

## **Faculty of Engineering**

#### **Department of Textile Engineering**

Project (Thesis) on

## Study on Different Types of Sewing Defects on Knit Garments

**Course Code: TE 4214** 

**Course Title: Project (Thesis)** 

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This Report Presented in Partial Fulfillment of the Requirements for the Degree of Bachelor of Science in Textile Engineering.

Advance in Apparel Manufacturing Technology Fall-2022

## **DECLARATION**

This project was carried out by us, we hereby declare, under the guidance of **Mr. Abdullah Al Mamun**, **Associate Professor**, Department of Textile Engineering, Faculty of Engineering, and Daffodil International University. Additionally, we hereby swear that neither this project nor any of its components have ever been submitted elsewhere for the purpose of receiving a degree.

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#### LETTER OF APPROVAL

January 5, 2023

To

The Head

Department of Textile Engineering

Daffodil Smart City (DSC)

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

Dear Sir,

I am just writing to let you know that this project report titled as Study on **Different Types of**Sewing Defects on Knit Garments in Apparel has been prepared by the students Md. Masum

(ID:191-23-5521), Abdullah Al Meraz (ID: 191-23-5544) and Md. Sherajul Islam Shovon

(ID: 172-23-5022) are completed for final evaluation. The whole report is prepared based on the proper investigation and information in Knit Concern Group and JM Fabrics. The students were directly involved in their project report activities.

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

Yours Sincerely

Mr. Abdullah Al Mamun

**Associate Professor** 

Department of Textile Engineering

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#### **ACKNOWLEDGEMENT**

First of all, we would want to thank the Almighty for giving me the opportunity to complete this project with his heavenly grace.

we appreciate the guidance we received from **Mr. Abdullah Al Mamun, Associate Professor** the Department of Textile Engineering, Faculty of Engineering at the Daffodil International University faculty of engineering. Our supervisor's extensive experience and deep interest in the subject of textile and Garments motivated me to complete the job. This endeavor was made possible by his never-ending patience, academic leadership, constant encouragement, active supervision, constructive criticism, insightful counsel, reading numerous subpar drafts and rectifying these at all levels.

We would like to express our thanks to **Mr. Md. Mominur Rahman, Assistant Professor & Head (In- Charge)**, Department of Textile Engineering, Faculty of Engineering, Daffodil international University for his kind help to finish our project report.

Finally, we want to thank our cherished parents and friends for their encouragement, perseverance, and help with the project report.

#### **ABSTRACT**

Bangladesh, a highlighted name in Ready Made Garments sector. Behind of this, there are so many reasons such as huge number of manpower, cheap labor, skilled workers etc. Though we cannot produce much value-added products but we are showing our expertise in conventional garments making. Sewing is undoubtedly major part of garments making. When we are providing garments to our buyers, we must maintain some qualities or standards. Sewing quality is a mentionable among these. This quality is hampered by sewing defects. We do sewing with machine operated by human, it's not hundred percent defect less. So, it's a common affair about defects. That's why we look for solution. First of all, find out and named the defects then cause of defects and remedies of these defects. This study was about find out what types of defects are so common in our apparel industry. All of these reports are collected from Knit Concern Group and JM Fabrics Ltd. At Knit concern Group we have found Uncut Thread as most occurred defects about 27.75%, followed by Broken Stitch 10.45% Joint Stitch 8.22%, Raw Edge 7.85%, Skip Stitch 7.59% ,Dirty Spot 6.95%, Others 5.84% ,Pleat 5.57% , Open Seam5.41%, Reject4.83%, Uneven Stitch3.93%,Oil Mark 3.61%, Point Up down 0.955%, Puckering0.74% and Needle Hole 0.32%

This scenery is little bit different in JM fabrics Ltd. There we have found Skip Stitch 19.76% Broken Stitch 19.45%, Oil Mark 13.37%, Uncut Thread 11.85%, Pleat 7.90%, Open Seam 7.29%, Reject 6.08%, Dirty Spot 4.86%, Poor Joining 4.56% and Uneven Stitch 1.22%.

We tried to highlight some observed defects. This will let us be careful on production and make us conscious about defects those are going to be happened.

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## CHAPTER 01 INTRODUCTION

#### 1.1 Background of the Study

Without the sewing procedure, the ready-made item of clothing is completely disassembled. Even without Sewing section buyer do not place order in factory. Sewing section is mother of a factory. A factory gets how much profit that's depending capacity of sewing section. In any case, sometimes there are a variety of issues, and the ultimate result is sewing concessions. It is caused by the lack of adequate competence, the unsettling effects of the machine, and incorrect machine modification. These obscurities led to shortcomings, which have an effect on proficiency, profitability, and quality. Therefore, item improvement, assembly planning, and quality guidelines are all parts of an organization's normal operating technique. The organization's standards reflect the standard level of naturally brilliant performance. Providing consistency across products and product lines is the crucial justification for using quality standards. By maintaining the standard or character of the item, it is necessary to recognize the flaw and find a pleasant solution to decrease the error. Item control outline has been used in the inspection among the system control list.

The advancement of the relationship between excellent quality and efficiency depends greatly on the quick detection of a sewing defect. Imperfections discovered after sewing have a negative effect on the item's cost. There is more than just spotting a defect before moving on to other procedures that avoid resewing and removing creases. The administrator serves as the primary line of execution for value control in the modern framework, which serves as the fundamental foundation for this discourse. Additionally, there is no administrator working in the principal line quality control job at the unique sewing stations. At that point, the final deformity evaluation procedures were completed, and a favorable suggestion was found.

The association between productivity and quality in the sewing area is very strong. If further flaws are discovered after the product is sewn, the expenses will increase. There are various benefits of spotting a flaw before additional procedures obstruct seam removal and resewing. The operator serves as the first line of implementation for quality control in the existing system, which forms the basis for this observation. Additionally, the first line quality control post at other sewing stations is vacant. Finally, a defect assessment process was carried out to determine the optimum solution.

#### 1.2 Objective of the study

#### **General Objectives**

To know the different types of sewing defect of knit garments in Apparel.

#### **Specific Objectives**

- ➤ To learn about sewing process in knit composite factory.
- > To learn the line layout of sewing section.
- > To learn different types of sewing faults.
- > To learn cause and remedies of sewing faults.
- > To way to reduce fabric faults.
- To learn how many times required to alter these faults.

### 1.3 Importance of the Study

We can save our seashore in this unit. This article explains the causes of stitching errors in fast-fashion garments. Clothing manufacturers frequently consider sewing flaws as a problem. Despite the fact that it is a very simple problem, it is really difficult to solve completely. This article discusses a few components of the sewing fault arrangement, its causes, assurance, and treatments. The author realized that eliminating errors completely is really difficult. The type of clothes, location of the crease, and appearance all play a significant role in the questions of whether the level of blame is appropriate or not. Quality issues that arise throughout this process have a negative impact on the item's quality and effectiveness and also increase the cost of production. The goal of the investigation is to learn how to improve quality control when producing apparel and to offer suggestions for doing so. By looking at each quality control step in detail, we were able to demonstrate how important it is to produce high-quality apparel and prepare for more appealing change designs.

#### 1.4 Limitations

We encountered various issues while working on our thesis. Here are several examples:

- > Due to several limitations, we can't collect all the data.
- ➤ We are not permitted to present certain required paperwork without the consent of a higher authority.
- > There was also the issue of time.
- > There is no special training department for study.
- > The task of gathering information while working was challenging.

## CHAPTER 2 LITERATURE REVIEW

#### 2.1 Sewing process

The art of sewing involves creating stitches using a needle and thread to fasten or attach items. One of the earliest textile arts is sewing, which dates back to the Paleolithic. Archaeologists believe that Stone Age humans in Europe and Asia sewed fur and skin clothes using bone, antler, or ivory needles and "thread" formed of various animal body parts like sinew, catgut, and veins before the creation of spinning yarn or weaving fabric. With the aid of a needle and strings, textures, calfskin, skins, or other distinctively adaptable materials are attached using the simple sewing technique. Clothing and home décor are frequently made with sewing. Sewing is undoubtedly one of the most important dressmaking techniques. Modern sewing machines perform a substantial percentage of such mechanical sewing. At the very beginning, the chopped pieces of an article of clothing are typically attached or accidentally sewn. At that time, the machine's disorganized parts pierce the fabric layers with string and then coil it around themselves.

#### 2.2 Sewing Machine

A sewing machine is a mechanical or electromechanical device that has one or more needles that are threaded at the point end and periodically puncture the fabric as it passes underneath the needles. As the thread sews the fabric together, it loops around on itself to form a chain stitch or locks around a second strand of thread to form a lock stitch. Although they are used in both the home and the workplace, sewing machines are designed differently for each environment. Those for the home will typically be more adaptable in terms of the quantity and types of fastens they can handle, but they operate more slowly than modern machines and have a shorter lifespan. Modern machinery can be designed for specialized tasks and is often heavier, has a longer lifespan, and can accommodate several fasteners per inch.

#### 2.3 History of Sewing Machine

Sewing has been regarded as an art form for almost 20.000 years. The first needles were created in the XIV century, and sewing by hand was abandoned in favor of sewing machines in 1790. The sewing machine is a sophisticated tool that joins two or more pieces of fabric together by sewing them together. It is typically employed in the production of clothes.

Although Thomas Saint, a British inventor, is credited with creating the idea for the sewing machine, it is unclear whether he was also responsible for creating the machine's initial prototype. His work appeared to be nothing more than an unsuccessful attempt to create it.

The French tailor Barthelemy Thionine invented the first sewing machine, but the achievement didn't make him famous since a group of other tailors set fire to the factory. They believed that the sewing machine would render them unemployed and stop customers from visiting their tailor shops.

Because of the established notion that machines lead to unemployment in the wholesale garment industry, Walter Hunt, who invented the first sewing machine in the United States in 1834, likewise had no success.

When Isaac Singer unearthed an old sewing machine and restored it in just 11 days, the first sewing machine that was acknowledged commercially was created, bringing forth the first sewing machine that was actually successful. Singer substituted a pedal for the wheel and pedestal in his machine, setting it apart from the others. The Singer brand began selling 3.000 pieces annually in 1858, and by 1863, sales had reached over 20.000 units. The first production line in Canada was established in 1873, and sales reached 500,000 units in 1889. 23 years later, in 1903, they were reporting sales of 1.305.000 units annually.

## 2.4 Types of Sewing Machine

There are two types of sewing machines accessible in the clothing business, depending on the operating system. Here are several examples:

- > Manually Sewing Machine
- ➤ Electrically Sewing Machine

#### The basic Sewing machine are:

- 1. Plain Sewing Machine
- 2. Flat lock Sewing Machine
- 3. Overlock Sewing Machine

Those machines have both manual and automatic system. But in recent time all factory wants to use automatic machine. When manual machines are use than helper need more. That's why all factory want to reduce cost and use automatic machine.

#### Plain Machine are Two types:

- 1. Single Needle Plain Machine
- 2. Double Needle Plain Machine



Fig: Single Needle Plain Machine



Fig: Single Needle Plain Machine

#### Flat Lock Machine are three types:

- 1. Cylinder bed lock machine
- 2. Flat Bed lock machine
- 3. Compressor lock machine



Fig: Cylinder Bed Lock Machine



Fig: Compressor Lock Machine

#### **Overlock Machine are two types:**

- 1. 4 threads overlock machine (for knit garments)
- 2. 5 threads overlock machine (for Woven garments)



Fig: 4 threads overlock Machine

#### Some special machine also uses in factory. They are:

- Feed of the arm (double chain stitch m/c, 3-needle)
- > Picot sewing machine
- > Cocot sewing machine

- ➤ Zig-zag machine
- > Multi needle machine
- > Smoke machine
- Button attaching machine
- > Button hole m/c (for woven fabric)
- Button hole sewing m/c (for knit fabric)
- > Collar and cuff turning and blocking machine
- ➤ Label/elastic inserting machine
- ➤ Interlock m/c
- ➤ Lap seaming m/c
- ➤ Bar tack sewing m/c
- ➤ Pin tucking machine
- ➤ Shoulder pad-attaching machine
- ➤ Automatic multi-needle shirring machine
- > Top & bottom cover stitch flat lock machine
- QQ loop making m/c
- ➤ Bias tape cutting m/c
- > Blind stitch sewing machine
- ➤ Button covering stitch belt loop making m/c
- ➤ Double chain stitch m/c
- ➤ Double chain stitch sewing m/c
- > Double chain stitch sewing machine
- > Hemstitch machine for pant
- > Linking machine



Fig: Picot Machine



Fig: Snap button attaching



Fig: Button Attaching Machine



Fig: Button Hole Machine



Fig: Rib Cutter Machine



Fig: Multi needle Machine (3 needle)



Fig: Multi Needle Machine (8 needle)



Fig: Flat Bed Machine



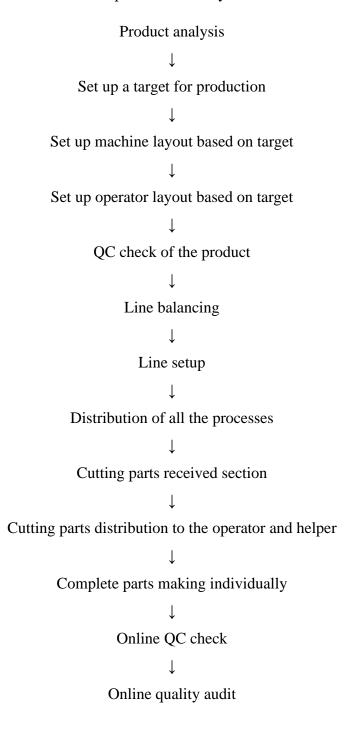
Fig: Draw sting Hole Machine

### 2.6 Machine Layout Plan

Production in the apparel sector refers to the chain-based procedure used to create a ready-made garment. The number of sewing machines varies depending on how many steps go into making a garment. Planned machine arrangement is the first priority for increasing output. In the clothing sector, the production manager will always build up a machine layout plan for a particular garment item. The machine layout plan varies depending on the type of garment being produced. It primarily consists of a sewing machine layout that can produce the most number of clothes in the quickest amount of time with the fewest errors.

## 2.7 Process Flow Chart of Garments Sewing

Sewing is an important department in the garments manufacturing industry. All the parts of a garment are joined here by making stitches with the help of a needle and thread. Where the sewing process flow chart helps to make a complete garment easily. By maintaining the sewing process flow chart, an order can be completed in a timely.



 $\downarrow$ 

Counting output and checking with the target

1

Final quality check (for each Garment)

#### 2.8 Defect in Garments

The final stage of production is clothing manufacture, which comes before marketing. Consumers are more likely to accept products with fewer flaws. For this reason, the manufacturer needs to be informed of any product flaws. Throughout this entire production process, a variety of errors may arise. The absence of desired qualities or the presence of undesirable features in products is referred to as an apparel defect. Products with flaws become less valuable on the market. A product could have a variety of flaws. Reject is a word that is similar to defects. When a product loses its marketability, it is considered a reject. Rejecting clothing hurts the businesses that make it. A garment may be rejected if it has a single flaw in the most noticeable part of it.

## 2.9 Types of defects

According to the garments workmanship and appearance garments defects are divided in the three ways

- a. Critical defects
- b. Major defects
- c. Minor defects

#### **Causes of defects:**

There are two main causes of defects

- a. Non sewing defects
- b. Sewing defects

Here sewing is an important part of garments. So must be known about sewing defects.

#### 2.10 Non-Sewing Defect:

Deformities may happen in Clothing industry created on mass scale.

The wellsprings of deformities are notice underneath:

- > Defects causes because of cutting of textures, lining, interlining by wrong pattern.
- Defect happens due flawed crude material.
- > Defects happens because of wrong stamping, incorrectly spreading of texture etc.
- > Defects causes because of oil checks in garments.
- > Defects happen because of wrong pressing, collapsing, pressing, bundling and so on.

#### 2.11 Sewing Defect

By employing stitches created with a needle and thread, two fabric pieces are joined through the process of sewing. One of the fundamental steps in making clothes is sewing. Aside from that, the ready-made clothing industry's sewing segment is its most important one. For the sewing department to continue producing clothing of the acceptable caliber, a variety of faults or defects should be eliminated. This article's significance is that it displays every flaw made in the sewing section of the factory that makes clothes.

