



Integrating Companies in a Sustainable Apprenticeship System

Project 2017-1-DE02-KA202-004174

Intellectual Output 3A

Learning-teaching activities - Stitching -

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Version: Final



This project has been funded with support from the European Commission.

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1. What to prepare

In order to start the work-based training, there is a list of things to prepare:

- Stitching machine, needles, textile and leather materials
- Workplace
- Print-outs of stitching exercises on paper (provided as separate files in the attachment)

Uppers and lining parts for a shoe model in order to perform a complete closing process

2. Activities

2.1. Reception of the materials and pieces for stitching. Check the quality of pieces.

- Understand the data of the Production Plan / weekly chart of the activity. Identify priorities, models and materials.
- Reception of the materials and pieces delivered by the warehouse, according to the manufacturing orders
- Reception of the materials and pieces delivered by the previous departments (pre-stitching or cutting)

2.2. Prepare the pieces for stitching

- marking the stitches.



Photo credit: <https://helmboots.com/pages/draft-handcrafted-vs-handmade>

- assembling the pieces by gluing.



Photo credit: <https://shoesandcraft.com/2014/07/08/upper-making-tutorial-1-derby-shoe-i/>


- application of reinforcement tape



Photo credit: <https://shoesandcraft.com/2014/07/08/upper-making-tutorial-1-derby-shoe-i/>

2.3. Exercise stitching on the flat bed sewing machine

Identify the constructive parts of the flat bed sewing machine. Maintenance rules. Complete the table following the example.

Flat bed sewing machine	Constructive part	Adjustments/ Maintenance rules
 <p><i>Photo credit: Dürkopp Adler AG</i></p>	Needle	Changing the needle: Remove the needle and insert a new one with the needle scarf to the right

- Treadle (pedal of the sewing machine) exercises to get a feeling for speed and needle movement.
- Sewing exercises on paper (with needle, without thread) with increasing difficulty: straight lines, curves, circles (annexe 1).
- Practise needle selecting/fixing, threading of upper and looper thread, adjustments on the sewing machine depending on the type of materials. Complete the table following the example.

Material	Needle size	Thread size (TEX)	Samples
Velour	60	120/3	Insert here the stitched sample.

- Perform various stitches and seams on textile/synthetic and leather materials, with needle and thread. Complete the table following the example.


Type of seam	Type of stitch	Samples
Lapped seam	Locked stitch	Insert here the stitched sample

- Control the stitches in order to identify possible defects, adjust the sewing machine accordingly. Complete the table following the example.

Name of operation	Defects	Causes	Remedial measures
Close the vamp and quarters	Skipped and loose stitches	Excessively tight tension of the hook thread.	Adjustments on feeding mechanisms of the hook threads are necessary.

2.4. Exercise stitching on the post bed sewing machine

Identify the constructive parts of the post bed sewing machine. Maintenance rules. Complete the table following the example.

Post bed sewing machine	Constructive part	Adjustments/ Maintenance rules
 <p><i>Photo credit: Dürkopp Adler AG</i></p>	Needle	Changing the needle: Remove the needle and insert a new one with the needle scarf to the right.

- Treadle (pedal of the sewing machine) exercises to get a feeling for speed and needle movement.
- Sewing exercises on paper (with needle, without thread) with increasing difficulty: straight lines, curves, circles (annexe 1).
- Practise needle selecting/fixing, threading of upper and looper thread, adjustments on the sewing machine depending on the type of materials. Complete the table following the example.

Material	Needle size	Thread size (TEX)	Samples
Velour	60	120/3	Insert here the stitched sample.

- Perform various stitches and seams on textile/synthetic and leather materials, with needle and thread. Complete the table following the example.

Type of seam	Type of stitch	Samples
Lapped seam	Locked stitch	Insert here the stitched sample

- Perform stitching operations on post-bed machine equipped with trimming device (stitch the topline of the uppers and trim the linings).



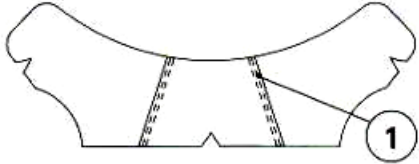
Photo credit: Dürkopp Adler AG

- Control the stitches in order to identify possible defects, adjust the sewing machine accordingly. Complete the table following the example.

Name of operation	Defects	Causes	Remedial measures
Close the vamp and quarters	Skipped and loose stitches	Excessively tight tension of the hook thread.	Adjustments on feeding mechanisms of the hook threads are necessary.



2.5. Perform a complete closing process for the uppers of a Derby shoe (or another model produced in factory). Complete the table below following the example

Type of shoe:	Model sketch	Parts:
		<ul style="list-style-type: none"> <li>• Uppers: <li>• Linings:
Name of operatio	Stitch position on the product (sketch)	Seam type
<p>Joint lining parts by stitching together the counter lining and quarter lining.</p>		<p>overlap seam, 1 stitch</p>

3. Annex

