Faculty of Engineering

Department of Textile Engineering

REPORT ON
Study on Different Types of Sewing Faults and Their Remedies

Course Title: Project (Thesis)
Course Code: TE-4214

Submitted By

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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

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i

Letter of Approval

12-04-2018

To

The Head

Department of Textile Engineering

Daffodil International University

102, Shukrabad, Mirpur Road, Dhaka 1207

Subject: Approval of Project Report of B.Sc. In TE

Dear Sir,

I am simply writing to tell you that this task report titled as "Study on Different Types of Sewing Faults and Their Remedies" has been set up by the understudy bearing ID 152-23-4410 and 152-23-4436 is finished for definite assessment. The entire report is readied in light of the best possible examination at Active Composite Mills Ltd and Vintage Denim Ltd. Furthermore, intrusion through basic examination of observational information with required possessions. The understudy were straightforwardly associated with his undertaking exercises.

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

Yours Sincerely

Mohammad Abdul Baset

Assistant Professor

Department of Textile Engineering

Daffodil International University

ACKNOWLEDGEMENT

Dedication

At first we want to dedicate this report to Almighty Allah (ALHAMDULILLAH) for giving us the opportunity to prove ourselves. Without His help nothing would be possible.

DECLARATION

We hereby declare that, this report has been done under the supervision of **Mohammad Abdul Baset,** Assistant Professor, Department of Textile, Daffodil International University. We also declare that neither this internship report nor any part of this internship report has been submitted elsewhere for award of any degree.

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ABSTRACT

This project is '**Study on quality control in sewing section'** of **"Active Composite Mills Ltd. And Vintage Denim Ltd."** Garment manufacturing is quite different from any other conventional manufacturing. It is not a continuous production method. Each style is a different product that requires a different type of fabric, color, buttons, thread, etc. Sewing process is one of the most important stages in labor intensive ready-made clothing enterprises. Quality faults occurring during this process adversely affect the product quality and product efficiency, and also increase the production cost. The aim of this study is to investigate whether the woven production process is under control in a woven production enterprise and to detect the processes with the highest rates of sewing faults in sewing department and finally to make suggestions for improving the quality control. Also, the processes with highest amounts of sewing faults and the effects of these processes on fault rates were investigated**.** End of The Line Inspection Report on the 04 days we identify **366** pieces faults out of **6775** pieces inspected garments bar tack missing, Uneven stitches, Broken Stitches, Puckering, Point Up-Down, Uneven Stich, Down Stich, Button Stich etc. faults are found by inspection of garments in the sewing section. **Bar tack missing** is the major problem in the sewing section. Average of bar tack missing is **16%.** Finally, we have found different types of sewing faults by Sewing machine and operator. We are also mentioning remedies for specific reasons which all are included in this project report. We also included some end line inspection report of **"**Active Composite Mills Ltd and Vintage Denim Ltd.**".**

Table of Contents

List of Figure

List of Table

List of Graph

Chapter-1 Introduction

1.1 Background of the Study

The biggest and the most essential segment in an article of clothing industry is its sewing segment. In this segment, every last sewing machine and occupations of machine administrators ought to be assessed on a normal reason for recognizing, revising and controlling of flaws and keeping up nature of items. To guarantee the nature of the item, quality control faculty need to control quality in an alternate area in piece of clothing industry, which are specifically or in a roundabout way required with creation. Quality is the distinction between items. It is the integrity or disagreeableness in an item. This definition remains constant till this date. The Garment additionally assumes an essential part in the general public. For create great article of clothing we have to keep up quality and quality relies upon sewing course of action of piece of clothing

1.2 Objectives of the Study

- ➢ To know how to analyze a garment effectively and efficiently.
- ➢ To identify the causes of sewing fault and solve this.
- ➢ To implement technical solutions toward thread defects.
- ➢ To show how technical know-how can increase production efficiency.
- ➢ To minimize sewing fault from garments.
- ➢ To improve quality of garments.

1.3 Importance of the Study

A Cost Saving Approach in Garments Production Unit. This article clarifies the reasons for sewing shortcomings in instant pieces of clothing. Sewing shortcomings are an issue generally looked by piece of clothing producers. Regardless of it being an exceptionally basic issue, it is extremely hard to dispose of it totally. A few parts of the sewing flaw arrangement, its causes, and assurance and cures are talked about in this article. The creator noticed that it is extremely hard to dispense with flaws totally. The inquiries whether the level of a blame is adequate or not depends to a great extent on the sort of article of clothing, area of the crease, appearance. Quality flaws happening amid this procedure unfavorably influence the item quality and item proficiency, and furthermore increment the generation cost. The point of the examination is to research how to control quality in piece of clothing generation and make proposals for enhancing the quality control. By this examination, we showed that the examination of every quality control process would make a noteworthy commitment to create a quality piece of clothing and get ready more compelling in the change designs.

Notwithstanding, decrease in sewing shortcomings will dependably be invited and would be a vital angle in the universal advertising of instant articles of clothing.

1.4 Limitations of the Study

During the study I had faced the following limitation

- ➢ **Shortage of secondary data sources:** Publication of this field not available and there were no organization or department for maintaining proper information about the company.
- ➢ **Respondent unwillingness:** Some respondents were unwilling to respond due to maintaining secrecy about the company.
- ➢ **Lack of accurate data:** Respondents were unwilling to disclose their fault and quality check data. So, this type of data used in this report is not too proper.
- ➢ There is no special training department for study.

Shortage of time: At least eight months required for completion of the final report, but we have given only three months. So to acquire a vast knowledge, it is the most important limitation for me

Chapter- 2 Literature Review

2.1 Defects in Apparel:

Apparel manufacturing is the last stage of manufacturing before marketing. The entire consumer wants to get a product which is free of any types of defect. For this reason manufacturer should be aware about defect of product. In this every stage of manufacturing various types of mistakes can be occurred.

Defect of apparel can be defined as the absence of desired features in the product or unwanted feature in products. Defective product is not desired to any man. Defectives products lose its value in the market. A product may contain different defects.

