

A SELECTION FROM THE VAST RANGE OF

# Clarke<sup>TM</sup>

## QUALITY PRODUCTS

### **AIR COMPRESSORS**

From DIY to industrial. Plus air tools, spray guns and accessories.

### **GENERATORS**

Prime duty or emergency standby for business, home and leisure.

### **POWER WASHERS**

Hot and cold, electric and engine driven - we have what you need.

### **WELDERS**

Mig, Arc, Tig and Spot. From DIY to auto/industrial.

### **METALWORKING**

Drills, grinders and saws for DIY and professional use.

### **WOODWORKING**

Saws, sanders, lathes, mortisers and dust extraction.

### **HYDRAULICS**

Cranes, body repair kits, transmission jacks for all types of workshop use.

### **WATER PUMPS**

Submersible, electric and engine driven for DIY, agriculture and industry.

### **POWER TOOLS**

Angle grinders, cordless drill sets, saws and sanders.

### **STARTER/CHARGERS**

All sizes for car & commercial use.



# Clarke<sup>®</sup> WOODWORKER



## WOODLATHE

MODEL NO. CWL-20RV

Part No. 6500670

## OPERATING & MAINTENANCE

## INSTRUCTIONS

### Clarke<sup>®</sup> INTERNATIONAL

For spare parts and servicing, please contact your nearest dealer, or Clarke International on

**020 - 8988 - 7400**

e-mail: [Parts@clarkeinternational.com](mailto:Parts@clarkeinternational.com) e-mail: [Service@clarkeinternational.com](mailto:Service@clarkeinternational.com)



## SPECIFICATIONS

Motor .....	230V 50Hz 1 Phase
	½ HP Induction
Current rating .....	2.2 amp
Max distance between centres .....	850mm (35.4")
Centre height turning capacity .....	304mm (12") Diameter
Gross weight .....	85kg
Dimensions .....	1380x320x362mm
Drill chuck speeds (RPM)** .....	1. 500 RPM      6. 1210 RPM
	2. 620 RPM      7. 1400 RPM
	3. 760 RPM      8. 1590 RPM
	4. 900 RPM      9. 1790 RPM
	5. 1050 RPM    10. 2000 RPM

\*\*The Speeds quoted are correct to within a 15% tolerance.

Thank you for purchasing your CLARKE, Variable Speed, Reversible Head, Wood Lathe.

Before attempting to operate this machine, please read this instruction manual thoroughly, and follow all directions carefully. By doing so you will ensure the safety of both yourself and that of others around you, and at the same time, you should look forward to long and trouble free service from your Wood lathe.

## GUARANTEE

This product is guaranteed against faults in manufacture for 12 months from date of purchase. Please keep your receipt as proof of purchase.

This guarantee is invalid if the product has been found to have been abused or tampered with in any way, or not used for the purpose for which it was intended. The reason for return must be clearly stated.

This guarantee does not affect your statutory rights.

## TABLE OF CONTENTS

PAGE

General Safety Precautions .....	4
Additional Safety Rules for Wood Lathes .....	5
Electrical Connections .....	7
Assembly .....	8
Preparation for Use .....	10
Speed Selection .....	13
Starting Procedure .....	14
Maintenance .....	14
Parts List and Diagram .....	16-17
Specifications .....	19

