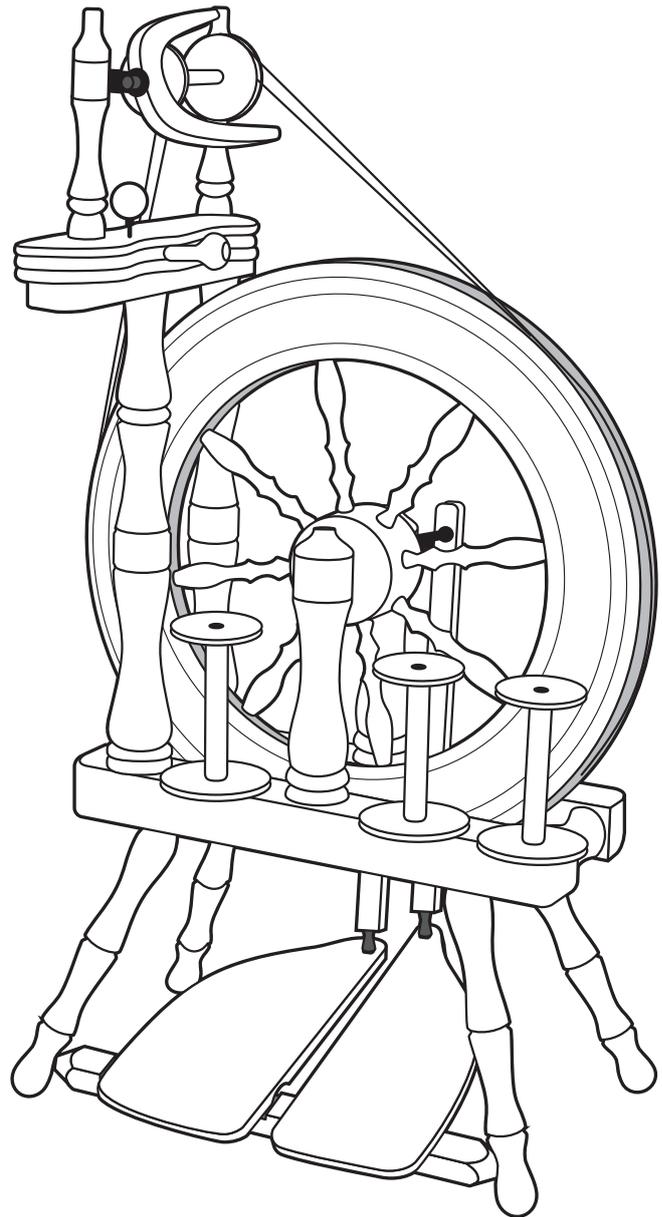
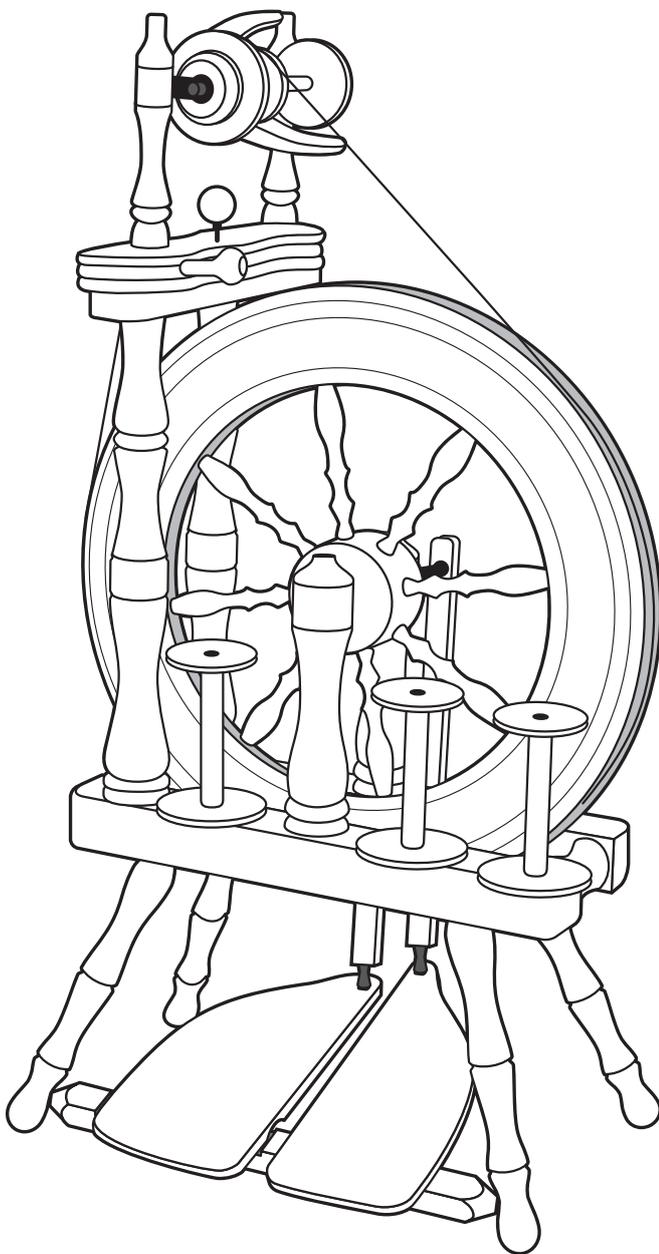


## TRAVELLER SPINNING WHEEL

### DOUBLE DRIVE

### SINGLE DRIVE



TVDTS-TVDTD300322V4

# ASSEMBLY INSTRUCTIONS FOR THE ASHFORD TRAVELLER SPINNING WHEEL - Single and Double Drive -

Before commencing, please read these instructions completely, identify the parts and note the assembly sequence.

Remove any sharp corners or edges and smooth the surface of the wood with the sand paper provided. We recommend that the wood surfaces be waxed or sealed before assembly. This protects the kiln dried wood from the climatic changes and prevents it getting dirty or stained. The Silver Beech tree is a native of New Zealand and has a lovely variety of

colour and grain. For a silky smooth matt finish, use the Ashford Finishing Wax Polish to enhance the natural colours and character of this timber.

If you are assembling your spinning wheel on a table, we recommend you protect the surface with a towel, blanket or cardboard. Ashford spinning wheels are also available factory finished in clear lacquer.

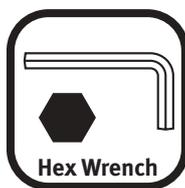
## Tools Required



Screwdriver



Hammer



Hex Wrench



Scissors

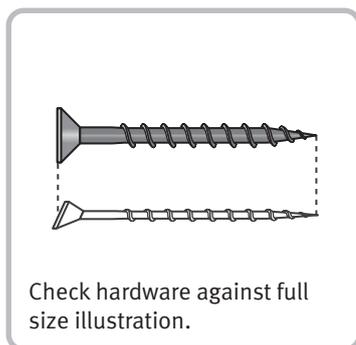


CANDLE WAX

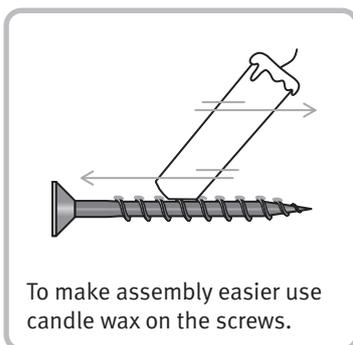


OIL

## Hints



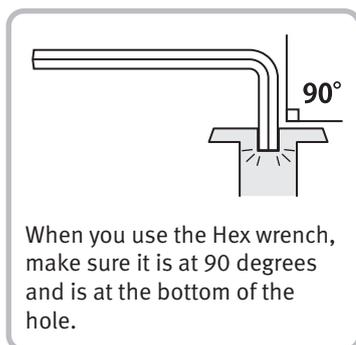
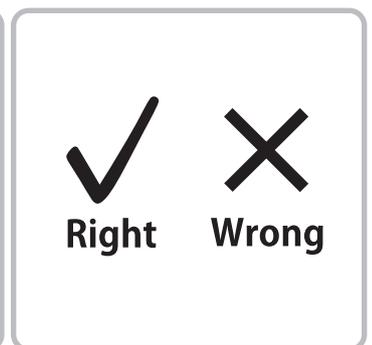
Check hardware against full size illustration.



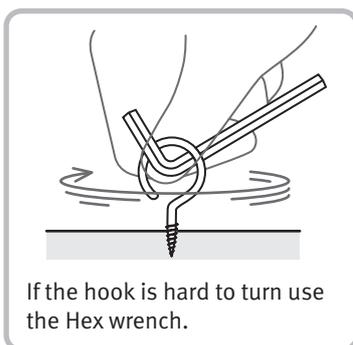
To make assembly easier use candle wax on the screws.



Check the directions carefully.



When you use the Hex wrench, make sure it is at 90 degrees and is at the bottom of the hole.



If the hook is hard to turn use the Hex wrench.

## More Information



### How-to videos on You Tube

Watch our how-to videos on You Tube.  
[www.youtube.com/user/AshfordHandicrafts](http://www.youtube.com/user/AshfordHandicrafts)



### Facebook

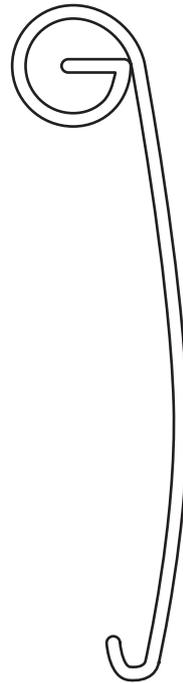
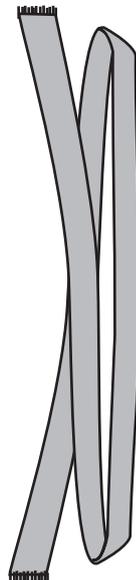
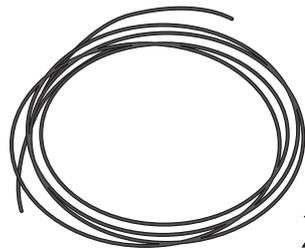
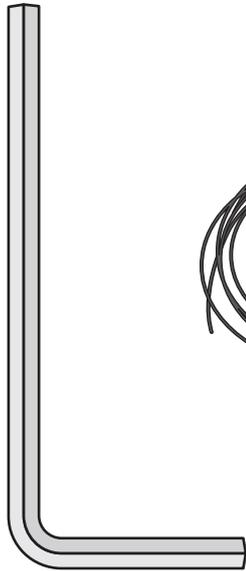
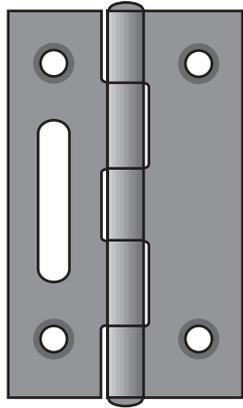
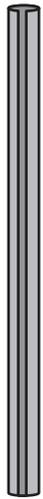
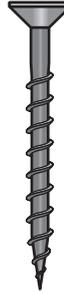
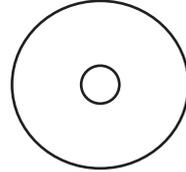
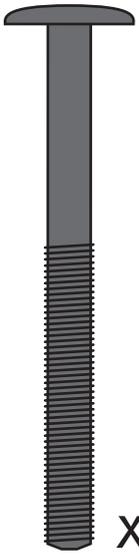
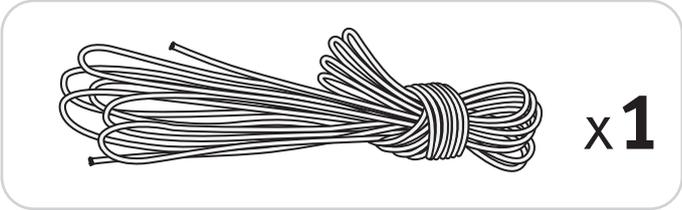
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### The Wheel Magazine

Ashford's annual fibrecraft magazine. Spinning, weaving, felting, dyeing and knitting projects, patterns and articles from around the world. To receive the glossy version delivered to you, subscribe at: [www.ashford.co.nz/subscribe](http://www.ashford.co.nz/subscribe)

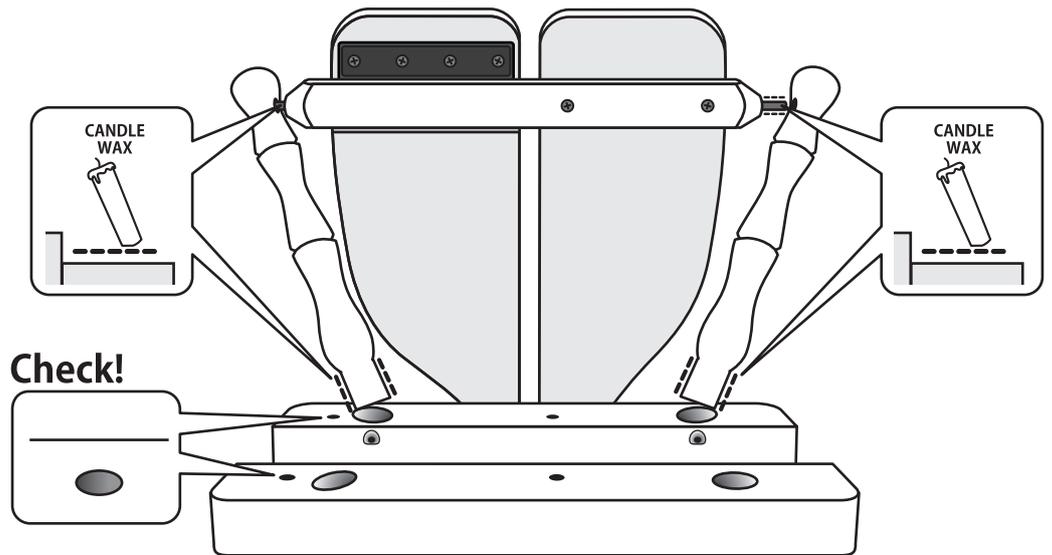
# Real Scale Hardware List



**1** 

Check the holes in the base for the maiden bar supports are on the left hand side.

