

<b>Instruction Sheet</b>	<b>Learning Guide #2</b>
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This learning guide is developed to provide you the necessary information regarding the following content coverage and topics –

- Examining/assessing leather garments for repair
- Determination of requirements for restoration
- Cost calculation to determine feasibility of restoration/repair

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, you will be able to –

- Assess or examine Leather garments for repair work
- Determine Requirements for restoration of leather garment
- Calculate Costs to determine feasibility of restoration/repair

Any leather garment can be repaired, restored, cleaned for provide a full leather garment repair service as well as specialist cleaning and nourishment of as leather garment.

#### Repair services

- repair tears
- repair tears
- new zippers
- re stitching
- cleaning and reconditioning
- patches

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## Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described in number 3 to 20.
3. Read the information written in the “Information Sheets 1”. Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.
4. Accomplish the “Self-check 1” in page 9.
5. Ask from your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the Self-check 1).
6. If you earned a satisfactory evaluation proceed to “Information Sheet 2”. However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Learning Instruction #2.
7. Submit your accomplished Self-check. This will form part of your training portfolio.
8. Read the information written in the “Information Sheet 2”. Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.
9. Accomplish the “Self-check 2” in page 19.
10. Ask from your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the Self-check 2).
11. Read the information written in the “Information Sheets 3 and 4”. Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.
12. Accomplish the “Self-check 3” in page 25.
13. Ask from your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the Self-check 3).

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14. If you earned a satisfactory evaluation proceed to “Operation Sheet 1” in page 27. However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Learning Instruction #6.
  15. Read the “Operation Sheet 1, 2, 3” and try to understand the procedures discussed.
  16. You are provided with a CD containing lessons on how to clean and maintain equipment. Before you open the CD read the information written in the “Information Sheets 1-2” in pages 4-18. You will be also provided with additional reference reading materials regarding the cleaning of masonry handtools.
  17. Request a desktop computer or laptop from your teacher. Make sure the unit is plugged to a power source before turning on the power O. Then insert the CD in the CD drive located in your computer. Access the information as described in the Operation Sheet 1 in page 27.
  18. Read all the contents of the CD and try to understand the procedures discussed.
  19. Request access to the equipment and software described in the CD. Practice the steps or procedures as illustrated in your CD. Go to your teacher if you need clarification or you want answers to your questions or you need assistance in understanding a particular step or procedure.
- 
20. Do the “LAP test” in page 32 (if you are ready). Request your teacher to evaluate your performance and outputs. Your teacher will give you feedback and the evaluation will be either satisfactory or unsatisfactory. If unsatisfactory, your teacher shall advice you on additional work. But if satisfactory you can proceed to Learning Guide #35
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<b>Information Sheet-1</b>	<b>Examining/assessing leather garments for repair</b>
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We can repair and restore most types of damage on leather jackets including mens and ladies designer jackets. Leather jackets can be made from a variety of different types of leather from cows, sheep's, and other. Leather Jackets are usually made with very soft and delicate aniline leather. It is sometime quite difficult to repair this type of leather but generally we can repair most things.

To repair work checks the following:

- The styles and actual materials are used in the design according to material sheet.
- Measured according to measurement chart require
- Style description and stitching performed according to sketch require
- position of main label, care label, size label, and made in according to label plan Full re-coloring restoration
- Type of leather
- Color/shade
- State of surface
- Applied effects
- Number of buttons

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- Degree of soiling
- Number and type of stains
- As well as a careful assessment of the garment for physical damage,
  - Unstuck hems
  - Cuts and tears and
  - Other faults

Restoration the color in the leather garment is very simple process. Weather this is a touch up color restoration or a full coloring job ,restoring leather jacket to almost any color white to black brown to blue to pink even different colored panels isn't a problem, creating a totally unique, custom leather jacket.

At this point in the process the garment should be measured in order that the correct size and shape can be ensured during finishing. Measurement will typically include overall length, sleeve length, waist and so forth.

Other examination points should include items which are less obvious and which undoubtedly need a trained eye as well as knowledge of what can be expected during processing.

In general terms, examination should be separated into three sections.

An overall assessment of the garment itself

- Its style and general condition (see above)
- Factual evidence as to defects inherent in the original skin and in manufacture or making-up.

