

WOODFAST
WOOD LATHE
WL3040A

Instruction Manual

IMPORTANT

For your safety, read instructions carefully before assembling or using this product. Save this manual for future reference.



Original Instruction
V.1-202005

HEALTH AND SAFETY GUIDELINES

Always follow the instructions provided with the manual. Always wear safety glasses when using woodworking equipment. Always disconnect the power before adjusting any equipment. Failure to observe proper safety procedures and guidelines can result in serious injury.

WARNING: Do not allow familiarity (gained from frequent use of your machine and accessories) to become commonplace. Always remember that a careless fraction of a second is sufficient to inflict severe injury.



Always wear safety glasses when using woodworking equipment.



Always read the instructions provided before using woodworking equipment.

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1. GENERAL INFORMATION

1.1 FOREWORD

Some information and illustrations in this manual may differ from the machine in your possession, since all the configurations inherent in the machine complete with all the optionals are described and illustrated. Therefore, refer only to that information strictly connected with the machine configuration you have purchased.

With this manual we would like to provide the necessary information for maintenance and proper use of the machine. The distribution network is at your service for any technical problem, spare parts or any new requirement you may have for the development of your activity.

This manual must be read and understood before operating the machine. This will provide a better working knowledge of the machine, for increased safety and to obtain the best results.

To facilitate its reading, the manual has been divided into sections pointing out the most important operations. For a quick research of the topics, it is recommended to consult the index. To better stress the importance of some basic passages, they have been marked by some preceding symbols:



WARNING Indicates imminent risks which may cause serious injury to the operator or other persons. Be careful and scrupulously follow the instructions.



CAUTION A statement advising of the need to take care lest serious consequences result in harm to material items such as the asset or the product.

1.2 MACHINE IDENTIFICATION

There is a identification plate fixed to the machine, containing the manufacturer's data, year of construction, serial number and technical specifications.

1.3 CUSTOMER SERVICE RECOMMENDATIONS

Apply the machine to skilled and authorized technical staff to carry out any operation dealing with parts disassembly. Keep to the instructions contained in this manual for the correct use of the machine.



CAUTION Only skilled and authorized staff shall use and service the machine after reading this manual. Respect the accident prevention regulations and the general safety and industrial medicine rules.

2. SAFETY PRECAUTIONS

2.1 SAFETY REGULATIONS



WARNING

Read carefully the operation and maintenance manual before starting, using, servicing and carrying out any other operation on the machine.

The manufacturer disclaims all responsibilities for damages to persons or things, which might be caused by any failure to comply with the safety regulations.

- The machine operator shall have all necessary prerequisites in order to operate a complex machinery.
- It is prohibited to use the machine when under the influence of alcohol, drugs or medication.
- All the operators must be suitably trained for use, adjustment and operation of the machine.
- The operators must carefully read the manual paying particular attention to the warning and safety notes. Furthermore, they must be informed on the dangers associated with use of the machine and the precautions to be taken, and must be instructed to periodically inspect the guards and safety devices.
- Before carrying out adjustment, repair or cleaning work, disconnect the machine from the electric power by setting the main switch to stop.
- After an initial bedding-in period or many hours of operation, the driving belts may slacken; this causes an increase in the tool stopping time (the stopping time must be less than 10 seconds). Immediately tighten them.
- The working area around the machine must be kept always clean and clear, in order to have an immediate and easy access to the switchboard.
- Never insert materials which are different from those which are prescribed for the machine utilization. The material to be machined must not contain any metal parts.
- Never machine pieces which may be too small or too wide with respect to the machine capacity.
- Do not work wood which has evident defects (cracks, knots, metal parts, etc.)
- Never place hands among the moving parts and/or materials.
- Keep hands clear from the tool; feed the piece with the aid of a pusher.
- Keep the tools tidy and far away from those not authorized persons.
- Never employ cracked nor unbalanced, neither not correctly ground tools.
- Never use the tools beyond the speed limit recommended by the producers.
- Carefully clean the rest surfaces of tools and make sure that they find perfectly horizontally positioned, and with no dents at all.
- Always wear gauntlets when handling the tools.
- Mount the tools in the right machining direction.
- Never start the machine before having correctly installed all the protections.
- Connect the dust suction hoods to an adequate suction system; suction must always be activated when the machine is switched on.
- Never open doors or protections when the machine or the system is operating.
- Many unpleasant experiences have shown that anybody may wear objects which could cause serious accidents. Therefore, before starting working, take any bracelet, watch or ring off.
- Button the working garment sleeve well around the wrists.
- Take any garment off which, by hanging out, may get tangled in the MOVING UNITS.
- Always wear strong working footwear, as prescribed by the accident-prevention regulations of all countries.
- Use protection glasses. Use appropriate hearing protection systems (headsets, earplugs, etc.) and dust protection masks.
- Never let unauthorized people repair, service or operate the machine.
- The manufacturer is not responsible for any damage deriving from arbitrary modifications made to the machine.
- Any transport, assembly and dismantling is to be made only by trained staff, who shall have specific skill for the specified operation.
- The operator must never leave the machine unattended during operation.
- During any working cycle break, switch the machine off.
- In case of long working cycle breaks, disconnect the general power supply.

2.2 RESIDUAL RISKS

Despite observance of all the safety regulations, and use according to the rules described in this manual, residual risks may still be present, among which the most recurring are:

- contact with tool
- contact with moving parts (belts, pulleys, etc..)
- recoil of the piece or part of it
- accidents due to wood splinters or fragments
- tool insert ejection
- electrocution from contact with live parts
- danger due to incorrect tool installation
- inverse tool rotation due to incorrect electrical connection
- danger due to dust inhalation in case of working without vacuum cleaner.

Bear in mind that the use of any machine tool carries risks.

Use the appropriate care and concentration for any type of machining (also the most simple).

The highest safety is in your hands.

2.3 SAFETY AND INFORMATION SIGNALS

This signals may be applied on the machine; in some cases they indicate possible danger conditions, in others they serve as indication.

Always take the utmost care.

SAFETY SIGNALS:



Risk of eye injury. Wear eye protection.



Wear hearing protection systems.



Danger of electric shock. Do not access the area when the machine is powered.



Carefully read and understand the manual before using the machine.

INFORMATION SIGNALS:

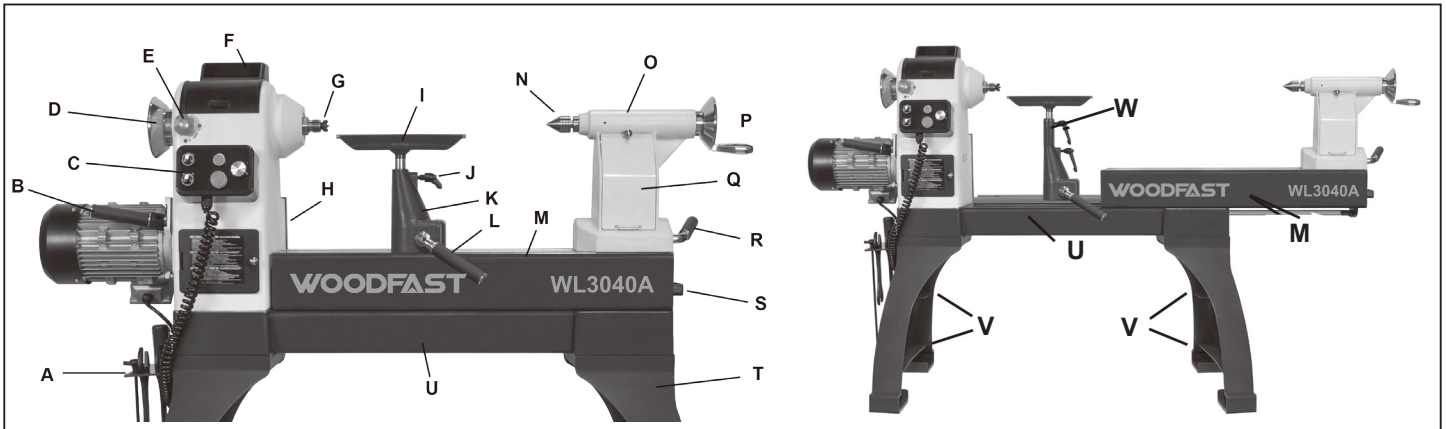
Indicate the technical characteristics, direction of rotation and inclination, block and release, etc.

Carefully following the directions to simplify the use and adjustment of the machine.

The signals are graphically described and do not require further explanation.

3. SPECIFICATIONS

3.1 MAIN COMPONENTS



- | | |
|--|---|
| <ul style="list-style-type: none"> A. Tool Holder B. Motor & Locking Handle C. Electronic Controls D. Outboard Hand Wheel E. Spindle Lock F. Digital Speed Readout G. Spindle with Spur Center H. Inverter Control Box (rear) I. Tool Rest 12" J. Tool Rest Locking Handle K. Tool Rest Base Assembly L. Tool Rest Base Locking Handle | <ul style="list-style-type: none"> M. Upper Sliding Bed N. 60° Live Center O. Tailstock Assembly P. Tailstock Hand Wheel Q. Tailstock Storage R. Tailstock Locking Handle S. Sliding Bed Handle T. Legs (2) U. Lower Lathe Bed V. Shelf Brackets (4) W. Tool Rest Height Extension |
|--|---|

3.2 TECHNICAL SPECIFICATION

Motor input power	4 HP, TEFC
Motor Speed (no load)	1,400 RPM
Volts, Phase (Input)	220 V, 1 Ph
Amps, Hertz	17 A, 50 Hz
Sliding Bed Motor	DC 24V
Recommended Breaker Size	20 Amp
Spindle Rotation	Forward/Reverse
Swing Over Beds	590 & 794 mm
Swing Over Tool Rest Base	442 & 646 mm
Distance Between Centers	508 - 1016 mm
Speeds	Variable 20 - 3,850 RPM
Speed Ranges (3)	20 - 650; 50 - 1,750; 100 - 3,850 RPM
Spindle Nose Threading	M30X3.5
Headstock Taper	MT-2
Tailstock Taper	MT-2
Hole Through Drive Spindle	10 mm
Hole Through Tailstock	10 mm
Tailstock RAM Travel	120 mm
Number of Indexing Positions	36 (10 degrees)
Tool Rest Post Diameter	25.4 mm
Spindle to Floor Distance	1118 mm
Overall Length Size	1565 x 2073 mm
Overall Width & Depth Size	765 x 1286 mm
Base / Stand Size	685 x 1280 mm
Net Weight	249 kg

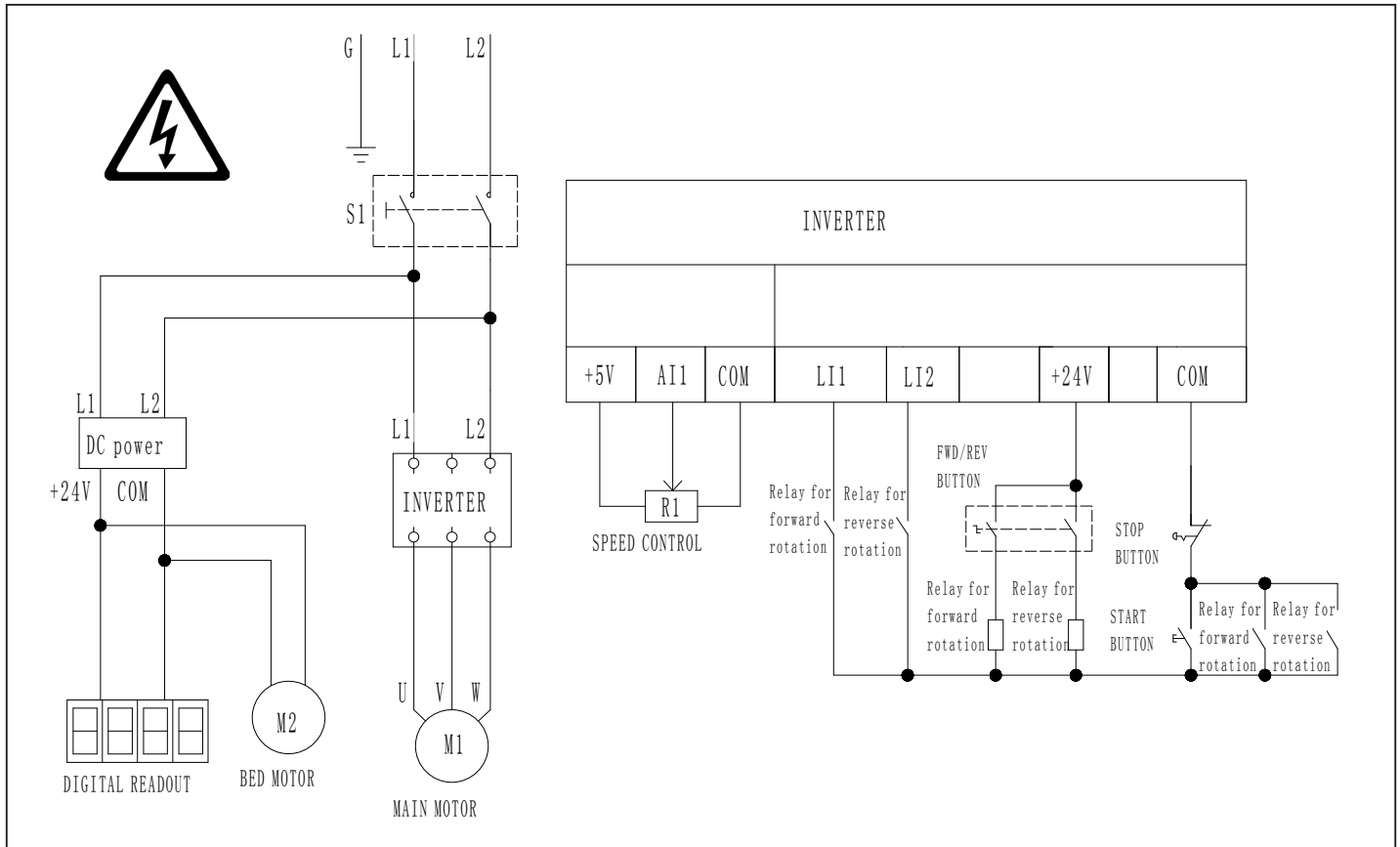
3.3 ELECTRICAL CONNECTION

- Electrical installation should be carried out by competent, qualified personnel.
- The mains connection should be made using the terminal box.
- Replacement of the power supply cable should only be done by a qualified electrician.



