

Troubleshooting Tension

Troubleshooting Stitch Quality with Maple Leaf Quilting Company Ltd.

Many tension and stitch quality issues are related to the parts and products we use when we quilt. If you are having tension or stitch quality issues, please follow these steps before calling for troubleshooting assistance:

1. Take out your needle. Insert it upside down, using the sharp end to “clean out” the area with small circular motions. This will ensure there is no lint preventing the needle from being inserted completely.

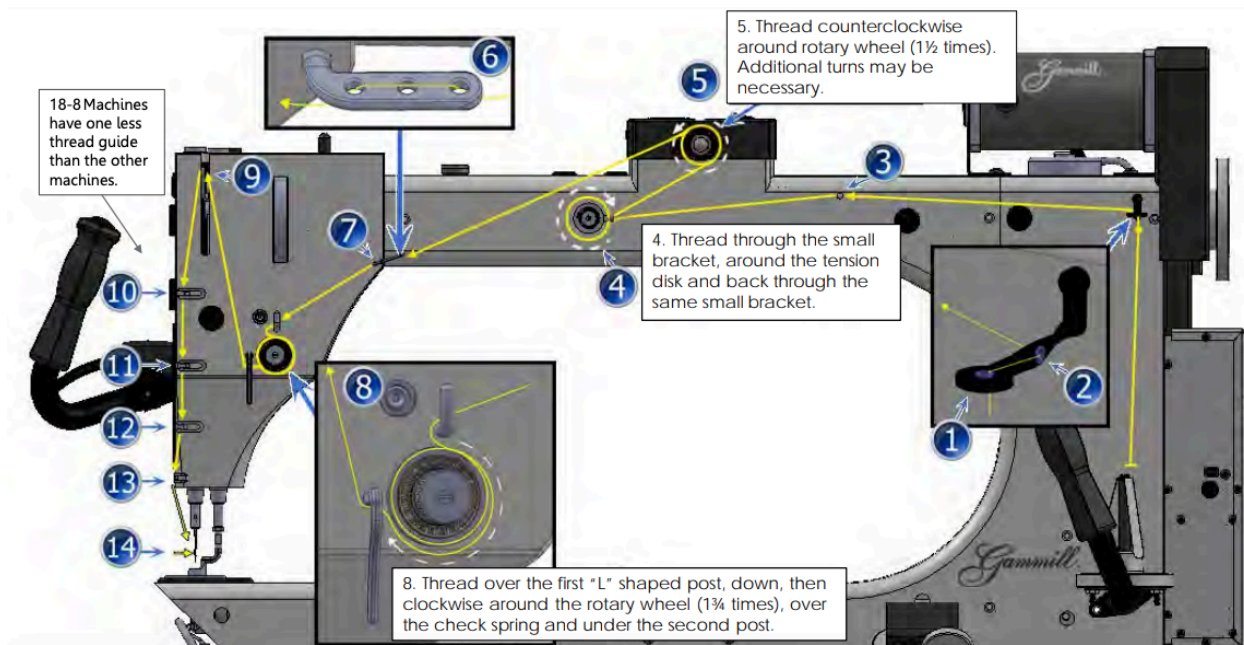
2. Throw that needle away and insert a brand new 134MR R needle. For everyday multipurpose quilting, we always recommend Groz-Beckert 134MR sharp needles in a 4.0 size (or 18). The package will have a R in the bottom corner indicating the tip is sharp, or “regular round”. They look like this:



If you need Gammill Sharp 4.0 needles, [CLICK HERE](#).

3. Make sure you are using a quality thread made for longarm quilting. If you are using a serger thread such as Maxilock or 100% cotton thread made for your domestic sewing machine, this can contribute to tension and stitch quality issues. Longarm quilting thread is manufactured for consistency to work with the longarm thread path and high speeds of longarm quilting machines. Thread your machine with a quality longarm quilting thread.

