

RECORD POWER
ESTABLISHED 1909®

Original Instruction Manual

Coronet Herald Heavy Duty Cast Iron Electronic Variable Speed Lathe

Version 3.4
January 2021



To register this product please visit
www.recordpower.info

It is important to register your product as soon as possible in order to receive efficient after sales support and be entitled to the full **5 year guarantee**. Your statutory rights are not affected. Please see back cover for contact details.



Always wear safety glasses when using woodworking equipment.



Always read the instructions provided before using woodworking equipment.

Important

For your safety read instructions carefully before assembling or using this product.

Save this manual for future reference.

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1. Explanation of Symbols

The symbols and their meanings shown below may be used throughout this manual. Please ensure that you take the appropriate action wherever the warnings are used.

Mandatory Instructions



Read and fully understand the instruction manual before attempting to use the machine.



Indicates an instruction that requires particular attention



Wear protective eyewear



Use respiratory protective equipment



Use hearing protection



Use suitable protective footwear



Use protective work gloves

Warnings



Indicates a risk of severe personal injury or damage to the machine



Indicates a risk of severe personal injury from electrical shock



Risk of personal injury from lifting of heavy items



Indicates a risk of severe personal injury from airborne objects



Risk of fire

2. General Health and Safety Guidance

Ensure that you carefully read and fully understand the instructions in this manual before assembly, installation and use of this product. Keep these instructions in a safe place for future reference.

WARNING: for your own safety, do not attempt to operate this machine until it is completely assembled and installed according to these instructions.

WARNING: When using any machine, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury.

Safe Operation

1. Use Personal Protective Equipment (PPE)

- The operation of any machine can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Protective eyewear or other suitable eye protection or face shield should be used at all times. Everyday spectacles only have impact resistant lenses. They are not protective eyewear and do not give additional lateral protection.
- Use respiratory protective equipment (dust mask etc.) if the machining operation creates dust. Exposure to high levels of dust created by machining hardwoods, softwoods and man made composite boards can result in serious health problems. Some imported hardwoods give off highly irritating dust, which can cause a burning sensation. The use of respiratory protective equipment should not be seen as an alternative to controlling the risk of exposure at source by using adequate dust extraction equipment.
- The use of ear plugs or ear defenders is recommended when the machine is in use, particularly if the noise level exceeds 85 dB.
- Wear suitable protective gloves when handling cutting tools or blades. Gloves should NOT be worn when using the machine as they can be caught in moving parts of the machine.
- Non-slip safety footwear is recommended when using the machine and handling large work pieces.

2. Dress appropriately

- Do not wear loose clothing, neckties or jewellery; they can be caught in moving parts of the machine.
- Roll up long sleeves above the elbow.
- Wear protective hair covering to contain long hair.

3. Safety warnings

- Find and read any warning labels on the machine.
- It is important that any labels bearing health and safety warnings are not removed, defaced or covered. Replacement labels can be obtained by contacting our Customer Service Department.

4. Familiarise yourself with the machine

- If you are not thoroughly familiar with the operation of this machine, obtain advice from your supervisor, instructor, or other qualified person or contact your retailer for information on training courses. Do not use this machine until adequate training has been undertaken.

5. Take care when moving or positioning the machine

- Some machines can be very heavy. Ensure the floor of the area in which the machine is to be used is capable of supporting the machine.
- The machine and its various components can be heavy. Always adopt a safe lifting technique and seek assistance when lifting heavy components. In some cases it may be necessary to use mechanical handling equipment to position the machine within the work area.
- Some machines have optional wheel kits available to allow them to be manoeuvred around the workshop as required. Care should be taken to install these according to the instructions provided.
- Due to the nature of the design of some machines the centre of gravity will be high making them unstable when moved. Extreme care should be taken when moving any machine.
- If transportation of the machine is required then all precautions relating to the installation and handling of the machine apply. In addition, ensure that any vehicles or manual handling equipment used for transportation are of adequate specification.

6. The machine should be level and stable at all times

- When using a leg stand or cabinet base that is designed to be fitted to the machine, always ensure that it is securely fastened to the machine using the fixings provided.
- If the machine is suitable to be used on a workbench, ensure that the workbench is well constructed and capable of withstanding the weight of the machine. The machine should always be securely fastened to the workbench with appropriate fixings.
- Where possible, floor standing machines should always be secured to the floor with fixings appropriate to the structure of the floor.
- The floor surface should be sound and level. All of the feet of the machine should make contact with the floor surface. If they do not, either re-locate the machine to a more suitable position or use packing shims between the feet and the floor surface to ensure the machine is stable.

7. Remove adjusting keys and wrenches

- Ensure that all adjusting wrenches and keys are removed before switching the machine 'ON'. There is a risk of severe personal injury or damage to the machine from airborne objects.

8. Before switching the machine 'ON'

- Clear the machine table of all objects (tools, scrap pieces etc.)
- Make sure there is no debris between the work piece and the table / work support.
- Ensure that the work piece is not pressed against, or touching the saw blade or cutting tool.
- Check all clamps, work holding devices and fences to ensure that they are secure and cannot move during machining operations.
- Plan the way that you will hold and feed the work piece for the entire machining operation.

9. Whilst machining

- Before starting work, watch the machine while it runs. If it makes an unfamiliar noise or vibrates excessively, switch the machine 'OFF' immediately and disconnect it from the power supply. Do not restart until finding and correcting the source of the problem.

10. Keep the work area clear

- Working clearances can be thought of as the distances between machines and obstacles that allow safe operation of every machine without limitation. Consider existing and anticipated machine needs, size of material to be processed through each machine and space for auxiliary stands and/or work tables. Also consider the relative position of each machine to one another for efficient material handling. Be sure to allow yourself sufficient room to safely operate your machines in any foreseeable operation.
- Cluttered work areas and benches create the risk of accidents. Keep benches clear and tidy away tools that are not in use.
- Ensure that the floor area is kept clean and clear of any dust and debris that may create trip or slip hazards.

11. Consider the work area environment

- Do not expose the machine to rain or damp conditions.
- Keep the work area well lit and ensure that there is artificial lighting available when there is insufficient natural light to effectively light the work area. Lighting should be bright enough to eliminate shadow and prevent eye strain.
- Do not use the machine in explosive environments eg. in the presence of flammable liquids, gases or dust.
- The presence of high levels of dust created by machining wood can present a risk of fire or explosion. Always use dust extraction equipment to minimise the risk.

12. Keep other persons away (and pets)

- The machine is designed to be used by one person only.
- Do not let persons, especially children, touch the machine or extension cable (if used) and keep visitors away from the work area.
- Never leave the machine running unattended. Turn the power supply off and do not leave the machine unattended until it comes to a complete stop.

2. General Health and Safety Guidance

- If the work area is to be left unattended, all machinery should be switched 'OFF' and isolated from the mains power supply.

13. Store machines safely when not in use

- When not in use, machines should be stored in a dry place, out of reach of children. Do not allow persons unfamiliar with these instructions or with the machine to operate it.

14. Do not overreach

- Choose a working position that allows your body to remain balanced and feed the work piece in to the machine without overreaching.
- Keep proper footing and balance at all times.

15. Electrical supply

- Electrical circuits should be dedicated to each machine or large enough to handle combined motor amp loads. Power outlets should be located near each machine so that power or extension cables are not obstructing high-traffic areas. Observe local electrical guidelines for proper installation of new lighting, power outlets, or circuits.
- The machine must be connected to an earthed power supply.
- The power supply must be equipped with a circuit breaker that provides short circuit, overload and earth leakage protection.
- The voltage of the machine must correspond to the voltage of the mains power supply.
- The mains plug fitted to the machine should always match the power outlet. Do not modify the plug in any way. If a replacement plug is required it should be fitted by a competent person and of the correct type and rating for the machine.
- If you are unsure about any electrical connections always consult a qualified electrician.

16. Avoid unintentional starting of the machine

- Most machines are fitted with a no-volt release (NVR) switch to prevent unintentional starting. If in doubt always ensure the machine switch is in the 'OFF' position before connecting it to the power supply. This means the machine will not automatically start up after a power cut or switching on of the power supply, unless you first reset the start switch.

17. Outdoor use

- Your machine should not be used outdoors.

18. Extension cables

- Whenever possible, the use of extension cables is not recommended. If the use of an extension cable is unavoidable, then it should have a minimum core cross section of 2.5mm² and limited to a maximum length of 3 metres.
- Extension cables should be routed away from the direct working area to prevent a trip hazard.

19. Guard against electric shock

- Avoid body contact with earthed or grounded surfaces such as pipes and radiators. There is an increased risk of electric shock if your body is earthed or grounded.

20. Always work within the machine's intended capacities

- Operator safety and machine performance are seriously adversely affected if attempts to make the machine perform beyond its limits are made.

21. Do not abuse the power cable

- Never pull the power cable to disconnect it from the power socket. Always use the plug.
- Keep the power cable away from heat, oil and sharp edges.
- Do not use the power cable for carrying or moving the machine.

22. Secure the work piece

- Ensure that the work piece is securely held before starting to machine it.
- When working within 300 mm of the machining area, always use a push stick to feed the work piece in to the blade or cutting tool. The push stick should have a minimum length of 400 mm. If the push stick becomes damaged, replace it immediately.
- Use extra supports (roller support stands etc.) for any work pieces large enough to tip when not held down to the table top.
- Do not use another person as a substitute for a table extension, or as

additional support for a work piece that is longer or wider than the basic table, or to help feed, support, or pull the work piece.

- Do not attempt to machine more than one work piece at a time.
- When feeding the work piece towards the blade or cutting tool never position your hands in direct line of the cutting path. Avoid awkward operations and hand positions where a sudden slip could cause your hand or fingers to move into the machining area.

23. Stay alert

- Safety is a combination of operator common sense and alertness at all times when the machine is being used.
- Use all machines with extreme care and do not use the machine when you are tired or under the influence of drugs, alcohol or medication.

24. Use the correct tool for the job

- Do not use the machine for any purpose other than which it was designed.
- When selecting replacement cutting tools and blades, always ensure that they are designed to cut the material that you intend to use them for. If in any doubt seek further advice from the manufacturer.

25. Connect dust extraction equipment

- Always use dust extraction equipment. The dust extractor should be of suitable size and capacity for the machine that it is connected to and have a filtration level appropriate to the type of waste being collected. Refer to the relevant section of the manual for details of the specific dust extraction requirements for this machine.
- The dust extractor should be switched 'ON' before starting the machine that it is connected to. The dust extractor should be left running for 30 seconds after the last machining operation is complete in order to clear any residual waste from the machine.

26. Ensure that the machine is correctly guarded

- Never use the machine if any of the standard safety guards and equipment are removed or damaged.
- Some machines incorporate safety interlocks to prevent the machine from being used without the guards in place. Never attempt to bypass or modify the interlocks to allow the machine to be used without the guards in place.

27. Maintain your machine with care

- This manual gives clear instructions on installation, set up and operation of the machine and also details any routine and preventative maintenance that should be performed periodically by the user.
- Remember always to switch off and unplug the machine from the power supply before carrying out any setting up or maintenance operations.
- Follow any instructions for the maintenance of accessories and consumables.
- Do not use compressed air to clean the machine. Always use a brush to dislodge dust in places that are awkward to reach and a dust extractor to collect the waste.
- Inspect electric cables periodically and, if damaged, have them replaced by an authorised service facility or qualified electrician.
- Inspect extension cables (if used) periodically and replace if damaged.

28. Keep cutting tools sharp and clean

- Correctly maintained cutting tools are easier to control and less likely to bind.
- Cutting tools and blades can become hot during use. Take extreme care when handling them and always allow them to cool before changing, adjusting or sharpening them.

29. Disconnect the machine from the power supply

- When not in use, before servicing, changing blades etc. always disconnect the machine from the power supply.

30. Check for damaged parts

- Before each use of the machine, it should be carefully checked to determine that it will operate properly and perform its intended function.
- Check for alignment of moving parts, binding of moving parts, breakage of parts and any other conditions that may affect the operation of

2. General Health and Safety Guidance

the machine.

- A guard or other part that is damaged should be properly repaired or replaced by a qualified person unless otherwise indicated in this instruction manual.
- Do not use the machine if the switch does not turn the machine 'ON' and 'OFF'.
- Have defective switches replaced by a qualified person.

31. Warning!

- The use of any accessory or attachment, other than those recommended in this instruction manual, or recommended by our Company may present a risk of personal injury or damage to the machine and invalidation of the warranty.

32. Have your machine repaired by a qualified person

- This machine complies with the relevant safety rules and standards appropriate to its type when used in accordance with these instructions and with all of the standard safety guards and equipment in place. Only qualified persons using original spare parts should carry out repairs. Failure to do this may result in considerable danger to the user and invalidation of warranty.

33. Caution! Motor may become hot during use

- It is normal for motors on some machines to become hot to the touch during use. Avoid touching the motor directly when in use.

3. Additional Health and Safety Guidance for Woodturning Lathes

Safe Operation

Familiarise yourself with the machine

- Machining operations using wood turning lathes have a history of serious accidents. Most serious accidents resulted from the work piece being thrown from the lathe whilst turning. Other accidents can be caused by loose clothing being drawn in to the rotating work piece or hands becoming trapped between the rotating work piece and fixed parts of the lathe.

2. Before switching the machine 'ON'

- Before attaching a work piece to a faceplate, always prepare it to be as round as possible. This will minimise vibration whilst turning. For further instructions please see the section of this manual entitled **Intended Use of the Lathe and Basic Woodturning Instructions**.
- Adjust the tool rest to the correct height and distance from the work piece and check that all fixings are secure.
- Check that the size of the work piece is within the safe working capacities of the lathe as detailed in the manual.
- Select the correct speed according to the size and type of work piece. The slowest speed is the safest speed to start any new work piece.
- Always rotate the work piece by hand before starting the lathe to ensure it does not come into contact with the tool rest. If the work piece strikes the tool rest during operation, it could be split and thrown from the lathe.
- When using a faceplate always ensure the work piece is well secured with screws of a suitable diameter and length.
- Remove any loose knots and bark from the work piece before mounting it to the lathe.
- If mounting a work piece between centres, always ensure that the tailstock is correctly adjusted and fully secure. Check that the locking handle for the tailstock quill is fully tightened.

3. Whilst using the lathe

- Do not allow the turning tool to dig in to the work piece, which could result in the work piece splitting or being thrown from the lathe. Always position the tool rest at the correct height. For further instructions please see the section of this manual entitled **Intended Use of the Lathe and Basic Woodturning Instructions**.
- Before starting to machine a work piece that is off centre or not perfectly round, always set the machine to the slowest speed and gradually increase speed as the work piece becomes more balanced as material is removed. Running the lathe too fast could cause the work piece to be thrown from the lathe or the turning tool to be snatched from your hands.
- Always store turning tools in a safe place away from the work area of the lathe. Never reach over the rotating work piece to reach for turning tools or accessories.
- Never attempt to adjust the position of the tool rest whilst the machine is running. Always switch the machine 'OFF' and wait until the work piece has stopped rotating before attempting any adjustments.

- Do not mount a work piece that contains excessive splits or loose knots or bark.
- Keep firm hold and control of the turning tool at all times. Use extreme caution when knots and voids are exposed in the work piece.
- Finish all hand sanding before removing the work piece from the lathe. Do not exceed the speed used for the last cutting operation. For further instructions please see the section of this manual entitled **Intended Use of the Lathe and Basic Woodturning Instructions**.
- Do not attempt to remount a work piece that has been turned on a faceplate unless you are deliberately turning eccentric work. You cannot remount faceplate turned work and expect it to run true, as the timber will have expanded or contracted.
- Do not remount a work piece that has been turned between centres if the original centres have been altered or removed, unless you are deliberately turning eccentric work.
- If re-mounting any work piece, always set the machine to the slowest speed and gradually increase the speed as the work piece becomes more balanced as material is removed.
- Use extra caution when mounting a work piece that has been turned between centres to a faceplate, or when mounting a faceplate turning between centres, for subsequent machining operations. Always ensure that the lathe is set to the slowest speed before switching ON.
- Do not attempt to perform any machining operations when holding the work piece by hand.
- Do not mount a reamer, milling cutter, wire wheel, buffing wheel, drill bit or any other tool to the headstock spindle.
- Always ensure that the turning tool is in contact with the tool rest and fully supported before applying the tool to the work piece.
- When the tool rest holder unit is not in use (e.g. when sanding), it should be moved away from the headstock, and the tool rest removed.

