

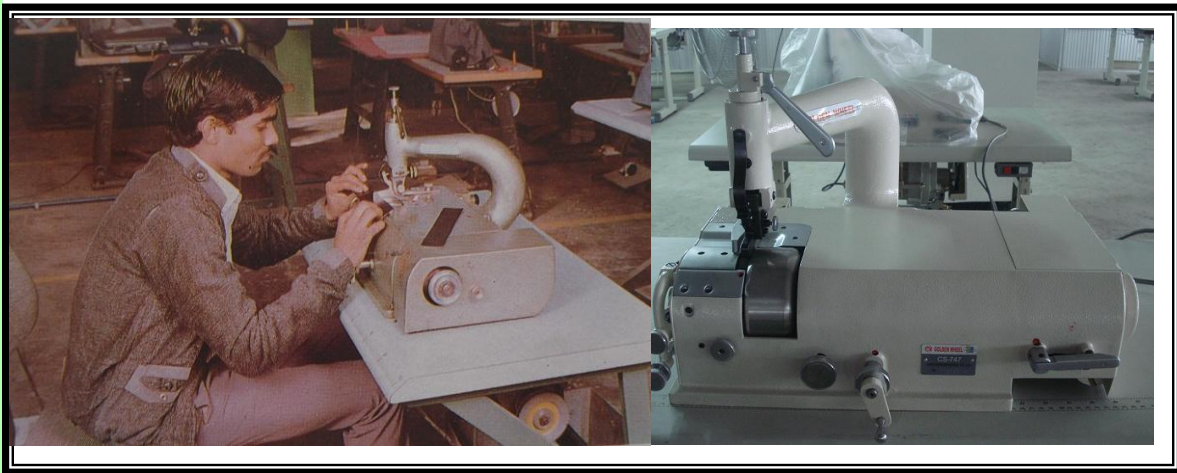
National Technical and Vocational Qualification Framework

NTVQF

Competency-Based Learning Material

Machine Operator
NTVQ Level 1

Skiving Leather Pieces



Bangladesh Technical Education Board

Agargaon, Shere Bangla Nagar
Dhaka-1207

TABLE OF CONTENTS

How To Use This Competency-Based Learning Material.....	3
Module Content.....	4
Learning Outcome 1 Follow OSH Practies.....	5
Learning Activities	6
Information Sheet 4.1-1Follow OSH Practices While Performing Skiving Leather Pieces	7
Self-Check 4.1-1	14
Answer Key 4.1-1	15
Learning Outcome 2 Identified Skiving Techniques And Machines.....	16
Learning Activities	17
Information Sheet 4.2-1Identified Skiving Techniques And Machines.....	18
Self-Check 4.2-1	38
Answer Key 4.2-1	39
Learning Outcome 3 Operate Machine To Produce Skived Parts.....	41
Learning Activities	42
Information Sheet 4.3-1 Operate Machine To Produce Skived Parts.....	43
Operation Sheet 4.3-1	44
Performance Criteria 4.3-1	52
Review Of Competency.....	53

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 2 of 54
----------------------	----------------------	-----------------------------	--------------------------------	--------------

HOW TO USE THIS COMPETENCY-BASED LEARNING MATERIAL

Welcome to the module **Skiving leather pieces**. This module contains training materials and activities for you to complete.

This unit of competency, “**Skive leather pieces**”, is one of the competencies of any NTVQ Level 1 Occupation, a course which comprises the knowledge, skills and attitudes required to become a Basic-Skilled Worker.

You are required to go through a series of learning activities in order to complete each learning outcome of the module. These activities may be completed as part of structured classroom activities or you may be required to work at your own pace. These activities will ask you to complete associated learning and practice activities in order to gain knowledge and skills you need to achieve the learning outcomes.

Refer to **Learning Activity Page** to know the sequence of learning tasks to undergo and the appropriate resources to use in each task. This page will serve as your road map towards the achievement of competence.

Read the **Information Sheets**. These will give you an understanding of the work, and why things are done the way they are. Once you have finished reading the Information sheets complete the questions in the Self-Check Sheets.

Self-Checks follow the Information Sheets in the learning guide. Completing the Self-checks will help you know how you are progressing. To know how you fared with the self-checks, review the **Answer Key**.

Complete all activities as directed in the **Job Sheets and/or Activity sheets**. This is where you will apply your new knowledge while developing new skills.

When working through this module always be aware of safety requirements. If you have questions, do not hesitate to ask your facilitator for assistance.

When you have completed all the tasks required in this learning guide, an assessment event will be scheduled to evaluate if you have achieved competency in the specified learning outcomes and are ready for the next task.

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 3 of 54
----------------------	----------------------	-----------------------------	--------------------------------	--------------

MODULE CONTENT

MODULE TITLE: Skiving Leather Pieces

MODULE DESCRIPTOR:

This unit covers the knowledge and skills required to skive leather parts cut for leather goods and setting up machines and producing skived parts to specified industry performance and quality standards.

NOMINAL DURATION: 60 hrs

LEARNING OUTCOMES:

After completing this module you MUST be able to:

1. Follow OSH practices
2. Identified skiving techniques and machines
3. Set up and maintain skiving machine
4. Operate machine to produce skived parts.
5. Clean work place

ASSESSMENT CRITERIA

1. All safety requirements/regulations are adhere to before, during after use.
2. Unsafe or faulty tools are identified and marked for repair according to designated procedures before, during and after use.
3. Personal protective clothing (PPE) worn.
4. Different skiving techniques are identified, according to the end user purpose.
5. The differences between machines are described.
6. Machine parts are identified.
7. The machine is set up and adjusted for the specified skiving job.
8. Damaged and unsafe machine parts are identified and reported.
9. Worn parts are removed and replaced, reported as per workplace practice.
10. Operations completed to the specified industry performance and company quality standards.
11. Skived components are checked according to job specification.
12. Keep record of skived components as per company regulations.
13. Work place and machine is cleaned as per work place standard.
14. Waste is disposed off according to company regulations.

CONTENT

This learning package includes the following:

- Information Sheet
- Self Check Sheet
- Answer Key
- Job Sheet

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 4 of 54
----------------------	----------------------	-----------------------------	--------------------------------	--------------

LEARNING OUTCOME 1 FOLLOW OHS PRACTICES WHILE PERFORMING SKIVING LEATHER PIECES

CONTENTS:

- 1 All safety requirements/regulations are adhere to before, during after use.
- 2 Identified and marked unsafe or faulty tools for repair according to designated procedures before, during and after use.
- 3 Worn Personal protective clothing (PPE).

ASSESSMENT CRITERIA:

- 1 All safety requirements/regulations are adhere to before, during after use.
- 2 Unsafe or faulty tools are identified and marked for repair according to designated procedures before, during and after use.
- 3 Personal protective clothing (PPE) worn.

CONDITIONS:

Trainees must be provided with the following:

- Personal Protective equipment
- Equipment, tools and utensils for Skiving Leather

Learning Materials

- Books, manuals
- Modules/references

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 5 of 54
----------------------	----------------------	-----------------------------	--------------------------------	--------------

LEARNING ACTIVITIES

LEARNING OUTCOME: Follow OHS Practices While Performing Skiving Leather Pieces

LEARNING ACTIVITIES	RESOURCES/SPECIAL INSTRUCTIONS
Follow OHS practices while performing Skiving leather pieces.	Read information sheet 4.1-1 Answer Self-Check 4.1-1 then refer to Answer Key 4.1-1 Perform Job sheet 4.1-1. Use Performance Criteria Checklist.

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 6 of 54
----------------------	----------------------	-----------------------------	--------------------------------	--------------

INFORMATION SHEET 4.1-1

Follow OHS Practices While Performing Skiving Leather Pieces

Learning Objectives:

After reading this INFORMATION SHEET, you will be able to Follow OHS practices while performing Skiving leather pieces.

Personal protective equipment (PPE):

Personal protective equipment is any type of specialized clothing, eye shield or facial barrier that is used to protect the wearer from serious injuries or illnesses.

Personal protective equipment acts as a barrier between infectious materials and your skin, mouth, nose, or eyes (mucous membranes). The barrier has the potential to block the spread of infection from blood, body fluids, or respiratory secretions.

All personal protective equipment cleared by FDA must meet specific performance standards for protection. These standards vary depending on the specific type of equipment. The information that FDA uses for the evaluation and clearance of personal protective equipment does not include performance against a specific influenza virus. Thus neither FDA, nor a manufacturer, knows to what extent PPE will protect you against influenza. Keep in mind that other infection control practices, such as hand-washing, using alcohol-based hand sanitizers, isolating sick patients, and using appropriate coughing etiquette, are also important to minimize your risk of infection.

Most personal protective equipment is designed to be used one time. It is not intended to be used over and over. There are a few exceptions (for example some types of protective eyewear).

It is important to understand that if you are exposed to infectious material while wearing personal protective equipment; your PPE should be considered contaminated. Remove it promptly and dispose of it properly. Improper removal, reuse or improper disposal of contaminated PPE may increase your risk of infection.

You should not share personal protective equipment. Most PPE is not intended to be used over and over. The protective capabilities of a PPE cannot be assured when it is reused by either yourself or another person. Perhaps more importantly, by sharing, you may inadvertently be exposing another person to infectious material. PPE should be removed promptly after use and disposed of properly. Improper removal, reuse or improper disposal of contaminated PPE may increase your risk of infection.

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 7 of 54
----------------------	----------------------	-----------------------------	--------------------------------	--------------

Name of Personal Protective Equipment (PPE):

➤ Apron:

In some cases workers must shield most or all of their bodies against hazards in the workplace, such as exposure to heat and radiation as well as hot metals, scalding liquids, body fluids, hazardous materials or waste, and other hazards. In addition to fire-retardant wool and fire retardant cotton, materials used in whole-body personal protective equipment include rubber, leather, synthetics, and plastic.



➤ Safety Goggles:

Goggles or safety glasses are forms of protective eyewear that usually enclose or protect the area surrounding the eye in order to prevent particulates. These are tight-fitting eye protection that completely covers the eyes, eye sockets and the facial area immediately surrounding the eyes and provide protection from impact, dust and splashes.



➤ Hand Gloves:

Workers exposed to harmful substances through skin absorption, severe cuts or lacerations, severe abrasions, chemical burns, thermal burns, and harmful temperature extremes will benefit from hand protection.



➤ Earmuffs:

Wearing earplugs or earmuffs can help prevent damage to hearing. Exposure to high noise levels can cause irreversible hearing loss or impairment as well as physical and psychological stress. Earplugs made from foam, waxed cotton, or fiberglass wool is self-forming and usually fit well. A professional should fit your workers individually for molded or preformed earplugs. Clean earplugs regularly, and replace those you cannot clean.



Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 8 of 54
----------------------	----------------------	-----------------------------	--------------------------------	--------------

➤ **Masks:**

Face shields protect against nuisance dusts and potential splashes or sprays of hazardous liquids but will not provide adequate protection against impact hazards. Face shields used in combination with goggles or safety spectacles will provide additional protection against impact hazards.



Safety requirement:

- Switch off the machine when not in use.
- To remove jammed material use a stick or brush.
- Please scraps in a metal dust bin at the end of the day for fire hazard.
- Keep your work area tidy.
- To protect the operator from the spinning belts use belt guard.
- You should sit squarely on your chair within reach.
- Know your fire drill
- Do not try to make your own electrical repairs.
- Don't use loose dresses.
- Keep your personal safety
- Your movement easily in working place.
- When you working in machine not to be careless

Rules and Regulations:

- Use ID Card.
- Use Apron.
- Maintain duty time.
- Aware of work place information
- No necessary movement in working time.
- No unnecessary talking when working.
- Do not disturb other person in working time.
- Use medical card when go to medical centre.

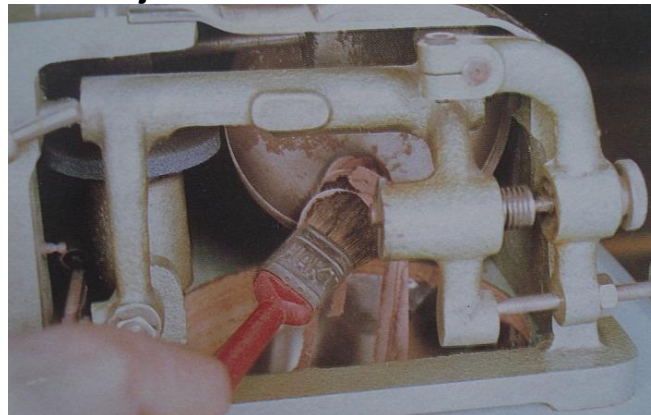
Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 9 of 54
----------------------	----------------------	-----------------------------	--------------------------------	--------------

Safety practices while performing skiving leather pieces:

Switch off the machine when not in use.



To remove jammed material use a stick or brush.

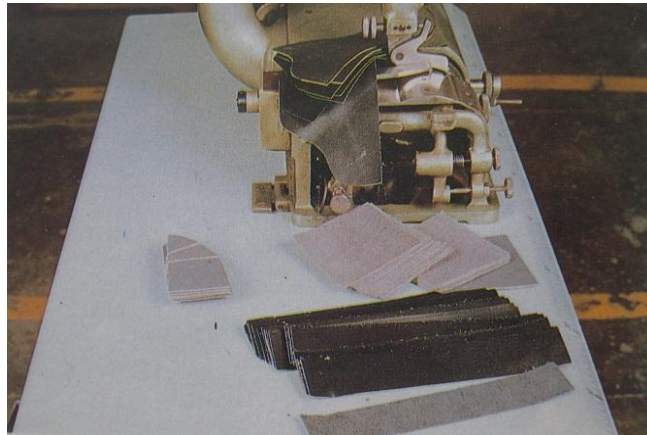


Place scraps in a metal dust bin at the end of the day for fire hazard.

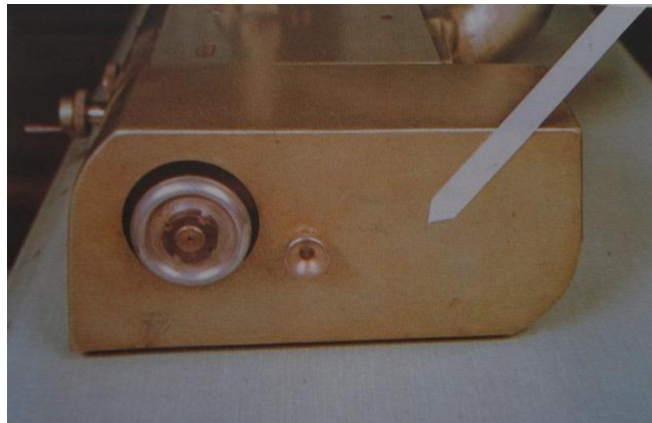


Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 10 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

Keep your work area tidy.



To protect the operator from the spinning belts use belt guard.



You should sit squarely on your chair with the machine within reach.

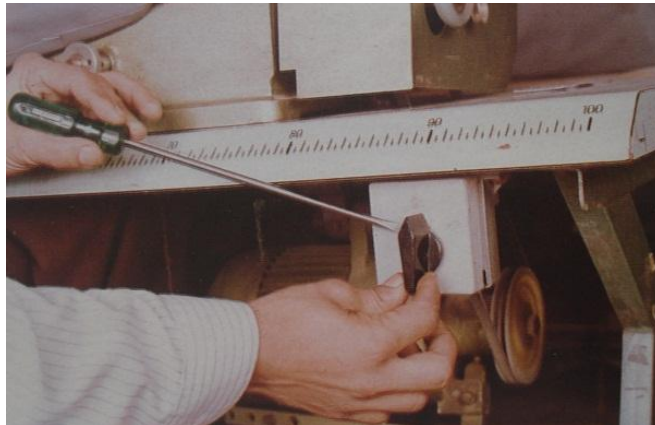


Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 11 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

Know your fire drill



Do not try to make your own electrical repairs.



Don't use loose dresses.



Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 12 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

Always wear approved footwear and clothing in the workshop.



If hair is longer than shoulder length it should be tied back.



Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 13 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

SELF-CHECK 4.1-1

Question 01: What is Personal protective equipment (PPE)?

Question 02: Give five names of personal protective equipments (PPE).

Questions 03: Goggles or safety glasses are forms of protective eyewear that usually enclose or protect the area surrounding the eye in order to prevent particulates. True or False.

Question 04: List five safety requirements when operating the single step cylinder knife skiver.

Answer:

1.
.....
.....
2.
.....
.....
3.
.....
.....
4.
.....
.....
5.
.....
.....

Question 05: Write four rules and regulations in maintaining safety in the workplace.

1.
2.
3.
4.

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 14 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

ANSWER KEY 4.1-1

Question 01: What is Personal protective equipment (PPE)?

Answer: Personal protective equipment is any type of specialized clothing, eye shield or facial barrier that is used to protect the wearer from serious injuries or illnesses.

Question 02: Give five names of personal protective equipments (PPE).

Answer: Five PPE names given below,

1. Apron.
2. Safety Goggles.
3. Hand gloves.
4. Masks.
5. Earmuffs.

Questions 03: Goggles or safety glasses are forms of protective eyewear that usually enclose or protect the area surrounding the eye in order to prevent particulates. **True or False.**

Answer: True.

Question 04: List five safety hazards to be aware of when operating the single step cylinder knife skiver.

Answer:

1. Switch off the machine when not in use.
2. Keep work area tidy.
3. Do not try to make own electrical repairs.
4. When working in machine not to be careless.
5. Don't use loose dresses.

Question 05: Write four rules and regulations maintain in workplace.

1. Use ID card.
2. Use Apron.
3. Do not disturb other person in working time.
4. Maintain duty time.

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 15 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

LEARNING OUTCOME 2 IDENTIFY SKIVING TECHNIQUES AND MACHINES

CONTENTS:

- 1 Identify different skiving technique according to the end user purpose.
- 2 Describe the differences between machines.
- 3 identify machine parts.

ASSESSMENT CRITERIA:

- 1 Different skiving technique is identified, according to the end user purpose.
- 2 The differences between machines are described.
- 3 Machine parts are identified.

CONDITIONS:

Trainees must be provided with the following:

- Personal Protective equipment
- Equipment, tools and utensils for Skiving Leather

Learning Materials

- Books, manuals
- Modules/references

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 16 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

LEARNING ACTIVITIES

LEARNING OUTCOME: Identify Skiving Techniques and Machines

LEARNING ACTIVITIES	RESOURCES/SPECIAL INSTRUCTIONS
Identify skiving techniques and machines	Read information sheet 4.2-1 Answer Self-Check 4.2-1 then refer to Answer Key 4.2-1 Perform Job sheet 4.2-1. Use Performance Criteria Checklist.

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 17 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

INFORMATION SHEET 4.2-1

Identify Skiving Techniques and Machines

Learning Objectives:

After reading this INFORMATION SHEET, you will be able to identify skiving techniques.

Introduction:

Skiving is one of the important preparatory operations carried out in the fabrication of leather goods. Skiving is also known as “paring” in leather goods terminology. Skiving operation is done mainly to reduce the thickness of the cut components of the leather material mostly at the edges to varying width in different ways to suit the methods of construction, in the manufacture of leather goods. Except in cut edge construction, in all other fabrication work, skiving is invariably done.

Skiving is necessary for fancy leather goods making. It is performed by machine in modern factories, machines of the cylindrical knife type being the most popular. For some classes of leather goods the reduction of leather substance by the machine alone is sufficient for the subsequent assembling processes. In other grades of articles the machine operation is followed by hand skiving. Knife is used to effect the future reduction necessary for turning over rounded corners, and for touching up the machine pared parts. The feather edging and fine edging of the leathers are usually carried out with the hand knife.

When correctly adjusted and operated, the skiving machine produces a very uniform reduction of substance. Hard and thick leathers can be as evenly pared as those of soft texture, and the reduction of large areas is performed more satisfactorily and with less risk of damage than with hand knife. As a labor saving appliance, the machine is remarkable; a time factor of roughly 90 percent for straight forward skiving is in favor of the machine as compared with the hand process.

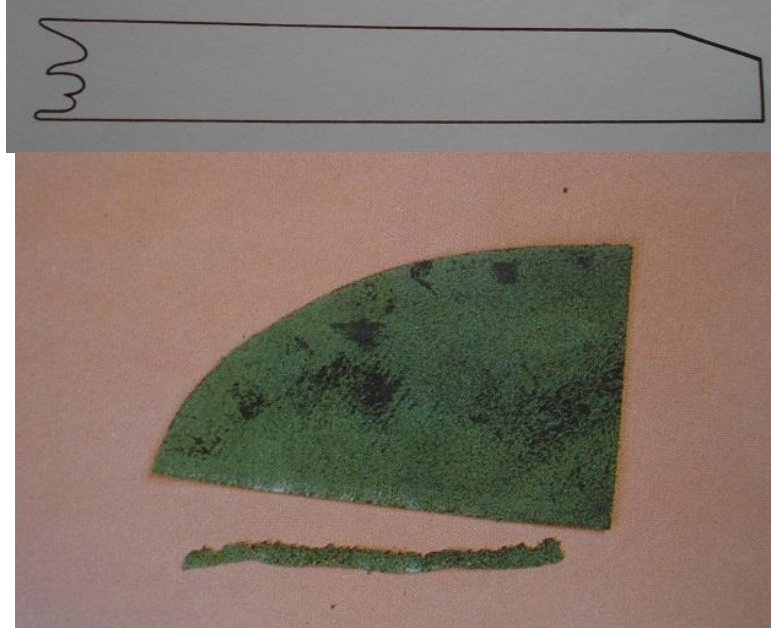
The operation requires a reasonable degree of skill on the part of the operator having experience. An operator who is not familiar with the principle of the skiving machine and its adjustments can destroy much valuable leather. Modern skiving machines are substantially built and are capable of very fine adjustments. Such adjustment is constantly required, not only to produce different skives, but also to perform on various kinds of leathers.