Another terms near to defect is called reject. A product becomes a reject when it loses its stability in the market. Rejection of garments is harmful for the manufacturers. A single defect in the most visible area of a garment may make it reject.

2.2 Types of defects:

There are two main types of defects:

Non-Sewing defects
Sewing defects

Defects may occur in garments industry produced on mass scale. The sources of defects are given below:

2.3 Non-sewing defects:

1. Defects due to wrong pattern.
2. Defects due to wrong cutting.
3. Defects due to poor handling of goods.
4. Defects due to oil marks.
5. Defects due to wrong ironing/folding/packing.

2.4 Sewing defects

Sewing defect can be classified as three groups:

Problem of stitch formation.

Seam pucker.

Fabric damage along the seam line/stitch

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1. Skip Stitch
2. Slipped Stitch
3. Staggered Stitch
4. Unbalanced Stitch
5. Variable Stitch Density
6. Frequent Thread Breakage
7. Slanted
8. Broken Stitch
9. Raw Edge
10. Mechanical Damage
11. Needle Heating Damage
12. Oil Spot
13. Open Seam

1. Skip stitch:

Stitches in the seam are present in a regular wise. If the interloping or interlacing between top & bottom thread of stitch is not take place or missed is known as skipped stitch. This is more harmful in case of chain stitch than lock stitch.

Figure2.1 Skip Stitch

Causes-

Failure of hook or looper and needle to enter loop at correct time.

Irregular thread tension on upper or lower loop.

Due to needle deflection.

If needle thread loop size is too small.

When flagging of fabrics is happened during sewing.

If sewing thread is unable to form loop.

Remedies-

Examine the setting and timing between needle and hook or lopper.

The tension of thread should be adjusted.

Needle should be changed.

Needle size and thread should be adjusted.

The pressure of pressure foot should be adjusted perfectly.

Thread should be changed.

2. Slipped stitch:

Missing of interloping or interlacing top and bottom.

Causes

Hook or needle failing to enter thread loops at the correct time.

Thread loop failure caused by incorrect needle size.

Flagging of fabric due to large throat plate hole.

Incorrect sewing tension in the needle

Remedies

Machine clearances and timings should be checked.

Check if the needle is inserted and aligned correctly.

Needle size should be changed.

The hole of throat plate & needle size must be adjusted.

Re-adjust tensions.

3. Staggered stitch:

If the stitches produced by needle are not parallel or become curvy to sewing line is known as staggered stitch.

Causes-

Needle vibration or deflection.
Incorrect or blunt needle point.
Feed dog sway.
Poor fabric control, presser foot bounce.
Wrong adjustment of needle & thread size.

Remedies-

Increase needle size or change to a reinforced or tapered needle.
Change the needle.
Tighten the feed dog.
Reset the presser foot. Change the feed mechanism.
Needle size & thread size to be changed.

4. Unbalance Stitch:

Improper interlacement of thread especially in lock stitch machine.

Causes-

Wrong tension of sewing thread.
Used wrong thread path.
Wrong adjustment of needle thread path.
If the threads are not lubricated.
Snagging of needle with bobbin case & positioning finger.

Remedies-

Setting of proper tension to the sewing threads

Use of right thread path

Better qualities threads must be used

Bobbin case to be smooth

5. Variable stitch density:

When number of stitch per unit length is not equal.

Causes-

Improper unwinding of thread from package during sewing

Twisting of needle thread in the bottom of thread package

Twisting of thread in the thread guide

Snarling of thread before tension disk

More tension to the thread

Fraying of thread in the needle

Becoming more heated of thread

Becoming more heated of hook

Use of low quality threads

Remedies-

The position of thread guide must be 2.5 times higher than the position of thread package

Foam pad must be used to the bottom of thread package

Proper threading of sewing thread during sewing

The edges must be smooth, and needle must be changed as needed

Finer threads must be used or to be used heavy needle

High quality needle must be used

Lubricant must be available

Thread to be changed

6. Frequent thread breakage:

This is the breakage of thread again & again during sewing. And also there needs more time and which is harmful for production. Specially, when there needs to open out of sewing to solve the problem.

Causes-

Wrong winding of threads on to the bobbin

More tension to the bobbin threads

If the edges bobbin case, lopper eye and so on are more sharpened

Wrong fitting of bobbin case

Remedies-

Proper winding of threads on to the bobbin

The tension must be adjusted to the bobbin threads

The edges to be smooth

Examine the size & type of bobbin.

7. Broken Stitch:

Section of the garment that has not been covered by sewing thread that is broken or open seam.

Figure2.2Broken Stitch

Causes:

This problem due to improper handling of the parts of garments, improper setting and timing between needle and lopper or hook etc.

Remedies:

Clear markings for stitch line

Fine quality or D-core thread must be used

Pattern needs to be correct

Perfect setting and timing between needle and looper or hook.

Worker training

Proper handling of the parts of garments

Proper Tension should be quantifiable

Feed dog and hook set timing should be checked

8. Oil spot-

Causes:
For various purpose sewing machine parts may be jammed or in need of cleaning or maintenance. The machine should be oiled or lubricated. Sewing machine needle also be lubricated by oil for reducing friction.
If the machine at that time, there might be get an oil mark.
For this, need to run a test thread and fabric through the machine to remove excess oil.

Remedies:
At first, pretreated with the pre-wash stain remover, liquid laundry detergent. After that, launder the garments by using hottest water safe for fabric.

Figure2.3Oil Spot

2.4.2 Seam Puckering:

Seam puckering is common problem on woven then knits fabric. Seam puckering mention to the gathering of a seam during or after laundering, causing not satisfactory seam appearance.

Figure2.4 Puckering

Causes:

Extension of sewing thread.

Fabric construction.

Mismatched patterns.

Sewing threads shrinkage.

Fabric dimensional instability.

Variable an uneven stretch on fabric

Remedies:

Proper feed mechanism should be used with equal ply stretch.

Fabric shrinkage property must be almost equal.

Fabric and sewing thread shrinkage% should be equal.

Using less tension to the thread.

