

APPRENTICESHIP CURRICULUM

FOR

STITCHING OPERATOR

Program

SECTOR: Leather

BLOCK I (Basic Training):

COURSE NAME: Stitching Operator

QP Name, QP Code and Version No., and NSQF Level: Stitching Operator, LSS/Q2501 V1.0, NSQF Level 4

Training Duration: 300 Hrs (3 months)

BLOCK II (Training at Employer Location):

COURSE NAME: Stitching Operator

QP Name, QP Code and Version No., NSQF Level: Stitching Operator, LSS/Q2501 V1.0, NSQF Level 4

Training Duration: 960 Hrs (6 months)

TOTAL PROGRAM DURATION: 1260 Hrs (9 months)

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	<ul style="list-style-type: none"> • Detect product/manufacturing defects and control manufacturing losses. • Identify the different types of footwear styles and manufacturing methods. • Create reports of stitching operations for the day (documentations).
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Note: 1 week has 40 hours of learning (8 hrs a day x 5 days a week). For example:

S. No.	QP2 Durations (in hrs)	Weeks	Months
1	1440	36	9
2	960	24	6
3	2080	52	13

Block I: This is a training block done in the Instructor-Led training approach, with theory and practical sessions. The training sessions may be held at training provider's premises.

Block II: This is a training block done at the Employer location. This is largely hands-on with inputs/ guidance provided by the on-site mentors and supervisors. The employer may conduct instructor-led sessions in classrooms/ workshops and may also look at new age – technology-based performance support tools for additional support.

S. No.	Module Name	Key Learning Outcomes	Equipment Required
	<p>Total Duration</p> <p>Theory Duration 40:00</p> <p>Practical Duration 260:00</p>	<p>Unique Equipment Required: Post bed sewing machine, Flatbed sewing machine, Cylinder bed type sewing machine, Sample leather pieces, Scissors, Measuring tape, Stitching awl, Stitch maker, Spring divider, Steel rule, Khurpi, Wooden mallet, Indenting scissors, Hand clicking knife, Shoe Hammer, Pricking Awl, Welt knife, Nail puller, Manchester nippers, Needles, Thread, Dendrite paste, Pasting brushes, Screwdriver, Leather thickness measuring gauge, Sample leather defects materials, Gloves, Helmet, Safety shoe, Ear plug, Apron, Goggles, Cleaning cloth, Water bucket, Cleaning materials, Mop, Dust bin, Broom, First aid kit, Fire extinguisher, Sample legal documents</p>	

Grand Total Course Duration: 300 Hours, 0 Minutes

S. No.	Module Name	Key Learning Outcomes	Equipment Required
Week 9	<p>Carry out Stitching Operations using post bed machine</p> <p>Theory Duration (hh:mm) 03:00</p> <p>Practical Duration (hh:mm) 37:00</p> <p>Corresponding NOS Code LSS/N2501</p>	<ul style="list-style-type: none"> Describe the process of post bed stitching machine List the tools and equipment used for the stitching process Check the upper components to conduct shade wise pairing Apply adhesives on the components Carry out folding of components Carry out joining of upper and lining using post bed machine Carry out joining of quarter and vamp using post bed machine Carry out edge trimming operation 	<p>Post bed sewing machine, Flat bed sewing machine, Zig zag machine, Sample leather pieces, Scissors, Measuring tape, Stitching awl, Stitch maker, Spring divider, Steel rule, Khurpi, Wooden mallet, Indenting scissors, Hand clicking knife, Shoe, Hammer, Pricking Awl, Welt knife, Nail puller, Manchester nippers, Needles, Thread, Dendrite paste, Pasting brushes, Screwdriver, Leather thickness measuring gauge, PPE</p>
Week 10	<p>Eyeletting and Lacing</p> <p>Theory Duration (hh:mm) 03:00</p> <p>Practical Duration (hh:mm) 37:00</p> <p>Corresponding NOS Code LSS/N2501</p>	<ul style="list-style-type: none"> Describe the eyelet punching process Describe the eyelet putting process Describe the eyelet setting process Explain the lacing procedure Carry out eyelet punching Carry out eyelet putting Carry out eyelet setting Carry out lacing on the uppers 	<p>Post bed sewing machine, Flat bed sewing machine, Zig zag machine, Sample leather pieces, Scissors, Measuring tape, Stitching awl, Stitch maker, Spring divider, Steel rule, Khurpi, Wooden mallet, Indenting scissors, Hand clicking knife, Shoe, Hammer, Pricking Awl, Welt knife, Nail puller, Manchester nippers, Needles, Thread, Dendrite paste, Pasting brushes, Screwdriver, Leather thickness measuring gauge, PPE</p>
Week 11	<p>Visual inspection</p> <p>Theory Duration (hh:mm) 03:00</p> <p>Practical Duration (hh:mm) 37:00</p> <p>Corresponding NOS Code LSS/N2501</p>	<ul style="list-style-type: none"> Describe the visual inspection procedure of stitched components List the equipment's used for visual inspection Carry out visual inspection as per the specifications on the job card Identify the stitched items which do not meet the production specification Report the component which do not meet the product specification to the supervisor 	<p>Post bed sewing machine, Flat bed sewing machine, Zig zag machine, Sample leather pieces, Scissors, Measuring tape, Stitching awl, Stitch maker, Spring divider, Steel rule, Khurpi, Wooden mallet, Indenting scissors, Hand clicking knife, Shoe, Hammer, Pricking Awl, Welt knife, Nail puller, Manchester nippers,</p>

