

Read this manual before using machine to avoid serious injury and damage

60170ML-WHD

14" Variable Speed Woodworking Mini Lathe

with Wired Remote and Digital Readout



For technical support, email <u>techservices@wahudatools.com</u> or call **877-568-8879** VER. 20.03.15

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INTRODUCTION

This user manual is intended for use by anyone working with this machine. It should be kept available for immediate reference so that all operations can be performed with maximum efficiency and safety. Do not attempt to perform maintenance or operate this machine until you have read and understand the information contained in this manual. The drawings, illustrations, photographs, and specifications in this user manual represent your machine at time of print. However, changes may be made to your machine or this manual at any time with no obligation to WAHUDA.

WARRANTY

2 YEAR LIMITED WARRANTY

WAHUDA warrants its machinery to be free of defects in workmanship and materials for a period of two (2) years from the date of the original purchase by the original owner. This warranty applies to products sold in United States only. The warranty does not apply to any product used for professional or commercial production purposes nor for industrial or educational applications. Such cases are covered by our 1 year Limited Warranty with the Conditions and Exceptions.

Warranty does not include failures, breakage or defects deemed after inspection by an Authorized Service Center or our agent to have been directly or indirectly caused by or resulting from improper use, lack of or improper maintenance, misuse or abuse, negligence, accidents, damage in handling or transport, or normal wear and tear of any part or component. Examples are consumables such as inserts and knives or wear items like drive belts, bearings or brushes. Additionally, warranty is void if repairs or alterations are made to the machine by an unauthorized service center without the direct consent of WAHUDA.

To file a claim of warranty, call toll free 877-568-8879 or email <u>techservices@wahudatools.com</u>. Warranty applies to the original buyer only and cannot be transferred. Your machines date of purchase and serial number have already been registered with WAHUDA when shipped. If you purchased your machine from one of our authorized dealers, please go online at <u>www.wahudatools.com</u> and register your machine. Thus, you will only need to provide your full name when contacting WAHUDA.

The defective units should be returned Freight prepaid to WAHUDA's Authorized Service Center for inspection. If the warranty claim is considered to be invalid due to exclusions listed above, WAHUDA will at your direction dispose of or return the product. In the event you choose to have the product returned you will be responsible for the handling and shipping cost of the return.

WAHUDA furnishes the above warranties in lieu of all other warranties, express or implied. WAHUDA shall not be liable for any special, indirect, incidental, punitive or consequential damages, including without limitation to loss of profits arising from or related to the warranty, the breach of any agreement or warranty, or the operation or use of its machinery, including without limitation damages arising from damage to fixtures, tools, equipment, parts or materials, direct or indirect loss caused by any other part, loss of revenue or profits, financing or interest charges, and claims by and third person, whether or not notice of such possible damages has been given to WAHUDA. Not Responsible for damages of any kind for any delay by or failure of WAHUDA to perform its obligations under this agreement or claims made a subject of a legal proceeding against WAHUDA more than one (1) year after such cause of action first arose.

The validity, construction and performance of this Warranty and any sale of machinery by WAHUDA shall be governed by the law of the State of Tennessee, without regard to conflicts of law's provisions of any jurisdiction. Any action related in any way to any alleged or actual offer, acceptance or sale by WAHUDA or any claim related to the performance of and agreement including without limitation this Warranty, shall take place in the federal or state courts in Shelby County, Tennessee.

WAHUDA reserves the right to change the specifications of its machines without prior notice.

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PRODUCT SPECIFICATIONS

Motor power input Motor (VFD inverter controlled) Lathe RPM Headstock Spindle Taper Drive Spindle Thread Drive Spindle Hole Diameter Tailstock Spindle Taper Distance Between Centers Max Diameter over Bed Tool Rest Shipping Weight Net Weight Dimensions Shipping Dimensions Recommended 15 amp circuit 120 V, 60 Hz, 1PH, AC, 13 Amp 230V, 60HZ, 3 PH, 1 HP, AC, 3 Amp, 1720 RPM 0 - 800 / 0 - 1750 / 0 - 3600 2MT 1 ¼" x 8 TPI RH 3/8" 2MT 16" 14" 6" width x 1" Post Diameter 105 lbs 95 lbs 32" L x 13" W x 17" H 33 ½" L x 19" W x 12" H



FEATURE IDENTIFICATION (cont.)