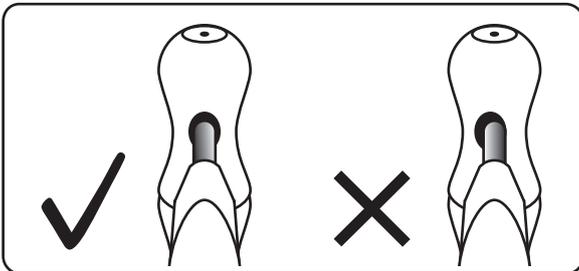
Wax the steel rods in the treadle rail.



**2** 

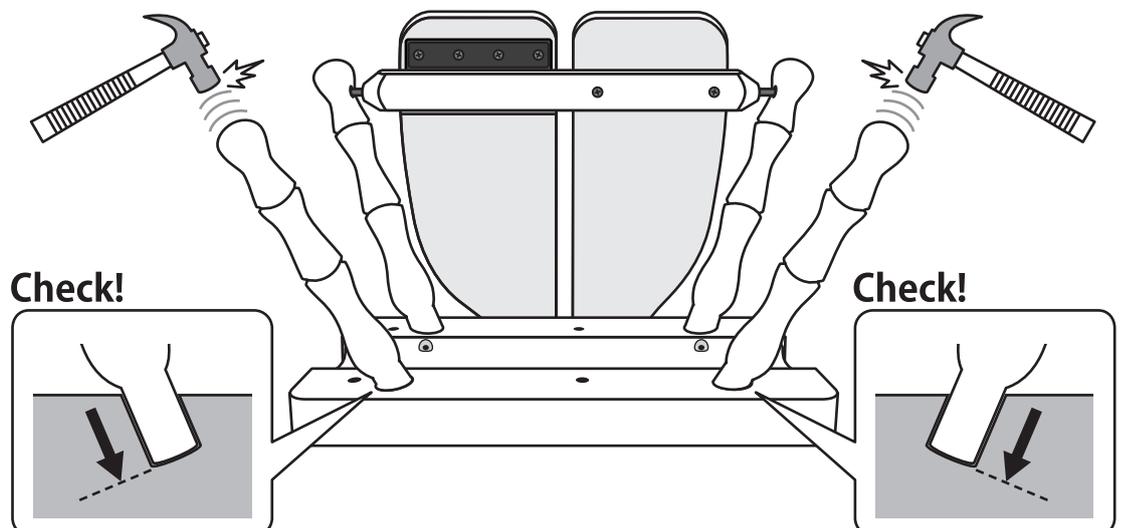
Locate the treadle rail into the holes in 2 legs. Check the treadle rail rotates freely. Then tap these legs to the bottom of the holes.

**Check!**



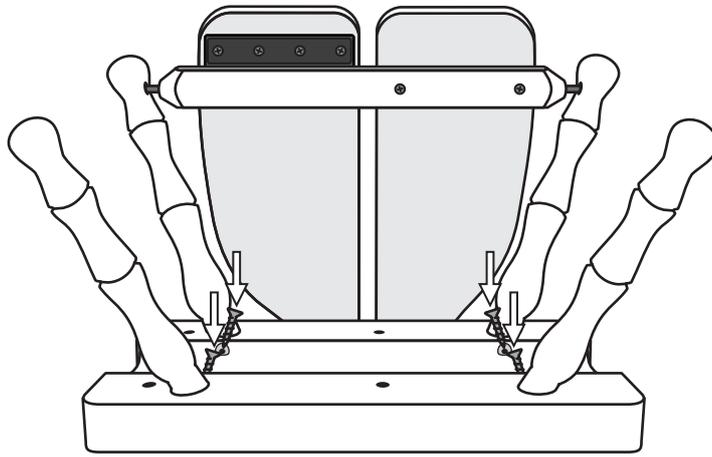
**3**  

Tap the other legs to the bottom of the holes.



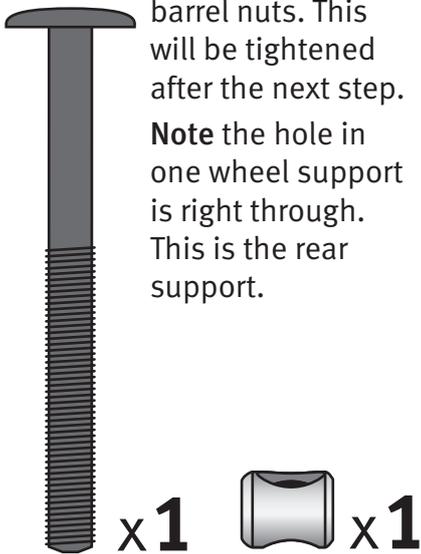


Secure the 4 legs with screws.

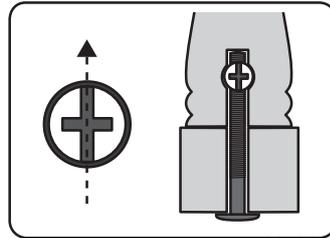


Turn the base and legs over. Secure the rear wheel supports with bolts and barrel nuts. This will be tightened after the next step.

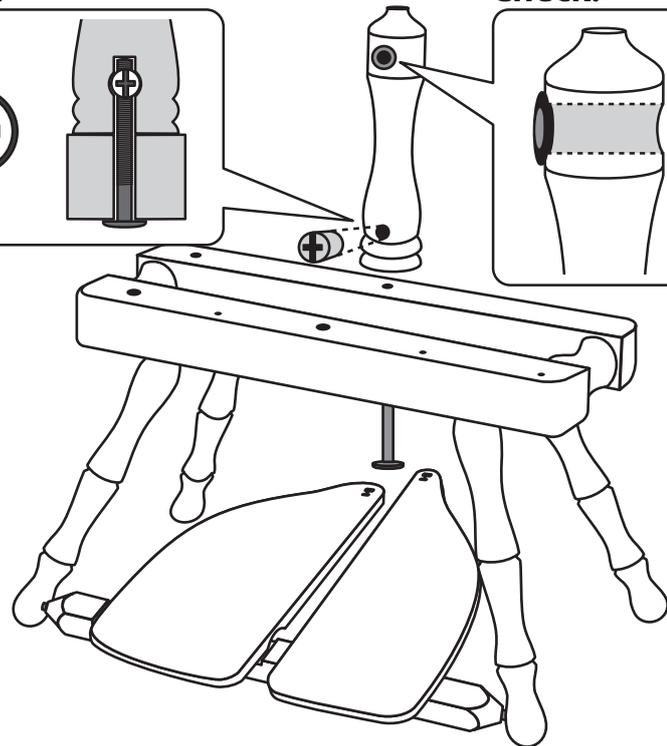
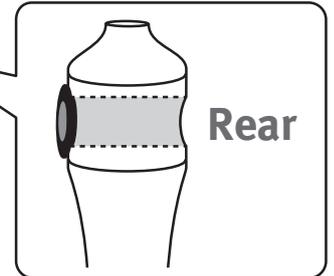
**Note** the hole in one wheel support is right through. This is the rear support.



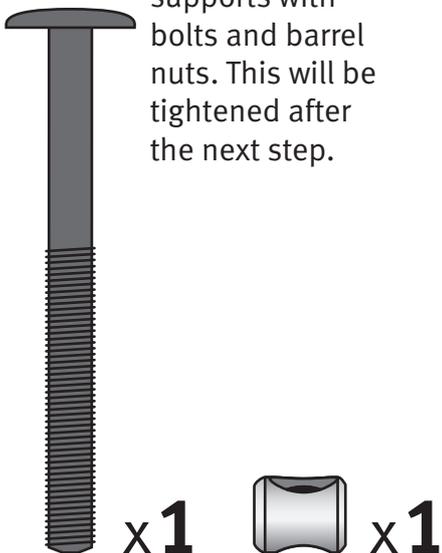
Check!



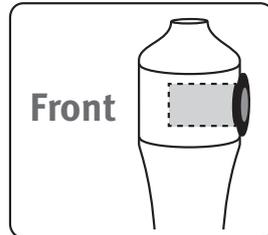
Check!



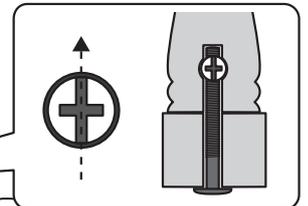
Secure the front wheel supports with bolts and barrel nuts. This will be tightened after the next step.



Check!



Check!

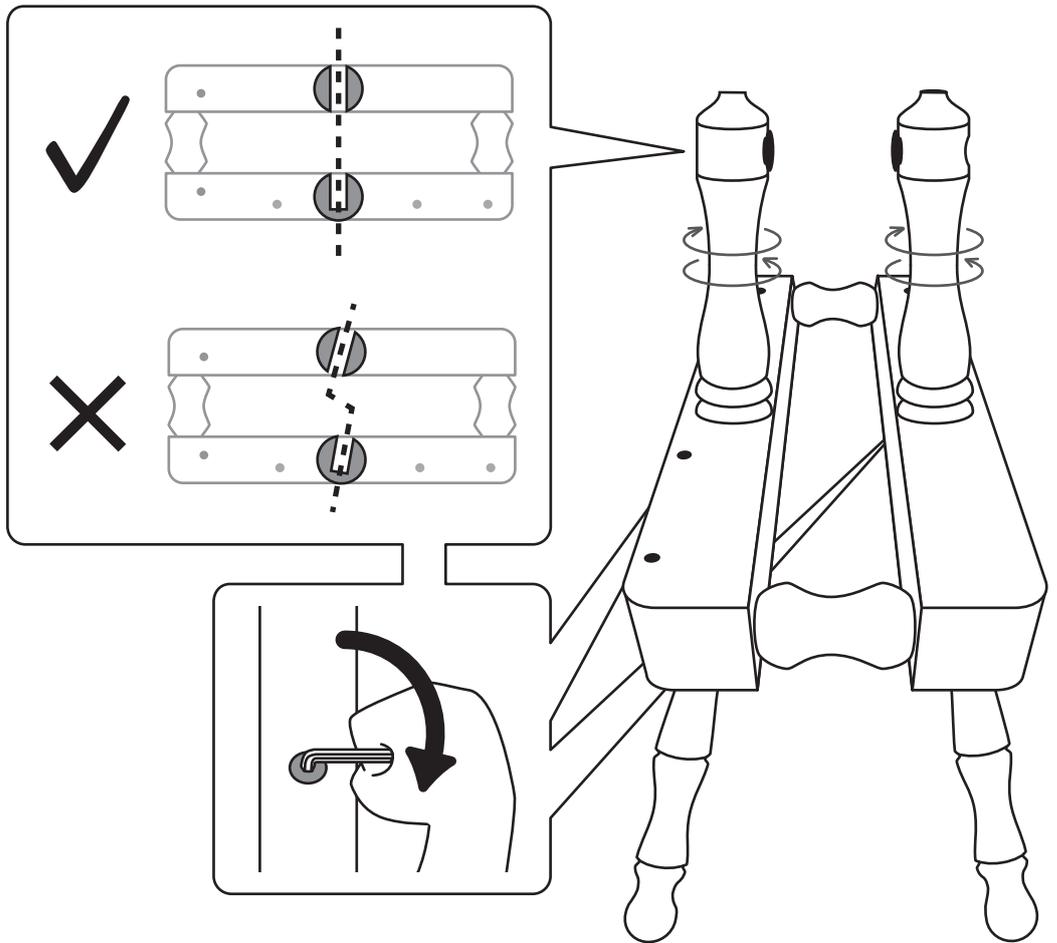


7



Check the alignment of the holes for the crank. Tighten the bolts from underneath.

Check!

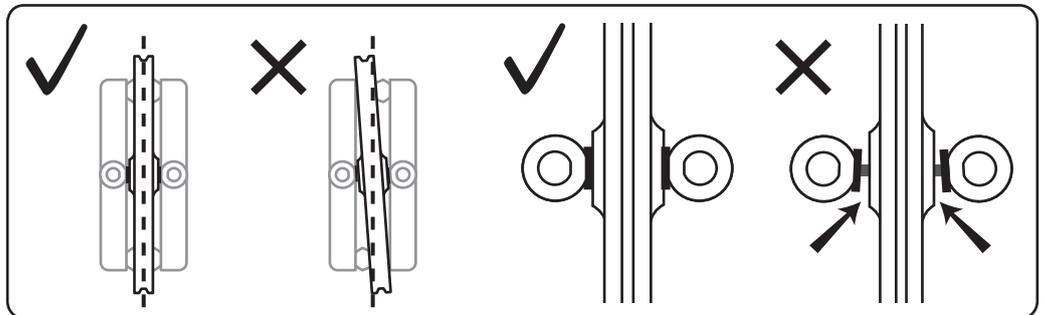


8

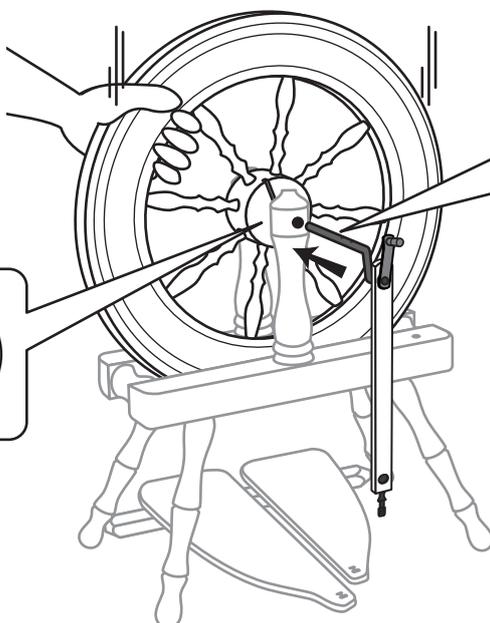
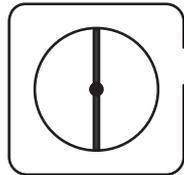


Place the wheel in position and insert the crank shaft. Align the hole in the crank shaft with the groove of the hub. Check the wheel is parallel in the centre of the base and the wheel supports are tight against the hub. If not, loosen the bolts, adjust the wheel supports and retighten.

