



Faculty of Engineering

Department of Textile Engineering

“Study on Quality Assurance & Ways to Avoid Fault in
Sewing Section”

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

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

Bachelor of Science in Textile Engineering

Advance in Apparel Manufacturing Technology

10April, 2018

LETTER OF APPROVAL

10/4/2018

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 Program

Dear Sir

I am just writing to let you know that this project report titled as “**Quality Assurance & Ways to Avoid Fault in Sewing section** ” has been prepared by the student bearing ID 152-23-4379, 152-23-4403 is 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 students were directly involved in their project activities and the report become vital to spark of many valuable information for the readers.

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

Yours Sincerely

Md. Mominur Rahman

Asst. Professor

Department of Textile Engineering

Faculty of Engineering

ACKNOWLEDGEMENT

First, we express our heartiest thanks and gratefulness to Almighty Allah for his divine blessing makes us possible to complete this project successfully.

Mr. Md. Mominur Rahman Asst. Professor, Department of Textile Engineering, Daffodil International University, our supervisor, to whom we are extremely grateful for his tremendous support and guidance throughout our project.

Being working with him we have not only earned valuable knowledge but also inspired by his innovativeness which helped to enrich our experience to a greater extent. His ideas and way of working was truly remarkable. We believe this project could not be finished if he did not help us continuously.

We want to give our heartiest gratitude to **Prof. Dr. Engr. Md. Mahbubul Haque**, Head of the Textile Department of Daffodil International University. His advice helps us to finish our project.

We are grateful to our all class mates for their encouragement for this project work. Specially, we convey our gratitude and love to our parents who inspire us a lot to do the work successfully.

The Authors

ABSTRACT

Quality may be defined as the level of acceptance of a goods or services. In Bangladesh, different garments factory follow different quality control and management systems especially different inspection systems for garment inspection. This project contains the quality assurance & ways to avoid faults in sewing. The aim of the thesis is to assure quality and identify ways to reduce fault in sewing section. The theoretical part of the project provides basic information about quality, quality assurance and ways to reduce fault in sewing section. It also provides some information about different faults in sewing section. So, we are tried to describe about it in literature review. In our experimental details we have shown some data table and graph on the basis of inspection of different faults. Then we have discussed about the total result. Now-a-days buyers are very much quality conscious. If we ensure high quality inspection system then buyer will be motivated and more quality product can be possible to produce. For the betterment of RMG sector, we should need to introduce modern quality inspection system and quality management techniques.

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CHAPTER -1: INTRODUCTION

1.1 Background of the Study

The first step of a student in professional life is project, especially in technical side. A practically running processing technology of an industrial unit is an essential part of study for a student. In our university, processing machines are not in continuous running condition, so it would only provide demonstration of mechanical features & processing technology of the material in accomplishment of the theory but not of the situational variables to achieve practical knowledge.

It is important to maintain a level of quality for every industry or business to get increased sales and better name amongst consumers and fellow companies. Especially for the business engaged in export business has to sustain a high level of quality to ensure better business globally. Companies who are into export business hold the prestige of the country, and due to this generally quality control standards for export are set strictly. It becomes mandatory to have good quality control of their products as export houses earn foreign exchange for the country. In the garment industry quality control is practiced right from the initial stage of sourcing raw materials to the stage of final finished garment.

A thesis paper is known as a research paper that provides sufficient information about particular topics. Our thesis paper contains “Quality Assurance & Ways to Avoid Fault in Sewing Section.”

Quality has been with us since the dawn of civilization. Sewing section is the heart of garment production. Quality is one of the most important factors in Textile sector. So by quality assurance & ways to avoid fault in sewing section is required to make quality full products in this competitive world market. It is important to maintain quality in textile sector as well as garments production. So we have selected this topic. Therefore, a study was carried out in the garment industry named Fakir Apparels LTD, at BSCIC, Narayanganj, Bangladesh at sewing section to identify faults so as to eliminate them for maintaining quality and improving product quality.

1.2 Objectives of the Study

Objectives of this study are given below:

- To improve the quality of garments product
- To know about the reasons of defects in sewing section
- To implement technical solution
- To know which fault can be highly occur in garments
- To identify the faults that are occurred in different section of a garments industry
- To increase efficiency and productivity

1.3 Significance of the Study

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

- ✓ The basic idea of this study is to eliminate or minimize faults in sewing section.
- ✓ Besides this study will help us to learn about the various fault occurs in sewing section.
- ✓ From this report we can decide which step should be taken or should not be taken on the basis of faults.
- ✓ Quality assurance can be done by adopting the method described in the study.

1.4 Limitations

During our thesis period we have faced some problem. Those are given below:

- ✓ We can't collect all data due to some restriction
- ✓ Without permission of higher authority, we can't bring some necessary papers.
- ✓ Some section still following old QC system.
- ✓ Time was also a limitation
- ✓ Gathering information during working was a tough job.

CHAPTER -2: LITERATURE REVIEW

2.1 Quality

Quality is characterized as the level of acknowledgment of a decent or administration. It is an extremely basic prerequisite for any sort of item. Each item ought to keep up the standard quality level. In this 21st century of globalization advertise are ending up increasingly mind boggling, that is the reason each industry are confronting an abnormal state of rivalry for their business. So the item should satisfy the client prerequisite. Consequently every item ought to keep up the quality level. For the material business and attire industry, item quality is ascertained as far as quality standard of fiber, yarn. Texture development, shading speed, outline and the last completed piece of clothing. These days purchasers are particularly quality cognizant. In the event that it is conceivable to keep up a great arrangement of investigation approach, the purchasers should be persuaded and greater quality creation be made.

The wellness for utilize idea can be connected to piece of clothing. For a pieces of clothing to be fit for utilize gave its style adequate.

1. It must be free from imperfections, for example, recolor, material deformities, open crease, free hanging string, misaligned catches and catch openings, faulty zipper and so forth.

2. Must fit appropriately for the named measure.

3. It must perform palatably in ordinary utilize, implying that a piece of clothing must be abler to withstand typical washing/cleaning/squeezing cycle without shading misfortune or shrinkage, creases must not fall to pieces, texture must not tear et cetera.

Be that as it may, keeping up a sufficient standard of value additionally costs exertion. From the principal examination to discover what the potential client for another item truly needs, through the procedures of outline, detail, controlled fabricate

2.2 Importance of Quality

Overseeing quality is essential for organizations. Quality items help to keep up consumer loyalty and steadfastness and diminish the hazard and cost of supplanting flawed products. Organizations can assemble a notoriety for quality by picking up accreditation with a perceived quality standard, for example, ISO 9001, distributed by the International Organization for Standardization. The item should fulfill the shopper as far as excellence, engaging quality, taste, shape, outline and life span and so on relying upon the sort of item.

2.3 Quality Control

Quality is of prime significance in any part of business. Clients request and expect an incentive for cash. As makers of attire there must be a steady undertaking to deliver work of good quality.

"The frameworks required for programming and planning the endeavors of the different gatherings in an association to keep up the imperative quality" .As such Quality Control is viewed as the operator of Quality Assurance or Total Quality Control

2.4 Objectives

- To maximize the production of goods within the specified tolerances correctly in the first time.
- To achieve a satisfactory design of the fabric or garment in relation to the level of choice in design, styles, colors, suitability of components and fitness of product for the market.

Satisfactory quality can only be ensured through:

1. By Knowing the customer need.
2. Designing to meet them.

3. Faultless construction.
4. Certified performance and safety.
5. Clear instruction manual
6. Suitable packaging

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

1. Byknowing the customer need.
2. Designing to meet them.
3. Faultless construction.
4. Certified performance and safety.
5. Clear instruction manual
6. Suitable packaging

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

- 1- Fault free fabric.
- 2- Shade matching of the garments.
- 3- Making the pattern as per buyer requirement.
- 4- All the different parts of the garment should have the perfect size.
- 5- Good stitching, seam formation should be perfect.
- 6- Additional accessories such as button, zipper, tag, level is in right position.
- 7- Packing and packaging

2.5 Types of Quality Control

There are two types of QC:

- 1) Process control
- 2) Product control

1. Process Control:

The method chosen for process must be provided with the necessary accurate parameters. In the every stage of pH should be maintained sincerely.

2. Product Control:

The control which is used to decrease defective items with in different lots of produced goods is known as product control.

Again process control can be divided into the following steps:

- a. Online quality control
- b. Offline quality control

Online quality control:

This type of quality control is performed in process stage i.e. without stopping the production process, during the production running time, the automatically test the variation and takes immediate step to rectification of variation.

Checking and rectification of fault in processing stage is known as online quality control.

Example: Inline inspection.

Offline Quality Inspection:

This type of quality control is consists of laboratory tests which are done by stopping the production process.

2.6 Acceptable Quality Level (AQL)

AQL is a standout amongst the most every now and again utilized terms with regards to quality in the attire send out industry. As the vast majority of the acknowledgment choices of the attire shipments for the fare showcase are made based on AQL. AQL implies Acceptable Quality Level. In any business procedure, before tolerating the completed merchandise from the producer purchaser do investigation of products. It is such a great amount of critical in trade piece of clothing area. Outside purchasers are such a great amount of worried about item quality. They give AQL on the item to the producer. Purchasers do investigation of products as haphazardly process. On the off chance that AQL pass that implies products are in worthy quality level he offers declaration to transport the merchandise. The AQL level fluctuates procedure to process, item to item and even purchaser to purchaser. In the accompanying table a testing design is given for definite shipment investigation. Acknowledgment Quality Level (AQL) alludes to the most extreme number of flawed things that could be viewed as acknowledged amid the irregular examining of and investigation. The imperfections that are found amid review are ordered into 3 classes:

1. Critical: Must be 100% accurate. There is no range.
2. Major: Normally 2.5%
3. Minor: Normally 4%

Table 2.6.1: AQL

Footwear Industry Standard Final Inspection Sampling Plan (Normal)*								
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 – 1,200	80	3	80	5	80	7	80	10
1,201 – 3,200	125	5	125	7	125	10	125	14
3,201 – 10,000	200	7	200	10	200	14	200	21
10,001 – 35,000	315	10	315	14	315	21	315	21
35,001 – 150,000	500	14	500	21	500	21	500	21
150,001 – 500,000	800	21	800	21	800	21	800	21
500,001 & Over	1250	21	1250	21	1250	21	1250	21

2.7 Quality Assurance

Quality affirmation (QA) is a method for forestalling slip-ups or surrenders in fabricated items and staying away from issues while conveying arrangements or administrations to clients; which ISO 9000 characterizes as "a component of value administration concentrated on giving certainty that quality prerequisites will be satisfied".

2.7.1 Process Flow Chart of Quality Assurance Department

Accessories check

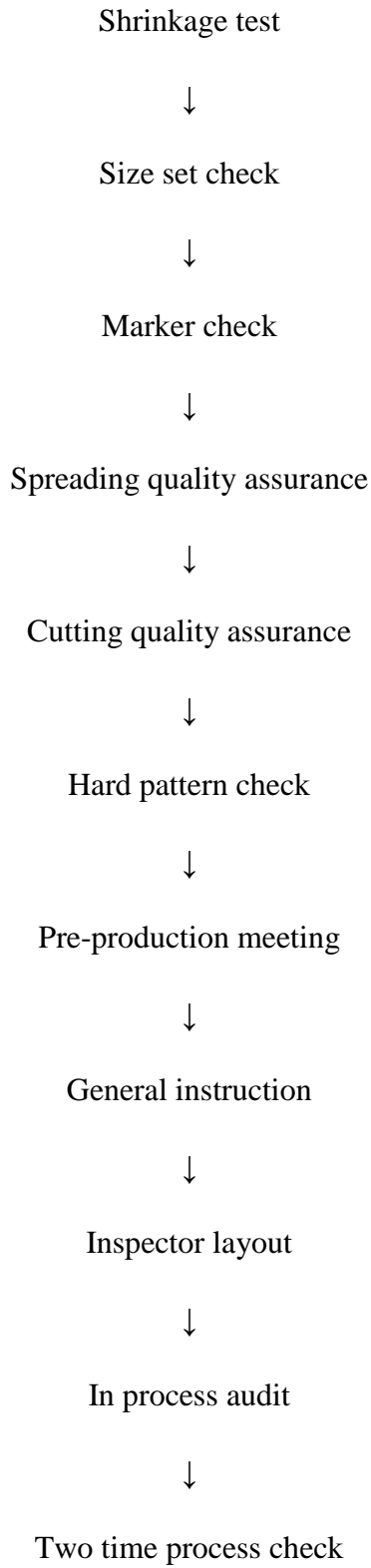


Fabric inspection



Shade segregation







Two time machine check



Two time accessories check



Weekly in process summary



100% in line process check



Sewing final check



Hourly final audit with measurement



Finishing 100% check



Button pulls check



Hourly final audit



Broken needle check



Accessories compliance



Every final audit



Pre-final inspection



Ready for final inspection



Shipment

2.7.2 Working Sequence of Quality Section:

Sample comments follow-up measurement



Pattern grading



Pattern through to cutting section



Fabric inspection (GSM, color shade etc.)



Fabric Ok



Lay check



Print check



Line check



Sewing output check



After remove if have



Finishing (ironing)

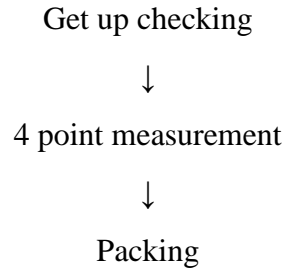


Main check (size measurement)



Size wise measurement





2.8 Quality Control in Garments Production:

There are various steps of Garments productions where in-process inspection and quality control are done. Mainly three sections are mention below:

1. Quality control in cutting section
2. Quality control in sewing section
3. Quality control in finishing section

2.8.1- Sewing Department Quality Staff:

- 1- Q.C general manager.
- 2-Q.C Manager
- 3-Q.C Officer
- 4- Q.C. In Charge
- 5- Quality Controller
- 6- Line Q.C.
- 7- Process Q.C.

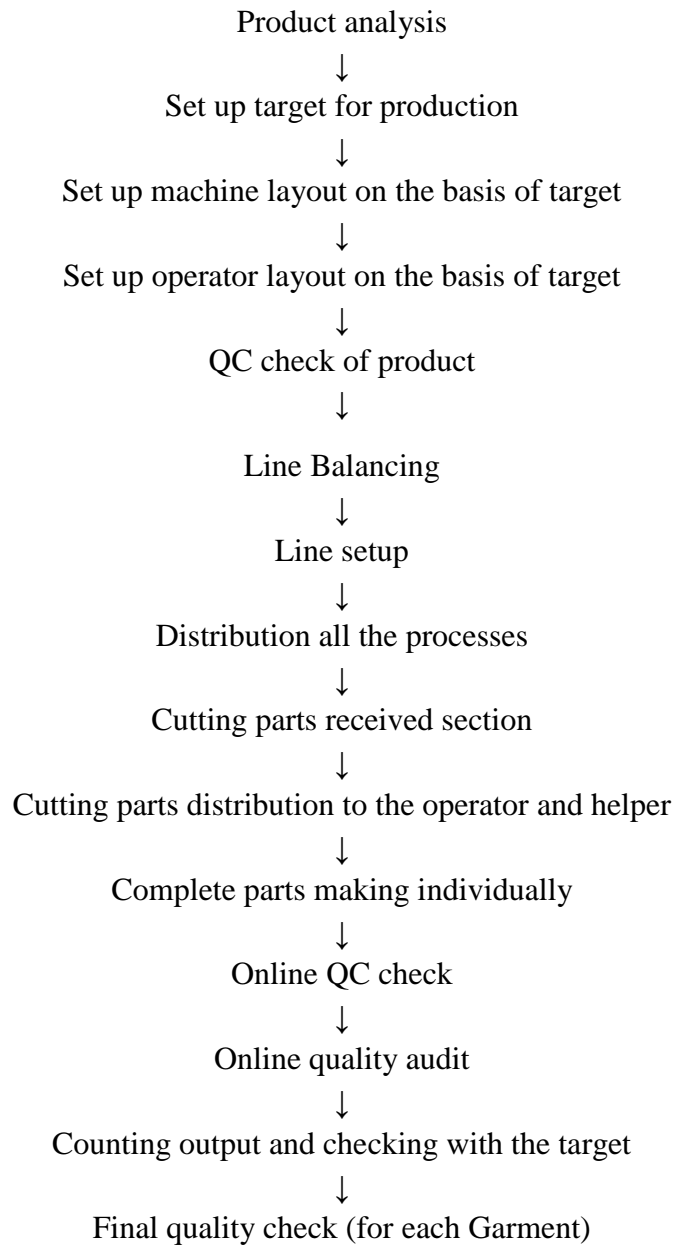
2.9 Sewing section

In the wake of completing the cutting procedure the cutting parts come here for sewing. It is primarily a get together segment in the articles of clothing processing plant. Diverse parts of the articles of clothing consolidated here and connect different extras like catch, zipper makes an entire item.

2.9.1 Quality Control in Sewing Section:

1. Input material checking
2. Accessories checking
3. Machine is in well condition
4. Thread count check
6. Needle size checking
7. Stitching fault should be checked
8. Garments measurement check
9. Seam fault check
10. Size mistake check
12. Shade variation within the cloth
13. Creased or wrinkle appearance control

2.9.2 Process Flow Chart for Garments Sewing Department:



CHAPTER-3: EXPERIMENTAL DETAILS

Sewing segment is the core of articles of clothing creation. The primary protest of this area is to collect or join distinctive articles of clothing parts or slice piece to deliver an entire piece of clothing. The joining of various cut piece or article of clothing parts is finished by sewing, where diverse kinds of trims and adornments are likewise joined with the piece of clothing.

To create a piece of clothing with good quality & to guarantee the nature of articles of clothing that purchaser requires, diverse criteria must be checked in sewing area. Some are given underneath:

1. Cut piece check
2. Accessories check
3. Size mistake check
4. Needle check
5. Sewing fault check
6. Machine check

3.1 Cut Piece Check:

Article of clothing parts or cut piece is the part that we get after texture slicing as indicated by various reviewed of example and marker from cutting area. It is essential to check the slice piece to deliver blame free quality full item.

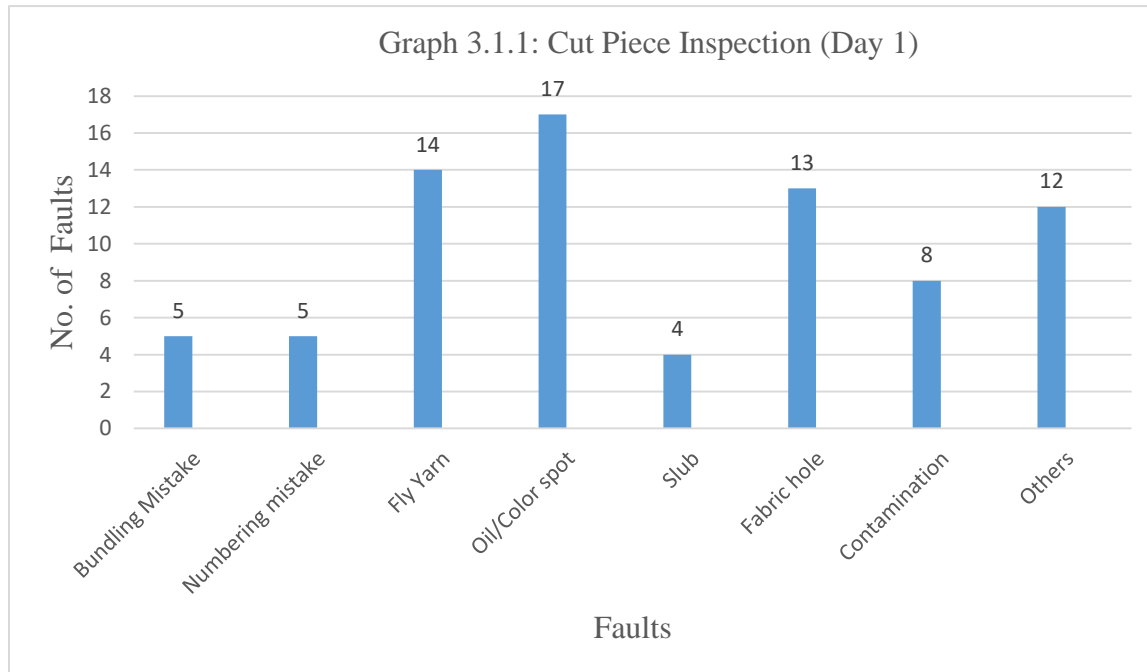
So we have examined and gathered a few information to discover what number of flaws are happened every day. Those information are given beneath:

Table 3.1.1: Cut Piece Inspection (Day 1)

Date	Hours	Bundling Mistake	Number Mistake	Fly yarn	Oil/Color spot	Slub	Fabric Hole/Torn	Contamination	Others	Total Inspection	Defect Total	QC pass	Total Defect %
2.2.2018	8-9am			3	2	1	2	1	2	820	11	809	1.34%
	9-10am		1		1		3	2	1	500	8	492	1.60%
	10-11am	1		3	2		1		2	720	9	711	1.25%
	11-12am	1	1	3	2		1	2	1	750	11	739	1.47%
	12-1pm	1	1		3	1			3	710	9	701	1.26%
	2-3pm		1	3	2		2	2	1	600	11	589	1.83%
	3-4pm				2	2	1		1	750	6	744	0.80%
	4-5pm	2	1	2	3		3	1	1	730	11	719	1.51%
Total	8 hours	5	5	14	17	4	13	8	12	5580	76	5504	1.36%

Table 3.1.1 demonstrates the individual issues every hour Cutting shortcomings of day 1. Shortcomings like Miss Cut, wrong cut, numbering botch, packaging botch, sticker botch, slub and so on are found in cutting area. Here 5580 pcs pieces of clothing are examined in a day which 5504 pcs articles of clothing are passed by QC where 1.36% pieces of clothing are absconded

A graph is given below on the basis of this table:



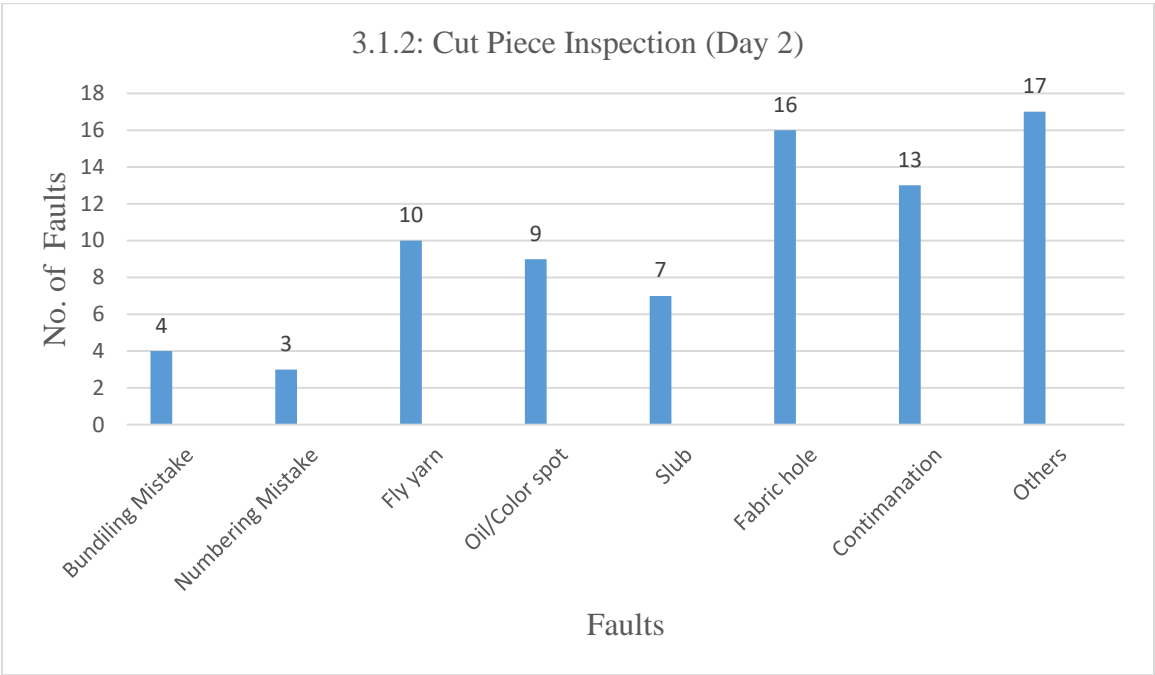
Graph 3.2.1 indicates Cutting deficiencies of day 1 where the most astounding shortcoming's quality is 17 (Spots) and least esteem is 4 (Slubs).

Table 3.1.2: Cut Piece Inspection (Day 2)

Date	Hours	Bundling Mistake	Number Mistake	Fly yarn	Oil/Color spot	Slubb	Hole/Fabrication	Contamination	Others	Total Inspection	Total Defect	QC Pass	Total Defect %
3.2.2018	8-9am		1	1		1	3	2	1	820	9	811	1.09%
	9-10am		1		2		1	2	2	800	8	792	1.00%
	10-11am	1		1	2	1	1	3	1	810	10	800	1.24%
	11-12am	1		1		1	2	2	1	825	8	817	0.97%
	12-1pm			2	1		5		3	750	11	739	1.47%
	2-3pm	1	1		2	1		3	3	800	11	789	1.38%
	3-4pm			2		2	1		2	815	7	808	0.86%
	4-5pm	1		3	2	1	3	1	4	780	15	765	1.92%
Total	8 hours	4	3	10	9	7	16	13	17	6400	79	6321	1.23%

Table 3.1.2 demonstrates the individual shortcomings every hour Cutting flaws of day 2. Issues like Miss Cut, wrong cut, numbering botch, packaging botch, sticker botch, slub and so on are found in cutting segment. Here 6400 pcs articles of clothing are assessed in a day which 6321 pcs pieces of clothing are passed by QC where 1.23% articles of clothing are abandoned.