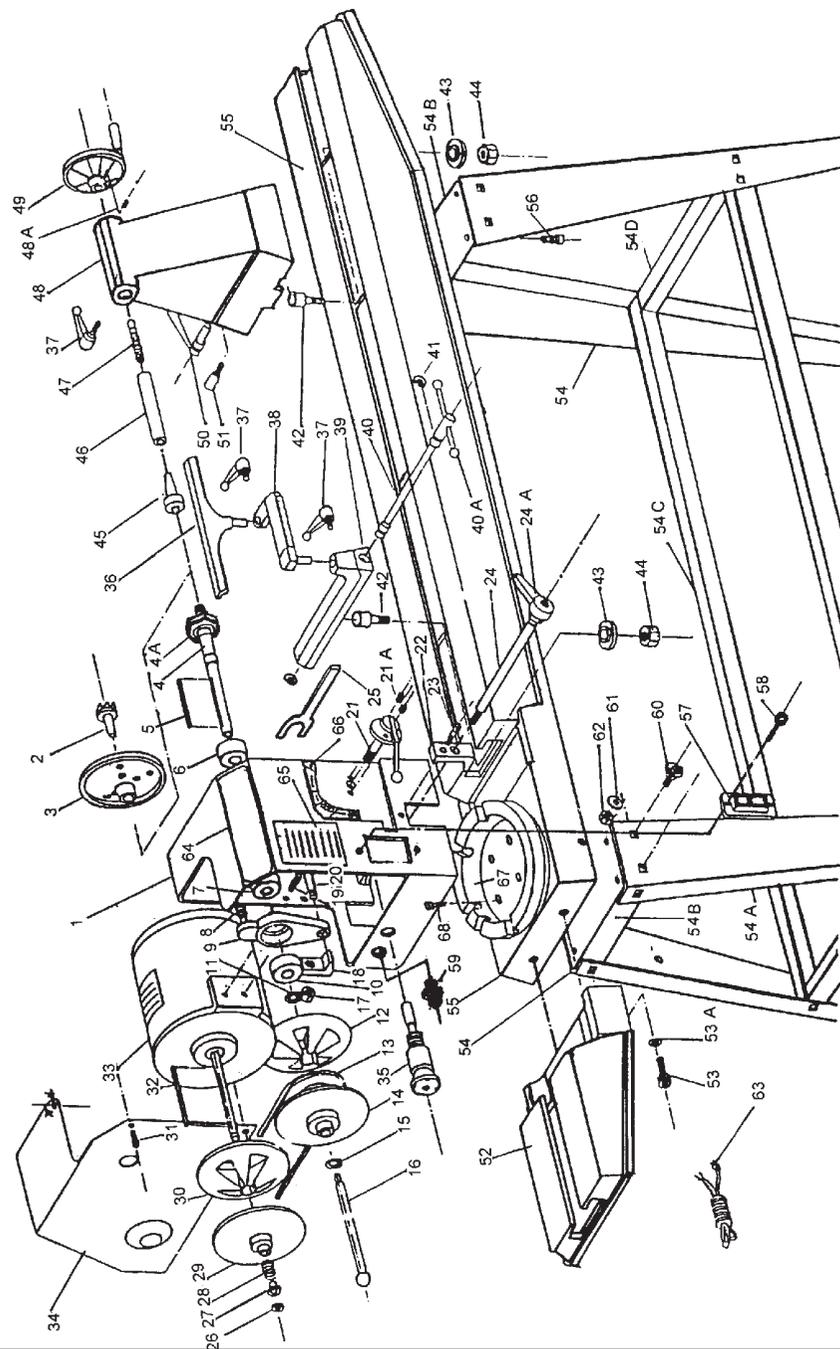
## GENERAL SAFETY RULES FOR OPERATING MACHINERY

### WARNING

*As with all machinery, there are certain hazards involved with their operation and use. Exercising respect and caution will considerably lessen the risk of personal injury. However, if normal safety precautions are overlooked, or ignored, personal injury to the operator may result.*

- **KNOW YOUR MACHINE.** Read the manual carefully. Learn the machines applications and limitations, as well as the specific potential hazards peculiar to it.
- **KEEP GUARDS IN PLACE** and in working order.
- **EARTH ALL MACHINES.** If the machine is equipped with three-pin plug, it should be plugged into a three-pin electrical socket. Never remove the earth pin.
- **REMOVE ADJUSTING KEYS AND WRENCHES.**
- **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
- **DON'T USE IN DANGEROUS ENVIRONMENT.** Don't use machinery in damp or wet locations, or expose them to rain. Keep work area well lit.
- **KEEP CHILDREN AND VISITORS AWAY.** All children and visitors should be kept a safe distance from work area.
- **MAKE WORKSHOP CHILDPROOF** - with padlocks, master switches or by removing starter keys.
- **DON'T FORCE THE MACHINE.** It will do the job better and safer, at the rate for which it was designed.
- **USE RIGHT TOOL.** Don't force a tool or attachment to do a job for which it was not designed.
- **WEAR PROPER APPAREL.** Loose clothing, gloves, neckties, rings, bracelets, or other jewellery may get caught in moving parts. Nonslip footwear is recommended. Long hair should be contained.
- **USE SAFETY GLASSES.** Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
- **USE EAR DEFENDERS.**
- **DON'T OVERREACH.** Keep proper footing and balance at all times.
- **MAINTAIN TOOLS IN TOP CONDITION.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