Leather is a natural substance and will exhibit damage or faults sustained in its natural state. These include

- Scar tissue, which may be caused by parasites or burrowing insects
- Injection needles or wounds

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- Flabbiness or looseness of skin structure in certain areas due to the effects of rubbing and relaxation which are usually dependent on the way the animal has lived and has been husbanded and
- Variations in kin thickness (weight) as well as fleshy patches and differences in pile structure (especially on splits) caused by skin structure differences
- Damage caused during manufacturing can include knife damage (flay damage), patchy or variable dyeing and/ or lack of dyestuff penetration, staining (especially iron), cracked grain, stretching and weak areas as well as loose suede dust causing discoloration of linings.

Problems of making-up should not be discounted. It is important to look for sewing needle damage,

- Tight seams,
- Glued hems and
- Poor skin matching in respect of color,
- Skin thickness,
- Texture, handle and
- Flexibility.

Many defects are emphasized by

- Wear and/or soiling
- Effects such as yellowing of fleece
- Loss of nap in suede leather
- Fading of the original color
- Reddening of tanning agents
- Amateur stain removal treatments
- Loose seams or added pieces of leather (patching, pockets, etc.) And
- Fading or wear on linings or textile components must be noted, as must any staining matter.

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Relaxation of the leather when immersed in solvents often occurs and veining, 'orange peel' and overall wrinkling effects often become more apparent.

Differences in skin color, its texture and finish can be seen very clearly, but there is no doubt that good examination by skilled component staff before cleaning can determine the likely outcome and advise the customer accordingly.

Remember to record accurately precise details of the garment and, if possible, take a small snippet of leather from an inside seam or other suitable area to determine the original color at any future time. Alternatively color shade cards can be used.

A simple but comprehensive check list will be needed for each garment.

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*Leather Jacket Hole Before*



*Leather Jacket Hole After*



*Leather Jacket Stain Before*



*Leather Jacket Stain After*



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*Leather Jacket Tear Before*



*Leather Jacket Tear After*



*Leather Jacket Cuts Before*



*Leather Jacket Cuts After*



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Self check 1	Written test
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**Instructions:** Answer all the questions listed below. Illustrations may be necessary to aid some explanations/answers. Write your answers in the sheet provided in the next page.

1. List out the items to be considered during examination (5 Points)
2. What are the sewing needle damages to be seen in a garment? (5 Points)

**Note: Satisfactory rating - 6points**

**Unsatisfactory - below 6 points**

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**Answer Sheet**

Score = _____
Rating: _____

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. \_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_

2. \_\_\_\_\_  
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**Requirement for dry-cleaning of leather garments**

**Equipment**

Dry-cleaning machines for processing leather need to have a degree of flexibility with a sufficient number of solvent tanks and adequate solvent stocks to provide varying solution concentrations.

Dry-cleaning machines used for textiles are of several types ranging from coin-operated to dual phase. Many offer lack flexibility. It follows then that all such machines are not suitable or adequate for processing leather garments.

Ideally, machines for leather should be set up to handle leather garments only. Because of inherent requirements of the leather together with its behavior, it is not easy or efficient to process textiles as well as leather in the same machine.

Whether leather garments are to be processed, then coin-operated dry cleaning machines, often with no filter system, are not adequate for correct processing and should not be used. Similarly, machines having no distillation facilities should not be used, as they are not able to process leather correctly since adequate distillation is necessary to maintain good solvent condition.

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Limited distillation machines fitted with a suitable filter system are theoretically able to process leather garments, but such machines rely on good classification techniques and correct sequencing of loads to the machine.

Even where these requirements are met, the lack of flexibility (see below – Oiling methods) and poor solvent quality produce poor results. If textiles are also processed in the same machine then the problems are compounded by solvent quality and by the necessary timing of leather loads.

Dry-cleaning machines with limited tankage may be to process leather, but the flexibility available results in poor quality cleaning. Such machine cannot justifiably be used for both leather and textile processing as it is often not possible to empty completely the pump solvent tank. Even where gravity feed is employed to overcome this problem, traces of solvent used for leather will contaminate the solvent used for textiles.

In every case where leather is correctly treated in a dry-cleaning machine, traces of color, oil and other debris can affect subsequent textile cleaning.

