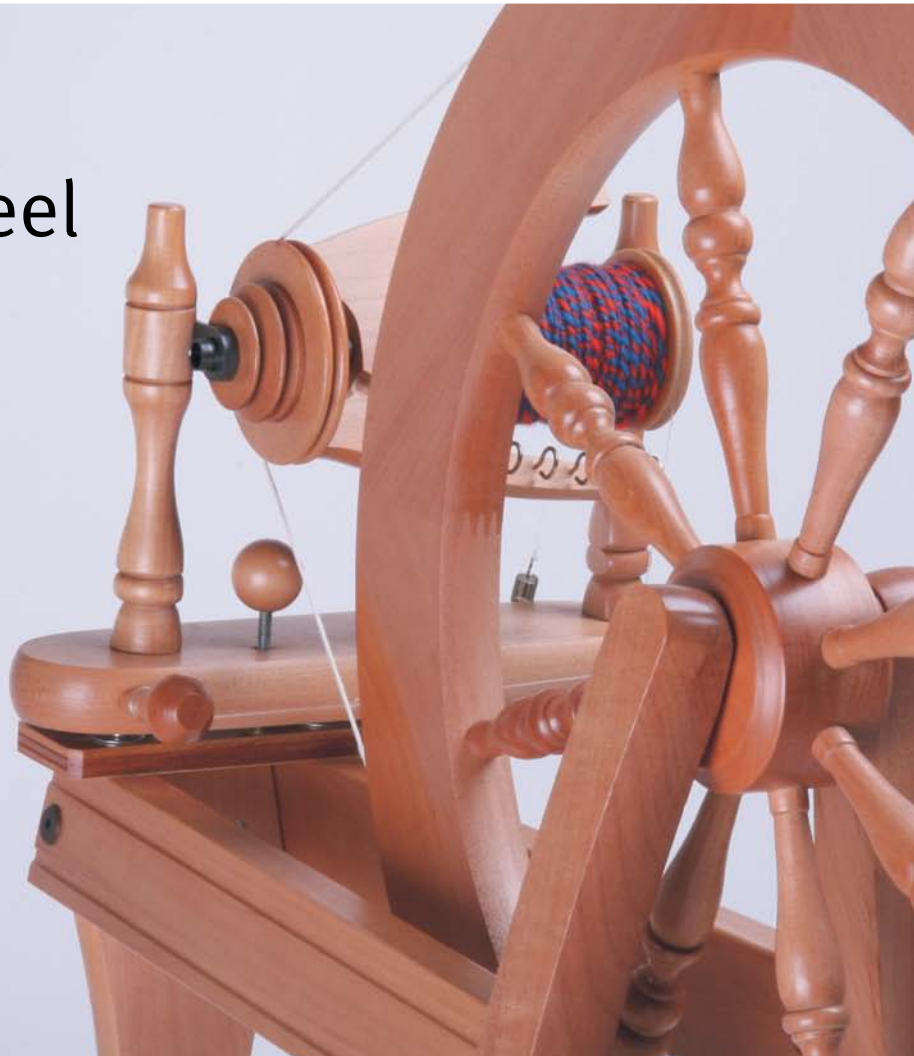
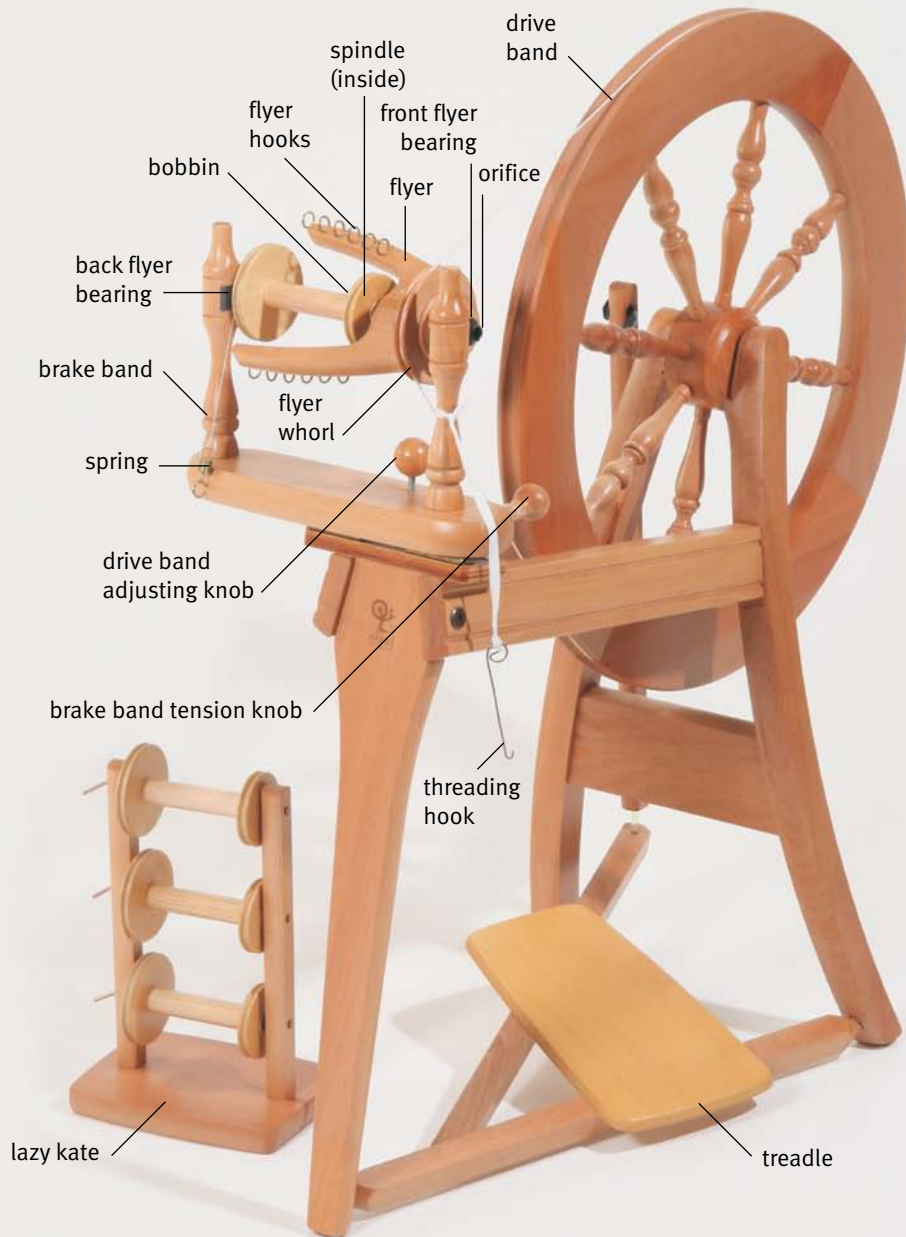


