

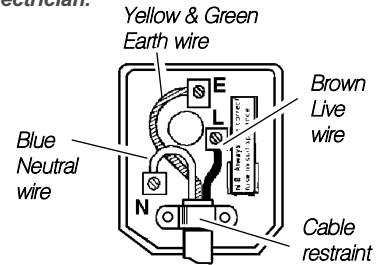
Thank you for purchasing a Sealey product. Manufactured to a high standard this product will, if used according to these instructions and properly maintained, give you years of trouble free performance.

⚠ IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. PLEASE KEEP INSTRUCTIONS SAFE FOR FUTURE USE.


1. SAFETY INSTRUCTIONS

1.1. ELECTRICAL SAFETY. ⚠ WARNING! It is the user's responsibility to read, understand and comply with the following: You must check all electrical equipment and appliances to ensure they are safe before using. You must inspect power supply leads, plugs and all electrical connections for wear and damage. You must ensure the risk of electric shock is minimised by the installation of appropriate safety devices. An RCCB (Residual Current Circuit Breaker) should be incorporated in the main distribution board. We also recommend that an RCD (Residual Current Device) is used with all electrical products. It is particularly important to use an RCD with portable products that are plugged into an electrical supply not protected by an RCCB. If in doubt consult a qualified electrician. You may obtain a Residual Current Device by contacting your Sealey dealer. **You must** also read and understand the following instructions concerning electrical safety.

- 1.1.1. The **Electricity At Work Act 1989** requires all portable electrical appliances, if used on business premises, to be tested by a qualified electrician, using a Portable Appliance Tester (PAT), at least once a year.
- 1.1.2. The **Health & Safety at Work Act 1974** makes owners of electrical appliances responsible for the safe condition of the appliance and the safety of the appliance operator. **If in doubt about electrical safety, contact a qualified electrician.**
- 1.1.3. Ensure the insulation on all cables and the product itself is safe before connecting to the mains power supply. See 1.1.1. & 1.1.2. above and use a Portable Appliance Tester (PAT).
- 1.1.4. Ensure that cables are always protected against short circuit and overload.
- 1.1.5. Regularly inspect power supply, leads, plugs for wear and damage and all electrical connections to ensure that none is loose.
- 1.1.6. **Important:** Ensure the voltage marked on the product is the same as the electrical power supply to be used and check that plugs are fitted with the correct capacity fuse. A 13 amp plug may require a fuse smaller than 13 amps for certain products, see fuse rating at right.
- 1.1.7. DO NOT pull or carry the powered appliance by its power supply lead.
- 1.1.8. DO NOT pull power plug from socket by the power cable.
- 1.1.9. DO NOT use worn or damaged leads, plugs or connections. Immediately replace or have repaired by a qualified electrician. A U.K. 3 pin plug with ASTA/BS approval is fitted. In case of damage, cut off and fit a new plug according to the following instructions (discard old plug safely).
 (UK only - see diagram at right). **Ensure the unit is correctly earthed via a three-pin plug.**
 - a) **Connect the GREEN/YELLOW earth wire to the earth terminal 'E'.**
 - b) **Connect the BROWN live wire to live terminal 'L'.**
 - c) **Connect the BLUE neutral wire to the neutral terminal 'N'.**
 - d) **After wiring, check that there are no bare wires, that all wires have been correctly connected, that the cable outer insulation extends beyond the cable restraint and that the restraint is tight.**



FUSE RATING
 THIS PRODUCT MUST BE FITTED
 WITH A
13 AMP FUSE

Double insulated products are often fitted with live (BROWN) and neutral (BLUE) wires only. Double insulated products are always marked with this symbol . **To re-wire, connect the brown & blue wires as indicated above. DO NOT connect the brown or blue to the earth terminal.**

- 1.1.10. **Extension cable reels.** When an extension cable reel is used it should be fully unwound before connection. A cable reel with an RCD fitted is recommended since any product which is plugged into the cable reel will be protected. The section of the cores of the cable is important and should be at least 1.5mm², but to be absolutely sure that the capacity of the cable reel is suitable for this product and for others that may be used in the other output sockets, we recommend the use of 2.5mm² section cable.

