

KNOW BETTER, SEW BETTER:

Common Sewing Issues



I can't count how many times I've given this talk in front of a quilt guild or I'm going over issues with a customer, and they roll their eyes because they think this list is too simplistic to cause so many sewing issues. But I can't tell you how many times a machine has sat in our queue for 5 weeks, waiting for service and repair because the customer swore it was broken, only to find a user error or minor fix. It happens all the time.

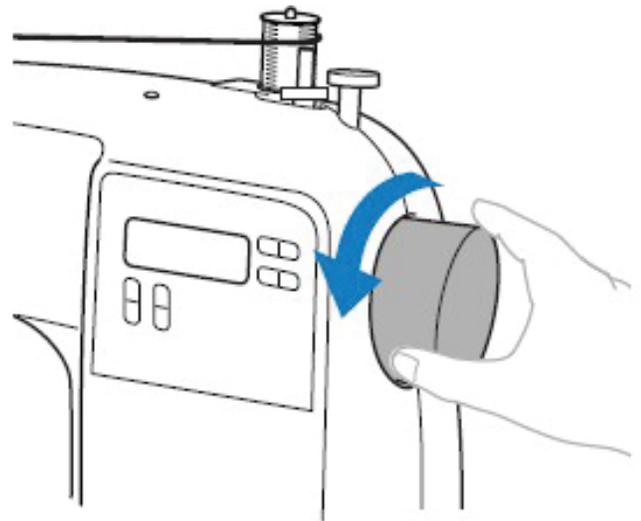
So here are the most common sewing mistakes and oversights I see with the customers in my service shop.

Handwheel - ONLY turn it toward you

When using a mechanical machine, you'll need to turn the handwheel to raise the needle to its highest position each time you finish sewing a seam. Anytime you need to turn the handwheel on your machine, you **MUST** turn it **TOWARD YOU**, not away from you.

If you turn the handwheel away from you when it is threaded and the bobbin is inserted, you will cause a thread nest, broken threads, or cause the bobbin case and machine to jam.

The only exceptions to this rule are rotary or direct drive machines, such as vintage Domestic and White brand machines. With these machines, the handwheel must be turned away from you.



Machine must be threaded properly

- * The thread must be in every thread guide along the thread path.
- * Machine must be threaded with the presser foot UP to allow the tension discs to open.
- * The bobbin must be inserted correctly, with the thread winding the right direction.
- * See Part 1 of this series for more information on threading your machine correctly.

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Wrong Bobbin Type

Each machine only accepts one bobbin type - you might get lucky making another bobbin type work in your machine, but using the wrong bobbin type typically results in frustration with broken thread, stitch quality issues, and thread nesting.

Bobbins are very frustrating in that very few of the manufacturers made bobbins easily identifiable. Singer sometimes stamps their name on the bobbins, but it still doesn't tell you which type it is. Viking is the only brand that makes it somewhat easy, as their bobbins are usually green or a different color. Other than that, you're kind of on your own.

If you acquire a used machine, either from purchase or hand-me-down, you may find that the machine has the wrong bobbins with it and don't even know it. Also, if you own more than one type of machine (i.e. a Brother and a Janome), it's easy for the bobbins to mix because you can't tell the difference between the two.

I do have a method I teach on how to find the correct bobbin for your machine, regardless of the brand or model (home domestic machines only). I wrote a blog post to give you step-by-step instructions for identifying bobbins:

<https://www.sewingdocacademy.com/post/bobbins>

You'll also find a few downloadable charts to keep around to help identify bobbins you might have floating around your sewing room.

Wrong Needle Type

You must use the correct needle type for the type of fabric you are working with. The wrong needle type will create all the headaches you can imagine - skipped stitches, broken threads, poor stitch quality... it's a very frustrating experience.

It's not uncommon for a customer to have their machine serviced in my shop (see Part 2 of this series for our machine testing and tension balance method), then go home and get to sewing on a project using knit or jersey fabric and wonder why their machine isn't working. This is more common than you might realize!

In short, most cotton fabric require a sharp needle, such as a Microtex, whereas a knit or jersey fabric will require a ballpoint needle.

