



Packing ladies shoes at Newker

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Footwear Fundamentals

FINISHING THE JOB

It is strange how the meanings of words and expressions can change over the years. Mention the word 'finishing' to anyone in the footwear industry sixty or so years ago and they would automatically know you were referring to the sequence of operations that followed sole attaching in the traditional shoemaking process. In those days, soles and heels had to be trimmed and scoured, coloured, waxed and polished.

The arrival of pre-finished resin rubber sole and heel units changed all that and, now, the traditional 'finishing department' only exists in factories producing Goodyear welted or other expensive specialised types of footwear. Even the most exclusive ladies dress shoes will almost always use pre-finished soles and heels—howbeit to the

very highest standards of fit and finish.

Today, finishing usually refers to the essential operations in what used to be known as the shoe room and which is now referred to in some companies as the stock room. This is because the completed footwear will, after being passed by the final examiner and placed into the appropriate box, become a fully valued item of stock.

PREVENTION IS BETTER THAN CURE

The finishing department can, in many ways, be likened to the A&E department in a hospital. In an ideal world, we should not have need of either. The world is not ideal however and all too many accidents unfortunately do happen despite ever increasing health and safety

regulations. Shoe manufacturers do well to pay as much attention to the health and safety of their products at all stages of manufacture as they are required to do for their employees.

Like a human body, a damaged shoe may be repairable but, it too, will never be the same as a perfect one. Major damages mean expensive rejects so the work force at all levels must be trained to regard quality as equally important as productivity. Failure to do so will encourage a 'don't care' attitude which, in turn, can lead to major problems affecting long-term sales and the future of the brand or company.

The aim of course is zero defects. This however, is a tough target and there will always be some need—however slight—for camouflage and concealment. A shoe leaving the lasting and making department may look a little sad and exhibit the odd knock incurred during its journey through all the complex stages of manufacture needed to produce it. The finishing department's function is to transform its appearance such that an eagle-eyed examiner in the customer's warehouse can find no fault with its appearance. Remember, the all important end purchaser needs to be delighted with the shoes as they come out of the box.

SOCKING

The first operation is usually the insertion of a sock. This is an important item for a variety of reasons. Firstly, it will cover the shankboard frequently used to reinforce the seat and waist of the insole and any lasting tacks that may have been used in those areas. Secondly, it provides a clean inside to the shoe and, thirdly, it states the retailer's brand or the name of the manufacturer. An attractive and accurately located sock therefore plays an important aesthetic part in the overall appearance and presentation of the shoe.

Where tacks have been used in the construction, it is good practice for the operator to check visually and to feel 'carefully' with their fingers around the insole before the

sock is inserted. While the points of correct length tacks should be buried in the top surface of the insole, there can be the occasional one that for some reason has not been properly clenched. The tack point is either cut off with a pair of long handled wire cutters or hammered down.

An adhesive specially formulated from compounded latex is the best adhesive for attaching socks. It will have a 'slippery' feel and a slow drying time so that the sock can be adjusted after insertion to ensure it is correctly located. The sock itself will often have a foam rubber pad on its underside as added protection and comfort for the heel of the foot.

PLANNING SYSTEMS

The next operation is cleaning the shoe. This will usually be done by hand using a soft cloth. The cleaning fluid or wash must be selected to suit the leather finish and trials made on deliveries of new upper materials to ensure it will not cause any damage. Small pieces of sponge or crepe rubber—and occasionally a dull knife—can be used to remove any stubborn blobs of adhesive. There are three main types of cleaner:

- Water-based and containing a mild soap or detergent (stronger formulations may also include ammonia or alcohol)
- Solvent-based containing a light petroleum spirit such as ligroin (solvents must be used in a sealed non-spill container and adequate care taken to ensure good air circulation and extraction)
- Silicone cream which combines cleaning with a polishing effect

CLEARING WRINKLES

When the shoe has been cleaned and all surplus marks, blemishes and scars removed, it is examined for any loose areas in the leather. If any are found, they are usually at the inside of the waist and can be given a blast of hot air using a hand gun to remove any creases or

COMMON FAULTS - PREVENTION AND REPAIR

FAULT	PREVENTION	REPAIR
Over roughing around sole edge.	Adjust track of auto-rougner and ensure brush is sharp or retrain manual roughing operator.	If not in a flex position apply wax with a hot knife and paint over with fine brush.
Surplus adhesive on upper.	Adjust track of auto-cementer and/or train operator to remove surplus adhesive when still wet.	Remove with crepe rubber or blunt knife and repaint if surface finish is removed.
Stitch marking visible at upper seams.	Retrain machinists to cover marks when sewing.	Remove mark with spirit cleaned <i>before</i> heat setting.
Loose and/or wrinkly leather.	Retrain cutters to avoid loose grain material <i>and</i> review upper leather purchasing policy.	Hot blast to shrink out looseness.
Wrinkles and pleats at toe.	Check toe band fit on forepart laster and/or review leather quality and/or retrain lasting operator if needed.	Hot blast to reduce pleats and apply matching coloured wax on minor creases.

wrinkles. This requires careful control, as too much heat or prolonged application may burn the leather. Excess thread ends left from upper stitching can be removed at the same time using a small naked flame. This is a small but key operation as not only do ragged thread ends look bad but may also cause the end customer to think the stitching is coming undone.

