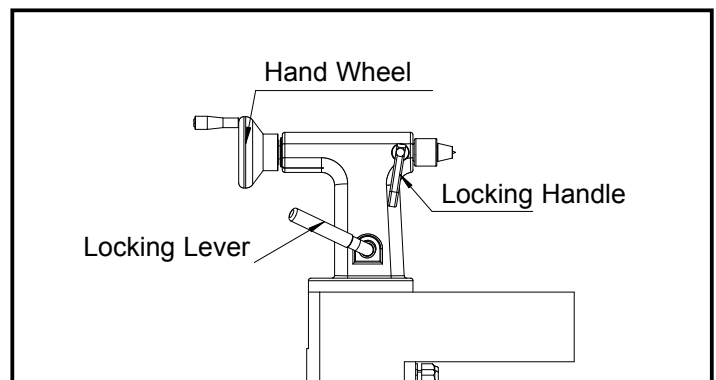


Fig.5.2

5.3 CHANGING SPINDLE SPEEDS

- The lathe features a three step motor and spindle pulleys to provide variable spindle speeds. Open access cover to change spindle speeds.
- With access cover open, loosen locking handle. Raise lever to release tension on motor pulley and tighten locking handle. Check speed and belt position chart in the front of the headstock to determine spindle speed required. Adjust the belt to proper tension with the raise lever and tighten the locking handle.
- Turn the speed control dial clockwise, the spindle speed will be increased. Turn counter clockwise, the speed will be decreased.
- Turn off the lathe, place the directional switch to FWD, the spindle is turn in clockwise. Switch to REW, the spindle will turn in counter clockwise.

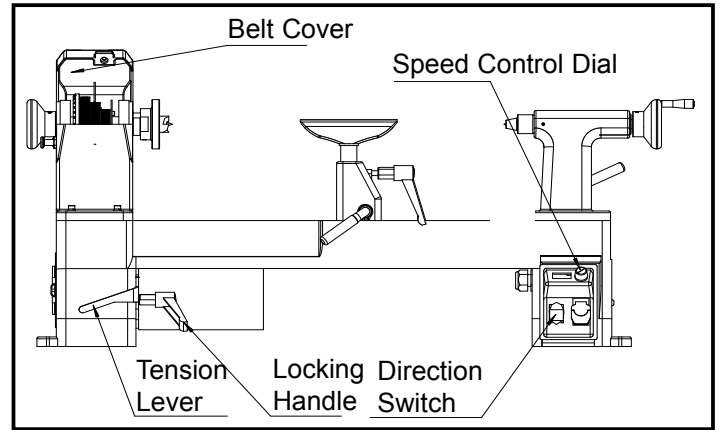


Fig.5.3

6. MAINTENANCE



CAUTION

Before cleaning or carrying out maintenance work, disconnect the machine from the power source (wall socket). Never use water or other liquids to clean the machine. Use a brush. Regular maintenance of the machine will prevent unnecessary problem.

- Keep the lathe bed casting clean and lubricated.
- Keep the outside of the machine clean to ensure accurate operation of all moving parts and prevent excessive wear.
- Keep the ventilation slots of the motor clean to prevent it from overheating.
- Remove all saw dust and chips from the lathe after each use.

7. TROUBLE SHOOTING



WARNING

For your own safety, always turn off and unplug the machine before carrying out any troubleshooting.

