



8" X 13" VARIABLE SPEED WOOD LATHE



MODEL: KWL-813VS

INSTRUCTION MANUAL



WARRANTY INFORMATION

**2-YEAR
LIMITED WARRANTY
FOR THIS WOOD LATHE**

**KING CANADA TOOLS
OFFERS A 2-YEAR LIMITED WARRANTY
FOR NON-COMMERCIAL USE.**

PROOF OF PURCHASE

Please keep your dated proof of purchase for warranty and servicing purposes.

REPLACEMENT PARTS

Replacement parts for this product are available at our authorized King Canada service centers across Canada. Please use the 10 digit part numbers listed in this manual for all part orders where applicable.

LIMITED TOOL WARRANTY

King Canada makes every effort to ensure that this product meets high quality and durability standards. King Canada warrants to the original retail consumer a 2-year limited warranty as of the date the product was purchased at retail and that each product is free from defects in materials. Warranty does not apply to defects due directly or indirectly to misuse, abuse, normal wear and tear, negligence or accidents, repairs done by an unauthorized service center, alterations and lack of maintenance. King Canada shall in no event be liable for death, injuries to persons or property or for incidental, special or consequential damages arising from the use of our products.

To take advantage of this limited warranty, return the product at your expense together with your dated proof of purchase to an authorized King Canada service center. Contact your retailer or visit our web site at www.kingcanada.com for an updated listing of our authorized service centers. In cooperation with our authorized service center, King Canada will either repair or replace the product if any part or parts covered under this warranty which examination proves to be defective in workmanship or material during the warranty period.

NOTE TO USER

This instruction manual is meant to serve as a guide only. Specifications and references are subject to change without prior notice.

KING CANADA INC. DORVAL, QUÉBEC, CANADA H9P 2Y4

www.kingcanada.com

GENERAL SAFETY INSTRUCTIONS FOR POWER TOOLS



- 1. KNOW YOUR TOOL**

Read and understand the owners manual and labels affixed to the tool. Learn its application and limitations as well as its specific potential hazards.
- 2. GROUND THE TOOL.**

This tool is equipped with an approved 3-conductor cord and a 3-prong grounding type plug to fit the proper grounding type receptacle. The green conductor in the cord is the grounding wire. **NEVER** connect the green wire to a live terminal.
- 3. KEEP GUARDS IN PLACE.**

Keep in good working order, properly adjusted and aligned.
- 4. REMOVE ADJUSTING KEYS AND WRENCHES.**

Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
- 5. KEEP WORK AREA CLEAN.**

Cluttered areas and benches invite accidents. Make sure the floor is clean and not slippery due to wax and sawdust build-up.
- 6. AVOID DANGEROUS ENVIRONMENT.**

Don't use power tools in damp or wet locations or expose them to rain. Keep work area well lit and provide adequate surrounding work space.
- 7. KEEP CHILDREN AWAY.**

All visitors should be kept a safe distance from work area.
- 8. MAKE WORKSHOP CHILD-PROOF.**

-with padlocks, master switches or by removing starter keys.
- 9. USE PROPER SPEED.**

A tool will do a better and safer job when operated at the proper speed.
- 10. USE RIGHT TOOL.**

Don't force the tool or the attachment to do a job for which it was not designed.
- 11. WEAR PROPER APPAREL.**

Do not wear loose clothing, gloves, neckties or jewelry (rings, watch) because they could get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair. Roll up long sleeves above the elbows.
- 12. ALWAYS WEAR SAFETY GLASSES.**

Always wear safety glasses (ANSI Z87.1). Everyday eyeglasses only have impact resistant lenses, they are **NOT** safety glasses. Also use a face or dust mask if cutting operation is dusty.
- 13. DON'T OVERREACH.**

Keep proper footing and balance at all times.
- 14. MAINTAIN TOOL WITH CARE.**

Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- 15. DISCONNECT TOOLS.**

Before servicing, when changing accessories or attachments.
- 16. AVOID ACCIDENTAL STARTING.**

Make sure the switch is in the "OFF" position before plugging in.
- 17. USE RECOMMENDED ACCESSORIES.**

Consult the manual for recommended accessories. Follow the instructions that accompany the accessories. The use of improper accessories may cause hazards.
- 18. NEVER STAND ON TOOL.**

