



Faculty of Engineering

Department of Textile Engineering

**“Comparative Study on Sewing Faults of Different
Buyers in a Knit Garments Industry”**

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LETTER OF APPROVAL

January 4, 2021

To

The Head

Department of Textile Engineering

Daffodil International University

102, Shukrabad, Mirpur Road, Dhaka 1207

Subject: Approval of Thesis Report of B.Sc. in TE Program

Dear Sir

I am just writing to let you know that this report titled as “**Comparative Study on Sewing Faults of Different Buyers in a Knit Garments Industry**” has been prepared by the student bearing ID, 171-23-4900, 171-23-4956 & 171-23-4968 is completed for final evaluation. The whole report is prepared based on the proper investigation with required belongings. The students were directly involved in their project activities and the report become vital to spark of many valuable information for the readers.

Therefore it will highly be appreciated if you kindly accept this report and consider it for final evaluation.



Yours Sincerely

Md. Mominur Rahman

Assistant Professor & Head (In—Charge)

Department of Textile Engineering

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Daffodil International University

DECLARATION

We hereby declare that the work which is being presented in this report entitled “**Comparative Study on Sewing Faults of Different Buyers in a Knit Garments Industry**” is original work of our, has not been presented for a degree of any other university and all the resource of materials uses for thesis have been duly acknowledged.

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ABSTRACT

Presently a days Garments deformity is perhaps the main components of the attire fabricating industry since it makes a negative impact on genuine profitability. This paper points with Different kinds of Defects which are the normal term in the article of clothing industry. In this examination we have discovered that it is exceptionally basic to think about various kinds of Garments Defects. In articles of clothing industry

“Comparative Study on Sewing Faults of Different Buyers in a Knit Garments Industry”

these imperfections are needy upon the arrangement of deformities and a controller's capacity to decide. In the event that there is no thought of articles of clothing deserts distinguishing proof, at that point it will be a difficult undertaking, however in the event that it is known appropriately, at that point it is a simple assignment to recognize surrenders. So should know a wide range of Garments deserts in the event that we are engaged with the attire business. In our examinations we discovered various flaws like, Skip fasten are 151(10%), Tension free/close are 53(4%), Label/size botch are 20(1%), Oil spot are 46(3%), Broken line are 109(8%), Open crease are 169(12%), Box/plate skewed are 48(3%), Sewing dismissal are 58(4%), Pleat are 166(11%), Label askew are 26(2%), Raw-edge are 111(8%), Tuck missing are 78(5%), Dirty spot are 128(9%), Part up down are 170(12%) and Hole are 105(7%). It is the obligation of the articles of clothing makers to keep a necessary Garments quality norm for every single item they are offering or conveying to the purchasers. So thinking about sewing deficiencies and their cures is a significant piece of value articles of clothing fabricating.

TABLE OF CONTENTS

LETTER OF APPROVAL	ii
DECLARATION	iii
ACKNOWLEDGEMENT	iv
ABSTRACT	iv
CHAPTER 1: INTRODUCTION	1
1.1 Introduction:	2
1.2 Objectives of the study:	2
1.3 Outcomes of the study:	3
1.4 Limitations of the study:	3
CHAPTER 2: LITERATURE REVIEW	4
2.1 Sewing:	5
2.2 Sewing Machine:	5
2.3 Sewing Machine History:	6
2.4 Categories of Sewing Machine:	7

“Comparative Study on Sewing Faults of Different Buyers in a Knit Garments Industry”

2.4.1 Domestic Sewing Machine:	8
2.4.2 Industrial sewing machine:	8
2.5 Different Parts of sewing machine:	9
2.6 Sewing machine parts & functions:	10
2.7 Defects of Garments:	11
2.8 Sewing Faults & Remedies:	11
2.8.1 Seam Puckering:	11
2.8.2 Open seam or broken seam:.....	12
2.8.3 Broken Stitch:	13
2.8.4 Drop stitch/Skipped stitch:	13
2.8.5 Loose thread:	14
2.8.6 Seam slippage:	15
2.8.7 Needle threads breakage:	15
2.8.8 Oil Spot:	16
2.8.9 Hole:	17
CHAPTER 3: MATERIALS & METHODS	19
3.1 Sewing defects reports for LERROS, BESTSELLER & IOC buyer:	20
3.2 Sewing defects reports for LERROS, BESTSELLER & IOC buyer:	21

“Comparative Study on Sewing Faults of Different Buyers in a Knit Garments Industry”

3.3 Sewing defects reports for LERROS, BESTSELLER & IOC buyer:	22
3.4 Sewing defects reports for LERROS, BESTSELLER & IOC buyer:	23
3.5 Sewing defects reports for LERROS, BESTSELLER & IOC buyer:	24
3.6 Sewing defects reports for LERROS, BESTSELLER & IOC buyer:	25
3.7 Sewing defects reports for LERROS, BESTSELLER & IOC buyer:	26
3.8 Total faults inspected for different buyer:	27
3.9 Weekly faults for LERROS buyer:	28
3.10 Weekly faults for BESTSELLER buyer:	29
3.11 Weekly faults for IOC buyer:	30
CHAPTER 4: DISCUSSION OF RESULTS	32
4.1 Total work sheet for different buyer:	33
4.2: Faults percentage for different buyer:	34
4.3 Total Faults Percentage for Different buyer:.....	36
4.4 D.H.U Percentage for different buyer:	37
4.5 Inspection & Pass Goods Percentage:	38
4.6 Overall Results:	39
4.7 Discussion:	39
CHAPTER 5: CONCLUSION	40
References:	
	42

NAME OF THE FIGURE

Figure No.	Figure Name.	Page No.
Figure no 2.1	Sewing machine	6
Figure no 2.2	Sewing machine with different parts	10
Figure no 2.3	Seam Puckering	12
Figure no 2.4	Broken Stitch	13
Figure no 2.5	Skipped Stitch	14
Figure no 2.6	Needle thread breakage	16

“Comparative Study on Sewing Faults of Different Buyers in a Knit Garments Industry”

Figure no 2.7	Oil spot	17
Figure no 2.8	Hole	18
Figure no 3.1	Defects report day 1	20
Figure no 3.2	Defects report day 2	21
Figure no 3.3	Defects report day 3	22
Figure no 3.4	Defects report day 4	23
Figure no 3.5	Defects report day 5	24
Figure no 3.6	Defects report day 6	25
Figure no 3.7	Defects report day 7	26

NAME OF THE TABLE

Table No	Table Name	Page No.
Table no 1	Total faults inspected for different buyer	27
Table no 2	Weekly faults for LERROS buyer	28-29
Table no 3	Weekly faults for BESTSELLER buyer	29-30
Table no 4	Weekly faults for IOC buyer	30-31
Table no 5	Faults percentage for different buyer	34

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CHAPTER 1: INTRODUCTION

1.1 Introduction:

Sewing is the way toward connecting two texture parts by utilizing lines which is made with a needle and string. Sewing is one of the essential strides of pieces of clothing producing measure. Likewise sewing segment is the main part of an instant articles of clothing industry. Various sorts of deficiencies or deformities emerge in sewing area which ought to be diminished to keep up the necessary nature of attire. In present the instant Garments is one of the pieces of package of Garments area. Then again the instant article of clothing is absolutely inadequate without sewing measure. However, the facts confirm that, occasionally we don't get the normal outcome in this part. It is a result of absence of legitimate aptitude, machine unsettling influence and ill-advised machine change. Because of these obscurities shortcoming happened and impacts quality, profitability, cost and furthermore proficiency. Norms mirror the generally characteristic quality level the firm tries to accomplish. The central motivation behind utilizing quality standard is to give consistency among items and items line. Imperfection in the pieces of clothing industry is a typical wonder that hampers the smooth creation rate and spotlight on low quality items affecting in general manufacturing plant economy. Minimization of imperfections is an unquestionable requirement in quality and efficiency improvement.

1.2 Objectives of the study:

- ❖ To reduce sewing faults.
- ❖ To analyze the percentage of different sewing faults.
- ❖ To plan new strategy for quality control.
- ❖ To find out about appropriate quality administration framework.

1.3 Outcomes of the study:

“Comparative Study on Sewing Faults of Different Buyers in a Knit Garments Industry”

Sewing strategy is quite possibly the main stages in labor concentrated moment pieces of clothing adventures. Quality defects occurring during this system ominously impact the thing quality and thing profitability, and besides increase the creation cost. The purpose of this assessment is to investigate whether the knitwear age method is leveled out in a knitwear creation adventure and to perceive the methodology with most important speeds of sewing inadequacies in sewing office finally to make proposition for improving the quality control.