WARNING

To avoid electrocution or fire, any maintenance or repair to electrical system should be done only by qualified electricians using genuine replacement parts.



3.4 NOISE LEVEL

	No load	Load
Sound Pressure Level	< 80dB(A)	< 90dB(A)
Sound Power Level	< 90dB(A)	< 100dB(A)

The noise levels measured are emission levels and not necessarily the safe working level. Although there is a correlation between the emission levels and the exposure levels, this cannot be used reliably to determine whether or not further precautions are required. The factors which affect the actual level of operator exposure include the duration of exposure, the ambient characteristics and other sources of emission, for example, the number of machines and other adjacent machining. The permitted exposure values may also vary from country to country. Nevertheless, this information allows the user of the machine to better evaluate the dangers and risks.

Other factors which reduce exposure to noise are:

- correct tool choice
- tool and machine maintenance
- use of hearing protection systems (e.g. headsets, earplugs,...)



WARNING Please use the hearing protection systems if the above mentioned noise levels exceed 95dB(A).

4. INSTALLATION



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

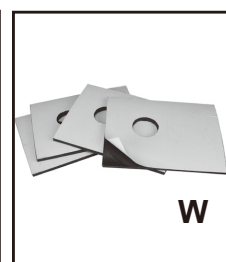
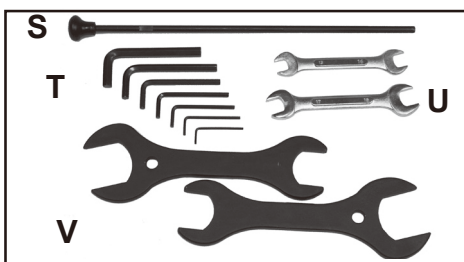
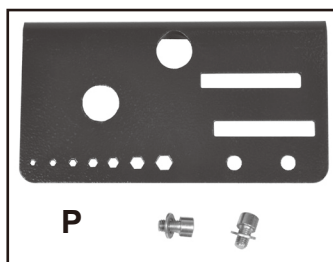
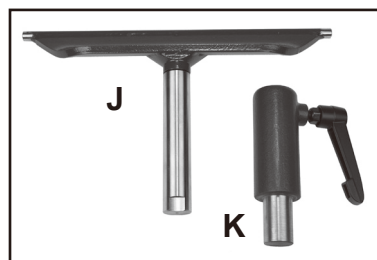
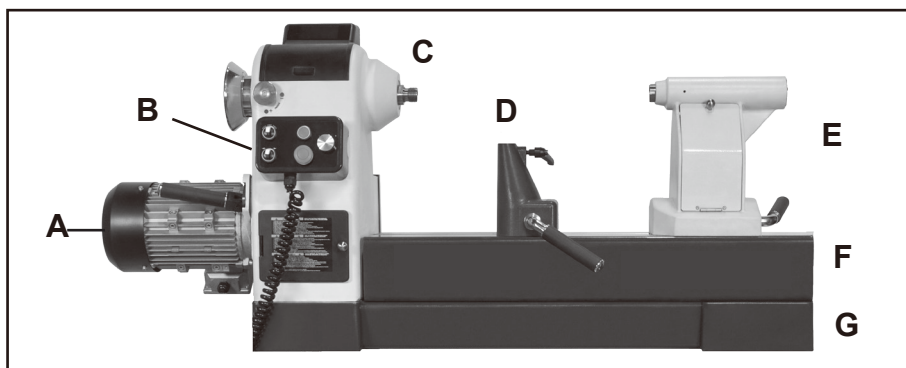
4.1 MOVING & INSTALLING THE LATHE

The lathe is VERY heavy- over 267kgs! A fork lift, hoist, pallet jack or additional help will be required to assemble the machine. It is best to assemble the machine in an open, well lit area near where it will eventually reside.

When moving an assembled lathe, DO NOT use the headstock assembly, motor, tool rest or tailstock as this may damage the machine. Use a forklift, or pallet jack under the lathe's bed or legs to lift and move the machine. Straps or battens placed under the lathe bed can also be used to lift and move the machine.

1. Carefully remove the machine from the shipping pallet. Do not push or lift the lathe by the headstock, tailstock or tool rest assemblies as this may damage the machine. See pages 9 & 11 for Assembly instructions for the lathe.
2. Position the machine on a solid, level foundation that is located in an area that has ample space in front and in back of the lathe for working and moving around the lathe. For best power and safety, the lathe should be plugged directly into a dedicated grounded electrical outlet that is within the supplied cord length of the machine. The use of an extension cord is not recommended.
3. Align the machine so that during use, any turning debris or kickback will not face aisles, doorways, or other work areas that bystanders may be in. Do not locate or use the machine in damp or wet conditions.
4. Once in place in your shop, level the machine with shims or the optional adjustable feet. Or, if the floor is level, secure the machine to the floor with lag screws (not supplied). Remove the adjustable feet (if installed) and use the holes in the bottom of the leg's feet for this purpose.

4.2 CONTENTS OF PACKAGE



- A. Motor Assembly
- B. Electronic Controls
- C. Headstock Assembly
- D. Tool Rest Base Assembly
- E. Tailstock Assembly
- F. Lathe's Upper Sliding Bed
- G. Lathe Bed
- H. Legs (2)

- I. Bolts (8) & Washers (16)
- J. 12" Tool Rest
- K. Tool Rest Height Extension
- L. 60° Live Center
- M. Spur Center
- N. Small Knockout Bar for Spur center point
- O. Faceplate 3-3/8"
- P. Tool Holder & Bolts (2)

- Q. Tailstock Hand Wheel
- R. Handle with Bolts (2)
- S. Long Knockout Bar
- U. Wrenches (2) 13/16 & 17/19mm
- V. Wrenches (2) 38/46mm
- W. Rubber Foot Pads (4)
- X. Manual (not shown)
- T. Hex Wrenches (7) -2.5,3,4,5, 6, 8 & 10mm

4.3 INSTALL THE PADS OR FEET ONTO THE LEGS

The WL3040A Lathe has a floor-to-spindle height of 44". If this working height is fine, then the lathe can be used as is.

1. Install the provided 4 Rubber Foot Pads (W, #F8) onto the bottoms of the lathe Legs (H, #F1) to reduce any possible vibration or lathe 'walking' during use. Fig.4.3.1

2. Assemble the legs to the lathe body. See page 10. For best stability, it is recommended that the lathe be bolted to the floor. The bottom of the lathe's feet have holes to allow the fasteners to bolt them to the floor. Fasteners (lag bolts, screws, washers, etc.) are not provided.



Fig.4.3.1



WARNING

NOTE: If the lathe is to be permanently bolted to the floor, DO NOT install adjustable feet (see below) which also use the holes in the feet for installation. Riser blocks or shims will have to be made by the user to put under the legs to level the lathe and/or raise the lathe height before bolting the lathe to the floor.

If the 44" working height is too low, then a set of four Adjustable Feet are available to be installed onto the bottom of the legs. Fig.4.3.2. These feet can be installed onto the legs if the rubber pads are installed or not. See page 29 for information on these accessories.

1. Before attaching the legs to the lathe bed, install the optional four adjustable feet onto the bottom of the legs. These will raise the 44" spindle height approximately 1-3/4" to 2-1/2" more.

2. The Adjustable Feet have two hex nuts and washers assembled on their threaded shafts. Remove the top nut and washer (Fig. 4.3.3 A) and leave the bottom nut and washer on the shaft. The bottom nut will be used to adjust the level of the lathe later on. Fig.4.3.3

3. Insert the threaded shaft through the hole in the bottom of the leg, and re-install the top washer and nut onto the shaft to secure the foot onto the leg. Do not fully tighten the nut at this time.

4. Install the other three adjustable feet on the other three legs following steps 2 and 3 above.

5. Assemble the legs to the lathe body. See page 10.

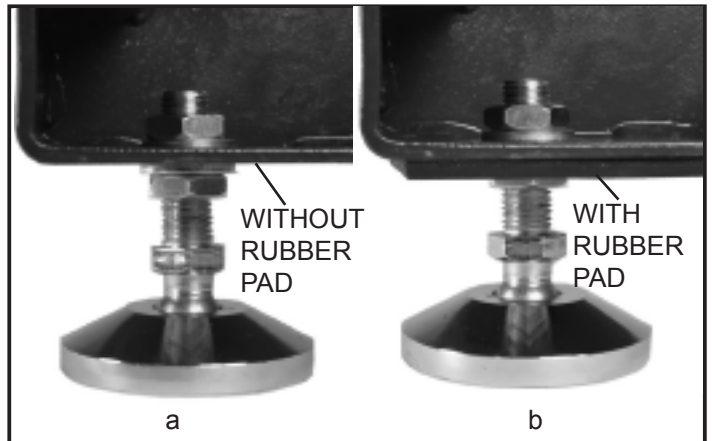


Fig.4.3.2



WARNING

NOTE: Once the lathe is assembled and in its final location, adjust the bottom nut(s) (Fig. 4.3.3, C) that are right under the bottom of the foot to set your desired spindle height and to level the lathe. Once set, then tighten the top nuts to secure the adjustable feet in position.

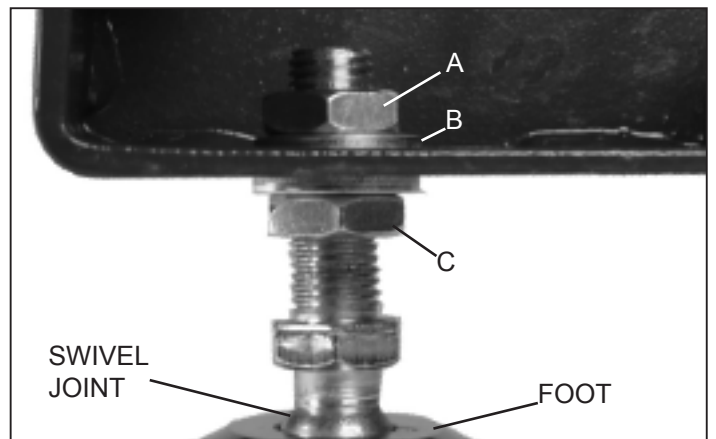


Fig.4.3.3



WARNING

NOTE: For clarity, figures Fig.4.4.1 & Fig.4.5 are shown without the anti-vibration rubber foot pads attached on the bottom of the lathe legs

4.4 INSTALL THE LATHE BED ONTO THE LEGS

1. Position the two Legs (H, #F1) approximately 45-1/4" apart measuring from the outside edges. Be sure that the shelf brackets on the legs are facing inward, towards each other. Fig.4.4.1.

2. Secure the Tailstock (E,#D3), and Tool Rest Base (D,#A10) assemblies to the Sliding Lathe Bed (F,#C8) by tightening their locking Lever Handles. See page 11 of this manual on how to make these adjustments.

3. With assistance from 4 or more friends, a hoist or fork lift, lift up the lathe bed assembly and carefully position it onto the stand legs to align the 8 bolt holes.

4. Secure the lathe bed to the stand legs with the eight Washers (I, #F2), Spring Lock Washers (#F3) and Hex Head Bolts (#F4). Figure 6 shows 4 bolts securing the legs to the headstock end of the lathe.

5. The lathe can now be moved into its final location for turning. If previously removed (step 2 NOTE above), install the tool rest and tailstock back onto the lathe bed.

6. If the legs were assembled with the optional Adjustable Feet (see page 9), the feet can now be set. Adjust the bottom nut(s), Fig. 4.3.3C, that are right under the bottom of the foot to set your desired spindle height and to level the lathe. Once set, then tighten the top nuts, Fig. 4.3.3A, to secure the feet in position.



WARNING

NOTE: To lighten the weight of the bed assembly, the tailstock and tool rest base assembly can be removed from the lathe.

- At the right end of the Sliding Bed, with a 5mm hex wrench loosen the Bolt (#C25) so that the offset Stop Washer (#C7) swivels down below the bed surface. Fig. 4.4.2.

- Loosen the Tailstock Handle (#D12), and slide the tailstock assembly off of the lathe end.

- Loosen the Tool Rest Base Handle (#A3), and slide the tool rest base assembly off of the lathe end.



WARNING

Lift the lathe body by the underside of the bed only, not by the motor, headstock, tailstock, or tool rest assemblies. Prevent the lathe from tipping, as the head-stock end is extremely heavy.

4.5 INSTALL THE TOOL HOLDER

Install the Tool Holder (P, #4.2) onto the outside surface of either the left or right Leg (H, #4.2) with the two Washers and hex head mounting Screws (P, #4.2) provided. This holder includes multiple holes for convenient storage of wrenches, centers, tool rests and other lathe accessories. Fig.4.5.