WIRED REMOTE CONTROL WITH MAGNETIC BACK



GENERAL SAFETY

NOTE: The **WARNING!** and **CAUTION!** symbols indicate a potentially hazardous situation which, if not avoided, COULD result in death or serious injury. READ THIS MANUAL completely before assembling and operating this machine.

WARNING! TO AVOID serious injury, death, or damage to the machine, please read, understand, and follow, all Safety and Operating Instructions before assembling and operating this machine. This manual is not totally comprehensive. It does not and cannot convey every possible safety and operational problem which may arise while using this machine. The manual will cover many of the basic and specific safety procedures needed in an industrial environment.

All federal and state laws, and any regulations having jurisdiction covering the safety requirements for use of this machine, take precedence over the statements in this manual. Users of this machine must adhere to all such regulations.

WARNING! Exposure to the dust created by power sanding, sawing, grinding, drilling and other construction activities may cause serious and permanent respiratory or other injury, including silicosis (a serious lung disease), cancer, and death. Avoid breathing the dust, and avoid prolonged contact with dust. The dust may contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement and other masonry products.
- Arsenic and chromium from chemically-treated lumber.

Always operate tool in well ventilated area and provide for proper dust removal. Use a dust collection system along with an air filtration system whenever possible. Always use properly fitting NIOSH/OSHA approved respiratory protection appropriate for the dust exposure, and wash exposed areas with soap and water.

WARNING! ALWAYS wear eye protection. Any machine can throw debris into the eyes during operations, which could cause severe and permanent eye damage. Everyday eyeglasses are NOT safety glasses. ALWAYS wear Safety Goggles (that comply with ANSI standard Z87.1) when operating power tools.

WARNING! ALWAYS wear hearing protection. Plain cotton is not an acceptable protective device. Hearing equipment should comply with ANSI S3.19 Standards.

WARNING! ALWAYS wear a NIOSH/OSHA approved dust mask to prevent inhaling dangerous dust or airborne particles.

GENERAL SAFETY (cont.)

ALWAYS keep the work area clean, well lit, and organized. DO NOT work in an area that has slippery floor surfaces from debris, grease, and wax.

<u>CAUTION!</u> ALWAYS unplug the machine from the electrical receptacle when making adjustments, changing parts or performing any maintenance.

AVOID ACCIDENTAL STARTING. Make sure that the power switch is in the "OFF" position before plugging in the power cord to the electrical receptacle.

WARNING! AVOID a dangerous working environment. DO NOT use electrical tools in a damp environment or expose them to rain or moisture.

WARNING! CHILDPROOF THE WORKSHOP AREA by removing switch keys, unplugging tools from the electrical receptacles, and using padlocks.

<u>CAUTION!</u> DO NOT use electrical tools in the presence of flammable liquids or gasses.

DO NOT FORCE the machine to perform an operation for which it was not designed. It will do a safer and higher quality job by only performing operations for which the machine was intended.

WARNING! DO NOT stand on a machine. Serious injury could result if it tips over or you accidentally contact any moving part.

DO NOT store anything above or near the machine.

WARNING! DO NOT operate any machine or tool if under the influence of drugs, alcohol, or medication.

EACH AND EVERY time, check for damaged parts prior to using any machine. Carefully check all guards to see that they operate properly, are not damaged, and perform their intended functions.

Check for alignment, binding or breakage of all moving parts. Any guard or other part that is damaged should be immediately repaired or replaced.

WARNING! Ground all machines. If any machine is supplied with a 3-prong plug, it must be plugged into a 3-contact electrical receptacle. The third prong is used to ground the tool and provide protection against accidental electric shock. DO NOT remove the third prong.

<u>CAUTION!</u> Keep visitors and children away from any machine. DO NOT permit people to be in the immediate work area, especially when the machine is operating.

GENERAL SAFETY (cont.)

KEEP protective guards in place and in working order.

<u>CAUTION!</u> MAINTAIN your balance. DO NOT extend yourself over the tool. Wear oil resistant rubber soled shoes. Keep floor clear of debris, grease, and wax.