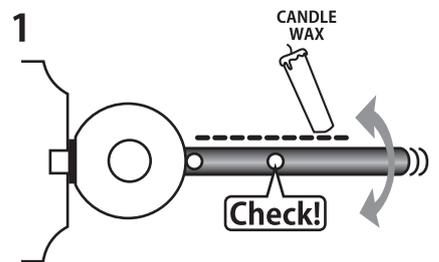
Check!



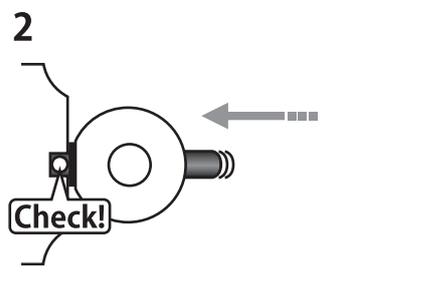
Check!



1



2

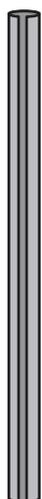


9

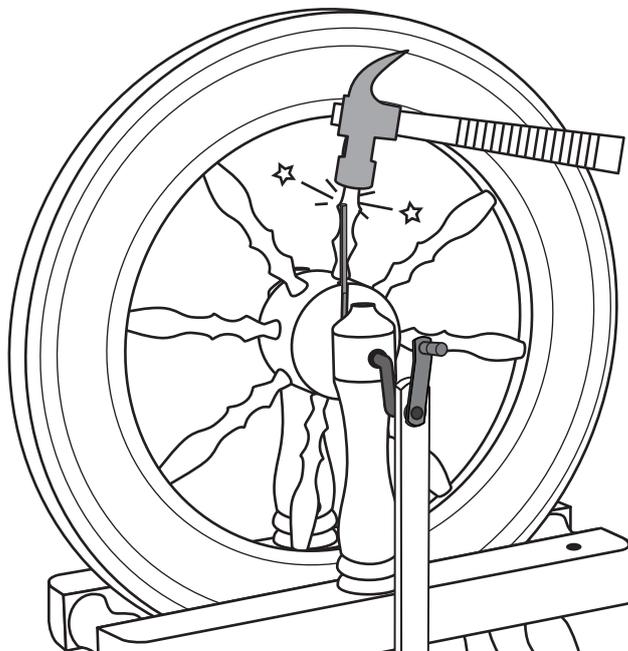


Rotate the hub pin until it is a firm fit in the slot in the hub. Then tap the hub pin through the hub and crank.

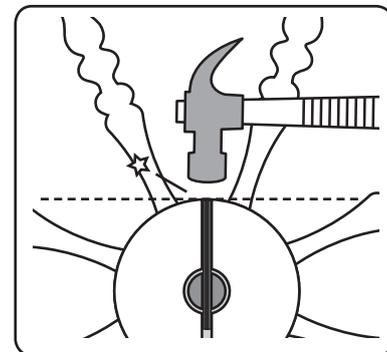
*Hint:* Use a Lazy Kate pin as a punch to avoid damaging the hub.



x1



**Check!**

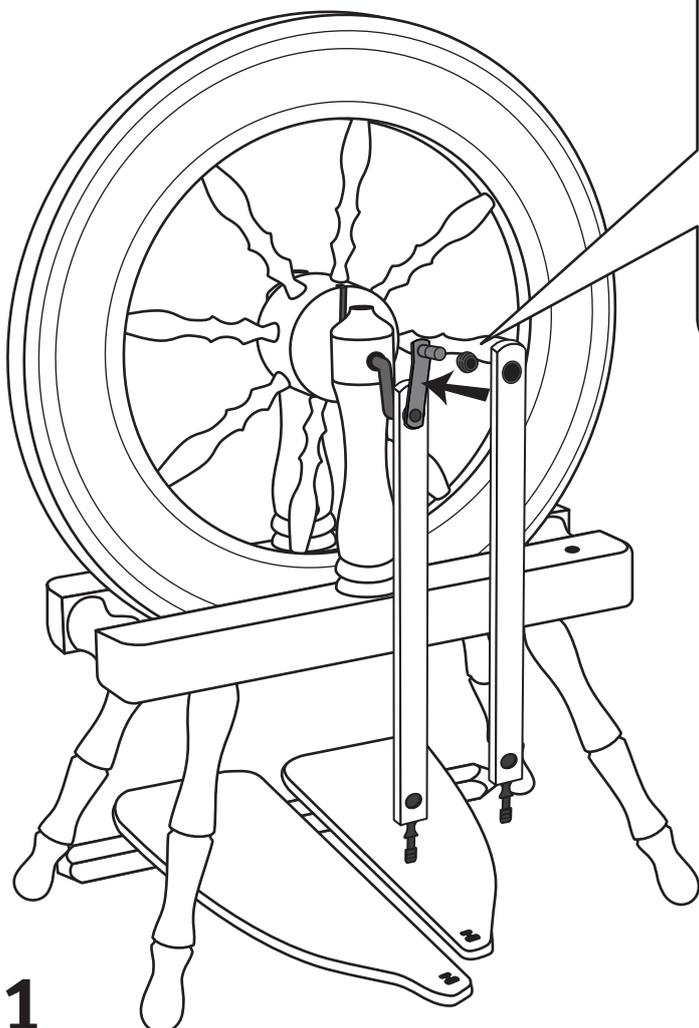
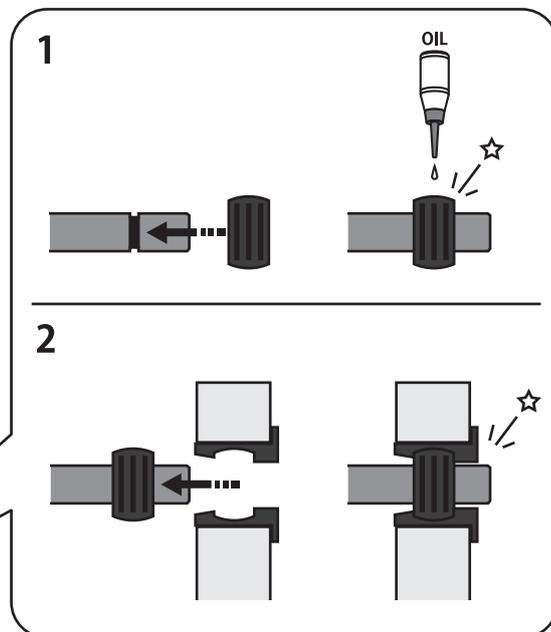


10



Slide the inner shell of the conrod universal joint onto the crank until it clicks into the groove. Then click the front conrod onto the universal joint on the crank.

Note: The ball bearings are sealed for life and do not require oiling.

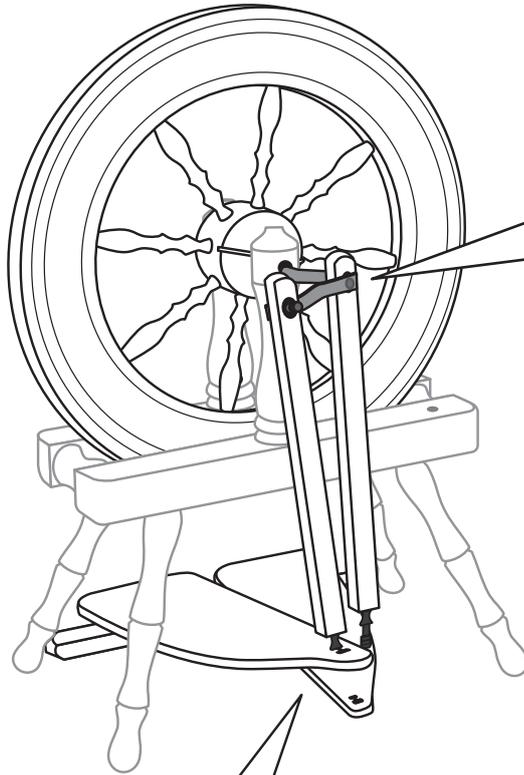


x1

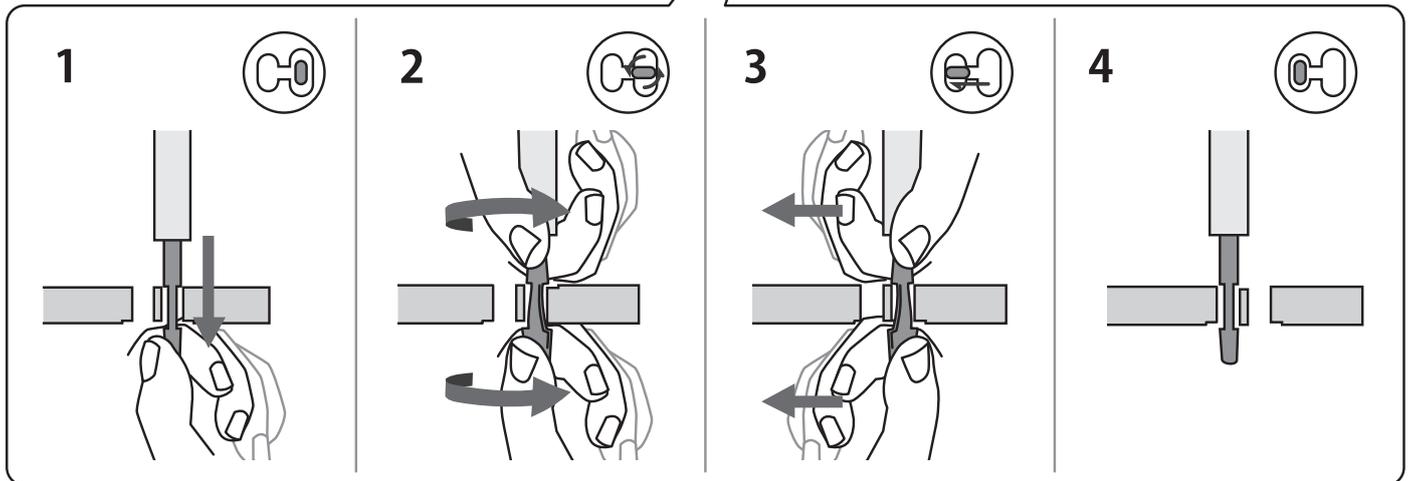
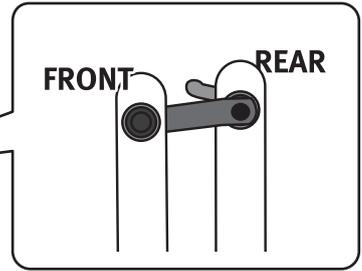
11

Insert the front conrod into the large slot in left hand treadle board.

1. Hold the conrod joint with one hand on either side of the treadle board.
2. With both hands, turn the conrod joint a 1/4 turn.
3. Stretch and slide it into the small slot and turn it back a 1/4 turn until it clicks into place.
4. Repeat the sequence for the rear conrod and the right treadle board.



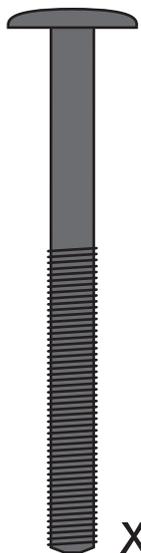
Check!



12



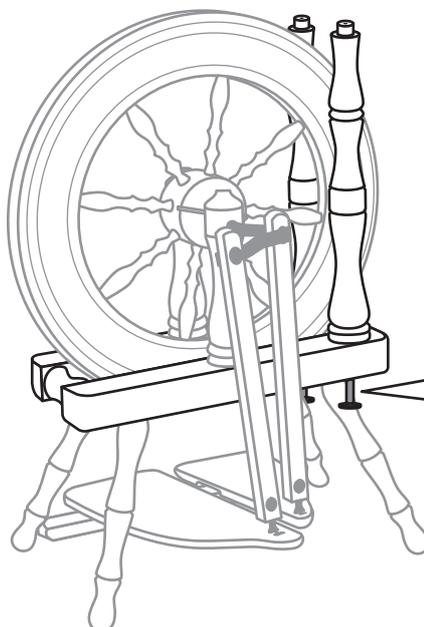
Secure the maiden bar supports with bolts and barrel nuts.



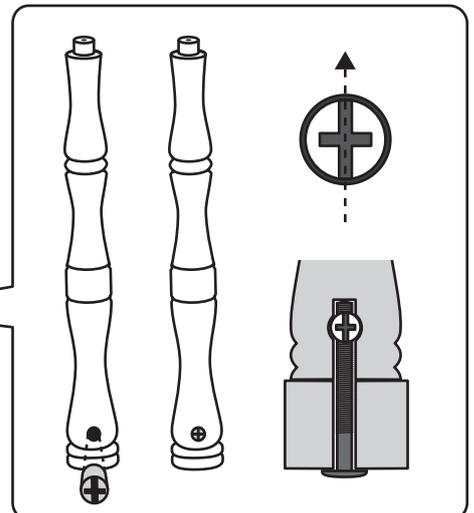
x2



x2



Check!

