

Faculty of Engineering

Department of Textile Engineering

REPORTON

"Study on quality problem in polo shirt production with

their remedies"

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Submitted By

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A thesis submitted in partial fulfillment of the requirements for the degree of

Bachelor of Science in Textile Engineering

Advance in Apparel Manufacturing Technology

Fall - 2019



DECLARATION

I hereby declare that the work which is being presented in this thesis entitled, "Study on Quality Problem in Knit Garments Production with their remedies" is original work of us, has not been presented for a degree of any other university and all the resource of materials uses for this thesis have been duly acknowledged.

Name: ID: Signature

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This is to certify that the above declaration made by the candidates is correct to the best of my knowledge.



Faculty of Engineering

Department of Textile Engineering

Approval Sheet

This research entitled "Study on quality problem in polo shirt production with their remedies" **'at Daffodil International University, December 2019**" prepared and submitted by **Md. Mominur Islam "ID:163-23-4798"** in partial fulfillment of the requirement for the degree of BACHELOR OF SCIENCE IN TEXTILE ENGINEERING has been examined and hereby recommended for approval and acceptance.

Md. Abdullah Al Mamun

Assistant Professor Supervisor

"ACKNOWLEDGEMENT"

At first would like to express my deep appreciation to Allah for providing the opportunity to complete our thesis on study on "Study on Quality Problem in Knit Garments Production with their remedies"

I would like to thank the management of the Alim Knit (BD) Ltd. For giving us the opportunity to perform the thesis Quality Problem in Knit Garments Production with their remedies successfully and also their valuable suggestions, I have gratitude the Chairman, Managing directors, General Manager, Production manager, Administration manager who gave us scope collecting information in the factory as well as for giving scope to work in their respective section.

Finally, I must express our very profound gratitude to my parents for providing us with unfailing support and continuous encouragement throughout our years of study and through the process of researching and writing this project. This accomplishment would not have been possible without them. Thank you.

ABSTRACT

Quality is defined as the level of acknowledgment of a not bad or services. Because the textile and garments industry, product quality is calculated in terms of quality and value of fibers, yarns, fabric construction, color fastness, designs and the final finished garments. In our country various garments factory follow various quality control and administration systems especially different view systems for garment inspection. This project contains the quality control of a garments industry. The aim of the thesis is to explicate Quality Problem in Knit Garments Production. The relating to truth part of the project provides basic information about quality, Quality Problem in Knit Garments Production. It also give some fact about various faults during ideal and bulk production in sampling section, cutting section, sewing section and finishing section. If I want to keep up quality in every turn of production then I should need to know about quality parameters, quality problem, their causes and remedy. So, I am tried to recount about it in composition review. In my pilot details I have displayed some data table and graph on the basis of review of various faults. Then I have observed about the total result. It is found in mu study that the main problem found in polo shirt production is uneven four point (22%) followed by Down stitch (15%), Label Mistake(13%), Open seam (12.5%), Broken Stitch(10%), Dirty/Oil Spot (8%). Now-a-days buyers are very much quality conscious. If I confirm high quality review system then buyer will be voluntary and more quality product can be possible to produce. For the growth of RMG sector, I should need to introduce modern quality inspection system and quality administration techniques.

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CHAPTER-1: INTRODUCTION

1.1 Background of the Study:

The primary step of a student in professional life is project, particularly in technical side. A successfully effective processing technology of a manufactured unit is an essential part of study for a student. In my university, technology machines are not in continuous going condition, so it would only provide accomplishment of mechanical features & processing technology of the material in accomplishment of the theory but not of the situational variables to achieve practical knowledge.

It is significant to keep up a level of quality for every industry or business to get grown sales and good name amongst consumers and fellow companies. Particularly for the business employed in export business has to sustain a high level of quality to ensure better business globally. Companies who are between export business hold the power of the country, and due to this usually quality control value for export are set strictly. It becomes charge to have good quality control of their production as export houses win alien exchange for the country. In the garment industry quality control is practiced right from the initial stage of sourcing raw materials to the stage of final finished garment.

A thesis paper is known as a research paper that provides sufficient information about particular topics. My thesis paper contains Quality Problem in Knit Garments Production with their remedies"

Quality has been with us seen the dawn of civilization. Quality is one of the most important factors in Textile sector. So quality control is required to make quality full products in this competitive world market. It is important to maintain quality in textile sector as well as garments production. So I have selected this topic. Therefore, a study was carried out in the garment industry named Alim Knit (BD) Ltd. Bangladesh at sample section, cutting section, sewing section, finishing section to identify faults so as to eliminate them for maintaining quality and improving product quality.

1.2 Objectives of the Study:

Objective of this study are given below:

- To enhance the quality of garments product
- To know about the reasons of defects
- ➢ To Performance technical solution
- > To know which fault can be extremely occur in garments.
- > To place the faults that are arrive in various section of a garments industry
- > To rise skill and productivity
- > To find out the sewing defects and their causes.
- > To find out the finishing defects and their causes.
- ➢ To abate the sewing defects.
- > To abate the finishing defects.

1.3 Significance of the Study

Every study has some significance. Some significance of this study is given below:

- > During my internship I have picked up applied knowledge about quality Problem.
- Beside this I have informed about various types of faults
- From this report I can fix which step should be taken or should not be taken on the basis of faults.
- > It helps us to learn various fault occur daily in sampling, cutting, sewing, finishing.

1.4 Limitations:

During my thesis period I have faced some problem. Those are given below:

- ▶ I can't compile all data due to some limitation.
- Except permit of over rebel I can't fetch whatever essential papers.
- Some section however following aged QC system.
- > Time was further a limitation.
- Concourse fact during working was a cold steel job.

CHAPTER-2: LITERATURE REVIEW

2.1Quality

Quality is defined as the level of admission of a good or service. It is a very necessary need for any kind of product. All products should sustain the value quality level. In this 21st century of globalization plaza are proper one after another complicated that's why each industry are frontal a high level of emulation for their business. So the product must make the buyer necessity. For this reason every product should sustain the quality level. For the textile industry and apparel manufacturing industry, product quality is calculated in word of quality norm of fiber, yarn, fabric construction, color fastness, design and the ultimate finished garment. Nowadays customer are very much quality aware. If it is probable to keep up a high Quality system of inspection policy, the buyers shall be motivated and more quality products can be made. All appreciated the term "Quality" but it is hard to define. Quality note the full form and feature of a product trust on customers' prospect of performance and permanence of that product. Quality alters from people to people as their preferences. Quality is the unanimous label of acceptance of any product between the two parties. User's satisfaction is the ultimate object of the garments quality. According to the International Organization for Standardization (ISO) –

"Quality is the fulfillment of the specified requirements for a product or service".

2.2 Importance of Quality

Governing quality is final for businesses. Quality products help to sustain buyer gratifition and attachment and reduce the danger and cost of replacing defecting goods. Companies can set up repute for quality by being accreditation with an acknowledged quality standard, such as ISO 9001, published by the International Organization for Standardization. The product must satisfy the consumer in terms of beauty, attractiveness, taste, shape, design & longevity etc. depending on the type of product.

2.3Quality Control

Consistent Quality control is the operational techniques and operation that are used to complete requirements for quality. Quality control can be defined as the checking, confirmation and regulation of degree of nobility of a quality or wealth of any. Quality is not like the abloom a Flower that it blooms without cause and all the colors of petals comes from with-in and at last

the aroma expansion in the trouble to draw everyone. Garments Quality will not come automatically till and if not it is systemized. To earn Quality in Garments everybody has to be Quality Conscious and at the same time peoples at various levels should know the Tools and Techniques for Controlling and earn Quality of Garments. Some Quality should be limited by Formats, Some by numbers, some by aesthetic eye, whatever with injunction, some with general sense and some with limitation.

Satisfactory quality can only be ensured through:

- Knowledgeable the customer need.
- \succ Scheming to meet them.
- Perfect construction.
- Certified representation and security.
- Clear indication manual.
- Compatible packaging.

Satisfaction quality can be ensured from the customer's point of view by providing:

- \succ Right product.
- Right quality.
- \succ Right time.
- ➤ Undamaged condition.

