



Daffodil
International
University

Faculty of Engineering

Department of Textile Engineering

**Study on Fabric & Garments Inspection of a woven
Garments Factory**

Course Title: Project(Thesis)

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A Thesis submitted In Partial Fulfillment of the Requirement for the
Degree of Bachelor of Science in Textile Engineering.

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Advance in Apparel Manufacturing Technology

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Declaration

We hereby declare that, this project has been done by us under the supervision of Kazi Rezwan Hossain, Lecturer, Department of Textile Engineering, Faculty of Engineering, Daffodil International University. We also declare that, neither this project nor any part of this project has been submitted elsewhere for any degree or diploma.

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Letter of approval

11th April, 2019

To

The Head

Department of Textile Engineering

102, Shukrabad, Mirpur Road, Dhaka-1207

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

Dear Sir,

I am just waiting to know you that, this project report titled as “study on fabric & garments inspection” has been prepared by the student bearing ID’s 152-23-190 and 152-23-194 are completed for final evaluation, the whole report is prepared based on the proper investigation and interruption through critical analysis of empirical data with required belongings. The student was directly involved in their project activities and the report become vital to spark of many valuable information for the readers.

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

Yours Sincerely

.....

Kazi Rezwan Hossain

Lecturer

Department of Textile Engineering

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Abstract

Ready-made garments business is a fast growing business in Bangladesh. Foreign buyer from all over the world put their order in Bangladesh for the low production cost and high profit. Because the worker wages are very low in Bangladesh. In recent time production cost increased in RMG sector by many causes. Garment defect is one of them.

This article is encouraged by many unavoidable reason in rejection of large number of finished garments. The fast changing economic conditions such as global competition, declining profit margin, short lead time, new product development and buyer demand for high quality product at low cost push the manufactures to reduce their production cost. But they aren't compromise to the quality. So this is the big challenge for the manufacturer to increase production and reducing cost garment against certain specification provided for quality standard. In this report investigates different causes that is responsible for garments defects, rejects and wastage and discusses some short-term and long-term solutions that should be taken for reducing wastage in the apparel industries.

We completed our thesis project on Study on fabric and Garments Inspection of woven Garments factory. This paper clearly explains the trims and accessories reports, fabric inspection report, daily garments alter (%) report, In-line garments inspection report, pre final garments inspection report, final garments inspection report, daily styling check report, hourly measurement report, bottom quality inspection report, Rejection analysis report.

This project based on the different types of fabric and sewing defects and their remedies. In the textile industry, Inspection is basically done before the shipment. This Project is done by Dekko Desings Limited. In this industry sewing section has 2nd, 3rd, 4th and 5th floors. There are 8th sewing line per sewing floor and total sewing line are 32. Monthly production capacity 1049374 Pcs/month, number of line 32, number of M/C 3347, number of manpower 5560.

In our study, we are focus on important of sewing defects and fabric defects, how to control sewing defect in garment industry, how to work pre-final and final and final

inspection and I am trying to identify that problem, reason and their remedies. In my project, I have investigated 20 sewing defect reports from sewing input to output of finishing section. From the analysis of the reports, we find different types of defect that are found in sewing and finishing section. Such as: Broken stitch, oil mark, hole, open seam, label slanted, dirty mark, oil mark, slanted seam, uncut thread, twisting placket slanted, embroidery hole, tension problem, raw edge, stripe miss-match, part shading, print problem, foreign yarn, needle mark, connecting thread, pleat, puckering, uneven joint stitch, needle damage etc. Maximum numbers of faults are Skip stitch 9.80%, Broken stitch 4.43%, raw edge out 5.42%, Uncut thread 5.7%, puckering 10.67%, uneven 11.72%, up down waist band 15.34% etc.

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1. Introduction

1.1 Background of the study

Readymade garments are produced in bulk production in textile industry. People bought their desire dress according their demand in very effortless way. People pick out their garments from marker which is made via distinctive types of cloth with very lovely design. Readymade garments Manufacturing is Start by sourcing the perfect raw materials. From raw material collection to shipment the production a garment goes through some several steps. Sewing section is the location the place the desire product receives the remaining shape. During stitching and after stitching the garments go through some fundamental inspection. The inspection is taken by manufactures, Buyer and a number third-party inspection organizations. The essential goal of inspection is to achieve the customer requirements. In factory the inspection is accomplished by using several steps.

1.2 Objective of the study

- To be aware of about garments inspection process
- To know archive client requirement.
- To know the way of minimizing garments wastage.
- Follow up the working procedure as well as increase the productivity.
- To follow up the garments production procedures.
- To increase quality of production.

1.3 Scope of the Study

During our internee duration in DEKKO DESIGNS LTD. DEKKO WASHING LTD. We have got chances to visit all the area of the factory, supervise a whole production process in garments and different section. Somewhere these process are very similar to our theoretical part but somewhere these are demonstrating slightly different from theoretical part that mean it may be more practical. From the industries, we research so many matters & acquired so many experiences. We will try to elaborate our experience in our career & the production of a garments factory. In this report we will tryto

described our experience which we achieve at internship period and the production of a garments industry

1.4 Methodology

As the raw information is being gathered by using our self during sewing from the 5th & 6th floor of sewing unit. After that it was analyzed by the Microsoft office 2013. This Application was also used for the table & different a graphical presentation. The universal report writing software MS Word 2013 was also used to process all necessary research writing, chart graphs & tables. To formulate our project problems, we have to constitute the following steps.

1.4.1 Data collection

All the data which we include these are collected from every section of the factory, we have to collect data from fabric inspection, cutting table, sample section, sewing line, finishing section and washing section of the industry but wastage mainly occurred in cutting section, sewing line and washing section. So we have to try to create more focus on these section.

1.4.2 Data collection procedure

1st step: In this step we have to collect data from QC table.

- We get every hours data from this table.
- Alter garments data in every hour.
- Rejected and pass garments data in every hour.
- At the end of the day we get daily data from here.

2nd step: In this step we have to collect data from the quality department.

- We get all information about quality from here.
- Daily QC table data are include here .
- A monthly report of QC table data we were collect from here.
- In this department they analyse the fault and try to findout the cause of the fault and trying to overcome from it.

1.5 Limitations of the study

The report which has been done by us it might be more efficient and authentic but we trying our best to make it properly. Some limitations are existent in our process. Like;

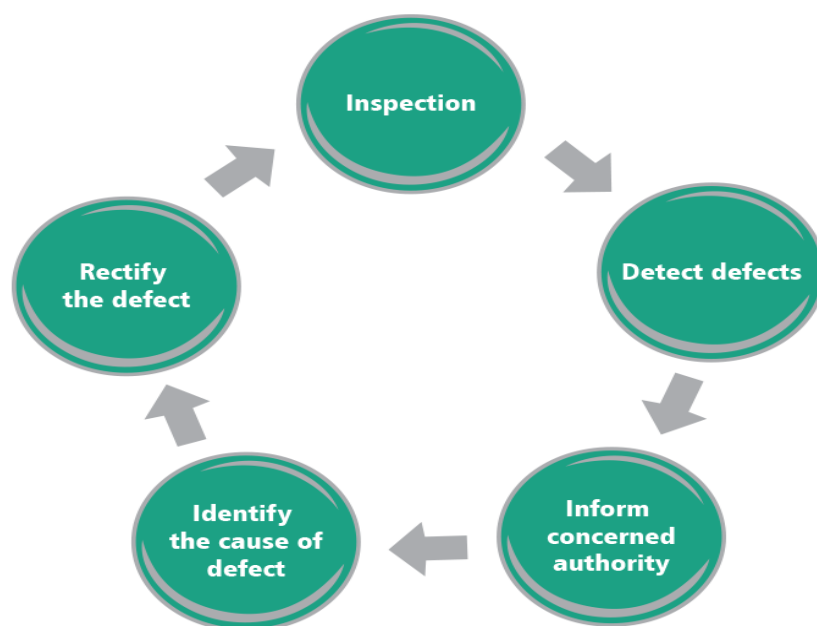
- We can't get enough time for the study.
- Sometimes the workers were busy so they cant guide as properly.
- The workers are more practical they have lackings of theory base knowledge. So sometimes it is difficut to understand their speech as a fresher.
- The website of DEKKO design ltd. is still in underconstruction. So we can't get any data from online.

2. Literature Review

2.1 Garment Inspection

All garment buyers expect to sell high first-class products from manufactures. The quality of the garments any fluctuate depends on the price market they are being made for so consequently buyers expect manufacturers assume manufacturers to observe a range of techniques of inspection techniques all through the manufacturing and prior to shipment release from factory. The inspections are done to control the quality is means by examining the products without the products any instruments. To examine the fabric, sewing, button, thread, zipper, garments measurements and so on according to specification or desired standard is called inspection. There are so many facilities for inspection in every section of garments industries. The aim of inspection is to reduce the time and cost by identifying the faults or defects in every step of garments making.

The basic working principle of inspection can be defined by the **Inspection Loop**. At First, identify defects through inspection then inform about the defects to the concerned person and identify the causes of defects and rectify them.



2.2 Types of Inspection

PRE-PRODUCTION INSPECTION:

Pre-production inspection is conducted for getting the buyer's approval, for which, samples are prepared before the actual production starts. This is done in the sampling department. Samples in this inspection stage are assessed against:

At the pre-production stage, different customers' may have specific requirements in terms of quality features and prices, inspection and testing of material, washing, lap dip, checking of paper patterns, markers and cut parts, and production sample. These specifications are actually the buyer's requirements, characteristic to the particular style.

1st inline production inspection:

This examination is carried out toward the starting of creation when first technology yield of precise style of articles of apparel is reviewed; to understand conceivable disparities or variety and to do quintessential remedies to be made mass creation. This kind of evaluation is carried out at preparatory segment of assembling of a style covering primarily style detail, outward presentation, workmanship, estimations, texture quality, Trims and parts, Lot shading, Printing, embellishments and washing excellent.

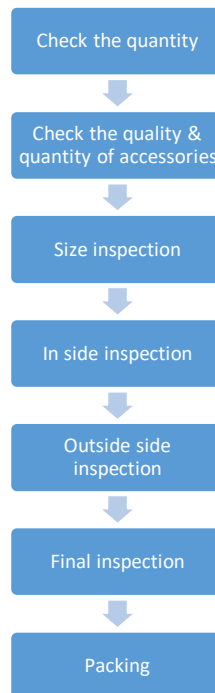
2nd line Production Inspection:

This inspection is completed during manufacturing to make sure preliminary discrepancies have been corrected and rectified. This examination is a follow-up of the first inline introduction investigation and is for the most part done after first line overview when mistakes have been unique round then.

Final Random Inspection:

This inspection is carried out when the manufacturing of the total quantity of an order or partial shipping is completed. An instance part will be chosen from the request and a level of the articles of garb will be examined, this rate for the most part being stipulated through the purchaser. The AQL testing examination framework as indicated by the purchaser.

2.3 Process sequence of garments inspection



2.4 Inspection Procedure of Garments

2.4.1 Check the quantity

First step of garments inspection start with affirmation of Quantity with the carriers packing listing by counting all Pieces of every box. If Quantity is no longer matching to the packing listing and written in the box, then this discrepancy is knowledgeable to the vendor.

2.4.2 Checking quality and quantity of accessories

In this stage at first we check the quantity and quality of the accessories which are needed for complete the order. like, Subsequent stage is the affirmation of extras; right here we verify mark labels, terrible mark labels, Price labels, or unique labels, wash mind names, woven names, or different names and embellishments as required by using the purchaser.

2.4.3 Size inspection

After affirmation of gildings all pieces are checked in according to estimate spec in light of the path sheet which is given by means of the consumer side. On the off risk that any estimation difficulty is seen, at that point we check the first instance and instruct the customer same time.

2.4.4 In Side Inspection

At this stage piece of apparel is checked from inner side to assurance that there is no texture imperfection, terrible sewing, and stains and so on in article of clothing.

2.4.5 Out Side Inspection

At this stage piece of clothing is checked from outer side to assurance that there is no shading variety, weaving deformity, texture imperfection, printing deformity, openings, terrible sewing, terrible stench, passing on imperfection and stains and so forth in the article of clothing.

2.4.6 Final Inspection

Last Inspection prepare is the most essential piece of assessment process, here article of clothing is rechecked to verify that investigation is executed correctly except lacking any checking assignment if any deformity is viewed we placed it into dismissal canister or send if for reimburse.