1.2 GENERAL MACHINE OPERATING SAFETY

- ✓ Familiarise yourself with the application, limitations and potential hazards of the lathe.
- ⚠ **WARNING!** Disconnect the lathe from the mains power before changing accessories, servicing or performing any maintenance.
- ✓ Maintain the lathe in good condition (use an authorised service agent to service and maintain the motor).
- ✓ Replace or repair damaged parts. *Use genuine parts only. Unauthorised parts may be dangerous and will invalidate the warranty.*
- ⚠ **WARNING!** Keep all guards and holding screws in place, tight and in good working order. Check regularly for damaged parts.
- ✓ Locate lathe in a suitable work area, keep area clean and tidy, free from unrelated materials and ensure there is adequate lighting.
- ✓ Assemble the lathe on a stable work bench capable of supporting the lathe and workpiece.
- ✓ Keep the lathe clean for best and safest performance and check moving parts alignment regularly.
- ✓ Keep turning tools clean and sharp for best and safest performance.
- ✓ Ensure there are no flammable or combustible materials near the work area.
- ⚠ **WARNING!** Always wear approved eye or face protection when operating the lathe (standard spectacles are not adequate).
 Wear approved ear defenders and use a face or dust mask if dust is generated.
- ✓ Keep hands and body clear when operating the lathe. DO NOT reach across the lathe.
- ✓ Maintain correct balance and footing. Ensure the floor is not slippery and wear non-slip shoes.
- ✓ Remove ill fitting clothing. Remove ties, watches, rings and other loose jewellery and contain and/or tie back long hair.
- ✓ Keep children and unauthorised persons away from the work area.
- ✓ Remove adjusting keys, wrenches and indexing pin from the machine and its vicinity before turning it on.
- ✓ Avoid unintentional starting and ensure the lathe power switch is "OFF" before plugging into the mains power supply.
- x DO NOT use the lathe for a task it is not designed to perform.
- x DO NOT operate the lathe if any parts are damaged or missing, as this may cause failure and/or personal injury.
- ⚠ **WARNING!** DO NOT use the lathe to cut any materials other than wood.
- x DO NOT get the lathe wet or use in damp or wet locations or areas where there is condensation.
- x DO NOT use any tools other than those appropriate for wood turning.
- x DO NOT operate the lathe when you are tired or under the influence of alcohol, drugs or intoxicating medication.

- x DO NOT leave the lathe operating unattended and do not leave the work area until the lathe is at a complete stand still.
- x DO NOT pull the power cord from the power supply.
- ✓ When not in use switch off the lathe and remove the plug from the power supply.

1.3. WOOD CUTTING SAFETY

- ✓ Remove all loose wood knots before installing workpiece between centres or on the faceplate.
- ✓ Fasten the workpiece securely to the faceplate or secure the workpiece correctly before attempting to turn on the lathe. Wrong set-up procedures may cause the workpiece to be thrown from the lathe which may cause personal injury.
- ✓ Rotate workpiece by hand before turning on the motor. If workpiece strikes the tool rest or tool it may split and be thrown from the lathe.
- ✓ Rough out a workpiece to be as true and round as possible before attaching to the faceplate. This will minimise vibration.
- ✓ Rough out "out of round" workpieces at a slow speed when turning between centres or on the faceplate. Running the lathe too fast will result in vibration, which may cause the workpiece to be thrown from the lathe, or the tool to be pulled from your hand.
- ✓ Avoid awkward hand positions, care must be taken to stop your hands from slipping into the moving workpiece.
- ✓ Keep a firm control of the cutting tool. Care must be exercised when wood knots or voids are exposed to the turning tool.
- ✓ Complete any hand sanding tasks before removing between centres or faceplate mounted work. Ensure the lathe speed does not exceed the speed used for the last cutting operation performed on that same workpiece.
- x DO NOT store, or lay, work tools in such a way that you must reach over the lathe, or workpiece, to select them. Hang or store your turning tools at the tail stock end of the lathe.
- x DO NOT allow the tool to "bite" into the workpiece as the wood may split, or be thrown from the lathe.
For spindle turning, always position the tool rest above the centre line of the lathe. DO NOT apply the turning tool to the workpiece below the level of the rest itself.
- x DO NOT run the lathe in the wrong direction. This could cause the turning tool to be thrown from your hands. The workpiece surface must be moving downwards past the tool rest.
- ☐ **WARNING!** DO NOT remount a workpiece if the original centres of the workpiece have been altered or removed.
Having remounted a workpiece where NO alteration has been made to the original centres, the lathe must be set to the lowest speed before turning it on.
- x DO NOT mount a workpiece that contains splits, checks or loose knots.
- x DO NOT switch on the lathe whilst the tool is in contact with the workpiece.
- ☐ **WARNING!** Keep alert. DO NOT allow familiarity (from frequent use) to cause a mistake. Remember, a careless second is sufficient to inflict serious damage and/or personal injury.