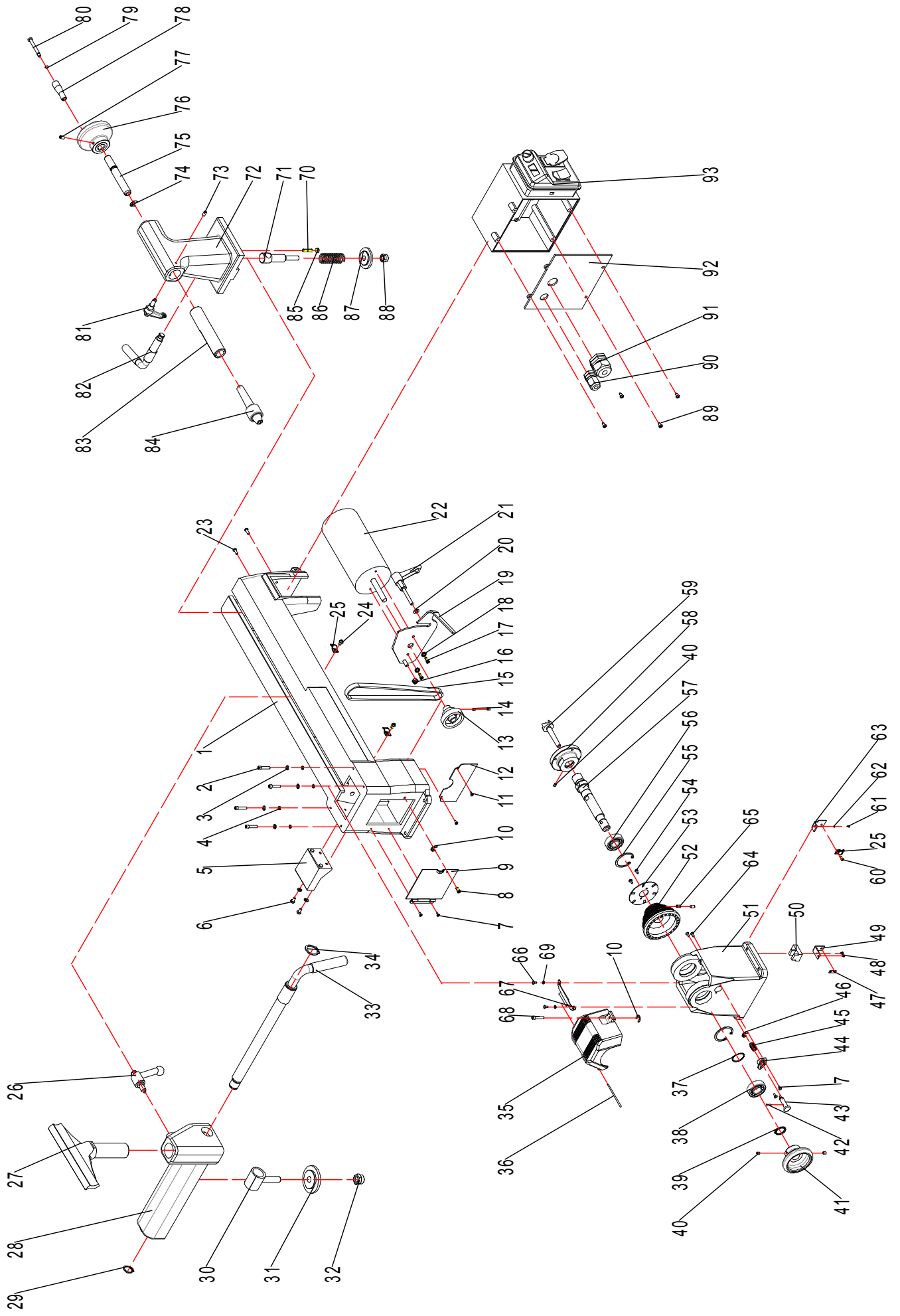
Symptom	Possible Cause	Solution
Motor will not start	Machine not plugged in Low voltage Loose connection	Plug the machine in
Motor overheats	Motor overloaded Air flow restricted on motor	Reduce load on motor Clean out motor to obtain normal air flow
Excessive motor noise	Bad motor Pulley set screw loose	Have motor checked Tighten set screw
Motor will not develop full power or stalls	Circuit overloaded with lights or other tools Circuit too long or undersized wires Voltage too low Circuit breakers do not have sufficient capacity Drive belt tension too high Use of extension cord	Decrease the load on the circuit Reduce the length of the wire or increase the wire size Have the voltage checked by an electrician Have a licensed electrician install proper size breaker Adjust belt tension Use heavier gauge extension cord or no extension cord
Machine bogs down during cutting	Excessive depth of cut Turning tools are dull	Decrease depth of cut Sharpen turning tools



WARNING

Do not make adjustments while the lathe is running, Ensure the switch is off, power is disconnected and all moving parts have stopped before servicing. Failure to comply may result in serious injury.

