

Thread Tension Problems

Learn to recognize and correct

Problems with inconsistent, skipped stitches, broken thread, and poor stitch quality can be enough to make you throw your hands up, utter a few not so nice words, and even run to the nearest sewing machine dealer for a machine that promises no "tension" headaches.

You may have an older domestic machine, or a longarm that has a tension dial that you can easily adjust. Or, you may have a newer domestic machine that has a pre-set tension based on stitch selection. Regardless of the type of machine that you have, you need to be able to identify the cause of the tension problem and what to do to correct the problem.

For normal sewing and quilting, you should always see a balanced stitch. The top (spool) thread should not show on the bottom and the bobbin thread should not show on the top. Whenever you change your needle size or type, change the project, work on a quilt sandwich or on a different type of fabric, you may find the tension out of balance. If your machine has a pre-set tension, learn how to over ride the setting so that you have a perfectly set tension for your project. Here are several common problems and adjustments you can make for perfect stitches:

When you have erratic stitches, before making any tension adjustments, re-thread both the top through the needle and the bobbin. Even missing one thread guide can throw the tension off and cause an unbalanced stitch.

Problem: Railroading, loops on the bottom (bobbin) side

Cause by: Top tension too loose or bobbin tension too tight

Adjustment: Tighten the top tension in small increments (turn the dial to the right, clockwise, or increase the number setting). It is important to sewing a sample after each adjustment to check progress until the stitches are even.

Problem: Loose stitches on the top, bobbin thread pulling up to the top side

Caused by: Top tension too tight or bobbin tension too loose

Adjustment: Loosen the top tension in slight increments (turn dial to the left or counter clockwise, or reduce the number setting). Sew a sample after each adjustment until stitches are balanced top and bottom

Problem: Loose stitches on the top and loopy stitches on the bottom, and stitches not forming at all.

Cause: Needle thread and bobbin thread not meeting correctly. This is a common problem when using a hopping foot on the domestic machine for free motion quilting.

Adjustment: The presser foot was not down. Simply put the presser foot down and start sewing. You will see a miracle - the stitch problems are gone.

A few final tips:

- Always start by adjusting the top thread tension first. If you find that it is not possible to totally correct the problem with a top thread tension adjustment, then, adjust the bobbin.
- If you need to adjust the bobbin, adjustments should always be made in very small increments. On the side of the bobbin case is a tension adjustment screw. Think of the screw face as a clock face. By turning the screw to the right the tension becomes tighter, turning to the left, the tension becomes less. Always make small adjustments to the right or left, never more that "5 minutes" at a time turning on the "clock face" screw.
- Always test sew after each adjustment on two layers of the fabric you are using or on a sample of your quilt sandwich if you are quilting.

By following these suggestions, you should be able to quickly find relief from your "tension" headaches.

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