

20" x 36" Woodfast Wood Lathe

Model: 70-500

RIKON POWER TOOLS



Woodfast Series

Record the serial number and date of purchase
in your manual for future reference.

Serial number: _____

Date of purchase: _____

For more information:

www.rikontools.com or info@rikontools.com

For Parts or Questions:

techsupport@rikontools.com or 877-884-5167









Safety Warning

IMPORTANT! Safety is the single most important consideration in the operation of this equipment. **The following instructions must be followed at all times.**

There are certain applications for which this tool was designed. We strongly recommend that this tool not be modified and/or used for any other application other than that for which it was designed. If you have any questions about its application, do not use the tool until you have contacted us and we have advised you.

General Safety Warnings

KNOW YOUR POWER TOOL. Read the owner's manual carefully. Learn the tool's applications, work capabilities, and its specific potential hazards.

	⚠ DANGER ALWAYS GROUND ALL TOOLS. If your tool is equipped with a three-pronged plug, you must plug it into a three-hole electric receptacle. If you use an adapter to accommodate a two-pronged receptacle, you must attach the adapter plug to a known ground. Never remove the third prong of the plug. ALWAYS AVOID DANGEROUS ENVIRONMENTS. Never use power tools in damp or wet locations. Keep your work area well lighted and clear of clutter.
	⚠ DANGER ALWAYS REMOVE THE ADJUSTING KEYS AND WRENCHES FROM TOOLS AFTER USE. Form the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on. ALWAYS KEEP YOUR WORK AREA CLEAN. Cluttered areas and benches invite accidents.
	⚠ DANGER ALWAYS KEEP VISITORS AWAY FROM RUNNING MACHINES. All visitors should be kept a safe distance from the work area. ALWAYS MAKE THE WORKSHOP CHILDPROOF. Childproof with padlocks, master switches, or by removing starter keys.
	⚠ DANGER NEVER OPERATE A TOOL WHILE UNDER THE INFLUENCE OF DRUGS, MEDICATION, OR ALCOHOL.
	⚠ DANGER ALWAYS WEAR PROPER APPAREL. Never wear loose clothing or jewelry that might get caught in moving parts. Rubber-soled footwear is recommended for the best footing.
	⚠ DANGER ALWAYS USE SAFETY GLASSES AND WEAR HEARING PROTECTION. Also use a face or dust mask if the cutting operation is dusty.
	⚠ DANGER NEVER OVERREACH. Keep your proper footing and balance at all times.
	⚠ DANGER NEVER STAND ON TOOLS. Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.

▲ DANGER

ALWAYS DISCONNECT TOOLS.

Disconnect tools before servicing and when changing accessories such as blades, bits, and cutters.



ALWAYS AVOID ACCIDENTAL STARTING.

Make sure switch is in “OFF” position before plugging in cord.

NEVER LEAVE TOOLS RUNNING UNATTENDED.

▲ DANGER

ALWAYS CHECK FOR DAMAGED PARTS.

Before initial or continual use of the tool, a guard or other part that is damaged should be checked to assure that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other damaged parts should immediately be properly repaired or replaced.



Special Safety Rules For Lathes

1. Do not operate this machine until you have read all of the following instructions.
2. Do not attempt to operate this machine until it is completely assembled.
3. Do not turn ON this machine if any pieces are missing.
4. If you are not familiar with the operation of the machine, obtain assistance from a qualified person.
5. It is highly recommended that this machine be firmly mounted to a flat and secure work surface.
6. Always wear protective eyewear prior to operating this machine.
7. Do not operate this machine if you are under the influence of drugs and/or alcohol.
8. Remove all jewelry prior to operating this machine.
9. Do not wear any gloves while operating this machine.
10. Always make sure the power switch is in the OFF position prior to plugging in the machine.
11. Always make sure the power switch is in the OFF position when doing any assembly or setup operation.
12. Always turn the power switch to the OFF position and let the work piece come to a complete stop prior to removal.
13. Use only sharp lathe tools.
14. The use of any accessories or attachments not recommended may cause injury to you and damage your machine.
15. This machine must be properly grounded.
16. When turning between centers, make sure headstock and tailstock are snug against work piece.
17. When face plate turning, rough-cut work piece close to the finished shape before screwing to face plate.
18. Never jam tools into work piece or take too big a cut.
19. Do not operate this machine without following all these instructions.
20. Keep these instructions for future reference.

SAVE THESE INSTRUCTIONS.

Refer to them often.

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Specifications

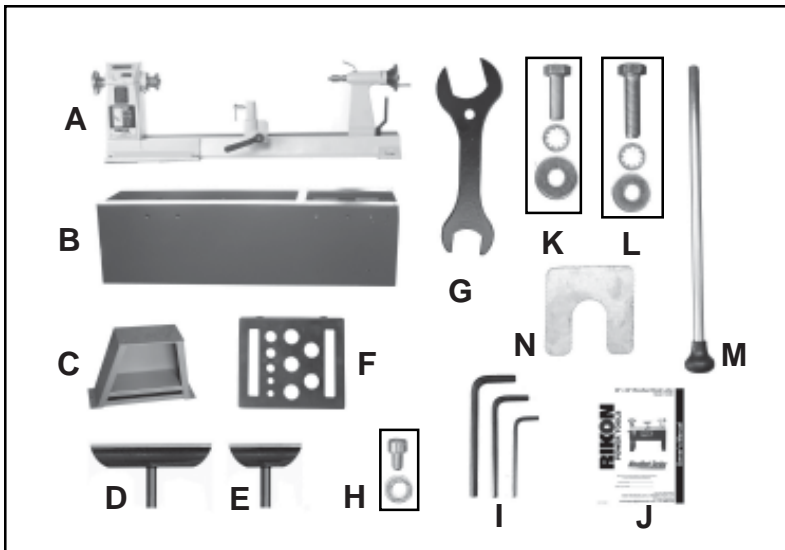
Model Number		70-500
Swing Over Bed		20"
Swing Over Tool Rest Base		18"
Working Distance Between Centers		36"
Motor		2HP, 1Ph/3Ph, 230V
Speeds		5
Speed Ranges	50-510, 90-910, 170-1740, 290-2900, 390-3890 RPM	
Spindle Nose in x TPI		1-1/4" x 8
Headstock Taper		MT2
Tailstock Taper		MT2
Hole Through Spindle		3/8"
Ram Travel		3-15/16"
Overall Dimensions	57"(L)x23"(W)x48-3/4"(H)	
Net Weight		596 lbs

Contents of Package

Unpacking and Checking Contents

The 70-500 Woodfast lathe is shipped in two cartons. Unpack the lathe from both cartons 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.

Carton Contents



Item	Description	Qty
A	Lathe Bed.....	1
B	Stand Body.....	1
C	Stand	2
D	12"Tool Rest.....	1
E	6"Tool Rest.....	1
F	Tool Holder.....	1
G	Wrench.....	2
H	Hardware for tool holder.....	2
I	L Wrench 3mm/4mm/5mm.....	1
J	Warranty Card/Manual.....	1
K	Hardware for stand.....	8
L	Hardware for lathe bed.....	6
M	Knotout bar.....	1
N	Adjusting washer.....	6