4. Maintenance

- Before attempting any maintenance and particularly when cleaning the machine, always remove any accessories and tooling from the machine.
 - Always ensure that any accessories used on the lathe are kept clean and free from rust and deposits of resin.
 - Keep all turning tools sharp and in good condition. Check that the handles are secure and not split or damaged.
5. This machine falls under the scope of the 'Health and Safety at Work etc. Act 1974', and the 'Provision and Use of Work Equipment Regulations 1998'. In addition the elimination or control of risks from wood dust is included in the above regulations and the 'Control of Substances Hazardous to Health (COSHH) Regulations 2002'. We recommend that you study and follow these regulations.
- Further guidance is available from The Health and Safety Executive and their website www.hse.gov.uk and from the authorised distributor in your country (details on back cover of the manual).

4. Record Power Guarantee

“**Products**” means the Products sold by Record Power subject to these terms and conditions;

“**Record Power**” is Record Power Limited, whose company registration number is 4804158 and registered office address is Centenary House, 11 Midland Way, Barlborough Links, Chesterfield, Derbyshire S43 4XA and sells through a network of Authorised Dealers;

“**Authorised Distributor**” is the nominated importer for your region who will generally sell through a network of Authorised Dealers. Details of Authorised Distributors for specific countries can be found in the Product manual or at www.recordpower.info;

“**Authorised Dealer**” is a retailer or business authorised to sell Record Power Products to end users.

1 Guarantee

- 1.1 Record Power guarantees that for a period of 5 years from the date of purchase the components of qualifying Products (see clauses 1.2.1 to 1.2.9) will be free from defects caused by faulty construction or manufacture.
- 1.2 During this period Record Power, its Authorised Distributor or Authorised Dealer will repair or replace free of charge any parts which are proved to be faulty in accordance with paragraphs 1.1 above provided that:
 - 1.2.1 you follow the claims procedure set out in clause 2 below;
 - 1.2.2 Record Power, our Authorised Distributor or Authorised Dealer are given a reasonable opportunity after receiving notice of the claim to examine the Product;
 - 1.2.3 if asked to do so by Record Power, its Authorised Distributor or Authorised Dealer, you return the Product, at your own cost, to Record Power’s premises or other approved premises such as those of the Authorised Distributor or supplying Authorised Dealer, for the examination to take place;
 - 1.2.4 the fault in question is not caused by industrial use, accidental damage, fair wear and tear, wilful damage, neglect, incorrect electrical connection, abnormal working conditions, failure to follow our instructions, misuse, or alteration or repair of the Product without our approval;
 - 1.2.5 the Product has been used in a domestic environment only;
 - 1.2.6 the fault does not relate to consumable Products such as blades, bearings, drive belts or other wearing parts which can reasonably be expected to wear at different rates depending on usage (for full details contact Record Power or your local Authorised Distributor);
 - 1.2.7 the Product has not been used for hire purposes, by you or by a previous owner;
 - 1.2.8 the Product has been purchased by you as the guarantee is not transferable from a private sale.
 - 1.2.9 where the Product has been purchased from a retailer, the 5 year guarantee is transferable and begins on the date of the first purchase of the Product and in the event of a claim under this guarantee proof of the original purchase date will be required to validate the warranty period.

2 Claims Procedure

- 2.1 In the first instance please contact the Authorised Dealer who supplied the Product to you. In our experience many initial problems with machines that are thought to be due to faulty parts are actually solved by correct setting up or adjustment of the machines. A good Authorised Dealer should be able to resolve the majority of these issues much more quickly than processing a claim under the guarantee.
- 2.2 Any damage to the Product resulting in a potential claim under the guarantee must be reported to the Authorised Dealer from which it was purchased within 48 hours of receipt.
- 2.3 If the Authorised Dealer who supplied the Product to you has been unable to satisfy your query, any claim made under this Guarantee should be made directly to Record Power or its Authorised Distributor (for details of the Authorised Distributor in your country please see your Product manual or check www.recordpower.info for details). The claim itself should be made in a letter setting out the date and place of purchase, and giving a brief explanation of the problem which has led to the claim. This letter should then be sent with proof of the purchase date (preferably a receipt) to Record Power or its Authorised Distributor. If you include a phone number or email address this will help to speed up your claim.
- 2.4 Please note that it is essential that the letter of claim reaches Record Power or its Authorised Distributor on the last day of this Guarantee at the latest. Late claims will not be considered.

3 Limitation of Liability

- 3.1 We only supply Products for domestic and private use. You agree not to use the Product for any commercial, business or re-sale purposes and we have no liability to you for any loss of profit, loss of business, business interruption or loss of business opportunity.
- 3.2 This Guarantee does not confer any rights other than those expressly set out above and does not cover any claims for consequential loss or damage. This Guarantee is offered as an extra benefit and does not affect your statutory rights as a consumer.

4 Notice

This Guarantee applies to all Products purchased from an Authorised Dealer of Record Power within the United Kingdom of Great Britain and Northern Ireland. Terms of Guarantee may vary in other countries – please check with the Authorised Distributor in your country (details of the Authorised Distributor for your country can be found in the manual or at www.recordpower.info).

5. Specifications

UK, Europe, Australia and New Zealand Specifications (16007)

Voltage: 230 V
Frequency: 50 Hz
Motor input P1: 1 kW
Motor output P2: 0.75 kW
Motor speed: 3000 rpm
Full load current: 5 A
Maximum bowl diameter: 533 mm (21")

Maximum between centres: 508 mm (20")
Maximum swing over bed: 355 mm (14")
Spindle speeds:
 Pulley 1: 95 - 1055 rpm
 Pulley 2: 140 - 1868 rpm
 Pulley 3: 290 - 3890 rpm
Taper: 2 Morse Taper

Spindle travel: 60 mm
Size: W870 x D290 x H252 mm
Weight: 48 kg
Spindle Thread: M33 x 3.5
Sound Pressure Level: No load < 83 dB(A)
Sound Power Level: No load < 83 dB(A)

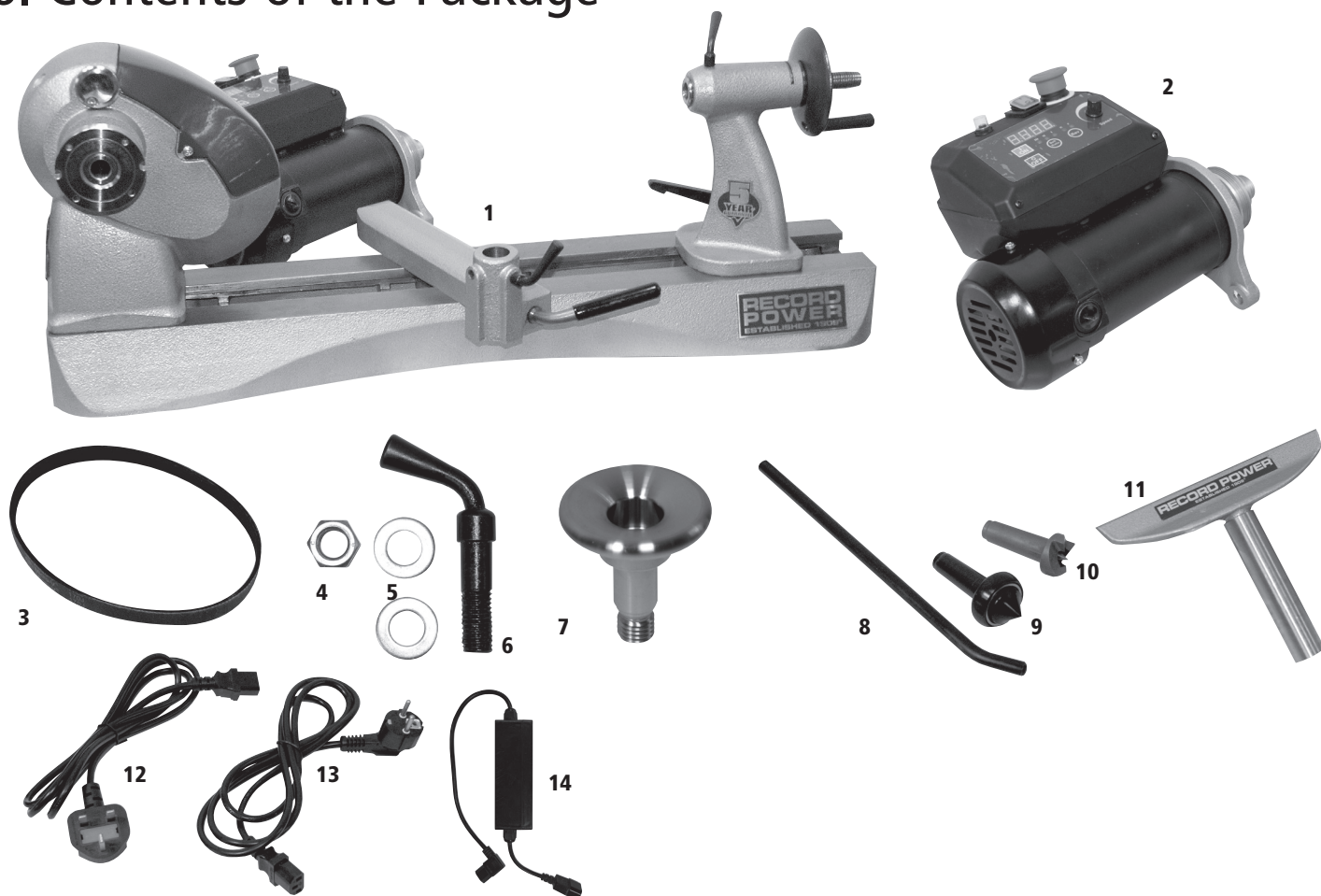
United States of America Specifications (16006)

Voltage: 120 V
Frequency: 60 Hz
Motor input P1: 1 kW
Motor output P2: 0.75 kW
Motor speed: 3000 rpm
Full load current: 10 A
Maximum bowl diameter: 533 mm (21")

Maximum between centres: 508 mm (20")
Maximum swing over bed: 355 mm (14")
Spindle speeds:
 Pulley 1: 95 - 1055 rpm
 Pulley 2: 140 - 1868 rpm
 Pulley 3: 290 - 3890 rpm
Taper: 2 Morse Taper

Spindle travel: 60 mm
Size: W870 x D290 x H252 mm
Weight: 48 kg
Spindle Thread: 1 1/4" x 8 TPI
Sound Pressure Level: No load < 83 dB(A)
Sound Power Level: No load < 83 dB(A)

6. Contents of the Package



Item	Description	Quantity	Item	Description	Quantity
1	Lathe with faceplate, tool rest holder and tailstock installed	1	9	Revolving centre	1
2	Motor and control unit	1	10	4 prong drive centre	1
3	Drive belt	1	11	Tool rest	1
4	M12 nut	1	12	Power cable with UK plug	1
5	Washers	2	13	Power cable with European plug	1
6	Motor tension lever	1	14	EMC Electromagnetic compatibility filter (To reduce electromagnetic inference & high frequency noise)	1
7	Hand wheel	1			
8	Operating bar	1			

6. Contents of the Package

Unpacking and Cleaning

1. Carefully lift the lathe from the carton and check that all of the components and contents have been included. Place parts on a protected surface.
2. Clean all rust protected surfaces with white spirit. Do not use gasoline, paint thinner, mineral spirits, etc. These may damage painted surfaces. Make sure the area is well ventilated and that there are no naked flames or sources of ignition.
3. Set packing materials and shipping carton aside. Do not discard until the machine has been set up and is running properly.

Tools Required for Assembly (Not supplied)

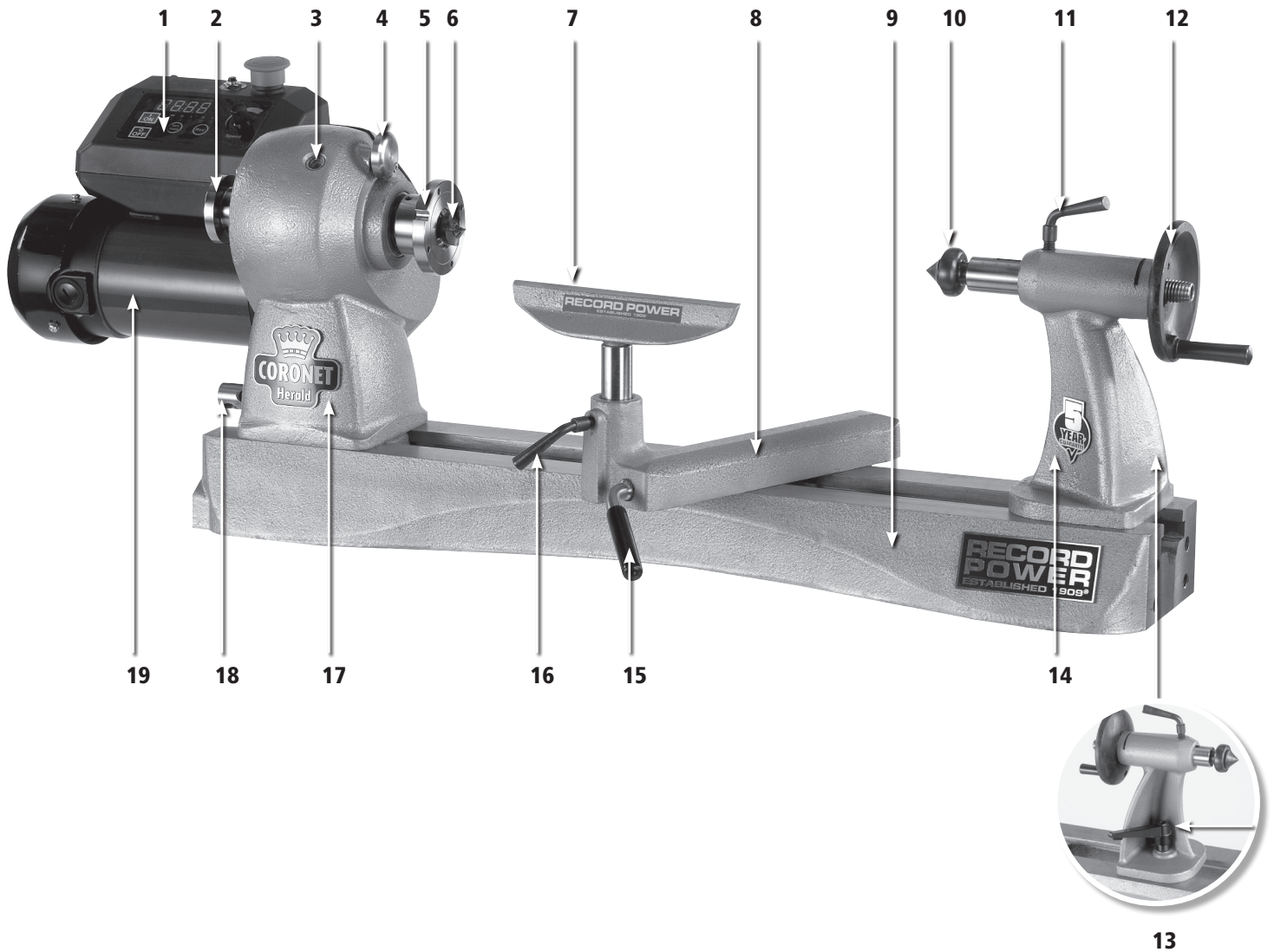


Phillips screwdriver



18 mm wrench

7. Getting to Know Your Lathe



- 1 Control unit
- 2 Hand wheel
- 3 Pulley inspection window
- 4 Indexing lock
- 5 Face plate
- 6 4 prong drive centre
- 7 Tool rest

