

JOB ROLE – SEWING MACHINE OPERATOR

Sector – Apparel, Made-Ups and Home Furnishing
(Qualification Pack Code: AMH/Q 0301)



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UNIT 1: INTRODUCTION TO SEWING MACHINE

Session 1: Sewing Machine and its Types

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Session Objectives

The students will be able to:

- Describe the sewing machine
- State categories of sewing machine
- Explain types of sewing machine

Introduction

Sewing machines were invented during the first industrial revolution to decrease the quantum of manual sewing done in garment industries. A sewing machine operator can use sewing machine and its various parts for making a fabric beautiful with stitching with the help of needle and threads. Good stitching enhances the beauty and style of the object. There is a vast opportunity and scope in apparel, made-ups and home furnishing sector. It offers various types of paths for sewing machine professionals to excel and grow their skills.

Introduction to Sewing Machine

A sewing machine is used to stitch the fabric and other pliable materials together with threads. The basic thought behind sewing machines is to mechanically stitch two or more pieces of material- mainly fabric, together using thread and a needle. Sewing machines help the operator in getting the work done quicker, with greater accuracy and much more consistently.

Evolution of the Sewing Machine

The sewing machine device was invented in 1790 by Thomas Saint. Josef Madersperger began developing the sewing machine in 1807 and he presented the working machine in 1814. John Greenough patented the first sewing machine in the United States in 1842. Elias Howe created a sewing machine in 1845. In 1860s, there was a quick popularity of these machines in the middle class section. Later in 1889, the machines run by electricity were designed with motors fixed in them. In the twenty-first century, sewing machine companies have manufactured several type of machines and special purpose machines manufactured. The latest machines have LCD screens, microprocessors and pre-programmed fonts.

Categories of Sewing Machine

Mainly two categories of sewing machine that is, domestic sewing machine and industrial sewing machine.

Domestic Sewing Machine: These are designed mainly for one person to sew individual dresses while using a single stitch type. Some key points for domestic sewing machines are as follows:

1. usually used in homes by people simply interested in sewing.
2. commonly used by people in a variety of projects for dressmaking, and for stitching simple home furnishing items.

Cont...

Categories of Sewing Machine

3. with little changes, these machines can perform a variety of stitch types.
4. This machines usually work on light weight fabrics or work pieces.

Categories of Sewing Machine

Industrial Sewing Machines: It is used for mass production in garment and other related industries. These are heavy-duty machines that work thousands of stitches per minute. Some key points for Industrial sewing machines are as follows:

1. it is mainly designed to perform one single specific function in assembly-line based factories.
2. industrial sewing machines are designed to sew heavy material speedily, such as leather, canvas and vinyl, at one time.
3. industrial sewing machines are larger, faster, more complex, and more varied in their size, price and task.

Types of Sewing Machine

Mainly three types are considered for sewing, as given below:

1. Mechanical Sewing Machines
2. Electronic Sewing Machines
3. Computerised Sewing Machines

Types of Sewing Machine

1. **Mechanical Sewing Machine:** They are hand-operated sewing machine and treadle sewing machine. These machines are less expensive and are the simplest type of sewing machines. Mainly two sub-types of sewing machine that is, hand operated and treadle sewing machine.
 - a. **Hand-operated Sewing Machine:** This is the simplest form of domestic sewing machine which is operated by hand. A handle is attached to the flywheel which is detachable and is used to operate the machine. It is suitable where there is no electricity supply.



Hand-operated Sewing Machine

b. Treadle Sewing Machine: This machine is the same as a hand-operated sewing machine but it is operated by feet. An additional stand attached to the machine. These machines run faster than the hand-operated machine. When handling the treadle sewing machine, both the hands of the operator are free to handle the fabric. A belt is attached to the lower stand passing through the balance wheel and driven by feet.



