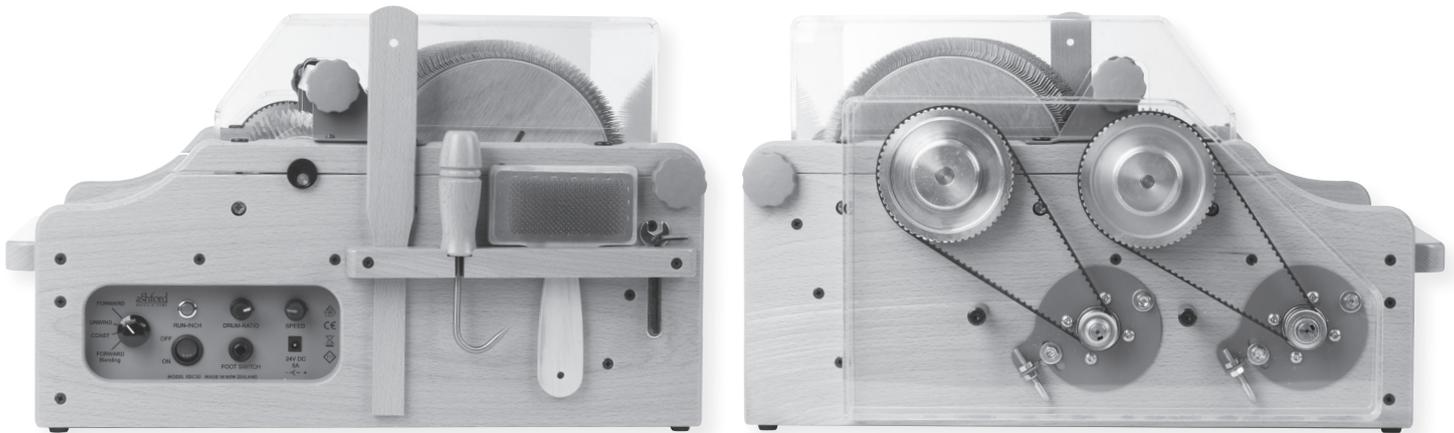


# ASHFORD e-CARDER 30CM WIDE (EDC30) DUAL MOTOR

## Safety and Operating Instructions

Before using the EDC30, read these instructions completely, identify the parts and understand the SAFETY OPERATING PROCEDURES.



### GENERAL WARNING AND SAFETY INSTRUCTIONS

The EDC30 can cause serious injuries. Always follow the safety operating procedures.

- Only use the supplied 24Vd.c. 5A power pack MODEL BX-24005000.
- If supply cord, power pack or foot switch are damaged they must be replaced by the manufacturer or authorised Ashford Dealer.
- Ensure children and pets are well clear of the EDC30 when using it.
- Never leave the EDC30 unattended without switching it OFF using the ON/OFF switch.
- Always unplug the power pack from the wall when not in use.
- Never use the EDC30 for normal carding without the safety cover in place.
- Immediately select the FORWARD mode after blending or removing the batt.
- Do not wear any loose clothing or accessories when operating the EDC30.
- Do not attempt to hold the drums by hand while operating the EDC30. This can cause serious injuries.
- Regularly clean and lubricate the EDC30 as detailed in this manual.
- Do not use the EDC30 in damp or wet conditions.
- The EDC30 can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of knowledge if they have been given supervision or instruction concerning use of the EDC30 in a safe way and understand the hazards involved. Children shall not play with the EDC30. Cleaning and user maintenance shall not be made by children without supervision
- Do not use the EDC30 if you are fatigued, ill or under the influence of alcohol or drugs.
- Always use the PUSH STICK provided to feed the fibre up to the small drum.
- Only operate when using thick gloves and the push stick.
- The EDC30 is designed for home use only and not for commercial use.
- Do not discard this manual.

EDC100723V4

## FEATURES

The EDC30 allows you to prepare batts up to 150gms (5.5oz) quickly and efficiently. It is ideal for spinners and felters. The packer brush helps transfer fibres from the small to large drum and pack the carded fibres into the teeth of the large drum. This allows more fibres to be carded and results in a thicker batt. The packer brush helps control fine low crimp fibres such as mohair, angora and alpaca.