This may be caused by dyestuff, suede dust, broken fibre, oils and excessive soiling depositing on the cage and back plate and becoming dislodged at a later period, or by contamination of solvent by oils and soiling matter in the machine. Other problems, which can make machines unsuitable for leather handling, include:

- Fixed temperature drying
- Cage volume too small
- Insufficient solvent volume
- Fixed process parameters
- Inadequate filter system

Dry cleaning machines for processing leather should ideally possess:

- Adequate cage volume
- Variable inlet and outlet air temperature control

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- Sufficient solvent volume
- Enough tanks to separate the various solutions required in processing efficiently and to maintain this separation
- Efficient filtration systems
- Distillation facilities sufficient to produce clean solvent
- Refrigerated solvent facilities
- Accurate dip control
- Efficient drying control
- Self-cleaning button trap

### **Solvent Choice**

Oils, fats and other materials present in leather will almost always be partly removed by the action of the dry-cleaning solvent. Unfortunately, the more active solvents, which give better cleaning, also tend to extract more oily materials from within the leather. Conversely, solvents, which remove less oil, are usually the less effective cleaning solvents.

The following solvents are used for dry-cleaning leather clothing perchloroethylene, trichlorofluoromethane and trichlorotrifluoroethane. White Spirit is used in the USA but it is not considered further in this monograph.

No one solvent fulfills all the requirements for leather processing, but at the same time it must be argued that whatever solvent is used the necessity for correct processing and after – treatment cannot be ignored.

### **Processing**

For some years, preferred processes for leather garments were those where oil was contained in the solvent used for cleaning. This oil treatment, sometimes called ‘fatliquoring’, helps to prevent appreciable loss of oil from the leather during cleaning and leaves residual oil in the garment after the subsequent drying process. It also reduces the tendency for inherent defects to develop will also be redeposited. Cleaning in a bath with no oil, or minimal oil, followed by re-oiling in the rinse overcomes this re-soiling problem.

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Unfortunately, even using large capacity adsorbent cartridge filters, the whole solvent bath can become colored and dirty looking which can also cause soil redeposition and dinginess on lighter colored garments. To overcome this disadvantage, considerable solvent distillation is necessary, and filter replacements must be made very frequently. Each type of leather requires a different oil solvent concentration to leave the correct residual oil in the garment and this must be taken into account at the classification stage.

Different storage tanks will be needed for each solvent/ oil solution.

Currently, increasing use is being made of a two-bath process whereby leather garments are cleaned in a bath of solvent which is dropped to still, taking with it the bulk of soil, dissolved color, fluff and old oil. After light extraction, clean solvent containing oil is introduced to the cage from a separate tank. This bath acts as both rinse and re-oiling medium and may be filtered as required using an adsorbing cartridge filter. Since leather oil is not usually substantive, a short rinse cycle is adequate after which the solvent/oil is drained to the separate tank provided. This method maintains the solvent/oil mixture in good condition for longer periods.

The use of this method can be great importance if both textile and one type of leather garments, such as shearinks, are processed in the same machine.

The solvent/oil mixture for leather is kept separate from the main solvent volume and has a separate filter system. Any soil, oil or debris present in the machine after leather processing can be disposed of by the simple expedient of operating a bath to still, followed by a filter wash process on the following textile load. It should be noticed that other options for cleaning leather garments exist.

The oiling of leather by treatment in the machine ensures, in the main, excellent distribution of oil throughout the load which can be improved by solvent circulation where practicable. This can be offset by variation in residual solvent level throughout the load following extraction, thus producing differing oil quantities per area of garment. Care must be taken to minimize oil variation after drying by maintaining

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correct extraction time for the classification. Mixing classifications will frequently produce variation at this stage.

Process details relating to the quantity of oil to be vary considerably and are determined both by extraction and the requirement of the leather itself.

In very general terms clothing leather, after solvent cleaning alone, will retain about 2% of oil on the garment weight. This is insufficient for most clothing leathers, the only notable exception being leathers with substantive oil which is designed to be non-extractable. Care should be taken not over oil these garments.

Additional oil cannot be added indiscriminately to any garments. Typical additions are:

Suede sheepskin	6%
Pigskin	7-10%
Splits	7%
Grain	6%
Shirting suede	4 -6%
Woolen sheep skins	4%

Note: All oil additions are based on weight of pure oil on garment weight. Oils as purchased may contain diluents.

Care must be taken not to over-oil garments in the machine, thus creating oily skins or very oily lining and accessories and a dark, greasy looking and unsightly result. It is better to add extra oil by spray methods for all leathers other than pigskins, which should be fully oiled in the machine.