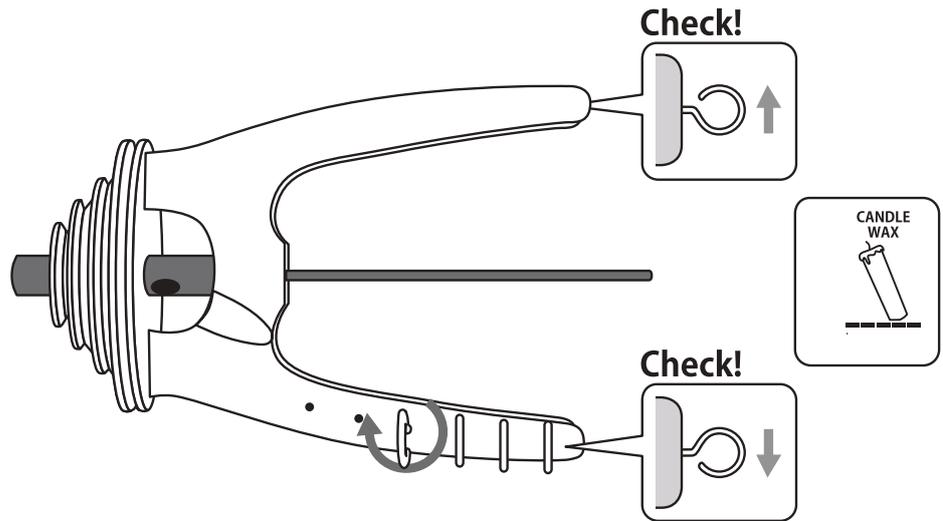


# SINGLE DRIVE

Step 13 - 25 For Single Drive only. For Double Drive go to Step 26.

**13** 

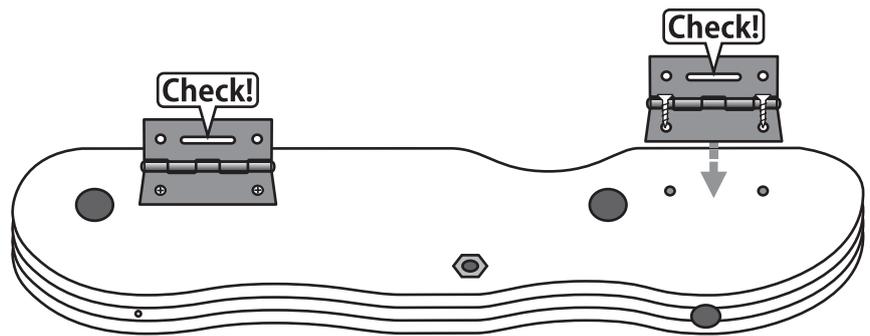
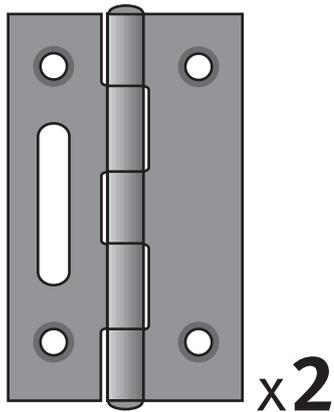
Thread 12 hooks into the flyer.



**14**  

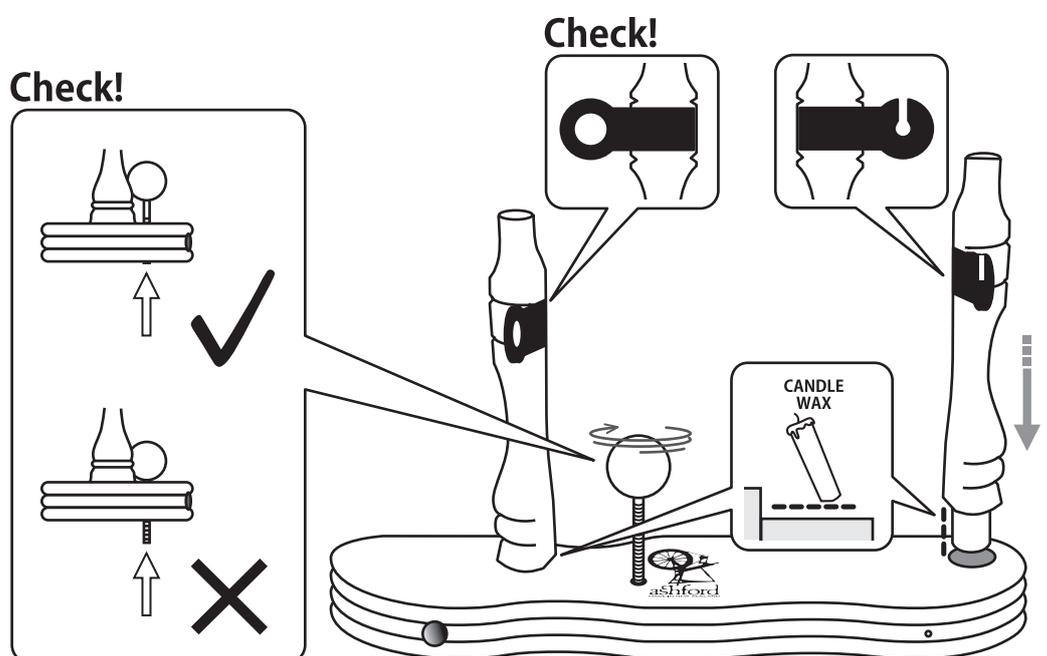
Secure the 2 hinges to the maiden bar.

Note the position of the slot in the hinge.



**15** 

Assemble the flyer unit. Check the shape of the nylon bearing on each maid upright, then insert into the correct hole. Insert the drive belt adjusting knob into the maiden bar, turn until the end just protrudes.

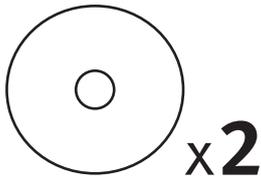
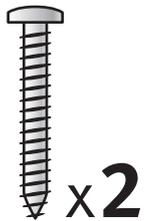


16

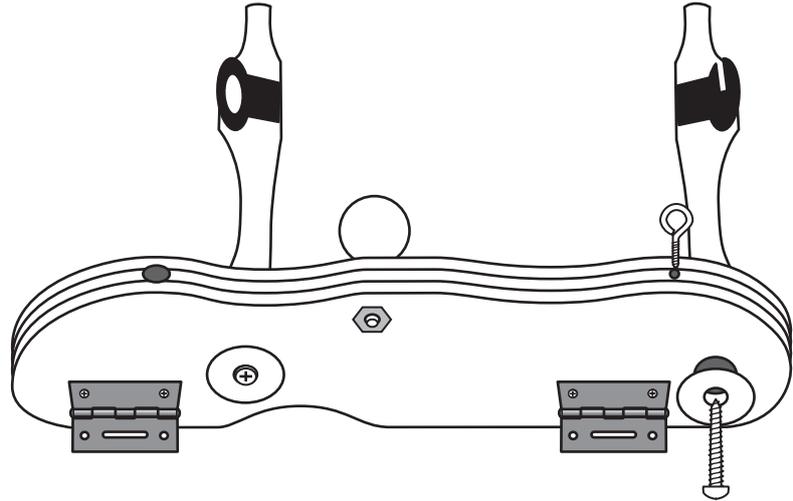
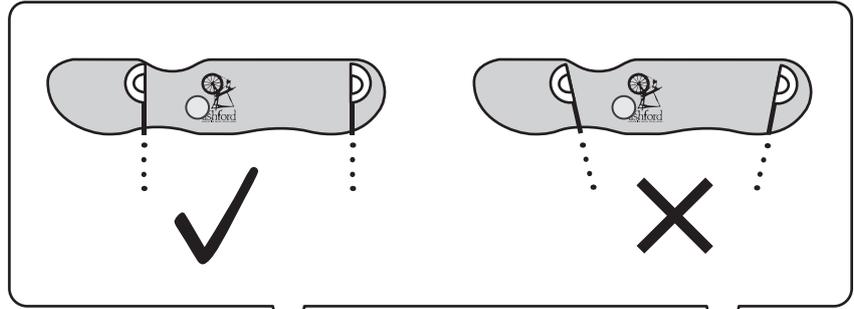


Check the angle of nylon bearings and then secure the maid uprights with screws and washers. Do not overtighten. The maid uprights may be twisted to remove the bobbin.

Thread the screw eye into the side of the maiden bar.



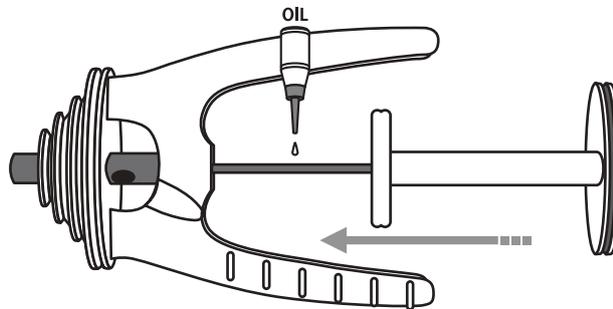
Check!



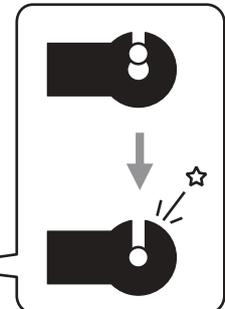
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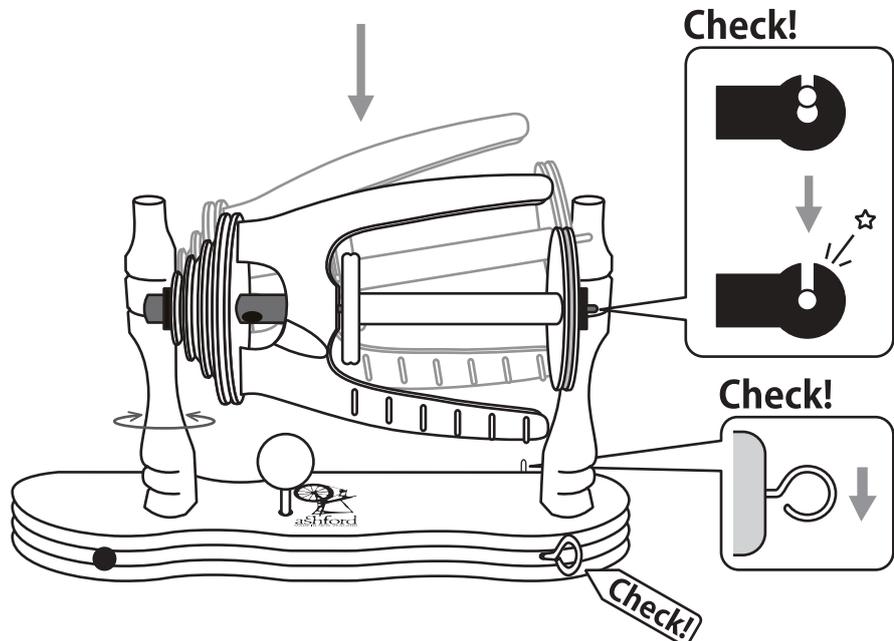
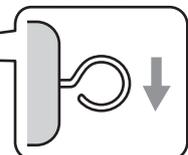
Slide a bobbin onto the flyer and the flyer into the bearings. Thread the screw hook into the opposite side.



Check!



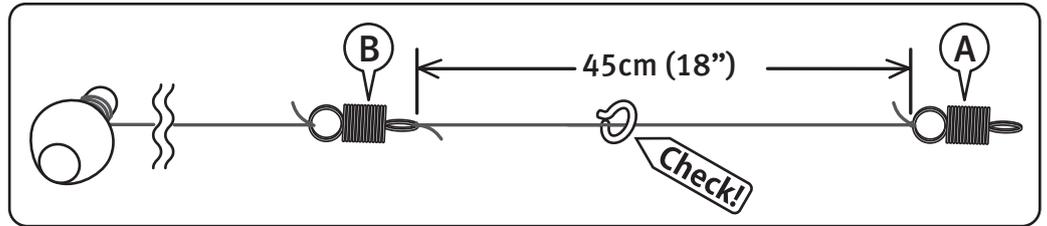
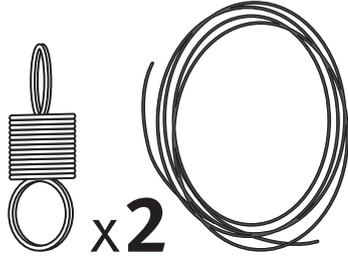
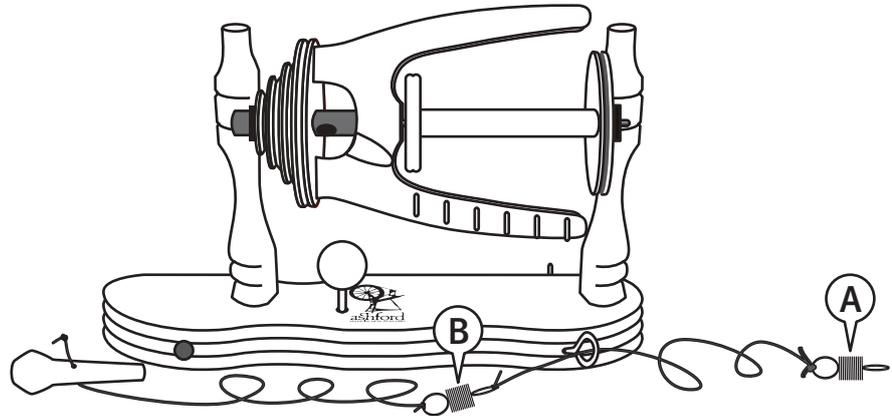
Check!