To ensure the quality level of a garment we need to observe some specific sector

- > Nothing Fault in fabric.
- Shade becoming of the garments.
- Making the pattern as per customer requirement.
- All the various parts of the garment should have the faithful size.
- Batter stitching, seam form should be perfect.
- More goods such as button, zipper, tag, level is in right position.
- Packing and packaging.

2.3.1 Objective of Quality Control

- > To reduce per unit cost of a product
- > To utilize the raw materials, men, machines
 - > To gain customer satisfaction by reducing faults.
 - > To identify different types of faults during Inspection

2.4Acceptable Quality Level (AQL)

AQL is one of the most repeatedly used terms when it comes to quality in the garments export industry. As most of the acknowledgment decisions of the apparel shipments for the export market are made on the basis of AQL. AQL means admissible Quality Level. In any business process, before accepting the finished goods from the manufacturer buyer do inspection of goods. It is so much important in export garment sector. Foreign buyers are so much concerned about product quality. They give AQL on the product to the manufacturer. Buyers do inspection of goods as randomly process. If AQL pass that means goods are in acceptable quality level he gives certificate to ship the goods. The AQL level varies process to process, product to product and even buyer to buyer. In the following table a sampling plan is given for final shipment inspection. Acceptance Quality Level (AQL) refers to the maximum number of defective items that could be considered accepted during the random sampling of and inspection. The defects that are found during inspection are classified into 3 categories:

- Critical: Must be 100% accurate. There is no range.
- ▶ Major: Normally 2.5%
- Minor: Normally 4%

Footwea	ar Industry	Standard	Final Inspe	ection Sam	pling Plan	(Normal)						
			Accepta	ble Quality	aulity Level (AQL) Level							
Lot Size or Quantity Audited	1	1.5 2.5			4	1	6	.5				
	Inspect	Accept	Inspect	Accept	Inspect	Accept	Inspect	Accept				
Less than 150	20	1	20	1	20	2	20	3				
151 - 280	32	1	32	2	32	3	32	5				
281-500	50	2	50	3	50	5	50	7				
501 - 1,200	80	3	80	5	80	7	80	10				
1,201 - 3,200	125	5	125	7	125	10	125	14				
3,201 - 10,000	200	7	200	10	200	14	200	21				
10,001 - 35,000	315	10	315	14	315	21	315	21				
35,001 - 150,000	500	14	500	21	500	21	500	21				
150,001 - 500,000	800	21	800	21	800	21	800	21				
500,001&Over	1250	21	1250	21	1250	21	1250	21				

Table 2.4.1: AQL

2.5Quality Assurance

Quality affirmation (QA) is a method for anticipating mix-ups or deserts in made items and dodging issues while conveying arrangements or administrations to clients; which ISO 9000 characterizes as "a major aspect of value the board concentrated on giving certainty that quality prerequisites will be satisfied".

2.5.1Process Flow Chart of Quality Assurance Department

Accessories check ↓ Fabric inspection Ţ Shade segregation ↓ Shrinkage test ↓ Size set check ↓ Marker check ↓ Spreading quality assurance ↓ Cutting quality assurance ↓ Hard pattern check ↓ Pre-production meeting ↓ General instruction Ţ Inspector layout

↓ In process audit ↓ Two time process check Ţ Two time machine check Ţ Two time accessories check ↓ Weekly in process summary Ţ 100% in line process check ↓ Sewing final check Ţ Hourly final audit with measurement Ţ Finishing 100% check Ţ Button pulls check Ţ Hourly final audit Ţ Broken needle check ↓ Accessories compliance ↓ Every final audit ↓ Pre-final inspection ↓

9

Ready for final inspection

Ţ

Shipment

2.5.2Working Sequence of Quality Section

Sample comments follow-up measurement Ţ Pattern grading ↓ Pattern through to cutting section ↓ Fabric inspection (GSM, color shade etc.) ↓ Fabric Ok Ţ Lay check ↓ Print check ↓ Line check ↓ Sewing output check ↓ After remove if have \downarrow Finishing(ironing) Ţ Main check (size measurement) ↓

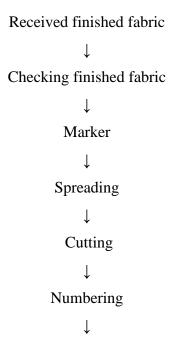
Size wise measurement ↓ Get up checking ↓ 4 point measurement ↓ Packing

2.6Quality Control in Garments Production

There are different strides of Garments preparations where in-process review and quality control are finished. Primarily three areas are notice underneath

- Quality control in sewing section
- Quality control in finishing section.

2.6.1 Flow Chart of Garments Quality Control



Checking ↓ Bounding \downarrow Cutting quality audit \downarrow Input \downarrow Impost measurement checking ↓ Table inspection ↓ Alter/Rectification ↓ Sewing quality audit ↓ Iron Ţ Impost checking for finishing ↓ Quality audit for workmanship ↓ Basic measurement check ↓ Folding ↓ Poly/Hangar ↓ Metal detector checking ↓ Carton

↓ Carton quality audit

Internal final Inspection

2.6.2Types of Quality Section:

In my project work we had worked how to control quality of garments production in

- Sewing section
- ➢ Finishing section.

2.7 Sewing:

Sewing segment is the most imperative bureau of an article of clothing fabricating industry. Sewing machines of various sorts are orchestrated as a vertical line to gather the articles of clothing. Succession of sorts of sewing machine plan relies upon grouping of amassing tasks. After get the pieces of clothing segments from cutting area, every one of the articles of clothing parts are joined and sewing as successively. Clearly every one of the segments are sewn regards on purchaser prerequisite.



Fig 2.1: Sewing section

2.8Garment finishing of Quality:

Comprises of a progression of completing tasks performed in the article of clothing to enhance its style, handle and practical properties. The handling tasks can be either or both mechanical and synthetic in nature, which are performed in sewed pieces of clothing as single or clump. A few completing procedures connected to the texture can be connected to made pieces of clothing. Be that as it may, strength machines are required for article of clothing completing tasks. Likewise, a large number of the completing activities may not be conservative to perform in piece of clothing structure. Subsequently, it is basic to finish the completing activities in texture frame except if there are one of a kind highlights that must be included the article of clothing structure or fuse of any usefulness to the piece of clothing.



Fig: 2.2. Garment finishing department

The term 'garment finishing' was a buzzword for the process in the denim industry; now the term has been extended to a range of ready-made garments such as shirts, Sewat -shirts, trousers.

2.8.1 Process Flow Chart of Garment Finishing:

Finishing input (style, color & size wise) ↓ Initial quality check ↓ Spot Removing ↓ Ironing/Pressing ↓ Inspection ↓ Hang tag Ţ Get up change ↓ Folding \downarrow Poly Ţ Bar code (buyer wise sticker) Ţ Metal check Ţ Cartooning/Packaging Ţ Final inspection_by buyer

CHAPTER-3: METHODOLOGY

I have worked at Alim Knit (BD) Ltd. in sewing segment and completing segment and discover the diverse imperfection which was happened in sewing and completing area for various reasons for pieces of clothing creation. Subsequent to discovering the deformities and their causes I examine how to fathom the imperfections and how to control the nature of the articles of clothing. In beneath we have given distinctive information in the table of the industrial facility and portray how we can keep up the nature of the articles of clothing.

