

# LADYBUG SPINNING WHEEL Assembly, Maintenance &





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# LADYBUG SPINNING WHEEL™ Assembly, Maintenance & Warranty

#### CONTENTS

*Main box:* treadle assembly spinning wheel, with poly drive band installed and fast whorl attached at the back

Accessory box:

flyer, assembled with travel bobbin and medium whorl orifice hook cotton drive band for double-drive spinning 2X travel bobbins 1X 2" Phillips truss head machine screw 2X 5/16-25 x 7/8" hex bolts 4X 1/4" USS washers

2X 5/16" split lock washer

#### **TOOLS REQUIRED**

#2 Phillips screwdriver slotted (flat) screwdriver 1/2" wrench

Thank you for choosing the Ladybug spinning wheel. We hope you will have many pleasurable years together creating wonderful yarn.

Please DO read the instructions, even if you usually skip this step. Happy spinning!

#### WHERE'S MY LADYBUG?

Somewhere on your Ladybug spinning wheel, you'll find your very own ladybug. She's there cheering you on, going to spin-ins with you, or just keeping you company as you spin quietly at home. Because we've put the ladybug in a different place on every wheel, no other wheel in the world will be exactly like yours.

#### **UNPACKING YOUR WHEEL**

**1.** Remove the accessory box.

2. Remove the treadle assembly from the main box: tip the wheel back to allow the treadle assembly to slide past. Remove packing materials from the treadle assembly.

**3.** Lift the wheel straight up and out of the box.

**4.** Remove any remaining packing material from the wheel.

Be careful not to cut the drive band or Scotch tension brake band when removing plastic wrap from the wheel.

## ASSEMBLY

It will be easiest to assemble your wheel on a table. Cover the table to protect it from scratches.

#### **INSTALL THE TREADLE ASSEMBLY**

**1.** Orient the treadle assembly with the treadle bar at the front of the wheel and narrow ends of the treadles at the back, as shown in Figure 1.

2. Slide the treadle assembly toward the back of the wheel, aligning the hole in the treadle bar and the hole in the center brace (Figure 1A). Keep pushing the treadle assembly back until it cannot go any further—the tenon of the center brace has gone into the mortise in the treadle bar.

**3.** Using a 2" Phillips truss head machine screw, attach the treadle assembly to the cross brace (Figure 1B). Hand-tighten the screw until it engages with the barrel nut, then fully tighten the screw with a Phillips screwdriver.

#### ATTACH THE FOOTMEN

4. Working from the back of the wheel, set the treadles at the same height. The shorter treadle will be on your right and the longer treadle will be on your left, as viewed from the back of the wheel. You will see two footmen hanging from the crankshaft: one hangs closer to the back of the spinning wheel and the other hangs farther away from the wheel, as shown in Figure 2.



FIGURE 1: INSTALL TREADLE ASSEMBLY



**5.** Attach the shorter treadle to the closer footman: place a 5/16" split lock washer and a 1/4" USS washer on a  $5/16-25 \ge 7/8$ " hex bolt. From underneath the treadle, insert the hex bolt through the hole at the back of the treadle. Add another 1/4" USS washer on top of the treadle (Figure 3A).

**6.** Place the footman connector over the hex bolt shaft, as shown in Figure 3B, and tighten the hext bolt by hand. Finish tightening: insert a Phillips screwdriver through the hole in the connector and use a wrench to turn the hex bolt (Figure 3C).

**7.** Repeat steps 5 and 6 for the longer treadle and the farther footman.



FIGURE 3: ATTACH FOOTMEN

# USING YOUR WHEEL

The Ladybug can spin in Scotch tension, bobbin lead, and double drive modes. Generally, beginners learn to spin with Scotch tension, because it's easy to increase and decrease take-up (the speed at which yarn winds onto the bobbin). You can spin any yarn weight with Scotch tension. Double drive has the lightest take-up and take-up will only increase to a certain point; it works best for finer yarns or fibers that require a lot of twist. Bobbin lead mode has the fastest take-up and suits bulkier yarns and art yarns.