A graph is given below on the basis of this table:



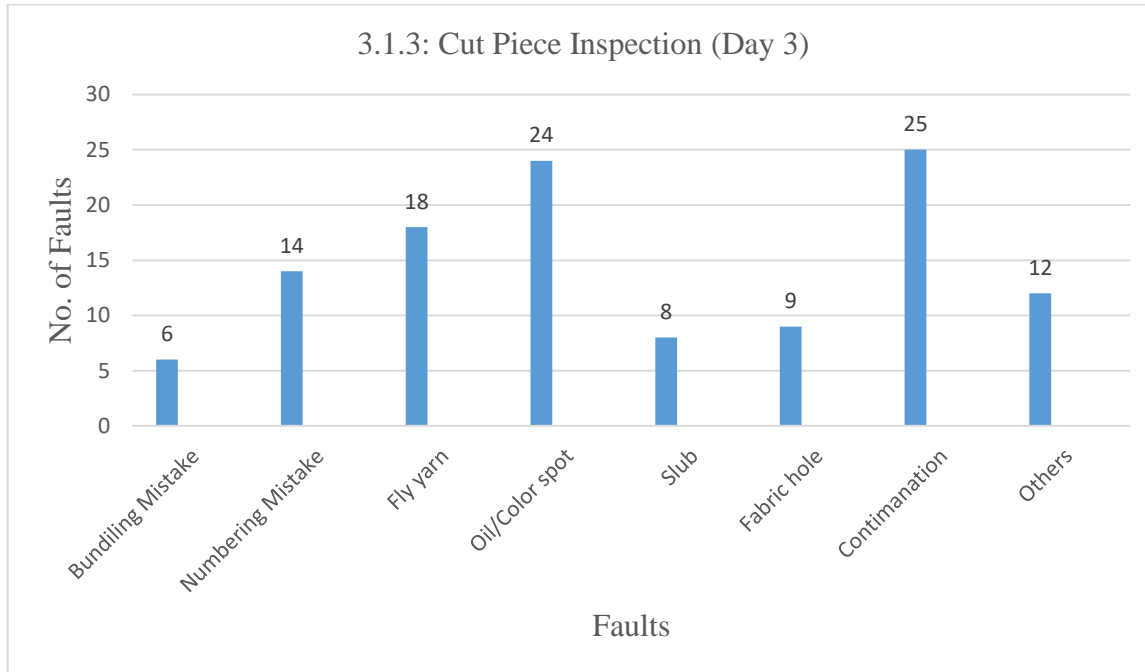
Graph 3.2.2 shows Cutting faults of day 2 where the highest fault’s value is 17 (Others) and lowest value is 3 (Numbering Mistake)

3.1.3: Cut Piece Inspection (Day 3)

Date	Hours	Bundling Mistake	Number Mistake	Fly yarn	Oil/ Color spot	Slub	Fabric Hole/Tron	Contamination	Others	Total Inspection	Total Defect	QC pass	Total Defect %
4.2.2018	8-9am	1	4	1	4	1	1		2	880	14	866	1.59%
	9-10am		3	2				3	1	800	9	791	1.12%
	10-11am	1		4	2	3	1	5	2	825	18	807	2.18%
	11-12am		1		4		1		2	850	8	842	0.94%
	12-1pm	2	2	3	3	1		6	3	810	20	790	2.47%
	2-3pm		1		6		2	7	1	805	17	788	2.11%
	3-4pm	1		5	4	2	1	4	1	845	18	827	2.13%
	4-5pm	1	3	3	1	1	3			895	12	883	1.34%
Total	8 hours	6	14	18	24	8	9	25	12	6710	116	6594	1.72%

Table 3.1.3 shows the individual flaws every hour Cutting deficiencies of day 3. Deficiencies like Miss Cut, wrong cut, numbering botch, packaging botch, sticker botch, slub and so on are found in cutting segment. Here 6710 pcs articles of clothing are examined in a day which 6594 pcs pieces of clothing are passed by QC where 1.72% articles of clothing are surrendered

A graph is given below on the basis of this table:



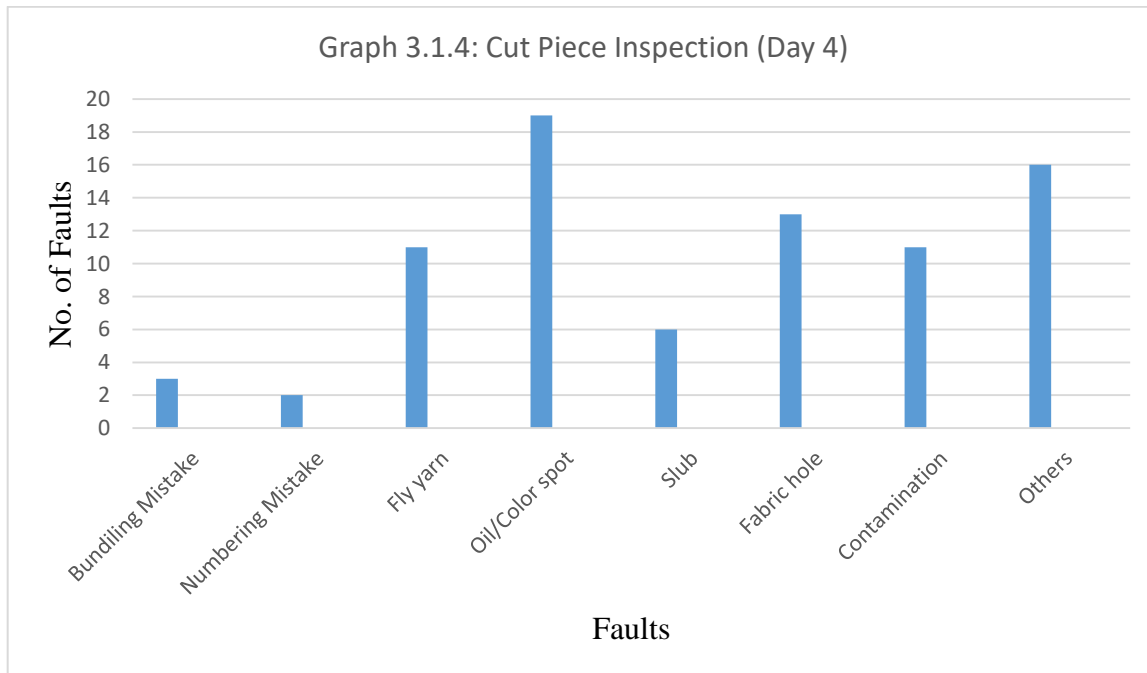
Graph 3.2.3 indicates Cutting flaws of day 3 where the most noteworthy blame's esteem is 25 (Contamination) and least esteem is 6 (Bundling Mistake)

Table 3.1.4 Cut Piece Inspection (Day 5)

Date	Hours	Bundling Mistake	Number Mistake	Fly yarn	Oil/Color spot	Slub	Hole Fabric/Torn	Contamination	Others	Total Inspection	Total Defect	QC pass	Total Defect %
5.2.2018	8-9am			1	2	1		2	2	720	8	712	1.11%
	9-10am		1	1	1		3	2		750	8	742	1.06%
	10-11am				2	1	1		2	735	6	729	0.82%
	11-12am	1		3	3	1	1	2	2	715	13	702	1.81%
	12-1pm	1		1	3	1	2	2	2	710	12	608	1.69%
	2-3pm			3	2		2	2	4	780	13	767	1.66%
	3-4pm	1	1		4	1	1	1	3	760	12	748	1.57%
	4-5pm			2	2	1	3		1	700	9	691	1.28%
Total	8 hours	3	2	11	19	6	13	11	16	5870	81	5789	1.38%

Table 3.1.4 demonstrates the individual flaws every hour Cutting issues of day 4. Issues like Miss Cut, wrong cut, numbering botch, packaging botch, sticker botch, slub and so on are found in cutting area. Here 5870 pcs pieces of clothing are reviewed in a day which 5789 pcs articles of clothing are passed by QC where 1.38% articles of clothing are surrendered

A graph is given below on the basis of this table:



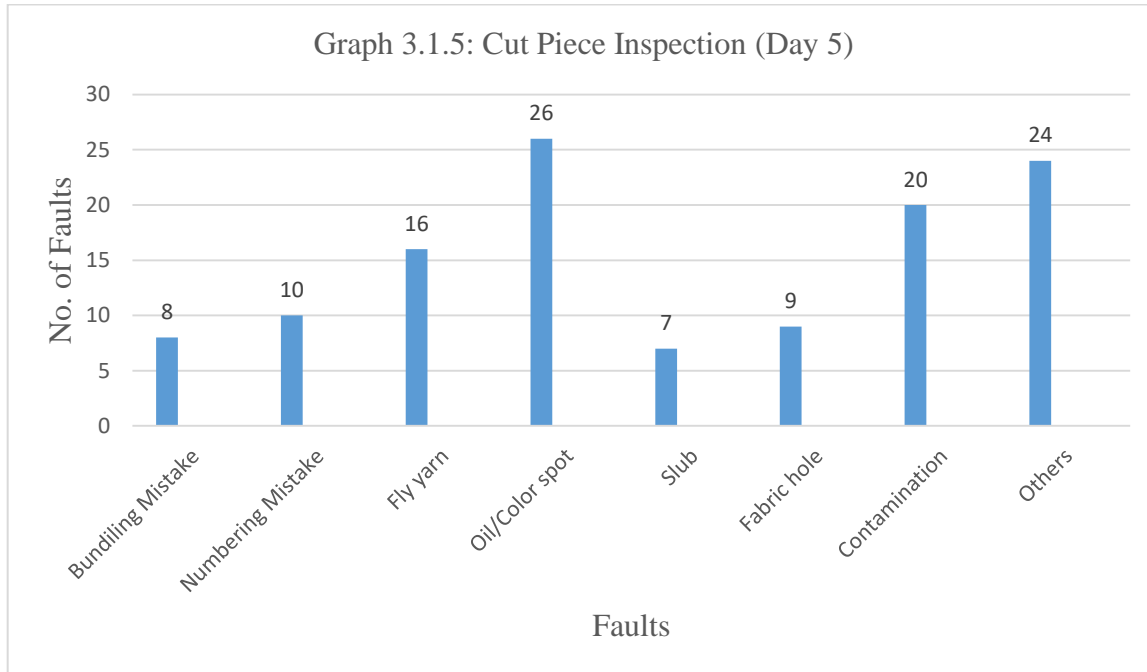
Graph 3.2.4 shows Cutting faults of day 4 where the highest fault's value is 19 (Oil/ColorSpots) and lowest value is 2 (Numbering Mistake)

Table 3.1.5: Cut Piece Inspection (Day 5)

Date	Hours	Bundling Mistake	Number Mistake	Fly yarn	Oil/Color spot	Slub	Hole Fabric/Torn	Contamination	Others	Total Inspection	Total Defect	QC pass	Total Defect %
6.2.2018	8-9am	2		1	2	1	1	3	3	850	13	837	1.52%
	9-10am	1		1	6	2	1	2	1	800	14	786	1.75%
	10-11am	2	1	3	1	2	1	3	2	810	15	795	1.85%
	11-12am	1	3	1	2		1	1	2	825	11	814	1.33%
	12-1pm		2	4	3	1	2	4	3	750	19	731	2.53%
	2-3pm	1	1	1	3		1	2	4	800	13	787	1.62%
	3-4pm		2	2	4	1	1	2	5	815	17	798	2.08%
	4-5pm	1	1	3	5		1	3	4	780	18	762	2.30%
Total	8 hours	8	10	16	26	7	9	20	24	6430	120	6310	1.86%

Table 3.1.5 demonstrates the individual issues every hour Cutting shortcomings of day 5. Deficiencies like Miss Cut, wrong cut, numbering botch, packaging botch, sticker botch, slub and so on are found in cutting segment. Here 6430 pcs articles of clothing are investigated in a day which 6310 pcs pieces of clothing are passed by QC where 1.86% articles of clothing are deserted

A graph is given below on the basis of this table:



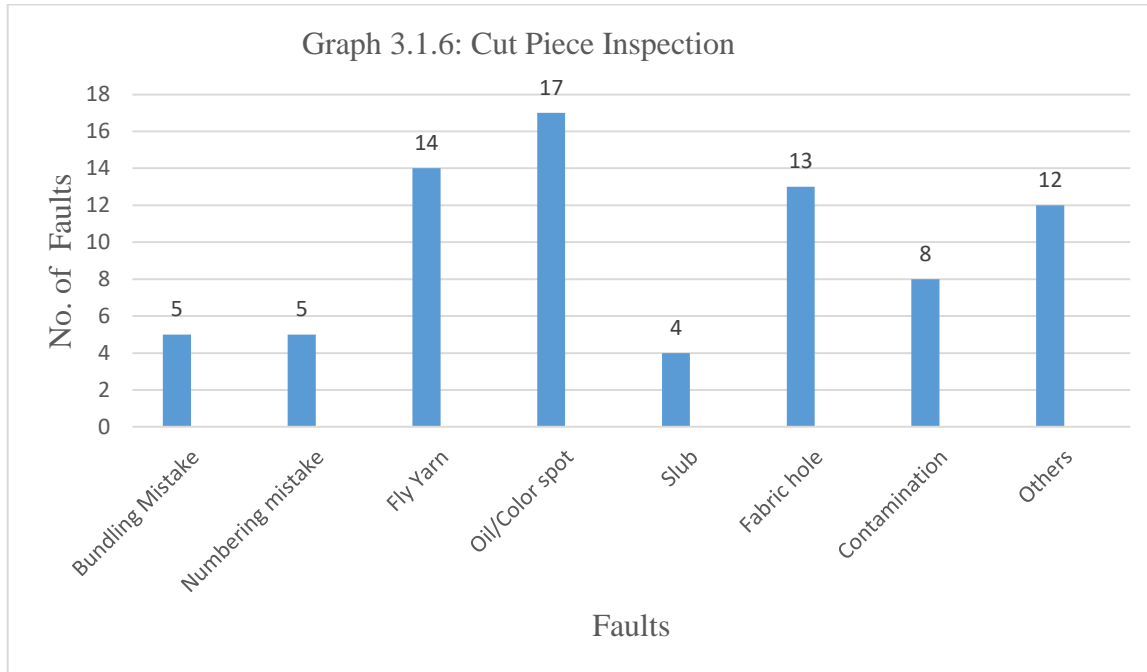
Graph 3.2.5 indicates Cutting deficiencies of day 5 where the most astounding shortcoming's worth is 26 (Spots) and least esteem is 7 (Slubs)

Table 3.1.6: Cut Piece Inspection (Day 6)

Date	Hours	Bundling Mistake	Number Mistake	Fly yarn	Oil/Color spot	Slub	Hole Fabric/Torn	Contamination	Others	Total Inspection	Total Defect	QC pass	Total Defect %
7.2.2018	8-9am	1	4	1	4	1	1		2	880	14	866	1.59%
	9-10am		3	2				3	1	800	9	791	1.12%
	10-11am	1		4	2	3	1	5	2	825	18	807	2.18%
	11-12am		1		4		1		2	850	8	842	0.94%
	12-1pm	2	2	3	3	1		6	3	810	20	790	2.47%
	2-3pm		1		6		2	7	1	805	17	788	2.11%
	3-4pm	1		5	4	2	1	4	1	845	18	827	2.13%
	4-5pm	1	3	3	1	1	3			895	12	883	1.34%
Total	8 hours	6	14	18	24	8	9	25	12	6710	116	6594	1.72%

Table 3.1.6 shows the individual flaws every hour Cutting deficiencies of day 3. Flaws like Miss Cut, wrong cut, numbering botch, packaging botch, sticker botch, slub and so on are found in cutting segment. Here 6710 pcs pieces of clothing are investigated in a day which 6594 pcs articles of clothing are passed by QC where 1.72% articles of clothing are absconded.

A graph is given below on the basis of this table:



Graph 3.1.6 shows Cutting faults of day 6 where the highest fault's value is 17 (Spots) and lowest value is 4 (Slubs)

Table 3.1.7: Cut Piece Inspection (Day 7)

Date	Hours	Bundling Mistake	Number Mistake	Fly yarn	Oil/Color spot	Slub	Hole Fabrication	Contamination	Others	Total Inspection	Total Defect	QC pass	Total Defect %
8.2.2018	8-9am			1	2	1		2	2	720	8	712	1.11%
	9-10am		1	1	1		3	2		750	8	742	1.06%
	10-11am				2	1	1		2	735	6	729	0.82%
	11-12am	1		3	3	1	1	2	2	715	13	702	1.81%
	12-1pm	1		1	3	1	2	2	2	710	12	698	1.69%
	2-3pm			3	2		2	2	4	780	13	767	1.66%
	3-4pm	1	1		4	1	1	1	3	760	12	748	1.57%
	4-5pm			2	2	1	3		1	700	9	691	1.28%
Total	8 hours	3	2	11	19	6	13	11	16	5870	81	5789	1.38%

Table 3.1.7 shows the individual shortcomings every hour Cutting issues of day 4. Flaws like Miss Cut, wrong cut, numbering botch, packaging botch, sticker botch, slub and so forth are

found in cutting area. Here 5870 pcs pieces of clothing are assessed in a day which 5789 pcs articles of clothing are passed by QC where 1.38% pieces of clothing are surrendered

A graph is given below on the basis of this table:

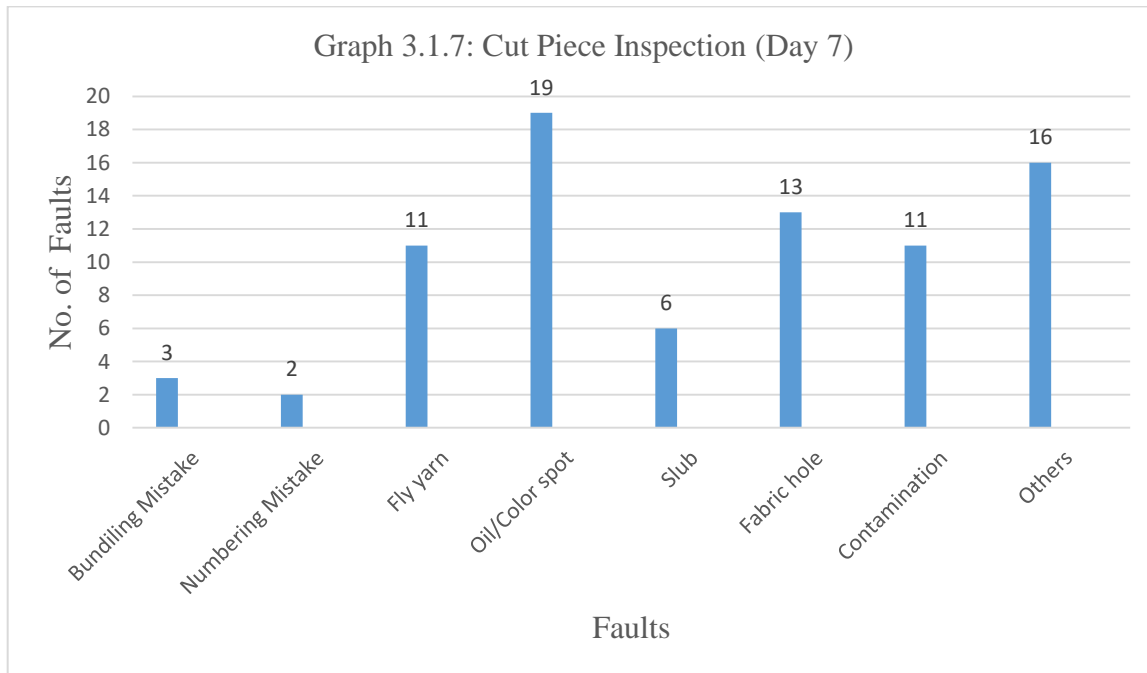


Chart 3.1.7 shows Cutting issues of day 7 where the most noteworthy blame's esteem is 19 (Spots) and least esteem is 2 (Numbering Mistake)

3.2 Accessories Check:

There are different kinds of deficiencies found in embellishments like broken zipper, wavy zipper, harm zipper, vast opening in catch, broken catch, uneven state of catch, miss gap catch.

So the frill must be checked before it's appended with the pieces of clothing.

So we have gathered and investigated a few information of frill review of 7 days in sewing area which is given underneath:

Table 3.2.1: Accessories Inspection (Day 1)

Date	Hours	Broke n Butto n	Da mag e Zip per	Poor Quality Elastic	Sho rt Rib bon	Faulty Lab el	Tot al Insp ecti on	Def ect Tot al	QC pass	Total Defect %
11.2.2018	8-9am	2		3		1	820	06	814	0.73%
	9-10am		1		1		500	02	498	0.4%
	10-11am	4		5		1	720	10	710	1.38%
	11-12am	3	4	2	2		750	11	739	1.46%
	12-1pm	1	1		1	1	710	04	706	0.56%
	2-3pm		5	5			600	10	590	1.66%
	3-4pm				2	2	750	04	746	0.53%
	4-5pm	2	2	1	1		730	06	724	0.82%
Total	8 hours	12	13	16	07	05	5580	53	5527	0.94%

Table 3.2.1 shows the distinctive sorts and amount of flaws found in adornments. Issues like broken catch, harm zipper, low quality flexible, short strip, flawed name were found in extras. Here 5580 pcs frill are examined in a day which 5527 pcs extras are passed by QC where 0.94% adornments are abandoned.

A graph on the basis of table 3.2.1 is given below:

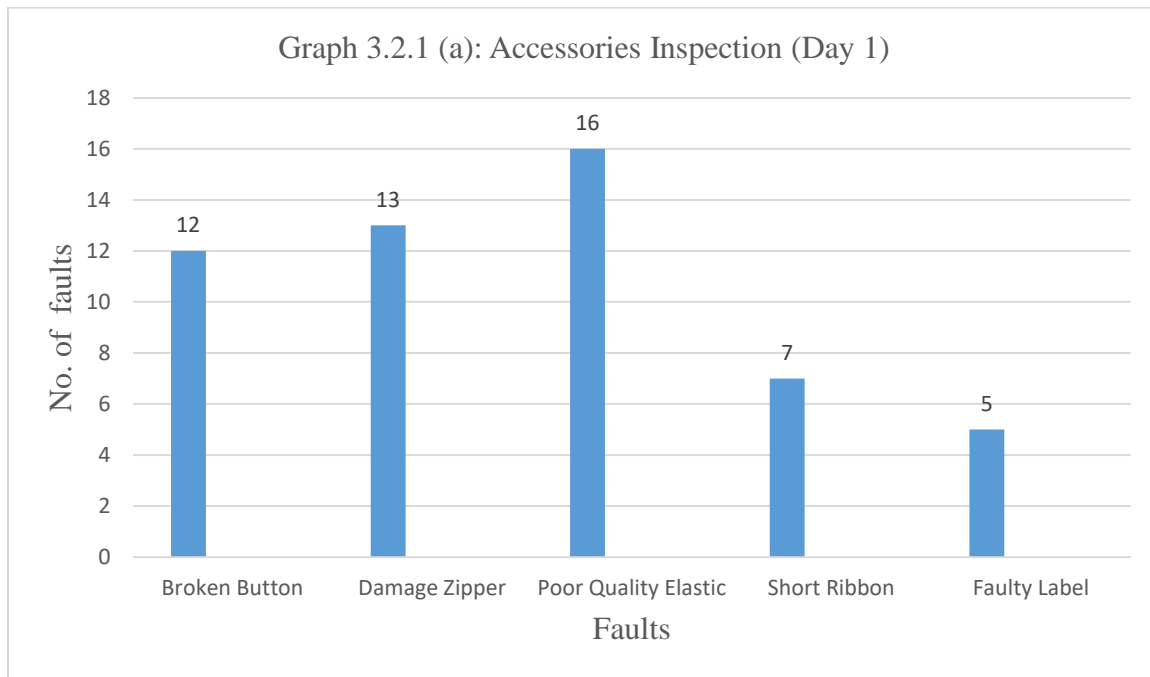


Chart 3.2.1 demonstrates the issues found in embellishments where greatest number of blame was broken catch (16 pcs) and least number of blame was Faulty Label (5 pcs)

A graph on the basis of table 3.2.1. is given below:

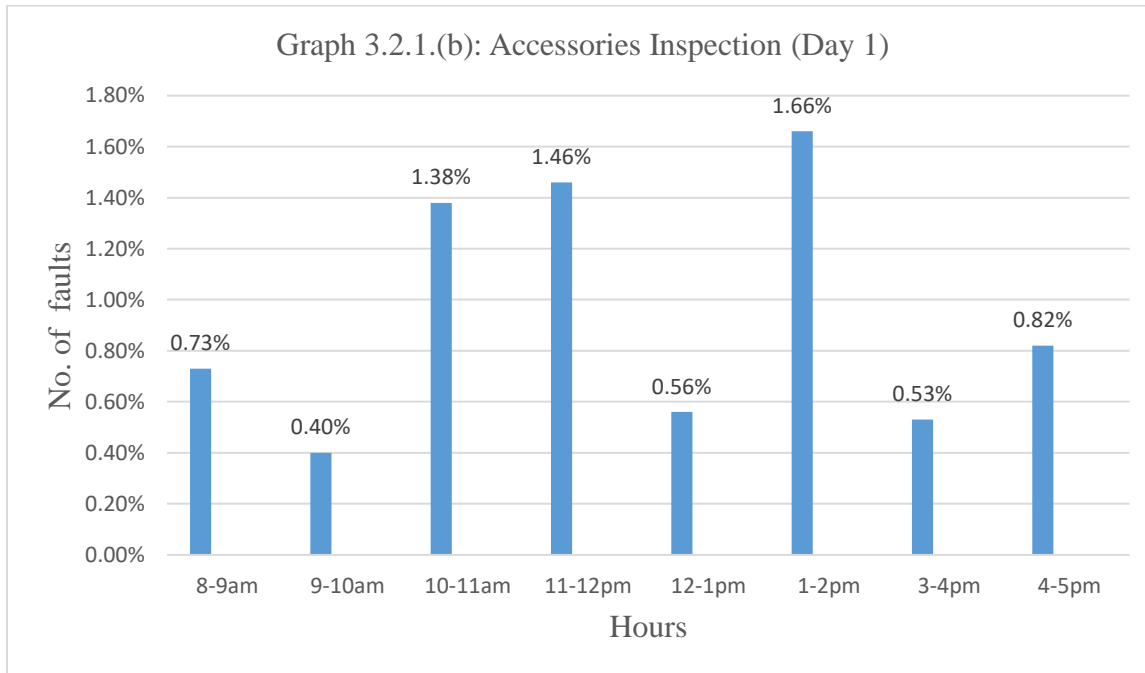


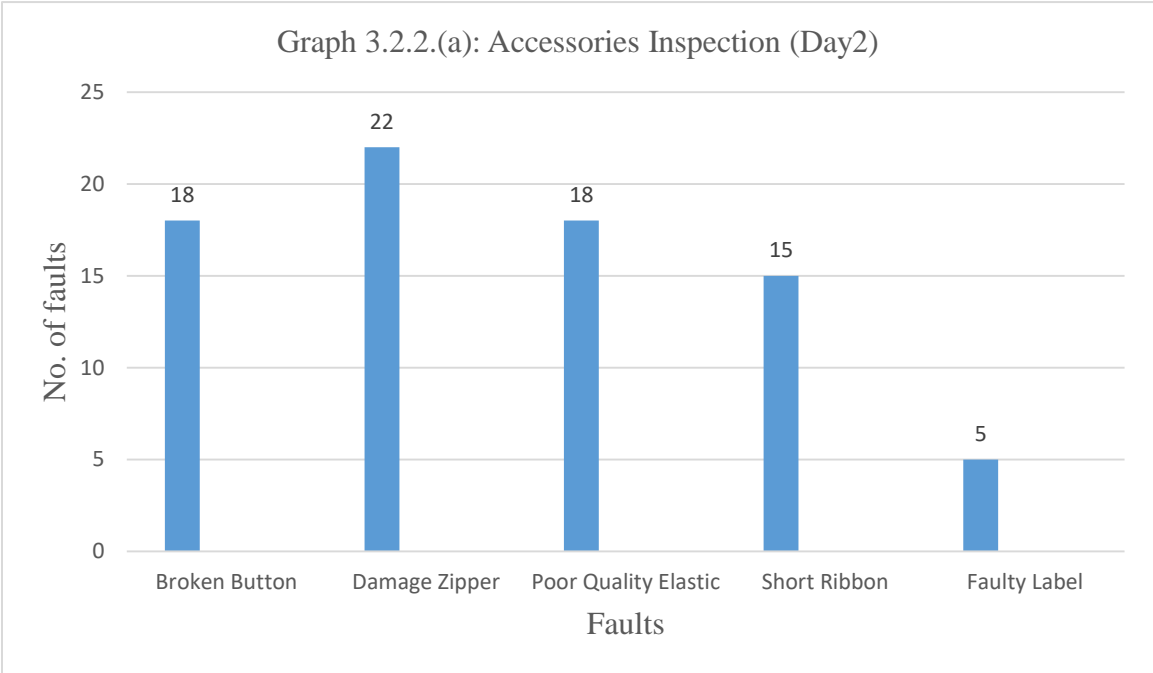
Chart 3.2.1 demonstrates the deficiencies found in embellishments where most extreme level of blame was 1.66% and least level of blame was 0.40%

Table 3.2.2: Accessories Inspection (Day 2)

Date	Hours	Broken Button	Damage Zipper	Poor Quality Elastic	Short Ribbon	Faulty Label	Total Inspection	Total Defect	QC pass	Total Defect %
12.2.2018	8-9am	4	1	3	2	1	820	11	811	1.34%
	9-10am		3	1	3	2	800	9	792	1.125%
	10-11am	6		1	3	1	810	11	800	1.35%
	11-12am	1	4	2	2	1	825	10	817	1.21%
	12-1pm			5			750	5	739	0.66%
	2-3pm	3	3		2	3	800	11	789	1.37%
	3-4pm	2	6	5		3	815	18	808	2.20%
	4-5pm	2	5	1	3		780	11	765	1.41%
Total	8 hours	18	22	18	15	11	6400	86	6314	1.34%

Table 3.2.2 shows the diverse kinds and amount of issues found in adornments. Shortcomings like broken catch, harm zipper, low quality versatile, short lace, flawed mark were found in frill. Here 6400 pcs adornments are assessed in a day which 6314 pcs embellishments are passed by QC where 1.38% extras are deserted

A graph on the basis of table 3.2.2. is given below:



Graph 3.2.2.a demonstrates the shortcomings found in embellishments where greatest number of blame was harm zipper (22 pcs) and least number of blame was Faulty Label (5 pcs)

A graph on the basis of table 3.2.2. is given below:

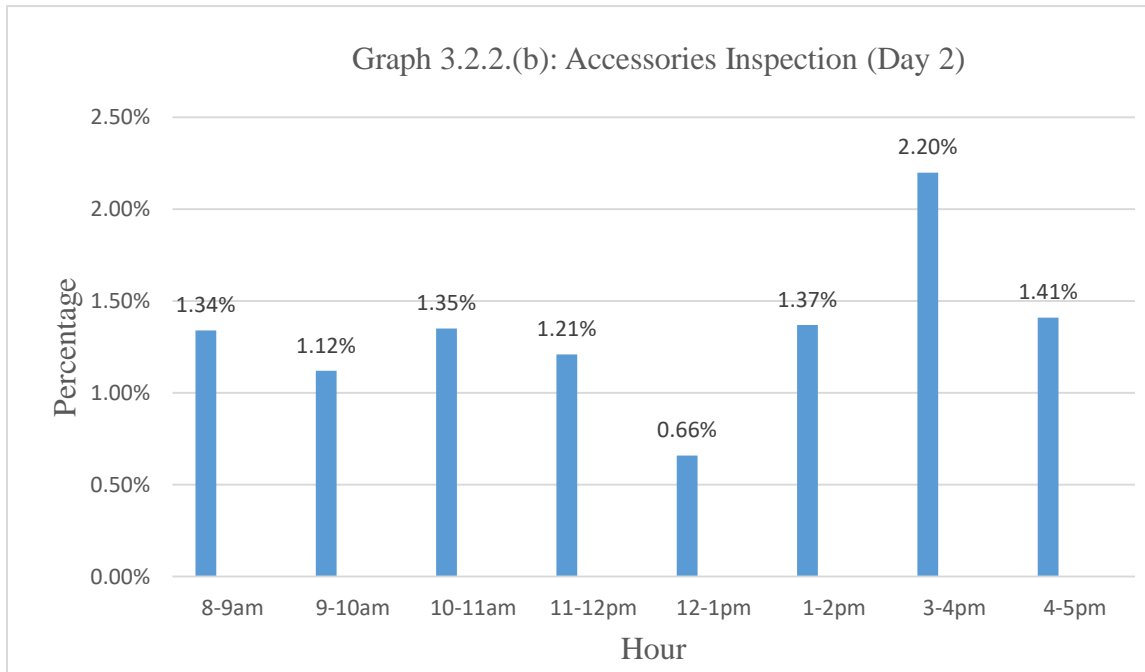


Diagram 3.3.2.b shows the shortcomings found in embellishments where greatest level of blame was 2.20% and least level of blame was 0.66%

Table 3.2.3: Accessories Inspection (Day 3)