The variable speed ratio gives flexibility and control when carding and blending. Use a lower/slower ratio to card fleece. The controlled intake and carding will produce a smooth even batt ready for blending, spinning or felting. Use a higher/faster ratio for re-carding a batt, blending sliver, colours and different fibre types consistently into an open and airy batt.

Always use the push stick included with the EDC30 so you can safely feed fibre up to the small drum. Use the doffer to split the batt at the aluminium strip and the cleaning brush to clean the drums between batts.

The adjustable drum clearance allows you to set the teeth distance for total control of your fibre. The drums have already been set to the correct spacing in our factory and should not require any further adjustment.

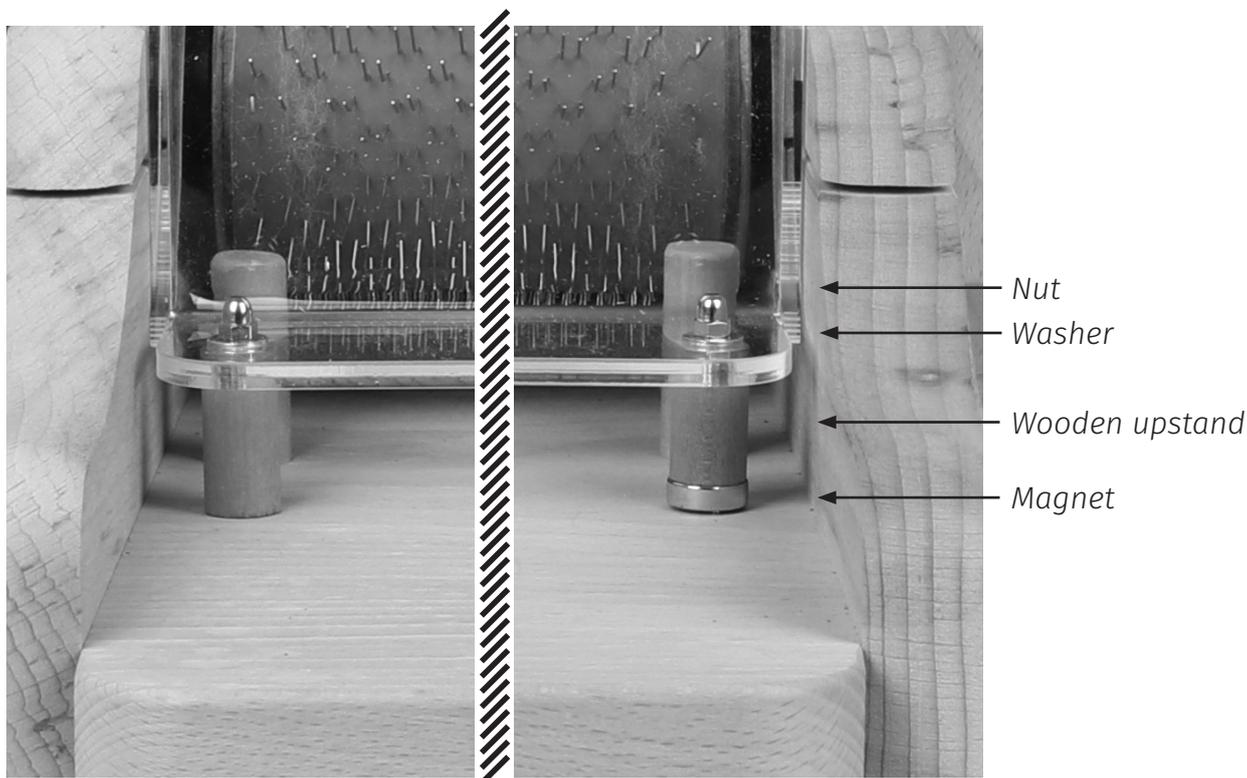
Both shafts run in low friction nylon bearings. The card cloth has wire teeth with a special protective coating and a flexible rubber backing for long life. The small drum has 36-point card cloth to allow the fibres to transfer easily to the large drum. The large drum has 72-point card cloth.