Whenever you install the flyer on the wheel, you can change the whorl. You also need to choose a tension mode, as they have different steps. Always use the black poly drive band for Scotch tension and bobbin lead spinning; for double drive, use a cotton drive band.

We shipped your wheel with the bobbin oriented for Scotch tension and the medium whorl on the flyer shaft. (The fast whorl is attached to the back of the Ladybug's rear leg.) If you want to spin with double drive right away, read through "Installing the Flyer" and "Spinning in Double Drive Mode."

In Scotch tension and bobbin lead modes, the yarn will wind onto the bobbin in the opposite direction from double drive mode. This does not affect your spinning unless you change spinning modes in the middle of a bobbin: make sure the new yarn "catches" on the bobbin so it does not unwind.

#### **INSTALLING THE FLYER**

**8.** Add a bobbin and whorl to the flyer (if necessary). For Scotch tension and bobbin lead modes, orient the bobbin with its larger end at the back of the wheel (Figure 4). For double drive, orient the bobbin with its smaller end at the back of the wheel (Figure 5).

**9.** Place the poly or cotton drive band on top of the rear leg, as shown in Figure 6A.



FIGURE 4: FLYER ASSEMBLY FOR SCOTCH TENSION OR BOBBIN LEAD SPINNING



small end & groove

FIGURE 5: FLYER ASSEMBLY FOR DOUBLE DRIVE

Loosen the front maiden knob just enough to allow the front maiden to move. Slide the front maiden as far forward as possible on the mother-of-all (MOA).

**10.** Insert the flyer orifice into the front bearing, moving the front maiden back as needed. Leave a small gap, about 1/16", between the front bearing and the shoulder of the flyer shaft (Figures 4 and 6B).

**11.** Insert the flyer shaft through the Scotch tension brake (for Scotch tension and bobbin lead only) and into the rear bearing.

**12.** Set up the wheel for your desired tension mode: see below, "Spinning with Scotch Tension or Bobbin Lead Modes" and "Spinning in Double Drive Mode."

#### **CHANGING BOBBINS**

**13.** Place the poly or cotton drive band on top of the rear leg, as shown in Figure 6A.

**14.** Loosen the front maiden knob just enough to allow the front maiden to move. Slide the front maiden and the flyer as far forward as possible on the mother-of-all (MOA).

**15.** Remove the flyer orifice from the front bearing. Remove the flyer shaft from the rear bearing. If necessary, remove the Scotch tension brake band from the bobbin.

**16.** Remove the whorl and bobbin from the flyer shaft. Place a new bobbin and your desired whorl on the flyer shaft. Re-install the flyer (described above) and set up for your desired tension mode.

#### SPINNING WITH SCOTCH TENSION OR BOBBIN LEAD MODES

In Scotch tension, the brake band goes around the large end of the bobbin and the drive band goes around the whorl.

In bobbin lead spinning (also called Irish tension), the drive band goes around the large end of the bobbin and the brake band goes around the whorl.

In both modes, turn the Scotch tension peg to take up the slack in the cord, allowing the cord to wind around its shaft. If the







cord slips and won't wind up, you can make a double knot about 1" from the end of the knot. Do not cut the cord.

Now you can start spinning. To increase the take-up of your yarn onto the bobbin, adjust the Scotch tension peg to stretch the spring. To decrease the take-up, adjust the peg to relax the spring.

The poly drive band has a memory and can be used with any whorl. Occasionally, you will need to tension the drive band, especially when you move from a slower (larger) whorl to a faster (smaller) whorl. If you find that the drive band is slipping, use the tensioner to add tension: pull up the tensioner handle and slip the drive band into the pulley (Figure 7).