2. SPECIFICATION

Turning Capacity Over Bed300mm
 Thread Size3/4" x 16tpi
 Distance Between Centres941mm

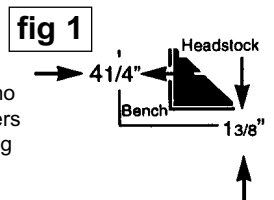
Tailstock TaperMT No.1
 Turning Speeds470, 810, 1300, 2200, 3200rpm
 Motor555W - 230V/1ph

3. ASSEMBLY

Unpack the product and check contents. Should there be any damaged or missing parts do not attempt to assemble the lathe but contact your supplier immediately.

3.1. MOUNTING HEAD STOCK TO BENCH

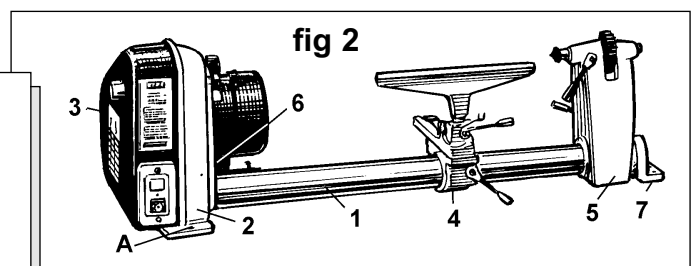
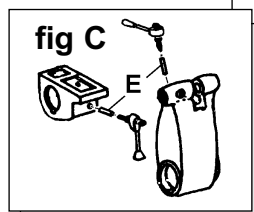
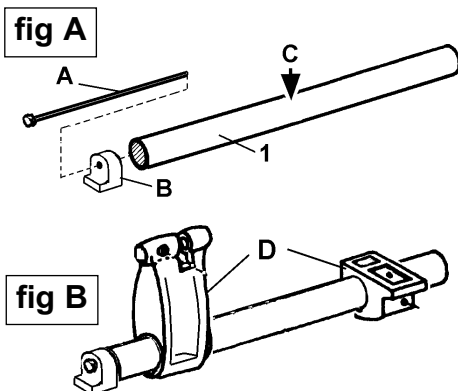
Place the head stock on bench (3/4" to 1" thick MDF board is suitable), and position according to fig 1. Use the head stock base casting to mark the location of the mounting holes (fig 2. A). Make sure there is no obstruction on the underside of the bench, and drill appropriate holes. Pass correct length bolts and washers up from the underside of bench through the head stock mounting holes and *finger tighten* with washer, locking washing and nut.



3.2. BED ASSEMBLY

Pass bolt (fig A.A) through the foot stand (B) and into the end of bed tube (1). Screw bolt (A) into the threaded hole inside the tube at point (C). Ensure the keyway is on the under side. Slide the tailstock and tool rest base (fig B.D) on the bed. Insert the bed (fig 2.1) into the headstock (2) until the end of the bed is flush with the "outboard" end of the headstock boss located under the pulley cover (3). Adjust the lathe on the bench so that the bed (1) is parallel to the front edge of the bench. Locate the bed locking grub screw in the head stock, (located on the motor side (6), and tighten. Check to ensure that foot (7) is flat on the bench.