# Learn to spin on an Ashford wheel





## Welcome to the world of hand spinning ...

Ashford spinning wheels are designed to help you spin with ease. This booklet will help you get started. There are many different ways to spin. Soon you will be developing your own style and creating many different kinds of yarns. In this booklet we use Ashford wool sliver. Other fibres such as silk, linen, cotton and many animal fibres can also be spun on Ashford wheels. All Ashford spinning wheels have similar parts and function. In this booklet we use the Traditional spinning wheel.

### Parts

Become familiar with the names of the parts – treadle, bobbin, flyer and whorl, spindle, orifice, flyer hooks, threading hook, drive band, brake band, adjusting and tension knobs, back and front support bearings, lazy kate.

### Brake Band

Turn the brake band tension knob until the springs just begin to stretch.

Do not over tighten or the yarn may break and the wheel will be hard to treadle.

### Drive band

Single drive – place the drive band over the largest flyer whorl.

Double drive – place the drive band over the largest flyer whorl and the smaller bobbin whorl.

## READY TO BEGIN

### You will need:

Approx. 50grams wool sliver

A 1.5metre (5ft) length of medium weight yarn for a leader yarn and a 10metre (30ft) length for practising

A chair

A niddy noddy

## PRACTICE

Go through each step taking time to feel the rhythm of treadling and working with your hands.

## LUBRICATION

Regularly apply a drop of oil to all bearings to make treadling easier. Refer to the assembly instructions for details.

## SPINNING TOOLS

Recommended accessories



maintenance kit

handcarders – fine and medium for carding and blending



jumbo flyer units for spinning novelty yarns

niddy noddy and sampler niddy noddy for making hanks

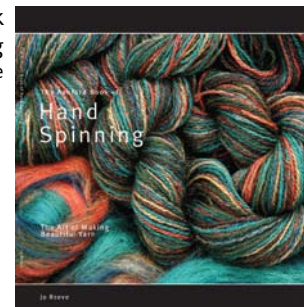


flick carder for preparing fleece



The Ashford Book of Hand Spinning  
– By Jo Reeve

spinning chair – straight back allows freedom of movement when spinning



01



**TREADLE:** Sit on a chair in front of the wheel and place your foot on the treadle. Turn the wheel in a **CLOCKWISE** direction with your hand, and start treading. Use a heel and toe action. Stop and practise starting again until you feel comfortable treading.