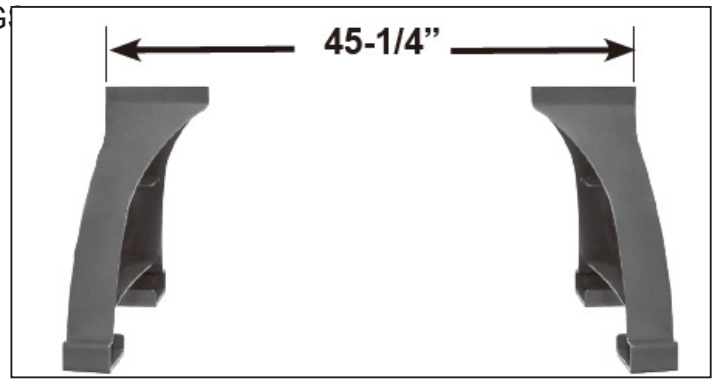


Fig.4.4.1

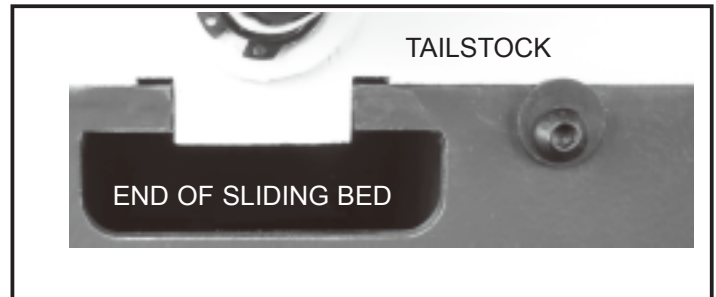


Fig.4.4.2

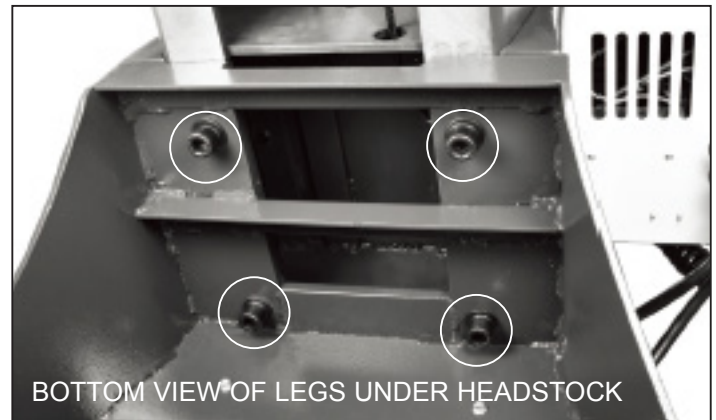


Fig.4.4.3

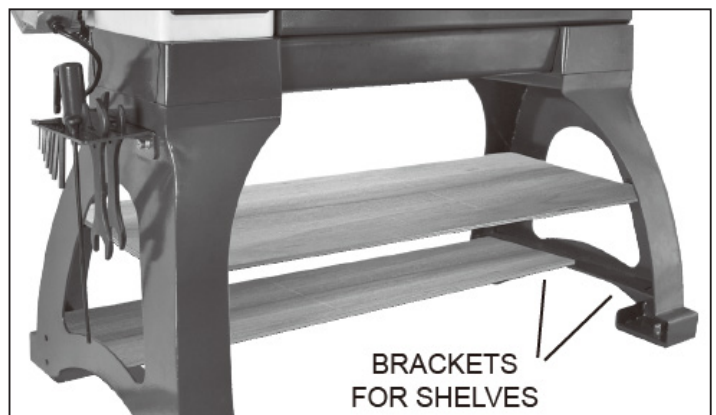


Fig.4.4.4

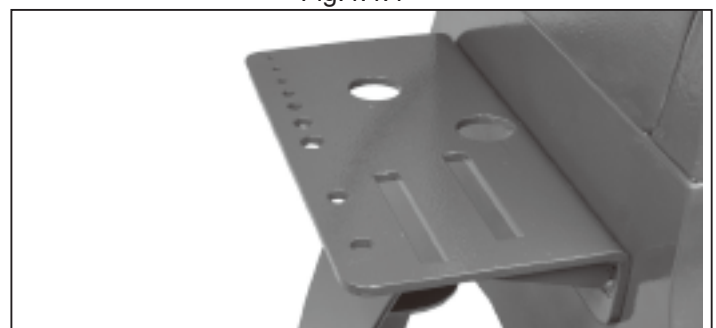


Fig.4.5

4.6 INSTALL THE TAILSTOCK HAND WHEEL

Install the Tailstock Hand Wheel (Q, #4.2) onto the rear spindle of the Shaft Assembly (Quill) . Secure with the 2 set screws onto the 2 flat spindle areas with the 3mm Hex Wrench provided. Fig.4.6A.

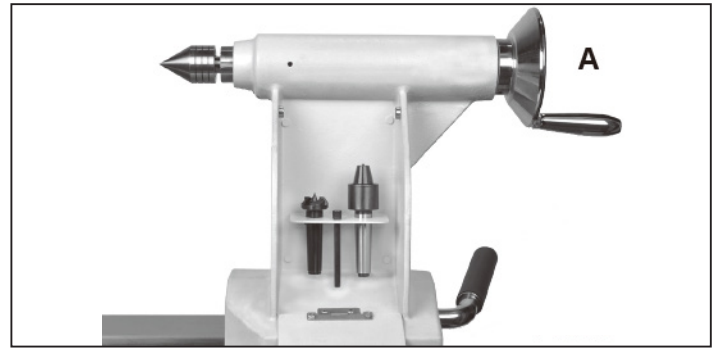


Fig.4.6

4.7 TAILSTOCK STORAGE

For additional storage of spur and live centers, the tailstock features a small tool holder behind the front hinged door. It will also hold the short knockout bar used to remove the spur center's removable point. Fig.4.6.

4.8 INSTALL THE SLIDING BED HANDLE

Install the Handle (R, #C9) onto the right end of the sliding bed with the two Hex Screws (#C10) provided. Fig.4.8.



Fig.4.8

WARNING

NOTE: INSTALLING THIS HANDLE IS OPTIONAL. This handle is NOT to be used for moving or lifting the lathe. If ever the sliding bed fails to work due to a motor or mechanical issue, the motorized screw mechanism (#E17) can be disengaged by removing the two end Cotter Pins (#E12). Then the sliding bed will be free to be moved by pulling or pushing with the end handle. See page 15.

5. OPERATION

5.1 TOOL REST CONTROLS

A TOOL REST BODY LOCK HANDLE: This cam action lever handle locks the tool rest body down in position on the lathe bed. Unlock handle to position the tool rest in any location along the lathe bed. Tighten the handle when the tool rest is properly located for safe turning of the work-piece. See page 17 for instructions on how to adjust the locking tension.

B TOOL REST LOCK HANDLE: Locks the tool rest in position for supporting your tools during turning. Unlock the handle to adjust the tool rest at a specific angle, or height. Tighten handle when properly positioned.

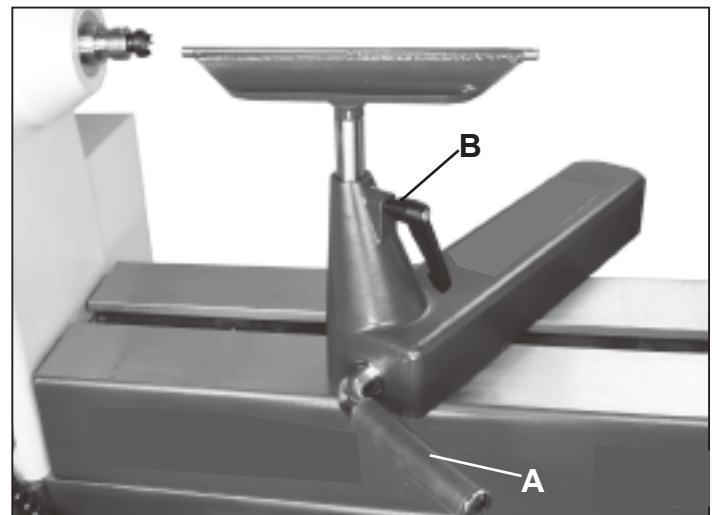


Fig.5.1

WARNING

NOTE: The handle is spring loaded on its internal bolt. To change the handle position, pull the handle out, rotate it to the position you desire, then release the handle and it will align itself back onto the bolt.

5.2 TAILSTOCK CONTROLS

C TAILSTOCK LOCK HANDLE: Locks the tailstock in position along the length of the lathe bed. Unlock handle to position the tool rest to move the tailstock. Tighten handle when properly positioned. See page 17 for instructions on how to adjust the locking tension.

D TAILSTOCK QUILL LOCK HANDLE: Secures the tailstock quill in position. Unlock the handle to move the quill, with live center, forward or backwards. Tighten the locking handle when the quill is finally positioned.

E TAILSTOCK QUILL HAND WHEEL: The hand wheel advances or retracts the quill. The quill's locking handle (D) must be loose to move the quill.

F TAILSTOCK LIVE CENTER: Used for turning between centers. The Live Center (L, #D1) and the Quill (#D6) have MT-2 tapers. Remove the live center by retracting the quill until the center loosens, or use the long knockout bar.



WARNING

NOTE: Be careful and hold the live center during this process so it does not fly out onto the floor. Same process as shown in fig.5.3 for the spur center.

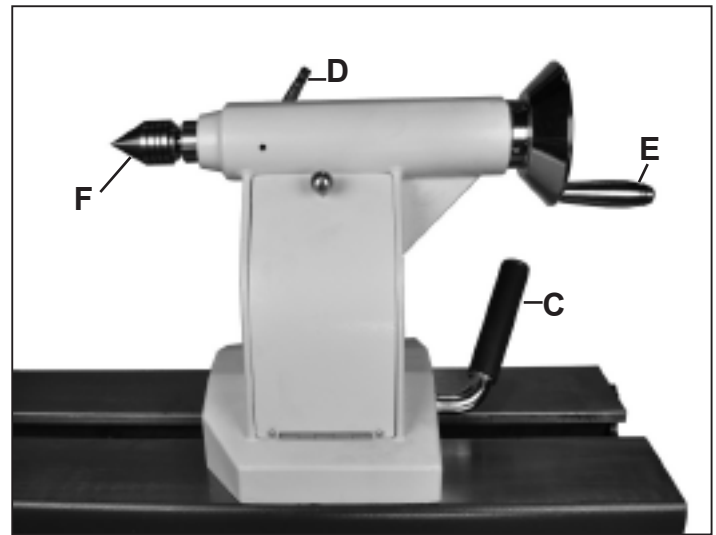


Fig.5.2



Fig.5.3

5.3 HEADSTOCK SPUR CENTER

The Spur Center (M, #B27) is used for turning between centers. It fits into the spindle. Both spindle and the spur center have matching MT-2 tapers. The spur center can be removed from the spindle with the long Knockout Bar (S). Insert the knockout bar through the opposite, outboard left end of the spindle, and then hit the spur center's back end to knock it out of the spindle.



WARNING

NOTE: Be careful and hold the spur center during this process so it does not fly out onto the floor. Fig.5.3

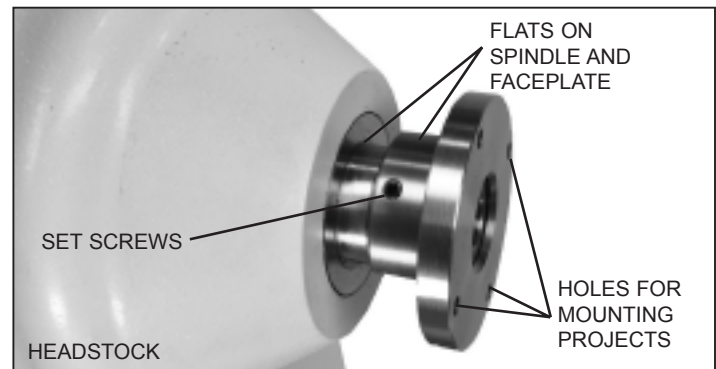


Fig.5.4.1

5.4 HEADSTOCK FACEPLATE

Faceplates (O, #B26) are used for turning bowls and plates. There are a number of screw holes on the plate for mounting the workpiece for turning.

To **INSTALL** the faceplate, thread the faceplate onto the spindle in a clockwise direction, and tighten it in place with the set screws that are located on the back hub of the faceplate.

NOTE: there may be more than one set of set screws on the faceplate hub. Fig.5.4.1.

To **REMOVE** the faceplate, first loosen the set screws. The spindle and rear hub of the faceplate each have flats that are for use with open end wrenches. FIG. 5.4.1 Next, use the 2 extra large, double ended wrenches (V) (38mm/46mm) for holding the spindle and also to hold the back hub of the faceplate for removal of the faceplate. Use the same process for removing a chuck. Fig.5.4.2.



Fig.5.4.2



WARNING

NEVER USE THE INDEX PIN TO HOLD THE SPINDLE TO REMOVE ACCESSORIES FROM THE LATHE, OR DAMAGE TO THE PIN OR THE SPINDLE PULLEY WILL RESULT.

5.5 MAIN ON / OFF SWITCH

The #WL3040A Lathe has a main on/off switch located behind the headstock on the side of the metal Inverter Box. FIG. 5.5. This switch MUST be operated before and after the lathe is used. It allows electrical access to the control box for using the lathe. It also totally shuts down the lathe when not in use for an extended time. The switch protects the lathe's electricals, particularly the LCD display from burning out, and prevents unwanted access by children or bystanders. The switch will also hold a lock to further secure the lathe from being activated.

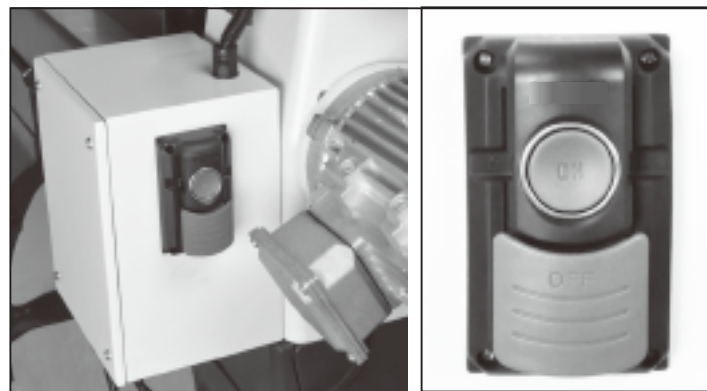


Fig.5.5

5.6 HEADSTOCK ELECTRONIC CONTROLS

The lathe features a corded Control Box (FIG. 5.6.1, #B37) with magnets on its back that allow it to be positioned any-where on the face of the headstock or anywhere along the lathe's bed! Wherever it is most comfortable for the turner to quickly access the controls to regulate turning speeds, stopping the lathe, or even to move the sliding bed.

A. FORWARD / OFF / REVERSE SWITCH: This selector switch will change the direction that the spindle turns -clockwise (forward) or counter-clockwise (reverse), as well as a non-rotating 'off' position.

B. 'ON' BUTTON: Push the green Button so that it turns the lathe ON. Push the red Button (D) to turn the lathe OFF.

C. RPM KNOB: This knob controls the desired spindle revolutions per minute (RPM). See the Speed Charts for the 3 speed range settings on page 16. Spindle speeds are shown on the LCD Display FIG. 5.6.2.

D. 'STOP' BUTTON: Push in the extended red Button to stop the lathe. To reset the button for restarting the lathe with the 'ON' button, push in the 'STOP' button a second time to pop it back out into the reset position.