18



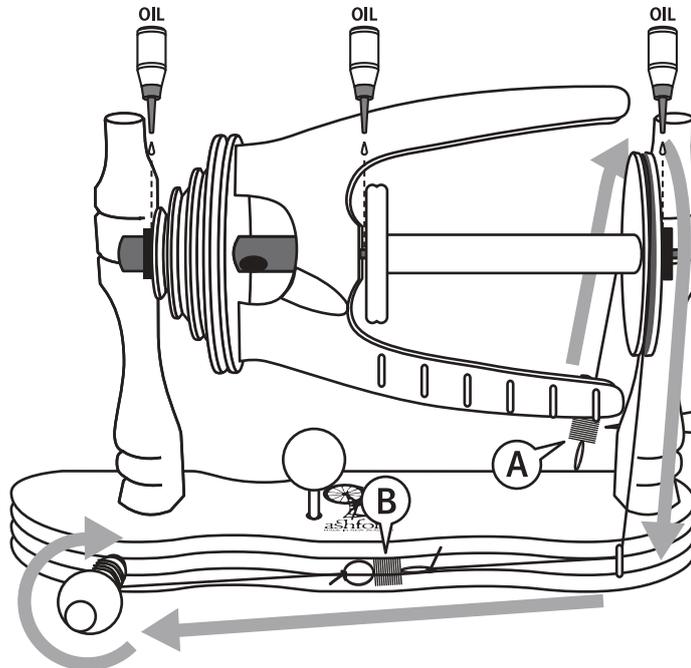
Attach the brake band. Thread it through the screw eye and then tie the springs as illustrated.



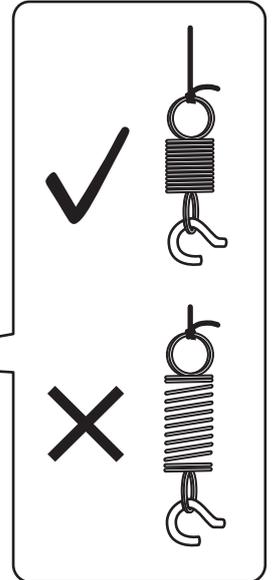
19



Put the brake band over the grooved end of the bobbin. Do not over stretch springs. Apply a drop of light oil to the bearings.



Check!

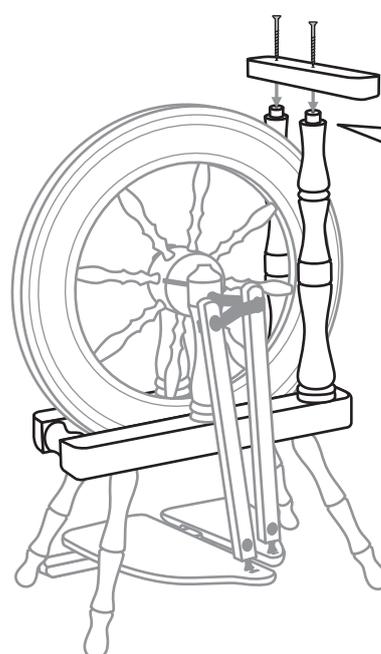
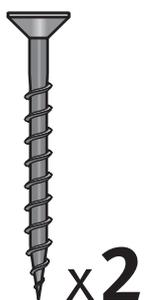
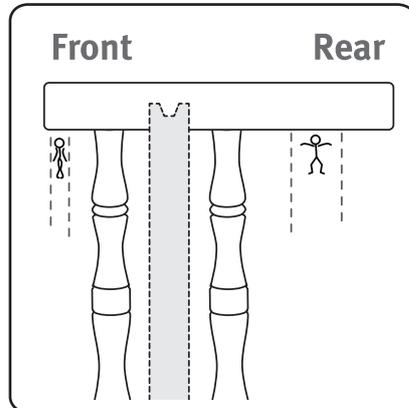


20



Secure the top rail to the maiden bar supports with 2 screws.

Check!



Check!



21



Secure the flyer unit to the top rail with 2 screws. These will be tightened shortly. Move the flyer unit until the wheel and flyer are aligned as pictured. Then tighten the screws and position the drawing pin

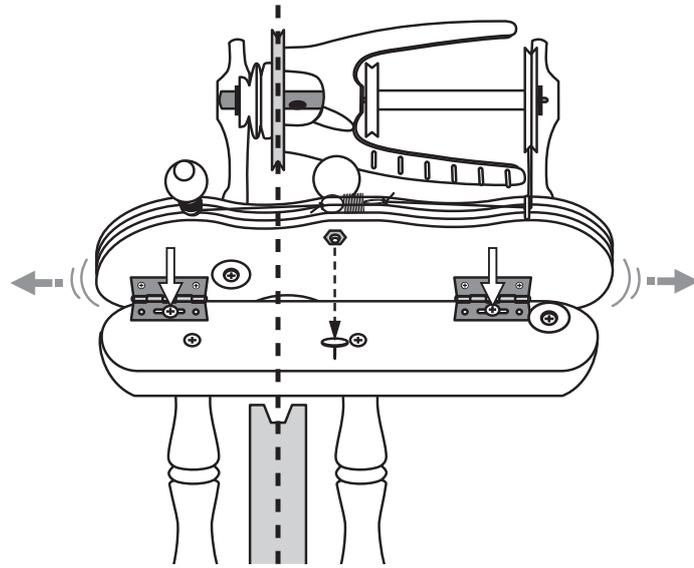
band adjusting knob to prevent it marking the wood.



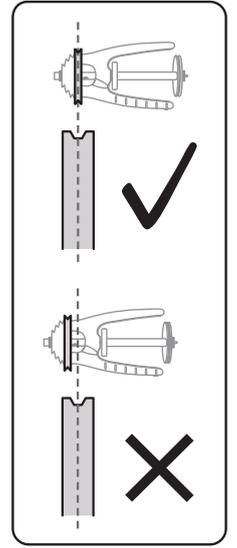
x2



x1



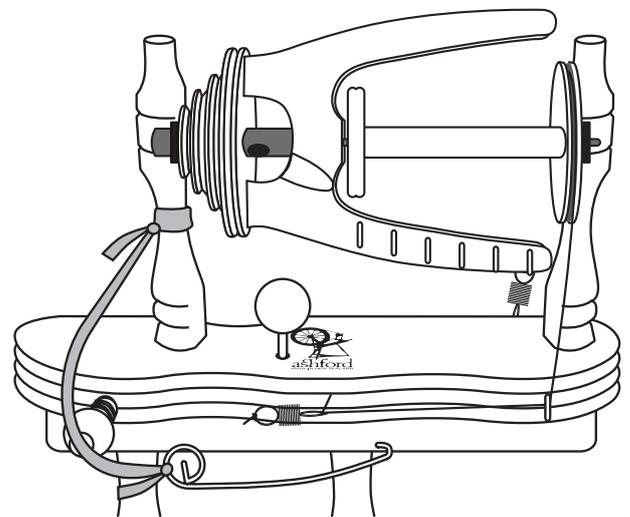
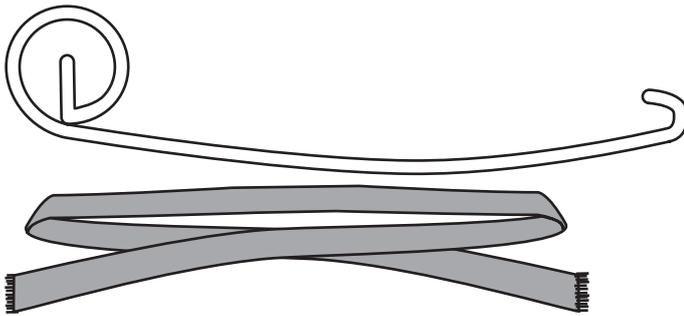
Check!



22



Tie the threading hook to the front maid upright with the cotton tape.



23

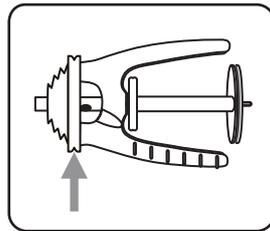


Check the end of the adjusting knob is not protruding beneath the maiden bar. Then place the drive belt around the wheel and large flyer pulley.

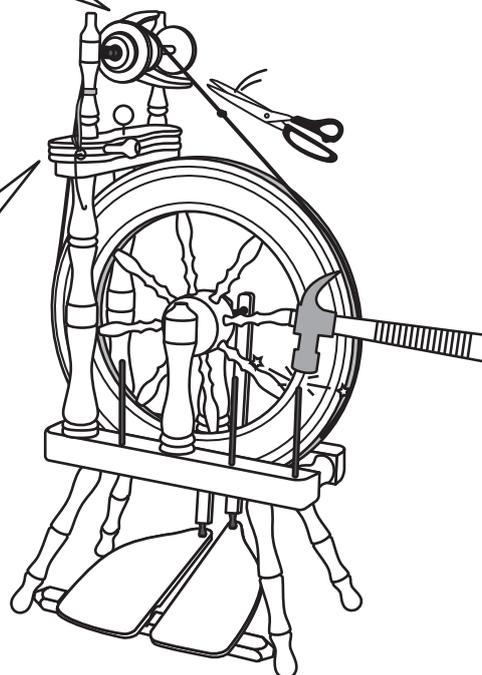
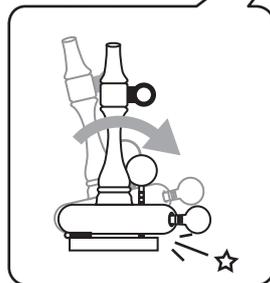


Tie drive belt and cut off the extra. Tap the steel lazy kate pins into the base.

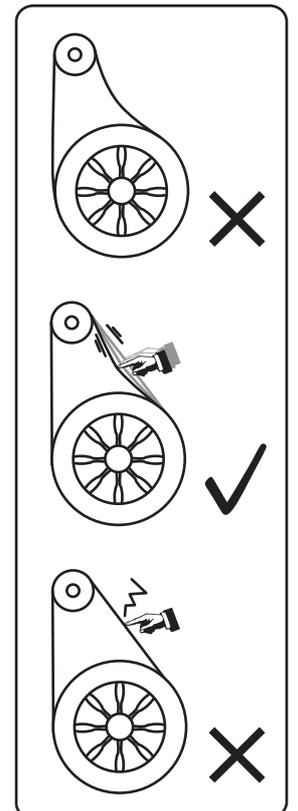
Check!



Check!



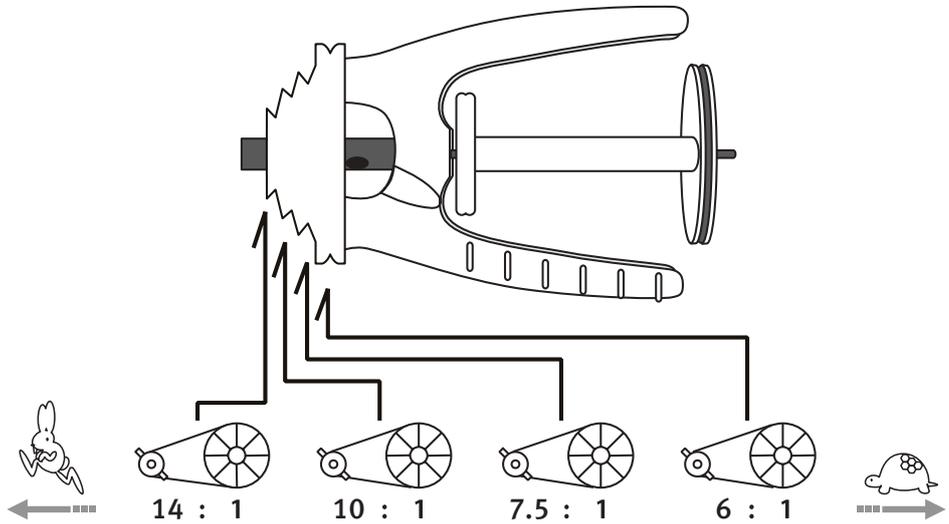
Check!



24

**Ratios :**

You may find it easier to spin a finer yarn if your flyer rotates faster. To change ratio simply move the drive belt to a smaller flyer pulley and re-tension the drive belt.

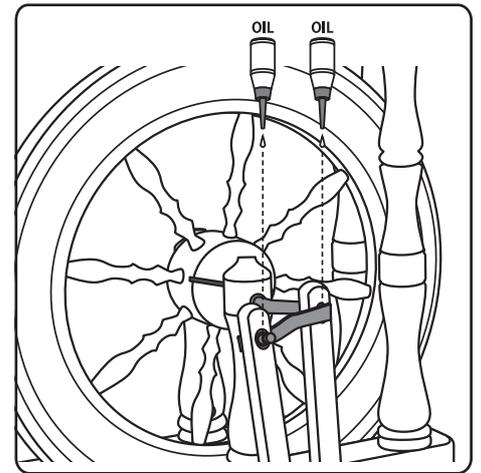
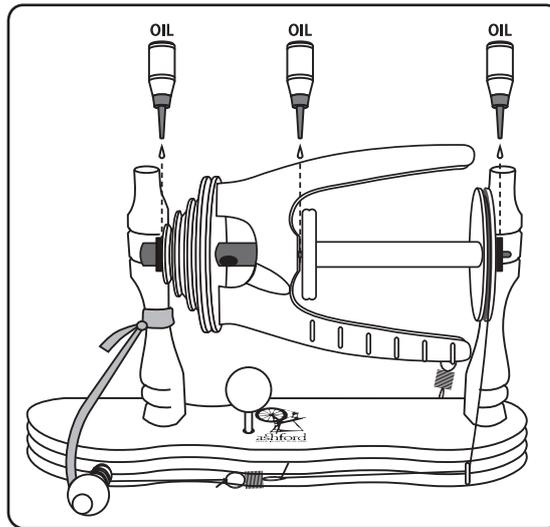
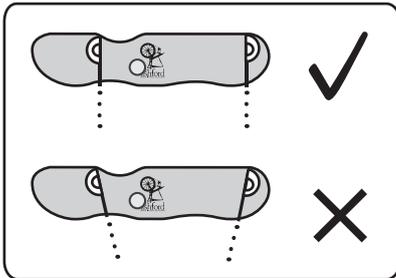


25



Oil all points on the Spinning Wheel before use as illustrated.

