



Sewing Machine Parts, Care & Maintenance

Introduction

Learning to operate, care for and maintain your sewing machine are important aspects of learning to sew. Once you purchase your machine, take time to familiarize yourself with the various parts and how they work. Then practice sewing on it a bit before you begin to sew your projects.



Tools & Supplies

A few simple tools* is all you need to learn to care for and maintain your sewing machine.

- Sewing machine in good, working condition*
- Sewing machine bobbin*
- Thread
- Sewing machine oil*
- Small screwdriver
- Small lint brush*

Your Sewing Machine

Choosing a Sewing Machine

There are a large variety of sewing machines available. We offer only a few thoughts that may be of help to you as you decide what machine you will use.

You will need a machine that does a straight and a zigzag stitch and that has a buttonhole feature. These are the most basic functions needed for sewing most projects. An older machine that has all metal parts, is in good working condition and has an instruction manual is often a good choice for a beginner.

There are also many new, computerized machines that have multiple features such as embroidery, quilting and many fancy stitches. These features add cost to the machine and may be intimidating to beginners, though some of these machines have convenient features such as automatic threading, raising the needle at the end of each seam and a one-step buttonhole.

It is important to remember that you won't enjoy sewing or be able to sew well if you can't operate the machine, so choose a machine with this in mind.

* See Sewing Suppliers List at end of document.

Get to Know Your Machine

Regardless of which kind of sewing machine you choose, you will need to plan on spending time familiarizing yourself with it *before* you begin to sew on a project. Learn how to do the following tasks, then practice sewing on extra pieces of fabric.

- Thread the machine
- Wind a bobbin
- Make a backstitch

- Change the stitch length and zigzag width
- Adjust the tension

Learn to Care for Your Machine

Do not try to learn how to sew on a machine that is not in good working order! Learn how to oil and care for your machine. Refer to your the machine guide for specifics. Oiling and cleaning it is important to know and do regularly.

The Basic Parts of a Sewing Machine

- **Hand Wheel**

This wheel makes the needle go up and down.

- **Bobbin Winder**

Winds thread from a spool onto an attached bobbin.

- **Spool Pins**

- Hold the spools of thread.

- **Tension Disk**

Keeps the tension on your thread properly.

- **Take Up Lever**

Pulls thread from the spool, moved by the hand wheel. This lever should be in an upright position before you begin to sew each seam or the thread will come out of your needle.

- **Presser Foot Lever**

Raises and lowers the presser foot.

- **Presser Foot**

Presses against the fabric and holds it in place on the throat plate..

- **Needle**

Purchase the right kind for your machine. Normally use size 12 - 14.

- **Feed dog**

Moves the fabric forward or back at an even speed.

- **Throat Plate**

Flat, metal base plate that surrounds the feed dog. Lines are normally scored into the throat plate for use as seam guides.

- **Adjustment Knob**

Adjusts the width of your zigzag stitches.

- **Stitch Length Lever**

Governs the length of the stitch. Pushed all the way up, it makes the machine backstitch.

- **Bobbin Case**

Holds and tensions the bobbin thread.

- **Buttonhole Knob**

Automates the button hole process.

- **Needle Position Knob**

Adjusts the needle to the center or to one side.

- **Tension Control**

Used to tighten or loosen the upper tension.

- **Stitching Levers**

Additional feature on some machines that create decorative stitches.

- **Foot Petal**

Works just like an accelerator on a car to control the speed of your sewing machine with your foot.

The Sewing Machine

Although sewing machines vary a little bit, the basic parts are the same on all sewing machines. Familiarize yourself with the names of these parts.



Care for Your Sewing Machine

Remove Dust and Lint

Sewing machines are sensitive to dust and lint and must be cleaned periodically. Lint accumulates at places where the thread is pulled through a small opening and in the bobbin area. Lint or a small piece of thread that gets trapped in the tension disks is often the cause of an unexplained, sudden loss of tension while you are sewing a seam. If your machine did not come with a small cleaning brush, purchase one at a fabric store.

- A simple brushing between the disks and in the bobbin area will often dislodge the lint. Slide back or remove the throat plate to clean the area thoroughly with a lint brush. (Check your manual for instructions on how to expose the bobbin area.) Blowing on it will often remove lint from areas that the brush can't reach.

Oil Your Sewing Machine

Oil your machine periodically according to the instructions in your machine manual, using high quality sewing machine oil. Some manufacturers recommend oiling their machines after every 30 to 40 hours of sewing time. Others say to oil it after every 3 to 4 garments that you sew.