#### Sewing defect can be classified as three groups:

- > Problem of stitch formation.
- > Seam pucker.
- Fabric damage along the seam line/stitch

#### 2.12 Problems of stitch formation:

#### 2.12.1 Sewing Defects:

- 1. Skip Stitch
- 2. Thread Breakage
- 3. Joint stich
- 4. Uneven stich
- 5. Broken stich
- 6. Open seam
- 7. Oil spot
- 8. Seam puckering
- 9. Joint uneven
- 10. Raw edge problem
- 11. Needle mark

#### 2.12.2 Seaming Defects:

- 1. Uneven width.
- 2. Uneven seam line.
- 3. Not secured by backstitch.
- 4. Twisting.
- 5. No matching of check or stripe.
- 6. No matching of the seam.
- 7. Unexpected materials are attached to the sewing.
- 8. Not sewn by matching face side or back side of fabrics.
- 9. Use of wrong stitch type.
- 10. Wrong shade matching of sewing thread.

#### 2.12.3 Assembly Defects:

- 1. Defected finished components by size, like imperfect size and shape of finished components.
- 2. Imperfect garments size.
- 3. Use of the wrong ticket.
- 4. Missing of any parts or predetermined design of garments.
- 5. Imperfect alignment of components, like button, hook, in the proper place.
- 6. Wrong placing or creasing of interlining.
- 7. Looseness or tightness of interlining.
- 8. Folding of any parts of garments that are seen to bad appearance.
- 9. Shade variation of garments.
- 10. The false direction of fabric parts in the garments.
- 11. Imperfect matching of trimmings in the garments.

#### 2.12.4 Stitch Defects

There are various kinds of stitch defects like:

- 1. Boardy: The knitted fabric becomes boardy (a stiff or harsh hand) when the stitches have been knit very tightly.
- 2. Cockled or puckered: If the knitted fabric is cockled or puckered, it is due to uneven stitches or uneven yarn size.
- 3. Dropped Stitch: This is an un knitted stitch caused either by the yarn carrier not having been set properly or the stitch having been knitted too loosely.
- 4. Run or ladder: A run or ladder indicates a row of dropped stitches in the wale.
- 5. Hole: A large hole or a press off is the result of a broken yarn at a specific needle feed so that knitting cannot occur.
- 6. Tucking: This is the result of an unintentional tucking in the knitted fabric. This is also called the bird's eye defect.
- 7. Float: This is caused by a miss stitch which is the result of failure of one or more needles to have been raised to catch the yarn.

# CHAPTER 3 METHODOLOGY

#### 3.1 Data Collection

In this report, all data are collected from Knit Concern Group and JM Fabrics. We all of our team member collected those data. We collected DHU report of those factory. Those reports are collected from different line and different date. Mainly H&M, Pepko, Okaidi, AS Color buyer's data are collected.

## 3.2 Attachment of sewing report

#### 3.2.1 Line inspection report 1:

This report is the property of KC Group (Knit Concern Group) and collected from KCL floor.

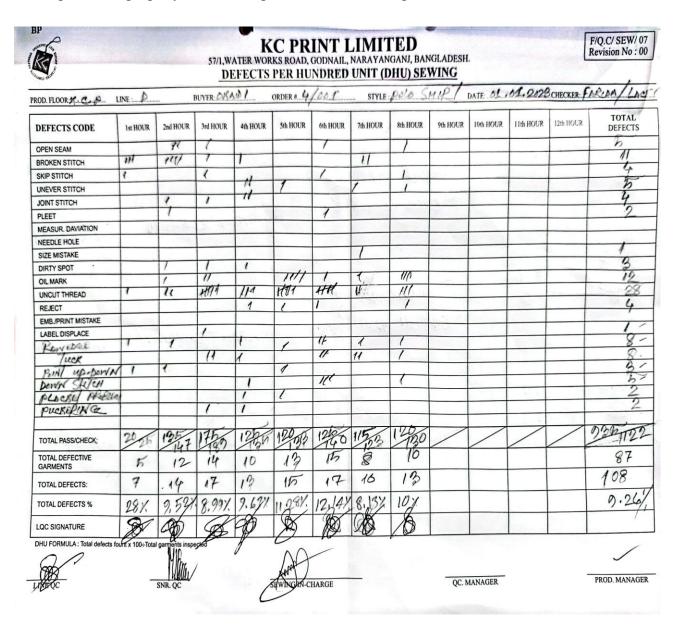


Fig: Line Inspection Report 1

Sewing inspection report of 01-01-2023. Here shows all defect after sewing. Per hour fault are recorded in this sheet and analysis how to reduce those faults by using those data.

#### **3.2.2 Data Table 1**

## **Knit Concern Group Hourly DHU REPORT**

Date: 01-01-2023 Order: 4/00P Style: 214486 Buyer: Okaidi Sewing Line: D Floor: KCP

Defects	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	Total
Code											
Open Seam		2	1			1		1			5
Broken Stitch	3	4	1	1			2				11
Skip Stitch	1		1			1		1			4
Uneven Stitch				2	1		1	1			5
Joint Stitch		1	1	2							4
Pleet		1				1					2
Measure Deviation											
Needle Hole											
Size Mistake							1				1
Dirty Spot		1	1	1							3
Oil Mark		1	2		4	1	1	3			12
Uncut Thread	1	2	6	3	6	5	2	3			28
Reject				1	1	1		1			4

Emb/Print										
Mistake										
Label Displace			1							1
Rawedge	1	1		1	1	2	1	1		8
Tuck			2	1		2	2	1		8
Point up down	1	1			1					3
Down Stitch				1		3		1		5
Puckering			1	1						2
Button										
Button Hole										
Improper Shade										
Slanted										
Twisting										
Others										
Total pass/ Check	20/25	135/147	175/189	125/125	120/133	125/140	115/123	120/130		935/1122
Total Defective Garments	5	12	14	10	13	15	8	10		87
Total Defect	7	14	17	13	15	17	10	13		108
Total Defect %	28%	9.52%	8.99%	9.63%	11.28%	12.14%	8.13%	10%		9.62%

DHU% = (Total No of Defect/Total no of Checked Product) \*100

=(108/1122)\*100

=9.62%

1st Highest Defects =Uncut threat 28 pcs

2nd Highest Defects = Oil Mark 12 pcs

3rd Highest Defects = Broken Stitch 11 pcs

Total Pieces checked =1122

Total Defects = 108

## 3.3 Attachment of sewing report

## 3.3.1 Line inspection report 2:

This report is the property of KC Group (Knit Concern Group) and collected from KCL 2 floor.

			57/1, Wate	C PR	oad, Godn	ail Naraya			Date 9.1	Ttl check	aty Z 3
		- Na - 20	Hourly D	HU Repo	rt (At Sew	ing QC T	able)		DHU AVG	6	
Order No.:	2138ME	7			Style N	Jame : 5	004		Color:	NATO	IPP
Floor No.: 12.	-P-2 Line		10	Table Out	ality Name :	- 1	MAS	101 P	VIDAS	11 /22	PER
				1			1 11/2				
Defects Name	08-09	09-10	1 10-11	11-12	Ho 12-01	02-03	I 03-04	04-05	05-06	06-07	Total
Broken stitch		1		1	1	1	,	17	1		25
Button											
Button Hole											
Fabric fault											
Drop stitch											
Needle hole		1									
Improper shape		1	1					1	1		
Joint stitch		1	17		11	1	11	111	119		12
Lebel fault		-	<b>अर्था</b>	11	1	-	1	1	,		11
Measurement			AIII		<u> </u>			1	-		
Needle mark		1	1				-		1		
Open seam		1		1			<del> </del>		-	11	U
Print fault		+							1		
Embroidery		1	1			-	-	-	-	1	
Puckering		-	-	-		11	1	1117	111	11	12
Pleat		1	+		++		1	1.17	11)		02
Rawedge	11	1/	-	111	1.	-	111	+,	-		02
Stanted	1.	111	1	111	1		(1)	+'		-	
		-	1,	111	-	17		100	177	,	15
Skip stitch			/	11		11	11	11	11.	1	12
Shading		-	-					_		-	
Thread Mistake		-						-			
Twisting								-		-	
Thread tension		-						-			
Up-down	/	1	111		_ 11	11_	1))	1	11		19
Up-even	- 111	1,,,,	ши		4114	1111				1	-
Uncut thread	111	1111	un	1/11	141	]///	17	11(1)	111	111	37
Wavyness						,,					
Wrong SPI											
Size Mistake											
Oil spot											
Dirty spot	11/	111	1111	1//	11/1	1 1111	1111		111	1111111	34
Rejects						<i>"</i>		11	11		4
Others		11	111	1))	111	111	11111	fir-	141.	1111	31
	Tella I					100					-
Total check gmts	110	127	190	100	200	200	no	1220	132	188	18/1
Total Pass gmls	100	120	170	124	180	782	200	200	100	170	120
Total defective gmts	10	12	20	16	20	18	22	20	200	18	N
Total defect qty	10	12	22	19	73		20	24	60	20	18
DHU %	12010	112:27	11577	9.47%	11%	20	-0	12	64.	20	100
Defect rectified Qty		1	1177	207	11/2	00	10	122	200	00	11.8
	0	13	132	16	20	16	18	200	122	10	,
Defect Balance qty	10	1	20	1	11	78	22	02	20	190	
Rectify Defects check &	pass O	10	13	20	14	40	1X	120	10	66	-
Rejects qty	100	1006	(Arger	WAY 92	1	218	A	11 10		-	-
LQC / Super. Signate	are No.	TAX	TANK!	1 PY	JAN	1470	1 Se	14			
TOP 3 defec	ts	Root Caus	se		CAP			Responsi Person	ble	Impleme Da	ntation te
Ht Prom	de 1	JEGL	ENTY	Stoc	W TH	EGP	1-5	Me	Yes Til	01/0	1/2
poel-fo	ur offic	ofele	SNER	910	WITH	Edf	1-1	ce-		u	Vil.
								7			4-2

Fig: Line Inspection Report 2

Sewing inspection report of 01-01-2023. Here shows all defect after sewing. Per hour fault are recorded in this sheet and analysis how to reduce those faults by using those data.

#### **3.3.2 Data Table 2**

## **Knit Concern Group Hourly DHU REPORT**

Date: 01-01-2023 Order: AF2138MEL

Style: 5001 Buyer: H&M Sewing Line: A Floor: KCL 2

Defects Code	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	Total
Open Seam		1		1						2	4
Broken Stitch		1			1	1	1				4
Skip Stitch	1		1	2	1	2	2	2	3	1	15
Uneven Stitch											
Joint Stitch	1		2		2	1	2	2	2		12
Pleet		1			1						2
Measure Deviation											
Needle Hole											
Size Mistake							1				1
Dirty Spot	2	3	4	3	4	4	4	1	3	8	34
Oil Mark											
Uncut Thread	3	4	5	4	5	4	2	4	3	3	37
Reject								2	2		4

Emb/Print											
Mistake											
Label Displace			5	2	1		1	1	1		11
Rawedge	2	2		3	1	1	3	1	1		14
Tuck			2	1		2	2	1			8
Point up down	1	1	2		2	2	3	1	2		14
Down Stitch											
Puckering					1	2	1	3	3	2	12
Button											
Button Hole											
Improper Shade											
Slanted											
Twisting											
Others	2	2	3	3	3	3	5	3	3	4	31
Total Check	110	133	190	190	200	200	222	220	232	188	1866
Total Pass	100	120	170	174	180	182	200	200	210	170	1706
Total Defective Garments	10	13	20	16	20	18	22	20	22	18	160
Total Defect	12	15	22	18	22	20	23	21	23	20	183
Total Defect %	10.90%	12.27%	11.57%	9.47%	11%	10%	10.36%	9.55%	9.91%	10.64	9.8%

=(183/1866)\*100

=9.8%

1st Highest Defects =Uncut threat 37 pcs

2nd Highest Defects = Dirty Spot 34 pcs

3rd Highest Defects = Skip Stitch 15 pcs

Total Pieces checked =1866

## 3.4 Attachment of sewing report

## 3.4.1 Line inspection report 3:

This report is the property of KC Group (Knit Concern Group) and collected from KCL 2 floor.