1.4 Limitations of the study:

- ❖ Without permission of higher authority, we can't bring some necessary papers. ❖ Limitation of accurate data.
- ❖ Limitation of time to research this topic.
- ❖ Limitation of primary data sources.

CHAPTER 2: LITERATURE REVIEW

2.1 Sewing:

The way toward sewing comprises of getting string through fabric by methods for a needle either to go along with at least one bits of material, or with the end goal of ornamentation. Sewing is the art of affixing or connecting objects utilizing fastens made with a needle and string. Sewing is one of the most seasoned of the material expressions, emerging in the Paleolithic time. Sewing is the essential cycle hidden an assortment of material expressions and artworks. For millennia, all sewing was finished by hand. The advancement of the sewing machine in the nineteenth century and the ascent of computerization in the later twentieth century prompted large scale manufacturing of sewn articles, yet hand sewing is as yet polished far and wide. Fine hand sewing is a trait of great fitting, high fashion style, and custom dressmaking and it sought after by both material craftsmen and specialists as a methods for imaginative articulation.

2.2 Sewing Machine:

Prior to the development of a useable machine for sewing, everything was sewn by hand. Numerous early endeavors attempted to reproduce this hand sewing technique however were generally a disappointment. It looked to weaving, where a needle was utilized to deliver beautifying lines yet not for joining the textures. Sewing Machine is a significant bit of sewing hardware. There are a few machines on the lookout, each with its own alluring highlights and points of interest.

A sewing machine is utilized to line the texture and other flexible materials along with strings. Sewing machines were concocted during the primary Industrial Revolution to diminish the

quantum of manual sewing done in article of clothing enterprises. Since its creation, it has enormously improved the effectiveness and profitability of the texture, piece of clothing and needle enterprises. The various pieces of a sewing machine and its capacities assist the Operator with knowing the working of a sewing machine. There are various kinds of sewing machine utilized in the assembling of articles of clothing. A sewing machine controls the texture with taking care of gadgets and structures an ideal fasten to join the textures. It has different parts and connections, every one of which have their own significance and use.



Fig 2.1: Sewing Machine

2.3 Sewing Machine History:

There are a few creations that are wonderful to the point that we are continually in amazement of them-like rocket ships which can part from Earth's gravity and travel to the Moon. That is cool stuff. Nonetheless, in the enormous plan of things, these aren't really the main creations in our set

“Comparative Study on Sewing Faults of Different Buyers in a Knit Garments Industry”

of experiences. That honor goes to the developments that become so universal, or far reaching, as to get mediocre. They don't simply affect our lives; they rethink them to where we can't recall existence without them. There have been a few such creations, yet few were as huge as the sewing machine. With it, life went from just not terrible, but not great either, to sew, sew, and sew some more.

The sewing machine has its underlying foundations back in Europe's first **Industrial Revolution**, which started in the late eighteenth century. Individuals began attempting to discover better approaches to develop old assignments, and no errand was more established than sewing. A definitive objective turned into the making of a machine that could sew more rapidly than people, hence allowing producers to make more materials in less time. In this day and age, we may state that individuals were starting to think about the conceivable outcomes of large scale manufacturing.

The absolute first model we see of a work to make such a machine came around 1790. English creator **Thomas Saint** licensed a thought for a machine that would poke holes in calfskin, at that point run a needle through them. It was a captivating thought, yet nothing more than that. Others would likewise present their own thoughts. A German man developed a machine for sewing covers however never protected it or extended its utilization. American innovators of the mid nineteenth century created machines that could sew a couple of join, however just over a limited capacity to focus. None of these machines were effective, yet the possibility of a useful sewing machine was there, and individuals were resolved to sort it out. The first major breakthrough came around 1830.

French tailor **Barthelemy Thimonnier** protected a machine which utilized a snared needle to deliver a predictable line. In contrast to other people, Thimonnier had the option to exhibit the value of his plan and he got a decent agreement from the French armed force, who purchased his machines to help sew military regalia.

The issue with Thimonnier's plan wasn't that it functioned admirably. The tailors of Paris, committed to ensuring the conventions of their specialty, considered the to be as a danger. They raged his manufacturing plant and wrecked each of the 80 of his machines. Thimonnier was almost executed by the Parisian tailors, yet endure and made a surprisingly better sewing machine. The

tailors struck once more, and Thimmonier had to escape France. He carried a solitary one of his machines out of France to England, yet was always unable to remake his previous achievement.

2.4 Categories of Sewing Machine:

There are mainly two categories of sewing machines that is, □

Domestic sewing machine.

□ Industrial sewing machine.

2.4.1 Domestic Sewing Machine:

These are planned essentially for one individual to sew singular dresses while utilizing a solitary fasten type. Present day sewing machines are planned so that the texture effectively floats all through the sewing machine, speeding the sewing cycle and saving time and energy. Some central issues for homegrown sewing machines are as per the following.

1. Domestic sewing machines are normally utilized in homes by individuals essentially keen on sewing.
2. These are normally utilized by individuals in an assortment of tasks for dressmaking, and for sewing straightforward home outfitting things.
3. With little changes, these machines can play out an assortment of line types.
4. Domestic sewing machines ordinarily work on lightweight textures or work pieces.
5. These machines run on essentially more modest engines contrasted with that of the mechanical sewing machines.

2.4.2 Industrial sewing machine:

1. Industrial sewing machines are a rock solid form of a standard fundamental sewing machine, and it is utilized in article of clothing and other related businesses.
2. Industrial sewing machines are utilized for large scale manufacturing.
3. These are substantial machines that work a great many fastens every moment.
4. A modern machine is exceptional with a grasp and enormous servo engine.
5. Industrial machines are basically intended to perform one single explicit capacity in mechanical production system based industrial facilities.
6. Some modern machines are intended to work heavier than typical material.

“Comparative Study on Sewing Faults of Different Buyers in a Knit Garments Industry”

7. Mainly, large scale manufacturing requires a mechanical sewing machine, which is intended to sew substantial material rapidly, for example, calfskin, canvas, and vinyl, at one time.
8. The mechanical machines are named dependent on the capacity that they serve. Common names for mechanical machine class incorporate pocket setter, buttonhole, and programmable example sewers, and so on For example, a pocket modern machine can sew 2,000 pockets in an eight-hour creation cycle.
9. Programmable machines can store 10–30 or more examples in the memory.
10. Special reason mechanical machines can give better yield underway, for instance, buttonhole machines, pocket setter, design sewer.
11. Industrial sewing machines are bigger, quicker, more intricate, and more differed in their size, cost and errand.

2.5 Different Parts of sewing machine:

1. Spool pin,
2. M/C pulley,
3. Upright arm,
4. Upright arm shaft,
5. Connecting Rods,
6. Bed shafts,
7. Loop take,
8. Bobbin case,
9. Needle,
10. M/C bed,
11. Needle bar,
12. Throat plate,
13. Needle thread tension assembly,
14. Feed Dog,
15. Pressure foot,
16. Face plate,

“Comparative Study on Sewing Faults of Different Buyers in a Knit Garments Industry”