For the cleaning process it is important to remember three major points:

- The load rate for the machine must be reduced because a leather load of a given weight takes up a greater volume than an equivalent textile load.

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- The air-drying temperature must be controlled (both inlet and outlet).

Typical maximum inlet air temperatures are 85°C and outlet 50°C.

- Oil should be applied from solvent before drying occurs. Spraying into the machine is not recommended and relying solely on spraying after cleaning will cause over drying and leather degradation.

### **Purification**

As has already been discussed, solvent purification is important when cleaning leather owing to the pick-up by the solvent of color, soil and particles of leather dust. If clean solvent is needed (for example for processing textiles) then the purification process must also remove the oil effectively.

Solvent is purified in two major ways:

- Filtration
- Distillation

And both are required to maintain solvent in a pristine condition.

Filtration systems are very important when considering leather processing.

The two principal types are:

- Regenerative
- Adsorptive

Regenerative filters are efficient in removing the solid insoluble matter released by garments, but they do not remove soluble substances dissolved in the solvent. Thus the oils and dyes removed from leather during the dry cleaning process must be removed by distillation. Adsorptive filters attract and retain many soluble contaminants. Different contaminants are removed to different degrees and the filter medium can become saturated long before filter pressure rises. Use of the correct adsorbing medium is essential.

Adsorptive filters are designed to remove both insoluble soiling and, because they contain activated clays, acid adsorbing resins and carbon, they are able to remove

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fatty acids, traces of dyestuff and other soluble contaminants. This type of filter requires regular cartridge replacement and will need back-up distillation facilities to remove large quantities of soluble matter such as color.

Small quantities of color in the solvent may be removed by the use of carbon bags suspended in the button trap of the machine.

There is often no need for leather processing to distil large quantities of solvent (certainly less than the 3 L/kg recommended for textile processing), but it is necessary to remove fats and color and to provide clean solvent after the solvent/ oil mixture has been fully used.

### **Detergents**

When dry-cleaning leather garments, detergent added to the solvent bath produces better results than straight solvent in respect of general soil removal and the improvement of some strained areas. Detergents can, however, be retained by the garments and, if applied at a rate of more than 1% by volume in the dry-cleaning solvent, can produce a sticky effect, particularly on suede surfaces. Retained detergent must be rinsed from the garments to prevent the absorption of water during wear and to prevent the negation of any water repellent agents applied to the leather. If detergent additions are made during pre-spotting, a corresponding reduction of detergent added to the wash is necessary. If detergent retention is a problem, the use of non-ionic products may alleviate it.

### **Water**

Water additions may be made to the cleaning bath to improve the removal of water-soluble staining matter. Water would typically be added to the solvent bath during the cleaning process, mixed with a suitable detergent to form an emulsion with the solvent in the cage. The detergent assists the dispersion of the water in the bath and so helps to distribute it evenly over the surface of the garments. Usually water quantities of no more than 1% on the weight of garments are used.

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## Time

Cleaning times when dry-cleaning leather are not too critical and may range from 5 minutes to 12 minutes, dependent on the type of leather, solvent type and degree of soiling. This is followed by extraction and a 3-5 minute rinse in the solvent/oil bath before final extraction.

Typical final extract times are:

Shearlings	5 minutes (do not reduce)
Grain leather	5 minutes (do not reduce)
Sheep suede, pigskin, splits	3-4 minutes
Shirting suede	3 minutes (do not exceed)

## Solvent Temperature

Color 'bleeding' from leather can be accelerated as the solvent temperature rises. Thus temperatures in excess of 25°C are avoided in leather cleaning.

The maintenance of a fairly constant low temperature (12-15°C) will ensure less color loss on the leather with little impairment of soil removal. Leather, which has been tested and correctly labeled as dry cleanable, may fail if subjected to an excessive solvent temperature.

## Drying

Leather garments cleaned in perchloroethylene should be dried with an air outlet temperature not exceeding 50°C. This allows the leather to dry fairly evenly without reducing the water content of the leather excessively. Solvent

R113 and Solvent R11 are very volatile thus making drying at low temperatures a simple and quick operation.

Leather does not take kindly to being tumbled or flexed when dry and relaxation and skin distortion can often occur.

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It is important to remove leather from the dry-cleaning machine immediately drying is complete and to allow it to hang for at least an hour before any further treatment is started.