Thread tension Up-down Up-down Up-down Uncut thread Uncut thread Uncut thread Unwyness Wavyness Wavyness Use Mistake Oil spoil Dirty spoil Rejects Oithers  Total check gmis Total check gmis Total check gmis Total defective gmis Total defect	0304 00	Date DHU AVG Color Color 05-96	06-97 Total
Floor No. Life W- P. Line No. Gr Table Quality Name:  Defects Name	03.04 60	Color	06-07 Total
Defects Name  Defects Name  OS-09  Proken steck Button Button Button Button Button Button Button Proken steck Fabric tault Drop stitch Needle hole Improper shape Johnt stitch III III III III III III III III III II	03.94 64		
Broken stack			
Britton Hotele Father Lault Drop stitch Needle hote Improper shape Joint stitch Libbel fault Measurement Needle mark Open seam Print fault Embroidery Puctering Pical Rawedge Stanted Skip stitch Shading Thread Mistake Trusting Thread Hension Up-down Up-down Up-down Up-down Up-down Up-tristal Up-tr			
Button Hode Fahns taular Drop stitch Needle hole Improper shape Joint stitch Lebel fluit Measurement Needle mark Open seam Print fault Embroidery Puckering Pleat Rawedge Stanted Skip stitch Shading Thread Matake Thread Hersion Up-down Up-down Up-down Up-down Up-down Up-down Up-teren Uncut thread Oil spot Oil		1	- 50
Fabric fault  Oros stitch Needle hole Improper shape Joint stitch Improper shape Joint		1	50
Drop stitch Needle hole Improper shape Joint stitch Libbel Bult Measurement Needle mark Open seam Print fault Embroidery Puckering Picat Rawedge Stantied Sine stitch Shading Thread Mistake Twisting Thread Mistake Twisting Thread Mistake Wavyness Wrong SPI Size Mistake Oil spot Dirry spot Rejects Others  1 2 8 1 9 8 6 6 1 8 2 16 6 17 16 17 16 17 17 17 17 17 17 17 17 17 17 17 17 17		1	-50
Needle hole Improper shape Joint skilch Lebel fault Measurement Needle mark Open seam Print fault Embroidery Puckering Pleat Rawedge Skip stiich Shading Thread Matske Timsting Thread tension Up-down Up-own Up-own Uncut Inread		1)	-50
Joint stitch Lebel Built Needle mark Open seam Print fault Embroidery Puckering Pical Rawedge Stanted Skip stitch Shading Thread tension Up-down Up-down Up-down Up-even Up-oven Up-oven Up-oven Up-oven Up-oven Up-oven Up-oven Up-oven Uncut thread Uncut		11	30
Lebel fault  Measurement Needle mark Open seam Print fault Embroidery Puckering Picat Rawedge Skip strich Shading Thread Mistake Thread tension Up-down Up-down Up-down Up-down Uncut thread Wavyness Wavyness Wavyness Total check gmis Total Pass gmis Total defect qty Total defect qty Dirty		11	-52
Measurement Needle mark Open seam Print fault Embroidary Puckering Pleat Rawedge Stanted Stanted Stanted Stanted Strip strich Shading Thread Matake Threshon Up-down Up-even Up-even Up-even Up-even Olispot Ones Spot Others  Total check gmis Total check gmis Total defect gry Total defect gry Total defect gry Total defect gry Defects scheck & pass Rejects gry LCC / Super. Signature  I!  I!  I!  III  III  III  III  III		11	15
Needle mark Open seam Open seam Punt fault Embroidery Puckering Puckering Pleat Skip strich Shading Thread Mistake Twisting Thread tension Up-down Up-even Up-even Up-oven Up-oven Up-oven Uncut thread Wayness Wrong SPI Size Mistake Oil spot Dirly spot Rejects Oithers  It I I I I I I I I I I I I I I I I I I		11	
Open seam Print fault Embroidery Puckering Pleat Rawedge Skip stitch Shading Thread Mistake Twisting Thread tension Up-down Up-down Uncut thread Uncut thread Uncut thread Uncut thread Universe Wavyness Wavyness Universe Uncut fire and the sea of the sea		11	)
Print fault Embroidory Puckering Pical Raweage Skip strich Shading Thread Mistake Thread tension Up-down Up-down Uncut thread Uncut thread Wavyness Wavyness Uring spot Dirty spot Oithers  Total check gmis Total check gmis Total defect diy DHU % Verent Signature Uncut for signature Total check spass Total defect diy DHU % Recitfy Defects check & pass Rejects qy Recitfy Defects scheck & pass Rejects qy Recitfy Defects scheck & pass Rejects qy LCC / Super. Signature		11	+ +
Puckering Picat Rawesdge Stanted Skip strich Shading Thread Mistake Twisting Thread tension Up-down Up-even Up-even Uncut thread Uncut thread Uncut thread Oil spot Dirly spot Rejects Others  Total check gmis Total check gmis Total defect qty Total defect qty Dirl W Rejects qty LCC / Super. Signature LCC / Super. Signature	11.		
Picat Rawedge Skip strich Skip strich Shading Thread Mistake Thread Insisting Thread Insisting Thread Insisting Up-down Up-down Uncut Inread Uncut I	. 11.		
Rawedge Slanted Slanted Sharted Shack She strich Shading Thread Mistake Twisting Thread tension Up-down Up-down Up-even Up-even Up-even Up-even Wavyness Wrong SPI Size Mistake Oil spol Dirly spot Rejects Others  11 11 11 11 11 11 11 11 11 11 11 11 1	11.		
Slanted Skip strich Shading Thread Mistake Twisting Thread Ension Up-down Up-even Up-even Up-even Uncut thread Uncut thread Uncut thread Oil spol Diry spot Rejects Others  Total check gmis Total defective gmis Total defective gmis Total defect dy Total d	. 1 (		1 2
Shading		17.	11.11.5
Thread Mistake Turisting Thread tension Up-down Up-down Up-down Uncut thread Uncut thread Wavyness Wrong SPI Size Mistake Oil spoil Drify spot Rejects Others  Total check gmits Total defective gmits			
Twisting Thread tension Up-down Up-down Up-even Uncut thread Uncut thread Unit	100		
Thread tension			
Up-down Up-down Up-even Uncut thread Uncut t			
Uncut thread	1// - 1	1 . 11	11
Wavners SPI Size Mistake Oil spol Dirry spot Rejects Others  Total check gmis Total Pass gmis Total Pass gmis Total defect qty Total qty Tot			1 16
Wavners SPI Size Mistake Oil spol Dirry spot Rejects Others  Total check gmis Total Pass gmis Total Pass gmis Total defect qty Total qty Tot	W 1447-111 141	411 4111	II Herm
Size Mistake Oil spot Diry spot Rejects Oithers  Total Check gmis Total Pass gmis Total Pass gmis Total defect qty Total defe			"
Oil spoil Dirly spot Rejects Others  Total check pmits Total check pmits Total defective gmits Total defective			
Dirty spot Rejects Others  Total check pmts Total check pmts Total pass gmis Total defective gmts Total defective gmts Total defect dry Total dry T			
Total check gmits		1.	11 05
Total check gmis  Total Pass gmis  Total defective gmis  Total defective gmis  Total defect dy  Total defect		,	1 2
Total Pass gmis Total defective gmts Total defect dy Total def	. 111.	10	11-1 2
Total Pass gmis Total defective gmis Total defect dty Tot	1001	A	116
Total defective gmis Total defect dy Total defect defect dy Total defect defect dy Total defect defect dy Total defect defec	162 1	50 130	175 6
Total defect dy  Total defect defect	18	14 13	160 150
Defect recufied City  Defects Balance qty  Recity Defects check & pass  Rejects qty  LQC / Super. Signature  Common Commo	20 1	6 15	17 70
Defect Balance qty Rectify Defects check & pass Rejects qty LQC / Super. Signature	2211.117.		10.6
Rectify Defects check & pass  Rejects cry  LOC / Super. Signature  LOC / Super. Signature	13	18 14	12
LOC / Super. Signature Campo ( ) Character Campo ( )		8 14	- 13
LGC / Super. Signature		0'	
TOP 3 defects Root Cause CAP		-	
- COF	F	Responsible	Implementation
1 1		Person	Date
No. 1	1 6		
The state of the s			1

Fig: Line Inspection Report 3

Sewing inspection report of 01-01-2023. Here shows all defect after sewing. Per hour fault are recorded in this sheet and analysis how to reduce those faults by using those data.

#### **3.4.2 Data Table 3**

## **Knit Concern Group Hourly DHU REPORT**

Date: 01-01-2023 Order: 467301-7837 Style: CHILLY S/J 3K

Buyer: H&M Sewing Line: G Floor: KCL 2

Defects	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	Total
Code											
Broken Stitch		1		1	1	1		1		1	6
Button											
Button Hole											
Fabric Fault											
Drop Stitch											
Needle Hole		1	1	1	1			1		1	6
Improper Shade											
Joint Stitch	2		3	2	2		2				10
Label Fault				1	1	1					3
Measurement											
Needle Mark											
Open Seam			1	1		2		2		1	7
Print Fault											

Embroidery											
Puckering											
Pleat				1			1				2
Rawedge	1	2	1		3	1	2	1	2	1	13
Up-down	1	2	1	2	1	2	3	1	2	1	16
Up-even											
Uncut Thread	4	8	8	8	9	9	8	7	8	8	78
Wavyness											
Wrong SPI											
Size Mistake											
Oil Spot		1				1					2
Dirty Spot		2	2	1		1	1	1		1	9
Rejects		1		1	1				1		4
Others	2	2	3	2	2	2	3	2	2	3	23
Total Check	128	158	166	178	182	169	180	164	163	175	1651
Total Pass	120	140	150	160	165	150	162	150	150	160	1507
Total Defective Garments	8	18	16	18	17	19	18	14	13	15	150
Total Defect	10	20	8	20	19	21	20	16	15	17	179
Total Defect %	7.18%	12.65%	10.84%	11.23%	10.43%	12.42%	11.11%	9.75%	9.2%	9.71%	10.84%

=(179/1651)\*100

=10.84%

1st Highest Defects =Uncut threat 78 pcs

2nd Highest Defects = Up-down 16 pcs

3rd Highest Defects = Raw edge 13 pcs

Total Pieces checked =1651

## 3.5 Attachment of sewing report

### 3.5.1 Line inspection report 4:

This report is the property of KC Group (Knit Concern Group) and collected from KCL floor.

ROD. FLOORK, C.P	LINEK	16	BUYER			AF 10/2	UNIT (	e . T.		DATE 01-	01-202	SCHECKER, J	Projection of
DEFECTS CODE	1st HOUR	2nd HOUR	1	V V PC			7th HOUR	8th HOUR	9th HOUR	10th HOUR	11th HOUR	12th HOUR	DEFECTS
OPEN SEAM	-	1	-	1	110		1	<b>V</b>	1				2
BROKEN STITCH	1.	1	NAME OF TAXABLE PARTY.	17 1987	District								3
SKIP STITCH	+	1		-	1	L	11	1.	***		1000		24
UNEVER STITCH	1		1117	111	UHI	THE	1//	11/	11/				3
JOINT STITCH	1	100	10	Dist	OF PARTY	11	"	100	an Aber	90	1	101	- 100
PLEET		Mr - ir	10		1 1.78			100	-	-			- F
MEASUR, DAVIATION	1	177.3%		11 T									
NEEDLE HOLE		1	1	- 41	+ /								1
SIZE MISTAKE				11	1111		111	1111	IM				30
DIRTY SPOT	11	111	11/	1//	(1/1	-	111		9/1				7.7
OIL MARK		-		1100	11/1	UH	MI/	41	LHT				39
UNCUT THREAD	-	THI	HI	47	111	711	11	1/	1				9
REJECT		1				/	-4						
EMB./PRINT MISTAKE					The second second	D. 37	D		(	-		,	16.
LABEL DISPLACE	11	17.00	111	PI VA	21/1/	7	1	112 4	11	1			2
ruege.	11/		-1	1	4	£	/		-,-	-	-		2
non up Down		Cit	E W	451	1	-1	_	0	11			100	7
otheres		1			- 1"		1	1/	1/			- 7	-/
01140-2	1.0								-			12	
1													No.
	15	00,00	m 1	10200	60 16	120,00	10506	9500	100		/		883
TOTAL PASS/CHECK:	200	12	8005	130	12	VILLE	1/4/	700	750				138
TOTAL DEFECTIVE GARMENTS	7	10	25	25	15	20	20	18	18			-	100000
TOTAL DEFECTS:	8	22	26	27	16	22	2	22	20	100			150 ,
TOTAL DEFECTS %	25%	12%	16.84%	14.12%	21.33%	15X	6.8X	19.44%	22.73%	(J) PT		1	16.98
QC SIGNATURE	B	4	42	, 4	4	43	4	28	7	- 10	-0		

Fig: Line Inspection Report 4

Sewing inspection report of 01-01-2023. Here shows all defect after sewing. Per hour fault are recorded in this sheet and analysis how to reduce those faults by using those data.

### **3.5.2 Data Table 4**

# **Knit Concern Group Hourly DHU REPORT**

Date: 31-12-2022 Order: NAF/014

Style: T-8 Buyer: NAF Sewing Line: K Floor: KCP

Defects	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	Total
Code											
Open Seam		1		1	1	1	1	2	1		8
Broken Stitch	1										1
Skip Stitch	1	1		1	1	1	2	1			8
Uneven Stitch			3	3	5	5	3	2	3		24
Joint Stitch	1					2					3
Pleet											
Measure Deviation											
Needle Hole											
Size Mistake				1			1				1
Dirty Spot	2	3	3	3	4	2	3	5	5		30
Oil Mark											
Uncut Thread		5	5	5	3	5	6	5	5		39
Reject	1		2			1	2	2	1		9
Emb/Print Mistake											
Label Displace											

Rawedge	2		3	2	2	1	2	2	2	16
Tuck				1			1			2
Point up down						1			1	2
Down Stitch				1		3		1		5
Puckering										
Button										
Button Hole										
Improper Shade										
Slanted										
Twisting										
Others						2	1	2	2	7
Total pass/ Check	25/32	90/100	80/95	105/120	60/75	120/140	105/125	95/108	70/88	883
Total Defective Garments	7	10	15	15	15	20	20	18	18	138
Total Defect	8	12	16	17	16	21	21	21	20	150
Total Defect %	25%	12%	16.84%	14.17%	21.33%	15%	16.8%	19.44%	22.73%	16.98%

=(150/883)\*100

= 16.98%

1st Highest Defects =Uncut threat 39 pcs

2nd Highest Defects = Dirty Spot 30 pcs

3rd Highest Defects = Uneven Stitch 24 pcs

Total Pieces checked =883

### 3.6 Attachment of sewing report

#### 3.6.1 Line inspection report 5:

This report is the property of KC Group (Knit Concern Group) and collected from KCL floor.

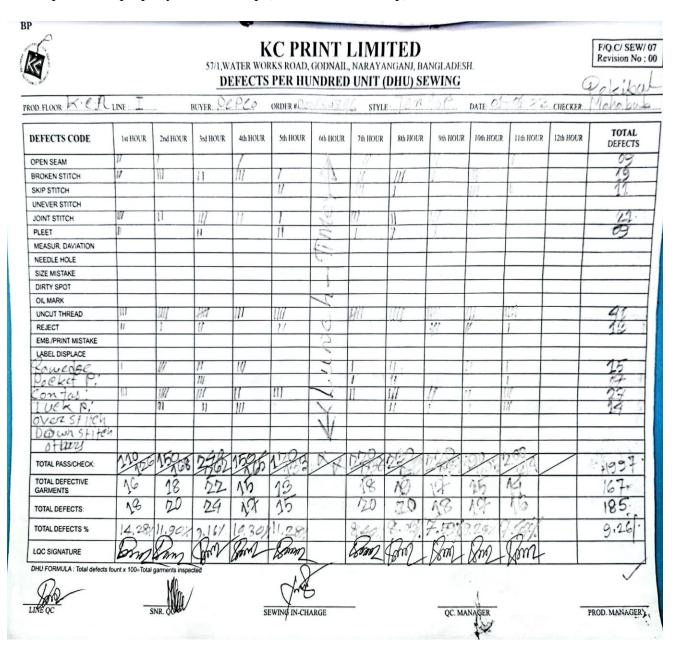


Fig: Line Inspection Report 5

Sewing inspection report of 01-01-2023. Here shows all defect after sewing. Per hour fault are recorded in this sheet and analysis how to reduce those faults by using those data.

### **3.6.2 Data Table 5**

# **Knit Concern Group Hourly DHU REPORT**

Date: 01-01-2023 Order: D00880746 Style: Tent 9P Buyer: Pepco Sewing Line: I Floor: KCA

Defects	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	Total
Code											
Open Seam	2	1		1		2		2		1	9
Broken Stitch	2	3	2	3	1	2	3	1	2		19
Skip Stitch					2	3	1		3	2	11
Uneven Stitch											
Joint Stitch	3	2	3	2	1	3	2	3	2		21
Pleet	2		2		2	1	1	1			9
Measure Deviation											
Needle Hole											
Size Mistake											
Dirty Spot											
Oil Mark											
Uncut Thread	3	4	5	3	4	5	4	5	3	4	41
Reject	2	1	2		2	1	2	3	2	1	13
Emb/Print Mistake											
Label Displace											
Raw edge	1	3	2	3		1	2		2	1	15

Tuck		2	2	3			2	1	1	3	14
Pocket Problem			3			1	2			1	7
Contas	3	4	3	2	3	2	3	2	2	3	27
Point up down											
Down Stitch											
Puckering											
Button											
Button Hole											
Improper Shade											
Slanted											
Twisting											
Others											
Total pass/ Check	110/126	150/168	140/162	150/165	120/133	220/238	230/249	220/237	190/205	200/21	1997
Total Defective Garments	16	18	22	15	13	18	19	17	15	14	167
Total Defect	18	20	24	17	15	20	20	18	17	16	185
Total Defect %	14.28%	11.9%	9.16%	10.30%	11.28%	8.4%	8.03%	7.59%	8.29%	7.47%	9.26%

=(185/1997)\*100

= 9.26%

1st Highest Defects =Uncut threat 41 pcs

2nd Highest Defects = Contas 27 pcs

3rd Highest Defects = Joint Stitch 21 pcs

Total Pieces checked =1997

### 3.7 Attachment of sewing report

#### 3.7.1 Line inspection report 6:

This report is the property of KC Group (Knit Concern Group) and collected from KCL floor.

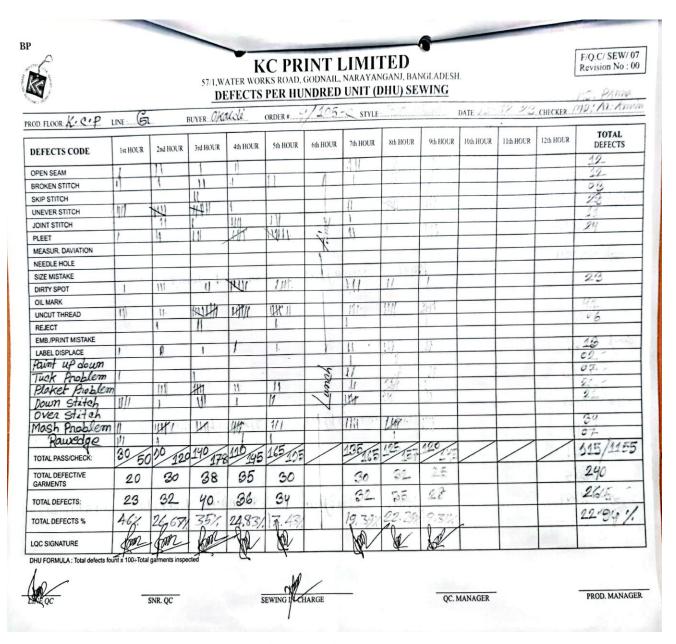


Fig: Line Inspection Report 6

Sewing inspection report of 01-01-2023. Here shows all defect after sewing. Per hour fault are recorded in this sheet and analysis how to reduce those faults by using those data.

