MODEL CARP 2032 XL
PROFESSIONAL WOOD LATHE

ALSO READ: Safety instructions for the CARP lathes

ALSO READ: Maintenance instructions for the CARP lathes

Table of contents

PLEASE READ THE INSTRUCTION MANUAL CAREFULLY BEFORE USING THE MACHINE
KEEP THIS INSTRUCTION MANUAL FOR FUTURE REFERENCE.

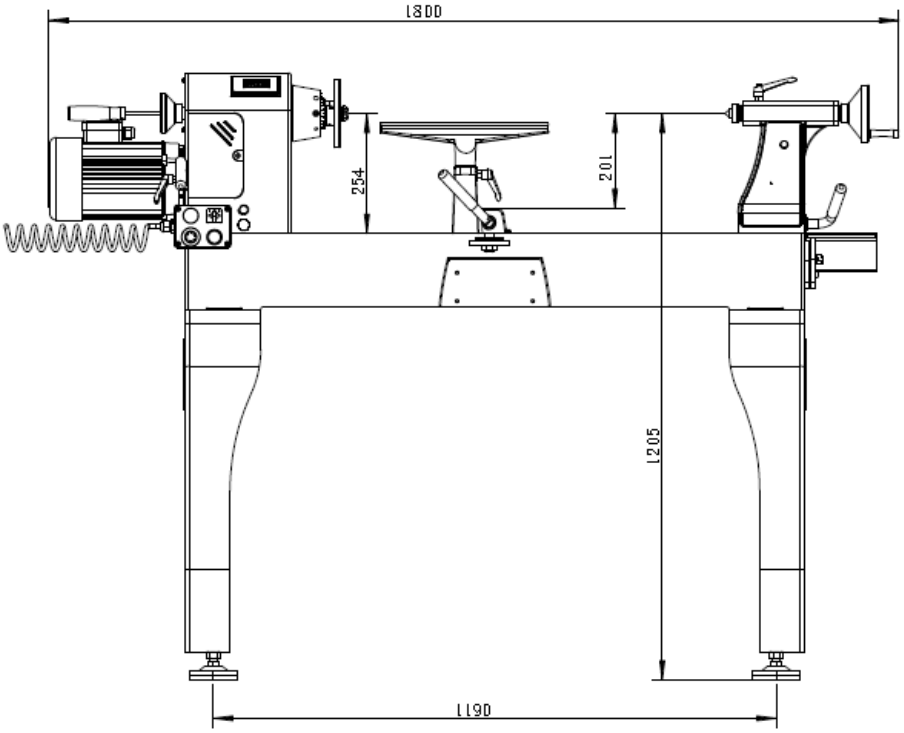
2. Technical specification

The following information represents the dimension and weight information and the manufacturer-approved machine data.

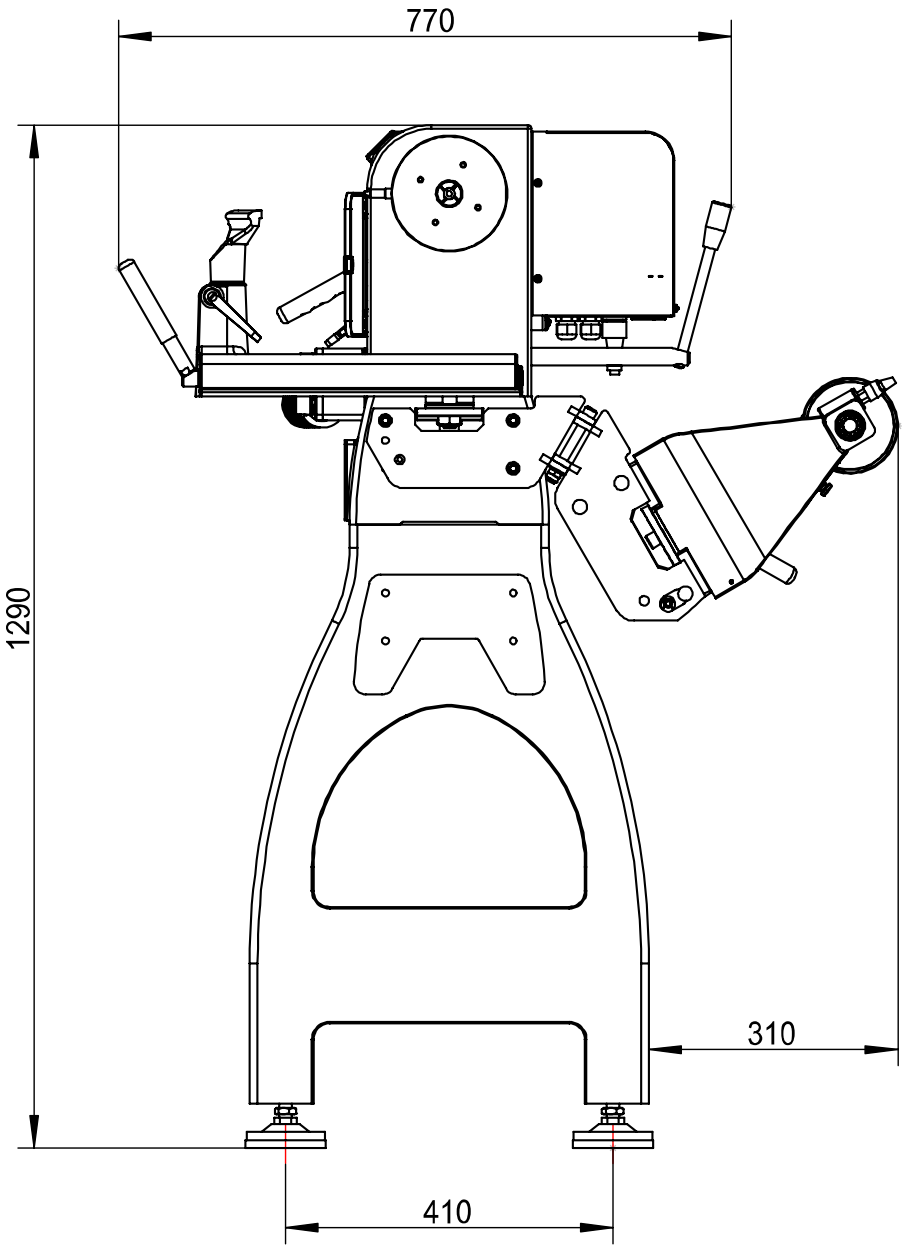
2.1 Specifications

Motor power/voltage/frequency	2250W 230V 50HZ
Number of spindle speeds	Variable in 2 ranges
Spindle speed (rpm)	0-1300 (low); 0-3550 (High)
Spindle thread	M33 X3.5 DIN 800
Spindle and tailstock cone	MC2
Faceplate diameter (mm)	152 (6")
Working width of tool support (mm)	355 (14"）
Distance between center points (mm)	813 (32")
Max. turning diameter (mm)	508 (20")
Max. turning diameter above Tool rest (mm)	402 (15.8")
Bed extension (mm) optional	457(18")
Index positions	36 positions
Fixed stops of the head	0°,45°,90°,135°,180°
Height of the spindle from floor (mm)	1172
Net weight (KG)	240KG
Overall dimensions LxWxH (mm)	1315 x 532 x 1225
Package size LxWxH (mm)	1400 x 630 x 630
Swing away	Standard mounting

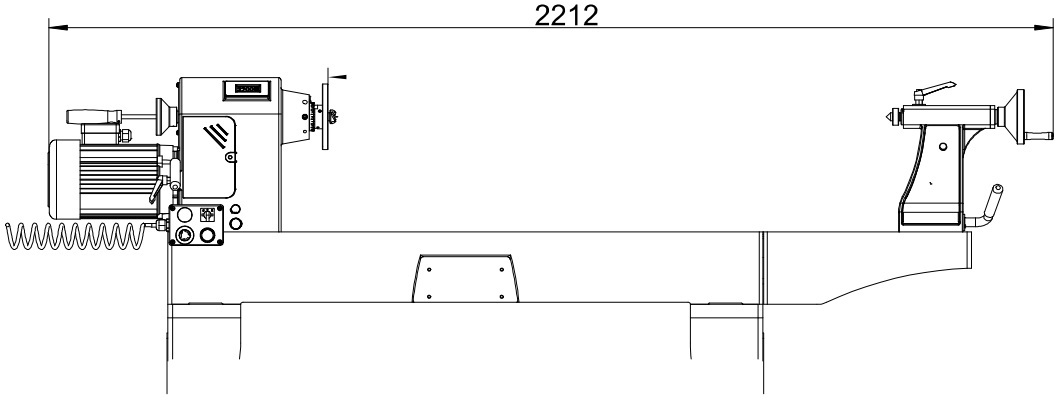
2.2 Dimensions & Placement Location



Consider the expected dimensions of the workpiece and the additional space required for additional stands, work tables, or other machines when determining a location for this machine in the workshop. Below is the minimum amount of space required for the machine.