E. SLIDING BED DIRECTION: This selector switch controls the direction of movement for the lathe's upper bed.

To EXTEND the sliding bed out to the right, away from the headstock, first loosen the bed's rear locking handle, FIG. 5.6.3, and then turn the control switch (FIG. 5.6.1, E) to the right. The motorized bed will stop at any point you wish, until it reaches its maximum travel. Lock the sliding bed in position with the rear locking handle before resuming work.

To RETURN the sliding bed to its original position next to the headstock, reverse the steps above.

See page 15 for additional information on the sliding bed.

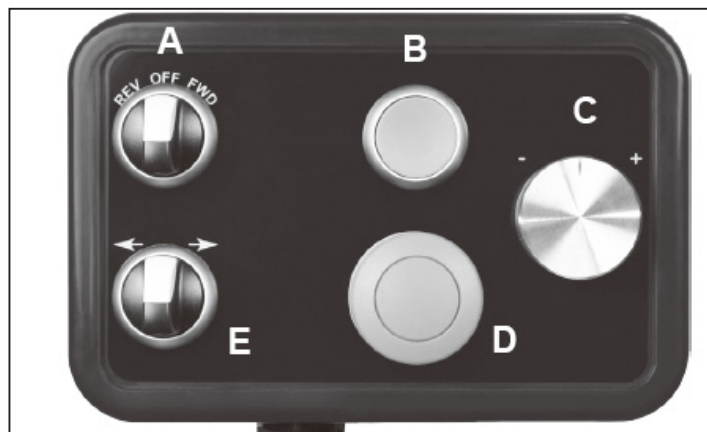


Fig.5.6.1

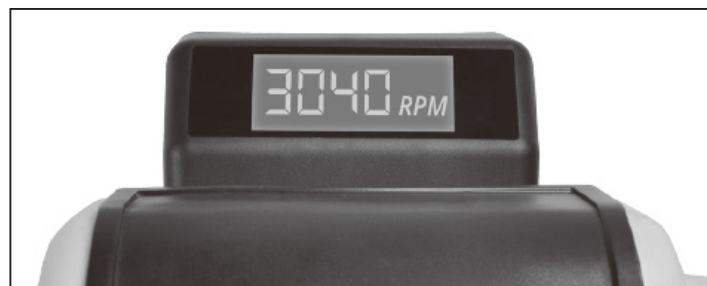


Fig.5.6.2

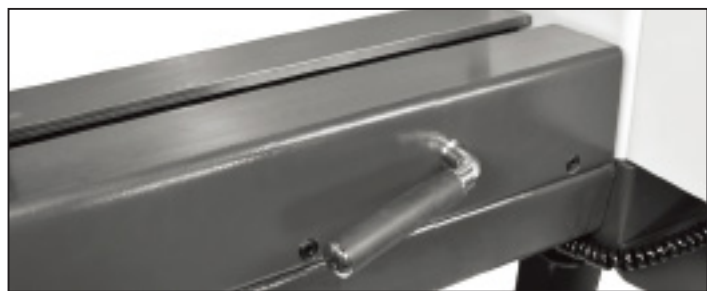


Fig.5.6.3



Only change rotation direction when the spindle has completely stopped. Should the switch be changed while the lathe is operating, the machine will automatically turn off in 'protection' mode, then restart in the new rotation direction.



NOTE: The AC Inverter Control Box (FIG. 5.5, #B23) that is located on the rear of the headstock does not require any programming. It is pre-programmed from the factory. The buttons and knob on the face of inverter should not be changed. Only use the 5 electronic controls on the front of headstock (Fig.5.6.2) to operate the lathe.

5.7 HEADSTOCK SPINDLE LOCK

Conveniently located on the front of the headstock, the Index Pin Assembly (FIG. 5.7.1& 5.7.2) is used to hold and position the spindle for making accurate, spaced pattern work on projects such as straight fluting, grooving, drilling, detail carving, wood burning patterns and laying out designs. See page 17 for more information.

The Index Pin is spring loaded. To operate:

- Rotate the Index Knob (FIG. 5.7.1) from the 'not-indexing' position (red dot -) down to the 'indexing position' (green dot +). This will insert the Index Pin's shaft into one of the Spindle Pulley's holes, locking the spindle in place.

- To unlock and free the spindle, reverse the process. The Pointer (FIG. 5.7.2, #B1) lets you select a specific, numbered index hole when creating patterns on your work. See page 17 for an index chart for 9 different spindle settings.



Fig.5.7.1

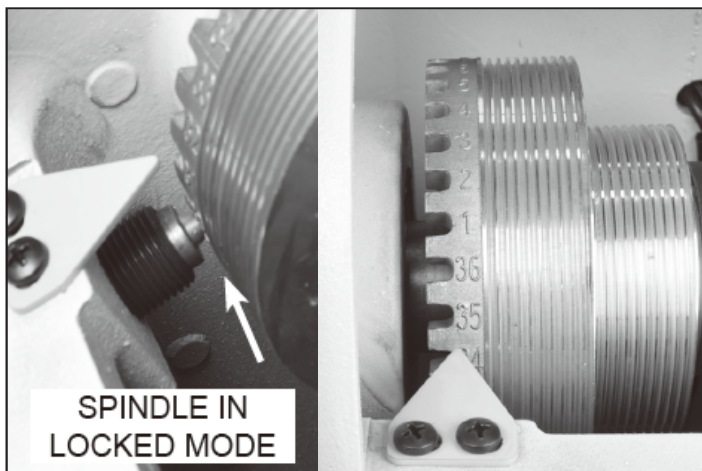


Fig.5.7.2



WARNING

NEVER START THE LATHE WITH THE INDEX PIN ENGAGED IN THE SPINDLE, OR DAMAGE TO THE MACHINE WILL RESULT.



WARNING

NEVER USE THE INDEX PIN TO HOLD THE SPINDLE TO REMOVE ACCESSORIES FROM THE LATHE, OR DAMAGE TO THE PIN OR THE SPINDLE PULLEY WILL RESULT.

5.8 THE UPPER SLIDING and LOWER BEDS

See page 13 for instructions on operating the elec-tronic controls for moving the upper motorized sliding bed.

The unique Sliding Bed feature of WL3040A lathe expands the working capacities of the lathe with a twist of a dial. Spindle turning between centers increases from 20" up to 40". Turning diameters/swing increase from 23-7/32" to 31-1/4" for bowl and platter work.

When the upper bed is slid away from the headstock, a 'GAP' in the bed occurs, revealing the lower bed. FIG. 5.8.1, For spindle turning, there are 2 options on how to use your tool rests when dealing with this gap.

Option 1: Included with the lathe is the Tool Rest Height Extension (K, #A12). When the tool rest base is moved down onto the lower bed, install the tool rest height extension to raise the base 4" for holding your tool rest at the proper level for turning. Fig.5.8.2.

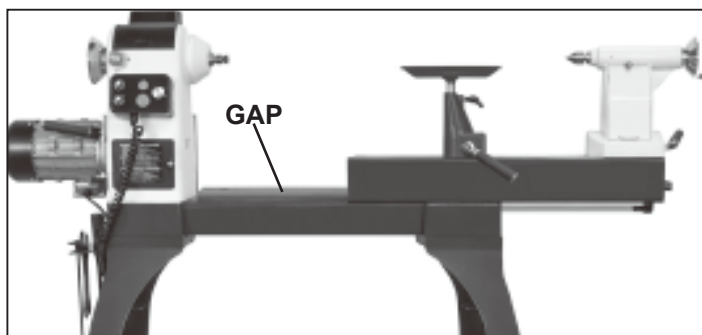


Fig.5.8.1

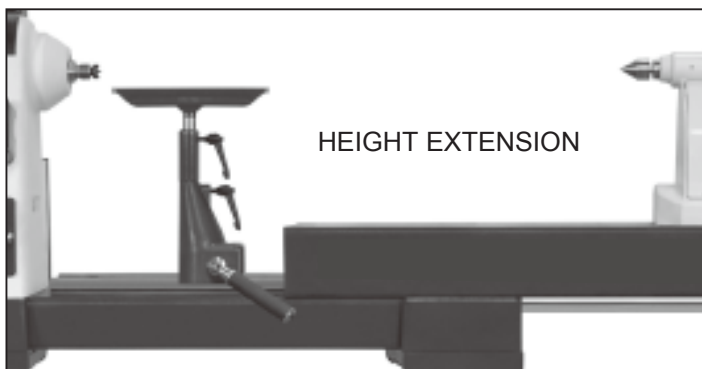


Fig.5.8.2



WARNING

NOTE: The Tool Rest Base Assembly is sold separately (see page 30) so #WL3040A lathe owners can use 2 tool rest bases on long turnings. This eliminates moving the single tool rest base between the upper and lower lathe beds.

Option 2: The 'Gap' on the lathe bed (FIG. 5.8.1) can be filled with the Gap Bed Insert accessory (FIG. 5.8.3). This short, duplication of the lathe's upper lathe bed installs over the exposed lower bed and continues the upper bed track at the same height as the sliding bed. This means that your tool rest base can be now positioned anywhere on the lathe for turning, sliding from end-to-end, between center-to-center. A second tool rest base is not needed.



Fig.5.8.3

WARNING

NOTE: The Gap Bed Insert #WL3040A is sold separately.

5.9 THE SLIDING BED MOTOR ASSEMBLY

As instructed on page 13, the sliding bed's position on the lathe is set with a selector switch on the lathe's control box. This switch activates the lathe's second DC 24V motor and screw drive that is located under the sliding bed. Fig.5.9.1

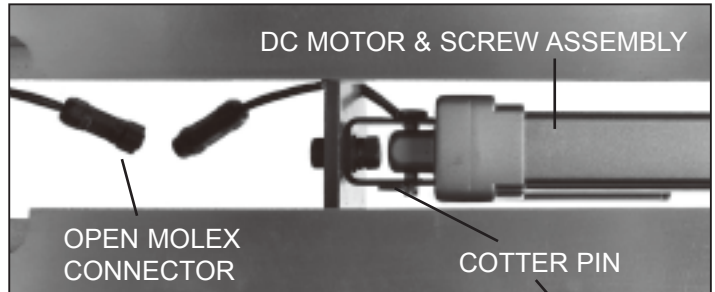


Fig.5.9.1

It is important that the sliding bed's rear locking handle (FIG. 5.6.3, page 13, #C4) is released before the bed is moved, or excess stress to the DC motor assembly and electrical circuitry will result. Once the sliding bed is positioned where you want it for turning, secure the rear locking handle to prevent the bed from moving during work.



Fig.5.9.2



Fig.5.9.3

If the sliding bed's DC motor assembly ever fails, it can be disconnected from the lathe. Simply disconnect the electrical wires at the Molex® connector, and remove the 2 cotter pins that hold the assembly ends in place under the sliding bed's frame. FIG. 5.9.1& 5.9.2. The DC motor assembly can then be removed from the lathe for replacement or repair.

Reverse the process to install the new/repaired DC motor assembly.

WARNING

NOTE: With the DC Motor Assembly off of the lathe, the sliding bed can be moved manually. The Sliding Bed Handle (#C9), FIG. 5.9.3, can now be used to pull/extend the sliding bed away from the headstock. Just push the end of the sliding bed to move it back towards the headstock. Make sure that the sliding bed's locking handle is released before moving the bed, and secured once the bed is positioned.

WARNING

Remember, the end handle is to be used ONLY when the DC motor assembly is disconnected from the sliding bed to move the sliding bed manually. It is not designed for lifting.

6. ADJUSTMENTS

6.1 ALIGNING SPINDLE CENTERS

The alignment of the headstock spur center and the tailstock live center are set at the factory, but, this should be checked once the lathe is assembled and ready for use.

1. Slide the tailstock towards the headstock until the center point of the live center almost touches the headstock's spur center. Fig.6.1.
2. Check the alignment of the center points by viewing from the top and side.
3. If the centers do not align, slightly loosen the 4 bolts that secure the headstock to the bed. Carefully nudge the head-stock to align the centers. Then fasten the 4 bolts to secure the headstock in place.



Fig.6.1

6.2 CHANGING SPEEDS

To change between the 3 speed ranges, Fig.6.2.4, the position of the drive belt on the motor and spindle pulleys must be changed. To do this:

1. Unplug the lathe from the power source.
2. Open the 2 Belt Doors to gain access to the belt and pulleys that are inside of the headstock. FIG. 6.2.1, A & B.
3. Pull the Belt Tensioning Handle (#B52) forward, away from the motor. Fig.6.2.2.
4. Push the Tensioning Handle down to loosen the tension on the Poly-V-Belt (#B56). FIG. 6.2.3. The belt can now be positioned on the pulleys for the desired speed range. FIG. 6.2.4, shows the belt positions for the three speed ranges.
5. With the Poly-V-Belt positioned on the pulleys, raise the tensioning handle so that the weight of the motor provides the needed tension on the belt. Then secure the tensioning handle in place by pushing the handle back towards the motor. Fig.6.2.2.
6. Close the two front Belt Doors on the headstock to protect the belt, pulleys and internal working from dust.
7. Plug the lathe back into the power source.