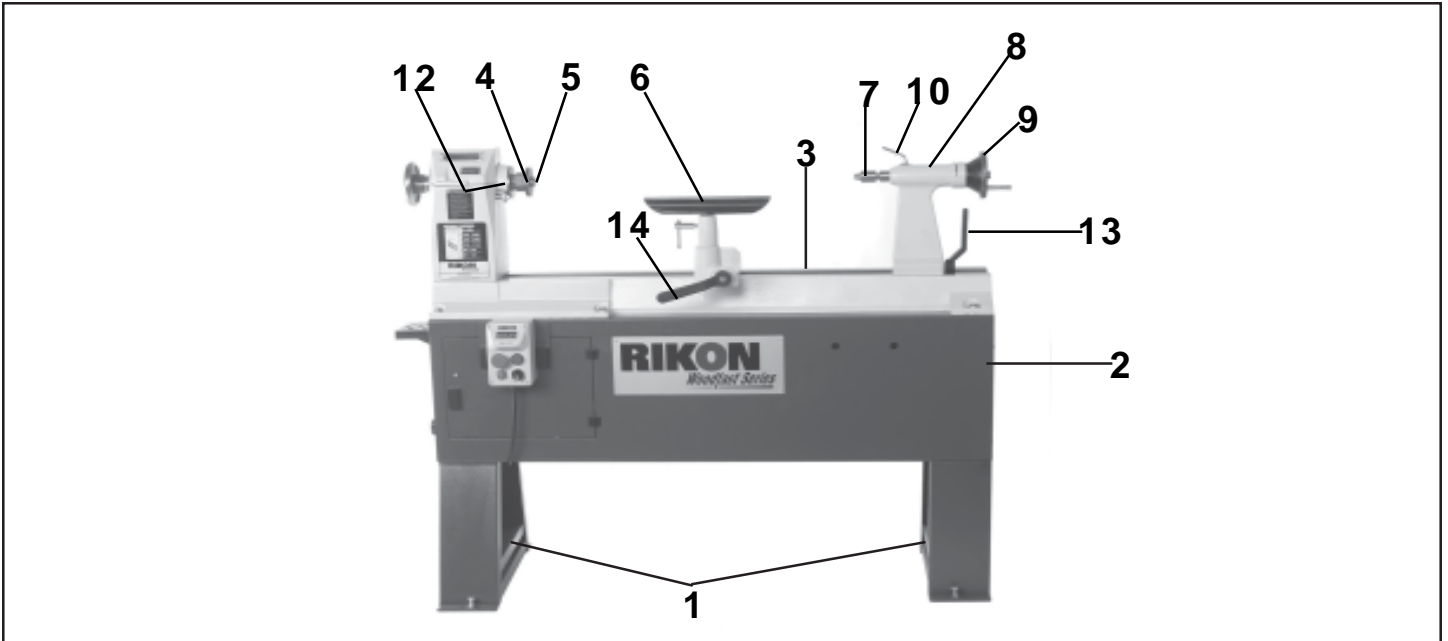
Tools Required for Assembly

Item	Description
	Phillips Screwdriver
	Adjustable Wrench

Unpacking and Clean-up

1. Carefully finish removing all contents from shipping cartons. Compare contents of the shipping cartons with the list of contents above. Place parts on a protected surface.
2. Report any shipping damage to your local distributor.
3. Clean all rust protected surfaces with kerosene or diesel oil. **Do not use**; gasoline, paint thinner, mineral spirits, etc. These may damage painted surfaces.
4. 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 Stand Legs
- 2 Stand Body
- 3 Lathe bed
- 4 Face plate
- 5 Spur center
- 6 Tool rest
- 7 Live center
- 8 Tail stock

Item Description

- 9 Tailstock handwheel
- 10 Tailstock spindle locking arm
- 11 Tool rest base
- 12 Spindle lock
- 13 Tailstock locking lever
- 14 Tool rest seat locking lever

Assembly

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

Determine Lathe Location in Workshop

Find a location in the workshop that is level and has adequate lighting. Make sure that there is plenty of room between the lathe and other machines. Place the lathe in an area that will support its weight and is close to a power source.



Fig.01

Stand Assembly

(Some assistance will be required.)

1. Remove the two stand legs from the carton and position them approximately 54" apart (Fig. 2A) measuring from the outside edges. Be sure that the shelves are facing inward and that the double flared leg is on the left. (Fig. 2B)

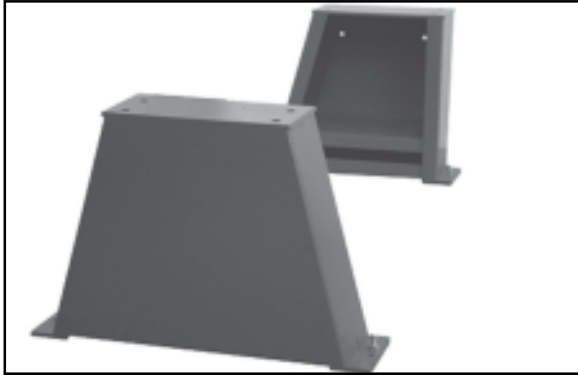


Fig.2B

2. With assistance, lift stand body and carefully lay on top of the stand legs (Fig.03). Position the stand legs to align the bolt holes. Secure stand to legs by using eight M10x30 hex bolts and eight M10 flat washers. The bottom holes in the stand are threaded, no hex nuts required for this step. The stand legs are equipped with leveling feet. Level the stand as shown in Figure 01 on page 6. To raise, loosen the locking nut and turn the bolt clockwise.

Bolting Lathe to Stand

(Some assistance will be required.)

1. Lift lathe body by the bed only, not by the head stock or tail stock assemblies. (See Fig.04)

2. Place a scrap piece of wood on top of the stand body close to the headstock end to prevent the pinching of the drive belt and speed sensor wiring.

3. Gently place the lathe body onto the stand and secure by using six M10x40 hex bolts, six M10 flat washers, and six M10 lock washers. (See Fig.06) The top holes in the stand are threaded, no hex nuts required for this step. If there is gap between the bed and cabinet. Add an adjusting washer to avoid damage the flatness of the bed surface.

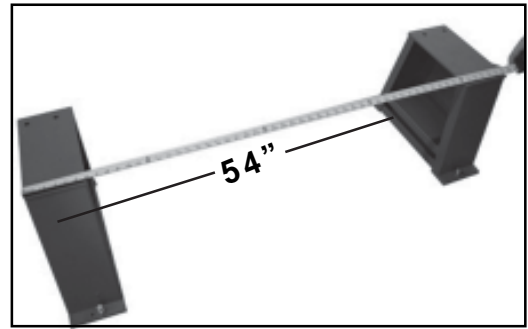


Fig.2A



Fig.03



Fig.04



Fig.05

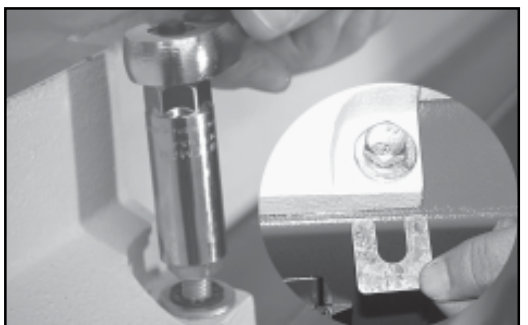


Fig.06

Installing Motor Belt

- 1.) Open the motor door and thread the motor belt from the headstock assembly down to the motor.
- 2.) Loosen the motor plate by turning the lock knob (A-Fig. 07) counter clockwise.
- 3.) Raise the motor by pulling upwards on the motor lifting handle (A-Fig. 08).
- 4.) Position the drive belt onto the pulley making sure that the ribs of the drive belt completely engage the pulley.

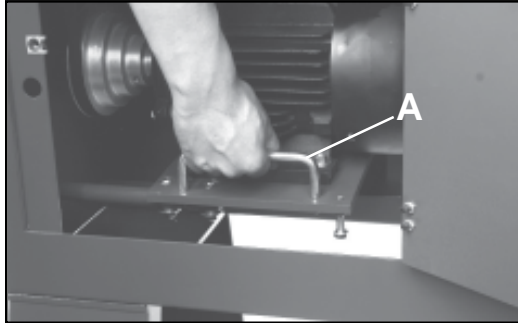


Fig.08

Connect the Speed Sensor Wiring

- 1.) Thread the white speed sensor wire down from the headstock in to the stand body through the plastic tie (A-Fig. 09).
- 2.) Thread the white speed sensor wire through the tube in the stand body. (Figure 10)
- 3.) Connect the two ends and pull any excess wire through the plastic tie and tighten. (Figure 11)

Warning: Failure to properly secure speed sensor wire could cause serious damage to the wire and sensor. Wire could get caught between motor belt and pulley.

Positioning the ON/OFF Switch

The ON/OFF switch can be placed in five locations on the lathe, two on the front, two on the back and one on the tailstock end.