The carder is strong and robust with the body made from Beech hardwood and has rubber feet to prevent it slipping. It is supplied assembled and lacquered ready for use.

## ASSEMBLY

Tools required: Pozi drive screwdriver, candlewax, adjustable spanner

1. Drum Cover: To ensure the safe arrival of your EDC30 we have detached the back wooden rail and the front magnet/wooden upstands from the drum cover. To assemble drum cover:
  - a) Loosely attach back wooden rail with 3 x Pan Head  $\frac{5}{8}$ " screws.
  - b) Attach front magnet/wooden upstands as pictured below. Ensure the magnet upstand is on the same side as the controls. Tighten with adjustable spanner.
  - c) Position the drum cover onto the EDC30 with the threaded rods fully into the slots at the back.
  - d) Check the magnet and wooden upstand sit evenly on the wooden feed in tray and cover sits evenly between the sides. Then fold back and tighten the 3 x screws of the wooden back rail.
  - e) Thread the 2 x lock knobs onto the threaded rods.



2. Packer Brush: Thread the 2 x lock knobs onto the threaded rods on either end of the packer brush. Then locate it into the slots in the metal brackets with the brush lightly pressed into the teeth.
3. Tool Storage Holder: Attach the Tool Storage Holder to the right side with 2 x  $1\frac{3}{4}$ " screws into the pilot holes. Locate the push stick, doffer, cleaning brush, wrench and hex wrench into place.

## SET UP

Position the EDC30 on the corner of a strong stable bench or table so that:

- the CONTROL PANEL and FEED IN TRAY are easily accessible
- the DRUM COVER always rests on the table when open

To help minimise operating noise, sit the ADC30 on carpet square approx. 50 x 50cm (20 x 20")



## CONTROL PANEL

### ON/OFF

- Always turn the power OFF when the EDC30 is not in use.
- The red light on the switch will indicate the power is on and is ready to use.
- Even ON-OFF flash - indicates the carder is ready to operate in the FORWARD mode.
- Constant ON - the carder is operating normally.
- Fast ON-OFF flash - indicates the carder is ready to operate in the FORWARD Blending mode with the safety cover off.
- Short ON Long OFF flash - indicates the safety cover has been removed and the carder will not run in the FORWARD mode.

*NOTE:* The motors have a soft start to reduce the starting load.

### RUN-INCH

Push this button to turn the power ON or OFF when operating the EDC30.

### SPEED

This dial controls the speed of the large drum from 0 to approx. 120rpm. It automatically increases or decreases the speed of the small drum to maintain a constant drum ratio. Start slowly and turn the dial clockwise to gradually increase the speed so that you can keep up whilst feeding the carder. This is generally between 60 - 80% of the maximum speed.

### DRUM-RATIO

This controls the speed of the small drum from 0 to approx. 5rpm. Turn the dial clockwise to gradually increase the speed. Adjust the speed of the small drum for the optimal drum ratio. When carding fleece use a very low/slow ratio to maximise the carding action. For the second pass when re-carding or blending sliver, use a higher/faster ratio.

### FORWARD

This is the normal position when carding. The safety cover must be in place before the motors will operate.

### UNWIND

When you have filled the large drum evenly with fibre and are ready to remove the batt from the large drum, stop and select UNWIND. Always loosen the knobs and lift the packer brush away from the large drum. For your safety, the EDC30 operates at approx. 10% of the selected SPEED in this mode. Both drums rotate at the same peripheral speed to allow smooth removal of the batt. The RUN-INCH button or FOOT SWITCH must be

held in to operate the motors in this mode. If the RUN-INCH or FOOT SWITCH is not held in, you can turn the large drum by hand in either direction. The small drum will also turn at the same peripheral speed in the opposite direction. The small drum cannot be turned by hand; it is locked to the large drum electronically. Use this mode when cleaning the drums. IMMEDIATELY select the FORWARD mode once you have removed the batt.

### COAST

- The power is OFF to the motors. This mode allows both drums to be turned by hand.
- The RUN-INCH button or the FOOT SWITCH will not activate the motors.

