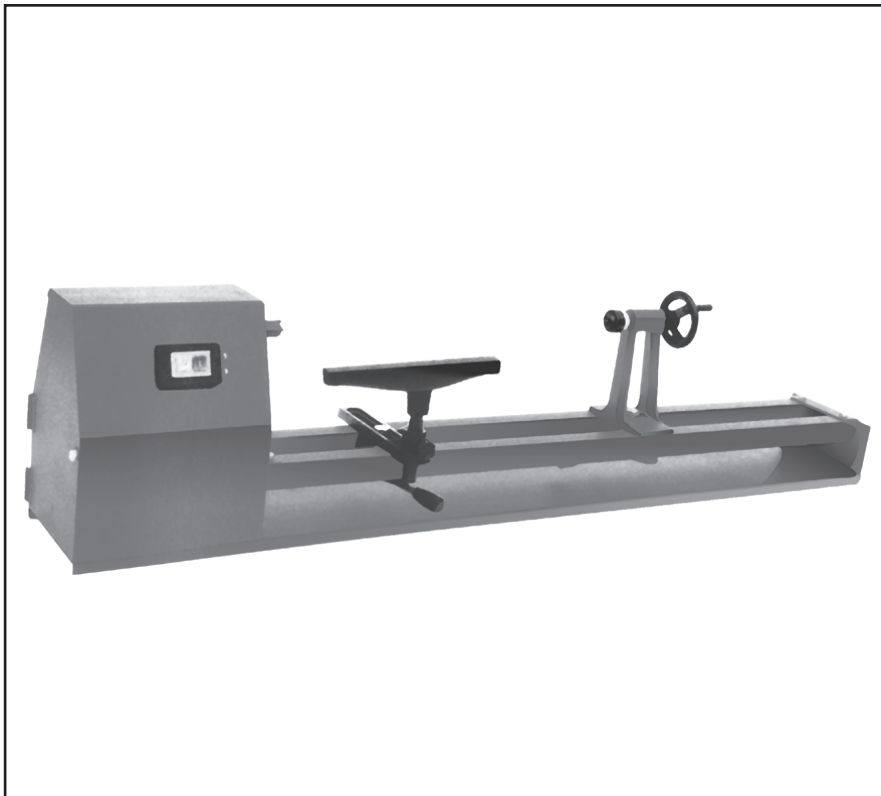


WOOD LATHE

Assembly & Instruction Manual

MCS1000-1



SAVE THIS MANUAL FOR FUTURE REFERENCE

Your new Wood Lathe has been engineered and manufactured to Cummins Industrial Tools high standards for dependability, ease of operation, and operator safety. Pay close attention to the Rules for Safe Operation, Warnings, and Cautions. If you use your machine properly and only for what it is intended, you will enjoy years of safe, reliable service.

SAFETY WARNINGS AND PRECAUTIONS

WARNING: When using tool, basic safety precautions should always be followed to reduce the risk of personal injury and damage to equipment. Read all instructions before using the tool!

- **Work area conditions.** Cluttered areas invite injuries.
- **Additional work area conditions.** Do not use machines or power tools in damp or wet locations. Do not expose to rain. Keep work area well lighted.
- **Keep children away.** Children must never be allowed in the work area. Do not let them handle machines, tools or extension cords.
- **Store idle equipment.** When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
- **Use the right tool for the job.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. There are certain applications for which this tool was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this tool and do not use this tool for a purpose for which it was not intended.
- **Dress properly.** Do not wear loose clothing or jewelry as they can be caught in moving parts. Protective, electrically non-conductive clothes and non-skid footwear are recommended when working. Wear restrictive hair covering to contain long hair.
- **Use eye protection.** Always wear ANSI approved impact safety glasses underneath a full face shield during use. Also, wear heavy duty work gloves.
- **Do not overreach.** Keep proper footing and balance at all times. Do not reach over or across running machines.
- **Maintain tools with care.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. The handles must be kept clean, dry, and free from oil and grease at all times.
- **Remove adjusting keys and wrenches.** Check that keys and adjusting wrenches are removed from the tool or machine work surface before starting work.
- **Stay alert.** Watch what you are doing, use common sense. Do not operate any tool when you are tired.
- Check for damaged parts. Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Any part that is damaged should be replaced.
- **Replacement parts and accessories.** When servicing, use only identical replacement parts. Use of any other parts will void the warranty. Only use accessories intended for use with this tool. Approved accessories are available from Cummins Industrial Tools.
- **Do not operate tools if under the influence of alcohol or drugs.** Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.