1. To move the switch, simply lift the two quick release levers and pull switch body away from the stand.
2. Locate switch to the new position and lock the two quick release levers. (Figure 12)

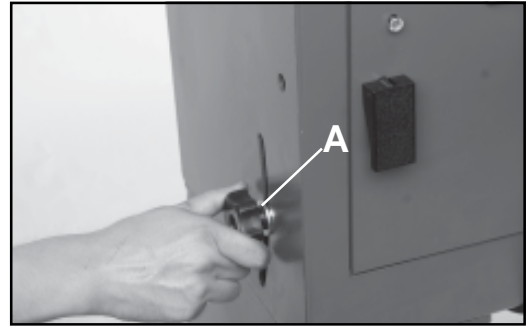


Fig.07

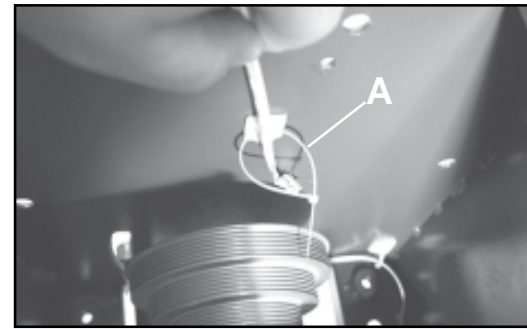


Fig.09



Fig.10

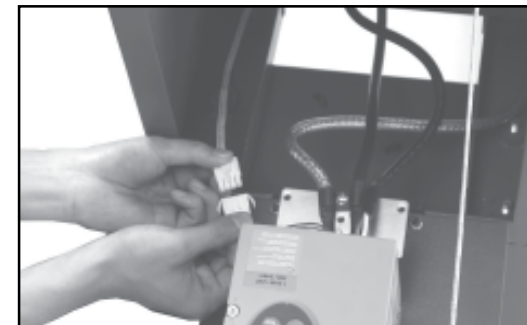


Fig.11



Fig.12

Attaching Spur Center on the Headstock

Insert the spur center, with a No. 2 Morse Taper shank into the headstock spindle. (Figure 13)

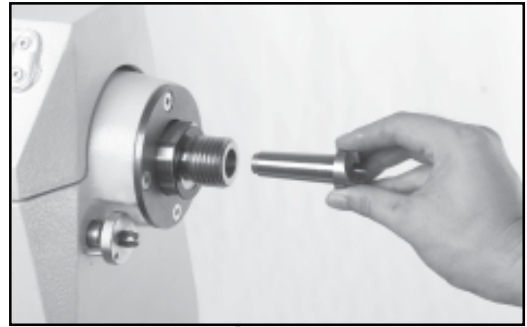


Fig.13

Removing Spur Center on the Headstock

Insert the knockout bar into the headstock spindle from the handle end. Tap the end of the spur center lightly until it releases from the spindle. (Figure 14)



Fig.14

Installing The Faceplate to the Headstock Spindle

Thread the faceplate clockwise on to the headstock spindle. Next, engage the spindle lock and stop the spindle from turning, and tighten faceplate with supplied wrench. Reverse operation to remove. (Figure 15)



Fig.15

For added convenience, a plastic washer is offered to allow easy removal of the faceplate. Install washer between headstock spindle face and faceplate.

Warning: Disengage spindle lock before turning the machine on.

Attaching Live Center on the Tailstock

Insert the live center, with a No. 2 Morse Taper shank into the tailstock spindle. (Figure 16)



Fig.16

Removing Live Center from the Tailstock

Insert the knockout bar into the tailstock spindle from the handle end. Tap the end of the live center lightly until it releases from the spindle. (Figure 17)



Fig.17

Adjustments and Operations

Adjusting the Tool Rest

Warning: Do not adjust tool rest or tool rest base while the lathe is turned on. Make sure lathe is turned off and that the work piece comes to a complete stop before making adjustments.

The tool rest base (A-Fig. 18) can be easily moved along the lathe bed. Loosen cam lever (B-Fig. 18) counter clockwise, slide tool rest base to new position, and tighten cam lever clockwise.

To adjust the height of the tool rest, loosen locking arm (A-Fig. 19), raise or lower tool rest, tighten locking arm.

Note: Position the tool rest 1/4" to the workpiece. Rotate workpiece by hand to check for clearance. The tool rest should also be 1/8" above the centerline of the workpiece. (Figure 19)

To adjust clamping action of the tool rest base, remove base and adjust nut clockwise to tighten and counterclockwise to loosen. (Figure 20)

Adjusting Tailstock

Loosen cam lever (A-Fig. 21) to move the tailstock along the lathe bed to desired position. Tighten lever.

To adjust tailstock ram in or out, loosen locking arm (B-Fig. 21) and turn handwheel (C-Fig. 21). When the tailstock ram is in a desired position, tighten locking arm. Figure 21

The tailstock ram will travel from 0" to 4".

To adjust clamping action of the tailstock, remove it from lathe bed and adjust nut clockwise to tighten and counterclockwise to loosen. (See Fig.20)

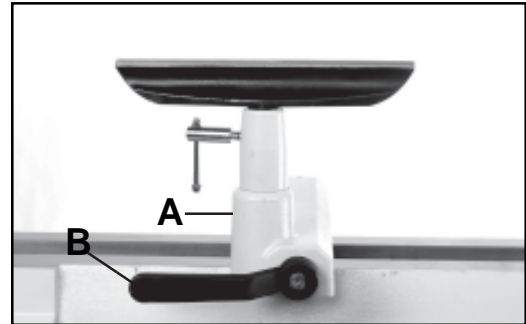


Fig.18

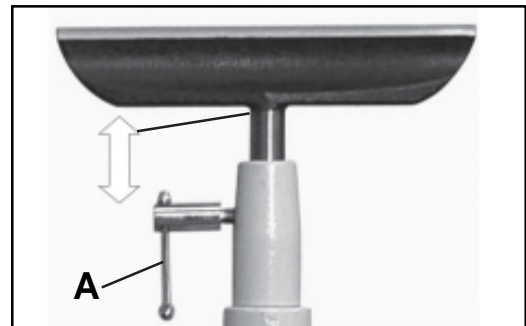


Fig.19

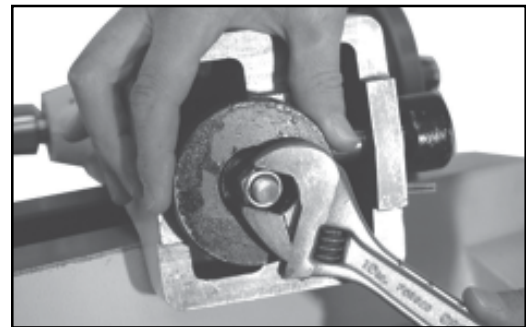


Fig.20

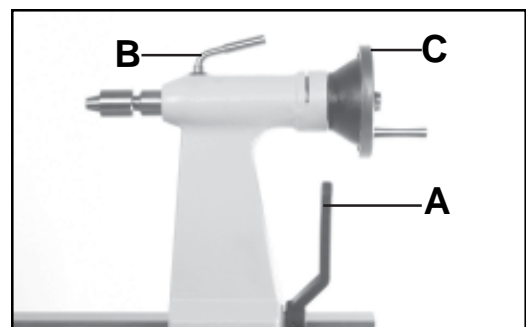


Fig.21

Changing Spindle Speeds

The Woodfast lathe features five step motor and spindle pulleys (A-Fig. 22) to provide five different spindle speed ranges. Open the access covers on the headstock and stand to change spindle speeds.(See Fig.22)

With access covers open, loosen the motor plate. Raise the motor to release tension on the pulleys. Check speed and belt position chart on the headstock to determine spindle speed required. (See Fig.23)

Move drive belt to desired pulley combination. Lower the motor plate, the weight of the motor will provide proper tension on the drive belt. Tighten the motor plate and close access covers.