MAINTAIN all machines with care. ALWAYS KEEP machine clean and in good working order. KEEP all blades and tool bits sharp.

REMOVE ALL MAINTENANCE TOOLS from the immediate area prior to turning the machine ON.

WARNING! STAY ALERT, watch what you are doing, and use common sense when operating any machine. DO NOT operate any machine tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.

WARNING! USE ONLY recommended accessories. Use of incorrect or improper accessories could cause serious injury to the operator and cause damage to the machine. If in doubt, DO NOT use it.

THE USE of extension cords is not recommended for 230V equipment. It is better to arrange the placement of your equipment and the installed wiring to eliminate the need for an extension cord. If an extension cord is necessary, refer to the chart in the Grounding Instructions section to determine the minimum gauge for the extension cord. The extension cord must also contain a ground wire and plug pin.

<u>CAUTION!</u> Wear proper clothing, DO NOT wear loose clothing, gloves, neckties, or jewelry. These items can get caught in the machine during operations and pull the operator into the moving parts. Users must wear a protective cover on their hair, if the hair is long, to prevent it from contacting any moving parts.

SAVE these instructions and refer to them frequently and use them to instruct other users.

NOTE: Information regarding the safe and proper operation of this tool is also available from the following sources:

Power Tool Institute 1300 Summer Avenue American National Standards Institute 23 West 43rd Street, 4th Floor

Cleveland, OH 44115-2851 www.powertoolinstitute.org

National Safety Council 1121 Spring Lake Drive Itasca, IL 60143-3201 New York, NY 10036 www.ansi.org

ANSI 01.1 Safety Requirements for Woodworking Machines and the U.S. Department of Labor Relations <u>www.osha.gov</u>

PRODUCT SAFETY

- 1. Serious personal injury may occur if normal safety precautions are overlooked or ignored. Accidents are frequently caused by lack of familiarity or failure to pay attention. Obtain advice from supervisor, instructor, or another qualified individual who is familiar with this machine and its operations.
- 2. Every work area is different. Always consider safety first, as it applies to your work area. Use this machine with respect and caution. Failure to do so could result in serious personal injury and damage to the machine.
- 3. Prevent electrical shock. Follow all electrical and safety codes, including the National Electrical Code (NEC) and the Occupational Safety and Health Regulations (OSHA). All electrical connections and wiring should be made by qualified personnel only
- 4. **WARNING!** TO REDUCE the risk of electrical shock. DO NOT use this machine outdoors. DO NOT expose to rain. Store indoors in a dry area.
- 5. STOP using this machine, if at any time you experience difficulties in performing any operation. Contact your supervisor, instructor or machine service center immediately.
- 6. Safety decals are on this machine to warn and direct you to how to protector yourself or visitors from personal injury. These decals MUST be maintained so that they are legible.
- 7. DO NOT leave the unit plugged into the electrical outlet. Unplug the unit from the outlet when not in use and before servicing, performing maintenance tasks, or cleaning.
- 8. **WARNING!** DO NOT handle the plug or machine with wet hands
- 9. USE only accessories as described in this manual and recommended by WAHUDA.
- 10. DO NOT pull the jointer by the power cord. NEVER allow the power cord to come in contact with sharp edges, hot surfaces, oil or grease.
- 11. ALWAYS turn the power switch "OFF" before unplugging the machine. DO NOT unplug the machine by pulling on the power cord. ALWAYS grasp the plug, not the cord.
- 12. REPLACE a damaged cord immediately. DO NOT use a damaged cord or plug.
- 13. DO NOT use the machine as a toy. DO NOT use near or around children.
- 14. ENSURE that the machine sits firmly before using. If the machine wobbles or is unstable, correct the problem by attaching to a bench top prior to operation.
- 15. This machine is designed to process wood ONLY.

PRODUCT SAFETY (cont.)