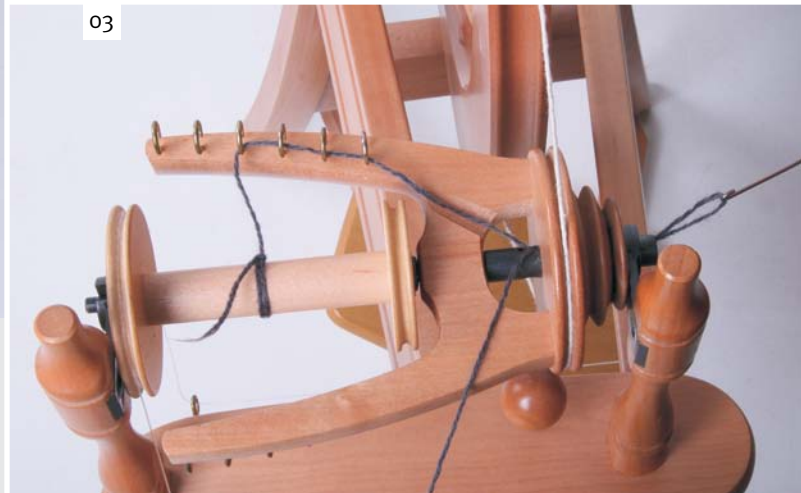
**Note:** If treading seems hard loosen the tension on the drive band with the adjusting knob. If the wheel slides on the floor, push down with your foot, not away. Place a rug under the chair and wheel.

02



**TIE THE LEADER:** Start with a leader yarn on the bobbin. Tie a 1.5metre (5ft) leader yarn firmly onto the bobbin.

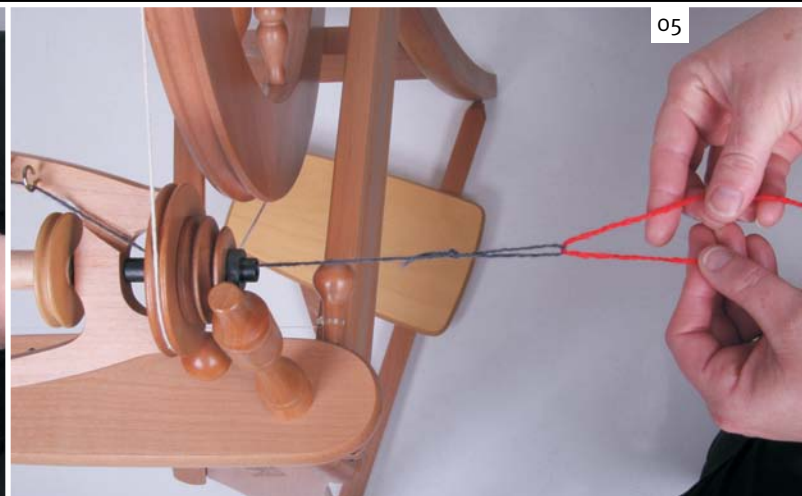
03



Take the leader yarn over the 4th hook and pull it through the orifice with the threading hook.



Hold the leader in your left hand and turn the wheel clockwise 3 times. This starts the yarn winding onto the bobbin. Stop when 50cm (20ins) of yarn is left in front of the orifice.



**SPINNING PRACTICE:** Make a loop at the end of the yarn. Take the 10metre (30ft) length of yarn, carry it through the loop and double it back about 10cm (4ins).

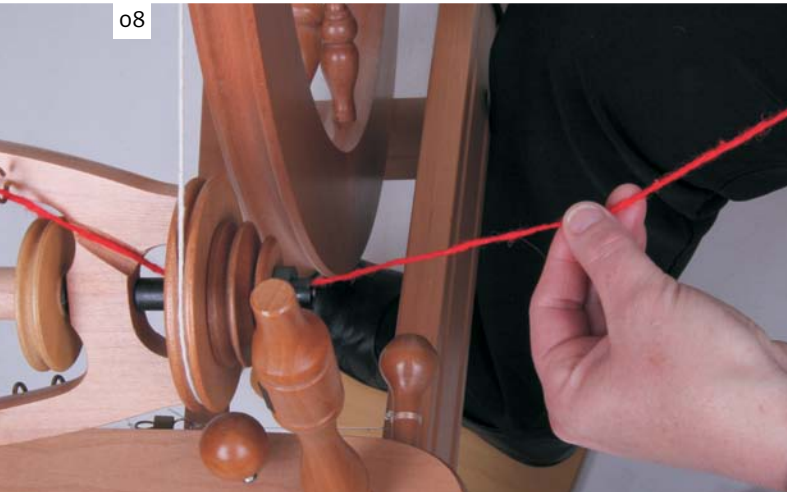


**HANDS AND FEET:** Hold the yarn at the loop with your left hand. Start treadling with the wheel turning clockwise. Feed the yarn into the flyer orifice with your left hand.