Serious injury could occur if the tool tips over. Do not store materials such that it is necessary to stand on the tool to reach them.
- 19. CHECK DAMAGED PARTS.**

Before further use of the tool, a guard or other parts that are damaged should be carefully checked to ensure that they will operate properly and perform their intended function. Check for alignment of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other parts that are damaged should be properly repaired or replaced.
- 20. NEVER LEAVE MACHINE RUNNING UNATTENDED.**

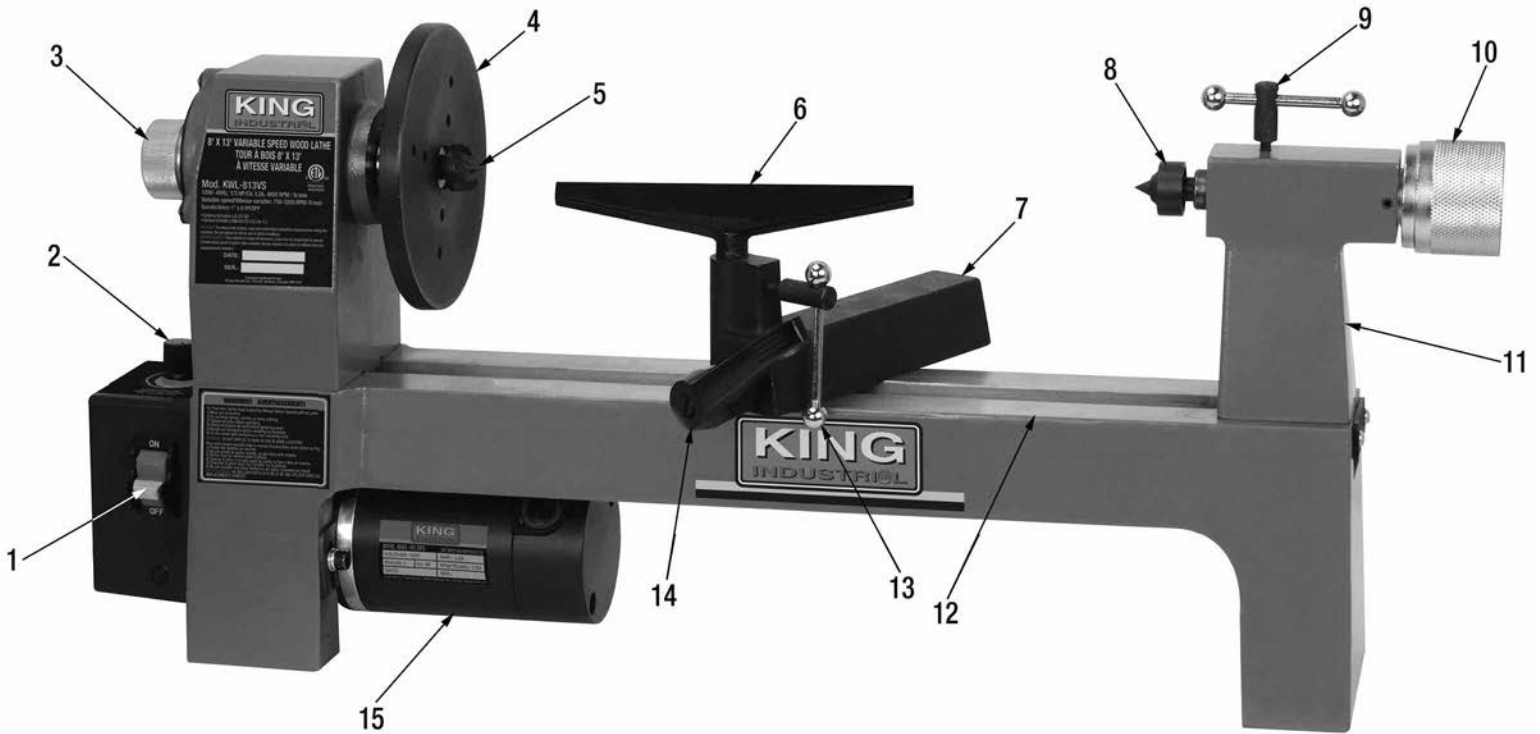
Turn power "OFF". Don't leave any tool running until it comes to a complete stop.