### **3.7.2 Data Table 6**

# **Knit Concern Group Hourly DHU REPORT**

Date: 03-01-2023 Order: 4/105-K Style: B/C 008 Buyer: Okaidi Sewing Line: G Floor: KCP

Defects	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	Total
Code											
Open Seam	1	2	1	2		3	2	1			12
Broken Stitch	2	1	2	1	2	1	2	1			12
Skip Stitch			2					1			3
Uneven Stitch	4	5	7	1		2	5	4			28
Joint Stitch		2	1	4	3	1					11
Pleet		2	3	5	8	2	1	3			24
Measure Deviation											
Needle Hole											
Size Mistake											
Dirty Spot	1	3	2	6	5	3	2	1			23
Oil Mark											
Uncut Thread	3	2	10	7	7	3	4	5	5		41
Reject		1	2		1	1		1			6
Emb/Print Mistake											
Label Displace	1	2	1	1	1	2	3	2			13

Rawedge	3	1		1	1		1			7
Tuck	1		1			2	1	2		7
Point up down						1	1			2
Placket problem		4	5	2	2	2	5	1		21
Down Stitch	4	1	3	1	2	5	3	2		21
Mash Problem	2	6	5	5	3	4	5	4		34
Puckering										
Button										
Button Hole										
Improper Shade										
Slanted										
Twisting										
Others										
Total pass/ Check	30/50	90/120	140/178	110/145	165/195	135/165	125/157	120/145		915/1155
Total Defective Garments	20	30	38	35	30	30	32	25		240
Total Defect	23	32	40	36	34	32	35	28		265
Total Defect %	46%	26.67%	35%	24.83%	17.43%	19.39%	22.29%	9.31%		22.94%

= (265/1155) \*100

= 22.94%

1st Highest Defects =Uncut threat 41 pcs

2nd Highest Defects = Mash Problem 34 pcs

3rd Highest Defects = Uneven Stitch 28 pcs

Total Pieces checked =1155

## 3.8 Attachment of sewing report

### 3.8.1 Line inspection report 7:

This report is the property of KC Group (Knit Concern Group) and collected from KCA floor.

a digital and a second			57/1,WA <b>DE</b>	KU TER WORK FECTS F	S ROAD, GO PER HUN	ODNAIL, N	VARAYANO UNIT (D	GANJ, BANG HU) SEV	gladesh. <b>VING</b>			0.4	Revision No : 00
D. FLOOR: KCA L	INE A	1	BUYER: DE		RDER # 100					DATE: 03.0	1.23	.CHECKER:	Mozamul
DEFECTS CODE	lst HOUR	2nd HOUR	3rd HOUR	4th HOUR	5th HOUR	6th HOUR	7th HOUR	8th HOUR	9th HOUR	10th HOUR	11th HOUR	12th HOUR	TOTAL DEFECTS
PEN SEAM			1					U					M.
BROKEN STITCH	1))	11	li	11		1	+111	1	1111	1111			27
SKIP STITCH	100	HI	illi	1	1	itt	1111	1	1011	171	-	-	14
UNEVER STITCH		100	1111	,	111	141	(11)	1	111	-	V	17	74
JOINT STITCH	1		11	1	171		11	1	111			1	17
PLEET			11	1	4		11	-	4.1	- 11			5/04
MEASUR. DAVIATION	- 0				1		11		-	1	-	-	2/2
NEEDLE HOLE		-		1							-		100
SIZE MISTAKE	1			1						-	-	-	
DIRTY SPOT	1 1	111	1.	11	1	1		11	111	/1	1 2	0.0	4011
OIL MARK	1	1	1 Post	The s	dia to	1	11,9	100	1	1		1	7
UNCUT THREAD	11	HIT	11	1	111/1	ttn	111	111	HIT	1111	_		nt.
REJECT	41	100	All.	111	1111	1111	1	W	111	+111	1		D. Jan
EMB./PRINT MISTAKE	1		11111111	- 100	-	1	83 0347	Ho la	O Pala				The same of the sa
LABEL DISPLACE	1	1	1	HT	l1	UF	111	11	111	-		-	61
Rowadae	1	1	1	-	1	1111	111	111	17	10-	100	-	15
THEK Proble	n <sub>q</sub>	1	11	1	11	1			1	1			- 6
over Stitet			11	11	1	1	1	1	1/1	11	1	-	10
					1 37							100	Color of the
													/Av
Land and Automatical													\ \\ \( \mathcal{A} \) \( \tau \)
No. of Contract				-	1	N/S	MAR	11 10					NO.
TOTAL PASS/CHECK:	50	55 160	741	E 175			00 180	00 50	4 2000	5 0000	1		1804
TOTAL DEFECTIVE GARMENTS	3	16			18		20	14	25	20			173-
TOTAL DEFECTS:	3	18	10	-	20	19	122	15	27	22		WC -	190
TOTAL DEFECTS %	15.3	52/ 10.	23/. 12.	94 9.89	× 9,81	1 9.4	d 0)	19.15	1 6%	1 Alua	4		10.53
LQC SIGNATURE				WK KAM	R HOUSE		R KAN	K		SKOOK			
DHU FORMULA: Total defe	ects fount x 100	D÷Total garmer	its inspected			/							
(trans					Cont	V/							

Fig: Line Inspection Report 7

Sewing inspection report of 03-01-2023. Here shows all defect after sewing. Per hour fault are recorded in this sheet and analysis how to reduce those faults by using those data.

### **3.8.2 Data Table 7**

# **Knit Concern Group Hourly DHU REPORT**

Date: 03-01-2023 Order: D00880775 Style: TAN TOP Buyer: Pepco Sewing Line: A Floor: KCA

Defects	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	Total
Code											
Open Seam			1				1	2			4
Broken Stitch	3	2	2	2	1	1	5	1	4	5	26
Skip Stitch		5	4	1	1	5	4	1	2	1	24
Uneven Stitch			2		3			1	1		7
Joint Stitch	1		2	1			2	1	3		10
Pleet					1		2			2	5
Measure Deviation											
Needle Hole											
Size Mistake											
Dirty Spot	1	2	1	2	1	1		2	2	2	14
Oil Mark		1	1	1		1	1	1	1	1	8
Uncut Thread	2	5	1	1	6	4	2	3	5	3	32
Reject			2	2	1	1	1		2		9
Emb/Print Mistake											
Label Displace	1	1			1				2	5	10

Rawedge	1	1			1				2	5	10
Tuck		1	1	1	1	1				1	6
Point up down											
Placket problem											
Over Stitch			2	2	1	1	1	1	3	2	13
Mash Problem											
Puckering											
Button											
Button Hole											
Improper Shade											
Slanted											
Twisting											
Others											
Total pass/ Check	50/58	160/176	150/168	175/19 2	185/20	185/202	180/20	150/164	200/22	200/220	1804
Total Defective Garments	8	16	18	17	18	17	20	14	25	20	173
Total Defect	9	18	20	19	20	19	22	15	27	22	190
Total Defect %	15.52%	10.23%	12.19%	9.89%	9.85%	9.40%	11%	9.25%	12%	10%	10.53%

=(190/1804)\*100

= 10.53%

1st Highest Defects =Uncut threat 32 pcs

2nd Highest Defects = Broken Stitch 26 pcs

3rd Highest Defects = Skip Stitch 24 pcs

Total Pieces checked = 1804

## 3.9 Attachment of sewing report

## 3.9.1 Line inspection report 8:

This report is the property of KC Group (Knit Concern Group) and collected from KCP 2 floor.

		Salar Art	Hourly [	HU Repo	ort (At Sev	ving QC 1	able)		Date : 0" DHU AVG.	3-01-	2020
Order No.:	3139			,		Name :	505	7	Color:	NAY	000
Floor No.: K.C.	1.02 Lin	e No.:	C	Table Qu	ality Name		SHH	VIL->	EHOL	K- MH	SUD
Defects Name	08-09	09-10	10-11	11-12	12-01	02-03	03-04	04-05	05-06	06-07	Total
Broken stitch Button	11	61,			11	2		- 11			10
Button Hole		+	-		-	-				-	
Fabric fault		1									1/.
Drop stitch Needle hole		1			1 4	D		' '			19
Improper shape		+		*		-	-			<del>                                     </del>	1
Joint stitch		10)	1111	111 -	111	Ir.	ır		- 1-11	71	IV
Lebel fault		1			200			.11	. 11		6
Measurement Needle mark	-	-	-				-		-	-	-
Open seam	1			1		11	1				F
Print fault	-										
Embroidery Puckering	-		1 500	-							
Pickering			-	-			1	- 111.	11 .	·11 -	15
Rawedge	THE STATE OF	111	111-	1	1 .	1.	11.	- (1.	. 111 -	1-	16
Slanted				4		100					-
Skip stitch Shading	-			.11	P	11	D	. 11 .		( '	0)
Thread Mistake		1									
Twisting											200
Thread tension						,,	,		- 11	, ,	1
Up-down Up-even	1	- 11		2.5	1	"			- 11	1	1
Uncut thread	lat.	1111	441	141	101 -	141	mer.	JUH	11-1	-1114	91
Wavyness			1111								1
Wrong SPI Size Mistake			-						TVI III	-	
Oil spot		III	11	-111-	1111t	THIT	HIL'	1944	41.64.	· ut.	32
Dirty spot			,	1			1111				127
Rejects	11:	11	1				11	The Co			5
Others	"'-	1100	1200	1) .	, 11.	1 .	. "	,			ie
Total check gmls	192	220	185	190	210	206	198	28	207	126	10%
Total Pass gmts	130	200	120	180	190	185	180	200	170	180	180
Total defective gmts	13	20	15	18	20	27	18	16	17	16	161
Total defect qty DHU %		9.64%	8.64%	9.600%		20.62	19	10.09 %	0).66%	9.18%	189
Defect rectified Qty	0	12	18	19	18	20	25	21	18	17	2.60
Defect Balance qty	12	18	14	18	30	31	16	18	17	14	
Rectify Defects check & pass	0	12	18	14	18	20	21	21	18	17	
Rejects qty  LQC / Super, Signature	an	Im	100	Bn	an-	- an -	The	an	an	R	
	70.	Root Caus	900		CAP	11		100		Impleme	ntation
TOP 3 defects	-	Root Caus	,6	Sec. 20	CAP			Responsib Person	-	Da	te
		- 19					- 14				
									3 8		

Fig: Line Inspection Report 8

Sewing inspection report of 03-01-2023. Here shows all defect after sewing. Per hour fault are recorded in this sheet and analysis how to reduce those faults by using those data.

#### **3.9.2 Data Table 8**

## **Knit Concern Group Hourly DHU REPORT**

Date: 03-01-2023 Order: AF-3139 Style: 5051 Buyer: H&M

Sewing Line: C Floor: KCP 2

Defects	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	Total
Code											
Broken Stitch	2	3			2			2		1	10
Button											
Button Hole											
Fabric		1									1
Fault											
Drop Stitch		1			2			1			4
Needle Hole											
Improper Shade											
Joint Stitch	1	3	4	3	3	2	2		3	2	23
Label Fault		1						2	2		5
Open Seam	1			1		2	1				5
Pleat							1	3	2	2	8
Rawedge	2	2	3	1	1	1	2		3	1	16
slanted											

Skip Stitch	1			2	1	2		2		1	9
Up-down	1			1	1	2	1		2	1	9
Up-even	1	2						2		1	6
Uncut Thread	3	3	6	5	3	5	4	5	3	4	40
Wavyness											
Wrong SPI											
Size Mistake											
Oil Spot		3	2	3	6	6	4	5	4	5	37
Dirty Spot				1							1
Rejects		2	1				2				5
Others	2			2	2	1	2		1		10
Total Check	142	220	185	198	210	206	198	218	207	196	1967
Total Pass	130	200	170	180	190	185	180	200	190	180	1805
Total Defective Garments	12	20	15	18	20	21	18	18	17	16	162
Total Defect	14	21	16	19	22	22	19	22	20	18	189
Total Defect %	9.89%	9.54%	8.64%	9.59%	10.47%	10.67%	9.59%	10.09%	9.66%	9.18%	9.60%

= (189/1967) \*100

=9.60%

1st Highest Defects =Uncut threat 40 pcs

2nd Highest Defects = Oil Spot 37 pcs

3rd Highest Defects = Joint Stitch 23 pcs

Total Pieces checked =1967

## 3.10 Attachment of sewing report

### 3.10.1 Line inspection report 9:

This report is the property of KC Group (Knit Concern Group) and collected from KCP floor.

TO N V CO D	LINE : A		BUYER:	101	ORDER #	11001	STYLE	polo Si		DATE: 06	30.15		TOTAL
DEFECTS CODE	1st HOUR	2nd HOUR	3rd HOUR	4th HOUR	5th HOUR	6th HOUR	7th HOUR	8th HOUR	9th HOUR	10th HOUR	11th HOUR	12th HOUR	DEFECTS
				1		1	1	,					- t
OPEN SEAM	1		-17	1	(	1	1	/					3
BROKEN STITCH					1	V PAS	1	1					10
SKIP STITCH		15	11		1	11	1,4	1/		-			12
UNEVER STITCH		1	-//			11	3011	1/	1				- 8
JOINT STITCH		W	1/	JAN N	11 .	1	1						
PLEET	1.5	Care	11		, -							-	-
MEASUR. DAVIATION													
NEEDLE HOLE													- 12
SIZE MISTAKE				,				1					3
DIRTY SPOT	1			/	,	A 11	11	1				6 100	
OIL MARK	1			11	1 3	1/1	ill	11					2
UNCUT THREAD	11	Mari	180	Mon	111	1//	4/11			-			3
REJECT		1	1,10	DUANIT	1	1		1	1	-		10.20	- 7
			artant.	1.	L U K	2	Jaw	. C V	lv.	-			3
EMBJPRINT MISTAKE	-	11	oblibita.	e U		V 1		1			_		5
LABEL DISPLACE		1	1	1		1	/			-		-	
KAMEDQUE		-	-			- 80							21
/vck	/	11	11		1	Hete	cost	HM				11.	-7
POIN/ LO-DOWA	4	1	11				(					1111	2
DOWN STITCH		-			1							14	- 5
PLACKEL PROBE	4	-	-		-			1					
BOX PROBLEM		-			11	i d	N+CV					0	504
TOTAL PASS/CHECK:	450	850	9201	6500	1356	10900	129	700	/	/			7029
	47	777	1	3	10	IA	22	IF	1			a di santa	92
TOTAL DEFECTIVE GARMENTS	4	14	10	1/2 cat	1 60	13		1.60	CA	-	-	-	1
TOTAL DEFECTS:	5	16	Al	-8	12	16	24	18	,				110
TOTAL DEFECTS %	10.20	16:16)	1289%	11.43X	8.27%	14.16%	16.90						13.81
LQC SIGNATURE	(M)	000	OK		(4)	A	18	Ø			1		

Fig: Line Inspection Report 9

Sewing inspection report of 06-01-2023. Here shows all defect after sewing. Per hour fault are recorded in this sheet and analysis how to reduce those faults by using those data.

### **3.10.2 Data Table 9**

# **Knit Concern Group Hourly DHU REPORT**

Date: 06-01-2023 Order: 4/103D Style: Polo Shirt Buyer: Okaidi Sewing Line: D Floor: KCP

Defects	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	Total
Code											
Open Seam	1			1		1	1				4
Broken Stitch			2	1	1	1	1	1			7
Skip Stitch					1		1	1			3
Uneven Stitch		2	2		1	2	1	2			10
Joint Stitch		1				2	7	2			12
Pleet		2	2		2	1	1				8
Measure Deviation											
Needle Hole											
Size Mistake											
Dirty Spot	1			1				1			3
Oil Mark	1			2	1		2	1			7
Uncut Thread	2	2	2	2	3	3	4	2			20
Reject		1			1			1			3
Emb/Print Mistake											
Label Displace		2						1			3
Rawedge		1	1	1		1	1				5

Tuck										
Point up down		2	2		1	5	5	5		20
Placket problem		1			1					2
Down Stitch		1								1
Box Problem		1						1		2
Puckering										
Button										
Button Hole										
Improper Shade										
Slanted										
Twisting										
Others										
Total pass/ Check	45/49	85/99	82/91	65/70	135/14	100/113	120/14	70/85		702/794
Total Defective Garments	4	14	9	15	10	13	22	15		92
Total Defect	5	16	11	8	12	16	24	18		110
Total Defect %	10.20%	16.16%	12.09%	11.43%	8.27%	14.16%	16.90%	21.17%		13.85%

=(110/794)\*100

= 13.85%

1st Highest Defects =Uncut threat 20 pcs

2nd Highest Defects = Point Up down 20 pcs

3rd Highest Defects = joint Stitch 12 pcs

Total Pieces checked =794

## 3.11 Attachment of sewing report

### 3.11.1 Line inspection report 10:

This report is the property of KC Group (Knit Concern Group) and collected from KCP floor.