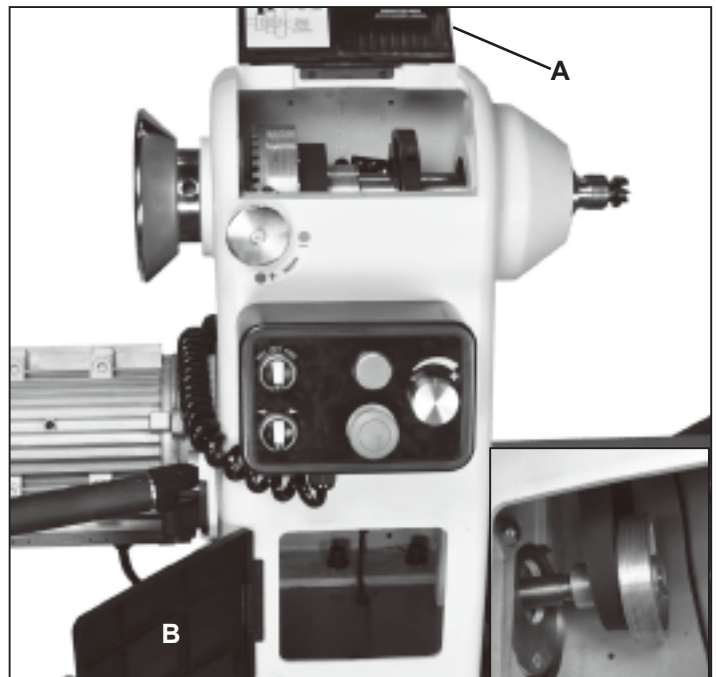


Fig.6.2.1

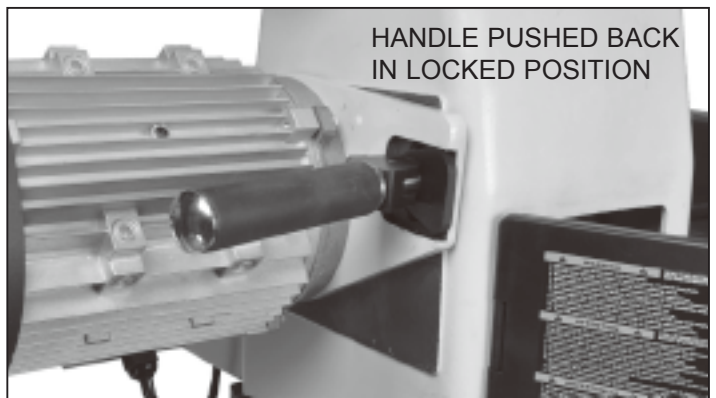


Fig.6.2.2

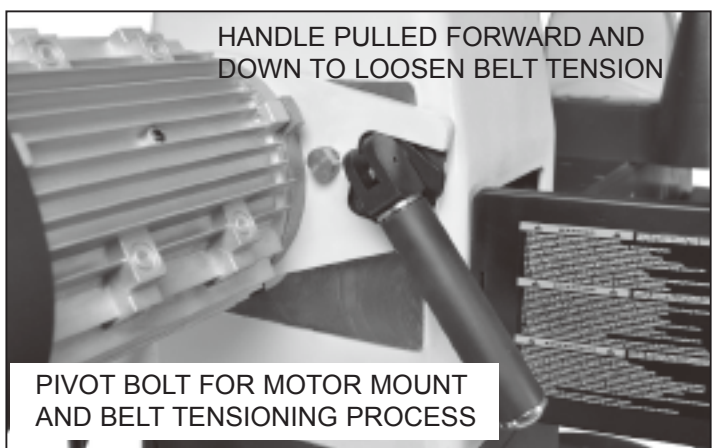


Fig.6.2.3

NOTE: The 'High' speed range #3 (100-3,850 RPM) provides maximum speed. The 'Low' speed range #1 (20-650 RPM) will provide maximum torque.

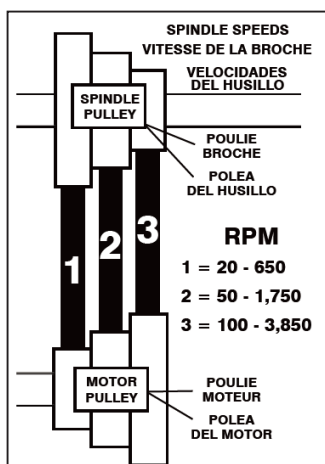


Fig.6.2.4

6.3 SPINDLE INDEXING ADJUSTMENTS

The Headstock Spindle has 36 indexing holes, each 10° apart, which allows accurate pattern work on projects such as straight fluting, grooving, drilling, detail carving, wood burning patterns, laying out designs and more. The Indexing Chart, FIG.6.3, shows how to rotate the spindle to access any of the 36 indexing holes. The 9 primary settings are listed below, however, other indexing/design settings are possible. Vary the index combinations to make non-equal, spaced patterns (EX:10° & 20° series (1,2,4,5,7,8,10,11,13 etc.)). Also, by rotating/repositioning your work while it is being held between centers, in a chuck or on a faceplate, new orientation points for the index holes will be set for your work.

To Use: Insert the Indexing Pin into one of the 36 spindle's positioning holes according to the chart, and the number of setting you need for your workpiece. Make sure that the pin locates and securely enters into one of the indexing holes so that there is no accidental slipping. See page 14.

With the Indexing Pin in the first spindle hole setting, do your work (drilling /marking/etc.), then rotate the spindle to the next index setting noted on the chart. Work through all of the designated index setting numbered positions and complete the remaining markings, or work, on your work-piece.

See page 14 for additional information on the lathe's head-stock and indexing.

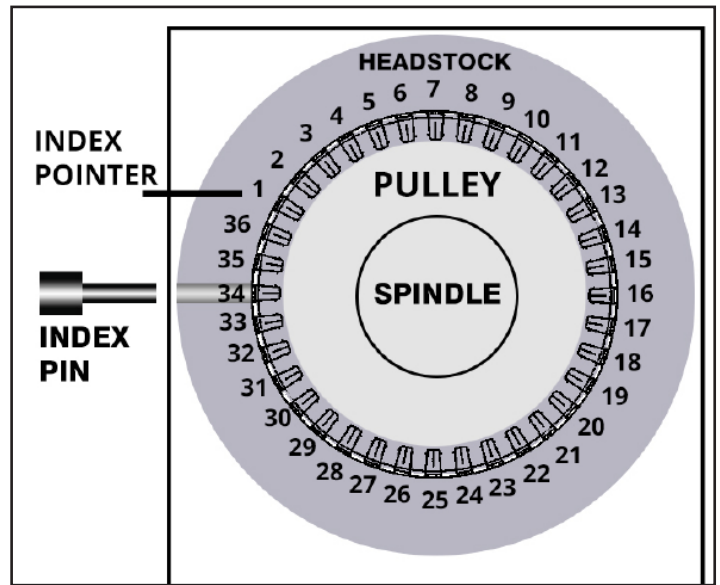


Fig.6.3

NUMBER OF INDEX POSITIONS	ANGLE BETWEEN POSITIONS	SPINDLE INDEX NUMBER
1	360°	ANY SINGLE HOLE
2	180°	1,19
3	120°	1,13,25
4	90°	1,10,19,28
6	60°	1,7,13,19,25,31
9	40°	1,5,9,13,17,21,25,29,33
12	30°	1,4,7,10,13,16,19,22,25,28,31,34
18	20°	1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35
36	10°	EVERY HOLE 1 to 36



WARNING

NEVER USE THE INDEX PIN TO HOLD THE SPINDLE TO REMOVE ACCESSORIES FROM THE LATHE, OR DAMAGE TO THE PIN OR THE SPINDLE PULLEY WILL RESULT.

6.4 ADJUSTING THE LOCKING HANDLES

The locking handles on the Tool Rest Base and Tailstock are pre-set at the factory to give ample holding pressure against the lathe bed to keep these lathe assemblies positioned, so that they will not move during use.

If adjustments are needed, the clamping pressure can be changed by turning the large Hex Nuts (#A6, D15) that are located under the lathe bed and below the assemblies. This can be done with an 19mm (3/4") or adjustable wrench (not included). See Fig.6.4, A.

1. Loosen the locking Handle,B, (#A3,D12)) so that there is no clamping pressure being exerted on the lathe assembly.

2. With the wrench, slightly turn the Hex Nut to loosen or tighten it on its threaded Drawbar Bolt (#A9, D17).

3. Test the clamping pressure with the locking handle, and adjust the nut again, if needed, to set the right pressure.

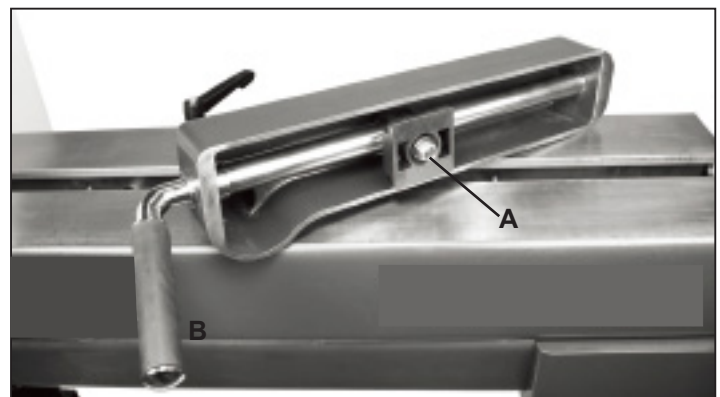


Fig.6.4

6.5 CHANGING THE BELT

Changing the belt requires that the headstock spindle be removed, or half removed, from the headstock casting. Then the new belt can be slipped over the spindle and down inside of the headstock to the motor pulley.

1. Unplug the lathe from the power source and remove any installed spur center or faceplate from the spindle.
2. Open the 2 Belt Doors to gain access to the belt and pulleys that are inside of the headstock. Fig.6.5.1, A & B.
3. Pull the Belt Tensioning Handle (#B52) forward, away from the motor. FIG.6.5.2. (See Page 16, Fig.6.2.2&.6.2.3).

4. Push the Tensioning Handle down to loosen the tension on the Poly-V-Belt (#B56), and then secure the handle in place by pushing the handle back towards the motor. The belt can now be moved off of the 2 pulleys. NOTE: If the belt is not to be saved, the old belt can be cut off at this time.

5. Unscrew the Spindle Lock Nut (#B7) clockwise with the supplied 10mm Hex Wrench, while holding the spindle steady at the opposite end with the large 38mm Wrench. Fig.6.5.3.

6. Unscrew the Spindle Hand Wheel (#B8) counterclockwise from the spindle.

7. Unscrew the large Locking Nut (#B9) counterclockwise from the spindle with the large 46mm Wrench. Fig.6.5.4.

8. Unscrew / Loosen the Set Screws (#B6) that attach the Spindle Pulley (#B2) to the spindle. Screws are on the middle step of the pulley.

NOTE: There are 2 sets screws in each hole, one stacked upon the other. Remove the top set screw then loosen the bottom set screw. Fig.6.5.5, A.

9. Unscrew the Set Screws (#B20) that attach the Plastic RPM Reader Disc (#B18) to the spindle. Fig.6.5.5 B.

The spindle can now be removed, or half removed, from the headstock in order to install the new belt.

10. Place a block of wood against the left spindle end and strike it with a mallet/hammer to move the spindle towards the tailstock.

The wood will prevent any damage when the spindle is hit. Once there is enough space, the old drive belt can be removed around the spindle end, and replaced with the new belt. Fig.6.5.6.

11. Reposition the Spindle. Place a block of wood against the right spindle end and strike it with a mallet to move the spindle left, away from the tailstock and back into operating position. Also carefully tap the bearings back into position if they happen to move during this process.

12. Reassemble the lathe parts by also reversing the procedure described in steps 1 - 9 above.

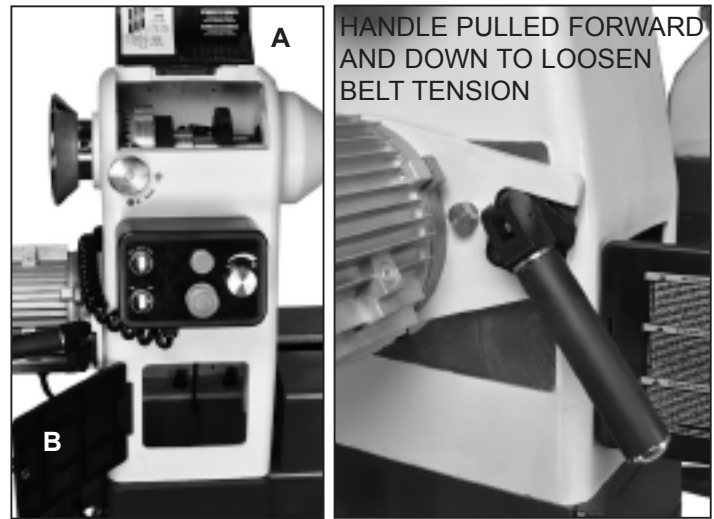


Fig.6.5.1

Fig.6.5.2

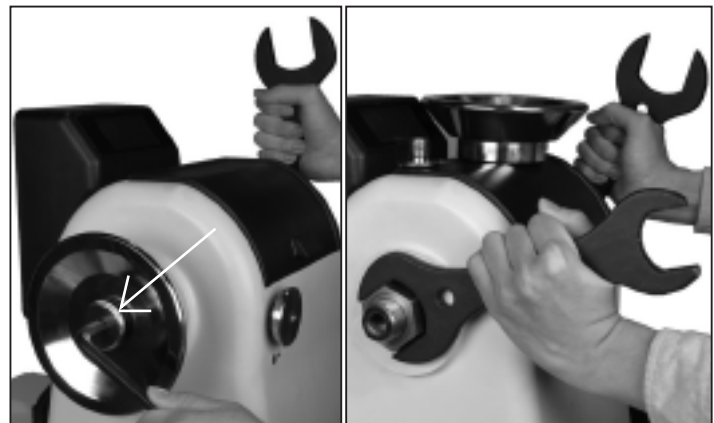


Fig.6.5.3

Fig.6.5.4

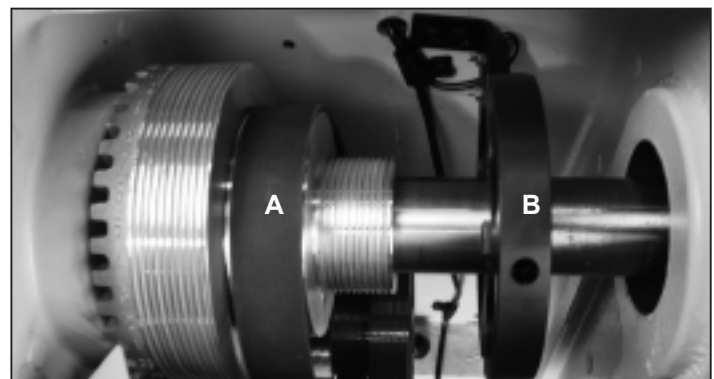


Fig.6.5.5



Fig.6.5.6

6.6 CHANGING THE SPINDLE BEARINGS



WARNING

CHANGING THE SPINDLE BEARINGS follows the same spindle removal process as described on page 18 for 'CHANGING THE BELT'.