2.4.7 Packing

All "Review A" merchandise is again to poly sacks in accordance to the first bundling and afterward they are sending for needle investigation. Along these lines, contingent upon the nature of deformity a few pieces of clothing are ship for restore and some are rejected.

2.5 AQL

'AQL' means for 'Acknowledgment Quality Limit' and is characterised as the "quality stage that is the Worst bearable" in ISO 2859-1. It speaks to the most severe wide variety of imperfect units, previous which a cluster is rejected. Merchants typically set numerous AQLs for basic, major, and minor Defects. Most Asian exporters understand about this kind of setting.

2.5.1 AQL Defects Classification

Once the examples are chosen, each article is to be separately examined. Deformities identified amid a review are purchaser particular so in this manner fluctuate starting with one purchaser then onto the next. Imperfections are grouped inside the accompanying classifications.

Basic Defects:

A genuine imperfection that can make mischief or damage the client as well as result in a perilous condition.

Major defects:

A deformity that tumbles to meet the required controls straightforwardly influencing the convenience, attractiveness, wellbeing and estimation of the stock or as determined by client purchaser are considered as real imperfections and are for the most part non-repairable for instance texture gap, shading among board, wrong estimation, outside yarn, color patches and so on. The estimation endure level may fluctuate from client to client.

Minor Defects:

An imperfection that does not antagonistically influence the convenience of the item but rather does comprise of a deviation from the first example, and may influence the offer of the item. Some of these imperfections are because of workmanship and some can be repairable yet at the same time can break down the serviceability of the stock for instance recolor, skip line, wavy base trim and so on.

AQL Chart for Garments inspection is given below

Lot Size or Quantity Audited	Acceptable Quality Level (AQL) Level							
	1.5		2.5		4		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
501-1200	80	3	80	5	80	7	80	10
1201-3200	125	5	125	7	125	10	125	14
3201-10000	200	7	200	10	200	14	200	21
10001-35000	315	10	315	14	315	21	315	21
35001-150000	500	14	500	21	500	21	500	21
150001-500000	800	21	800	21	800	21	800	21
500001&Over	1250	21	1250	21	1250	21	1250	21

Table 2.1: AQL Chart for Garments Inspection

DEFECT CLASSIFICATION – ZONES

When inspecting apparels for cleanliness and material flaws, the area of the defect and its effect on the appearance and overall performance of a apparel ought to be taken into

consideration. Size and seriousness moreover have an effect on the worthiness. Deformities which are discernible on piece of clothing yet are no longer in the central territory of the article of apparel may no longer be a reason for article of apparel dismissal if the piece of clothing's execution, match or outward presentation is not weakened. Our trendy imperfection association for all advertising and marketing classifications; Fabric, Appearance, Color, Shade, Workmanship and Construction, Cleanliness and pressing is grouped using zones.

Zero Tolerance –

Zero Tolerance covers the complete article of apparel and applies to any sharp questions or a synthetic object that represents a properly being chance to the clients. (Example: damaged needles, sharp burrs/equipment, cruel synthetic response to the give up client). Zero resilience will be characterized below CRITICAL imperfection.

CRITICAL DEFECT:

A defect probable to result in a hazardous or hazardous condition for an person the usage of the product or fails to meet Government mandatory regulations. One Critical Defect found amid the investigation would reason the final QA evaluate to fall flat. The disappointment will carry about a 100% examination through manufacturing plant to evacuate all simple deformity matters preceding re-review again by means of a third party auditor or QA Manager

Zone A –

Where the visual look of the garment is viewed a MAJOR area of vital significance.

MAJOR DEFECT:

Anything that adversely impacts the appearance, overall performance which include match or purchaser satisfaction to a level that would furnish a discerning consumer with justification for no purchase, a return or complaint .

Zone B –

Where the visual look of the piece of apparel is considered as a MINOR two sector of significance yet not basic. This isn't as perceptible to the man or woman sporting the article of clothing or to a spectator at first look.

MINOR DEFECT:

Any range from the trendy that isn't always enough in diploma to be delegated fundamental and that would now not furnish a recognizing purchaser with aid for non-buy, an arrival or grumbling.

COUNTING OF DEFECT:

When the quantity of defects is being recorded, a single defect is considered. For every situation it will be the most authentic deformity experienced through the character example being investigated paying little appreciate to the trademark. Illustration, when an article of apparel being assessed contains each a Major deformity and a Minor imperfection the most excessive deformity (Major imperfection) will be characterised an imperfection on the investigation report. Minor imperfections will be counted towards the finish of the investigation via utilizing the recipe:

3 minor defects = 1 fundamental defect

E.g. If the inspectors totaled 10 minor defects on the visual report, the minors will be calculated using the system above. In this case 10 minors = three majors. All primary defects will be delivered to the primary defects list. Exceeding the allowed amount of predominant defects will results in a failed inspection and ought to be 100% display for all important defects encountered.

Stage of Apparel Inspection:

Various steps of garments inspection are mentioned in below:

- Raw material inspection
- production line inspection
- Inspection in finishing
- Final inspection

All these steps have discussed in the following:

Raw material inspection:

A first-class inspection need to test a range of things in accordance to buyer's guidance in Raw material inspection stage of garments. Those are –

Yarn defects such as thick and thin,

- Knitting defects,
- Fabric construction,
- Fabric GSM (Grams per square meter),
- Fabrics shade matching,
- Fabric holes,
- Fabric defects,
- Sewing thread,
- Zipper,
- Fabric softness,
- Fabric width,
- Vertical stripes,
- Horizontal stripes,
- Fabric shrinkage,
- Defective printing,
- Defective buttons,
- Defective embroidery,
- Dirt and stains in fabric.

During production inspection:

A quality inspector have to make certain exclusive matters in accordance to buyer's preparation in production stage of garments. Those are

- Collars & Cuffs matching,
- Sewing threads matching,
- Cutting patterns,
- Stitching,
- Absence of stitching,
- Needle holes & marks,
- Unbalanced sleeve edge'
- Unbalanced placket,
- Open seam,
- Puckering,
- Garments length
- Shoulder length,
- Body width

- Placket width,
- Placket length
- Arm hole,
- Arm Opening,
- Sleeve length,
- Rib or Collar width,
- Hemming width,
- Neck width,
- Neck opening,
- Incorrect side shape,
- Broken & Missing stitch,
- Bottom hem bowing,
- Uneven neck shape,
- Cutting shapes,
- Stitching defects,
- Measurements,
- Buttons,
- Trims & Accessories,

Finishing inspection:

A quality inspector should inspect different issues in accordance to buyer's instruction in finishing

step of garments. Those are –

- Poor Ironing,
- Dirt's & stains,
- Back Board,
- Collar Stay,
- Butterfly,
- Neck Board,
- Carton,
- Draw cord,
- Size strip,

- Pocket flasher,
- Hang tag,
- Photo-in-lay,
- Price ticket,
- Poly bag,
- Tissue paper.

Final inspection:

A quality inspection should affirm various issues according to buyer's direction in final inspection step of garments. Those are-

- Shade variation from one part to another part of garments,
- Garments measurement with allowance from buyers provided measurement chart,
- Collar and sleeves balanced,
- Pockets correct,
- Absence of fabric faults and stains,
- Appearance correct,
- Patterns matching,
- Absence of miss stitching,
- Seams finished correctly,
- Accessories correctly applied and working,
- Correct labeling.

Inspection in Fabric, Trims and Accessories

Inspection of fabric:

Fabric is the most important raw material of garments. So it is primary to assurance texture nice earlier than it achieves store of articles of apparel processing plant, commonly wrong texture may additionally carry about disturbance of technology and conveyance of pieces of apparel on time. Articles of apparel created with incorrect texture can also immediate sizable cost to the agency and may reason technology of stock parcels. It is a decent practice to investigate texture in the preface of the texture

maker. This empowers fast substitution of flawed texture. Still re examination of texture at the conveyance point to the save of an article of clothing manufacturing line is critical.

Types of fabric inspection:

After inspection of fabric the results have to be analyzed to assess acceptability of fabric. There are one-of-a-kind four grading or inspection systems, such as

1. 10-Point System
2. Graniteville "78" system.
3. Dallas system.
4. 4- Point system.

3. Ten Point System:

It was developed in the 1950's. This gadget assigns penalty points to every defect, relying on the size of the defect. Penalty points are assigned as per the following:-

Warp defect	Penalty points
10-36 inches	10 points
5-10 inches	5 points
1-5 inches	3 points
Up to 1 inch	1 points

Filling defects	Penalty points
Full width	10 points
5" to half the width of fabric	5 points
1-5 inches	3 points
Up to 1"	1 points

Under the Ten-Point System, a piece is graded a "first" if the whole penalty factors do not exceed the complete yardage of the piece. A piece is graded a "second" if the total penalty points exceed the whole yardage of the piece.

The following points are noteworthy

- This system is bit problematic because points per length are specific for warp and weft defects.
- It is tough in sensible use.

Graniteville "78" system:

This method was once added in 1975 for the subject of fabric grading. The framework separates abandons into major and minor composes .The real imperfection is one, which is extremely evident and drives the products to second quality. The minor deformity is one, which may per chance have made article of apparel second, contingent upon its location at ultimate make use of thing. Penalty Points are assigned as per the following:

Defect length	Penalty points
9”	1
9-18”	2
18-27”	3
27-36”	4

The following factors are noteworthy in this system:

- The principle was installed in garment cutting piece, in which, the quick length defects (less than 9") will commonly be removed.
- The system tries to balance the significance of longer defects (over 9") and put much less weight on 1-10" defects such as slob.
- The system also suggests the viewing distance of 9 foot alternatively of everyday 3-foot viewing distance.
- The machine tends to cast off very small defects from the complete penalty score.

- This is basically encouraged for use, where larger garments are to be cut with fabrics of wider widths

Dallas System:

This system was developed in 1970s mainly for knits. It was once endorsed via Dallas Manufacturers Association. As per this framework, if any deformity was once observed on a completed article of clothing, the piece of clothing would then be named as a "moment". For textures, this framework characterizes a second as "in extra of one imperfection for every ten straight yards, computed to the closest ten yards". For instance, one piece 60 yards in size would be accepted to have six imperfections.

4-Point System:

The 4-Point System, additionally referred to as the American Apparel Manufacturers (AAMA) point-grading system for determining fabric quality, is extensively used via producers of garb fabrics and is recommended via the AAMA as well as the ASQC (American Society or Quality Control). The 4Point System relegates 1, 2, 3 and four punishment suggests agreeing the dimension and essentials of the imperfection. Close to 4 punishment focuses can be appointed for any single deformity. Deformity can be in both size or width course, the framework continues as before. Just actual deformities are considered. No punishment suggests are relegated minor deformities. In this system, one investigate at least 10 per cent of the whole rolls in the shipment and make positive to pick at least one roll of each color way.

Fabric defects are assigned factors primarily based on the following:

Length of defect	Penalty points Allotted
Up to 3"	1 points
Over 3-6"	2points
Over 6-9"	3 points
Over 9"	4 points
Holes and Opening (1 inch or less)	2 points
Holes and Opening over 1 inch	4 points

Total defect points per 100 square yards of cloth are calculated and the acceptance standards are usually no longer greater than 40 penalty points. Fabric rolls containing greater than 40 points are viewed "seconds".

The method to calculate penalty points per 100 square yards is given bellow:

$$= \frac{\text{Total points scored in the roll} \times 3600}{\text{Fabric width in inches} \times \text{Total yards inspected}}$$

Some defects and their evaluation:

Defect During To Knitting:

- Hole-**Major**
- Spot-**Minor**

Defect During To Dyeing:

- Dia – **Minor/Major**
- Gsm – **Majo**

Defect During To Cutting:

- Fabric Color Shade – **Major/Minor**
- Fabric Damage – **Major/Minor**

Defect During To Print/EMB/Sequence:

- Print/EMB Placement Mistake – **Critical**
- Print/EMB – Measurement Fault –**Major**

Defect During To Sewing:

- Broken stitch-**Major**
- Skip stitch / **Drop stitch-Major**

Defect During To Sewing:

- Broken stitch-**Major**
- Skip stitch / Drop stitch-**Major**

3. Experiment Details

For completing thesis, we have visited garments factory which name is DEKKO DESINGS LTD. DEKKO WASHING LTD. We collected data from the factory. We completed this thesis report by following several steps & they are fabric & accessories inspection, in line inspection, end line inspection, finishing inspection report. Defect garments inspection with their remedy.