SPECIFIC SAFETY INSTRUCTIONS FOR YOUR WOOD LATHE

- 1. READ AND UNDERSTAND MANUAL BEFORE OPERATING.**
- 2. MAKE ALL ADJUSTMENTS** with the power OFF.
- 3.** Always wear eye protection.
- 4.** Do not wear gloves, neckties, jewelry or loose clothing.
- 5.** Tighten all lock knobs before operating.
- 6.** Rotate workpiece by hand before turning on power to ensure it clears the tool rest.
- 7.** Rough out workpiece before installing on faceplate.
- 8.** Do not mount split workpiece or one containing knot.
- 9.** Use lowest speed when starting a new workpiece.
- 10. Do not allow the turning tool to "bite"** into the workpiece. Always position the tool rest above the centerline of the lathe for spindle turning. Do not apply the turning tool to the workpiece below the level of the tool rest.
- 11. Avoid awkward hand positions** where a slip could cause a hand to move into the workpiece.
- 12. Keep a firm hold and control of the turning tool** at all times. Special cautions must be exercised when knots or voids are exposed to the turning tool.



GETTING TO KNOW YOUR WOOD LATHE



GETTING TO KNOW YOUR WOOD LATHE

1. On/off switch with safety key
2. Variable speed dial
3. Spindle handwheel
4. 5-1/4" faceplate
5. Spur center
6. Tool rest
7. Tool rest base
8. Live center
9. Quill lock handle
10. Tailstock handwheel
11. Tailstock
12. Bed
13. Tool rest lock knob
14. Tool rest base lock handle
15. DC motor

King Optional Accessories

Model	Description
KW-100	4" - 4jaw chuck
KW-007N	6" - 4jaw chuck
48260	3-3/8" - 4 jaw chuck
K-2521	MT#1 spur center
KLC-1W	MT#1 live center
KPRO-08	8 Pc. wood turning chisels

MODEL	KWL-813VS
Swing over bed	8"
Swing over tool post	5-1/4"
Distance between centers	13"
Spindle size (RH thread)/ Spindle bore	1" x 8 TPI / 3/8"
Variable speed range	750 - 3200 RPM
Headstock, tailstock taper	MT #1
Tailstock travel	1-9/16"
Motor	1/3 HP, 3.2 Amp., 4600 RPM
Voltage	120V, 1 phase, 60 Hz
Assembled dimensions (LxWxH)/weight	27-3/4" x 10" x 12-1/4" / 42 lbs
Package dimensions (LxWxH)/weight	28" x 13-1/4" x 7-5/8" / 47 lbs

ELECTRICAL CONNECTIONS & TURNING ON/OFF



WARNING!

ALL ELECTRICAL CONNECTIONS MUST BE DONE BY A QUALIFIED ELECTRICIAN. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY! ALL ADJUSTMENTS OR REPAIRS MUST BE DONE WITH THE MACHINE DISCONNECTED FROM THE POWER SOURCE. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY!

POWER SUPPLY

WARNING: YOUR WOOD LATHE MUST BE CONNECTED TO A 110V-120V, 15-AMP, BRANCH CIRCUIT.

Your wood lathe must be properly grounded. Not all outlets are properly grounded. If you are not sure if your outlet is properly grounded, have it checked by a qualified electrician.

WARNING: IF NOT PROPERLY GROUNDED, THIS WOOD LATHE CAN CAUSE ELECTRICAL SHOCK, PARTICULARLY WHEN USED IN DAMP LOCATIONS. TO AVOID SHOCK OR FIRE, IF THE POWER CORD IS WORN OR DAMAGED IN ANY WAY, HAVE IT REPLACED IMMEDIATELY.

GROUNDIRG

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

WARNING: TO MAINTAIN PROPER GROUNDIRG OF YOUR WOOD LATHE, DO NOT REMOVE OR ALTER THE GROUNDIRG PRONG IN ANY MANNER.

120V OPERATION

As received from the factory, your wood lathe is ready to run for 120V operation and is intended for use on a circuit that has an outlet and a plug which looks like the one illustrated in Fig.1.

WARNING: DO NOT USE A TWO-PRONG ADAPTOR FOR THEY ARE NOT IN ACCORDANCE WITH LOCAL CODES AND ORDINANCES. NEVER USE IN CANADA.

