



Apparel Training & Design Centre

TRAINER'S MANUAL

SPECIALIZED SEWING MACHINE OPERATOR



APPAREL TRAINING & DESIGN CENTRE

Imparting Skills, Improving Lives, Innovating Future

THE CONTENT IS DEVELOPED/COLLATED AS PART OF TRAINING PROJECT
UNDER THE MOT, GOI

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1. RESPONSIBILITIES OF AN OPERATOR



CLASS ROOM CONCEPTS

ROLES AND RESPONSIBILITIES OF AN OPERATOR IN COMPANY

- After completion of this course successfully, trainee will be employed in one of the following subsection of Factory.
 - Sewing Floor
 - Finishing Floor (Alter man)
- An operator reaches to the company on time (5 minutes before the time scheduled)
- Clean his machine daily before starting the work in given 5 minutes.
- Attain the target define by the company
- He comes regularly to the company, in case of he wants leave then he informs to his supervisor first.
- In case of emergency ,& he wants to go to out of company for few hours then he intimate his supervisor first and take a gate pass.
- He respects his supervisor and in case of any problem related to his work or workstation, he informs supervisor first.
- Create an amicable ambience with his fellow operators.
- Follow the safety procedures which are taught during the training while operating his machine.
- Always wear clean clothes and clean himself daily.