2.4.3 Damage of fabric on seam line:

It is happened due to wrong needle selection or needle damage. But it may be happened in case of new or fine needles. There are two types of fabric damaging are available given below:

1. **Mechanical damage:**

The followings are the steps to be taken to keep the fabrics free from this type of defect:

By using perfect size & shape of the needle & needle point without any defect.

By reducing the speed of sewing machine.

By using lubricant.

By testing sew ability before sewing fabrics.

2. **Needle heating damage:**

The damage of fabric due to friction occurred between the needle & fabrics. The fabric can be damaged with that temperature. There is a less possibility of damaging in case of fabrics made from natural fibers.

The following are the steps to be taken to keep the fabrics free from this type of defect:

By changing needle Size & shape so that there is less generating of heat to the needle.

By sewing smaller length at higher speed.

By using lubricant to the needle.

By using Teflon coated needle.

Chapter-3 DATA ANALYSIS & PRESENTATION

3.1 Data Collection

We have examined two processing plants and gather information on the sewing issues. There are add up to 16 sewing line in Active Composite Mills Ltd. What's more, Vintage Denim Ltd. From these 16 lines we take a shot at 8 sewing lines and we gather some data about pieces of clothing request amount, purchaser name, style no. of pieces of clothing, no. of administrator, no of partner other than sewing issues. Examined information are given beneath which we found in sewing floor of Active Composite Mills Ltd And Vintage Denim Ltd.

3.2 Data Analysis

Here we investigate information of sewing issue and other data that we get from 8 sewing line of Active Composite Mills Ltd. Furthermore, Vintage Denim Ltd. We appear here some data about articles of clothing like request amount, purchaser name, style no. of articles of clothing and so forth other than no. of imperfection, modify and dismiss in information table.

3.3 Attachment of sewing report

Line inspection report 1

<u>LINE (I) in Active Composite Mills Ltd.</u>

 A copy of End of The End Line Inspection report is attached that we have collected from the factory

Figure3.1Report on sewing section

100% End of The Line Inspection Report in Sewing Section 10/03/2018

RISING GROUP

ACTIVE COMPOSITE MILLS LTD

DAILY END-LINE INSPECTION REPORT

Date: 17-03-2018   Po No :

Buyer: KIABI   Sewing Line:I

Style No: JBMS18MCRAG   Inspector:………

Hours	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Total
Total Pieces check	134	146	145	145	136	142	148	156	155	142	1449
No. Of. Pcs Passed	120	130	135	**132**	125	135	142	150	150	135	1354
Defective Pc/ Rectified Pc	14/ 13	16/ 16	10/ 10	**13/1 2**	11/1 0	07/0 7	06/0 5	06/0 6	05/0 5	07/0 7	95/92

Total Pc Rejected	0	0	0	1	1	0	1	0	0	0	3
Section	Front/ back	Front/ back	Front/ back	Front/ back	Front/ back	Front/ back	Front/ back	Front/ back	Front/ back	Front/ back	
Broken Stich		2		2	1	1	1		2	1	10
Skip Stitch	6	4	3	3		2				3	21
Raw-Edge				2			2	1			5
Join Stich		2		1	2	1	1		1		8
Puckering											
Up & Down Parts											
Uneven Stich	1	2	1		2	1		2	1		10
Shape Out											
Worng Size											
Twisting	5	4	3	2	2					2	18
Shading											
Fabric Fault											
Hole Damage											
Stain Oil	3	2	2		3	2		1			13
Bartack											
Hook & Bar/Button											
Iron Mark											
Pleat		1	1	2	1		1	2	1	1	10
Open Seam			1	2	1		1		1		6
Defects Total	15	15	11	14	12	7	6	6	6	7	**101**

DHU= (Total no of Defective pieces/Total No of Pieces Checked)*100=6.97%

1st Highest Defects= Skip Stitch 21pcs
2nd Highest Defect= Twisting 18pcs
3rd Highest Defect= Stain Oil 13pcs
Total Pieces check=1449
Total Defects=101

From the table I can see that, at line (I) our observation date was 17/03/18. The buyer was KIABI. The item that was produced was S/S T SHIRT (Basic T-Shirt). Total worker or operator worked at line (I) was 16 with 12 helpers and 2 QC operator. From our observation I found that from 8am-9am they check 135pcs of garments and there have been total 15 defects.

In this way, total 1449pcs of garments checked in our 10hrs observation. Here I totally found 101 pcs of defective garments where 98pcs are altered and 3pcs are rejected.

Here we show the list of defects below we found at line (I):

Broken Stitch=10

Skip Stitch=21

Raw-Edge=5

Join Stitch=8

Uneven Stitch=10

Twisting=18

Stain Oil=13

Pleat=10

Open Seam=6

3.4 Attachment of sewing report

Line inspection report 2

<u>LINE (B) in Active Composite Mills Ltd.</u>

A copy of End of The End Line Inspection report is attached that we have collected from the factory.

Figure 3.2 Report on sewing section

100% End of The Line Inspection Report in Sewing Section 10/03/2018

RISING GROUP

ACTIVE COMPOSITE MILLS LTD

DAILY END-LINE INSPECTION REPORT

Date: 10-03-2018   **Po No :**

Buyer:K-MART   **Sewing Line:B**

Style No: KP195   **Inspector:………**

Hours	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Total
Total Pieces check	143	124	146	137	148	156	138	140	142	144	1418
Total Passed Pieces	123	115	140	129	135	149	130	135	130	130	1316
Defective Pc/Rectified Pc	20/19	9/9	6/6	8/7	13/12	7/7	8/7	5/5	12/11	14/12	102/95
Total Pc Rejected	1			1	1		1		1	2	7
Section											
Broken Stich	2	2	1	1	3	1		2	3	1	16
Skip Stitch	5	3	2	3	2	2	2	1	2	2	24
Raw-Edge	2	1			2				4	**3**	12
Join Stich	2	1			1	2	1		3		10
Puckering											
Up & Down Parts											
Uneven Stich	2		2	1	1					3	9
Shape Out											
Worng Size											
Twisting	3	2		1	2	1					9
Shading											
Fabric Fault											