EXTENSION CORDS

The use of any extension cord will cause some loss of power. Use the following table to determine the minimum wire size (A.W.G-American Wire Gauge) extension cord. Use only 3-wire extension cords which have 3-prong grounding type plugs and 3-hole receptacles which accept the tool's plug.

For circuits that are further away from the electrical circuit box, the wire size must be increased proportionately in order to deliver ample voltage to the motor. Refer to Fig.2 for wire length and size.

ON/OFF SWITCH

Warning! Make sure the switch is in the "OFF" position before plugging into a wall outlet.

PROPERLY GROUNDIRG OUTLET

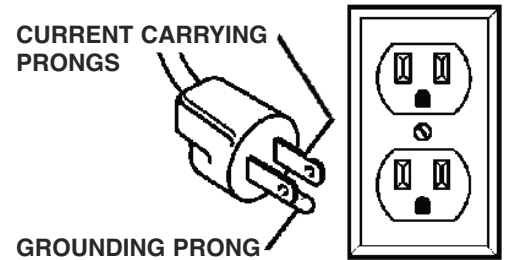


FIGURE 1

Tool's Amperage Rating	Cord Size in A.W.G.			
	25	50	100	150
3-6	18	16	16	14
6-8	18	16	14	12
8-10	18	16	14	12
10-12	18	16	14	12
12-16	14	12	-	-

FIGURE 2

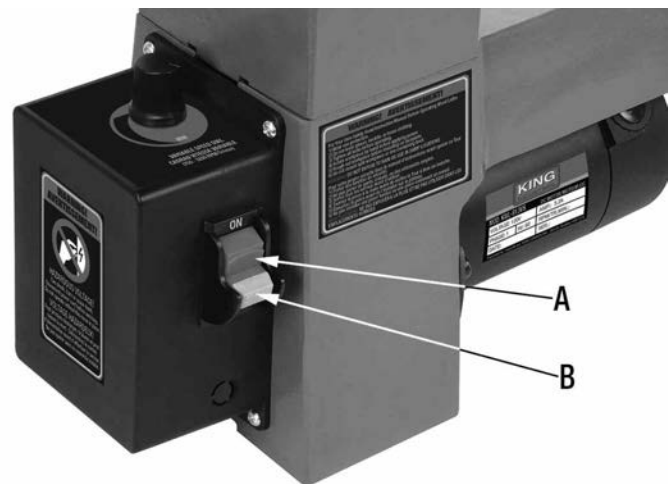


FIGURE 3

Your wood lathe comes with a safety switch (A) Fig.3 with removeable key (B) to prevent unauthorized use. To start the lathe, first make sure the key is in place and then push the switch upwards to the On position. To stop the wood lathe, push the switch downwards to the Off position. When not in use, remove the safety key and store in a safe place until the next use.



ASSEMBLY & ADJUSTMENTS

MOUNTING 5-1/4" FACEPLATE

Warning! Unplug wood lathe before attempting to mount or remove faceplate.

Your wood lathe comes with a 5-1/4" faceplate (A) Fig.4. This faceplate allows you to fasten your workpiece to the spindle when it is impossible to fix the workpiece inbetween two centers.

To mount the faceplate, thread it onto the spindle. To secure the faceplate, place the knock-out bar (B) into one of the holes in the spindle collar, and the adjustment key (C) on the flat of the faceplate collar as shown, pull in opposite directions to tighten faceplate.

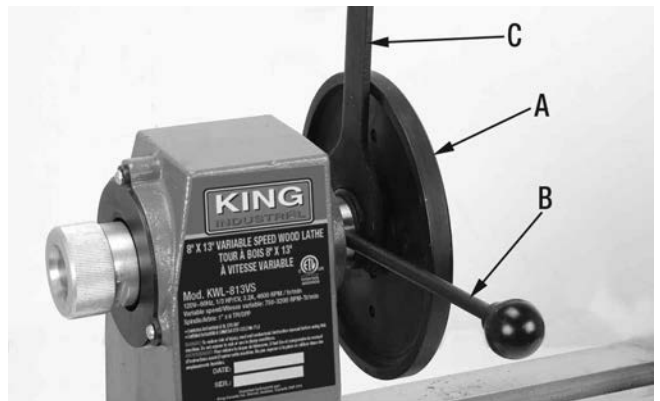


FIGURE 4

MOUNTING AND REMOVING CENTERS FROM HEADSTOCK AND TAILSTOCK

Warning! Unplug wood lathe before attempting to mount or remove any center.