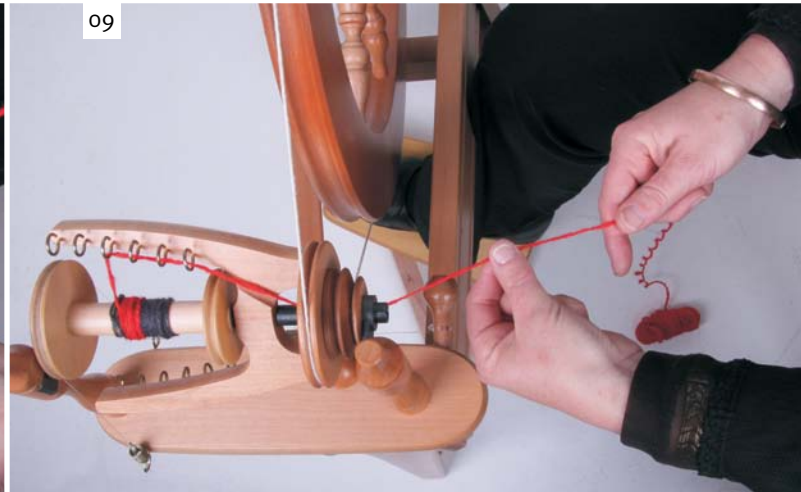
Allow the yarn to slide through your right hand.

08



**PRACTISE THE DRAFTING ACTION:** 1. Pinch the yarn between your fingers. 2. Relax the pinch slightly and slide your fingers towards you – the twist will follow. 3. Pinch again when the twist has carried down the length of the yarn. 4. Feed the yarn into the orifice and onto the bobbin.

09



Repeat this until you come to the end of the yarn.

10



Lift the brake band off the back of the bobbin (single drive) and pull the yarn back through the orifice. Replace the brake band and practise the drafting action again. Once you feel your hand and foot action is co-ordinated you are ready to start spinning with the sliver.

11



**SPINNING:** Take a length of wool sliver. Pull some fibres out of the sliver.



12

Take these fibres through the loop and double back. Start treadling slowly clockwise until there is a light twist in the fibres around the leader. Now you are ready to begin drafting and spinning a yarn.



13

Continue treadling clockwise. Pinch the yarn with your left hand. Pull the fibres from the sliver with your right hand. Relax the pinch slightly and slide your left hand towards you letting the twist follow your fingers. Pinch again. Feed the twisted length of yarn forward into the orifice and onto the bobbin. Repeat.



14

**Note:** The pinching fingers of your left hand prevent the twist entering the undrafted sliver. If this happens stop treadling and pull the spun yarn from the sliver and start again. Hold the sliver lightly in your right hand and allow the fibres to pull out easily. This makes it easy to spin a consistent yarn.



15

**JOINING THE YARN:** Treadle clockwise and hold the spun yarn in your left hand. Place more sliver alongside. Allow the fibres to catch and twist into the yarn. Pinch the fingers of your left hand in front of the join and start drafting the fibres again.



#### HINTS FOR THIS STAGE:

1. Do not sit too close to the wheel. Relax, lean back and leave room for your hands to work.
2. Uneven yarn is OK - your first handspun will be a beautiful "fancy yarn."
3. Take time and you will work out your own rhythm of spinning.
4. If you lose the yarn down the orifice, find the end and use the threading hook to pull the yarn back through the orifice.
5. If the yarn is not winding on to the bobbin –
  - a) Slightly tighten the brake band tension knob (single drive) or the drive band adjusting knob (double drive).
  - b) Check that the yarn has not caught on a flyer hook or in the orifice.
6. You can vary the amount of twist in your yarn by changing the speed of your treadling or hand movements.



**FILLING THE BOBBIN:** As the yarn builds up on the bobbin move the yarn to the next hook. Do this often working backwards and forwards over the hooks until the bobbin is full.





18

**CHANGING THE BOBBIN – Single Drive:** (See step 28 for changing of the double drive bobbin) Lift the brake band from the bobbin. Hold the back of the bobbin, lift the spindle out of the back flyer bearing and slide off the full bobbin.