Hole Damage											
Stain Oil	4		1		2		2			2	11
Bartack											
Hook & Bar/Button											
Iron Mark											
Pleat				1		1	1			1	4
Open Seam				4			2	2		2	7
Defects Total	20	9	6	8	13	7	8	5	12	14	102

DHU= (Total no of Defective pieces/Total No of Pieces Checked)*100=7.07%

1st Highest Defects= Skip Stitch 24pcs
2nd Highest Defect= Broken Stitch=16
3rd Highest Defect= Raw Edge=12
Total Pieces check=1418
Total Defects=102

From the table we can see that, at line no. (B) Our observation date was 11/02/18. Total order quantity was 17,000pcs & the buyer was K-MART. The item that was produced was Polo shirt. Total worker or operator worked at line (B) was 44 with 32 helpers and 2 QC operator. From our observation we found that from 8am-9am they checked 143pcs of garments and there have been total 20 defects. From those 20 defects they can alter 19 and reject 1 garments.

In this way, total 1418pcs of garments produced in our 10hrs observation. Here we totally found 102pcs of defective garments where 95pcs are altered and 7pcs are rejected.

Here we show the list of defects below we found at line (B):

Broken Stitch=16

Skip Stitch=24

Raw-Edge=12

Join Stitch=10

Uneven Stitch=9

Twisting=9

Stain Oil=11

Pleat=4

Open Seam=7

3.5 Attachment of sewing report

Line inspection report 3

<u>LINE (F) in Active Composite Mills Ltd.</u>

A copy of End of The End Line Inspection report is attached that we have collected from the factory.

Figure 3.3 Report on sewing section

100% End of The Line Inspection Report in Sewing Section 10/03/2018

RISING GROUP

ACTIVE COMPOSITE MILLS LTD

DAILY END-LINE INSPECTION REPORT

Date: 15-02-2018   Po No :

Buyer: K-MART   Sewing Line:F

Style No:10NSTP-455   Inspector:………

Hours	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Total
Total Pieces check	155	149	145	147	138	135	142	147	142	135	1435
Total Passed Pieces	147	140	138	136	129	127	133	135	133	127	1345
Defective Pc/Rectified Pc	8/8	9/7	7/7	11/10	9/8	8/8	9/8	12/12	9/8	8/8	90/84
Total Pc Rejected		2		1	1		1		1		6
Section											
Broken Stich	2	1	2	3	1	2			3	2	16
Skip Stitch	1	3		2	3		1	1	2	1	14
Raw-Edge	3		2	4	1	2			2	**1**	15
Join Stich											
Puckering		1		1	2				1		5
Up & Down Parts											
Uneven Stich		2	1		1	2		2			8
Shape Out		1		1			1	1			4
Worng Size											

Twisting											
Shading											
Fabric Fault											
Hole Damage											
Stain Oil	1		1		1	2	2	3		2	12
Bartack											
Hook & Bar/Button											
Iron Mark											
Pleat		1					2	2			5
Open Seam	1		1				3	3	1	2	11
Defects Total	8	9	7	11	9	8	9	12	9	8	90

DHU= (Total no of Defective pieces/Total No of Pieces Checked)*100=5.77%

1st Highest Defects= Broken Stitch=16pcs
2nd Highest Defect= Raw Edge=15pcs
3rd Highest Defect= Skip Stitch=14pcs
Total Pieces check=1435pcs
Total Defects=90pcs

From the table we can see that, at line (F) my observation date was 15/02/18. Total order quantity was 10,000pcs & the buyer was K-MART. The item that was produced was LONG PANT (All Over Print). Total worker or operator worked at line (F) was 31 with 24 helpers and 2 QC operator. From our observation we found that from 8am-9am they produced 155pcs of garments and there have been total 8 defect. From those 8 defects they can alter garments.

In this way, total 1435pcs of garments produced in our 10hrs observation by 2QC operator. Here we totally found 90pcs of defective garments where 84pcs are altered and 6pcs are rejected.

Here we show the list of defects below we found at line (I):

Broken Stitch=16

Skip Stitch=14

Raw-Edge=15

Puckering=5

Uneven Stitch=8

Shape Out=4

Stain Oil=12

Pleat=5

Open Seam=11

3.6 Attachment of sewing report

This per hour End of The Line Inspection is done by the Q.C. & his assistants on a specific table for separating the faulty product in every each hour from a produced product of a specific line. We have inspected the End table Inspection on 15/02/18, 16/02/18 & 18/02/18

A copy of End of The End Line Inspection report is attached that we have collected from the factory

Line inspection report 4

Figure 3.4 Report on sewing section

Vintage Denim Ltd.
DAILY TABLE INSPECTION REPORT
SECTION: SEWING

Buyer : DEVRED　　　　　　　　　　　　**Date : 15/02/2018**
Style : SUN - 94　　　　　　　　　　　**Line no : A**
PO/Art : Out Put　　　　　　　　　　　　**Inspector: TANIA**
Item : LADIS LONG PANT

Description	1	2	3	4	5	6	7	8	9	10	Total	Remark D.H.U%
Total Received	130	170	210	240	250	190	210	300	250	250	2200	
Ok	122	160	196	222	235	183	200	283	238	242	2083	
Alter	8	10	14	18	15	07	10	17	12	08	117	
Alter Rectified	8	10	14	18	15	07	10	17	12	08	117	
Total ok	130	170	210	240	250	190	210	300	250	250	2200	
Proces & Defect Description	**1st**	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	**8th**	**9th**	**10th**		
Broken Stitch	2				4					2	8	
Bar Tack Missing	3	2		5	3				3	2	18	
Down Stitch					2	4		3			9	
Dirty												
Fabric Fault												
Gathering												
High Low PKT												D.H.U= 5.3%
High Low Waist												
Incompleat Stitch					2		5				7	
Label Mistack												
Loop Slanted												
Missing Stitch	2		3			4				4	13	
Oil Mark												
Open Stitch			2		5		2				9	
Over Stitch												
Puckering												
Shading												
Skip Stitch		4		4			7				15	
Tantion Tight												
Tention Lose												
Thread Mistack												
Uneven Stitch		3							5		8	
Uneven Point	3	2	3		2	7	4	3			24	
Uneven Lop				3		3					6	
Uneven Width												

		TOTAL	117	

After observation 3.1 we found Uneven Point faults than other faults. We observed 10th hour's production and found 24 Uneven Point sewing fault, but all pieces are altering and no rejecting pieces found. Maximum Uneven Stitch sewing fault occur 5-8th hour production time. Total D.H.U = 5.3%. This fault actually happened for the fabric is being pulled while sewing. Another cause for uneven Point is not use proper handling. On this day I also found different types of faults the amount of faults is given below,

Down Stitch: 9

Uneven Lop: 6

Incomplete stitch: 7 etc.