ROD. FLOOR: K.C. A	LINE:		BUYER: P.	PED	ORDER #D.	50886	6STYLE	Tent	1012	DATE: 0.6-	01-23	CHECKER:	Mahabub
DEFECTS CODE	1st HOUR	2nd HOUR	3rd HOUR	4th HOUR	5th HOUR	6th HOUR	7th HOUR	8th HOUR	9th HOUR	10th HOUR	11th HOUR	12th HOUR	TOTAL DEFECTS
OPEN SEAM	1	1		1/	1	1	11	1	11		1		11
BROKEN STITCH	10	11	11	til	1/	1	111	ti.	1	11	1		21
SKIP STITCH	1	1	1	IJ.	1	10	11		1/	1		(a)	10.
INEVER STITCH	take 1	W.	140	Die (81		V	US B	X .			40 , 5		100
OINT STITCH	11	11 0	11	111	U .	6	111	1	//		III		21-
PLEET					U	6	(11	1	lt/	11	I.		12
MEASUR. DAVIATION					- 100	('-						M. , 4	
NEEDLE HOLE						1					100	S	
SIZE MISTAKE													
DIRTY SPOT										18		1	Vel
OIL MARK		Lines							1111		10	1	at.
UNCUT THREAD	1111	111	1111	(1)	(1)	7	THIS	1111 .	HI		111	- N	35 · 19 ·
REJECT	1	11	1		11		1	ti .	1	U			15:
EMB_/PRINT MISTAKE	P Cw	960	2111	Service.	) Mg	0	Stall-						(Vr. 10
LABEL DISPLACE		. 3	./	,		0	1 11		11	1	I.		114-
Kowadee	11	11	11	1	17	3		'	11	,			106
Poeket P:	11/	1	11	17	311	2	11	111	1)	(1/	И		25
contas	111/	11	2:1	17	111	N	11	11	if .	11	1		19
TUCK P:	1	11	63	11			31	1	1		11		98
Down Stitch	,	17	/			W		1		-			ALL
with out Poeker	-		_	2	-	¥			15	1			01
TOTAL PASS/CHECK:	10/22	195	2509	232	1900	34	12/30	2000	2365	2435	2935		2150
TOTAL DEFECTIVE GARMENTS	22	18	19	18	15		20	16	20	17	15		180:
TOTAL DEFECTS:	24	20	24	20	17	-434	21	17	121	18	16		196
TOTAL DEFECTS %	1969	9.39%	9.59%	8.77/	8.5%		8.75/	70274	3.92%	+75/	1.44/		9.11
QC SIGNATURE	Harmo	Sm2	Jones	150002	1mol 1	/	Ann.	Am	Sm	BMC	m		

Fig: Line Inspection Report 10

Sewing inspection report of 06-01-2023. Here shows all defect after sewing. Per hour fault are recorded in this sheet and analysis how to reduce those faults by using those data.

### **3.11.2 Data Table 10**

# **Knit Concern Group Hourly DHU REPORT**

Date: 06-01-2023 Order: D00880746 Style: Ten Top Buyer: Pepco Sewing Line: I Floor: KCA

Defects	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	Total
Code											
Open Seam	1	1		2	1	2	1	2		1	11
Broken Stitch	3	2	2	3	2	3	2	1	2	1	21
Skip Stitch	1	1		2	1	2		2	1		10
Uneven Stitch											
Joint Stitch	2	2	2	3	2	3	1	2	1	3	21
Pleet					2	3	1	3	2	1	12
Measure Deviation											
Needle Hole											
Size Mistake											
Dirty Spot											
Oil Mark											
Uncut Thread	4	3	4	3	2	3	4	5	4	3	35
Reject	1	2	1		2	1	2	1	2	1	13
Emb/Print Mistake											
Label Displace											

Rawedge	2	2	2	1	2		1	2	1	2	14
Tuck	4	2	3	2		2	2	2	2	1	19
Point up down											
Pocket problem	2	1	2	1							6
Over Stitch	1	2	2				1			2	8
Box Problem		1						1			2
Contas	3	2	3	2	3	2	3	2	3	2	25
Puckering											
With out Placket				1							1
Button Hole Improper Shade											
Slanted											
Twisting Others											
Total pass/ Check	100/12	195/213	200/219	210/22 8	185/20 0	220/240	200/21	245/265	2	200/215	2150
Total Defective Garments	22	18	19	18	15	20	16	20	17	15	180
Total Defect	24	20	21	20	17	21	17	21	18	16	196
Total Defect %	19.67%	9.39%	9.59%	8.77%	8.5%	8.75%	7.27%	7.92%	7.75%	7.44%	9.11%

$$=(196/2150)*100$$

= 9.11%

1st Highest Defects =Uncut threat 35 pcs

2nd Highest Defects = Contas 25 pcs

3rd Highest Defects = joint Stitch 21 pcs

Total Pieces checked =2150

## 3.12 Attachment of sewing report

### 3.12.1 Line inspection report 11:

This report is the property of KC Group (Knit Concern Group) and collected from KCP floor.

	LINE :	ion .	BUYER:	udl	ORDER #	100 C	STYLE		WING				Revision No: 00
DEFECTS CODE	1st HOUR	2nd HOUR	3rd HOUR	to the same			T SIYLE	D		DATE: 05-	01-23	CHECKED	Turcsolin Novem
OPEN SEAM		23	IIOOK	4th HOUR	5th HOUR	6th HOUR	7th HOUR	8th HOUR	Od men		_		THE TANK THE TANK
BROKEN STITCH		17		11	1111	_	107	odrifook	9th HOUR	10th HOUR	11th HOUR	12th HOUR	TOTAL
SKIP STITCH		1(1)	111	11	1111	-		1	11		-		DEFECTS
UNEVER STITCH	_	4)			1	-	IW	111	10	11	11	-	14
JOINT STITCH	111	7						1		1		11	25
PLEET	11/	1	111	11	11	1						-	7
MEASUR. DAVIATION	-	1		1		3					111	11	10
NEEDLE HOLE	-					0			MARINES NO	1119 11	111	P	15
SIZE MISTAKE	1					DE-						-	
DIRTY SPOT	-			111111111111111111111111111111111111111		1						_	
OIL MARK	-			11		3	-						1
UNCUT THREAD	11	1				8		0					1
REJECT	111		4111	111				les t	Ure				2
EMB./PRINT MISTAKE	-						-	144	4	11	Mi	11	26
LABEL DISPLACE	-	*****					'		113				7
Drowsting up Down	ni	Willow	11 -	14	11. 73	9	VP .	III by al-	1.1				
lole up Down	NID.	1116	1	41	11	1	1	THE GH	11 3	11	11	111	31-
Tuck Problem	1	111)		111	111	0	1//	11	111 9				11.
DOWADO C	1					, 5	1	1	11	111	1	11	31.
others	11	11 //	11		111/	V	117		111	11			5
7.	11 1	11 (	1 '			1	-	-	W Of	11	11	1	4.
Julie 1 - Display		56770						17		11	p	1	10
	10	15/1	M G	00	1.90	601-1116	9 40	2/2	0.4	6		-	
TOTAL PASS/CHECK:	90	TWA.	10 166	1000 ALK	350	7	100	1500	5010	(DA	06 6	00	000
TOTAL DEFECTIVE	M	02	16	-		_	N2	100	10		26 3	00 10	1350
GARMENTS	7	_	10	186	57		137	H	10	13	N7 1	12	178
TOTAL DEFECTS:	16	54	16	00	10)	6	10)	18	2)	15	15	13	196
TOTAL DEFECTS %	21.624	16 00/	11,504	13.5M	12.5%	4	- /	10.78%		1	-	2	The state of the s
LQC SIGNATURE	No	11 30.	11.5	ANISOF	1	patrent) (	13:87		-	1 - 10	0.771	,	12:581.
	1 love	Mary	Moved	Mara	Maile		Mail	Moderal	Moder	Made	Marke	Made	
OHU FORMULA: Total defects for	unt x 100÷Total	garments inspec	ted			,				1	7		
Lind	ſ	1_			~ A/	/				1/			
arg	(6				609				(I)	No Y			

Fig: Line Inspection Report 11

Sewing inspection report of 05-01-2023. Here shows all defect after sewing. Per hour fault are recorded in this sheet and analysis how to reduce those faults by using those data.

### **3.12.2 Data Table 11**

# **Knit Concern Group Hourly DHU REPORT**

Date: 05-01-2023 Order: 4/109C Style: BTM Buyer: Okaidi Sewing Line: F Floor: KCP

Defects Code	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	Total
Open Seam		2		2	3	3	1	2				14
Broken Stitch		4	3	2		4	3	3	2	2	2	25
Skip Stitch		3	1		1		1		1			7
Uneven Stitch												
Joint Stitch	2	1	3	2	2					3	2	15
Pleet												
Measure Deviation												
Needle Hole												
Size Mistake	1											1
Dirty Spot				2								2
Oil Mark												
Uncut Thread	2		4	2		1	5	5	2	3	2	26
Reject						1						1
Emb/Print Mistake												
Label Displace		6	3	5	2	2	3	3	2	2	3	31

Rawedge			2		4	3	1	3	2	1	1	17
Tuck	1					1	1	2				5
Hole up down	5	4		3	3	3	2	3	4	2	2	31
Drawsting Updown	3	1	1	2	2	1	1					11
Others	2	2	1						2	2	1	10
Total pass/	60/74	125/147	140/15	130/14	135/15	120/137	150/16	150/169	150/16	120/133	100/112	1380/15
Check			6	8	2		7		3			58
Total	14	22	16	18	17	17	17	19	13	13	12	178
Defective												
Garments												
Total Defect	16	24	18	20	19	19	18	21	15	15	13	196
Total Defect %	21.62	16.33%	11.54%	13.51	12.5%	13.87%	10.78 %	12.43%	9.20%	9.77%	10.71%	12.58%

= (196/1558) \*100

= 12.58%

1st Highest Defects = Label Displace 31 pcs

2nd Highest Defects = Hole Uptown 31 pcs

3rd Highest Defects = Uncut Thread 26 pcs

Total Pieces checked =1558

## 3.13 Attachment of sewing report

## 3.13.1 Line inspection report 12:

This report is the property of KC Group (Knit Concern Group) and collected from KCP 2 floor.

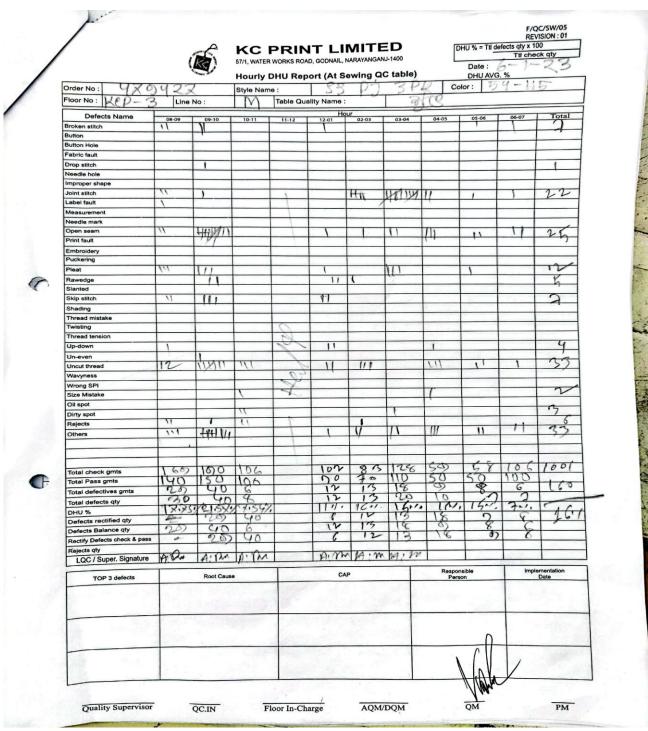


Fig: Line Inspection Report 12

Sewing inspection report of 06-01-2023. Here shows all defect after sewing. Per hour fault are recorded in this sheet and analysis how to reduce those faults by using those data.

#### 3.13.2 Data Table 12

## **Knit Concern Group Hourly DHU REPORT**

Date: 06-01-2023 Order: 479422 Style: SS Pj3PR Buyer: H&M Color: 54-115 Sewing Line: M Floor: KCP 3

Defects	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	Total
Code											
Broken Stitch	2	2			1				1	1	7
Button											
Button Hole											
Fabric Fault											
Drop Stitch		1									1
Needle Hole											
Improper Shade											
Joint Stitch	2	1				4	10	2	1	1	22
Label Fault											
Measurement											
Needle Mark											
Open Seam	2	12			1	1	2	3	2	2	25

Pleat	3	3		1		3		1		12
Rawedge		2		2	1					5
slanted										
Skip Stitch	2	3		2						7
Up-down	1			2			1			4
Up-even										
Uncut Thread	12	7	3	2	3		3	2	1	33
Wavyness										
Wrong SPI										
Size Mistake			1				1			2
Oil Spot										
Dirty Spot			2			1				3
Rejects	2	1	2		1					6
Others	3	8		1	2	2	3	2	2	33
Total Check	169	190	106	102	83	128	59	58	106	1001
Total Pass	140	150	100	90	70	110	50	50	100	
Total Defective Garments	29	40	6	12	13	18	9	8	6	141
Total Defect	30	40	8	12	13	20	10	9	7	149
Total Defect %	17.75%	21.57%	7.54%	11%	16%	15%	11%	15%	7%	16%

=(149/1001)\*100

=16%

1st Highest Defects =Uncut threat 33 pcs

2nd Highest Defects = Others 33 pcs

3rd Highest Defects = Open Stitch 25 pcs

Total Pieces checked =1001

## 3.14 Attachment of sewing report

## 3.14.1 Line inspection report 13:

This report is the property of KC Group (Knit Concern Group) and collected from KCP 3 floor.

	i				JT LI AD, GODNAIL,			ſ	DHU % = Ttl <u>d</u>	RE	QC/SW/05 VISION : 01 00 eck qty
	•							ı	Date :	5-1-	23
Order No : 882	541	,	Style Nam		port (At S		C table)		DHU AVO		
Floor No : KOP_	7 Line	No ·	D Nam		ality Name :	JUK -	101	0	olor:	200	or
Defects Name	3  20			Table Qu			(2)	ON 6Y	h_		
Broken stitch	08-09	09-10	10-11	11-12	12-01	02-03	03-04	04-05	05-06	06-07	Total
Button	-10	110	111	111	11	11,	11 (1	11	1		200
Button Hole							-		-		
Fabric fault											
Drop stitch											
Needle hole Improper shape	-										
Joint stitch							-	_			01
Label fault		1	11	1				1	1		6
Measurement											
Needle mark Open seam											>
Print fault		Í		-	11	11	-	1			-
Embroidery											
Puckering											~
Pleat	,		1	.,			١.	11			25
Rawedge Slanted	1		11	11		-11	-				0
Skip stitch	1	111	11	1			11	1	1	1.1	100
Shading		111	- ' '	'			10				10
Thread mistake											
Twisting										-	$\vdash$
Thread tension Up-down						-					- 6
Un-even Poker	100 10	401.	11	1	11	11	u.	111			120
Uncut thread	144	seet il	1111	IIIPI	111	111		IM	111	11/1	40
Wavyness			//								-
Wrong SPI				-	101		111		-		6
Size Mistake Oil spot	-			-	101		1.0	-			
Dirty spot	1		- 11	111							616
Rejects		1111	10	11			11	"	-		2
Others	-	1	_	11	11	-	PH NO		FII	1	00/
10m	((	-		- 11			4(1)		1		7
					1	4		1000	100	00	Isma
Total check gmts	150	20+	140	162	165	412	100	108	182	100	1696
Total Pass gmts	130	180	120	140	136	150	22	18	8	7	194
Total defectives gmts	20	27	22	23	16	13	23	15	9	8	101
Total defects qty DHU %	14-1	13%	15%	14%	10%	10%	1900	1004	4%	9%	-
Defects rectified qty	1	20	27	20	22	15	10	18	18	107	100
Defects Balance qty	20	27	27	20	32	15	70	22	18	8	14/
Rectify Defects check & pass	-	20	12	-	×4	275	-A	1221	10	1-4	
Rejects qty  LQC / Super. Signature	TITO	- 10 m	W	r Chi	MA.A.	MIN.	- MM	MAIN	MAN	M. M.	•
LQC / Super, Signature	100	HAN	( Pro	1	Ann.	14	10.	Respo		Impl	ementation
TOP 3 defects		Rook Cause	2	100	CAF		undan	Per	1		Date
BROKEN	DIS	MUL	4	OM	11. 11	040	MILE	1	MA .	-	21.00
STITCH			OF	dela	> 464	04	2	0	ace	7.	01.53
UNEUT	TONO	nau	0	DIV	1. C.	्र (व	1001	1	PM	7.0	1.23
THREON	-	विवाग	01	del	7 00	100	-	(N	1 101	+1	
ON EVEN	CASI	160	a 2MT	SY	AV/AV	101	ar	3.	AM	107	.01.53
		VKI (		1					Mala		
						AQM/			- Than		PM

Fig: Line Inspection Report 13

Sewing inspection report of 06-01-2023. Here shows all defect after sewing. Per hour fault are recorded in this sheet and analysis how to reduce those faults by using those data.