TOPLINE RESHAPING

The topline of a ladies shoe is often distorted during last slipping, particularly where solid (non-hinged lasts) lasts are used. The next task therefore, is to reshape or reform the quarter area of the shoe. Here, the back part is clamped into the hot mould of a quarter reforming machine and then transferred to its refrigerated mould to set the shape. An appropriate dwell time in both the hot and cold stations, produces a firm and well-moulded top line, which enhances the final appearance of the shoe. A tight 'clip' on the topline of ladies shoes is also a major aspect of fit and of keeping the shoe on the foot, so this operation is extremely important.

STICKERS

This is an essential task to satisfy both customer and legal requirements. These will typically be price stickers and labels showing composition of the upper, lining and sole. There will doubtless be other regulatory requirements over time and, whatever the labelling concerned, care must be taken to ensure the correct labels are attached and all rules met.

FINAL FINISH

Finally, a clear spray dressing is applied to give an appropriate finish to the shoe. This must again be selected to suit the leather finish in order to ensure good adhesion and avoid any blooming or other adverse reaction. Water resistant sprays can also be used on delicate leathers such as suede and nubuck to help resist staining.

Glacé kid and goat leathers can be finished using casein/formaldehyde preceded by cleaning with a mild soap solution. Waxy leathers usually require no cleaning but will benefit from a little polishing wax or cream. Textiles are best left with as little interference as possible and, if any cleaning is required, a gentle cleaning agent should be used sparingly after careful testing to make sure it will not damage the fabric.

Antiqueing is a special technique used mainly on brogue designs. A dark wax cream containing aniline dyes is applied with a cloth or sponge and worked into the punch holes, which are the feature of the design. The shoe is then polished on a rotating cloth mop, which removes surplus colour, and leaves an attractive two-tone effect around the punching.

FINAL EXAMINATION

This is the most important operation of all and is the last chance to make sure that all products leaving the

factory are to the requisite standard of quality and presentation. A person chosen to be a final examiner has usually worked in all or most of the earlier departments and has an intimate knowledge of their manufacturing procedures. They will also probably be approaching the last seven or eight years of a working career and have a lifetime of experience in the industry.

Ideally, in recognition of their vast experience and the considerable responsibility placed upon them, they should be made a staff member and paid a commensurate fixed salary. They must also be given the authority to act as the final arbiter of quality in the finished product. In turn and because of their knowledge, experience and the trust placed in them by senior management, they will command the respect and confidence of the entire workforce.

Examination is a vital part of the 'prevention is better than cure' approach, so it is a valuable quality control procedure for the final examiner to record any rejects and the contributory cause. Department heads should meet briefly each day to examine rejects and consider what preventative action should be taken in future. The final examiner will be a key person in these discussions. An analysis of the causes of rejection should be examined by management each week as part of the aim to achieve zero defects. A reject is a lost sale and replacement can also lead to missed delivery schedules which will irritate the customer.

SEALED SAMPLES

Many retail organisations operate a 'sealed sample' system, whereby they retain one half of the sample pair and the manufacturer, the other. These samples are the quality benchmark for every pair of shoes that passes through the examiner's hands. Only when the final examiner is completely satisfied should they be released. They can then be wrapped and boxed with the assurance that the next person to see them will be a satisfied customer.

Many international brands on the other hand, either employ roving examiners who go from supplier to supplier checking all aspects of quality or they have similar people working alongside supplier personnel on a permanent basis. This change in attitude from the traditional adversarial attitude whereby the manufacturer often felt the retailer was always trying to 'move the goal posts' of quality at the former's expense to one of co-operation in a common goal has been one of the more positive things to come out of globalisation.

The fact that there are far fewer factory rejects and customer complaints than in the past has proved beneficial to all concerned. Despite all the efforts now taken to ensure quality, people in shoe factories are human beings and mistakes will inevitably occur from time to time. The finishing department with its final examination function is therefore likely to remain with us for a long time as a longstop if nothing else. 🍷