

## My Machine Is Making Either Tiny Loops or Huge Wades of Massive Loops Underneath The Fabric

Depending on your exact model, there are several general causes for a machine to make either little loops, or those huge massive wades of tangled up mess underneath the fabric. Most of this information is geared towards the Singer machine, but may apply to other makes and models as well.

I will address the tiny looping first and several of the most common causes I have found over the years.

### 1. Thread:

Quality thread is of the utmost importance in any machine. Thread with lots of fuzz hanging off it should normally be avoided. It can be known to create a lot more lint in the machine than normal, and if enough lint is built up in the bobbin area, it could restrict the smooth flow of thread as it goes around the bobbin case and attempts to complete the stitch cycle. It also builds up in the feed dog area, and proper feeding, or the ability to advance the fabric may be restricted.

Simple thread test. Thread the machine as far as the take-up lever and stop. Set the presser foot down as if to sew. Check you top tension current dial setting, and then turn to zero. Pull the thread from the take up lever. It should pull quite freely with no resistance. If you feel resistance, you may have a low grade, or bad spool of thread. Try another spool and another brand. Repeat the test several times with different threads to get a better idea of how each feels as you pull it from the take-up lever with a zero top tension setting. You will find on the 700 Touch & Sew (T&S), older Futura 900 series, and Athena/Touch Tronic's to be much more sensitive to this test than say an older 15 class, or 221 Featherweight type machines.

### 2. Needle Plates:

A needle plate with tiny little gouges around the area where the needle enters into the bobbin area is an area of concern as well. Not only might it catch the thread from time to time, but can also cause the "shredding" effect of the top thread. The thread must flow freely during the entire stitch cycle, other than when it is passing through the top tension at a normal setting. There has to be some resistance to create the proper stitch.

### 3. Top Tension Check Spring:

Here is an item that will always vary in how it should properly function. In general the setting should not be altered if it has worked properly before. Now with that said, a damaged check spring should be replaced no matter what. Plus for the check spring to really work properly, it should normally come to a complete stop in its travel downward, or upward as the case may be...it does differ in different machines. Some springs travel down, and some travel up during the stitch cycle. Anyway, the general setting is for the check spring to come to a stop in its travel as the needle enters the fabric, or needle plate area. If it travels to far, or not far enough, this affects the threads ability to form the proper loop behind the needle as the hook comes around to pick up the top thread and drop it off on the other side of the bobbin case and complete the stitch. Not enough travel will allow a larger loop to form and possible tangling of the top thread. To much travel and the thread may not form a big enough loop. When this happens, either the hook point will shear the thread some, break it, or cause complete skipping of stitches, often called "dropped" stitches. Check spring travel is important.

4. Hooks:

If you have broken needles. Breaking needles may cause damage to the hook point, and at times leave tiny little burrs on the hook point. Hook points should always be completely smooth, and free of any type of burr...period.

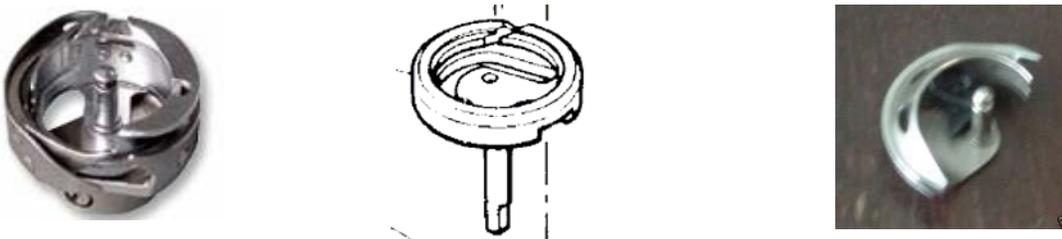
**Ok you're asking...what is all this stuff, check spring, hooks and hook points...ghees... give me a clue here...**

Parts Reference

Check Spring: There are many, many types of check springs out there gang. Here are just some sample springs.



Hooks: There are many different types of hooks as well. Here are just some sample hooks. The point of the hook is always the sharp pointed item that the thread is picked up by, and then later let go of as it has passed around the bobbin case.



I really cannot add tons of photos; this just prohibits the file size and would make it more difficult and time consuming to download.

5. Needles:

Always ensure you have a new fresh needle in the machine, and it is sized correctly for the fabric you are working with. Be it a Ball Point for any stretch fabric, or shape for any cotton fabric, or denim for jeans, leather for vinyl or leather...etc...and ensure it is the correct size for the amount of thickness. Refer to your owner's manual if you still have it.

6. Bobbins:

Always ensure your bobbins are in good condition, and avoid winding thread over thread. Bobbins are cheap enough, buy those extra bobbins you might really need ok ☺ T&S bobbins are notorious for separating over time. The little centerpiece where they normally screw together...that will stretch over time, and the lower center part will extend below the bottom of the bobbin causing major grief. 66 Class bobbins. If you have a Slant-O-Matic model, like a 401A, 404, 403, 500A or 503, or any similar German equal model, it is suggested to use the 66 class plastic bobbin now. Over the years, some of the metal bobbins were pressed together, and will have a tiny ring in the center pressed area...that will extend below the bobbin case now just enough to cause you more grief. Use smooth bobbins, and again, it is preferred to use the plastic bobbin now. Now...with that said, do always ensure you purchase genuine bobbins. Some of the after market bobbins have been known to cause problems as well. Like the top tension thread test...install the bobbin, thread it normally, get the thread up through the needle plate, and pull on the thread...it

should flow rather freely. If you see the bobbin jerking some, you may have a bad or defective bobbin. Change it, and try another.

## Large Looping Underneath The Fabric

Generally gang, 95% of the time this is a top tension issue. The top tension may have thread, or lint built up between the discs. The top tension is damaged, like a check spring, or like in later T&S, Stylist and other Singer models, the tension stud is plastic, and may have broken allowing the check spring to loose its proper return pressure.

Other known causes are:

1. Damaged hook point
2. The bobbin case clearance is too tight or none at all. All bobbin case systems must have a specified amount of free clearance between retaining fingers & position brackets. Most commonly in the T&S, Stylist, Futura, Athena/Touch Tronic's.
3. Damaged plastic bobbin case. Some are equipped with a plastic bobbin case and any gouging to the lower, or upper half of those plastic shells will cause you major grief. If damaged, replace it, plain & simple.
4. Needle to Hook Timing can cause problems in a wide verity of makes and models
5. Feed Timing as in number 4, nothing but grief if out of proper adjustment.

These are just some of the basic things to look for. If you are a DIY...then obtain the proper repair manual for your make and model if possible, and let the fun begin while you trouble shoot it step by step. Your qualified repairperson normally does the same when getting into a machine that deep with certain issues that are not easily resolved with a general tune up & minor adjustment here and there ☺

I hope this has help some, and I hope you get your machine back into the working order you desire. Please excuse any type-o, spelling or other grammatical errors. I am not an English major, I am a simple repairman willing to sharing some of his knowledge.

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