

Trouble Shooting 1

Top Thread Breaking

1. Try different thread or put thread in the refrigerator for several hours.
2. Replace needle and ensure the scarf faces the throat of machine.
3. Check thread path. Re-thread the machine if necessary.
4. 9 stitches per inch (8-12 acceptable)
5. Use larger needle to reduce needle deflection
6. Loosen fabric roller
7. Adjust Needle-Bar so all of the Needle-Eye can be seen while looking into the Hook Basket with the Bobbin Case removed.
8. Time: Turn machine forward with Hand Wheel and place the POINT of the Sewing Hook in the middle of the scarf of the Needle as it rises $\frac{3}{32}$ " from the lowest position. The Hook should almost touch the Needle but should not cause a needle deflection. A slight clicking sound will occur when this happens
9. Polish Hook Point with fine (800) Emery Cloth.
10. Hopping Foot at the lowest point of it's stroke should be the thickness of one dime or three business cards.
11. Loosen top tension
12. Tension Check Spring broken. It should be at 11 o'clock.
13. Turn thread cone/spool upside down.

Loops on Under Side of Lining Fabric

1. Moving machine too fast for selected needle speed.
2. Tighten (to the right) top thread tension adjustment $\frac{1}{4}$ turn at a time until corrected.
3. Clean under the Tension Spring on the Bobbin Case.
4. Bobbin thread not in tension spring delivery eye.
5. Put a sock on thread cone
6. Check thread path on machine
7. The stationary finger that holds the Hook Assembly and prevents it from turning should be $\frac{1}{2}$ to $\frac{2}{3}$ into the depth of the notch.

Loose thread Tension on Top Fabric

1. Tighten Tension Adjustment (turn clockwise)
2. Loosen Bobbin tension.
3. Center the thread cone directly under the guide.

Trouble Shooting 2

MACHINE HARD TO MOVE

1. Raise Take Up Roller to clear the machine lower arm by 1/2" to 3/4" or the width of your finger.
2. Thread clogging wheel(s).
3. Center wheels on the track groove by adding or removing washers.
4. Increase Hopping Foot height (almost never done).

SKIPPED STITCHES

1. Replace Needle, insert all the way up with the scarf toward the throat of the machine.
2. Re-time (See #8 Top Thread Breaking).
3. Take-Up Roller too high.
4. Loosen Fabric Roller
5. Polish Hook Point with fine (800) Emery Cloth
6. Thread not on Take-Up Spring
7. Check thread path on machine.
8. Hopping Foot too high

NEEDLE BREAKING

1. Replace Needle and tighten Needle Set Screw.
2. Use larger needle.
3. Moving machine too fast for speed setting.
4. Re-time (See #8 Top Thread Breaking).

*Note on Timing: Adjust the Needle Bar height first. While in the lowest point of the stroke, look at the sewing hook, and the entire needle eye should be visible. None of the needle above the eye should be seen. Ensure the Needle Bar does not rotate from its original position.

A proper stitch has both the bottom and top threads meeting at the center of the layers. The top thread and take-up lever have much greater affect on tension adjustment than the bobbin tension. The take-up lever takes the slack out of the top thread as the needle comes up out of the fabric.

Thread can become wrapped around the encoder wheel, causing the stitch regulation mode to malfunction. Grasp the thread-end with tweezers and move the machine to unravel the thread.