### **Intro to the Sewing Machine**





# **1. Bobbin Cover**

#### Opens to allow you to put the bobbin and bobbin case in the machine.







# 2. Stitch Plate

Where the seam allowance guidelines are found.



Each line is 1/8" apart, beginning with the inside edge of the presser foot, and ending with the far right edge of the stitch plate.



Inside Edge of the Presser Foot = <u>1/8</u> (No Line On the Stitch Plate)

"



Outside Edge of the Presser Foot = <u>1/4</u> " (First Small Line)



First Long Line = <u>3/8</u> ,,



# Second Long Line = <u>1/2</u>"







Fourth Long Line = <u>3/4</u> ,,







#### **Right Edge of the Stitch Plate=**





### **3. Feed Dogs**

Toothed metal piece below the stitch plate that moves up and down to push the fabric along beneath the needle.



# **4. Presser Foot**

Holds the fabric down against the feed dogs to move the fabric evenly through the machine.



There are several different types of presser feet, each designed to make a particular sewing task easier.



### 5. Machine Needle

The upper thread is threaded through the machine needle.

There are several different types of machine needles for different types of fabric and sewing techniques.



### 6. How a Stitch is Formed

The upper and lower threads <u>INTERLOCK</u> as the needle passes through the fabric.







### **7. Thread Cutter**

Cutting tool on the left side of the sewing machine that allows for easy thread trimming.



### **<u>8. Backstitch Button</u>** When pushed in, it allows you to sew backwards until it is released.



### **<u>9. Presser Foot Lever</u>** Raises and lowers the presser foot. It is found on the back of the machine.



### **10. Thread Take-Up Lever** Pulls the thread from the spool pin.

#### It must be at its <u>highest</u> point before you can sew.





# **11. Bobbin Tension Knob**

Helps provide the correct amount of tension when winding thread around the bobbin. The thread should be tight and smooth when finished.





### **12. Thread Tension Dial** Controls the tightness or looseness of the thread.

The red line should be lined up with the dot.



### **13. Bobbin Winder and Bobbin Stop** Winds the thread around the bobbin. *There is another thread cutter on the side* of the bobbin stop.



# 14. Spool Pin

Keeps the spool of thread in place as the thread feeds through the machine.

There is a horizontal one and a vertical one.



### **15. Handwheel**

Will also raise and lower the needle. Turn it <u>TOWARD</u> you when sewing.



## 16. Display Screen

Shows the selected settings for stitch width, stitch length and needle position.



### **17. Stitch Width Selectors** Allows you to alter the width of the stitching.



### **18. Needle Position Selectors** Allows you to change the position of the needle.



### **19. Stitch Length Selectors** Allows you to alter the length of the stitching.



### **20. Stitch Selectors**

Allows you to select several different stitches, including the buttonhole stitch.



**21. Foot Pedal Applying pressure** to the foot pedal will run the machine. The more pressure that is applied, the faster the needle will go up and down.



## Parts of the Machine Needle

- The most commonly used needles are:
  a. <u>UNIVERSAL</u>
  b. <u>SHARP</u>
  c. BALL POINT
- 2. The <u>FLAT SIDE</u> of the shank faces the <u>BACK</u> of the machine when you are replacing the needle.
- 3. The <u>SMALLER</u> size/number needles are used for fine or lightweight fabrics.
- 4. The <u>LARGER</u> size/number needles are used for dense or heavy fabrics.



#### Parts of the Serger





- 1. Looper Cover
- 2. Looper Cover Opening Indent
- 3. Knife Guard
- 4. Cloth Plate Opening Leaver
- 5. Cloth Plate
- 6. Stitch Plate
- 7. Presser Foot
- 8. Lower Looper Thread Tension Dial
- 9. Upper Looper Thread Tension Dial
- **10. Right Needle Thread Tension Dial**
- **11. Left Needle Thread Tension Dial**
- 12. Thread Take-Up Cover
- 13. Thread Guide Plate
- 14. Presser Food Adjusting Screw
- 15. Sewing Light
- 16. Power/Light Switch
- 17. Handwheel
- 18. Machine Socket
- 19. Thread Stand
- 20. Anti-Vibration Cone
- 21. Spool Holder Pin
- 22. Retractable Support Rod
- 23. Thread Guide
- 24. Open Thread Guide
- 25. Presser Foot Lifter
- 26. Foam Pad
- 27. Stitch Length Adjustment Knob
- 28. Differential Feed Adjustment Knob

### **Serging Tips**

- 1. Some advantages of using a serger include:
  - A. <u>Cuts</u> off excess fabric as it sews.
  - **B.** <u>Fastest</u> way of finishing a seam.
- 2. The three rules of serging are:
  - A. Keep your fingers away from the knife.
  - B. Don't lift up the presser foot.
  - C. Leave a "thread tail" behind when finished.
- Do not lift up the presser foot unless you are serging around a round edge. Make sure the presser foot is <u>down</u> before beginning to serge.
- 4. Do not serge over **<u>pins</u>**, **<u>zippers</u>** or excessive <u>**bulk**</u>.

5. The *FIRST* thing to check when a serger is not operating properly is the **threading**.

- 6. On a serger, the metal prong around which stitches are formed is called the stitches.
- The part of the serger that trims the seam allowances as the stitches are formed are the <u>knives</u>.
- 8. The **loopers** control the lower thread.

- Lint in both the sewing machine and serger should be <u>removed regularly</u> to prevent buildup. The machines should also be <u>oiled</u> regularly to keep the machine running smoothly.
- 10. <u>Serger thread</u> is finer in size and must be good quality to prevent thread breakage and lint accumulation.

All-Purpose Sewing Machine Thread



#### **Serger Thread**



#### Resolving Sewing Machine & Serger Malfunctions

If the sewing machine does not sew properly, it is usually due to incorrect use.

BEFORE you ask for help, check the following:

#### • <u>Check whether:</u>

- The upper and lower thread are correctly threaded.
- The needle has been inserted correctly with the flat side of the shank to the rear.
- If the upper thread breaks:
  - The needle is blunt (not sharp).
  - The upper thread tension is too tight.

#### • If the lower thread breaks:

- The lower thread tension is too tight.
- The bobbin is jammed.
- The needle is blunt or bent.
- If you have skipped stitches:
  - The needle is blunt, bent or incorrectly inserted.
  - A different needle is needed.

#### • If your needle breaks:

- The needle clamp screw is not tight enough.
- The thread being used is of poor quality.
- The fabric is being pulled while needle is still inserted.

#### • If your machine fails to run, perhaps:

- The plug is not inserted correctly.
- The power is not on.
- The bobbin winder is engaged.
- The handwheel is loose.