NOTE: When assembling the bed locks for the tool and tail stock, fit the brass extensions before the lock screws (fig C.E).

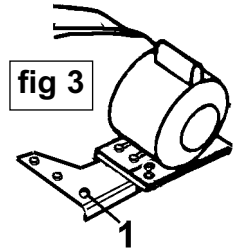


3.3. MOUNTING LATHE FOOT TO BENCH

Mark the location of foot (7) mounting holes on the bench and drill appropriate holes. Insert bolts and washers from the top of the foot through bench and secure with washers, locking washers and nuts. Now securely tighten both the headstock and foot mounting bolts.

3.4. ADDITIONAL RIGIDITY

View the motor hinge mounting block and locate the motor/bench securing hole (fig 3). Using the hole as a pilot, drill appropriate holes through the bench. Pass bolt with washer through the securing hole and secure on the underside with a washer, locking washer and nut. Open the belt guard cover and locate the three holes in the bottom flange of the back plate (fig 3.1). Check the plate is parallel to the belt and that the cover opens and closes correctly. Secure the belt guard plate to the bench with wood screws.



3.5. ASSEMBLY OF SPUR & CUP CENTRE

Locate the spur and cup centres. Place centre between jaws of a vice (fig 4) but DO NOT tighten vice. Insert pointer into centre and with a soft hammer and nail GENTLY TAP around the base of the pointer until secured. Insert spur centre into head stock spindle and cup centre into tailstock ram. DO NOT hammer centres into spindle or ram as removal may be difficult. Gently tap them with a soft hammer or wooden block.

3.6. REMOVAL OF SPUR CENTRE FROM SPINDLE

To remove spur centre from spindle hold the spindle pulley with one hand, whilst using a wrench or pair of pliers to turn the hex nut anti-clockwise until centre is ejected.

3.7. REMOVAL OF CUP CENTRE FROM RAM

To remove cup centre from tail stock ram, insert a 1/4" wood dowel or brass rod through the hole in the tailstock ram end. Hold the centre with one hand and gently tap the dowel or rod with a hammer.

3.8. ADJUSTING TAIL STOCK TO BED

The tailstock supports the workpiece for spindle turning. To prevent excessive looseness or rocking it has an adjustment feature. If the tailstock feels too loose and can be rocked slightly, tighten the bottom grub screw enough to just allow movement along the bed without binding. To do so, loosen the tailstock lock (fig 6.1) and slide tailstock along the full length of the bed. If it binds or sticks in any one spot, loosen the adjusting grub screw (fig 6.2) only enough to enable the tailstock to slide smoothly.

3.9. ALIGNMENT OF TAILSTOCK CENTRE TO HEADSTOCK CENTRE

The spur centre and the cup centre are used for spindle turning and should always be in alignment. Slide the tailstock toward the headstock so that the two points of the centres are very close but not touching (fig 7). Tighten the tailstock lock (fig 6.1). Loosen the bolt in the foot (fig 5.X) about two turns. Using a hex key, loosen the grub screw on the back of the headstock which secures the bed (fig 2.6). Swing the tailstock so that the two points are in line, then tighten grub screw in headstock and bolt in the foot. Re-check the alignment.

fig 4

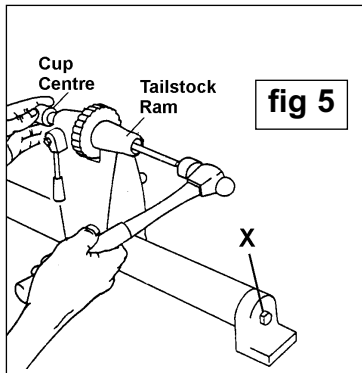
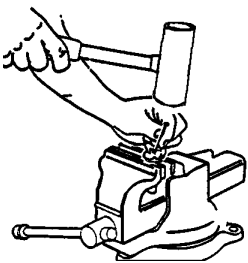