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 18 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

There are three types of skive in common use:

1. Raw Edge Skive.

Slightly reduced on the flesh side, clean and tidy but still strong.



2. Folded Edge Skive.

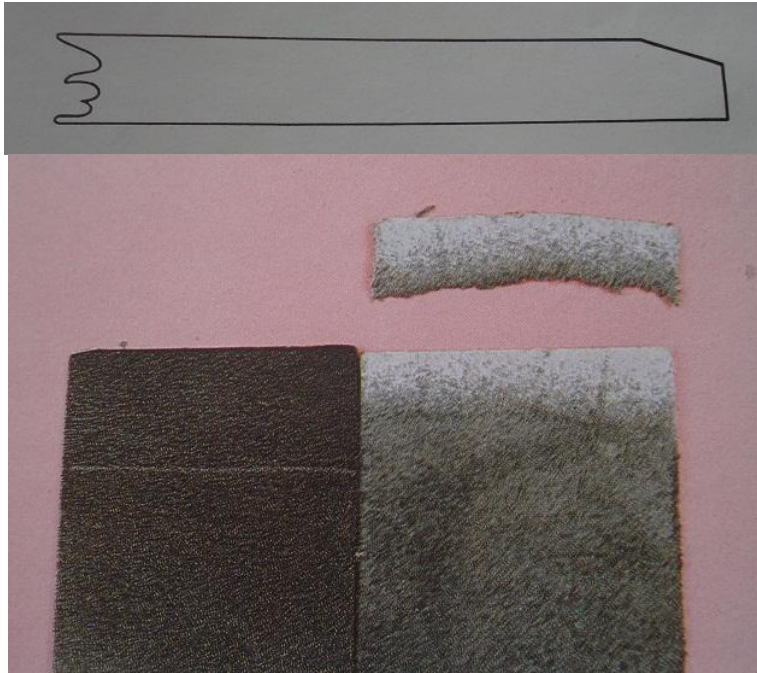
Reduce on the flesh side to a wafer thickness on the edge, stopping short of the stitch marking. Enough room must be left between end of scarf and stitch marking for two rows of stitching, approximately 3mm. On unlined footwear, the underlay skive is made on the grain surface to give a better appearance inside the footwear.



Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 19 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

3. Underlay Skive.

Reduced on the flesh side, strong enough to stand up to the guide on a folding machine without rolling over. Pliable enough to fold easily. Thin enough not to form a ridge after folding. On material 0.8 mm and above it is usual to skive off half the original substance.



Raw Edge Skive:

Slightly reduced on the flesh side, clean and tidy but still strong.

Purpose of the raw edge skives:

1. To reduce stitching edge substance
2. To remove loose fibres from the edge

Use of Raw edge Skives:

1. On components that need to be stitched close to the edge.

Scarf:

1. Needs to be narrow

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 20 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

Folded Edge Skive:

Reduced on the flesh side, strong enough to stand up to the guide on a folding machine without rolling over. Pliable enough to fold easily. Thin enough not to form a ridge after folding. On material 0.8 mm and above it is usual to skive off half the original substance.

Purpose of the fold edge skives:

1. To remove bulk so that leather returns to its original thickness after folding over.

Use of fold edge Skives:

1. On components that can have a turned in edge for appearance.

e.g.

- **Tops of quarters.**
- **Aprons**
- **Tops of back straps**
- **Caps**

Scarf:

1. Twice width of fold

Underlay Skive:

Reduce on the flesh side to a wafer thickness on the edge, stopping short of the stitch marking. Enough room must be left between end of scarf and stitch marking for two rows of stitching, approximately 3mm. On unlined footwear, the underlay skive is made on the grain surface to give a better appearance inside the footwear.

Purpose of the underlay skives:

1. To reduce the bulk caused by two pieces of leather being overlapped.

Use of underlay skives:

1. On components that are overlapped by another component.

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 21 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

e.g.

- Vamp with apron
- Vamp with cap
- Quarter to vamp
- Three quarter cut lining
- Side seams on court shoes.

Scarf:

1. Not past stitch marking.

Skiving Machine

Why machine skiving?

The skiving machines are built with a minimum number of moving parts which are amenable for vary fine adjustments and the operation of the machine made simple. Adjustment of moving parts is constantly required to affect different types of skiving and on different types of leathers that vary in thickness and softness.

- For uniformity in quality.
- For saving in time.
- For mass production.
- For what can't be done by hand.

Various Parts of Skiving Machine:

1. **Sharpening Stone / grinding wheel:** A small fast rotating grinding stone. This is used to sharpen the knife, and should always spin away from the knife edge. The sharpening stone is driven by an endless woven flat belt.
2. **Bottom feed roller tension hook:** The tension is caused by a spring on the other end of the hook. To adjust the tension, move the hook from one slot to the next. Tension is required to hold the feed roller close to the knife.
3. **Guide:** It determines the width of the skiving.
 - Guide position forward for decreased width of skiving.
 - Guide position backward for increased width of skiving.
4. **Pressure foot:** Determines the thickness to be skived for a given type of skive. These are inter-changeable by a simple device for skiving narrow edge, deep curvature (grooving) and for skiving patent leather. Normally the width of the skive is the same as width of the pressure foot. The width of skive is determined by the position of the guide. The thickness of the cut is regulated by adjusting the screw at the top of the pressure foot holder.
5. **Pressure foot adjusting screw and locking nut:**

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 22 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

- To adjust the pressure foot undo the locking nut by turning anti-clockwise.
 - Turn the adjusting screw clockwise to obtain a wider, thinner skive.
 - Turn the adjusting screw anti-clockwise to obtain a narrower, thicker skive.
 - Retighten the locking nut by turning clockwise.
 - When adjusting the pressure foot it is not to come in contact with the knife or feed roller.
- 6. Pressure foot height adjusting screw:**
- Turn the height adjusting screw anti-clockwise to obtain a thicker edge.
 - Turn the height adjusting screw clockwise to obtain a thinner edge.
- 7. Arm**
- 8. Material release lever:**
- If materials should become jammed in the machine, lift up the material release lever.
 - You can then withdraw the material from the machine.
 - Return the lever to its original position.
- 9. Bed:** This is a resting place for completed work.
- 10. Belt cover:**
- Safety covers to protect the operator from the machines pulleys and belts.
- 11. Feed belts:** To change the machine feeding speed in relation to the knife speed. This can be adjusted by changing the pulley ratio of the feed roller drive belt.
- 12. Knife drive belt:**
- 13. Feed roller drive belt:**
- 14. Sharpening stone drive belt:**
- 15. Hand wheel:**
- 16. Knife:** Cylinder knife/Bell knife: A fast rotating circular knife of which the cutting edge is ground to a hollow level on the outer surface. The bell knife is made of a special chromium alloy of 12.0 cm diameter and 5.2 cm width.
- 17. Knife adjusting lever:**
- 18. Sharpening stone adjusting thumb nut**
- 19. Feed Roller:** A slow rotating roller made of abrasive material, which conveys the leather to the knife edge. The feed roller should never touch the bell knife or the pressure foot.
- 20. Feed roller adjusting screw**
- 21. Bench top**
- 22. Treadle**
- 23. Motor**
- 24. Waste slide tray**
- 25. Metal waste bin**

Tools:

1. **Dressing tools:** This tool is used to clean and reshape the edge of the sharpening stone.

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 23 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

2. **Adjustable spanner:** To unlock and lock the feed roller adjusting screw locking out.
3. **Scissors:** For undoing work bundles and leather cutting.
4. **Ruler:** For accurate measurement of scarves.
5. **Thickness gauge:**
 - Check the calibration of the gauge, by closing it nothing between, the dial should register 0.
 - Place the material to be measured flat on the base.
 - Push down the anvil firmly and read the measurement off the gauge.
6. **Time clock:** the clock is used for exercise timing.

Skiving Machine:

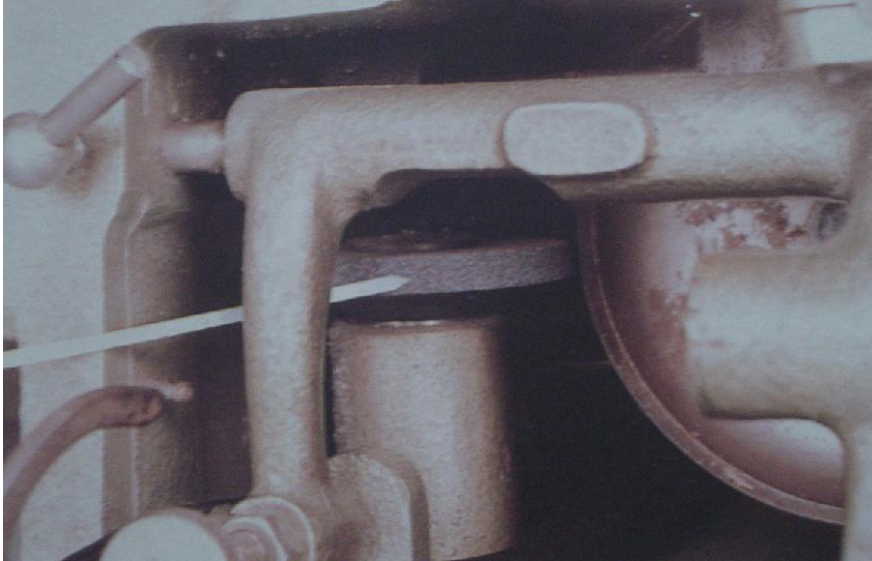


Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 24 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

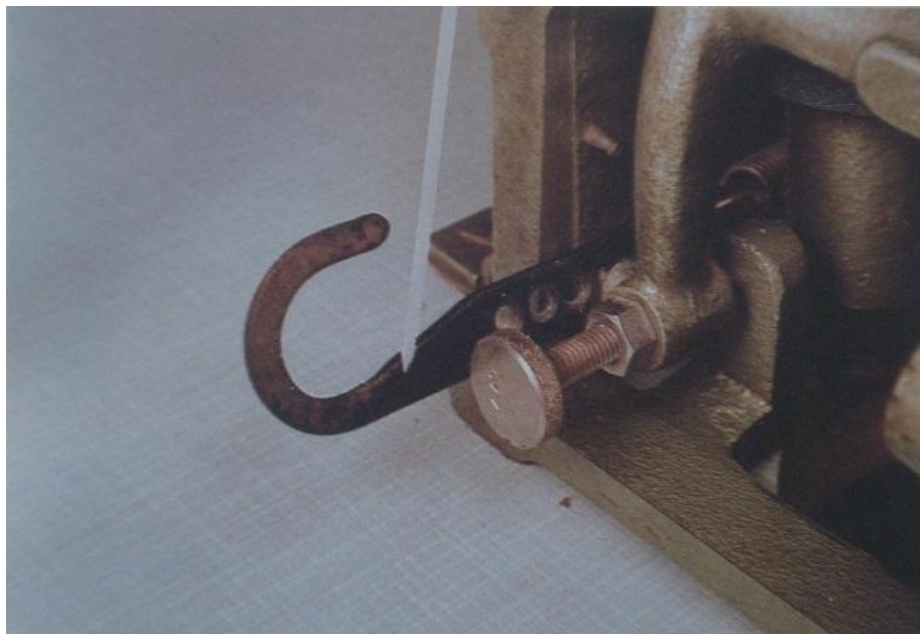
Pictures of Various Parts of Skiving Machine:

1. Sharpening Stone:

This is used to sharpen the knife, and should always spin away from the knife edge.