17. Pressure bar,
18. Sewing thread,
19. Take-up lever,
20. Horizontal arm.

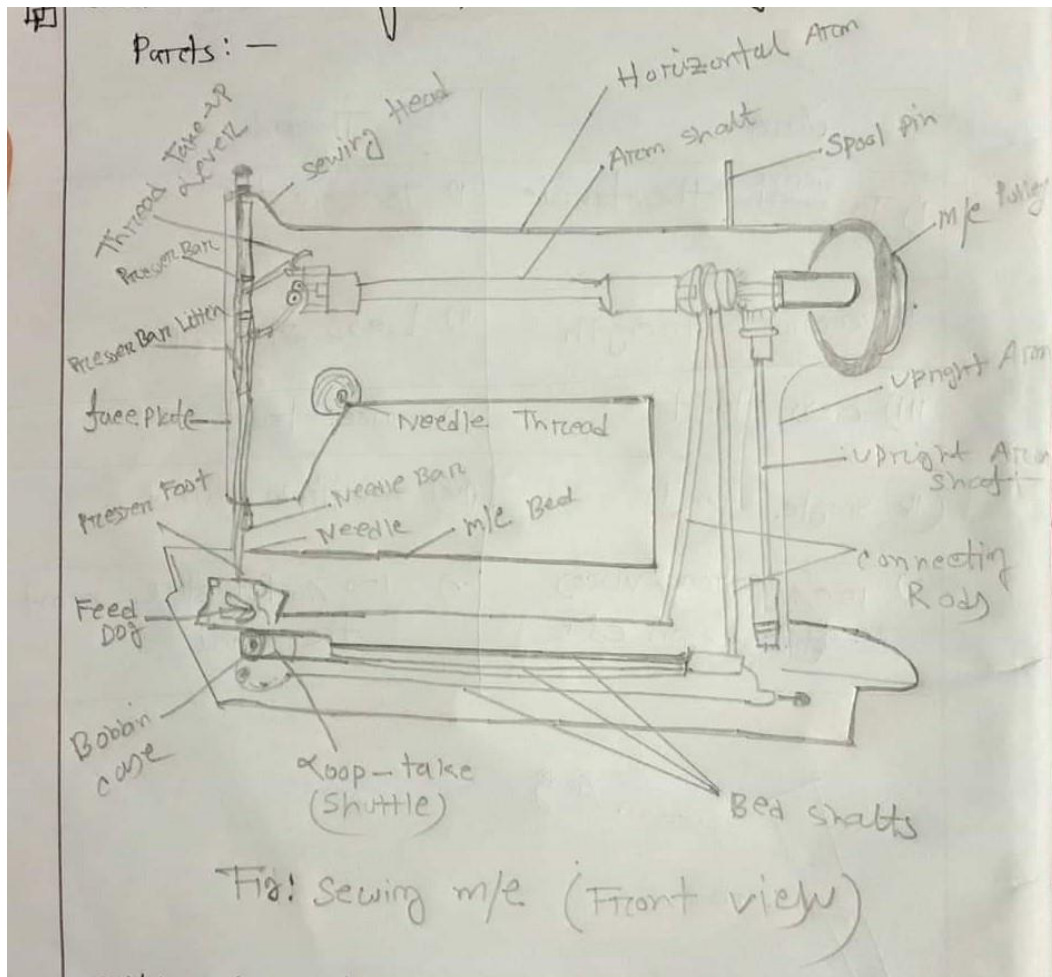


Fig 2.2: Sewing machine with different parts.

2.6 Sewing machine parts & functions:

- Spool Pin: It is fitted on top of the arm to hold the reel.
- Take-up switch: It is a change fitted to the body of the arm. It's to a great extent development deals with the string to the needle and fixes the hover formed by the van.
- Needle bar: This is a steel shaft to hold the needle toward one side with the help of a clasp. Its essential limit is to offer development to the needle.
- Bobbin Case: This moves into position to catch the top thread and form the stitch as the needle is lowered into the bobbin chamber.
- Pressure foot: It is fixed to the presser bar to hold the material ardently in position when cut down.

“Comparative Study on Sewing Faults of Different Buyers in a Knit Garments Industry”

- Face Plate: A cover which on evacuation offers admittance to the oiling focuses on the needle bar, presser bar and take-up switch.
- Throat Plate: A semi-roundabout circle with an opening to permit the needle to go through it.
- Feed canine: This comprises of a bunch of teeth fitted beneath the needle plate. It assists with pushing the material ahead while sewing.

2.7 Defects of Garments:

There are three types of defects area in garments. That are given below:

1. Critical imperfections: The deformities which is risky, dangerous for the end client is called basic deformities. Model: Needle break.
2. Major defects: The defects which reduce the functionally, usability, marketability of the garments is called major defects. Example: Button problem.
3. Minor defects: The defects which are not affected in the garments but it can damage product quality is known as minor defects. Example: Joining of label problem, spot etc.

2.8 Sewing Faults & Remedies:

2.8.1 Seam Puckering:

Crease puckering alludes to the social affair of a crease either soon after sewing or subsequent to washing causing an inadmissible crease appearance. **Causes:**

- Uneven extending on to handles of texture during sewing.
- Improper string pressure.



Fig 2.3: Seam Puckering

Remedies:

- Feed canine, eyelets and string aides ought to be checked occasionally for harms.
- Machine feed system should be better quality.
- Tension, SPI and presser foot weight ought not be tinkered with.

2.8.2 Open seam or broken seam:

Portion of the garment that has not been covered by sewing thread.

Causes:

- Improper treatment of the pieces of articles of clothing.
- Improper setting and timing among needle and looper or snare and so on.

Remedies:

- Clear markings for stitch line.
- Proper setting and timing between needle and looper or hook.
- Tension should be quantifiable.

2.8.3 Broken Stitch:

Non-continuous sewing thread.

Causes:

- It appears due to improper trimming or machine usage.



Fig 2.4: Broken Stitch

Remedies:

- Needle plate, presser foot and feed dog should be checked periodically for damages.
- Tension and threading should not be fiddled with much. □ Proper trimming.

2.8.4 Drop stitch/Skipped stitch:

Irregular stitching along the seam.

Causes:

“Comparative Study on Sewing Faults of Different Buyers in a Knit Garments Industry”

- It shows up because of inappropriate treatment of cut pieces or machine use.
- Irregular string strain on the upper or lower circle.
- Due to needle diversion.

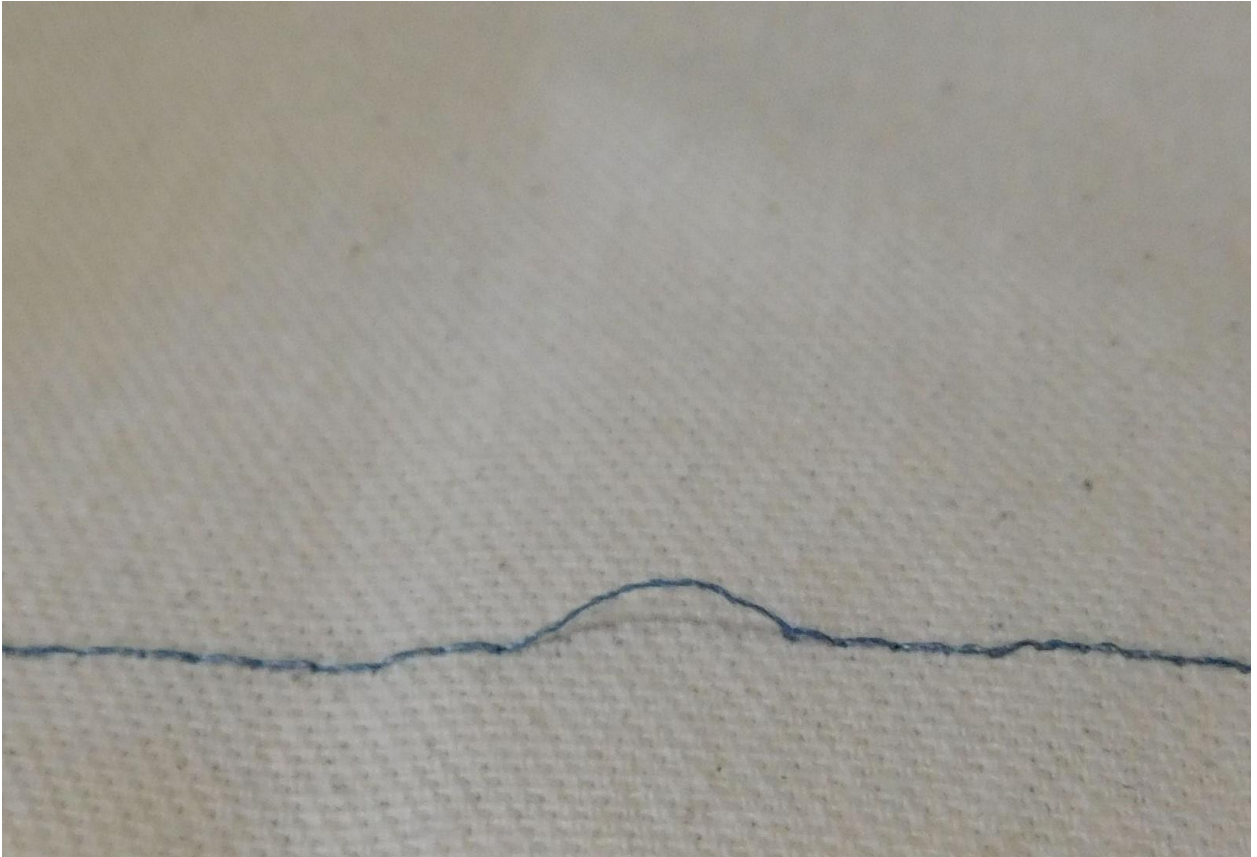


Fig 2.5: Skipped Stitch **Remedies:**

- The needle ought to be changed.
- Needle size and string size should be changed.
- The tension of the thread should be adjusted.
- The weight of weight foot should be changed precisely.

2.8.5 Loose thread:

Extra threads or loose threads on seam line.