- 16. INSPECT all stock before beginning operations ensuring that there are no foreign objects embedded in the wood, loose knots, or knots that may become loose during operation.
- 17. **WARNING!** DO NOT attempt to remove jams until power is disconnected and all moving parts have come to a complete stop.
- 18. MAKE SURE that there is adequate operating space before turning machine on.
- 19. DO NOT use "split" work stock
- 20. Always start at the lowest speed when starting a new task.
- 21. Check that the tool rest is at or slightly below the center line in the lathe before switching on the power
- 22. Rotate the work piece by hand to check that it is centralized, clear of the tool rest, that it is NOT split nor has loose knots.
- 23. Where lathes have the ability to be reversed, check that the machine will be rotating in the correct direction.
- 24. If your lathe has the facility to run in reverse, you MUST ensure that the mounting accessories, (chucks, faceplates, etc) can be locked onto the lathe mandrel. And in case of chucks, have some form of security device to prevent them from "unwinding" during reverse operation.
- 25. Make sure your tools are stored away from the turning area of the lathe. Do not reach over a rotating work piece at any time.
- 26. DO NOT "dig in" or try to take too large of cut.
- 27. DO NOT leave the lathe running unattended or leave the machine until it has stopped
- 28. Some turning tools may have specific sharpening angles that have been determined by the manufacturer. If re-sharpening, adhere to these angles to maximize the finish of your work.
- 29. If the work you are doing is liable to generate flying grit, dust or chips, wear the appropriate safety clothing, protective eye wear (Such as googles or face mask).
- 30. If the work operation appears to be excessively noisy, wear hearing protection.
- 31. If you have long hair, wearing a cap, safety helmet, hairnet, or even a sweatband, will minimize the possibility of your hair being caught up in the rotating parts of the tool.
- 32. Snag hazards, such as rings, watches, etc, should also be removed.
- 33. Consideration to wearing non-slip footwear should be given.
- 34. DO NOT work with cutting tools of any description if you are tired, your attention is not focused, or you are being distracted. A deep cut, lost finger, or worse, is not worth it.
- 35. Carry out final tightness check on chuck, faceplate, work piece, tool rest, etc., and correct speed and direction have been selected.
- 36. ALWAYS USE COMMON SENSE when operating any machinery

GROUNDING INSTRUCTIONS

WARNING! This machine MUST BE GROUNDED while in use to protect the operator from electric shock. In the event of a malfunction or breakdown, GROUNDING provides the path of least resistance for electric current and reduces the risk of electric shock. The plug MUST be plugged into a matching electrical receptacle that is properly installed and grounded in accordance with ALL local codes and ordinances.

If a plug is provided with your machine DO NOT modify the plug. If it will not fit your electrical receptacle, have a qualified electrician install the proper connections to meet all electrical codes local and state. ALL connections must also adhere to NEC and OSHA mandates.

WARNING! IMPROPER ELECTRICAL CONNECTION of the equipment-grounding conductor can result in risk of electric shock. The conductor with the green insulation (with or without yellow stripes) is the equipment-grounding conductor. DO NOT connect the equipment-grounding conductor to a live terminal if repair or replacement of the electric cord or plug is necessary.

Check with a qualified electrician or service personnel if you do not completely understand the grounding instructions, or if you are not sure the tool is properly grounded.

WARNING! Electrocution or fire could result if this machine is not grounded properly or if the electrical configuration does not comply with local and state electrical codes.

MAKE CERTAIN the machine is disconnected from power source before starting any electrical work.

MAKE SURE the circuit breaker does not exceed the rating of the plug and receptacle.

The motor supplied with your machine is a 115 volt, 60 hertz, single phase motor. Never connect the green or ground wire to a live terminal. A machine with a 115 volt plug should only be connected to an outlet having the same configuration as the plug.

WARNING! To reduce the risk of fire or electrical shock, use the proper gauge of extension cord. When using an extension cord, be sure to use one heavy enough to carry the current your machine will draw.

The smaller the gauge-number, the larger the diameter of the extension cord is. If in doubt of the proper size of an extension cord, use a shorter and thicker cord. An undersized cord will cause a drop in line voltage resulting in a loss of power and overheating.

CAUTION! USE ONLY a 3-wire extension cord that has a 3-prong grounding plug and a 3-pole receptacle that accepts the machine's plug. If you are using an extension cord outdoors, be sure it is marked with the suffix "W-A" ("W" in Canada) to indicate that it is acceptable for outdoor use.

GROUNDING INSTRUCTIONS (cont.)