2. Bottom feed roller tension hook:



Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 25 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

3. Guide:

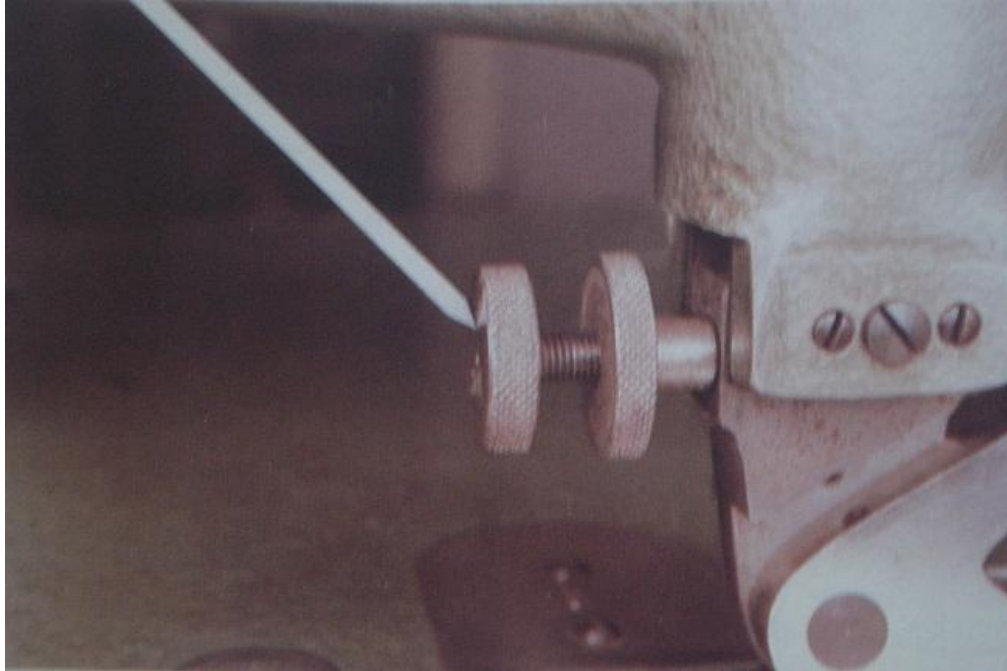


4. Pressure foot: This holds the material to the cutting knife and determines the amount of material to be cut off.

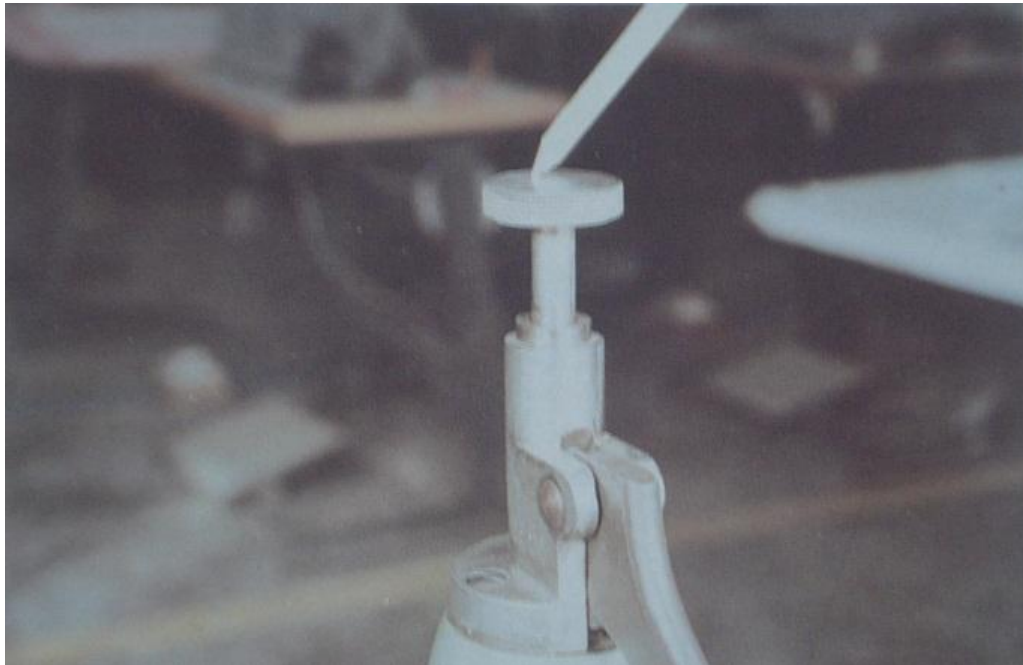


Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 26 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

5. Pressure foot adjusting screw and locking nut:

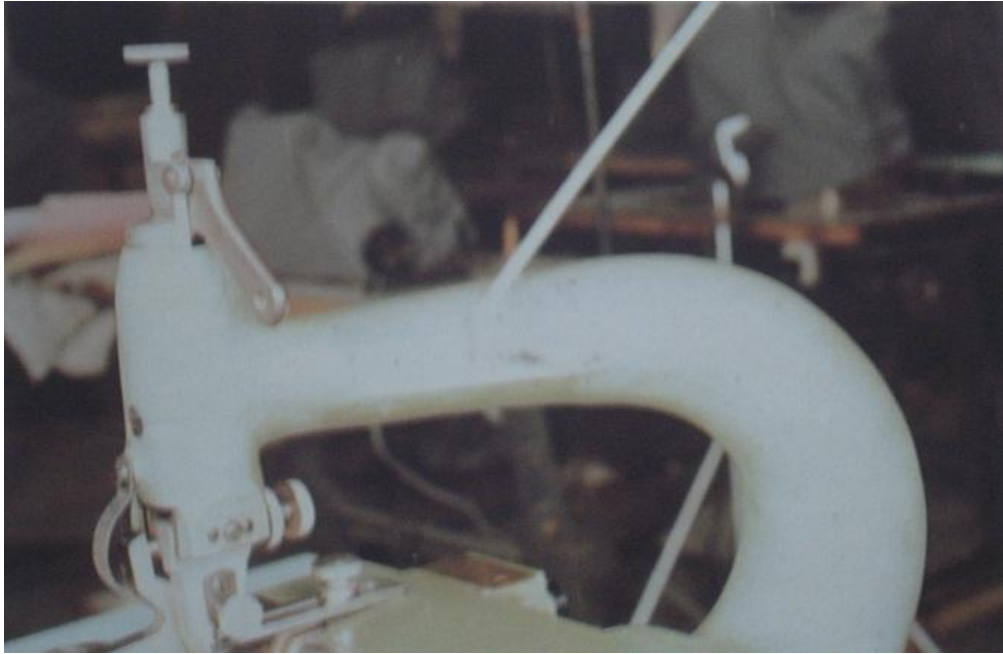


6. Pressure foot height adjusting screw:



Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 27 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

7. Arm:



8. Material release lever:

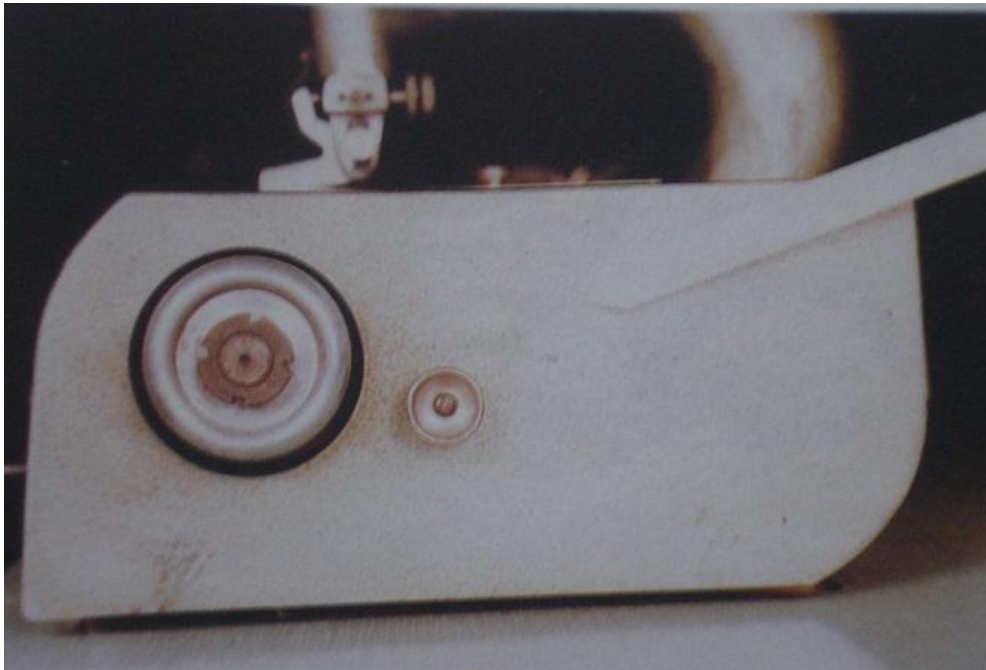


Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 28 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