Whenever possible, drying should be properly controlled and not left to chance. The use of a dryness controller is very desirable and saves time and solvent and reduces complaints. Temperature control has been mentioned previously. Both inlet and outlet air temperature should be accurately controlled and the controllers regularly checked by means of temperature strips.

### **Packing list**

- poly bag, to cover finished garment to protect from damage cut small hole on the corner of poly bag to pass air
- antifungal tablet , protect from fungus
- tissue paper, to avoid any impressing on leather surface like close zip, runner, buckle ,and metal button
- ermine feasibility of restoration/repair

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Self check 2	Written test
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**Instructions:** Answer all the questions listed below. Illustrations may be necessary to aid some explanations/answers. Write your answers in the sheet provided in the next page.

1. List out the items used in dry cleaning (5 Points)
2. What should a ideal Dry cleaning machines for processing leather possess (5 Points)

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**Answer Sheet**

Score = _____
Rating: _____

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Test: Short Answer Questions**

1. \_\_\_\_\_

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2. \_\_\_\_\_

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**Note:** Satisfactory rating= 6 points and above; Unsatisfactory rating= below 6 points

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*You can ask your teacher to correct your work*

<b>Information Sheet-3</b>	<b>Cost calculation to determine feasibility of restoration/repair</b>
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The Production Manager /Supervisor must be able to identify leather hides and skins, make patterns, perform calculations, set up and use a sewing machine, use and maintain tools and equipment, and cut materials. They are able to meet customers and attend to their enquiries. In the leather garment making strand, people are able to make leather garment repair garments, make and repair straps and loops make and accessories / fittings etc. In the leather garment manufacture strand, people are able to carry out skiving operations, fold and bagged edge treatments, and different types of operations.

1. Examine the article to see what repairs are required
2. Where appropriate, tell the customer what the options are, the likely length of time the repair will take, and expected costs
3. Prepare the machines and tools
4. Prepare the article for repair including removing worn or damaged parts and preparing any adhesive solutions
5. Make sure that the materials used in the repair are free of faults and compatible with the article's materials
6. Minimize wastage of repair materials
7. Attach new components
8. Complete any final repairs
9. Trim any excess material

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10. Polish and buff the article as required

### **The key areas of knowledge and understanding**

1. The different types of leather garment construction, the characteristics, and which Materials are compatible
2. The features of worn and damaged leather garment
3. Which repair options are available and the correct combinations of materials and components
4. The factors influencing the repair options and their costs
5. Which different materials are used in the construction and repair of leather garments and their availability?
6. Which types of solvents and adhesives are used in leather garments repair
7. Which adhesives are compatible with different combinations of materials?
8. Which different tools and machinery are used in making repairs?
9. What the types, sizes and uses are of different fasteners.
10. The different types of polishing and buffing materials and equipment

### **The skills and techniques ----**

1. Methods of preparing leather garment for repair
2. The different methods of attaching combinations of materials using solvents and adhesives.
3. Common problems encountered when repairing with adhesives and methods to prevent and correct these problems
4. The techniques used to achieve secure, neat and correctly positioned fastenings.
5. The approved methods and techniques for removing excess materials
6. How to use edge cutting and trimming equipment
7. The different techniques used to produce various surface finishes on leather goods and repair materials
8. How to use different types of finishing equipment and the safety precautions associated with them
9. Methods of preparing the different materials to receive coloring

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10. Methods of mixing and preparing colors
11. The techniques, for applying colors to different materials and surfaces
12. The correct coloring materials and processes for different leather garment materials
13. Techniques used to obtain different surface finishes and effects

Regulations, rules and guidelines ---

1. The organization's rules, codes, guidelines and standards
2. Equipment operating procedures
3. The safety precautions necessary with:
  - The different tools, equipment and material
  - Using abrasives, hand tools and other ancillary equipment
  - Storing and using solvents and adhesives
  - Equipment used in attaching metal fastenings
  - Edge cutting and trimming
  - Storage, handling and use of coloring materials

TVET Program: Leather Goods Production Level II

S.No	Items	Unit Measurement	QTY	Unit price	Total amount
1	Leather	Ft sq			
2	Lining	M			
3	Fusing				
4	Padding				
5	Zip No:5				
6	Zip No:3				