#### **3.14.2 Data Table 13**

## **Knit Concern Group Hourly DHU REPORT**

Date: 06-01-2023 Order: 882544 Style: Tank Top Buyer: Pepco Color: Green Sewing Line: P Floor: KCP 3

Defects	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	Total
Code											
Broken Stitch	3	4	3	3	2	3	4	2	1		25
Button											
Button Hole											
Fabric Fault											
Drop Stitch											
Needle Hole											
Improper Shade											
Joint Stitch								1			1
Label Fault	1	1	2	1			1				6
Measurement											
Needle Mark											
Open Seam		1		1	2	2		1			7

Print Fault											
Pleat			1				1	2	1		5
Rawedge	1		2	2	1	2					8
slanted											
Skip Stitch	1	3	2	1			2	1	1	2	13
Up-even Pocket	7	6	2	1	2	2	2	3			25
Uncut Thread	5	7	5	6	3	3		4	3	4	40
Wavyness											
Wrong SPI											
Size Mistake				1	3		2				6
Oil Spot											
Dirty Spot	1		2	3							6
Rejects		4	3	2		1	2	2			14
Others		1						2			3
Tuck	2	1		2	2		10		3	1	21
Total Check	150	207	1.40	162	1.65	112	212	100	100	200	1626
	150	207	140	162	165	112	212	198	190	200	1636
Total Pass	130	180	120	140	150	100	190	180	182	193	
Total Defective Garments	20	27	20	22	15	12	22	18	8	7	
Total Defect	21	28	22	23	16	13	23	19	9	8	182
Total Defect %	14%	13%	15%	14%	10%	12%	11%	10%	4%	4%	11%

$$=(182/1636)*100$$

=11%

1st Highest Defects =Uncut threat 40 pcs

2nd Highest Defects = Broken Stitch 25 pcs

3rd Highest Defects = Uneven Pocket 25 pcs

Total Pieces checked =1636

## 3.15 Attachment of sewing report

## 3.15.1 Line inspection report 14:

This report is the property of KC Group (Knit Concern Group) and collected from KCP 3 floor.

			57/1, WATER	PRIN WORKS ROAM	D, GODNAIL, I	NARAYANGAN	J-1400		HU % = Ttl d	6-1-	23
order No : 2821	- 1111			DHU Rep					DHU AVO		
loor No : Kep 3	Line N		Style Nam		lity Name :	16 1	OP	enu	olor:	10 177	
Defects Name			L	Table Qua	Ho	ur	FLE	- Jun	TIPE	re	
roken stitch	08-09	09-10	10-11	11-12	12-01	02-03	03-04	04-05	05-06	06-07	Total
Sutton		-111	-11	CC	- '			71			25
Button Hole Fabric fault											
Drop stitch							-				
Needle hole											
Improper shape Joint stitch	V		111	111	"	11	,			-	1400
Label fault		1	- (11		11	'	-		(I	11	1
Measurement											
Needle mark Open seam	1					1	1		1		6
Print fault							-	_ '	1		5
Embroidery Puckering				-							
Pleat		1)	1	11	19	11	11	19	et et	1	16
Rawedge					11						
Slanted Skip stitch	111	111	11	111	un	BIL	111	1)	11	11	29
Shading		- "	- "		Will	11.1	111				
Thread mistake Twisting											
Thread tension											
Up-down	-							Louis			
Un-even Uncut thread	1117	1117	(1)	1111	1111	.111	111	11	(11)	118	33
Wavyness	1.11										
Wrong SPI Size Mistake	-	-									
Oil spot				6-	1			1/			4
Dirty spot Rejects		0	1	-	-						34
Others	+-	10	'			1,		1			3
	-										
				162.0		101	100	103	104		1 1 1
Total check gmts Total Pass gmts	154	198	133	190	180	198	100	125	120	100	100
Total defectives gmts	14	16	13	116	20	160	13	12	14	111	1
Total defects qty	15	8%	14	8%	10%	12	14	13 67.	15	1011	198
DHU % Defects rectified qty	-	14	14	73	16	20	(0)	10	13	15	4
Defects Balance qty	14	16	13	110	20	10	13	10	13	13	2.
Rectify Defects check & pass Rejects qty		19	14	13	16	~	(6	103	10	12	-
LQC / Super. Signature	Par	Col	100	(10)	100	(Qu	-	6	-		
TOP 3 defects		Root Caus	10	70	(CA	P	-	Respon	nsible	Imp	lementation
	***	1001		OYA		5100	101/	Pers	on	d.	- 01-22
UNCUT THR	MON.	Megu	Quec	ans	2	-	225	191;		U.S.	1.23
eached str	rey op:	Carel	estre	334	Nov.	NO CO	9 -	RIO, C	: As	9-0	11-23
Skirstne	+ pna	CHEN	EPRO	BINIS	1 20	4818	7 9	00	(1)	03-	01-23

Fig: Line Inspection Report 14

Sewing inspection report of 06-01-2023. Here shows all defect after sewing. Per hour fault are recorded in this sheet and analysis how to reduce those faults by using those data.

#### 3.15.2 Data Table 14

## **Knit Concern Group Hourly DHU REPORT**

Date: 06-01-2023 Order: 882544 Style: Tank Top Buyer: Pepco Color: Green Sewing Line: Q Floor: KCP 3

Defects	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	Total
Code											
Broken Stitch	3	3	2	3	2	2	2	2	2	2	23
Button											
Button Hole											
Fabric Fault											
Drop Stitch											
Needle Hole											
Improper Shade											
Joint Stitch	2	1	3	3	2	2	1	1	1	1	17
Label Fault					2	1			2	2	7
Measurement											
Needle Mark											
Open Seam	1	1				1	1	1	1		6

Print Fault											
Embroidery											
Puckering											
Pleat		2	1	2	2	2	2	2	2	1	16
Skip Stitch	3	3	2	3	5	4	3	2	2	2	29
Uncut Thread	4	3	3	4	4	3	3	2	4	3	33
Wavyness											
Wrong SPI											
Size Mistake											
Oil Spot				1	1		1	1			4
Dirty Spot	1	1	1								3
Rejects	1	2	1								4
Others						1	1	1			3
Tuck											
Total Check	254	196	193	196	200	196	194	192	134	111	1765
Total Pass	140	180	180	180	180	180	181	181	120	100	
Total Defective Garments	14	16	13	16	20	16	13	12	14	11	
Total Defect	15	16	14	17	24	17	14	13	15	12	148
Total Defect %	9.74%	8%	7%	8%	10%	8%	7%	6%	11%	10%	8.38%

DHU% = (Total No of Defect/Total no of Checked Product) \*100

$$=(148/1765)*100$$

=8.38%

1st Highest Defects =Uncut threat 33 pcs

2nd Highest Defects = Skip Stitch 29 pcs

3rd Highest Defects = Broken Stitch 23 pcs

Total Pieces checked =1765

Total Defects =148

# 3.16 Attachment of sewing report

# 3.16.1 Line inspection report 15:

This report is the property of JM Fabrics Ltd. (New Asia Group) and collected from Sewing floor.

			QUALITY	J.M South Nay		ACCIDA	NCE DES	PARTME	NI		L.I.R.)		Γ	JMF QC-	Sew :11		
CUS	TOMER	6	QUALITY	CONTROL	LIND LI		TE	Tt.	1011	123			1	Version N Effective	Date : 01-	11-17	
_	LE No	AUAI	u			-	NE No	•	11				1	Revision	Date : 19.	03.2019	
COL	OR	Black		٢.		1-145	- 11	-1	2								
END	LINE QC (Name)	ROUN	BR	<b>ン</b> 母母を	994	18	04	19 G		Bth. H	9th.H	10th.H	11th.H	12th.H	Total	96	1
	TIME		1st.H	2nd.H	3rd.H	4th.H	5th.H	6th.H	7th.H	62	2000				624	9.7	b
	RECEIVED O DEFECTIVE Po		68	13	9	7	8	9	8	3		7 22		_	61	11	1
Code	1	OPERATION								_				-			1
0	Broken stitch										_						]
1	Print Defect	To see															Į
4	Component Shading					11			1)						06	09	P
6	Pleat	BOTTOM	9   -	- 11		11	-		11								1
7	Fly in (yam)														. 0	-	1
127	Skip Stitch	Chart	11	17	111	1.1.	1)	111	111	1.					19	3.	7
129	Wrong Thread Color	2010	11	(1)	111-					27 = E				-	-	-	1
130	Sharing						1 403	1 192	16			F. 8.	-	-	-		1
133									3		- 8		-	-	-		1
134	fortenstrationalists				2								_	-	14	2	2
135	Uncut Thread	A11 Pro	C.1	11	1.1	11	.1).	11	11	1.			-	-	1.		1
136	Poor Joining	,,,,,				1			-		1		-				1
138	Wrong SPI							1									
139	Wavy 20101	SIDES	5		- T			-	-	1	1						
145	Needle Holes	120.00					)	1		1-110		- 1			06	0	197
176	Open Seam	SIDE	1		11	(1/4)	/				7.7						4
177	Raw Edges		110		-	1 9/1					J	4					4
179	Uneven Top Stitch		24 9 95		-	17		7						-	_	-	4
182	Puckering		110		100	1	IL	L						-	-	-	$\dashv$
191	Scissor Cut			V 92 d	120	17.5	113	*		11: 18				-	4	-	$\dashv$
198	Uneven Leg Open				50		312	I, U						-	-	-	$\dashv$
200	Wrong Bow Position	-	10		5+	1.3			1			-	-	-	-	-	٦
217	Uneven Gathering	7 5	1.13		1.			7	136		-	-		-	-	1	٦
247	Incorrect Label	10.1	FIRI E	1254	1 37	Sent	5 / 2	1- 0		They're	100		-	+			٦
248	Defective Label Raw Edge		115000 125			1	111	1.	1	111.0		1.	-	-	15	12.	٤,
249	Oil Stain	All Body	1.7	1	11.	1	111-	111	1	111		1					E
326	Dirt /Stain	All body			L.								100				
520	Down Stitch		15.04		4	h-ri		1	N IN IN	145		1	e cy	1		-	
_	Measurement OOT	T. HAY			1.02		HII. 2-1	I some	1 - 1 -		-18-5		1	1			
	OTHERS	REject		-	N	12	8	0)	8	7	1				6	19.	7
	TOTAL DEFECTS		6	To	7	200	70	81	44	75					50		*
P/	SSED GARMENTS		54	6.3	71	15	1/-	-	1	1							
	DECFECT %		,	122	de	76	80	2	80	77	1/		13	1/	137	61	
TAKE	N FOR REPAIR/AFTE	R REPAIR PASSED	26	1	1	B	COS.	an.	S CONT	(02)		- 7					
SUP	ERVISOR SIGNATURI	E .		1	1	120	S	1	10	G	4	1		1			
INL	INE QC SIGNATURE		8C	-2	-0	2nd	Highes	Defec		18	-	3rd Hig			, 1	9	
-	lighest 3 Defect	GUIP	671Ch	19		Pcs's x 100	1	510	IV.	10	1 4	NC		e Pcs's 9		1	_

Fig: Line Inspection Report 15

Sewing inspection report of 04-01-2023. Here shows all defect after sewing. Per hour fault are recorded in this sheet and analysis how to reduce those faults by using those data.

### **3.16.2 Data Table 15**

# JM Fabrics Ltd. Hourly DHU REPORT

Date: 04-01-2023

Order:

Style: A4A1U

Buyer: GYMSHARK

Sewing Line: 11

Floor: 2nd

Defects	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	Total
Code											
Open Seam			2	1	1	1		2			6
Broken Stitch											
Skip Stitch	2	3	3	2	2	3	3	1			19
Uneven Stitch											
Joint Stitch											
Pleet	1	1		2			2				6
Measure Deviation											
Needle Hole											
Size Mistake											
Dirty Spot											
Oil Mark	2	1	2	1	3	3	1				15
Uncut Thread	1	2	2	2	2	2	1				14
Reject											

Emb/Print										
Mistake										
Label Displace										
Rawedge										
Tuck										
Point up down										
Down Stitch										
Puckering										
Button										
Button Hole										
Improper Shade										
Slanted										
Twisting										
Others										
Total Check	60	70	80	80	80	90	82	82		624
Total Pass	54	63	71	73	72	81	74	75		563
Total Defective Garments	6	7	9	7	8	9	8	7		61
Total Defect	6	7	9	7	8	9	8	7		61
Total Defect %	10%	10%	11.25%	8.75%	10%	10%	9.75%	8.53%		9.8%

DHU% = (Total No of Defect/Total no of Checked Product) \*100

$$= (61/624) *100$$

=9.8%

1st Highest Defects =Skip Stitch 19 pcs

2nd Highest Defects = Oil Mark 15 pcs

3rd Highest Defects = Uncut Tread 14

Total Pieces checked =624

Total Defects =61

# 3.17 Attachment of sewing report

# 3.17.1 Line inspection report 16:

This report is the property of LM Fabrics Ltd (New Asia Group) and collected from Sewing floor.

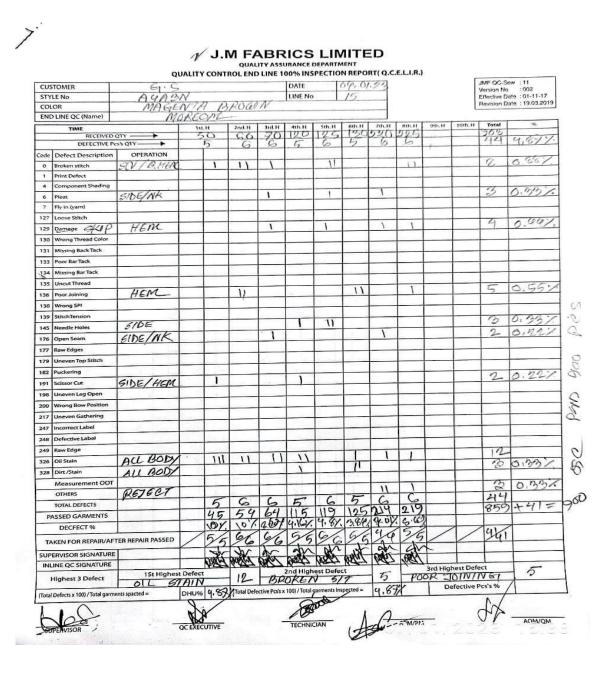


Fig: Line Inspection Report 16

Sewing inspection report of 04-01-2023. Here shows all defect after sewing. Per hour fault are recorded in this sheet and analysis how to reduce those faults by using those data.