After check this fault they send to this operator to remove the faults.

3.7 Attachment of sewing report
Line inspection report 5

Figure 3.5 Report on sewing section

Vintage Denim Ltd.
DAILY TABLE INSPECTION REPORT
SECTION: SEWING

Buyer : Zara   **Date** : 16/02/2018
Style : 2716   **Line no** : B
PO/Art : Out Put   **Inspector:**
Item : MENS TR

Description	1	2	3	4	5	6	7	8	9	10	Total	Remark D.H.U%
Total Received	135	160	210	240	210	250	190	300	195	250	2140	
Ok	125	145	198	222	195	235	181	282	185	238	2010	
Alter	10	11	12	18	15	15	9	18	10	12	130	
Alter Rectified	10	11	12	18	15	15	9	18	10	12	130	
Total ok	135	160	210	240	210	250	190	300	195	250	2140	
Proces & Defect Description	**1st**	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	**8th**	**9th**	**10th**		
Broken Stitch		3		3			4	5			15	
Bar Tack Missing	2		2		7	5				2	18	
Down Stitch	2		3								5	
Dirty				1							1	
Fabric Fault												
Gathering												
High Low PKT				2		2					4	**D.H.U= 6.07%**
High Low Waist	3										3	
Incompleat Stitch		2				3					5	
Label Mistack	1		2			2					5	
Loop Slanted												
Missing Stitch		2		2	4						8	
Run of Stitch				1							1	
Open Stitch		3				2		3			8	
Over Stitch			1	2						2	5	
Puckering	2		2							4	8	
Shading					2						2	
Skip Stitch	1		2								3	
Tantion Tight									3		3	
Tention Lose												
Thread Mistack								3			3	
Uneven Stitch												
Uneven Point		1		5	3						9	
Uneven Lop				2			5	7	6	4	24	
Uneven Width												

	TOTAL	130	

After observation 3.1 we found Uneven Loop faults than other faults. We observed 10th hour's production and found 24 Uneven Loop sewing fault, but all pieces are altering and no rejecting pieces found. Maximum Uneven Loop sewing fault occur 7-10th hour production time. Total D.H.U = 6.07%. This fault actually happened for the fabric is being pulled while sewing. Another cause for uneven Loop is not use proper handling. On this day I also found different types of faults the amount of faults is given below,

Run of stitch: 1

Skip Stitch: 3

Tension Tight: 3etc.

After check this fault they send to this operator to remove the faults.

3.8Attachment of sewing report

Line inspection report 6

Figure 3.6 Report on sewing section

Vintage Denim Ltd.
DAILY TABLE INSPECTION REPORT
SECTION: SEWING

Buyer : DEVEN HAMS   Date   : 15/02/2018
Style : 2716   Line no : C
PO/Art : Out Put   Inspector:
Item : MENS TR

Description	1	2	3	4	5	6	7	8	9	10	Total	Remark D.H.U%
Total Received	195	170	250	210	250	300	190	180	250	240	2235	
Ok	190	162	240	198	235	282	180	172	240	220	1116	
Alter	10	8	10	12	15	18	10	8	10	18	119	
Alter Rectified	10	8	10	12	15	18	10	8	10	18	119	
Total ok	195	170	250	210	250	300	190	180	250	240	2235	
Proces & Defect Description	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
Broken Stitch	5	3	7	5		2	1				23	
Bar Tack Missing				4	7		4			2	17	
Down Stitch						2			3		5	
Dirty												
Fabric Fault									4		4	
Gathering												
High Low PKT												**D.H.U= 5.38%**
High Low Waist		1								2	3	
Incompleat Stitch					2						2	
Label Mistack			3								3	
Loop Slanted						1			3		4	
Missing Stitch	2						2				4	
Run of Stitch												
Open Stitch					3		5		7		15	
Over Stitch			3								3	
Puckering												
Shading									3		3	
Skip Stitch		2			5						7	
Tantion Tight												
Tention Lose												
Thread Mistack												
Uneven Stitch	3						3				6	
Uneven Point					3		3		4		10	
Uneven Lop		2				8					10	
Uneven Width												
									TOTAL		119	

After observation 3.3 we found Broken Stitch faults than other faults. We observed 10th hour's production and found 23 Broken Stitch sewing fault, but all pieces are altering and no rejecting pieces found. Maximum Broken Stitch sewing fault occur 1-4th hour production time. Total D.H.U = 5.38%. This fault actually happened for the fabric is being pulled while sewing. Another cause

for uneven Point is not use proper handling. On this day I also found different types of faults the amount of faults is given below,

Incomplete Stitch: 2pcs

Missing Stitch: 4

After check this fault they send to this operator to remove the faults.