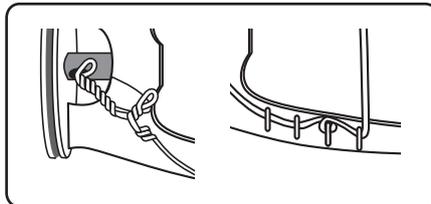
**Check!**



**Solutions**

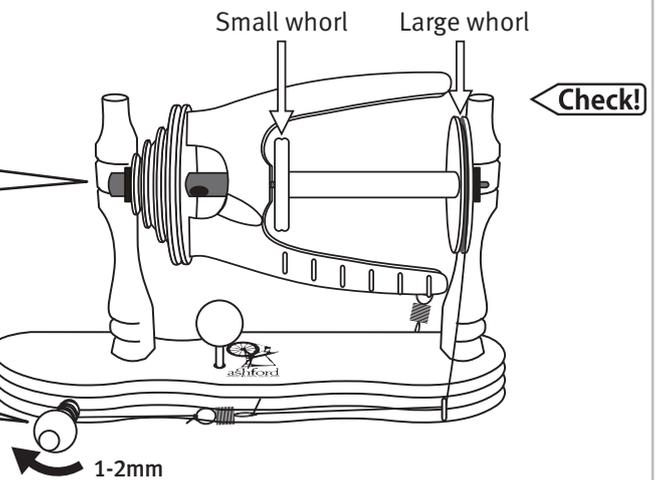
If the yarn doesn't pull in:

**Check!**



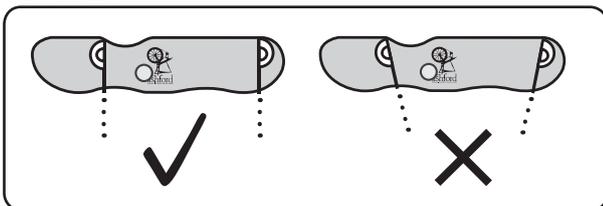
**Check!**

Brake band tension is too loose. Tighten the tension knob 1-2mm.



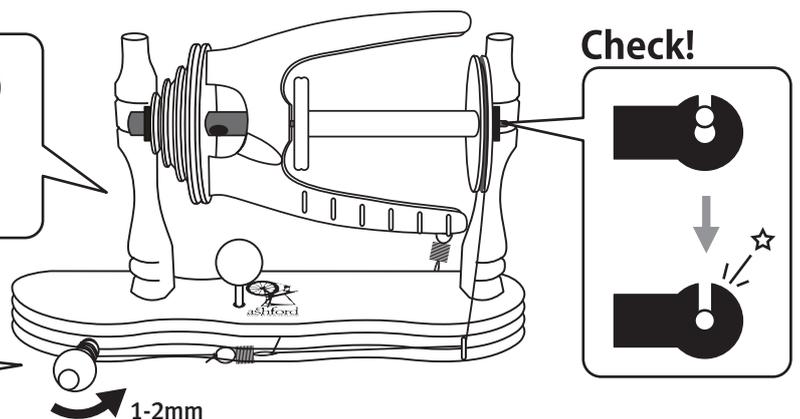
If the yarn breaks:

**Check!**



**Check!**

Brake band tension is too tight. Loosen the tension knob 1-2mm.

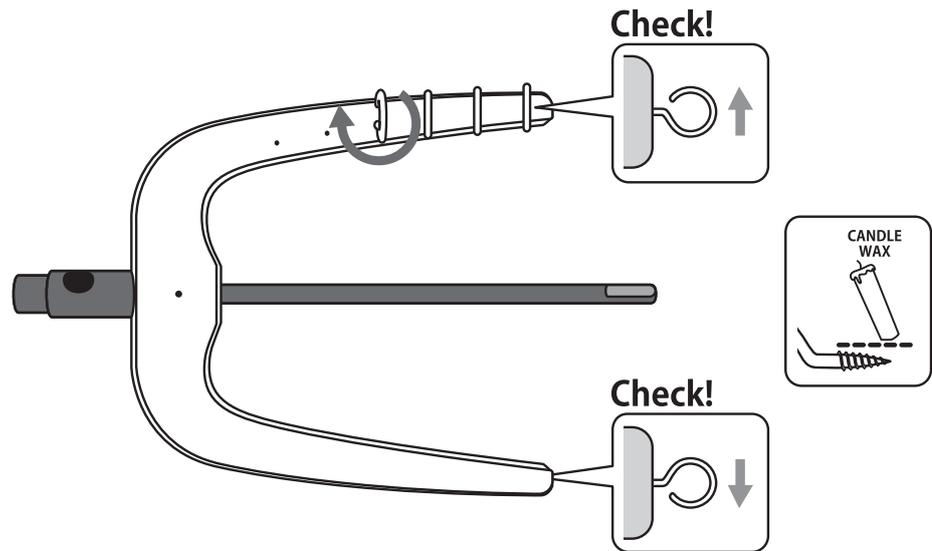


## DOUBLE DRIVE

Step 26 - 37 For Double Drive only. For Single Drive go to Step 13.

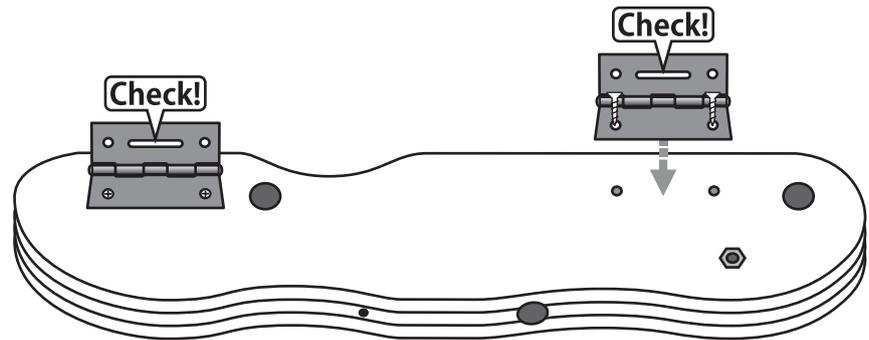
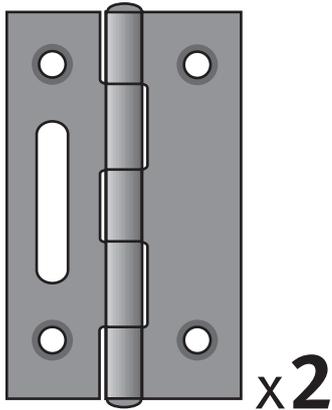


Thread 12 hooks into the flyer.



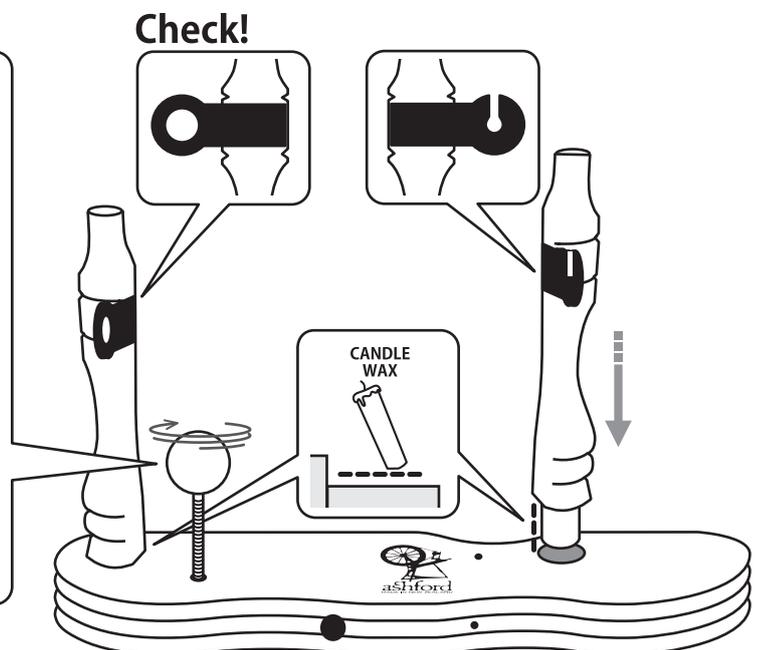
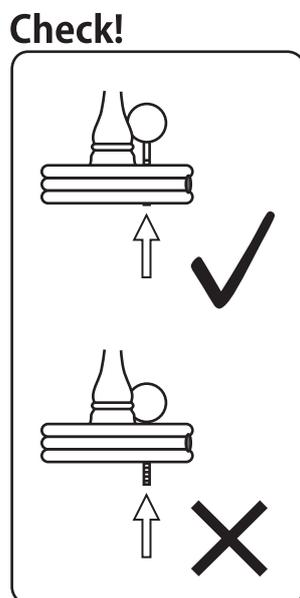
Secure the 2 hinges to the maiden bar.

Note the position of the slot in the hinge.



Assemble the flyer unit. Check the shape of the nylon bearing on each maid upright, then insert into the correct hole.

Insert the drive belt adjusting knob into the maiden bar, turn until the end just protrudes.

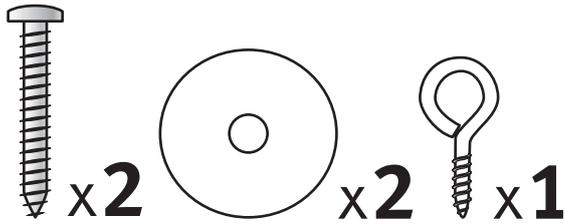


29

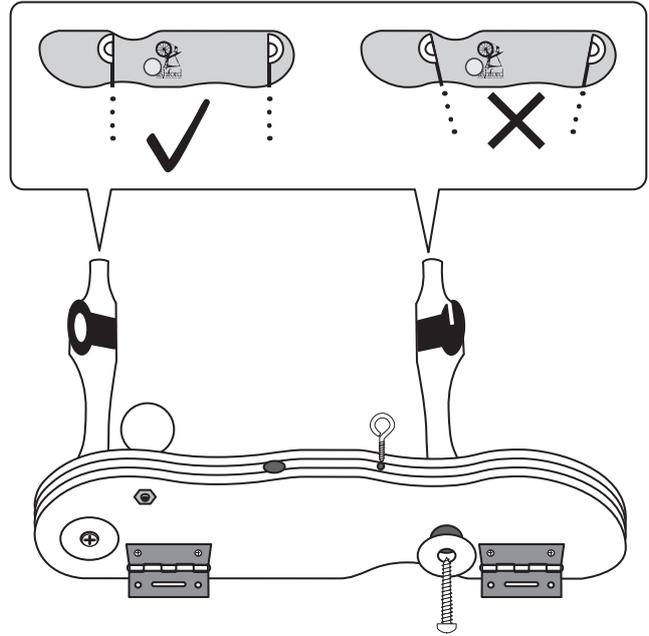


Check the angle of nylon bearings and then secure the maid uprights with screws and washers. Do not overtighten. The maid uprights may be twisted to remove the bobbin.

Thread the screw eye into the side of the maiden bar.



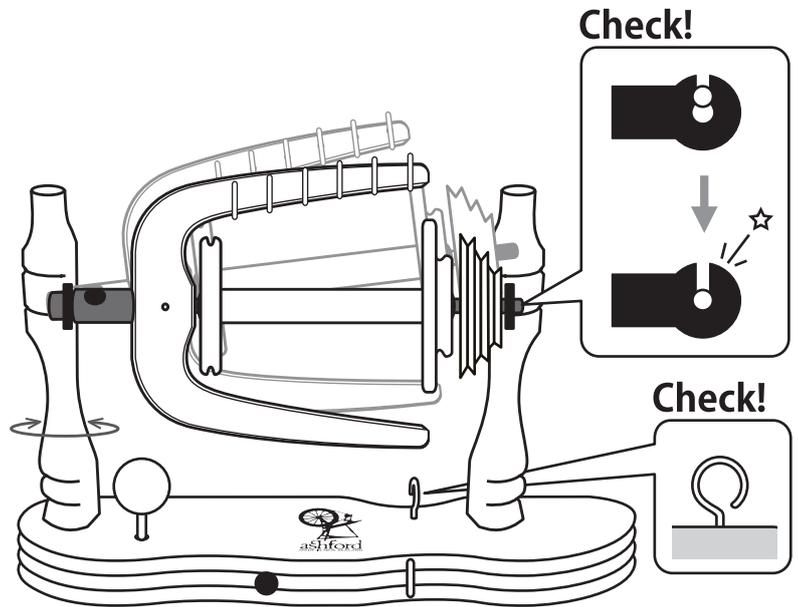
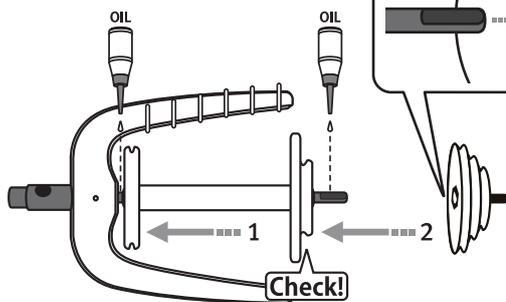
Check!