- 8 Tool rest holder
- 9 Lathe bed
- 10 Revolving centre
- 11 Tailstock quill locking lever
- 12 Tailstock hand wheel
- 13 Tailstock locking lever
- 14 Tailstock

- 15 Tool rest holder locking lever
- 16 Tool rest locking lever
- 17 Headstock
- 18 Headstock locking shaft
- 19 Motor

8. Assembly



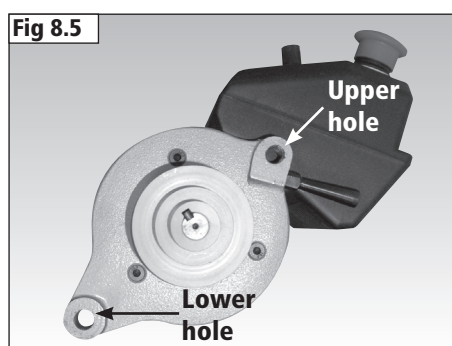
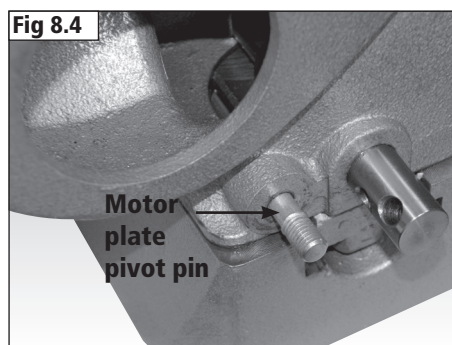
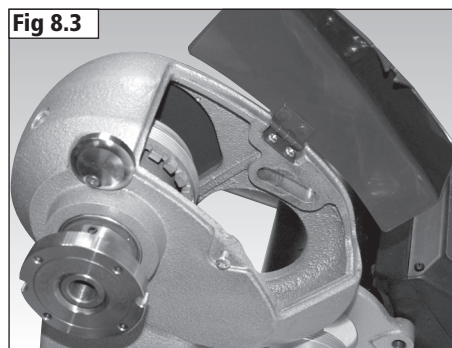
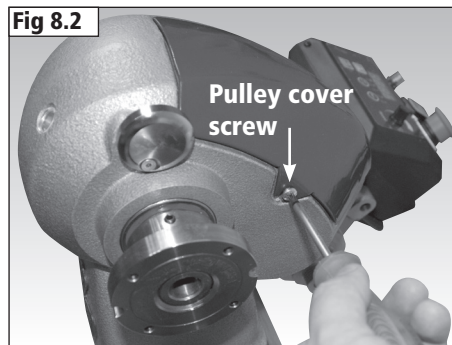
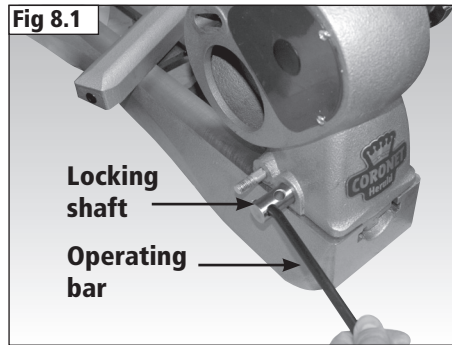
The machine must be unplugged and the power switch must be in the OFF position until the machine is assembled.

Loosen the headstock locking shaft using the operating bar by turning it anti-clockwise as shown in **Fig 8.1** and turn the headstock 90° so the faceplate is over the lathe bed as shown in **Fig 8.2**. Re-tighten the locking shaft.

Using a Phillips screwdriver loosen the pulley cover screw as shown in **Fig 8.2** and open the pulley cover as shown in **Fig 8.3**.

Using an 18 mm wrench ensure the motor plate pivot pin shown in **Fig 8.4** is securely tightened.

The motor plate features 2 holes as shown in **Fig 8.5**.



8. Assembly

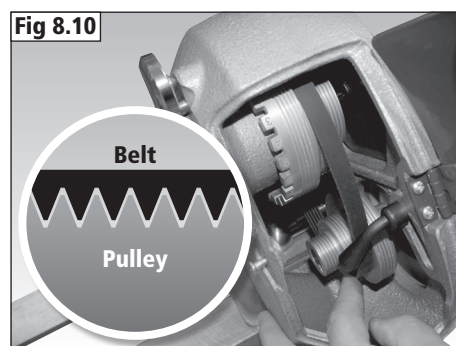
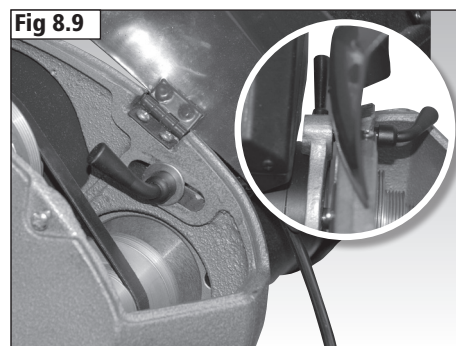
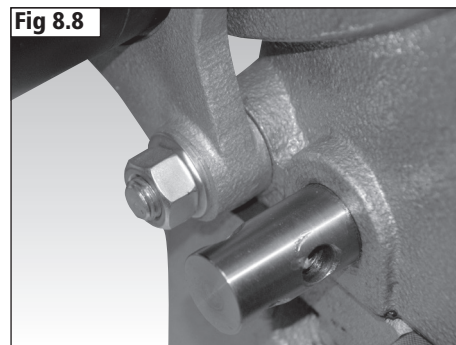
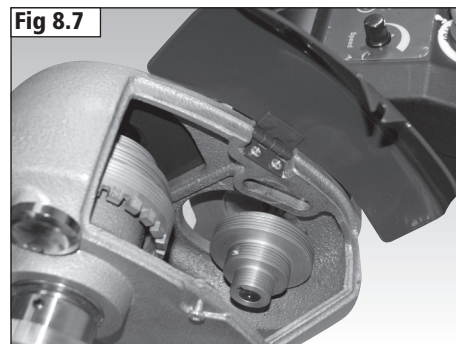
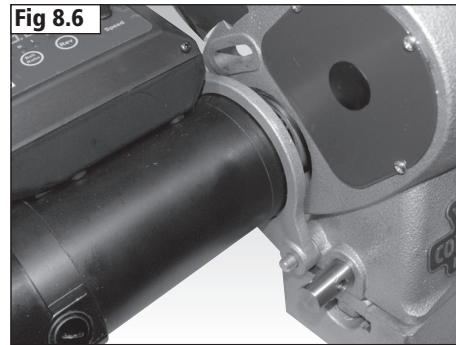
Place the lower hole over the Motor plate pivot pin as shown in **Fig 8.6** and ensure the motor pulley is inside the headstock as shown in **Fig 8.7**.

Secure the motor in place with the washer and the M12 nut as shown in **Fig 8.8** using an 18 mm wrench.

Place a washer on the motor tension lever and then pass the lever through the slot in the headstock casting as shown in **Fig 8.9** and screw into the upper hole of the motor plate.

Position the motor as shown in **Fig 8.10** so that the tension lever is in the highest position in the slot and place the drive belt over the pulleys.

Release the tension lever and carefully lower the motor. Turn the hand wheel by hand to check that the V grooves of the belt and pulleys are located correctly, **Fig 8.10**.



8. Assembly

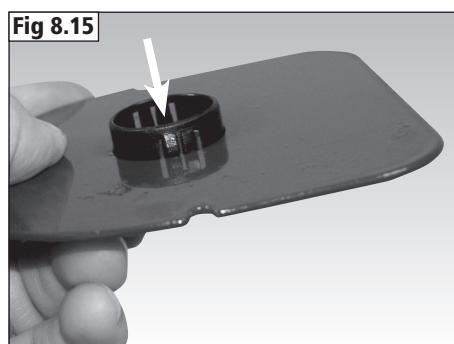
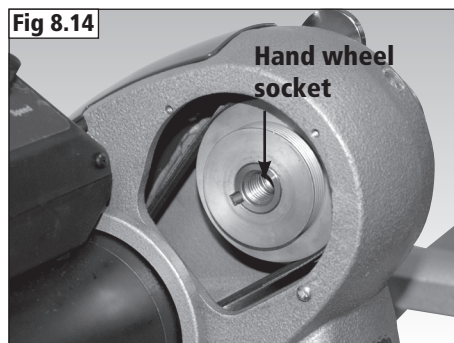
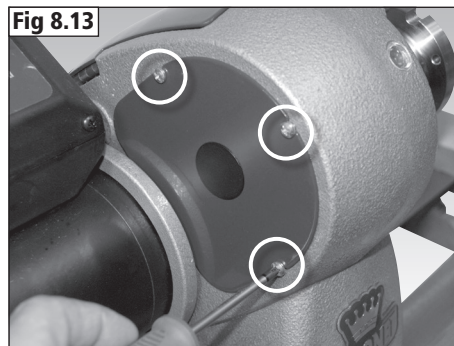
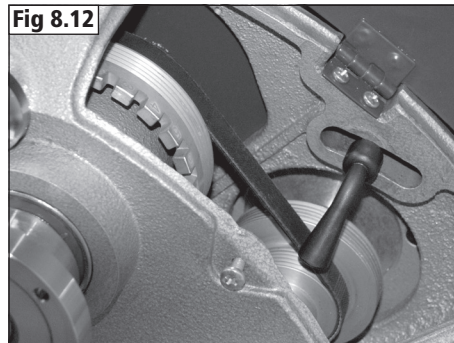
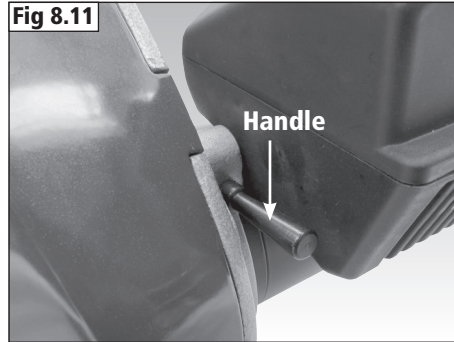


When moving the motor and motor pulley use the handle on the rear of the motor plate as shown in Fig 8.11.

Use the handle to apply tension to the drive belt then tighten the tension lever, **Fig 8.12**. The correct tension is achieved when the belt flexes no more than 10 mm under reasonable manual pressure.

Use a Phillips screwdriver to remove the 3 screws shown in **Fig 8.13** that hold the access hatch cover in place and remove the cover to reveal the hand wheel socket in the centre of the motor pulley as shown in **Fig 8.14**.

Remove the plug from the cover as shown in **Fig 8.15** by pressing the tabs inward and pushing out.



8. Assembly

Replace the cover as shown in **Fig 8.16**.

Screw the hand wheel into the socket, **Fig 8.17**.

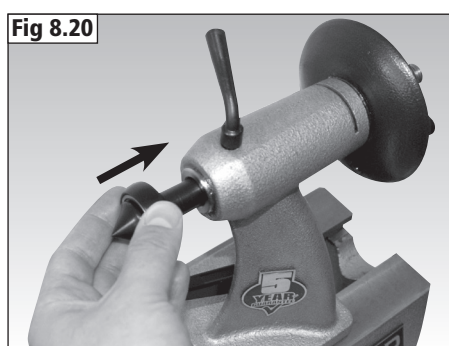
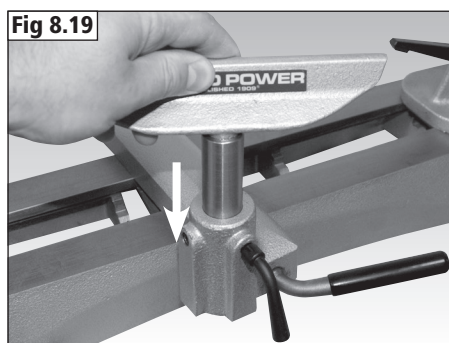
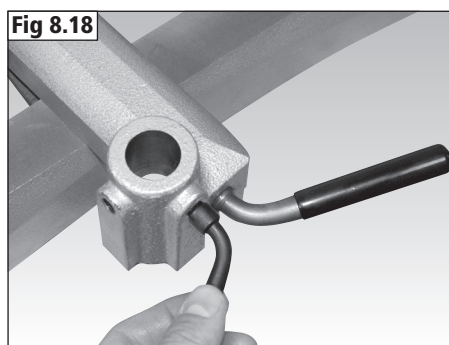
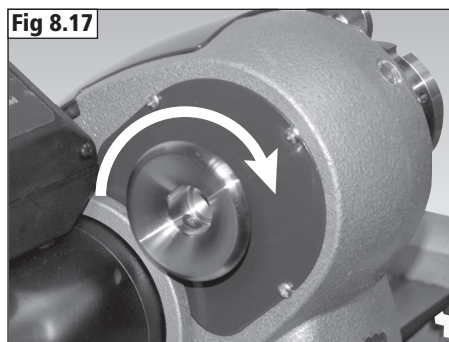
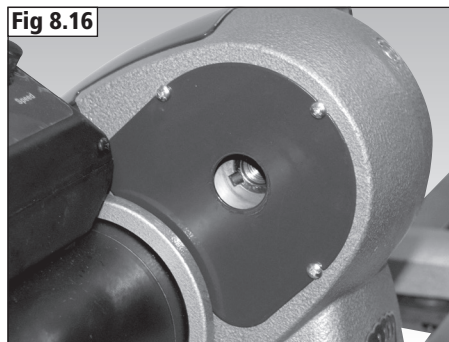


The hand wheel features a left hand thread. Turn anti-clockwise to secure in place.

Screw the tool rest locking lever into the tool rest holder as shown in **Fig 8.18**.

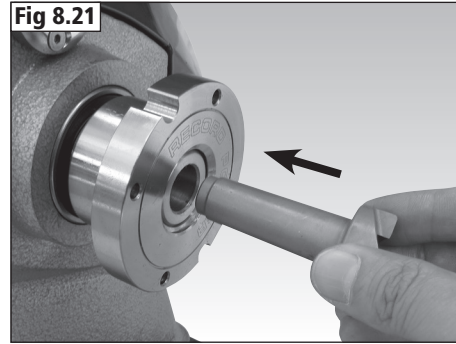
Place the tool rest into the tool rest holder as shown in **Fig 8.19** and secure in place with the tool rest locking lever.

Place the revolving centre into the tailstock quill as shown in **Fig 8.20** and push firmly to secure it in place.



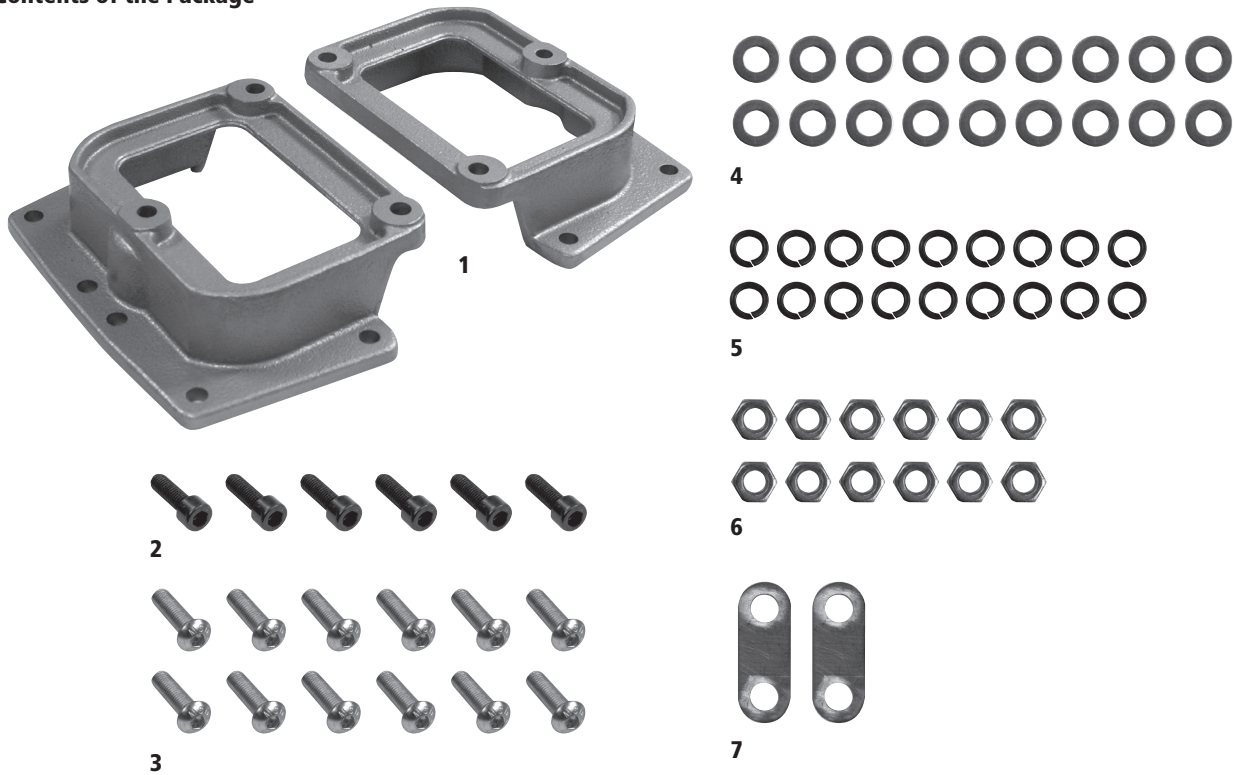
8. Assembly

Place the 4 prong drive centre into the headstock barrel as shown in **Fig 8.21** and push firmly to secure it in place.