3.1 Trims/ Accessories Inspection Report


DEKKO DESIGNS LTD.
 Norshingapur, Ashulia, Savar, Dhaka.
TRIMS/ACCESSORIES INSPECTION REPORT

DATE: 17-03-19
TOD:

SUPPLIER: *Interface* O/n: *4552*

Order Qty: *2500 Pcs* Checked Qty: *200 Pcs* Checked Cnt: *1 CTN*

NORMAL INSPECTION PLAN				Items		Items		Items		Items	
Order QTY	Sample	Accept	Reject	ok	not ok	ok	not ok	ok	not ok	ok	not ok
90-150	20	0	1	Button		Zipper		Main Labels		Price tags	
151-280	32	1	2	Shank BTN		Thread		Woven Label			
281-500	50	2	3	Horn Button				Size Label			
501-1200	80	3	4	Jeans Button		Velcro		Care Labels		Eyelet	
1201-3200	125	5	6	Buckle		Twill Tape		Tear Away LBL			
3201-10000	200	7	8	Chalk BTN		Draw String				Cap Rivet	
10001-35000	315	10	11	Snap Button		Elastic		Other Labels		Rivet	
35001-	500	14	15					Belt		GRG Rivet	

Does the production to the approved swatch ? Yes No

COMMENTS: *check by wght box/DES + match with approved them card. we have found drawstring are wearing faults, measurement (-2cm) (+5cm)*

MAJOR MINOR

OK sample *8 Pcs*

TOTAL *8 Pcs*

Accept Reject

Inspected by *[Signature]* R.Q.S. Controller Q.C Accessories *[Signature]* R.Q.S Manager *[Signature]*

Fig 3.1: Accessories Inspection Report

Table 3.1: Accessories Inspection Report

Dekko Designs Ltd.

2Norshingapur, Ashulia, Savar, Dhaka

Trims/ Accessories Inspection Report

Supplier: interface	o/n: 4552	TOD:	Date: 17.03.19
Order qty: 2500 pcs	Checked Qty: 200pcs	Checked Cnt: 1 Ctn	

Normal Inspection Plan			
AQL 1.5			
Order Qty.	Sample	Accept	Reject
90-150	20	0	1
151-280	32	1	2
281-500	50	2	3
501-1200	80	3	4
1201-3200	125	5	6
3201-10000	200	7	8
10001-35000	315	10	11
35001-	500	14	15

Items	Ok	Not ok	Items	Ok	Not ok	Items	ok	Not ok	Items	Ok	Not ok
Button			Zipper			Main Labels			Price Tags		
Shank BTN			Thread			Woven Label			Eyelet		
Horn Button			Velcro			Size labels			Cap Rivet		

Jeans Button			Twill Tape			Tear Away LBL			Rivet		
Buckle			Draw String	✓		Other Labels			GRG Rivet		
Chalk BTN			Elastic			Belt					
Snap Button											

Does the production to the approved swatch?						Yes	No		Major	Minor
Comments:										8 pcs
Check by light box/ D65 + match with approved trim card. We have found Drawstring are weaving faults, measurement (-2cm)(+5cm)										
Ok Total									Sample	
									Accept	Reject

Description:

This is the **Trims/ Accessories Inspection Report** which is inspected by **Dekko Designs Ltd.** This inspection report contains all the fabric rolls which is inspected by inspector. **Trims/ Accessories Inspection Report** are checked by QC inspector. If any fault found there then take the necessary steps. All the fabric rolls are inspected & report for a good quality of products. The inspection for fabric starts at 8 am and end at 7.00 pm. By this time inspection calculate total inspection quantity, defect quantity as well as defect percentage.

3.2 Experimental Data in Fabric inspection

Buyer: KIABI

Style: 4359

Date: 26-02-2019

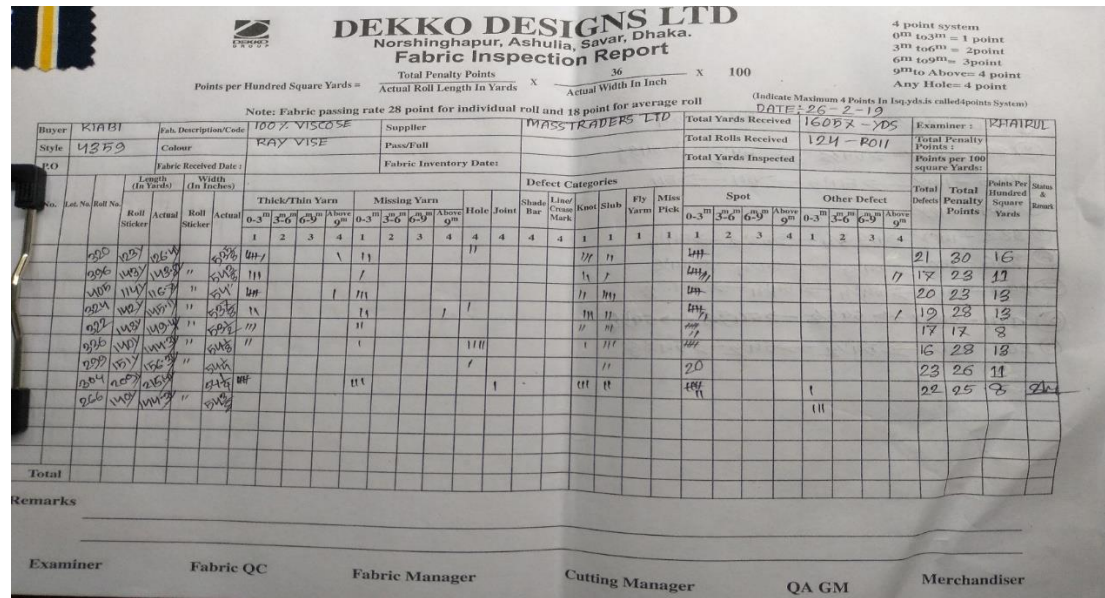


Fig 3.2 : Fabric Inspection Report

Table 3.2: Fabric Inspection Report

DEKKO DESIGNS LTD
NORSHINGHAPUR, ASHULIA, SAVAR, DHAKA
FABRIC INSPECTION REPORT

$$\text{Points per 100 square yards} = \frac{\text{Total Penalty Points}}{\text{Actual roll length in yards}} \times \frac{36}{\text{Actual width in inch}} \times 100$$

Buyer	KIABI	Fab. Des.code	100% viscose	supplier	Masstraders	Total yards received	16057yds	Examiner	Khairul
Style	4359	Color	Ray vise	Pass/Fail		Total rolls received	124 roll	Total penalty	

Po					Fabric inventory Date					Total yards Inspected			Points per 100 square yards	
----	--	--	--	--	-----------------------	--	--	--	--	-----------------------	--	--	-----------------------------	--

Roll No	Length In yards	Width In inch	Thick/Thin Yarn	Missing	Hole	Joints	Knots	S.L.U.B	SPOT	OTHER DEFECT	TOTAL DEFECT	TOTAL PENALTIES	Points Per 100 square yards	Remarks												
															Above 9m				Between 3m & 9m				Below 3m			
															0-3	3-6	6-9	Above 9m	0-3	3-6	6-9	Above 9m	0-3	3-6	6-9	Above 9m
320	123.4	123.4	581	I I I I I									21	30	16											
396	143.5	143.5	581	I I I I I									17	23	11											
405	146.7	146.7	54	I I I I I									20	23	13											
324	142.1	142.1	538	I I I I I									19	28	13											

3.3 Daily 100% Cut panel Inspection Summary Report

DEKKO DESIGNS LTD.																												
NORSHINGHAPUR, ASHULIA, SAVER, DHAKA.																												
Daily 100% Cut Panel Inspection Summary Report																		Date : 12-3-2019										
Serial Number	Buyer	Style Number	Cutting Number	Color	Component Name	Thickthin Yarn		Missing Yarn		Hole	Stop Mark	Shade Bar	Line/Cross Mark	Knot	Slub	Fly Yarn	Miss Pick	Spot	Numbering Mistake	Bundling Mistake	Others	Total Inspection Panels	Total Defective Panels	Total Defects	Total Passed Panels	Total Rejected Panels	D.H.U.	Percentage Defective
						A	B	C	D																			
		6150	09	PAVE	DK PR	02	09								03							5070	09					0.18%
		2103	20	BLUE PK	"	01	01	02	02					02				01			01	4806	06					0.12%
		11	21	"	"	01	02							02				01				3120	06					0.10%
		6150	06	IT BLUE	"	05	04							04	04							5124	17					0.33%
		6153	09	BROK WHITE	"	02	04		51													4000	62					0.71%
		4522	05	GREEN SHAF	"	02	12					04	09	06				15			05	4100	58					0.32%
Total DHU						22	26	02	53			04	15	13				17			06	17929	158					0.9%
Remarks:																												
Cutting Q.C							Cutting In-charge							Cutting Q.C Manager							GM Production				GM Quality			

Fig: 3.3 Cut Panel Inspection

Table 3.3 Cut Panel Inspection

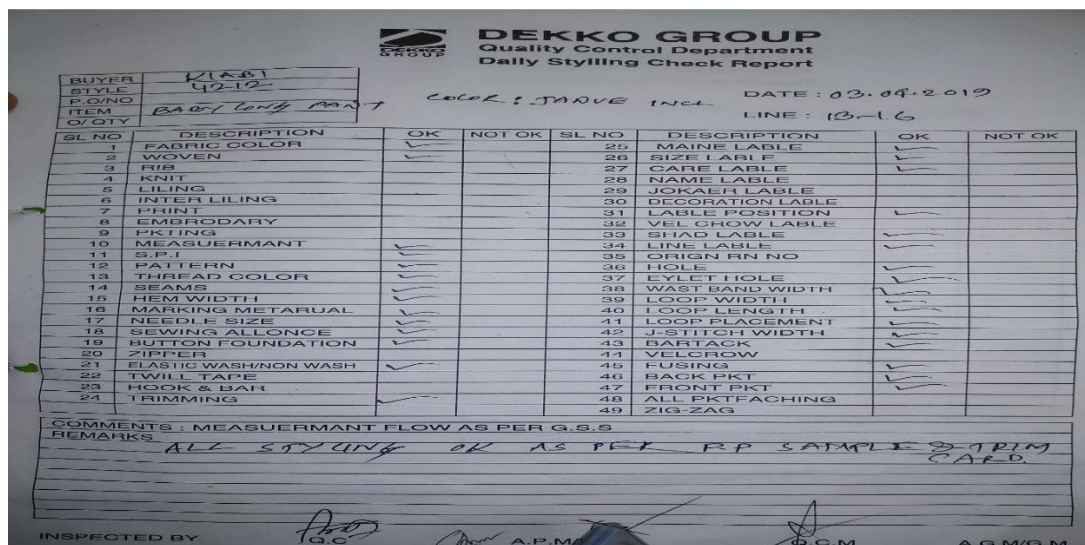
Serial Number	Buyer	Style Number	Cutting Number	Color	Component Name	Thick/Thin Yarn	Missing Yarn	Hole	Spot Mark	Shade Bar	Line/Creative Mark	Knot	Slub	Fly Yarn	Miss Pick	Spot	Numbering Mistake	Bundling Mistake	Others	Total Inspection Panels	Total Defective Panels	Total Defect	Total Passed Panels	Total Rejected Panels	D.H.U	Percentage Defective
						A	B	C	D	E	F	G	H	I	J	K	L	M	N							
		6150	4	Lt/Blue	BK/FR	2	4					3								5010	9				0.17%	
		2103	20	Blue/Pk	..	1	1	2	2			2				1			1	4816	6				0.12%	
		..	21		1	2				2				1				3120	6				0.10%	
		6150	6	Lt/Blue	..	5	4					4	4							5184	17				0.32%	
		6153	9	Broke/white	..	7	4		51											8008	62				0.77%	
		4552	5	Grey/white	..	7	12					4	9	6		15			5	17760	58				0.32%	
Total D.H.U						22	26	2	53			4	15	13		17			6	43889	158				0.30%	
Remarks:																										
Cutting Q.C						Cutting In-charge				Cutting Q.C Manager				GM Production				GM Quality								