The minimum length required would be 2212mm when fitting the bed extension.



3. Construction

The wood lathe is not delivered pre-assembled. After unpacking, we still have to do some installation work.

Transport the wood lathe in the packing box to a location near the final installation site before unpacking. If the packaging shows signs of possible shipping damage, take the necessary precautions so as not to damage the machine when unpacking. If damage is discovered, the carrier and/or shipper must be notified immediately in order to make any claims.

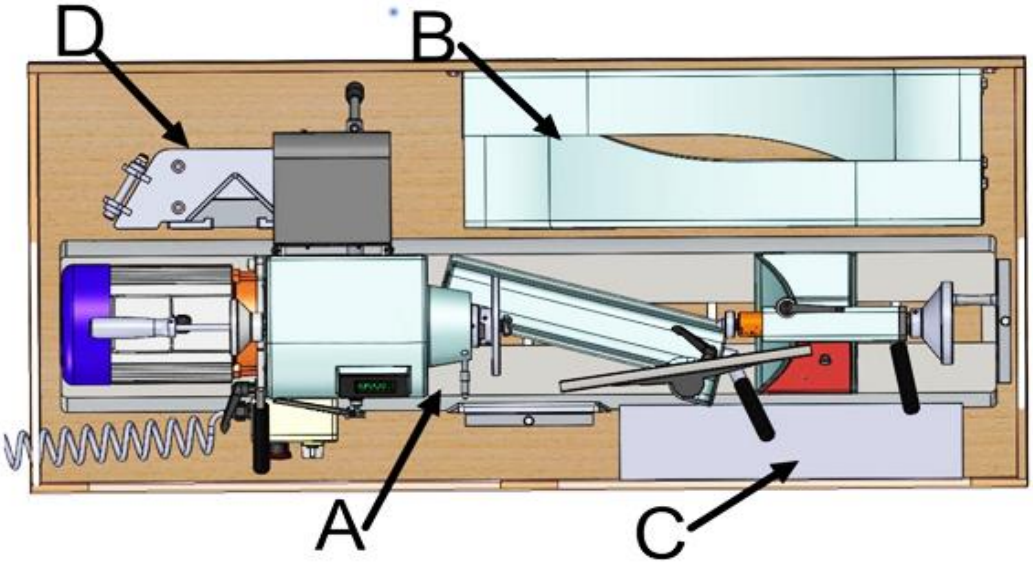
Please read and understand the entire contents of this manual before attempting to set up or operate! Failure to comply with this can cause serious injury.

3.1 Needed for Installation

This machine is heavy. DO NOT overexert yourself while unpacking or moving the machine – ask for help!!

3.2 Unpacking the Machine

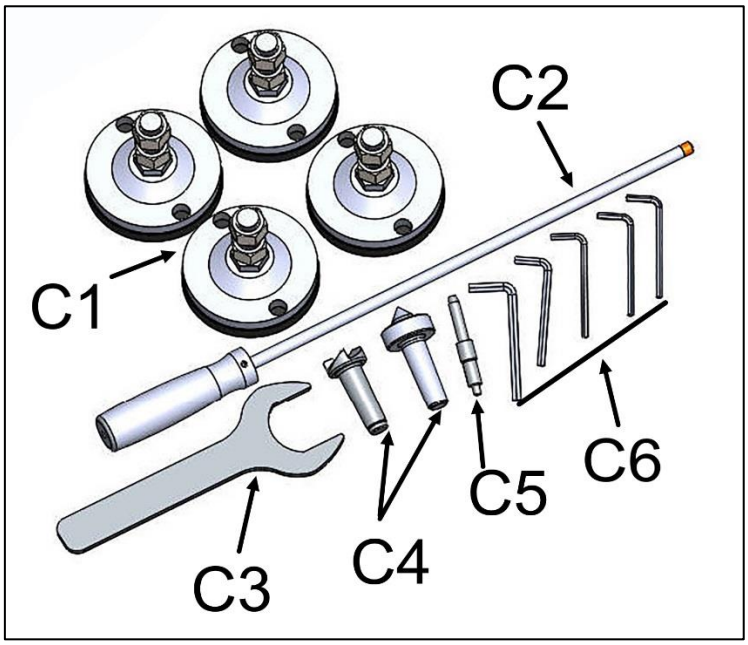
The machine is packed in a plywood box, when unpacking you can see the following items:



A: Assembly of the main machine	C: Accessory box
B: Cast iron leg	D: Mounting of the tailstock can be swiveled away

Inspect the machine completely and carefully, ensuring that all materials and accessories supplied with the machine have been received.

In the accessory box (C) are some necessary tools packed, put them down and check:



C1: Four leveling feet	C4: center and live center
C2: rod emissions	C5: Indexes
C3: open-end wrench	C6: Allen keys

If you cannot find an item on this list, please check carefully around/inside the machine and packaging material. Often, these items get lost in packaging materials during unpacking or are pre-installed in the factory.

3.3 Cleanup

The machine's unpainted surfaces are coated with a robust rust inhibitor that prevents corrosion during transport and storage.
This rust inhibitor works extremely well, but it will take some time to clean.
Be patient and clean your machine thoroughly. You will enjoy it a lot later.

Basic steps for rust prevention removal:
1. Put on safety goggles.
2. Coat the rust inhibitor with a generous amount of cleaner/degreaser and then leave it on for 5-10 minutes.
3. Wipe down the surfaces. If your cleaner/degreaser is effective, the rust inhibitor can be easily wiped off. If you have a plastic paint scraper, scrape off as much as you can first and wipe the rest with the cloth. (for example, use turpentine as a degreaser)
4. Repeat **steps 2-3** as needed until clean, then coat all unpainted surfaces with a high-quality metal protector to prevent rust. For example, Unispray from Agealube. (available via dehoutdraaierij.nl).

Avoid chlorine-based solvents, such as acetone or brake parts cleaner, which can damage painted surfaces.