2. BARTACK MACHINE



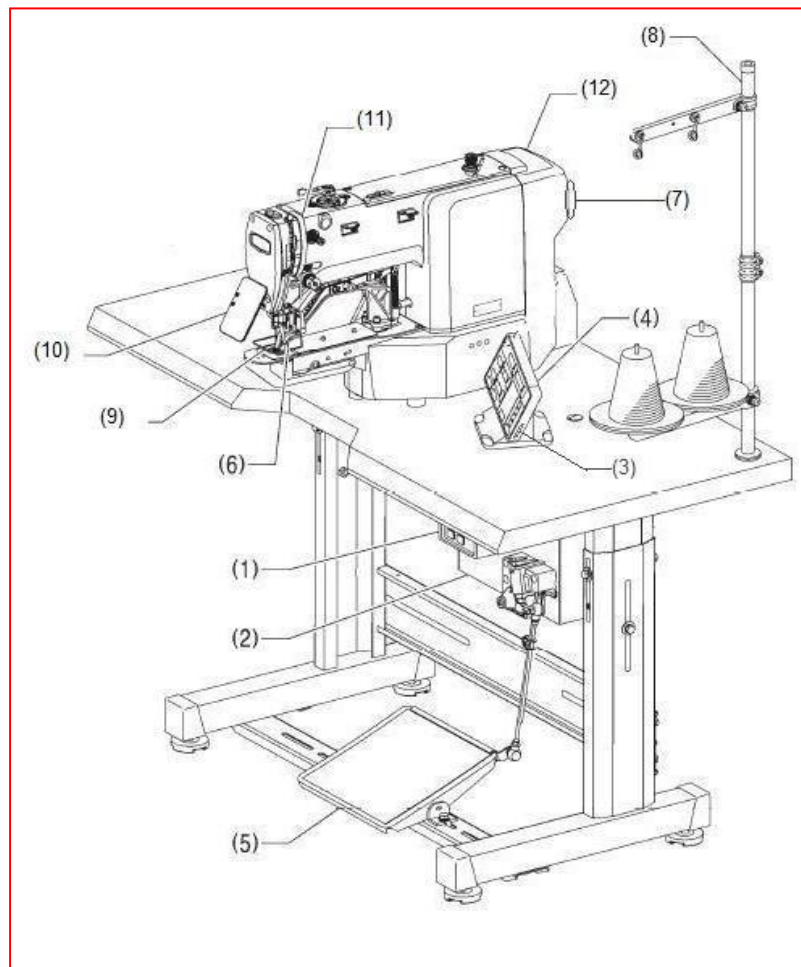
CLASS ROOM CONCEPTS

BARTACK MACHINE -







This machine is used for giving secure Bartack stitches










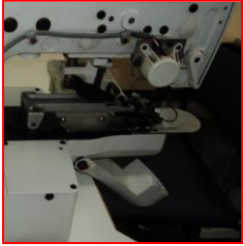
PARTS OF MACHINE



Parts of Machine

Sr. No	Part Name	Description	Diagram
1	Power Switch	Power Switch is used to “turn on” and “turn off” the machine.	
2	Control Box	Control box consist the electronic circuits of the computerized machine.	
3	SD Card Slot	SD card Slot is present on one side of the operation Panel as shown in the Picture .it is used as a memory Card and Keeps the saved Patterns for the future use.	
4	Operation Panel	Button Attach machine is a computerized machine and consist a panel to set the Patterns. That Panel is Known as “Operation Panel” as shown in pic.It is equipped with the various options which make work easy and accurate.	
5	Foot Switch	Foot Switch (See Picture) is used to start the working of the machine.	
6	Work Clamp	Work Clamp holds the Fabric firmly during stitching and needle moves within the work clamp area.	

7	Pulley	Pulley is used to transmit the motion of the motor to the attached shaft .Two pulleys are used in the machine which are connected through a belt.	
8	Cotton Stand (Spool Stand)	Spool Stand is used to keep the thread spools (See Picture).Two Stands are Present, one for the machine needle and other for filling the bobbin.	
Safety Devices			
9	Finger Guard	Finger guard is used for the safety of the fingers while working as it avoids the direct contact of finger to the moving parts of the machine.	
10	Eye Guard	Eye guard is a safety device and used for the Protection of the Eyes .If needle is broken while machine is moving, it can damage the eyes but guard ensures that all the parts collide to it and rest back on the machine only.	
11	Threads take up Cover	It is used to cover the take up lever. lever is a moving part so it can be dangerous to the machine operator but Cover Minimize the risk from Take up lever movement	

12	Rear Cover	It covers the Rear part of the machine belts and the Pulleys.	
13	Side Cover	It covers the left side part of the machine Which Avoids the direct contact of operator with the moving parts of the machine.	
14	DT Solenoid Cover	Solenoid is an electronic device used in button attach machine. It is covered with a plastic coating to avoid any hazard due to electricity.	

Machine Setting

Before Starting Practice on Bartack Machine, Following settings are necessary to understand-

1. Threading of Machine
2. Replacing Bobbin And Bobbin Winding
3. Fixing Needle
4. Operation Panel Setting

1. Threading of Machine:

Machine should be thread in the following given Manner (as Shown in Pic.). Thread Spools are kept on the Spool Stand and then it passes through a Guide present on the Stand Itself (Not Shown in Pic.) and then thread goes to the 1st machine Guide and follows the given Diagram.



Thread Spools are kept here

Threading Sequence of the machine

2. Replacing Bobbin and Bobbin Winding:

Bartack Machine has a Slot to Fix Bobbin on its Top. An operator should always have 2 Bobbins. Filled bobbin will be in working while operating the machine and empty bobbin should be fixed into the Top Slot along with the threading. So during the work, Empty bobbin will be filled automatically.

(Trainers Should Demonstrate “Bobbin Winding and Replacing” in the Class and should not allocate an Extra Session for the Practice as Trainee will Learn those settings during the practical exercise on fabric)

Empty
Bobbin
Should be
fixed at
this
position



3. Fixing Needle :

Needle is fixed in the same manner as it is explained in the BASIC SMO Course only the Scarf Position is different (Scarf Position is at 6 O Clock)

4. Operation Panel Setting :

Trainer will impart the knowledge of Operation Panel Setting to the trainee as per the machine Brand available in the Training Lab.