## PARTS DIAGRAM



## PARTS LIST

No.	Description	Part No.	No.	Description	Part No.
1	Headstock	SD2001RV	37	Handle Assy	SD2037RV
2	Live Centre	SD2002RV	38	Tool Rest Extension	SD2038RV
3	Face Plate	SD2003RV	39	Tool Rest Body	SD2039RV
4	Drive Spindle	SD2004RV	40	Tool Rest Clamp Rod	SD2040RV
4A	Spindle Collar	SD2004ARV	40A	Tool Rest Clamp Handle	SD2040ARV
5	Key (4x4x85mm)	SD2005RV	41	Circlip	SD2041RV
6	Bearing (6205ZZ)	SD2006RV	42	Bolt	SD2042RV
7	Bearing (6205ZZ)	SD2007RV	43	Clamp	SD2043RV
8	Spring	SD2008RV	44	Hex Nut 18mm	SD2044RV
9	Bracket Shift Lever	SD2009RV	45	Centre	SD2045RV
10	Ball Bearing (6006Z)	SD2010RV	46	Tailstock Spindle	SD2046RV
11	Circlip	SD2011RV	47	Tailstock Screw	SD2047RV
12	Pulley Spindle (Right)	SD2012RV	48	Tailstock	SD2048RV
13	V-Belt 23mm	SD2013RV	48A	Set Screw	SD2048ARV
14	Pulley Spindle (Left)	SD2014RV	49	Handle	SD2049RV
15	Circlip	SD2015RV	50	Locking Handle - Tailstock	SD2050RV
16	Tommy Bar	SD2016RV	51	Bolt	SD2051RV
17	Lock Nut 12mm	SD2017RV	52	Extension Bed	SD2052RV
18	Clamp Left	SD2018RV	53	Screw 10x25mm	SD2053RV
19	Hex Screw 8x20mm	SD2019RV	53A	Spring washer	SD2053ARV
20	Rack	SD2020RV	54	Stand Assembly	SD2054RV
21	Gear Assembly	SD2021RV	54A	Stand Leg	SD2054ARV
21A	Hex Socket Screw	SD2021ARV	54B	Bed Mounting Plate	SD2054BRV
22	Clamp Right	SD2022RV	54C	Stand Long Cross Member	SD2054CRV
23	Hex Screw	SD2023RV	54D	Stand Short Cross Member	SD2054DRV
24	Clamp Spindle	SD2024RV	55	Lathe Bed	SD2055RV
24A	Headstock Clamp Handle	SD2024ARV	56	Screw 8x16mm	SD2056RV
25	Hex. Wrench	SD2025RV	57	Switch	SD2057RV
26	Circlip	SD2026RV	58	Screw 4x16mm	SD2058RV
27	Sleeve	SD2027RV	59	Plastic Jam nut	SD2059RV
28	Spring	SD2028RV	60	Carriage Bolt	SD2060RV
29	Pulley Motor (Right)	SD2029RV	61	Washer	SD2061RV
30	Pulley Motor (Left)	SD2030RV	62	Nut 8x18 NC	SD2062RV
31	Pan Head Screw 5x10mm	SD2031RV	63	Power cable	SD2063RV
32	Key 4x4x85mm	SD2032RV	64	Label	SD2064RV
33	Motor	SD2033RV	65	Warning Label	SD2065RV
34	Cover Motor	SD2034RV	66	Speeds Label	SD2066RV
35	Headstock Lock Assy	SD2035RV	67	Headstock Mounting Ring	SD2067RV
36	Tool Rest	SD2036RV	68	Mounting Ring Allen Screw	SD2068RV

- ALWAYS DISCONNECT THE MACHINE before servicing or changing accessories.
- AVOID ACCIDENTAL STARTING. Ensure the machine is switched OFF before plugging in.
- CHECK FOR DAMAGE. If part of the machine (eg. A cover or guard), is damaged, it should be carefully inspected to ensure it can perform its' intended function correctly. If in doubt the part should be renewed. Damage to moving parts or major components should be Inspected by a qualified technician before operating the machine. Contact your local dealer for advice.
- DO NOT STAND ON THE MACHINE. Serious injury could occur if the machine is tipped over. Do not store materials above or near the machine such that it is necessary to stand on the machine to get to them.
- NEVER operate a machine when under the influence of alcohol, drugs or medication.

