



FIRST LAW OF SEWING MACHINE TROUBLE

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If sewing machine was sewing well and now there is trouble – back up one step and look at what you just did – i.e.

- Changed bobbin
- Changed top thread
- Change needle?

Then Fix It.

INTRODUCTION

All lockstitch sewing machines make the same stitch – 301, 304 or 308 stitch is still a lockstitch.

How the stitch is made (stitch formation)

1. The needle does down
 - a. The needle goes **below** path of hook
 - b. Needle bottoms out (B.D.C.)

2. Needle comes up (3/32 inch - common measurement), loop forms on hook side of needle (non-long groove side of the needle)
 - a. Hook picks up top thread loop and carries it around bobbin case.
 - b. Hook drops top thread off
 - c. Thread take-up arm takes out slack and sets stitch in goods.

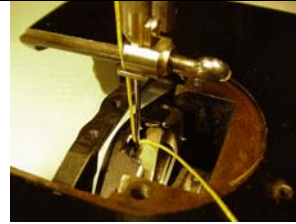
Think of the bobbin thread as a long straight rod with the top thread spiraled around it. Sew a piece of paper with two different color threads – rip paper to remove it and there is your example.

REMEMBER

Everywhere the top thread goes must be very smooth and there must be clearance for the thread to pass.

- e.g.
- guides
 - springs
 - needle
 - tension disks
 - passages in hook
 - bobbin case indexer
 - throat plate

If not – top thread will be snagged and/or cut.



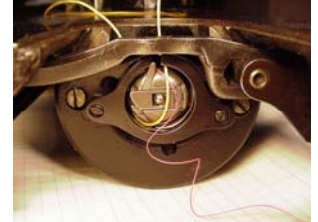
needle down



Up 3/32



Hook take top thread loop



Hook drops off top thread



Stitch made



stitching with no material