Make certain the extension cord is properly sized, and in good electrical condition. Always replace a worn or damaged extension cord immediately or have it repaired by a qualified person before using it.

Protect your extension cords from sharp objects, excessive heat, and damp or wet areas.

MINIMUM RECOMMENDED GAUGE FOR EXTENSION CORDS (AWG)				
115 VOLT OPERATION ONLY				
	25' LONG	50' LONG	100' LONG	150' LONG
0 to 6 Amps	18 AWG	16 AWG	16 AWG	14 AWG
6 to 10 Amps	18 AWG	18 AWG	14 AWG	12 AWG
10 to 12 Amps	16 AWG	16 AWG	14 AWG	12 AWG

UNPACKING & INVENTORY

Check shipping carton and machine for damage before unpacking. Carefully remove packaging materials, parts and machine from shipping carton. Always check for and remove protective shipping materials around motors and moving parts. Lay out all parts on a clean work surface.

Please keep all packaging materials until the machine is properly running and all items have been accounted for. Also, please dispose of all packaging materials responsibly.

Any visible protective coatings, <u>on metal surfaces only</u>, can be removed by spraying WD-40 on a soft cloth and wiping the surfaces.

Apply a light coat of good quality paste wax over the lathe bed to allow the banjo and tailstock to glide smoothly across the bed and to prevent corrosion. Make sure to buff out the wax before assembly.

Compare the items to inventory figures and verify that all items are accounted for. If any parts are missing, do not attempt to power on the machine. For missing parts, or shipping damage, contact WAHUDA at <u>techservices@wahudatools.com</u> or call **877-568-8879**.



- A 4 Prong Drive Center (already installed in headstock)
- B Standard 60 degree Live Center (already installed in tailstock)
- C Push Rod
- D Magnetic Index pin (Can be stored on machine, out of the way of moving parts)
- E Carrying handles with four 1/4 unc x 5/8" (coarse) mounting screws
- F Power cable hooks with four mounting screws

G – Spanner Wrench

Hex wrenches (not shown)

User Manual

ASSEMBLY & ADJUSTMENTS

WARNING! MAKE CERTAIN THAT THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE BEFORE ASSEMBLY AND ADJUSTMENTS

<u>NOTE:</u> 95% of the machine comes fully assembled. If you need help assembling the remaining 5%, use the parts diagram and parts list at the back of this manual for assistance.

CARRYING HANDLES

1. Locate the 2 carrying handles and 4 screws (E on previous page) and attach them to each end of the lathe. See FIG 1



POWER CABLE HOOKS

1) Locate the 2 power cable hooks and 4 screws (F on previous page) and mount the hooks facing inwards into the pre-drilled holes in the rear of the bed. See FIG 2 & 3



ASSEMBLY & ADJUSTMENTS (cont.)

FASTENING LATHE TO SUPPORTING SURFACE

If during operation there is any tendency for the lathe to tip over, slide, or walk on the supporting surface, the base of the lathe must be secured to the supporting surface with fasteners (not supplied) through the four threaded holes (3/8"x16 UNC) located in the feet of the lathe bed.

ELECTRONIC INVERTER CONTROL UNIT

The electronic Variable Frequency Drive (VFD) inverter control unit by Delta Electronics, located on the rear of the machine, provides constant torque throughout the speed range of the machine. It has been adjusted and calibrated at the factory and should never need any adjustments. If adjustment is ever necessary, it MUST be done by a certified electrician. SEE FIG 4



For questions, more information, and adjustments of the VFD inverter control unit, contact Delta Electronics at 919-767-3813 or visit www.deltaww.com

OPERATIONS

NOTE: This operations section was designed to give instructions on the basic operations of this lathe. It is strongly recommended that you read books, trade magazines, or get formal training to maximize the potential of your lathe while minimizing the risks.

ADJUSTING THE TOOL REST

The tool rest should be positioned as close as possible to the workpiece. It should be 1/8" below the centerline of the workpiece. Rotate the workpiece by hand to make certain you have proper clearance.

<u>WARNING!</u> MAKE CERTAIN THAT THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE.