Variable Speed Switch

In conjunction with the five speed pulley system, the Woodfast lathe also features a variable speed switch. To use with in a specific belt speed range, simply turn the lathe on (A-Fig. 24) and rotate the variable speed dial (B-Fig. 24) clockwise to increase the speed, and counter clockwise to decrease the speed. The spindle speed will be indicated on the digital readout (C-Fig. 24).

Note: The variable speed dial will only increase speed to the highest speed shown depending on belt position. (See Fig.23)

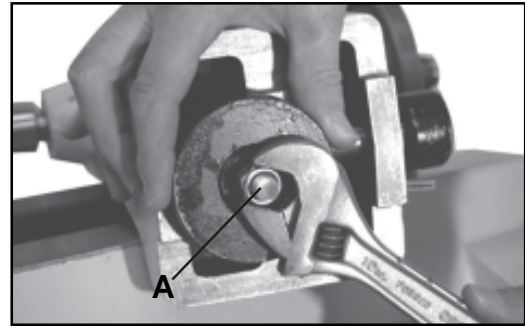


Fig.22

SPINDLE SPEEDS	
PULLEYS	R.P.M.
5	390 - 3890
4	290 - 2900
3	170 - 1740
2	90 - 910
1	50 - 510

RIKON
Woodfast Series

WARNING
FOR OPERATOR SAFETY,
OWNERS MANUAL MUST BE READ THOROUGHLY
BEFORE CONNECTING POWER AND OPERATING LATHE

Fig.23

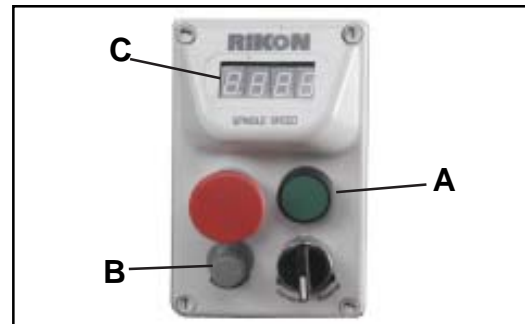


Fig.24

SPEED CHART GUIDE

WORKPIECE DIAMETER	SUGGESTED SPINDLE SPEEDS	
	ROUGHING	FINISHING
Up to 2"	1000 to 1200 RPM	1900 to 3000 RPM
2" to 4"	600 to 700 RPM	1500 to 2300 RPM
4" to 6"	600 to 700 RPM	1500 to 2300 RPM
6" to 12"	250 to 400 RPM	1000 to 1500 RPM
12" to 18"	250 to 400 RPM	600 to 1000 RPM
18" to 20"	200 to 300 RPM	300 to 900 RPM

Forward and Reverse Switch

Caution: Never switch from forward/reverse without completely stopping the motor.

Certain lathe operations require the use of a reversible motor, such as outboard turning and sanding.

To reverse the motor, make sure that the stop button is pressed and that the motor comes to a complete stop. For forward or normal motor rotation, turn the switch (A-Fig. 25) to the right. To reverse motor rotation, turn switch to the left.

Warning: Switching the motor to reverse while motor is still running will cause the AC inverter to fail.

Inverter Drive System

The model 70-500 lathe utilizes the latest technology in A.C. inverter drive circuitry to provide infinitely variable spindle speeds. The inverter controls the speed of the motor by varying the frequency of the voltage supplied to the motor. The inverter provides an acceleration curve that eliminates the shock of normal motor starting. Also a braking feature eliminates long coasting periods when the lathe is turned off. (Figure 26)

The 2 HP motor is specially designed for use with inverter drives, and is balanced to reduce noise and minimize vibration. The A.C. Inverter does not require any programming, it is pre-programmed from the factory. **The buttons on the face of the inverter should never be pushed at any time.** Use only the controls on the front of the switch box.

Headstock

The headstock supports the main spindle assembly and is rigidly fixed to the bed to ensure long term accuracy and stability. The main spindle is supported by 4 large precision bearings. They are sealed for life and require no lubrication or adjustment during their extended use. These bearings are specially designed to run at high temperatures.

The main spindle is hollow to accept the knock out bar for the removal of the drive center and other accessories which are held in by the MT-2 taper. Face plates and chucks should be screwed onto the spindle and up against the hexagon face. Excessive force is not required as it makes for difficult removal. (Figure 27)



Fig.25



Fig.26



Fig.27

Typical Operations

Warning: Wear adequate safety glasses or face shield.

Spindle Turning

- 1.) Check the project blank to ensure that it is free from cracks and defects.
- 2.) Hold project blank correctly and securely between centers.
- 3.) Sufficient force should be applied by the tailstock to safely hold the project while turning.
- 4.) Rotate the project by hand to ensure that it clears the tool rest by 1/4". (Figure 28)

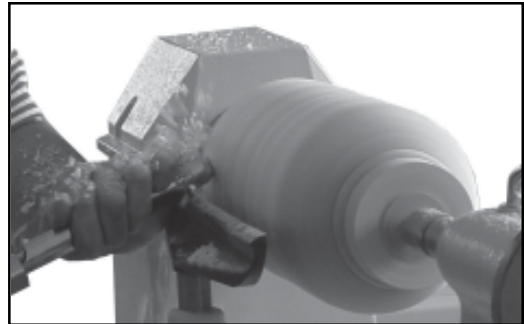


Fig.28

Faceplate Turning

Warning: Wear adequate safety glasses or face shield.

- 1.) Follow similar set up procedures and cautions as described in Spindle Turning above.
- 2.) The work piece should be "rough cut" as close as possible to finished shape before mounting.
- 3.) Attach project blank to the faceplate using suitable woodscrews.
- 4.) Use the tailstock to support the work piece for as long as possible. (Figure 29)

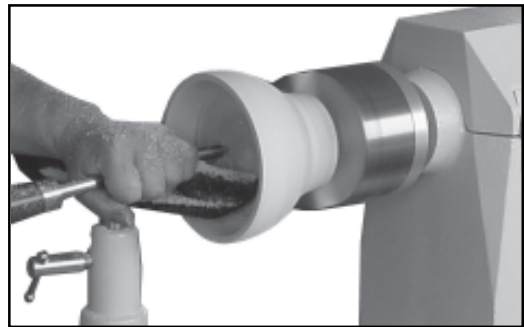


Fig.29

Indexing/Spindle Lock

The dual purpose indexing/spindle lock (A-Fig. 30) is positioned on the front of the headstock for ease of use. The headstock indexing feature has 24 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, pull the lock knob out and turn a half turn in either direction until the locking locating pin enters the safety catch position in the knob.

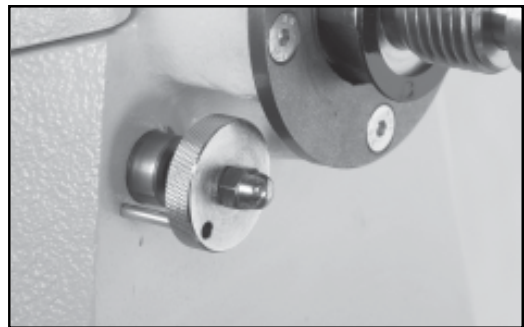


Fig.30

The 24 position indexing feature (A-Fig. 31) 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.

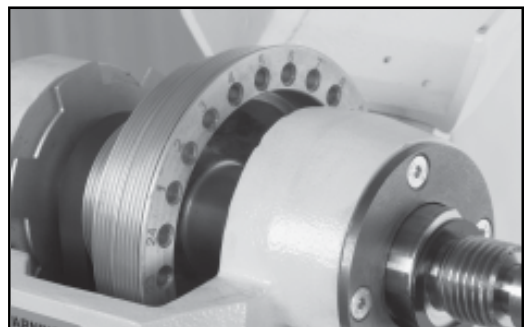


Fig.31

SPINDLE

The spindle is the working part of the lathe. It is mounted with the new QUATRE PRECISION BEARING SYSTEM. The 2 directional axial load provides greater performance for both inboard and outboard turning operations. Both ends of the spindle are threaded to allow the attachment of accessories, such as faceplates and chucks. The inboard end of the spindle has a right hand thread and the outboard has a left hand thread. The spindle is also hollow to allow for deep boring and knocking out centers. (Figure 32)

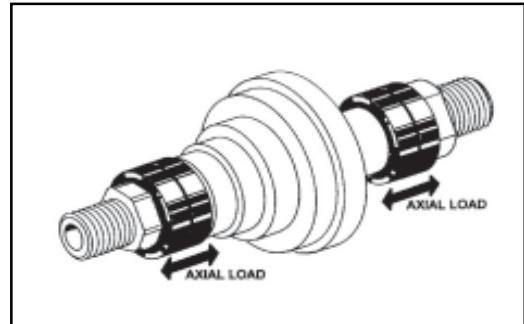


Fig.32

The knockout bar provided is for the ease of knocking out centers through the headstock or tailstock.