3.1: Sewing Garment Inspection Report:

DAY 1:

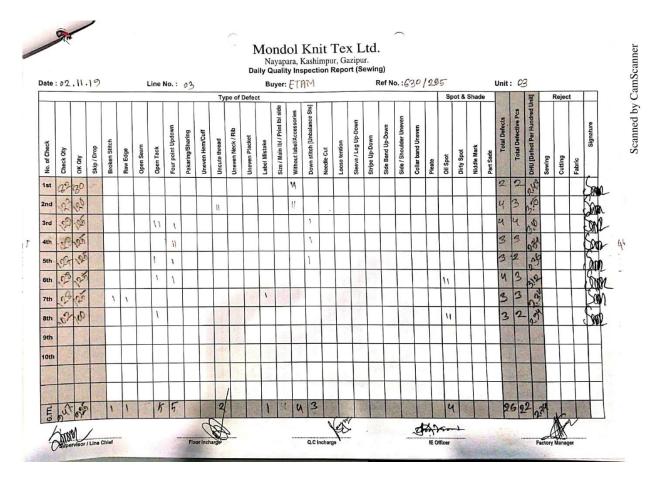
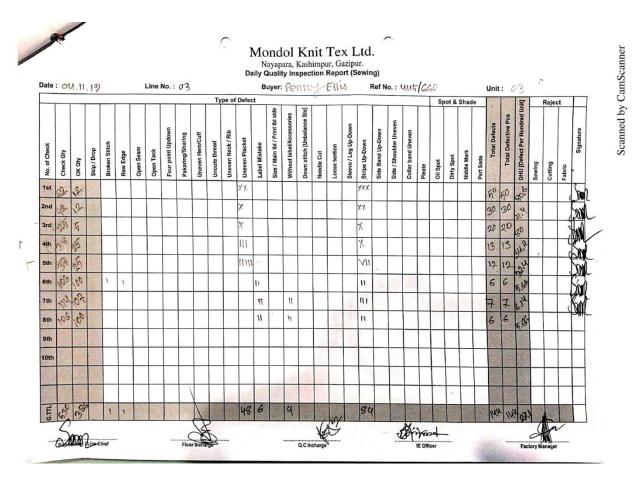


Fig 3.1: Alim Knit (BD) Production Data (Day 1)

Date: 02.11.19	Line No: 03	3	Buyer: ETAM			Ref No:	630/23	Unit: 03		
No. Of Check		1st	2nd	3rd	4th	5th	6th	7th	8th	G.TTL
Check Qty		82	123	129	128	127	128	128	102	947
Ok Qty		80	120	125	125	125	125	125	100	925
Broken Stitch								1		1
Raw Edge								1		1
Open Tack				2		1	1		1	5

Four point updown			1	2	1	1			5
Uncute		2							2
Label Mistake							1		1
Without label/Accessories	2	2							4
Down Stitch(Unbalance Sts)			1	1	1				3
Oil Spot						2		2	4
Total Defects	2	4	4	3	3	4	3	3	26
Total Defective Pcs	2	3	4	3	2	3	3	2	22
DHU (Defect Per Hundred	2.43	3.25	3.10	2.34	2.36	3.12	2.3	2.9	2.74
Unit)							4	4	
Signature									

DAY 2:



	-	-		-	-	-	-		
No. Of Check	1st	2nd	3rd	4th	5th	6th	7th	8th	G.TTL
Check Qty	62	42	25	38	37	106	114	106	530
Ok Qty	12	12	5	25	25	100	107	100	386
Broken Stitch						1			1
Raw Edge						1			1
Uneven Placket	20	10	10	3	5				48
Label Mistake						2	2	2	6
Without label/Accessories							2	2	4
Stripe Up-Down	30	20	10	10	7	2	3	2	84
Total Defects	50	30	20	13	12	6	7	6	144
Total Defective Pcs	50	30	20	13	12	6	7	6	144
DHU(Defect Per Hundred Unit)	80.6	71.4	80	34.2	32.4	5.66	6.14	5.66	27.1
Signature									

Fig 3.2: Sewing Hourly Production Data (Day 2)

Ref No: 445/660

Unit: 03

Buyer: Perry Ellis

Line No: 03

Date: 04.11.19



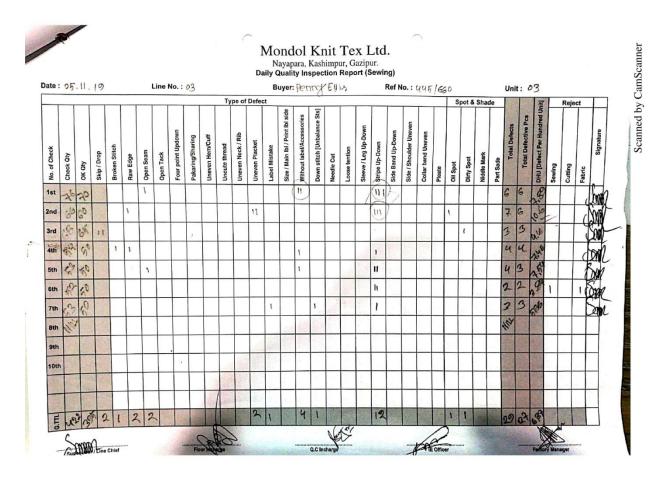


Fig 3.3: Sewing Hourly Production Data (Day-3)

Date: 05.11.19	Line No: 03		Buyer: I	Perry Ell	is	Ref	No: 445	5/660	Uni	t: 03
No. Of Check		1st	2nd	3rd	4th	5th	6th	7th	8th	G.TTL
Check Qty		76	66	68	54	53	52	53	NILL	422
Ok Qty		70	60	65	50	50	50	50		395
Skip/ Drop				2						2
Broken Stitch					1					1
Raw Edge			1		1					2
Open Seam		1				1				2
Uneven Placket			2							2

Label Mistake			1	1

Without label/Accessories	2			1	1				4
Down stitch (Unbalance Sts)							1		1
Stripe Up-Down	3	3		1	2	2	1		12
Oil Spot		1							1
Dirty spot			1						1
Total Defects	6	7	3	4	4	2	3	NILL	29
Total Defects Pcs	6	6	3	4	3	2	3		27
DHU (Defects Per Hundred Unit)	7.89	10.6	4.41	7.46	7.54	3.84	5.66		6.87
Sewing						1			
Fabric						1			
Signature									

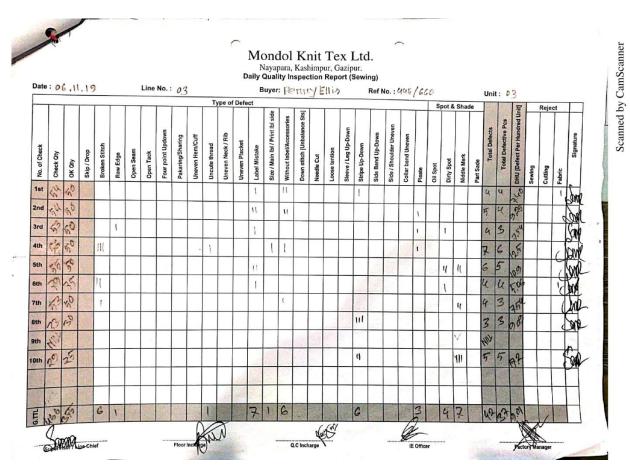


Fig 3.4: Sewing Hourly Production Data (Day-4)

Date: 06.11.19 Line	No: 03	В	uyer: P	erry El	lis	Ref	No: 4	45/66	0	Unit: 0	3
No. Of Check	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	G.T
											TL
Check Qty	54	54	53	56	55	79	53	33	Nill	29	466
Ok Qty	50	50	50	50	50	75	50	30		25	430
Broken stitch				3		2	1				6
Raw Edge			1								1
Uncute				1							1
Label Mistake	1	2	1		2	1					7
Size/ Main Ibl/ Print Ibl				1							1

side											
Without label/Accessories	2	2		1			1				6
Stripe Up-Down	1							3		2	6
Pleate		1	1	1							3
Dirty spot			1		2	1					4
Niddle Mark					2		2			3	7
Total Defects	4	5	4	7	6	4	4	3	Nill	5	42
Total Defective Pcs	4	4	3	6	5	4	3	3		5	37
DHU (Defect Per Hundred	7.4	9.2	7.5	12.	10.	5.0	7.5	9.0		17.2	9.01
Unit)	0	5	4	5	9	6	4	9			
Fabric	1										
Signature											



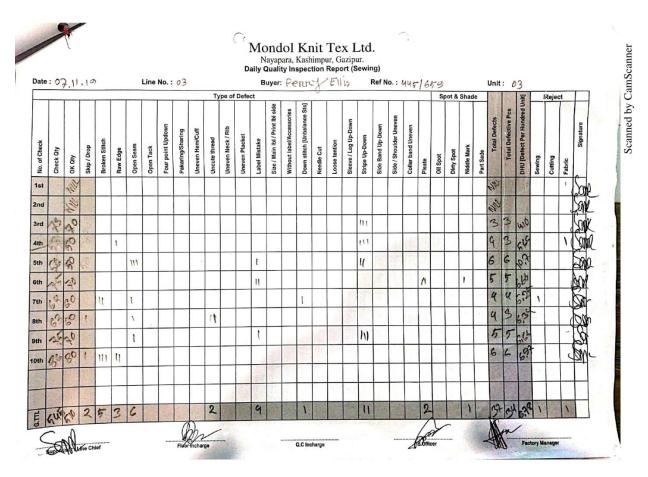


Fig 3.5: Sewing Hourly Production Data (Day-5)