S. No.	Module Name	Key Learning Outcomes	Equipment Required
	00:00 Practical Duration (hh:mm) 40:00 Corresponding NOS Code LSS/N2502		tape, Stitching awl, Stitch maker, Spring divider, Steel rule, Khurpi, Wooden mallet, Indenting scissors, Hand clicking knife, Shoe, Hammer, Pricking Awl, Welt knife, Nail puller, Manchester nippers, Needles, Thread, Dendrite paste, Pasting brushes, Screwdriver, Leather thickness measuring gauge, PPE
Week 18	Sorting and placing Theory Duration (hh:mm) 00:00 Practical Duration (hh:mm) 40:00 Corresponding NOS Code LSS/N2502	<ul style="list-style-type: none"> • Sorting of tools and materials • Pass the stitched uppers to the next stage of production • Carry out the closedown procedure after the work is complete 	Post bed sewing machine, Flat bed sewing machine, Zig zag machine, Sample leather pieces, Scissors, Measuring tape, Stitching awl, Stitch maker, Spring divider, Steel rule, Khurpi, Wooden mallet, Indenting scissors, Hand clicking knife, Shoe, Hammer, Pricking Awl, Welt knife, Nail puller, Manchester nippers, Needles, Thread, Dendrite paste, Pasting brushes, Screwdriver, Leather thickness measuring gauge, PPE
Week 19	Maintenance of work area Theory Duration (hh:mm) 03:00 Practical Duration (hh:mm) 37:00 Corresponding NOS Code LSS/N8501	<ul style="list-style-type: none"> • Describe the importance of: <ul style="list-style-type: none"> ○ Good time keeping and attendance ○ Minimizing production cost ○ Taking action when the problem is identified • Prepare the work area as per the requirement • Maintain a clean and hazard free working area • Deal with work interruption safely • Move around the workplace with care • Create a comfortable position with the correct posture while working • Maintain proper lighting and ventilation to make sure that there is general comfort in the work area 	Post bed sewing machine, Flat bed sewing machine, Zig zag machine, Sample leather pieces, Scissors, Measuring tape, Stitching awl, Stitch maker, Spring divider, Steel rule, Khurpi, Wooden mallet, Indenting scissors, Hand clicking knife, Shoe, Hammer, Pricking Awl, Welt knife, Nail puller, Manchester nippers, Needles, Thread, Dendrite paste, Pasting brushes, Screwdriver, Leather thickness measuring gauge, PPE

NOS	Performance Criteria	Total Mark	Out Of	Marks Allocation	
				Theory	Practical Skills
	PC4. Maintain a healthy lifestyle and guard against dependency on intoxicants		0.5	0	0.5
	PC5. Follow environment management system related procedures		6	5	1
	PC6. Identify and correct (if possible) malfunctions in machinery and equipment		1	0	1
	PC7. Report any service malfunctions that cannot be rectified		1	0	1
	PC8. Store materials and equipment in line with manufacturer's and organizational requirements		0.5	0	0.5
	PC9. Safely handle and move waste and debris		1	0	1
	PC10. Minimize health and safety risks to self and others due to own actions		1	0	1
	PC11. Seek clarifications, from supervisors or other authorized personnel in case of perceived risks		1	0	1
	PC12. Monitor the workplace and work processes for potential risks and threats		1	0	1
	PC13. Carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned		0.5	0	0.5
	PC14. Report hazards and potential risks/ threats to supervisors or other authorized personnel		5.5	5	0.5
	PC15. Participate in mock drills/ evacuation procedures organized at the workplace		0.5	0	0.5
	PC16. Undertake first aid, fire-fighting and emergency response training, if asked to do so		1	0	1
	PC17. Take action based on instructions in the event of fire, emergencies or accidents		0.5	0	0.5
	PC18. Follow organization procedures for shutdown and evacuation when required		1	0	1
	Total		25	10	15
5. LSS/N8701: Comply with industry, regulatory and organizational requirements	PC1. Carry out work functions in accordance with legislation and regulations, organizational guidelines and procedures	25	10	5	5
	PC2. Seek and obtain clarifications on policies and procedures, from the supervisor or other authorized personnel		3	0	3
	PC3. Apply and follow these policies and procedures within the work practices		2	0	2
	PC4. Provide support to the supervisor and team members in enforcing these considerations		7	5	2
	PC5. Identify and report any possible deviation to these requirements		3	0	3
	Total		25	10	15