EXERCISE -1

Material Required:

- Denim, Canvas, Casement or any other thick fabric
- Fabric swatch of 10"x10" and 2 contrast color threads for each trainee

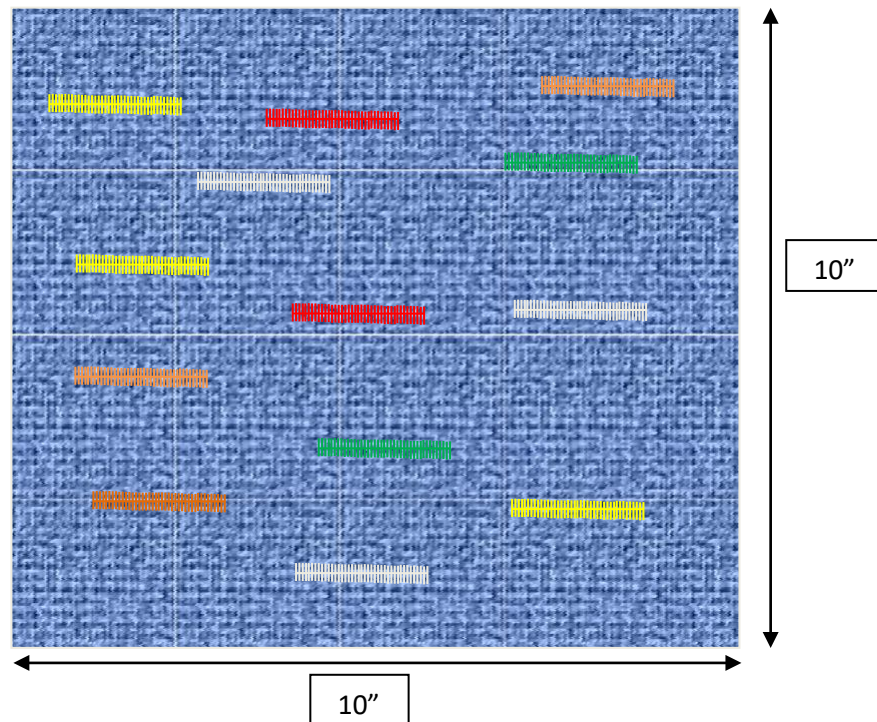
Purpose:

To give trainee a first Practical hand on experience of Bartack machine

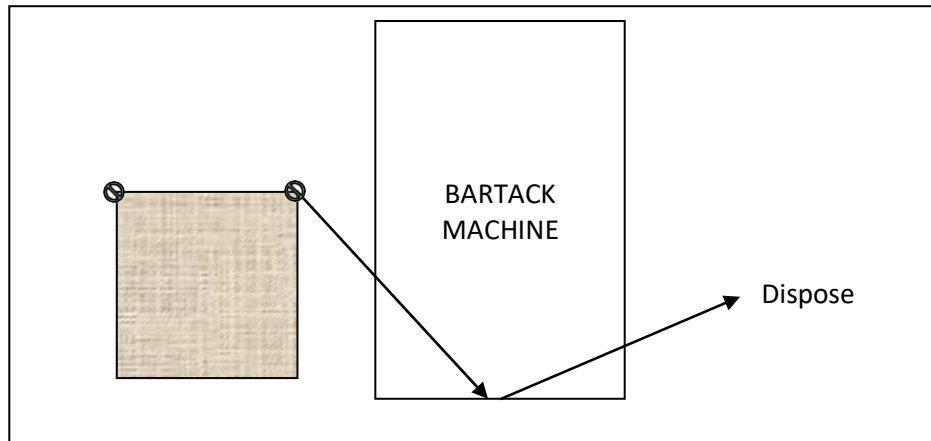
Skills Involved

- Basic Machine settings (example threading and bobbin adjustments)
- Fabric handling

Final Diagram



Layout



Method

1. Pick Up & Align

- Pick Up fabric by left hand (Lift the clamp by foot Switch while picking up the fabric) and put under the needle.

2. Stitch

- Press the Foot Switch, Machine will automatically start the Sewing and after the completion of the Bartack it will automatically stop.
- Press the Foot switch and clamp will lift.