Date: 07.11.19	Line No: 02 Puwer: Ed	nry Ellic Pot No. 145/650	Linit. 02
Date. 07.11.19	LITE NO. USDUYEL FE	erry EllisRef No: 445/659	Unit. 05

No. Of Check	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	G.TTL
Check Qty			73	53	56	75	64	63	75	86	545
Ok Qty	Nill	Nill	70	50	50	70	60	60	70	80	510
Skip/ Drop								1		1	2
Broken Stitch							2			3	5
Raw Edge				1						2	3
Open Seam					3		1	1	1		6
Uncute thread								2			2
Label Mistake					1	2			1		4

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Down stitch							1				1
Stripe Up-Down			3	3	2				3		11
Pleate						2					2
Niddle Mark						1					1
Total Defects	Nil	Nil	3	4	6	5	4	4	5	6	37
Total Defective Pcs			3	3	6	5	4	3	5	6	34
DHU			4.10	5.66	10.7	6.66	5.25	6.34	6.66	6.97	6.78
Sewing							1				1
Fabric				1							1
Signature											



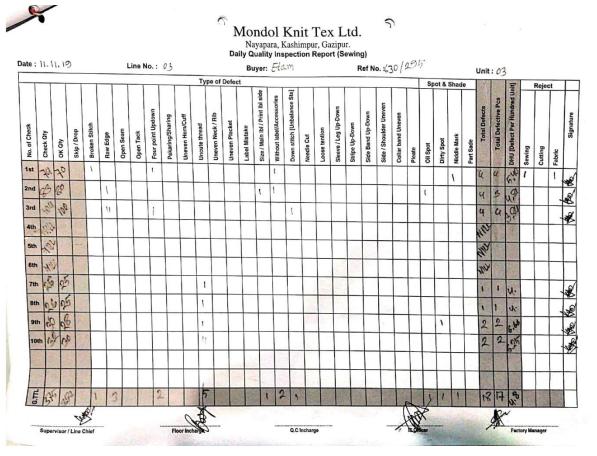


Fig 3.6: Sewing Hourly Production Data (Day-6)

Date: 11.11.19	Line No: 03		Buyer: Etam			Ref No: 630/295				Unit: 03	
No. Of Check	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	G.TTL
Check Qty	74	83	104	Nill	Nill	Nill	26	26	30	32	375
Ok Qty	70	60	100				25	25	28	30	352
Broken Stitch	1										1
Raw Edge		1	2								3
Four point updown	1		1								2
Uncute thread							1	1	1	2	5
Size/ Main, print Ibl		1									1
Without label/	1	1									2

Scanned by CamScanner

Access											
Down stitch			1								1
Oil Spot		1									1
Dirty spot									1		1
Niddle mark	1										1
Total Defects	4	4	4	Nill	Nill	Nill	1	1	2	2	18
Total Defective Pcs	4	3	4				1	1	2	2	17
DHU	5.40	4.81	3.84				4	4	6.66	6.25	4.8
Sewing	1										
Fabric	1										
Signature											

DAY 7:

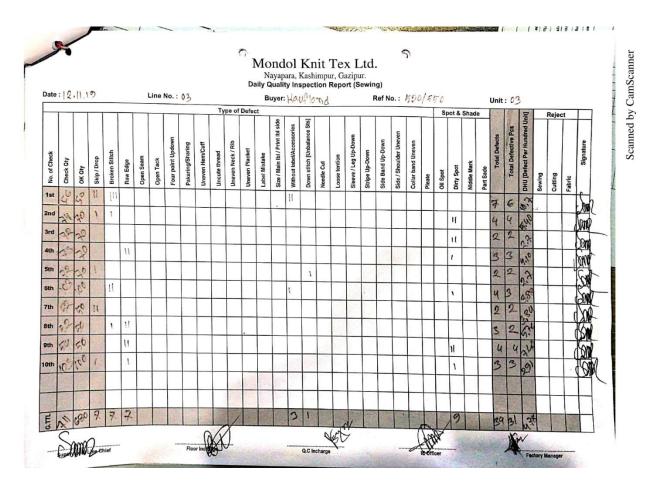


Fig 3.7: Sewing Hourly Production Data (Day-7)

Date: 12.11.19	Line No:	ne No:		Buyer: Kaufland				o: 590	Unit: 03		
No. Of Check	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	G.TTL
Check Qty	56	74	72	73	72	103	52	52	54	125	711
Ok Qty	50	70	70	70	70	100	50	50	50	100	630
Skip/ Drop	2	1			1		2			1	7
Broken Stitch	3	1				2		1			7
Raw Edge				2				2	2	1	7
Without	2					1					3
label/Accessories											
Down stitch					1						1

Dirty spot		2	2	1		1			2	1	9
Total Defects	7	4	2	3	2	4	2	3	4	3	34
Total Defective Pcs	6	4	2	3	2	3	2	2	4	3	31
DHU	10.7	5.40	2.7	4.10	2.7	3.88	3.84	5.76	7.40	2.91	4.78
Signature											

DAY 8:

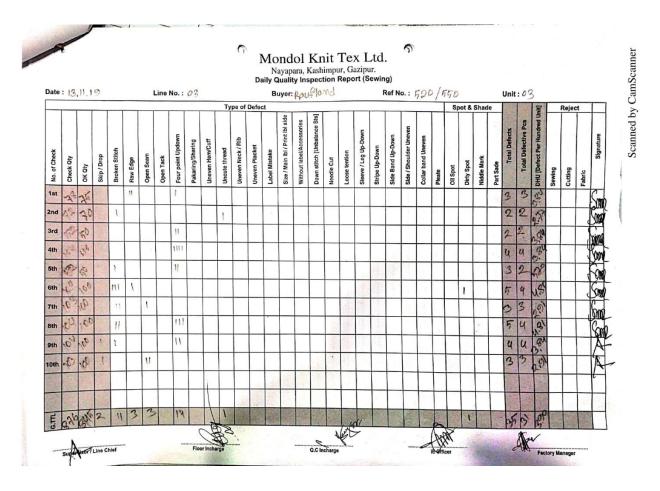


Fig 3.8: Sewing Hourly Production Data (Day-8)

Date: 13.11.19 Line No: 03

Buyer: Rauflant

Ref No: 520/550 Unit: 03

No. Of Check	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	D.TTL
Check Qty	78	72	52	104	52	104	103	104	104	103	876
Ok Qty	75	70	50	100	50	100	100	100	100	100	845
Skip/ Drop									1	1	2
Broken Stitch		1			1	3	2	2	1		11
Raw Edge	2					1					3
Open seam							1			2	3
Four point updown	1		2	3	2			3	2		14
Uncute threat		1									1
Dirty spot						1					1
Total Defects	3	2	2	4	3	5	3	5	4	3	35
Total Defective Pcs	3	2	2	4	2	4	3	4	4	3	31
DHU	3.34	2.77	3.84	3.34	5.79	4.80	2.91	4.81	3.84	2.91	3.99
Signature											

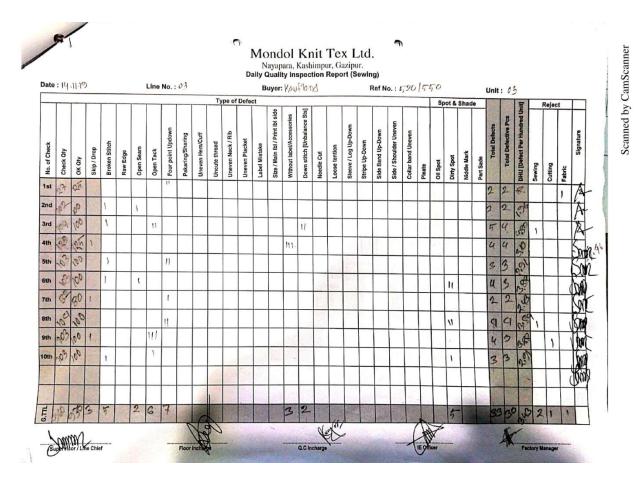


Fig 3.9: Sewing Hourly Production Data (Day-9)