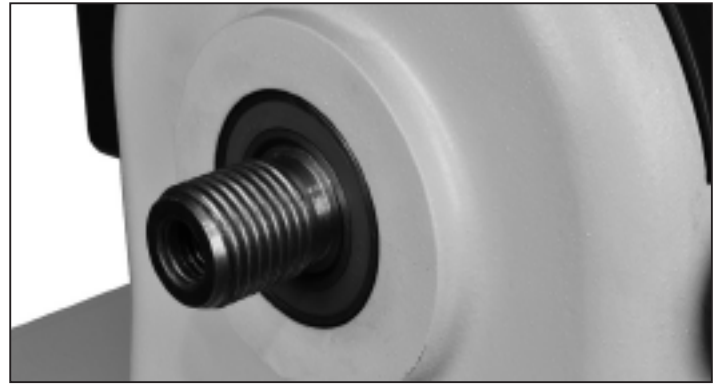


Fig.6.6

1. Unplug the lathe from the power source, and remove any installed spur center or faceplate from the spindle.
2. Follow the steps 2-9 on page 18 for 'Changing the Belt'.
3. Once the Spindle Pulley and Plastic RPM Reader Disc set screws are loose, place a block of wood against the left spindle end and strike it with a mallet/hammer to move the spindle towards the tailstock. The wood will prevent any damage when the spindle is hit. Carefully knock out the spindle.
4. Carefully remove the bearings from the spindle and/or headstock casting by tapping them loose. Bearings on the spindle can be removed with a gear pulley, if available.
5. Replace the four Bearings (#B25) on the spindle or in the headstock casting as applicable.
6. Reassemble the lathe parts by reversing the procedure described in steps 3 - 1 above, and 9-1 on page 18.

7. MAINTENANCE



WARNING

Turn the power switch "OFF" and disconnect the plug from the outlet prior to adjusting or maintaining the machine. DO NOT attempt to repair or maintain the electrical components of the motor. Contact a qualified service technician for this type of maintenance.

1. Before each use:
 - Review the Safety Instructions listed on pages 3 to 5.
 - Check the power cord and plug for any wear or damage.
 - Check for any loose screws, hardware, locking handles, jigs or various lathe accessories.
 - Check the area to make sure it is clear of any misplaced tools, lumber, cleaning supplies, etc. that could hamper the safe operation of the machine.
2. Avoid a build-up of wood shavings and dust. Regularly clean all parts of the machine using a soft cloth, brush or compressed air. A general cleaning should be done after every use to avoid future problems and ensure that the machine is in ready condition for its next use.



WARNING

WARNING: If blowing sawdust, wear proper eye protection to prevent debris from blowing into eyes.

3. Keep the lathe beds free of resin and rust. Clean them regularly with a non-flammable solvent, then coat with a light film of dry lubricant spray, or wax, to enhance passage of the tool rest base, tailstock and upper sliding bed on/over the lathe bed.
4. Keep the lathe tools sharp and make sure the steel is not loose in the handle so that no accidents might occur. Making sure that they are in proper operating condition will ensure that the quality of your turning will be the best possible.
5. Check all lathe accessories (spur centers, live centers, chucks, tool rests, etc) to ensure that they are in perfect working condition.
6. The lathe's ball bearings are lifetime lubricated, sealed, and do not need any further care. To prevent slipping, keep the drive belt free of oil and grease.
7. Position the upper sliding bed against the headstock if the lathe is not to be used for an extended time. This will help protect the lathe from accidents if left in its extended position, and reduce pressure on the upper bed supports.
8. When not in use, make sure that the WL3040A's Main ON/OFF Switch that is located on the lathe's inverter box is turned off. This will prevent any damage to the lathe's electrical system and prevent any unauthorized use. See page 13 for details.

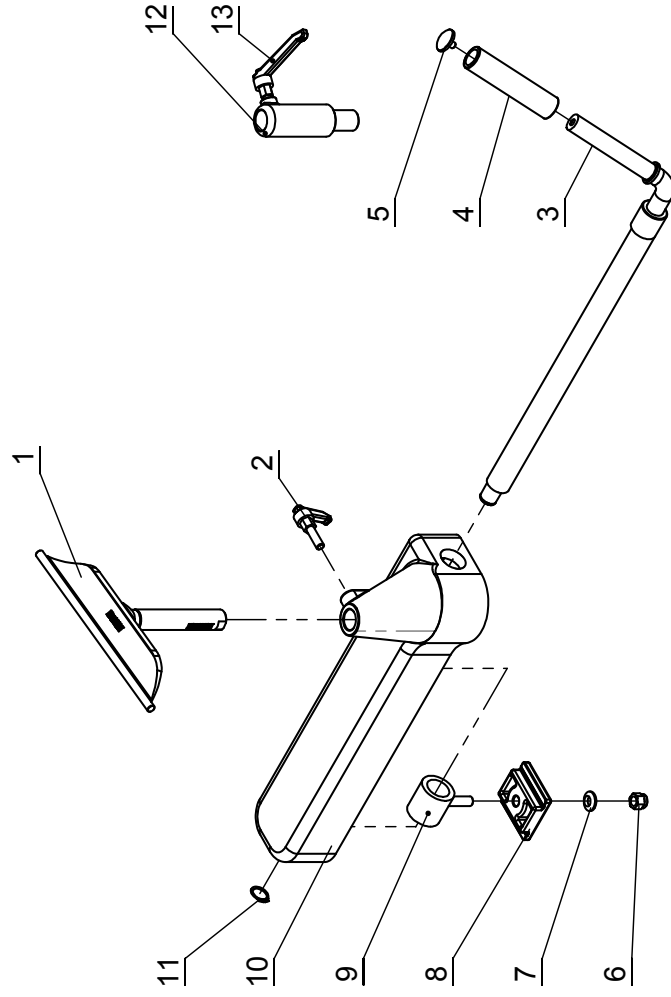
8. TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	REMEDY
Motor will not start	<ol style="list-style-type: none"> 1. Machine is not plugged in 2. Main on/off switch is in 'off' position 3. Low voltage or loose connection 	<ol style="list-style-type: none"> 1. Plug in machine 2. Turn main on/off switch to 'on' 3. Check plug, connections and fuse
Motor fails to develop full power.	<ol style="list-style-type: none"> 1. Power line is overloaded 2. Undersize wires in supply system 3. Low voltage 4. Worn motor 	<ol style="list-style-type: none"> 1. Correct the overload condition 2. Increase supply wire size or eliminate extension cord if one is used 3. Request voltage check from power company and correct low voltage condition 4. Replace the motor
Motor or Spindle Stalls or will not start	<ol style="list-style-type: none"> 1. Excessive depth of cut 2. Loose or broken belt 3. Worn spindle bearings 4. Improper cooling of motor 5. Worn motor 	<ol style="list-style-type: none"> 1. Reduce cutting depth 2. Check tension or replace drive belt 3. Replace bearings 4. Clean motor to increase air flow, or reduce motor running time 5. Replace Motor
Excessive Vibration.	<ol style="list-style-type: none"> 1. Workpiece is warped, out of round, has major flaw, or was improperly prepared or centered for turning 2. Lathe is on an uneven surface 3. Motor mount bolt or handles are loose 4. Worn belt 5. Worn spindle bearings 	<ol style="list-style-type: none"> 1. Correct problem by planing, band sawing, or discard the workpiece 2. Shim the lathe stand, or adjust the feet on the stand for stability 3. Tighten all bolts or handles 4. Replace the belt 5. Replace the bearings
Tailstock Moves when applyin pressure	<ol style="list-style-type: none"> 1. Tailstock is not secured in place 2. Excessive pressure being applied by the tailstock onto the workpiece 3. Lathe bed and tailstock mating surfaces are greasy or oily. 	<ol style="list-style-type: none"> 1. Tighten tailstock locking lever 2. Apply only sufficient force with the tailstock to hold the workpiece securely between centers. 3. Remove tailstock and clean bed surfaces with a cleaner de greaser
Tailstock Handwheel is hard to turn	<ol style="list-style-type: none"> 1. Tailstock quill's locking lever is still tight 2. Build up of dirt, resin on inside quill thread 	<ol style="list-style-type: none"> 1. Loosen tailstock quill's locking lever 2. Remove quill, clean all parts, oil and grease parts, then re-assemble
Tailstock or Tool Rest Base do not lock in place	<ol style="list-style-type: none"> 1. Incorrect adjustment on locking lever mechanism 	<ol style="list-style-type: none"> 1. Adjust the nut under the clamping plate to increase (or decrease) the clamping pressure of the lock levers
Spur or Live Centers slip when turning	<ol style="list-style-type: none"> 1. MT2 tapers are damaged, or have buildup of dirt or excessive grease 2. Insufficient pressure when loading 	<ol style="list-style-type: none"> 1. File or polish away any damage and clean tapers, inside and out. 2. Apply light coating of oil on tapers to prevent rusting 3. Install centers with firm hand pressure. Do not knock in with solid object
Spur and Live Centers do not align	<ol style="list-style-type: none"> 1. Headstock is not aligned with tailstock 	<ol style="list-style-type: none"> 1. Loosen bolts securing headstock to the bed, align centers, then re-tighten headstock bolts.

PROBLEM	PROBABLE CAUSE	REMEDY
Digital readout does not work	<ol style="list-style-type: none"> 1. Dust buildup on RPM reader 2. Digital readout sensor out of position 	<ol style="list-style-type: none"> 1. Blow off dust from RPM reader 2. Adjust the sensor with the RPM reader 3. Contact Technical Support or email
Sliding Bed will not move	<ol style="list-style-type: none"> 1. Bed is still locked in place 2. No electrical power 3. Spindle rotation is still working 4. DC motor assembly is disconnected from the sliding bed frame 	<ol style="list-style-type: none"> 1. Release the bed's locking handle 2. Turn main power switch 'on' 3. Stop the spindle rotation then move the sliding bed as needed 4. Replace cotter pins if missing from holding the motor assembly in place.
Magnet Control Box will not stick to lathe frame	<ol style="list-style-type: none"> 1. Control box is positioned on labels 2. Control box is positioned on a curved surface 3. Magnets are loose or are missing 	<ol style="list-style-type: none"> 1. Move controls to alternate location 2. Move control box to flat surface so magnets get full holding power 3. Secure the nuts holding the magnets to the control box back plate
Machine bogs down during cutting	<ol style="list-style-type: none"> 1. Excessive depth of cut is taken 2. Turning tools are dull 3. Drive belt is loose 	<ol style="list-style-type: none"> 1. Decrease the depth of cut 2. Sharpen the turning tools 3. Increase tension of drive belt
Tools tend to grab or dig in.	<ol style="list-style-type: none"> 1. Dull turning tools 2. Tool rest is set too low 3. Tool rest is set too far from the workpiece 4. Improper turning tool is being used 	<ol style="list-style-type: none"> 1. Sharpen the tools 2. Reposition the tool rest height 3. Set the tool rest closer to the workpiece 4. Use the correct tool for operation

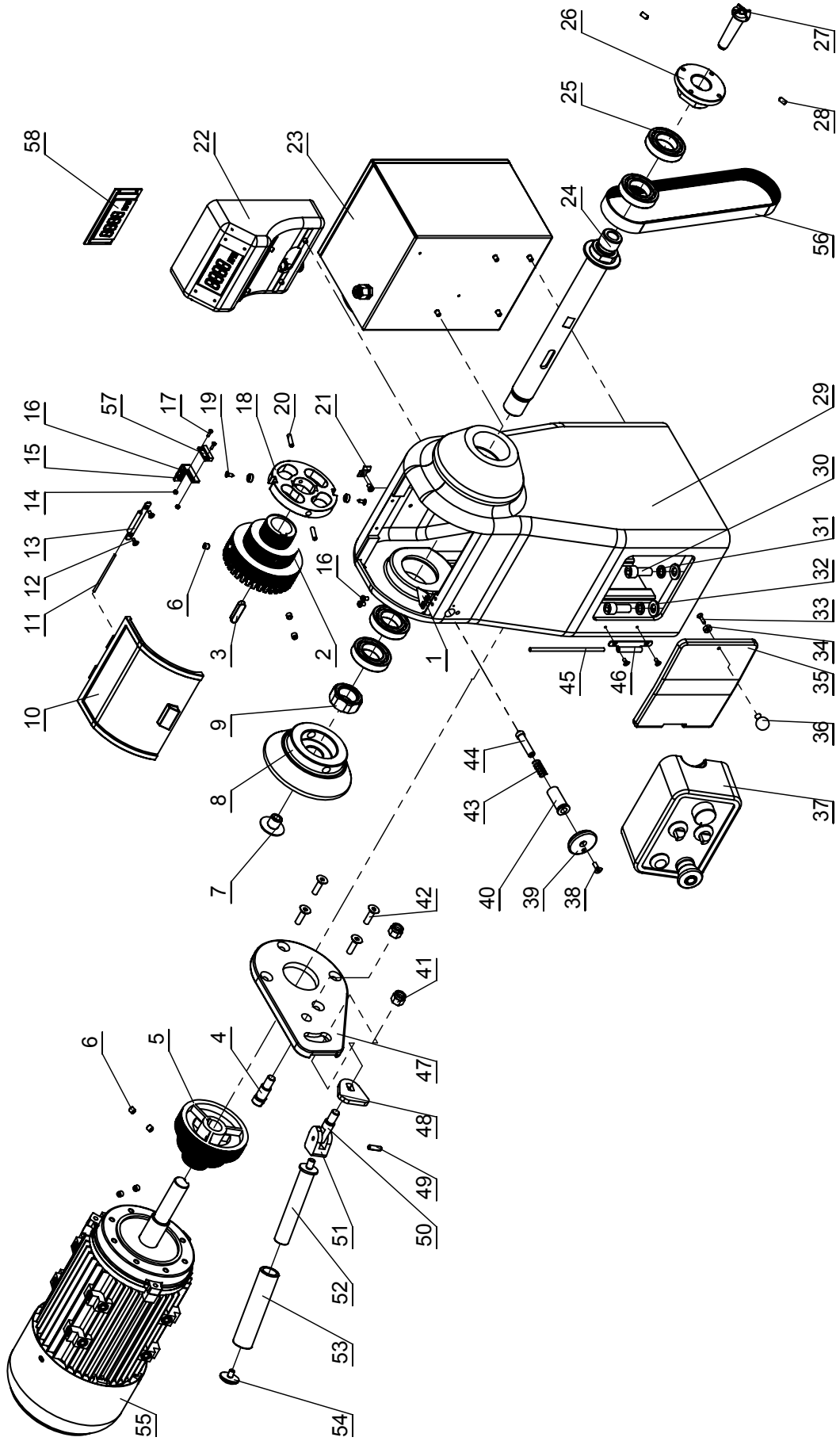
9. PARTS DIAGRAM & PARTS LIST

1. TOOL REST BASE ASSEMBLY



No.	Description	Drawing Number
1-1	12" Tool rest	JMWL1203054000C-001U
1-2	Adjustable handle	KTSB-1-B-M10X80X32
1-3	Tool holder eccentric handle	WL3040A050002
1-4	Handle sleeve	WL3040A050003
1-5	Thread cap	WL3040A010306
1-6	Hexagon lock nut	M12GB889D1ZF
1-7	Spherical washer	WSH12GB849B
1-8	T - latch segment	WL3040A040005
1-9	Long cam shaft bushing assembly	JL91032000
1-10	Tool holder base	WL3040A050001-040B
1-11	Circlips for shaft	CLP21GB894D1B
1-12	Tool Rest Height Extension	WL3040A050011-040B
1-13	Adjustable handle	KTSB-1-B-M10X80X20