3.4 Daily Styling Check Report

Buyer: KIABI

Color: JANVE

ITEM: Baby Long Pant



DEKKO GROUP
Quality Control Department
Daily Styling Check Report

BUYER: KIABI
STYLE: 42-12
ITEM: BABY LONG PANT
COLOR: JANVE INCL
DATE: 03.04.2019
LINE: 10-16

SL NO	DESCRIPTION	OK	NOT OK	SL NO	DESCRIPTION	OK	NOT OK
1	FABRIC COLOR	✓		25	MAINE LABEL	✓	
2	WOVEN	✓		26	SIZE LABEL	✓	
3	RIB	✓		27	CARE LABEL	✓	
4	KNIT	✓		28	NAME LABEL	✓	
5	LILING	✓		29	JOKAER LABEL	✓	
6	INTER LILING	✓		30	DECORATION LABEL	✓	
7	FRINI	✓		31	LABLE POSITION	✓	
8	EMBRODARY	✓		32	VEL CROW LABEL	✓	
9	PKTING	✓		33	SHAD LABEL	✓	
10	MEASUERMENT	✓		34	LINE LABEL	✓	
11	S.P.I	✓		35	ORIGN RN NO	✓	
12	PATTERN	✓		36	HOLE	✓	
13	THREAD COLOR	✓		37	EYLET HOLE	✓	
14	SEAMS	✓		38	WAST BAND WIDTH	✓	
15	HEM WIDTH	✓		39	LOOP WIDTH	✓	
16	MARKING METARUAL	✓		40	LOOP LENGTH	✓	
17	NEEDLE SIZE	✓		41	LOOP PLACEMENT	✓	
18	SEWING ALLONCE	✓		42	J-STITCH WIDTH	✓	
19	BUTTON FOUNDATION	✓		43	BARTACK	✓	
20	ZIPPER	✓		44	VELGROW	✓	
21	ELASTIC WASH/NON WASH	✓		45	FUSING	✓	
22	TWILL TAPE	✓		46	BACK PKT	✓	
23	HOCK & PART	✓		47	FRONT PKT	✓	
24	TRIMMING	✓		48	ALL PKTFACHING	✓	
				49	ZIG-ZAG	✓	

COMMENTS: MEASUERMENT FLOW AS PER G.S.S

REMARKS: ALL STYLING OK AS PER RP SAMPLE & TRIM CARD

INSPECTED BY: A.P.M., D.C.M., A.G.M/G.M.

Fig 3.4: Daily Styling Check Report

Table 3.4: Daily Styling Check Report

Dekko Designs Ltd.
Daily Styling Check Report

Buyer: KIABI

Date: 3.04.2019

Style: 4212

Line: 13-16

PO. No:

Color: Janve

Item: Baby long pant

Sl. No	Description	Ok	Not Ok	Sl. No	Description	Ok	Not ok
1	Fabric color	✓		25	Main Lable	✓	
2	Woven	✓		26	Size lable	✓	
3	Rib			27	Care lable	✓	
4	Knit			28	Name lable		
5	Liling			29	Decoration lable		
6	Inter Liling			30	Lable Position		
7	Print			31	Vel crow lable	✓	
8	Embrodary			32	Shade lable		
9	Pkting	✓		33	Line lable	✓	
10	Measuermant	✓		34	Jokaer Lable	✓	
11	S.P.I	✓		35	Orign RN No		
12	Pattern	✓		36	Hole	✓	
13	Thread color	✓		37	Eylet Hole		
14	Seams	✓		38	Wast Band Width	✓	
15	Hem Width	✓		39	Loop length		
16	Marking Metareal	✓		40	Loop Width		
17	Needle size	✓		41	Loop Placement		
18	Sewing Allonce	✓		42	J-Stitch width	✓	
19	Button foundation	✓		43	Bartack		
20	Zipper	✓		44	Velcrow		

21	Elastic Wash / Non wash			45	Fusing	✓	
22	Twill Tape			46	Back Pkt		
23	Hook & bar			47	Front pkt	✓	
24	Trimming	✓		48	All pkt faching		
				49	Zig-zag		

Comments: Measuermant flow as per G.S.S.

Remarks: ALL STYLE OK AS PER PP SAMPLE AND TRIMS CARD.

Description:

This is the **Daily Styling Check Report** inspection which is inspected by **Dekko Designs Ltd.** This inspection report contains a garments product which is inspected by inspector. Daily styling check of garments are checked by QC inspector. If any fault found there then take the necessary step to rectify the fault. The daily styling check report take place in every day. By this time inspection check total style of garments.

3.5 Hourly measurement Report

Buyer: KIABI

Style: 4212

Date: 03-04-19

ID : 112608



PROCESS	08-09	09-10	10-11	11-12	12-01	02-03	03-04	04-05	05-06	06-07	DEFECTS	REMARKS
Waist (+)										1	08	
Waist (-)						1					22	
Hip (+)												
Hip (-)												
In Seam (+)												
In Seam (-)	1		1		1	1			1		13	
Side Seam (+)												
Side Seam (-)	1		1	1					1		13	
SIZE MISTAKE												
BKRISE ⊕												
BKRISE ⊖	1		1						1		15	
TOTAL DEFECTS	13	12	10	11	0	2	27	15	10	11	106	
TOTAL PRODUCTION	100	100	100	100	100	100	100	100	100	100	1000	

Fig 3.5: Hourly measurement Report

Table 3.5: Hourly measurement Report

Dekko Designs Ltd.
Hourly Measurement Report

Buyer:KIABI

Date: 03.04.2019

Style: 4212

Audit Name: MONOAR

PO NO :

ID: 112608

Colour: All

Process	8-9	9-10	10-11	11-12	12-01	02-03	03-04	04-05	05-06	06-07	Defects
Waist(+)	ИП I	ИП	ИП	ИП	ИП	III		IIII	IIII	I	38
Waist(-)	III	III	II	II	II	I	III	III	III	II	27
Hip(+)											
Hip(-)											
In Seam(+)											
In Seam(-)	I	II	I	II	I	I		II	I	II	13
Side Seam(+)											
Side Seam(-)	I	II	I	I	II	I		II	I	II	13
Size Mistake											
BKRISE(+)											
BKRISE(-)	I		I			II	IIII	II	I	IIII	15
Total Defects	13	12	10	11	9	8	7	15	10	11	106
Total Production	100	100	100	100	100	100	100	100	100	100	1000
.....		
QC	QC. INC		F MANA			QA					

Table 3.6: INLINE INSPECTION REPORT FOR GARMENT

DEKKO Designe Ltd.

INLINE INSPECTION REPORT FOR GARMENT

Line No. 13-16				
Date: 03/04/19				
Supplier: Dekko Designs Ltd.		Factory: DekkoDesigns Ltd.		Buyer:
O/N:		TDD:		Style:
	Root cause	Critical Defect	Major Defect	Minor Defect
	* Iron problem	-	03	-
				-
	* QC check problem	-	02	
	* Trimming problem	-	02	03
			07 pcs	3pcs

Description:

This is the **inline inspection** report for garments which is inspected by **Dekko Designs Ltd.** This inspection report contains a garments product which is inspected by inspector. Different kinds of defects are checked by QC inspector. If any defect found there then take the necessary step to rectify the fault. The Inline inspections report take place in every 1 hour. The inspection for a line stars at 8 am and end at 7.00 pm.

3.7 Bottom Quality Inspection

NORSHINGHAPUR, ASHULIA, SAVAR, DHAKA																				
BUYER: KIABI										QC NAME: SALMA										
ITEM: SHORT PANT										LINE: FINISHING-02										
STYLE NO: 4212										PROCESS: GETUP										
COLOUR: JAUNE/ INCA										DATE: 03-04-19										
HR	INSPECTED QTY	TTL PCS	DEFECTIVE PCS	TOTAL	NR OF DEFECTS	TOTAL	DETAILS													
8-9	50	50	02	04	03	05	A2-1, C12-1, U12-1													
10-11	50	50	03	04	06	06	A2-1, A15-1, U12-1													
11-12	70	70	03	04	02	05	A2-1, A15-1, C12-1													
12-1	90	90	04	14	10	14	A2-1, A15-1, A10-1, A13-1, U15-1, U12-1, U12-1, A13-1													

SL	TYPE OF DEFECT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
A	BROKEN STITCHES	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20	A21
B	OVERLOCK BROKEN	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	B17	B18	B19	B20	B21
C	SKIP STITCHES	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21
D	DOWN STITCHES	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18	D19	D20	D21
E	RAW EDGES	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21
F	JOINT STITCHES	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	F13	F14	F15	F16	F17	F18	F19	F20	F21
G	THREAD TENSION	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13	G14	G15	G16	G17	G18	G19	G20	G21
H	POCKERING	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21
I	UNEVEN SHAPE/KT	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14	I15	I16	I17	I18	I19	I20	I21
J	UPDOWN WAIST BAND	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	J11	J12	J13	J14	J15	J16	J17	J18	J19	J20	J21
K	UNEVEN STITCH	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14	K15	K16	K17	K18	K19	K20	K21
L	WRING MEASUREMENT	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15	L16	L17	L18	L19	L20	L21
M	SHOUD	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21
N	HARDC FALLS	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12	N13	N14	N15	N16	N17	N18	N19	N20	N21
O	SOLE BLAGES	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	O11	O12	O13	O14	O15	O16	O17	O18	O19	O20	O21
P	POOR FINISHING	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21
Q	STAIN OILSTAIN	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21
R	MISSING BORTACK	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	R17	R18	R19	R20	R21
S	SPY	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20	S21
T	SLANTED	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15	T16	T17	T18	T19	T20	T21
U	OTHER DEFECT	U1	U2	U3	U4	U5	U6	U7	U8	U9	U10	U11	U12	U13	U14	U15	U16	U17	U18	U19	U20	U21

Table 3.7: Bottom Quality Inspection

DEKKO DESIGN LTD.
NORSHINGHAPUR, ASHULIA, SAVAR, DHAKA
BOTTOM QUALITY INSPECTION REPORT (SEWING)

PO NO:	BUYER:	QC NAME:	LINE: Finishing	PROCESS:
	KIABI	Salma	02	Get-up
STYLE NO:	ITEM: Short	COLOUR:	CODE:112112	DATE:
4212	Pant	Jaune/ Inca		03/04/19

HR	INSPECTED QTY	TTL PCS	DEFECTIVE PCS	TOTAL	NR OF DEFECTS	TOTAL	DETAILS
8-9	50	50	02	02	03	03	A2-1, C12-1, U12-1

9-10	50	100	02	04	02	05	R2-1, A15-1
10-11	60	160	03	07	03	08	A12-1, F15-1, C2-1
11-12	70	230	03	10	04	12	A15-1, F12-1, Q10-1, R13-141
12-1	80	310	04	14	04	16	U15-1, T13-1, O12-1, A13-1
Launch Time							
2-3	100	410	03	17	05	21	A12-1, F15-1, R2-1, U11-1, C12-1
3-4	120	530	03	20	04	25	F12-1, N12-1, U10-1, R13-1
4-5	120	650	04	24	05	30	C2-1, V2-1, T13-1, A15-1, Q11-1
5-6	120	770	03	27	05	35	E12-1, U15-1, N10-1, A15-1, O12-1
6-7	110	880	03	30	04	39	U15-1, E2-1, F12-1, C8-1

		1	2	3	4	5	6	7	8	9	10	11	12
SL	TYPES OF DEFECTS	J.STITCH	POCKET BAG	FT RISE	SINGLE FLY	DOUBLE FLY	BK CRGO FLAP	FRONT OPNG	BACK RISE	CARGO PKT	SIDE SEAM	IN SEAM	WAIST BAND
A	BROKEN STITCHES	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
B	OVERLOCK BROKEN	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
C	SKIP STITCHES	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
D	DOWN STITCHES	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12
E	RAW EDGES	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12
F	JOINT STITCHES	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
G	THREAD TENTION	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
H	PUCKERING	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12
I	UNEVEN SHAPEPKT	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12
J	UP/DOWN WAISTBAND	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	J11	J12
K	UNEVEN J STITCH	K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12
L	WRONG MEASUREME NT	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12
M	SHADING	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
N	FABRIC FAULTS	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12
O	HOLES/ DAMAGES	O1	O2	O3	O4	O5	O6	O7	O8	O9	O10	O11	O12
P	POORIRONIN G	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12
Q	STAIN/ OIL STAIN	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
R	MLSSING BARTACK	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12
S	SPI	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12
T	SLANTED	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12
U	OTHER DEFECT	U1	U2	U3	U4	U5	U6	U7	U8	U9	U10	U11	U12

This is the box audit in line pre-final inspection authorization report for garments which is inspected by Dekko Designs Ltd. This inspection report contains a garments product which is inspected by inspector. Different kinds of defects are checked by QC inspector. If any defect found there then take the necessary step to rectify the fault. The Inline inspections report take place in every 1 hour. The inspection for a line stars at 8 am and end at 7.00 pm.