SPUR DRIVE CENTER - HEADSTOCK

The spur drive center (A-Fig. 33) is used in conjunction with the revolving center in the tailstock to support cylindrical work such as chair and table legs, railstool handles etc.

When loading a project blank onto the spur drive center, do not use a hammer or similar as damage to the headstock bearings may result. The pressure obtained via the tailstock handwheel should be sufficient to provide adequate stability when using softer woods. For harder woods, shallow diagonal saw cuts in the end section should be made plus a small hole in the center. The spur center can be directly knocked into the wood by using only a soft mallet. Never use a steel hammer as this will damage the taper shank.

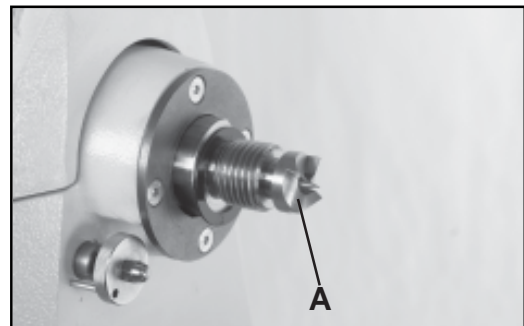


Fig.33

LIVE CENTER - TAILSTOCK

The revolving cup center (A-Fig. 34) is used for supporting spindle turning projects that can not be held suitably in a chuck.

It can also be used as a safety device to support face plate work for as long as possible, especially during roughing down stage.

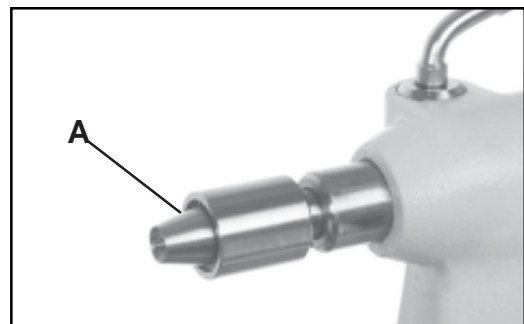


Fig.34

TAILSTOCK

The tailstock can be moved along the bed ways and locked by way of the cam lever (A-Fig 35). Excessive pressure should be avoided.

The sliding spindle (ram) is hollow to allow for long hole drilling as well as having a MT-2 taper which accepts the live center and other tapered accessory tools. The spindle is moved by winding the the large handwheel (B-Fig. 35) and can be tightened by the locking arm (C-Fig. 35).

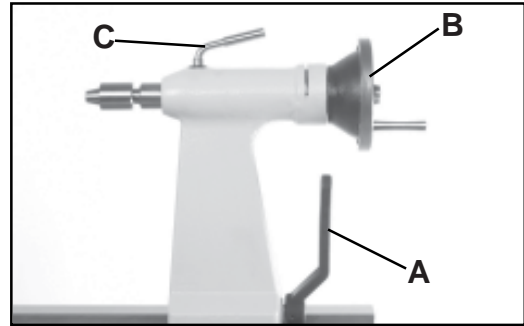


Fig.35

CAM-LOCK TOOLREST BASE

The cam-lock toolrest base (A-Fig. 36) is designed as a quick action easy to use support base for the toolrest (B-Fig.36).

Locking and unlocking is by way of the cam lever (C-Fig 36) which will operate in either direction. Excessive pressure when locking should be avoided.

The toolrest locking arm (D-Fig.36) is positioned for ease of use. Excessive pressure should be avoided.

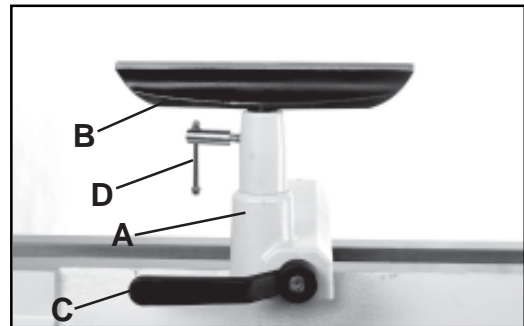


Fig.36

TOOLREST

The toolrest has been specially shaped for operator safety and ease of use. The top face has been machined to assist smooth tool movement. If this surface becomes damaged from sharp edged tools, use a fine file to make smooth. (Figure 37)

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



Fig.37

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.

Replacing the Drive Belt

- 1.) Disconnect the lathe from the main power supply.
- 2.) Open the access covers on the headstock and stand.
- 3.) Loosen the motor plate and lift motor to take tension off belt. (See Fig.38)
- 4.) Remove belt from the motor pulley.
- 5.) Engage spindle lock into the headstock pulley.
- 6.) Remove handwheel using spanner wrench. (LH Thread)
- 7.) Remove the grub screw from the spindle lock nut.
- 8.) Remove spindle lock nut using spanner wrench. (LH Thread) (See Fig.39)
- 9.) Dis-engage the spindle lock.
- 10.) Remove the two grub screws from the headstock pulley. (See Fig.40)
- 11.) Place a piece of wood against the spindle and strike with a mallet toward the tailstock until the headstock pulley and rear spacer can be removed. At this point the drive belt can be removed and replaced.
- 12.) Reverse above steps to reinstall.

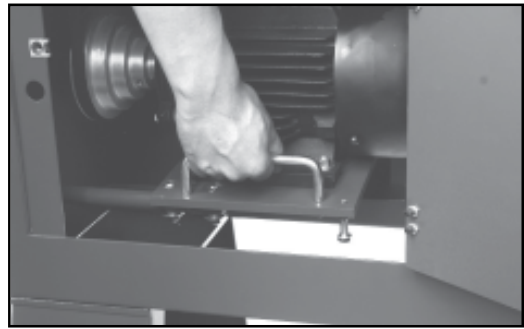


Fig.38

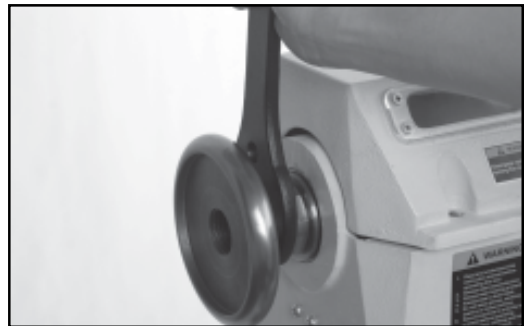


Fig.39

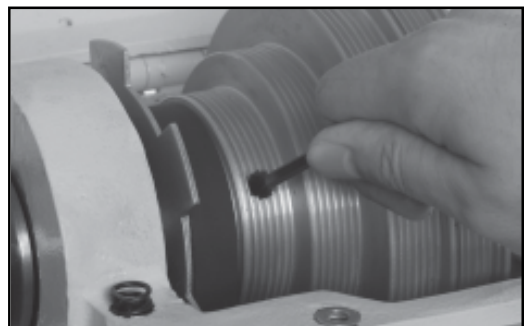


Fig.40

TAILSTOCK SPINDLE AND HANDWHEEL SERVICE

1. Remove lock lever (25) and clamp block (24) .
2. Pass the hexagon wrench supplied, through the hole in the handwheel (31) and unscrew the grub screw (38) in the tailstock.
3. Remove the keeper plate (26).
4. Remove handwheel (31) together with spindle (27) from end of tailstock casting (22).
5. Unscrew handwheel (31) from spindle (27).
6. Wipe clean all parts with kerosine or similar to remove any grime and dust build-up.
7. Smear a little grease inside tailstock casting (22) where handwheel (31) rotates.
8. Lightly oil outside of spindle (27) including thread.
9. Reverse procedures to re-assemble. (Figure 41)

