

# HANDOUTS

## Chapter 5

## Chapter- 5

### Sequence of operation for different bottom component

#### **CONTINENTAL INSOLE**

1. Cutting of Insole board.
2. Cutting of shank board.
3. Stamping.
4. Grooving of shank board
5. Matrix skiving of shank board.
6. Riveting/Attaching of steel shank on shank board
7. Cementing (a) Plain roller for Insole board.
8. (b) Flexible roller for shank board.
9. Attaching of Insole Board and Shank Board
10. Molding
11. Beveling.
12. Final Checking and packing.

**Note: - Quality should be checked in every operation.**

#### **SANDWICH INSOLE**

1. Cutting of shank board.
2. Cutting of Insole board.
3. Stamping.
4. Grooving of shank board
5. Matrix Skiving of Shank board.
6. Skiving of Insole Board
7. Riveting/Attaching of steel shank on shank board.
8. Cementing: a) Plain roller for Insole board.  
b) Flexible roller for shank board.
9. Attaching of Insole board and shank board
10. Molding.
11. Beveling.
12. Final Checking and packing.

**Note: - Quality should be checked in every operation.**

### 3. WELTED INSOLE:-

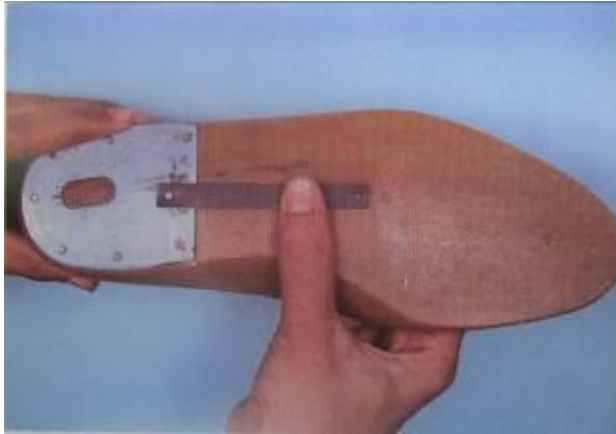
1. Cutting of Insole board.
2. Stamping.
3. Marking on insole board
4. Attach the rib through adhesive
5. Attach the cotton cloth
6. Final Checking and packing.

**Note: - Quality should be checked in every operation.**

### 4. BLENDED INSOLE:-

1. Cutting of shank board.
2. Cutting of Insole board.
3. Stamping.
4. Grooving of shank board.
5. Matrix skiving of shank board.
6. Skiving of Insole board. (Underlay skiving minimum 20mm.)
7. Riveting/Attaching of steel shank on shank Board.
8. Adhesive application on fore part insole board and shank board.
9. Attaching of forepart Insole board and shank board
10. Moulding.
11. Beveling.
12. Final Checking and packing.

**Note:- Quality should be checked in every operation.**



### Selecting the steel shank

Note: The following points to observe when selecting the steel shank.

- a. The shank is the correct width and length and thickness.
- b. Shank is fitted 1mm back from highest point.
- c. Shank follows the bottom profile of the last. Specify shank by angle.
- d. Shank should end 20 mm under seat of heel.
- e. Fill all the relevant details in on a sample card.



### Staple insole board

Note: The following points should be observed when selecting a suitable insole board.

- a. Check the type of shoe construction.
- b. The climate/market that the finished shoe is destined.
- c. Board in pairs with plain side facing each other and printed sides always on the outside.



### **Cut insole**

Note: The following points should be observed when cutting insole.

- a. Insole should be full to pattern.
- b. Insole should be cut 1 pair at a time when using cold bend knives. 32 mm single edge.
- c. Cut according to direction marked on insole board as above.
- d. Cut 1 pair or 2 pair at a time.
- e. 19 mm die- 1 pair
- f. 32 mm die- 2 pairs
- g. Forged knife – 3-4 pairs



### Cut shank board

Note: The following points should be observed when cutting the fiber shank board.