Causes: □ It appears due to improper trimming or finishing.

Remedies:

- UBT/string trimmer ought to be utilized.
- Operator preparing.
- Garments completing ought to be checked appropriately.

2.8.6 Seam slippage:

Causes:

- This happens when the yarns in the texture are pulled out of the crease and are more regular in textures produced using consistent fiber yarns.

Remedies:

- French crease type can be attempted.
- Seam width can be expanded.

2.8.7 Needle threads breakage: Causes:

- Thread gets caught at the string guide.
- Excessive pressure to the bobbin strings.
- Irregularities or harms in needle watch, throat plate, bobbin case and needle eye.



Fig 2.6: Needle thread breakage.

Remedies:

- Ensure that the re-stringing is done effectively.
- The strain ought to be changed in accordance with the bobbin strings.
- Replace the needle with one of better quality.

2.8.8 Oil Spot:

Causes:

- Poor machine support because of oil spillage.
- Tension too tight.



Fig 2.7: Oil spot **Remedies:** Correct machine support

and oil spillage checking will be guaranteed by a sewing upkeep group. Correct machine strain and change.

2.8.9 Hole:

Broken openings in the texture where you can see through the texture to the opposite side.

Causes:

- Yarn is unnecessarily dry.
- Needle breakage.



Fig 2.8: Hole **Remedies:**

- Use appropriate tally of yarn.
- Effective needle used.

CHAPTER 3: MATERIALS & METHODS

3.1 Sewing defects reports for LERROS, BESTSELLER & IOC buyer:

“Comparative Study on Sewing Faults of Different Buyers in a Knit Garments Industry”

AUKO-TEX GROUP		Daily Major Defect Analysis Report										Fl. No. 2ND FLOOR		Date: 23-12-2020	
Doc. No: ATG-137/Sew-09/QAD-01/For		Version: 01										Revised DT: 09		Issue DT: 01.08.16	
Defects	Line-01	Line-02	Line-03	Line-04	Line-05	Line-06	Line-07	Line-08	Line-09	Line-10	Line-11	Line-12	Total	Remarks	
Skip Stich	8		3		3	2	1	2	4				23	4TH	
Needle Cut															
Puckering/Roping															
Oil Spot	10				2	2							14		
Tension Loose/Tight					2			2					4		
Broken Stich	3		2		3	3	2	3	4				20		
Open Seam	5		4		7	5	3	2	4				30	1ST	
Scissor Cut															
Label/Size Mistake	1					2							3		
Sewing Rejection	2				2								4		
Shading			1										1		
Box/Placket Slanted	5								3				8		
Pleat	6		6		3	1	1	2	2				21	5TH	
Label Off Center	5												5		
Part Up-down/Uneven	6		7		2	2	4		3				24	3RD	
Joint Stich							1		5				6		
Raw-edge	3		6				5	2					10		
Button Problem															
Poor Shape															
Tuck Missing			2				2	3					7		
Sewing Others															
Dirty Spot			1		4	4	1	2	1				13		
Print/Emb. Problem															
Fabric Problem/Hole	8		3		5	1	4		8				29	END	
Others															
Total	62		35		33	28	90	16	37				231		
Check QTY	6946														
Ok QTY							6760								
Defect QTY									231						
DHU														3.33%	
Prepared By															
Quality Supervisor															
Quality Controller															
Section PD Head															
Section QAD Head															
QAD Head															

Fig 3.1: Defects report day 1

In figure 3.1 we see that, Day 1 examination report for various lines and distinctive purchaser. In line 1 examined for LERROS purchaser, Line 2-8 investigated for BESTSELLER purchaser and Line 9 reviewed for IOC purchaser. That figure features top 5 deficiencies and they are open crease, opening, part up-down, skip stich and finally crease. All out reviewed Goods are 6946 and OK Goods 6760 and deserts are 231 and D.H.U = 3.33%.

3.2 Sewing defects reports for LERROS, BESTSELLER & IOC buyer:

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AUKO-TEX GROUP		Daily Major Defect Analysis Report										FLOOR 2ND FLOOR		Date: 24-12-2020	
Doc. No: ATG-137/Sew-09/QAD-01/For-				Version: 01				Revised DT: 00				Issue DT: 01.08.16			
Defects	Line-01	Line-02	Line-03	Line-04	Line-05	Line-06	Line-07	Line-08	Line-09	Line-10	Line-11	Line-12	Total	Remarks	
Skip Stitch	1		5		0	2	1	2	4				24	1ST	
Needle Cut															
Puckering/Roping															
Oil Spot	3		1		2								6		
Tension Loose/Tight					1	1		2					4		
Broken Stitch			2		2	1	2	5					12		
Open Seam	1		5		5	2	3	2	3				24	3RD	
Scissor Cut															
Label/Size Mistake					6			4	5				5		
Sewing Rejection								4	4				14		
Shading			2										2		
Box/Placket Slanted	1								1				2		
Pleat			7		2		2		3				14		
Label Off Center									1				1		
Part Up-down/Uneven	1		6		1	1	3	6	4				22	2ND	
Joint Stitch									2				2		
Raw edge			5		1	1	5	1	3				16	5TH	
Button Problem															
Poor Shape															
Tuck Missing			2		3		1	2					8		
Sewing Others							1						1		
Dirty Spot					7	2	3	3	1				16		
Print/Emb. Problem															
Fabric Problem/Hole	4				1		4	2	7				18	4TH	
Others															
Total	11		35		40	10	25	30	38				189		
Check QTY	6398														
OK QTY															
Defect QTY													189		
DHU														2.35%	
Pre-pared By															
Quality Supervisor															
Quality Controller															
Section PD Head															
Section QAD Head															
QAD Head															

Fig 3.2: Defects report

In figure 3.2 we see that, Day 2 examination report for various lines and distinctive purchaser. In line 1 examined for LERROS purchaser, Line 2-8 reviewed for BESTSELLER purchaser and Line 9 assessed for IOC purchaser. That figure features top 5 flaws and they are skip fasten, part updown, open crease, opening and ultimately crude edge. Absolute examined Goods are 6398 and OK Goods 6230 and deserts are 189 and D.H.U = 2.35%.

3.3 Sewing defects reports for LERROS, BESTSELLER & IOC

buyer:

AUKO-TEX GROUP		Daily Major Defect Analysis Report		Floor: 2ND FLOOR		Date: 26-12-2020								
Doc. No: ATG-137/Sew-09/QAD-01/For-		Person: 01		Revised DT: 00		Issue DT: 01.08.16								
Defects	Line-01	Line-02	Line-03	Line-04	Line-05	Line-06	Line-07	Line-08	Line-09	Line-10	Line-11	Line-12	Total	Remarks
Skip Stitch	2		4		6	4		2	1				19	
Needle Cut														
Puckering/Roping														
Oil Spot					3			2					5	
Tension Loose/Tight						1	2	2					5	
Broken Stitch	2		1		3	4	3	4	2				19	
Open Seam	5		5		6	4	2	2	2				26	1ST
Scissor Cut														
Label/Size Mistake														
Sewing Rejection	1		1		1	2			7				12	
Shading			1						1				2	
Box/Placket Slanted	5								5				10	
Pleat	3		7		3	3	2	1	2				21	5TH
Label Off Center	3								7				10	
Part Up/down/Uneven	3		5			3	5	3	3				22	4TH
Joint Stitch								3	2				5	
Raw edge	3		5		2	2	5	4	2				23	3RD
Eutton Problem														
Poor Shape														
Tuck Missing			2		8	2	2	2					16	
Sewing Others														
Dirty spot	8				3	4	8	3					26	2ND
Print/Emb. Problem														
Fabric Problem/Hole	2		3		1	3	1	3	1				14	
Others														
Total	37	34			36	32	30	31	35				235	
Check QTY	7237				7045				235					3.25%

Fig 3.3: Defects report

In figure 3.3 we see that, Day 3 inspection report for different lines & different buyer. In line 1 inspected for LERROS buyer, Line 2-8 inspected for BESTSELLER buyer & Line 9 inspected for IOC buyer. That figure highlights top 5 faults & they are open seam, dirty spot, raw-edge, part updown & pleat. Total inspected Goods are 7237 & OK Goods 7045 & defects are 235 & D.H.U

=

3.25%.