4. Let's double check our thread path. Here is a [VIDEO](#) on how Gammill recommends we thread our machines.



5. Examine your bobbin. Is it a genuine Gammill bronze bobbin? If your bobbin doesn't look like the picture to the right, there is a good chance it could be contributing to your stitch quality issues. To order the bobbins Gammill recommends, [CLICK HERE](#).



6. Take out your bobbin. Walk around to the back of your machine and stick your thumbnail in the cone of thread on your machine. Then, stick your fingernail in the thread on the bobbin. They should feel the same. The bobbin should be wound as tightly as a cone of longarm quilting thread. If your bobbin is squishier than a cone of thread, make some tension adjustments to your bobbin winder and wind the bobbin again. If you wind your bobbins on your Gammill machine, be sure you are winding them in CONSTANT mode to avoid inconsistencies in the speed of winding. Click to learn more about a [Stand Alone Bobbin Winder](#) with free shipping.

7. While your bobbin is out of the bobbin case, let's clean the lint from under the anti-backlash spring. Andrew Weaver has given us a great video on how to use the corner of a business card to clean lint from our bobbin case. [Watch](#) and follow along!

8. Next, we want to make sure we have the correct check spring in our bobbin case and it is inserted correctly. There are 2 brands of bobbin cases recommended by Gammill: Towa and Seiko. Your Gammill came with a Seiko bobbin case simply because it is built with a Seiko hook; however, any replacement bobbin cases you order will be Towa because they seem to be a bit more consistent. You can identify a Towa bobbin case by the etched insignia on the side that looks like this:



The spring for the towa bobbin case is round with 2 little arms bent out slightly from each side like this:



The spring for the Seiko bobbin case is shaped like a football and looks like this:



It is very important to have the correct spring in your bobbin case. Please make sure the spring matches your brand of case and watch this [VIDEO](#) to make sure it is inserted properly. The metal tabs should be in the slots and when inserted into the case, your bobbin should sit slightly taller than the edge of the bobbin case and have a bit of bounce when you push it in.

Using a [Towa Gauge](#) to test every bobbin can help you avoid bobbins that are wound with the wrong tension, or bobbin case tension that may be too tight or too loose.

9. Examine your check spring.

The check spring sits in the Check Spring Assembly with the white knob. The check spring is the little metal “hook” that your thread goes under after 1 $\frac{3}{4}$ rotation around the check spring assembly. The curve of the hook should sit at 10:30 on the clock and the spring should be bouncy. When you pull it down, it should pop right back up. If the spring is missing, and you have a replacement on hand, use this [VIDEO](#) to put on the new check spring. If you don't have an extra check spring, [CLICK HERE](#) to get one right away! The check spring assembly looks like this:



10. Next, we will examine our encoder tires. If your machine has stitch regulation, it will also have encoders. When the rubber tire around the encoder wheel gets dry and cracks, it can cause stitch length to become irregular. Examine the encoder tires (o-rings) on both encoders and make sure they are clean and there are no cracks. Sometimes it is necessary to remove the rubber tire and squeeze it to see any cracks. Use your fingers to roll the tires on and off of the encoder wheel. Encoders are typically found on the left side of the machine, riding on the crosstrack, and underneath the crosstrack in the rear of the machine, riding along the back of the table track.

If everything in this checklist seems to be correct and you are still having stitch quality issues, please call us or Gammill's Technical Assistance.

We are always happy to troubleshoot further over the phone, Facetime, or video chat. We can schedule a service call if needed.

To order any spare parts, or an emergency kit with all of the parts we talked about, visit us at www.mapleleafquiltingcompany.com

Maple Leaf Quilting Company Ltd
Unit 9105 101 Sunset Drive | Cochrane, Alberta
PHONE: (403) 981-3500
Email: mapleleafquiltingcompany@shaw.ca

Gammill Technical Assistance
1-800-659-8224 (1) Machine Problems, Hand Guided Machines, (2) Statler
Technical, (3) Elevate Technical.

The original document was created by Heather at Highland Gammill – please ask permission before sharing! Thank you for allowing us to share this information with our customers, Heather!

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