



Solutions to Sewing Problems

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Common Sewing Problems

Causes and Remedies

There can be many reasons behind the problems that arise while sewing and knowing the cause of these problems and a solution for each particular cause is essential. These problems can be minimised by avoiding errors during handling of materials / machines and by following the right working methods.

Some common sewing problems are;

- Needle thread breakage
- Bobbin or looper thread breakage
- Thread fusing when the machine stops
- Skipped stitches
- Imbalanced / variable stitching
- Staggered stitching
- Variable stitch density
- Seam pucker



The causes and solutions for each of the above problems are discussed in the following sections.

■ Needle Thread Breakage:

Cause	Remedy
Misaligned off winding from thread package	Ensure that the overhead guide is directly above cop stand pin, at 2½ times the height of the thread package. Use a foam pad to prevent package tilting
Trapping at package base	Reduce the thread stand height to prevent vibration and spillage. Use a foam pad to prevent trapping after spillage
Thread trapped at thread guide	Can occur after thread breaks. Rethread correctly
Snarling before tension disc	Increase the wraps on pre-tension thread guides and reduce disc tension. Ensure discs are smooth
Excessive tension	Use a stronger thread or adjust tension
Broken check spring	Replace and adjust
Sharp edges on throat plate, hook point, needle guard, bobbin case, needle groove or eye	Polish rough edges and replace if necessary. Replace the needle being used with a higher quality needle
Thread fraying at needle	Use finer thread or coarser needle, as appropriate
Excessive needle heat; groove or eye blocked with melted fabric	Improve the fabric finish. Change to a better needle, style and finish. Apply needle lubricant via thread. Use a needle cooler
Hook overheating	Ensure adequate oil supply. Check the needle to hook clearance
Poor quality thread	Change to a correctly finished thread of better quality

■ Bobbin or Looper Thread Breakage:

Cause	Remedy
Badly wound thread on the bobbin	Adjust bobbin winder alignment. Use pre-wound bobbins
Tension too tight or bobbin over-running	Adjust bobbin case tension. Insert a washer or a spring to prevent over-running
Sharp edges on bobbin case or spring or looper eyelet	Polish edges and correct surfaces
Bobbin case not fitting correctly	Check the size / type of bobbin for flange distortion

■ Thread Fusing when the Machine Stops:

Cause	Remedy
Poorly finished or incorrect thread	Use better quality thread
Densely woven fabric that is poorly or harshly finished	Improve fabric finish. Change to more suitable needles. Apply needle coolants
Damaged or overheated needle after thread breakage	Change the needle.

■ **Skipped Stitches:**

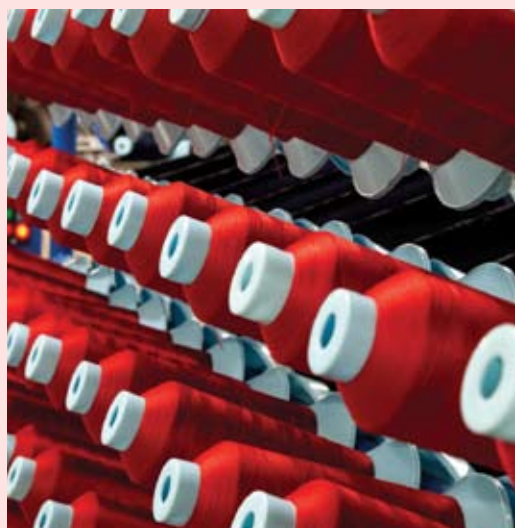
Cause	Remedy
Hook, looper or needle failing to enter thread loops at the correct time	Check machine clearances and timings. Check if the needle is inserted and aligned correctly. Use a needle with a deeper scarf
Thread loop failure caused by incorrect needle size / style for thread size / type	Change needle size / style
Thread loop failure due to incorrect setting of thread control mechanism causing thread loop starvation	Reset to standard and check loop formation with a strobe
Flagging of fabric due to poor presser foot control or too large a throat plate hole	Re-adjust the presser foot pressure. Change the throat plate to match the needle
Needle deflections or bent needle	Use a reinforced needle, reset the needle guard and replace the needle
Incorrect sewing tension in the needle or under threads	Re-adjust the tensions
Poor thread loop formation	Check with a strobe. Change to superior spun polyester or filament based corespun threads

■ **Imbalanced / Variable Stitching:**

Cause	Remedy
Incorrect sewing tensions	Check for snarling, adjust thread tensions
Incorrect threading	Rethread machine
Needle thread snagging on bobbin case or positioning finger	Polish bobbin case surfaces. Reset positioning finger and opening finger
Variable tension due to poor thread lubrication	Switch to superior quality threads

■ **Staggered Stitching:**

Cause	Remedy
Needle vibration or deflection	Increase needle size or change to a reinforced or tapered needle
Incorrect or blunt needle point	Change the needle
Incorrect needle-to-thread size relationship	Change needle or thread size as appropriate
Feed dog sway	Tighten the feed dog
Poor fabric control, presser foot bounce	Reset the presser foot. Change the feed mechanism



■ **Variable Stitch Density:**

Cause	Remedy
Poor fabric feed control	Increase the presser foot pressure. Change to a more positive feed mechanism

■ **Seam Pucker:**

Cause	Remedy
Variable differential fabric feed	Improve the fabric feed mechanism. Replace worn out feed dogs. Reduce the maximum sewing speed
High thread tension	Keep the bobbin tension as low as possible and set the needle thread tension accordingly
Incorrect thread balance	Ensure proper balance between the top and bottom thread
Improper thread type	Use threads with controlled elongation. Properly maintain tension guides

As a Coats customer, you have access to the finest **technical expertise** in the thread industry. Our technical consultants are available to assist you in finding solutions for all your shop floor issues. They can give you insights on improving your sewing processes, which will help you deliver products with better quality.