



# KITTEN MANUAL DRUM CARDER

We at She & I Designs are happy to know that you have chosen to purchase our FANCY KITTY KITTEN MANUAL DRUM CARDER.

The Kitten drum carder features fully adjustable drums mounted on steel axles with sealed ball bearings. It is built using modern methods and hand crafted care. The drums come pre adjusted for optimum performance. We space them a credit card thickness apart before shipping. They can be easily readjusted though for your varying requirements.

The drive ratio is 4 to 1.

It features a poly belt, that does not slip, for smooth operation.

The carding cloth has ½ inch hardened tempered steel wire teeth that allow you to produce thick batts.

The carder base is approximately 15 inches in length, and 10 ¾ inches wide. With the pulleys and handle it will be closer to 18 inches wide. The carder weighs approximately 14 pounds.

The carder is made from solid hardwoods with the exception of the feed tray that is made from hardwood plywood.

It is dressed with a flat brass divider bar.

The drum is 8 ½ inches wide and will produce a batt that is 22 inches long.

Rubber nonskid feet are mounted on the bottom of the frame.

With the exception of the screw on handle it will have arrived fully assembled.

We offer a lifetime warranty on all hard parts and workmanship to the original buyer, and a one year limited warranty on all parts and labor. We do have parts and repair available to anyone who owns our machine.

We hope you enjoy using this carder and get decades of use from it.



**She & I Designs / FANCY KITTY PRODUCTS**

**321 E Prime St Downing, MO 63536**

**660-379-2323**

**sheandidesign@gmail.com**

## **SATISFACTION GUARANTEE**

If for any reason you are not satisfied with your purchase, you may request a return authorization to return the product to our location within 14 days of receipt of this product.

The product should be returned postage paid in new condition, in the original shipping boxes, packed in original packing, including all instructions and accessories.

Upon receipt of a product returned in new condition with a proper return authorization, you will be refunded the full purchase price *LESS THE SHIPPING*.

Please call 660-379-2323 or email [sheandidesign@gmail.com](mailto:sheandidesign@gmail.com) and request a return authorization number prior to making a return shipment.



**She & I Designs / FANCY KITTY PRODUCTS**

**321 E Prime St Downing, MO 63536**

**660-379-2323**

**sheandidesign@gmail.com**

## **PRODUCT WARRANTY**

Your new product is warranted for one year for all parts and labor. This warranty covers normal wear and tear including belts and carding cloth.

All hard parts including frame, pulleys, drums, and screws have a limited lifetime warranty. They are warranted for all defects in parts and workmanship to the original purchaser for normal wear and tear.

The manufacturer will have the final decision on normal wear and tear. Damages caused by abusive use of the product will not be covered under this warranty.

It will be the option of the manufacturer to repair or replace the defective part(s)



She & I Designs / FANCY KITTY PRODUCTS

321 E Prime St Downing, MO 63536

660-379-2323

sheandidesign@gmail.com

## READ BEFORE USING

### CAUTION...CAUTION...CAUTION

- There is a break in period on all carding cloth, during which a small amount of metallic dust may be deposited on your fiber.
- We would like to suggest that the first couple of batts you card should be of a dark or gray color fiber, and not a bright white.
- After the first couple of batts, any metallic residue should be removed and you can continue with all colors without a problem.