9. Assembly of the Optional **16012** Herald Bench Mount Feet

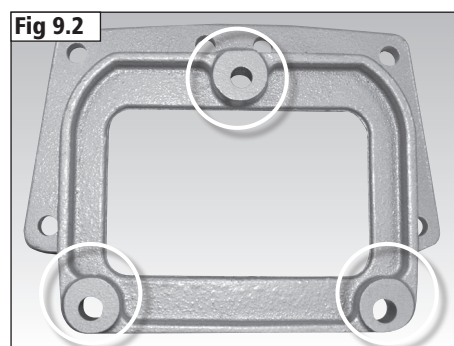
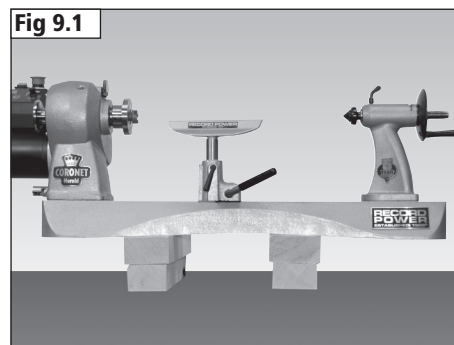
Contents of the Package



Item	Description	Quantity
1	Coronet Herald bench feet	2
2	M6 x 35 mm socket hex head screws	6
3	M10 x 35 mm domed socket hex head bolts	12
4	Washers	18
5	Spring washers	18
6	M10 nuts	18
7	Spacer plates	2

Before fitting the bench feet it is advisable to lift the lathe onto suitable supports as shown in **Fig 9.1** to give access to the underside.

Each bench foot features 3 mounting holes as shown in **Fig 9.2**.

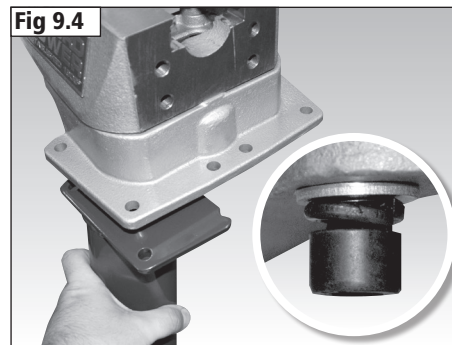
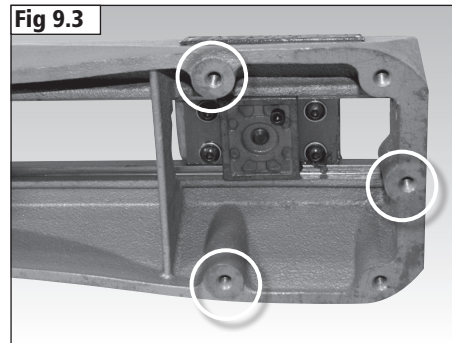


9. Assembly of the Optional **16012** Herald Bench Mount Feet

Each end of the lathe features 3 corresponding bench foot mounting holes as shown in **Fig 9.3**.

Attach the bench feet to the lathe using an 8 mm hex wrench, ensuring the fixings are positioned as shown in **Fig 9.4**. When assembled correctly the flanges of the feet will be facing towards the outside of the lathe as shown.

The M10 x 35 mm domed socket hex head bolts, washers and M10 nuts supplied with the bench feet are used to mount the lathe to the optional **16015** Herald Tubular Stand.



10. Assembly of the Optional **16013** Herald Bowl Rest Extension

Contents of the Package

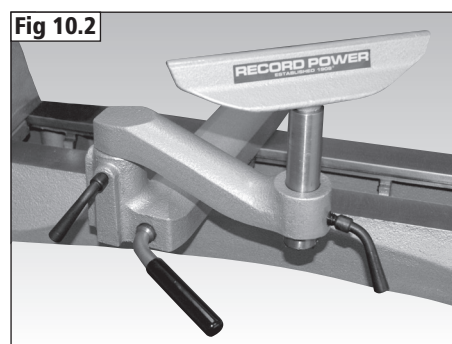
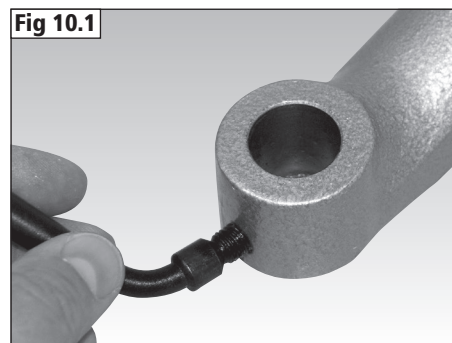
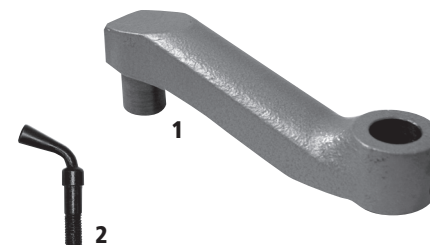
Item Description

- 1 Bowl rest extension
- 2 Tool rest locking lever

Screw the locking lever into the bowl rest extension as shown in **Fig 10.1**.

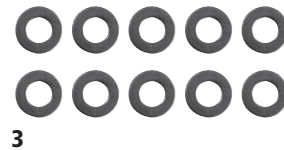
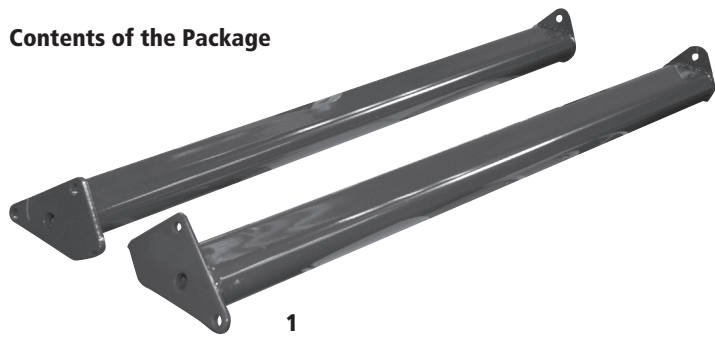
Remove the tool rest from the tool rest holder and replace with the bowl rest extension.

Place the tool rest into the bowl rest extension as shown in **Fig 10.2**.



11. Assembly of the Optional **16015** Herald Tubular Stand

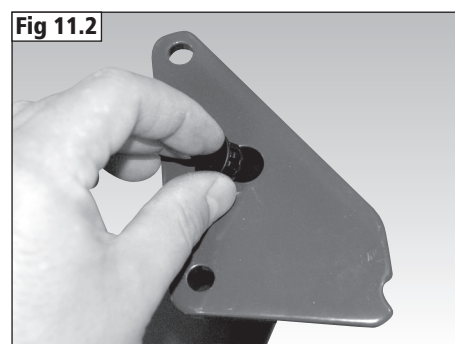
Contents of the Package



Item	Description	Quantity
1	Pair of Herald tubular legs	2
2	M6 x 30 mm socket hex head screws	10
3	Washers, 15 mm internal diameter	10
4	Spring washers	10
5	Rubber feet	4
6	Leg caps	4
7	M5 x 15 mm cross head screws	4
8	Washers, 6 mm internal diameter	4

Fit the rubber feet to the bottom of each leg using a Phillips screwdriver as shown in **Fig 11.1** with the M5 x 15 mm screws and 6 mm internal diameter washers. Ensure the washer is placed inside the rubber foot as shown.

If required, fill the legs with sand or similar material using the hole shown in **Fig 11.2**. Once filled, place the plug in the hole as shown.



11. Assembly of the Optional **16015** Herald Tubular Stand

Ensure each pair of legs is positioned at each end of the lathe as shown in **Fig 11.3** and secure in place with the M6 x 30 mm screws, washers and spring washers using an 8 mm hex wrench as shown in **Fig 11.4**.

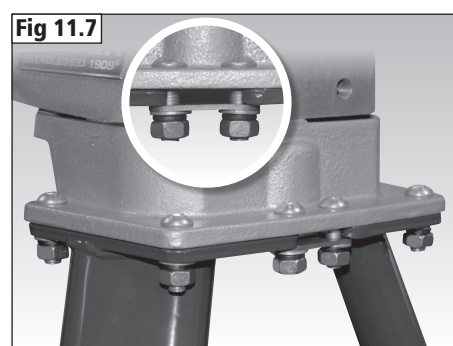
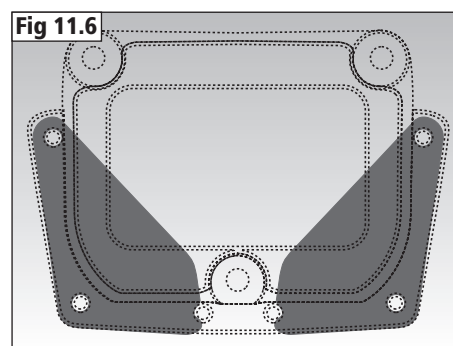
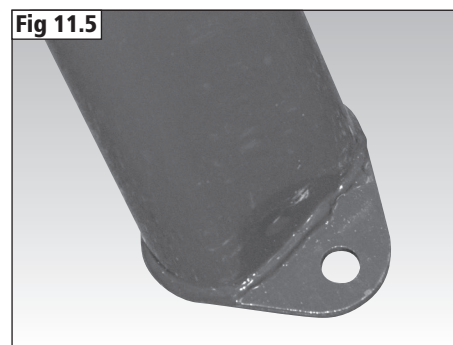
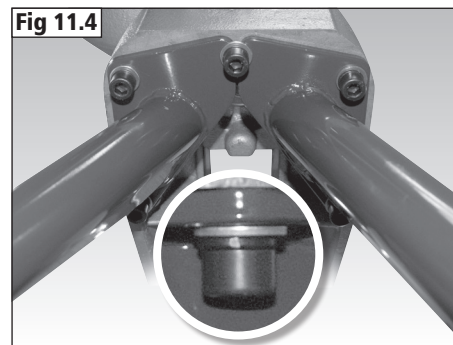
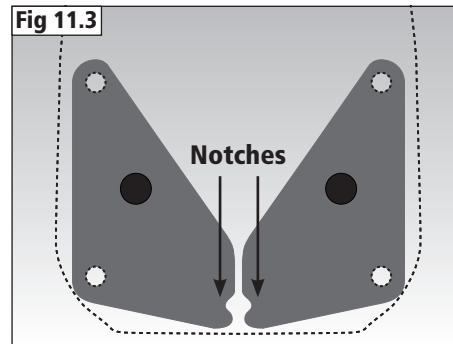
Each pair of legs features a notch as shown in **Fig 11.3**. Ensure that the central screw is secured through both notches.

If required the legs can be bolted to the floor using the holes in the bases as shown in **Fig 11.5**.

Assembly of the Optional **16015** Herald Tubular Stand to the Optional **16012** Herald Bench Mount Feet

Position each pair of legs beneath each bench foot as shown in **Fig 11.6** and attach to the feet using the M10 x 35 mm domed socket hex head bolts, washers and M10 nuts supplied with the bench feet as shown in **Fig 11.7**. A 6 mm hex wrench and 16 mm wrench are needed.

Use the spacer plates as shown in **Fig 11.7** to connect the 2 central screws.



12. Assembly of the Optional **16011** Herald Bed Extension

Item Description

1	16011 Herald Bed Extension
2	M12 x 45 mm socket hex head screws
4	Spring washers

Quantity	
	1
	2
	2

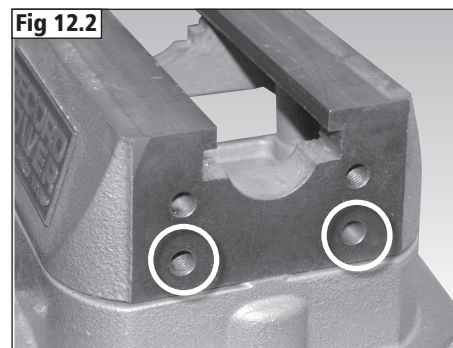
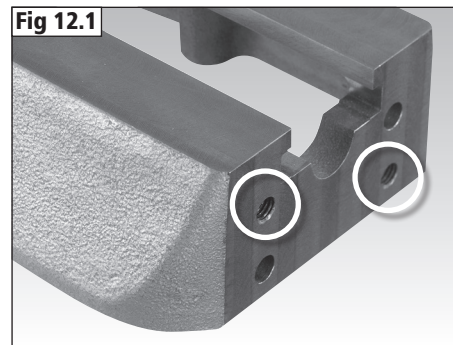


The bed of the lathe features 4 holes. The top left and bottom right holes are tapped as shown in **Fig 12.1**.

The bed extension features 4 holes. The bottom left and top right are tapped as shown in **Fig 12.2**.

Place a washer onto each screw and thread them onto the lathe bed from the inside as shown in **Fig 12.3** using a 10 mm hex wrench.

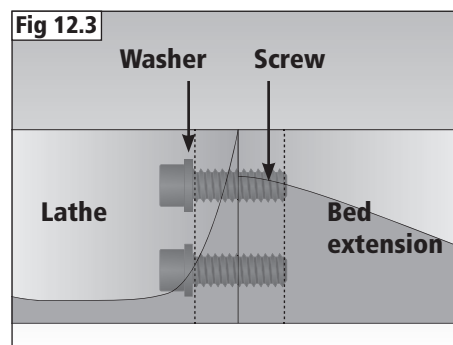
Hold the bed extension against the lathe bed as shown in **Fig 12.3** and **Fig 12.4** and continue to thread the screws into the holes on the bed extension.



Due to the weight of the bed extension it is recommended that one person holds the extension while a second threads the screws.

To eliminate the risk of cross-threading the screws or holes, thread both screws through at an equal rate. This will ensure the extension is pulled against the bed squarely.

Once the bed extension is installed the tailstock can be slid onto it and the extension is ready for use, **Fig 12.4**.



13. Operation

Using the Faceplate

The Coronet Herald is supplied with an 80 mm (3") faceplate which is already assembled to the machine as shown in **Fig 13.1**. The faceplate is designed for turning small to medium sized bowls.

