

Needle Little Help?

Needles can be confusing. What are the different types of needles? Which ones should be used on which projects? Does size really matter?

Schmetz has developed a useful little booklet that explains the anatomy of a needle and indicates the fabrics and purposes for which each type of needle is designed. We have them here at Quilty Pleasures, and they're free – just ask us for one.

But other factors contribute to the success of your stitching, too, and Schmetz has offered the following troubleshooting chart to help you out. Keep it by your sewing machine for a quick reference.

1. Upper Thread Breaks

Causes:

- Incorrect threading;
- Knots or twists in thread
- Tension too tight
- Damaged/old needle
- Needle too small

Solutions:

- Rethread machine properly
- Replace thread
- Reset bobbin and top thread tension
- Replace needle
- Use correct needle for thread and application

2. Bobbin Thread Breaks

Causes:

- Bobbin case incorrectly threaded
- Bobbin case incorrectly inserted
- Bobbin does not turn smoothly in bobbin case
- Lint in bobbin case
- Bobbin tension too tight

Solutions:

- Remove bobbin and re-thread with bobbin turning clockwise
- Remove and re-insert bobbin case
- Check that bobbin case and bobbin are in round; replace if necessary
- Clean bobbin case and surrounding machine area
- Check and reset bobbin tension

3. Skipped Stitches

Causes:

- Thread tension too tight
- Needle damaged
- Needle wrong size
- Sewing machine out of adjustment

Solutions:

- Reset top and bobbin tension
- Replace needle
- Use correct needle size
- Have sewing machine adjusted for timing, hook to needle clearance, needle bar height

4. Frayed Stitches

Causes:

- Increase needle size
 - Reset tension
 - Replace thread
- Solutions:
- Needle too small
 - Tension too tight
 - Damaged thread

5. Thread Loops on Bottom

Causes:

- Thread not in top tension
- Machine incorrectly threaded
- Top tension too loose
- Burr on hook mechanism

Solutions:

- Rethread machine with presser foot
- Rethread machine incorporating take up lever
- Reset top tension
- Remove burr

6. Irregular Stitches or Malformed Stitches

Causes:

- Wrong needle size
- Incorrect threading
- Upper tension too loose
- Operator pulling fabric
- Bobbin wound unevenly

Solutions:

- Ensure correct needle for fabric & thread
- Un-thread machine and carefully rethread
- Reset lower and upper thread tension
- Check presser foot pressure
- Rewind bobbin

7. Fabric Puckers

Causes:

- Excessive stitch length
- Needle point is blunt
- Excessive thread tension
- Fabric is too soft
- Thread displacement too much thread in a small area
- Fabric not feeding

Solutions:

- Decrease stitch length
- Change needle often
- Check bobbin and upper tension
- Use stabilizer
- Decrease field density; scale embroidery designs; increase stitch length
- Check presser foot, needle plate, feed dogs