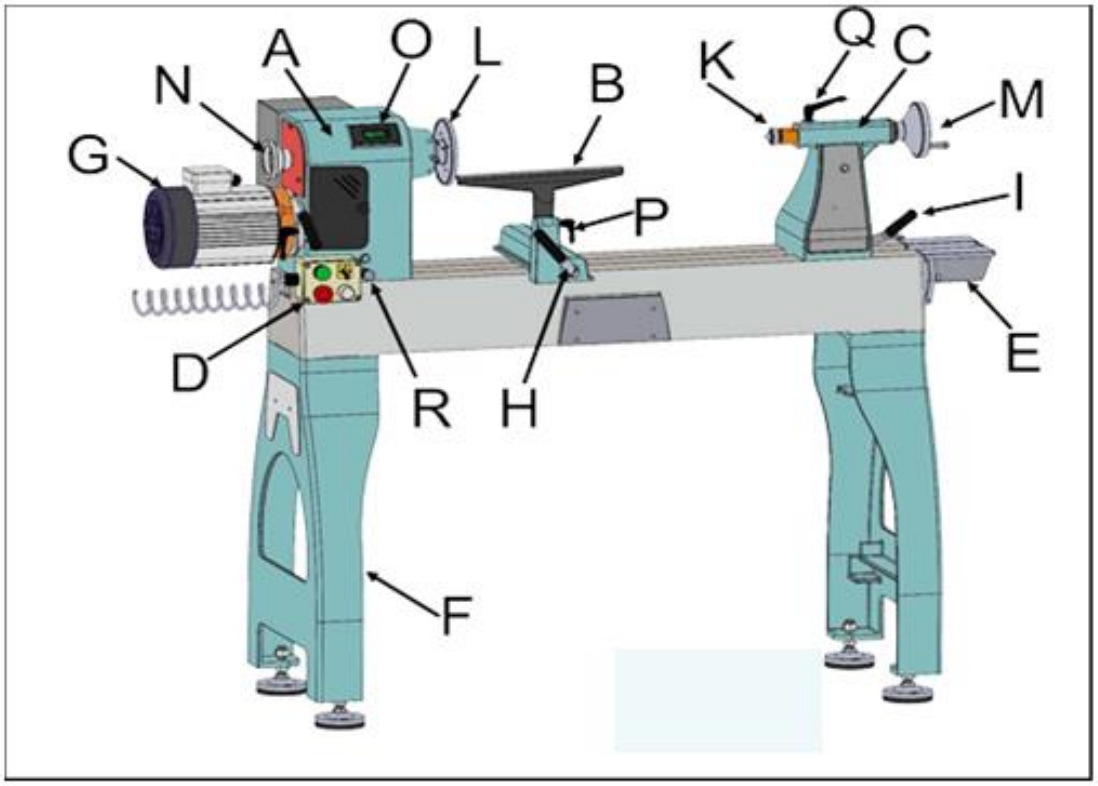
3.4 Structure

The machine must be fully assembled before it can be used. To ensure that the assembly process goes smoothly, first clean any parts that are covered or coated with heavy rust inhibitor (if applicable).

The lathe must be disconnected from power during assembly. Use an assistant or a hoist to lift objects.

3.4.1 Know Your Wood Lathe

Become familiar with the names and locations of the controls and functions shown below to better understand the instructions in this manual.

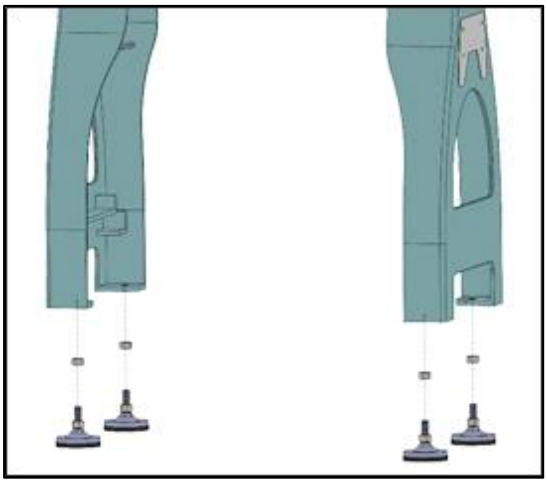


A. Headstock	I. Tailstock locking lever
B. Tool rest	K. Quill
C. Tailstock	L. Faceplate
D. Magnetic Control Box	M. Tailstock handwheel
E. Swing Away	N. Headstock handwheel
F. Cast iron legs	O. Display
G. Engine	P. Locking lever for tool rest
H. Locking lever for the tool rest holder (banjo)	Q. Quill locking lever

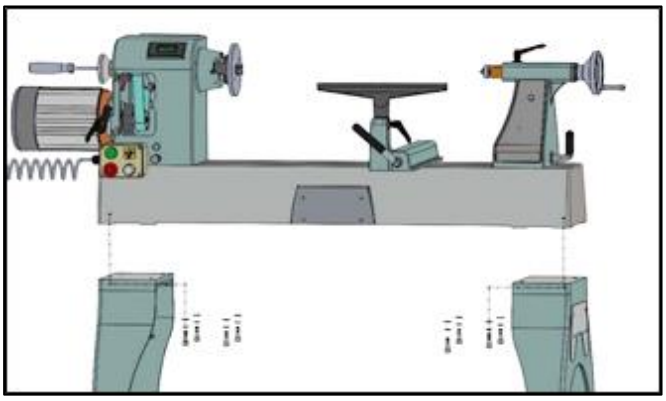
3.4.2 Assembling the Machine

Remove any screws or straps securing the lathe parts to the pallet and remove the protective packaging. Set aside all boxes with legs and accessories.

1. Stand the legs upright and align them fairly well. Screw the feet into the threaded holes of the legs. The feet can be adjusted at any time to ensure that the lathe is stable and level. Tighten the hex nuts against the bottom of the legs to ensure height adjustment.

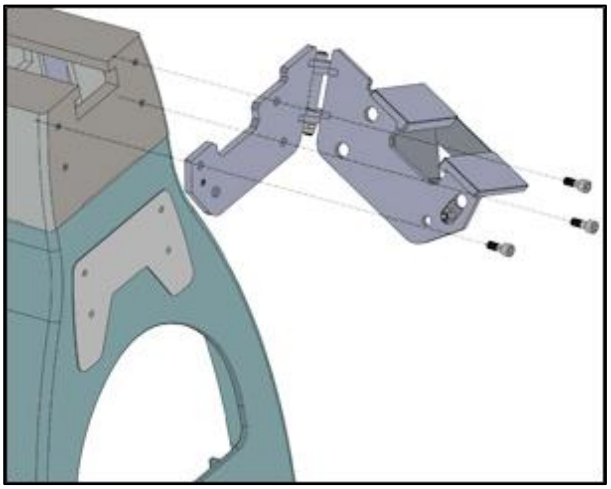


2. Wrap the slings around the bed at both ends. The straps should be placed next to the bed's attachment points to maintain the best balance. Use at least 2 other people to carefully place the lathe on the legs. Once the mounting holes are aligned, attach the lathe to the legs. If necessary, use a board and glue clamps to fix the legs as long as the bed is not yet attached to them.



To make lifting easier, we can reduce the weight on the lathe bed: remove the stop bolt at each end of the bed and slide off the head and tailstock.

3. Install the Swing Away tailstock hinge to the bed with bolts. Make sure that the Swing Away part is properly aligned with the bed.



3.5 First use

Once assembly is complete, do a test run on the machine to ensure that it is properly connected to power and that the safety components are working correctly. If you find an unusual

problem during the test run, immediately stop the machine, unplug the power cord and resolve the problem before using the machine again. The troubleshooting table in this guide may help.
The test run consists of checking that the engine starts up and runs correctly.

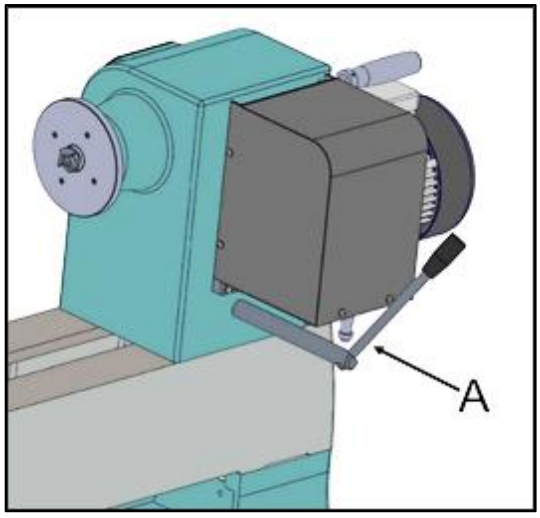
To test the machine:

1. Remove all adjustment tools away from the machine.
2. Make sure the spindle is not locked.
3. Move the rotational direction switch to the neutral position and turn the speed control knob all the way counterclockwise.
4. Press the emergency stop button.
5. Connect the machine to the power supply. The digital readout should light up.
6. Turn the emergency stop knob clockwise until it pops out. This resets the "on" switch.
7. Press the green button.
8. Check that the machine is operating correctly by turning the rotational direction switch to the "FWD" position, then slowly turning the speed control knob clockwise.
9. Turn the speed control knob all the way to the left.
10. Turn the spindle rotation direction switch to the "REV" position and slowly turn the speed control knob clockwise.
11. Move the axis rotation direction switch to the neutral position and press the emergency stop button.
12. Without resetting the emergency stop button, turn the spindle direction switch to the "FWD" and "REV" positions. The machine must not start in either position.