WARNING: The warnings, cautions, and instructions discussed in this instruction manual can not cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which can not be built into this product, but must be supplied by the operator.

Specifications

ITEM	DESCRIPTION
Motor	1/2 Horsepower; 1400 RPM
Input Voltage	120 VAC, single phase, 60 Hz, 2.9amps
Spindle Rotation Speed	1100,1600,2300,3400RPM
Max. Stock Diameter	14 inches
Max. Stock Length	40 inches
Swing Over Bed	14 inches
Distance Between Centers	40 inches
Head Stock Thread	3/4"-10 T.P.I."
Dimensions	56-1/2 x 8-1/4 x 12-3/4 inches

Unpacking

When unpacking, check to make sure that all parts are included (refer to Parts List and Diagram at end of manual). The plastic bag with parts includes the 5 parts shown with * on the Parts List. If any parts are missing or broken, please call agent at the local.

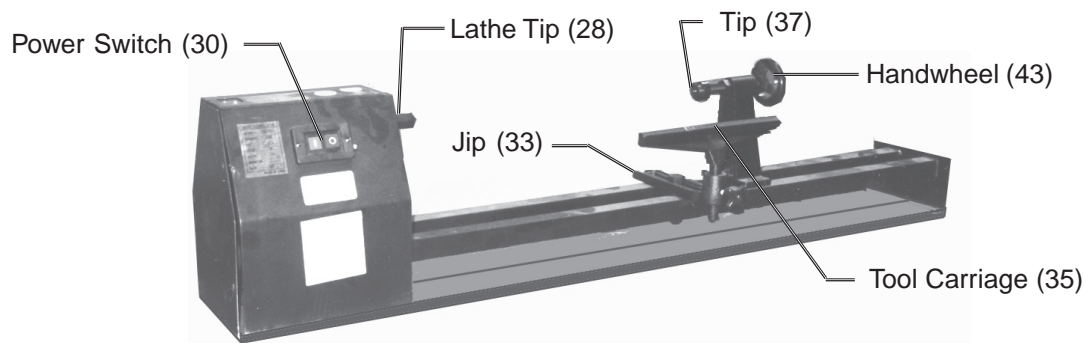
Extension Cords

This machine has a three prong plug and must only be plugged into three prong receptacles. Never cut off the round prong, this is the ground. Cutting off the ground will result in a safety hazard and void the warranty.

The three prong plug must only be used with a three prong extension cord. Only use rounded jacket extension cords listed by the Underwriters Laboratories (UL). If you are using the tool outdoors, you must use an extension cord rated for outdoor use. Look on the jacket for the letters "WA".

Mounting Lathe to Workbench

1. Measure the thickness of your workbench.
2. Obtain four bolts that are the lengths for the workbench, and 1 inch for the wood lathe. Make sure that nuts and flat washers are also obtained.
3. Mark and drill holes through the workbench, using the Lathe Bed (58) as a template, for the four mounting holes on the Wood Lathe.
4. Position the Wood Lathe on your workbench and line up the holes you drilled in Step 3 with the Mounting holes in the Lathe Bed (58).
5. Insert bolts into the Mounting Holes and through the work bench.
6. Tighten down bolts using nuts and washers.



Operation

Finding the Center of the Wood Stock

Use only fresh, square lengths of wood stock or stock that has clearly defined center points on each end of the stock. Follow the Steps below to find the center of the wood stock.