- 1) Position the banjo (A) on the bed by loosening the banjo lock handle (B) and sliding the banjo to the desired position. Tighten handle (B) to lock in place. SEE FIG 5
- 2) Adjust the height of the tool rest (C) by loosening the tool rest lock handle (D) and raising or lowering the tool rest. Tighten handle (D) to lock in place. SEE FIG 5



ADJUSTING BANJO / TAILSTOCK CLAMPING PRESSURE

The clamping device on the banjo and tailstock are set at the factory and should not need adjustment. However, if adjustment is necessary, see instructions below.

 Loosen clamping handle and slide the tailstock or banjo off the end of the bed. Tighten or loosen the nut beneath the tailstock or banjo and reinstall on bed. Test clamping pressure and repeat if necessary.

CHANGING BELT SPEEDS

WARNING! MAKE CERTAIN THAT THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE.

<u>NOTE</u>: The lowest speed pulley combination is furthest from the faceplate, i.e. smallest motor pulley diameter to largest spindle pulley diameter.

 Open the access panel (A) on the headstock by loosening the access panel lock screw (B) SEE FIG 6 & 7



2) To expose the motor pulleys, open the motor access door (C) by grasping the knob and pulling outwards. SEE FIG 8 & 9



WARNING! MAKE CERTAIN THAT THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE.

 Loosen the motor clamping handle (A) and lift the motor handle (B) to loosen belt tension and allow the belt to be moved to another pulley.
SEE FIG 10



4) Move the belt to the desired pulley positions on both the motor and headstock pulleys. Rotate the spindle by hand to make sure the belt is seated vertically on the selected pulleys. Once verified, press down on the motor handle (B in FIG 10 above) to apply tension to the belt. Then using the motor clamp handle, (A in FIG 10 above) lock motor into place.

NOTE: The belt does not need to be bar taut to operate correctly.

- 5) Close the headstock access panel (A in FIG 6 previous page) and tighten the access panel lock screw (B in FIG 6 previous page)
- 6) Close the motor access door (C in FIG 8 previous page)

WARNING! MAKE CERTAIN THAT THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE.

REMOVING AND INSTALLING THE DRIVE CENTER

 To remove the drive center (A) locate the push rod (B) While holding the drive center, insert the push rod through the center hole of the headstock wheel (C) and push the drive center out. A light tap with a rubber mallet may be used. SEE FIG 11 & 12



2) To re-insert the drive center, place it in the hole in the faceplate, and while using a block of wood and a hammer, tap the drive center to "set" it in the headstock.

REMOVING AND INSTALLING THE LIVE CENTER

- To remove the live center (A) from the tailstock, insert the push rod through the hole in the tailstock wheel (B), and while holding the liver center, push the live center out. A light tap with a rubber mallet may be used.
- 2) To re-install the live center, place it back in the hole, and while using a block of wood and a hammer, tap the live center to "set" it in the tailstock. SEE FIG 13



<u>WARNING!</u> MAKE CERTAIN THAT THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE.

REMOVING AND INSTALLING THE HEADSTOCK FACEPLATE

- With the drive center already removed, (See instructions previous page) rotate the faceplate (A) until the machined hole in the shaft, as seen through the access hole (B) in the spindle collar lines up with the spindle collar (C). SEE FIG 14
- 2) Locate the push rod (B in FIG 11 previous page) and place it into the access hole (B).
- 3) Using a hex wrench. loosen the two set screws (D) on the faceplate bosses (E).
- 4) While holding the push rod in the hole, place a wrench over the faceplate bosses (E) and turn counter-clockwise to remove the faceplate. SEE FIG 14
- 5) To re-install the faceplate, go through the instructions above in reverse order turning the faceplate clockwise to tighten. And if necessary, re-install drive center using the instructions on the previous page (19)



FIG 14

WARNING! MAKE CERTAIN THAT THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE.

INDEXING OPERATION

The indexing operation is useful for fluted columns, clock faces, and accurate hole positioning. The index pulley has 24 positions (15 degree), when using the supplied magnetic index pin (See page 13 item D)

 Open the access panel (FIG 6 & 7 page 17) Turn the headstock until the pre-drilled hole in the headstock (A) lines up with one of the 24 pre-drilled hole positions on the index pulley. SEE FIG 15 & 16



- 2) Locate the magnetic indexing pin (item D on page 13) and insert the pin into the pre-drilled hole to lock the pulley to the desired position. SEE FIG 17
- 3) When indexing operations are completed, simply remove the magnetic indexing pin and store on the machine in a location where it can not cause any interference with operation.