9. Bed:



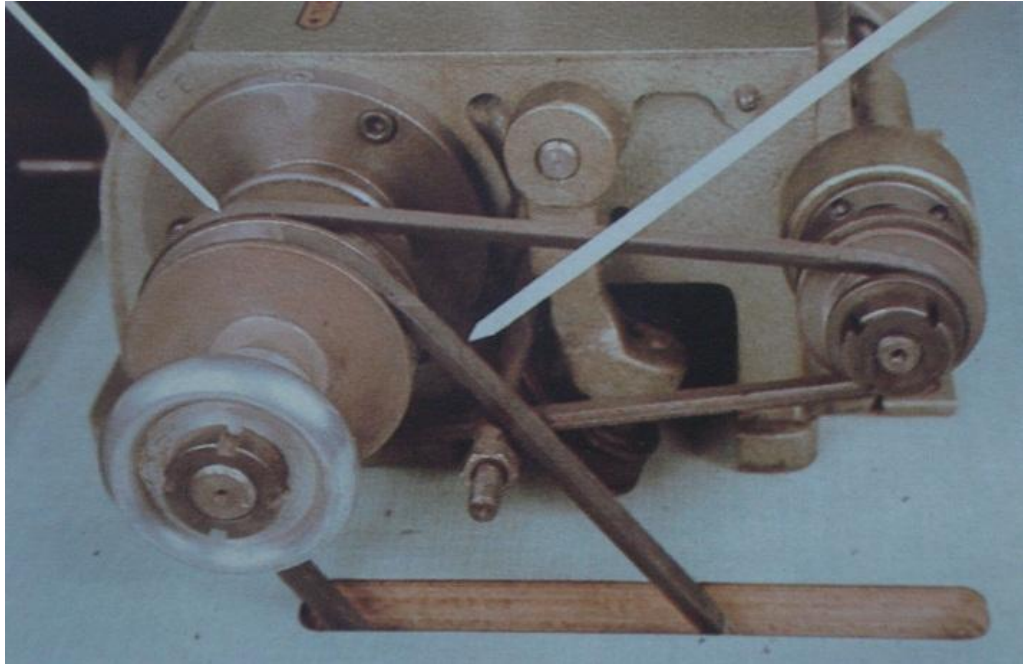
10. Belt cover:



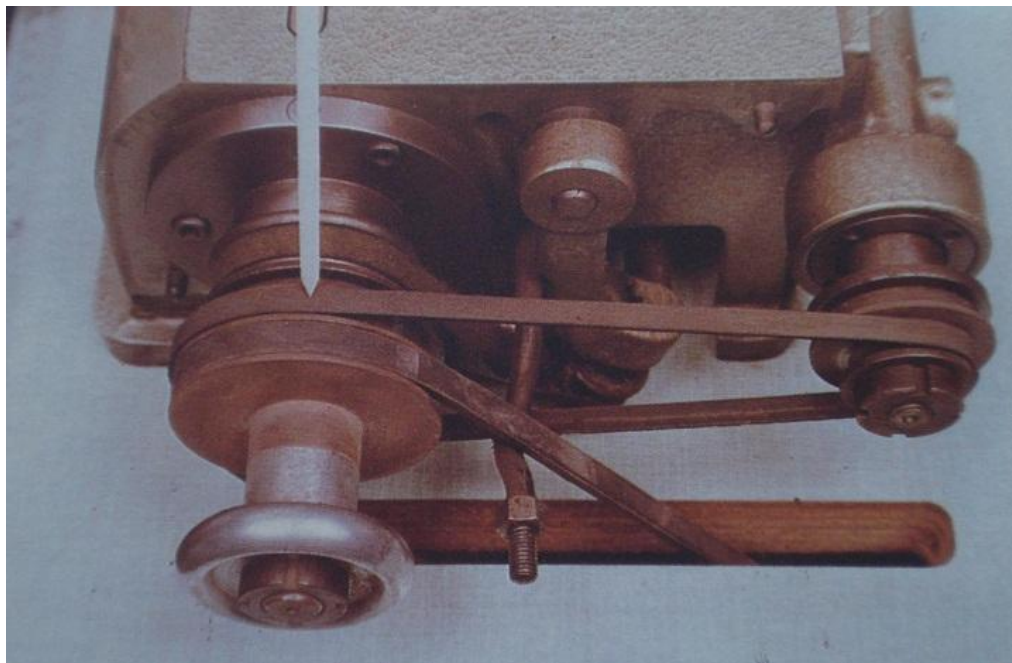
Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 29 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

11. Feed belts:

This can be adjusted by changing the pulley ratio of the feed roller drive belt.

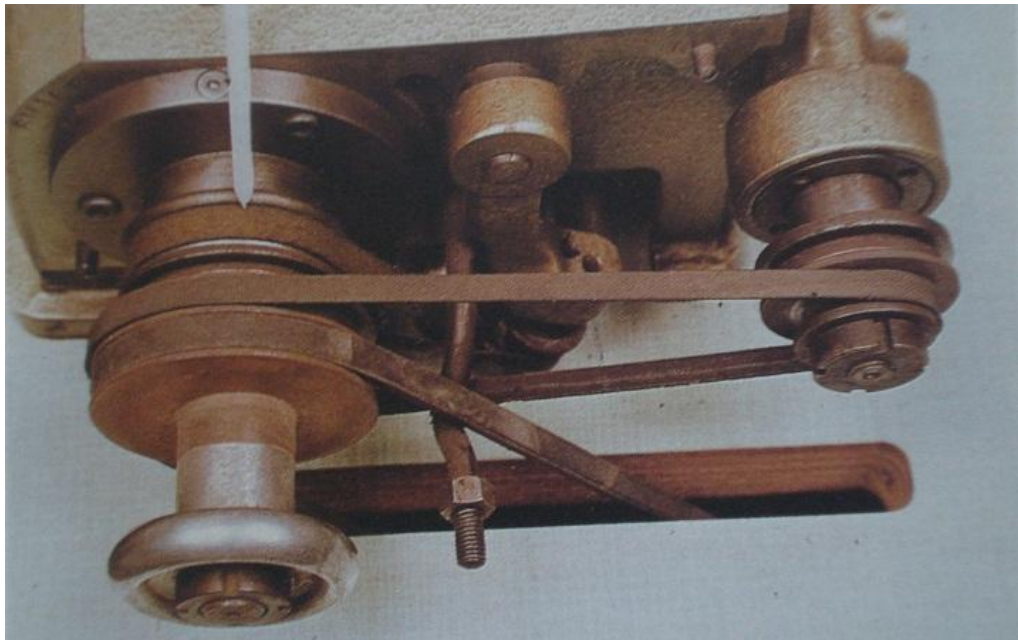


12. Knife drive belt:



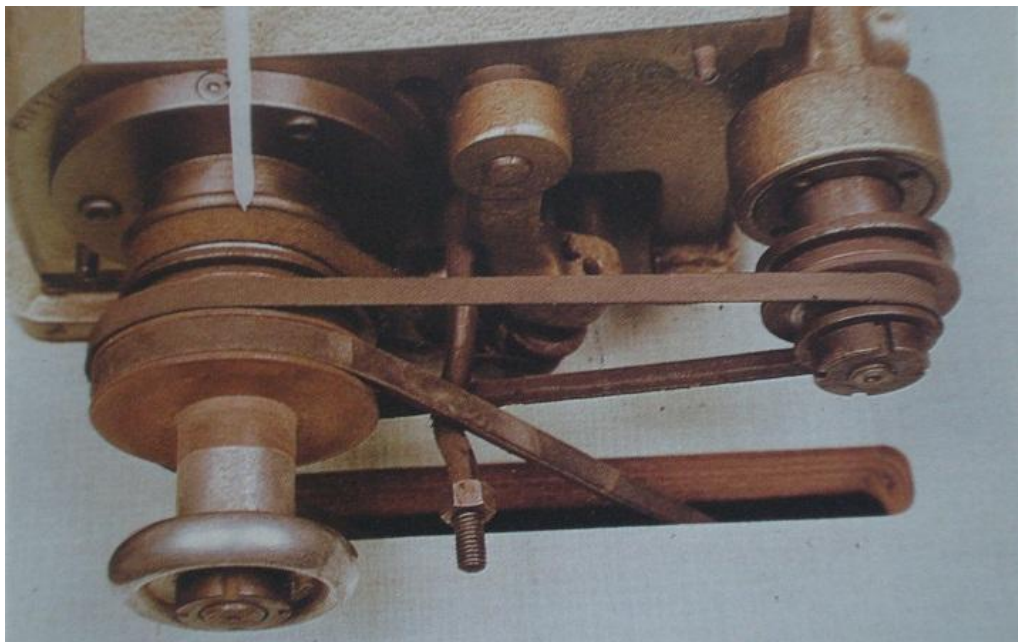
Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 30 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

13. Sharpening stone drive belt:



14. Hand wheel:

To enable the operator to turn the machine over by hand



Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 31 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

15. Knife: Cylinder knife:



16. Knife: Cylinder knife:

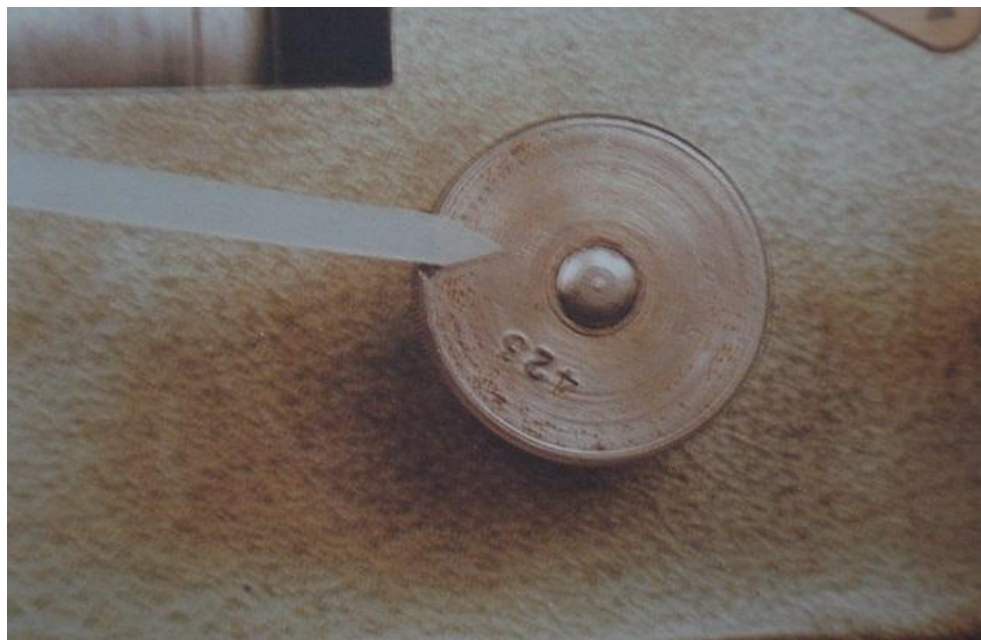


Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 32 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