3.4 Sewing defects reports for LERROS, BESTSELLER & IOC

buyer:

AUKO-TEX GROUP		Daily Major Defect Analysis Report		Floor: 2ND FLOOR		Date: 27-10-2020								
Doc. No: ATG-137/Sew-09/QAD-01/For-				Person: 01		Revised DT: 00								
Defects	Line-01	Line-02	Line-03	Line-04	Line-05	Line-06	Line-07	Line-08	Line-09	Line-10	Line-11	Line-12	Total	Remarks
Skip stitch	3		6		3	3	2	2	2				21	5TH
Needle Cut														
Puckering/Roping														
Oil Spot								2	3				4	
Tension Loose/Tight			2			2	1	1	4				10	
Broken Stitch	3				4	1	1	3	2				14	
Open Seam	6		4		5	1	3	2	5				26	4TH
Scissor Cut														
Label/Size Mistake	1						1						2	
Sewing Rejection	1					1			2				4	
Shading			2						2				4	
Box/Plasket Stained	5												5	
Pleat	5		8		5	3	1	2	4				28	3RD
Label Off Center	2												2	
Part up-down/Uneven	3		6			7	4	4	7				31	1ST
Joint Stitch								1	4				5	
Raw-edge			5		1	2	4	4	2				18	
Button Problem														
Poor Shape														
Tuck Missing			3				3	3					9	
Sewing Others														
Dirty spot	6				5	5	2	4	7				29	2ND
Print/Emb. Problem														
Fabric Problem/Hole	3				4	3		3					13	
Others														
Total	38		36		27	28	22	30	44				225	
Check QTY	5998				5825				225					DHU 3.75%

Fig 3.4: Defects report

In figure 3.4 we see that, Day 4 inspection report for different lines & different buyer. In line 1 inspected for LERROS buyer, Line 2-8 inspected for BESTSELLER buyer & Line 9 inspected for IOC buyer. That figure highlights top 5 faults & they are part up-down, dirty spot, pleat, open seam & skip stitch. Total inspected Goods are 5998 & OK Goods 5825 & defects are 225 & D.H.U = 3.75%.

3.5 Sewing defects reports for LERROS, BESTSELLER & IOC

buyer:

AUKO-TEX GROUP		Daily Major Defect Analysis Report				Floor: 2ND FLOOR							Date: 28-12-2020	
Doc. No: ATG-137/Sew-09/QAD-01/For-		erson: 01				Revised DT: 00							Issue DT: 01.08.16	
Defects	Line-01	Line-02	Line-03	Line-04	Line-05	Line-06	Line-07	Line-08	Line-09	Line-10	Line-11	Line-12	Total	Remarks
Skip Stitch	4		4		3	3			5				19	4TH
Needle Cut														
Puckering/Roping														
Oil Spot	2				3				1				6	
Tension Loose/Tight			2		6	1	2		2				13	
Broken Stitch	1				3	3	3		3				13	
Open Seam	3		5		4	2	3		5				22	3RD
Scissor Cut														
Label/Size Mistake									2				2	
Sewing Rejection	4				2				2				8	
Shading			2										2	
Box/Placket Slanted	3												3	
Pleat	6		8		2	2	2		6				26	1ST
Label Off Center	2								2				4	
Part Up-down/Uneven	4		7		2	4	3		5				25	2ND
Joint Stitch						1			4				5	
Raw-edge			3			2	3		2				10	
Button Problem														
Poor Shape														
Tuck Missing	1		3		3		2		3				12	
Sewing Others							2						2	
Dirty Spot	1		1		3	7	6		1				19	5TH
Print/Emb. Problem														
Fabric Problem/Hole	1		1		4	2	2		1				11	
Others														
Total	38		36		35	27	28		44				208	
Check QTY	5040		OK QTY		4880				Defect QTY	208			DHU	4.13%

Fig 3.5: Defects report

In figure 3.5 we see that, Day 5 inspection report for different lines & different buyer. In line 1 inspected for LERROS buyer, Line 2-8 inspected for BESTSELLER buyer & Line 9 inspected for IOC buyer. That figure highlights top 5 faults & they are pleat, part up-down, open seam, skip stitch & dirty spot. Total inspected Goods are 5040 & OK Goods 4880 & defects are 208 & D.H.U = 4.13%.

3.6 Sewing defects reports for LERROS, BESTSELLER & IOC buyer:

buyer:

AIKO-TEX GROUP		Daily Major Defect Analysis Report				Floor: 2ND FLOOR		Date: 20-12-2020						
Doc. No: ATG-137/Sew-09/QAD-01/For-		Person: 01				Revised DT: 00		Issue DT: 01.08.16						
Defects	Line-01	Line-02	Line-03	Line-04	Line-05	Line-06	Line-07	Line-08	Line-09	Line-10	Line-11	Line-12	Total	Remarks
Skip Stitch	5		5		4	2	3		3				22	3RD
Needle Cut														
Puckering/Roping														
Oil Spot					4				3				7	
Tension Loose/Tight	1		1		3	1	1		5				11	
Broken Stitch	5				5	2	2		5				10	4TH
Open Seam	6		5		4	2	2		7				26	2ND
Scissor Cut														
Label/Size Mistake									1				1	
Sewing Rejection	4				3								7	
Shading			2										2	
Box/Placket Slanted	7												7	
Pleat	6		7		4	3	2		6				28	1ST
Label Off Center	3												3	
Part Up-down/Uneven	6		6		3	4							19	5TH
Joint Stitch						1	5		7				13	
Raw-edge	1		4		2	3	4		3				17	
Button Problem									5				5	
Poor Shape														
Tuck Missing	1		3		4		2						10	
Sewing Others							2						2	
Dirty Spot	3				1	5	3		1				13	
Print/Emb. Problem														
Fabric Problem/Hole	1		1		2	3	2		1				10	
Others														
Total	49		34		39	26	27		47				222	
Check QTY	6001		Ok QTY		5920				Defect QTY	222			DHU	3.64%

Fig 3.6: Defects report

In figure 3.6 we see that, Day 6 inspection report for different lines & different buyer. In line 1 inspected for LERROS buyer, Line 2-8 inspected for BESTSELLER buyer & Line 9 inspected for IOC buyer. That figure highlights top 5 faults & they are pleat, open seam, skip stitch, broken

“Comparative Study on Sewing Faults of Different Buyers in a Knit Garments Industry”

stitch & part up-down. Total inspected Goods are 5920 & OK Goods 5920 & defects are 222 & D.H.U = 3.64%.

3.7 Sewing defects reports for LERROS, BESTSELLER & IOC

buyer:

AIKO-TEX GROUP		Daily Major		Defect Analysis Report									Floor: 2ND FLOOR		Date: 30-12-2020	
Doc. No: ATG-137/Sew-09/QAD-01/For-				Person: 01									Revised DT: 00		Issue DT: 01.08.16	
Defects	Line-01	Line-02	Line-03	Line-04	Line-05	Line-06	Line-07	Line-08	Line-09	Line-10	Line-11	Line-12	Total	Remarks		
Skipped	8		5		5		1		4				23	3RD		
Needle Cut					4								4			
Puckering/Looping					1				4				8			
Oil Spot					4		1		4				13	5TH		
Tension Loose/Tight	3				1								4			
Broken Stitch	3		2		4		4		3				18	4TH		
Open Seam	3		5		1		1		7				18	4TH		
Edissor Cut	2												2			
Label/Size Mistake	1		1										2			
Sewing Rejection	7								3				5			
Shading			2						2				0			
Box/Placket Slanted	7								1				3			
Pleat	7		6		1	2	2		0				7			
Label Off Center	1								0				27	1ST		
Part Up-down/Uneven	4		6		1	5	3		8				1			
Joint Stitch													27	2ND		
Raw-edge			4				3		2				5			
Button Problem							3		1				8			
Poor Shape																
Tuck Missing	2		2		5		3		1				13			
Sewing Others																
Dirty Spot	4				1		3		3				11			
Print/Emb. Problem																
Fabric Problem/Hole	2		1		2	1	2		2				10			
Others																
Total	54	34			25	10	25		50				198			
Check QTY	5758				5610				198							
OK QTY														3.44%		

Fig 3.7: Defects report

In figure 3.7 we see that, Day 7 inspection report for different lines & different buyer. In line 1 inspected for LERROS buyer, Line 2-8 inspected for BESTSELLER buyer & Line 9 inspected for

“Comparative Study on Sewing Faults of Different Buyers in a Knit Garments Industry”

IOC buyer. That figure highlights top 5 faults & they are pleat, part up-down, skip stitch, open seam & broken stitch. Total inspected Goods are 5758 & OK Goods 5610 & defects are 198 & D.H.U = 3.44%.

3.8 Total faults inspected for different buyer:

Buyer Name	23-122020	24-122020	26-122020	17-122020	28-122020	29-122020	30-122020	Total
LERROS	62	11	37	38	38	49	64	289
BEST SELLER	132	140	163	143	126	126	94	917
IOC	37	38	35	44	44	47	50	296

Table 1: Total faults inspected for different buyer.