MAINTENANCE

WARNING! MAKE CERTAIN THAT THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE BEFORE PERFORMING ANY MAINTENANCE PROCEDURES

DAILY AFTER USE

Clean shavings away from the lathe bed and tool rest, etc.

MONTHLY

Check the belt tension and adjust if necessary. See pages 17 and 18 for instructions. Check for any build-up of wood shavings on the motor and pulleys and clean if necessary Using compressed air, lightly blow out the motor vents.

If the lathe will not be used for an extended period of time, place a light coat of wax over the bed and place a dust cloth over the lathe.

PROBLEM	LIKELY CAUSE	SOLUTION
Motor will not start.	Not plugged in.	Check the power source.
	Blown circuit.	Replace fuse, reset breaker, or call
	Improper Voltage.	electrician.
	Unit not turned on.	Switch unit on.
	Belt too tight	Adjust belt tension
Fuses or circuit	Short circuit in line cord or plug.	Call electrician to repair or replace cord
breaker blows.	Unit overloaded.	or plug for damaged insulation and
		shorted wires.
		Reduce load.
		Operate on circuit separate from other
		appliances or motors or connect to circuit
		with adequate amp rating.
Motor fails to develop	Power supply circuit overloaded	Reduce load on circuit.
full power	with lights, appliances, and other	Increase wire sizes or reduce length of
	motors.	the circuit.
	Undersized or too long extension	
	cord.	
Motor overheats.	Motor overloaded during operation.	Reduce load on motor; take lighter cuts.
	Air circulation through the motor	Clean out motor to provide normal air
	restricted.	circulation.
Motor stalls or shuts off	Motor overloaded during operation.	Reduce load on motor; take lighter cuts.
during a cut.	Short circuit in motor or loose	Call electrician to repair or replace
	connections.	connections on motor for loose or
	Circuit breaker tripped.	shorted terminals or worn insulation.
		Install correct circuit breaker; reduce
		number of machines running on that
		circuit (circuit overioad)
Work piece slows when	Belt worn out.	Replace Belt
cutting or makes a		
squealing noise on		
start-up.		
Vibration when in	Not secured to work surface	Bolt machine to work bench
operation	Damaged belt.	Replace belt
	Worn bearing.	Check/replace bearing.

TROUBLESHOOTING GUIDE

PARTS



PARTS (cont.)



PART NO.	DESCRIPTION	SPECIFICATION	Q'ty
60170-1	Face plate	3"	1
60170-2	Spur Center	MT2	1
60170-3	key	5*5*25	1
60170-4	Spindle	1-1/4"-8UNC	1
60170-5	Set Screw	1/4"x1/4"	3
60170-6	Spindle Pulley	3 SPEED	1
60170-7	Bearing	6005VV	1
60170-8	Set Screw	M3x16mm	2
60170-9	NUT	M10	1
60170-10	Set Screw	M10x20	1
60170-11	Lock Pin		1
60170-12B	Cover		1
60170-13	Cap Screw	1/4*1/2"	1
60170-14	Cap Screw	1/4*1"	4
60170-15	Spring Washer	1/4"	4
60170-16B	Head Stock		1
60170-17	Bearing	6004VV	1
60170-18	Wave washer	BWW629	1
60170-19	Handwheel		1
60170-20	Belt	280J-4V	1
60170-21	Screw	#10-24*3/8"	5
60170-22	Cable Hook		2
60170-23	Roun Cross Head Screw	#10-24*3/4"	3
60170-24	Cord Snap Ring	ACC-3	1
60170-25	Magent		1
60170-26B	Bed		1
60170-27D	Lable		2
60170-27E	Lable		1
60170-28B	Power Cable		1
60170-29	C-Ring	S-12	1
60170-30	Tool Rest	6"x1"	1
60170-31B	Tool rest base		1