Chapter-4 RESULT AND DISCUSSION
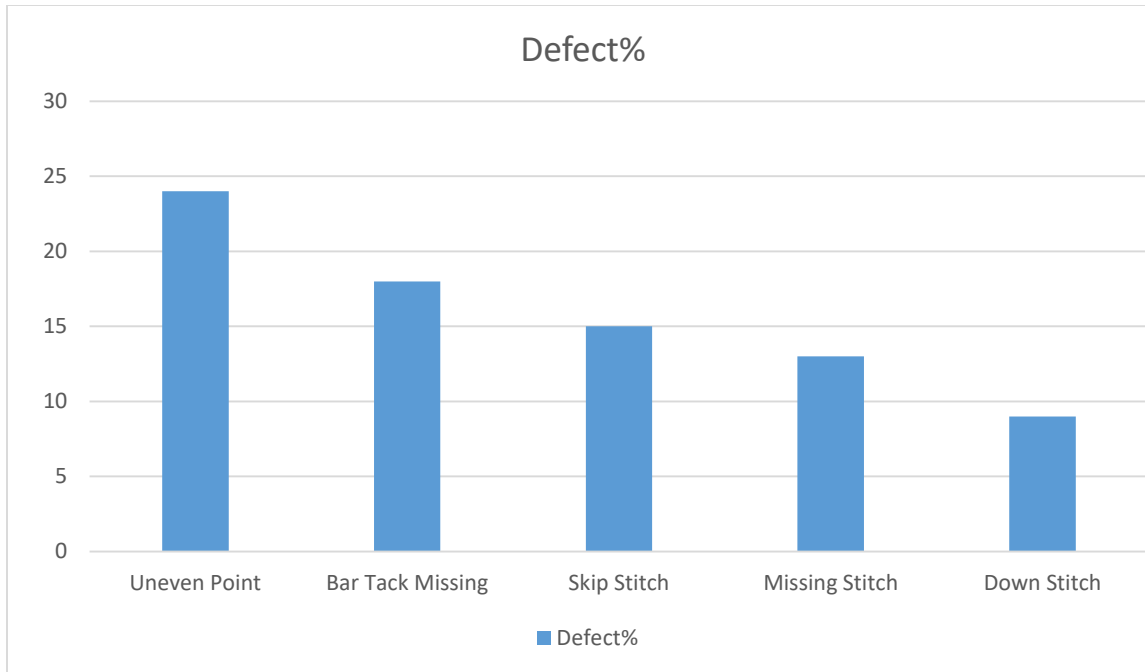
4.1 Analysis Data Collection

We have broken down on the sewing area floor in "Thousand years Textiles (Southern) Ltd.". Also, we discovered distinctive sorts of as often as possible happens Poor Trimming, Down line, oil check, Raw-Edge, tidy stamp, Poor Iron, Uneven Stitch and so on we found that Poor Trimming which is nearly higher than different deformities.

Graph4.1.1 Table 3.3 End of the Line Inspection report I (17/03/2018)
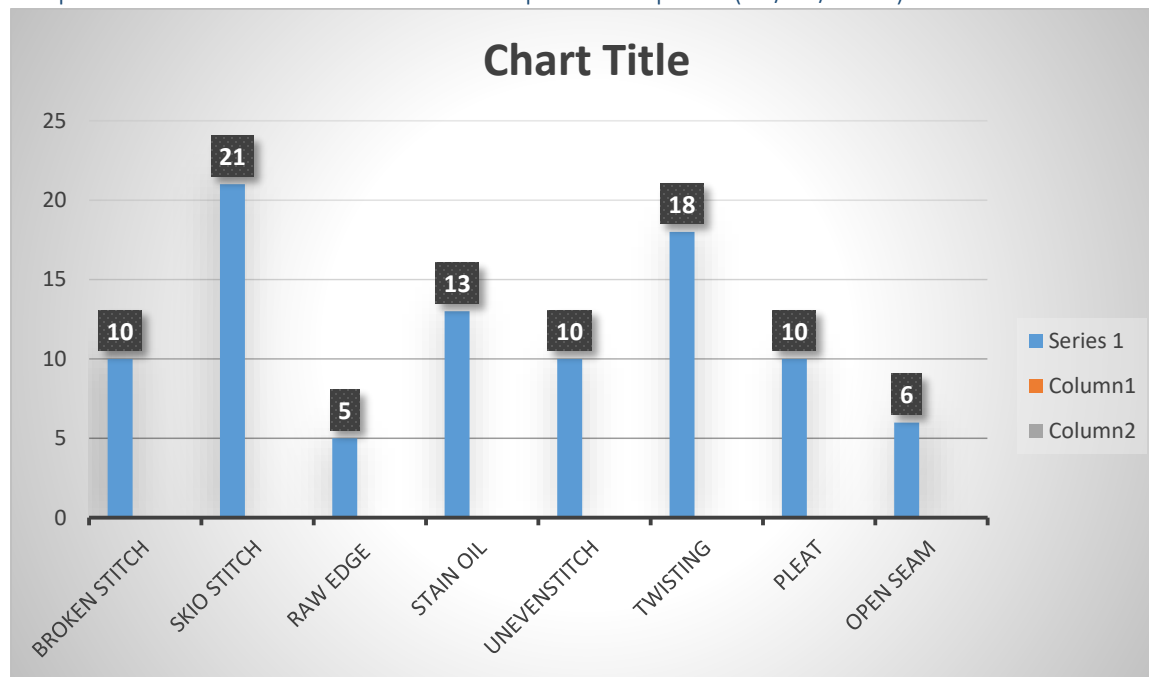
After perception 3.1 we discovered Uneven Stich flaws than different shortcomings. We watched tenth hour's creation and discovered 16 Uneven Stitch sewing deficiency pieces, however all pieces are changing and no dismissing pieces found. Most extreme Uneven Stitch sewing issue happen 4-sixth hour creation time. Normal blame happens in the hours is most extreme 1.6 pieces. For this sewing issue of the Shirt, We have taken loads of data from Q.A.D for real causes and cures of this kind of blame. This blame really happened forth texture is being pulled while sewing. Another reason for uneven lines is the more established or mediocre string. When sewing it is vital to make sure to never pull the texture - enable the texture to be taken up by the sewing machine

Graph4.1.2 Table 3.6 The End Line Inspection report 4 (15/02/2018).