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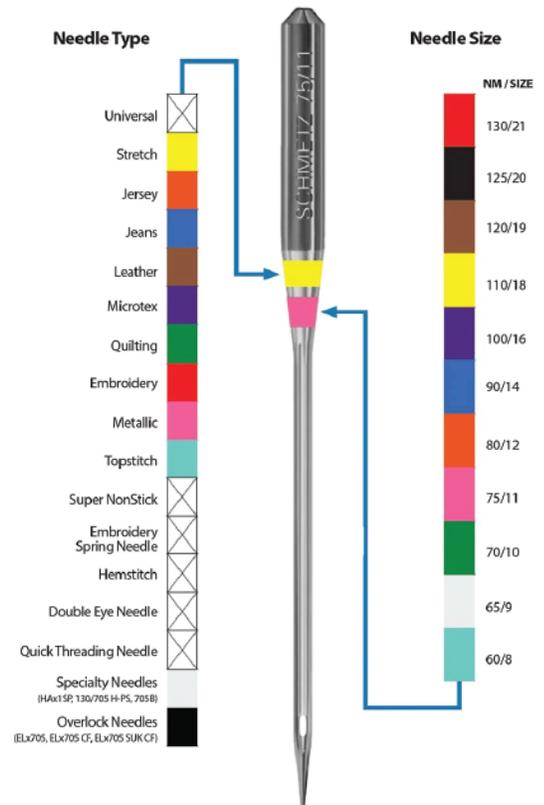
- Your needle **MUST** be inserted properly - on most modern sewing machines, that means flat side of the needle to the back, but it does vary for side-bobbin machines. If you are unsure, consult your manual or reach out to me and I can help you with this (thesewingdocacademy@gmail.com).
- Your needle needs to be replaced more frequently than you realize. You should change your needle about every 8 hours of sewing time, or with every new project. You can get away with using an old or dull needle, but this is the cheapest way to avoid hassle and to improve your stitch quality. Needles bend and warp with time, which can cause damage to your hook or needle plate, not to mention the snags it can cause in your fabric from being dull.
- In our next Know Better, Sew Better series, we will cover needle education in great detail.

The Schmetz needle website offers a wealth of information about selecting the right needle, how each needle performs, understanding thread weight in relation to the needle, and a chart to help troubleshoot needle and thread issues.

Their education and resources are **FREE** and often overlooked. Also, there is an App for both Apple and Android phones to quickly determine the exact needle type you need.

Head to www.schmetzneedles.com for more information.

(On a side note, yes, all home domestic machines can use Schmetz needles with excellent results. The one caveat is that it may affect your automatic needle threader)



TOP 10 BOBBINS

Did you know there are over 60 types of bobbins? Some are dramatically different, while others are so similar, it's difficult to see any difference at all. Let's take a closer look.

Majority of Household Sewing Machines Use the Following 3 Bobbins:

1

CLASS 15 (A STYLE)

About the size of a nickel (US).
The top and bottom of this bobbin are completely flat. This bobbin is available in both plastic and metal.



Width of 11.7 mm



Diameter of 20.3 mm

2

L STYLE

About the size of a nickel (US).
This bobbin is flat and narrow. This bobbin is available in metal, aluminum, plastic, and as a magna-glide core.



Width of 8.9 mm



Diameter of 20.3 mm

*It's worth noting that Style L bobbins are the same width as Class 15 bobbins. As such, you may use a L Style bobbin in your Class 15 machine. However, a Class 15 bobbin is too tall to fit in a L Style machine.

3

M STYLE

About the size of a quarter (US).
This bobbin is large and flat. This bobbin is available in metal, aluminum, plastic, and as a magna-glide core.



Width of 10.7 mm



Diameter of 24.9 mm

Less Common, but worth mentioning...

4

SINGER #163131:

About the size of a quarter (US).
It disassembles by unscrewing the bottom to quickly remove unwanted thread. This bobbin is only available in plastic.



Width of 6.7 mm



Diameter of 27.3 mm

* This bobbin was featured in the Singer "Touch and Sew" series. The unique lines indicate thread path.

5

SINGER #8228

It's used in many Singer treadle machines. It's only available in metal.



Width of 33.4 mm



Diameter of 9 mm

6

CLASS 15J

About the size of a nickel (US).
This bobbin looks similar to a Class 15, but has a slight curve on the top and the bottom. This bobbin is available in metal, plastic, and aluminum.



Width of 11.3 mm



Diameter of 20.4 mm

* The curve is barely noticeable, but still significant. A Class 15J does not perform well in a Class 15 machine.

7

CLASS 66

About the size of a nickel (US).
This bobbin is curved on the top and bottom. This bobbin is available in metal and plastic.



Width of 10.9 mm



Diameter of 20.5 mm

* The Class 66 fits the Black Apollo Bobbin Cases.

8

BERNINA #0115367000

About the size of a nickel (US).
This bobbin is common in the older Bernina machines. The bobbin is only available in metal.



Width of 10.8 mm



Diameter of 20.5 mm

* Bernina has many other bobbin styles available.

9

JUKI 270010:

About the size of a nickel (US).
These are the most common Juki specific bobbins and are very similar to the L style Bobbins.



Width of 8.71 mm



Diameter of 20.8 mm

10

VIKING SPECIFIC 4125615-45:

About the size of a nickel (US).
This is a Husqvarna Viking specific bobbin. This bobbin fits all machines in groups 5, 6, and 7 (mostly newer machines).



Width of 10.4 mm



Diameter of 20.9 mm

M

Metal:

Composed of treated steel. Metal bobbins are most common.