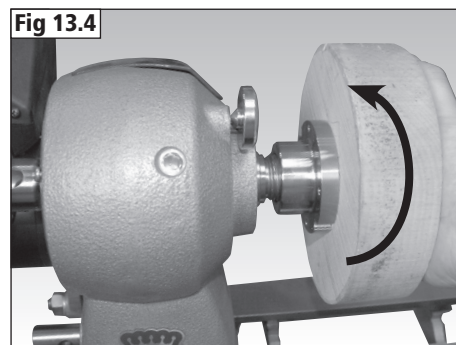
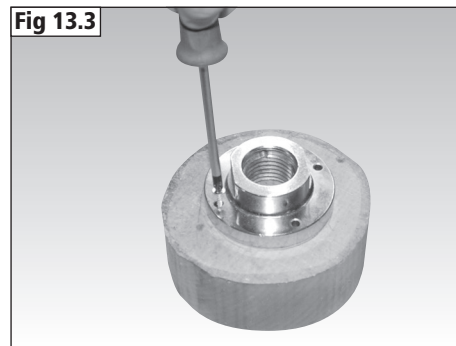
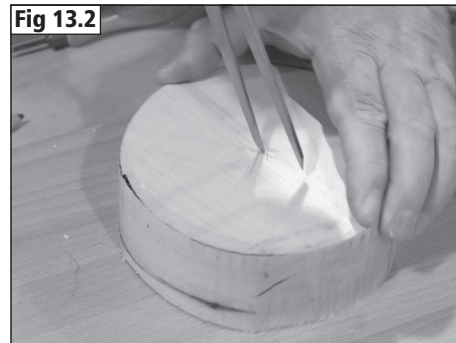
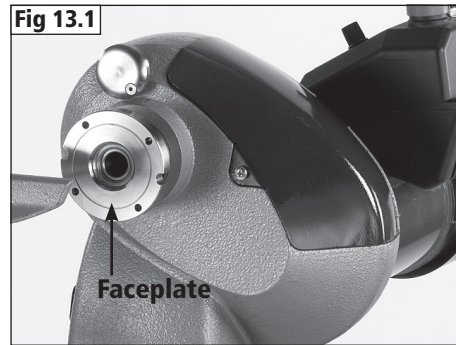
Find the centre of the bowl blank and using dividers as shown in **Fig 13.2**, mark an 80 mm diameter circle from the centre of the blank.

Place the faceplate over the scribed circle and attach it to the blank using 4 woodscrews as shown in **Fig 13.3**. The length of woodscrews used will vary depending on the size of bowl blank and intended finished thickness of the base but the largest possible screws should be used to give maximum hold.

Screw the faceplate onto the lathe spindle as shown in **Fig 13.4**.

When beginning to turn the bowl, proceed with caution and ensure the blank is securely held to the faceplate.

For further details on using the faceplate please refer to the **Intended use of the Lathe and Basic Woodturning Instructions** chapter of the manual.



13. Operation

Fitting the 4 Prong Drive Centre to the Headstock

When turning between centres, the 4 prong drive centre should be used in conjunction with the revolving centre. For details on turning between centres, please refer to the **Intended use of the Lathe and Basic Woodturning Instructions** chapter of the manual.

Before fitting the drive centre the faceplate must be removed.

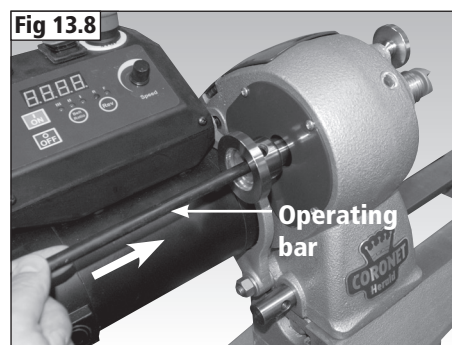
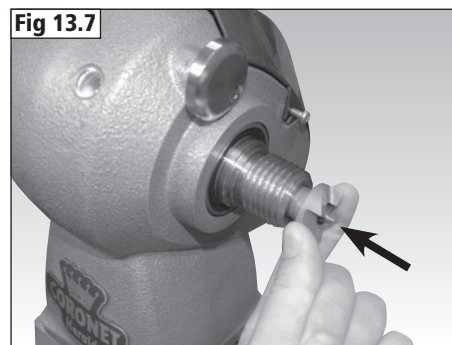
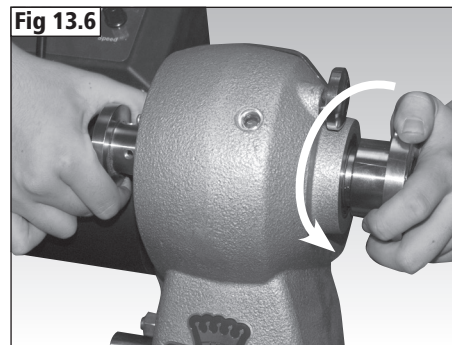
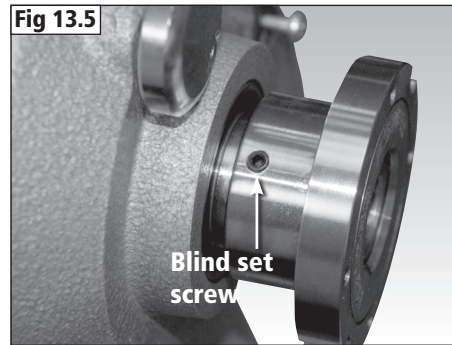
Remove the blind set screw shown in **Fig 13.5** from the faceplate using a 3 mm hex wrench.

Firmly hold the hand wheel and turn the face plate anti-clockwise to remove as shown in **Fig 13.6**.

Insert the drive centre into the headstock spindle, **Fig 13.7**.

Removing the 4 Prong Drive Centre from the Headstock

The operating bar is used to remove the drive centre from the headstock spindle. Place it into the hole positioned centrally in the hand wheel, at the opposite side of the headstock from the drive centre and give the drive centre a sharp knock to dislodge it, **Fig 13.8**.



13. Operation

Fitting the Revolving Centre to the Tailstock

When turning between centres the revolving centre should be used in conjunction with the 4-prong drive centre. For details on turning between centres, please refer to the Intended use of the Lathe and Basic Woodturning Instructions chapter of the manual. First, ensure the tailstock quill locking lever is loosened, then insert the revolving centre into the tailstock quill, **Fig 13.9**, and tighten the locking lever, **Fig 13.10**.



Before inserting tapered attachments into the headstock spindle or tailstock quill ensure that the taper is clean and free of any waste material that may cause misalignment or vibration. Always fully seat the taper by tapping it into place with a wooden mallet.

To remove the revolving centre, loosen the quill locking lever and turn the hand wheel anti clockwise. To eject, see **Fig 13.11**.

Adjusting the Tool Rest

To move the tool rest across the lathe bed, loosen the tool rest holder locking lever by turning in an anti-clockwise direction, slide the tool rest holder to the desired position and tighten the locking lever in a clockwise direction. To adjust the height of the tool rest loosen the tool rest locking lever, position the tool rest as required and re-tighten, **Fig 13.12**.

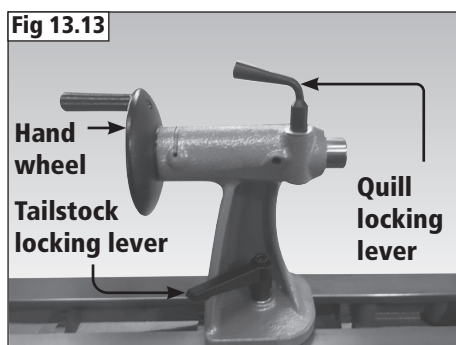
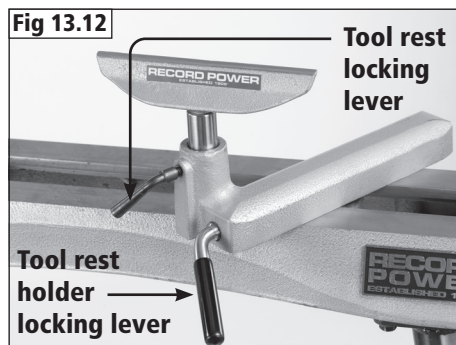
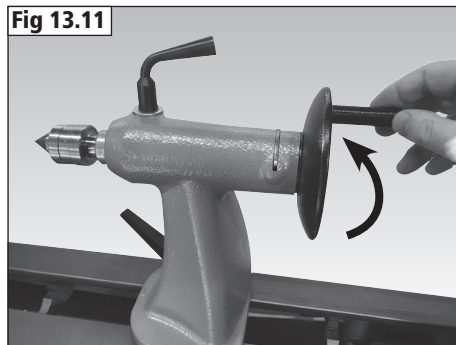
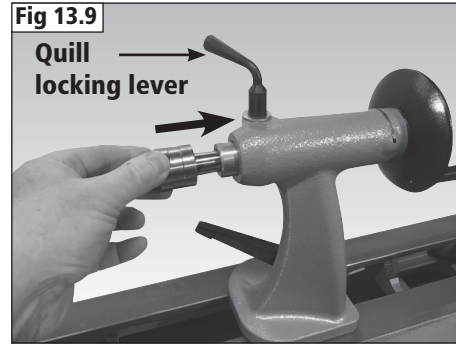
Adjusting the Tailstock

Loosen the tailstock locking lever to move the tailstock along the lathe bed to the desired position and tighten the lever, **Fig 13.13**.

To adjust the tailstock quill position, loosen the tailstock quill locking lever and turn the hand wheel. When the tailstock quill is in the desired position, re-tighten the locking lever, **Fig 13.13**.

Adjustment of the Clamping Action of the Tool Rest Holder

If the movement of the tool rest holder or tailstock is unsatisfactory, either due to being too stiff and difficult to move or too easy to move and giving inadequate locking, the clamping action can be adjusted. Please see the maintenance section of the manual for full details.



13. Operation

Changing the Spindle Speed

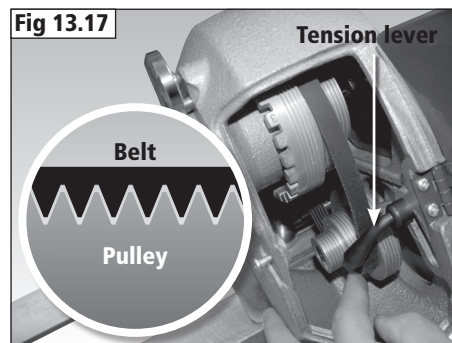
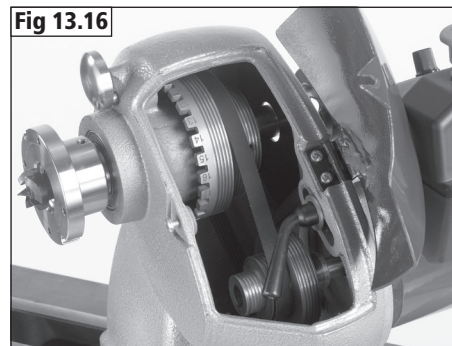
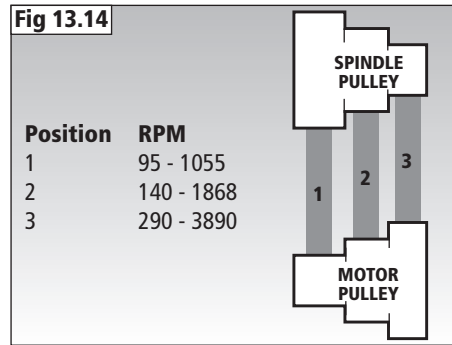
The Herald features a 3 step pulley system. The drive belt should be positioned on the corresponding pulleys as shown in **Fig 13.14** to achieve the speed range required.

Using a Phillips screwdriver loosen the pulley cover screw as shown in **Fig 13.15** and open the pulley cover as shown in **Fig 13.16**.

Loosen the motor tension lever and raise the motor to its highest position, **Fig 13.17**, and re-tighten to hold the motor in place. The drive belt will now be loose enough to move.

Place the belt in the desired position, release the tension lever and carefully lower the motor. Turn the hand wheel by hand to check that the grooves of the belt and pulleys are located correctly, **Fig 13.17**.

Use the handle to apply tension to the drive belt then tighten the tension lever, **Fig 13.18**. The correct tension is achieved when the belt flexes no more than 10 mm under reasonable manual pressure.



13. Operation

Indexing

Indexing is a useful feature of the Herald, allowing accurate pattern work on projects such as straight fluting, grooving, drilling, lay out and more.



The indexing system must only be used when the lathe is stationary and the power is turned off.

The 24 position indexing system is located inside the headstock as shown in **Fig 13.19**. The indexing slots are spread evenly around the circumference of the spindle pulley in 15° increments.

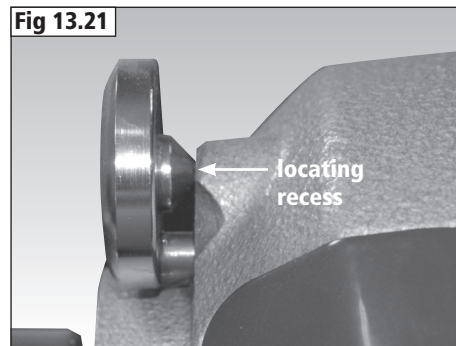
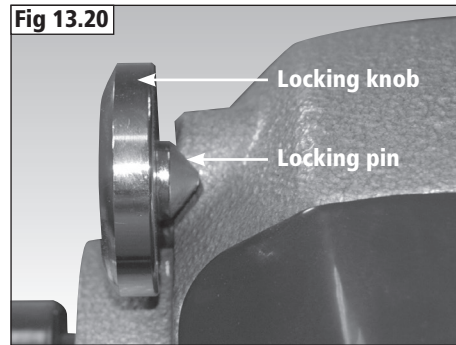
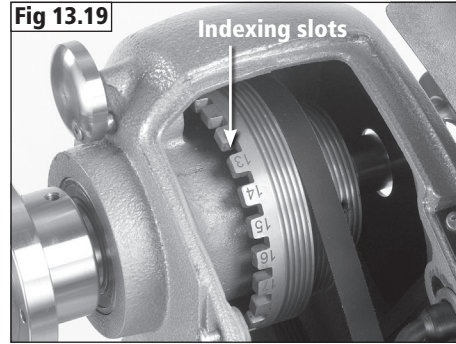
Engage the locking pin by pulling out the locking knob, turning clockwise and releasing to allow the pin to rest in the recess shown in **Fig 13.20**.

Disengage the locking pin by pulling out the locking knob, turning anti-clockwise and placing the pin to rest in the locating recess on the headstock as shown in **Fig 13.21**.



The indexing system must not be used as a method of holding the spindle while removing accessories such as face plates, chucks etc. Damage caused to the machine by doing so is not covered by the warranty.

Always disengage the locking pin before turning the machine on. Damage caused to the machine by running it with the indexing pin engaged is not covered by the warranty.



13. Operation

Spindle Indexing Reference Chart

The chart opposite gives a useful reference guide to basic indexing, showing the standard 8 divisions of the indexing system, the angle between positions and also the spindle index numbers to use.

Number of Index Positions	Angle Between Positions	Spindle Index Numbers
1	360°	1
2	180°	1, 13
3	120°	1, 9, 17
4	90°	1, 7, 13, 19
6	60°	1, 5, 9, 13, 17, 21
8	45°	1, 4, 7, 10, 13, 16, 19, 22
12	30°	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23
24	15°	1 - 24

Operating the Lathe

To turn the lathe on, press the power switch to the 'I' position as shown in **Fig 13.22**. To turn the lathe off, press the power switch to the 'O' position.

To adjust the speed use the speed control dial on the control panel.

The lathe can be used in forward or reverse. The default direction is forward. To reverse direction, press and hold the reverse selector button marked REV until the unit beeps and the red indicator light above the REV button stops flashing.

FWD - This is the conventional rotational direction of the lathe spindle and will turn the spindle anti-clockwise when viewing it directly from its front.

REV - This is opposite to the conventional rotational direction of the lathe spindle and will turn the spindle clockwise when viewing it directly from its front.



WARNING

Extreme caution must be exercised when turning in reverse as not all lathe accessories are designed to be used for reverse turning. Before reverse turning, always ensure the accessories are suitable for this use and that all relevant securing items (such as blind set screws) are employed correctly. If standard woodturning accessories are used with the lathe running in reverse there is a risk they could come away from the lathe and cause serious harm to the user.

In the Event of a Blockage or if the Machine Stalls

If the lathe stalls due to a dig in, simply removing the turning tool from the work piece will normally allow the work piece to start turning again. In the event of a blockage (for example, if the work piece becomes trapped against a fixed part of the machine) switch off the machine immediately, by pressing the red button marked 'O' on the switch. Locate and rectify the source of the blockage and ensure that the work piece can be rotated freely by hand before attempting to re-start the machine. To re-start the machine, press the green button marked 'I' on the switch.