fig 5

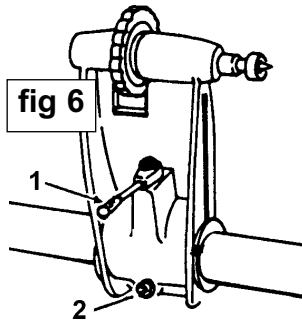


fig 6

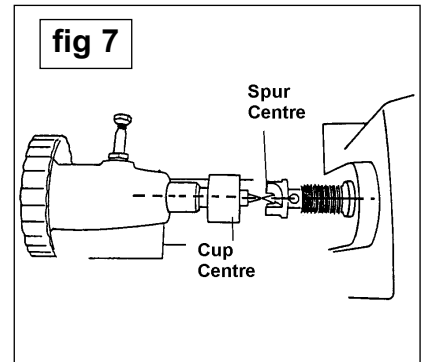


fig 7

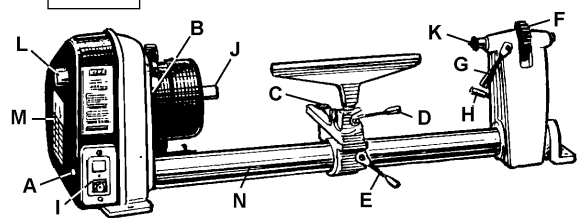
When assembly and installation is complete, check that all nuts and bolts are secure. Check that the belt on the motor revolves freely and squarely. Re-check that both the tail stock and the tool support slide up and down the bed without sticking.

4. ITEM USAGE

Familiarise yourself with the various operating controls and parts of the lathe. Read, understand and apply all safety instructions.

- A. Belt guard lockLocks hinged part of the guard during operation with hex bolt for safety.
- B. Index pinEngages with spindle pulley to determine equal spacing for cutting, fluting, reeding, or dividing face plate work. DO NOT use for removing face plates.
- C. Tool-rest bracket lockClamps the tool rest bracket to the bed.
- D. Tool-rest lockClamps the tool rest to the tool rest base.
- E. Tool-rest base lockClamps the tool rest to the tool rest bracket.
- F. HandwheelAdjusts the tailstock ram.
- G. Tailstock ram lockClamps the ram in the tailstock.
- H. Tailstock lockClamps the tailstock to the bed.
- I. Magnetic switchTurns the machine on and off.
- J. Spur centreIs the driven centre for the workpiece.
- K. Cup centreIs the undriven centre for the workpiece.
- L. Outboard spindle end coverProtects the operator from revolving outboard end of spindle when not being used for outboard turning.
- M. Speed chartIndicated general recommended speeds for various sizes of workpiece.
- N. BedMaintains relative position and alignment of the component assemblies.

fig 8



5. THE ON/OFF SWITCH

WARNING! The lathe is fitted with a dust proof magnetic ON/OFF switch which you must ensure is switched "OFF" before plugging into the mains power supply.

To switch the machine on press the "I" button.
To switch the machine off press the "O" button.

6. CHANGING SPEED

WARNING! Ensure the lathe is unplugged from the mains power supply before attempting to change the belt position.

To access the belt drive, undo the cover retaining bolt and open the hinged cover. There are five speeds, (see figure 9 which illustrates the drive belt in the 810rpm position).

6.1. MOVING THE BELT

6.1.1. To make the lathe turn slower, move the belt inward.

Figure 10 illustrates the belt on the second pair of pulley grooves which rotates the spindle at 2200rpm. To slow the lathe, rotate the motor pulley anti-clockwise with your left hand whilst pushing on the belt with fingers of your right hand (fig 10). Continue to rotate the pulley whilst pushing on the belt until it "climbs" down into the next smaller groove of the motor pulley.

Rotate the spindle pulley clockwise with your right hand whilst pushing on the belt with your left hand fingers. The belt will climb up to the next larger spindle pulley groove.