17. Knife adjusting lever:



18. Sharpening stone adjusting thumb nut:

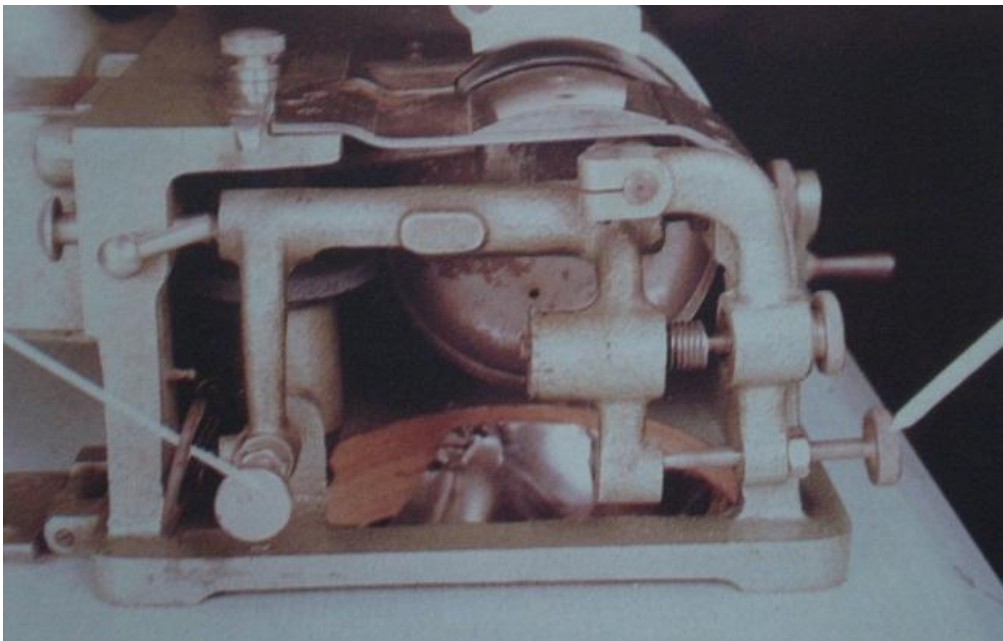


Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 33 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

19. Feed Roller:



20. Feed roller adjusting screw:



Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 34 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

21. Bench top:

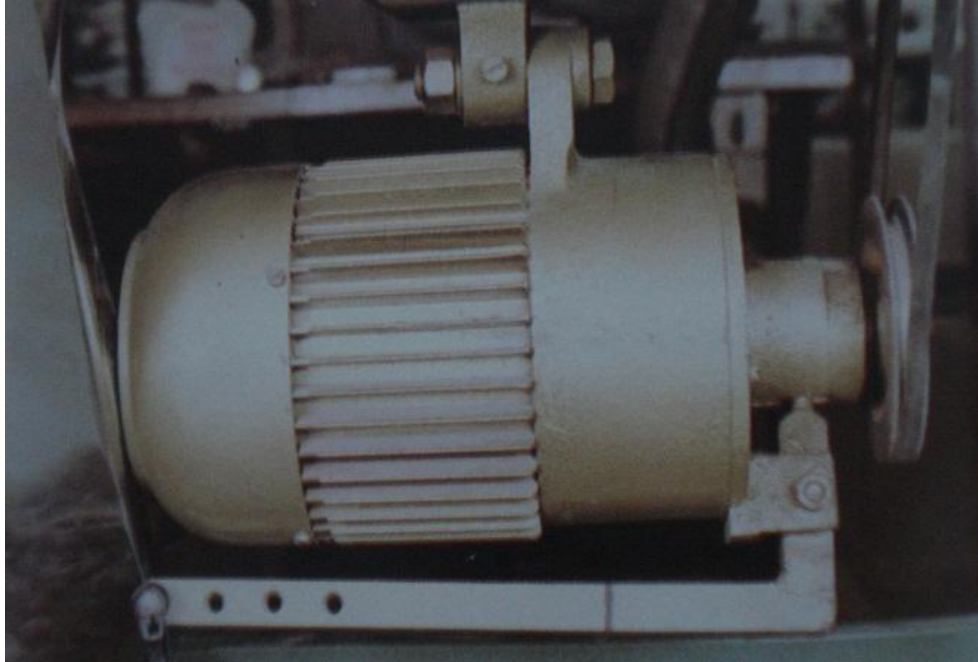


22. Treadle:



Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 35 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

23. Motor:



24. Waste slide tray:



Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 36 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

24. Metal waste bin:



Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 37 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

SELF-CHECK 4.2-1

Question 01: Mention the names and types of skiving are commonly use and mention the names?

Question 02: Which skive produces a slightly reduced on the flesh side, clean and tidy but still strong?

Question 03: Describe underlay skiving.

Question 04: Write down the purpose of various types of skiving techniques

Question 05: Name 15 parts of the single step cylinder knife skiving machine.

Question 06: State the purpose of the following parts?

- I. Sharpening stone.
- II. Pressure foot.
- III. Belt cover.
- IV. Knife.
- V. Feed roller.

Question 07: State the purpose of the following tools?

- A. Dressing tool
- B. Ruler
- C. Thickness gauge
- D. Time clock

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 38 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

ANSWER KEY 4.2-1

Question 01: What types of skiving is commonly use and mention the names?

Answer: There are three types of skive in common use:

1. **Raw Edge Skive.**
2. **Folded Edge Skive.**
3. **Underlay Skive.**

Question 02: Which skive produces a slightly reduced on the flesh side, clean and tidy but still strong?

Answer: Raw Edge Skive

Question 03: Describe underlay skiving.

Answer: Reduce on the flesh side to a wafer thickness on the edge, stopping short of the stitch marking. Enough room must be left between end of scarf and stitch marking for two rows of stitching, approximately 3mm. On unlined footwear, the underlay skive is made on the grain surface to give a better appearance inside the footwear.

Question 04: Write down the purpose of various types of skiving techniques

Answer:

Purpose of the raw edge skives:

1. To reduce stitching edge substance
2. To remove loose fibres from the edge

Purpose of the fold edge skives:

To remove bulk so that leather returns to its original thickness after folding over.

Purpose of the underlay skives:

To reduce the bulk caused by two pieces of leather being overlapped.

Question 05: Name 15 parts of the single step cylinder knife skiving machine.

Answer:

1. Pressure foot.
2. Guide
3. Sharpening stone.
4. Arm.

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 39 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

5. Bottom feed roller tension hook.
6. Bed
7. Sharpening stone drive belt
8. Hand wheel
9. Knife
10. Belt cover
11. Pressure foot height adjusting screw.
12. Belt cover
13. Knife drive belt.
14. Material release lever.
15. Motor

Question 06: State the purpose of the following parts?

- **Sharpening Stone / grinding wheel:** A small fast rotating grinding stone. This is used to sharpen the knife, and should always spin away from the knife edge. The sharpening stone is driven by an endless woven flat belt.
- **Pressure foot:** Determines the thickness to be skived for a given type of skive. These are inter-changeable by a simple device for skiving narrow edge, deep curvature (grooving) and for skiving patent leather. Normally the width of the skive is the same as width of the pressure foot. The width of skive is determined by the position of the guide. The thickness of the cut is regulated by adjusting the screw at the top of the pressure foot holder.
- **Belt cover:** Safety covers to protect the operator from the machines pulleys and belts.
- **Knife:** Cylinder knife/Bell knife: A fast rotating circular knife of which the cutting edge is ground to a hollow level on the outer surface. The bell knife is made of a special chromium alloy of 12.0 cm diameter and 5.2 cm width.
- **Feed Roller:** A slow rotating roller made of abrasive material, which conveys the leather to the knife edge. The feed roller should never touch the bell knife or the pressure foot.

Question 07: State the purpose of the following tools?

- **Dressing tools:** This tool is used to clean and reshape the edge of the sharpening stone.
- **Ruler:** For accurate measurement of scarfs.
- **Thickness gauge:** Check the calibration of the gauge, by closing it nothing between, the dial should register 0; Place the material to be measured flat on the base; and Push down the anvil firmly and read the measurement off the gauge.
- **Time clock:** the clock is used for exercise timing.

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 40 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

LEARNING OUTCOME 3 OPERATE MACHINE TO PRODUCE SKIVED PARTS

CONTENTS:

1. Complete operations to the specified industry performance and company quality standards.
2. Check skived components according to job specification.
3. Keep record of skived components as per company regulations.

ASSESSMENT CRITERIA:

1. Operations completed to the specified industry performance and company quality standards.
2. Skived components are checked according to job specification.
3. Keep record of skived components as per company regulations.

CONDITIONS:

Trainees must be provided with the following:

- Personal Protective equipment
- Equipment, tools and utensils for Skiving Leather

Learning Materials

- Books, manuals
- Modules/references

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 41 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

LEARNING ACTIVITIES

LEARNING OUTCOME: Operate Machine to Produce Skived Parts

LEARNING ACTIVITIES	RESOURCES/SPECIAL INSTRUCTIONS
Operate machine to produce skived parts	Read information sheet 4.3-1 Answer Self-Check 4.3-1 then refer to Answer Key 4.3-1 Perform Operation sheet 4.3-1. Use Performance Criteria Checklist.

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 42 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

INFORMATION SHEET 4.3-1

Operate Machine To Produce Skived Parts

Learning Objectives:

After reading this INFORMATION SHEET, you will be able to operate machine to produce skived parts.

Operate Skiving Machine:

1. Turn on the machine.
2. Make sure the sharpening stone is not touching the knife.
3. Check that the pressure foot is not touching the feed roller.
4. Check that the knife is not touching the feed roller.
5. Position the guide.
6. Depress the treadle.
7. Stack your work on the bench top to the left of the machine.
8. Feed in the leather with the grain side up.
9. Keep the leather to the guide.
10. Run straight through.
11. Place the skived piece of leather upside down on the machine bed.
12. Pick up the next piece and skive as before.
13. When you have completed all pieces remove the pressure from the treadle to stop the machine.
14. Inspect, stack and tie up your work.