Defect%

Chart showing Defect% for: Uneven Point (24), Bar Tack Missing (18), Skip Stitch (15), Missing Stitch (13), Down Stitch (9)

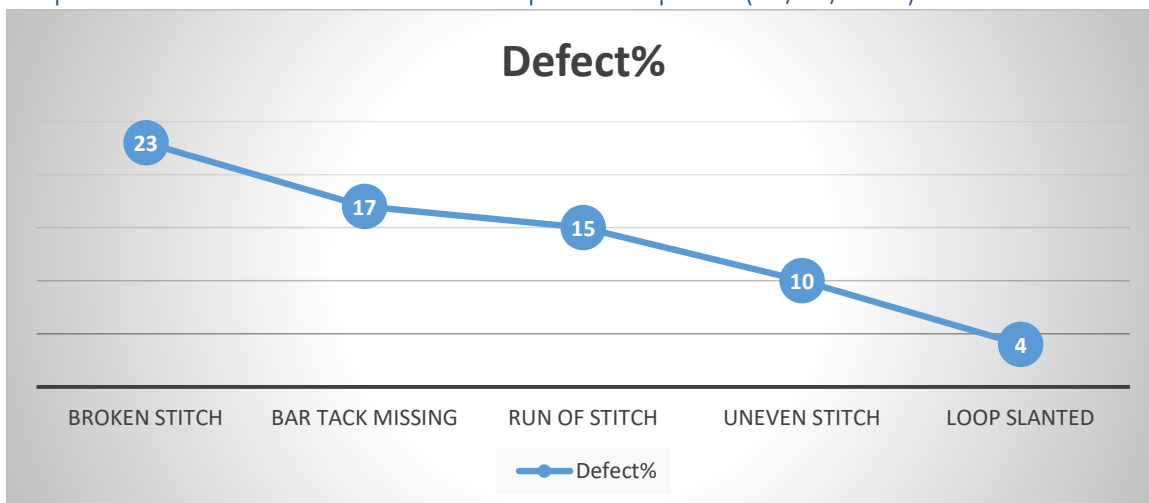After observation 3.1 we found Uneven Point faults than other faults. We observed 10th hour's production and found 24 Uneven Point sewing fault, but all pieces are altering and no rejecting pieces found. Maximum Uneven Stitch sewing fault occur 5-8th hour production time. Total D.H.U = 5.3%. This fault actually happened for the fabric is being pulled while sewing. Another cause for uneven Point is not use proper handling. For this sewing fault of the Pant, We have taken lots of information from Q.A.D for actual causes and remedies of this type of fault. This fault actually happened for the fabric is being pulled while sewing. Another cause for uneven stitches is the older or inferior thread. When sewing it is important to remember to never pull the fabric - allow the fabric to be taken up by the sewing machine.

Graph 4.1.3 Table 3.7 End of the Line Inspection report 5 (16/02/2018)

After observation 3.1 we found Uneven Loop faults than other faults. We observed 10th hour's production and found 24 Uneven Loop sewing fault, but all pieces are altering and no rejecting pieces found. Maximum Uneven Loop sewing fault occur 7-10th hour production time. Total D.H.U = 6.07%. This fault actually happened for the fabric is being pulled while sewing. Another cause for uneven Loop is not use proper handling. For this sewing fault of the MANS TR, We have taken lots of information from Q.A.D for actual causes and remedies of this type of fault. This fault actually happened for the fabric is being pulled while sewing. Another cause for uneven stitches is the older or inferior thread. When sewing it is important to remember to never pull the fabric - allow the fabric to be taken up by the sewing machine.

Graph 4.1.4 Table 3.7 End of the Line Inspection report 6 (18/02/2018)

After observation 3.3 we found Broken Stitch faults than other faults. We observed 10th hour's production and found 23 Broken Stitch sewing fault, but all pieces are altering and no rejecting pieces found. Maximum Broken Stitch sewing fault occur 1-4th hour production time. Total D.H.U = 5.38%. This fault actually happened for the fabric is being pulled while sewing. For this sewing fault of the MANS TR, We have taken lots of information from Q.A.D for actual causes and remedies of this type of fault. This fault actually happened for the fabric is being pulled while sewing. Another cause for uneven stitches is the older or inferior thread. When sewing it is important to remember to never pull the fabric - allow the fabric to be taken up by the sewing machine.

4.2 Comment

End of the Line inspected 03 Days Report 6575pieces of sewing Pant & MANS TR and finally we got the followings faults which are more occurs than other faults,

Uneven Point   : 43

Bar Tack Missing : 53

Skip Stitch   : 25

Missing Stitch   : 28

Down Stitch   : 19

Uneven Loop   : 46

Broken Stitch   : 42

Label Missing   : 9

Run OF Stitch   : 16

Uneven Stitch   : 30

Loop Slanted   : 4

Puckering   : 22

Incomplete Stitch : 9

Open Stitch   : 20

End of the line inspected 03 Days Report 366 faults.

Major problem of this report is Bar Tack Displace, which End Of The Line inspected 03 Days Report got 366 fault out of 6575piece garments.

4.2.1 Sewing Defects Percentage Measurement

Defect name	Defect Number	Defect %
Uneven Point	43	11.7
Bar Tack Missing	53	14.48
Skip Stitch	25	6.83
Missing Stitch	28	7.65
Down Stitch	19	5.19
Uneven Loop	46	12.56
Broken Stitch	42	11.47
Label Missing	9	2.45
Run OF Stitch	16	4.37
Uneven Stitch	30	8.19
Puckering	22	6.01
Incomplete Stitch	9	2.45
Open Stitch	20	5.46
Loop Slanted	4	1.09
Total	366	100%