3.6 Adaptation

3.6.1 Head Adjustment

The head of this lathe is equipped with a cam clamp system to attach it to the lathe bed. When the handle is tightened, a locking plate under the bed rises and secures the head in place. The head can be placed anywhere along the lathe bed.

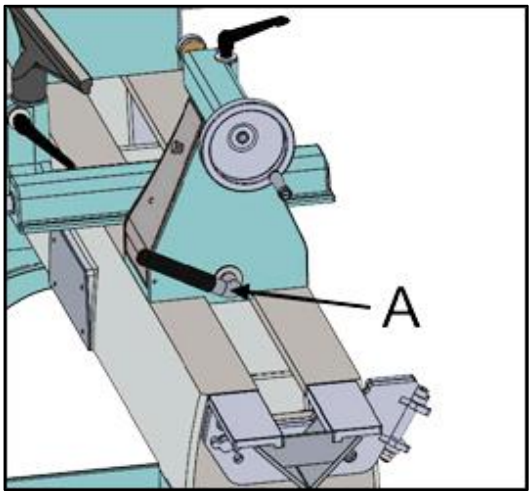


To position the head along the length of the bed:

1. Unplug the machine from the socket!
2. Loosen the head locking lever (A).
3. Slide the head to the desired location on the bed and use the locking lever to secure the head again.

3.6.2 Tailstock Adjustment

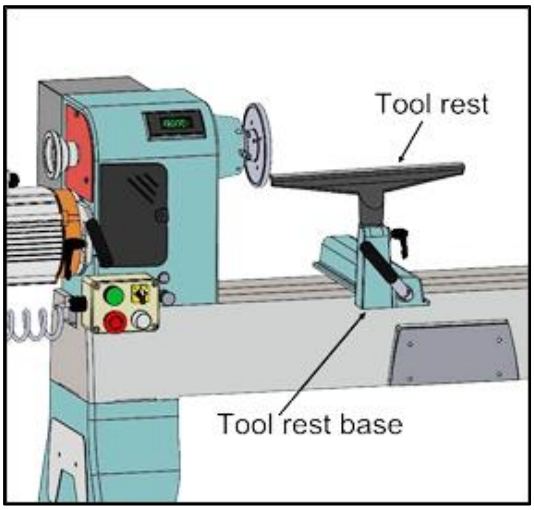
The tailstock adapts in the same way as the Headstock.
To place the tailstock along the length of the bed:
1. Loosen the tailstock locking lever (A) and move the tailstock to the desired position along the bed.
2. Retighten the tailstock locking lever to secure the tailstock to the bed.



Note: The large clamping lock nut under the tailstock needs to be adjusted occasionally to ensure the correct clamping pressure of the tailstock on the bed.

3.6.3 Adjusting the tool rest

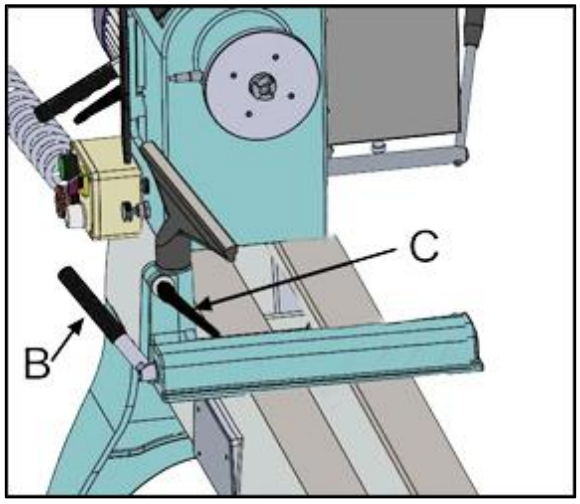
The tool rest consists of two components: the holder of the tool rest (banjo) and the tool rest. The holder of the tool rest moves forwards/backwards and along the length of the lathe bed. The tool rest rotates and moves up and down in the holder of the tool rest. Locks for both components allow you to hold the tool rest in place after making these adjustments. When adjusting the tool rest, place it as close to the workpiece as possible without actually touching it. This maximizes edge support and minimizes leverage, reducing the risk of snaps, chisel breakage, and accidents.



As a rule of thumb: For most turning operations, the cutting tool should make contact with the workpiece slightly above the centerline.
The purpose when adjusting the tool rest is to provide maximum support for the type of tool being used, in a position that is safe and comfortable for you.

If improperly supported or positioned cutting tools "snaze" on the workpiece, the tool can be thrown out of your hands with great force. To reduce this risk, always make sure that the tool rest is positioned correctly for the type of operation, that the cutting tool is firmly supported by the tool rest.

Adjusting the tool rest:



1. Loosen the locking lever of the tool rest base (B) and move the tool rest to the desired position on the lathe bed.

Note: To maximize support, the tool's support base should always be locked on both sides of the bed. Never pull the tool rest so far back that it is only attached on one side.

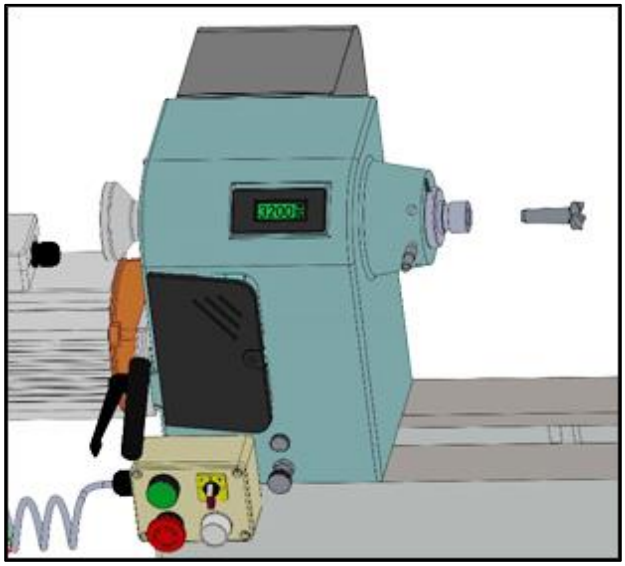
2. Retighten the support base locking lever to hold the tool rest in place.

Note: The large clamping lock nut under the base of the tool rest must be adjusted occasionally to ensure the correct clamping pressure of the tool rest on the bed. Rotate this lock nut in small increments to fine-tune the clamping pressure as needed.

3. Loosen the locking lever of the tool rest (C).
4. Place the tool rest in the desired position.
5. Retighten the tool rest (C) locking lever to hold the tool rest in place.