Date: 14.11.19	Line No:	Line No: 03		yer: Ka	ufland		Ref N	No: 520	Unit: 03		
No. Of Check	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	D.TTL
Check Qty	27	102	104	129	103	103	82	104	103	103	960
Ok Qty	25	100	100	125	100	100	80	100	100	100	930
Skip/Drop				1			1		1		3
Broken Stitch		1	1		1	1				1	5
Open Seam		1				1					2
Open Tack			2						3	1	6
Four point updown	2				2		1	2			7
Without				3							3

label/Accessories											
Down stitch			2								2
Dirty spot						2		2		1	5
Total Defects	2	2	5	4	3	4	2	4	4	3	33
Total Defective Pcs	2	2	4	4	3	3	2	4	3	3	30
DHU	8	1.96	4.80	3.10	2.91	3.88	2.43	3.84	3.88	2.91	3.43
Sewing			1					1			2
Cutting									1		1
Fabric	1										1
Signature											

DAY 10:

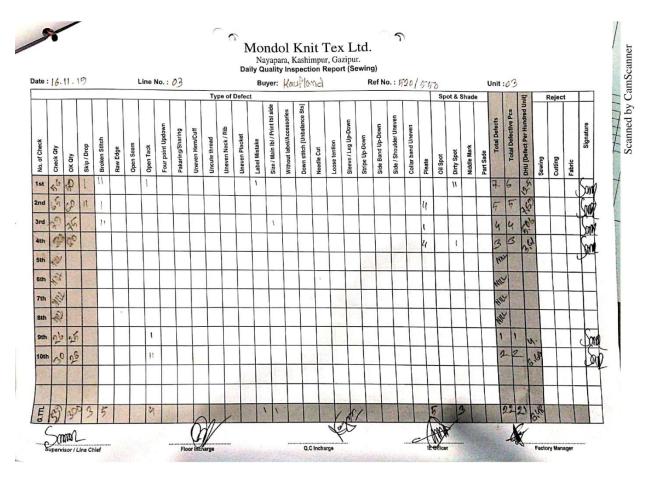


Fig3.10: Sewing Hourly Production Data (Day-10)

Date:	16	11	19
Date.	TO.	· エ エ .	19

Buyer: Kaufland

Ref No: 520/550

Unit: 03

No. Of Check	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	G.TTL
Check Qty	56	65	79	33	Nill	Nill	Nill	Nill	26	30	339
Ok Qty	50	60	75	30					25	26	300
Skip/ Drop	1	2									3
Broken stitch	2	1	2								5
Open Tack	1								1	2	4
Label mistake	1										1
Size, main/print lbl side			1								1
Pleate		2	1	2							5
Dirty spot	2			1							3
Total Defects	7	5	4	3	Nill	Nill	Nill	Nill	1	2	22
Total Defective Pcs	6	5	4	3					1	2	21
DHU	12.5	7.59	5.06	3.61					4	6.60	6.48
Signature											

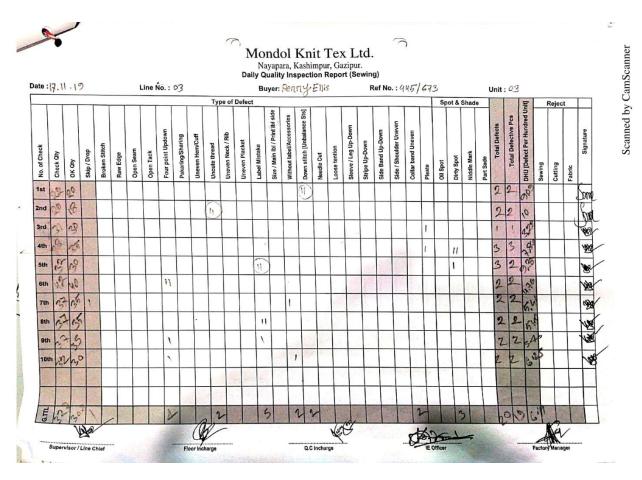


Fig 3.11: Sewing Hourly Production Data (Day-11)

Date: 17.11.19	Line No	Line No: 03		Buyer: Perry Ellis				: 445/6	Unit: 03		
No. Of Check	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	G.TTL
Check Qty	22	20	31	28	32	42	37	37	37	32	327
Ok Qty	20	18	30	35	30	40	35	35	35	30	308
Skip/ Drop							1				1
Four point updown						2			1	1	4
Uncute		2									2
Label Mistake					2			2	1		5
Without							1			1	2
label/Accessories											

Down stitch	2										2
Pleate			1	1							2
Dirty spot				2	1						3
Total Defect	2	2	1	3	3	2	2	2	2	2	20
Total Defective Pcs	2	2	1	3	2	2	2	2	2	2	19
DHU	9.09	10	3.29	7.84	9.35	4.76	5.41	5.40	5.40	6.25	6.11
Signature											

DAY 12:

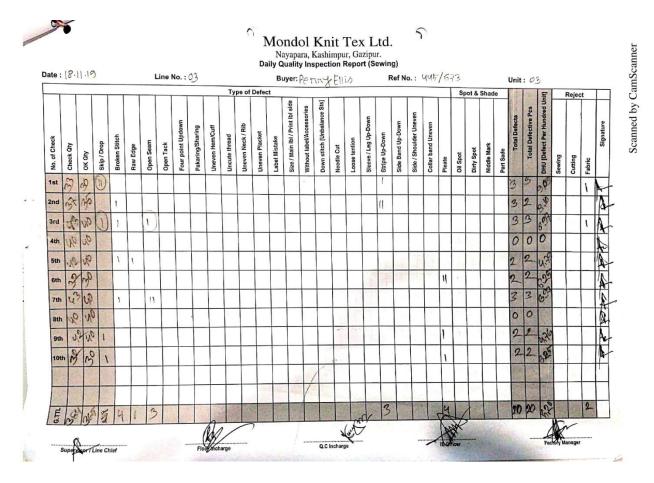


Fig 3.12: Sewing Hourly Production Data (Day-12)

Ref No: 445/673 Unit: 03

No. Of Check	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	G.TTL
Check Qty	33	37	43	40	42	32	43	40	42	32	384
Ok Qty	30	35	40	40	40	30	40	40	40	30	365
Skip/ Drop	2		1							1	4
Broken Stitch		1	1		1		1				4
Raw Edge					1						1
Open seam			1				2				3
Stripe up-Down	1	2									3
Pleate						2			1	1	4
Total Defects	3	3	3	0	2	2	3	0	2	2	20
Total Defective Pcs	3	3	3	0	2	2	3	0	2	2	20
DHU	9.09	8.10	6.97	0	4.79	6.25	6.97	0	4.76	6.25	5.20
Fabric	1		1								2
Signature											

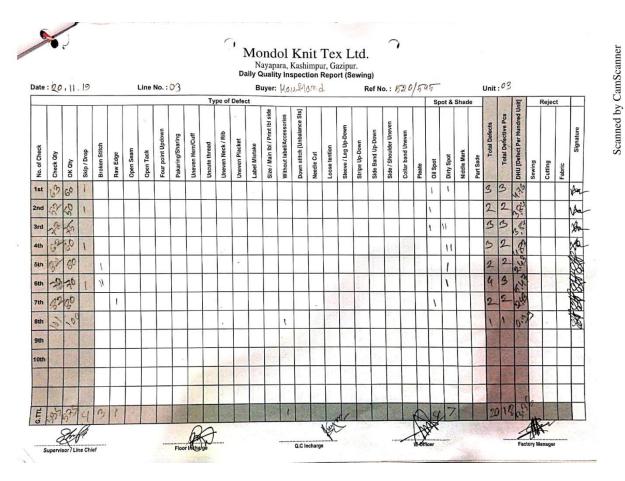


Fig 3.13: Sewing Hourly Production Data (Day-13)