RE-SETTING TOOLREST BASE & TAILSTOCK CAMS

1. The correct sliding action of both the camlock toolrest base and the tailstock as well as clamping tension are obtained by adjusting the nut under the clamping blocks.
2. Minimum clearance between the clamp blocks and lathe bed will make sliding of the toolrest bracket and tailstock difficult. The lever locking action will be too firm resulting in poor locking.
3. Unscrew the nut a little at a time until a smooth sliding action is achieved. The locking lever should now have more rotational travel ensuring a softer but more effective locking. (Figure 42)

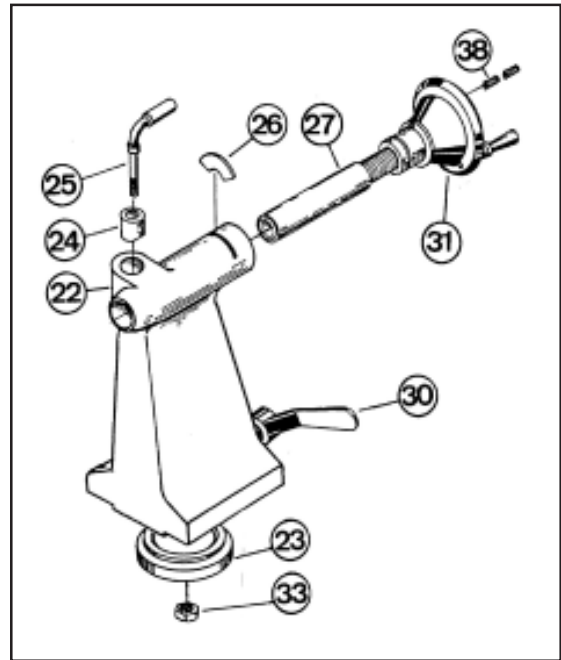


Fig.41

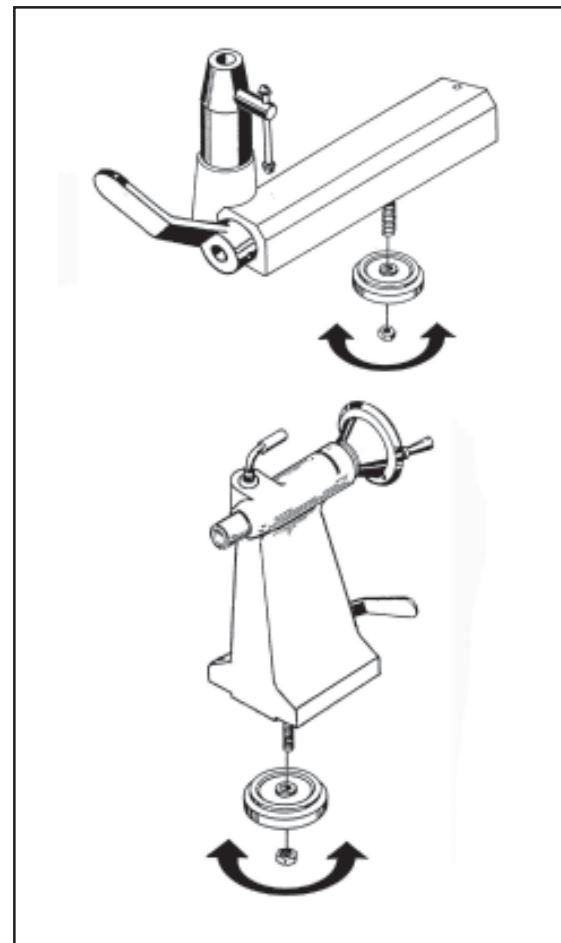


Fig.42

Electrical 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.

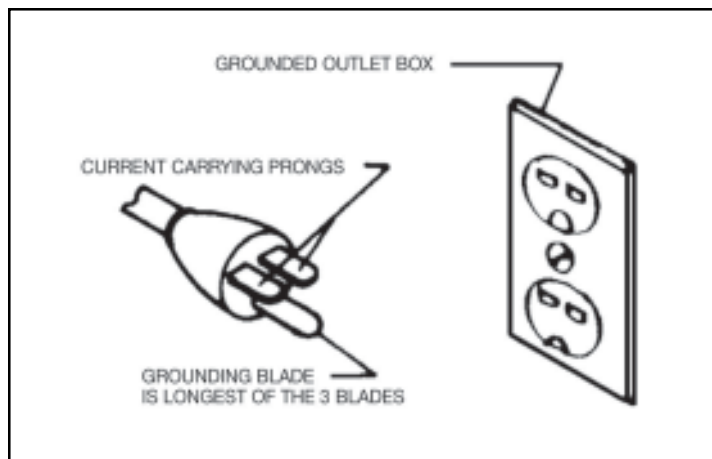
Use only three wire extension cords that have three-prong grounding plugs and three-pole receptacles that accept the tool's plug.*

Repair or replace a damaged or worn cord immediately.

This tool is intended for use on a circuit that has an outlet that looks the one illustrated in Figure A below. The tool has a grounding plug that looks like the grounding plug as illustrated in Figure A below.

* Canadian electrical codes require extension cords to be certified SJT type or better.

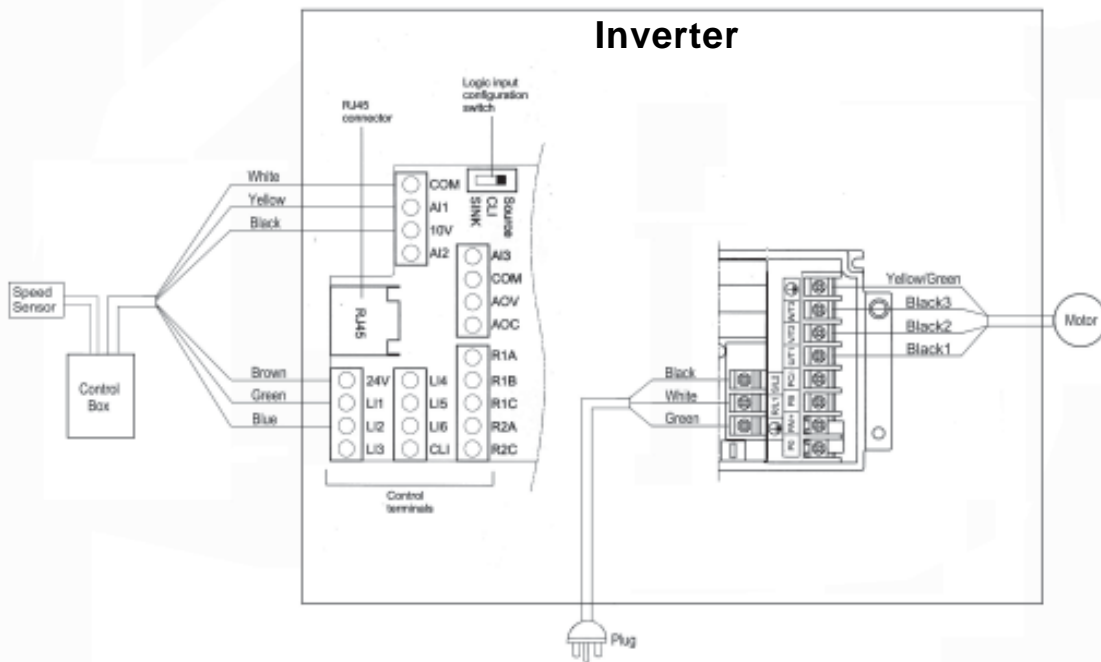
** Use of an adapter in Canada is not acceptable.



Wiring Diagram

WARNING: This machine must be grounded.