3.8 Line wise DHU Analysis Report

DEKKO DESIGNS LTD											
Line wise DHU Analysis Report											
CASUAL-3											
2nd to 31st March-19											
Name of Defect	Line No:	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8	Total Defect	Defect %
BROKEN STITCH		756	549	291	302	679	74	929	338	3918	4.43%
OVERLOCK BROKEN		584	435	280	428	457	299	546	165	3194	3.61%
SKIP STITCH		879	881	971	1520	993	678	2117	626	8665	9.80%
DOWN STITCH		313	279	251	336	440	185	361	90	2255	2.55%
RAWEDGE OUT.		690	830	995	547	438	488	425	376	4789	5.42%
JOINT STITCHES		60	285	50	92	67	67	110	113	844	0.95%
THREAD TENSION		111	128	665	420	432	129	79	443	2407	2.72%
PUCKERING		1312	1483	1906	1428	811	1463	534	493	9430	10.67%
UNEVEN		1298	1136	1664	1694	935	1151	1612	873	10363	11.72%
UP/DOWN W/B.		1401	1433	2527	1666	978	1993	2467	1098	13563	15.34%
UNEVEN J STICH		421	105	1080	221	645	185	187	20	2864	3.24%
SIZE MISTAKE		0	0	16	0	53	0	37	34	140	0.16%
SHADING		0	7	5	0	91	0	57	0	160	0.18%
FABRIC FAULTS		2	0	5	0	8	0	0	0	15	0.02%
HOLES/DAMAGES		0	4	157	0	2	0	0	18	181	0.20%
POOR SHAPE		0	0	0	22	0	0	0	0	22	0.02%
OIL STAIN		932	16	133	101	51	0	755	185	2173	2.46%
MISSING BARTAK		217	148	171	236	283	109	138	32	1334	1.51%
SPI		344	1	162	0	0	0	48	0	555	0.63%
SLANTED		477	265	158	533	185	803	615	329	3365	3.81%
OPEN STITCH		0	0	109	232	238	317	865	189	1950	2.21%
PLEAT		0	5	20	271	182	776	372	338	1964	2.22%
OVER STITCH		0	0	0	222	33	428	79	10	772	0.87%
BARTAK DISPLACE		0	0	0	15	277	190	104	78	664	0.75%
UNCUT-THREAD		0	243	105	625	672	704	1291	1018	4658	5.27%
OTHERS		1617	2968	2526	909	85	35	0	7	8147	9.22%
Total Defect		11414	11201	14247	11820	9035	10074	13728	6873	88392	100.00%
Total Check		160589	80801	168920	159526	139113	102595	161240	76590	1049374	
DHU		7.11%	13.86%	8.43%	7.41%	6.49%	9.82%	8.51%	8.97%	8.42%	

Fig 3.6: Line wise DHU Analysis Report

Table: 3.8: Line wise DHU Analysis Report

DEKKO DESIGN LTD.
NORSHINGAPUR, ASHULIA, SAVAR, DHAKA
Line wise DHU Analysis Report

2 nd to 31 st March 2019	Casual-3									
Name of Defect	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8	Total Defect	Defect%
Broken stitch	756	549	291	302	679	74	929	338	3918	4.43%
Overlock broken	584	435	280	428	457	299	546	165	3194	3.61%
Skip stitch	879	881	971	1520	993	678	211 7	625	8665	9.80%
Down stitch	313	279	251	336	440	185	361	90	2255	2.55%
Rawedge out	690	830	995	547	438	488	425	376	4789	5.42%
Joint stitch	60	285	50	92	67	67	110	113	844	0.95%
Thread tension	111	128	665	420	432	129	79	443	2407	2.72%
Puckering	131 2	1483	1906	1428	811	146 3	534	493	9430	10.67%
Uneven	129 8	1136	1664	1694	935	115 1	161 2	873	10363	11.72%
Up/down w/b	140 1	1433	2527	1666	978	199 3	246 7	1098	13563	15.34%
Uneven j stitch	421	105	1080	221	645	185	187	20	2864	3.24%
Size mistake	0	0	16	0	53	0	27	34	140	0.16%
Shading	0	7	5	0	91	0	57	0	160	0.18%

Fabric faults	2	0	5	0	8	0	0	0	15	0.02%
Holes/ damage	0	4	157	0	2	0	0	18	181	0.20%
Poor shape	0	0	0	22	0	0	0	0	22	0.02%
Oil stain	932	16	133	101	51	0	755	185	2173	2.46%
Missing bartak	217	148	171	236	283	109	138	32	1334	1.51%
SPI	344	1	162	0	0	0	48	0	555	0.63%
Slanted	477	265	158	533	185	803	615	329	3365	3.81%
Open stitch	0	0	109	232	238	317	865	189	1950	2.21%
Pleat	0	5	20	271	182	776	372	338	1964	2.22%
Over stitch	0	0	0	222	33	428	79	10	772	0.87%
Bartak displace	0	0	0	15	277	190	104	78	664	0.75%
Uncut thread	0	243	105	625	672	704	129	1018	4658	5.27%
Others	161	2968	2526	909	85	35	0	7	8147	9.22%
	7									
Total defect	114	1120	1424	1182	9035	100	137	6873	88392	100.00%
	14	1	7	0		74	28			
Total check	160	8080	1689	1595	1391	102	161	7659	104937	
	589	1	20	26	13	595	240	0	4	
DHU	7.1	13.8	8.43	7.41	6.49	9.8	8.5	8.97	8.42%	
	1%	6%	%	%	%	2%	1%	%		

Description: This Line wise DHU Report is for counting total defect in a sewing floor in March 2019. In this floor has eight sewing line and every sewing lines potential defect has been included here individually. And then we get a final amount of defect in the end of the day of month.

3.9 Rejection Analysis Report

DEKKO DESIGNS LIMITED.											
Reject Analysis Report											
CASUAL-3											
2nd to 31st March-19											
Type of Reject	LINE NO								Total Sewing Reject	Total Finishing Reject	Running Month Total Reject
	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8			
FABRIC FAULT	0	0	0	0	0	0	0	0	0	98	98
SHADING	0	0	0	0	0	0	0	0	0	1	1
REJECT SPOT	0	0	0	0	0	0	0	0	0	482	482
WASH SPOT	0	0	0	0	0	0	0	0	0	0	0
FINISHING CUTTER CUT	0	0	0	0	0	0	0	0	0	67	67
HOLE DAMAGE	0	0	0	0	0	0	0	0	0	106	106
CUTTING REJECT	0	2	0	0	0	0	0	0	2	0	2
SEWING REJECT	0	0	0	0	0	0	0	4	4	0	4
NEEDLE CUT, FIT DAMAGE	0	0	0	0	0	0	0	0	0	5	5
ZIPPER DAMAGE	0	0	0	0	0	0	0	0	0	0	0
REVA, BUTTON REJECT	0	0	0	0	0	0	0	0	0	0	0
SHINING MARK	0	0	0	0	0	0	0	0	0	0	0
POCKET CORNER DAMAGE	0	0	0	0	0	0	0	0	0	0	0
OTHERS	0	0	0	0	0	0	0	0	0	19	19
TOTAL REJECT QTY:	0	2	0	0	0	0	0	4	6	778	784
TOTAL CHECK QTY:	82350	36323	93930	86186	57313	51555	85040	42160	534857	69569	604426
TOTAL REJECT %	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	1.12%	0.13%

Fig 3.7: Rejection Analysis Report

Table 3.9: Rejection Analysis Report

DEKKO DESIGN LTD.
NORSHINGHAPUR, ASHULIA, SAVAR, DHAKA
Rejection Analysis Report

2 nd To 31 st March 2019	LINE NO								Total Sewing Reject	Total Finishing Reject	Running Month Total Reject
Types Of Reject	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8			

Fabric Fault	0	0	0	0	0	0	0	0	0	98	98
Shading	0	0	0	0	0	0	0	0	0	1	1
Reject Spot	0	0	0	0	0	0	0	0	0	482	482
Wash Spot	0	0	0	0	0	0	0	0	0	0	0
Finishing Cutter Cut	0	0	0	0	0	0	0	0	0	67	67
Hole Damage	0	0	0	0	0	0	0	0	0	106	106
Cutting Reject	0	2	0	0	0	0	0	0	2	0	2
Sewing Reject	0	0	0	0	0	0	0	4	4	0	4
Needle Cut, Fit Damage	0	0	0	0	0	0	0	0	0	5	5
Zipper Damage	0	0	0	0	0	0	0	0	0	0	0
Revote, Button Reject	0	0	0	0	0	0	0	0	0	0	0
Shining Mark	0	0	0	0	0	0	0	0	0	0	0
Pocket Corner Damage	0	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0	19	19
Total Reject Qty.	0	2	0	0	0	0	0	4	6	778	784
Total Check Qty.	823	363	939	861	573	515	850	4216	534857	69569	604426

Total	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00%	1.12%	0.13%
Reject:	%	%	%	%	%	%	%	%			

Description: This Rejection analysis report is for counting total Rejection in a particular floor for a month, March 2019. This floor has eight sewing lines, we find Rejection for every individual lines of this floor and in the end of the day of the month we get final Rejection report for this floor.

- a. Some defect that we can see during in our inspection

1. Uncut thread

Extra thread or loose thread on seam line.

Causes:

- It appears due to improper trimming or finishing

Remedies:

- UBT/thread trimmer should be used
- Operator training
- Garments finishing should be checked properly.

2. Horizontal lines

This fabric defect is defined by irregular lines that run from side to side. Horizontal lines are generally caused by:

- Faults in the bobbin (the barrel used to hold yarn in place)
- Irregular thread tension

Causes and prevention of horizontal lines

Preventing the appearance of horizontal lines in fabric is quite straightforward. Regularly replace the bobbin and frequently check thread tension and positioning.



3.10.1: Horizontal lines Defect

3. Shade variation

One of the more obvious visual defects that can be found on raw textiles, shade variation is defined by a difference in depth of shade and color from roll to roll or piece to piece.

Shade variation in fabric is caused by:

- Mixing of fabrics used in production
- Variations in the production process with regard to time and speed
- Improper cutting, bundling and/or numbering
- Unequal fabric stretching

Causes and prevention of shade variation

Using the same base material and set of parameters for each production lot can effectively prevent shade variation.

When visiting a factory that manufactures raw textiles, it's critical to ensure workers are only combining garments of the same color and not taking shortcuts when cutting and bundling. Properly numbering textile types prevents mistakenly combining cuts that vary in shade.



Fig 3.10.2: Shade Variation

4. Dirt/stains

Stains are fairly common among dyed textiles and are defined as spots or patches of differing color. **Textiles are never truly safe from stains** because they can occur anytime during or after production if they're not kept in an area with adequate protection.

Stains can appear on fabrics from just about any source. Dirt from the factory floor, oil from machinery and dyes are all known sources. Stains are relatively easy to identify and prevent so long as suppliers are vigilant about fabric quality.

Causes and prevention of dirt/stains

Your manufacturer can prevent stains during production by regularly cleaning production machines and equipment to ensure no random oils, grease or dyes make their way onto the textile.

Wrapping the finished rolls of fabric in plastic and storing them in a separate area away from the dyeing area can help avoid post-production stains



Fig 3.10.3: Dirt/stains

5. Holes

A hole is an imperfection where one or more yarns are sufficiently damaged to create an opening in the fabric.

Holes are typically treated as a major defect in the fabric and are assigned either two or four penalty points during fabric inspection, depending on their size.

Causes and prevention of hole

Holes are usually caused by an accidental cut or tear to the fabric. Broken needles or rough mechanical parts are common culprits for fabric tearing during manufacturing.