Date	Hours	Broken B	Damaged Zip	Poor Quality Elastic	Short Ribbon	Faulty Label	Total Inspection	Total Defect	QC pass	Total Defect %
13.2.20 18	8-9am	4	1	3	2		880	10	870	0.11%
	9-10am		3	1	3		800	7	793	0.87%
	10-11am	5		5		1	825	11	814	1.33%
	11-12am	1	4	2	2	1	850	10	840	0.11%
	12-1pm			8	5		810	13	797	1.60%
	2-3pm	3	3		4		805	10	795	0.12%
	3-4pm		2		3		845	5	840	0.59%
	4-5pm	2	4	7		2	895	15	880	1.67%
Total	8 hours	15	17	26	19	04	6710	81	6629	1.20%

Table 3.2.3 shows the distinctive sorts and amount of issues found in extras. Flaws like broken catch, harm zipper, low quality versatile, short strip, defective name were found in extras. Here 6710 pcs embellishments are examined in a day which 6629 pcs frill are passed by QC where 1.20% adornments are surrendered

A graph on the basis of table 3.2.3. is given below

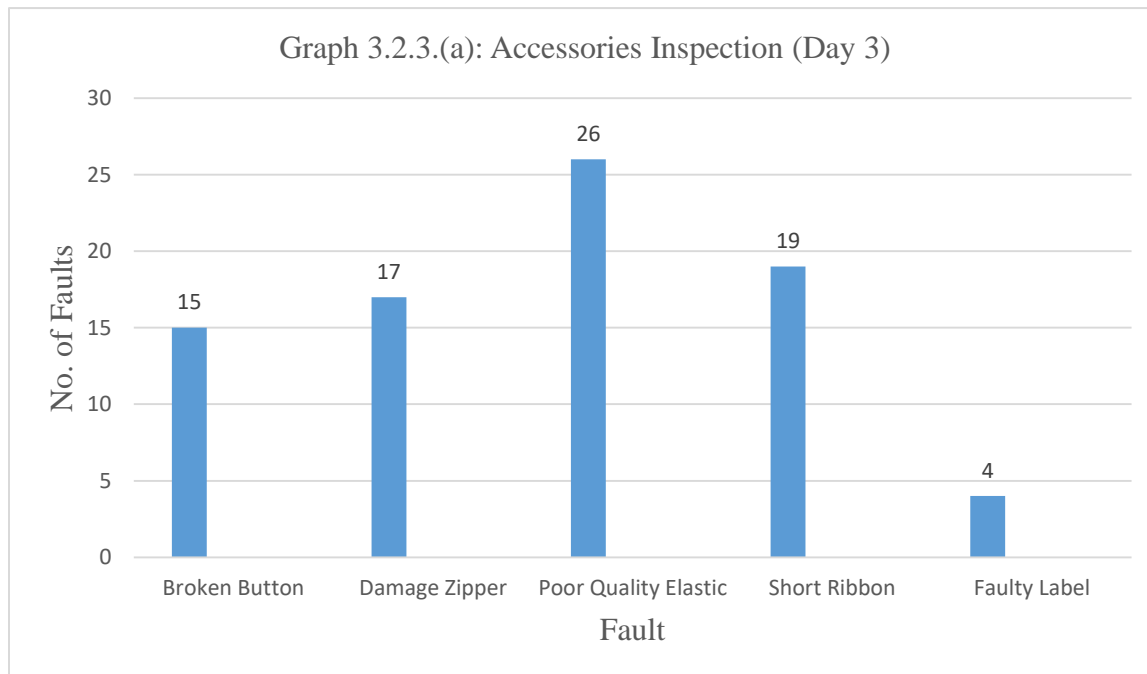


Diagram 3.2.3.a demonstrates the shortcomings found in frill where greatest number of blame was low quality versatile (26 pcs) and least number of blame was Faulty Label (4 pcs)

A graph on the basis of table 3.2.3. is given below

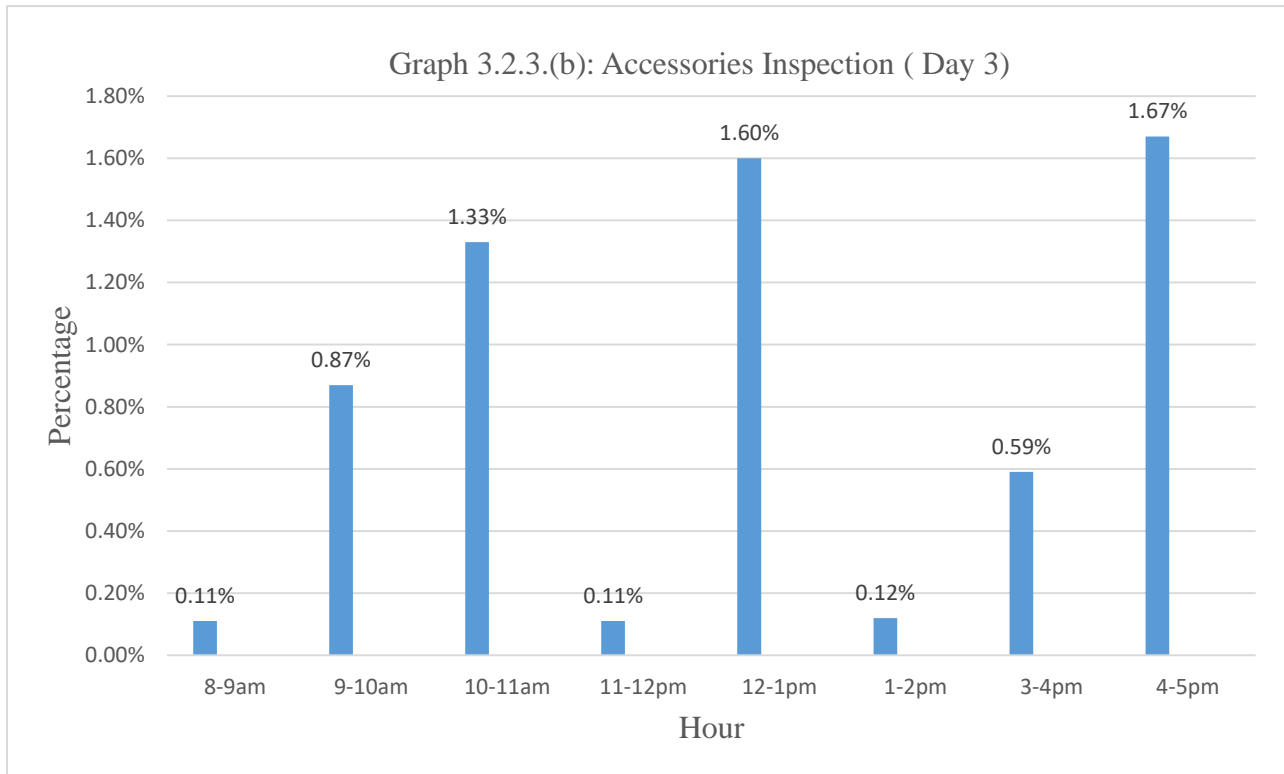


Chart 3.2.3.b demonstrates the issues found in adornments where most extreme level of blame was 1.67% and least level of blame was 0.11%

Table 3.2.4: Accessories Inspection (Day 4)

Date	Hours	B ro ke n B	Da m ag e Zi pp	Poor Quali ty Elasti c	Short Ribbo n	Fault y Label	Tot al Ins pec tion	Tot al Def ect	QC pass	Total Defect %
14/02.2 018	8-9am	2	1		2	3	880	8	872	0.90%
	9-10am		3	1	3		800	7	793	0.87%
	10-11am	3		2		1	825	6	819	0.72%
	11-12am	1	4		2	1	850	8	842	0.94%
	12-1pm			2	2		810	4	806	0.49%
	2-3pm	3	3				805	6	799	0.74%
	3-4pm		4		1		845	5	840	0.59%
	4-5pm	1	4	2		2	895	9	886	1%
Total	8 hours	10	19	07	10	07	6710	53	6657	0.78%

Table 3.2.3 demonstrates the diverse kinds and amount of flaws found in frill. Deficiencies like broken catch, harm zipper, low quality versatile, short strip, defective mark were found in embellishments. Here 6710 pcs adornments are examined in a day which 6657 pcs embellishments are passed by QC where 0.78% extras are absconded

A graph on the basis of table 3.2.4. is given below

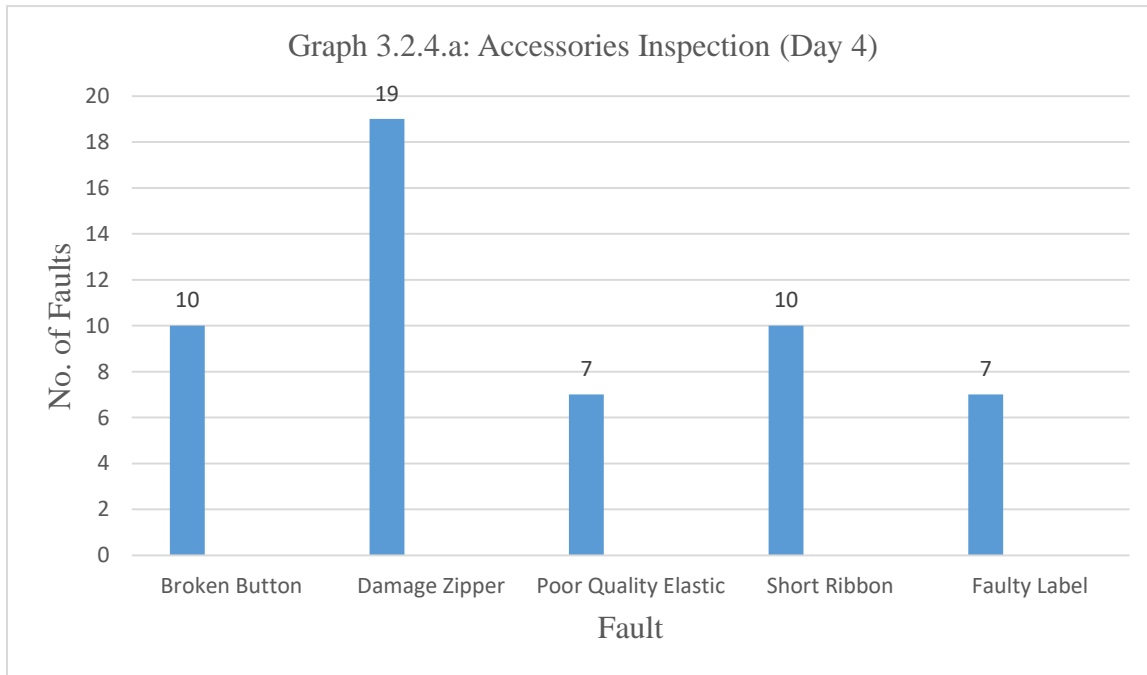


Diagram 3.2.4.a demonstrates the issues found in frill where most extreme number of blame was Damage zipper (19 pcs) and least number of blame were faultylabel& low quality versatile (7 pcs)

A graph on the basis of table 3.2.4. is given below

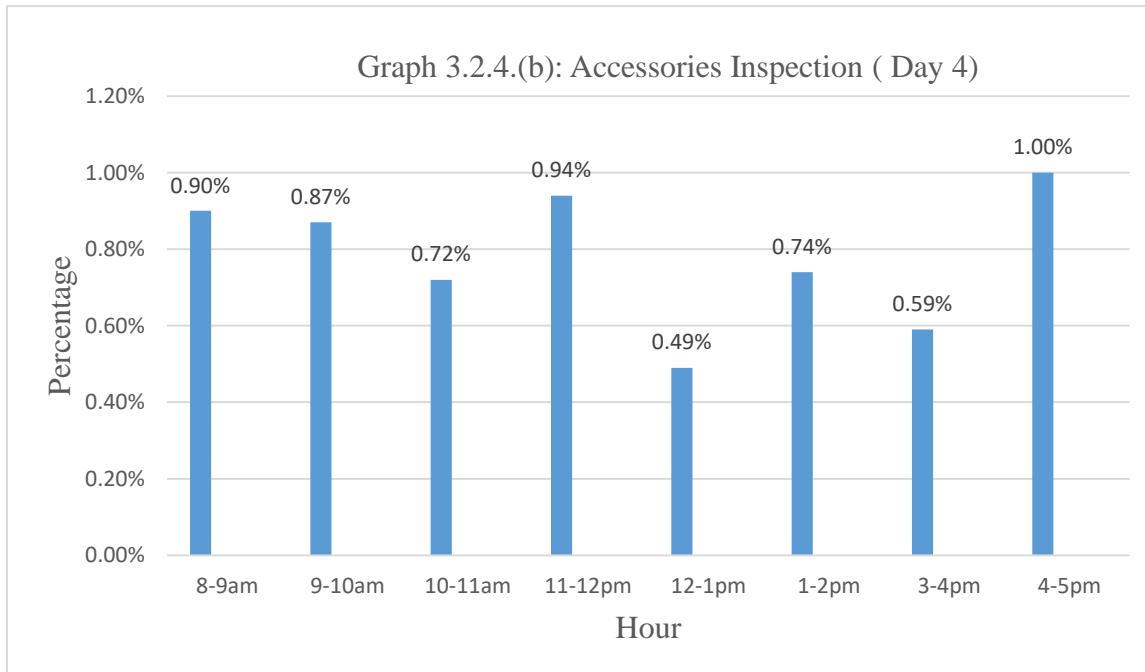


Diagram 3.2.4.b shows the flaws found in adornments where most extreme level of blame was 1.00% and least level of blame was 0.49%

Table 3.2.5: Accessories Inspection (Day 5)

Date	Hours	Broken Button	Damage Zipper	Poor Quality Elastic	Short Ribbon	Faulty Label	Total Inspection	Total Defect	QC pass	Total Defect %
15.2.2018	8-9am	3	1		2	3	850	9	841	1.05%
	9-10am		3	1	1		800	5	795	0.62%
	10-11am	3		4		1	810	8	802	0.98%
	11-12am	4	2		1	1	825	8	817	0.96%
	12-1pm			3	2	2	750	7	743	0.93%
	2-3pm	3	3			2	800	8	792	1%
	3-4pm		2	2	2		815	6	809	0.73%
	4-5pm	4		2		2	780	8	772	1.02%
Total	8 hours	17	11	12	08	11	6430	53	6377	0.82%

Table 3.2.5 shows the distinctive kinds and amount of shortcomings found in adornments. Shortcomings like broken catch, harm zipper, low quality flexible, short strip, flawed mark were found in embellishments. Here 6430 pcs adornments are investigated in a day which 6377 pcs extras are passed by QC where 0.82% embellishments are absconded.

A graph on the basis of table 3.2.5 is given below

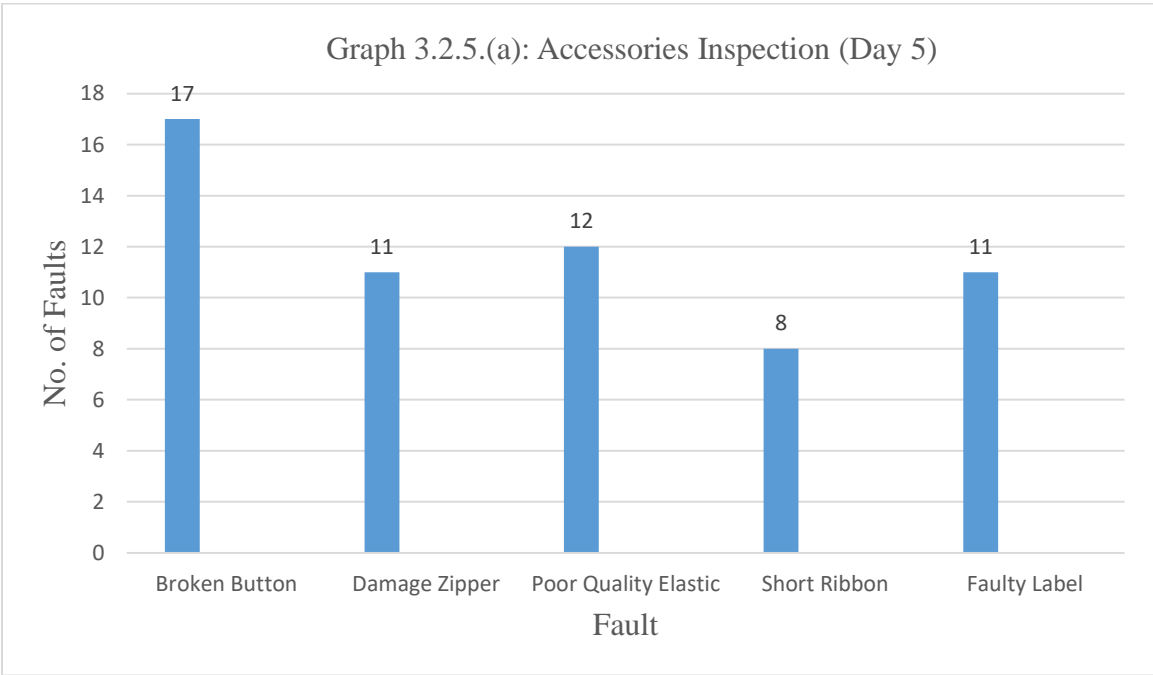


Chart 3.2.5.a demonstrates the issues found in extras where most extreme number of blame was broken catch (17pcs) and least number of blame was short lace (8 pcs)

A graph on the basis of table 3.2.5. is given below

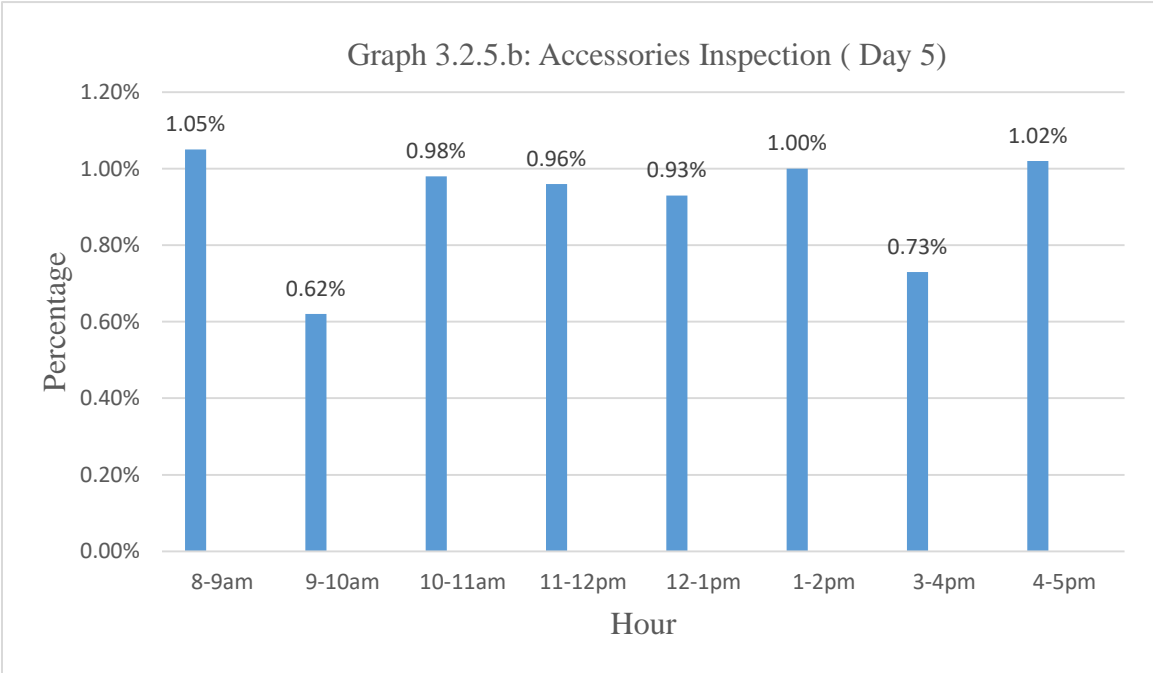


Chart 3.2.5.b shows the shortcomings found in frill where most extreme level of blame was 1.05% and least level of blame was 0.62%

Table 3.2.6: Accessories Inspection (Day 6)

Date	Hours	Broken Button	Damage Zipper	Poor Quality Elastic	Short Ribbon	Faulty Label	Total Inspection	Total Defect	QC pass	Total Defect %
16.2.2018	8-9am	4	1		2	1	880	8	872	0.90%
	9-10am	3	3	3	1		800	10	790	1.25%
	10-11am	8		4		1	825	13	812	1.57%
	11-12am	4	2	1	1	1	850	9	841	1.05%
	12-1pm			3	4	2	810	9	801	1.11%
	2-3pm	3	3	2		2	805	10	795	1.24%
	3-4pm	1	5	2	3		845	11	834	1.30%
	4-5pm	4		2		2	895	8	887	0.89%
Total	8 hours	26	14	17	11	10	6710	78	6632	1.16%

Table 3.2.6 shows the diverse sorts and amount of issues found in frill. Flaws like broken catch, harm zipper, low quality flexible, short lace, defective mark were found in frill. Here 6710 pcs extras are reviewed in a day which 6632 pcs embellishments are passed by QC where 1.16% adornments are deserted.

A graph on the basis of table 3.2.6. is given below

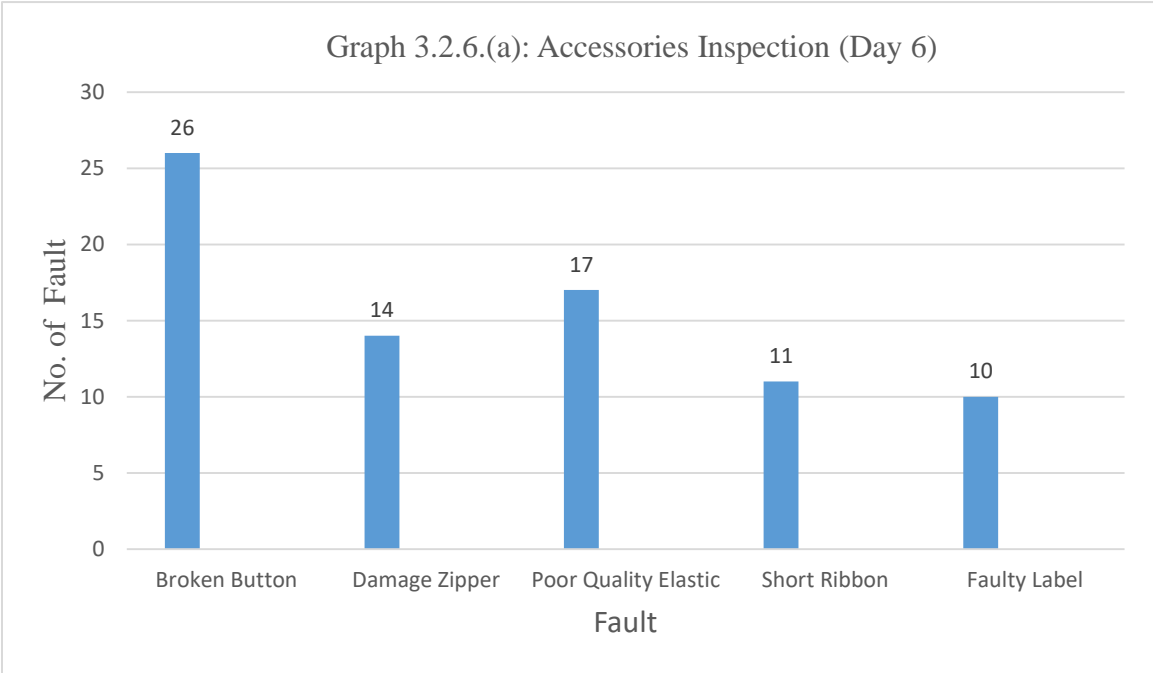


Chart 3.2.6.a demonstrates the deficiencies found in frill where most extreme number of blame was broken catch (26 pcs) and least number of blame was Faulty Label (10 pcs)

A graph on the basis of table 3.2.6. is given below

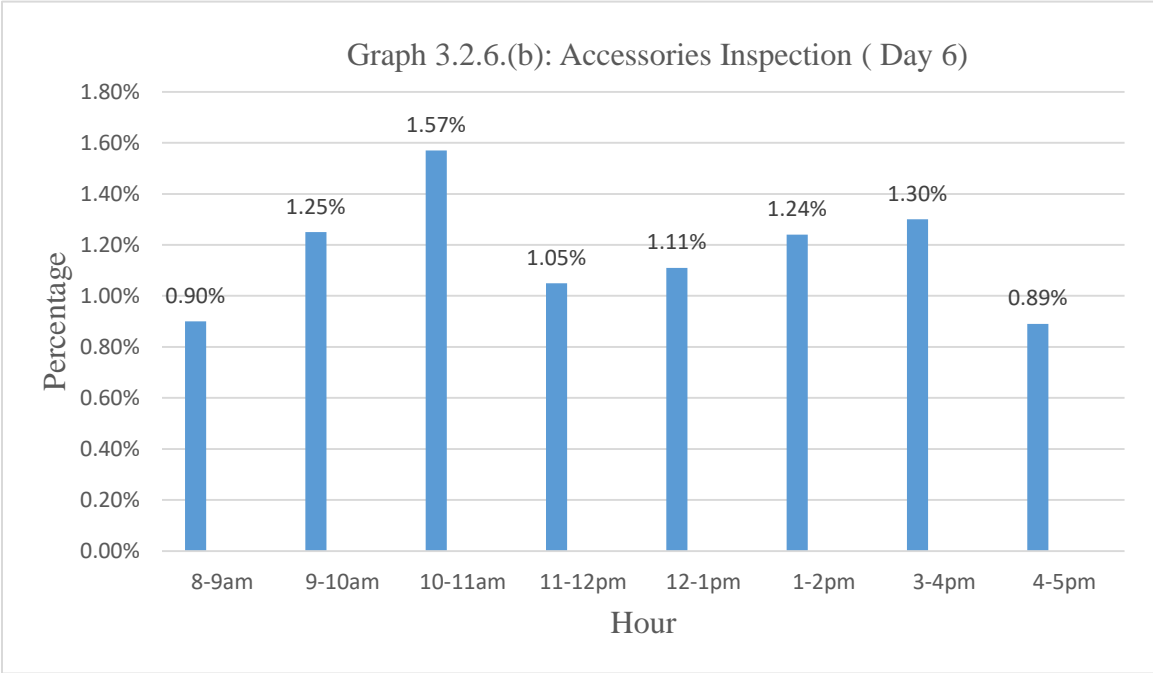


Diagram 3.2.6.b demonstrates the issues found in extras where most extreme level of blame was 1.57% and least level of blame was 0.89

Table 3.2.7: Accessories Inspection (Day 7)

Date	Hours	Broken Button	Damage Zipper	Poor Quality Elastic	Short Ribbon	Faulty Label	Total Inspection	Total Defect	QC pass	Total Defect %
18/02.2018	8-9am	4	4		2	1	720	11	709	1.52%
	9-10am	3	3		1		750	7	743	0.93%
	10-11am	5		2		1	735	8	727	1.08%
	11-12am	4	2	1	3		715	10	705	1.39%
	12-1pm		1	3	4		710	8	702	1.12%
	2-3pm	3	3	2		2	780	10	770	1.28%
	3-4pm	1	5		3		760	9	751	1.18%
	4-5pm	2	2	2		1	700	7	693	1%
Total	8 hours	22	20	10	13	05	5870	70	5800	1.19%

Table 3.2.7 shows the diverse kinds and amount of flaws found in embellishments. Shortcomings like broken catch, harm zipper, low quality versatile, short lace, flawed name were found in adornments. Here 5870 pcs embellishments are reviewed in a day which 5789 pcs frill are passed by QC where 1.19% extras are absconded.