1. Draw two diagonal lines across each end of the wood stock, from one corner to the other corner.
2. The point where the two lines cross is the center of the wood stock. Mark this point with an awl or drill.

Mounting the Wood Stock

1. Make sure the length of your wood stock does not exceed the capacity of the Wood Lathe. The maximum length of your wood stock should not exceed 40 inches.
2. Adjust the Handwheel (43) so that the threads of the Screw Axis (41) are halfway on each side of the Tailstock (39). This will allow the most fore and aft adjustment in the following steps.
3. Adjust the position of the Tailstock to fit the length of your wood stock. Use the supplied Tool Handle (22) to loosen the Nut (54) underneath the Tailstock.
4. Move the Tailstock to the appropriate location. Tighten the Nut (54).
5. Place your wood stock between the Tip (37) and the Lathe Tip (28). Make sure the Lathe Tip is placed in the center point of your wood stock that was marked earlier.
6. Turn the Handwheel (43) clockwise until the Tip (37) touches the end of your wood stock. Adjust the wood stock so the Tip is touching the center point of your wood stock marked earlier.
7. Continue to turn the Handwheel to mount your wood stock. Stop tightening the Handwheel when the Lathe Tip prongs dig into the wood stock fully.
8. Grip the wood stock and try to move it. The wood stock should be mounted firmly and not move at all.

Positioning the Tool Rest

1. Use the Tool Handle (22) to loosen the Nut (61) located underneath the Tool Carriage (35).
2. Move the Tool Carriage to the appropriate position. If you are beginning a new piece of wood stock, choose an end to start and adjust the Tool Carriage to that location and tighten the Nut (61) again.
4. Loosen the Knob (59) for the Tool Carriage. This will allow you to adjust the Tool Carriage height and degree of rotation. To begin, set the Tool Carriage even with the centerline of the wood stock and parallel to the wood stock centerline.
5. Tighten the Knob.

Turning the Wood Stock

Caution: Before turning on the Wood Lathe, make sure to wear ANSI approved eye protection, and do not have any loose clothing or long hair exposed.

1. Lay out your selection of gouges and chisels. You may wish to mark indicator lines along the length of the wood stock to mark points of transition or design change.
2. Plug the Wood Lathe Power Line (1) into an appropriate outlet.
3. Turn on the Wood Lath by pressing the Power Switch (30) to "ON" and allow it to come up to speed.

Caution: If the wood stock begins to wobble or is unstable, immediately turn lathe OFF and reposition wood stock.

4. Place the desired gouge or chisel onto the Tool Carriage (35). Make sure the cutting edge of the gouge or chisel is oriented properly for the Wood Lathe direction of rotation.
5. Gently press the gouge or chisel forward into the spinning wood stock. Move the tool forward in small increments. This is especially important with a fresh, square piece of wood stock.
6. If you press the gouge or chisel forward too fast, you may cause the Wood Lathe to stall. The spinning wood stock may also knock the tool from your hand. **Use Caution.**
7. Move the gouge or chisel slowly up and down the length of the Tool Carriage to shape the wood stock. When shaping the wood stock, use patience and care. Do not force the tool into the wood stock or try to take too great an amount of wood off at one time.
8. When the wood stock has been roughly shaped for part of its length, you can move the Tool Carriage to the section of the unshaped wood.
9. When the entire length of wood stock has been roughly formed into a cylindrical shape, you can switch to your final shaping and decorating gouges and chisels.
10. When you are done shaping your wood stock, turn the Power Switch (30) to "OFF".
11. Turn the Handwheel (43) counterclockwise and removed the shaped wood stock.

Using the Chuck

For the following steps you need a piece of wood stock 1 inch thick by at least five inches in diameter

1. Attach your wood stock piece to the Chuck (29) using wood screws inserted through the back of the Chuck into the wood Stock.
2. Attach the chuck as described under Adjustments below.
3. Turn the wood stock until it is completely circular and slightly larger in diameter than the Chuck.

Adjustments

Refer to the Assembly Drawing on the last page to find parts referenced below.