Types of Sewing Machine

2. Electronic Sewing Machine: There are many more features in an electronic sewing machine than in a mechanical sewing machine. Some key points for Electronic sewing machines are as follows:

- i. a single motor is attached to the electronic sewing machines and this motor supplies power to the needle.
- ii. in the electronic machines, balance wheel comes to motion by a belt, which is attached with the motor.
- iii. these sewing machines run faster than manually operated machines. It is essential to control the speed of this machine by putting pressure on an electronic foot pedal.

Types of Sewing Machine

- 3. Computerised Sewing Machine:** A computerised sewing machine works with the help of various softwares. These machines are similar to the electronic sewing machines but they are multi function machines and are expensive. Some key points for computerised sewing machines are as follows:
- i. these sewing machines are very fast and specific to use.
 - ii. It allows the operator to tailor the functions according to the sewing needs.
 - iii. it functions very appropriately in designing and stitching various components of the garment like sleeves, yokes, pockets, etc.
 - iv. these machines have and LED/LCD display or touch screen.

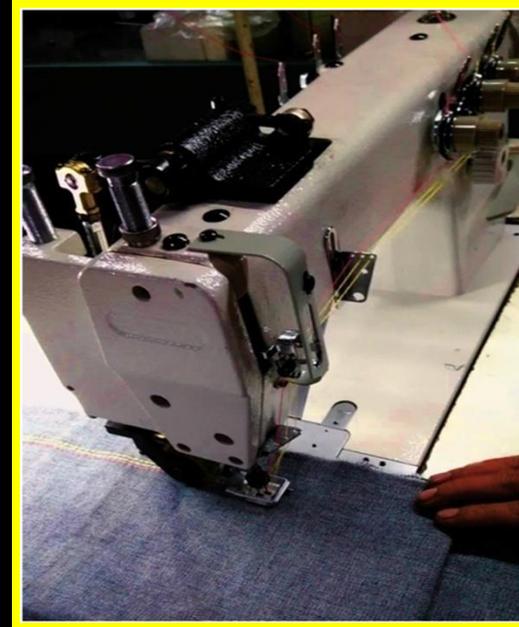
Types of Sewing Machine

Other types of sewing machines according to their specific applications . The following are the types of sewing machines:

i. Lock stitch machine



ii. Chain stitch machine



Types of Sewing Machine

iii. Double chain stitch machine



iv. Buttonhole machine



Types of Sewing Machine

v. Button stitch machine



vi. Bar-tack machine



Types of Sewing Machine

vii. Feed off arm machine

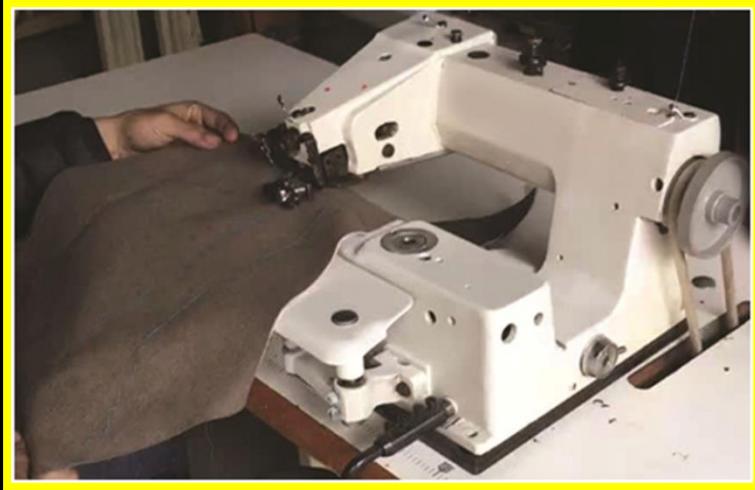


viii. Over-lock machine



Types of Sewing Machine

ix. Blind stitch machine



x. Over-edge machine



Summary

In this session, you have learnt about the history of sewing machines, evolution of the sewing machine, its categories and types of sewing machines.

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