- Open the top and front end of your machine to expose the gears. Oil the places shown in your manual and anywhere metal moves against metal. You don't need a lot of oil. Just put one drop on the places. Replace all covers once you are finished.

Note: Always use *good quality* sewing machine oil.

- After removing any lint present, oil any place in the bobbin area where metal moves against metal.

- Refer to your sewing machine manual for the care of the gears under your machine before oiling them. Some machines require lubricant in that area rather than oil. Generally this area needs to be oiled more frequently than the top areas.
- After you have finished oiling your machine, it is a good idea to wipe any place on the surface of the machine where oil might have dropped. Before you start your project, you may want to sew a little on a spare piece of fabric just to make sure there is no oil remaining where the fabric touches the machine.

Changing the Needle

Changing a needle is very important – a dull needle is the cause of many sewing problems. A needle can get dull just from going up and down through the fabric. It can also get a burr if you accidentally hit a pin.

Consult your manual to see how to remove the old needle. You may need to remove the presser foot before removing it.

- Generally, you simply need to unthread the needle, then use a small screw driver to loosen the screw that holds your needle in place. It will easily pull downward and then out.
- To replace it, place a new needle in the same place. All sewing machine needles have a flat side on the shank. *It is very important that you put the needle back in the right direction.* Refer to your manual, and put the flat side in the correct position – your machine will not work properly if the needle is not inserted correctly. Slide the needle all the way to the top, then tighten the screw that holds the needle slightly, using the screwdriver. Don't over-tighten it!

Trouble Shooting

All machines have some problems from time to time, and part of learning how to sew is learning how to solve many of those problems yourself so that you can continue sewing. Some situations will require a repairman to service your machine, but try to learn what you can do to keep your particular machine going.

If your machine is not sewing properly, look for the following common causes. All of these are easily fixed on your own.

- Thread is old or brittle
- Thread is too heavy for the size of your needle.
- Machine is improperly threaded.
- The tension control may have been bumped. Check to see that it is in the middle position.
- The needle is not inserted correctly into the machine. This can cause skipped stitches.
- A needle that is dull, burred or bent will cause problems.
- Needle is not the right kind or size for the machine, thread or fabric you are using.
- Lint or thread is caught in the tension disks or around bobbin case.
- Your sewing machine needs oil.

Remedy for Stitching Problems

If you are having trouble getting a nice stitch, especially if you have loose stitches, you may want to try this routine:

- Totally unthread your machine.
- Re-thread it, making sure that everything is in the right place.

- Pulling on the thread on the machine, turn the top tension dial as tight as it will go. Continuing to pull, turn the dial as loose as it will go. If there is a little piece of lint or thread in the tension disk this will often pull it out. Reset your tension control, usually in the middle position.
- Take the bobbin out. Brush any lint away.
- If this doesn't help, oil your machine.

More than 99% of the time, this will get your machine up and going again.

Other Care Tips

- Keep your machine covered when it is not in use to protect it and avoid dust build up.
- Transport and store your machine carefully so that you don't bump any settings or parts in transit. A padded sewing machine case is helpful.
- Do not store a machine where there is high humidity, such as in a garage or attic. Rust will build up in your machine.
- Don't neglect regular oiling and cleaning of your machine. This is the most common cause of machine problems.
- Most important, make use of your sewing machine. If you don't learn the basic of caring for it, setting the tension, and fixing the problems, you'll likely not enjoy sewing.

Review this video: [The Sewing Machine](#)

Watch the next video: [Cutting Methods](#)

Questions about Sewing?

Submit any questions for Cindy in the Q&A section on the course homepage or post it to our blog at www.sustainlife.org/blog/category/sewing/

Sewing Suppliers

Simply Fabrics

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Additional Videos

Beginning Sewing

- Introduction to Sewing
- Introducing the Projects
- Notions & Fabrics
- Cutting Methods
- Foundational Practice Sampler

Project Videos

- 1 Lined Tissue Holder
- 2 Shoe Bag
- 3 Gift Bag
- 4 Double Drawstring Bag
- 5 Bag Caddie
- 6 Bread Cloth
- 7 Basic Pillowcase
- 8 Lined Drawstring Bag
- 9 Pillowcase with Contrasting Band
- 10 Flange Pillow
- 11 Tote Bag
- 12 Lined Apron