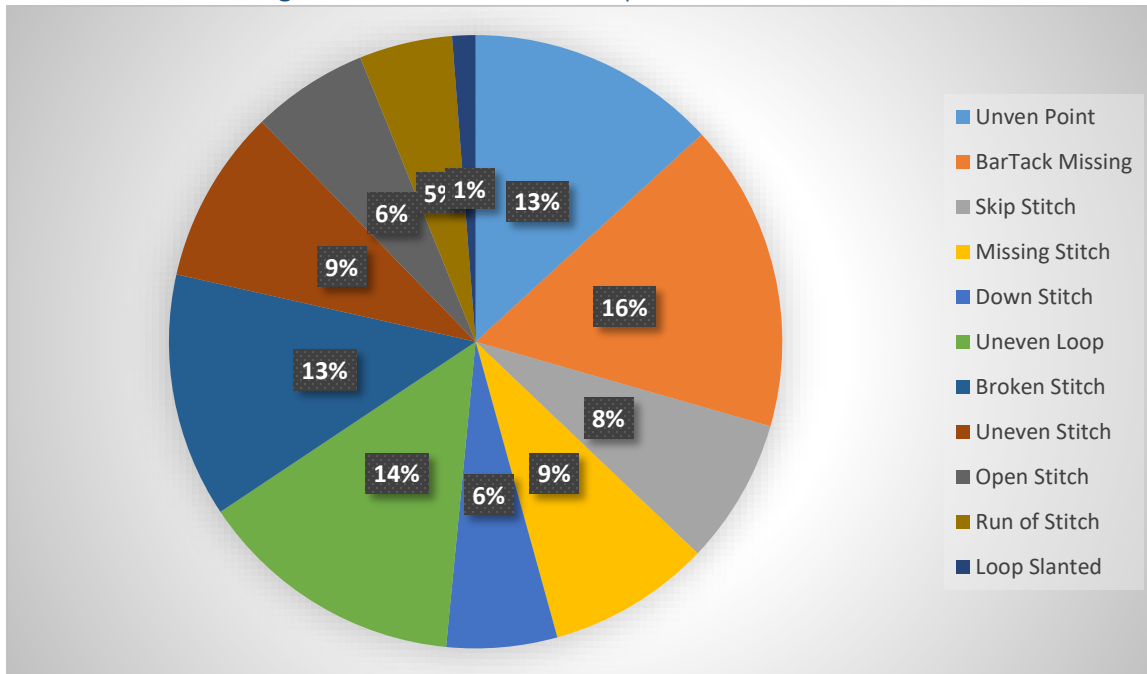## 4.2.2 Different Sewing defects are shown in the pie chart

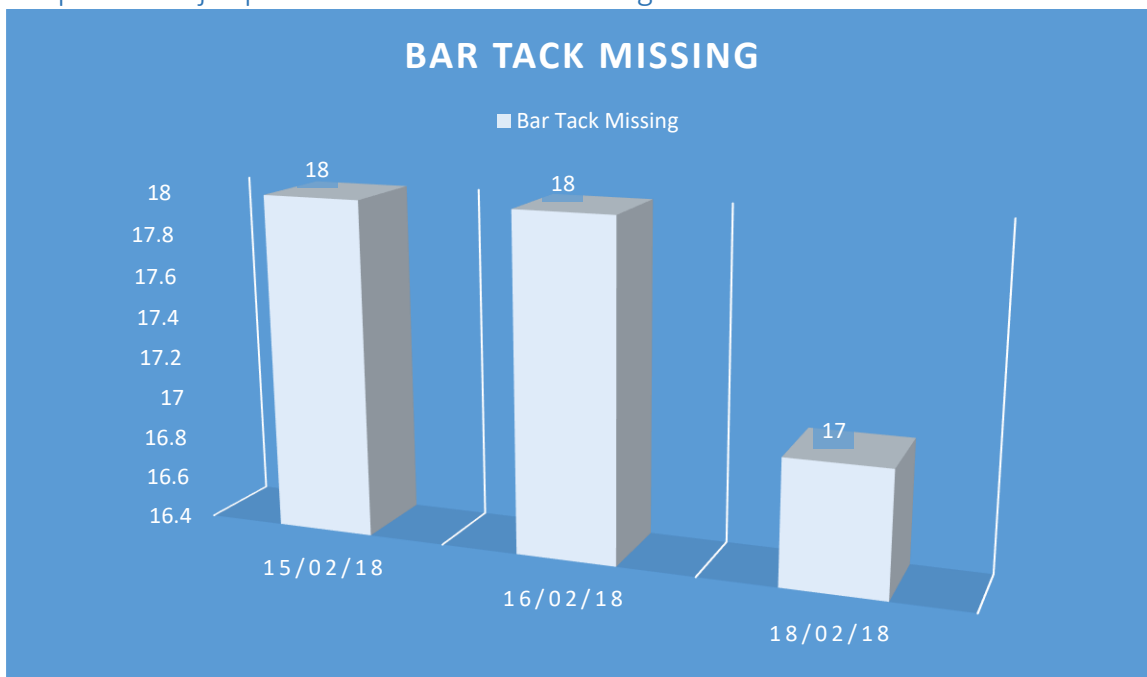*Figure 4.1 pie chart of graphical view*

Graph 4.3 Major problems occur in the sewing section

Chapter-5 Conclusion

5.1 Conclusion

Finally, we have completed our thesis after lots of inspection, experiment & discussion. We have gathered a large experience about this project. We have increased our knowledge about how sewing is done for making a garments, problems of sewing & how those problems are minimized. This thesis used a variety of garment samples which were grouped according to the end product categories. This study on sewing process in a ready-made clothing Enterprise, the reasons increasing quality faults and the priorities were determined for the improvement studies. To enable a good quality system in enterprises, there should be an adequate number of quality staff and the quality consciousness of workers should be increased. Material quality should be controlled by performing input controls, while the production quality should be provided by intermediary controls during production. Quality level should be constantly improved and for this purpose, regular trainings should be prepared in the enterprise.

References

1. Published on Nov 4, 2015, Sewing problems by Habibur Rahman, Retrieved from https://www.slideshare.net/Dollar800242/sewing-problems

2. Garment Defects Causes and Remedies in Defects, Garments Production, Retrieved from http://fashion2apparel.blogspot.com/2016/12/garment-defects-causes-remedies.html

3. www.rising-group.com

4. www.vintage-denim-ltd

5. http://sewing.about.com/od/sewingmachineindex
6. http://www.generations-quilt-patterns.com/sewing-machine-tension.html
7. http://www.fibre2fashion.com/industry-article/9/837/defects-in-garments1.asp
8. http://nisearch.com/files/pdf/garments-sewing-defects
9. http://sewing.about.com/library/weekly/blsuperior.htm
10. http://textileeducationtips.blogspot.com/2013/03/learn-