### **3.17.2 Data Table**

# JM Fabrics Ltd. Hourly DHU REPORT

Date: 04-01-2023

Order:

Style: A4A3N

Buyer: GYMSHARK Sewing Line: 15

Floor: 2nd

Defects	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	Total
Code											
Open Seam			1				1				2
Broken Stitch	1	2	1		2			2			8
Skip Stitch			1		1		1				3
Uneven Stitch											
Joint Stitch											
Pleet			1		1		1				3
Poor Joining		2				2		1			5
Needle Hole				1	2						3
Size Mistake											
Dirty Spot				1		2					3
Oil Mark	3	2	2	2		1	1	1			12
Uncut Thread											

Reject							2	1		3
Emb/Print										
Mistake										
Label Displace										
Rawedge										
Tuck										
Point up down										
Down Stitch										
Puckering										
Scissor Cut	1			1						2
Button Hole										
Improper Shade										
Slanted										
Twisting										
Others										
Total Check	50	60	70	120	125	130	220	225		1,000
Total Pass	45	54	64	115	119	125	214	219		859
Total Defective Garments	5	6	6	5	6	5	6	6		44
Total Defect	5	6	6	5	6	5	6	6		45
Total Defect %	10%	10%	8.57%	4.16%	4.17%	3.8%	2.7%	2.7%		4.5%

DHU% = (Total No of Defect/Total no of Checked Product) \*100

1st Highest Defects =Oil Mark 12 pcs

2nd Highest Defects = Broken Stitch 5 pcs

3rd Highest Defects = Poor joining 5

Total Pieces checked =1,000

Total Defects =45

# 3.18 Attachment of sewing report

## 3.18.1 Line inspection report 17:

This report is the property of JM Fabrics Ltd. (New Asia Group) and collected from Sewing floor.

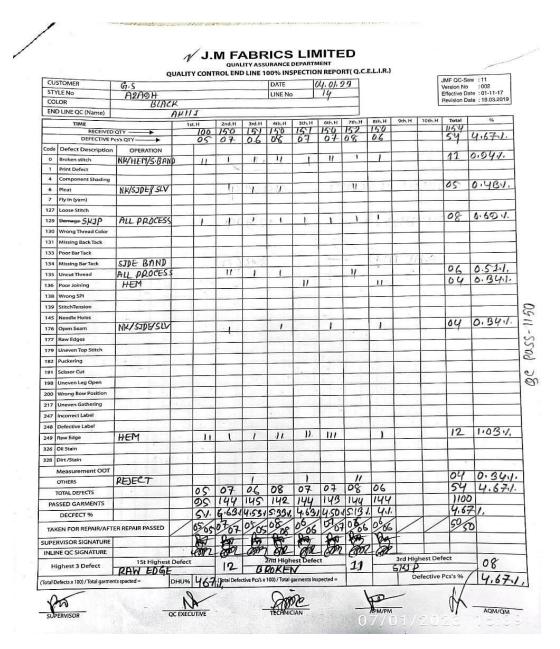


Fig: Line Inspection Report 17

## **3.18.2 Data Table**

# JM Fabrics Ltd. Hourly DHU REPORT

Date: 04-01-2023

Order:

Style: A2A9H

Buyer: GYMSHARK Sewing Line: 14

Floor: 2nd

Defects	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	Total
Code											
Open Seam		1		1		1		1			4
Broken Stitch	2	1	1	2	1	2	1	1			11
Skip Stitch	1	1	1	1	1	1	1	1			8
Uneven Stitch											
Joint Stitch											
Pleet		1	1	1			2				5
Poor Joining					2			2			4
Needle Hole											
Size Mistake											
Dirty Spot											
Oil Mark											
Uncut Thread	2	1	1			2					6
Reject			1		1		2				4
Emb/Print Mistake											
Label Displace											

Raw edge	2	1	1	2	2	3		1		12
Tuck										
Point up down										
Down Stitch										
Puckering										
Scissor Cut										
Button Hole										
Improper Shade										
Slanted										
Twisting										
Others										
Total Check	100	150	151	150	151	150	152	150		1,154
Total Pass	95	144	145	142	144	143	144	144		1,100
Total Defective Garments	5	7	6	8	7	7	8	6		54
Total Defect	5	7	6	8	7	7	8	6		54
Total Defect %	5%	4.67%	3.98%	5.33%	4.63%	4.50%	5.26%	4%		4.67%

DHU% = (Total No of Defect/Total no of Checked Product) \*100

1st Highest Defects =Raw edge 12 pcs

2nd Highest Defects = Broken Stitch 4 pcs

3rd Highest Defects = Skip Stitch 8

Total Pieces checked =1,154

Total Defects =54

# 3.19 Attachment of sewing report

# 3.19.1 Line inspection report 18:

This report is the property of JM Fabrics Ltd. (New Asia Group) and collected from Sewing floor.

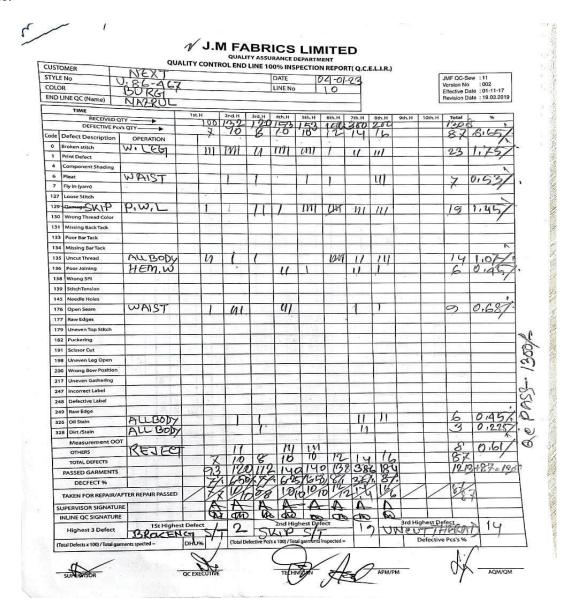


Fig: Line Inspection Report 18

## **3.19.2 Data Table**

# JM Fabrics Ltd. Hourly DHU REPORT

Date: 04-01-2023

Order:

Style: U.86-467 Buyer: NEXT Sewing Line: 10 Floor: 2nd

Defects	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	Total
Code											
Open Seam	1	3		3		1	1				9
Broken Stitch	3	4	2	4	4	1	2	3			23
Skip Stitch	1		2	1	4	5	3	3			19
Uneven Stitch											
Joint Stitch											
Pleat		1	1		1	1		3			7
Poor Joining				2	1		2	1			6
Needle Hole											
Size Mistake											
Dirty Spot		2		3	3						8
Oil Mark		1	1		2	2					6
Uncut Thread	2	1	1			5	2	3			14
Reject		2		3	3						8
Emb/Print Mistake											
Label Displace											

Raw edge										
Tuck										
Point up down										
Down Stitch										
Puckering										
Scissor Cut										
Button Hole										
Improper Shade										
Slanted										
Twisting										
Others										
Total Check	100	132	120	153	153	150	420	200		1,308
Total Pass	33	120	112	140	140	138	386	184		1,253
Total Defective Garments	7	10	8	10	10	12	14	16		87
Total Defect	7	10	8	10	10	12	14	16		87
Total Defect %	7%	7.5%	6.67%	6.5%	7.2%	8%	3.3%	8.6%		6.65%

DHU% = (Total No of Defect/Total no of Checked Product) \*100

1st Highest Defects =Broken Stitch 23 pcs

2nd Highest Defects = Skip Stitch 19 pcs

3rd Highest Defects = Uncut Thread 14 pcs

Total Pieces checked =1,308

Total Defects =87

# 3.20 Attachment of sewing report

# 3.20.1 Line inspection report 19:

This report is the property of JM Fabrics Ltd. (New Asia Group) and collected from Sewing floor.



Fig: Line Inspection Report 19

## **3.20.2 Data Table**

# JM Fabrics Ltd. Hourly DHU REPORT

Date: 04-01-2023

Order:

Style: U86512 Buyer: NEXT Sewing Line: 13 Floor: 2nd

Defects	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	Total
Code											
Open Seam				2							2
Broken Stitch	1		2				3	5			22
Skip Stitch	3	2	2		3	2	2	2			16
Uneven Stitch	1		1		2						4
Joint Stitch											
Pleat	1			1				2			4
Poor Joining											
Needle Hole											
Size Mistake											
Dirty Spot		1				1					2
Oil Mark		2				1	3				6
Uncut Thread		2			3						5
Reject		1		2		2					5
Emb/Print Mistake											
Label Displace											

Raw edge										
Tuck										
Point up down										
Down Stitch										
Puckering										
Scissor Cut										
Sharing				4	1	2		3		10
Improper Shade										
Slanted										
Twisting										
Others										
Total Check	100	101	100	102	100	200	202	228		1,133
Total Pass	5	92	96	92	93	194	192	214		1,068
Total Defective Garments	5	9	4	10	7	6	10	14		65
Total Defect	5	9	4	10	7	6	10	14		65
Total Defect %	5%	8.9%	4%	9.8%	7%	3%	4.95%	4.4%		5.8%

DHU% = (Total No of Defect/Total no of Checked Product) \*100 = (65/1,133) \*100 %

1st Highest Defects =Skip Stitch 16 pcs

2nd Highest Defects = Broken Stitch 11 pcs

3rd Highest Defects = Sharing 10

Total Pieces checked =1,133

Total Defects =65

# 3.21 Attachment of sewing report

# 3.21.1 Line inspection report 20:

This report is the property of JM Fabrics Ltd. (New Asia Group) and collected from Sewing floor.

			OUALI	TY CO			SSURANC E 100% II			ORT(O.	C.E.L.I.R	.)			
CUS	STOMER	G.S	QUAL	11 CO	VINOLE	ND LIN	DATE		04.0			353		JMF QC-	Sew :11
	LE No	ALASX	_				LINE		12					Version N Effective	Date : 01-11-1
COI	_OR	BLACIL					12							Revision	Date : 19.03.2
END	D LINE QC (Name)	SABIHA	50	1/1	NH										,
	TIME		15	1st.H	2nd.l	1 3rd.			6th, H		8th.H	9th.H	10th.H	Total 251	96
_	RECEIVED DEFECTIVE		+	740	_	_	70	60	40	20	1			10	4.07
Code	Defect Description			T		1	- 2	-							S CONTRACTOR
0	Broken stitch	ANTP	1	_			1							1	0.49
1	Print Defect	11.7.1													- 1
4	Component Shading														1.0
6	Pleat	AN/TA					1							1	0.49
7	Fly in (yarn)	1		15											-
127	Loose Stitch														
129	Damage									,				-	
130	Wrong Thread Color	R						-					-		
131	Missing Back Tack								-15					-	
133	Poor Bar Tack		_				_							-	
134	Missing Bar Tack	242.0	-		1	13				-	-		-	-	
135	Uncut Thread	ALL Process	,								-			-	
136	Poor Joining		-		1	100									
138	Wrong SPI				1	1		-				1000	1		
139	StitchTension		-				100		Get 1		-	-			
145	Needle Holes		-	-	-	4		-					1))		
-	Open Seam			-	1		17.5				-				
-	Raw Edges				16.0		1 11						= 0	-	
	Uneven Top Stitch	- SAN 1 (A)	above 1	-0	-	-	1			77		-	3 /		
	Puckering			1961	1		1	5					1		
	Scissor Cut		7	1 S. P. II			1								
-	Uneven Leg Open	September 1		-						10					
	Wrong Bow Position  Uneven Gathering		A COLUMN		1		1			-	-		100		
	ncorrect Label	100				-				100	100				
350	Defective Label		11.72	100 10		10.00									
77.55	Raw Edge	- WH.			Tree.			1027		10,00	100				
		All Body	-	3			13.75	1	- 11	1				5	2.8
	Dirt /Stain	ALL BODY	11	1 7	1	15 36	11	11		Ra DX	77			3	1.49
	Measurement OOT	1,000	1	1		100				7			13		,
_	OTHERS	Rescet	1	7-7	1		/	1	3	1	160				
	OTAL DEFECTS	1-47	Y	7.15	72,	/	3	3	2	4	1			10	4.97
	SED GARMENTS	COLUMN TO THE	(=		14.	1	67	57	38	19	10			191	+10=
	DECFECT %	MARKET TO STATE OF			7.5		4.28	50	51	50	9.09				
		ED DEDAID DASSED	-/	1	. /	/	03/	03/2	2	01	02		/	100	
19772	EN FOR REPAIR/AFT	EN REPAIR PASSED	1.	/	/		103	103	102	182	104	_	/	720	
2.540.002.000	VISOR SIGNATURE		A	* 1		(90)	you	LAN.	M	yes	amy	_			
INLIN	E QC SIGNATURE				100		ffm()	Marc	April	HE	100	3rd Highe	et Dof		
Hig	hest 3 Defect	1St Highest	Defect	S. P. S.	5	Din	2nd Hight		E	3		LeM			1
	fects x 100) / Total garmen		OHU%				100) / Total g		one en	10	10,10		ective Po		4.9

Fig: Line Inspection Report 20

## **3.21.2 Data Table**

# JM Fabrics Ltd. Hourly DHU REPORT

Date: 04-01-2023

Order:

Style: U86512 Buyer: NEXT Sewing Line: 13 Floor: 2nd

Defects	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	Total
Code											
Open Seam											1
Broken Stitch				1							
Skip Stitch											
Uneven Stitch											
Joint Stitch											
Pleat				1							1
Poor Joining											
Needle Hole											
Size Mistake											
Dirty Spot				1	2						3
Oil Mark					1	2	1	1			5
Uncut Thread											
Reject											
Emb/Print Mistake											
Label Displace											

Raw edge								
Tuck								
Point up down								
Down Stitch								
Puckering								
Scissor Cut								
Sharing								
Improper Shade								
Slanted								
Twisting								
Others								
Total Check		 70	60	40	20	11		201
Total Pass		67	57	38	19	10		191
Total Defective Garments		3	3	2	1	1		10
Total Defect		3	3	2	1	1		
Total Defect %		4.3%	5%	5%	5%	9.09%		4.77%

DHU% = (Total No of Defect/Total no of Checked Product) \*100 = (10/201) \*100 %

=4.77 %

1st Highest Defects =Oil Mark 5 pcs

2nd Highest Defects = Dirty Spot 3 pcs

3rd Highest Defects = broken Stitch 1

Total Pieces checked =201

Total Defects =10

# Chapter 4 Result and Discussion

## 4.1 Result with chart

Line inspection reports" are taken from Knit Concern group and JM Fabrics Ltd. From this report we came to know about defect percentage with production hours. But the chart is made to identify which defect is most in that product on a specific day. It's noted that all the defects are not included. Only most occurred defects are mentioned.