Prevent future holes by ensuring your supplier has procedures in place to regularly check needles and machinery prior to production.



Fig 3.10.4: Hole

6. Slipped stitch:

If the upper thread in continuous stitches cannot pick the lower thread i.e. binding miss during stitch formation is called slipped stitch.

Causes:

- Loop size or needle is small.
- Needle deflection or bending.
- Tension variation in lopper and needle thread.
- Hook or lopper or needle is not able to hold the thread loop in proper time.

Remedies:

- Timing of (hook or lopper) with needle should be adjusted properly.
- Adjust needle and thread size.
- Adjust tension properly.
- Change of thread.

7. Un balanced Stitch:

If the interlacement of the needle thread and bobbin thread does not takes place at the middle of two layers of the fabric then unbalanced stitch is produced.

Causes:

- Incorrect tension of sewing thread.
- Incorrect passage of thread through the guide.
- Due to insufficient lubrication, (uneven) tension variation increased.

Remedies:

- Adjust thread tension.
- Correct the passage of thread.

8. Variable stitch density:

If the no. of stitch varied in the seam line per unit length, then variable stitch density occurred.

Causes:

- Insufficient pressure of presser foot, causing uneven feeding.
- Feed mechanism is not working properly.
- Improper unwinding of thread.
- Twisting of needle in the bottom of thread package.
- Fraying of thread in the needle.
- More tension in the thread.
- Becoming of more heating of thread and hook.
- Use of low quality of thread.

Remedies:

- Uses of improved feed mechanism.
- Increase of pressure of presser foot.
- Proper threading of sewing thread.
- Thread can be changed

9. Broken Stitch:

Non-continuous sewing thread.

Causes:

- It appears due to improper trimming or machine usage.

Remedies:

- Needle plate, presser foot and feed dog should be checked periodically for damages
- Proper machine usage
- Tension and threading should not be fiddled with much
- Washing parameters should be strictly followed
- Proper trimming
- Good quality or D-core thread should be used
- Needle thread fabric combination should be well judged
- Needle alignment should be right



Fig 3.10.5: Broken Stitch

11. Seams not aligned at crossing of seams:

Seams are not lined up at intersection of seams.



Fig3.10.6: Seams not aligned at crossing of seams

Causes:

Defects generally come about either from improper handling of the cut piece.

Remedies:

- When these defects starts to appear at close to 2% or 5 pieces, the production must be informed and the operator must re-trained in the proper usage of the machine.

4. Result and Discussion

4.1 Trims/ Accessories Inspection from 3.1

Items	Supplier	Order qty	Checked Qty	Checked Cnt	Defect Piece	Rectified piece	
Draw String	Interface	3300pcs	200	1	10	0	Rejected



Fig 4.1: Pie Chart of Accessories Inspection from 3.1

Comments:

Draw String is one of the most important **Trims/ Accessories** which is checked by light box/ D65 + match with approved trim card. We have found Drawstring are weaving faults, measurement (-2cm)(+5cm). There are 3300pcs drawstring where 200pcs are checked and we found 10 defect piece. So it is rejected.

4.2 Analysis of Fabric inspection from data 3.2

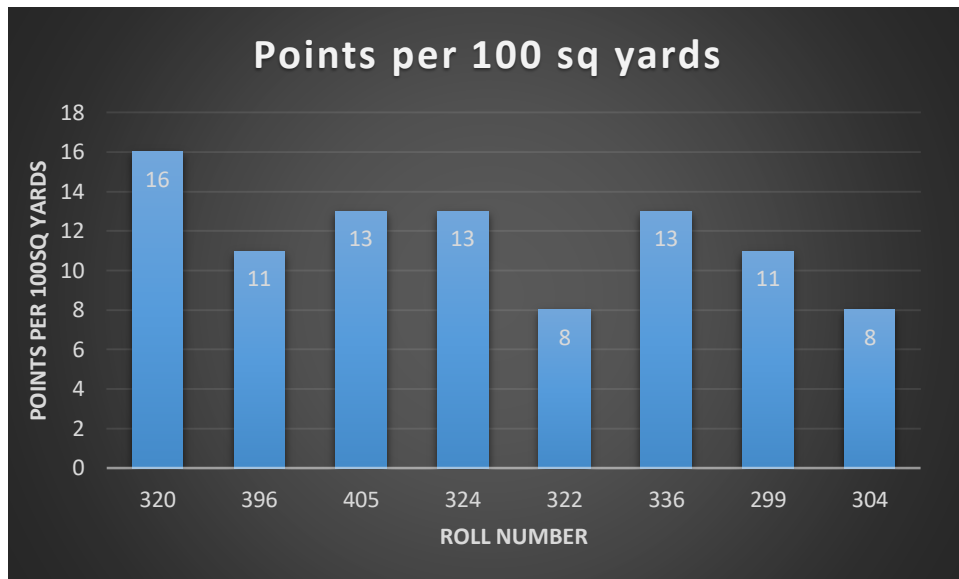


Fig 4.2.1: Analyzing data graph of Fabric Inspection

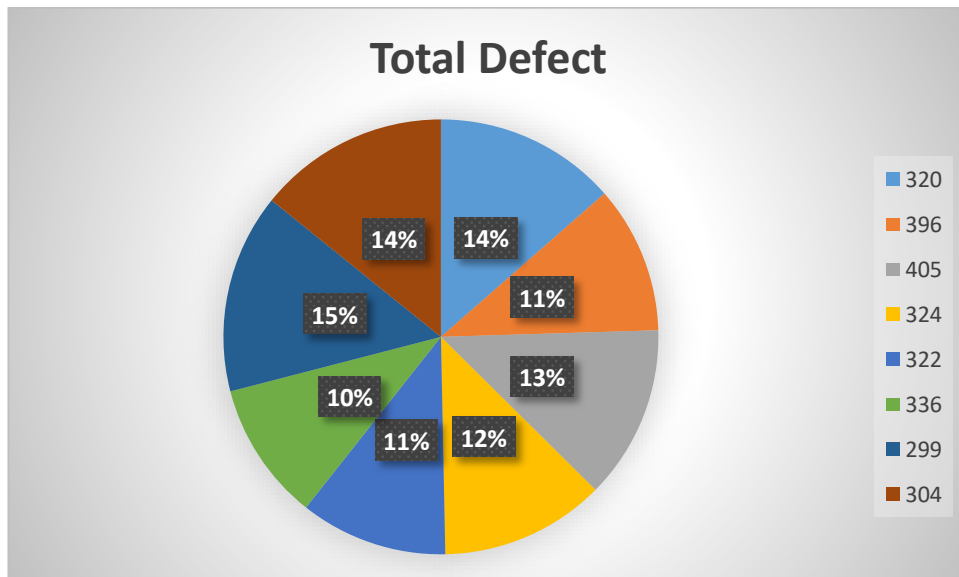


Fig 4.3.2: Defect Analysis of Fabric

Comments:

Fabric is very important materials for making good quality garments which is checked by 4 points system. There are 8 fabric rolls. They have 155 total defects and 200 total penalty points.

Major defects of fabrics are:

Thick/Thin Yarn: 28

Missing: 15

Hole: 7

Spot: 44

4.3.1 Daily 100% Cut panel Inspection Summary from 3.2

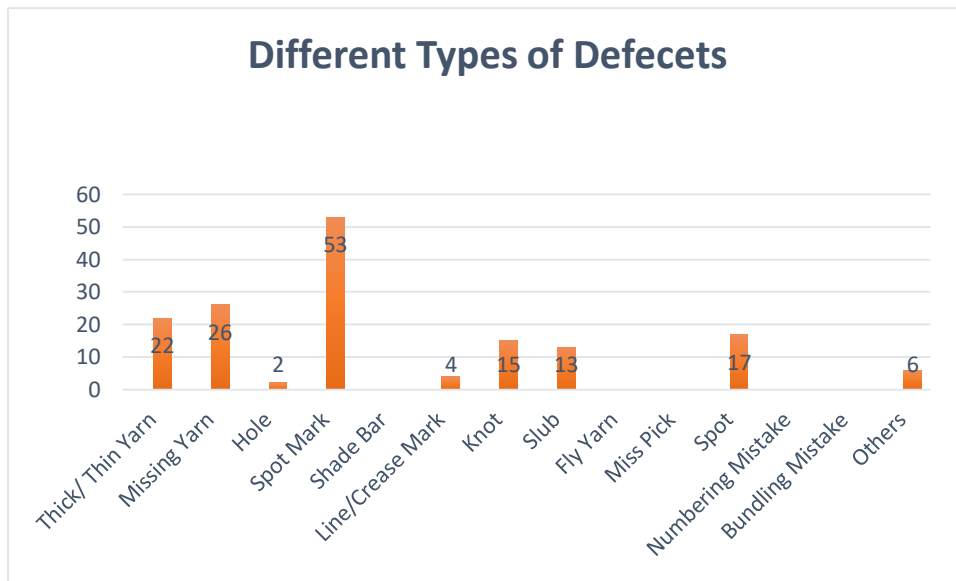
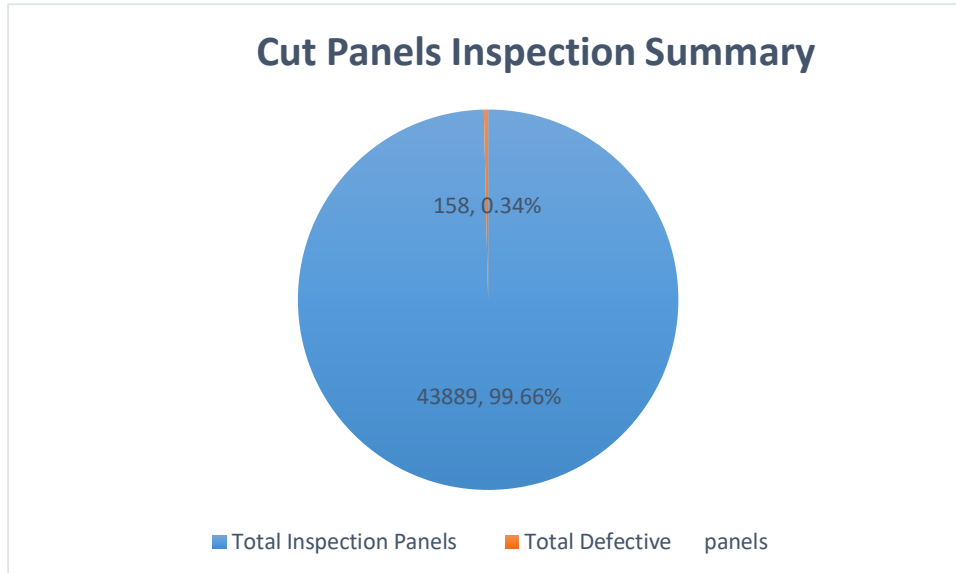


Fig 4.3.1: Cut panel Inspection Summary

4.3.2 Cut Panels Inspection Summary Report



4.3.2: Graphical view of cut panel inspection summary

Description:

After one day total inspection panels are 43889 pieces and total defective panels are 158 pieces. Total checked panels 90.66% and total defect found 0.34%.

Main defect:

- Spot mark: 53
- Thick/Thin yarn: 22
- Missing Yarn: 26

4.4 Daily Styling Check Report from 3.4

Comments:

Daily styling check report is one of the **important report which is** checked by inspector and match with approved sample. If any fault found there, then take the necessary step to rectify the fault. The daily styling check report take place in every day. We have not found any faults. So it is accepted.

4.5 Hourly measurement result

- This inspection is occurred in every individual hour wise.
- Measurement of garments should be inspected here by a QC.

Table 4.5.1: Hourly Measurement Result

Time (hour)	Checked quantity	Total Defects	Defect percentage
8-9	100	13	13%
9-10	100	12	12%
10-11	100	10	10%
11-12	100	11	11%
12-01	100	09	9%

Hourly Measurement Analysis for First Five Hours.