2. HEADSTOCK ASSEMBLY

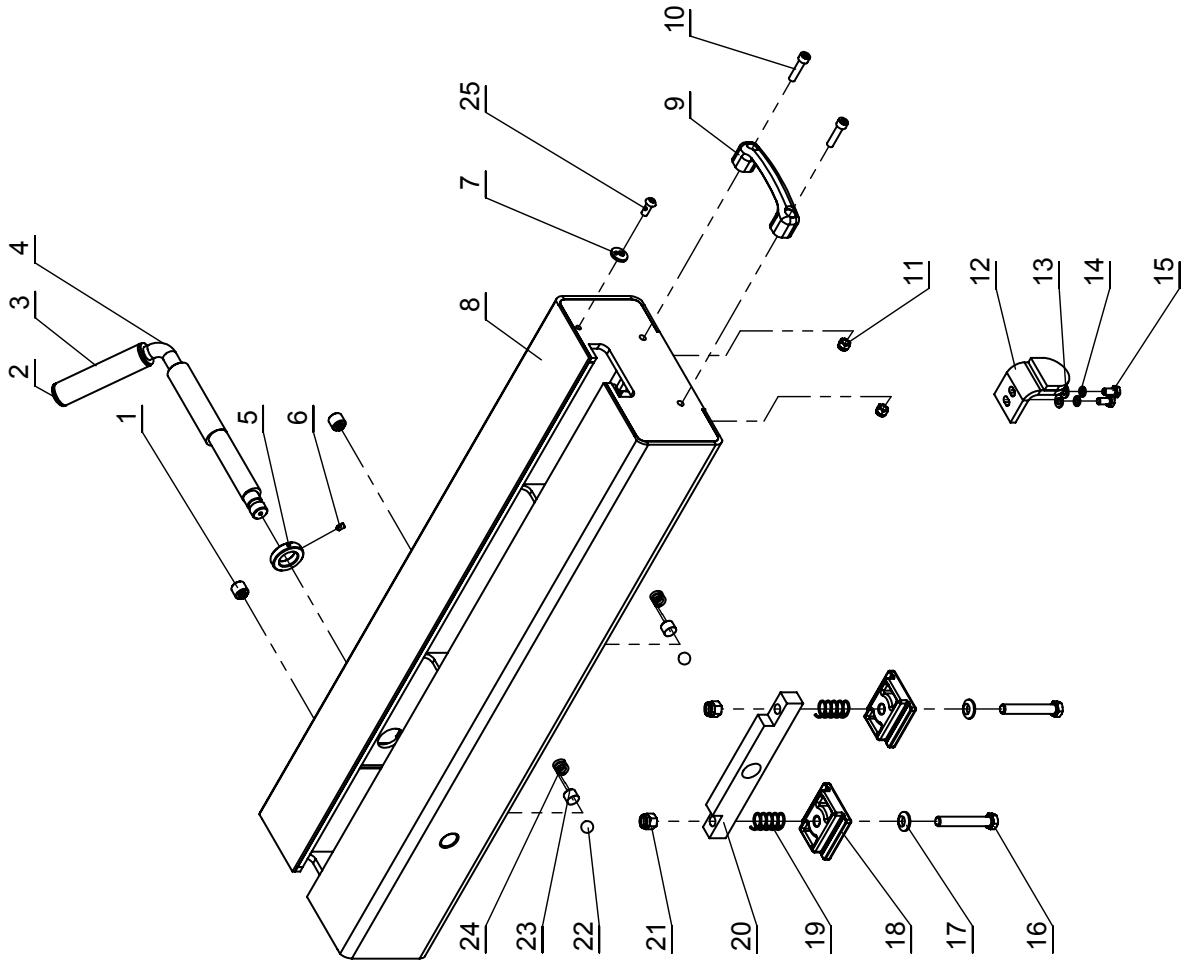


2. HEADSTOCK ASSEMBLY

No.	Description	Drawing Number
2-1	Pointer	WL3040A020019-114X
2-2	Spindle pulley	WL3040A020002
2-3	Flat key (type A)	PLN10X8X40GB1096
2-4	Shoulder screw	JL94010115
2-5	Motor pulley	WL3040A020012
2-6	Hex socket end set screw M8X8	M8X8GB80B12D9
2-7	Spindle lock nut	WL3040A020016
2-8	Spindle wheel	WL3040A020003
2-9	Locking nut	WL3040A020008
2-10	Cover	WL3040A020013-001S
2-11	Hinge shaft	JMWL1203020003
2-12	Screw M4X10	M4X10GB819D1B
2-13	Hinge	JMWL1203020002
2-14	Hex nut	M3GB6170Z
2-15	Mounting plate	WL3040A020017
2-16	Screw M5X8	M5X8GB818B
2-17	Screw M3X10	M3X10GB818Z
2-18	Plastic sleeve	WL3040A020009-001S
2-19	Screw	ST4D2X13GB846Z
2-20	Set screw M6X25	M6X25GB80B12D9
2-21	Cable clamp	1502014-02
2-22	Display unit	2-WL3040A090000
2-23	Control box	2-WL3040A090200
2-24	Spindle	1-WL3040A020004A
2-25	Bearing	BRG6007DDU
2-26	82mm face plate	JL91010010A
2-27	Spur center	JL93011100
2-28	Set screw M6X12	M6X12GB80B12D9
2-29	Headstock	WL3040A020001-117L
2-30	Screw M12X30	M12X30GB70D1B
2-31	Spring washer	WSH12GB93B
2-32	Washer	WSH12GB97D1B
2-33	Screw M4X16	M4X16GB819D1B
2-34	Magnetic steel	JMWL1203010006
2-35	Plate	WL3040A020018-001S
2-36	Small handle	WL3040A040003
2-37	Switch box	WL3040A090100
2-38	Screw	M5X16GB70D3Z10D9
2-39	Knob	WL3040A020202

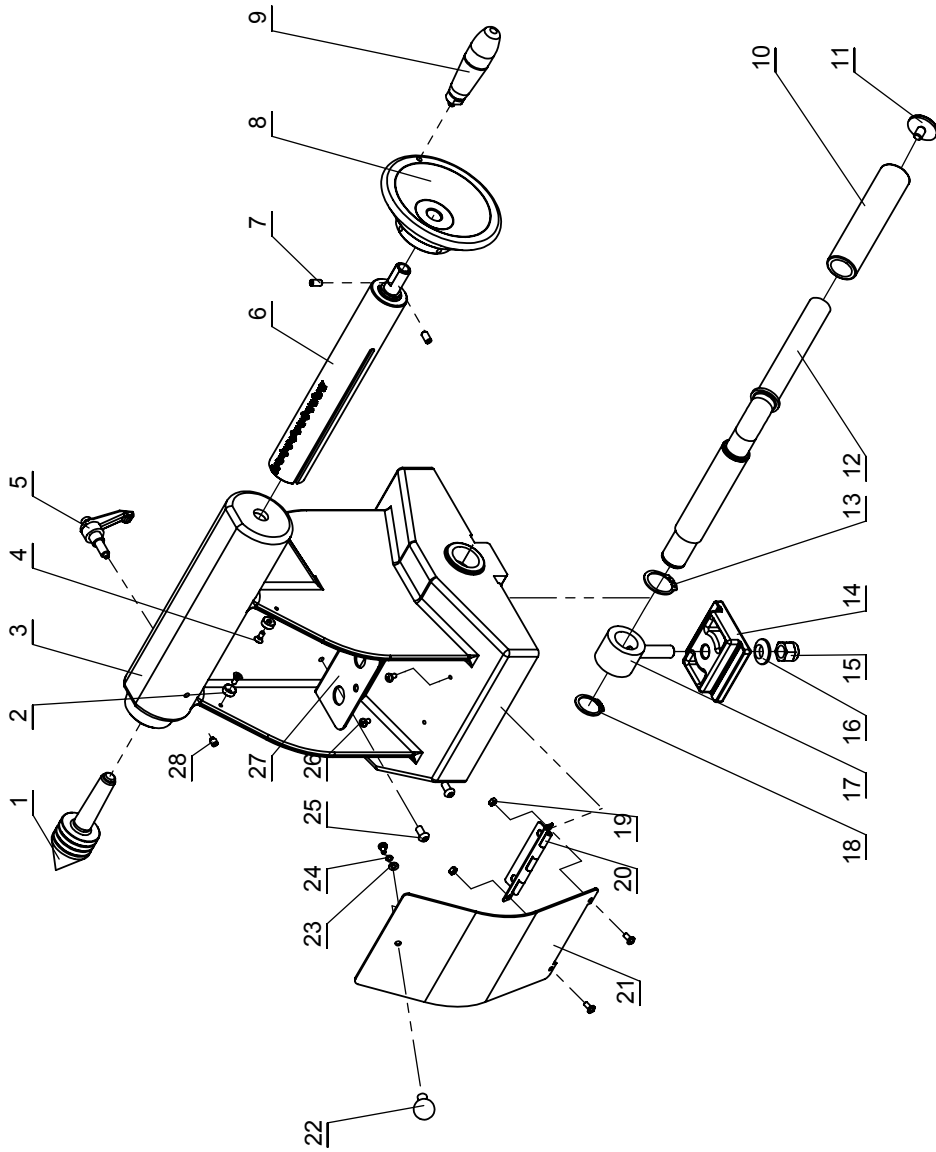
No.	Description	Drawing Number
2-40	Locating sleeve	WL3040A020203
2-41	Hex nut	M12GB889D1ZF
2-42	Screw	M8X30GB70D3Z
2-43	Spring	WL3040A020204
2-44	Locating pin	WL3040A020201
2-45	Hinge shaft	WL3040A020020
2-46	Hinge	WL3040A020015
2-47	Motor adjusting plate	WL3040A020006-117L
2-48	Adjusting cam	JL94010302A
2-49	Elastic cylindrical pin	PIN6X22GB879D2B
2-50	Locating shaft	JL94010117
2-51	Positioning cam	JL94010116
2-52	Handle	WL3040A020011
2-53	Handle sleeve	WL3040A050003
2-54	Thread cap	WL3040A010306
2-55	Motor	YSH105224
2-56	Poly-v-belt	10PJ762GB16588
2-57	Speed measuring head	WL1216B090009
2-58	RPM reader	WL3040A090003

3. SLIDING LATHE BED ASSEMBLY



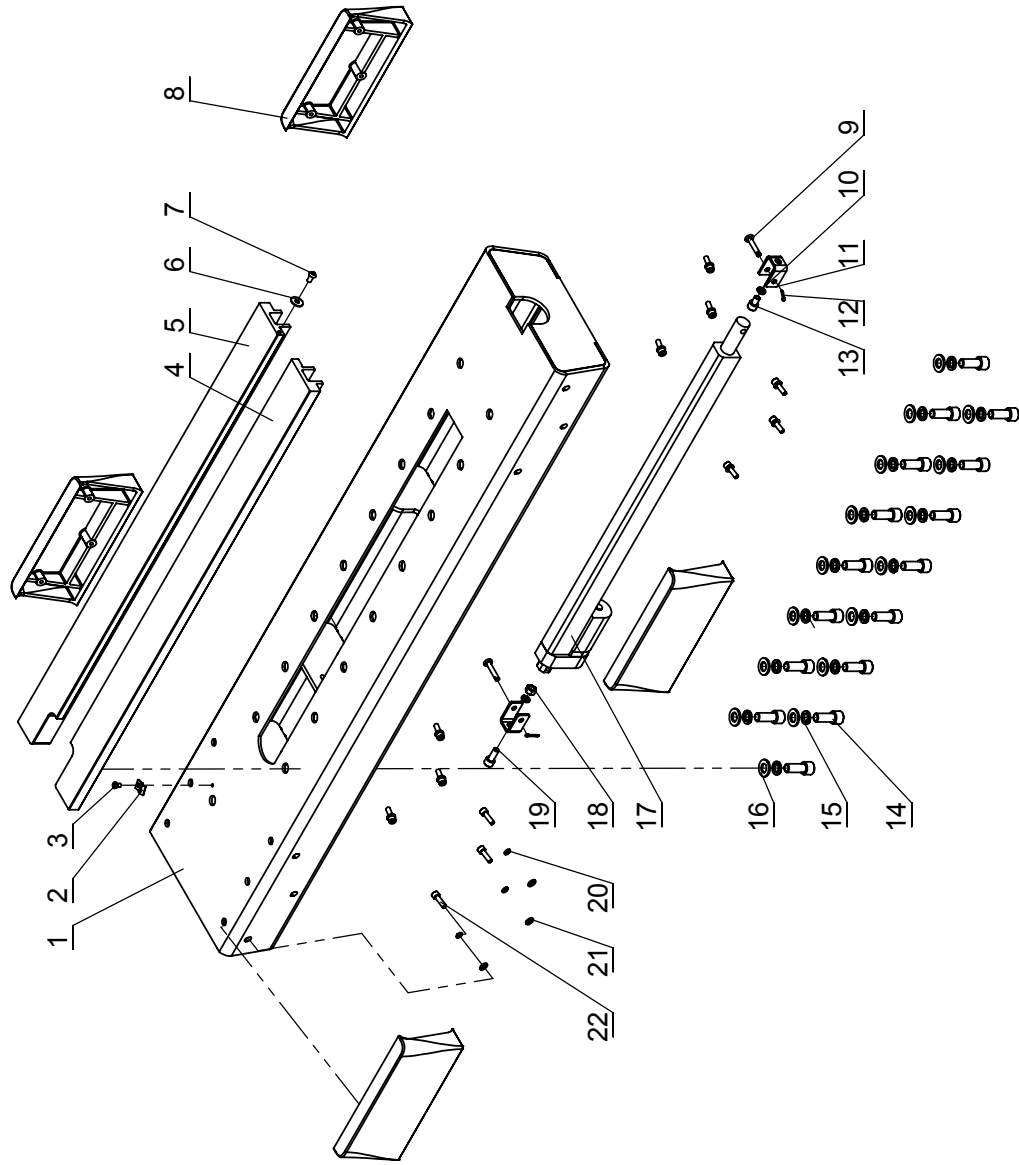
No.	Description	Drawing Number
3-1	Compression spring screw	JXTH1602051007
3-2	Thread cap	WL3040A010306
3-3	Handle sleeve	WL3040A050003
3-4	Eccentric handle	WL3040A010302
3-5	Locking sleeve	WL3040A010008
3-6	Set screw M6X10	M6X10GB80B12D9
3-7	Eccentric washer	WL3040A010009
3-8	Upper bed weldment	WL3040A010100-040V
3-9	Handle	JL45030030A-001S
3-10	Hex socket cap screw M8X35	M8X35GB70D1B
3-11	Hexagon lock nut M8	M8GB889D1B
3-12	Junction plate weldment	WL3040A010117-040V
3-13	Washer	WSH8GB97D1B
3-14	Spring washer	WSH8GB93B
3-15	Hex head bolt (full thread) M8X16	M8X16GB5783B
3-16	Hex head bolt (full thread) M12X80	M12X80GB5783Z
3-17	Spherical washer	WSH12GB849B
3-18	T - latch segment	WL3040A040005
3-19	Pressure spring	WL3040A010307
3-20	Square steel	WL3040A010305
3-21	Hexagon lock nut M12	M12GB889D1ZF
3-22	Steel ball (15mm)	WL3040A010015
3-23	Copper billet	WL3040A010013
3-24	Pressure spring	WL3040A010014
3-25	Screw M8X12	M8X12GB70D2B