					Inch, 112 mm, 0.500 kg
13	Indenting scissors	2	Nos	Yes	150mm and 300mm
14	Hand clicking knife	5	Nos	Yes	Stainless Steel
15	Shoe Hammer	2	Nos	Yes	100 gms, 200 gms, 300 gms and 500 gms
16	Pricking Awl	5	Nos	Yes	Tempered sharp steel needle with wooden handle
17	Welt knife	2	Nos	Yes	knife-edge-square-wwelt-17-x-17
18	Nail puller	2	Nos	Yes	75x5mm Nail Puller
19	Manchester nippers	2	Nos	Yes	115mm Nipper
20	Needles	2	Set	Yes	Material: Stainless Steel Type of Needles: 2/0
21	Thread	2	Set	Yes	1x 285 yards 1mm sewing waxed thread 150D
22	Dendrite paste	1	Nos	Yes	FF555 synthetic rubber
23	Pasting brushes	1	Nos	Yes	1" x 7/16" 1 1/2" x 1/2" 2" x 9/16" 3" x 11/16"
24	Sample leather defects material	1	Set	Yes	NA
25	Screwdriver	1	Set	Yes	Small size and long size
26	Leather thickness measuring gauge	1	Nos	No (Can be made available at OJT site)	<ul style="list-style-type: none"> Measuring Range: 0 to 10 mm Least count of dial gauge: 0.01 Diameter of anvil: 50 mm approximately Diameter of indenter: 10 mm Pressure on indenter: 100 gm/cm² Throat depth: 50 mm
27	Garbage Bins	3	Nos	Yes	30 lts capacity
28	Dust Pan with Handle & Broom	1	Nos	Yes	Long handle
29	Dry and wet mob	Each one	Nos	Yes	Long handle
30	Water Bucket	1	Nos	Yes	20 lts capacity
31	PPE set	2	Nos	Yes	Standard
32	First aid kit	1	Nos	Yes	Standard
33	Fire Extinguisher	1	Nos	Yes	ABC Type

15	Shoe Hammer	2	Nos	Yes	100 gms, 200 gms, 300 gms and 500 gms
16	Pricking Awl	5	Nos	Yes	Tempered sharp steel needle with wooden handle
17	Welt knife	2	Nos	Yes	knife-edge-square-wwelt-17-x-17
18	Nail puller	2	Nos	Yes	75x5mm Nail Puller
19	Manchester nippers	2	Nos	Yes	115mm Nipper
20	Needles	2	Set	Yes	Material: Stainless Steel Type of Needles: 2/0
21	Thread	2	Set	Yes	1x 285 yards 1mm sewing waxed thread 150D
22	Dendrite paste	1	Nos	Yes	FF555 synthetic rubber
23	Pasting brushes	1	Nos	Yes	1" x 7/16" 1 1/2" x 1/2" 2" x 9/16" 3" x 11/16"
24	Sample leather defects material	1	Set	Yes	NA
25	Screwdriver	1	Set	Yes	Small size and long size
26	Leather thickness measuring gauge	1	Nos	No (Can be made available at OJT site)	<ul style="list-style-type: none"> Measuring Range: 0 to 10 mm Least count of dial gauge: 0.01 Diameter of anvil: 50mm approximately Diameter of indenter: 10 mm Pressure on indenter: 100 gm/cm² Throat depth: 50mm
27	Garbage Bins	3	Nos	Yes	30 lts capacity
28	Dust Pan with Handle & Broom	1	Nos	Yes	Long handle
29	Dry and wet mop	Each one	Nos	Yes	Long handle
30	Water Bucket	1	Nos	Yes	20 lts capacity
31	PPE set	2	Nos	Yes	Standard
32	First aid kit	1	Nos	Yes	Standard
33	Fire Extinguisher	1	Nos	Yes	ABC Type

Further Learning

Learning Pathways

After completion of the apprenticeship training, the candidates have wide career choices available with them in the Leather industry. A candidate after completing apprenticeship can be skilled horizontally in various segments like Pre Assembly Operator (LSS/Q2601), Skiving Operator (LSS/Q2401), Cutter (Footwear) (LSS/Q2301) etc. and vertically as Moulding Supervisor (LSS/Q7601), Line Supervisor (LSS/Q3102), and Quality Control Inspector (Footwear) (LSS/Q3101) in plant hierarchy.

Employment Opportunities

Apart from above mentioned avenues, the apprentice can always aspire to be employed in one of the following:

1. **Footwear manufacturing units in India:** The apprentice may be employed with the biggest player of the trades and be a part of their manufacturing set and deliver quality work.
2. **Footwear manufacturing set up/Retail Unit:** The apprentice may be encouraged to set up their own manufacturing unit, which they may also channelize into owning a retail unit and be able to sell their merchandise directly to the consumers
3. **Education and Training:** They may also take up the role of the instructor in this field where they can impart their manufacturing knowledge to the aspiring students.