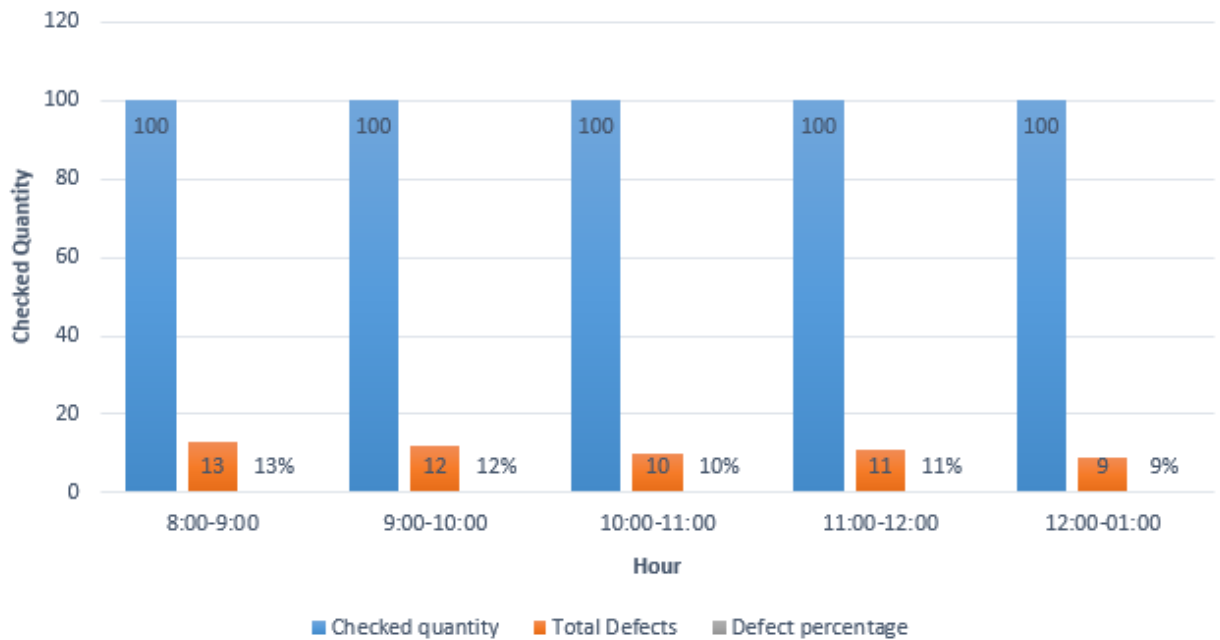


Fig 4.5: Graphical view of Hourly measurement inspection

Comments:

- For first hour, total checked quantity is 100 and number of defect found is 13. The defect percentage is 13% here.
- In second hour, 12 defect is found among 100 inspected quantity, and the the defect percentage is 12% here.
- In third hour, total checked quantity is 100 and number of defect found is 10. The defect percentage is 10% here.
- For first hour, total checked quantity is 100 and number of defect found is 11. 11% defect is shown in thie hour.
- For first hour, total checked quantity is 100 and number of defect found is 9. the defect percentage is 9% for this hour.

4.6 In line Inspection Report for Garments

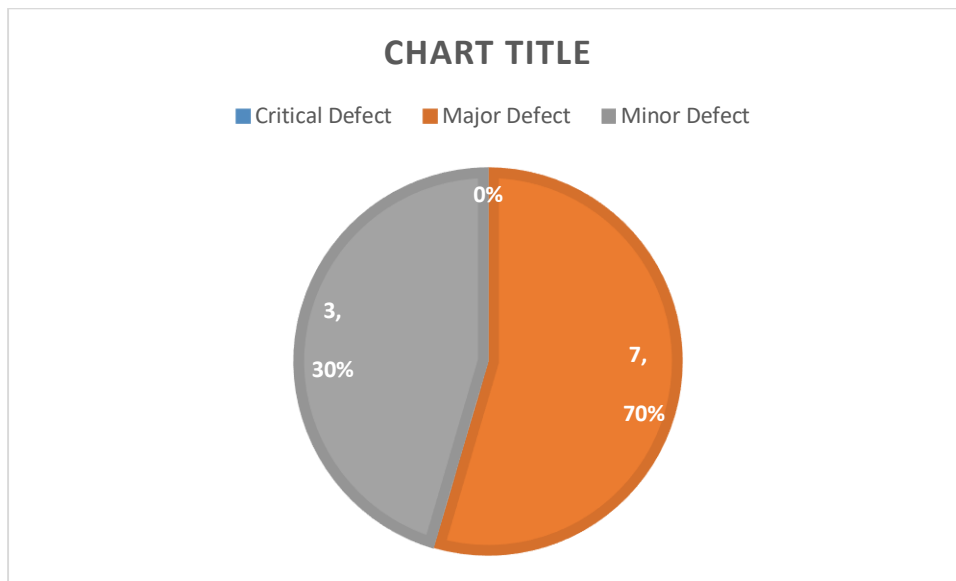


Figure 4.6: In line Inspection Report for Garments

In this graph three kinds of defect like critical, major and minor has been included.

- For iron problem: critical defect 0, major defect 03 and minor defect 0.
- For QI check problem: critical defect 0, major defect 02 and minor defect 0.
- For trimming problem: critical defect 0, major defect 02 and minor defect 3.

4.7 Analysis of Bottom Quality Inspection from 3.7

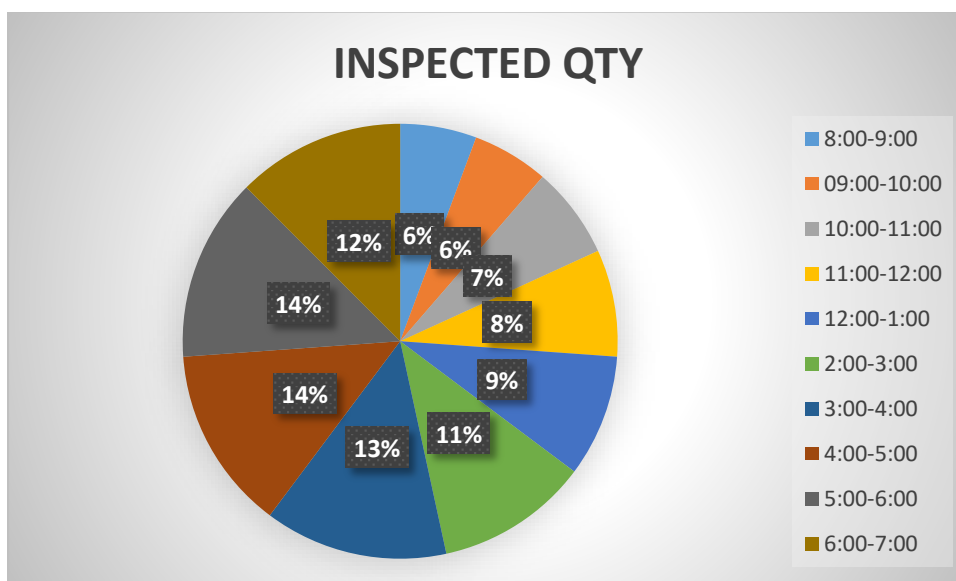


Fig 4.7: Pie Chart of Bottom Quality Inspection

In the bottom quality inspection total inspected quantity of garments are 800 which is inspected from 8 am to 7pm. From the data analysis report of bottom quality inspection, we find 14% garments inspected from 3pm to 4pm & 4pm to 5pm.

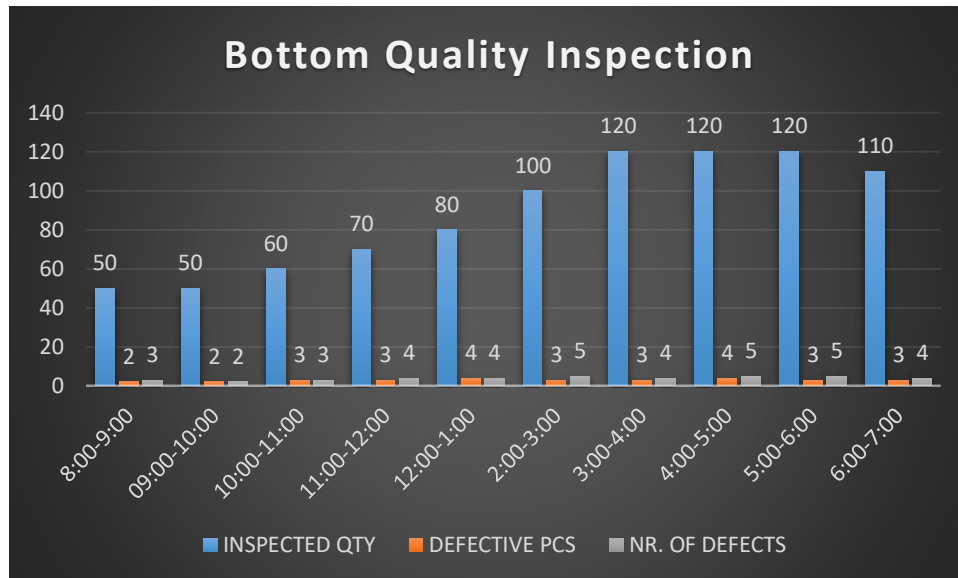


Fig 4.8: Bottom Quality Inspection

In the bottom quality inspection total inspected quantity of garments are 800 which is inspected from 8 am to 7pm. From the data analysis report of bottom quality inspection, we find 14% garments inspected from 3pm to 4pm & 4pm to 5pm which is the highest quantity check of garments and lowest garments inspection hours is 8am to 9am. We found fine total defect 30 pic & total defects point 39pic.

4.8 Graphical view of floor QC pass

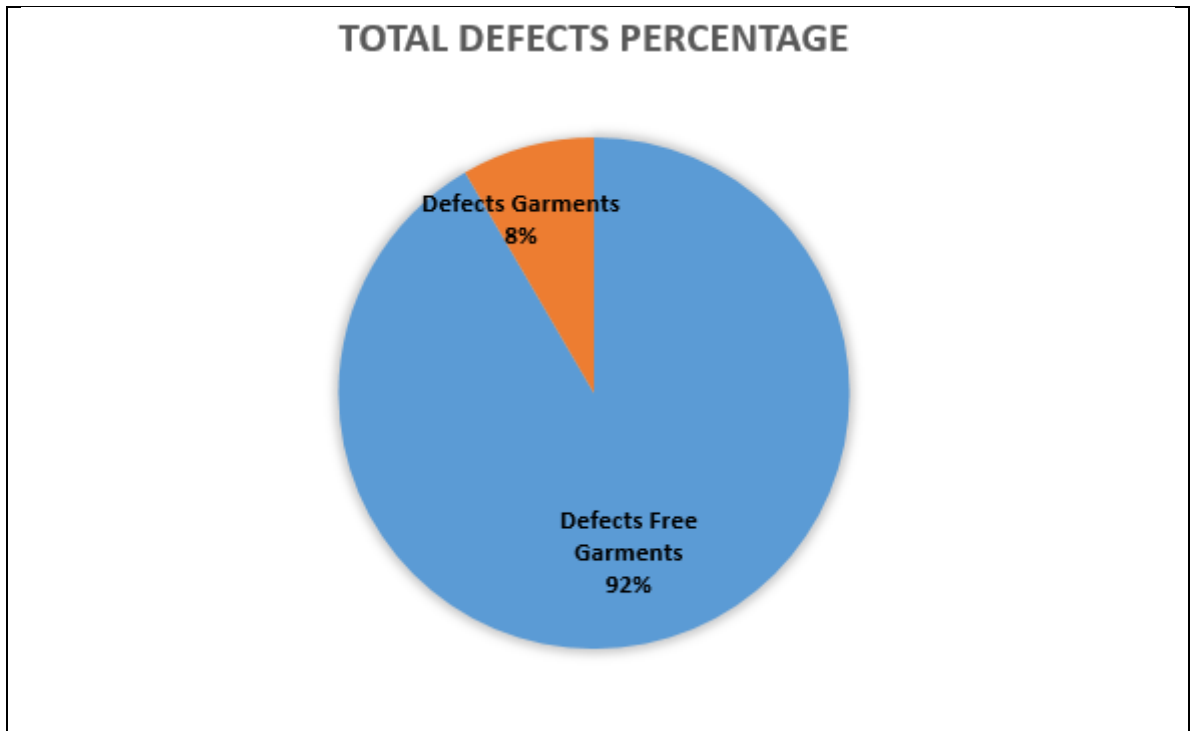


Fig4.9: Garments Defects

from the data analysing report of garments inspection OK and defectc, we get 92% are OK garments and rest 8% is defectc. During the whole month inspection total checked quantity is 1049374 and defect quantity among them is 88392 pcs.

