

## **How shoes are made**

### **(A) Goodyear Welted**

There are 4 main departments connected with manufacturing within a footwear company and the components follow a progressive route through each of these departments to produce the finished shoes. The departments are, Clicking, Closing, Lasting/ Making, Finishing/ Shoe Room.

- ***Clicking Department (or Cutting Department)***

This is where they start to make the top part of the shoe, which we call the upper. The clicking operative is issued with a number of skins of leather, mostly from cows, although leather can be made from almost all animal skins and with the use of metal strip knives he/she cut out various shaped pieces that will eventually make up the upper. This is a very skilled job because the leather is very expensive so waste must be kept to a minimum. Leather will have varying amounts of flaws on the surface such as barbed wire scratches and these need to be avoided, so that they are not used for the upper pieces.

To interlock the irregular shaped pieces and avoid the surface flaws, keeping the waste to a minimum demands high skill levels.

- ***Closing Department (or Machining Department)***

In this department the component pieces are sewn together by highly skilled machinists to produce the completed upper. In the early stages the pieces are sewn together on what are called flat machines. In the latter stages the upper becomes three-dimensional and the machine used is called a post machine. This is where the sewing surface of the machine is elevated on a post to enable the operative to sew the three dimensional upper. They also complete various edge treatments to the leather to produce a more attractive look to the finished upper. Also, at this stage the eyelets are inserted to accommodate the laces in the finished shoes.

- ***Lasting & Making Department***

The completed uppers now need to be moulded into a foot shape and for this purpose we use what is called a last. This is a plastic shape that simulates the foot shape which, when removed from the finished shoe can be used continually

to produce more shoes. The first operation is to attach what is called an insole to the bottom of the last but this must be only a temporary attachment to allow the last to be removed at the end of the process.

In a Goodyear welted shoe the insole will have what is known as a rib attached to its under edge. The upper is stretched and moulded over the last and attached to the insole rib. When this is complete you now have what is known as a "lasted shoe".

A strip of leather or plastic called the welt is sewn onto the shoe through the rib and upper and all the surplus material is trimmed off the seam. The sole is then attached to the welt and the two are stitched together. After this the heel is attached which completes the "making" of the shoe.

- ***Finishing/Shoeroom***

At this stage it depends on which materials have been used for the welt and sole to determine how it will be finished, i.e. leather or plastic. In the case of leather the sole edge and heel are trimmed and buffed to give them a smooth finish. They are then stained, polished and waxed to give them an attractive finish and to ensure the edge is waterproof. The bottom of the sole is often lightly buffed, stained and polished and various types of patterns are marked on the surface to give it a craft finished look. We now have a "finished shoe" and we now need to shoeroom the uppers.

Firstly an internal sock is fitted into shoe which can be full, half or quarter and these will usually have the manufacturer's details or a brand name if applicable. Again, depending on the materials used for the uppers they will be cleaned, polished and sprayed, plus laces and any tags that may be attached to the shoes (such as shoe care instructions)

The shoes will then go on to be boxed and packaged ready for dispatching to the customer.

The Goodyear Welted process is mostly used for men's high-class footwear and is almost exclusively produced in Northamptonshire as far as U.K. manufacture is concerned.

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## **(B) Flat Lasted**

***Clicking and Closing*** as described for Goodyear Welted.

***Lasting/Making*** There are considerably fewer operations in this process and a

high percentage of children's, ladies and men's shoes are made with this type of construction.

The insoles for this process flat and when the uppers are lasted they are glued down to the surface of the inner side of the insole. The part of the upper that is glued down is then roughed with a wire brush to take off the smooth finish of the leather. This is done because with this process we glue the sole onto the shoe and the roughened surface of the leather will absorb the glue to give a stronger bond. The soles are usually cut, finished and prepared as a separate component so that when they are glued to the lasted upper the result is a complete, finished shoe. Soles can also be pre-moulded as a separate component from various synthetic materials and again glued to the lasted upper to complete the shoe.

The ***Shoeroom and Packing*** departments are as described for Goodyear Welted.

**FLNTO April 2002**