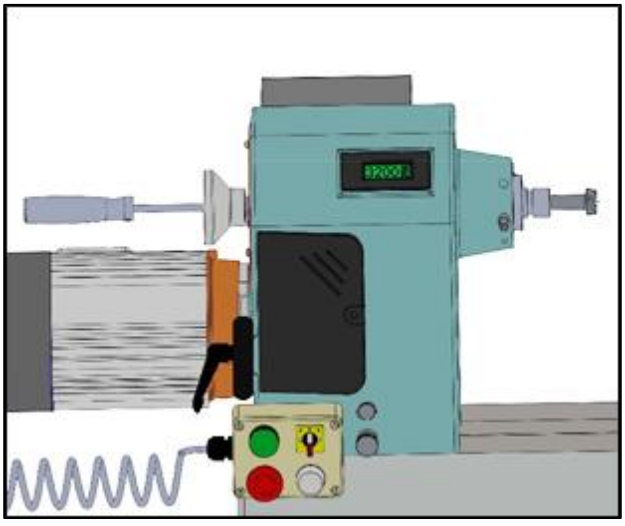
3.6.4 The fixed cup

The Takeaway



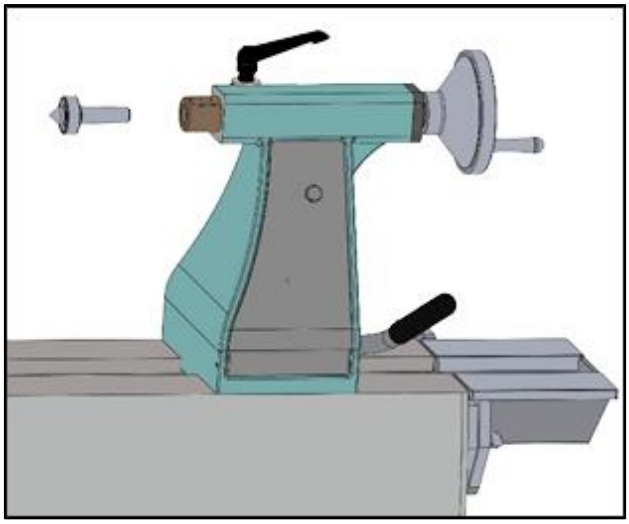
1. Make sure that the morse cone of the center (the cleat) and the intake in the spindle are clean and free of grease.
2. Insert the tapered end (the Morse cone cone) of the center into the spindle and push it in with a quick, firm motion.
3. Make sure the center is securely installed by trying to pull it out by hand.

To remove the cleat:



1. Insert the ejector rod through the spindle and tap firmly on the center. Catch the center with the other hand.
2. If necessary, use a cloth or a glove to catch the center.

3.6.5 The live center

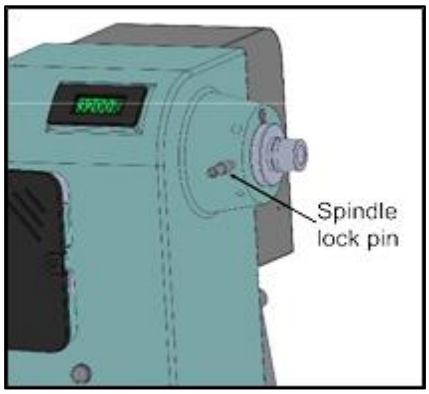


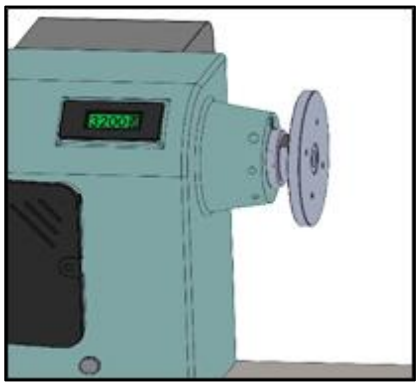
1. Loosen the pin latch lever and rotate the handwheel until the pin spindle protrudes approximately 1 cm.
2. Make sure that the mating surfaces of the center and the spindle are free of dirt and oily substances before inserting the live center. This prevents the live center from rotating in the axis.
3. Insert the tapered end of the live center firmly into the spindle of the tailstock.
4. Make sure the live center is securely installed by trying to pull it out by hand – a correctly installed live center will not be easy to pull out.
5. Secure the spindle in place by re-tightening the spindle latch lever.

Removing Tegencenter

1. Turn the handwheel counterclockwise – the quill will retract into the tailstock, pushing the center out.
2. If necessary, use a cloth or wear a glove to catch the center.

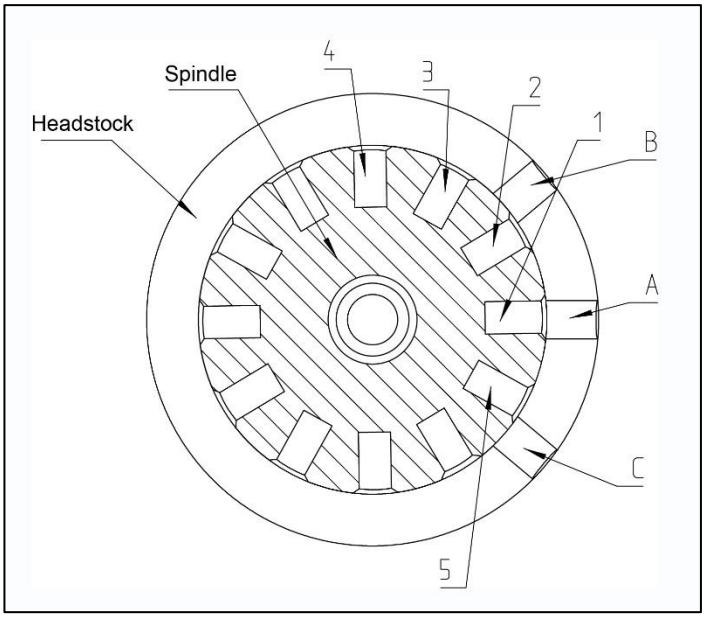
3.6.6 Face plate (faceplate)





1. Push the spindle locking pin into the holes to prevent the spindle from rotating while tightening the faceplate.
2. Rotate the faceplate on the spindle until it is secure.
3. Tighten the screws along the collar of the faceplate to secure it to the spindle or use a drain fuse (CARP ASR ring).

3.6.7 Indexing/Spindle Lock



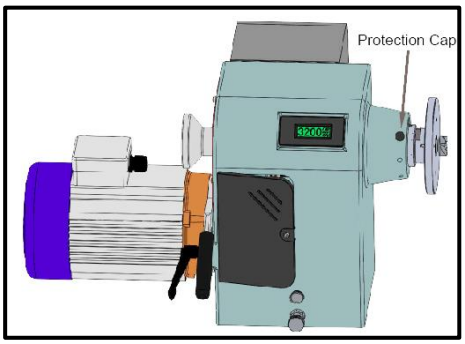
Indexing on a lathe is typically used to perform operations that require equal distances around the circumference of the workpiece. Think of watch faces or inlays.
There are 12 holes on the spindle, so they are 30 degrees apart. The 3 holes on the head are 40 degrees apart.

For 10 degrees of indexing: line 1 and A off as the starting position. When the spindle rotates clockwise, 5 aligned with C, this locates the 1st position of 10 degrees. The axis continues to rotate clockwise, 3 is aligned with B, this locates the 2nd position of 10 degrees. The axis continues to rotate clockwise, 2 is aligned with A, this locates the 3rd position of 10 degrees. Repeat the cycle for further positions.

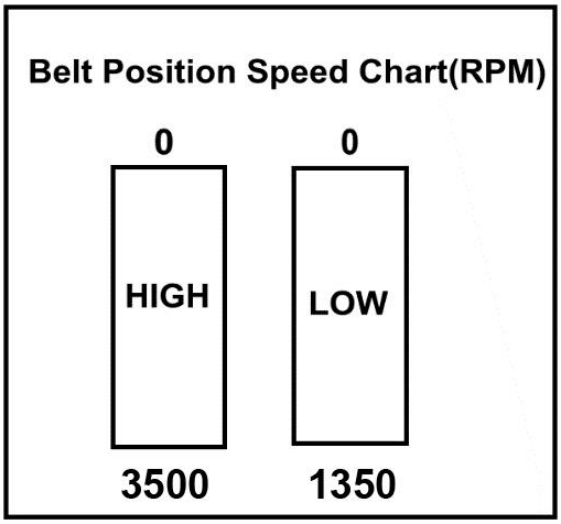
For 20 degrees of indexing: line 1 and A off as the starting position. When the spindle rotates clockwise, 3 aligns with B, this locates the 1st position of 20 degrees. The axis continues to rotate clockwise, 1 is aligned with C, it locates the 2nd positions of 20 degrees. Then 3 is simply aligned with A for further positions.