From table 1 we see that different buyer faults in weekly. Where BESTSELLER buyer faults are 917 pcs & LERRPS buyer faults are 289 & IOC buyer faults are 296 pcs garments.

3.9 Weekly faults for LERROS buyer:

Defects	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Total
Skip Stitch	8	1	2	3	4	5	8	31
Needle cut								0
Puokering								0
Oil spot	10	3			2			15
Tension loose/tight						1	3	4
Broken stitch	3		2	3	1	5	3	17
Open seam	5	1	5	6	3	6	3	29
Scissor cut							2	2
Label/size mistake	1			1			1	3
Sewing rejection	2		1	1	4	4	7	19
Shading								0
Box/Placket Slanted	5	1	5	5	9	7	7	39
Pleat	6		3	5	6	6	7	33
Label off center	5		3	2	2	3	1	16
Part up down	6	1	3	3	4	6	4	27
Joint stitch								0
Raw-edge	3		3			1		7

“Comparative Study on Sewing Faults of Different Buyers in a Knit Garments Industry”

Button problem								0
Poor shape								0
Tuck missing					1	1	2	4
Sewing others								0
Dirty spot			8	6	1	3	4	22
Print/Emb. Problem								0
Hole	8	4	2	3	1	1	2	21

Table 2: Weekly faults for LERROS buyer.

3.10 Weekly faults for BESTSELLER buyer:

Defects	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Total
Skip Stitch	11	19	16	16	10	14	11	97
Needle cut								0
Puokering								0
Oil spot	4	3	5	1	3	4	4	24
Tension loose/tight	4	2	5	6	11	5	1	34
Broken stitch	13	7	15	9	9	9	11	73
Open seam	21	17	19	15	14	13	8	107
Scissor cut								0
Label/size mistake	2			1			1	4

“Comparative Study on Sewing Faults of Different Buyers in a Knit Garments Industry”

Sewing rejection	2	10	4	1	2	3		22
Shading	1	2	1	2	3	2	2	13
Box/Placket Slanted								0
Pleat	13	11	16	20	14	16	11	101
Label off center								0
Part up down	15	17	16	21	16	13	15	113
Joint stitch	1		3	1	1	6	3	15
Raw-edge	13	13	18	16	8	13	7	88
Button problem								0
Poor shape								0
Tuck missing	7	8	16	9	8	9	10	67
Sewing others					2	2		4
Dirty spot	12	15	18	16	17	9	4	91
Print/Emb. Problem								0
Hole	13	7	11	10	9	8	6	64

Table 3: Weekly faults for BESTSELLER buyer.

3.11 Weekly faults for IOC buyer:

Defects	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Total

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Skip Stitch	4	4	1	2	5	3	4	23
Needle cut								0
Puokering								0
Oil spot				3	1	3		7
Tension loose/tight				4	2	5	4	15
Broken stitch	4		2	2	3	5	3	19
Open seam	4	3	2	5	5	7	7	33
Scissor cut								0
Label/size mistake		5		2	2	1	3	13
Sewing rejection		4	7	2	2		2	17
Shading			1				1	2
Box/Placket Slanted	3	1	5					9
Pleat	2	3	2	4	6	6	9	32
Label off center		1	7		2			10
Part up down	3	4	3	7	5		8	30
Joint stitch	5	2	2	4	4	7	2	26
Raw-edge	3	3	2	2	2	3	1	16
Button problem						5		5
Poor shape								0
Tuck missing					3		1	4

“Comparative Study on Sewing Faults of Different Buyers in a Knit Garments Industry”

Sewing others								0
Dirty spot	1	1		7	2	1	3	15
Print/Emb. Problem								0
Hole	8	7	1		1	1	2	20

Table 4: Weekly faults for IOC buyer.

CHAPTER 4: DISCUSSION OF RESULTS

4.1 Total work sheet for different buyer:



Chart 1: Weekly work sheet.

In chart 1 we see that weekly columns work sheet where there different category like inspection, defects & pass for three different buyer like LERROS, BESTSELLER & IOC. Higher faults inspected in DAY 3(inspected goods 7237, faults 235 & goods pass 7045)

4.2: Faults percentage for different buyer:

Defects	LERROS	BASTSELLER	IOC
Skip stitch	31	97	23
Oil spot	15	24	7
Tension loose/tight	4	34	15
Broken stitch	17	73	19
Open seam	29	107	33
Scissor cut	2	0	0
Label/size mistake	3	4	13
Sewing rejection	19	22	17
Shading	0	13	2
Box/plate slanted	39	0	9
Pleat	33	101	32
Label off center	16	0	10
Part up down	27	113	30
Joint stitch	0	15	26
Raw edge	7	88	16
Button problem	0	0	5
Tuck missing	4	67	4
Sewing others	0	4	0
Dirty spot	22	91	15
Hole	21	64	20
Total Faults	289	917	296

Table 5: Faults percentage for different buyer.

In table 4 we see that faults percentage for different buyer, where higher faults are BESTSELLER (917) buyer & Lower faults are LERROS (289) buyer.

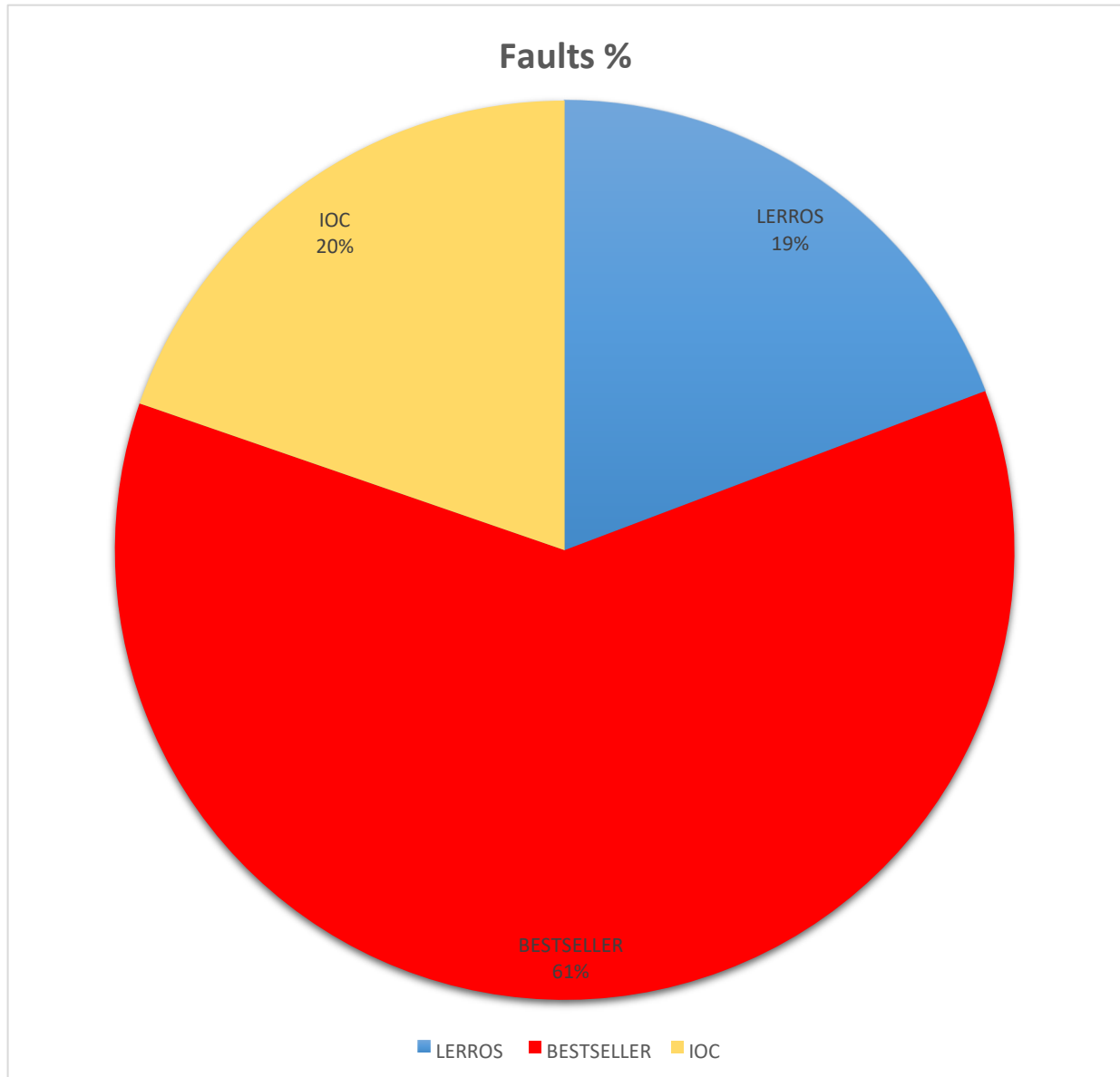


Chart 2: Different buyer faults percentage.