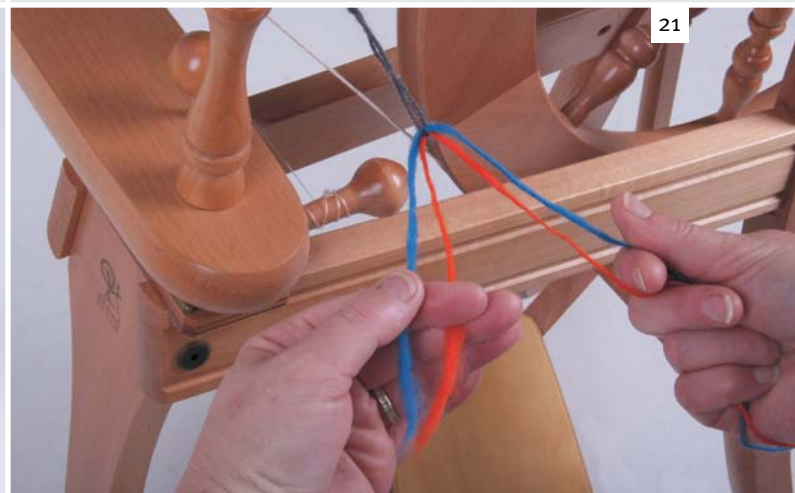
19

Slide an empty bobbin onto the spindle and click the spindle back into the bearing. Replace the brake band and check the tension.



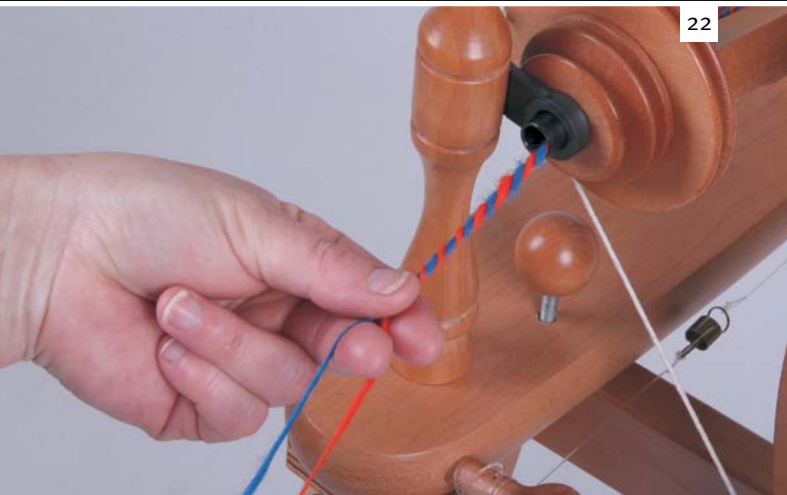
20

**PLYING:** We recommend you ply two single yarns together to make a strong, balanced 2 ply yarn. Place 2 full bobbins onto the lazy kate, both large ends on the same side. Place an empty bobbin on the flyer. Tie a leader yarn with a loop and pull it through the orifice as before.



21

Take 1 yarn from each bobbin on the lazy kate, put them through the loop and double back about 10cm (4ins).



22

Begin treading in an ANTI-CLOCKWISE direction. Use your fingers to separate the 2 singles before they twist together. Pinch the yarn with your left hand. Relax the pinch slightly and slide your fingers towards you. The twist will follow. Pinch again and feed the plied yarn into the orifice and onto the bobbin.



23

Repeat until you have a full bobbin.

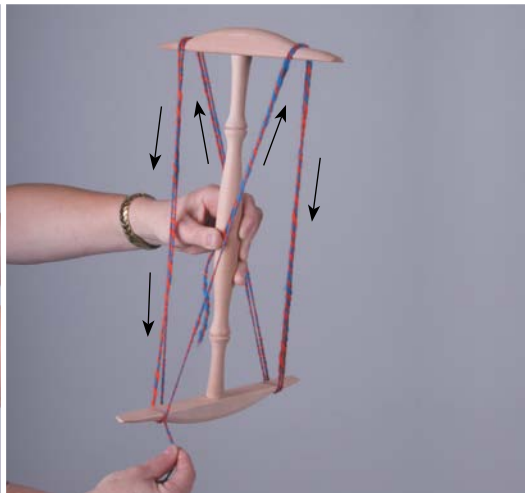


24

#### HINTS FOR THIS STAGE:

1. A fine yarn needs more twist than a thicker yarn to make it strong.
2. Move the yarn along the flyer hooks as you fill the bobbin.
3. If you come to an extra large "bump" in your yarn, stop and feed it through the orifice.
4. Slightly tighten the brake band (single drive), drive band (double drive) as the bobbin fills.
5. To make 3 ply yarn put 3 bobbins of single ply yarn on the lazy kate and ply together.