### FORWARD BLENDING

**WARNING:** This mode allows you to operate the EDC30 without the safety cover in place. For your safety, the carder will only operate at 50% of its maximum speed and will not operate with the safety cover in place. Only use this mode when adding small amounts of specialty fibres to the main drum. The RUN-INCH button or FOOT SWITCH must be held in to operate the motors in this mode. IMMEDIATELY select the FORWARD mode once you have finished blending.

### FOOT SWITCH

For the convenience of using both hands to prepare and feed your fibre, use the FOOT SWITCH to START and STOP your EDC30. Insert the foot switch plug into the FOOT SWITCH socket.

### POWER PACK

Your EDC30 is supplied with a 24Vd.c. 5A POWER PACK with a 5.5mm x 2.5mm positive centre plug MODEL: BX-24005000. It accepts 100–240 volts. Only use the supplied power pack and wall plug. Turn the power OFF at the wall before plugging in or removing the cord from the EDC30

### DRUM COVER

This acrylic cover is designed to keep you safe. It is fitted with a magnet to activate the MAGNETIC SAFETY SWITCH embedded in the feed in tray. Always position the EDC30 on table/bench so the DRUM COVER rests on the table when open. Loosen the knobs when opening and closing the drum cover.

### BELT COVER

This acrylic cover is designed to keep you safe. Do not operate the EDC30 unless the belt cover is fitted.

### MOTORS

The motors are sealed for life brushless motors and are rated at 24v x 50w and 24v x 90w. They are fitted with a planetary gearbox to achieve the slow speed required for controlled carding.

### TOOL STORAGE

The handy tool holder mounted to the side of the carder allows convenient storage of the push stick, doffer, cleaning brush, hex wrench and spanner.

### SAFETY

The ON/OFF switch, RUN-INCH button, FOOT SWITCH and MAGNETIC SAFETY SWITCH on the acrylic cover can all be used to STOP the EDC30.

### IMPORTANT

Avoid tripping over or yanking on the foot switch or power pack cords as this can damage or break the plugs or sockets and void your warranty. Always remove both cords when transporting or storing your EDC30.

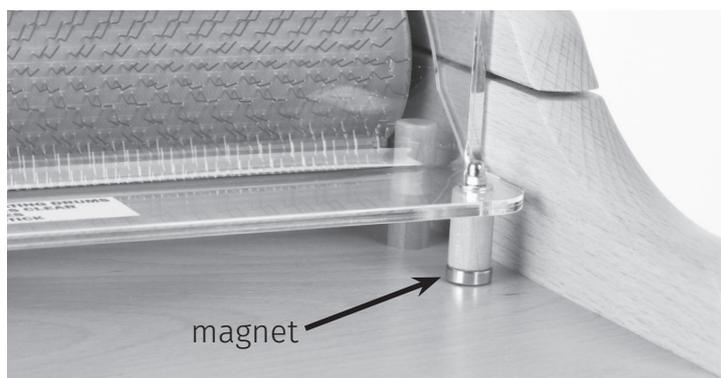


Foot switch



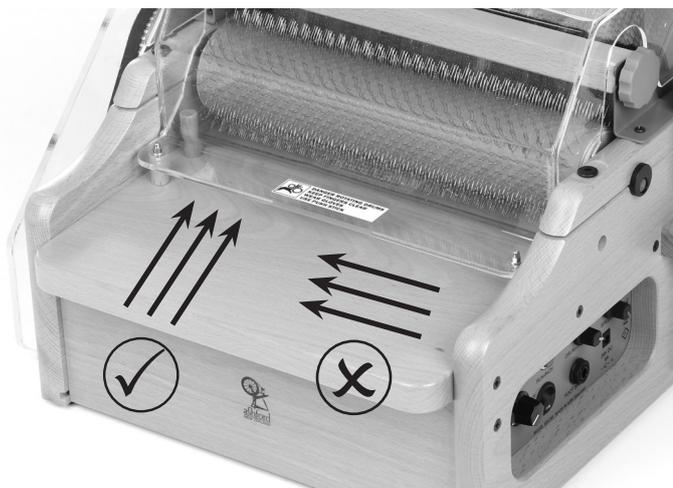
Wall plug

Power pack



## SAFETY OPERATING PROCEDURES

**IMPORTANT:** When feeding fibre into the small drum, use the PUSH STICK provided. Keep fingers well clear of the teeth. Wear thick gloves to protect your fingers. Do not wear any loose clothing or accessories when operating the EDC30.



