UNIT 9 IDENTIFY THE PERFECT SEAM

9.0 INTRODUCTION

In this activity, we will made you aware about identification of the perfect seam. You have been looking at garments but you might not have realized how they are made. Fabrics are joined together by Seams. Seam is the basic structural element of any garment without which a garment cannot be made. So it should be formed with great accuracy and care. Seams can be functional, decorative or both.

Before starting any actual sewing, the machine should be checked properly for stitch length, tension and thread in relation to the fabric.

In this unit, we will help you to understand the terms: stitch, seam, seam line, seam allowance. You will also be able to identify and achieve a perfect seam.

9.1 AIMS AND OBJECTIVES

After going through this unit, you will be able to:

- Adjust the thread tension
- Identify and achieve Balanced Stitch Tension

9.2 MATERAIL REQUIRMENT

- A single needle lock stitch machine
- Good understanding of the sewing machine
- Good control over machine speed.
- Ability to stitch straight lines, angles and curves.
- Muslin/ cotton fabric for samples of size 15cm x 25cm
- Sewing kit

TERMINOLOGY

- Stitch

A stitch is a loop structure of threads. Stitch formation is due to the interaction between needle, pressure foot and feed dog, due to which the needle thread forms loops with the bobbin thread and sets as a lock stitch in the fabric.

- Seam

  A series or a row of stitches, done on two or more layers of materials to hold them together is called a seam. It may be of different types varying from fabric to fabric, and from garment to garment.

- **Seam line**

  It is a line of junction formed by sewing two layers of fabrics together.

- **Seam allowance (SA)**

  is the distance from the fabric edge to the stitching line. It is also called the seam margin. Seam allowance is planned according to the width needed for the type of seam finish. From now onwards, it is referred to as "SA".

- **Stay stitch/ Hold stitch**

  is a stitching line, placed just inside certain seam lines to prevent them from stretching out of shape during handling and garment construction. Usually all the curved or angled areas like necklines need stay stitching to prevent distortion.

9.3 PRINCIPLES OF SEAM CONSTRUCTION

- Align the fabrics along the cut edge, matching the balance notches, if any. (Balance notches have been covered in Basics of Pattern Making). Pin or hand tack in place. While pinning, put pins perpendicular to the seam line. Remove pins as you sew, do not sew over them or the needle would break.

- Select the right thread, stitch length and needle size for the fabric to be sewn.

- Test the seam on a double strip of the same fabric that is to be sewn.

- Check and adjust stitch tension and presser foot pressure.

- While attaching a bias strip to a straight fabric, keep the bias strip on top and the straight fabric below, while sewing, as bias tends to stretch and get distorted.

- Reinforce the seam in the beginning and at the end with back tacking.

- Iron each seam after sewing.
- All seams should be narrow, neat and as flat as possible.

9.4 ADJUSTING THE THREAD TENSION

The degree of strain placed on the spool thread as it passes between tension discs is called upper tension and that on bobbin case is called lower tension. Sewing machines have a tension control for the top thread and for the bobbin thread. These controls increase or decrease the pressure on the threads as they are fed through the machine.

Too much pressure results in too much tension and too little thread for the stitch; too little pressure produces too little tension and too much thread. In general, too little thread causes fabric puckering and strained, easily broken stitches. On the other hand, too much thread produces a limp, weak seam.

Balancing tension

Ideal stitches are formed when the needle thread and the bobbin thread are perfectly interlocked in the center of the cloth. When pressure is correct on both threads, a balanced amount of each thread is used for each stitch, and the connecting link of each stitch is centered between fabric layers. This is referred to as Balanced Tension.

The link position is a good indicator of which thread tension is incorrect

Correct tension: Link formed with each stitch will lie midway between fabric layers. Balanced amounts of both and bobbin threads are used for each stitch. The top and bottom side of work look identical. Stitch tension should be balanced for good quality work. This is shown in Figure 1.

Before inserting the bobbin case into the machine, the bobbin tension is checked and adjusted as required. Test stitch tension before starting any sewing work. Use the same number and types of fabric layers as will be sewed, and the correct needle, thread, and pressure for them. If the tension is not balanced, it will be due to the upper tension alone being incorrect.

If the stitch tension is unbalanced, it can be adjusted with the help of the tension regulator. The tension regulator is used to adjust the upper thread tension, while the bobbin thread tension is adjusted with the help of the tension screw on the bobbin case.

Adjusting the needle thread tension

- The tension of the needle- thread is adjusted with the help of the tension regulator.
- Turn the nut on the regulator clockwise to increase the tension and anti-clockwise to reduce it.

Adjusting the bobbin thread tension

- The bobbin thread tension should be such that the bobbin thread is under some stress as it is pulled out of the bobbin, while the bobbin is inside the bobbin case.

- Bobbin thread tension can be adjusted by rotating the thread tension screw of the bobbin case. Rotate it clockwise to the right to increase the bobbin thread tension and anti-clockwise to the left to reduce it.

Adjusting the stitch length

- Use the stitch length regulator for this purpose. The stitch regulator is also called the stitch dial. It has markings on it, which indicates the size of the stitches in mm. Rotate the stitch regulator to get the right size of stitches as required.

Adjusting the pressure on the pressure foot

The presser foot exerts some pressure on the fabric while it is being sewn. This pressure can be adjusted to suit fabric and sewing situation. Light pressure is used for light weight fabrics and heavy for heavy fabrics.

Turn the pressure adjusting screw clockwise to make the pressure stronger.

Turn this screw to left to make the pressure weaker.

After adjustment, firmly tighten the nut. Some domestic machines may not have a nut.

Exercise 1

a) After threading the needle and inserting the bobbin and bobbin-case in the sewing machine, do a row of stitching on a rough fabric to check for balanced stitch tension. Adjust the upper and lower tension.

b) Adjust the Stitch Dial to get 10 stitches per inch (SPI).

Please check your result with the faculty at your centre.

Notes