In chart 2 we see that different buyer faults percentage. Where blue color shows that LERROS buyer faults percentage are 289(19%), Red color shows that BESTSELLER buyer faults percentage are 917(61%) and Yellow color shows that IOC buyer faults percentage are 296(20%). So higher faults percentage buyer are BESTSELLER.

4.3 Total Faults Percentage for Different buyer:

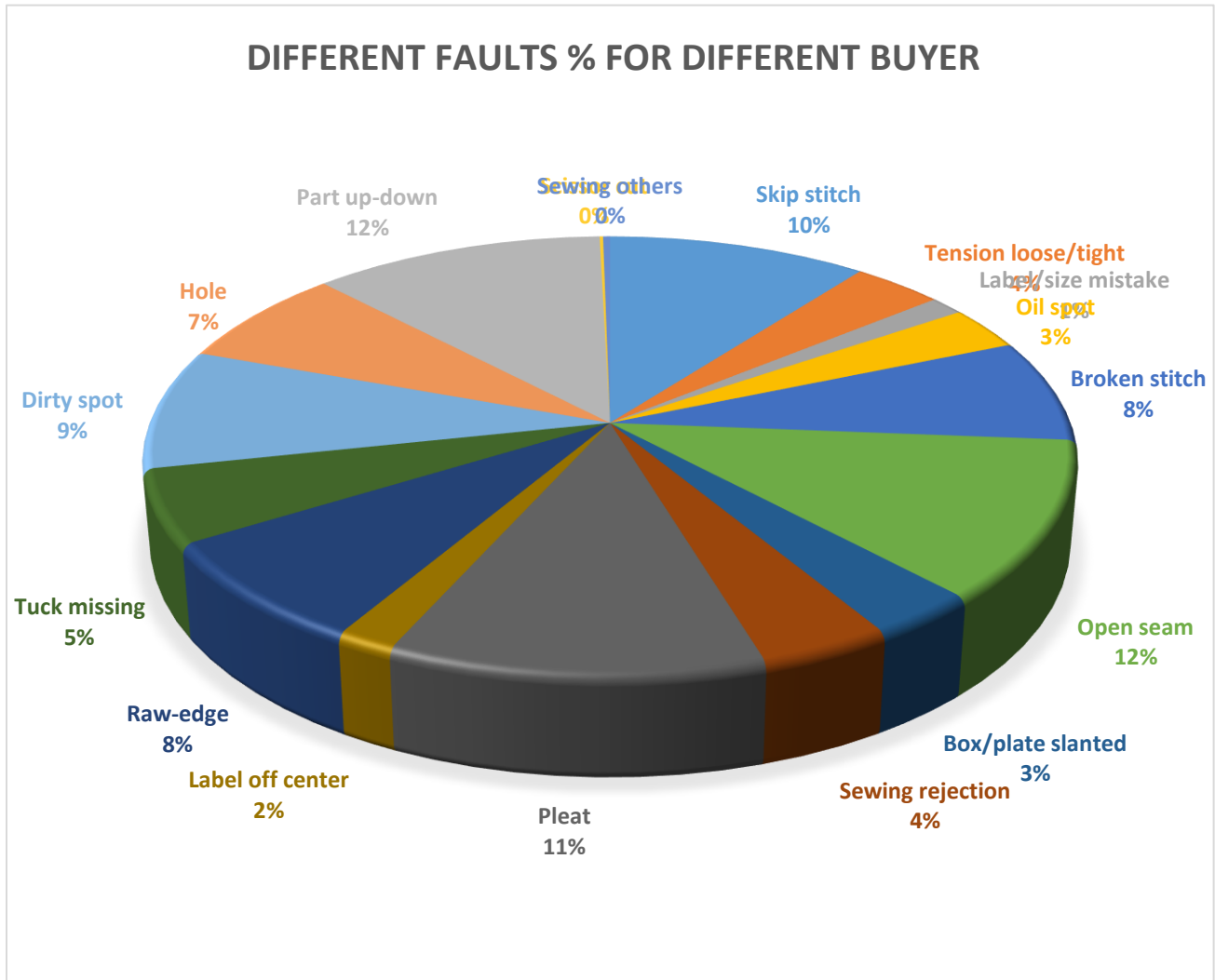


Chart 3: Different faults percentage for different Buyer.

Here chart 4.3 we see that different faults percentage for different buyer, where Skip stitch are 151(10%), Tension loose/tight are 53(4%), Label/size mistake are 20(1%), Oil spot are 46(3%), Broken stitch are 109(8%), Open seam are 169(12%), Box/plate slanted are 48(3%), Sewing rejection are 58(4%), Pleat are 166(11%), Label off center are 26(2%), Raw-edge are 111(8%), Tuck missing are 78(5%), Dirty spot are 128(9%), Part up down are 170(12%) & Hole are 105(7%).

4.4 D.H.U Percentage for different buyer:

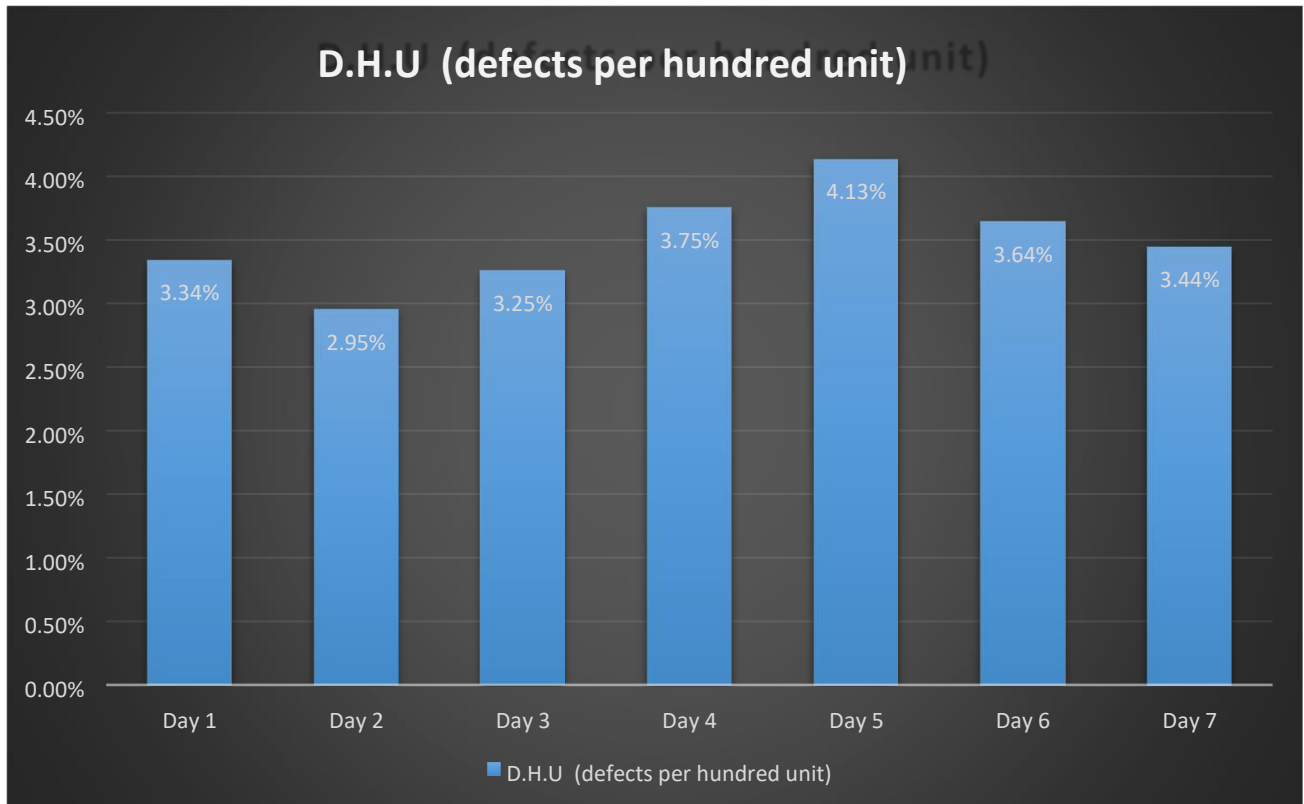


Chart 4: Weekly D.H.U Percentage for different buyer.