Move the Fabric to the Next nearest random position and repeat the above mentioned Method.

3. Dispose

Pick the piece from the right hand and dispose on the right side (As shown in the figure)

Note: This exercise is not time bound. Trainees will randomly Bartack the fabric with different color threads, machine to be properly re-threaded every time for thread change.

3. BUTTONHOLE MACHINE



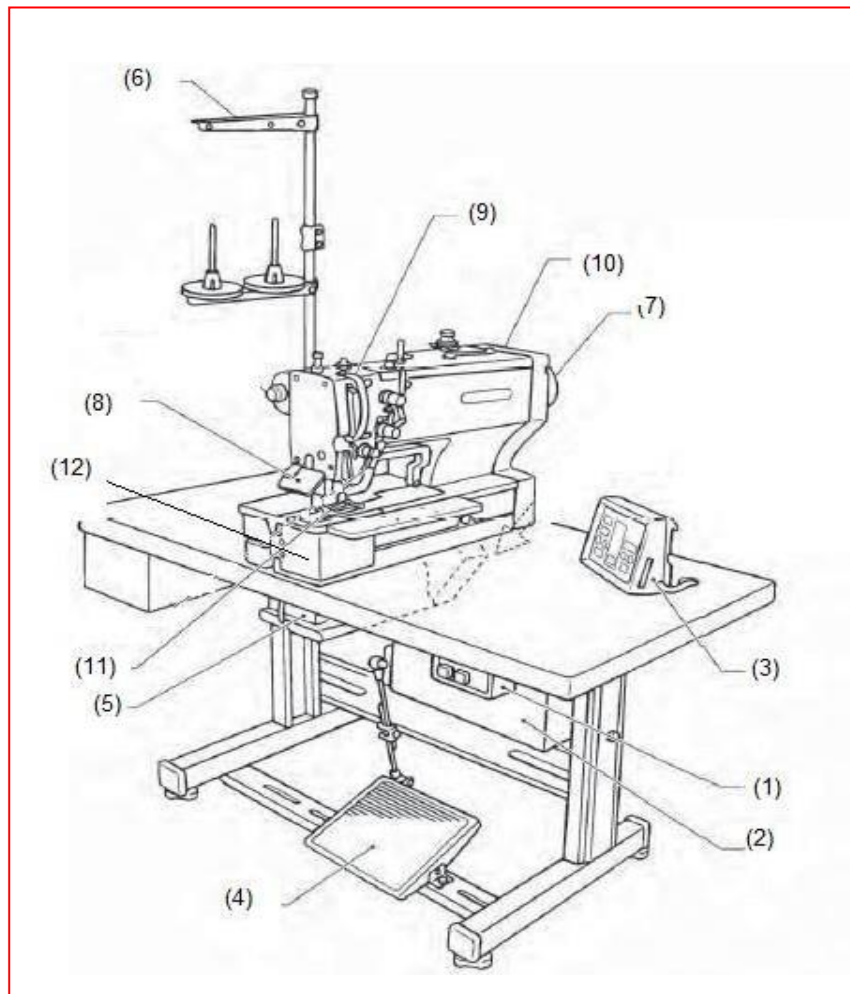
CLASS ROOM CONCEPTS

BUTTONHOLE MACHINE

This machine is used for sewing buttons in the garment.



