Moore's presents Sewing TECH TALK with Cathy

Sewing/Embroidery

All About Bobbins

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Always Use the Correct Bobbin for Your Machine

The correct bobbins for your machine are the ones included with the machine at the time of purchase and will be both noted in the Owner's Manual for the machine and available for the manufacturer. There are currently three popular bobbin sizes for machines: Class 15, Class L and Class M bobbins. Industrial machines usually have specialty bobbins or may not use a bobbin system at all. Most Class 15 bobbins currently in use are clear plastic and the others are generally metal. Class 15 bobbins have the most capacity of the three types and have a larger diameter. Class 15 bobbins are 11.5 mm high (approximately 7/16") and class L bobbins with the same diameter are 9mm high (approximately 3/8").

Bobbin cases are specific for the type of machine. In a rotary bobbin system, the bobbin case is directly below the needle and feed dogs and in a front-loading bobbin system, the bobbin case is in front of the needle and the feed dogs. (In some vintage machines, such as the Elna Lotus, the bobbin case was behind the needle.) Generally, rotary bobbin systems allow the machine to sew at a greater speed and use a metal bobbin in a metal bobbin case.

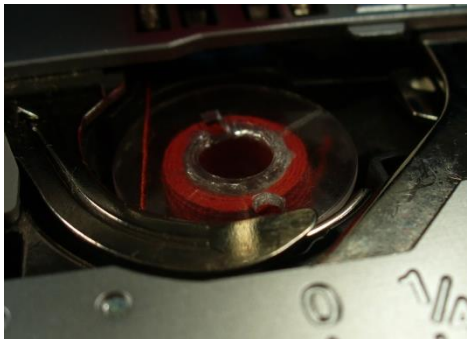
Pre-wound bobbins are available for all types of bobbin and are most popular for machine embroidery. Professionally wound bobbins hold a greater amount of thread than home wound bobbins. For the Stellaire, COATS type L pre-wound bobbins with the Bobbin Center pin are recommended. Do not use the bobbin centering pin with the higher class 15 bobbins. Class 15 plastic pre-wound bobbins are available and are disposable after use. These bobbins are not made of the same quality plastic as the plastic bobbins intended for the machine. They are also lighter weight than the bobbins intended for the machine. Due to the coating on pre-wound bobbins the bobbin case may require additional cleaning. Re-winding the disposable bobbins is not

recommended because they are subject to breakage especially if over-filled. The disposable plastic bobbins are handy to split a single spool of thread for use in the needle as in sewing with a twin needle.

Select the Best Bobbin Thread for the Job

In sewing construction, the thread in the bobbin usually matches the needle thread. The two threads join together to form an even balanced stitch that is ideal for a strong seam. Decorative stitches and embroidery are a different situation. These situations usually require an un-balanced stitch where the needle thread is slightly pulled to the back. The bobbin thread is below the surface of the fabric and is not pulled up to the top of the fabric. This uneven stitch is achieved with either a thinner thread, reduced top tension or a combination of both. Embroidery bobbin thread is thinner than all-purpose or embroidery thread. Embroidery only machines may require a different weight of embroidery bobbin thread.

Bobbin Settings and Tension



The perfect tension (either balanced or unbalanced) is the result of a tug of war between the needle and the bobbin threads. Tension is influenced by the size of the thread in both the top and bottom and the resistance placed on both threads by the tensioning system. The tensioning system is either resistance (literally squeezing the thread between two discs) or a roller system that senses and measures the movement of the thread through the system. Bobbin tension is a resistance system created with the bobbin tension spring. Thread travels through the spring when threading and placing the bobbin in the machine. In the Stellaire, the quick set bobbin system automatically places the bobbin thread in the correct location. You can tell a correctly threaded bobbin when the thread is visible in diagonal line from the left to right across the top of the bobbin ***after the first stitch***. See the photo.