A graph on the basis of table 3.2.7. is given below

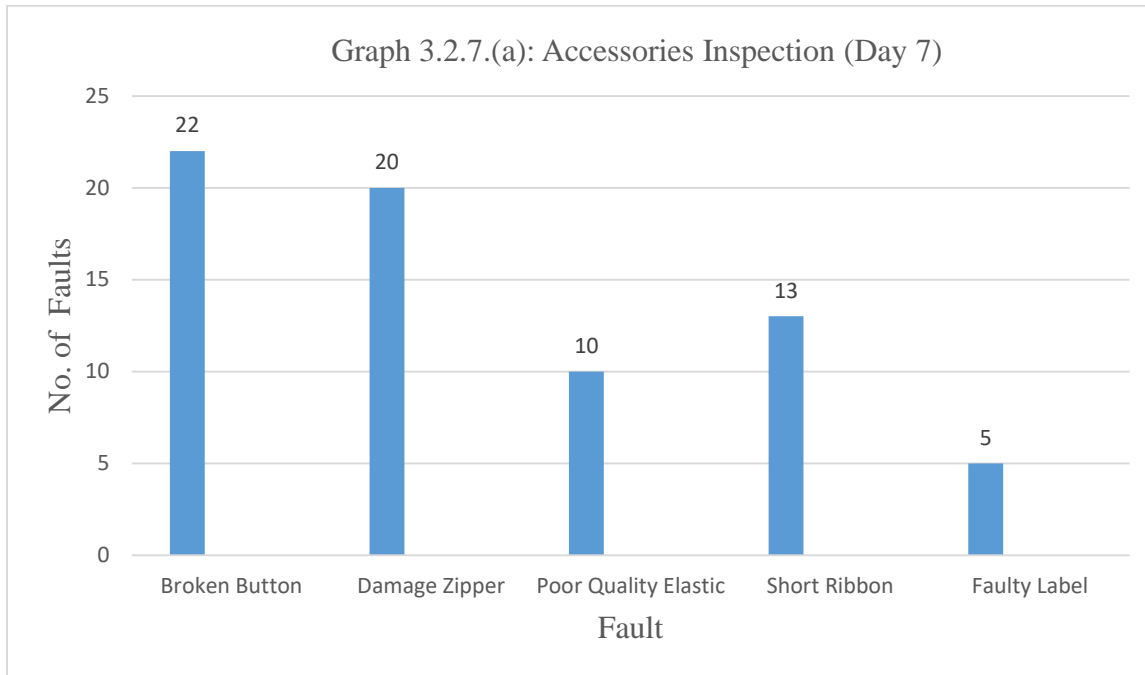


Chart 3.2.7.a demonstrates the shortcomings found in extras where greatest number of blame was broken catch (22 pcs) and least number of blame was Faulty Label (5 pcs)

A graph on the basis of table 3.2.7 is given below

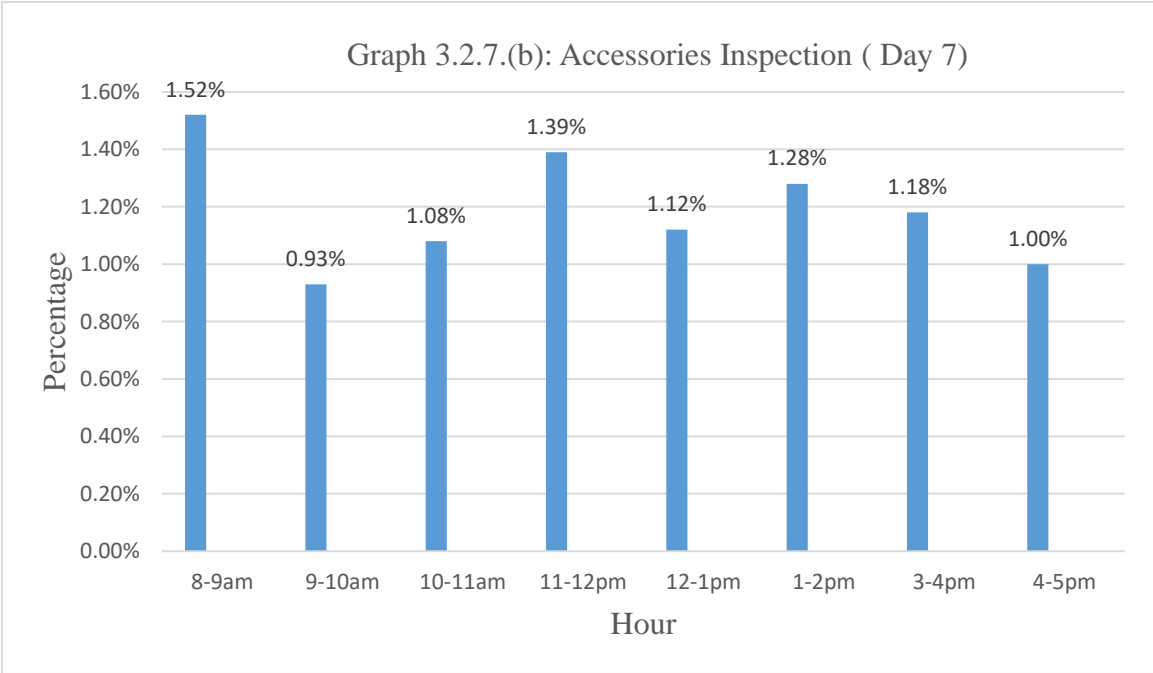


Chart 3.2.7.b demonstrates the deficiencies found in embellishments where greatest level of blame was 1.52% and least level of blame was 0.93%

3.3 Size Mistake check:

Estimate botch is the blame which fundamentally happens because of administrators or laborers carelessness and it happens when they put wrong size name on the pieces of clothing. It is one of the significant issue in articles of clothing generation. To guarantee the quality and blame free pieces of clothing item, it is vital to deliver articles of clothing without estimate botch.

so we have gathered and broke down information on measure mix up for 7 days which is given underneath Table 3.3.1: Size Mistake Inspection (Day 1)

Date	Hours	S	M	L	XL	XXL	Total Inspection	Total defect	QC Pass	Total Defect %
24.2.2018	8-9 am	1			1		820	2	818	0.24%
	9-10am		1				800	1	799	0.12%
	10-11 am				1		810	1	809	0.12%
	11-12 pm	1					825	1	824	0.12%
	12-1 pm		1				750	1	749	0.13%
	2-3 pm	2				1	800	3	797	0.37%
	3-4 pm		1				815	1	814	0.12%
	4-5 pm						780	0	780	0%
Total	8 hours	04	03	0	03	0	6400	10	6390	0.15%

Table 3.3.1 shows the distinctive kinds and amount of size error. Deficiencies in size S, M, L, XL and XXL are found. Here 6400 pcs pieces of clothing are investigated in a day which 6390 pcs articles of clothing are passed by QC where 0.15% garments are abandoned.

A chart based on table 3.3.1 is given beneath

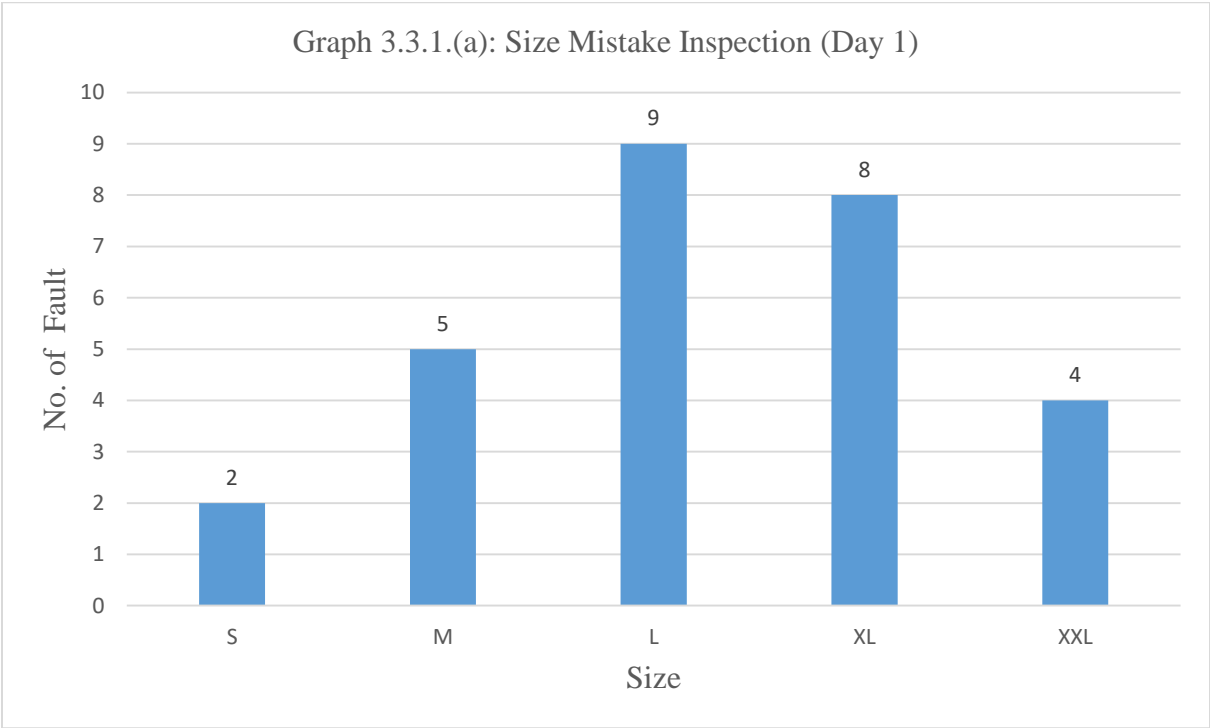


Chart 3.3.1.a shows estimate misstep of day 1 where the most noteworthy blame's esteem is 9 (L) and least esteem is (S)

A graph on the basis of table 3.3.1. is given below

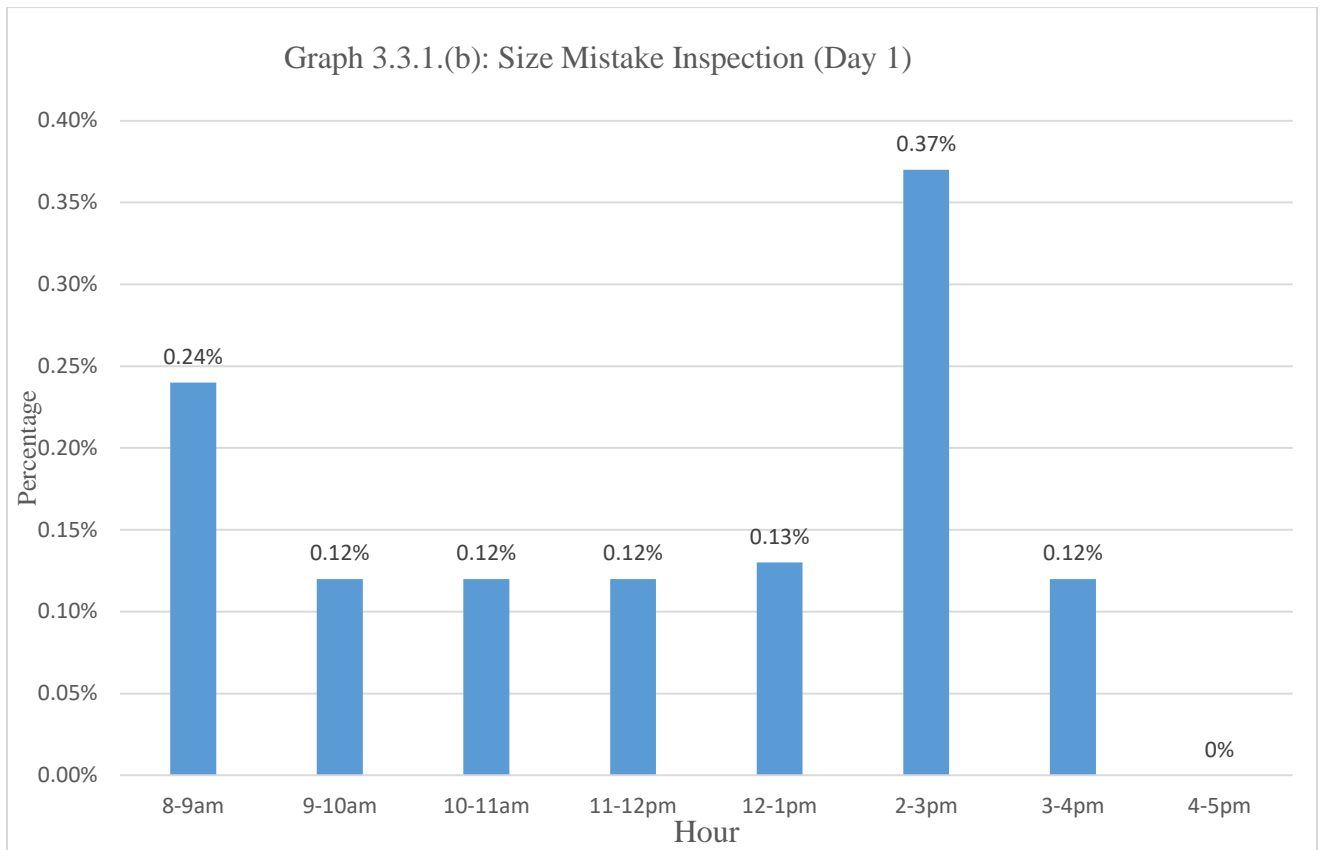


Chart 3.3.1.b demonstrates the flaws found in pieces of clothing where most extreme level of blame was 0.37% and least level of blame was 0%

Table 3.3.2: Size Mistake Inspection (Day 2)

Date	Hours	S	M	L	XL	XXL	Total Inspection	Total defect	QC Pass	Total Defect %
25.2.2018	8-9 am						820	0	820	0%
	9-10am		1	1		1	500	3	497	0.6%
	10-11 am						720	0	720	0%
	11-12 pm			1		2	750	3	747	0.4%
	12-1 pm		1			1	710	2	708	0.28%
	2-3 pm						600	0	600	0%
	3-4 pm					2	750	2	748	0.26%
	4-5 pm						730	0	730	0%
Total	8 hours	0	02	02	0	06	5580	10	5570	0.17%

Table 3.3.2 demonstrates the diverse kinds and amount of size mix-up. Blames in estimate S, M, L, XL, and XXL are found. Here 5580 pcs articles of clothing are reviewed in a day which 5570 pcs pieces of clothing are passed by QC where 0.17% articles of clothing are absconded.

A graph on the basis of table 3.2.7. is given below

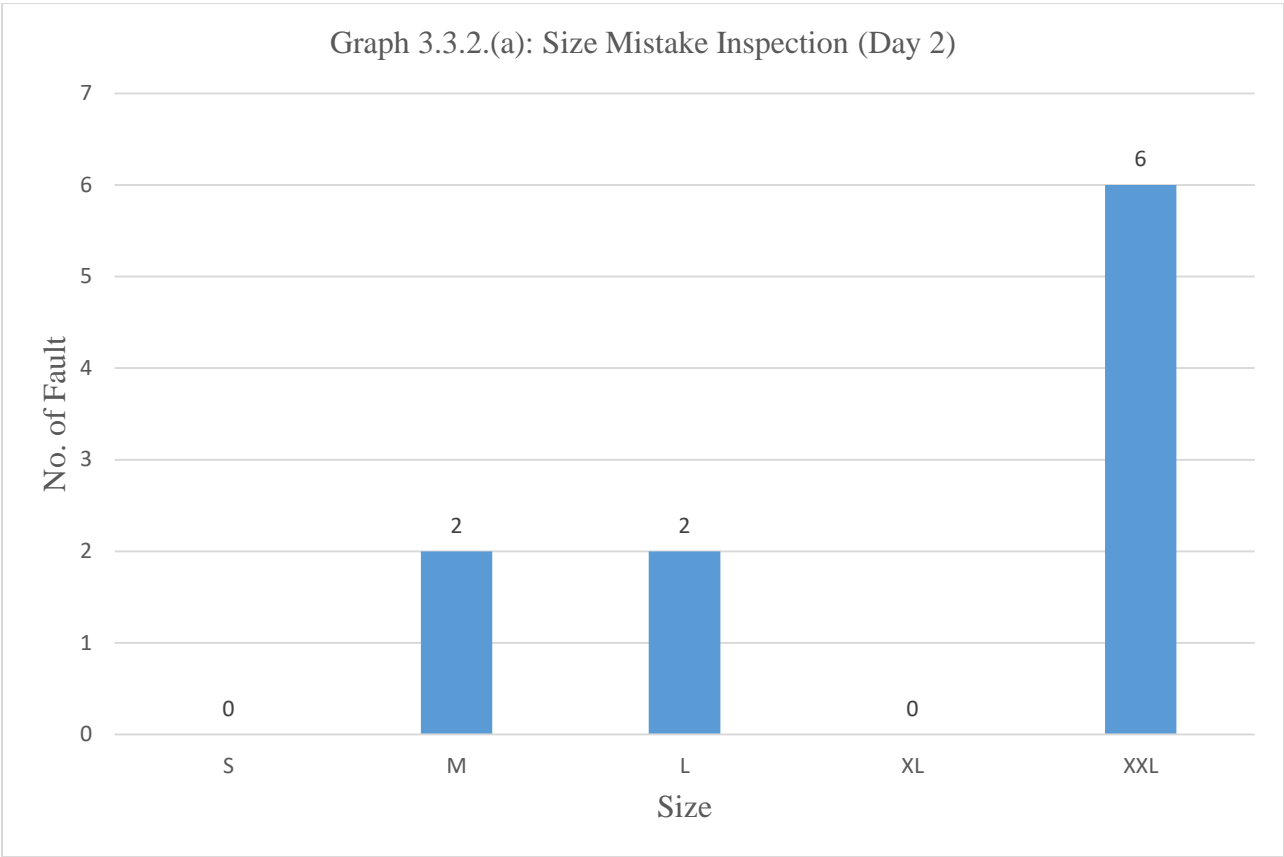


Diagram 3.3.2.a shows estimate slip-up of day 2 where the most elevated blame's esteem is 6 (XXL) and least esteem is 0(S, XL)

A graph on the basis of table 3.2.2. is given below

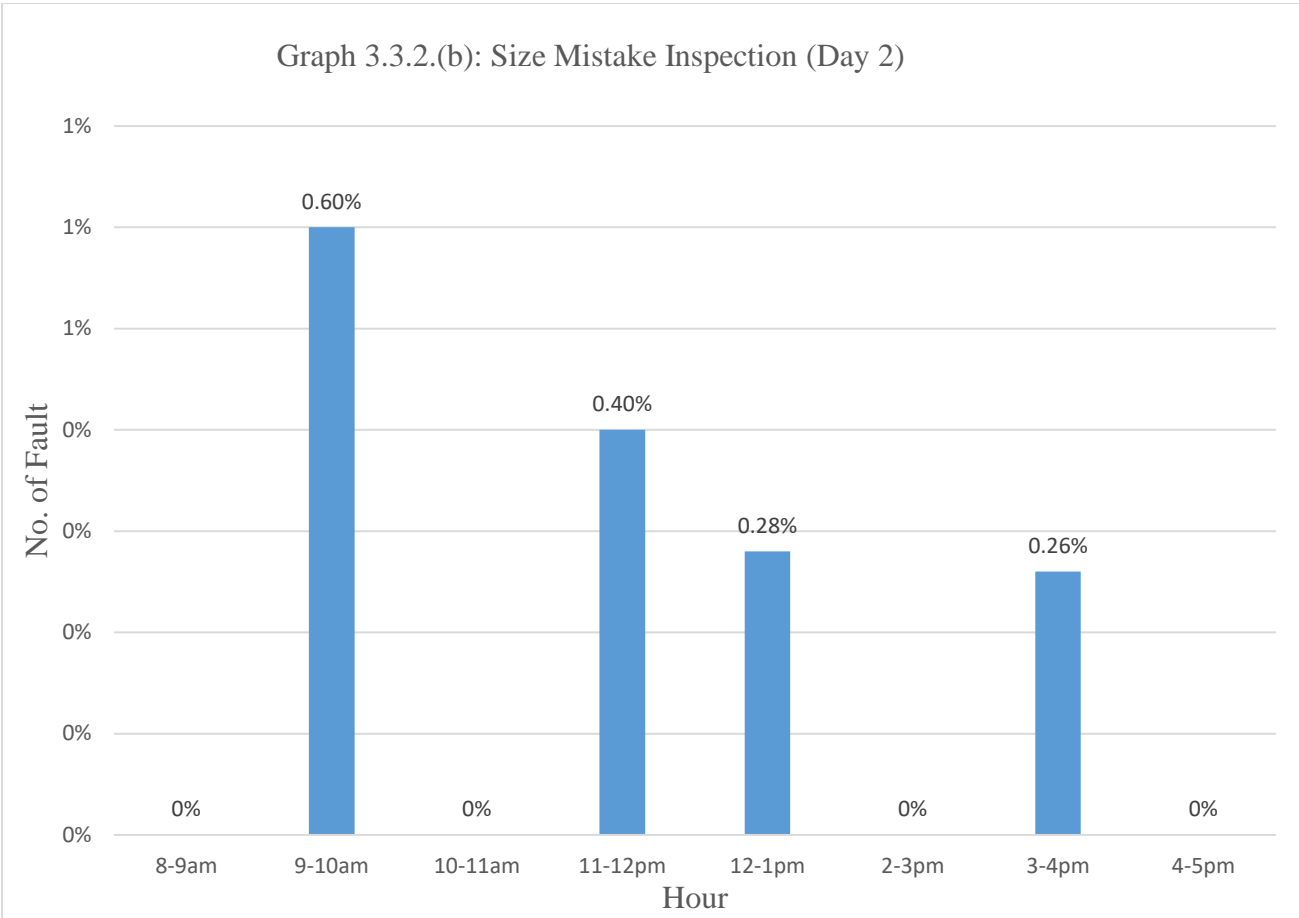


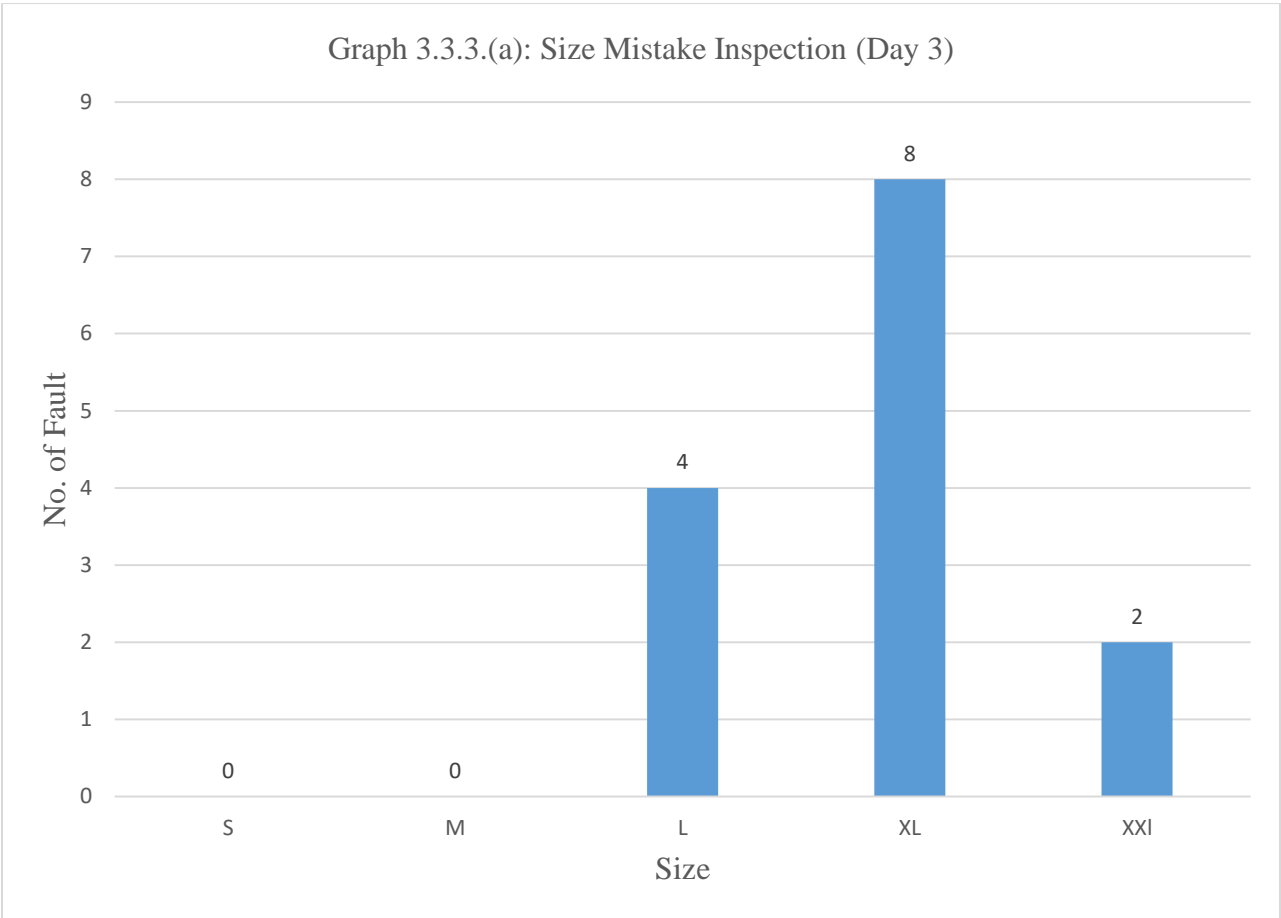
Chart 3.3.2.b demonstrates the issues found in pieces of clothing where most extreme level of blame was 0.60% and least level of blame was 0%

Table 3.3.3: Size Mistake Inspection (Day 3)

Date	Hours	S	M	L	XL	XXL	Total Inspection	Total defect	QC Pass	Total Defect %
26.2.2018	8-9 am			1	1		880	2	878	0.22%
	9-10am			1	1	1	800	3	877	0.37%
	10-11 am				2		825	2	823	0.24%
	11-12 pm			1		1	850	2	848	0.23%
	12-1 pm				2		810	2	808	0.24%
	2-3 pm				1		805	1	804	0.12%
	3-4 pm			1			845	1	844	0.11%
	4-5 pm				1		895	1	894	0.11%
Total	8 hours	0	0	04	08	02	6710	14	6696	0.20%

Table 3.3.3 demonstrates the diverse sorts and amount of size misstep. Blames in measure S, M, L, XL, and XXL are found. Here 6710 pcs pieces of clothing are investigated in a day which 6696 pcs articles of clothing are passed by QC where 0.20% pieces of clothing are deserted..

A graph on the basis of table 3.3.3. is given below



Graph 3.3.3.(a) shows size mistake of day 3 where the highest fault's value is 8 (XL) and lowest value is 0 (S, M)

A graph on the basis of table 3.3.3. is given below

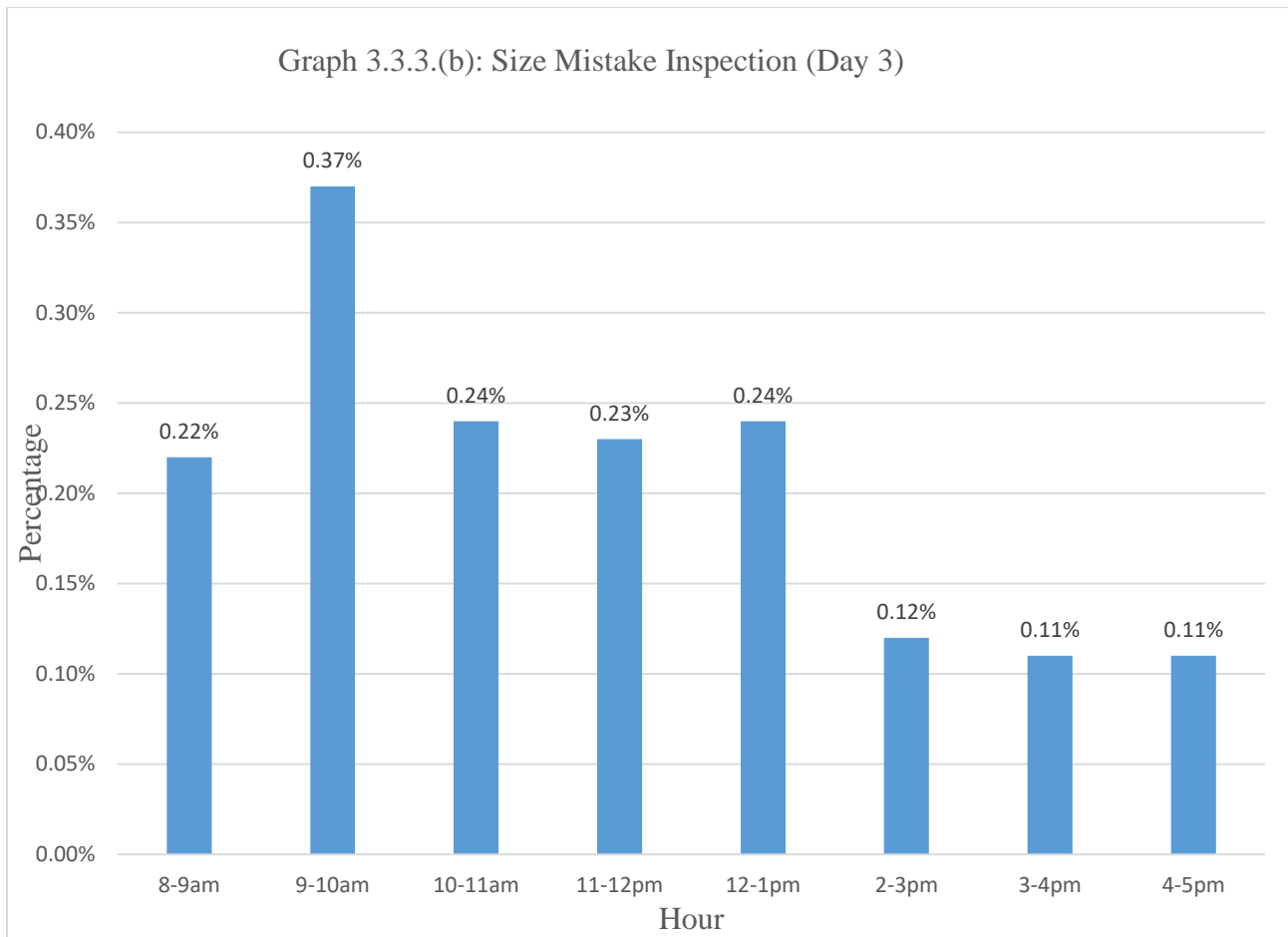


Diagram 3.3.3.(b) shows the shortcomings found in articles of clothing where greatest level of blame was 0.37% and least level of blame was 0.11%

Table 3.3.4: Size Mistake Inspection (Day 4)

Date	Hours	S	M	L	XL	XXL	Total Inspection	Total defect	QC Pass	Total Defect %
27.2.2018	8-9 am		2				720	2	718	0.27%
	9-10am	1			1		750	2	748	0.26%
	10-11 am		1				735	1	734	0.13%
	11-12 pm	1					715	1	714	0.13%
	12-1 pm		1		1		710	2	708	0.28%
	2-3 pm	1					780	1	779	0.12%
	3-4 pm		1				760	1	759	0.13%
	4-5 pm		1				700	1	699	0.14%
Total	8 hours	03	06	0	02	0	5870	11	5859	0.18%

Table 3.3.4 shows the diverse kinds and amount of size mix-up. Blames in estimate S, M, L, XL and XXL are found. Here 5870 pcs articles of clothing are examined in a day which 5859 pcs pieces of clothing are passed by QC where 0.18% articles of clothing are absconded.