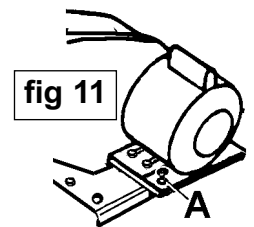
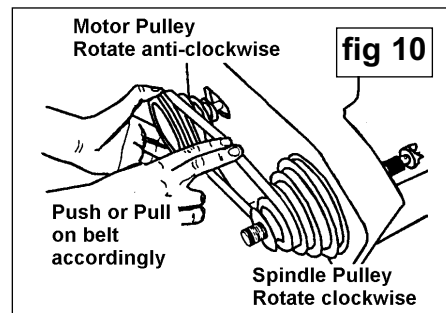
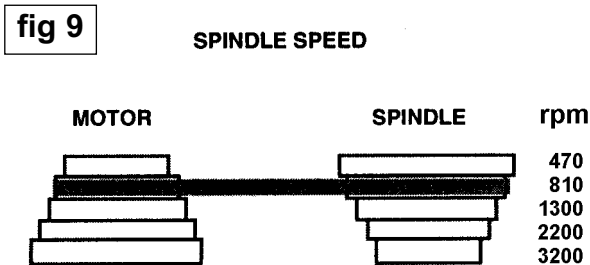
6.1.2. To make the lathe turn faster, move the belt outward.

Rotate the spindle pulley clockwise with your right hand. Pull on the belt while rotating the pulley until the belt climbs down into the next smaller groove.

Rotate the motor pulley anti-clockwise with your left hand whilst pulling on the belt with your right hand. The belt will climb up into the next larger groove.

6.2. BELT TENSION ADJUSTMENT

Belt tension is provided by the weight of the motor which is mounted on a hinged bracket. To decrease belt tension, tighten the adjustment bolt located in the corner of the motor mounting bracket (fig 11.A) thus restricting downward pivoting travel. Conversely, loosening the bolt allows increased pivot on the bracket thus increasing belt tension.

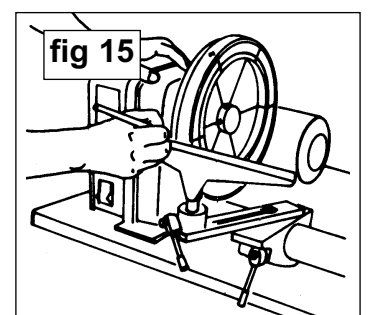
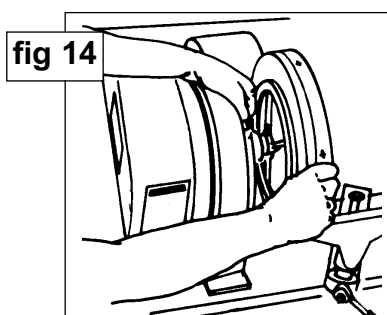
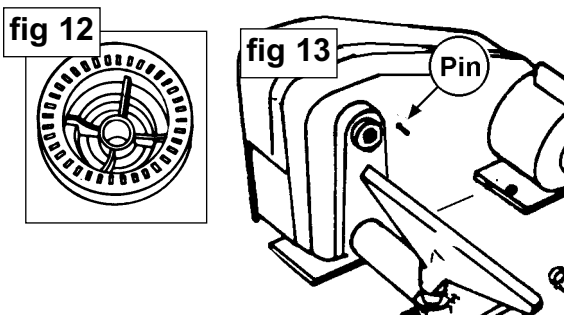


7. INDEXING THE SPINDLE PULLEY

WARNING! Ensure lathe is unplugged from the mains power supply before proceeding.

The base of the spindle pulley contains 36 equally spaced holes (fig 12). This index pulley is used to lock the spindle when you are marking up a workpiece on the faceplate. To do so, you release the index pin (fig 13) so that it engages in a pulley hole. This method of locking and marking will enable you to place equally spaced alignment marks on the workpiece. The following describes how to mark six spoke positions on a wheel: **NOTE: Pull pin from locking position before starting lathe.**

- 7.1. Pull the index pin outward and turn it so that the small cross pin slips into the slot. This will allow the index pin to engage in one of the holes in the pulley and prevent the spindle from turning (fig 14).
- 7.2. Adjust the tool rest approximately at the centre line and place a mark on the workpiece (fig 15).
- 7.3. Pull out the index pin and slowly rotate the workpiece until the pin slides into the next hole in the pulley.
- 7.4. Do this six times and put the next mark on the workpiece. The two marks will be spaced 60° apart. Continue this operation until six spokes are marked.
- 7.5. Spindle turning can be divided in the same manner. **Remember to pull locking pin up and reinstate in the raised position before starting.**



8. USING THE LATHE

⚠ WARNING!