- a. Shank should be full on pattern.
- b. Cut with the grain of material
- c. Never stamp on forepart of insole on plain side.
- d. Stamp last no. & size no. on insole.
- e. Size no. can also be indicated by notches in the die.





### Stamping Insole

Note: the following points should be observed when stamping insoles

- a. Check insoles on pattern before size stamping.
- b. Stamp is clearly readable.
- c. Stamped to customers specifications
- d. Use rubber pad inside the die for ejection of shank board.



### **Grooving of shank board**

Note: The following points should be observed when grooving of the shank board.

- a. Grooving should be centre of the shank board
- b. Grooving as per the length of shank
- c. According of shank width set the cutter



### **Matrix skiving of shank board**

Note: The following points should be observed when skiving the fiber shank board.

- a. The end skive of 25 mm should taper to a fine edge. This allows for flexibility.
- b. Edge skive should be to specification i.e. skive to zero



### **Riveting/Attaching of steel shank on shank board**

Note: The following points should be observed when attaching the steel shank to the fiber board.

1. Shank is attached at the correct distance from the seat edge.
2. Shank is attached in the correct line of the shank board.
3. The correct steel shank is fitted to suit the height of heel being used.
4. That the rivets or eyelets are clinched this will hold the shank in place.
5. Fluted size of shank i.e. with recess should be facing upwards for pasted insoles and for plain half insoles fluted

### **Cement Insole.**

Note: The following points should be observed when cementing insoles.

- a. A dust free environment should be used.
- b. Insole should only be cemented upto the length of shank board using a guide.
- c. Coating of cement should not be too heavy.
- d. Insole should be kept clean of excess cement.
- e. Test cement for bond strength.
- f. Machine should run continuously.
- g. Use cementing machine with



### **Cement shank board.**

Note: The following points should be observed when cementing the shank board.

- a. A dust free environment should be used.
- b. Not too heavy a coat of cement on board.
- c. No excess cement on shank.
- d. Test cement for bond strength.



### **Attaching of Insole Board and Shank Board**

Note: The following points should be observed when attaching the shank board to the insole.

- a. Cement must dry on both surfaces.
- b. Cement is not too wet as this will cause the shank when pressed.
- c. When fiber shank is attached to insole it is evenly positioned
- d. When positioned correctly you should press the two surfaces together in an air press.



### **Mold Insole.**

Note: The following points should be observed when molding insole.

- a. Always mold the insole to the shape of the last.
- b. Make sure there is no wing in the insole when molded.(no gap between last and insole)
- c. Never over mold insole as this will cause a break down in the materials.
- d. Check at frequent intervals that moldings correctly done.



## Beveling

Note: the following points should be observed when beveling insoles.

- e. Angle of bevel will suit the heel to be used start and finish the bevel at the shank board joint.
- f. Edge of the insole has a smooth and not rough bevel.
- g. There is only one beveling angle for a last.

**CONTINENTAL INSOLE**



**SANDWICH INSOLE**



**WELTED INSOLE**



**BLENDED INSOLE**



## Leather sole making

1. Clicking (cutting of leather sole)
2. Splitting (reducing thickness)
3. Leveling and roughing of flesh side
4. Edge pre-trimming
5. Stamping
6. Decoration/grooving
7. Edge inking
8. Track roughing
9. Sole seat roughing
10. Heel breast buffing with fine emery
11. Heel breast coloring and finishing
12. Buffing of the heel surface
13. Adhesive application on sole seat & heel
14. Heel attaching, pressing & stapling
13. heel scouring
14. Water application on edge and heel
15. Buffing with fine emery paper 150 no.
16. Filler application on heel and buffing with 180 no. emery paper
17. Color application on edge
18. Application of abrasive wax on cotton cloth brush & brushing the edge with the R.P.M. of 800.
19. Application of natural carnuva wax on woolen brush & finishing the sole with the R.P.M. of 1600
20. Final checking and packing

**Note:** If we want to make colored bottom sole, then after L&R, we will do snuffing color application before edge pre trimming and remaining process will be same.