In the Event of a Power Failure

The lathe is fitted with a no volt release (NVR) switch to protect the user against automatic starting of the machine when power is restored after a power failure. In the event of a power failure, first locate and rectify the source of the failure. If the fault is within the power circuit of the workshop, there may be an underlying cause (circuit overload etc.) that should be investigated by a qualified electrician, before attempting to restore the power source. Once the power is restored, the machine can be re-started by pressing the green button marked 'I' on the switch.

13. Operation

Error Codes

Under certain conditions the digital display will show error codes to indicate the nature of a particular error with the machine or its use.

Error Code

01

Error

Low Voltage Abnormality Protection Mode

Voltage is lower than 80 V. Can be caused by motor speed changing too quickly when heavy work is attached to the lathe and the motor speed decreases more slowly than usual due to the momentum of the workpiece.

Action

It is normal for this error code to appear for a short period after turning the machine off. If it appears during operation, turn off the machine and re-start once the digital display has cleared. If the error code is still shown the power supply must be checked and corrected if necessary.

02

High Voltage Abnormality Protection Mode

Voltage is higher than 268 V. Can be caused by motor speed changing too quickly when heavy work is attached to the lathe and the motor speed decreases more slowly than usual due to the momentum of the workpiece.

Turn off and re-start the machine. If error code still appears, check and correct the power supply.

04

Overcurrent Protection Mode

Current is higher than 8A-5S. This is caused by heavy use, even if the motor is stopped.

Turn off the machine and re-start. If error code still appears the controller hardware may be damaged and customer services should be contacted.

14. Maintenance

Cleaning the Machine

Avoid build up of wood shavings and dust by regularly cleaning the lathe with a soft cloth or brush.

Adjustment of the Tool Rest Holder

If the movement of the tool rest is unsatisfactory, either due to being too stiff and difficult to move or too easy to move and giving inadequate locking, the clamping action can be adjusted.

Remove the tool rest holder from the lathe bed by loosening the cam lock handle and sliding it off the bed as shown in **Fig 14.1**.

On the underside of the tool rest holder is a bolt with a nylon locking nut which holds the clamp in place, **Fig 14.2**.

If the clamping action is too low, turn the nut clockwise with an 18 mm wrench and re-fit the tool rest holder to the lathe.

If the clamping action is too high, turn the nut anti-clockwise and re-fit the tool rest holder to the lathe.

Adjustment of the Tailstock

The tailstock clamping action is controlled using the ratchet handle on the rear of the tailstock and does not need to be removed for adjustment.

If removal of the tailstock is required the stop screw must first be removed using a 5 mm hex wrench as shown in **Fig 14.3**.

Changing the Belt



The machine must be unplugged and the power switch must be in the OFF position while carrying out this procedure.

Remove the hand wheel and open the headstock cover.

Lift the motor to its highest position to loosen the belt and lock in place using the tension lever as shown in **Fig 14.4**.

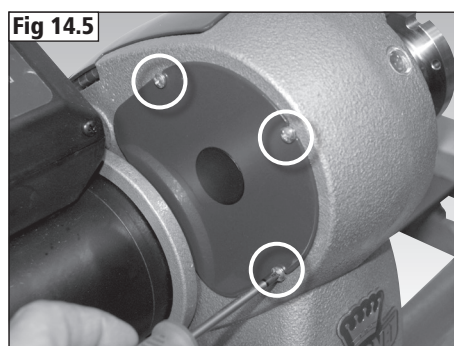
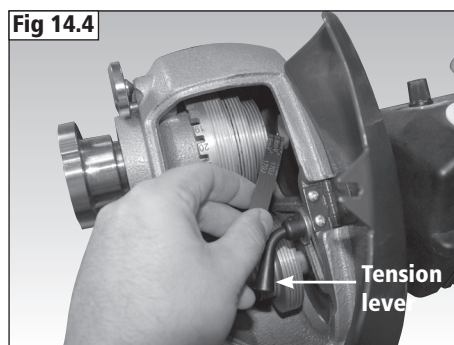
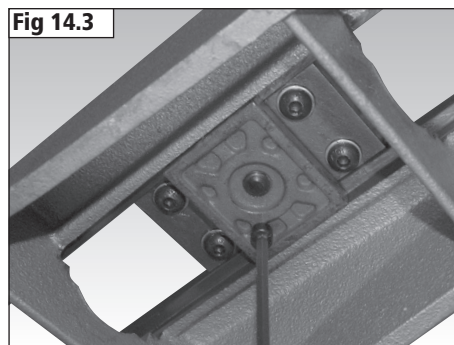
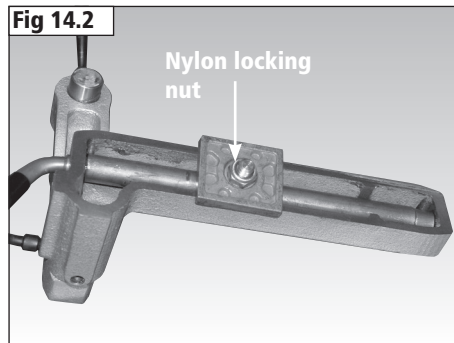
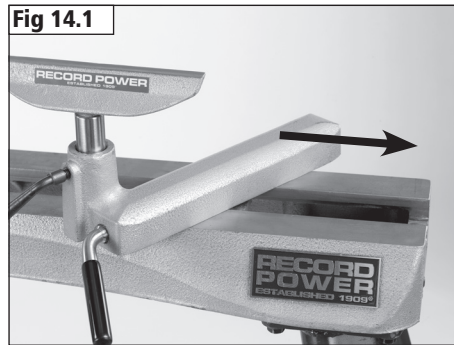
Remove the belt as shown in **Fig 14.4** and replace with the new belt.

Re-apply tension, close the headstock cover and re-fit the hand wheel.

Changing the Bearings

Remove the drive belt from the pulleys as described in the section **Changing the Belt**. Do not re-assemble.

Use a Phillips screwdriver to remove the 3 screws shown in **Fig 14.5** that hold the access hatch in place and remove the cover, **Fig 14.6**.



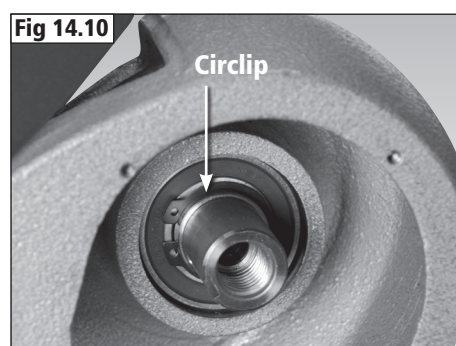
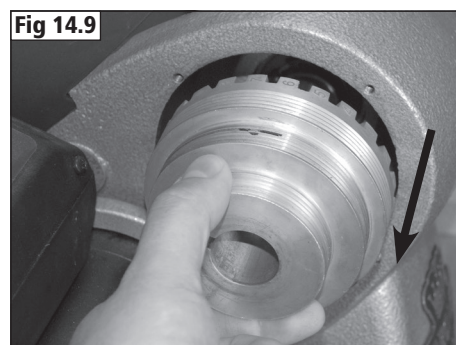
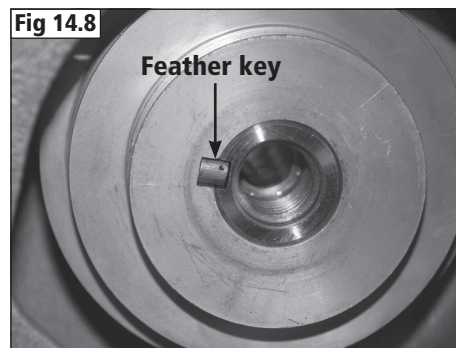
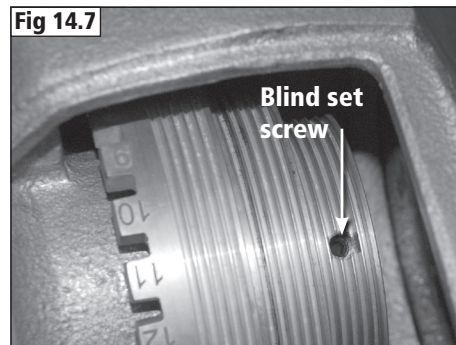
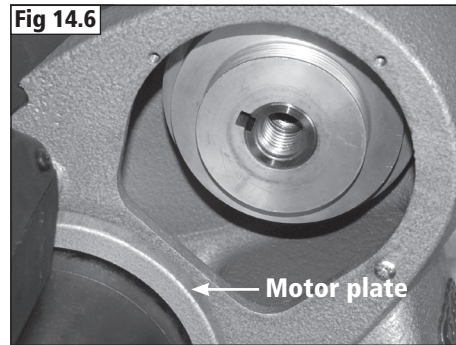
14. Maintenance

Place the motor in its lowest position to ensure the motor plate does not obstruct the access hatch as shown in **Fig 14.6**.

Using a 3 mm hex wrench loosen the blind set screw shown in **Fig 14.7** which secures the pulley to the spindle with the feather key as shown in **Fig 14.8**.

Carefully remove the spindle pulley as shown in **Fig 14.9** ensuring the feather key is also removed and stored safely.

Use circlip pliers to remove the circlip shown in **Fig 14.10** from the spindle.



14. Maintenance

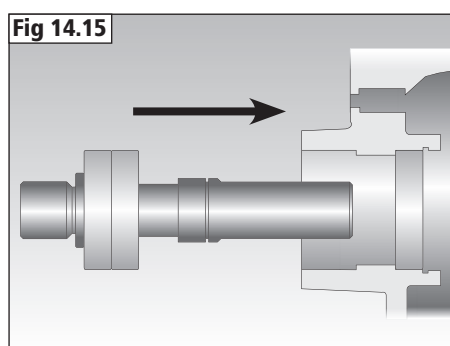
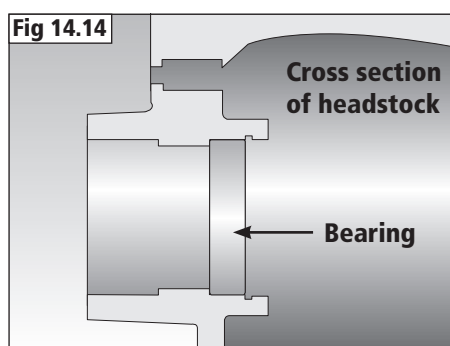
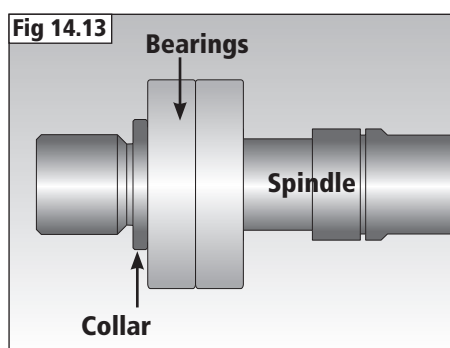
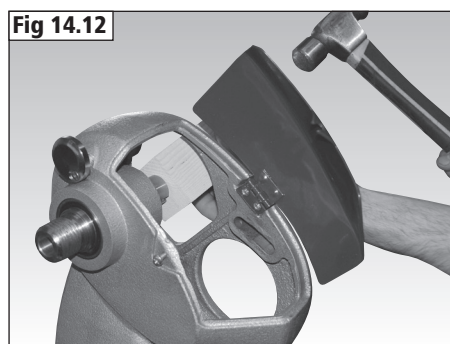
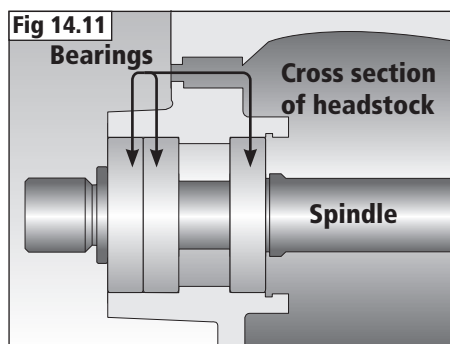
The spindle is held in place by 3 bearings, 2 at the front of the spindle and 1 at the rear as shown in **Fig 14.11**. Remove all 3 bearings from the spindle and replace them together.

Carefully remove the spindle by knocking it from the headstock using a mallet to drive a block of wood onto the spindle from inside the access hatch as shown in **Fig 14.12**.

Place 2 bearings on the spindle as shown in **Fig 14.13** and ensure they locate against the collar.

Place the third bearing inside the headstock as shown in **Fig 14.14**.

Place the spindle into the headstock as shown in **Fig 14.15**.



14. Maintenance

Knock back into place using a mallet and block of wood as shown in **Fig 14.16**.

Re-fit the circlip, spindle pulley and drive belt.

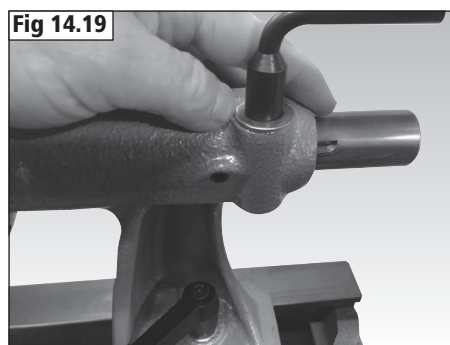
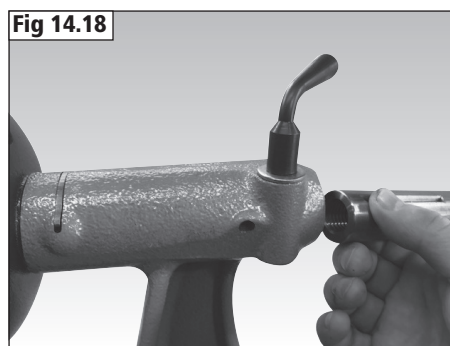
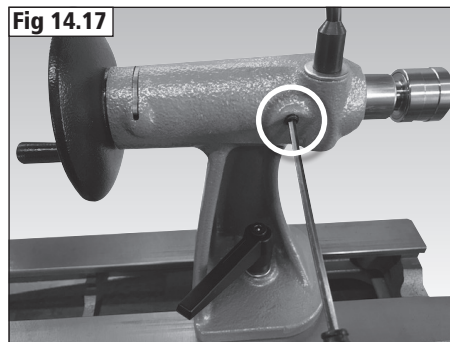
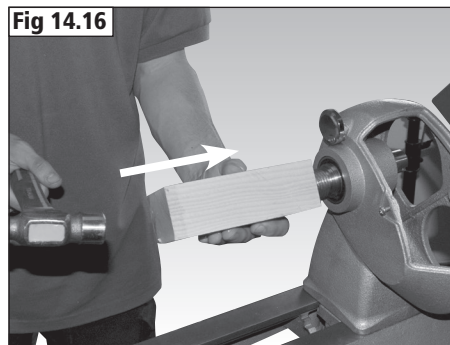


When re-fitting the pulley ensure it is pushed as far onto the spindle as possible. Failure to do so will mean the pulleys will not be aligned and the belt will wear unevenly and performance of the lathe will be adversely affected.

Cleaning the Tailstock Quill

It is advisable to periodically check the thread of the tailstock quill lead screw for buildup of residue and dust, which could impair its movement. Loosen the tailstock quill locking lever and remove the 8 mm grub screw, **Fig 14.17**, and turn the hand wheel clockwise to unscrew the quill to its furthest extent as shown in **Fig 14.18**. The quill can now be removed, and the thread cleaned. Re-fit the quill to the tailstock ensuring the recess is in line with the locking lever as shown in **Fig 14.19** and turn the hand wheel anti-clockwise to retract the quill.