The spur center (A) Fig.5 supplied with your wood lathe is designed to be fitted into the tapered headstock spindle (B). The spur center can be fitted by hand but first make sure the spur center shank and spindle hole are perfectly clean. It is recommended to use a solvent and a clean cloth to clean the shank and spindle hole.

To remove the spur center from the headstock spindle, a knock-out bar (C) Fig.5 is supplied for this purpose. Insert the knock out bar through the outboard side of the spindle as shown and knock out the spur center. Hold the spur center before knocking it out to prevent it from dropping.



FIGURE 5

The live center (A) Fig.6 supplied with your wood lathe is designed to be fitted into the tapered tailstock quill (B). The live center can be fitted by hand but first make sure the live center shank and quill hole are perfectly clean. It is recommended to use a solvent and a clean cloth to clean the shank and spindle hole.

To remove the live center from the tailstock quill, a knock-out bar (C) Fig.6 is supplied for this purpose. Insert the knock out bar through the outboard side of the quill as shown and knock out the live center. Hold the live center before knocking it out to prevent it from dropping.

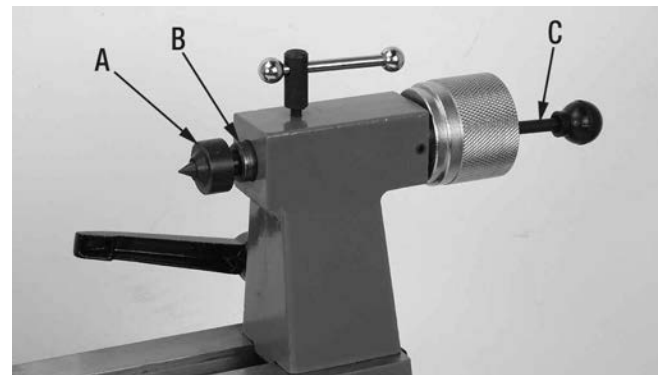


FIGURE 6

TOOL REST BASE AND TOOL REST ADJUSTMENTS

The tool rest base (A) Fig.7 and the tool rest (B) can be moved along the lathe bedway to any desired position between the centers. To move the tool rest base, loosen lock lever (C) and slide the tool rest base. Once in position tighten the locking lever to lock the tool rest base in place.

Now that the tool rest base is in the desired position, the tool rest (4-1/4" or 7" tool rest) height must be adjusted. The top edge of the tool rest should be adjusted to 1/8" above the mid-point of both centers. To adjust the height, loosen lock handle (D) Fig.7. Raise or lower the tool rest to the mid-point of both centers and retighten lock handle.

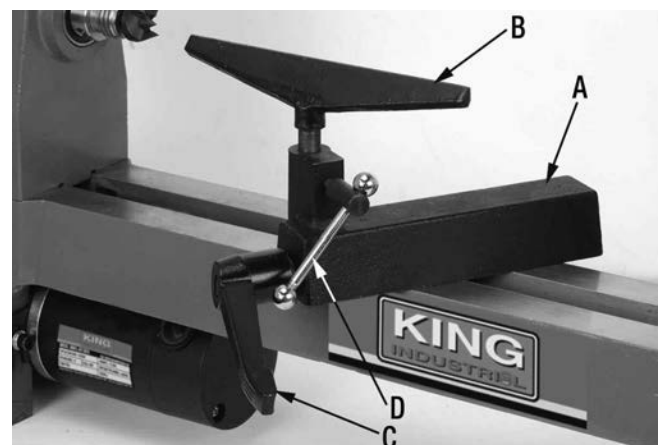


FIGURE 7

ADJUSTMENTS & OPERATION



TAILSTOCK ADJUSTMENTS

Before moving tailstock, make sure the bedway has been lubricated with paste wax or Spray Coat Dry film lubricant.