## CARDING

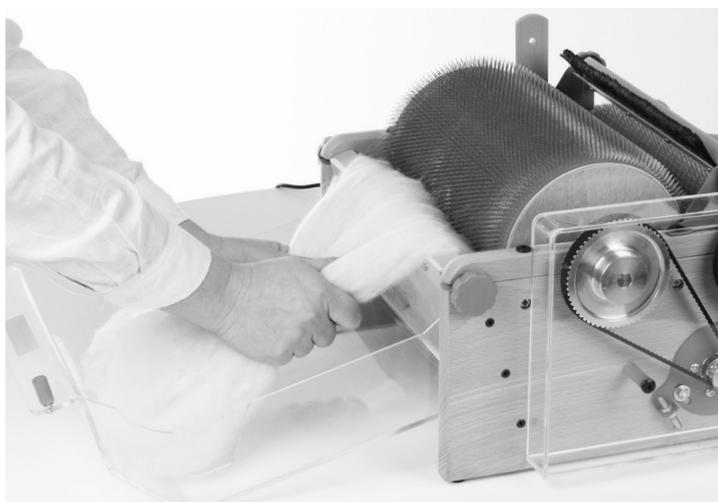
For best results use clean washed fleece or fibre. Lay the fibres in the direction of feed, not sideways. Select the FORWARD mode, turn both SPEED and DRUM RATIO knobs anti-clockwise to slow. Adjust the packer brush so it is lightly pressed into the large drum teeth and tighten the lock knobs. Ensure the DRUM COVER is sitting down on the infeed tray to activate the magnetic safety switch. Turn ON the power. Place a few of your teased staples cut end first onto the infeed tray. Use the PUSH STICK to push the fibre up to the small drum.

Start carding by pressing the RUN-INCH button or FOOT SWITCH. Turn both the SPEED and DRUM RATIO knobs slowly clockwise to start the motors and adjust the speed to suit the fibre you are carding. The slower the small drum turns the better the result. Feed fibre evenly on the tray lengthwise in the direction of the feed. Avoid feeding too much fibre into the small drum at a time. Do not hold the fibres back, otherwise they will collect on the small drum.

**IMPORTANT:** Always make sure the fibre is confined within the pegs on the infeed tray to ensure fibre does not get wrapped around the shafts.

Stop carding when the teeth on the large drum are full across the width of the drum or fibre starts collecting on the small drum.

The EDC30 is fitted with a safety overload cut out switch. If the EDC30 stops due to over-loading, turn the power OFF, lift the DRUM COVER and fold it back out of the way, tilt the packer brush up out of the large drum and select the UNWIND mode. Turn the power ON and use the RUN-INCH button or FOOT SWITCH to turn the drums to clear to the jam.