Date: 20.11.19		
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Line No: 03

Buyer: Kaufland

Ref No: 520/545

545 Unit: 03

No. Of Check G.TTL 1st 2nd 3rd 4th 5th 6th 7th 8th Check Qty 78 73 63 52 62 82 32 101 595 575 Ok Qty 60 50 75 60 80 70 30 100 Skip/Drop 1 1 1 1 4 Broken stitch 3 1 2 Raw Edge 1 1 Without 1 1 label/Accessories

Oil Spot	1	1	1				1		4
Dirty spot	1		2	2	1	1			7
Total Defects	3	2	3	3	2	4	2	1	20
Total Defective Pcs	3	2	3	2	2	3	2	1	18
DHU	4.76	3.84	3.84	4.83	2.43	5.47	2.43	0.99	3.36
Signature									

DAY 14:

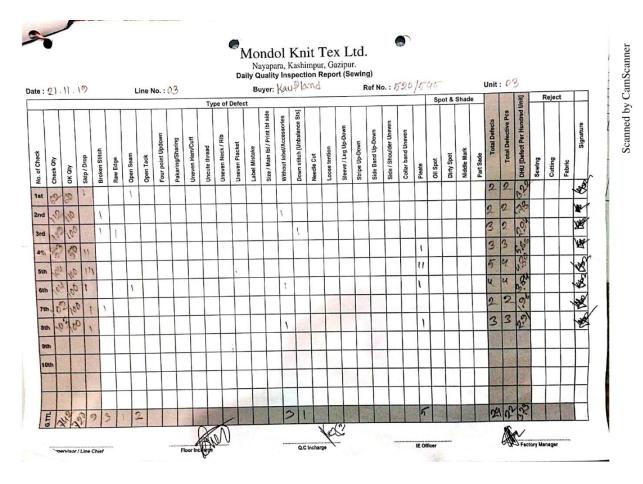


Fig 3.14: Sewing Hourly Production Data (Day-14)

Date: 21.11	.19
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Buyer: Kaufland

Ref No: 520/545

Unit: 03

	1	1	1	1	1	1	1	1	1
No. Of Check	1st	2nd	3rd	4th	5th	6th	7th	8th	G.TTL
Check Qty	62	112	102	53	104	104	102	103	742
Ok Qty	60	110	100	50	100	100	100	100	720
Skip/Drop	1			2	3	1	1	1	9
Broken stitch		1	1				1		3
Raw Edge			1						1
Open seam	1					1			2
Without label/Accessories		1				1		1	3
Down stitch			1						1
Pleate				1	2	1		1	5
Total Defects	2	2	3	3	5	4	2	3	24
Total Defective Pcs	2	2	2	3	4	4	2	3	22
DHU	3.22	1.78	2.94	5.66	4.80	3.48	1.96	2.91	3.23
Signature									

DAY 15:

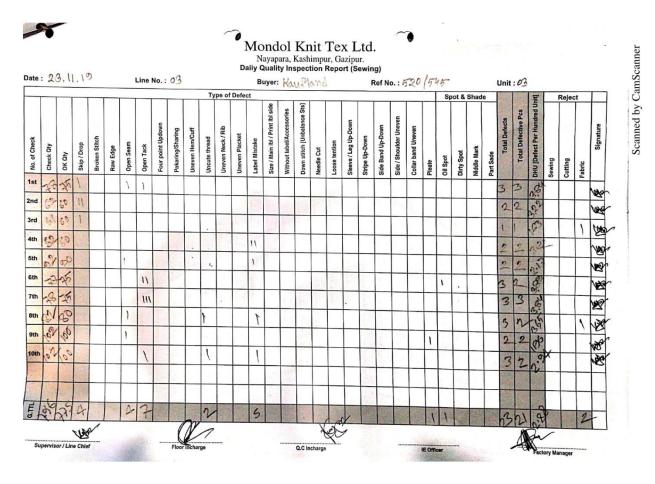


Fig 3.15: Sewing Hourly Production Data (Day-15)

Date: 23.11.19	Line No	: 03	Buy	Buyer: Kaufland			Ref No: 520/545				Unit: 03	
No. Of Check	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	G.TTL	
Check Qty	78	62	61	62	92	77	78	82	102	102	796	
Ok Qty	75	60	60	60	90	75	75	80	100	100	775	
Skip/Drop	1	2	1								4	
Open seam	1				1			1	1		4	
Open Tack	1					2	3			1	7	
Uncute thread								1		1	2	
Label mistake				2	1			1		1	5	
Pleate									1		1	

Oil spot						1					1
Total Defects	3	2	1	2	2	3	3	3	2	3	23
Total Defective Pcs	3	2	1	2	2	2	3	2	2	2	21
DHU	3.84	3.22	1.63	3.22	2.17	3.83	3.84	3.65	1.96	2.94	2.88
Fabric			1					1			2
Signature											

DAY 16:

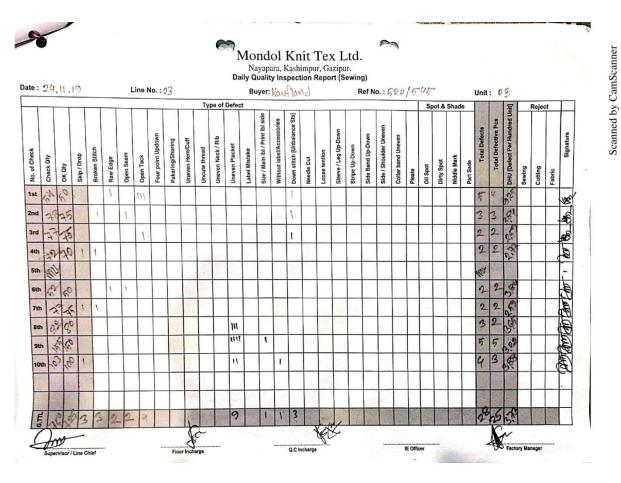


Fig 3.16: Sewing Hourly Production Data (Day-16)

Date:	24.	11.	19
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Ref No: 520/545

Unit: 03

No. Of Check	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	G.TTL
Check Qty	54	78	77	72	Nill	52	77	82	155	103	760
Ok Qty	50	75	75	70		50	75	80	150	100	725
Skip/Drop				1			1			1	3
Broken Stitch		1		1			1				3
Raw Edge	1					1					2
Open seam		1				1					2
Open Tack	3		1								4
Uneven placket								3	4	2	9
Size/Mainlbl/Print lbl									1		1
side											
Without										1	1
label/Accessories											
Down stitch	1	1	1								3
Total Defects	5	3	2	2	Nill	2	2	3	5	4	28
Total Defective Pcs	4	3	2	2		2	2	2	5	3	25
DHU	9.25	3.81	2.59	2.77		3.84	2.59	3.65	3.22	3.88	3.73
Signature											



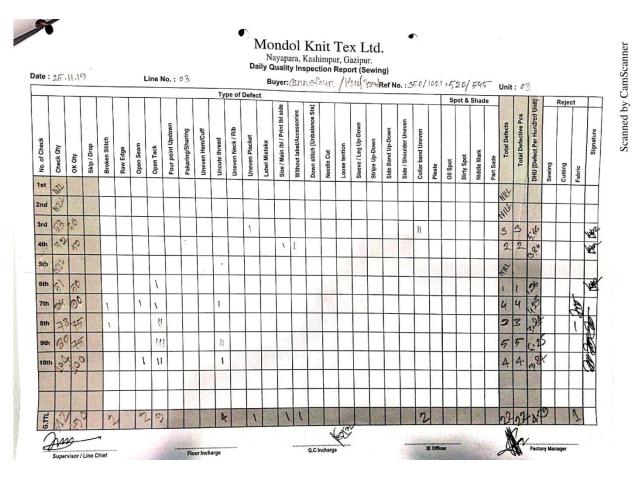


Fig 3.17: Sewing Hourly Production Data (Day-17)

Date: 25.11.19

Line No: 03 Buye

Buyer: Carrefour/Kaufland

Ref No: 520/ 545 Unit: 03

No. Of Check	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	G.TTL
Check Qty	Nill	Nill	53	52	Nill	51	94	78	80	104	512
Ok Qty			50	50		50	90	75	75	100	490
Broken stitch							1	1			2
Open seam							1			1	2
Open Tack						1	1	2	3	2	9
Uncute thread							1		2	1	4
Uneven Placket			1								1