The tailstock (A) Fig.8 is moved along the lathe bedway to support the other end of your workpiece using a live center (B). To move the tailstock, loosen locking lever (C) and slide tailstock. Retighten locking lever to secure tailstock. The tailstock quill (D) moves in and out by turning handwheel (E) and is locked into place using lock handle (F).

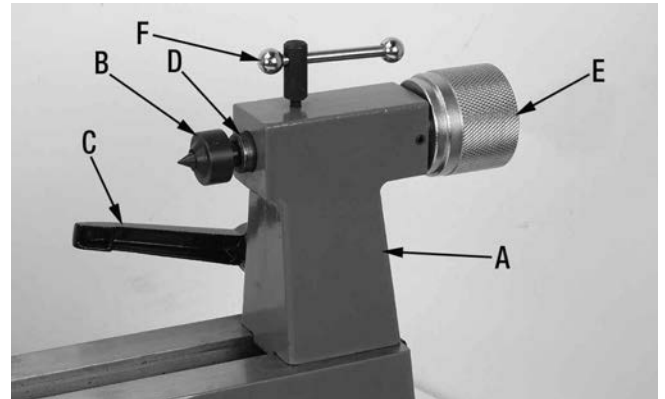


FIGURE 8

SPINDLE VARIABLE SPEED

This wood lathe comes with a variable speed dial (A) Fig.9. While the machine is running, the speed can be increased or decreased by turning the dial. The variable speed range is 750 -3200 RPM.

1. Turn the variable speed dial (A) Fig.9 clockwise to increase the spindle speed or counterclockwise to decrease spindle speed.

WOOD LATHE OPERATIONS

For information on wood lathe operations such as spindle turning, faceplate turning, various cutting and shaping technics, consult some of the many sources at your local library or book store. We recommend having an experienced woodworker show you basic tips to get started.

BASIC GUIDE- SPINDLE TURNING

Spindle turning operations are performed when a workpiece is mounted between the headstock (spur centre) and the tailstock (live centre).

1. Mark the centre of both ends of your workpiece, this is easily done by drawing diagonal lines from corner to corner. The intersection of these two lines will indicate the centre point of your workpiece.
2. Drive the spur centre approximately 1/4" into the centre of your workpiece, then install the spur centre into the headstock spindle (with workpiece still attached).
3. Install the live centre into the tailstock quill, reposition the tailstock towards the other end of the workpiece until the live centre touches the centre point of the workpiece, lock the tailstock.
4. Unlock the tailstock quill, using the handwheel, push the live centre approximately 1/4" into the centre of your workpiece.
5. Position the tool rest approximately 1/4" away from your workpiece and 1/8" above the centre line. Make sure there is sufficient clearance before starting the wood lathe motor.

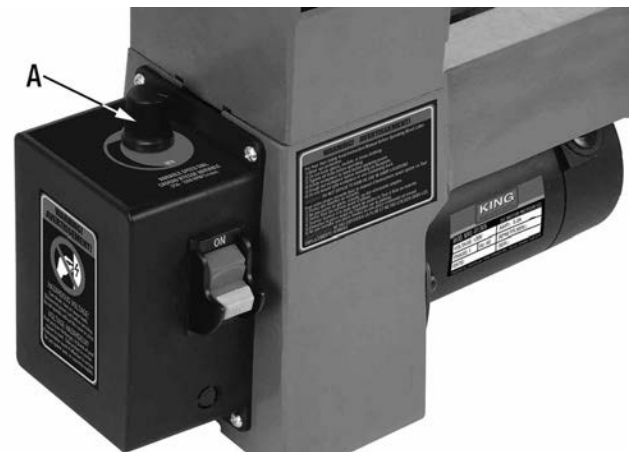


FIGURE 9

BASIC GUIDE- FACEPLATE TURNING

Faceplate turning operations are performed when a workpiece is mounted to the faceplate, which is mounted to the headstock spindle. This type of turning is ideal for open-faced workpieces such as bowls.

1. Mark the centre point at the back of your workpiece, this is easily done by drawing diagonal lines from corner to corner. The intersection of these two lines will indicate the centre point of your workpiece.
2. Centre the faceplate on the workpiece and fix the workpiece to the faceplate by drilling wood screws through the mounting holes. Make note of the length of the screws used as to not hit them when gouging out the centre of the workpiece. If screws can't be drilled into your workpiece, glue a backing block to your workpiece, make sure the glue has completely cured before attempting to mount it to the faceplate and turning wood lathe On.
3. Install the faceplate and workpiece onto the headstock spindle.
4. Position the tool rest on the outside or inside of your workpiece depending on the operation, again 1/8" above the centre line of your workpiece. Make sure there is sufficient clearance before starting the wood lathe motor.