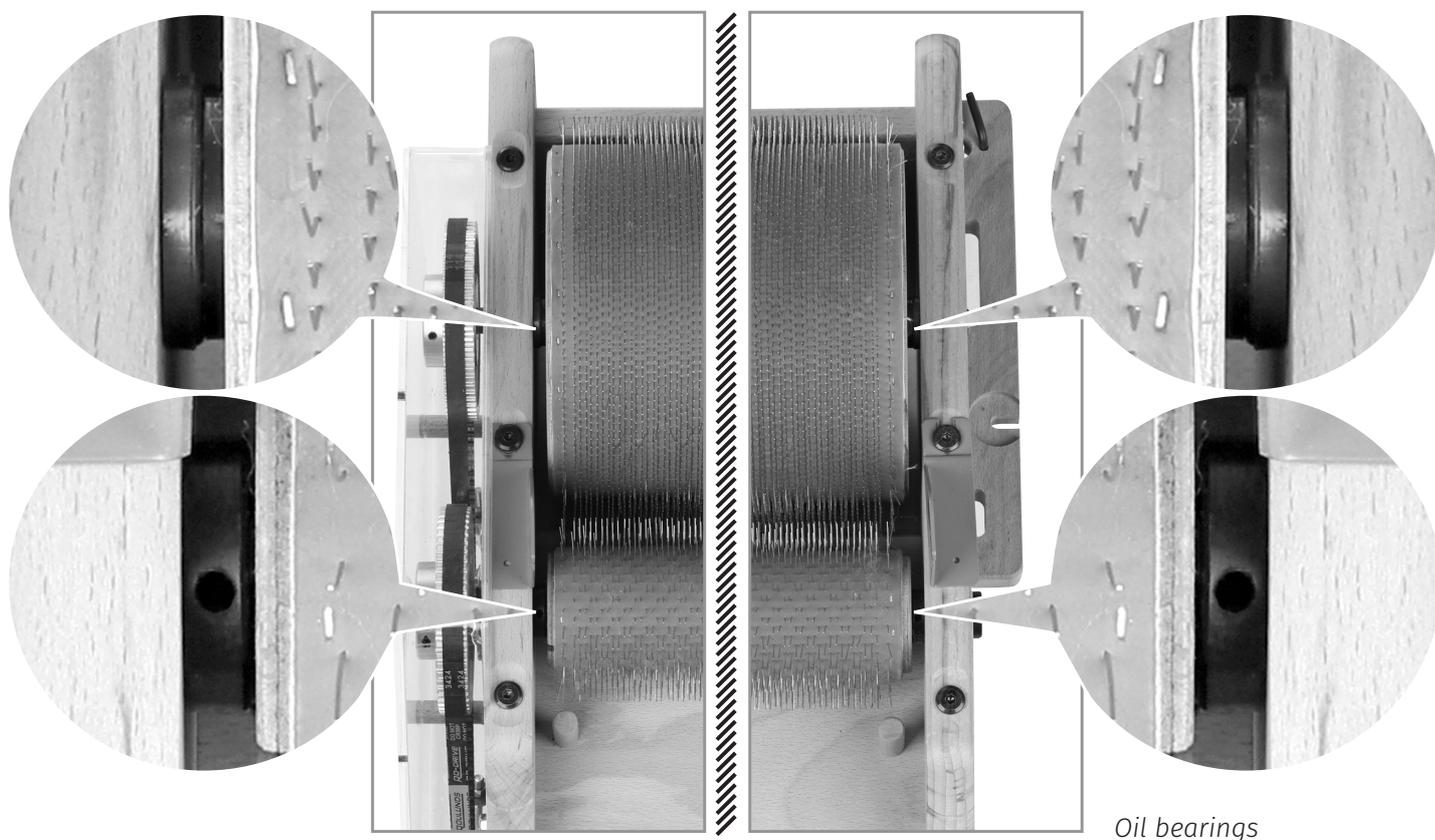


## How to remove a batt

Loosen the knobs on the DRUM COVER and fold it back out of the way. Loosen the lock knobs on the packer brush and tilt it up and away from the large drum. Select the UNWIND mode. Turn the power ON and use

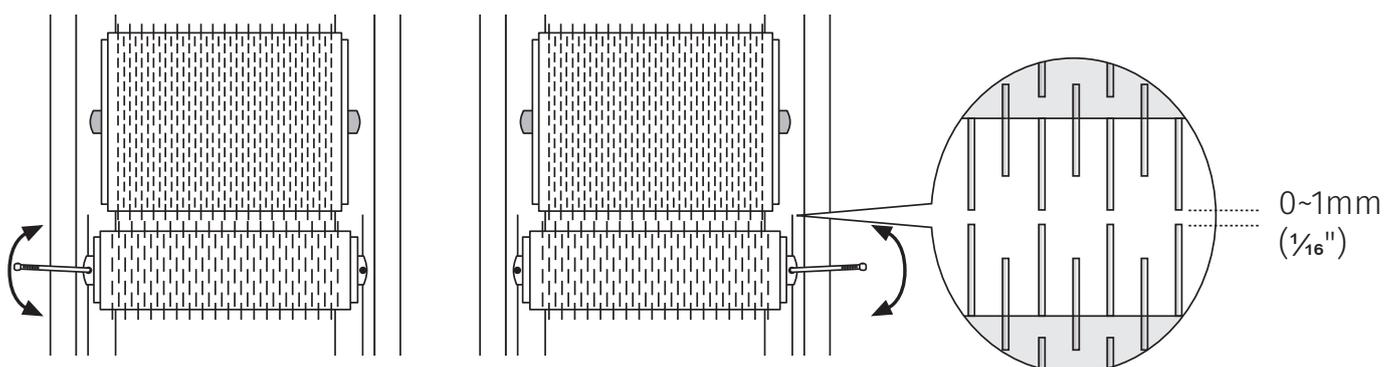
the RUN-INCH button or FOOTSWITCH to rotate the large drum until the aluminium doffer strip is to the top. Then use the doffer to lift and separate small sections of the batt from the drum. Once the batt has been separated, use 2 hands to lift the batt up off the teeth and down over the back of the rail. Use the FOOT SWITCH to turn the drum pulling the batt free of the teeth.