8. DIAGRAMS & COMPONENTS



No.	Description	Part No.	QTY.	No.	Description	Part No.	QTY.	No.	Description	Part No.	QTY.
1	Bed	JMWL1203010002A	1	32	Self-locking nut	M10GB889B	1	63	Plate	JMWL1203020014	1
2	Hexagon socket cap screw	M6X30GB70B	4	33	Locking lever	JMWL1203050004	1	64	Cross pan head screw	M4X16GB819B	2
3	Flat washer	WSH6GB97D1B	6	34	Retaining ring	CLP21GB894D1B	1	65	Socket head cap screw	M6X10GB80B	2
4	Lock washer	WSH6GB93B	4	35	Headstock cover	JMWL1203020001A-001S	1	66	Screw	M4X10GB823B	2
5	Tool holder	JL93010017-001S	1	36	Hinge shaft	JMWL1203020003	1	67	Hinge	JMWL1203020002B	1
6	Cross pan head screw	M6X12GB818B	2	37	Wave washer	JL93010008	1	68	Hexagon socket cap screw	M5X16GB70B	1
7	Countersunk head screw	M4X10GB819B	4	38	Bearing	BRG6204-2RS-P5GB276	1	69	Flat washer	WSH4GB97D1B	2
8	Cylinder head hex socket bolt	M5X12GB70B	1	39	Retaining ring	CLP20GB894D1B	1	70	Set screw	M5X25GB77B	1
9	Bed cover plate door	JMWL1203011000A	1	40	Socket head cap screw	M6X8GB80B	3	71	Threaded shaft	JMWL1203040002	1
10	Split washer	CLP5GB896B	2	41	Hand wheel	JMWL1203020013	1	72	Tailstock	JMWL1203040003A	1
11	Half-Countersunk head screw	M4X10GB818B	2	42	Roll pin	PIN3X14GB879B	1	73	Set screw	M5X12GB79B	1
12	Plate	JMWL1203010005	1	43	Index pin knob & shaft	JMWL1203020008	1	74	Retaining ring	CLP12GB896B	1
13	Motor pulley	JMWL1203010007	1	44	Locating sleeve	JMWL1203020011	1	75	Tailstock shaft	JL93030003	1
14	Socket head cap screw	M6X5GB80B	2	45	Spring	JMWL1203020009	1	76	Hand wheel	JMWL1203040005	1
15	Poly-v-belt	JMWL1203010001	1	46	Split washer	CLP9GB896B	1	77	Socket head cap screw	M6X8GB80B	1
16	Self-locking nut	M8GB889Z	1	47	Threaded plate	JL27010017	1	78	Rotation handle	JL93030007	1
17	Hex socket cap screw	M6X16GB70D2Z	2	48	Tapping screw	ST2D9X6D5GB845Z	2	79	Spring coil	JMWL1203040007	1
18	Lock washer	WSH6GB93Z	2	49	Support bracket	JMWL1203020012	1	80	Screw	JL93030008	1
19	Motor connecting plate	JMWL1203010004	1	50	Speed sensor	JMWL1203091001	1	81	Locking handle	JMWL1203041000	1
20	Big washer	WSH8GB96Z	1	51	Headstock	JMWL1203020005A	1	82	Tailstock locking lever	JMWL1203040001	1
21	Locking handle	KTSB-1-B-M8X63X25	1	52	Spindle pulley	JMWL1203020006A	1	83	Tailstock locking shaft	JL93030001	1
22	Motor	Z3612020	1	53	Segmented RMP plate	JMWL1203020007	1	84	Live center	JL93031000A	1
23	Hex socket cap screw	M6X16GB70D2B	2	54	Hexagon socket cap screw	M4X10GB70Z	2	85	Nut	M5GB6170B	1
24	Cross pan head screw	M5X10GB818B	2	55	Retaining ring C-clip	CLP47GB893D1B	2	86	Compression spring	JMWL1203040004	1
25	Cable plate	1502014-02	3	56	Bearing	BRG6005-2RSV2GB276	1	87	Clamping plate	JL93030012	1
26	Locking handle	KTSB-1-B-M8X63X32	1	57	Spindle	JMWL1203020004B	1	88	Self-locking nut	M10GB889B	1
27	Tool rest	JMWL1203050001A-001G	1	58	3" Face plate	JMWL1203020010B	1	89	Tapping screw	ST4D2X13GB845B	4
28	Tool rest base	JMWL1203050003	1	59	Spur center	JL93011100	1	90	M16 Pull off	JL91046300	1
29	Retaining ring	CLP15GB894D1B	1	60	Cylinder head hex socket bolt	M5X8GB70D1B	1	91	M20 Pull off	DJJH7120	1
30	Threaded shaft & sleeve	JMWL1203050002	1	61	Cross pan head screw	M4X8GB818Z	1	92	Electric box cover	JMWL1203090003-001S	1
31	Clamping plate	JL93030012	1	62	Flat washer	WSH4GB97D1Z	1	93	Electric box	JMWL1203091000F	1