Moving the Tailstock and Tool Carriage

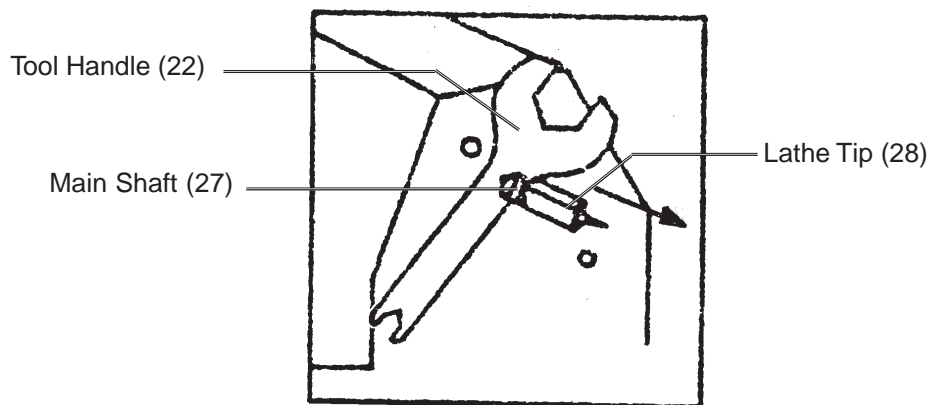
1. Make sure Lathe Power Line (1) is disconnected.
2. Loosen the Nut (61) for the Tool Carriage (35), or the Nut (54) to move the Tailstock (39).
3. Slide the Tool Carriage or the Tailstock to the appropriate position and then retighten the corresponding nut.

Removing the Tip

1. Make sure Lathe Power Line (1) is disconnected.
2. Remove the Handwheel (43) by loosening the Locking Screw (42).
3. Unscrew the Tip (37) from the Tailstock (39)

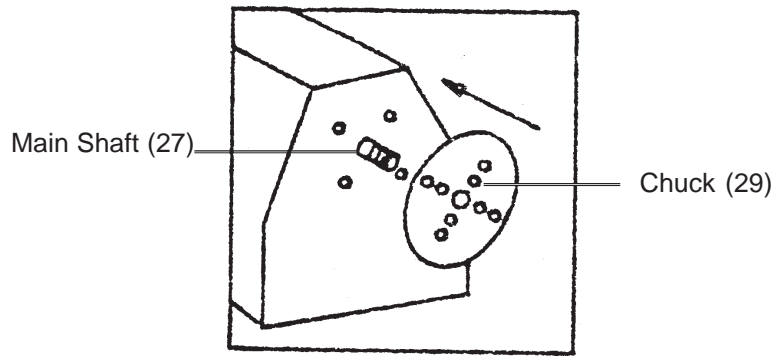
Removing the Lathe Tip

1. Place the side fitting of the Tool Handle (22) onto the flats of the Main Shaft (27).
2. Attach an appropriately sized wrench to the Lathe Tip (28).
3. While holding the Tool Handle (22) in place, turn the Lathe Tip counterclockwise. Remove the loosened Lathe Tip from the Main Shaft (27).



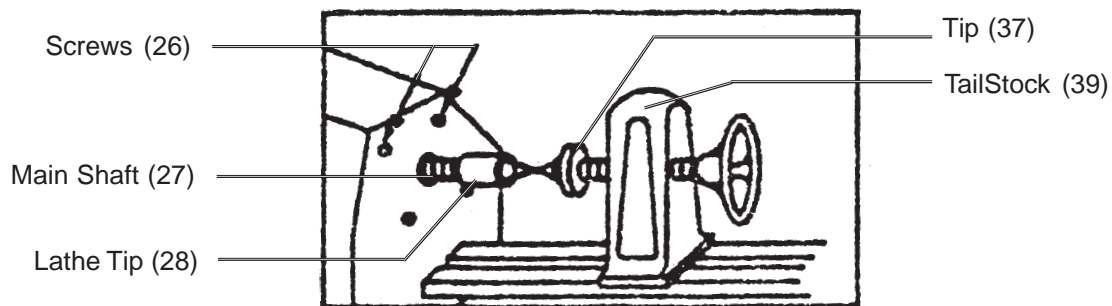
Attaching the Chuck

1. After the Lathe Tip has been removed (see above), take the Chuck (29) and spin it clockwise onto the Main Shaft (27).
2. Hold the Tool Handle (22) in place on the flats of the Main Shaft, while tightening the Chuck by hand.