A graph on the basis of table 3.3.4. is given below

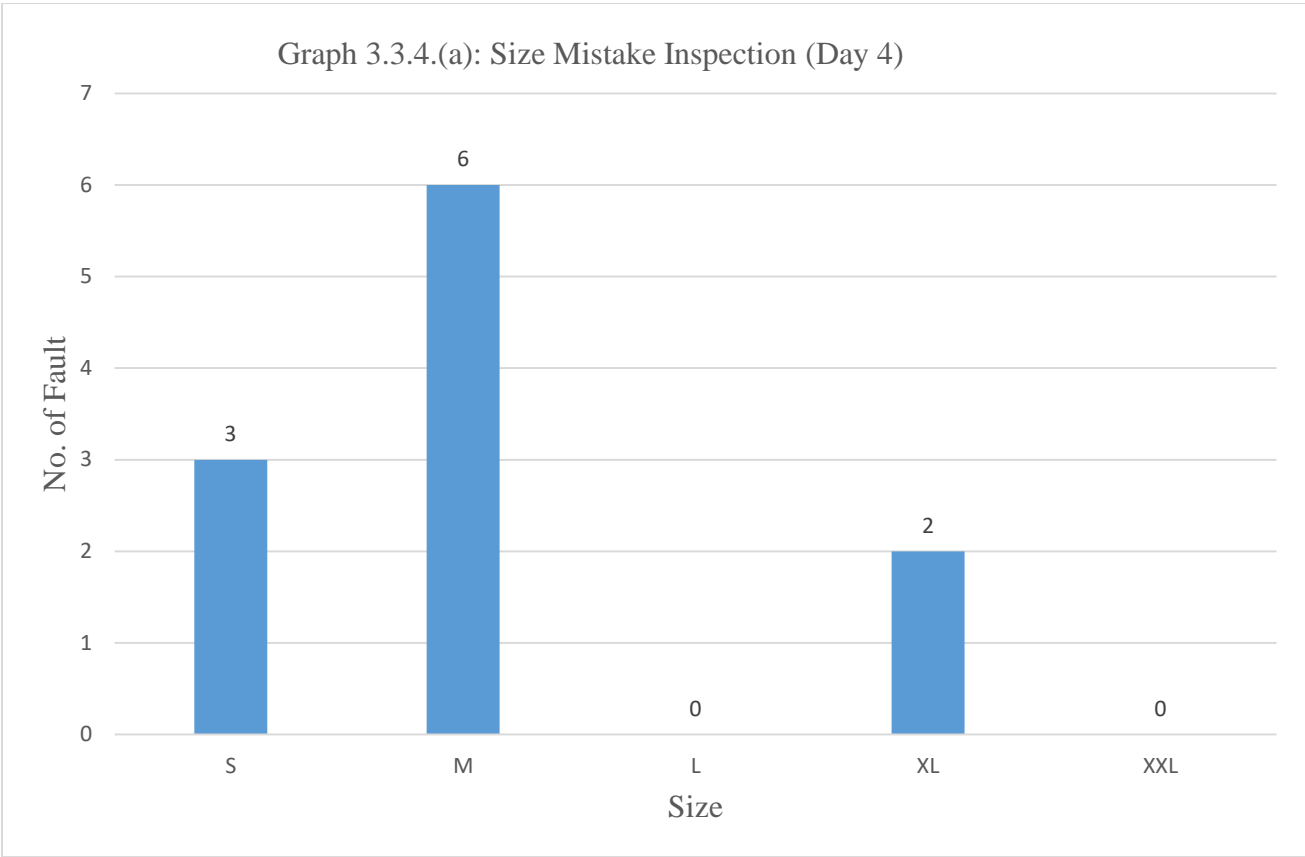


Chart 3.3.4.(a) indicates measure oversight of day 4 where the most noteworthy blame's esteem is 6 (M) and least esteem is 0 (S, XXL)

A graph on the basis of table 3.3.4. is given below

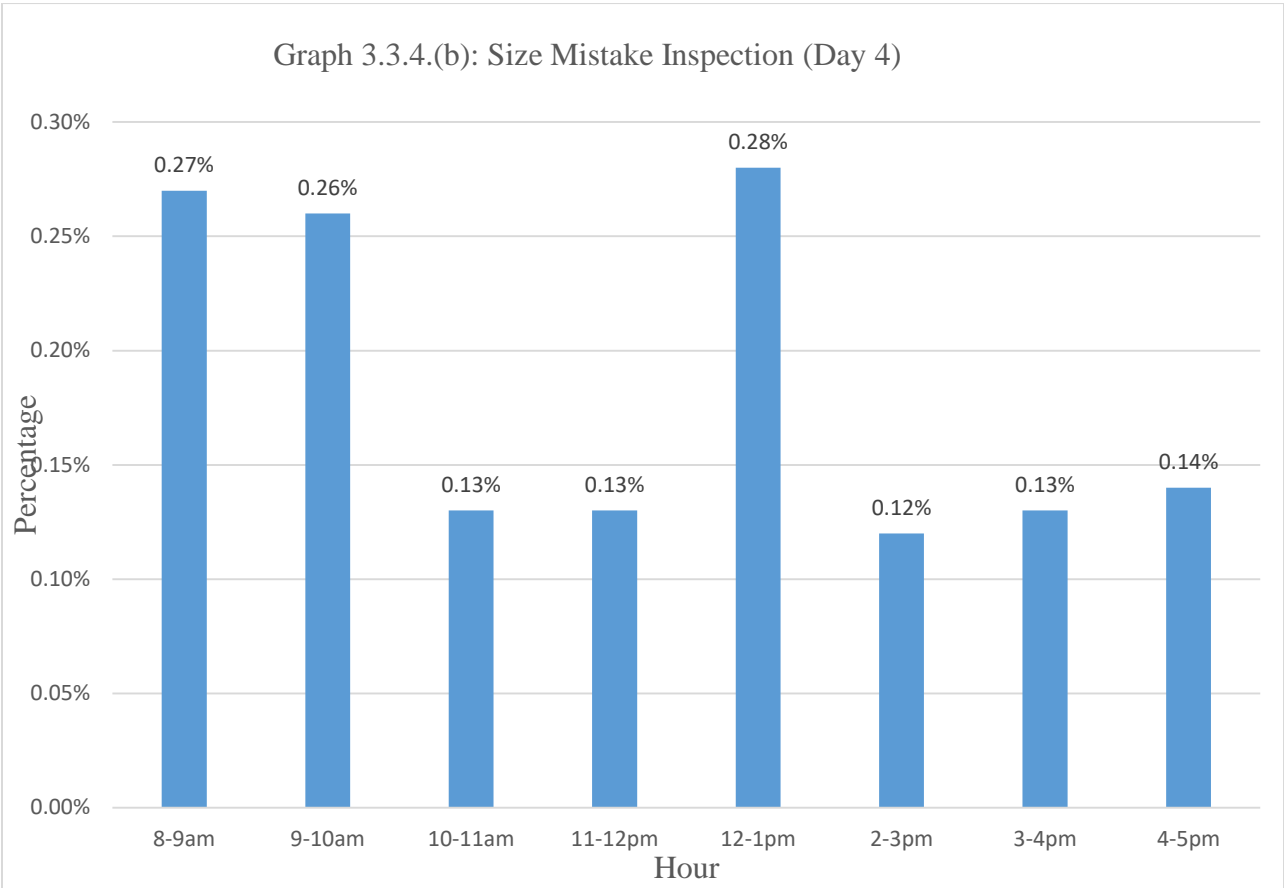


Diagram 3.3.4.(b) demonstrates the shortcomings found in articles of clothing where most extreme level of blame was 0.28% and least level of blame was 0.12%

Table 3.3.5: Size Mistake Inspection (Day 5)

Date	Hours	S	M	L	XL	XXL	Total Inspection	Total defect	QC Pass	Total Defect %
28.2.2018	8-9 am			2			850	2	848	0.23%
	9-10am						800	0	800	0%
	10-11 am			1			810	1	809	0.12%
	11-12 pm						825	0	825	0%
	12-1 pm			1			750	1	749	0.13%
	2-3 pm	1					800	1	799	0.12%
	3-4 pm			3			815	3	812	0.36%
	4-5 pm						780	0	780	0%
Total	8 hours	01	0	07	0	0	6430	08	6422	0.12%

Table 3.3.5 demonstrates the distinctive kinds and amount of size slip-up. Blames in measure S, M, L, XL, XXL are found. Here 6430 pcs pieces of clothing are examined in a day which 6422 pcs articles of clothing are passed by QC where 0.12% articles of clothing are abandoned.

A graph on the basis of table 3.3.5. is given below

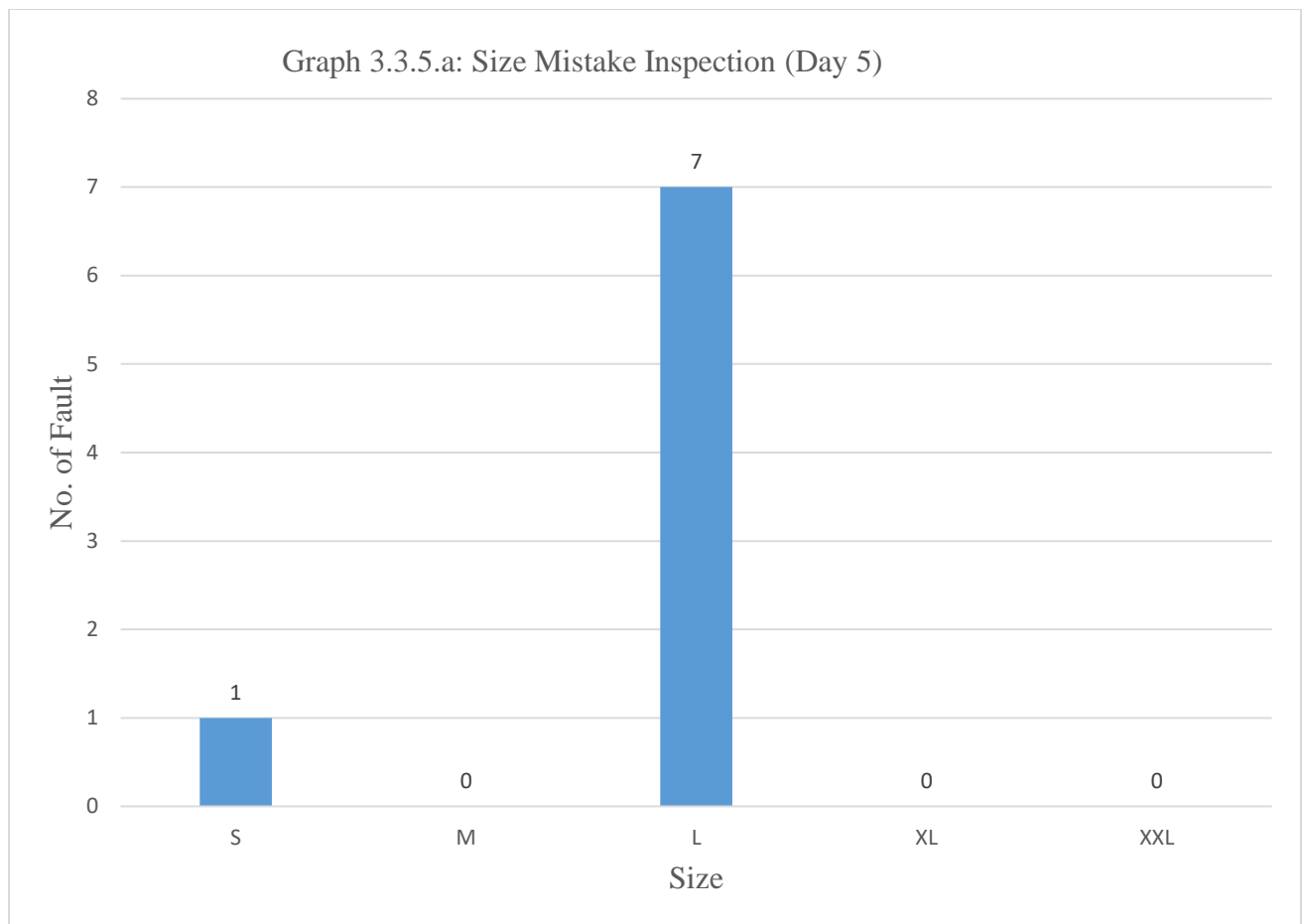


Diagram 3.3.5.(a) demonstrates estimate error of day 5 where the most elevated blame's esteem is 7 (L) and least esteem is 0 (M, XL, XXL)

A graph on the basis of table 3.3.5. is given below

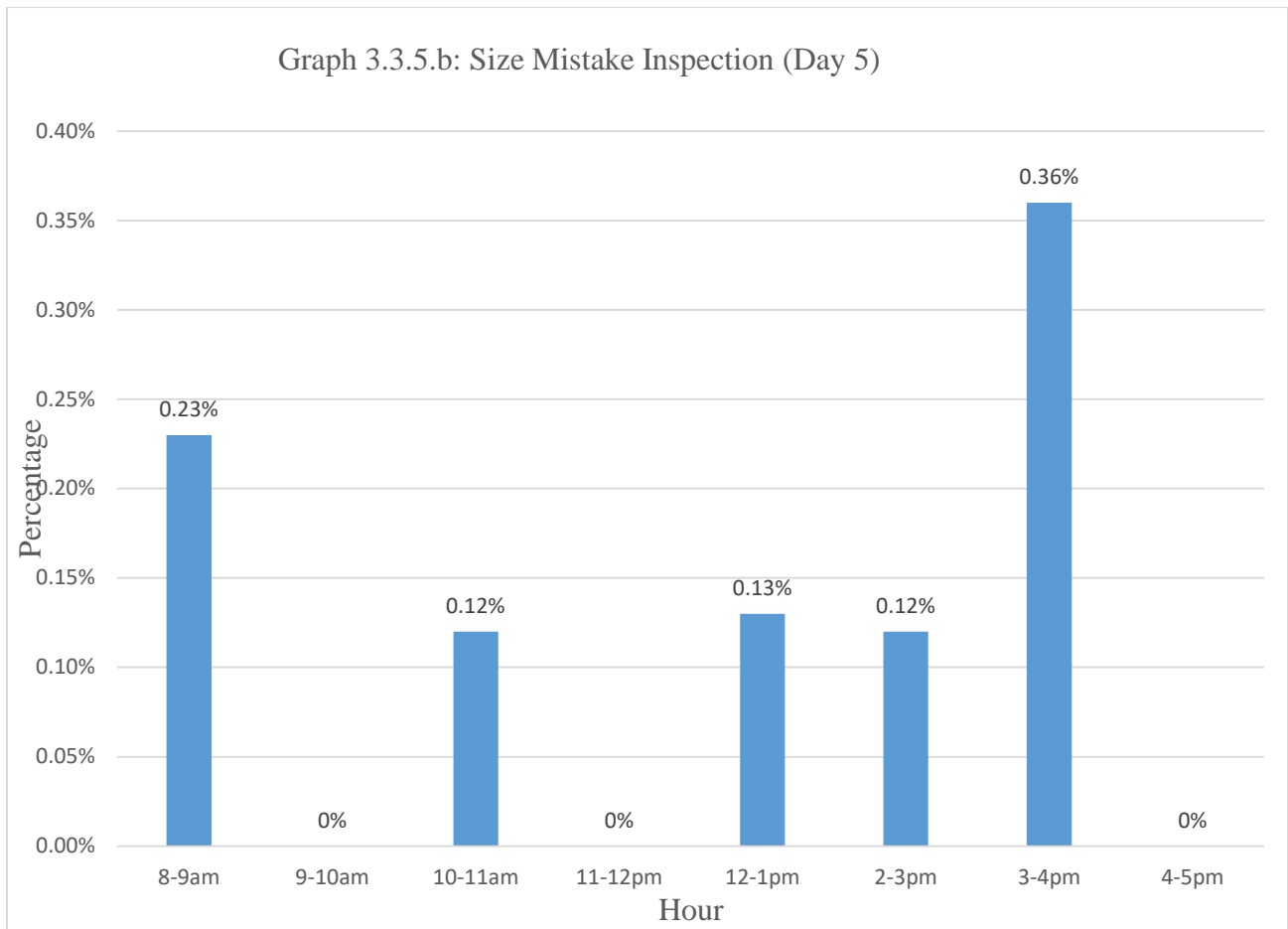


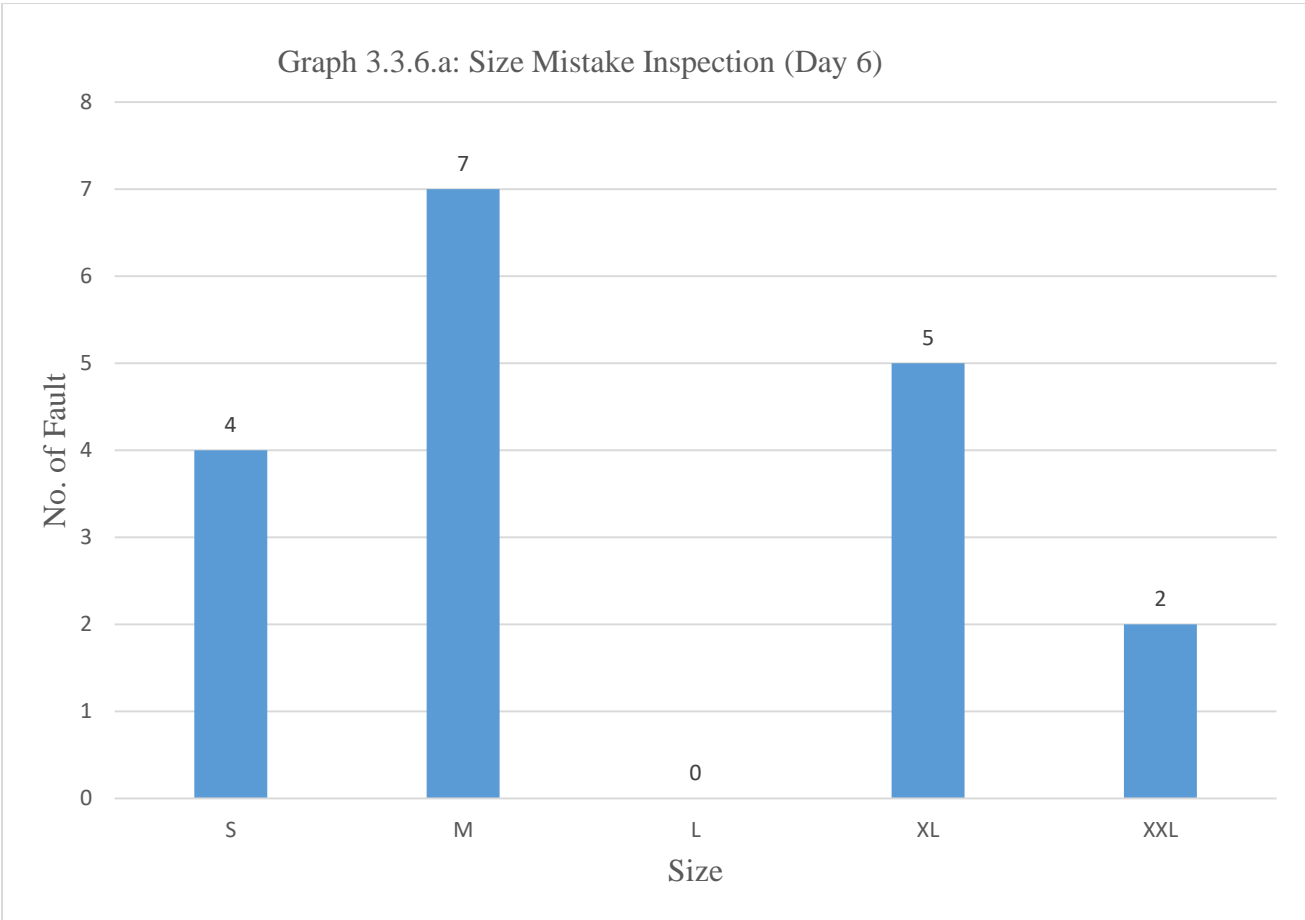
Chart 3.3.5.(b) shows the deficiencies found in articles of clothing where most extreme level of blame was 0.36% and least level of blame was 0%

Table 3.3.6: Size Mistake Inspection (Day 6)

Date	Hours	S	M	L	XL	XXL	Total Inspection	Total defect	QC Pass	Total Defect %
1.3.2018	8-9 am	1	1				880	2	878	0.22%
	9-10am		1		1		800	2	898	0.25%
	10-11 am		2				825	2	823	0.24%
	11-12 pm	1			1	1	850	3	847	0.35%
	12-1 pm	1			1		810	2	808	0.24%
	2-3 pm		1		1		805	2	803	0.24%
	3-4 pm		1		1	1	845	3	842	0.35%
	4-5 pm	1	1				895	2	893	0.22%
Total	8 hours	4	7	0	5	2	6710	18	5692	0.26%

Table 3.3.6 demonstrates the diverse kinds and amount of size oversight. Blames in estimate S, M, L, XL, and XXL are found. Here 6710 pcs articles of clothing are examined in a day which 5692 pcs pieces of clothing are passed by QC where 0.26% articles of clothing are absconded.

A graph on the basis of table 3.3.6. is given below



Graph 3.3.6.a shows size mistake of day 6 where the highest fault's value is 7 (M) and lowest value is 0 (L)

A graph on the basis of table 3.3.6.. is given below

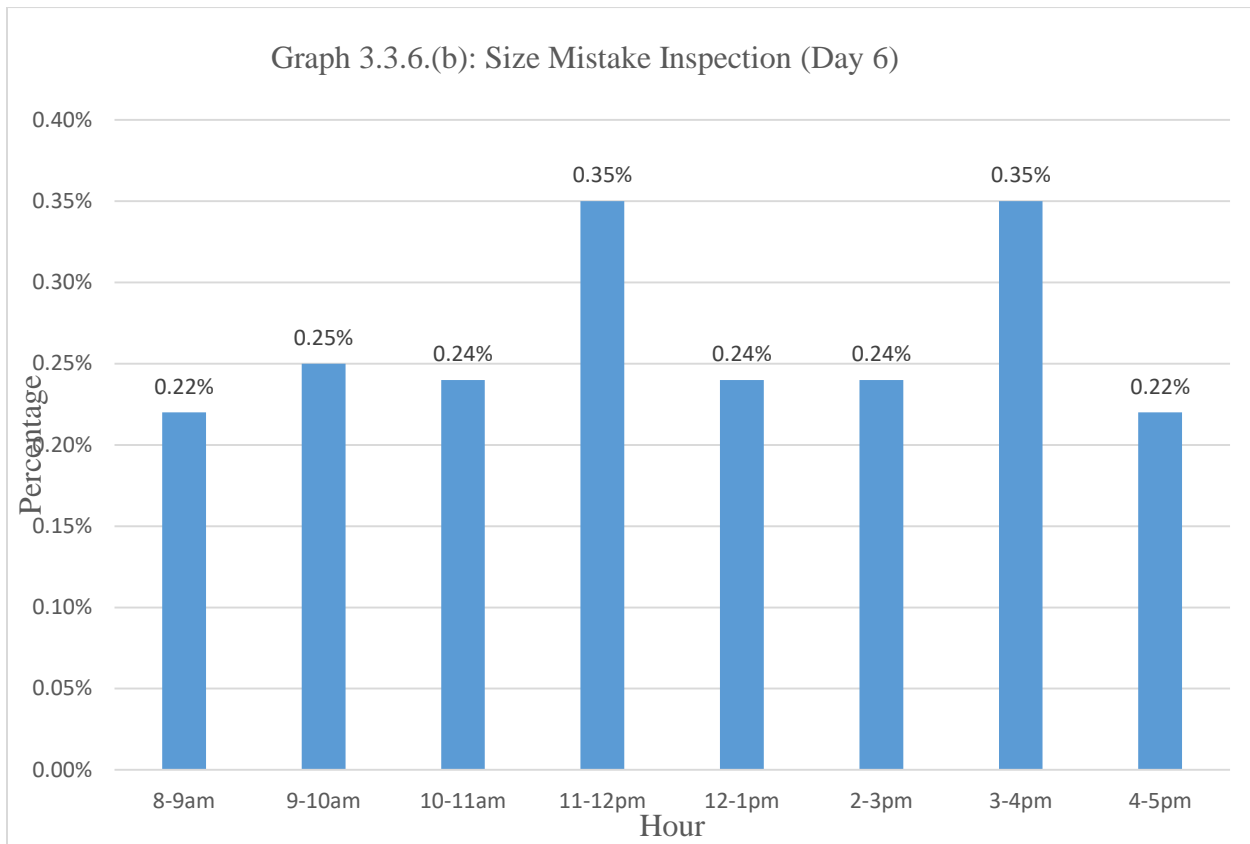


Chart 3.3.6.b shows the shortcomings found in pieces of clothing where most extreme level of blame was 0.35% and least level of blame was 0.22%

Table 3.3.7: Size Mistake Inspection (Day 7)

Date	Hours	S	M	L	XL	XXL	Total Inspection	Total defect	QC Pass	Total Defect %
2.3.2018	8-9 am				1		720	1	719	0.13%
	9-10am			1			750	1	749	0.13%
	10-11 am			1			735	1	734	0.13%
	11-12 pm				1		715	1	714	0.13%
	12-1 pm			1			710	1	709	0.14%
	2-3 pm		1			1	780	2	779	0.25%
	3-4 pm						760	0	760	0%
	4-5 pm					1	700	1	699	0.14%
Total	8 hours	0	1	3	4	0	5870	8	5762	0.13%

Table 3.3.7 indicates the different types and quantity of size mistake. Faults in size S, M, L, XL, XXL are found. Here 5870 pcs garments are inspected in a day which 5762 pcs garments are passed by QC where 0.13% garments are defected..