30



Check!

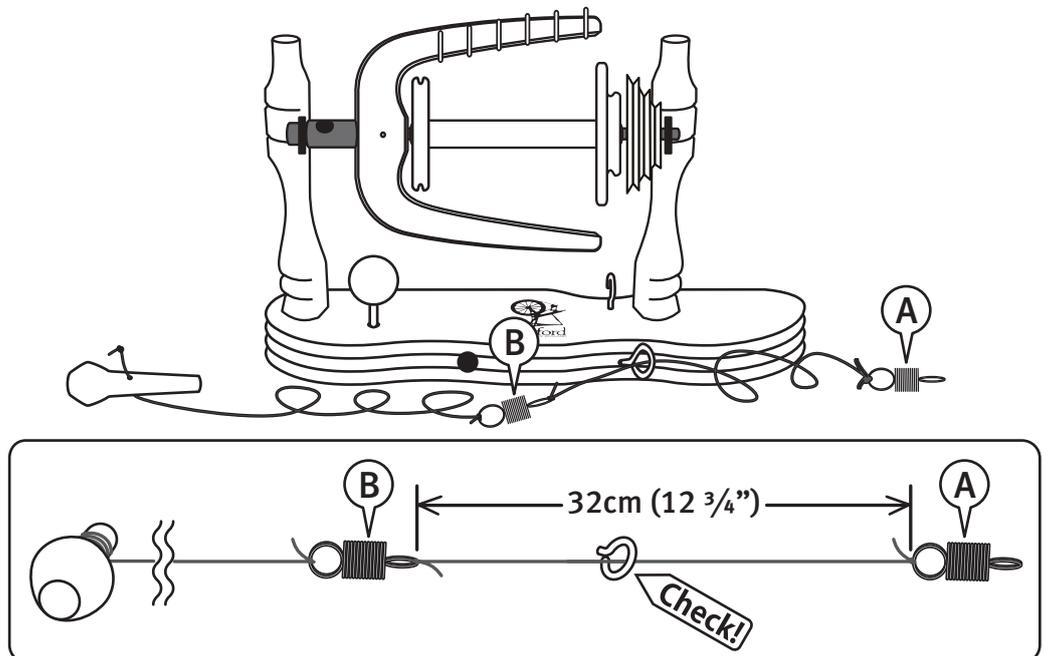
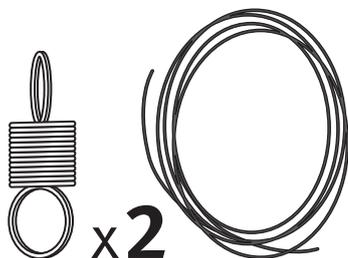


Slide a bobbin onto the flyer followed by the whorl. Then locate the flyer into the bearings. Thread the screw hook into the top.

31

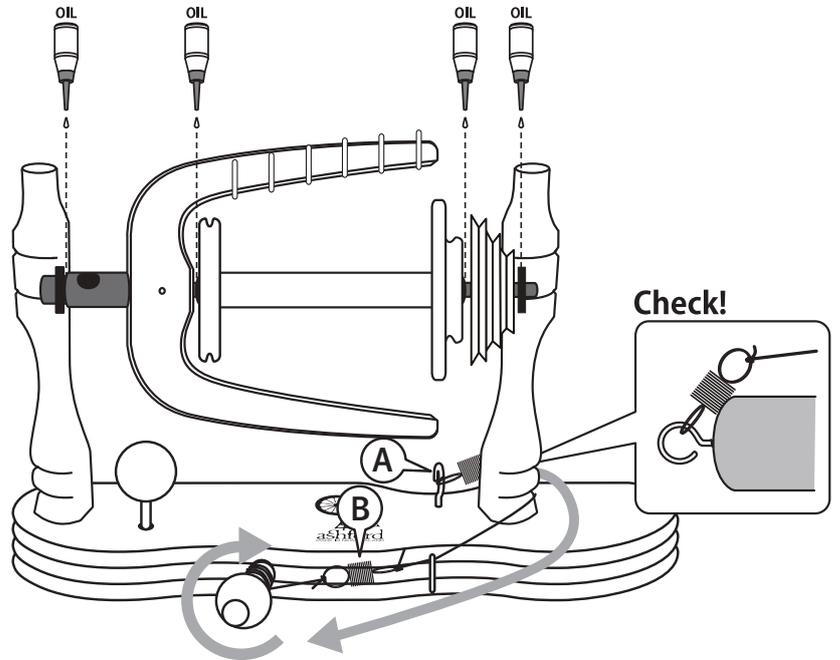


Attach the brake band. Thread it through the screw eye and then tie the springs as illustrated.



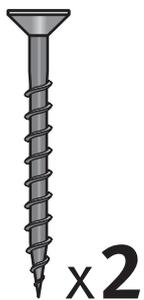
**32** 

This wheel can be used either double drive or single drive. When spinning double drive the brake band is stored around the back of the maiden upright with the drive band around both the large pulley and the small bobbin pulley. When spinning single drive the drive band is around the large flyer pulley and the brake band is over either bobbin pulley. When using the brake band take care not to over-stretch the springs. Apply a drop of light oil to the bearings.

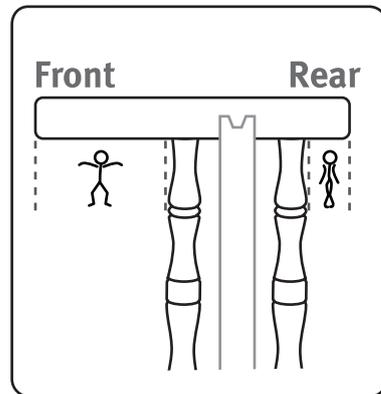


**33**  

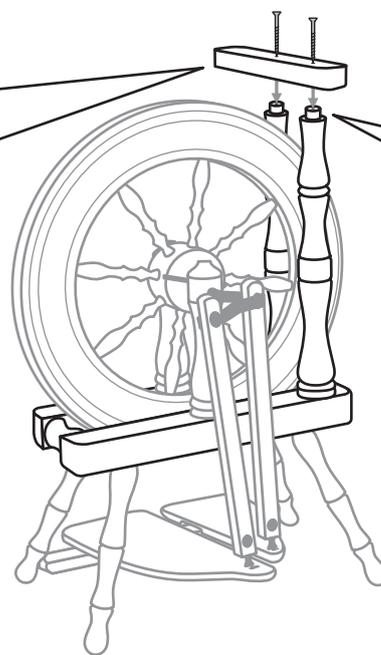
Secure the top rail to the maiden bar supports with 2 screws.



**Check!**

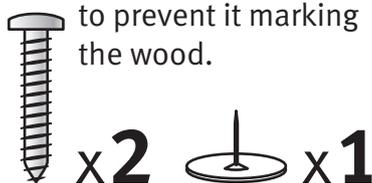


**Check!**

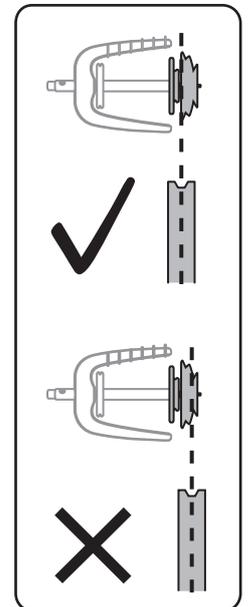
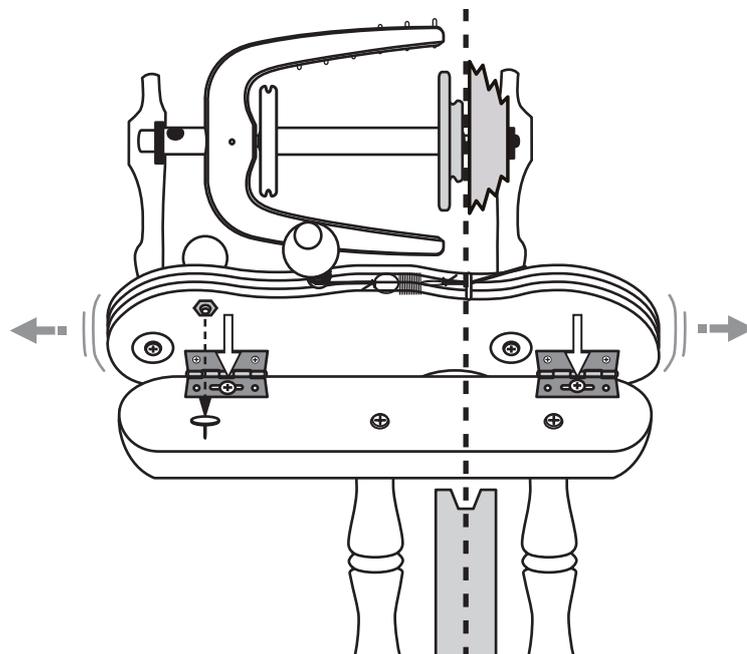


**34**  

Secure the flyer unit to the top rail with 2 screws. These will be tightened shortly. Move the flyer unit until the wheel and flyer are aligned as pictured. Then tighten the screws and position the drawing pin directly beneath the drive band adjusting knob to prevent it marking the wood.

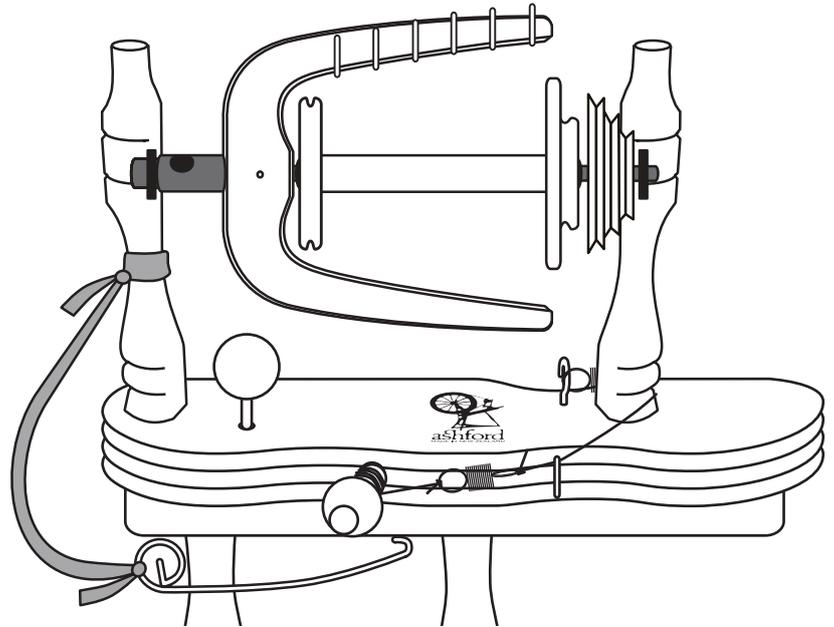
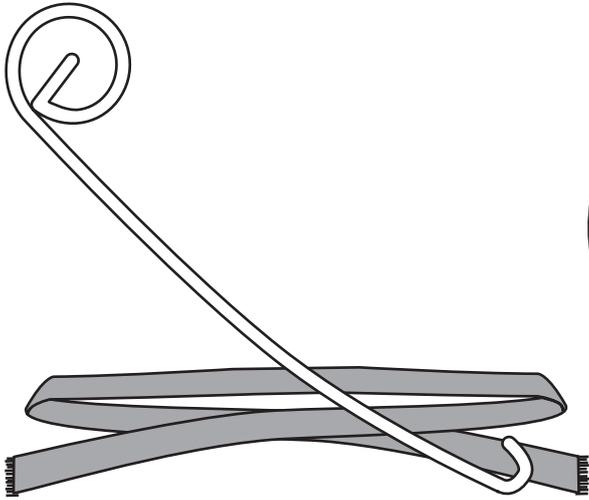


**Check!**



35

Tie the threading hook to the front maid upright with the cotton tape.

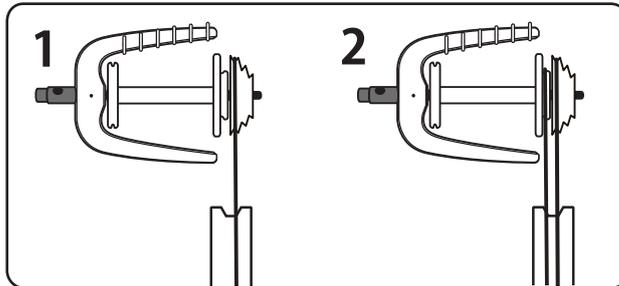


36

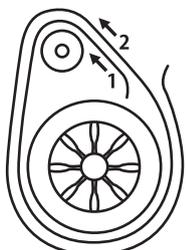
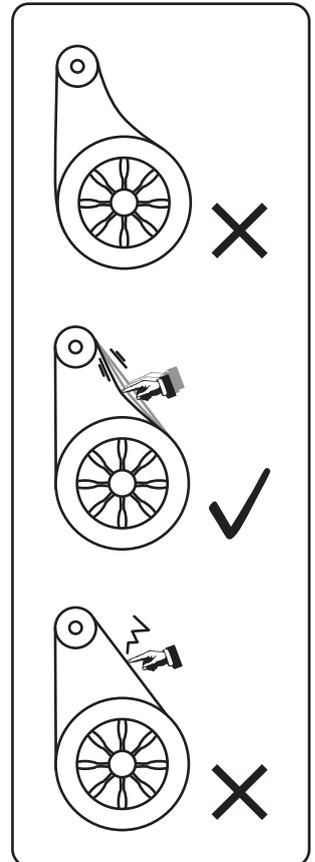


Check the end of the adjusting knob is not protruding beneath the maiden bar. Then wrap the drive belt around the wheel, around the large flyer pulley, back around the wheel and around the small bobbin pulley.