## LUBRICATION AND MAINTENANCE



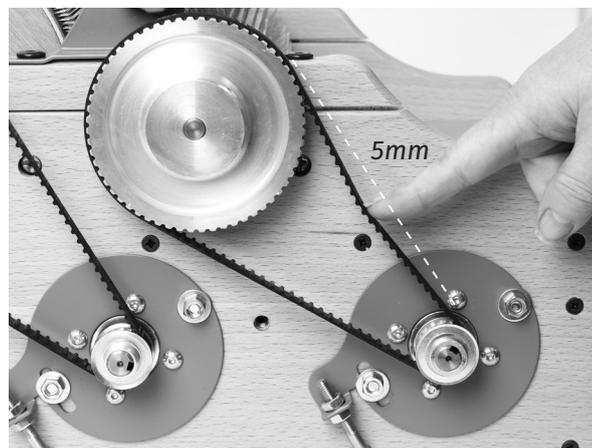
Apply a drop of Ashford Spinning Wheel Oil (supplied) every 1-2 hours of carding to the front and rear nylon bearings on both sides. To check that both drums revolve freely, disconnect the power supply, remove the drive belt cover, loosen the motor bracket and belt tensioner nuts and both drive belts.

If there is fibre wrapped around the shafts or the drums are hard to turn, remove the 3 bolts with the hex wrench that hold the tops of the sides in place and remove any fibre that has collected around the shafts. Lubricate the bearings, replace the tops and packer brush brackets and bolts. For best carding results set the gap between the teeth to between 0-1mm and check the gap is the same from side to side. Then tighten the bolts firmly. Fit the toothed drive belts and check the tension.