A graph on the basis of table 3.3.7. is given below

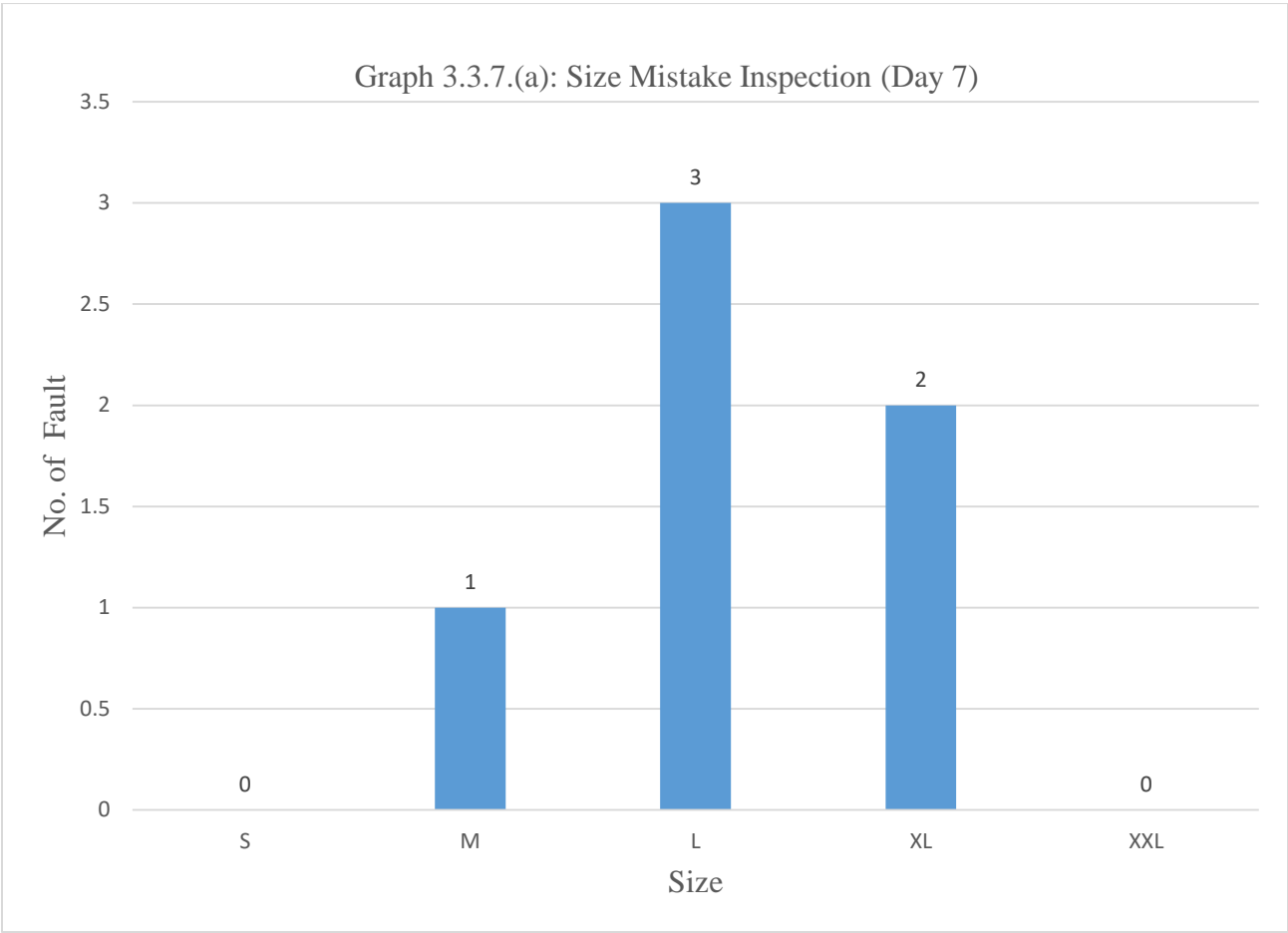
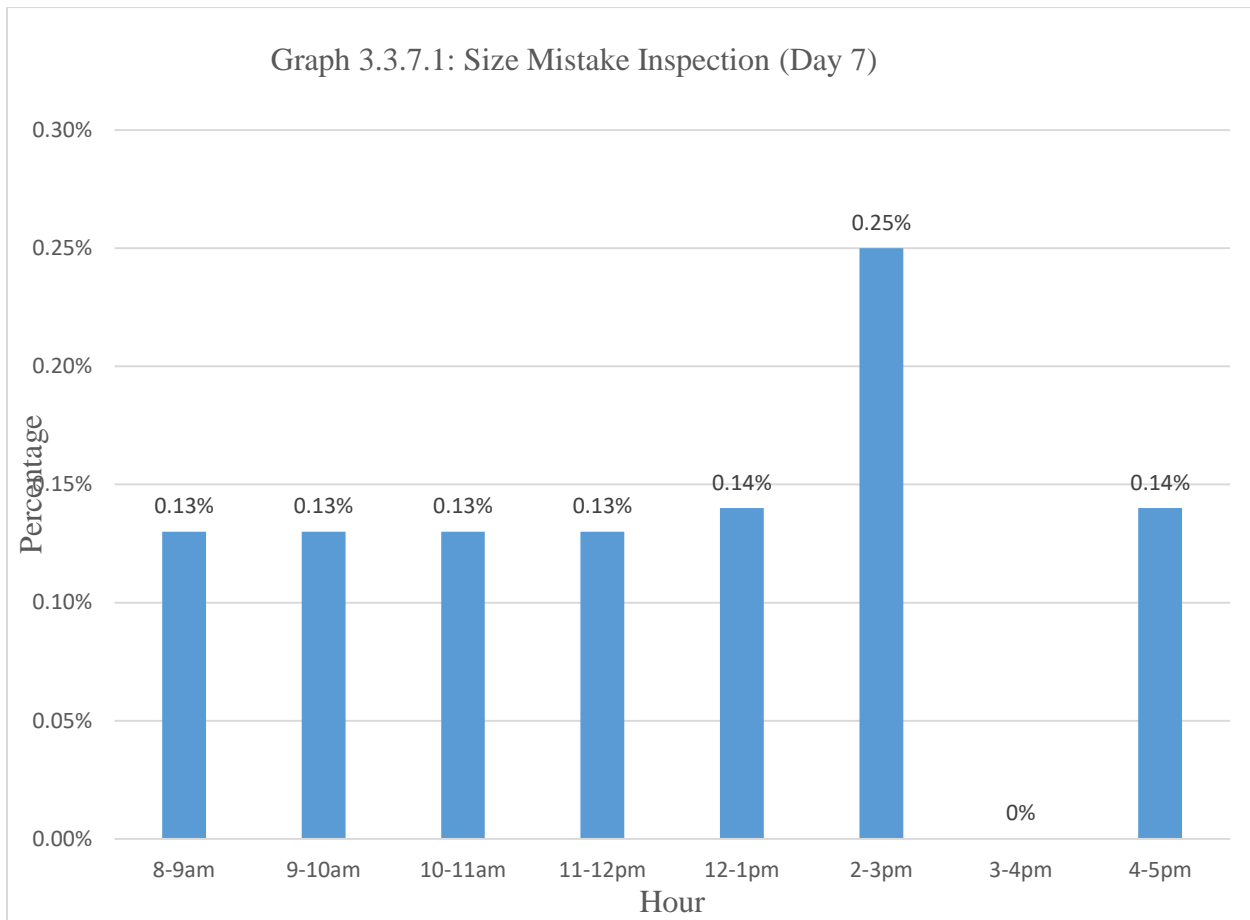


Chart 3.3.7.a shows estimate mix-up of day 3 where the most noteworthy blame's esteem is 3 (L) and least esteem is 0 (S)

A graph on the basis of table 3.2.7. is given below



Graph 3.3.7.b indicates the faults found in garments where maximum percentage of fault was 0.25% and minimum percentage of fault was 0%

3.4 Needle Check:

Needle has a vital influence in joining or connecting at least two layers of texture together by sewing string. Diverse sizes of needle is utilized i.e: estimate 7, measure 8, estimate 9, measure 10 and so on based on handiness and texture thickness. Chiefly for single pullover or texture with bring down thickness measure 7-estimate 10 sewing needle is utilized however on account of sewing twofold shirt or texture with higher thickness it is fail to utilize estimate 7 – measure 10 estimate needle cause the needle can break whenever by the deplorable weight. So all things considered size 11 – measure 13 needles are utilized. Point break, short notch break, long section break can happen if the needle can't deal with the weight from the machine. To guarantee creation of pieces of clothing with great quality and diminish the breakage of needle in sewing machine it's essential to change the needle estimate based on texture thickness.

Table 3.4.1: Needle change inspection

Size	Size 7	Size 8	Size 9	Size 10	Size 11	Size 12	Size 13
25/3/18	04	02	01	07	02	03	02
26/3/18	02	01	06	01	Not Used	Not Used	Not Used
27/3/18	01	02	08	04	Not Used	Not Used	Not Used
28/3/18	06	03	02	01	03	03	01
29/3/18	02	02	05	03	06	04	01
30/3/18	03	05	01	06	01	08	06
31/3/18	05	04	04	07	Not Used	Not Used	Not Used
Total	23	19	27	29	12	18	10

Table 3.4.1 demonstrates the individual needle measure changed or trade for 7 days. By the given table we can see that the diverse size of needles are utilized as a part of sewing area like size7, measure 8, estimate 9, measure 10, estimate 11, measure 12, estimate 13 and so forth. It additionally shows the quantity of needle changed for 7 days

A chart based on needle changed is given underneath:

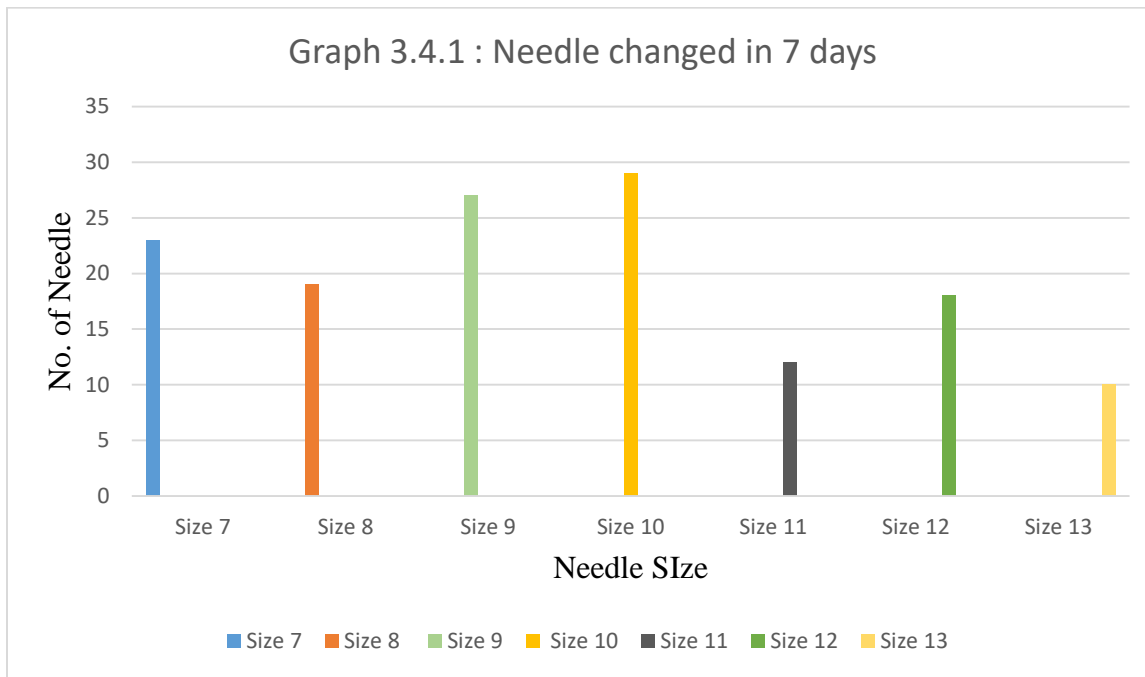


Chart 3.4.1 demonstrates the needle changed for 7 days where the greatest number of needle changed for measure 10 (29 pcs) and least number of needle changed for estimate 13 (10 pcs)

3.5 Sewing Faults Check:

Sewing deficiencies is one of the real viewpoint which ought to be checked keeping in mind the end goal to create articles of clothing items with great quality. Sewing deficiencies happen in the wake of sewing distinctive parts of pieces of clothing so as to deliver an entire article of clothing. Man, Machine, Method and Materials are the primary purposes for sewing deficiency.

So we have gathered and investigated a few information of sewing issues for 7 days which are given underneath:

Table 3.5.1: Sewing Fault Inspection (Day 1)

Date	Hours	Label Wrong Placed	Broken Stich	Pleat	Open Seam	Bad Tension	Puckering	Uneven Stich	Skip Stich	Raw Edge	Spot & Oil stain	Uncut Thread	Total Inspection	Total defect	QC Pass	Total Defect %
15/2/2018	8-9 am			3	1		2	1	1		18	1	820	27	793	3.29%
	9-10am		1	1	1	1		2			24	1	800	31	769	3.87%
	10-11 am	1			3		3		2	4	7		810	20	790	2.46%
	11-12 pm			1	2		5	3			26		825	37	788	4.48%
	12-1 pm		1	1	1		5	1	2	1	12		750	24	726	3.2%
	2-3 pm	1		1		2	2	1		2	19		800	28	772	3.5%
	3-4 pm		2	2			6	2	2			1	815	15	800	1.84%
	4-5 pm		1			1	3			3	24	2	780	34	746	4.35%
Total	8 hours	02	05	09	08	04	26	10	07	10	130	05	6400	216	6184	3.37%

Table 3.5.1 shows the diverse kinds and amount of sewing deficiencies found in pieces of clothing. Issues like mark wrong set, broken stitch, crease, open crease, awful pressure, puckering, uneven stitch, skip stitch, crude edge, oil spot and stain, uncut string. Here 6400 pcs articles of clothing are assessed in a day which 6184 pcs pieces of clothing are passed by QC where 3.37% garments are deserted.

A graph on the basis of table 3.5.1. is given below

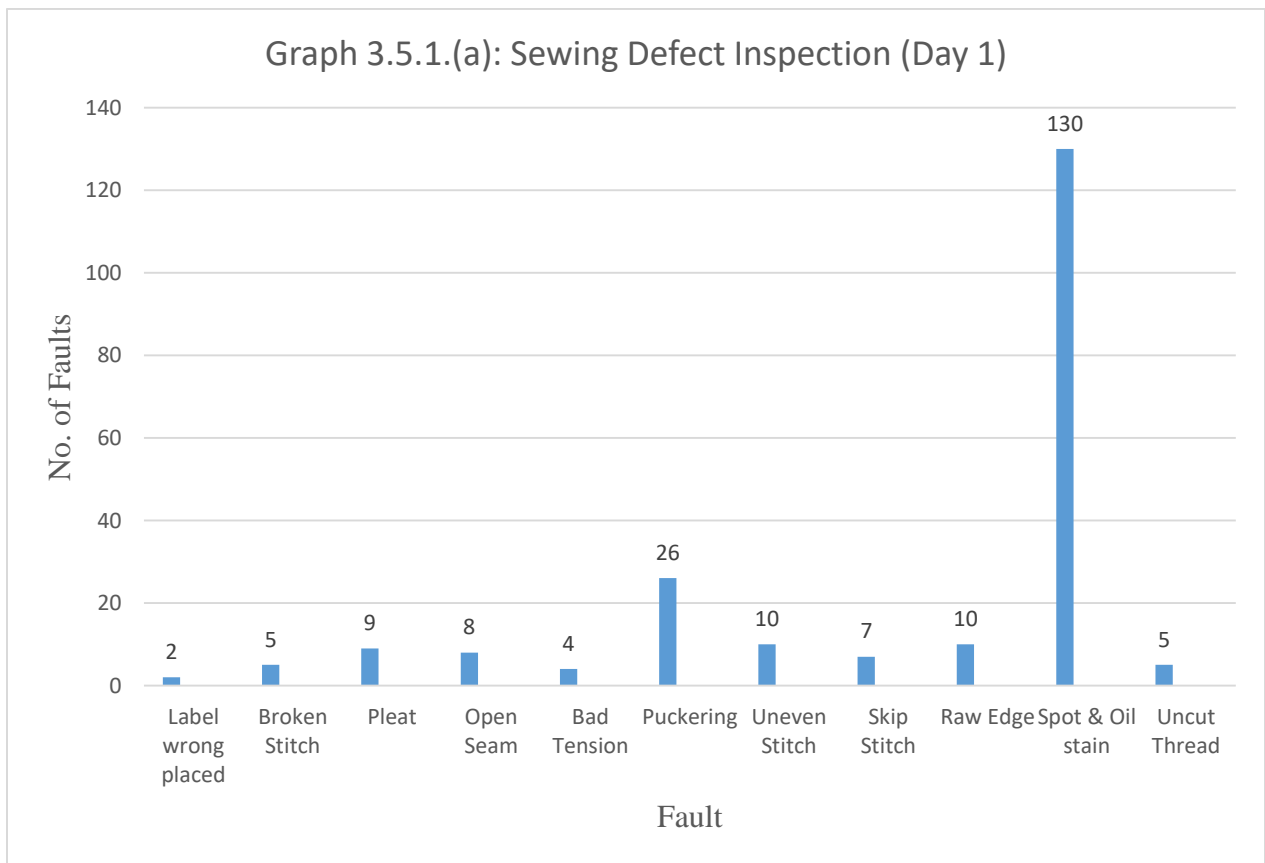


Diagram 3.5.1.(a) shows the size mix-up found in pieces of clothing where most extreme number of blame was 130 and least number of blame was 2

A graph on the basis of table 3.5.1. is given below

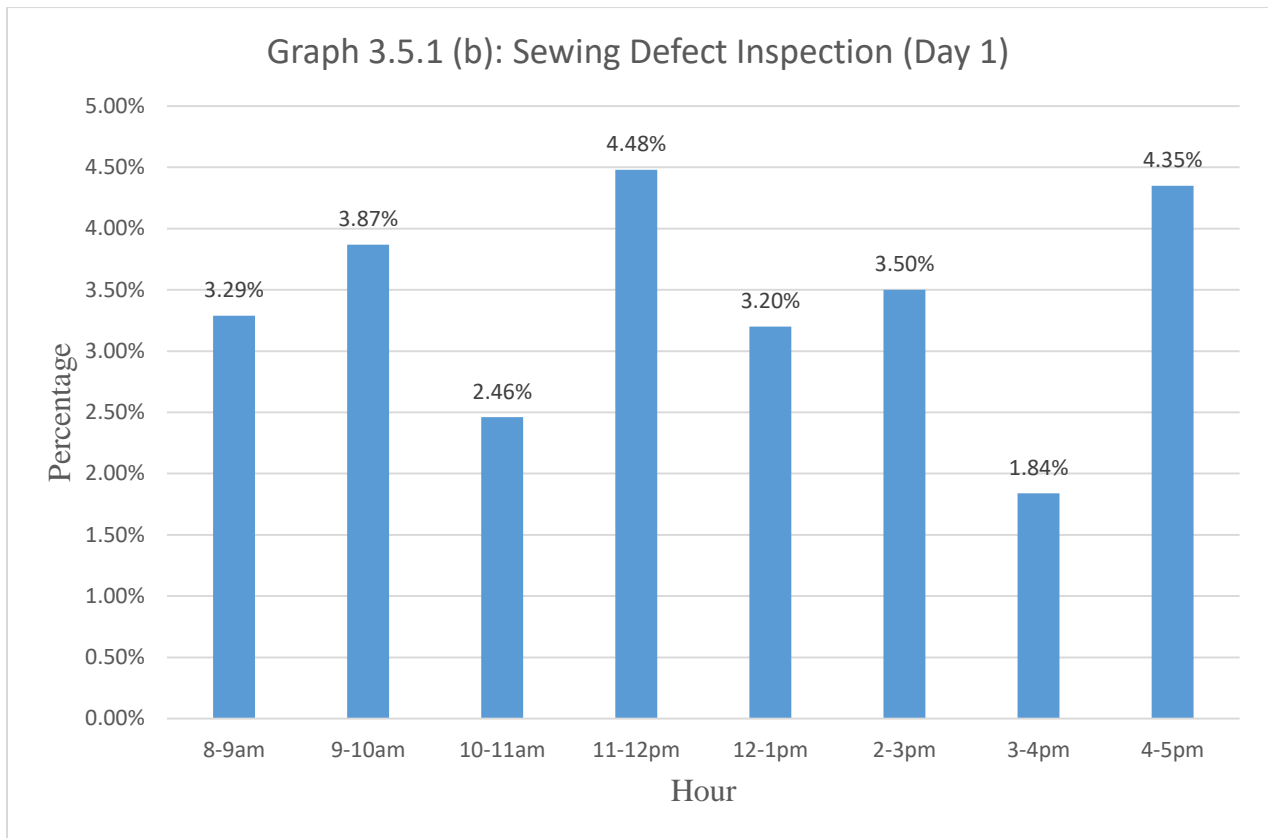


Diagram 3.5.1.b shows the issues found in articles of clothing where most extreme level of blame was 4.48% and least level of blame was 1.84%

Table 3.5.2: Sewing Fault Inspection (Day 2)

Date	Hours	Label Wrong Placed	Broken Stich	Pleat	Open Seam	Bad Tension	Puckering	Uneven Stich	Skip Stich	Raw Edge	Spot & Oil stain	Uncut Thread	Total Inspection	Total defect	QC Pass	Total Defect %
16/2/2018	8-9 am	2		1	1	1	3	2	1		24	1	820	36	784	4.39%
	9-10am		2		2	1	3	3	13	3	17		500	44	456	8.8%
	10-11 am		1	1	1		5			6	29	3	720	46	674	6.38%
	11-12 pm	1	3		1	2	7	2	12			3	750	31	719	4.13%
	12-1 pm	1		1		2		2	3	3	10	1	710	23	687	3.23%
	2-3 pm		2		2		8	2			23	3	600	40	560	6.66%
	3-4 pm	2	1			2	2	7	6	1			750	21	729	2.8%
	4-5 pm			1	1		4	7	5	2	19	4	730	43	687	5.89%
Total	8 hours	06	09	04	08	08	32	25	40	15	122	15	5580	284	5296	5.08%

Table 3.5.2 shows the distinctive sorts and amount of sewing deficiencies found in pieces of clothing. Deficiencies like name wrong set, broken stich, crease, open crease, terrible pressure, puckering, uneven stich, skip stich, crude edge, oil spot and stain, uncut string. Here 5580 pcs

pieces of clothing are reviewed in a day which 5296 pcs articles of clothing are passed by QC where 5.08% articles of clothing are absconded.

A graph on the basis of table 3.5.2. is given below

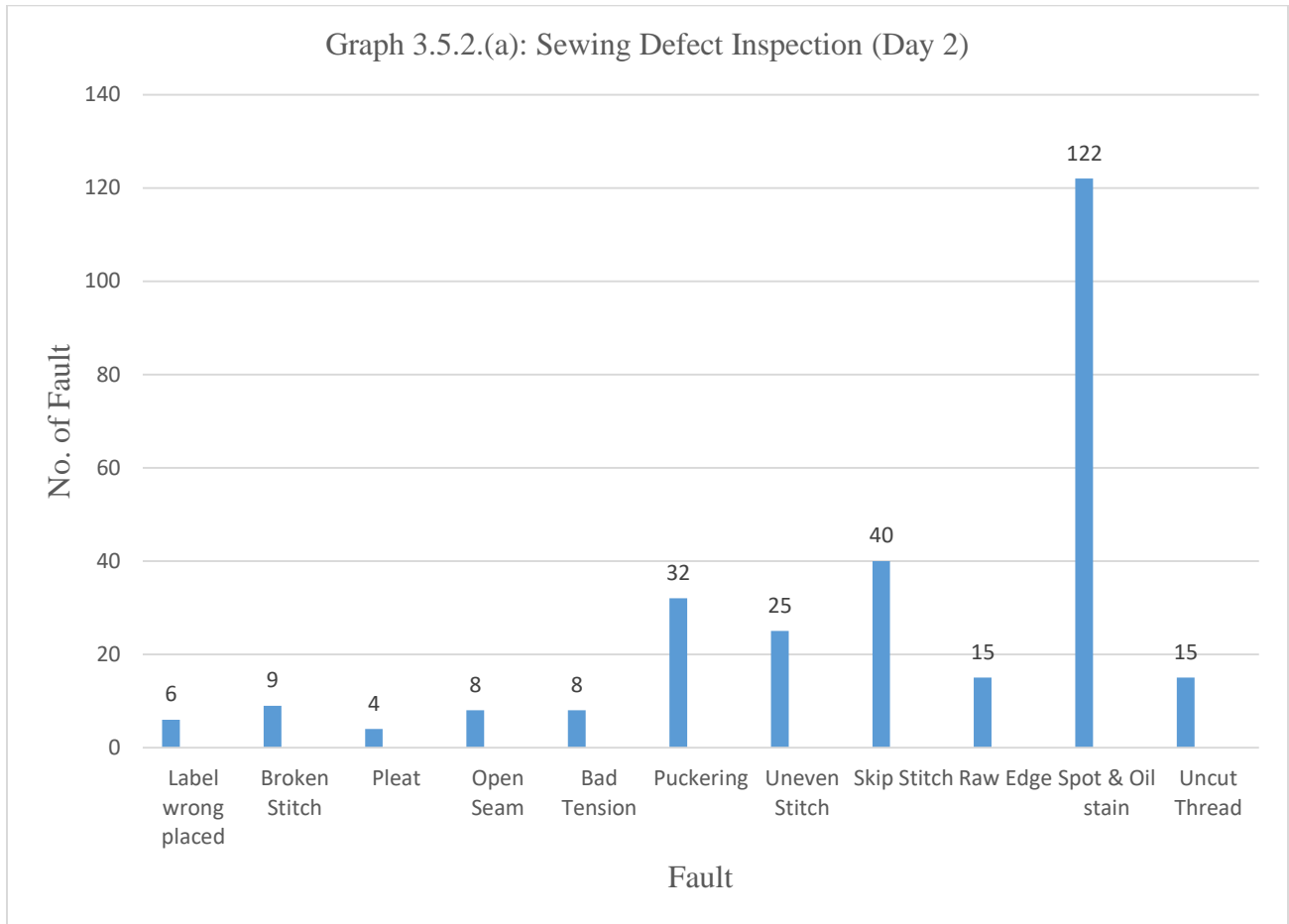


Diagram 3.5.2.a demonstrates the size mix-up found in pieces of clothing where greatest number of blame was 122 and least number of blame was 4

A graph on the basis of table 3.5.2. is given below

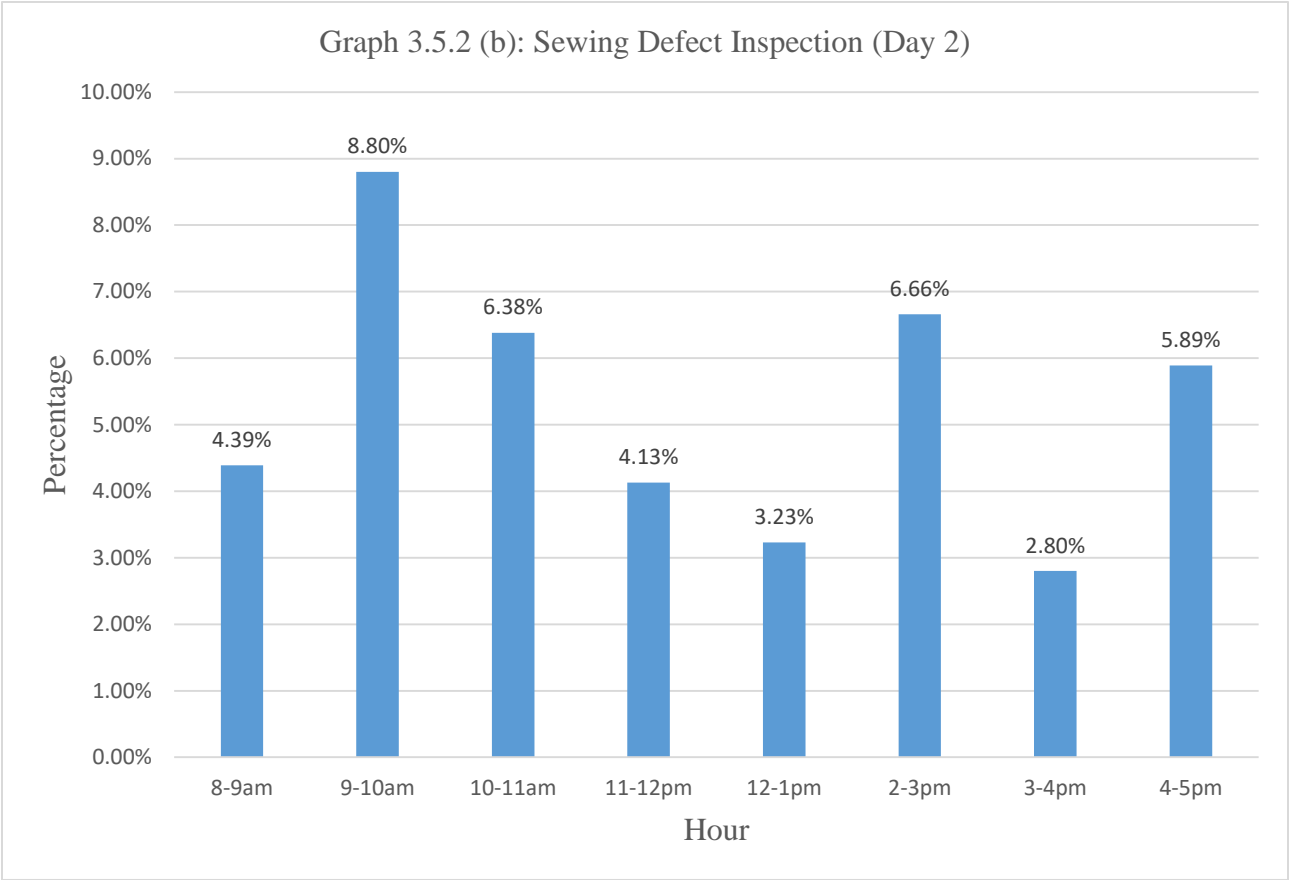


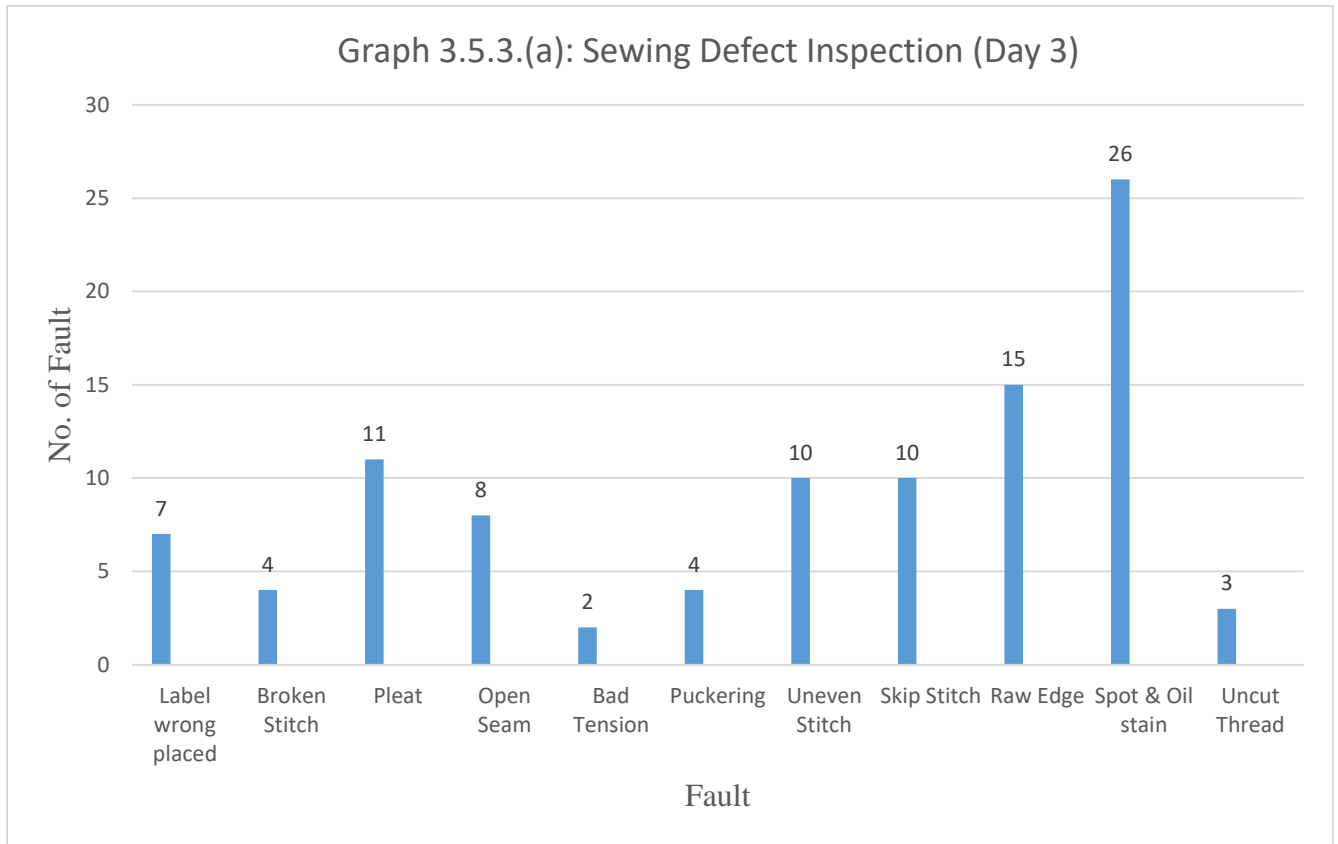
Chart 3.5.2.b shows the flaws found in articles of clothing where most extreme level of blame was 8.80% and least level of blame was 2.80%

Table 3.5.3: Sewing Fault Inspection (Day 3)

Date	Hours	Label Wrong Placed	Broken Stich	Pleat	Open Seam	Bad Tension	Puckering	Uneven Stich	Skip Stich	Raw Edge	Spot & Oil stain	Uncut Thread	Total Inspection	Total defect	QC Pass	Total Defect %
17/2/2018	8-9 am		1	3		1	2	1		2	4		880	14	866	1.59%
	9-10am	1			1		1		3		3		800	9	791	1.12%
	10-11 am	2	2	3				2	1	3	4		825	17	808	2.06%
	11-12 pm	2		3	3	1		2		3	3	1	850	18	832	2.11%
	12-1 pm				2			2	3	1			810	8	802	0.98%
	2-3 pm	1		1	2			1		1	4		805	10	795	1.24%
	3-4 pm			1			1		1		6	2	845	11	834	1.30%
	4-5 pm	1	1						2	2	5	2	895	13	882	1.45%
Total	8 hours	07	04	11	08	02	04	10	10	15	26	03	6710	100	6610	1.49%

Table 3.5.3 indicates the different types and quantity of sewing faults found in garments. Faults like label wrong placed, broken stich, pleat, open seam, bad tension, puckering, uneven stich, skip stich, raw edge, oil spot & stain, uncut thread. Here 6710 pcs garments are inspected in a day which 6610 pcs garments are passed by QC where 1.49% garments are defected.