25



**MAKING A HANK:** When the bobbin of plied yarn is full you are ready to make a hank. Loosen the brake or drive band. Hold the yarn in the centre of the niddy niddy with your thumb. Wind the yarn over the upper cross piece and under the lower cross piece as shown. Repeat until all the yarn is on the niddy niddy.

26



Take 4 short lengths of scrap yarn and tie the yarn at the centre on 4 sides.

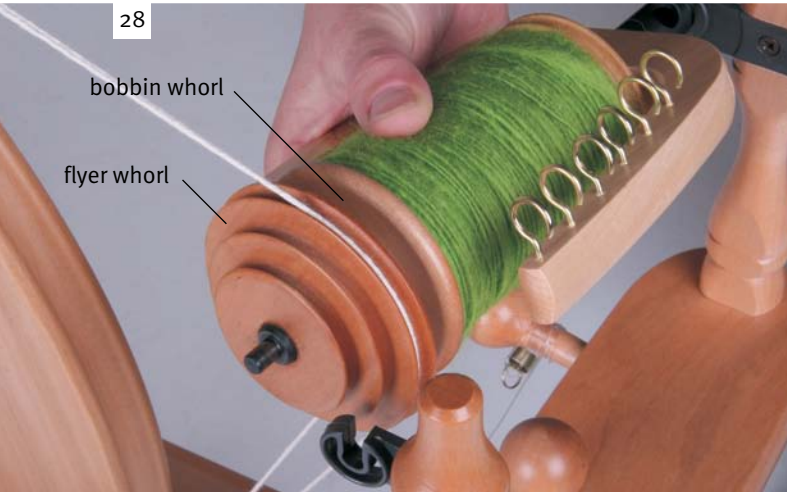
27



Remove the yarn from the niddy niddy. Now you have your first hank. Twist into a skein of your own unique handspun yarn!

28

bobbin whorl  
flyer whorl



## DOUBLE DRIVE SYSTEM

**CHANGING THE BOBBIN:** Lift the flyer whorl out of the back flyer bearing. Remove the drive band from the flyer and bobbin whorls.

29



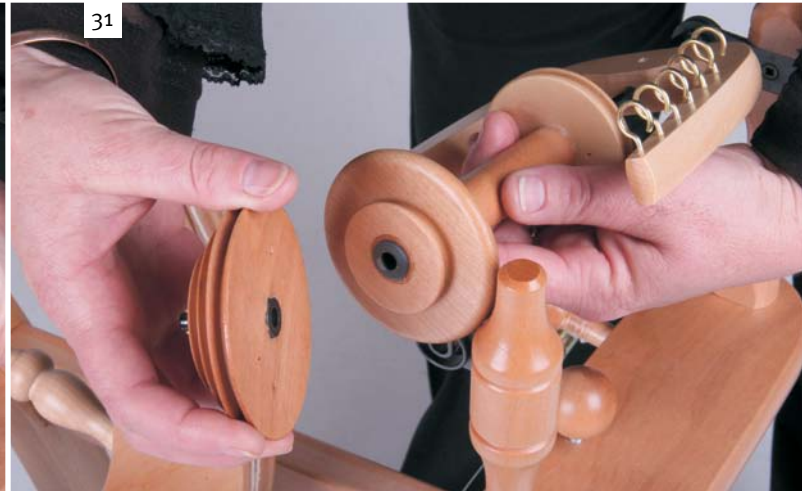
Hold the back of the bobbin and the flyer whorl.

30



Pull the flyer whorl off the spindle and remove the bobbin.