Check!



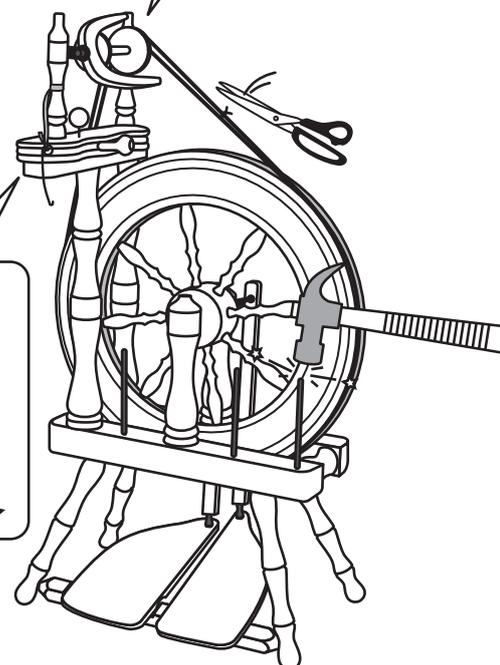
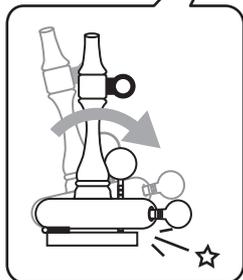
Check!



Tie drive belt and cut off the extra.



Check!



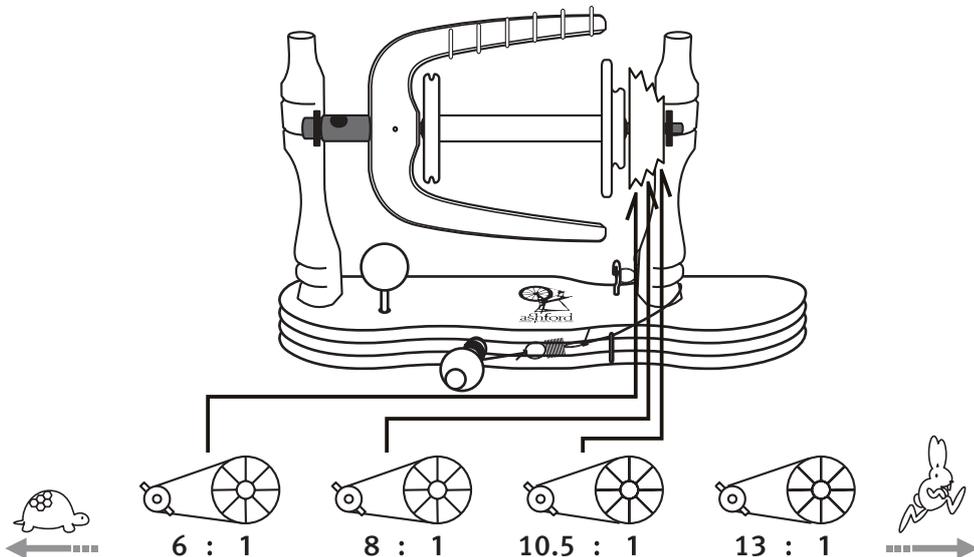
Tap the steel lazy kate pins into the base.

37

**Double drive ratios:**

The ratio with the drive belt around the large flyer pulley is approx. 6:1.

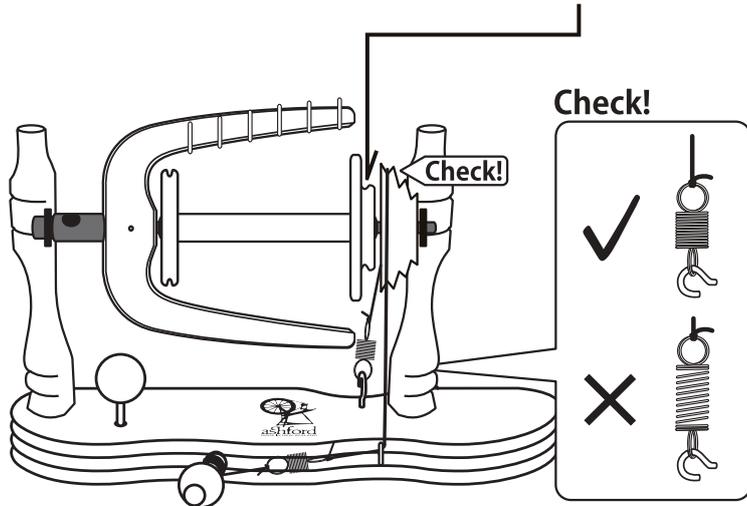
To spin a finer yarn while treading at the same speed, move the drive belt to one of the smaller pulleys - either 8 or 10.5.



**Bobbin lead:**

Place both loops of the drive belt around the small bobbin pulley and re-tension it. Then place the brake band over the large flyer pulley. This ratio is approx. 13:1.

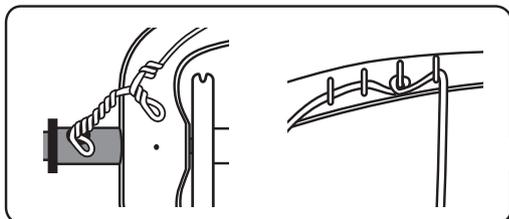
Adjust the brake band tension so the springs only just begin to stretch.



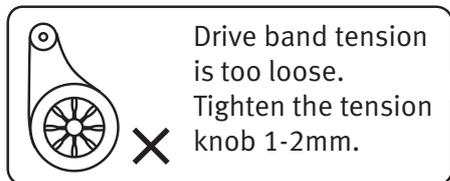
**Solutions**

If the yarn doesn't pull in:

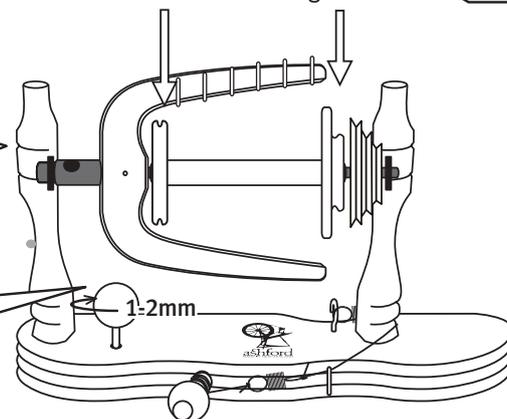
Check!



Check!

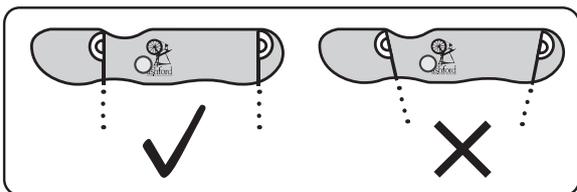


Small whorl Large whorl **Check!**

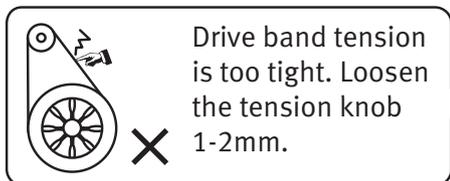


If the yarn breaks:

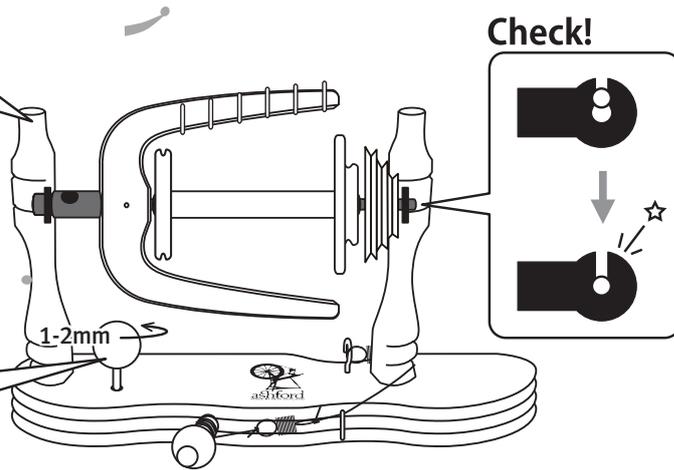
Check!



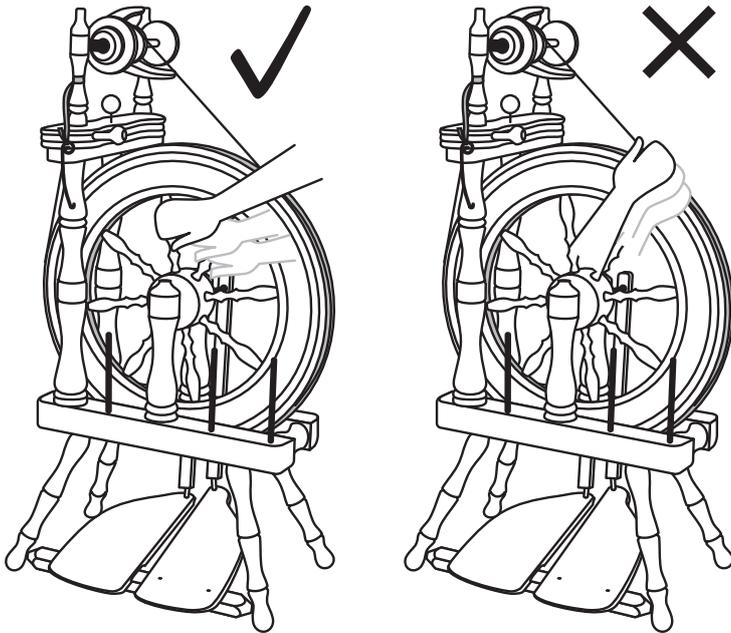
Check!



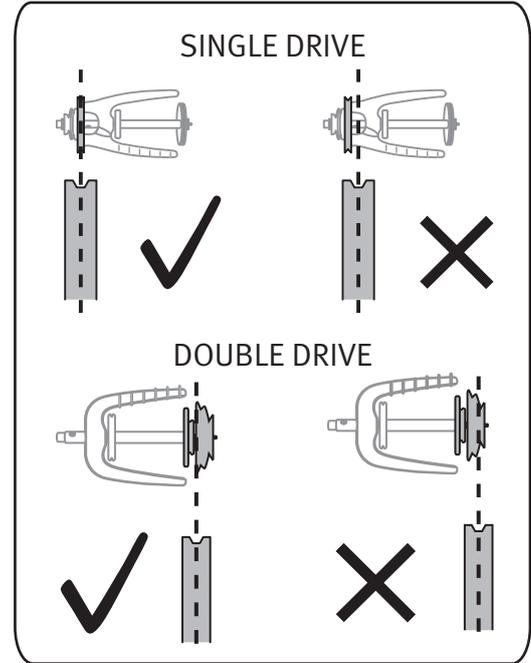
Check!



If the drive band falls off easily:

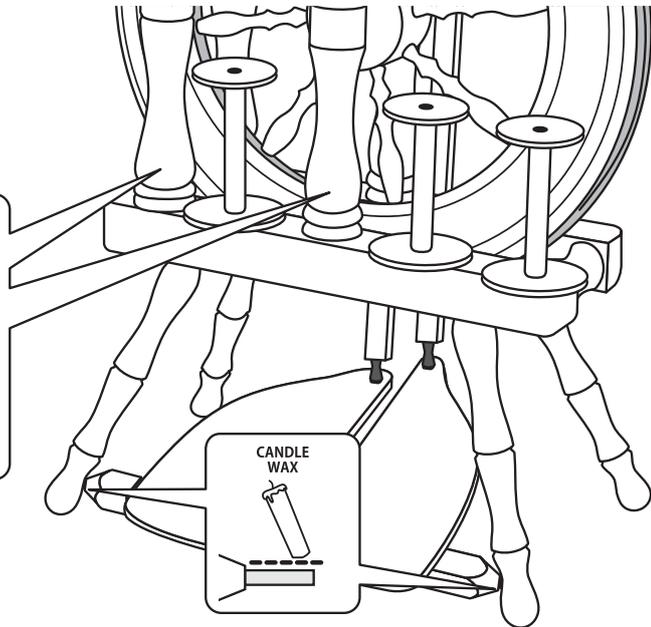
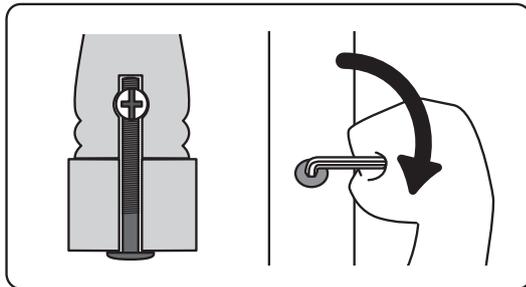


**Check!**

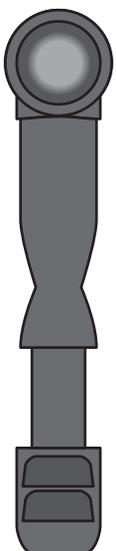


Check all bolts are tight.

**Check!**



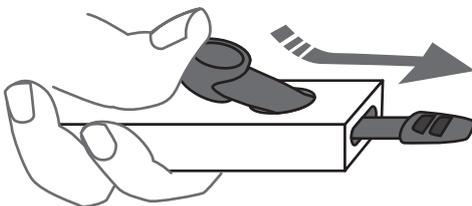
## Memo



How to insert the polyurethane conrod joints into the conrod.

\*This has been pre-assembled in the factory.

1



2