Ensure you read, understand and apply the safety instructions.

Should you have **NO** turning experience, we recommend you practice until you have familiarised yourself with the applications and limitations of the lathe and the hazards peculiar to turning.

DO NOT TAKE ANY CHANCES WHEN WORKING WITH A LATHE AND ASSOCIATED TOOLS.

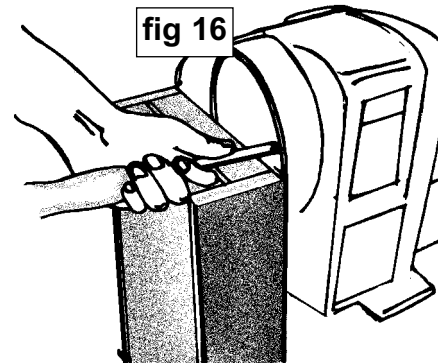
Keep alert. **DO NOT** allow familiarity (from frequent use) to cause a careless mistake. Remember, failure to operate the lathe correctly is dangerous and may cause serious damage and/or personal injury.

9. OUTBOARD TURNING

Workpieces that are too large to mount conventionally may be worked upon by using the "Outboard" turning end of the lathe. To do so, remove the plastic cover from the "outboard" end of the spindle, located on the pulley cover (fig 8.L). The outboard end spindle has a left hand thread which will accept available accessory face plates. For a tool rest, construct a suitable support stand which will be strong and stable when in use. (fig 16).

⚠ **WARNING!** When outboard turning, the lathe speed must be kept to the minimum. **DO NOT** push the tool support towards the faceplate when cutting. **DO NOT** try to mount work so large that the motor is overloaded.

We recommend you experiment with this technique. Practice with soft woods first and gradually progress to heavier, harder woods.



10. MAINTENANCE

⚠ **WARNING!** Ensure the lathe is unplugged from the mains power supply before service or maintenance.

Keep the lathe clean and surrounding area tidy. Protect the bed from corrosion by occasionally applying automobile wax.

Should the motor require service or maintenance contact your local authorised service agent.

11. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Motor will not run	1. Defective ON/OFF switch. Defective switch cable. 2. Motor burnt out.	1. Replace defective parts before using lathe. 2. DO NOT attempt to repair. Contact your local authorised service agent.
Lathe slows down when turning	V-Belt is too loose.	Adjust belt tension. (Section 6).
Tailstock rocks back and forth excessively	Adjusting grub screw is too loose.	Adjust screw to tighten. (Section 3)
Headstock loose on bed.	Set screw is too loose.	Tighten set screw. (fig 2.6).
Wood burns at tailstock end.	Cup centre too tight or not lubricated.	Back off tailstock ram and lubricate cup centre.

12. DECLARATION OF CONFORMITY

Declaration of Conformity We, the sole importer into the UK, declare that the product listed below is in conformity with the following standards and directives.

5-SPEED ROUND BED WOOD LATHE

Model: SM42/C

73/23/EEC Low Voltage Directive

89/336/EEC EMC Directive

98/37/EC Machinery Directive



The construction file for this product is held by the Manufacturer and may be inspected, by a national authority, upon request to Jack Sealey Ltd.

Signed by Mark Sweetman

16th April 2001

For Jack Sealey Ltd. Sole importer into the UK of Sealey Quality Machinery.

NOTE: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

IMPORTANT: No liability is accepted for incorrect use of this product.

WARRANTY: Guarantee is 12 months from purchase date, proof of which will be required for any claim.

INFORMATION: For a copy of our latest catalogue and promotions call us on 01284 757525 and leave your full name and address, including postcode.



Sole UK Distributor,
Sealey Group, Bury St. Edmunds, Suffolk.

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