31

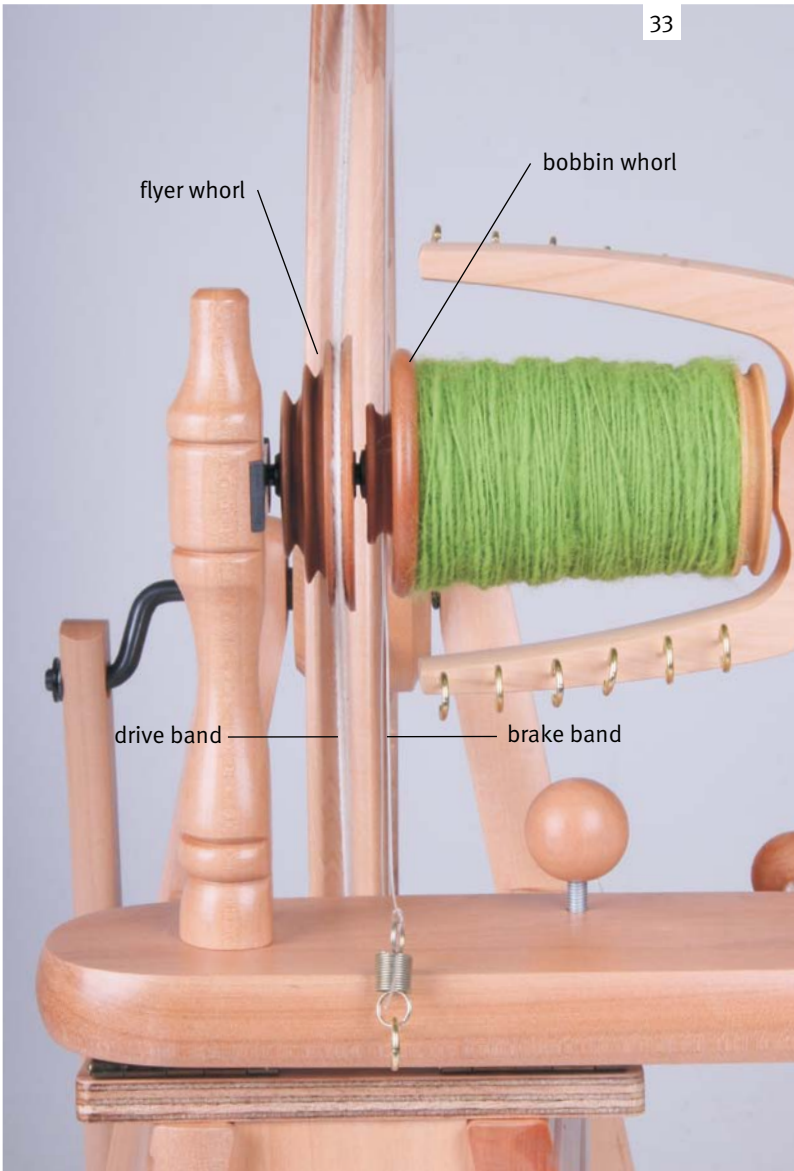


Slide the empty bobbin into place and push on the flyer whorl. Replace the drive band over the bobbin and flyer whorls. Click the spindle back into the bearing and check the drive band tension.

32



33



**CONVERTING YOUR DOUBLE DRIVE WHEEL TO SINGLE DRIVE:** The double drive spinning wheel has both single and double drive options. When spinning single drive loosen the drive band tension and place both drive bands over the large flyer whorl. Check the drive band tension. Place the brake band over the bobbin whorl and turn the brake band tension knob until the springs just begin to stretch.  
**Note:** The brake band is not required when spinning double drive.

*Happy spinning!*

## FREQUENTLY ASKED QUESTIONS

### 1) How do I make my wheel light and easy to treadle?

The wheel, flyer and bobbin must all rotate freely. Check by first removing the drive & brake bands. Apply Ashford spinning wheel oil, light oil or vaseline as illustrated.

#### A. Wheel.

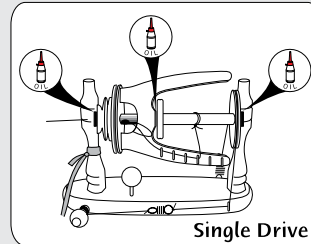
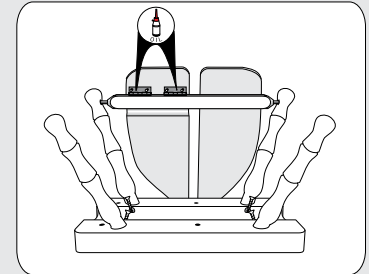
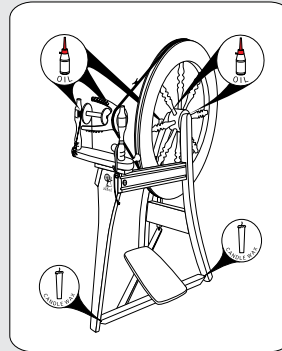
Spin the wheel. It should rotate freely for around 20 revolutions.

- › Wheel bearings. Prise the wheel supports apart and apply a drop of oil onto the crank between the hub and bearings.
- › Con rod bearing. Oil & check to ensure it isn't pinching.
- › Treadle pins. Use either candle wax or oil to reduce noise and friction.
- › Hinge pins on double treadle wheels. Oil as necessary.
- › Check there is approx. 1 – 2mm (1/16in) side play between the hub & bearings. If the wheel is being pinched between the wheel supports loosen the bolts holding the frame or wheel supports until it is free, spin the wheel & then gradually retighten the bolts.
- › Check that the gap between the bottom of the con rod (pitman) and the treadle rail is approx 12mm (1/2in). If greater than this it can cause ankle strain & if closer the two can bind thus stretching the joint.