---

### WARNING - SAFETY ALERT

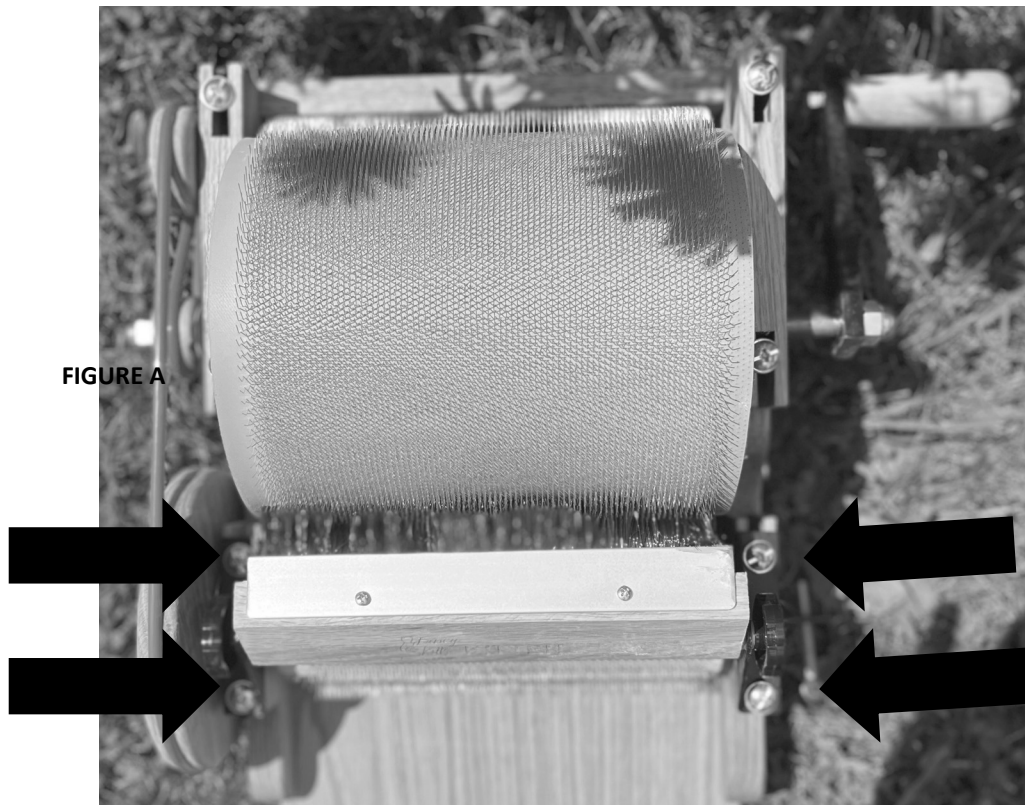
- This product has sharp pointed wires
- Extreme Care must be taken in its use
- Improper use may cause serious injury

# ADJUSTING YOUR CARDER

If you wish to adjust your carder, please follow the procedure below. We do suggest that they work best a credit card thickness apart. We do set them that way in the shop however, occasionally they do shift during the shipping process.

*We would say that a credit card inserted between the two drums should have the teeth just so touching on each side.*

1. Remove the Orange belt. (Fred normally takes it off of the front big pulley first.)
2. Use a Phillips head screwdriver and loosen the four slider hold down screws as shown in figure A.



After you have loosened the screws, move the licker in closer or farther way from the swift drum as you wish. It is easier to remove one side at a time and then snug one screw on that side until you get the required results.

When you are satisfied with the adjustment, retighten all four adjustment screws.

***Please note that adjustment closer than the optimum will result in premature wear of the carding cloth, on both the licker-in drum and swift drum.***

# CARE & MAINTENANCE

Your new Fancy Kitty drum carder requires very little maintenance. The exterior is finished using a product called Half n Half, a perfect blend of pure Tung Oil and natural, food-grade thinner Citrus Solvent. It will require no more maintenance than you would give any fine piece of furniture. Use a carnuba based furniture wax or bees wax to keep the feed tray polished to a slick finish.

The licker-in drum requires no maintenance other than cleaning after use. It is mounted in sealed bearings for long life and no maintenance. However the drum is adjustable and may be re-adjusted for your personal preferences. See the page titled Adjusting your carder

The swift drum is also mounted in sealed bearings and is pre-adjusted during assembly for optimum performance. It should require no further adjustment.

There is a pdf available on [www.fancy-kitty.com](http://www.fancy-kitty.com) on deep cleaning your carder.

## **Using a Drum Carder**

Spinners have always been impatient with carding and fiber preparation. In days past, children were often given this job or, if a spinner lived near a mill and could afford its services, she would have the carding done there. Likewise, many of today's spinners bypass carding almost entirely, by spinning mostly roving or sliver -two mill preparations, originally devised for mechanical spinning. When spinners rely on drum carders in an attempt to streamline fiber preparation, it is important that they learn how to use these tools well. Certain basic methods and techniques can greatly increase the efficiency and effectiveness of a drum carder - while others waste time and increase the amount of work.

## **Getting Ready to Card**

A drum carder works best if you feed it a small amount of fiber at a time - or better yet, thin layers of fiber. If you attempt to feed a carder too much fiber at once, you may jam the machine, bend its teeth and/or tear the fibers. With wool and other fairly long fibers, this means that it's usually a good idea to start by fluffing up the fibers to eliminate thick clusters. Many spinners use a picker in this time-consuming but important process, while others open the clusters of fiber by hand.