Aligning the Centers

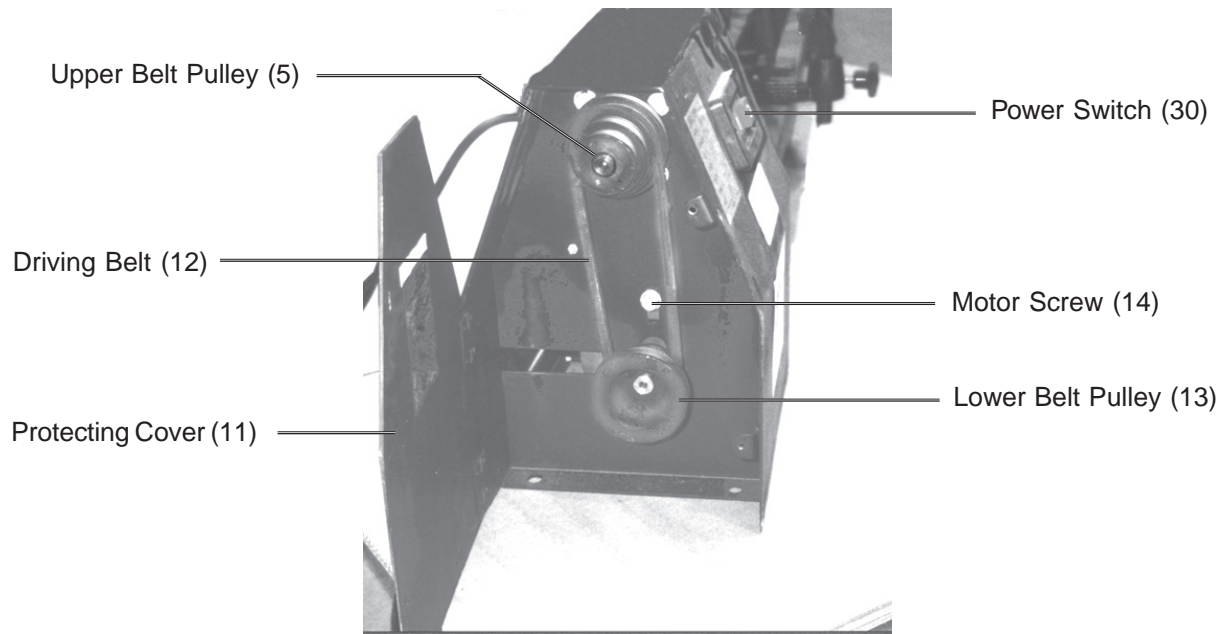
1. Move the Tailstock (39) to the Lathe Tip (28).
2. Lock the Tailstock down.
3. Loosen the four screws (26), around the Main Shaft (27).
4. Swing the Main Shaft forward so the Lathe Tip (28) and the Tip (37) are in line. Then tighten the Screws (26).