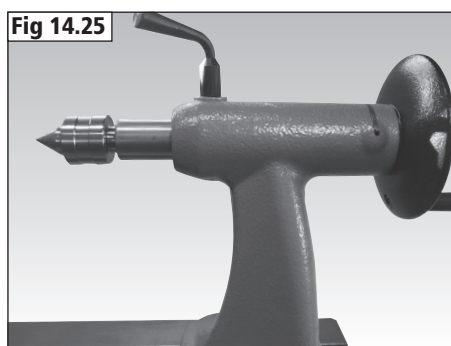
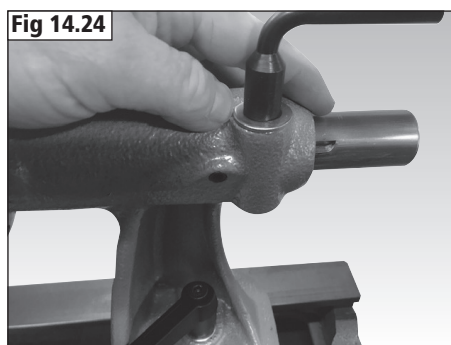
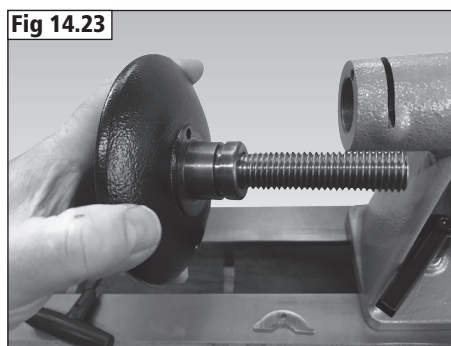
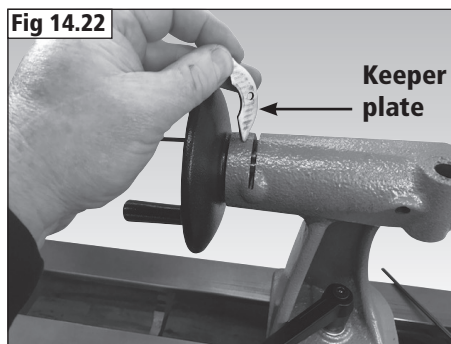
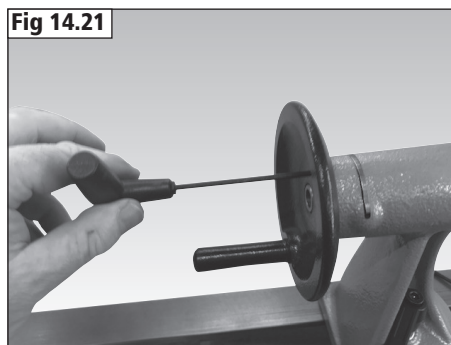
After removing the quill also remove the clip pin and clean, **Fig 14.20**.



14. Maintenance

To remove the hand wheel, undo the 6 mm grub screw located behind hand wheel, **Fig 14.21**. Only undo enough to remove the keeper plate, **Fig 14.22**. Then finally remove hand wheel and shaft, **Fig 14.23**.

Once the hand wheel is removed, clean all parts and apply light oil, then reassemble ensuring the groove in the quill is in-line with the 8 mm grub screw, **Fig 14.24**. On the relocking of the grub screw to the flat on the quill, ease back until the quill movement is free, **Fig 14.25**.



15. Intended Use of the Lathe and Basic Woodturning Instructions

Intended Use of the Lathe

This lathe is designed for turning wood between centres or on the headstock (using appropriate accessories), for sanding and applying finishes to wood. It is not to be used for any other purpose. Doing so will invalidate the warranty and may cause serious harm to the user.

Health and Safety

Please read the health and safety instructions contained in this manual and the specific health and safety instructions relating to woodturning. In addition, it is recommended to ensure your work area is adequately equipped with dust extraction and air filtration equipment.



Respiratory equipment should also be used to greatly reduce lung exposure to harmful fine dust. Always establish the properties of the timber being turned and take extra care when working with harmful and carcinogenic materials.



Eye protection must always be worn. Due to the nature of woodturning, shavings, dust and splinters can be thrown at fast speeds, making adequate eye protection essential.

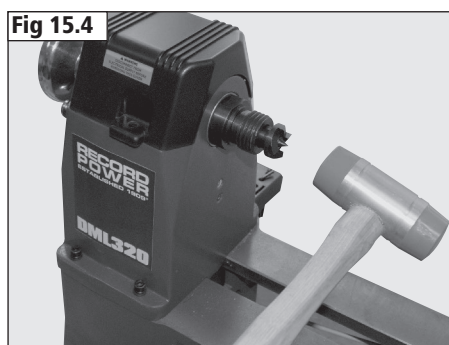
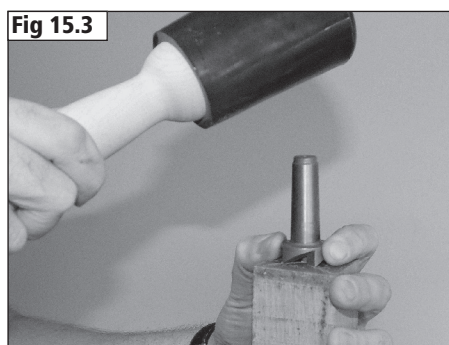
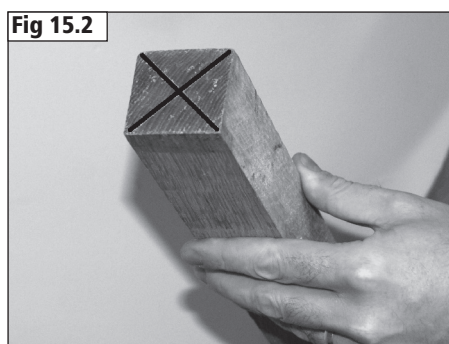
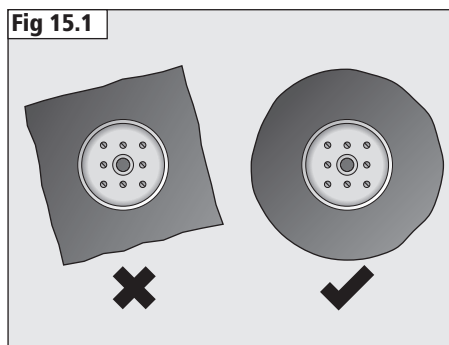
Mounting Timber to a Faceplate or Chuck

Before mounting the workpiece to a faceplate or chuck, it is advisable to shape the timber into as cylindrical a profile as possible, see **Fig 15.1**. Turning unbalanced timber increases lathe vibration, the risk of it being thrown from the lathe, increased risk of chisel dig in and makes correct positioning of the tool rest difficult due to variable distances.

Mounting Timber Between Centres

When turning between centres, it is essential to correctly and securely mount the timber so as to reduce the risk of it being thrown from the lathe. It is also essential to mount the timber as centrally as possible. This will reduce the amount of roughing out needed and also maximise the possible diameter of the final piece.

1. Using a square or rectangular profile blank, draw two lines, one from each opposing diagonal corner to the other, at each end of the blank. The point where the lines intersect indicates the centre of the blank. See **Fig 15.2**. If using irregular shaped timber, a centre finder is an invaluable tool.
2. Take the four prong centre supplied with the lathe and place its point directly on to the centre point of one end of the blank. Using a soft mallet (of either plastic, rubber or wood) tap the four prong centre with reasonable force until it bites into the timber. See **Fig 15.3**.
3. Carefully place the four prong centre into the headstock spindle of the lathe, **Fig 15.4**, and ensure that it is correctly seated in the spindle by tapping it firmly into place with a mallet.
4. Slide the tailstock up the bed until the tailstock centre is almost touching the other end of the blank. Lock the tailstock in position and use the hand wheel to extend the tailstock centre until it grips the blank firmly at the centre point. See **Fig 15.5**. Then use the tailstock locking handle to secure the position. The blank is now successfully mounted and ready to be turned.



15. Intended Use of the Lathe and Basic Woodturning Instructions

Positioning the Tool Rest

It is extremely important to ensure the tool rest is correctly positioned before turning on the lathe. Place the tool rest close to the timber, allowing enough room to manoeuvre the chisel with ease. Spin the timber by hand to ensure it does not come into contact with the tool rest. If the lathe is started without checking this and the timber hits the tool rest, there is a risk the timber could be thrown from the lathe and cause injury. Never attempt to reposition the tool rest while the lathe is in motion.

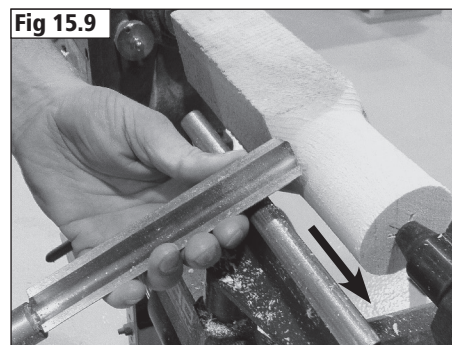
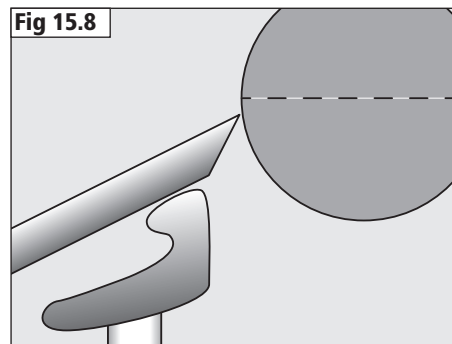
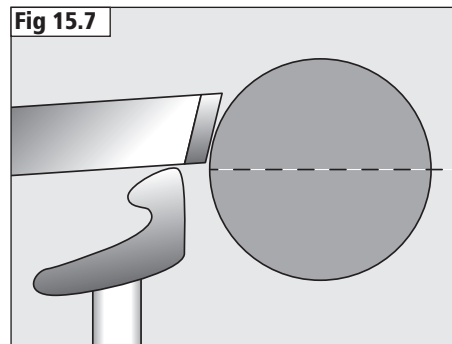
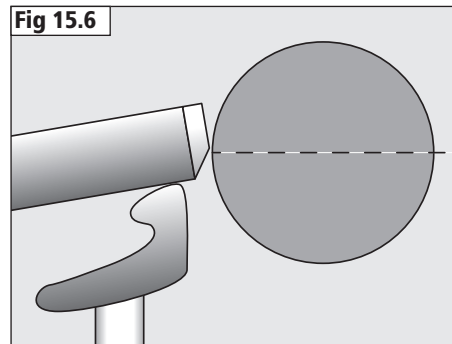
Tool rest height is also important and varies depending on the chisel being used. When using a roughing gouge, the cutting edge should come into contact with the centre of the workpiece, see **Fig 15.6**. If using a skew chisel, the cutting edge should be applied approximately 3/8" (10 mm) above the centre height, see **Fig 15.7**. A spindle gouge's cutting edge should come into contact with the workpiece approximately 3/8" (10 mm) below its centre, see **Fig 15.8**.

Using the Roughing Gouge

The first step when turning between centres is invariably to 'rough out' the blank. This involves taking a square section blank and paring it down with a roughing gouge to a cylindrical profile, ready to shape into the final piece. Roughing gouges are usually sharpened to have the bevel at a 45° angle. Using the tool rest to support the blade, offer the blade to the workpiece at an angle, see **Fig 15.9**. When offering the roughing gouge to the workpiece, the bevel should be rubbing it, without cutting. To make a cut, gently raise the handle of the tool in order to bring the cutting edge into contact with the timber. Using light passes, move the blade outwards towards the same edge of the timber which the blade is facing, **Fig 15.9**. Never move the tool backwards, as this introduces the risk of splintering the wood and causing injury.

Using the Spindle Gouge

A spindle gouge is used to shape the final profile of a spindle and is capable of finer work than a roughing gouge. It is designed specifically for cutting coves or valleys. The blade should come into contact with the wood at just below the centre line. Resting it on the tool rest, apply the blade to the workpiece at an angle, see **Fig 15.10**, rubbing the bevel onto it. Raise the handle to apply the cutting edge and make cuts. As with the roughing gouge, use controlled and light passes, trying to not remove too much wood at once. Never attempt to use a spindle gouge for working on bowls or hollow form work as the angle of the cutting bevel of the gouge is too shallow and will cause it to dig in to the work piece or snatch the tools from your hands.



15. Intended Use of the Lathe and Basic Woodturning Instructions

Using the Skew Chisel

Skew chisels are available in both flat and oval profiles. The curved profile is favoured by many as it gives better results more easily. Skew chisels are ideal for creating beads, refining the profiles and can be used to create a final smooth finish to the workpiece. The skew chisel should be applied to the workpiece horizontally with the blade resting on the tool rest, **Fig 15.11**, again with the bevel rubbing the workpiece and raising the handle to take careful, controlled cuts.

Further Operations

The guidelines above give basic instructions on some of the most common woodturning procedures. There are a wide variety of specialised chisels and many complementary accessories available for Record Power lathes which enable a huge variety of work to be created. For further instructions on more advanced safe and effective woodturning, please seek professional training.



Fig 15.11



Speeds of the Lathe

To ensure the safest possible use of the lathe, it is important to understand which speeds are suited to which tasks. In general, the slower speeds should be used for the initial turning and roughing out of large pieces and the slowest speed should be used when large pieces are out of balance. This will reduce the possibility of the workpiece being thrown from the lathe.

Medium speeds are ideally suited for general purpose work which doesn't place heavy loads on the spindle of the lathes, for example when creating the profiles of spindles and some smaller bowl turning.

The fastest speeds should be used only for small diameter work, where the size of workpiece is relatively small and therefore poses a lower risk of causing damage. Extra care should be taken when turning at the fastest speeds, using only a relatively light touch.

When sanding, care should be taken to not burn the operator's hands or the workpiece. It is recommended to not exceed the speed used for the last turning operation. If in doubt, use a slow speed.

16. Dust Extraction

The Importance of Dust Extraction

Suitable dust extraction is essential to avoid the possibility of serious health problems related to wood dust. It is also necessary in order to ensure the waste producing machine performs safely and effectively. Some woods are extremely toxic and in addition to suitable dust extraction machines it is recommended that PPE such as respirators are also used.

Record Power Dust Extraction Machines

Below is a summary of the Record Power range. Please visit your local stockist or go online for full details.

CGV286 CamVac Series Compact Extractor

36 litre capacity, 1 kW single or twin motor, 0.5 micron filtration. Includes hose.

CGV286-3-WALL CamVac Series Wall Mounted Extractor

150 litre capacity, twin motor, 0.5 micron filtration. Includes hose.

CGV336 CamVac Series Medium Extractor

55 litre capacity, 1 kW single or twin motor, 0.5 micron filtration. Includes hose.

CGV386 CamVac Series Large Extractor

90 litre capacity, 1 kW twin or triple motor, 0.5 micron filtration. Includes hose.

CGV486 CamVac Series Heavy Duty Extractor

200 litre capacity, 1 kW triple motor, 0.5 micron filtration. Includes hose.

DX1000 Fine Filter 45 Litre Extractor

45 litre capacity, 1 kW motor, 0.5 micron filtration. Includes hose. Includes hose.

AC400 2 Stage Air filter with Remote, 3 speeds and Time Delay

Collects airborne dust, 1 micron filtration.

	Bandsaws	Table Saws	Planer Thicknessers	Lathes	Sanding Machines	Dust Extraction Systems	Airborne Dust Collection
DX1000	✓	✓	✓	✓	✓		
CGV286	✓	✓	✓	✓	✓		
CGV286-3-WALL	✓	✓	✓	✓	✓	✓	
CGV336	✓	✓	✓	✓	✓		
CGV386	✓	✓	✓	✓	✓	✓	
CGV486	✓	✓	✓	✓	✓	✓	
AC400							✓

17. Troubleshooting



Warning: For your own safety, always turn off and unplug the machine before carrying out any troubleshooting.