# **4.2 Sewing Garment Inspection Report (Knit Concern Group)**

Report No./ Checked Pieces	Report 1	Report 2	Report 3	Report 4	Report 5	Report 6	Report 7	Report 8	Report 9	Report 10	Report 11	Report 12	Report 13	Report 14	Total	Defect (%)
Defects	1122	1866	1651	883	1997	1155	1804	1967	794	2150	1558	1001	1636	1765	21349	8.83%
Broken stitch	11	4	6	1	19	12	26	10	7	21	25	7	25	23	197	10.45%
Pleat	2	2	2		9	24	5	8	8	12		12	5	16	105	5.57%
Open seam	5	4		8	9	12	4		4	11	14	25		6	102	5.41%
Point up down		14		2		2									18	0.95%
Reject		4	4	9	13	6	9	5	3	13	1	6	14	4	91	4.83%
Puckering	2	12													14	0.74%
Uneven stitch	5			24		28	7		10						74	3.93%
Needle Hole			6												6	0.32%
Skip stitch	4	15		8	11	3	24	9	3	10	7	7	13	29	143	7.59%
Raw Edge	8	14	13	16	15	7	10	16	5	14	17	5	8		148	7.85%
Oil mark	12						8	37	7					4	68	3.61%
Joint Stitch		12	10	3	21	11	10		12	21	15	22	1	17	155	8.22%
Uncut thread	28	37	78	39	41	41	32	40	20	35	26	33	40	33	523	27.75%
Dirty spot	3	34	9	30		23	14	1	3		2	3	6	3	131	6.95%
Other		31	23	7							10	33	3	3	110	5.84%
Total	80	152	128	140	138	169	149	126	82	137	107	120	112	135	1885	100%

# **4.3 Sewing Garment Inspection Report (JM Fabrics Ltd.)**

Report No./ Checked .pcs	Report1	Report2	Report3	Report4	Report5	Report 6	Total	Defect (%)
Defects	624	1,000	1,154	1,308	1,133	201	5,420	6.07%
Broken stitch		8	11	23	22		64	19.45%
Pleat	6	3	5	7	4	1	26	7.90%
Open seam	6	2	4	9	2	1	24	7.29%
Reject		3	4	8	5		20	6.08%
Uneven stitch					4		4	1.22%
Poor Joining		5	4	6			15	4.56%
Skip stitch	19	3	8	19	16		65	19.76%
Raw Edge			12				12	3.65%
Oil mark	15	12		6	6	5	44	13.37%
Uncut thread	14		6	14	5		39	11.85%
Dirty spot		3		8	2	3	16	4.86%
Total	60	39	54	100	66	10	329	100%

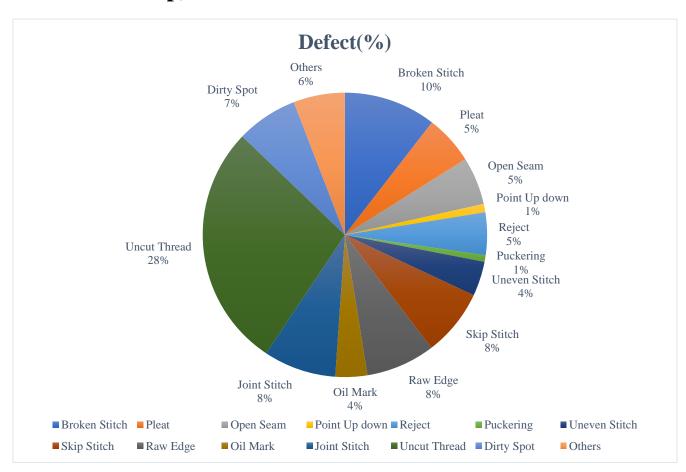
# **4.4 Intensity Wise Defect (Knit Concern Group)**

Defects	Percentage	
Uncut Thread	27.75%	
Broken Stitch	10.45%	
Joint Stitch	8.22%	
Raw Edge	7.85%	
Skip Stitch	7.59%	
Dirty Spot	6.95%	
Others	5.84%	
Pleat	5.57%	
Open Seam	5.41%	
Reject	4.83%	
Uneven Stitch	3.93%	
Oil Mark	3.61%	
Point Updown	0.955%	
Puckering	0.74%	
Needle Hole	0.32%	
Total	100%	

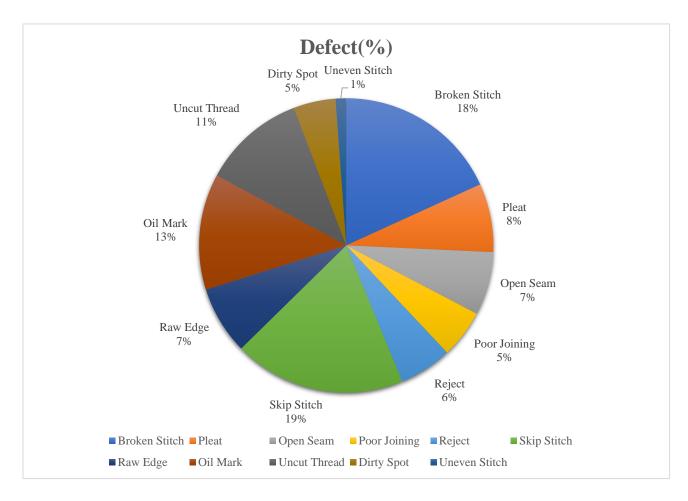
# 4.5 Intensity Wise Defect (JM Fabrics Ltd)

Defects	Percentage
Skip Stitch	19.76%
Broken Stitch	19.45%
Oil Mark	13.37%
Uncut Thread	11.85%
Pleat	7.90%
Open Seam	7.29%
Reject	6.08%
Dirty Spot	4.86%
Poor Joining	4.56%
Uneven Stitch	1.22%
Total	100%

# **4.6 Sewing Garments inspection report as Pie chart 1 (Knit Concern Group)**



# **4.7** Sewing Garments inspection report as Pie chart 2 (JM Fabrics Ltd.)



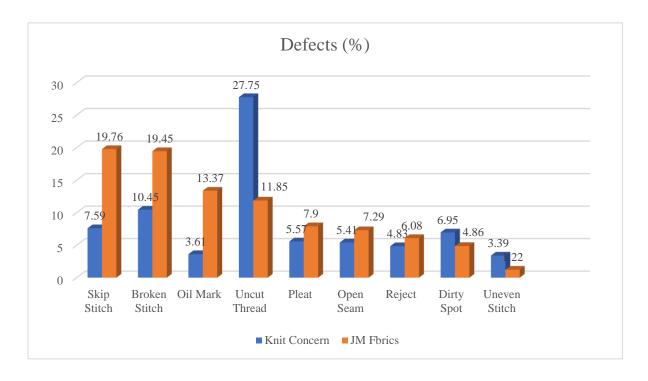
## 4.8 Description of Pie Charts

These pie charts are showing visual presentation of defect percentage from Knit Concern Group and JM Fabrics Ltd From chart 1 and 2 we get a visual idea about amounts of defects. It should be mentioned that pie chart is showing full number as percentage, not frictional number.

On first pie chart from Knit Concern Group, Here we can see uncut thread was first according to occurred defects and it was 28% among all defects. Then broken stitch is in second place with around 10% of defects. Skip Stitch, Joint Stitch and raw edge were almost same by percentage of 8%. After that we have seen dirty spot were about 7% of total defects. Pleat ,Open seam and reject were 5% of total defects. Uneven Stitch and Oil mark were 4% of total defects. There were 1% of Puckering. And others defects were 6% of total amount.

On second chart, from JM Fabrics Ltd. We can see Skip Stitch was most in percentage about 19% of total defects. Broken Stitch was around 18% and second in place. Then we had Oil mark that was about 13% of Total defect amount. Uncut Thread is in top list with 11% of defects. Pleat was 8% of total defects. Open Seam and Raw edge were equally 7% of Total defects. Among all defects reject were 6%. Dirty spot and poor joining was about 5%. Around 1% of defects were uneven stitch

# **4.9 Comparative Defect Chart**



#### **Broken Stitch:** (10.45% in Knit Concern Group & 19.45% in JM Fabrics Ltd.)

In the event that any lines are broken after sewing, it is referred to as a broken line.





Fig: Broken Stitch

#### **Causes:**

- i. This sort of flaw is happened as a result of lower quality thread
- ii. High string pressure during sewing
- iii. Poor Garments washing process Seam failure.
- iv. Uneven Washing process.
- v. This type of faults is occurred because of low quality thread.
- vi. High thread tension.
- vii. Garments Washing process.
- viii. Seam failure.
- ix. It appears due to improper trimming or machine usage.

#### **Remedies:**

- i. Needle plate, presser foot and feed dog should be checked periodically for damages.
- ii. Tension and threading should not be fiddled with much.
- iii. Proper trimming.
- iv. Make sure the nature of sewing thread
- v. Make sure the sewing thread quality.
- vi. Make sure better sewing Process
- vii. Monitoring the washing procedure, process durations, and temperatures to ensure they are impeccable with the goal that the most ideal article of clothing quality can be achieved.

#### **Skip Stitch:** (7.59% in Knit Concern Group & 19.45% in JM Fabrics Ltd.)

They occur when the machine's bobbin or circled cannot place the circle in the needle string. Lock line machine prompts used for shoe fastening produce a hole in the crease and a hideous appearance in the top sewing. Therefore, the defect is characterized as a skipped line when a fastener hole or missing line develops.





Fig: Skip Stitch

#### **Causes:**

- i. It appears due to improper handling of cut pieces or machine usage.
- ii. Improper sewing strain in the needle.
- iii. Failure of needle to enter circle at legitimate time.
- iv. Deflection of needle or twisted needle.
- v. Thread circle disappointment because of broken needle size for string size.
- vi. Failure of hook or looper and needle to enter loop at correct time.
- vii. Irregular thread tension on upper or lower loop.
- viii. If needle thread loop size is too small.
- ix. When flagging of fabrics is happened during sewing.

#### **Remedies:**

- i. Placing of needle properly.
- ii. Needle size & thread size must be adjusted.
- iii. The pressure of pressure foot must be adjusted accurately.

- iv. Check the needles is embedded and adjusted correctly.
- v. Proper machine freedom and timings
- vi. Replace the needle
- vii. Re altering the string tension
- viii. Examine the setting and timing between needle and hook or lopper.
- ix. The tension of thread should be adjusted.
- x. Needle size and thread should be adjusted.

#### Oil Mark: (3.61% in Knit Concern Group & 13.37% in JM Fabrics Ltd.)

When an oil stain appears on a fabric's surface, it contains both oil and wax. The machine oil that is used in machines is where it mostly happens.





Fig: Oil Spot

#### **Causes:**

If wax and oil are transferred from the sewing machine to the surface of the garment, an oil stain will result. It creates a terrible spot image on the surface of the clothes items.

#### **Remedies:**

A special spray called "Spot lifter" is used to remove oil stains from cloth. A device known as a "spot cleaning machine" first sprays on the spot before blowing air on it.

#### Joint Stitch: (8.22% in Knit Concern Group)

When joining two pieces of fabric or stitching a hem, there should be a stitch point where the sewing begins and ends. Joint stitch faults are when this joint point is not uniform.





Fig: Joint Stitch

#### **Causes:**

- i. For the lack of experience or concentration of worker.
- ii. Sometime for the machine problem.

#### **Remedies:**

- i. Seam is open and sewing again correctly.
- ii. If machine measurement problem, then solve it.

### Open Seam: (5.41% in Knit Concern Group & 7.29% in JM Fabrics Ltd.)

The term "open seam" refers to a seam line that has gaps in it, has lost its thread, or both. It's one of the most prevalent sewing flaws.





Fig: Open Seam

#### **Causes:**

- i. Improper handling of the parts of garments.
- ii. Improper setting and timing between needle and looper or hook.
- iii. Needle diversion during sewing.
- iv. Thread circle disappointment during sewing.
- v. Incorrect sewing strain in the needle during sewing.
- vi. Flagging of texture because of poor control of presser foot.
- vii. It's basically mechanical problem.
- viii. Failure of needle to enter loop.
- ix. Needle deflection.

#### **Remedies:**

- i. Clear markings for stitch line.
- ii. Proper setting and timing between needle and looper or hook.
- iii. Tension should be quantifiable.
- iv. Check needles is inserted and aligned correctly Replace the needle.
- v. Re adjusts the thread tension.
- vi. Reset to standard and check loop formation through jog mechanism.
- vii. Re adjusts presser foot pressure.
- viii. Check needles is embedded and adjusted effectively supplant the needle.
- ix. Re altering the string pressure before sewing.
- x. Reset to standard and check circle arrangement through run mechanism Re alters presser foot weight before sewing.

#### **Raw Edge:** (7.85% in Knit Concern Group & 3.65% in JM Fabrics Ltd.)

Raw edge problem is a problem that occurs when unexpected elements of the clothing from the sewing region are visible.



Fig: Raw edge

#### **Causes:**

i. Due to the employee's inexperience or lack of focus.

#### **Remedies:**

- ii. The unexpected section is precisely removed.
- iii. Restart stitching after opening and clearing the seam.

#### Uneven Stitch: (3.93% in Knit Concern Group & 1.22% in JM Fabrics Ltd.)

Uneven stitch is referred to as any seam line that is not straight, any two lines of stitching that are not parallel, or any seam where the real measurements are lacking.

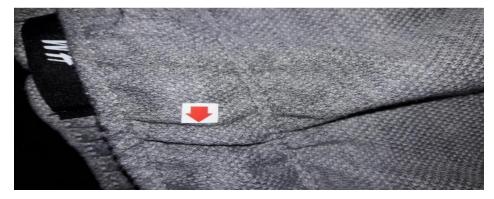


Fig: Uneven Stitch

#### **Causes:**

- i. For the lack of experience or concentration of worker.
- ii. Sometime for the machine problem.

#### **Remedies:**

- i. Seam is open and sewing again correctly.
- ii. If machine measurement problem, then solve it.

#### **Seam Puckering:**

Puckering is the appearance of wrinkles along a crease line in a texture that is ideal. It is one of the flaws that frequently occurs. Puckering makes it appear as if there is an excessive amount of cloth and not enough string in the crease and as if the string is drawing the crease in. This is the reason why sewing thread is frequently blamed for puckering, albeit there are other causes for puckering's publicization as well.

Puckering may be seen after the sewing is complete, although some instances may appear after the garment has been washed or ironed. It is commonly believed that stitching on a textile always results in some degree of fabric mutilation or puckering. Texture from fake strands typically exhibits up puckering. A puckering is a common sewing issue that has been thoroughly investigated by scientists, who have identified 5 causes. When a seam gathers either immediately after sewing or after laundering, it creates an unattractive seam appearance.



Fig: Seam Puckering

#### **Causes:**

- i. Uneven stretching on to plies of fabric during sewing.
- ii. Improper thread tension.
- iii. Uneven extending on to utilizes of texture during sewing.
- iv. Wrong string tension.
- v. Wrong choice of sewing thread.
- vi. Dimensional flimsiness of the employs of texture.
- vii. Extension of sewing thread.
- viii. Fabric construction.
- ix. Mismatched patterns.
- x. Sewing threads shrinkage.
- xi. Fabric dimensional instability.
- xii. Variable an uneven stretch on fabric.

#### **Remedies:**

- i. Feed dog, eyelets and thread guides should be checked periodically for damages.
- ii. Machine feed mechanism must be better quality.
- iii. Feed canine, eyelets and string aides ought to be checked periodically.
- iv. Worker training.
- v. Tension, SPI and presser foot weight ought not to be tinkered with more.
- vi. Needle, string, texture blend ought to be well judged.
- vii. Properly select the sewing string.
- viii. Proper feed mechanism should be used with equal ply stretch.
- ix. Fabric shrinkage property must be almost equal.
- x. Fabric and sewing thread shrinkage% should be equal.
- xi. Using less tension to the thread.

Chapter 5

Conclusion

A report, combination of twenty DHU report is not enough to find out all the defects. As this study has been done in two different industries so we are hopeful about these two industries. We have listed some common defects those are regular in both industries. At Knit Concern Group we have found Uncut Thread 27.75%, Broken Stitch 10.45% Joint Stitch 8.22%, Raw Edge 7.85%, Skip Stitch 7.59%, Dirty Spot 6.95%, Others 5.84%, Pleat 5.57%, Open Seam 5.41%, Reject4.83%, Uneven Stitch3.93%, Oil Mar k 3.61%, Point Up down 0.955%, Puckering 0.74% and Needle Hole 0.32%. Report collected from JM Fabrics Ltd. Showed defect percentage following amount Skip Stitch 19.76% Broken Stitch 19.45%, Oil Mark 13.37%, Uncut Thread 11.85%, Pleat 7.90%, Open Seam 7.29%, Reject 6.08%, Dirty Spot 4.86%, Poor Joining 4.56% and Uneven Stitch 1.22%.

Most of these defects are solvable by doing the process twice or well set up of machines. Some are critical and not solvable. These garments are considered as reject item. Most of the time we have seen uncut thread is present, it's easily solvable while on quality inspection table. Skip stitches go through re-process. It's very common, have oil and dirty spot. In this study we focused on defects percentage. Most amounts of defects per hundred checked garments are considered as most occurred defects. This study is not an overall guide for all types of knit items. We had some basic items like t-shirt, hoodie and pants. To ensure best quality these defects must be taken seriously for some basic knit garments item. Finally, with many limitations this study is presenting some sewing defects from Knit Concern Group and JM Fabrics Ltd.

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