From the chart 4 we see the weekly columns that different buyer weekly D.H.U (defects per hundred unit) percentage. Where higher D.H.U percentage are Day 5 (4.13%) & lower D.H.U percentage are Day 2 (2.95%).

4.5 Inspection & Pass Goods Percentage:

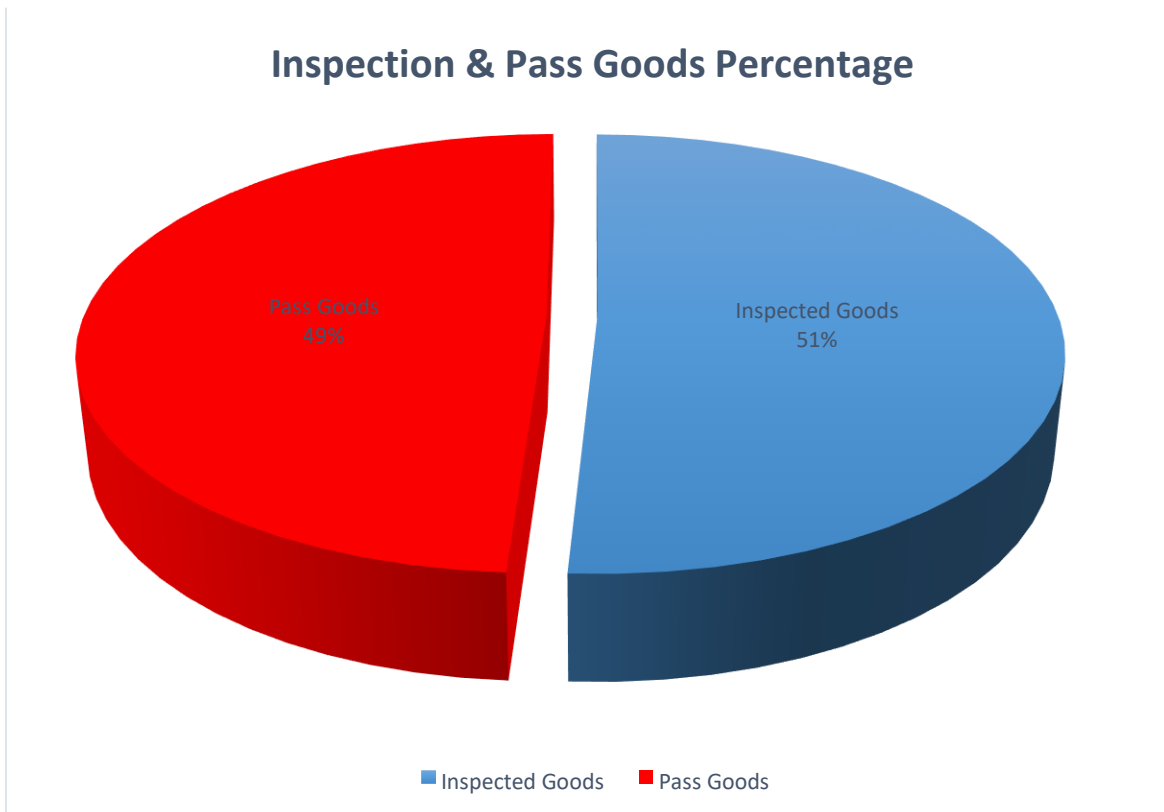


Chart 5: Inspected goods & Pass goods percentage

In chart 5 Blue color shows total percentages of inspected goods & Red color shows total percentage of pass goods. This calculation total inspected goods 43468, where 41966 are acceptable. Inspection goods percentage 51% and pass goods percentage 49%.

4.6 Overall Results:

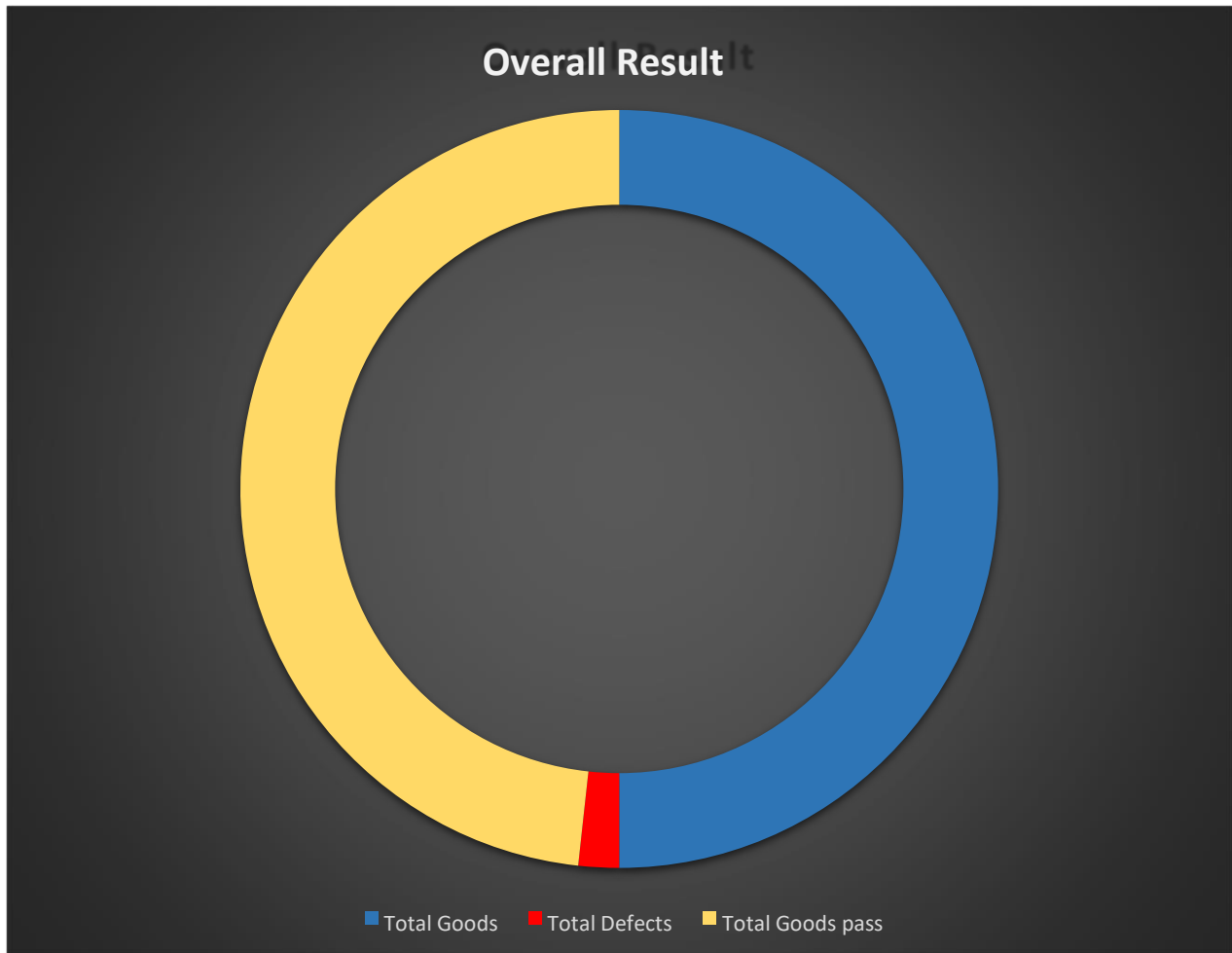


Chart 6: Overall Result.

In chart 6 we see that overall results, where blue color shows that total goods inspected: 43468 (50%), Red color shows that Total defects found 1502 (2%), Yellow color shows that Total goods pass: 41966 (48%)

4.7 Discussion:

In Auko tex group we observing and collecting data for 7 working days in different lines. In there we observed that, total 43468 garments pieces are inspected, in where total garments pieces pass are 41966 & total defects are 1502 pieces.

CHAPTER 5: CONCLUSION

Sewing is one the main parts in articles of clothing industry. The interesting devices created in this task cover an exhaustive arrangement of viewpoints in limiting sewing flaw in the sewing part of clothing businesses by guaranteeing quality creation.

Finally, The Thesis (Project) is concluded as-----

- The project shows that distinctive sewing deficiencies like broken stitch, open seam, skip stitch, oil spot, dirty spot and hole etc.
- We examined 43468 products and discovered normal 2% sewing issues.
- We find out about the different buyer faults percentage.

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