Problem	Cause	Solution
Machine will not start, develop full power or stalls.	<ol style="list-style-type: none"> 1. Machine not plugged in. 2. Low voltage. 3. Loose connection. 4. Circuit overloaded with electrical appliances. 5. Circuit too long or undersized wires. 6. Circuit breaker does not have sufficient capacity. 7. Drive belt tension too high. 8. Extension cord is too long. 9. Worn motor. 10. Motor not cooling sufficiently. 	<ol style="list-style-type: none"> 1. Plug the machine in. 2. Check power supply to the machine. 3. Check all external connections. 4. Decrease the load on the circuit. 5. Reduce the length of the wire or use a suitable diameter of cable. 6. Have a qualified electrician install proper sized circuit breaker. 7. Reduce belt tension. 8. Reduce the length of the extension cord. 9. Replace motor. 10. Clean the motor to increase airflow or reduce operational periods.
Motor overheats.	<ol style="list-style-type: none"> 1. Motor overloaded. 2. Motor not cooling sufficiently. 	<ol style="list-style-type: none"> 1. Reduce load on the motor. 2. Clean the motor to increase airflow or reduce operational periods.
Spindle stalls or will not turn.	<ol style="list-style-type: none"> 1. Excessive depth of cut. 2. Loose or broken belt. 3. Worn spindle bearings. 4. Indexing lock is engaged. 	<ol style="list-style-type: none"> 1. Reduce cutting depth. 2. Adjust belt tension or replace drive belt. 3. Replace bearings. 4. Disengage the indexing lock and check the spindle pulley for damage and replace if necessary.
Tailstock moves when applying pressure	<ol style="list-style-type: none"> 1. Excessive pressure is being applied by the tailstock to the workpiece. 2. Tailstock is not secured in place. 3. Lathe bed and tailstock mating surfaces are dirty. 	<ol style="list-style-type: none"> 1. Apply only sufficient force with the tailstock to hold the timber securely between centres. 2. Tighten tailstock locking lever. 3. Remove and clean the tailstock and lathe bed.
Tailstock or tool rest holder will not lock in place securely.	<ol style="list-style-type: none"> 1. The clamp is set incorrectly. 	<ol style="list-style-type: none"> 1. Adjust the clamp as shown in the Maintenance chapter of the manual.
Turning tool digs into the timber or grabs it.	<ol style="list-style-type: none"> 1. The turning tool is blunt. 2. The tool rest is set to low. 3. The tool rest is too far from the timber. 4. The wrong turning tool is being used. 	<ol style="list-style-type: none"> 1. Sharpen the turning tool. 2. Set the tool rest to the correct height. 3. Move the tool rest closer to the timber. 4. Use the correct turning tool.
Digital speed readout does not work.	<ol style="list-style-type: none"> 1. Faulty speed readout. 	<ol style="list-style-type: none"> 1. Contact customer services in your country for advice.
Excessive motor noise.	<ol style="list-style-type: none"> 1. Faulty motor. 2. Pulley blind set screw is loose. 	<ol style="list-style-type: none"> 1. Replace motor. 2. Tighten blind set screw.

18. Electrical Connection and Wiring Diagram

Machines supplied for use in the UK are fitted with a 3 pin plug conforming to BS1363, fitted with a fuse conforming to BS1362 and appropriate to the current rating of the machine.

Machines supplied for use in other countries within the European Union are fitted with a 2 pin Schuko plug conforming to CEE 7/7.

Machines supplied for use in Australia and New Zealand are fitted with a 3 pin plug conforming to AS/NZS3112.

In all cases, if the original plug or connector has to be replaced for any reason, the wires within the mains power cable are colour coded as follows:

230 V (Single Phase)

Brown: Live (L)
 Blue: Neutral (N)
 Green and Yellow: Earth (E)

The wire coloured brown must always be connected to the terminal marked 'L' or coloured red.

The wire coloured blue must always be connected to the terminal marked 'N' or coloured black.

The wire coloured green and yellow must always be connected to the terminal marked 'E' or with the earth symbol:



or coloured green / green and yellow.

It is important that the machine is effectively earthed. Some machines will be clearly marked with the double insulated logo:



In this case there will not be an earth wire within the circuit.

In the case of the BS1363 plug for use in the UK, always ensure that it is

fitted with a fuse conforming to BS1362 appropriate to the rating of the machine. If replacing the original fuse, always fit a fuse of equivalent rating to the original. Never fit a fuse of a higher rating than the original. Never modify the fuse or fuse holder to accept fuses of a different type or size.

Where the current rating of the machine exceeds 13 A at 230 V, or if the machine is designated for use on a 400 V 3 phase supply a connector conforming to BS4343 (CEE17 / IEC60309) will be used.

230 V machines will be fitted with a blue 3 pin connector. The wiring for this type of this connector will be the same as shown above.

400 V, 3 phase machines will be fitted with a red 4 or 5 pin connector. The wiring for this type of connector is as shown below:

400 V (3 phase)

Brown: Live (L1)
 Black: Live (L2)
 Grey: Live (L3)
 Blue: Neutral (N)
 Green and Yellow: Earth (E)

The wire coloured brown must always be connected to the terminal marked 'L1'.

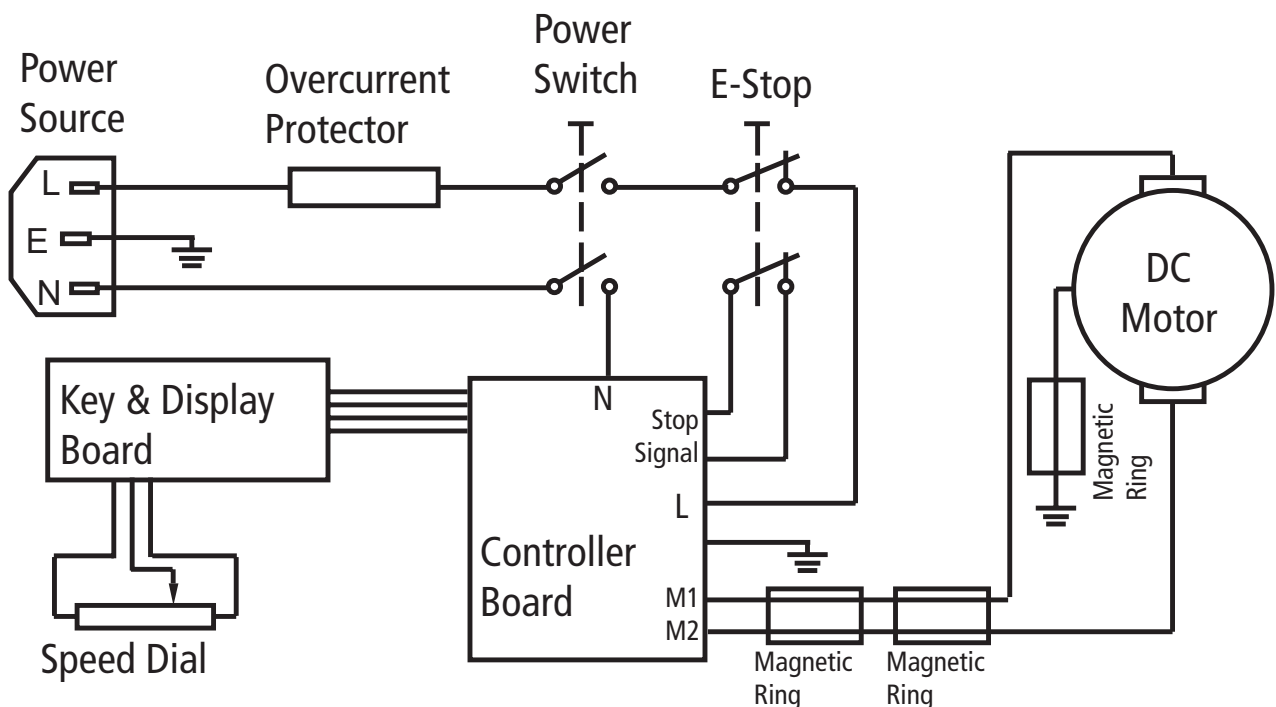
The wire coloured black must always be fitted to the terminal marked 'L2'.

The wire coloured grey must always be connected to the terminal marked 'L3'.

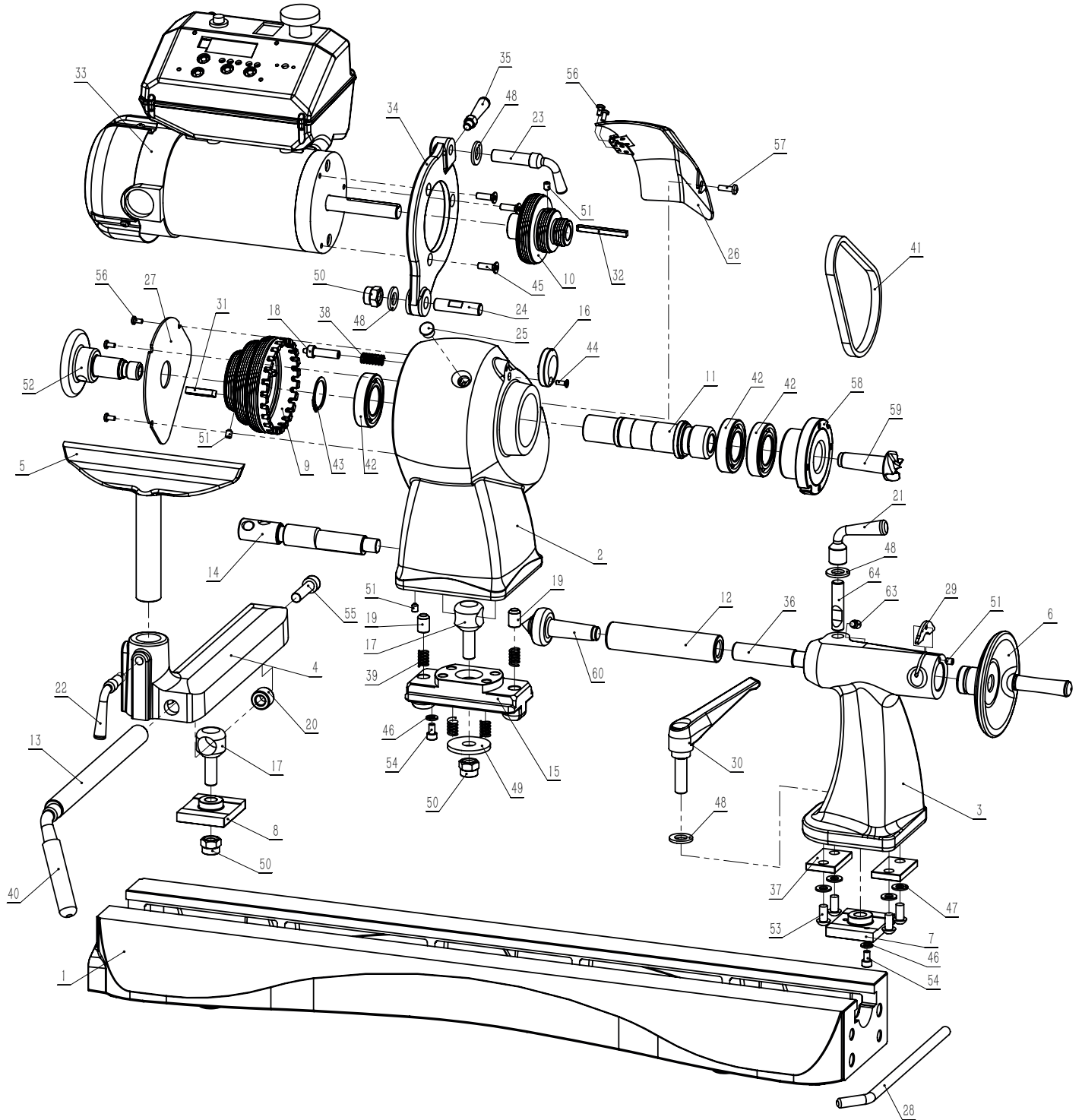
The wire coloured blue must always be connected to the terminal marked 'N' or coloured black.

The wire coloured green and yellow must always be connected to the terminal marked 'E' or with the earth symbol

If in doubt about the connection of the electrical supply, always consult a qualified electrician.



19. Parts Diagram and List



19. Parts Diagram and List

No.	Code	Description	Quantity	No.	Code	Description	Quantity
1	16106	Main bed	1	34	16122	Motor plate	1
2	16125	Headstock	1	35	16031	Handle	1
3	16018	Tailstock	1	36	16037	Threaded barrel shaft	1
4	16069	Tool rest holder	1	37	31629	Alignment plate	2
5	16120	Tool rest	1	38	31060	Spring	1
6	16045	Hand wheel	1	39	31059	Spring 1.5	4
7	16105	Lock plate 1	1	40	3328	Cam handle	1
8	16104	Lock plate 2	1	41	432J5	Poly V-belt 432J5	1
9	16025	Spindle pulley	1	42	DB6006	Deep groove ball bearings 6006	3
10	16130	Motor pulley	1	43	EC30	Circlips for shaft - 30	1
11	16136/16137/16141	Spindle 1" x 8 TPI / M33 x 3.5	1	44	CH0412	Hexagon socket countersunk head screws M4 x 12	1
12	16038	Tailstock quill	1	45	CH0620	Hexagon socket countersunk head screws M6 x 20	3
13	16020	Cam shaft	1	46	FW06	Plain washers-6	2
14	16148	Locking shaft	1	47	FW08	Plain washers-8	4
15	16103	Slide block	1	48	FW12	Plain washers-12	4
16	16062	Index knob	1	49	FWXL12	Plain washers-xl-12	1
17	16048	Cam lock bolt	2	50	NN12	Torque Nut M12	3
18	16129	Spindle index pin	1	51	GC0608	Hexagon socket set screws with cup point M8 x 8	4
19	16023	Headstock detent pin	2	52	16169	LHB-M18	1
20	16021	Bush	1	53	BH0816	Hexagon socket button head screws M8 x 16	4
21	16030	Tailstock quill locking lever	1	54	AH0610	Hexagon socket head cap screws M6 x 10	2
22	16027	Tool rest locking lever	1	55	AH1040	Hexagon socket head cap screws M10 x 40	1
23	16026	Tension lever	1	56	PC0408	Cross recessed pan head screws M4 x 8	5
24	16050	Motor plate pivot pin	1	57	PC0516	Cross recessed pan head screws M5 x 16	1
25	3327	Inspection window	1	58	16166/16165/16167	Faceplate 80 mm 1" x 8 TPI / M33 x 3.5	1
26	16118	Pulley cover	1	59	16161	2 Morse taper drive centre	1
27	16128	Access hatch cover	1	60	16164	2 Morse taper Live centre	1
28	16081	Operating bar	1	61	16207	EMC Filter (Not shown)	1
29	16039	Keeper plate	1	62	16171/16172/16173	Power Cord EU / UK / US (Not shown)	1
30	16036	Tailstock locking lever	1	63	GD0816	Dog point grub screw M8 x 16	1
31	16061	Key 6 mm	1	64	16022	Clip pin	1
32	16063	Key 5 mm	1				
33	16203/16205	DC motor and controller 1 hp 240 V / 120 V	1				

EU Declaration of Conformity

Cert No: EU / Coronet Herald / 2

Record Power Ltd, Centenary House, 11 Midland Way, Barlborough Links, Chesterfield, Derbyshire, S43 4XA, United Kingdom declares that the machinery described:-

1. Type: **Wood Lathe**

2. Model No: **Coronet Herald**

3. Serial No

Will conform with the following standards:

MACHINERY DIRECTIVE 2006/42EC

ADDITIONAL USED EC DIRECTIVES: EMC Directive 2014/30/EU

USED HARMONIZED STANDARDS: EN 61029-1: 2009+A11 :2010

EN ISO 12100: 2010

EN 55014-1:2006/A2:2011;

EN 55014-2:2015

EN 61000-3-2: 2014

EN 61000-3-3: 2013

and conforms to the machinery example for which the
EC Type-Examination Certificate Nos. TA 385213614, TA 385162595
At: TÜV AUSTRIA CERT GMBH, TÜV-Austria Platz 1, 2345 Brunn / Gebirge, Austria

and complies with the relevant essential health and safety requirements.

Signed..........Dated: **01/01/2021**

Andrew Greensted
Managing Director

Technical file held by Andrew Greensted, Record Power Ltd, Centenary House, 11 Midland Way, Barlborough Links, Chesterfield, Derbyshire, S43 4XA, United Kingdom



Over
100
years

Experience • Knowledge
Support • Expertise

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Woodworking Machinery and Accessories

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Tel: +44 (0) 1246 571 020 Fax: +44 (0) 1246 571 030 www.recordpower.co.uk

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