## ADDITIONAL SAFETY RULES FOR WOOD LATHES

### WARNING:

**THIS MACHINE MUST NOT BE MODIFIED, OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS DESIGNED.**

- **IMPORTANT:** You should not operate this machine unless you are thoroughly familiar with wood turning lathes and wood turning techniques. If there is any doubt whatsoever, you should consult a qualified person.
- Do not operate the machine until it is completely assembled, and this entire manual, has been read and understood.
- Ensure the proper electrical regulations are followed, and that the machine is properly earthed.
- Before switching the machine ON, **ALWAYS:-**
  - a. Clear the lathe bed of ALL objects (tools, scraps of wood etc.)
  - b. Examine the setup carefully, ensuring nothing could possibly interfere with the rotating workpiece. eg. The tool rest is secure and not liable to swing into the workpiece. Rotate the workpiece by hand to check clearance.
  - c. Ensure the tool rest is adjusted to the correct height, and is as close to the workpiece as possible.
  - d. Ensure all clamps are properly secured.
  - e. Your clothing is properly adjusted.
  - f. Ensure the workpiece is centralised

- Make **all** adjustments with the power OFF.
- ALWAYS use the slowest speed when starting a new workpiece, and cut at correct speed for material and shape.
- ALWAYS remove the tool rest when sanding or polishing.
- When turning between centres, always ensure that the tailstock centre is snug against the workpiece, with the spindle locked, AND the Tailstock securely locked to the bed. NEVER loosen the tailstock spindle OR the tailstock with the workpiece turning.

**NOTE: The centre should be lubricated (unless it is a ball bearing type). Refer to your wood turning manual.**

- DO NOT drive the workpiece into the live centre when the centre is installed in the headstock. Always set the workpiece into the centre with a soft mallet first and then mount the Centre (with workpiece attached), to headstock spindle.
- When using the Faceplate, ensure the workpiece is securely fastened to it, and that the appropriate size faceplate is used to correctly support the workpiece. Ensure also that the securing screws cannot interfere with the turning tool at the finished dimension.
- ALWAYS rough cut the workpiece as close as possible to the finished shape, before mounting on to a faceplate.
- ALWAYS examine the workpiece for flaws. Do not use wood which is split, or has knots. Test glued joints before mounting on to lathe, to ensure they have completely set.
- When roughing off, DO NOT jam tool into workpiece, or take too big a cut.
- ALWAYS clean the machine at the end of a working session. Remove centres from the headstock AND tailstock and store them. Ensure the work area is cleaned before leaving the machine.
- Should any part of the lathe be missing, damaged, or fail in any way, or any electrical component fail to perform properly, shut OFF the machine, and disconnect from the power supply. Replace missing, damaged or failed parts before resuming operation. If in doubt, consult your local dealer. Always disconnect from the power supply when carrying out repairs.
- Be particularly careful with your clothing when operating a lathe. Always wear safety glasses, and long hair should be contained. See General Safety Instructions - Apparel.
- Do Not exceed recommended speeds. Refer to chart on page 12.

2. Remove the four screws securing the motor cover (item 34).
3. Slip the belt over the motor pulley, and replace it with a new one.

Note: The drive belt is tensioned automatically. If, after changing the drive belt, the speeds are still too low, it is an indication that the spring tensioner (item 28), on the end of the motor shaft, is weak and needs replacing. Consult your local dealer, or CLARKE International Service Dept. on 0208 988 7400

## SPARE PARTS and SERVICING

For Spare Parts and Service, please contact your nearest dealer, or CLARKE International, on one of the following numbers.

**PARTS & SERVICE TEL: 020 8988 7400**

**PARTS & SERVICE FAX: 020 8558 3622**

or e-mail as follows:

**PARTS: [Parts@clarkeinternational.com](mailto:Parts@clarkeinternational.com)**

**SERVICE: [Service@clarkeinternational.com](mailto:Service@clarkeinternational.com)**

## STARTING PROCEDURE.

1. Having prepared the lathe in accordance with the instructions given, ensure the work is properly centralised, properly held, and is completely secure. Turn the workpiece by hand to ensure that it moves freely without interference.
2. Remove any wood shavings, and ensure that no loose tools are in the vicinity.
3. Check ALL clamps securing the Headstock, Tool Rest and Tailstock, to ensure they are firmly clamped.
4. Switch on the machine **ensuring it is set to its slowest speed**, and then increase the speed as desired.

**NOTE:** When you have finished using the machine, always switch OFF having first selected the lowest speed.

## MAINTENANCE

### Headstock.

If there is movement of the headstock when the clamp is fully applied, the Headstock Mounting Ring (item 67), has worked itself loose, probably caused by the machines' vibration over a period of time.