A graph on the basis of table 3.5.3. is given below



Graph 3.5.3.a indicates the size mistake found in garments where maximum number of fault was 26 and minimum number of fault was 2

A graph on the basis of table 3.5.3. is given below

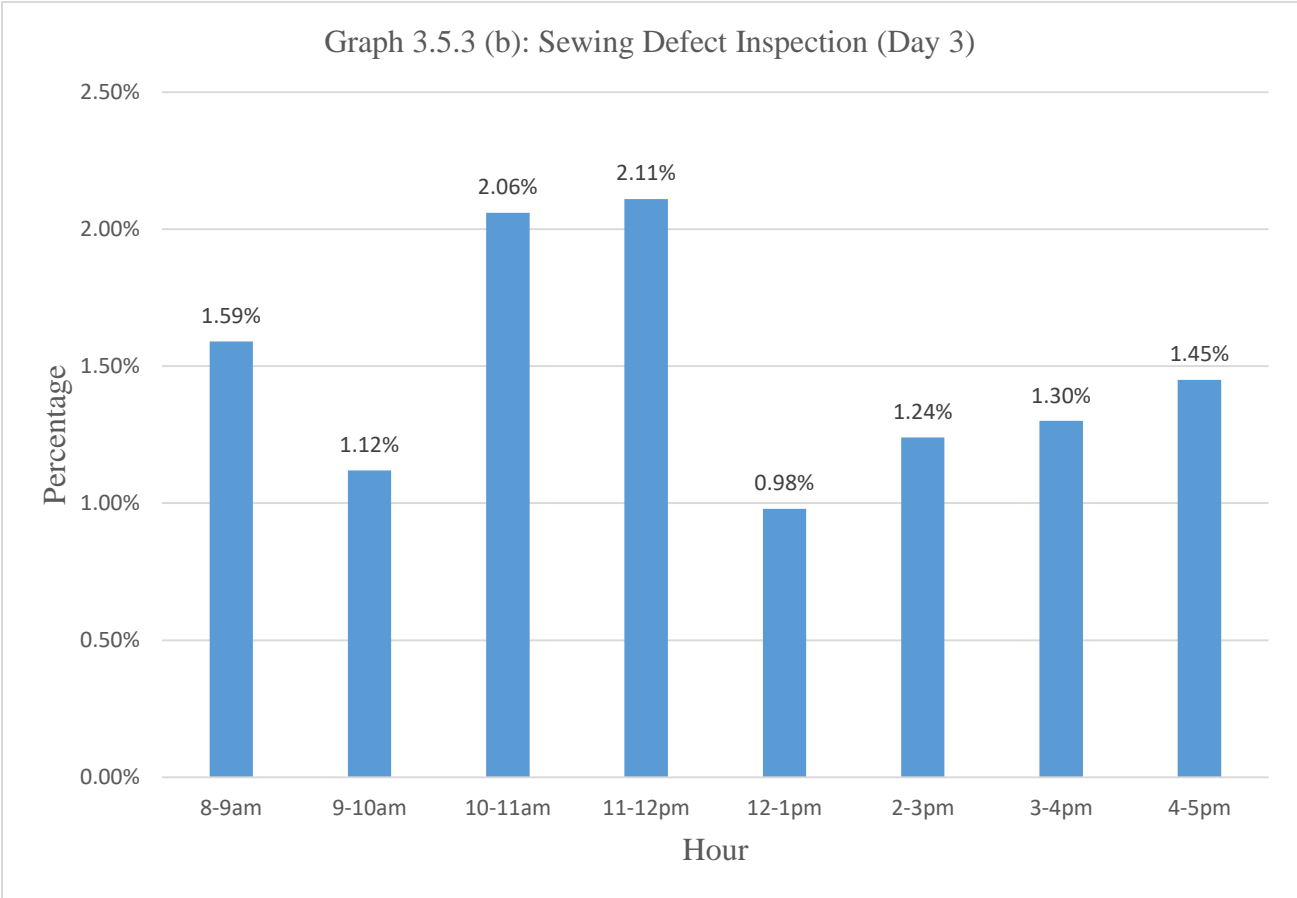


Chart 3.5.3.b demonstrates the issues found in articles of clothing where most extreme level of blame was 2.11% and least level of blame was 0.98%

Table 3.5.4: Sewing Fault Inspection (Day 4)

Date	Hours	Label Wrong Placed	Broken Stich	Pleat	Open Seam	Bad Tension	Puckering	Uneven Stich	Skip Stich	Raw Edge	Spot & Oil stain	Uncut Thread	Total Inspection	Total defect	QC Pass	Total Defect %
18/2/2018	8-9 am	2	10		2	1	10		3	3	8	1	720	40	680	5.55%
	9-10am	2	13	18		3	12	1	5	3	3		750	60	690	8%
	10-11 am		12	22		6	18	1		3		3	735	65	670	8.84%
	11-12 pm		5		4	2		13	2		3	3	715	32	683	4.47%
	12-1 pm	2		3	3	7	2		8	5	6		710	36	674	5.07%
	2-3 pm	2	10	17		3	2	5	2	5	3	2	780	51	729	6.53%
	3-4 pm	1	5	7	4	2	3	6	7	8		6	760	49	711	6.44%
	4-5 pm	6	7		7		3	4	3	8	9	2	700	49	651	7%
Total	8 hours	15	62	67	20	24	50	30	30	35	32	17	5870	382	5488	6.50%

Table 3.5.4 shows the distinctive sorts and amount of sewing issues found in articles of clothing. Deficiencies like mark wrong set, broken stich, crease, open crease, terrible pressure, puckering, uneven stich, skip stich, crude edge, oil spot and stain, uncut string. Here 5870 pcs pieces of

clothing are reviewed in a day which 5488 pcs articles of clothing are passed by QC where 6.50% pieces of clothing are deserted.

A graph on the basis of table 3.5.4. is given below

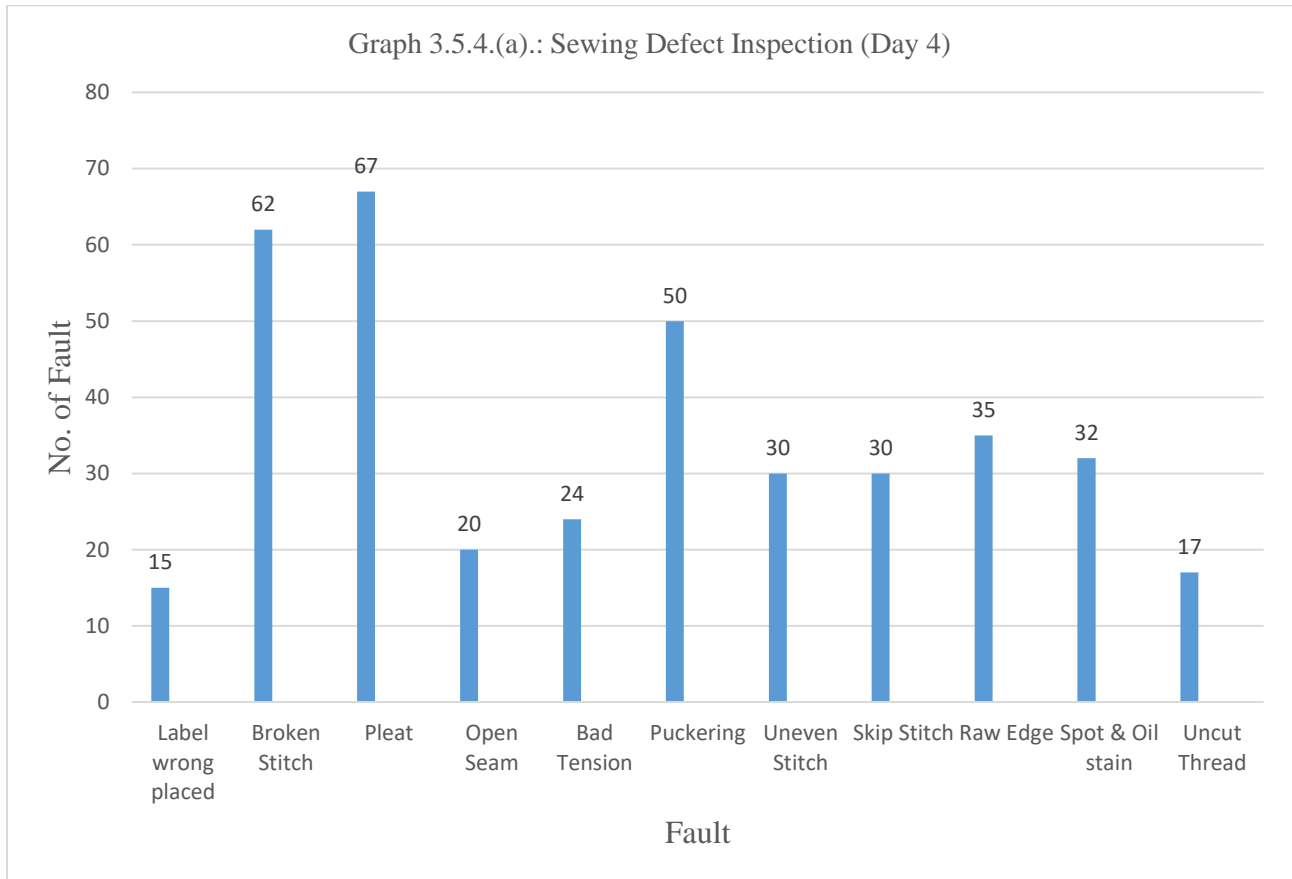


Chart 3.5.4.a demonstrates the size error found in pieces of clothing where greatest number of blame was 67 and least number of blame was 15

A graph on the basis of table 3.5.4 is given below

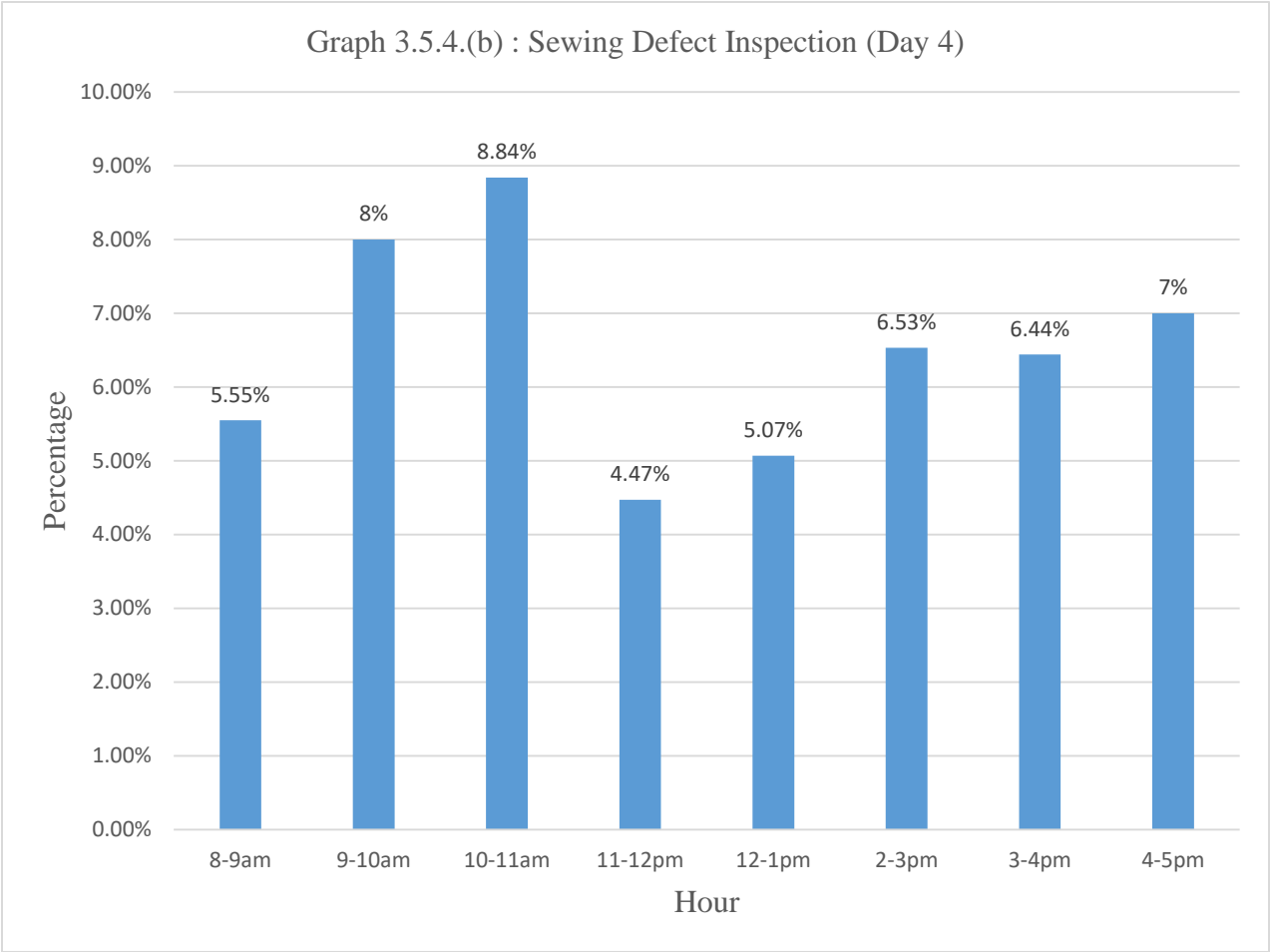


Diagram 3.5.4.b shows the issues found in articles of clothing where greatest level of blame was 8.84% and least level of blame was 4.47%

Table 3.5.5: Sewing Fault Inspection (Day 5)

Date	Hours	Label Wrong Placed	Broken Stich	Pleat	Open Seam	Bad Tension	Puckering	Uneven Stich	Skip Stich	Raw Edge	Spot & Oil stain	Uncut Thread	Total Inspection	Total defect	QC Pass	Total Defect %
19/2/2018	8-9 am		2				1	2	5	3	18		850	31	819	3.64%
	9-10am	2		2	4	4	1		5	1	12	1	800	32	768	4%
	10-11 am	6		2				8	1	6	8		810	25	785	3.08%
	11-12 pm	4	1	2	3	3		2	1		18		825	34	791	4.12%
	12-1 pm	1	1	6	3	5		2			10	1	750	29	721	3.86%
	2-3 pm	2			4		1	1	3	1	16		800	28	772	3.5%
	3-4 pm	4			4			4	4	1			815	17	798	2.08%
	4-5 pm		3			1	2	1	4	4	4		780	19	761	2.43%
Total	8 hours	18	07	12	18	13	05	20	23	16	86	02	6430	215	6215	3.34%

Table 3.5.5 demonstrates the distinctive kinds and amount of sewing shortcomings found in articles of clothing. Shortcomings like name wrong put, broken stich, crease, open crease, awful strain, puckering, uneven stich, skip stich, crude edge, oil spot and stain, uncut string. Here 6430

pcs articles of clothing are investigated in a day which 6215 pcs pieces of clothing are passed by QC where 3.34% articles of clothing are absconded.

A graph on the basis of table 3.5.5. is given below

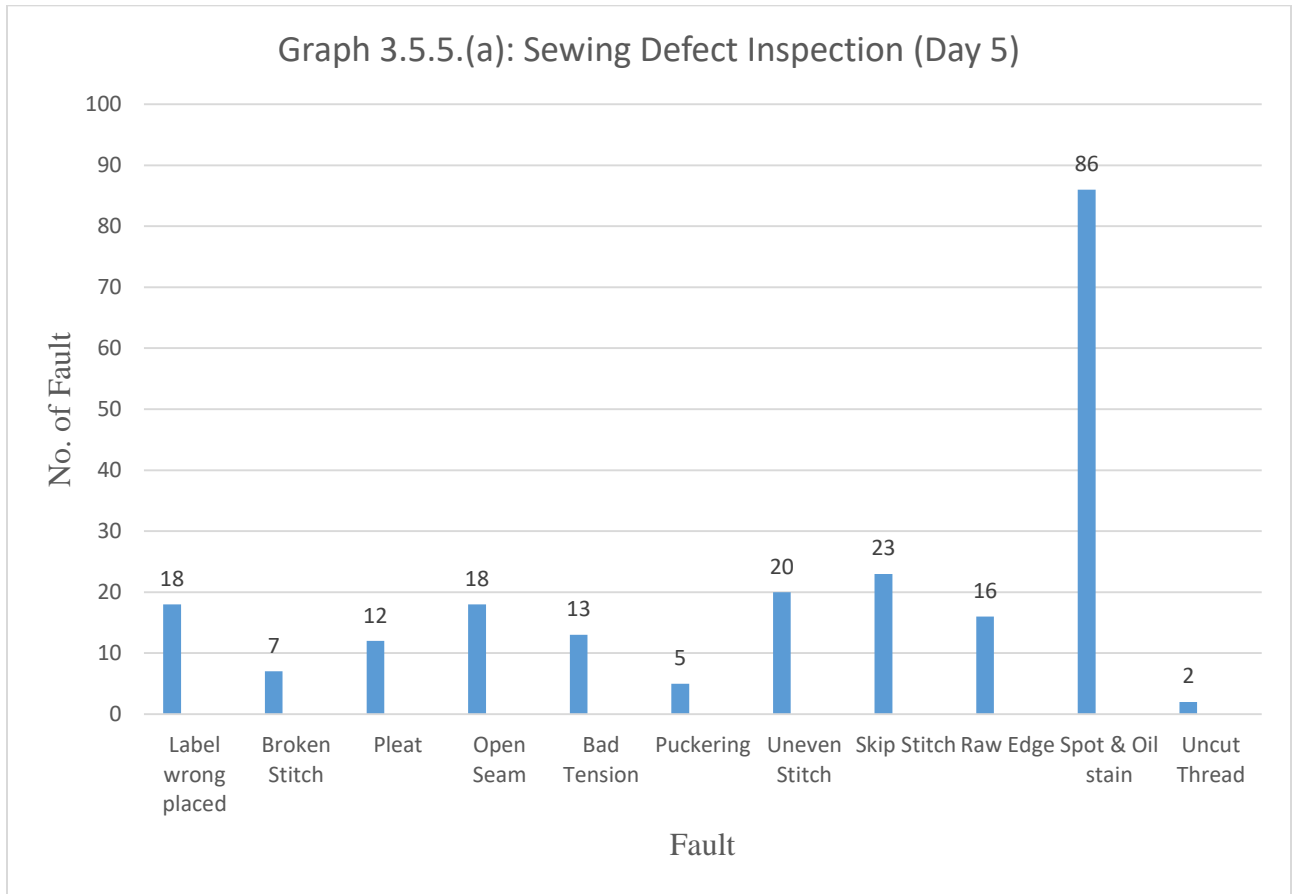


Diagram 3.5.5.a demonstrates the size error found in articles of clothing where greatest number of blame was 86 and least number of blame was 2

A graph on the basis of table 3.5.5 is given below

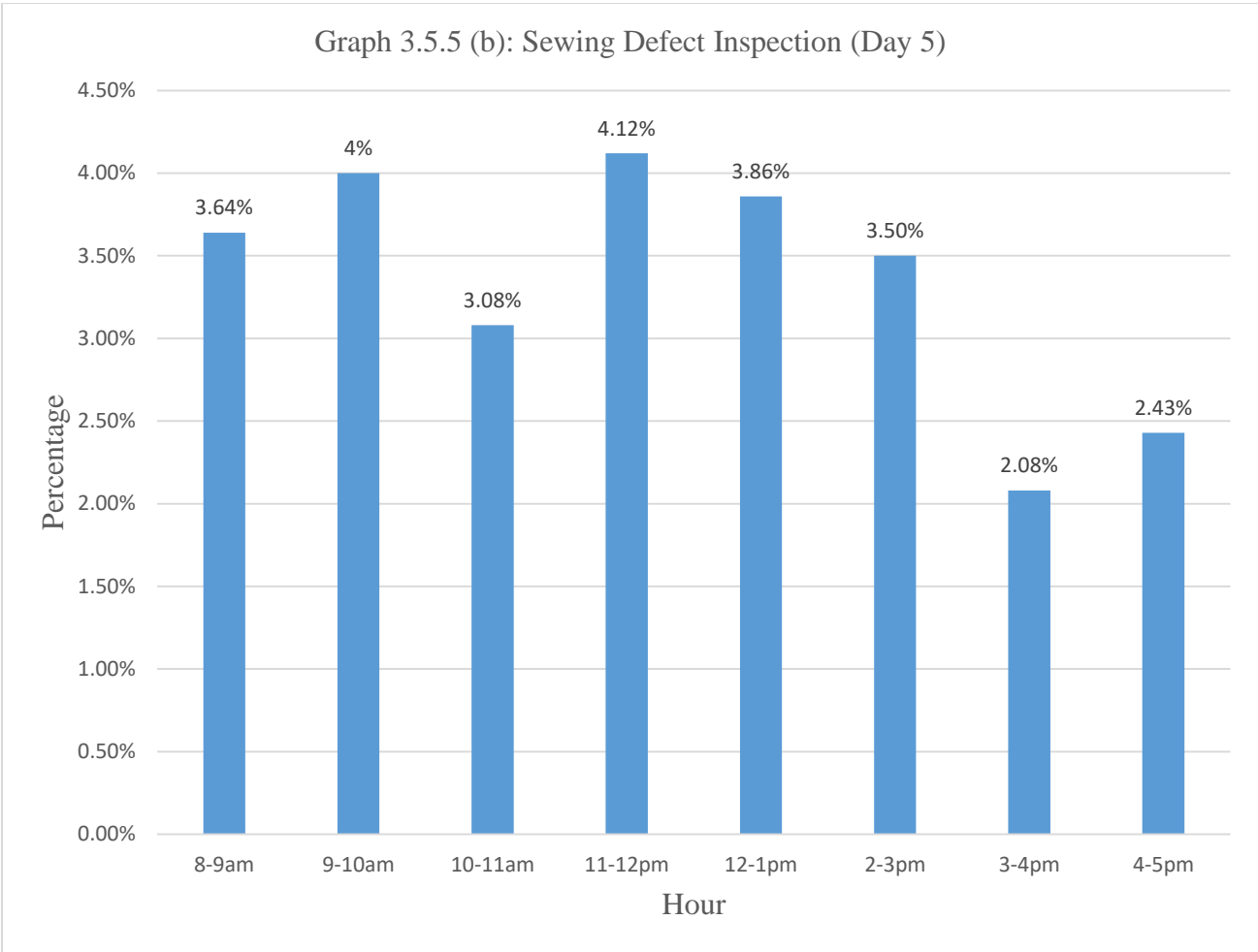


Diagram 3.5.5.b demonstrates the issues found in pieces of clothing where greatest level of blame was 4.12% and least level of blame was 2.08%

Table 3.5.6: Sewing Fault Inspection (Day 6)

Date	Hours	Label Wrong Placed	Broken Stich	Pleat	Open Seam	Bad Tension	Puckering	Uneven Stich	Skip Stich	Raw Edge	Spot & Oil stain	Uncut Thread	Total Inspection	Total defect	QC Pass	Total Defect %
20/2/2018	8-9 am		1		1			3	12	1		1	880	19	861	2.15%
	9-10am		3	1		1	1		5		1		800	12	788	1.5%
	10-11 am		3							1	1	1	825	6	819	0.72%
	11-12 pm	1				3	1	1	10		1	1	850	18	832	2.11%
	12-1 pm		4		1				3	3		4	810	15	795	1.85%
	2-3 pm	1	2	1			2	1	3		2	2	805	14	791	1.73%
	3-4 pm		5			1		2	3	1	2	5	845	19	826	2.24%
	4-5 pm		8		1		1	3	5	1	3	5	895	27	868	3.01%
Total	8 hours	02	26	02	03	05	05	10	41	07	10	19	6710	130	6580	1.93%

Table 3.5.6 demonstrates the distinctive sorts and amount of sewing issues found in pieces of clothing. Flaws like name wrong put, broken stich, crease, open crease, awful pressure, puckering, uneven stich, skip stich, crude edge, oil spot and stain, uncut string. Here 6710 pcs

pieces of clothing are examined in a day which 6580 pcs articles of clothing are passed by QC where 1.93% articles of clothing are absconded.