Size/Main Ibl/Print				1							1
lbl Side											
Without label/				1							1
Accessories											
Collar band Uneven			2								2
Total Defects	Nill	Nill	3	2	Nill	1	4	3	5	4	22
Total Defective Pcs			3	2		1	4	3	5	4	22
DHU			5.66	3.84		1.96	4.25	3.84	6.25	3.84	4.84
Fabric								1			1
Signature											

DAY 18:

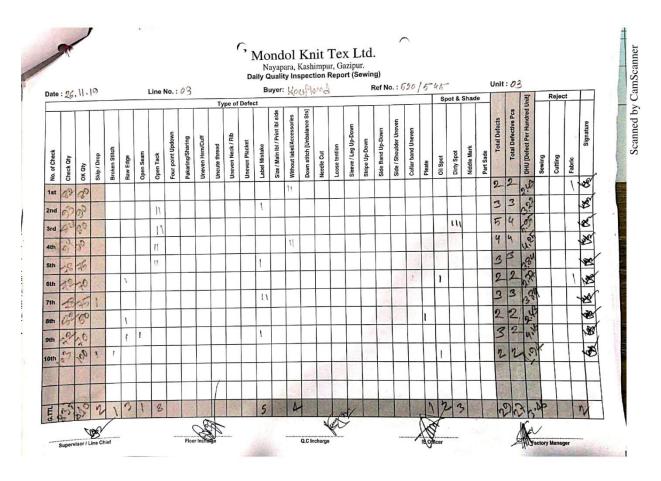


Fig 3.18: Sewing Hourly Production Data (Day-18)

Line No: 03

Buyer: Kaufland

Ref No: 520/545

Unit: 03

No. Of Check	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	G.TTL
Check Qty	82	93	84	94	78	72	78	82	72	103	837
Ok Qty	80	90	80	90	75	70	75	80	70	100	810
Skip/Drop							1			1	2
Broken stitch										1	1
Raw Edge						1		1	1		3
Open seam									1		1
Open Tack		2	2	2	2						8
Label Mistake		1			1		2		1		5
Without	2			2							4
label/Accessories											
Collar band								1			1
uneven											
Pleate						1				1	2
Dirty spot			3								3
Total Defects	2	3	5	4	3	2	3	2	3	2	29
Total Defective	2	3	4	4	3	2	3	2	2	2	27
Pcs											
DHU	2.43	3.22	5.95	4.25	3.84	2.77	3.84	2.43	4.16	1.94	3.46
Fabric	1					1					2
Signature											

DAY 19:

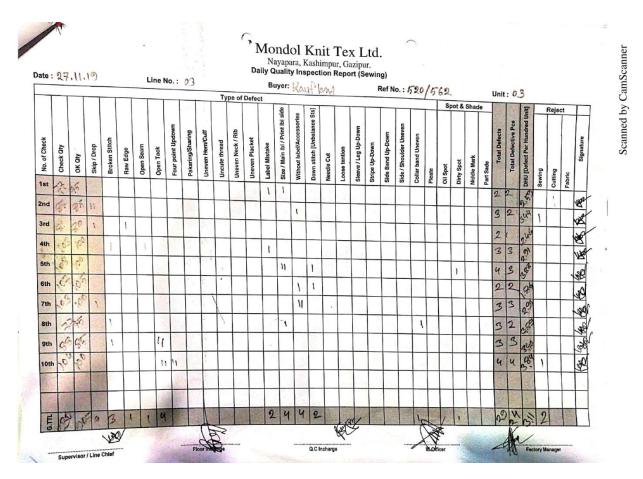
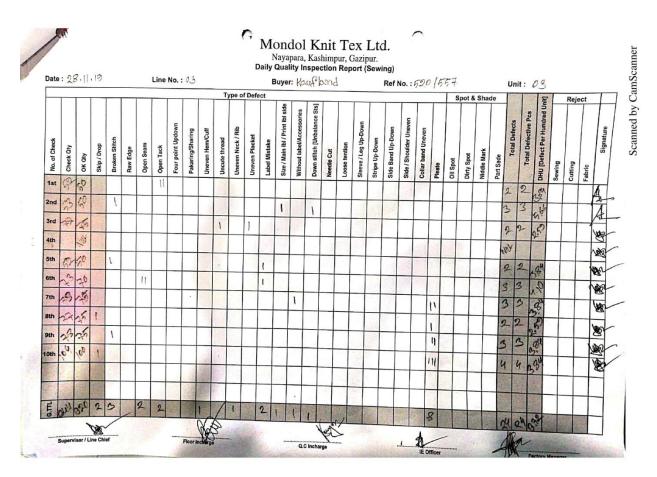


Fig 3.19: Sewing Hourly Production Data (Day-19)

Date: 27.11.19	Line No:	03	Buyer: Kaufland			Ref No: 520/562				Unit: 03	
No. Of Check	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	G.TTL
CheckQty	77	88	81	108	103	107	103	77	88	104	930
Ok Qty	75	85	80	100	100	105	100	75	85	100	905
Skip/Drop		2	1				1				4
Broken stitch				1				1	1		3
Raw Edge			1								1
Open Tack									2	2	4
Four point updown										2	2
Label Mistake	1			1							2

Size/Main Ibl/Print Ibl	1				2			1			4
Without		1				1	2				4
label/Accessories											
Down stitch					1	1					2
Collar band uneven								1			1
Dirty Spot					1						1
Total Defects	2	3	2	3	4	2	3	3	3	4	29
Total Defective Pcs	2	2	1	3	3	2	3	2	3	4	24
DHU	2.59	3.44	2.46	2.91	3.88	1.86	2.91	3.89	3.40	3.84	3.11
Sewing		1								1	2
Signature											

DAY 20:



No. Of Check	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	G.TTL
							-				_
Check Qty	52	53	77	Nill	52	73	78	77	78	104	844
Ok Qty	50	50	75	Nill	50	70	75	75	75	100	820
Skip/Drop								1		1	2
Broken stitch		1			1				1		3
Open seam						2					2
Open tack	2										2
Uncute thread			1								1
Uneven placket			1								1
Label miatake					1	1					2
Size/main lbl/print lbl		1									1
side											
Without							1				1
label/Accessories											
Down stitch		1									1
Pleate							2	1	2	3	8
Total Defects	2	3	2	Nill	2	3	3	2	3	4	24
Total Defective Pcs	2	3	2		2	3	3	2	3	4	24
DHU	3.84	5.66	2.59		3.84	4.10	3.84	2.59	3.84	3.84	3.72
Signature											

Fig 3.20: Sewing Hourly Production Data (Day-20)

Buyer: Kaufland

Ref No: 520/557

Unit: 03

Date: 28.11.19

Line No: 03

DAY 21:

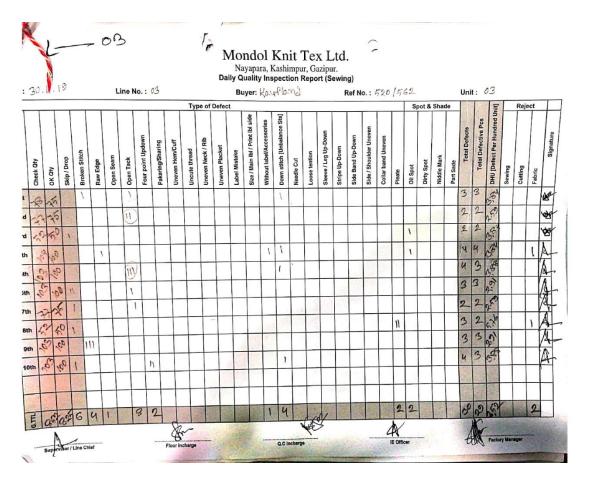


Fig 3.21: Sewing Hourly Production Data (Day-21)