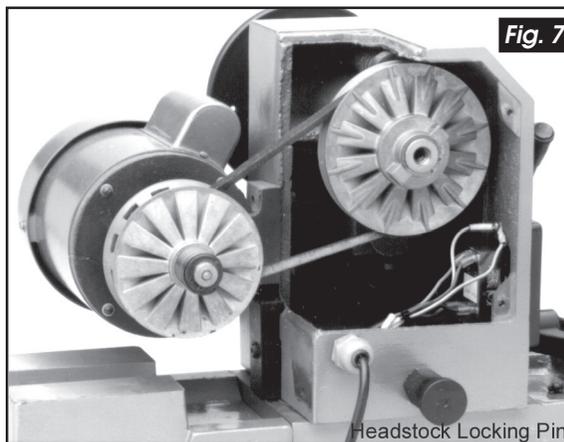
To rectify the problem, turn the clamp handle (item 24A) anticlockwise until the clamp spindle can be completely removed together with the two clamp brackets, (one adjacent to the clamp handle, mounted on the clamp spindle, and one on the opposite side of the headstock, beneath the motor, and into which the clamp spindle is screwed). **Be extremely careful** not to knock the headstock, as it is now free to be lifted and removed, to reveal the Mounting Ring (item 67), beneath.

With the Headstock removed, tighten the four Mounting Ring Allen screws (item 68). Re-assemble in reverse order, ensuring the large tapered sections of the clamp brackets face downwards and are in contact with the underside of the Headstock Mounting Ring.

### Drive Belt (see fig. 7)

Should the lathe slow down whilst turning, it is an indication that the drive belt is stretched and needs renewing, in which case, proceed as follows

1. Set the variable speed control to its highest speed. Turn the spindle by hand to ensure the speed is fully engaged. (The drive belt is easier to remove in this position).



## ELECTRICAL CONNECTIONS

**WARNING! THIS APPLIANCE MUST BE EARTHED**

**IMPORTANT:** Connect the mains lead to a standard, 230 Volt (50Hz) electrical supply through an approved 13 amp BS 1363 plug, or a suitably fused isolator switch. The wires in the mains lead are coloured in accordance with the following code:

Green & Yellow - Earth  
Blue - Neutral  
Brown - Live

As the colours of the flexible cord of this appliance may not correspond with the coloured markings identifying terminals in your plug proceed as follows:

- Connect GREEN & YELLOW cord to terminal marked with a letter "E" or Earth symbol "⏏" or coloured GREEN or GREEN & YELLOW.
- Connect BROWN cord to terminal marked with a letter "L" or coloured RED
- Connect BLUE cord to terminal marked with a letter "N" or coloured BLACK

We recommend that this machine is connected to the mains supply through a Residual Current Device.

In the event that this appliance is fitted with a plug which is moulded onto the electric cable (i.e. non-rewirable) please note:

1. The plug must be thrown away if it is cut from the electric cable. There is a danger of electric shock if it is subsequently inserted into a socket outlet.
2. Never use the plug without the fuse cover fitted.
3. Should you wish to replace a detachable fuse carrier, ensure that the correct replacement is used (as indicated by marking or colour code).
4. Replacement fuse covers can be obtained from your local dealer or most electrical stockists.
5. The fuse in the plug must be replaced with one of the same rating (**13 amps**) and this replacement must be approved to BS1362.

If in doubt, consult a qualified electrician. Do not attempt any electrical repairs yourself.

# ASSEMBLY

Ref. Spare Parts Diagram

Fig. 1



1. Lay out components in a clean flat area, and ensure that they are ALL accounted for. Any deficiencies should be reported to your local dealer immediately, or please call CLARKE International Parts Dept. on 020 8988 7400  
Loose items included are as follows:

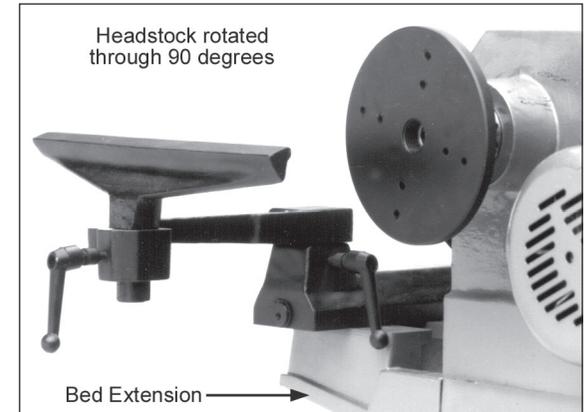
1.1	Legs	4 pcs
1.2	Long Cross Members	2 pcs
1.3	Short Cross Members	2 pcs
1.4	Bed mounting Plates	2 pcs
1.5	Face Plate	1 pc
1.6	Bed Extension	1 pc
1.7	Allen Keys	3 pcs
1.8	Carriage Bolts with nuts and washers	24 pcs
1.9	10mm Allen Screw with spring washer	2 pcs
1.10	M8 x 35mm Allen Screw with spring washer	4 pcs
1.11	M8 x 45mm Allen Screw with spring washer	4 pcs
1.12	Headstock clamp handle with spring and washer	1 pc
1.13	Collar hex. Spanner	1 pc