#### **REPLACING A POLY DRIVE BAND**

**17.** Remove the flyer: Place the poly or cotton drive band on top of the rear leg, as shown in Figure 6A on page 7.

**18.** Loosen the front maiden knob just enough to allow the front maiden to move. Slide the front maiden and the flyer as far forward as possible on the mother-of-all (MOA).

**19.** Remove the flyer orifice from the front bearing. Remove the flyer shaft from the rear bearing. If necessary, remove the Scotch tension brake band from the bobbin.

**20.** Using a #2 Phillips screwdriver, remove the two screws connecting the upper and lower front legs (Figure 8A).

**21.** Separate the upper and lower front legs widely enough to fit the poly drive band through the gap (Figure 8B). If necessary, pull the old drive band through this gap and remove it from the wheel. Push the new drive band through the gap.

**22.** Push the upper and lower front legs back together, checking that the holes align. Replace the screws completely in the front leg.

**23.** Slip the drive band around the drive wheel and over the whorl.





FIGURE 8: REPLACING THE POLY DRIVE BAND

#### SPINNING IN DOUBLE DRIVE MODE

For double drive spinning, slip the poly band off the drive wheel; either wrap it around the front leg or completely remove it from the spinning wheel (see "Replacing the Poly Drive Band").

**24.** Add a bobbin and your preferred whorl to the flyer. Install the bobbin so its small end will sit at the back of the wheel.

**25.** Place the poly or cotton drive band on top of the rear leg, as shown in Figure 9. Loosen the front maiden knob just enough to allow the front maiden to move. Slide the front maiden as far forward as possible on the mother-of-all (MOA).

**26.** Insert the flyer orifice into the front bearing, moving the front maiden back as needed. Leave a small gap, about 1/16", between the front bearing and the shoulder of the flyer shaft.

**27.** Insert the flyer shaft into the rear bearing. **Do not** go through the Scotch tension brake; you can lay the brake loop in the groove of the MOA.

**28.** Tie a cotton drive band (if necessary): Starting at the right of the drive wheel, lay one end over the drive wheel, the whorl, and the pulley of the drive band tensioner. Feed the other end of the band under the drive wheel and back up to the top of the wheel, going under the drive band tensioner and over the small end of the bobbin (Figure 10). Tie the ends of the band with a square knot.

Now you can start spinning. To increase the amount of take-up of your yarn onto the bobbin, raise the tensioner pulley by its handle to tighten the drive band. To decrease the amount of take-up, lower the tensioner.

If your wheel already has a tied cotton drive band, position it as shown in Figure 10. If you need to replace the cotton drive band, cut off the old one and tie a new one as described in Step 28.



FIGURE 9: FLYER INSTALLATION



tensioner pulley tensioner handle



FIGURE 10: SPINNING IN DOUBLE DRIVE

#### **USING DIFFERENT FLYER WHORLS**

The type of fiber you are spinning and the kind of yarn you want to produce will determine which flyer whorl to use. Your spinning wheel comes with a medium speed whorl and a fast speed whorl. We offer four other whorls and a high speed bobbin so you can spin any type of yarn you wish. The general rules to remember: the larger (slower) the whorl, the thicker the yarn, the less the twist, and the greater the take-up.

#### ADJUSTING THE FRONT FEET

The front feet of your spinning wheel can be adjusted to accommodate uneven floors. Simply loosen the lock nut and screw the foot up or down as needed, then tighten the lock nut (Figure 11).

#### **CARRYING HANDLES**

The Ladybug has a handle on the front leg and each of the back legs. To transport your wheel, pick it up by whichever handle is most comfortable. You can now carry the wheel as if it were a briefcase.

### MAINTAINING A LADYBUG

#### MAINTENANCE

A regular schedule of care and maintenance will ensure you and your Schacht spinning wheel many productive years together.