60170-32	Locking Handle	5/16"X20MM	2
60170-33	Clamping Shaft		1
60170-34	Bushing		1
60170-35	C-Ring	S-14	1
60170-36	Clamp bolt		1
60170-37	Clamp		1
60170-37A	Clamp		1
60170-38	Nut	M10*1.5P	1
60170-38A	Nut		1
60170-39	Shaft		1
60170-40	Motor	3/4HP	1
60170-41B	Motor Label		1
60170-42	Locking Handle		1
60170-43	Hex head Screw	5/16"x1-1/4"	1
60170-44	Washer	5/16"-3mm	1
60170-45	Washer	1/4"	2
60170-46	Cap Screw	1/4"x5/8"	2
60170-47	Black handle protector		1
60170-48	Motor plate		1
60170-49	Nylon Nut	5/16"-18UNC	1
60170-50	Pulley	3 SPEED	1
60170-51	Live center	MT2	1
60170-52B	Quill		1
60170-53	Clamping Shaft		1
60170-54	Lead Screw		1
60170-55	Handle		2
60170-56	Cap Screw	1/4"-20UNCX3/8	1
60170-57	Clamp bolt		1
60170-58	C-Ring	S-10	1
60170-60B	Tailstock		1
60170-61	Hand wheel		1
60170-62	Handle		1
60170-63	Knob		1

60170-64B	Locking Nut		1
60170-65	Nut	1/4"	1
60170-66	Set screw	3/16"x1/4"	3
60170-67	Round Head Screw	1/4"-20x5/8"	4
60170-68	Set screw	1/4-20*3/8	7
60170-69	Inverter	M-Type (110V)	1
60170-70	Round Head Screw	#10-24-3/4"	2
60170-71	Nylon Nut	3/16"	2
60170-72B	Inverter board		1
60170-75	Junction box		1
60170-76	Strain relief	PG9	3
60170-76-1	cord protector	PG11	1
60170-77	Wire clamp	ACC-1.5	2
60170-78	Readout board		1
60170-79	R.P.M readout I.C		1
60170-79-1	Single wire		1
60170-79-3	Single wire		1
60170-79-5	Digital readout power wire		1
60170-79-6	Digital readout power wire		1
60170-80	Control Box		1
60170-80-1	Few/Rev switch		1
60170-80-2	Switch guard		1
60170-80-3	ON SWITCH		1
60170-80-4	VR Control		1
60170-80-5	OFF SWITCH		1
60170-80-6	VR knob		1
60170-80-7	Magnet		1
60170-80-8	Control box		1
60170-80-9	Strain relief	PG9	1
60170-80-10	Label		1
60170-80-11	Foam		1
60170-80-12	wire 1		3
60170-80-13	wire 2		1

60170-80-14	wire 3		1
60170-81	Control wire		1
60170-84	Tapping Screw	M3x14MM	4
60170-85	Warning Label		2
60170-86	Round Head Screw	M4x6MM	4
60170-87	Washer	M3	4
60170-88	Nylon Nut	M3	2
60170-90	Round Head Screw	M3x30	2
60170-92	Speed Label		1
60170-93B	Warning label		1
60170-93B1	Warning label		1
60170-95	Motor wire		1
60170-96	Round head screw	#10-24X3/4"	1
60170-97	Hex head screw	3/8"x2"	4
60170-99	Nut	#10-24	4
60170-100	Foot pad Nut	3/8"	4
60170-101	Flat screw	3/16"x1/2"	4
60170-102	Plate		1
60170-103	Hinge		1
60170-104	Face Plate Wrench		1
60170-105	Foot pad	3/8"	4
60170-106	Snap Bushing	SB-16	1
60170-107	Spring sheet		1
60170-108	Blind rivet		2
60170-109	Round Head Screw	M6x10	2
60170-110	Power wire short		1
60170-111A	R.P.M readout set		1
60170-111	RPM Box		1
60170-111-3	R.P.M Label		1
60170-112	Handle		1
60170-113	Hex head Screw	M8x10	1
60170-114	Cord Snap Ring	ACC-4	1
60170-115	Hose		1

60170-116	Cord Snap Ring	ACC-2.5	2
60170-117	Tapping Screw	M3x8	3
60170-118	Inverter cover		1
60170-119	Round Head Screw	#10-24UNC*1/4"	4

WIRING DIAGRAM