PARTS OF MACHINE



Machine Setting

Before Starting Practice on Button Hole Machine, Following settings are necessary to understand-

1. Threading of Machine
2. Replacing Bobbin And Bobbin Winding
3. Fixing Needle
4. Operation Panel Setting

4. BUTTON ATTACH MACHINE



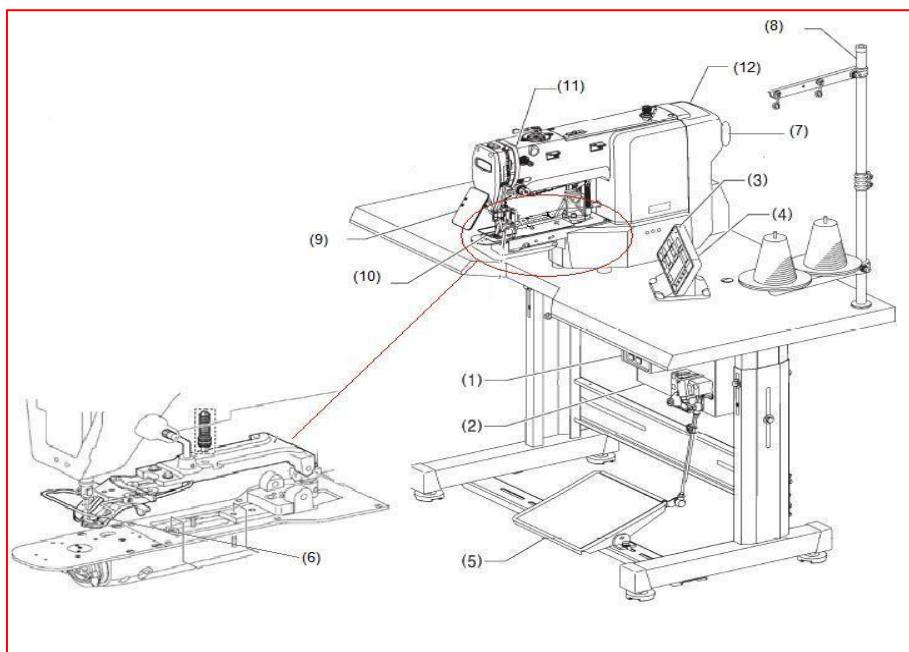
CLASS ROOM CONCEPTS

BUTTON ATTACH MACHINE

This is a high-speed buttonholing machine, which is used for sewing buttonholes in the garment.



PARTS OF MACHINE



1. Compliance



CLASS ROOM CONCEPTS

Minimum Wages:

The **Minimum wage Act** aims to prevent sweating or exploitation of labor. The Act also requires the appropriate government (both at Centre and States) to fix minimum rates of wages in respect of employments specified in the schedule and also review and revise the same at intervals not exceeding five years.

On what basis is/are minimum wage/s declared?	Minimum wages in India is declared on daily, hourly, and monthly basis.
At what level is minimum wage determined?	In India, minimum wages are declared at national, regional, sectoral and occupational or skill level
To whom/where can individuals complain, if they think they are earning less than minimum wages?	In case individuals earn less than specified minimum wages, they can complain to Labour Inspectorate coordinates or Trade Union Coordinates.
Overtime	If any employee whose minimum rate of wages is fixed under the Act works on any day in excess of the number of hours constituting normal working day, the employer is required to pay him for excess hours at the overtime rate fixed or under any law of the appropriate Government for the time being in force, whichever is higher. Overtime Wages-Twice the normal wages.

Child Labor:

The term 'child labor' means 'working child' or 'employed child'. 'Child labor' is any work done by child for profit. As per Law any one worker below the age of 14 years is considered child laborer.



2. SAFE AND SECURE WORKING



CLASS ROOM CONCEPTS

When a machine Mechanic is working in a factory, one should keep the following point in his mind.

1. Disconnect the sewing machine by pulling out the plug from the wall outlet, not by jerking the cord. Jerking the cord can cause the cord to become worn or frayed.
2. Disconnect the plug from the wall outlet first then the plug from the machine. Otherwise, electricity continues going through the cord and you could receive an electrical shock.
3. Always unplug the machine from the electrical outlet when removing covers, lubricating, or when making any other user servicing adjustments
4. Place pins, needles and tools in a container when not using them. Do not leave them loose on the table or on the floor.
5. Pins and needles should never be placed in your mouth.
6. When not in use, pointed tools should be left closed.
7. Handle sharp tools with the handle first.