For 30 degree indexing: choose one hole on the head as the initial position, and use this hole only to align each hole on the spindle to locate 30 degree positions.

Remove the protective cap
if necessary



3.6.8 Adjusting the Speed

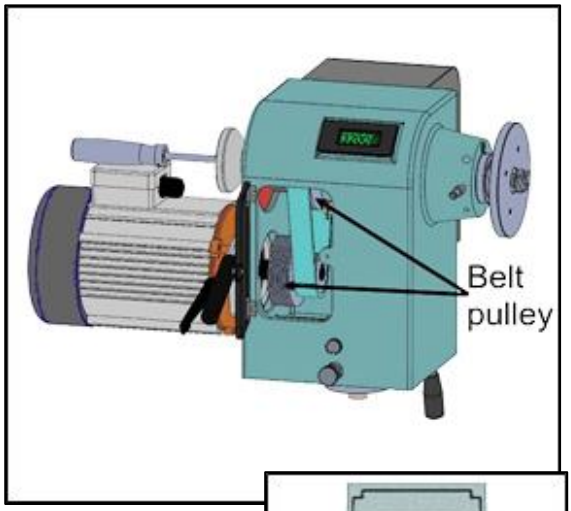


The pulley configurations on this lathe offer two speed ranges.

Note: Use the low speed pulley on large and/or unbalanced pieces of wood. Use higher speeds for fine cuts and detailed work on smaller diameter pieces. Set the suitable speed range by adjusting the belt position. Change the speed within a speed range using the speed adjustment knob. The speed is shown on the display on the Headstock.

Change speed ranges:

1. Open the strap access cover (A).
2. Loosen the belt tensioning lever (B).
3. Use the belt tensioner lever (C) to lift the motor all the way up, then retighten the belt tensioner lever – it will hold the motor in place while you change belt position.
4. Reach into the access cavity of the belt and roll the belt onto the desired set of pulleys.
5. Loosen the belt tensioning lever and lower the motor.
6. Apply downward pressure to the belt tensioning lever to properly tension the drive belt, then retighten the belt tensioning lever.
7. Close the lid.

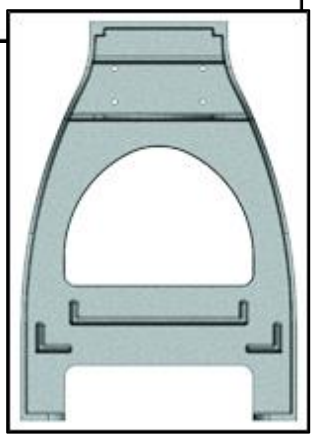


3.6.9 Speed Recommendations

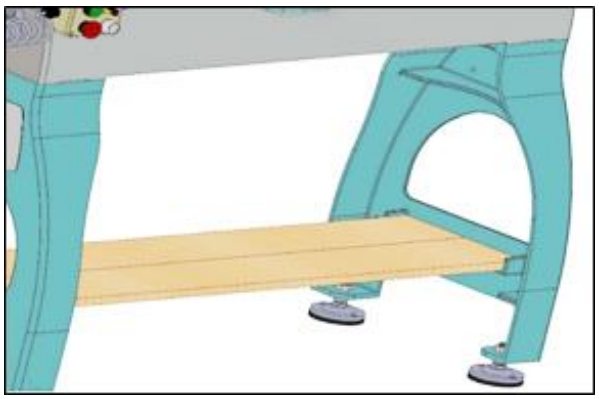
High RPM is best when turning a small diameter workpiece where a clean finish is required and light cuts are made. A low range, which has more torque, is best when turning a large workpiece that requires a lot of material to be removed. Use the speed knob to adjust the spindle speed within each range.

3.7 User-made shelf (optional)

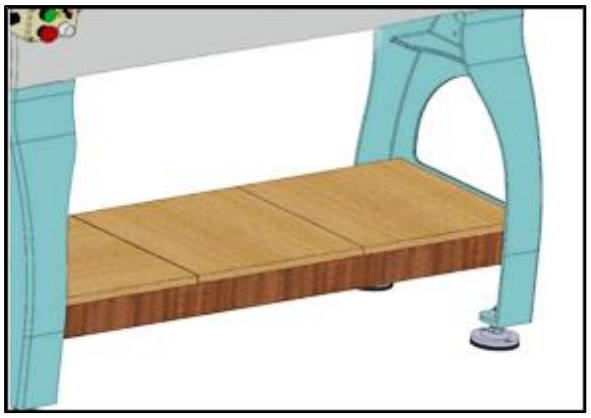
The double ridges on the inside of the lathe's legs provide support for a shelf (not included), which is useful for storing larger items as well as adding extra weight to the lathe. This benefits stability.



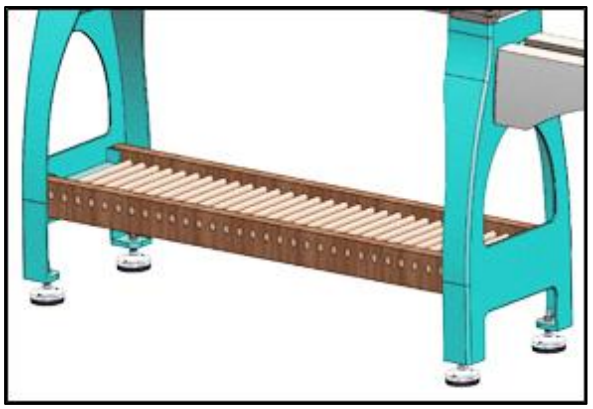
Plank Style 1: Lay two planks flat on the inner ledges.



Plank Style 2: Place two planks on the edge in the outer ridges. Cut two pieces from a plywood sheet and screw them to the top edges of the two boards. Make sure that the pieces of plywood are flush with the outer edge of the two planks

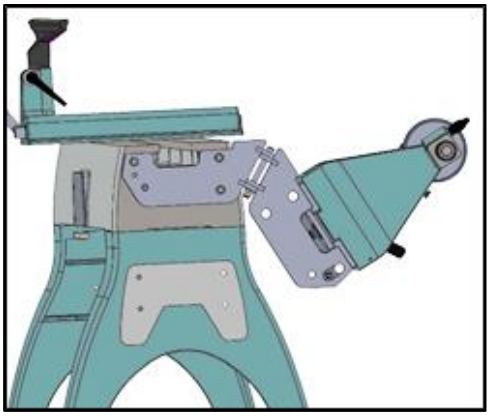


Shelf Style 3: A basket-style shelf consisting of two shelves and dowel rods. The advantage of this design is that most of the wood chips fall through the board instead of accumulating on it.



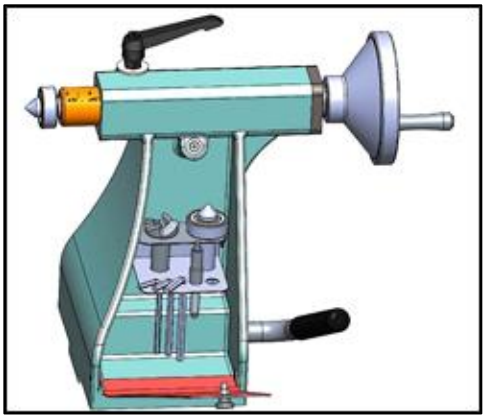
3.8 The Swing Away

This lathe is equipped with a swivel function of the tailstock. Under certain working conditions, such as hollowing out or mounting an extension bed, we can quickly swing the tailstock of the lathe out of the way.



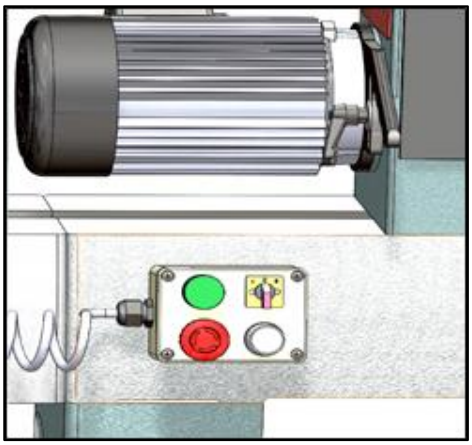
3.9 Tailstock Storage

A small storage space has been created in the tailstock. Convenient for users to store small accessories such as the centers, keys, etc.