## F. The Bed Extension (see Fig. 6)

Fig. 6

A Bed Extension (item 52), is provided so that outboard turning can take place. It is used when face plate turning with larger workpieces, with the headstock mounted at 90° to the lathe bed, or when it is desired to work directly in front of the workpiece, with the headstock at 180° to its normal position.

In order that the Tool Rest may be used, it must first of all be removed from its position on the bed by unscrewing the mounting nut (item 44), completely. It is then mounted on the Bed Extension using the same attachments. The Headstock is rotated to the desired angle (four positions are provided), by slackening off the Headstock Clamp (item 24A), pulling out the locking pin (item 35), rotating the head, and re-locking where required. Finally the head is re-clamped. The tool rest may be positioned at any desired angle, remembering to firmly clamp all joints.



## G. Speed Selection

Your Wood Lathe is provided with variable spindle speeds, from 500 to 2000 RPM. Speed change will only take place with the lathe running. To change speeds, pull out the spring loaded handle, which locks the speed change lever in place, and turn the lever to the appropriate speed requirement (Moving the lever clockwise increases the speed, anticlockwise decreases).

Spindle speeds are dependant upon the size of workpiece being turned, and to some extent, the type of wood. The following chart is a guide for the spindle speeds for general turning. You should consult a wood turning manual for more precise information, and for turning special woods.

It should be noted that the spindle speeds quoted in the Specification chart are correct to within a 15% tolerance.

**NOTE: When a workpiece is completed, or when you have finished with the machine, always select the slowest speed before switching off.**

DIAMETER OF WORK	ROUGHING OFF	GENERAL CUTTING	FINISHING
Under 2" Dia..	1210 to 1590RPM	1790 to 2000 RPM	1790 to 2000 RPM
2" to 4" Dia.	900 to 1210 RPM	1210 to 2000 RPM	1790 to 2000 RPM
4" to 6" Dia.	620 to 900 RPM	1210 to 1790 RPM	1790 to 2000 RPM
6" to 8" Dia.	620 RPM	900 to 1210 RPM	1200 to 1790 RPM
8" to 12" Dia.	500 RPM	500 to 760 RPM	900 to 1210 RPM

## D. For Turning Between Centres

For turning between centres, two hardened Morse Taper centres are provided. The Live Centre should be gently tapped into the work (at its exact centre - previously marked out), using a wooden mallet, and then mounted in the Headstock Spindle with work attached (refer to 'The Headstock' section for information on mounting the centre).

Move the Tailstock along the bed (with the centre in place), and lock (using clamp - item 37), in a position where the centre is approximately 1" - 1½" from the workpiece. Advance the Centre, by turning the feed handle (item 49) until it makes contact with the work at its exact pre-marked centre. Continue to advance the Centre whilst simultaneously rotating the work by hand. When it becomes difficult to turn the work, slacken off the feed about one quarter of a turn, and lock the Tailstock Spindle.

**Note: The Tailstock centre should be lubricated (unless it is a ball bearing type), using beeswax, tallow, or in some cases, oil - consult a wood turning manual.**

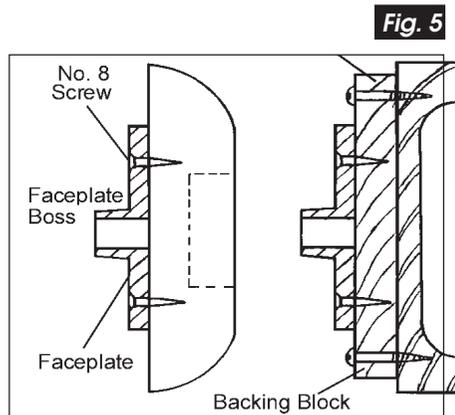
## E. For Faceplate Turning

Turning which cannot be worked through centres, must be mounted on a faceplate, or other work-holding device. (Some jobs may require the use of special chucks).

All face plate work is done by scraping. Any attempt to use a cutting technique on edge grain, will result in hogging or gouging, which may tear the tool out of your hands.