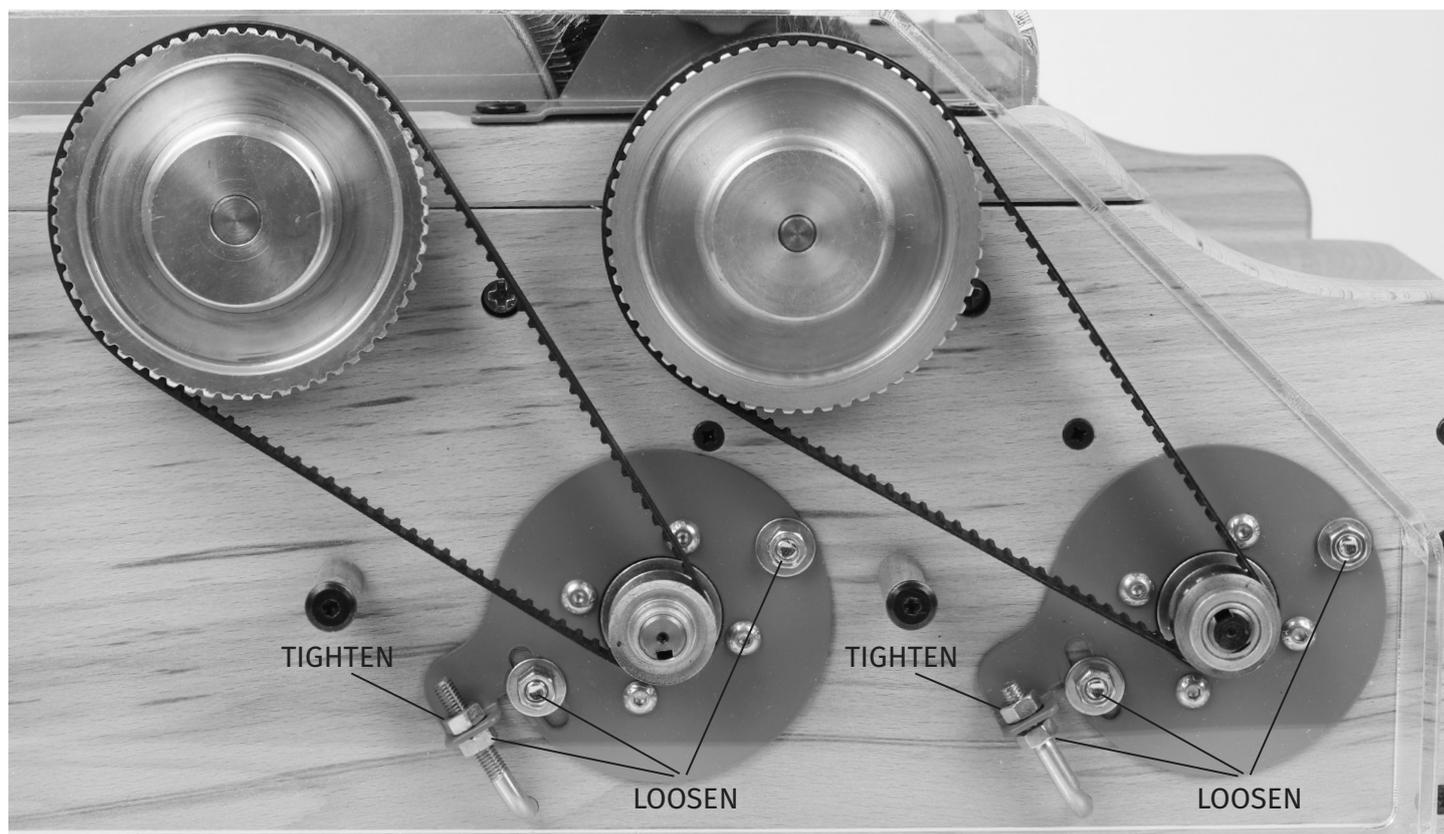


The toothed drive belts should have approx. 5mm ( $\frac{3}{16}$ " side play either side of centre. If they are too loose, they can jump teeth or if too tight will overload the motor and gearbox bearings. To check:

1. Remove the 2 x hex bolts securing the belt guard to the side with the hex wrench and remove the belt guard.
2. Slightly loosen the 2 nuts securing the motor bracket to the carder side with the spanner.
3. Loosen the nut on the underside of the belt tension threaded rod and wind it down approx. 2mm ( $\frac{1}{16}$ ").
4. Wind the top nut down until the motor bracket is tight against the bottom nut. This will tighten the belt.
5. Check the belt has approx. 5mm ( $\frac{3}{16}$ " side play either side off centre as illustrated. If the belt has more or less than 5mm ( $\frac{3}{16}$ " side play repeat this process until correct. Do not overtighten the belt as this will overload the motor and gearbox bearings.
6. Then firmly tighten the top nut and the 2 nuts securing the motor bracket to the side.
7. Run the carder for 1 minute and check the tension on both belts is still correct. If not repeat steps 2 - 7.
8. Attach the belt cover to the side with spacers and hex bolts.



Fibre often has a large quantity of vegetable matter which will fall out as it is carded. Brush or vacuum the carder and underneath regularly to remove this unwanted waste material.



## FINISH

Your EDC30 has been lacquered prior to assembly. If desired, Ashford Finishing Wax may be applied to further enhance its appearance. For additional ideas and inspiration refer to *The Ashford Book of Carding* by Jo Reeve, a 108 page full colour comprehensive guide for carding a variety of fibres, methods and projects.

### CE

Ashford Handicrafts Ltd declares that this product is in compliance with Directive IEC 60335-1 as well as other applicable directives and fulfils the requirements for the CE marking.

This product contains electrical and electronic components that should NOT be disposed of using standard refuse collection. Please separate these components and dispose at an appropriate recycling point in your country.