## **The First Round**

For best results, we suggest first teasing the fibers with a wool picker or hand cards prior to carding with the drum carder. Because the main object of teasing is to prevent damage to the fiber and the card clothing, to promote a smoother end product, and to make carding easier.

Another method if you would rather let the drum carder do the teasing. Instead of feeding unteased fibers through the feeding chute - where jams often occur - lay them directly onto the main drum from the top, where you can see what is happening at every moment. Grasp a small handful of fiber or a couple of good-sized locks. Hold them firmly, and allow a few fibers to begin catching in the teeth as you turn the drum. Let the fibers be pulled gradually from your hand, being careful to keep your knuckles away from the teeth. (The fibers will not feed in gradually if the wool has been abused in washing, and has become tangled or felted so that it is hard to pull apart.) It's all right if a small cluster escapes your hand, but if a large one gets away, stop the machine, back it up (if necessary), and redistribute the fibers. After a few of these episodes, you will learn how large a fiber cluster your carder can handle. When the drum is full, it is unable to process additional fiber. How much is too much? Each type of carder can efficiently handle a different amount of fiber. The capacity depends on

the drum size and the length of the teeth. However, you can see when loaded carding cloth is reaching its capacity. You need enough tooth exposure to pick and comb incoming fibers. You can also feel and hear when the cloth becomes too full: the handle will turn with difficulty, even though no new fiber is being added, and you'll hear a muffled, rubbing sound.

## **Doffing**

Taking the fiber off the carding cloth is called doffing. Often a doffing rod, or similar device, is used to lift the fiber away from the drum. Most carder manufacturers provide a doffer, but an old, long, steel knitting needle, an old ice pick, or a painted steel rod will do nicely. (Aluminum knitting needles are not strong enough.) Be sure that your doffer is not so sharp that it damages the backing of the carding cloth.

First, turn the loaded drum so that the brass strip is exposed. You might think that you can slide the doffer under the batt and lift up one end. If this is cotton or short wool, you can - but any long fiber will present a dense mat which will not come apart without a struggle. Start at the far edge and slide the doffer under an inch or two (2.5 - 5cm) of the batt. Lift this, allowing the fibers to slide apart. Although you may need to pull very hard, don't tear the fibers. If you think damage is imminent, try a smaller amount. Then work your way across the drum until you have opened the entire batt. Now one end of the batt is free, but the rest is still caught in the teeth. If you pull up gently on the loose end while turning the drum backward, most of the fiber will lift away - but not all of it will. The closer you get to the end of the batt, the more fiber will remain in the teeth - often as much as half the thickness at the end. Use the rod to lift the batt away from the drum as you pull the free end of the batt up and back. Lift with the rod, then pull on the loose end. Back up the drum and repeat. In a few moments the batt will lift entirely free of the teeth. A word on doffing mesh. Some people like this way of handling the task. The mesh is an open net that fits the carding cloth - you can buy or make one. It is laid into the teeth and pushed all the way down before carding begins. At unloading time, the fibers are loosened at the tail end of the mesh and the mesh is pulled up out of the teeth, bringing the fiber with it. When both sides are firmly held, pull apart. The two halves will retain the original flat configuration. The idea is to separate each batt into thin sheets of fiber which you'll feed back through the carder.



## **Between Rounds**

You are now ready to re-card, but don't try to feed the entire batt into the carder at once. If you do, your carder will become overloaded, the carding will be incomplete, and the machine will jam. Finally, the poorly carded fiber will be difficult to spin smoothly. After the first carding, the texture of the batt will be uneven, but it will have two characteristics of completely carded batts: the layered arrangement and the lengthwise grain of overlapping fibers. You can use these characteristics to quickly prepare the fiber for the next step. At this point, some people pull a strip from the side of the batt and fluff it into a thin layer. Again, I don't like to spend this much time on the task. In the amount of time it takes to pull off and spread out one strip, you can probably prepare a whole batt with my method. Place your hands on the front and back sides of a batt, and pull it into two halves. Gently pull. Repeat this with each half a couple more times, until you have thin sheets. Now divide each layer in half lengthwise and you are ready to send the fiber back through the carder.