Date: 30.11.19	o: 03	Bu	yer: Ka	aufland		Ref No	o: 520/	Unit: 03			
No. Of Check	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	G.TTL
Check Qty	78	77	52	104	103	103	77	52	103	103	852
Ok Qty	75	75	50	100	100	100	75	50	100	100	825
Skip/Drop			1			2	1	1		1	6
Broken stitch	1								3		4
Raw Edge				1							1
Open tack	1	2			3	1	1				8
Four point updown										2	2
Without				1							
label/Accessories											

Scanned by CamScanner

Down stitch	1			1	1					1	4
Pleat								2			2
Oil Spot			1	1							2
Total Defects	3	2	2	4	4	3	2	3	3	4	30
Total Defective Pcs	3	2	2	4	3	3	2	2	3	3	29
DHU	3.84	2.59	3.84	3.84	3.88	2.91	2.59	5.76	2.91	3.88	3.52
Fabric				1				1			2
Signature											

Date	Buyer	Ref No	Check Qty	Ok Qty	Skip/Drop	Broken stitch	Raw Edge	Open seam/Open tack	Dirty/Oil spot	Label mistake/Accessories	Four point/strip up down	Down stitch/pleate	Uneven placket/collar	Uncute thread	Niddle mark	Total
02.1	ETA	630/	947	925		01	01	05	04	05	05	03	02			26(2.74%)
1.19	Μ	295														
04.1	Per	445/	530	386		01	01			10	84	48				144(27.16%)
1.19	ry	660														
	Ellis															
05.1	Per	445/	422	395	02	01	02	02	02	05	12	01	02			29(6.87%)
1.19	ry	660														
	Ellis															
06.1	Per	445/	466	424		06	01		04	14	06	03		01	07	42(9.01%)
1.19	ry	660														
	Ellis															
07.1	Per	445/	545	510	02	05	03	06		04	11	03		02	01	37(6.78%)
1.19	ry	660														
	Ellis															
11.1	Eta	630/	375	358		01	03		02	03	02	01		05	01	18(4.8%)
1.19	m	295														
12.1	Kau	520/	711	680	07	07	07		09	03		01				34(4.78%)
1.19	flan	550														
	d															
13.1	Kau	520/	876	845	02	11	03	03	01		14			01		35(3.99%)
1.19	flan	550														
	d															

3.2Sewing garment Inspection report summary (21days)

14.1	Kau	520/	960	930	03	05		08	05	03	07	02			33(3.43%)
1.19	flan	550													
	d														
16.1	Kau	520/	339	317	03	05		04	03	02		05			22(6.48%)
1.19	flan	550													
	d														
17.1	Per	445/	327	306	01				03	07	04	04		02	 21(6.42%)
1.19	ry	673													
	Ellis														
18.1	Per	445/	384	364	05	04	01	03			03	04			 20(5.20%)
1.19	ry	673													
	Ellis														
20.1	Kau	520/	595	575	04	03	01		11	01					 20(3.36%)
1.19	flan	545													
	d														
21.1	Kau	520/	742	718	09	03	01	02		03		06			24(3.23%)
1.19	flan	545													
	d														
23.1	Kau	520/	796	773	04			11	01	05		01		02	24(3.01%)
1.19	flan	545													
	d														
24.1	Kau	520/	760	725	03	03	02	06		02		03	09		28(3.68)
1.19	flan	545													
	d														
25.1	Car	350/	512	490		02		11		02			03	04	22(4.29%)
1.19	ref	1021													
	our	,520													
	/Ка	/545													
	ufla														
	nd														

26.1	Kau	520/	837	808	02	01	03	09	05	09		01				29(3.46%)
1.19	flan	545														
	d															
27.1	Kau	520/	930	901	04	03	01	05	01	10	02	02	01			29(3.11%)
1.19	flan	562														
	d															
28.1	Kau	520/	844	820	02	03		04		04		09	01	01		24(2.84%)
1.19	flan	557														
	d															
30.1	Kau	520/	852	825	06	04	01	08	02	01	02	06				30(3.52%)
1.19	flan	562														
	d															
Total			13750	13059	59(8%)	69(10%)	31(4%)	87(12.5%)	53(8%)	93(13%)	152(22%)	103(15%)	18(3%)	18(3%)	9(1.5%)	691(5.02%)

CHAPTER-4: RESULTS OF DISCUSSION

4.1Sewing Section Result:-

In sewing section different types of reasons are found for sewing defects. So, we have analyzed the result. The calculated result is-



4.2 Sewing 6 Major Defects:

- ➢ Four Point= 22%
- Down Stitch= 15%
- Label Mistake = 13%
- > Open seam= 12.5%
- Broken Stitch= 10%
- Dirty/Oil Spot= 8%

Major Sewing defects in garments:

Can result in the product's failure, reducing marketability, usability.

Four Point Updown= (22%): Four-point system is quality control system



Causes:

Common Defects of Fabrics during manufacturing process includes back fabric seam impression, birds eye, bowing, broken colour pattern, colour out, colour smears, crease mark, drop stitching, dye streak in printing, hole, jerk in, knots, mixed yarn, mottled, needle line, open reed, pin holes, press off etc.

Remedies:

- Provide on-the-job training to workers.
- Plan an ongoing program for machine maintenance.
- Inspection of all incoming fabrics.
- > Analyses inspection report data to identify sources of quality problems.

Down Stitch=15%: Wherthe fasten shaping misses' proper sewing bearing and crease

tumble from texture.



Causes:

- ➢ Insincerely work
- Unadjustment of feed hound

Remedies:

- > Sewing administrators must have right material taking care of methods.
- > Make beyond any doubt the examples/control have been planned legitimately.
- ➢ Use perfect crease development.
- ➢ Should be work superbly.
- Feed hound modification accurately

Label Mistake= 13%: Label is a tag that gives a description of the performance inherent in a fabric for the purpose of aiding the consumer in selection.



Causes:

- > Insincerely work
- > A wrong procedure utilized by the specialist.

Remedies:

- ➢ Worker training.
- Proper handling of the parts of garments.

Open Seam= 12.5%:Open creases are both outwardly unappealing and debilitate the uprightness of the article of clothing creases.



Causes:

- Because of poor collapsing.
- > A wrong procedure utilized by the specialist.

This occurs because of ill-advised treatment of the parts of pieces of clothing, ill-advised setting and timing among needle and looped or snare and so on.

Remedies:

- Pattern needs to be correct
- Clear markings for stitch line
- Good quality or D-core thread should be used
- Proper setting and timing between needle and looped or hook.
- Worker training
- > Threading, SPI and backtrack settings should be checked often
- Proper handling of the parts of garments
- Tension should be quantifiable
- Feed dog and hook set timing should be checked periodically

Broken Stitch= 10%: When a stitch is broken in a seam line.



Causes:

- It shows up because of inappropriate trimming or machine utilization.
- Thread caught at the string guide.

Remedies:

- > Needle plate, presser foot and feed pooch ought to be checked intermittently for harms.
- Proper machine use.
- Tension and threading ought not to be fiddled with much.
- Washing parameters ought to be entirely pursued.
- Proper trimming.
- Good quality or D-center string ought to be utilized.
- Needle string texture mix should be all around judged.
- Needle arrangement ought to be correct.

Dirty/Oil spot=8%: Oil recolor with residue clung to surface which makes the stains

increasingly conspicuous.



Causes:

- Lubricant oil utilized in machine parts.
- Unclean parts utilized.
- Open hand dust.
- Natural dust.

Remedies:

- Should be utilized deformity free machine.
- Lubricating ought to be utilized property.
- Operator must be spotless and utilize hand gloves.
- Proper support of machine.
- Proper cleaning of machine.

CHAPTER-5: CONCLUSION

Conclusion:

Quality control assumes a crucial job in sew articles of clothing generation. These days purchaser requires explicit quality in every single real piece of the completed items. Recognizable proof of deficiencies amid creation of weaved texture is vital for enhanced quality and profitability. This paper is finished up as-

In sewing section of sample total defects are found 691 pcs, total QC passed is 13750 pcs and defect percentage is found 5.02% for 21 days.

Bangladeshi articles of clothing ventures have the ease work, yet they couldn't make the most astounding benefit due to not actualizing new procedures, for example, lean, 5-S, DHU, Six Sigma, TQM, Traffic Light System for quality control. In present day aggressive market execution of current quality control devices or persistent enhancement is severely required.