For Faceplate turning, the work (suitably trimmed so that it is as near to its final dimension as possible), should be firmly mounted on to the faceplate, using screws as appropriate (see fig 5). The complete assembly is then screwed on to the headstock spindle, and tightened securely, by holding the faceplate with a spanner, via the flats on the faceplate boss, and turning the spindle collar using the spanner provided.

The screws used in securing the work to the face plate, must not be of sufficient length as to interfere with the tool at the final dimension. It may be necessary to screw the work to a backing piece, depending upon design, or, where screws are not permissible at all, the work may be glued to a backing piece - fitting a piece of paper at the joint which will allow for later separation without damaging the wood.



2. Thoroughly clean all machined surfaces to remove any protective coating that may be present. The surfaces should then be lightly oiled.
3. Gently, and with assistance, turn the bed assembly over so that it is resting on the headstock and tailstock, and to protect those components, rest them on suitable pieces of packing material. Ensure the unit is completely stable, adjusting the packing pieces as necessary until it is.

4. Bolt on the two bed mounting plates (item 54B), ensuring they are the right way round, i.e. the open sections facing each other.

Secure each plate using four M8 Allen screws with washers supplied, ensuring the **35mm** screws are used at the **HEADSTOCK** end, and the **45mm** screws at the **TAILSTOCK** end.

5. Bolt the four Legs (item 54A) on to the Bed Mounting Plates (item 54B), using the 12 Carriage Bolts supplied. Ensure that the legs are on the outside of the mounting plates, and the bolt heads are on the outside of each leg, firmly located into the square holes in the leg, and the flat washers are in place against the inside of the bed mounting plate. **LEAVE NUTS FINGER TIGHT ONLY.**
6. Bolt on the two Long Cross Members (item 54C), and two Short Cross Members (item 54D), to the insides of the legs ensuring they are the right way round, (i.e. the broad flat angle sections are facing the bed).

DO NOT fully tighten the nuts. First rock the leg assembly to ensure there are no distortions or that no component is under stress. When satisfied fully tighten all nuts and bolts so far assembled.

7. Should you wish the Bed Extension (item 52), to be a permanent feature, it is best to bolt it on at this stage. Turn it so that the machined bed side is face down. Offer it up to the lathe bed at the headstock end, with the mounting holes facing the lathe bed. Rest the extension on a piece of packing material, if necessary, whilst lining up the holes in the end of the lathe bed with those in the extension. Insert the two 10mm Allen screws with spring washers provided, and tighten them fully.
8. With assistance, lift and turn the complete assembly on to its legs.
9. Attach the Headstock Clamping Handle (item 24A), to its spigot ensuring the spring and screw are correctly positioned. (See parts diagram)

Your Wood Lathe is now fully assembled, and may be prepared for use.

## PREPARATION (Item Nos. Refer to Parts list)

### A. The Headstock (see fig.2)

To protect the motor during transit, the headstock is rotated and locked at 90 degrees from its normal position, i.e. with the motor over the lathe bed. Pull out the Headstock Locking Pin (item 35, and see Fig. 7), against spring pressure, allowing the Headstock to be rotated through 90 degrees so that the spindle faces the tailstock. Release the locking pin which will reassert itself locking the headstock in the "in line" position.

The Headstock is further secured to the bed by a clamp (see fig. 2). The clamp should be firmly applied using the Handle (item 24A), and the headstock should then be solid with the bed.

**WARNING: If there is any movement of the headstock whatsoever when the clamp is tightened, DO NOT start the machine. Refer to the Maintenance section for adjustments.**

The Headstock Spindle is provided with an internal No. 2 Morse Taper, which will accommodate a suitably tapered centre, and on to which the workpiece may be mounted. One 'Live Centre' is provided which is mounted by simply inserting it into the spindle. Refer to "Turning between Centres" for further information.

To remove the Live Centre, insert a suitable piece of round bar into the back of the spindle until it comes into contact with the centre. Give the bar a sharp blow, and the centre will disengage.

### B. The Tailstock

The tailstock is held firm to the bed by means of a clamp (see fig 3). Turning the clamp lever (item 50) anticlockwise, by approx. one third of a turn, should release the tailstock, allowing it to slide along the bed to the desired position, and turning the lever back again should firmly lock the tailstock in that position.