## **Second Round**

You will now be feeding the fiber through the feeding chute, in the "normal" way. But don't completely rule out the possibility of feeding from the top again - some fibers card better from the top, while some do better from the bottom (the chute). Try both techniques and see what you think. Remember to keep the layers thin, and take the time to pull apart any sections of the divided batt that seem to be too thick. A second invested here can make a big difference in how thoroughly your machine cards. Slide a narrow edge of the fiber layer under the licker-in until you feel the machine begin to draw it in. Now you need to retard the fiber's progress slightly, to keep it from being drawn in too rapidly. But don't hold it back too firmly, or the fiber will wrap around the licker-in (the little, feeding drum) instead of being transferred to the swift (the big, carding drum). To get an idea of how much to hold the fiber back, just do it wrong a couple of times. Then you'll know exactly what is required. Some people lay a hand lightly on top of the fiber layer in the chute, but I like to give each layer a series of quick, light tugs, which both slow the progress and thin out the layer being drawn in. Both methods work.

## **Fiber on the licker-in**

Even when you are feeding the fiber correctly, some will stay on the licker-in. Curiously, it will probably load to a certain level and then stay there for a long time. If you conscientiously clean it out, it will quickly reload again to that point. So don't spend more time than is really

necessary keeping it free from fiber. In any case, unless you have already carded the fiber several times, the stuff on the licker-in will be real junk, dirt, second cuts, and other uglies. Don't be frugal. Pitch it.

### **Cleaning a drum carder**

This job is even more bothersome than cleaning hand carders, because it takes longer and is more frustrating. Of course, you can leave bits of fluff embedded in the teeth, especially if you always process fibers of similar color and texture. But I advise against this, especially if you have been working on protein fibers-which attract wool moth larvae and carpet beetles.

These pests can be transferred in turn to everything you run through the machine. You might as well clean your carder, starting with the licker-in, because it's hard to clean that part without transferring a bunch of stuff onto the swift. Remove the junk batt from the licker-in as you would a regular batt, while doing your best to keep the swift from taking it. Get most of the trash off, but don't bother to get it all - you will have to clean this part again at least once. Now clear the swift of clumps or wisps of fiber by lifting them off with the doffer. There probably will not be enough residue to form a complete layer. Keep pulling the fibers out of the teeth with your free hand, which is not turning the handle. Or you could use the blending brush, supplied with the carder or available for separate purchase. Now look at the licker-in. What did I tell you? Ignore it for now, until the swift is cleaner. The brush works well at this point for combing through the teeth and lifting out stray bits of fiber. Always comb with the grain of the teeth. Go as deeply into them as you can. Pull the bits of fiber out of the brush as you retrieve them, so they don't get redeposited. When the swift is fairly clean, go back to the licker-in; then repeat your efforts on the swift, and so forth. A drum carder is a bed that never stays made, but eventually it will be quite clean. If you want the card clothing really clean - for example, if you are changing colors - there is one more thing to do. Nothing is more frustrating than to go from black wool to white and then discover that the first batts have dark fibers mixed in. To prevent this, I use my secret weapon. As a standard accessory for your drum carder, get a strong, stiff, long-bristled hairbrush. It will pick up the last fibers that have resisted your previous efforts: keep brushing up and lifting out, working with the grain, and watch more fiber come away from the drum. That should do it. But if you are, indeed, switching colors, check again in good light - it pays to be paranoid.

**Note:**

If you handle your wool gently, it will often remain in identifiable locks. These can be pulled from the masses and opened before carding.

When feeding directly onto the main drum, grasp locks firmly by their cut ends. Allow the teeth of the drum to tease the locks open before you let the fibers escape to be carded.

**Note:**

Here's a suggested grip for the crank: two fingers and a thumb. If you can't turn the handle easily with this arrangement, you are probably trying to force too much fiber through at once.

Stop and regroup.

If a clump of fiber escapes your hand, don't force it through the carder. Reverse immediately and remove the excess.

If you feel the machine jamming, don't force the handle. After making sure the packing brush is pulled out away from the drum, Reverse the drum until you see the offending clump of fiber and pull it off.

**Handy Note:**

Be careful not to feed fibers in sideways, thinking they will straighten out. They eventually will, but only after they have been torn by the teeth.

**Handy Note**

Working with thin layers of fiber facilitates thorough carding and prevents damage to the fiber and the equipment.

Distribute fibers evenly across the drum, gradually adding layers until the drum is full.

Retard the fiber's entry slightly as you work. You can do this by holding the fiber gently and giving quick little tugs to thin out any thicker portions. You can also slow down the fiber's entry by laying a hand lightly on it. You can also use a pet brush or blending brush to clean the swift.