- Periodically clean excess fibers from all parts of your wheel.
- Clean dust and dirt from the drive wheel with a damp cloth.
- Periodically lubricate the moving parts.
- Touch up worn or chipped areas with fine sandpaper and Danish oil.
- Check screws for tightness. (Changes in the environment and the action of spinning can cause screws and nuts to loosen over time.)

#### STORAGE

Try to keep your wheel in a dry, moderate climate and avoid extreme temperatures store away from direct sunlight.

#### WHORL RATIOS

Whorl	Ratio
Extra Slow Speed	3.2:1 / 3.6:1
Slow Speed	4.7:1 / 5.5:1
Medium Speed (included)	6.5:1 / 8:1
Fast Speed (included)	9:1 / 10.5:1
High Speed*	11.5:1 / 14:1
Super High Speed*	12:1 / 14.5:1
4-FI I I I I I I I	

\*These whorls require a High Speed Bobbin.



FIGURE 11: ADJUSTING THE FRONT FEET

#### LUBRICATING MOVING PARTS

Your wheel was lubricated and tested at the factory before it shipped, but it may have sat unused for a while since then. Before spinning, and for every few hours of spinning, oil it with a medium-weight oil such as 20- or 30-weight SAE motor oil.

Use a drop of oil

- inside the front bearing & rear bearing (Figure 12A)
- on the flyer shaft where it touches front bearing, rear bearing, and bobbin ends (Figure 12B)

Oil the footman contact points sparingly (Figure 12C).

Never oil the spinning wheel hub or the plastic drive wheel. If a squeak develops elsewhere on the wheel, try a few drops of oil in this area.

#### THE FINISH ON YOUR WHEEL

Your wheel has been finished with Danish oil, which penetrates into the wood. If you need to touch up chips or scuffs, lightly sand the worn area and apply a small amount of finish using a soft, lint-free rag. Use Deft natural color Danish oil, following the directions on the container. Always clean and dispose of applicators and oily rags according to the manufacturer's instructions.

If your wheel needs more thorough cleaning (for example, dirty treadles), wipe it down using mineral spirits and a rag, then reapply Danish oil as described above.

#### SERIAL NUMBER

Your wheel's serial number is stamped into the wood on the rear of the motherof-all. The first six digits are the date of assembly. The remaining digits are a sequence number for wheels built that day.



FIGURE 12: OILING

#### TWO YEAR LIMITED WARRANTY

Schacht products are warranted, to the original consumer purchaser, by Schacht Spindle Company to be free of defects in material and workmanship. Schacht Spindle Company's obligation under this Warranty shall be limited to the repair or replacement of any part or parts which may prove defective within two (2) years following the date of original purchase by the consumer, and which Schacht Spindle Company's examination shall disclose to our satisfaction to be thus defective. If a problem with this Schacht Spindle Company product develops during the warranty period, first contact the Schacht Spindle Company dealer from whom you made the purchase. If the problem cannot be handled through your dealer, contact our customer service department. At our option, it may be required that the product be returned to our factory, freight prepaid, for inspection and repair and/or

replacement.

This Warranty covers normal consumer use and does not cover damage which occurs in shipment or damage that results from alteration, accident, misuse, abuse, or neglect.

This Warranty gives you specific legal rights, and you may also have other rights that may vary from state to state.

This Warranty is not valid for equipment that has served as dealer floor models that have outlived the term of the warranty or products that have been purchased through a third party.

Proof of purchase date and a serial number when applicable are required for all Warranty claims.

# LADYBUG ACCESSORIES

Add an onboard kate to your wheel! Rods for up to 4 bobbins run through the front leg. You can tension the bobbins with pulleys for even plying.

#### **BULKY PLYER FLYER**

Add new capabilities to your Ladybug with the Bulky Plyer Flyer. The generous 7/8" orifice allows you to spin yarns bigger than ever. The extra-large capacity bobbin is great for extra-long skeins. The package includes the bulky flyer, front maiden, and one 8-ounce bulky bobbin.







Visit our website for more spinning accessories.