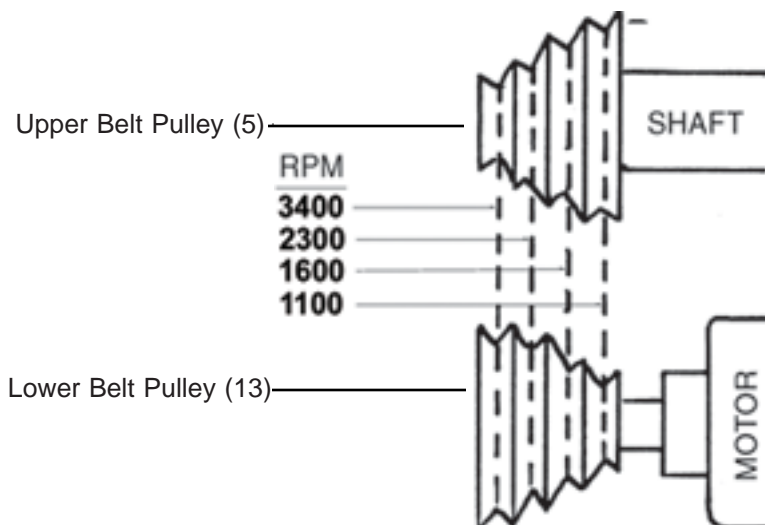
Changing Speeds

Refer to photo and illustration on the next page.

1. Make sure the Power Switch (30) is off and the Power Line (1) is unplugged.
2. Remove the two Screws (3) from the Protecting Cover (11). Remove the Protecting Cover.
3. Loosen the Motor Screw (14) this will loosen the Belt Pulley (13).
4. Raise the lower Belt Pulley (13) this will loosen the Driving Belt (12).



5. Adjust the Driving Belt (12) to the proper steps on the lower Belt Pulley (13) and the upper Belt Pulley (5) to obtain the desired speed. Make sure Driving Belt is not crossed into the adjacent steps. The Driving Belt should be placed on the same step on each Belt Pulley.



6. Lower the Belt Pulley (13) until there is a light tension on the Driving Belt (12). Tighten the Motor Screw (14). Make sure the Driving Belt is neither too loose nor too tight.
7. Close the Protecting Cover (11) and insert and tighten the Screws (3).

Maintenance

When you are finished using your Wood Lathe for the day, wipe down the Wood Lathe or use an air compressor set at 10 PSI to blow the Wood Lathe clean.

Periodically check your Wood Lathe for wear or damage and inspect the Driving Belt (12). Do not use your Wood Lathe if you find any damage or wear.

Parts List

Item #	Description	Qty
1	Power Line	1
2	Cord Clamp	1
3	Screw	3
4	Washer	3
5	Belt Pulley	1
6	Locking Screw *	1
7	Bolt	1
8	Washer	1
9	Screw	1
10	Washer	2
11	Protective Cover	1
12	Driving Belt	1
13	Belt Pulley	1
14	Motor Screw	1
15	Washer	1
16	Locking Screw *	2
17	Screw	2
18	Washer	2
19	Ball Bearing	1
20	Bearing Lock	1
21	Nut	1
22	Tool Handle *	1
23	Bearing Lock	1
24	Ball Bearing	1
25	Washer	1
26	Screw	1
27	Main Shaft	1
28	Lathe Tip	1
29	Chuck *	1
30	Power Switch	1
31	Washer	2
32	Screw	2
33	Jip	1
34	Cap Screw	1
35	Tool Carriage	1
36	Guide Track	2
37	Tip	1

Item #	Description	Qty
38	Ball Bearing	1
39	Tailstock	1
40	Nut	1
41	Screw Axis	1
42	Locking Screw	1
43	Handwheel	1
44	Screw	2
45	Washer	2
46	Bracket	1
47	Screw	2
48	Washer	2
49	Cap Screw	1
50	Washer	2
51	Spring Washer	2
52	Nut	2
53	Guide Track Plate	1
54	Nut	1
55	Washer	2
56	Spring Washer	2
57	Nut	2
58	Lathe Bed	1
59	Knob	1
60	Guide Track Plate	1
61	Nut	1
62	Washer	2
63	Spring Washer	2
64	Nut	2
65	Screw - Switch	2
66	Screw	1
67	Washer	1
68	Data Plate	1
69	Washer	2
70	Spring Washer	2
71	Nut	2
72	Motor	1
73	Washer	2
74	Spring Washer	2
75	Hexagonal Wrench *	1

Note: 5 items included in plastic packaging bag designated with *.

Assembly Drawing