P

Plastic:

Plastic is becoming more popular, as it's durable and inexpensive. Despite popular belief, plastic bobbins do perform just as well as metal bobbins.

A

Aluminum:

Due to the lighter weight of aluminum, these bobbins spin faster, hence the term "Quick Wind". Many believe aluminum bobbins perform better. However, they are easily scratched.

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Bad or old thread

Thread does have a shelf-life - over time, it becomes brittle and rotted, or just plain dried out. I know most of us come from a "waste nothing" feeling about goods, but just like needles, thread quality has a big impact on your finished project.

If you have or acquire a collection of thread on old wooden spools, anything from Woolworths (which closed decades ago), or anything costing around \$.30 per spool back in the day, it's safe to say that the ship has sailed on that thread! I do have customers that find quirky, useful projects (i.e. hand sewing something fun), but I do not recommend using it in your machine. Some of my customers make displays in bowls or in the clear base of lamps to display old spools, especially if they were inherited from a prior generation.

Modern brand threads I highly recommend for piecing:
Cotton: Aurifil, Metler, Guterman, and Coats & Clark
Poly: Glide, Sulky, Isacord, YLI, Anton-Robinson, Superior

I DO NOT EVER recommend Walmart brand thread or the bargain bin at Joann's (the one next to the cutting counter that is always covered in dust and lint), or any bargain, no-name thread for that matter. If you have great results, I understand, but if you are consistently having strange issues with your thread, look at trying a recommended brand of thread.

About Coats & Clark brand:

Many say that C&C is not the same quality as it used to be, and I believe it. C&C is my last resort choice in threads, and typically I only use it on some finicky vintage machines, such as the Touch & Sew models. For one, it is a short-staple cotton, which means is low-quality manufacturing. But even beyond that, that plastic caps on each end are also known to cause issues. Often the edges are rough and grab your thread, or the thread gets stuck in the slots on the spool and cause thread breaks.

Many of my customers say the only reason they stay with Coats & Clark is because it is so much cheaper than other name brand threads. I did a cost comparison, and C&C typically isn't necessarily cheaper, and other quality threads are not as expensive as we think!

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C&C ISN'T AS CHEAP AS YOU THINK OR AURIFIL ISN'T AS EXPENSIVE AS YOU THINK



Coats & Clark:

1 spool = 250 yards
Avg. \$3.99/spool
 $\$3.99 = \$.01596/\text{yard}$



Aurifil (50 wt.):

1 spool = 1422 yards
Avg. \$14/spool at quilt shop
 $\$14 = \$.0098/\text{yard}$

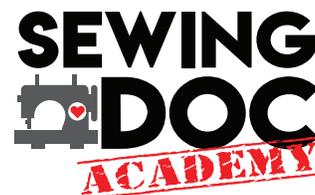
Fabric Feeding

Your machine should easily feed the fabric through under the foot and needle. You should not ever push or pull the fabric through forcefully! If you are having issues, make sure you are using the correct presser foot - you may need a specialty foot for the fabric you are working with. If you are pushing or pulling the fabric through the machine, this causes broken needles, a damaged hook race inside the machine, bunched stitches, and potential damage to feed timing or mechanism.

Industrial jobs on a home domestic machine

Home domestic machines were designed ONLY for general household use, such as light-to-medium weight fabrics. Minor seams on canvas, fashion leather, and other materials might be manageable on a limited basis. Sewing leather, thick canvas, heavy denim or any of these items in multiple layers really should be done on an industrial or semi-industrial machine. Even all-metal, vintage domestic sewing machines, such as a Singer 201, are not meant for industrial materials.

KNOW BETTER, SEW BETTER: Upcoming Programs



All programs are virtual only - no travel, learn at your own pace, on your schedule!

Did you know that the majority of issues that arise with sewing machines are user error or simple fixes and not actual issues with a broken sewing machine? Machine technicians and dealers will not tell you this.

Not only will this program teach you better sewing habits, but it is a step-by-step reference to help you diagnose and solve most issues with your machine, right when you need it.

This BETA program launches on September 29.
For more information: www.sewingdocacademy.com/tsw



Can you imagine having the knowledge, ability, and guidance to take the covers off, clean it out, check your computer connections, and lubricate it yourself? At your convenience? In your own home? At 5 in the evening or 3 in the morning? And only take it in when something is actually wrong?

In this program, we will teach you the exact same service procedures used on modern machines in our professional service shop.

This BETA program launches in November.
For more information: www.sewingdocacademy.com/ryc



If vintage and antique machines are your thing, this is the right place for you! Join 140+ other enthusiasts in our mastery program, where you'll learn how to clean, lubricate, restore, rewire, and make minor repairs to old machines! Learn to 'flip' machines by repairing and selling, or offer your skills and services to others in your community. Learn at your own pace, on your schedule!

The doors to this program open periodically.

For more information: www.sewingdocacademy.com/vsmm



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