4. TAILSTOCK ASSEMBLY



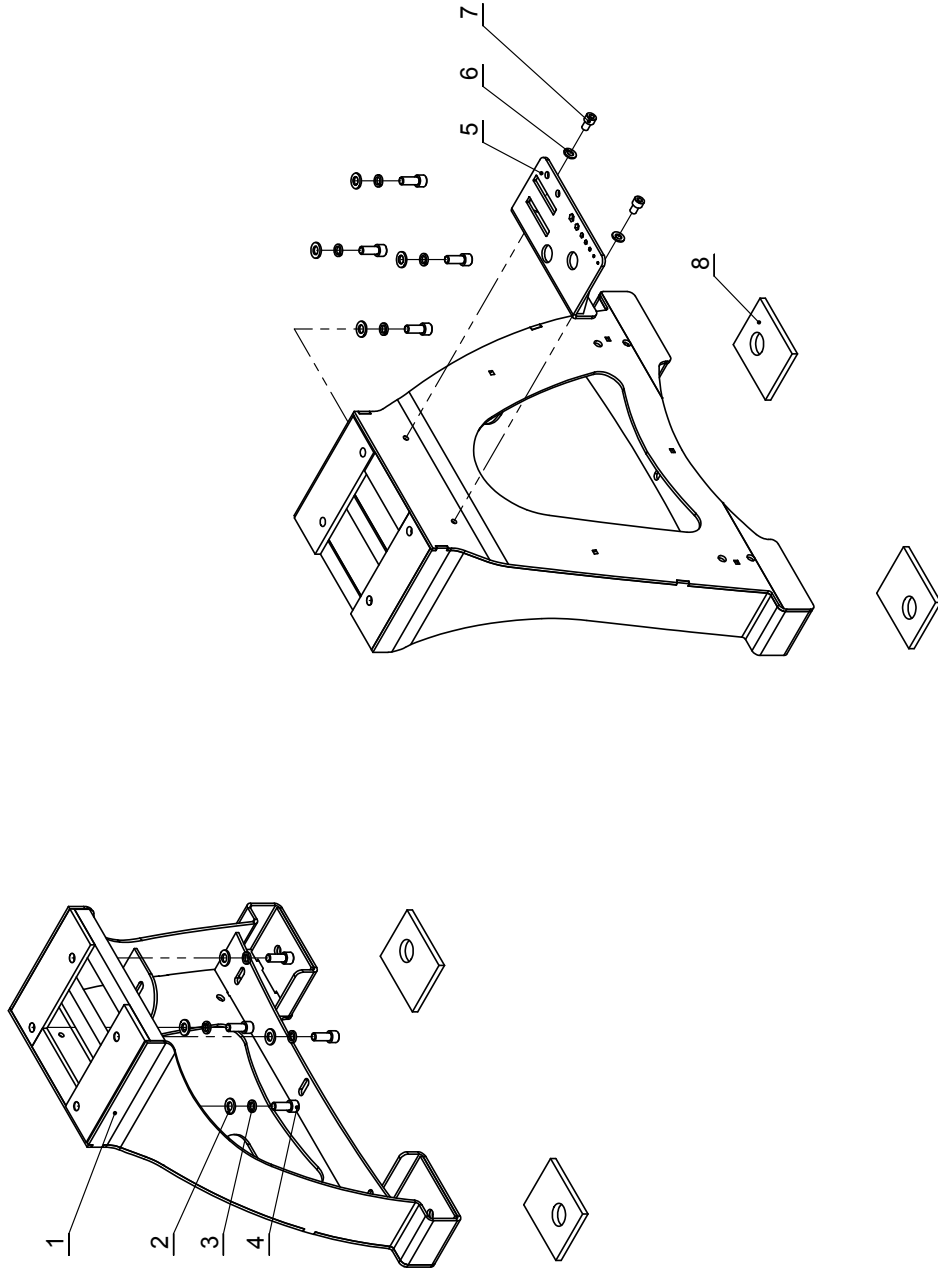
No.	Description	Drawing Number
4-1	Tailstock center	WL3040A040019
4-2	Magnetic steel	JMWL1203010006
4-3	Tailstock	WL3040A040001-117L
4-4	Screw M4X10	M4X10GB819D1Z
4-5	Adjustable handle	KTSB-1-B-M8X63X25A
4-6	Tailstock shaft assembly	WL3040A041100
4-7	Hex socket end set screw M6X12	M6X12GB80B
4-8	Tailstock hand wheel	WL3040A040004
4-9	Tailstock handle assembly	WL3040A040015
4-10	Handle sleeve	WL3040A050003
4-11	Thread cap	WL3040A010306
4-12	Tailstock eccentric handle	WL3040A040007
4-13	Circlip for shaft	CLP28GB894D1B
4-14	T - latch segment	WL3040A040005
4-15	Hexagon lock nut M12	M12GB889D1ZF
4-16	Spherical washer	WSH12GB849B
4-17	Tighten barrel	WL3040A050006
4-18	Circlip for shaft	CLP24GB894D1B
4-19	Hex nut M4	M4GB6170Z
4-20	Hinge	WL3040A040100
4-21	Cover plate	WL3040A040006-117U
4-22	Small handle	WL3040A040003
4-23	Washer	WSH4GB97D1Z
4-24	Spring washer	WSH4GB93Z
4-25	Hex socket button head screw	M6X12GB70D2B
4-26	Cross recess pan head screw	M4X8GB818Z
4-27	Tool holder	WL3040A040011-117U
4-28	Screw	M6X8GB79B

5. LATHE BED ASSEMBLY



No.	Description	Drawing Number
5-1	Lower bed weldment	WL3040A011200-040V
5-2	Cable clamp	1502014-02
5-3	Cross recess pan head screw	M5X8GB818B
5-4	Front rail	WL3040A010007
5-5	Rear rail	WL3040A010006
5-6	Washer	WSH6GB96D1B
5-7	Hex socket flat round head screw	M6X12GB70D2B
5-8	Trim cover	WL3040A100103-040V
5-9	Safety pin	WL3040A090101
5-10	Spring washer	WSH8GB93B
5-11	Fixed plate	WL3040A010304-001U
5-12	Split cotter	PIN2D5X16GB91Z
5-13	Hex socket cap screw M8X12	M8X12GB70D1B
5-14	Hex socket cap screw M12X30	M12X30GB70D1B
5-15	Spring washer	WSH12GB93B
5-16	Washer	WSH12GB97D1B
5-17	Electric cylinder assembly	WL3040A010410
5-18	Hex nut M8	M8GB6170B
5-19	Hex socket cap screw M8X20	M8X20GB70D1B
5-20	Spring washer	WSH6GB93B
5-21	Washer	WSH6GB97D1B
5-22	Hex socket cap screw M6X20	M6X20GB70D1B

6. LATHE BASE ASSEMBLY



No.	Description	Drawing Number
6-1	Leg	WL3040A100200-040V
6-2	Washer	WSH12GB97D1B
6-3	Spring washer	WSH12GB93B
6-4	Hex socket head cap screw	M12X35GB70D1B
6-5	Tool holder	WL3040A100001-001U
6-6	Washer	WSH10GB97D1Z
6-7	Hex socket cap screw M10X16	M10X16GB70D1Z
6-8	New Shock pad	WL3040A110009

10. ACCESSORIES

10.1 TOOL RESTS

Interchangeable turning Tool Rest Tops and Posts let you mix and match parts to meet the tool rest sizes that you need.

Posts have M12 x1.25 threaded ends that install into the base of the Tool Rest Tops.
The Spring Washer secures the post and top together.

A. Tool Rest Tops only
4" (102mm) Long
6" (152mm) Long
8" (203mm) Long
12" (305mm) Long

B. Compression Spring Washer only
1" (25.4mm) diameter

C. Tool Rest Posts only (includes Washer)
5-1/8" (130mm) Long x 1" (25.4mm) diameter
3-3/4" (95mm) Long x 1" (25.4mm) diameter
3-3/8" (85mm) Long x 1" (25.4mm) diameter
2-3/4" (70mm) Long x 5/8" (15.9mm) diameter

10.2 ADJUSTABLE FEET - SET OF 4

All-metal feet with 3-1/8" (80mm) swivel base pads. Set includes hardware to install on lathe legs with pre-bored mounting holes.

10.3 RETRACTABLE SWIVEL CASTERS - SET OF 4

Includes brackets and hardware to install these 2-1/2" diameter casters on the WL3040A Lathe legs. Foot activated pedals raise the lathe about 1", so the lathe can be easily moved when needed.

10.4 TOOL REST EXTENSION

Increases the reach of tool rests for turning surfaces not possible with standard tool rests. Has 1" post and hole, with 7-1/2" reach.

10.5 TOOL REST HEIGHT EXTENSION

Raises tool rests 4" higher when working on larger swing capacity lathes. Has 1" post and 1" receiving hole for securing your tool rests with its lever handle.

10.6 FACE PLATES

Have holes for screw mounting of projects. For lathes with M30 x 3.5 spindle threading.

3-3/8" Diameter
6" Diameter

10.7 DRILL CHUCK & ARBOR SET

Set includes Keyed Chuck with 1/32" to 5/8" diameter holding capacity. Use on lathes with MT2 spindle holes.

10.8 GAP BED INSERT

This short, duplication of the WL3040A lathe's upper lathe bed installs over the exposed lower bed and continues the upper bed track at the same height as the sliding bed. This means that your tool rest base can be now positioned anywhere on the lathe for turning, sliding from end-to-end, between center-to-center. A second tool rest base is not needed. See page 15. .

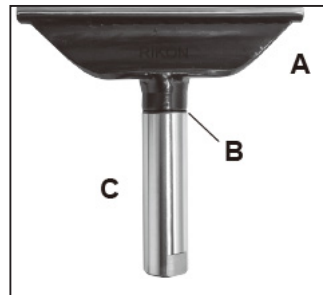


Fig.10.1



Fig.10.2

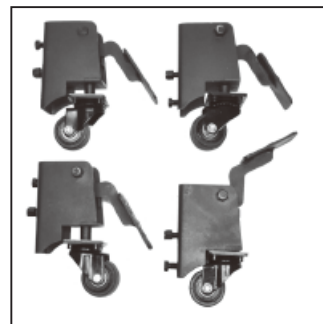


Fig.10.3



Fig.10.4



Fig.10.5

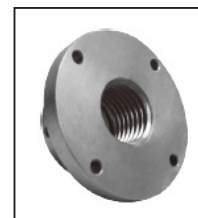


Fig.10.6



Fig.10.7

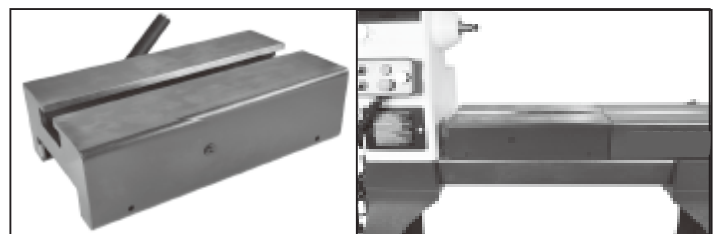


Fig.10.8

10.9 TOOL REST BASE ASSEMBLY

This is the same tool rest base that is supplied with the WL3040A lathe. For use on the lower bed when the lathe's sliding bed is extended for turn-ing spindles. This second tool rest (with height extender), along with the other supplied base on the sliding bed, permits turning along a full 40" long spindle by switching gouges between the two rests. Includes base assembly only, without tool rest or tool rest height extension. See pages 14 & 23.



Fig.10.9

10.10 60° LIVE CENTER

Great for centering stock with 1/8" to 1-3/8" pre-drilled end holes for turning. Features sealed double ball bearings for smooth operation, #2 Morse Taper and alloy steel construction.



Fig.10.10

10.11 DRIVE BELT

Rubber Multi-V drive belt for the WL3040A lathe.

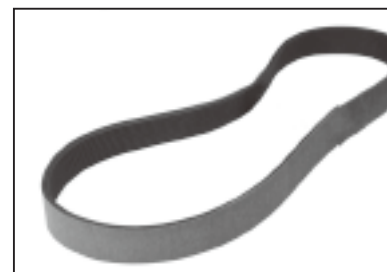


Fig.10.11