3.10 Magnetic Mobile Control Box

The remote control is magnetic and can therefore be attached to almost all places on the couch.



4 Operation

This manual is not intended to be an instruction guide. Read through this entire manual and to learn more about specific operations, seek additional training from experienced machine operators, and do additional research outside of this manual by reading "how-to" books, trade journals, or websites.

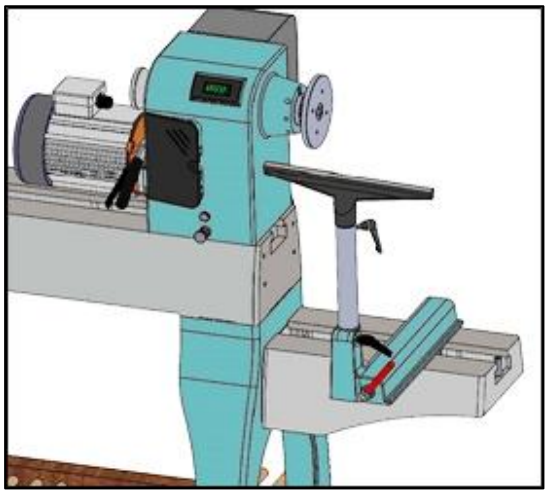
If you have no experience with this type of machine, we strongly recommend that you undergo additional training outside of this manual. Read books/magazines or get training before starting projects.

4.1 Turning with the external turning device

We turn outboard when the diameter of the workpiece is larger than it fits above the bed.
This lathe can be easily configured for outboard turning by sliding the tailstock onto the Swing Away and turning it out of the way. The head can then be moved all the way to the end of the bed.

The external turning device (optional) consists of a bed extension and the tool support risers.

1. Loosen the tailstock, slide it onto the Swing Away and twist it out of the way.
2. Install the bed extension to the legs of the lathe. Place the tool rest risers into the tool rest...
3. Detach the head, then move it all the way to the end of the lathe bed.
4. Screw the head back to the bed.



5. Turning Tools

Lathe tools come in a variety of shapes and sizes and are beyond the scope of this guide. Use chisels that are suitable for woodturning. So no sharpened files or converted spanners.

WARNING: Select the appropriate tool for your job. Make sure all tools, chisels, and accessories are sharp before using them.
DO NOT use bone or damaged tools!!

If possible, choose only high-quality tools made of HSS steel. High-speed steel tools last longer than high-speed steel.

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6 Troubleshooting

6.1 Motor and electric

Symptom	Possible cause	Possible solution
The machine does not start or shuts down immediately after start-up.	1. Emergency stop button pressed. 2. Incorrect supply voltage or circuit size. 3. The power supply circuit breaker has tripped or the fuse has blown. 4. Motor wires connected incorrectly. 5. Wiring open/has high resistance. 6. ON/OFF switch in case of malfunction. 7. Emergency stop button in case of malfunction. 8. Variable speed potentiometer in case of defect. 9. Inverter/control cabinet in default. 10. Engine at fault.	1. Turn the knob clockwise to reset. 2. Ensure the correct supply voltage and circuit size. 3. Make sure the circuit is the right size and free of short circuits. Reset the circuit breaker or replace the fuse. 4. Correct the connections of the motor wiring. 5. Check/repair broken, disconnected, or corroded wires. 6. Replace the switch. 7. Replace. 8. Replace. 9. Inspect the inverter/controller box; replace. 10. Repair/replace.
The machine jams or has too little power.	1. Machine undersized for task. 2. Workpiece material not suitable for machine. 3. Feeding rate/cutting rate too high.	1. Use sharp chisels; Reduce the speed/depth of cut. 2. Process only wood. 3. Reduce the feed rate/cutting rate.

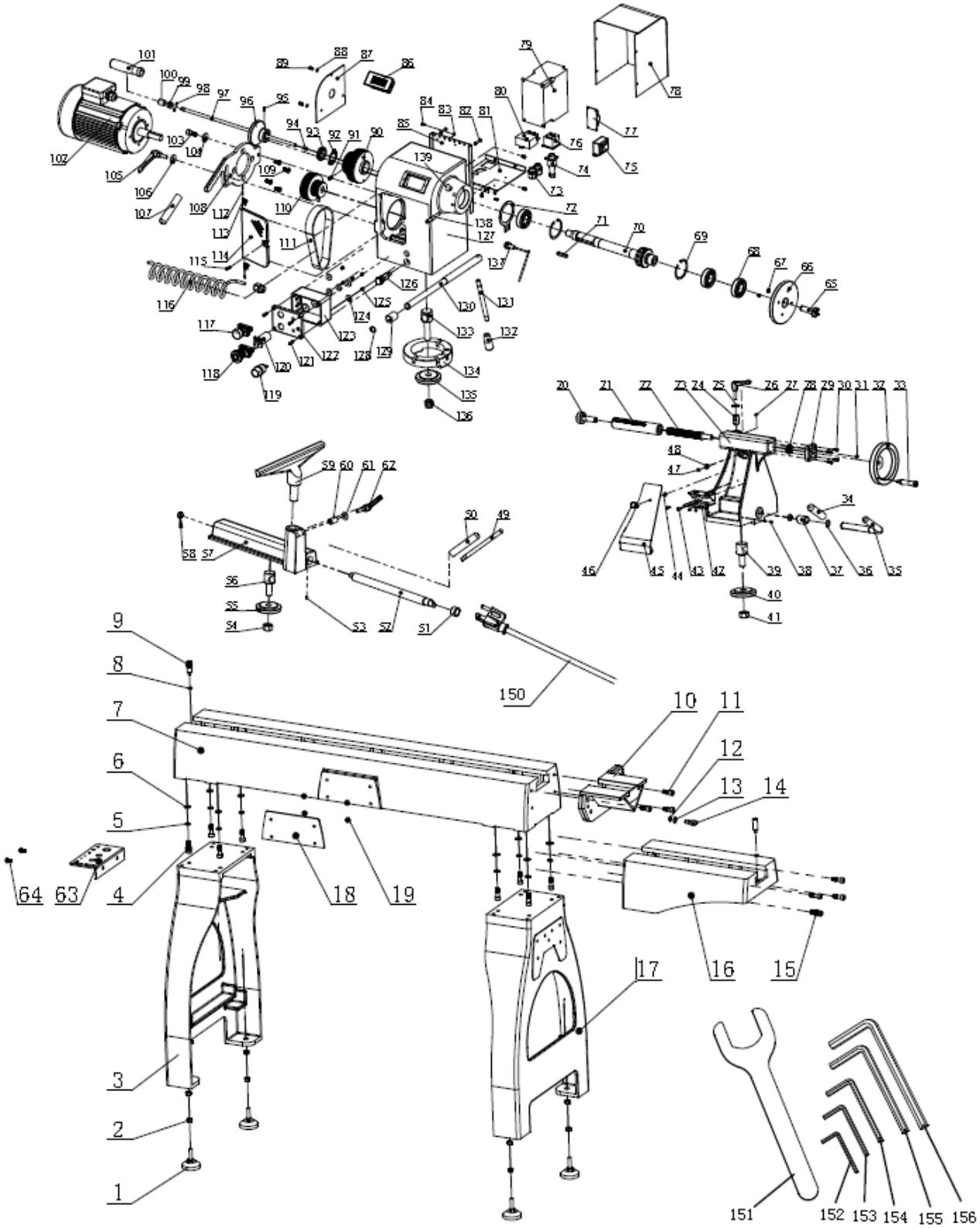
	4. Belt slips. 5. pulley slips on the spindle. 6. Engine overheated. 7. Engine wired incorrectly. 8. Plug/socket defective. 9. Engine at fault.	4. Tensioning/replacing the belt; make sure the pulleys are aligned; Belts are clean and not damaged. 5. Replace the loose pulley/spindle; Tighten the pulley kit screws. 6. Clean the engine, allow to cool and reduce the working pressure. 7. Connect the motor correctly. 8. Test for good contacts/correct wiring. 9. Repair/replace.
The machine works with vibration or noise.	1. Engine or part loose. 2. Machine installed incorrectly or uneven on the floor. 3. Belt worn, loose or flapping cover. 4. Pulley loose. 5. Motor fan rubs the fan cover. 6. Engine mount loose/broken. 7. Engine bearings at fault. 8. Workpiece/faceplate in default.	1. Inspect/replace damaged bolts/nuts and retighten with threadlocker fluid. 2. Tighten/replace the anchor bolts in the floor; moving/filling the machine; Adjust feet. 3. Inspect/replace the belt. Make sure the pulleys are aligned. 4. Align the pulley and tighten the pulley adjustment screw. 5. Protect or replace the fan cover; Replace loose/damaged fan. 6. Tighten/replace. 7. Test by rotating the spindle. Replace the bearings. 8. Center the workpiece in the chuck/faceplate; Reduce the speed.