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



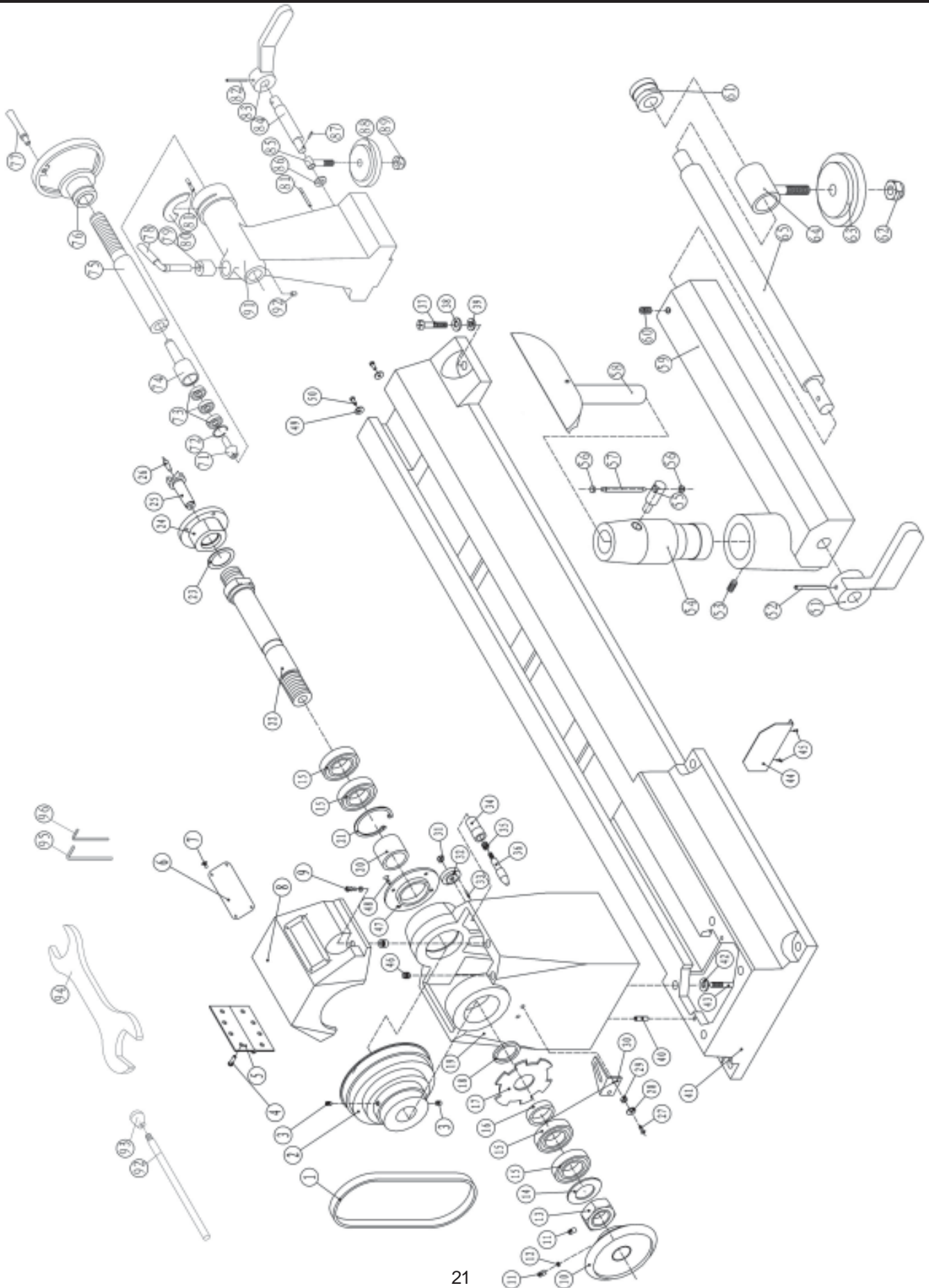
Troubleshooting

IMPORTANT:

When carrying out any adjustments turn off switch and make sure electrical leads are disconnected from mains power.

PROBLEM	POSSIBLE CAUSE	THE CURE
Excessive vibration	Out of balance work	Reduce spindle speed.
		Prepare wood to a true circle before loading into lathe.
		Point of holding may not be centralised. Holding method may not be sufficiently tight.
	Drive belt has been over tensioned or damaged	Weight of motor should be sufficient prior to locking.
	Motor pulley not in correct alignment with headstock pulley.	Re-align motor pulley to headstock pulley square and parallel to each other.
	Headstock pulley loose	Check pulley is correctly on shaft. Tighten L.H. Locknut. Tighten both grub screws in pulley
	Bolts holding motor to support plate are loose	Tighten all bolts and check correct pulley alignment.
	Single phase motor	Many single phase motors due to their method of design produce minor vibrations which usually can not be altered
Stand or bench incorrectly standing on floor	Refer to installation instructions (page 4)	
Face plate or chucks running out of true	Dirt build up on rear of faceplate or chucks or around hexagon locking face.	Clean off all build up
Belt not running true or becoming damaged on edges.	Headstock and motor pulley incorrectly lined up	1. Open front door on stand. 2. Loosen 4 motor bolts. 3. Re-align both pulleys square and parallel to each other.
TAILSTOCK		
Tailstock handwheel becoming hard to turn	Build up of dust and wood resin on quill or inside of handwheel thread.	Remove quill and handwheel from tailstock body. Wipe clean all areas including inside of tailstock body lightly oil quill and grease handwheel. Re-assemble (refer page 13H)
Tailstock not locking correctly onto bed.	Incorrect clamp plate adjustment	By adjusting the nut under the clamp plate increased or decreased clamp pressure can be obtained (page 14K)
Tailstock not running smoothly on bed ways.	Dirty bed ways and underside of tailstock body	Clean bed ways and underside of tailstock body with kerosine or similar.
	Incorrect adjustment on clamp plate	Adjust clamp plate nut (refer page 14K)
TOOLREST		
Turning tools not running smoothly across toolrest	Damaged surface on toolrest face caused by sharp edged tools.	Using a fine file, smooth surface on top of toolrest and polish with sandpaper. Remove sharp edges from corners of turning tools.
CAM-LOCK TOOLREST BRACKET		
Toolrest bracket not running smoothly on bed ways.	Incorrect clamp plate adjustment.	By adjusting the nut under the clamp plate increased or decreased clamp pressure can be obtained (page 14K)
	Dirty bed ways and underside of cam-lock brkt.	Clean bed ways and underside of toolrest brkt. body with kerosine or similar. (refer page 14J)
Toolrest bracket not locking correctly onto bed.	Incorrect clamp plate adjustment. (Excessive pressure on cam lever should be avoided.)	By adjusting the nut under the clamp plate increased or decreased clamp pressure can be obtained (page 14K)
Toolrest bracket becoming tight to turn	Dirty cam shaft and clamp tube.	Remove cam shaft from cam-lock bracket and clean all parts with kerosine or similar (refer page 14J)
CENTRES		
Spur drive centre or tailstock centre not holding into tapers when turning	Small end of taper has been damaged due to dropping or hitting.	File or polish away any damage. Check that inside of tapers have not been scored.
	Grease or oil inside of tapers.	Wipe clean inside of tapers. Smear of oil between uses will help to reduce rusting.
	Insufficient pressure when loading.	Quick firm pushing by hand is required. Do not knock in with solid object.
Tailstock and Headstock centres not aligned correctly.	Bed incorrectly bolted to stand causing a twist.	Refer installation instructions (page 4)
	Stand incorrectly bolted or positioned on floor.	Refer installation instructions (page 4)