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7	Twill				
8	Shoulder pad				
9	Woven fuse				
10	Buttons				
11	Main label				
12	Care label				
13	Size label				
14	Thread				
15	Adhesive tape				
16	Glue				
17	Tissue paper				
18	Antifungal				
Material cost					
Transport cost					
Over head cost 25%					
Manufacturing cost					

Advertising cost		
Selling price		
Total cost		

<b>Self-Check 3</b>	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

- 
- 1 Why calculate cost of repair? (2pt)

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  - 2 What are cost elements? (3pt)

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  - 3 How to calculate manufacturing cost? (3pt)

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  - 4 How to determine selling price? (2pt)

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**Note: Satisfactory rating - 6 points**

**Unsatisfactory - below 6 points**

**Answer Sheet**

Score = _____
Rating: _____

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Short Answer Questions**

1 \_\_\_\_\_

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2

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3

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4

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<b>Operation Sheet 1</b>	<b>Examining/Assessing Leather Garments for Repair</b>
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### **Basic Check List for Repair of leather garment (Dry Cleaning)**

#### **General**

- Record if grain, nappa or suede

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- Record surface color
- Note if printed, polished or foiled

**Surface defects**

- Note thin areas, holes, cuts, snags around buttonholes
- Note scars and other surface defects
- Note variations in nap length and any excessive woolliness
- Note panels showing ribbiness or excessive looseness

**Soiling**

- Note areas of excessive soiling and specific stains

**Variations in color**

- Note variation in color between panels
- Note variations in color due to fading, e.g. compare with under the collar

Check any limpness of lapels and facings

**Fastness of dyes**

A rag moistened with the chosen solvent is rubbed on an inside area. Serious transfer of color indicates that the garment will need to be re-tinted after dry cleaning. Take a small cutting from a seam and retain for matching during re tinting.

Notice any change in color after the rubbed patch has dried. This will indicate any need for color adjustment after dry-cleaning. Check whether the garment design makes re-tinting feasible.

Check linear measurements, e.g. sleeves and total length

**Dye penetration**

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Check at a cut edge. If the dye is superficial then dry-cleaning by abrasion can reveal a nap of a color or shade different from that of the original leather. Tumbling also abrades the surface and leading edges and raised steams can show a differential color effect.

**Basic Check List for Repair of leather garment**

- Replace or repair zip
- Replace or repair collar
- Replace or repair sleeve
- Replace or repair cuff
- Replace or repair pocket
- Replace or repair lining
- Replace or repair inner lining pocket
- Replace or repair labels
- Replace or repair front yoke
- Replace or repair back yoke
- Replace or repair front panels
- Replace or repair back panels

<b>Operation Sheet 2</b>	<b>Determination of Requirements for Restoration</b> <hr/>
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Create a checklist for the restoration of a garment

<b>PARTICULARS</b>	<b>SIZE</b>	<b>QUANTITY REQUIRED</b>
Leather		
Lining		

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Polyfil wadding		
Shoulder pad		
Foam		
Fusing		
Piping		
Rope		
Zip No.		
Magnet		
Button		
Rivet		
Adhesive/Glue		
Thread		
Solvents		
Detergents		
Polishing		
Any other material for d cleaning		
Miscellaneous		

Total cost		
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<b>Operation Sheet 3</b>	<b>Cost Calculation to Determine Feasibility of Restoration/Repair</b>
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Particulars	Size	Quantity Required	Rate	Amount
Leather				
Lining				
Polyfil wadding				
shoulder pad				
Foam				
Fusing				
piping				
Rope				
Zip No.				
Magnet				
Button				
Rivet				
Adhesive/ Glue				
Solvents				
Detergents				
Polishing				
Any other material for dry cleaning				
Miscellaneous				
Thread				
Thread				
Cutting				

Labour Charges				
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<b>LAP Test</b>	<b>Practical Demonstration</b>
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**Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Time started:** \_\_\_\_\_

**Time finished:** \_\_\_\_\_

**Instructions:** Answer all the questions listed below.

Task 1: Examine and assess the given leather garments for repair.

Task 2: Determine the requirements for restoration of the given leather garment

Task 3: Calculate cost required for the restoration of the given leather garment

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## List of Reference Materials

<https://leatherrepaircompany.com>

[www.modernleathergoods.com](http://www.modernleathergoods.com)

<https://en.m.wikipedia.org/wiki/ironing>

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