MAINTAINING YOUR WOOD LATHE- Warning! Unplug power cord from power source before making any maintenance to your wood lathe.

There are a few simple ways of maintaining your wood lathe to ensure long life.

1. After any operation, remove all wood chips found on the bed and thoroughly clean the wood lathe.
2. Lubricate all sliding surfaces regularly.

REPLACING DRIVE BELT

The drive belt may eventually need replacing, to change drive belt:

1. Loosen or remove cap screw (A) Fig.10 which secures the motor (B).
2. Position the wood lathe on its side, then pivot the motor towards the head to reduce the tension on the belt, remove belt (A) Fig.11 from around the motor pulley (B).
3. Remove head end plate (A) Fig.12 by removing the 3 pan head screws (B).
4. The belt can now be removed from the spindle pulley (A) Fig.13 and pulled through the head opening.
5. Reinstall identical replacement belt in the reverse order. Once the belt is installed, tension the belt by lowering the motor and securing it with the cap screw (A) Fig.10.

PARTS DIAGRAM & PARTS LIST

Refer to the Parts section of the King Canada web site for the most updated parts diagram and parts list.

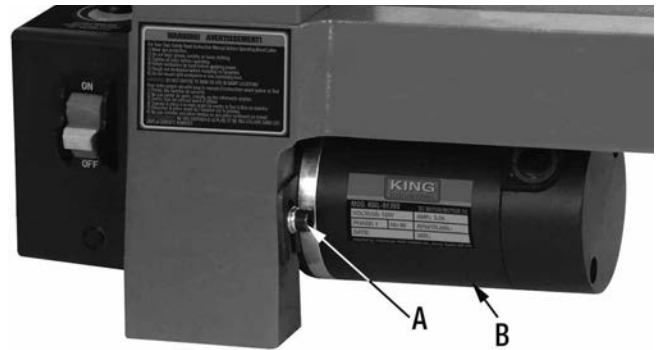


FIGURE 10

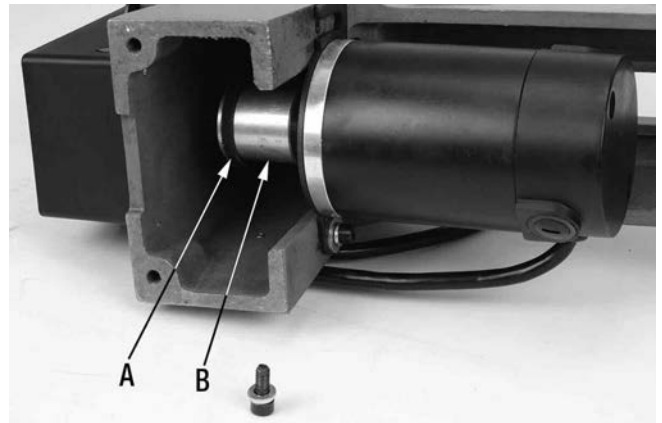


FIGURE 11

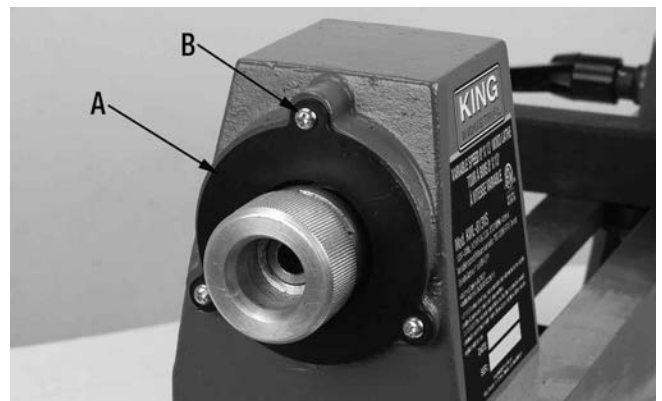


FIGURE 12



FIGURE 13