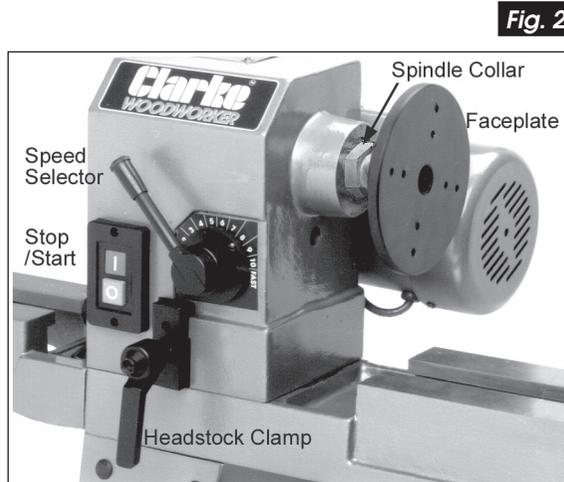


Fig. 2

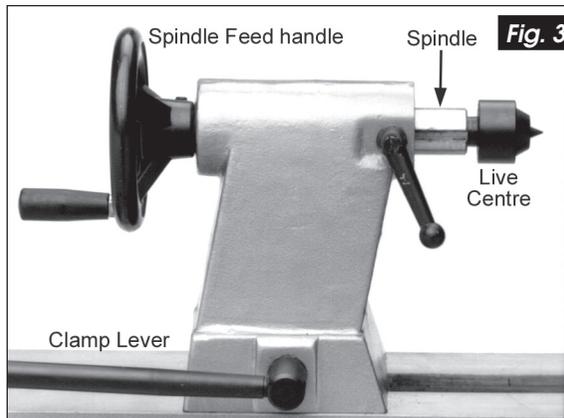


Fig. 3

If the tailstock fails to move when the clamp is released, or fails to lock when the clamp lever is turned clockwise through approx. one third of a turn, the tailstock securing nut, beneath the tailstock (item 44), is either too loose or too tight.

Adjust the nut so that with the clamp lever turning through approx one third of a turn, the tailstock slides freely when unclamped, but is held firmly when clamped.

The Tailstock Spindle is provided with an internal No. 2 Morse Taper, and a Morse tapered centre is provided for 'between centres' turning, but any No. 2 Morse Taper tool, such as a drill chuck, may be mounted and used when required.

To mount a tool in the spindle, ensure the spindle clamp (item 37) is not applied, then turn the spindle feed handle (item 49) clockwise, thereby extending the spindle until the tools' Morse Tapered shank can be inserted to its full length, locking it into place.

To remove a tool from the tailstock, first slacken off the spindle clamp, allowing the spindle feed handle (item 49) to be turned anticlockwise, thereby withdrawing the tool from the workpiece.

Unclamp the tailstock and move it well away from the workpiece. Continue to turn the spindle feed handle anticlockwise until resistance is felt. At this point, back off slightly, and then turn the handle sharply, thereby breaking the seal between the Morse tapered tool and the spindle, allowing the tool to be removed.

Support the tool during this operation, to prevent the possibility of it dropping on to the lathe bed when it becomes detached.

### C. Tool Rest Adjustment

The tool rest is adjustable to almost any position, using a combination of pivots and clamps. The Bed Clamp (items 41 to 44), when slackened, allows the tool rest to slide along the bed to its desired position and is adjusted in a similar manner to the Tailstock Clamp. i.e. One third of a turn should clamp or unclamp the toolrest.

The Tool Rest should always be on the centre line, and as close as possible, to the workpiece, but for correct positioning, depending upon the work being undertaken, consult a wood turning manual.

#### IMPORTANT:

**Always ensure the Tool Rest clamps are firmly applied, as there is a danger that the tool rest could swing into the rotating workpiece, with drastic consequences.**

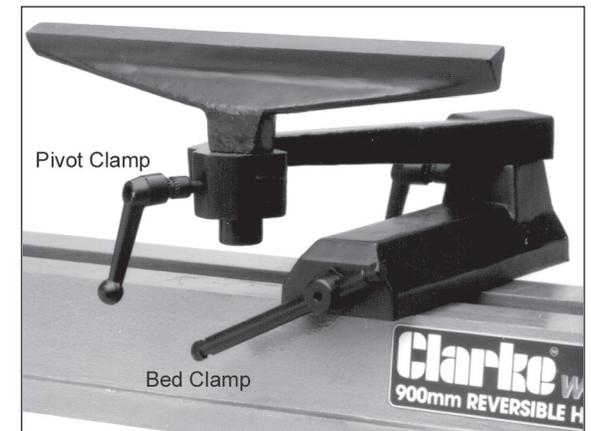


Fig. 4