Explosion Diagram



Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
1	1-JL91010012	Poly vee belt 550-J6	44	1-JL91010011	Insert plate
2	1-JL91010007	Pulley- Headstock lid	45	1-RVT3X6GB867Z	Rivet 3x6
3	1-M8X16GB80B	Grub screw M8x16	46	1-JL91010015	Spring
4	1-M5X8GB820Z	Screw-gutter bolt 6mmx8mm long	47	1-JL91010013A	Plate
5	1-JL91013000	Hinge - Headstock lid	48	1-M6X12GB70D3Z	Screw M4x10
6	1-JL91010023	Window	49	1-WSH5GB5287Z	Washer
7	1-M4X10GB819Z	Screw M4x10	50	1-M5X10GB818Z	Pan head screw M5x10
8	1-JL91010004B	Headstock lid	51	1-JL91020007B	Lock handle
9	1-JL91014000	Oval Phillips Head 1/4 turn stud	52	1-PIN5X40GB879D1B	Sellock pin 5mmx40mm long
10	1-JL91010001B	Handwheel brake 33mmx3.5p	53	1-M8X12GB80B	Grub screw M8x12
11	1-M8X8GB80B	Grub screw M8x8	54	1-JL91030002	Insert
12	1-JL91010026	Washer	55	1-JL91031002	Lock screw Body
13	1-JL91010005B	Lock collar - 33mmx3.5p	56	1-M6GB923Z	Cap nut
14	1-JL91010014B	Washer	57	1-JL91031001	Lock screw handle
15	1-BRG6007VVCM	Bearing	58	1-JL91030004	Tool rest 150mm
16	1-JL91010024	Spacer 14mm	59	1-JL91030001	Toolrest bracket - body
17	1-JL91010021	Indicator plate	60	1-M8X16GB80B	Grub screw M8x16
18	1-JL91010025	Tube	61	1-JL91030005	Bush - c/lock bracket
19	1-JL91010003B	Headstock	62	1-M12GB889Z	Nylon nut M12
20	1-JL91010009	Spacer 35mm	63	1-JL91020008	Clamp disc
21	1-CLP62GB893D1B	Circlip 62mm j62	64	1-JL91032000	Cam bolt assembly
22	1-JL91010006B	Main spindle - 33mmx3.5p	65	1-JL91030006	Spindle - cam lock bracket
23	1-JL91010016	Plastic washer	71	1-JL91021001	Revolving cup center
24	1-JL91010010B	82mm Face plate R/H - 33mmX3.5p	72	1-CLP26GB893D1B	Ring retaining
25	1-JL91011001	Spur drive center - 25mm	73	1-BRG6000VVCM	Bearing
26	1-JL91011002	Center point	74	1-JL91021002	Live center seat
27	1-M5X16GB818Z	Pan head screw M4x20	75	1-JL91020002	Spindle - tailstock
28	1-WSH5GB848Z	Washer	76	1-JL91022002	Handwheel tailstock
29	1-M5GB6170Z	Nut M4	77	1-JL91022001	Handle - Handwheel
30	1-JL91010022	Digital readout bracket	78	1-JL91020004	Clamp screw
31	1-M6GB802Z	Dome nut 6mm	79	1-JL91020003	Clamp block
32	1-JL91012004	Nut - Index pin	80	1-JL91020005	Keeper plate
33	1-PIN3X26GB879D1Z	Sellok pin 3mmx26mm long	81	1-M6X8GB80B	Sellock pin 5mmx40mm long
34	1-JL91012002	Body - index pin	82	1-PIN5X40GB879D1B	Sellock pin 5mmx40mm long
35	1-JL91012003	Spring - index pin	83	1-JL91020007B	Lock handle
36	1-JL91012001	Pin - index pin	84	1-JL91020006	Cam spindle - tailstock
37	1-M10X40GB5783Z	Hex. Head bolt M10x40	85	1-JL91023000	Cam bolt - tailstock
38	1-JL91000001	Washer	86	1-WSH12GB95Z	Washer - heavy duty
39	1-WSH10GB861D1Z	Int. Teeth lock washer M10	87	1-PIN3X30GB879D1B	Sellock pin 3mmx26mm long
40	1-PIN8X25GB879D1B	Sellok pin 3mmx25mm long	88	1-JL91020008	Clamp disc
41	1-JL91010002B	Lathe bed	89	1-M12GB889Z	Nylon nut M12
42	1-WSH10GB95Z	Flat washer M10	90	1-JL91020009	Screw
43	1-M10X30GB5783Z	Hex. Head bolt M10x30	91	1-JL91020001	Tail stock

Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
1	1-M8X20GB5783Z	Hex.bolt	26	1-M8X40GB5783Z	Hex. bolt
2	1-WSH8GB861D1B	Lock washer	27	1-PIN8X5X32GB1567	Key
3	1-WSH8GB96Z	Washer	28	1-m8x10GB80b	Hex. Socket screw
4	1-JL91041000B	Stand body	29	1-JL91040007	Motor pulley
5	1-JL91040001B	Motor housing door	30	1-JL91040003	Motor bracket support
6	1-JL91042100	Lock lever	31	1-m8x40GB819D1Z	Pan head screw
7	1-JL91045000	Lock screw	32	1-JL91043000	Motor bracket
8	1-JL91044000B	Hinge	33	1-M8GB6170Z	Hex. Nut
9	1-WSH6GB861D1Z	Lock washer	34	1-M8X35GB5783Z	Hex. bolt
10	1-WSH6GB96Z	Washer	35	1-WSH8GB861D1Z	Lock washer
11	1-M6GB6170Z	Hex.nut	36	1-JL91040004	Mounting shaft
12	1-M6X16GB818Z	Pan head screw	37	1-WSH8GB5287Z	Washer
13	1-JL91040006	Cover	38	1-JL91040005	Motor locking handle
14	1-M5GB6170Z	Nut	39	1-JL91040010	Spring
15	1-WSH5GB96Z	Washer	40	1-M4X10GB819Z	Screw
16	1-WSH5GB861D1Z	Lock washer	41	1-WSH4GB97D1Z	Washer
17	1-JL91040012	Hinge thread	42	1-WSH4GB861D1Z	Lock washer
18	1-M5X10GB818Z	Pan head screw	43	1-M4GB6170Z	Hex. nut
19	1-M6X16GB5783Z	Hex. Bolt	44	1-JL91051000B	Stand-left
20	1-WSH6GB95Z	Washer	45	1-M10X30GB5783Z	Hex. bolt
21	1-JL91040002B	Inverter housing door	46	1-M10GB6170Z	Hex. Nut
22	1-M6X12GB70Z	Hex. Socket head screw	47	1-JL91052000B	Stand-right
23	1-WSH6GB97D1Z	Washer	48	1-M10X30GB5783Z	Hex. Bolt
24	1-JL91060003	Tool holder	49	1-WSH10GB96Z	Washer
25	1-B9040584	Motor	50	1-WSH10GB861D1Z	Lock washer

Warranty

RIKON

POWER TOOLS

5-Year Limited Warranty

RIKON Power Tools, Inc. ("Seller") warrants to only the original retail consumer/purchaser of our products that each product be free from defects in materials and workmanship for a period of five (5) years from the date the product was purchased at retail. This warranty may not be transferred.

This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs, alterations, lack of maintenance or normal wear and tear. Under no circumstances will Seller be liable for incidental or consequential damages resulting from defective products. All other warranties, expressed or implied, whether of merchantability, fitness for purpose, or otherwise are expressly disclaimed by Seller. This warranty does not cover products used for commercial, industrial or educational purposes.

This limited warranty does not apply to accessory items such as blades, drill bits, sanding discs or belts and other related items.

Seller shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty proof of purchase documentation, which includes date of purchase and an explanation of the complaint, must be provided.

The Seller reserves the right to effect at any time, without prior notice, those alterations to parts, fittings, and accessory equipment which they may deem necessary for any reason whatsoever.

To take advantage of this warranty, please fill out the enclosed warranty card and send it to:
RIKON Warranty
16 Progress Rd.
Billerica, MA. 01821

The card must be entirely completed in order for it to be valid. If you have any questions please contact us at 877-884-5167 or warranty@rikontools.com.

Notes:

Notes:

RIKON **POWER TOOLS**

For more information:
16 Progress Rd.
Billerica, MA. 01821

877-884-5167 / 978-528-5380
techsupport@rikontools.com
www.rikontools.com