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 43 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

OPERATION SHEET 4.3-1

Title: Operate skiving machine to produce skived part

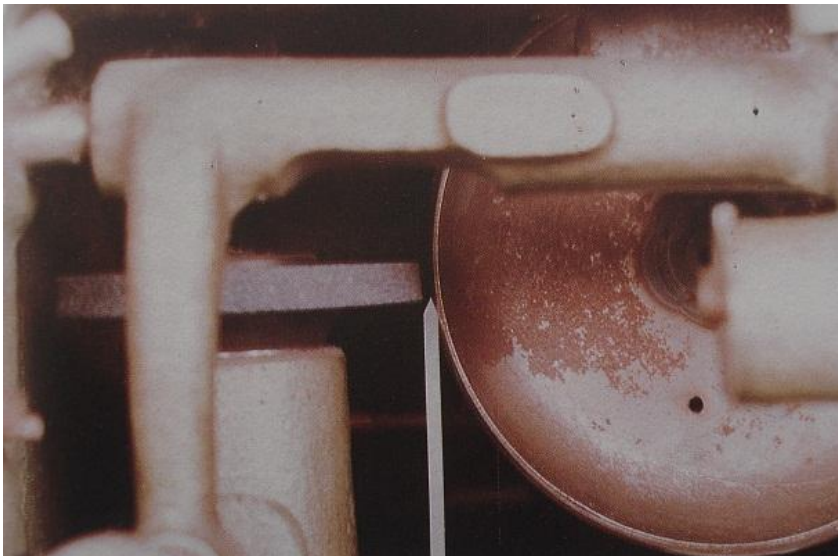
Performance Objective: After completing this job, you will be able to Operate skiving machine to produce skived part

Equipment:
Skived Machine

Process/Procedure
Turn on the machine:



Make sure the sharpening stone is not touching the knife:



Code
#LLGMO1012A1

Skive Leather Pieces

Date Developed:
May 2012

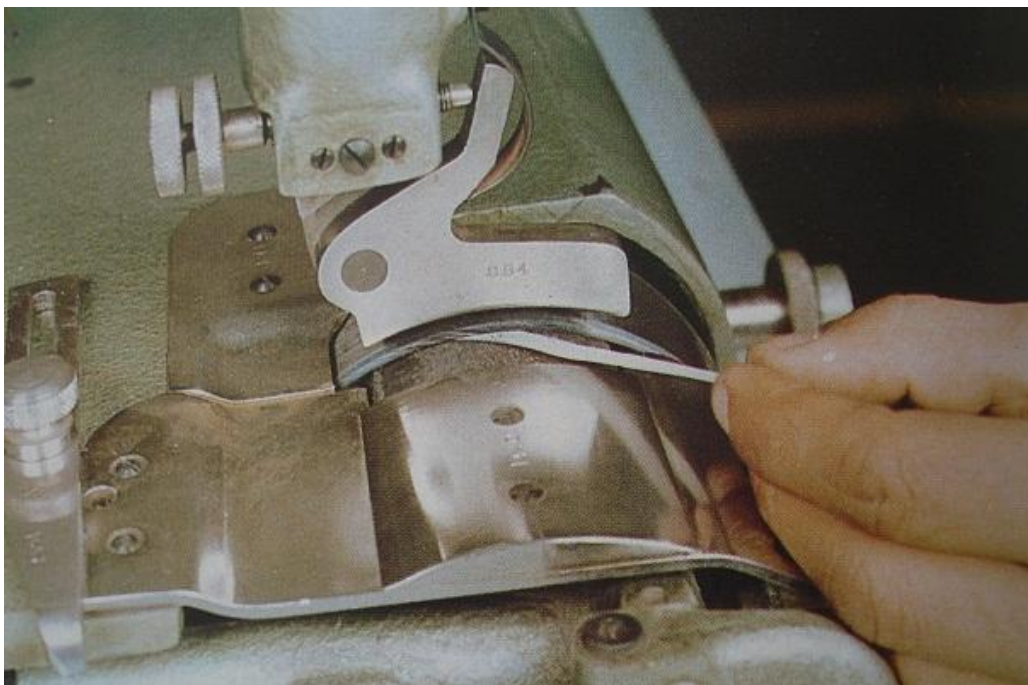
Date Revised:
November 2013

Page 44 of
54

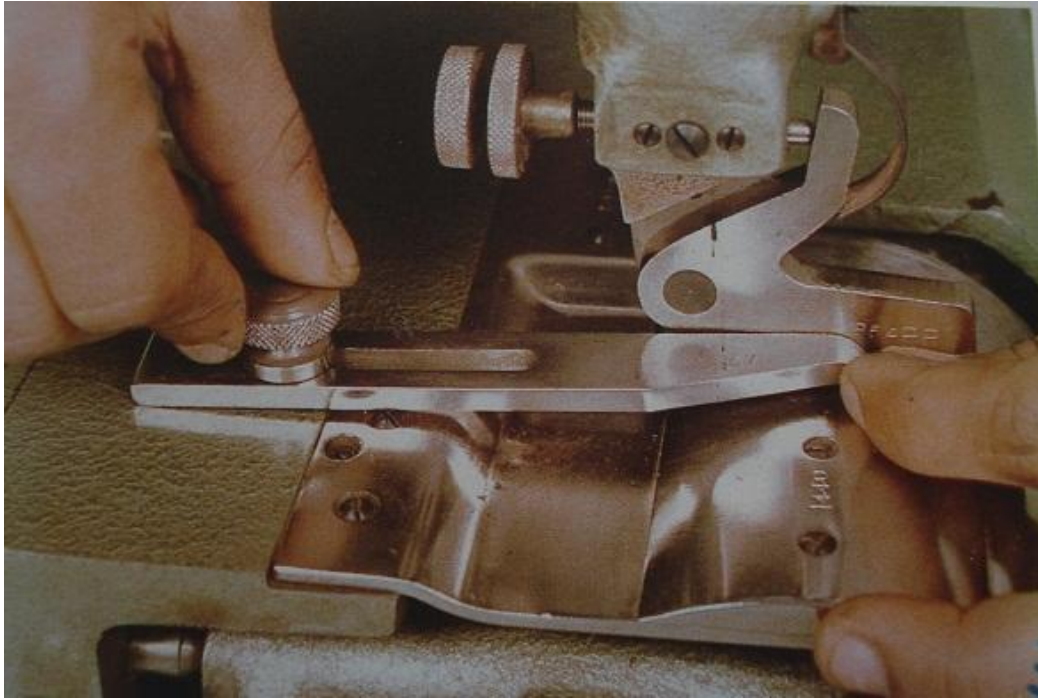
Check that the pressure foot is not touching the feed roller



Check that the knife is not touching the feed roller



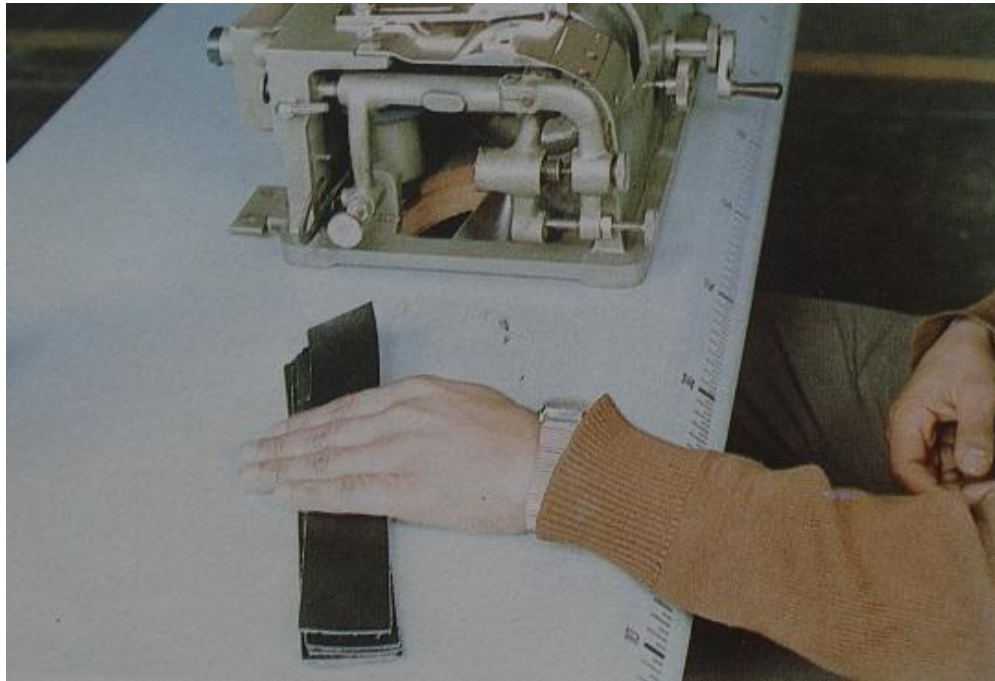
Position the guide



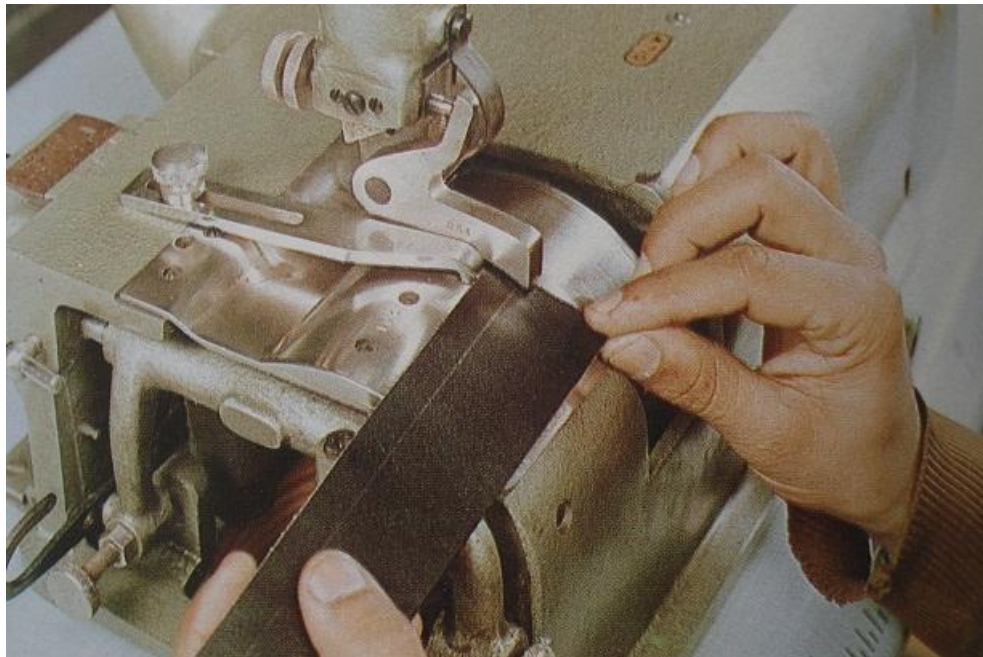
Depress the treadle.