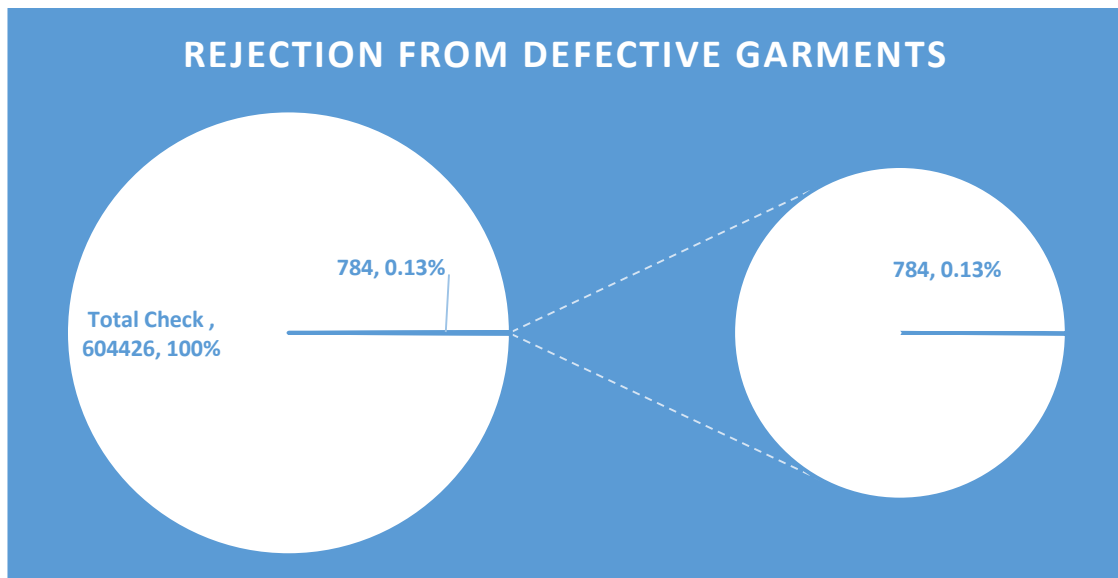


Fig 4.10: Defect and Reject Garments Pie Chart.

In this month we get 784 pcs Rejected garments from 604426 pcs defected garments. From the above pie chart, we got defects and Rejects percentage are 100% and 0% respectively.

Some Defect percentage for individual line:

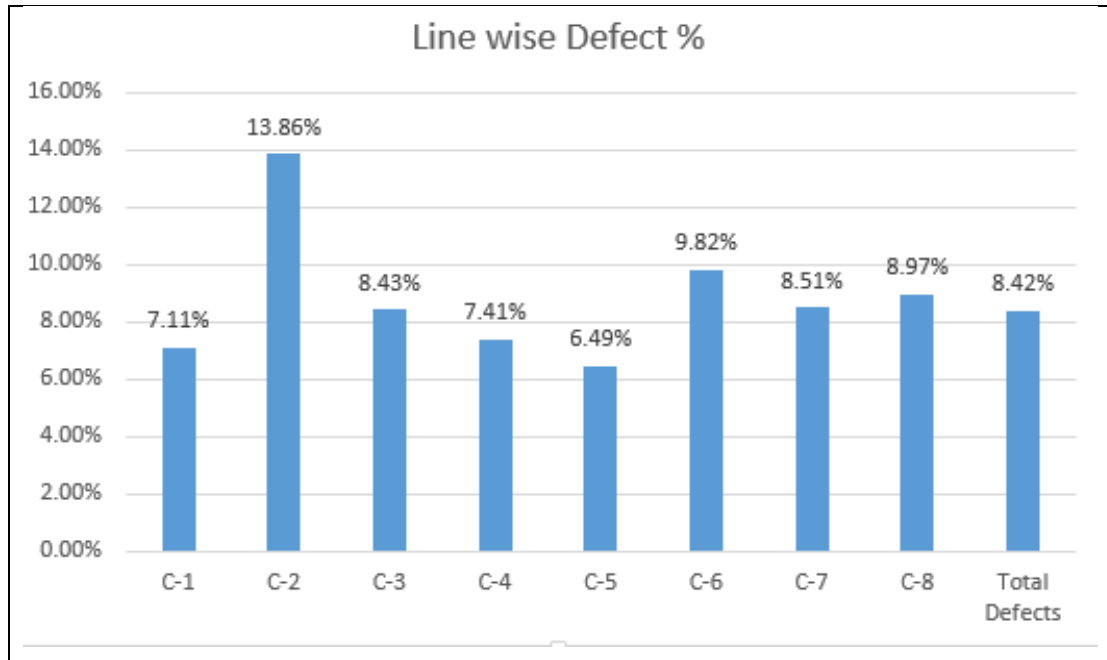


Fig 4.11: Line wise defect %

This above graph is actually a graphical view of total defect % of a particular floor. From this graph we can see the defect percentage of every single line.

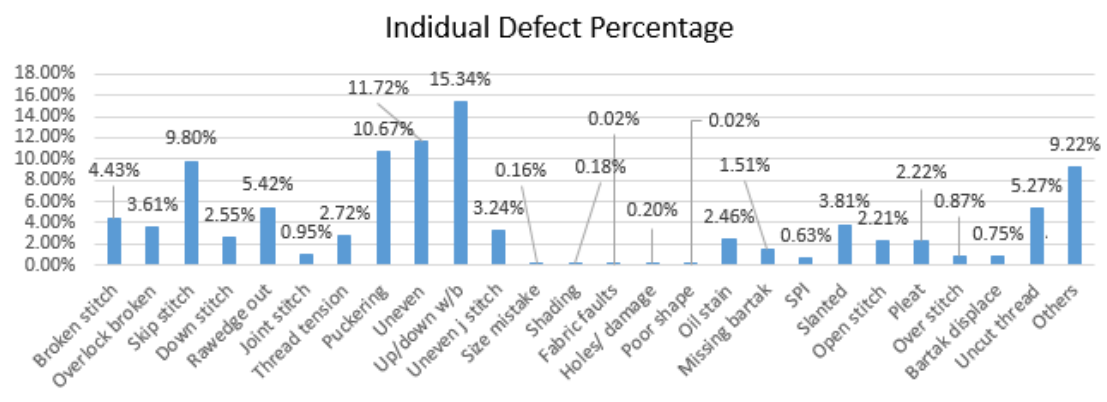


Fig4.12: Individual Defect Percentage

From the data analysing table, individual defect percentage is included here for total eight line. What is the percentage of a kind of defect happened in a particular floor.

4.9 Individual Reject:

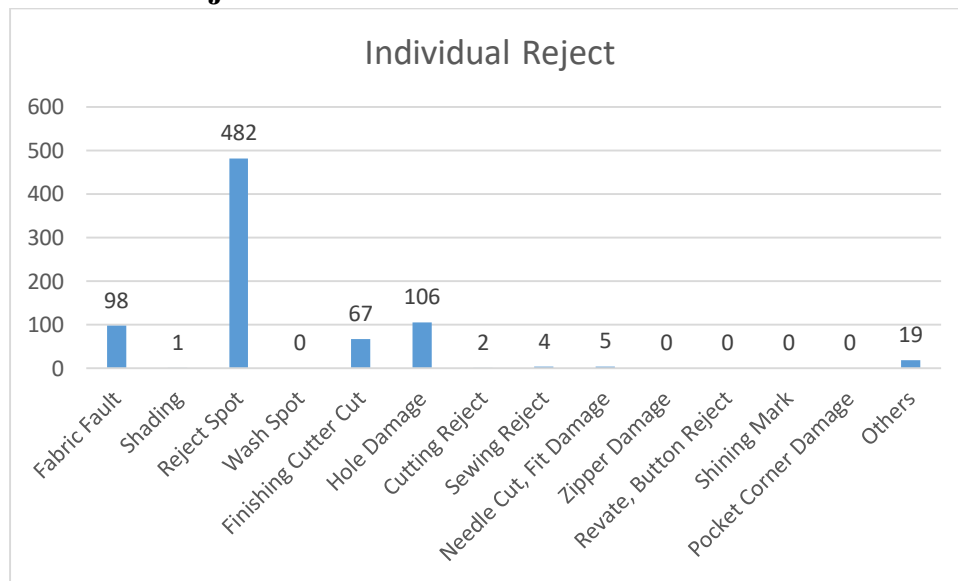


Fig 4.13: Individual Reject

From the data analysing table we get the value of individual Rejection for total eight lines one month inspection. Every kind of fault should be checked here and the responsible faults which is cause of Rejection are included in this graph. As like as most number of individual fault for Rejection is Reject spot whose value is 482.

4.10 Reject Garments:

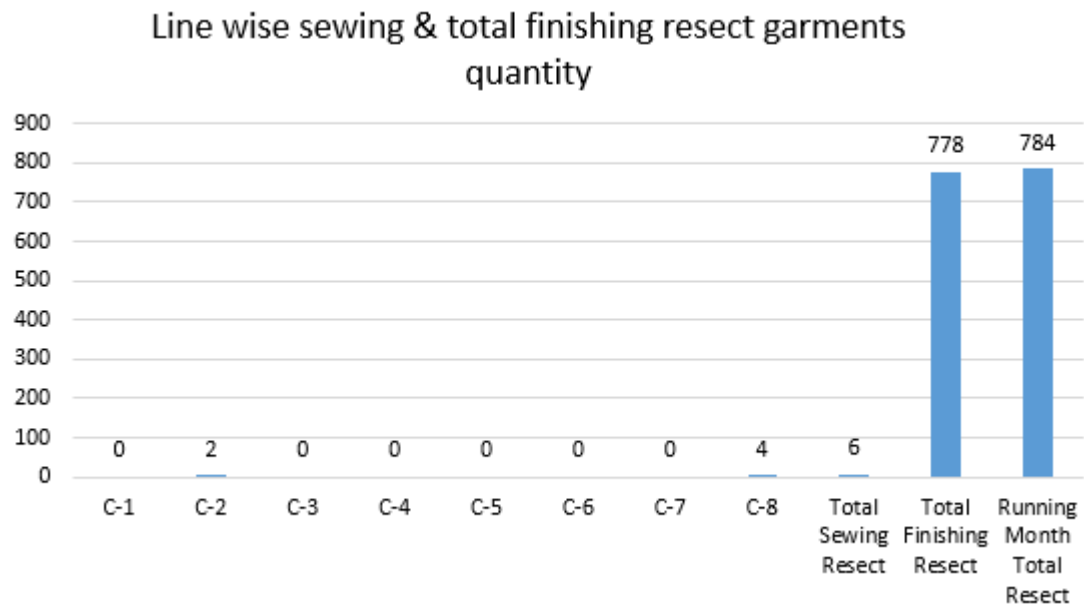


Fig 4.14: Rejected Garments

From the data analysis table we have to see the total amount of Rejection is 784 among 604426 pcs checked quantity. In this graph the total Rejection quantity has been attached by individually in every single sewing line and for finishing area. We saw here total sewing and total finishing Rejection is respectively 6 and 778.

5. Conclusion

We completed our project by collecting the authentic inspection information from DEKKO DESIGNS LTD. We analysis whole collected information to find the appropriate reason of garments defect and reject in the fabric and sewing section. This project helps us to know about the inspection procedure and able to know about various types of fabric, sewing and finishing fault and also their rectified method and causes of this faults. We also think this report helps us to gathered knowledge about cutting section, sewing section and finishing section of garments industry. We also able to know how the working procedure of these section and the inspection procedure of this section is been done. The experience we gather from this report helps us to solve different quality issues problem in the professional working field. Now this is the 21st century when RMG business is going to very competitive. Bangladesh placed 2nd position for exporting RMG sector in the world. Bangladesh need ensured supplying quality products to hole this position. If the quality and lead time of product is okay, all will be okay and Bangladesh will be 1st to export RMG in the world. Because there is a quotes about quality “Quality is never an accident; it is always the result of high intention, sincere effort, intelligent direction and skillful execution; it represents the wise choice of many alternatives” – William A. Foster. So manufacturing quality products is very important for the RMG industries to sustain in the competition. We try our best to find out the correct reason for every defect and reject in this project report. We also try to give some solution that could be able to reduce those problems.

6. Reference:

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