Excessive vibration at start-up (when the workpiece is installed).	1. The workpiece is assembled incorrectly. 2. Workpiece deformed, not round or defective. 3. The lathe rests on an uneven surface. 4. Spindle speed too high for workpiece. 5. Workpiece that hits a stationary object. 6. Tailstock or tool rest is not securely clamped to the lathe bed. 7. The pulleys are misaligned. 8. The bolts of the motor mount are loose. 9. The belt is worn or damaged. 10. Spindle bearings are worn or damaged.	1. Reassemble the workpiece and make sure it is better balanced. 2. Cut the workpiece better or use a different workpiece. 3. Adjust the feet to prevent wobbling. 4. Reduce the spindle speed. 5. Stop the lathe and fix the problem. 6. Check the locking levers and tighten them if necessary. 7. Align pulleys. 8. Tighten the bolts of the motor mount. 9. Replace the belt. 10. Test by turning spindle, replace the bearings.
Chisel bites in paper	1. The wrong chisel was used. 2. Wrong tool technique. 3. The tool rest is placed too far from the workpiece.	1. Use the right chisel. 2. Take a course. 3. Position the tool rest closer to the workpiece.
Tailstock moves under load.	1. Tailstock mounting bolt/hex nut is loose. 2. The bed or clamping surface is dirty or greasy.	1. Tighten the mounting bolt/hex nut. 2. Clean the bed or clamping surface to remove excess

		oil/grease.
The spindle has no rotational force or starts up slowly.	1. Belt slips. 2. pulleys loose. 3. Workpiece too heavy for spindle.	1. Tighten/adjust the belt. 2.Align the pulley and tighten the pulley adjustment screw. 3. Remove excess material before reassembling; Use a lighter workpiece.
The spindle does not move forward when the handwheel is turned	The keyway is not aligned with the quill locking lever.	1. Align the keyway and spring lock lever.
Display does not give a reading; Reading incorrect.	1. Shorted/disconnected wiring/plugs. 2. Variable speed potentiometer in case of defect. 3. Speed sensor at fault. 4. Circuit board defective.	1. Inspect the wiring connections on circuit boards, sensors, and plugs. Replace/repair if necessary. 2. Test/replace in case of malfunction. 3. Test/replace in case of malfunction. 4. Inspect/replace if something is wrong.

7. Diagram and parts list

7.1 Diagram



7.2 Parts List

No.	Description	Size	Number
1	Leveling feet		4
2	Hexagonal nut	M16	8
3	Left cast iron leg		1
4	Hex screw	Content 10x30	8
5	Retaining ring	10	8
6	Flat ring	10	8
7	Bed		1
8	Retaining ring	8	1
9	Stop bolt		1
10	Hinge		1
11	Hex screw	Content 10x25	3
12	Lock ring for axle	9	1
13	Flat ring	10	1
14	Handle		1
15	Hex screw (optional)	Content 10x30	1
16	Bed extension (optional)		1
17	Right cast iron leg		1
18	Support plate		1
19	Hex nut	M8	4
20	live center		1
21	Quill		1
22	Guide screw		1
23	Tailstock		1
24	bolt		1
25	ring		1
26	Handle	Content 10x25	1
27	Hex screw	M6x12	1
28	Ball bearing		1
29	Tailstock lid		1
30	Hex screw	Capacity 5x14	4
31	Hex screw	M6x10	1
32	Handwheel		1
33	Handle		1

No.	Description	Size	Number
43	Head screw	M4x8	2
44	Hex nut	M5	1
45	Tailstock lid		1
46	Screw		1
47	Screw	M4x8	1
48	Magnet		1
49	Steering wheel		1
50	Handle sleeve		1
51	bushing		1
52	Eccentric Bar		1
53	Screw	M6x6	1
54	bolt	M18	1
55	Fixed plate		1
56	Locking support		1
57	Banjo, tool rest holder		1
58	Round cover		1
59	1" Tool rest		1
60	Nut		1
61	ring		1
62	Handle	Content 10x25	1
63	Na		1
64	Screw	M8x16	2
65	Center		1
66	Faceplate		1
67	Screw	M6x10	2
68	Ball bearing	6206	3
69	Retaining ring	62	2
70	Spool		1
71	Flat wrench	A8x60	1
72	Support plate		1
73	Strain relief	Capacity 20X1.5	3
74	plug		1
75	Reactor		1

34	Handle sleeve		1
35	Locking lever		1
36	Lock ring for axle	19	2
37	Eccentric sleeve		1
38	Hex screw	M5x10	2
39	Locking support		1
40	Fixed plate		1
41	Hexagonal nut	M18	1
42	Parenthesis		1

76	USB connection		1
77	Inverter part		1
78	Inverter box		1
79	Inverter		1
80	AC Switch		1
81	Circuit board		1
82	Screw	Content 5x30	4
83	Flat ring	4	16
84	Screw	M4x8	8

85	Bottom plate		1
86	Screen		1
87	Head cover		1
88	Flat ring	5	3
89	Screw	M5x10	3
90	Spindle Pulley		1
91	Screw	M8x10	4
92	Stop the washing machine	30	1
93	Round nut		1
94	Emissions rod		1
95	Screw	M8x10	1
96	Handwheel		1
97	Emissions rod		1
98	Screw	M5x10	2
99	Sleeve for Exhaust rod		1
100	Basis for Emission rod		1
101	Hammer		1
102	Engine		
103	Screw	Content 10x25	1
104	Flat ring	10	1
105	Handle	Content 10x25	1
106	Washing machine		1
107	Handle sleeve		1
108	The basis of the engine		1
109	Screw	M8x20	4
110	Engine pulley		1
111	oar		1
112	Hinge spindle		2
113	Hinge		2
114	Head cover		1
115	Screw	M4x16	1

116	Spiral wire		1
117	Green button		1
118	Emergency switch		1
119	Potentiometer		1
120	Switch conversion		1
121	Screw	M4x10	4
122	Control box cover		1
123	Control cabinet		1
124	Magnet		5
125	Screw	M4x10	5
126	Pin		1
127	Head		1
128	Lock ring for axle	19	1
129	Eccentric sleeve		1
130	Lock lever		1
131	Lever		1
132	Handle		1
133	Locking support		1
134	Rotating plate		1
135	Fixed plate		1
136	Lock nut	M18	1
137	Proximity switch		1
138	Locking pin		1
139	Protective cover		1
150	Plug		1
151	wrench		1
152	Allen key	S3	1
153	Allen key	S4	1
154	Allen key	S5	1
155	Allen key	S6	1
156	Allen key	S8	1

7.3 Wiring diagram

230V 50HZ/60HZ 1PH: