



OWNERS MANUAL PROFESSIONAL WOOD LATHE

WL-B440P

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Specifications

Model Number	WL-B440P
Swing Over Bed	305mm
Swing Over Tool Rest Base	240mm
Working Distance Between Centers	406mm
Motor	1/2HP, 230V/50Hz
Speeds	6
Speed Ranges	360, 670, 1020, 1510, 2230, 3250
Spindle Thread (Europe)	M33mm x 3.5p
Spindel Thread (Australia)	M30mm x 3.5p
Headstock Taper	MT2
Tailstock Taper	MT2
Hole Through Spindle	9.5
Tailstock spindle travel	60mm
Overall Dimensions	807(L)x457(W)x292(H)mm
Net Weight	48 kgs

Contents of Package

Unpacking and Checking Contents

Unpack your lathe from its carton and check to see that you have all of the following items. Do not turn your machine ON if any of these items are missing. You may cause injury to yourself or damage to your machine.

	ltem	Description Q'ty
	A	Lathe1
	В	Knokout Bar1
— с	С	Wrench1
-	D	Tool Rest1
	Е	Live Center1
-	F	Spur Center1
-940	G	Spindle Lock Assembly1
	Н	Knockout Bar for Spur Center1
	I	Tool Holder1
20 800	J	Pan head screw2

Tools Required for Assembly

ltem

Description



Phillips Screwdriver



Adjustable Wrench

Unpacking and Clean-up

- 1. Carefully lifting the lathe from the carton, and check that all of the components and contents have been included. Place parts on a protected surface.
- 2. Clean all rust protected surfaces with kerosene or diesel oil. **Do not use**; gasoline, paint thinner, mineral spirits, etc. These may damage painted surfaces.
- 3. Set packing material and shipping cartons to the side. **Do not discard** until machine has been set up and is running properly.

Getting to Know Your Lathe



Item Description

- 1 Lifting handle
- 2 Switch
- 3 Handwheel
- 4 Face plate
- 5 Spur center
- 6 Tool rest
- 7 Live center
- 8 Tail stock
- 9 Tailstock handwheel

Item Description

- 10 Tailstock spindle locking arm
- 11 Tool rest base
- 12 Spindle lock
- 13 Tool holder
- 14 Motor
- 15 Lathe bed
- 16 Tailstock locking lever
- 17 Tool rest seat locking lever

Assembly

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

Installing Tool Rest On To Lathe Bed

Loosen locking arm and insert tool rest into tool rest base, adjust height up or down and tighten locking arm. (See Fig.01)



Fig.01

Installing Spindle Lock

Locate the spindle lock assembly from the carton, and install it onto the headstock with an adjustable wrench. (See Fig.02) **Warning:** Disengage the spindle lock before turning the machine on.

Attaching Spur Center On The Headstock

Insert spur center, with a No. 2 Morse Taper shank, into the headstock spindle.(See Fig.03)



Fig.02



Fig.03



Fig.04





Fig.06

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. (See Fig.04)

Attaching Live Center On the Tailstock

Insert the live center, with a No. 2 Morse Taper shank into the tailstock spindle. (See Fig.05)

To remove the live center from the tailstock spindle, loosen locking arm and rotate the hand wheel counter clockwise to retract spindle into the body of the tailstock. The live center will be pushed out of the spindle. (See Fig.06)

Installing The Faceplate to the Headstock

Thread the faceplate clockwise on to the headstock spindle. Engage the spindle lock and stop the spindle from turning. Tighten the faceplate with the supplied wrench. (See Fig.07)

Warning: Disengage spindle lock before turning the machine on.

Installing 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. (See Fig.08)



Fig.07

Fig.08

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. (See Fig.09)



Adjustments and Operations

Adjusting the Tool Rest

The tool rest base can be easily moved along the lathe bed. Loosen the locking lever counter clockwise, slide the tool rest base to new position, and tighten the locking lever clockwise. To adjust the height of the tool rest, loosen the locking arm, raise or lower the tool rest, then tighten the locking arm. (See Fig.10)

Note: Position the tool rest as close to the work piece as possible.

To adjust the clamping action of the tool rest base, remove the base and adjust the nut clockwise to tighten and counterclockwise to loosen.(See Fig.11)







Adjusting Tailstock

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

To adjust clamping action of the tailstock, remove it from the lathe bed and adjust the nut clockwise to tighten and counterclockwise to loosen.(See Fig.12)

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

(See Fig.13)

Changing Spindle Speeds

The lathe features a six step motor and spindle pulleys to provide different spindle speeds. Open access cover to change spindle speeds. (See Fig.14)

With access cover open, loosen locking arm. Raise lever to release tension on motor pulley and tighten locking arm. Check speed and belt position chart inside access cover to determine spindle speed required.

Move drive belt to desired pulley combination. Loosen locking arm, lower lever, and the motor will provide proper tension on the drive belt. Tighten locking arm and close access cover. (See Fig.14)

Typical Operations

The lathe is set up for a typical spindle turning operation.(See Fig.15)



Fig.12



Fig.13



Fig.14



Fig.15

The lathe can be set up for a faceplate turning operation. The work piece should be "rough cut" as close as possible to finished shape before mounting. (See Fig.16)

Indexing/Spindle Lock

The dual purpose indexing/spindle lock is positioned on the top of the headstock for ease of use. The headstock indexing feature has 12 equally spaced positions. The spring loaded locking pin assembly is engaged by turning the knob a half turn allowing it to drop into the desired position. To disengage, lift the lock knob up and turn a half turn either direction. (See Fig.17 & Fig.18)

The 12 position indexing feature allows accurate pattern work on projects such as straight fluting, grooving, drilling, lay out and more. This feature also allows the user to lock the spindle for removing face plates, chucks and other accessories without needing two tools.

To use the spindle lock, disengage the locking pin by lifting up and rotating a half turn. The pin will engage in the closest pin available. Once locked an accessory such as a face plate can be removed with the wrench supplied.



Fig.16



Fig.17



Fig.18

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 PROBLEMS.

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.

Eletrical Requirements

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor, with insulation having an outer surface that is green with or without yellow stripes, is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Repair or replace a damaged or worn cord immediately.

Wiring Diagram

WARNING: This machine must be grounded.

Replacement of the power supply cable should only be done by a qualified electrician.



Troubleshooting

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

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!

Exploded Diagram



Parts List					
Part No.	Description	Part No.	Description		
1	Center point	53	Clamp disc		
2	Spur center	54	Lock nut M10		
3	Faceplate	55	Live center		
4	Spindle shaft	56	Axle sleeve		
5	Bearing 6005-2Z	57	Lock shaft		
6	Ring retaining 47mm	58	Bolt		
7	Indexing gear	59	Ring retaining		
9	Headstock	60	Washer 14mm		
10	Undee washer 47mm	61	Tailstock		
11	Ring retaining 25mm	62	Handwheel		
12	Poly-v-belt	63	Hex. Socket set screw M6x12		
13	Hex socket set screw M6x10	64	Handwheel handle		
14	Spindle pulley	65	Screw		
15	Ring retaining 19mm	66	Lock handle		
16	Handwheel	67	Lock lever		
17	Spindle lock knob	68	Hex. Socket set screw M5x8		
18	Spindle lock tube	69	Cam bolt - tailstock		
19	Spindle lock shaft	70	Spring		
19A	Spindle lock spring	71	Clamp disc		
19B	Pin roll 3x16	72	Lock nut M10		
21	Rounded insert	73	Ring retaining 10mm		
22	Hexagon socket cap screw	74	Lifting handle		
23	Strain relief	75	Lifting handle mounting bracket		
24	Pan head screw M5	75A	Pan head screw M5x10		
24A		76	Hinge		
25	Switch box	77	Lock washer M4		
26	Switch plate	78	Pan head screw M4x10		
27	NVR SWIICH	79	Motor pulley cover		
28		80	Hex. Nut M4		
29	Closs recessed part head screw	81	Access cover		
30	Pain head tapping screw	83	Lock housing bracket		
31	Close and connector	84	Lock nousing		
04 05	Hey Socket head screw M6x35	60			
30 26	Spring washer 6mm	00	Acom nut		
30	Washer 6mm	88	Cross recessed pan nead screw		
37	Red	89	Guard		
40	Tool holder	90	Nilloi		
40R	Washer 6mm	92	Belt tension handle cover		
400	Pan head screw M6x15	93	Motor tension lock		
400	Cable tube	94 05	Washer 8mm		
42	Dust chute	96	Lock put M8		
43	Special washer 5mm	90	Lindee washer 6mm		
44	Pan head screw M5x10	98	Hex Socket head screw M6x15		
45	Tool rest	99	Motor pulley		
46	Tool rest bracket	100	Hex Socket set screw M6x12		
47	Lock handle	103	Power cable		
48	Lock lever	104	Knockout bar		
50	Collar	104A	Knockout bar		
51	Ring retaining 12mm	105	Wrench		
52	Cam bolt	100	Weildi		



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