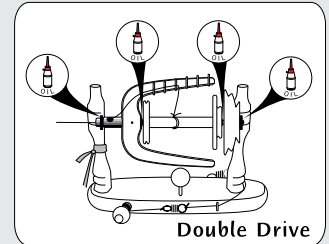
#### B. Flyer.

Spin the flyer. It should rotate freely.

- › Oil the flyer bearings.
- › Ensure the flyer bearings are at right angles to the flyer shaft. If not loosen the screws holding the maid upright, align and tighten.
- › Check there is approx. 2 – 3mm (1/8in) end float between the flyer, bobbin & flyer bearings.
- › Check the drive band is aligned with the wheel. If necessary, loosen the screws holding the maiden bar, align & tighten.



Single Drive



Double Drive

#### C. Bobbin.

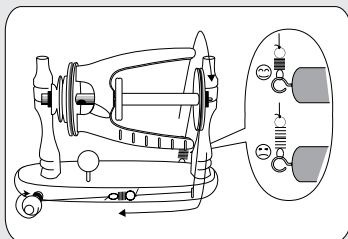
- › Oil the bobbin bearings.
- › If the bobbin doesn't run freely the bearings may be a little tight on the flyer shaft. If so ream them with a 1/4in round fine chain saw file or fine sandpaper wrapped around a pencil.
- › If your wheel has been factory finished, clean any lacquer off the spindle.
- › On double drive wheels the flyer whorls have "V" grooves. The bobbin whorl is "U" shaped. This difference enables the wheel to drive the flyer at a constant speed and allows the bobbin to accelerate or slow down when drafting. Check the bobbin whorl is smooth and "U" shaped.

## 2. What do I do if the yarn won't draw in?

- › Ensure the bobbin rotates freely on the flyer shaft.
- › Check the flyer hooks are smooth & are not catching the yarn.
- › Check the orifice is clean.

### A. Single drive

- › Check the brake band is over the bobbin whorl & the springs are just starting to extend.



### B. Double drive

- › Check the drive band is around the small whorl on the bobbin & the largest flyer whorl.
- › Check there is sufficient tension on the drive band.

## 3. What do I do to prevent the yarn being pulled out of my hands?

### A. Single drive

- › Reduce the brake band tension until the springs are just starting to extend.
- › Check the bobbin whorl is smooth. If necessary smooth with sandpaper.
- › Apply a drop of oil to the bobbin whorl.

### B. Double Drive

- › Reduce the drive belt tension.

## 4. How much tension should I have on the drive band?

- › Only have sufficient tension to drive the flyer & bobbin without slipping. Too much tension makes treadling harder.
- › Generally the drive belt should be able to be easily depressed about 25mm (1in). Turn the belt tension knob until you have the correct tension.
- › If the drive belt has stretched, shorten and retie it.

## 5. Why use two tension springs on the brake band?

Two springs fitted either side of the bobbin whorl will make plying easier as it allows the brake band to flex rather than pull against the tension knob. Spare springs are available from your Ashford dealer.

## 6. How do I avoid my yarn getting over-twisted?

- › Put the drive band onto a larger flyer whorl.
- › Treadle slower. Around 60 RPM is a nice easy treadle speed.
- › Draft your yarn faster. This may require you to better prepare your fibre prior to spinning.

## 7. How do I avoid my yarn breaking?

- › Make your yarn stronger by treadling a little faster.
- › Draft more fibres to make the yarn a little thicker.
- › Pinch and slide your fingers along the spun yarn so you are always in contact with the yarn. This also prevents the 'twist' entering the undrafted fibres.

## 8. How do I prevent my spinning wheel walking away from me?

- › Check the wheel is free running. (See question 1)
- › Treadle with a down-wards action rather than away from you.
- › Spin with your wheel and chair on carpet or a rug.

## 9. What is the best finish for my spinning wheel?

Our spinning wheels are made from Southland Silver Beech, a beautiful native timber of New Zealand sourced from sustainably managed forests. If your wheel is natural timber it should be protected as soon as possible to avoid staining & provide protection from any climatic changes. We recommend Ashford Teak Wax, however any reputable wood oil or wax finish would be suitable. Factory lacquered wheels may be further enhanced with our Teak Wax finish.

For more information to help with your spinning, we recommend The Ashford Book of Spinning, The Ashford Book of Carding and The Ashford Book of Dyeing.

**ashford**  
WHEELS & LOOMS

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We recommend Ashford Corriedale, Merino and Alpaca blend slivers for your fibre projects.



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