The bobbin tensioning spring is pre-set either at the factory or by a trained technician. The tension setting is measured as “gram pull” and a special device is used to measure the resistance. Adjust the tension with very precise turning of a

very small screw. When adjusting the tension is necessary, adjust the needle tension to match the bobbin and avoid (at all costs) changing the precisely set bobbin tension. The Brother Stellaire comes with an alternate bobbin case (black plastic with no color on screw) when a tighter bobbin tension is needed. Replace the professionally set bobbin case (the adjustment screw is marked with a dab of green paint) with this alternate case. The standard case is patiently waiting to return to service and provide perfect tension for everyday sewing. For very special situations, such as bobbin work with extra thick threads, a special grey bobbin case (Part #X59802- 001 pictured left) is available.

Clean the Bobbin Area (Seriously, Clean the Bobbin Area)

The Brother Stellaire featured in the video uses a Class 15 plastic bobbin. The plastic bobbin is clear and is important for the Low Bobbin Warning feature to work. That feature uses a light source to check the amount of thread remaining on the bobbin. The small amount of thread remaining on the bobbin allows light to pass through and triggers the warning stopping the machine. This feature will be blocked when built up lint in the bobbin area always blocks the light. Disable this feature in the settings for sewing without thread in the bobbin.

The Brother Stellaire and machines of the same class do not require oiling by the consumer. Trained technicians renew the lubrication at the time of service. Regular maintenance by the consumer is as simple as keeping the bobbin area free of lint. Built up lint absorbs the lubrication from the machine and will raise the bobbin in the bobbin case resulting in a less than perfect stitch. To clean the bobbin area, turn off the machine and remove the needle plate. Remove the bobbin case (observe how the bobbin case is situated before removing it) and use a soft brush (a makeup brush with a hint of oil on the bristles is ideal) to remove the lint. For deep areas or any stray threads caught in the bobbin thread cutter carefully use a pair of tweezers. Visually check the bobbin tension spring. A small bit of lint in the spring will completely eliminate any bobbin tension and create a complete tension nightmare. If necessary, gently clean out the spring with the corner of a paper business card. Replace the bobbin case. In the Stellaire, two small white arrows match when the bobbin case is replaced correctly. Before replacing the needle plate, check that the bobbin case is correctly seated and level.

Special Notes:

On the Stellaire and similar class machines, the bobbin can be wound while performing other functions such as embroidery. When the bobbin winder is engaged, the winding speed is controlled with the + and – keys. Touch OK to minimize the winding window and the image of a bobbin on the upper right of the screen to restore the window.
If the thread slips under the plastic bobbin seat on the bobbin winder, stop winding the thread and remove the bobbin from the post. Lift the plastic bobbin seat up and remove the thread. Return the bobbin seat by aligning the center hole to the post. If the thread is not well placed in the bobbin winding pre-tension the thread on the bobbin will be sloppy and soft. A well-wound bobbin should look like a spool of thread. Re-wind a sloppy bobbin onto a new bobbin.

Set the bobbin according to the diagram on the bobbin cover plate. The bobbin tail will fall on the right of the bobbin when the bobbin is held and when inserted the bobbin will unwind in a clockwise direction.

When winding any transparent nylon thread (invisible thread) on the bobbin, stop the bobbin winding when the bobbin in ½ to 2/3 full. If the bobbin is fully wound with nylon thread the bobbin may not be wound correctly and the extreme pressure may cause the bobbin to break or be very difficult to remove from the bobbin winder pin.

When threading the bobbin with the Quick Set System the bobbin does not need to be pulled to the top prior to beginning sewing. Additionally the bobbin thread remains in the bobbin area after using the scissor trimming function. To pull up the bobbin thread prior to sewing for free motion quilting, do not follow the complete path to trim the bobbin thread. Replace the bobbin cover and engage needle up and down to pull the thread to the top. If the scissor function has been use, it may take 2-3 needle up and down cycles to pull the bobbin thread to the top.

When embroidering very small letters or designs with short stitches use an embroidery bobbin thread with the same value, such as a black bobbin thread with tiny letters

embroidered with black. A very fine thread, such as Quilters Select Para-cotton Poly in an 80 wt., is also an option for these areas.