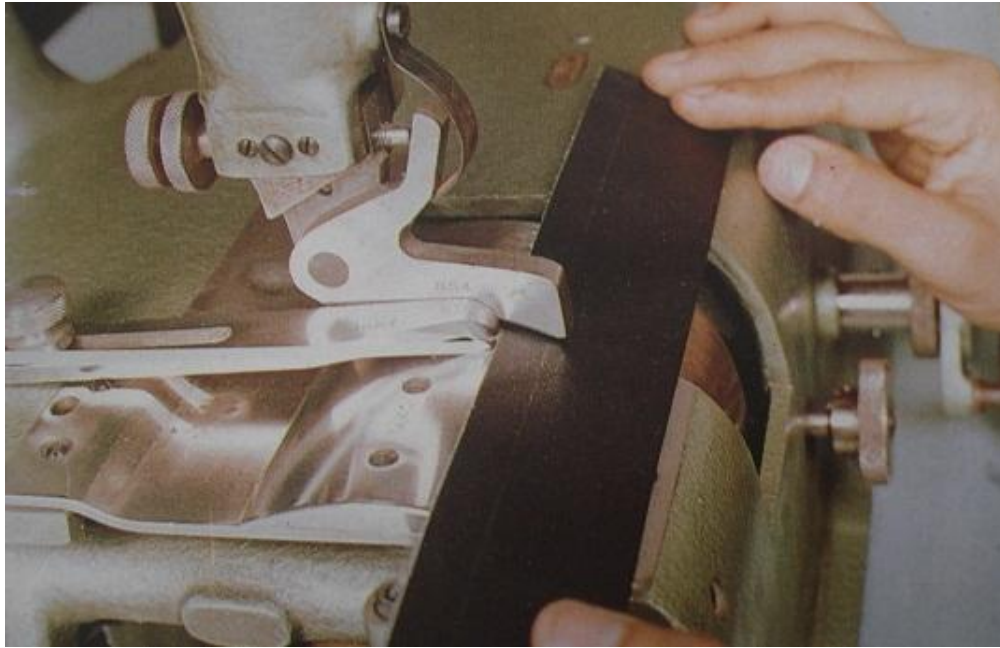
Stack your work on the bench top to the left of the machine.



Feed in the leather with the grain side up.



Keep the leather to the guide.

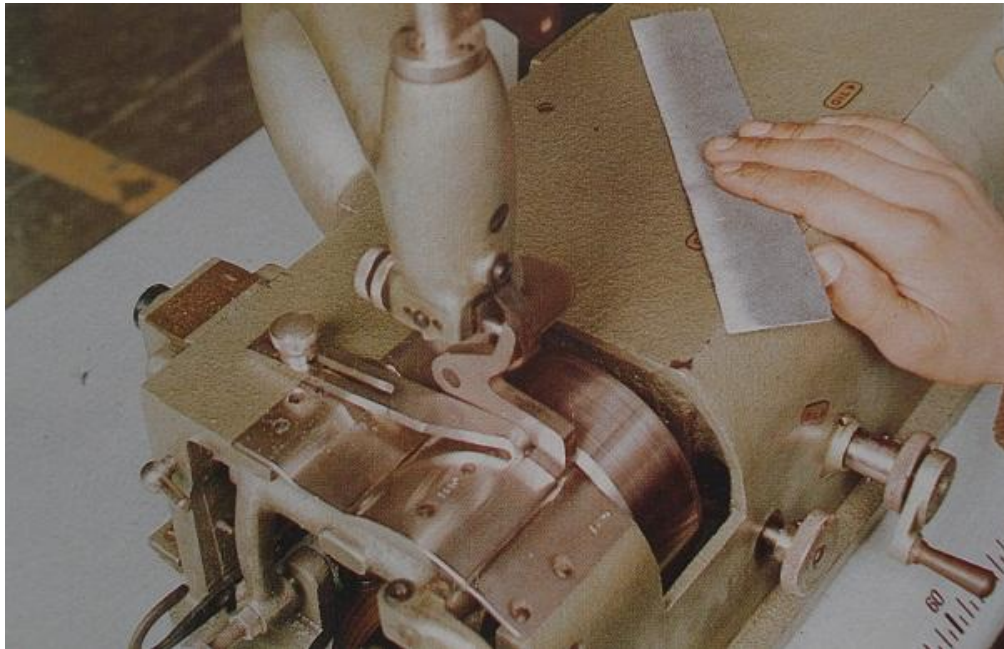


Run straight through.



Place the skived place of leather upside down on the machine bed

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 48 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

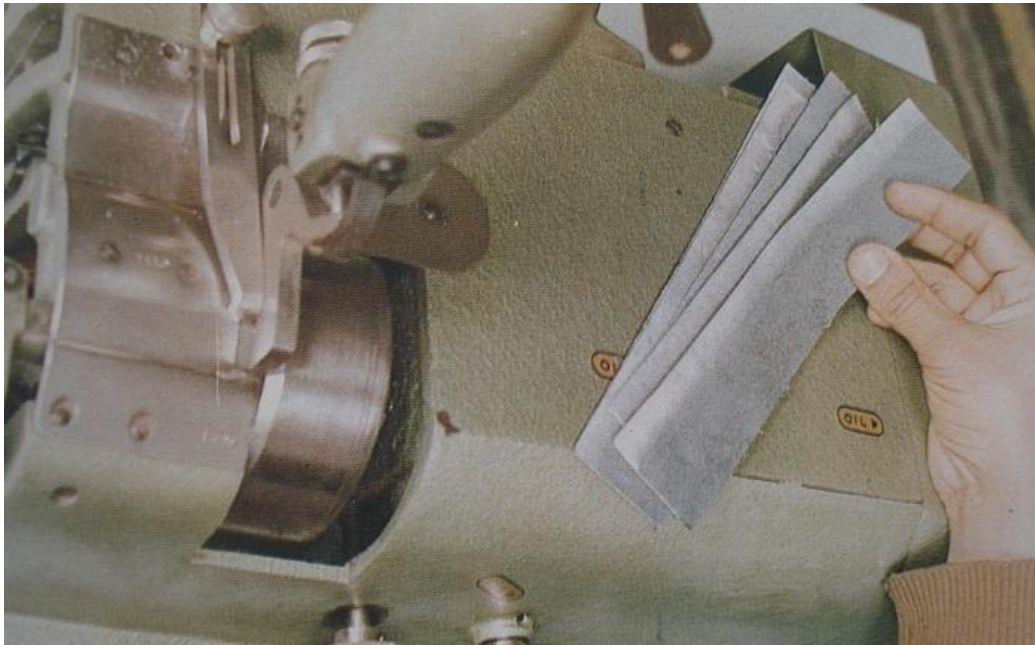


Pick up the next piece and skive as before



Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 49 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

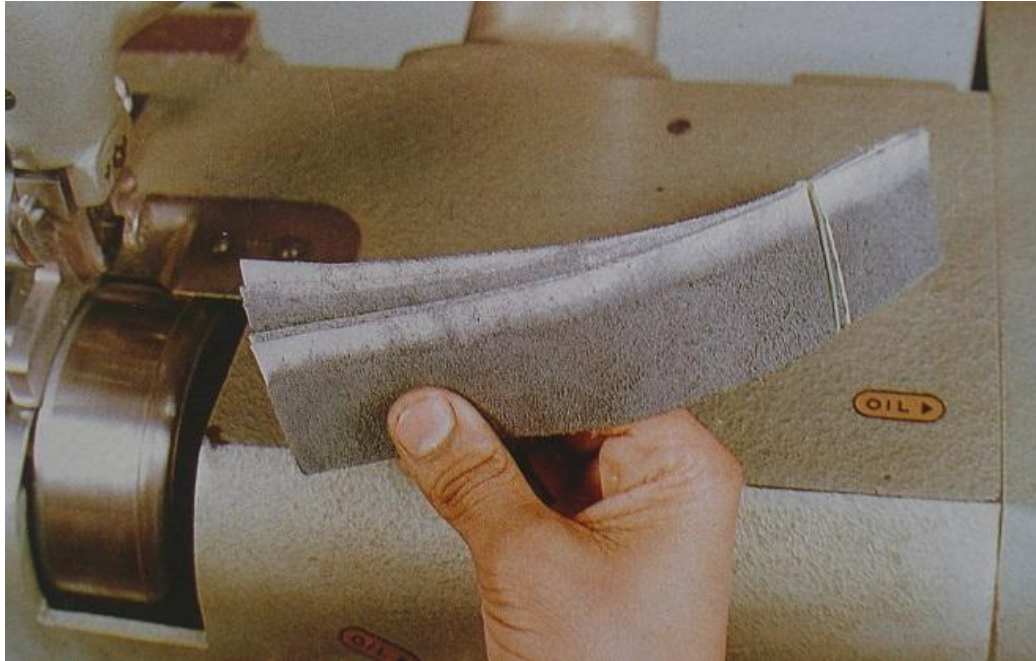
When you have completed all pieces remove the pressure from the treadle to stop the machine



Remove the pressure from the treadle to stop the machine.



Inspect, stack and tie up your work



Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 51 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

PERFORMANCE CRITERIA 4.3-1

Did I....	Criteria	YES	NO
	1. Use Personal protective equipment (PPE) while working.		
	2. Set out OSH standards by the workplace and follow legislative section while working.		
	3. Operate machine to produce skived parts		

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 52 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

REVIEW OF COMPETENCY

Below is your Performance Criteria Checklist for Module: Skiving Leather Pieces

Performance Criteria	Yes	No
1. At the end of the session, the learner will be able to	<input type="checkbox"/>	<input type="checkbox"/>
2. All safety requirements/regulations are adhere to before, during after use.	<input type="checkbox"/>	<input type="checkbox"/>
3. Unsafe or faulty tools are identified and marked for repair according to designated procedures before, during and after use.	<input type="checkbox"/>	<input type="checkbox"/>
4. Personal protective clothing (PPE) worn.	<input type="checkbox"/>	<input type="checkbox"/>
5. Different skiving techniques are identified, according to the end user purpose.	<input type="checkbox"/>	<input type="checkbox"/>
6. The differences between machines are described.	<input type="checkbox"/>	<input type="checkbox"/>
7. Machine parts are identified.	<input type="checkbox"/>	<input type="checkbox"/>
8. The machine is set up and adjusted for the specified skiving job.	<input type="checkbox"/>	<input type="checkbox"/>
9. Damaged and unsafe machine parts are identified and reported.	<input type="checkbox"/>	<input type="checkbox"/>
10. Worn parts are removed and replaced, reported as per workplace practice.	<input type="checkbox"/>	<input type="checkbox"/>
11. Operations completed to the specified industry performance and company quality standards.	<input type="checkbox"/>	<input type="checkbox"/>
12. Skived components are checked according to job specification.	<input type="checkbox"/>	<input type="checkbox"/>
13. Keep record of skived components as per company regulations.	<input type="checkbox"/>	<input type="checkbox"/>
14. Work place and machine is cleaned as per work place standard.	<input type="checkbox"/>	<input type="checkbox"/>
15. Waste is disposed off according to company regulations.	<input type="checkbox"/>	<input type="checkbox"/>
16. All safety requirements/regulations are adhere to before, during after use.	<input type="checkbox"/>	<input type="checkbox"/>

I now feel ready to undertake my formal competency assessment.

Signed:

Date:

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 53 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------

REFERENCES

www.google.com

CBLM, Leather Industry, Marikina, Philippines

Wikipedia

Code #LLGMO1012A1	Skive Leather Pieces	Date Developed: May 2012	Date Revised: November 2013	Page 54 of 54
----------------------	----------------------	-----------------------------	--------------------------------	------------------