A graph on the basis of table 3.5.6. is given below

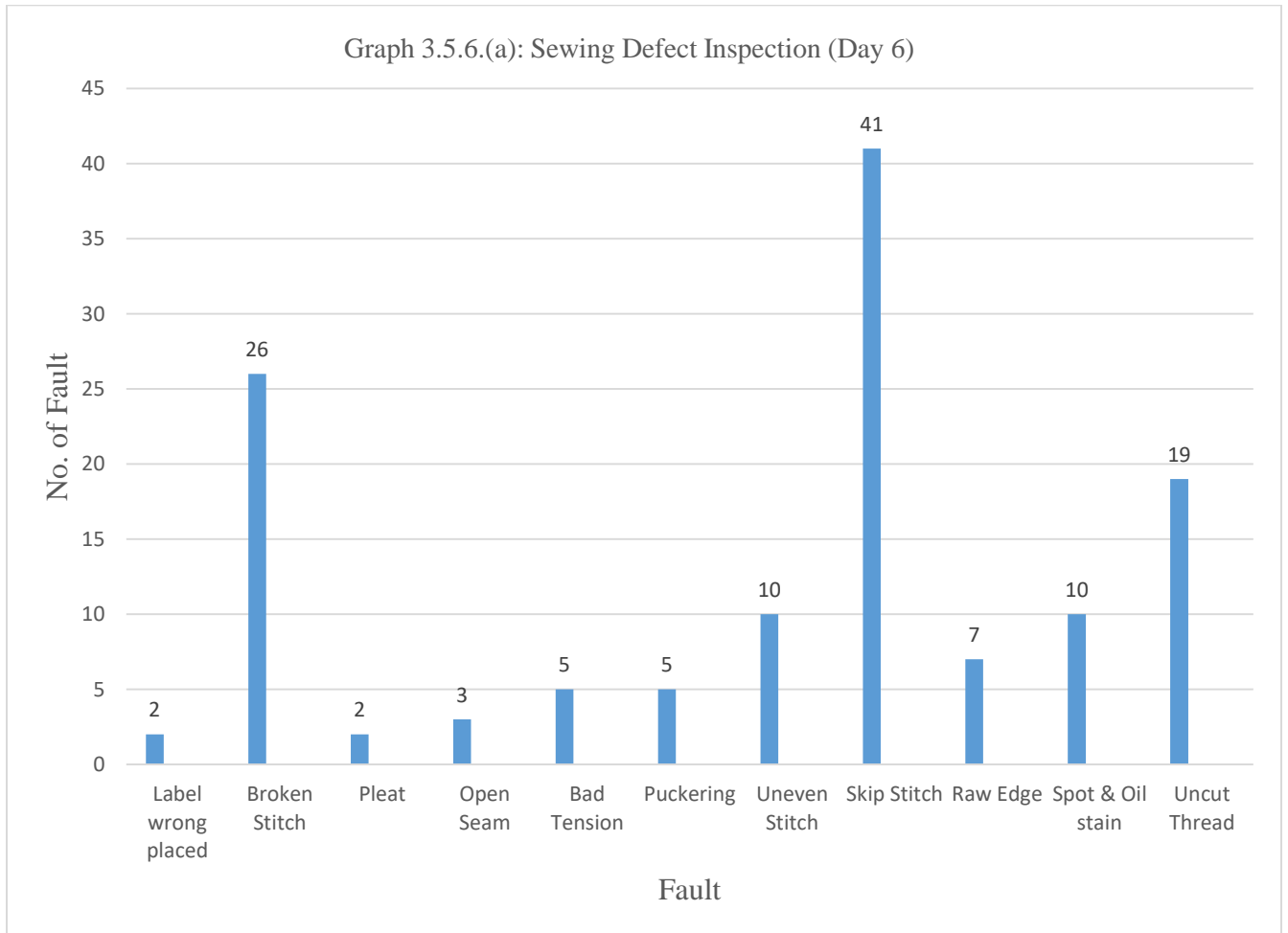


Diagram 3.5.6 demonstrates the deficiencies found in extras where most extreme number of blame was broken catch (120 pcs) and least number of blame was Faulty Label (53 pcs)

A graph on the basis of table 3.5.6. is given below

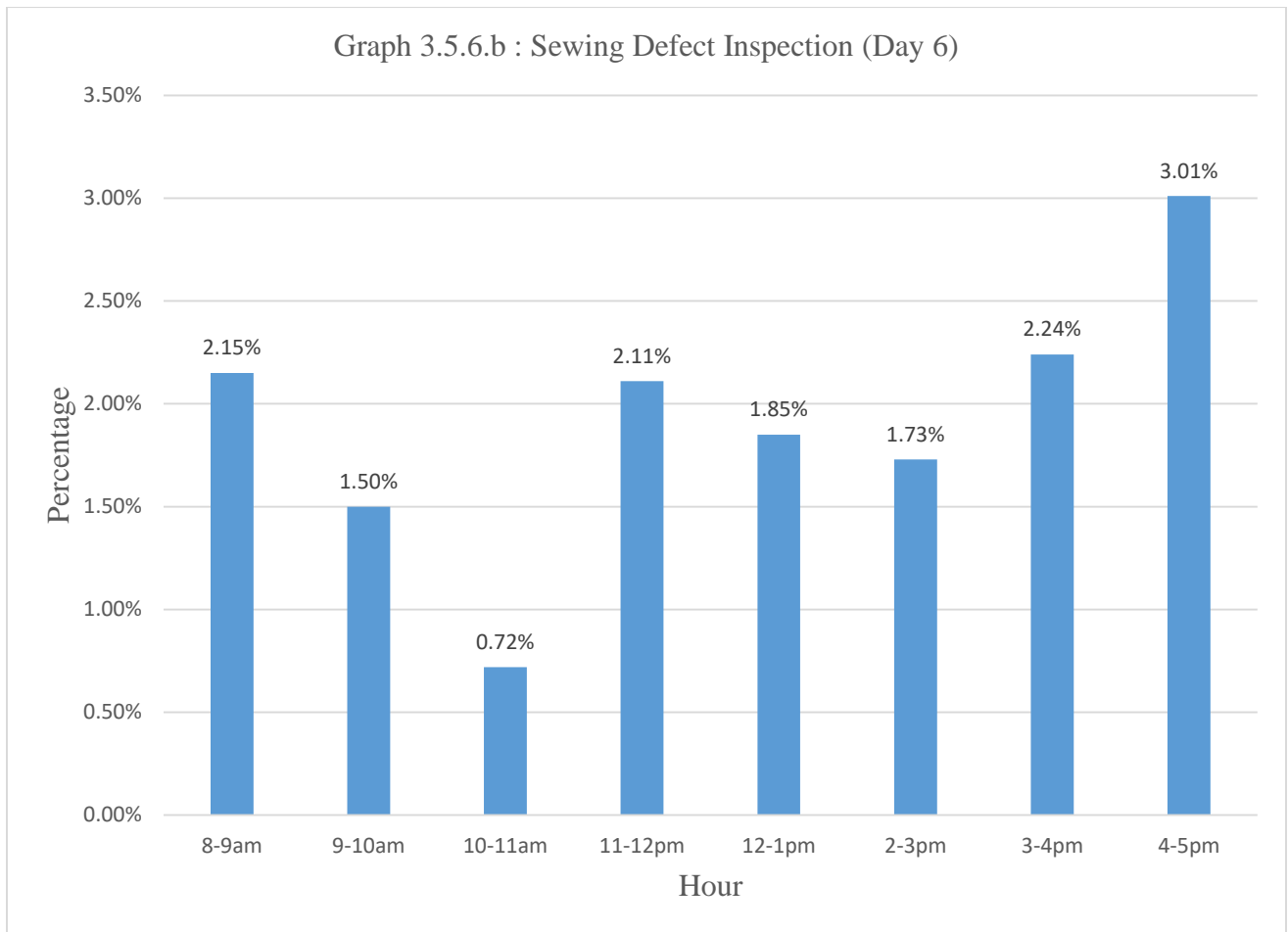


Chart 3.5.6.b shows the deficiencies found in articles of clothing where most extreme level of blame was 3.01% and least level of blame was 0.72%

Table 3.5.7: Sewing Fault Inspection (Day 7)

Date	Hours	Label Wrong Placed	Broken Stich	Pleat	Open Seam	Bad Tension	Puckering	Uneven Stich	Skip Stich	Raw Edge	Spot & Oil stain	Uncut Thread	Total Inspection	Total defect	QC Pass	Total Defect %
21/2/2018	8-9 am	2		1	2	1		2	5	6			720	19	701	2.63%
	9-10am	2	2		4	3		2			3	2	750	18	732	2.4%
	10-11 am	1	3	1	3		2		5	3			735	18	717	2.44%
	11-12 pm	2		3		2			4	3	1		715	15	700	2.09%
	12-1 pm	3	4		1		3		2				710	13	697	1.83%
	2-3 pm			2		1	2	5		3	6		780	19	761	2.43%
	3-4 pm	2			1			4	3	3	2		760	15	745	1.97%
	4-5 pm	3		1	1	1	5	3	3		4		700	21	679	3%
Total	8 hours	15	09	08	12	06	12	16	22	18	16	02	5870	138	5732	2.35%

Table 3.5.7 demonstrates the diverse kinds and amount of sewing shortcomings found in articles of clothing. Shortcomings like mark wrong set, broken stich, crease, open crease, terrible pressure, puckering, uneven stich, skip stich, crude edge, oil spot and stain, uncut string. Here

5870 pcs articles of clothing are examined in a day which 6732 pcs pieces of clothing are passed by QC where 2.35% pieces of clothing are deserted.

A graph on the basis of table 3.5.7 is given below

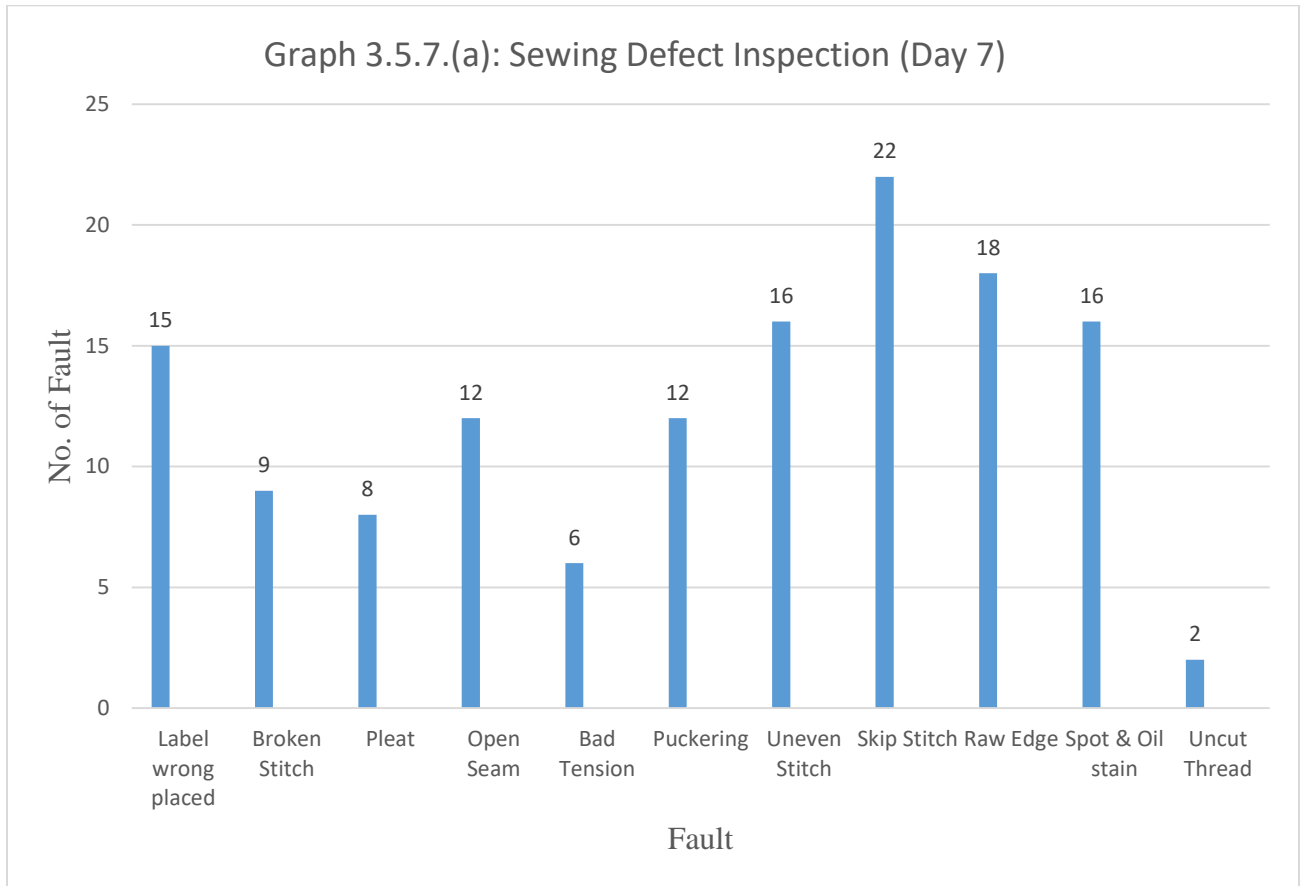


Diagram 3.5.7.a shows the size slip-up found in pieces of clothing where greatest number of blame was 22 and least number of blame was 2

A graph on the basis of table 3.5.7 is given below

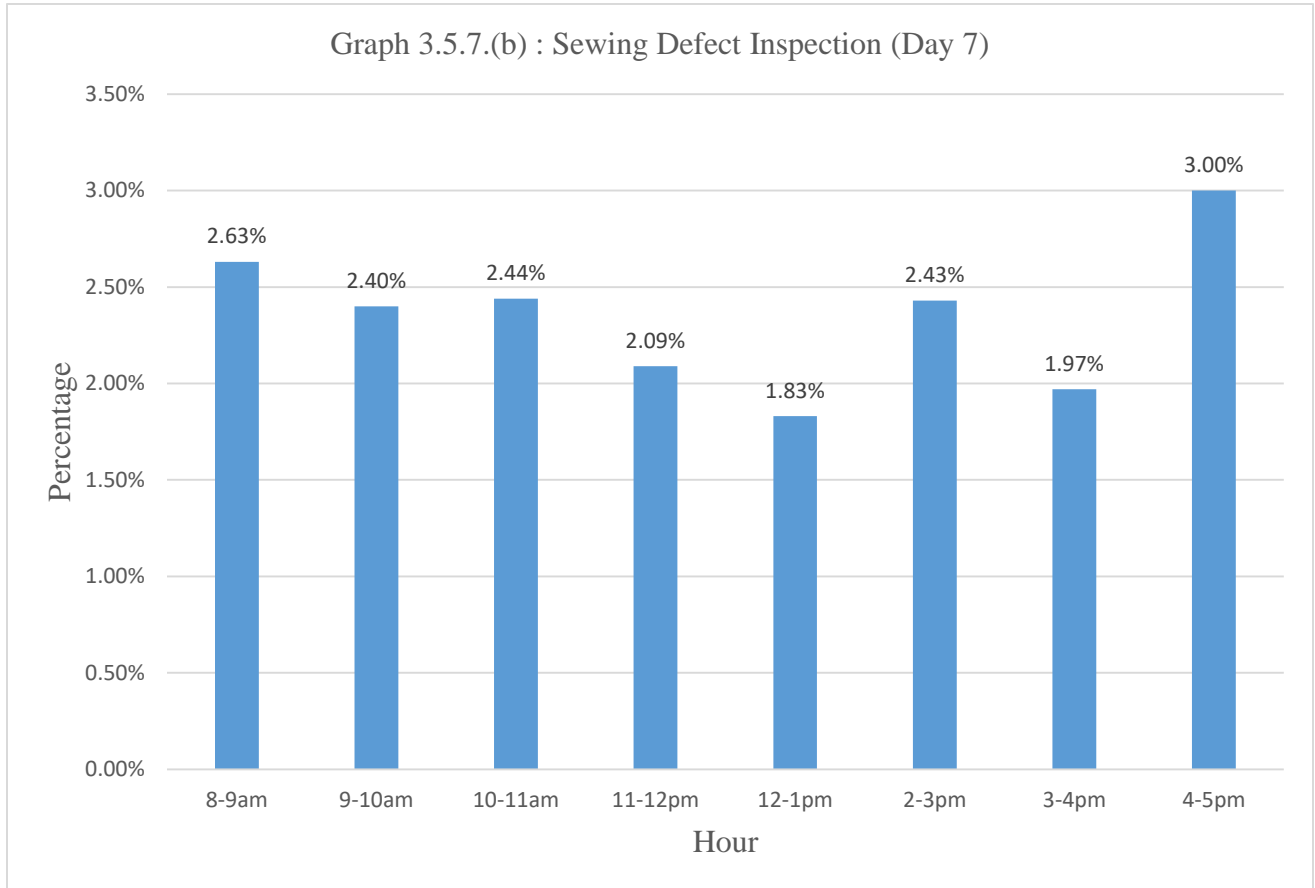


Diagram 3.5.7.b demonstrates the flaws found in pieces of clothing where most extreme level of blame was 3% and least level of blame was 1.83%

3.6 Machine Check:

Sewing Machine assumes an imperative part in sewing area. Without sewing machine we can't consider the higher creation rate of articles of clothing. Distinctive kinds of sewing machines are utilized as a part of sewing area like plain stitch sewing machine, over bolt sewing machine, level bolt sewing machine, bar tack sewing machine, catch appending machine, catch opening machine. It's critical to check the machines after a timeframe to build the creation rate of pieces of clothing in sewing segment.

So we have gathered and examined a few information on machine support of 7 days which are given underneath: Table 3.6.1 Machine Maintenance Check

Date	Plain Stich m/c	Over Lock m/c	Flat lock m/c	Bar tack m/c	Button attach m/c	Button hole m/c	Feet of the arm m/c
20.2.2018	No Problem	No Problem	Fabric is not feeding	Skip stiches	No Problem	No Problem	No Problem
21.2.2018	No Problem	Breaking Needles	Skip Stiches	Seam puckering	No Problem	No Problem	Unbalance stich
22.2.2018	Thread is bunching	Mechanical noise	No Problem	Variable stich density	Button not attach in exact position	No Problem	Seam line does not look perfect
23.2.2018	Skip stich	No Problem	Thread is bunching	No Problem	Mechanical noise	Mechanical noise	No Problem
24.2.2018	Unbalance stich	Breaking needles	No Problem	Mechanical noise	No Problem	No Problem	No Problem
25.2.2018	No Problem	Mechanical noise	No Problem	No Problem	No Problem	No Problem	No Problem
26.2.2018	Mechanical	Skip stiches	Mechanical	No Problem	Button not	No Problem	Unbalance

	noise		noise		attached in exact position		stich
Total no. of occurrences	04	05	04	04	03	01	03

A chart is given below on the basis of Table 3.6.1:

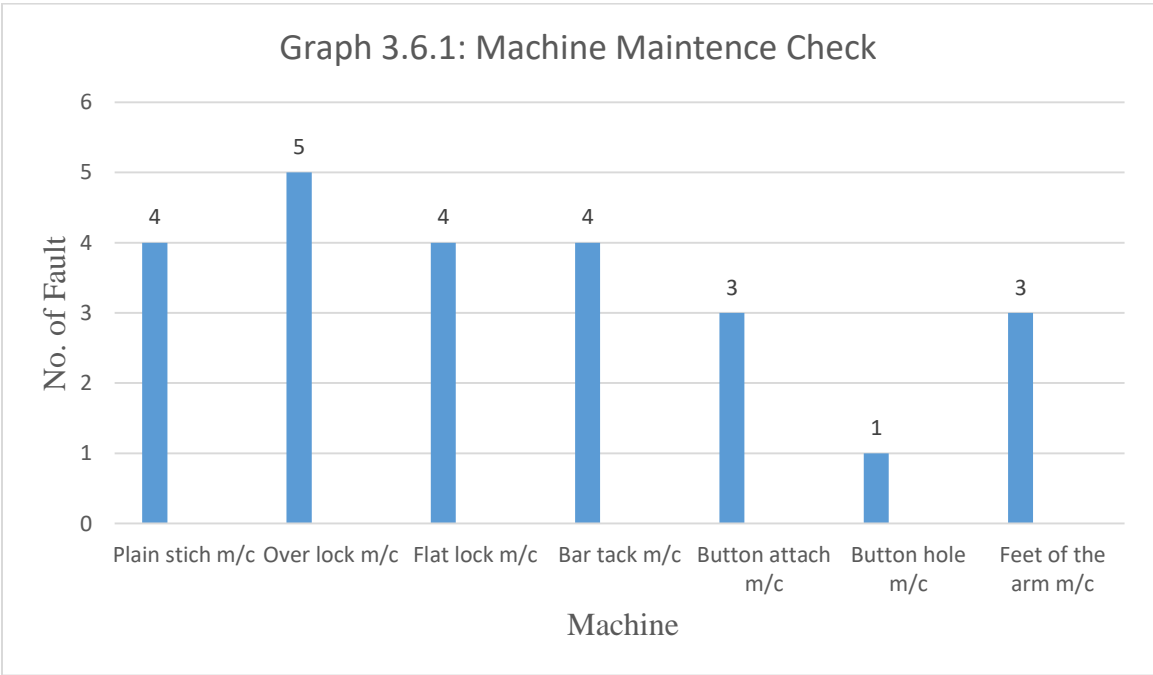


Diagram 3.6.1 demonstrates the different issues that happens in various sewing machines of sewing segment in 7 days. By the above chart we can see that the most extreme issue happened in finished bolt sewing machine (5 times) and least issue happened in catch gap sewing machine (1 times)

CHAPTER 4 – RESULT AND DISCUSSION

4.1 Cut Piece Check

Cut piece inspection of 7 days of a sewing section is given below on the table-

Table 4.1.1 Cut Piece Inspection (7Days)

Date	Bundling Mistake	Numbering Mistake	Fly Yarn	Oil & Color Spot	Slubb	Fabric Hole / Tor	Contamination	Others	Total Inspection	Total Defect	Total Defect %
11.2.2018	5	5	14	17	4	13	8	12	5580	76	1.36%
12.2.2018	4	3	10	9	7	16	13	17	6400	79	1.23%
13.2.2018	6	14	18	24	8	9	25	12	6710	116	1.72%
14.2.2018	3	2	11	19	6	13	11	16	5870	81	1.38%
15.2.2018	8	10	16	26	7	9	20	24	6430	120	1.86%
16.2.2018	6	14	18	24	8	9	25	12	6710	116	1.72%
17.2.2018	3	2	11	19	6	13	11	16	5870	81	1.38%
Total	35	50	98	138	46	82	113	109	43570	669	1.53%
Total Defect % (7 days)	5.23%	7.47%	14.64%	20.62%	6.87%	12.25%	16.89%	16.29%			

Table (4.1.1) demonstrates the individual Cutting flaws every day are assessed cut pcs are 43570 pcs, add up to surrenders are discovered 669 pcs and aggregate imperfection rate is 1.53%

A graph on the basis of table 4.1.1 is given below

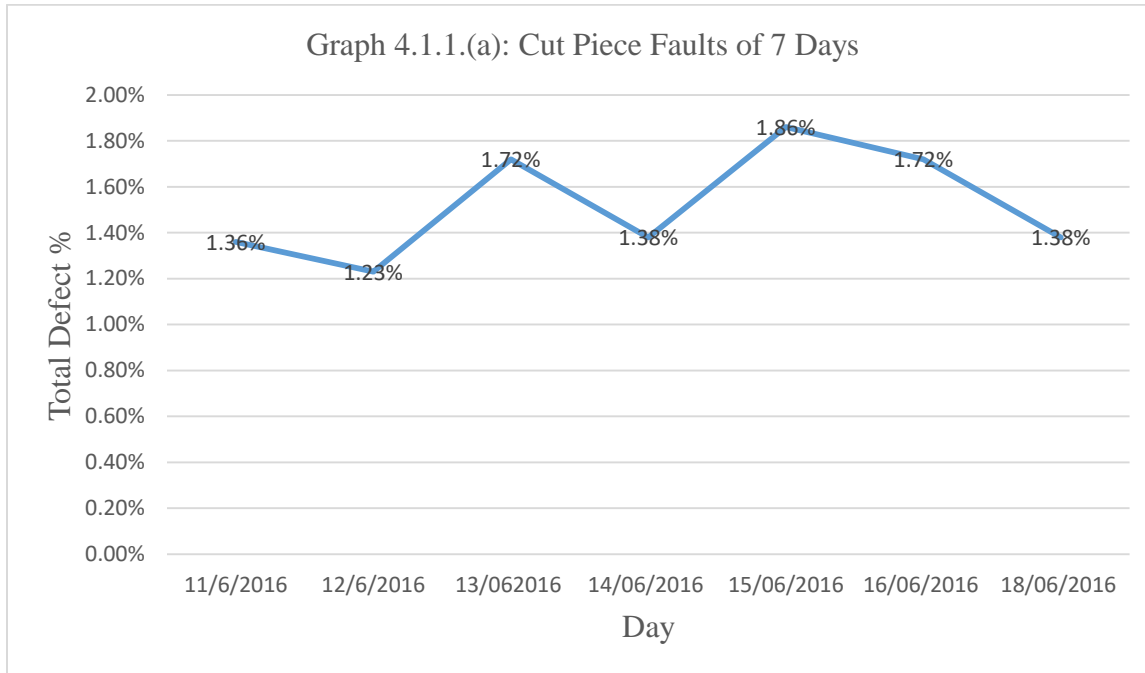


Diagram 4.1.1.(a) indicates Cutting shortcomings of 7 days where the most elevated blame happened in 15/06/2016 (1.86%) and least rate blame happened in 12/06/2016(1.23%)

A graph on the basis of table 4.1.1 is given below

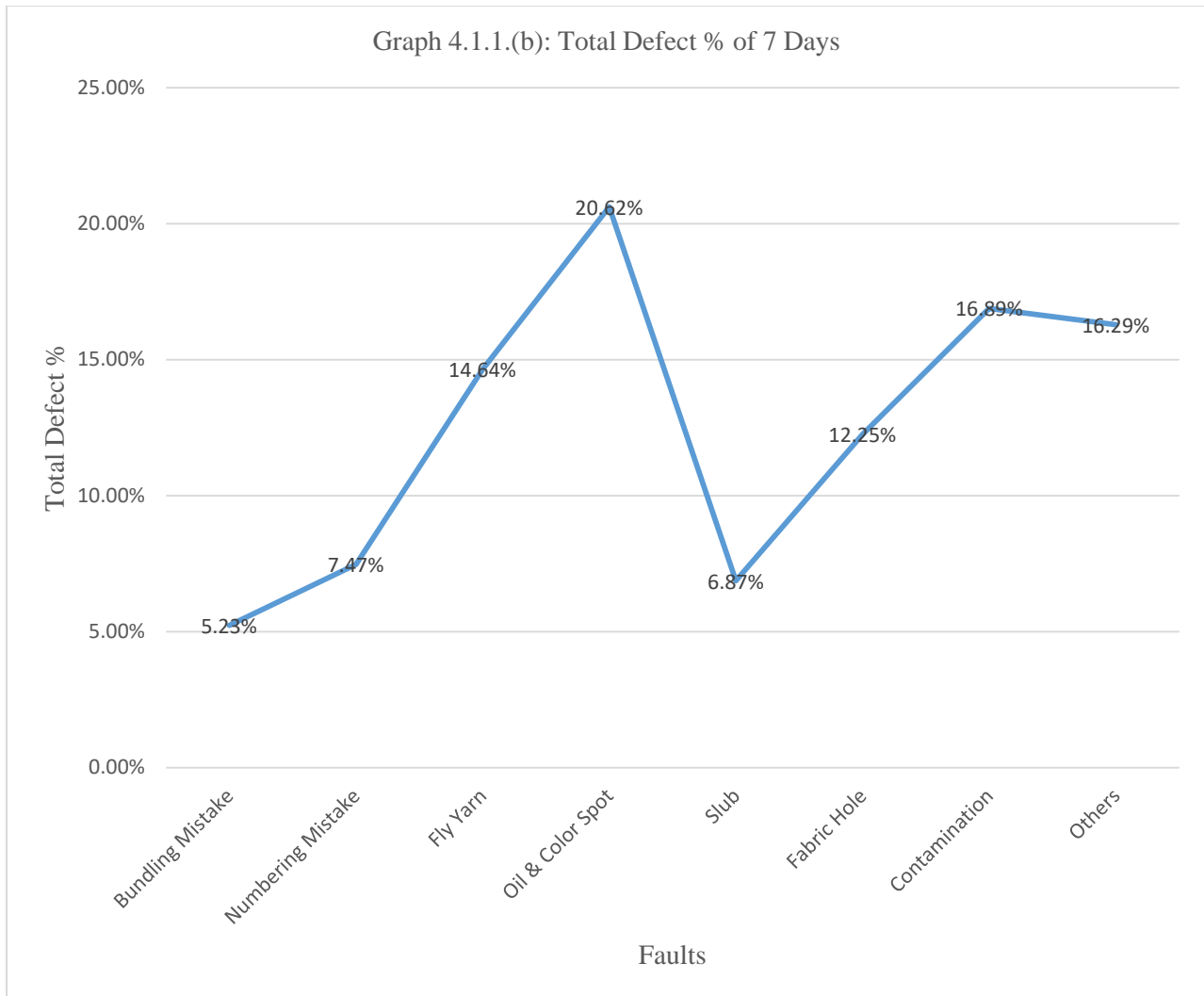


Chart 4.1.1.(b) demonstrates avg. deformity rate (%) is 1.53%. Among those issues oil or shading spots are higher than some other blame back then. Tainting's worth remain after that. Fly yarns and openings have medium position as indicated by their rate esteem. Packaging botch has least position among them.

From the graph (4.1.1.a) and percentage graph (4.1.1.b) we can see that,

- Within 669 pcs faults, spots are found 138 pcs and percentage value is 20.62%. So this fault is highly occurred in cut pieces.
- Within 669 pcs flaws, defilements are discovered 113 pcs and rate esteem is 16.89%. So this blame is second most elevated blame that is as often as possible happened in cut pieces.
- Within 669 pcs blames, openings and fly yarns are discovered 82 pcs and 98 pcs. Their rate esteems are 12.25% and 14.64%. Those deficiencies are thinking about as normal incentive in cut pcs.
- Within 669 pcs issues, packaging botches are discovered 35 pcs and rate esteem is 5.23%. So thes

Discussion:

- Spots are significant issue in cut pieces. At the point when the spot of oil and wax are found on the texture surface then this deficiencies are happened. Spots are mostly happened for old machine. Spots are expelled from the texture by a unique sort of shower named 'Spot lifter' and 'Millat powder'. It can diminish by cleaning the parts of sewing machine over and over. Legitimate support and also appropriate oiling can diminish this sort of blame.
- Contamination is primarily caused due to lose fly. There are no settled measures for the size and recurrence of pollution worthy in weaved textures around the world. Contaminants can be evacuated by the laborers. It is hard to distinguish the tainting because of their erratic size, shape, material and position as a portion of the contaminants get inside the cotton fiber layer and end up imperceptible. This framework is exorbitant, tedious and odds of human blunder are more. The precision of this framework is likewise extremely poor. Fabric hole is also come from the time of knitting of fabric. During loop formation the yarn breakages in the region of the needle hook so that these faults are

occurred. If the yarn count is not correct in regarding structure, gauge, course and density then fabric holes are occurred. Proper yarn count is necessary to avoid this type of fault. Correct feeding system should be maintained to reduce this type of fault as well as proper tension.

- Fly yarn is another significant blame in cut pieces. In weaving area an excess of build up is traveling back and forth that are made from yarn because of low curve and also yarn grating. This build up may append to the texture surface firmly amid sew texture creation. It can lessen by blowing air through various parts for cleaning after a specific timeframe and need to guarantee that build up does not join to the texture.

4.2 Accessories Check

Accessories inspection of 7 days of a sewing section is given below on the table

Table 4.2.1 Accessories Inspection (7 Days)

Date	Broken Button	Damage Zipper	Poor Quality Elastic	Short Ribbon	Faulty Label	Total Inspection	Total Defect	Total Defect %
11.2.2018	12	13	16	07	05	5580	53	0.94%
12.2.2018	18	22	18	15	11	6400	84	1.31%
13.2.2018	15	17	26	19	04	6710	81	1.20%
14.2.2018	10	19	07	10	07	6710	53	0.78%
15.2.2018	17	11	12	08	11	6430	59	0.91%
16.2.2018	26	14	17	11	10	6710	78	1.16%
17.2.2018	22	20	10	13	05	5870	70	1.19%
Total	120	116	106	83	53	45410	478	1.05%
Total Defect % (7 days)	25.10%	24.26%	22.17%	17.36%	11.08%			

Table (4.2.1) demonstrates the individual adornments shortcomings every day are assessed frill are 45410 pcs, add up to surrenders are discovered 478 pcs and aggregate deformity rate is 1.05%

A graph is given below on the basis of table 4.2.1

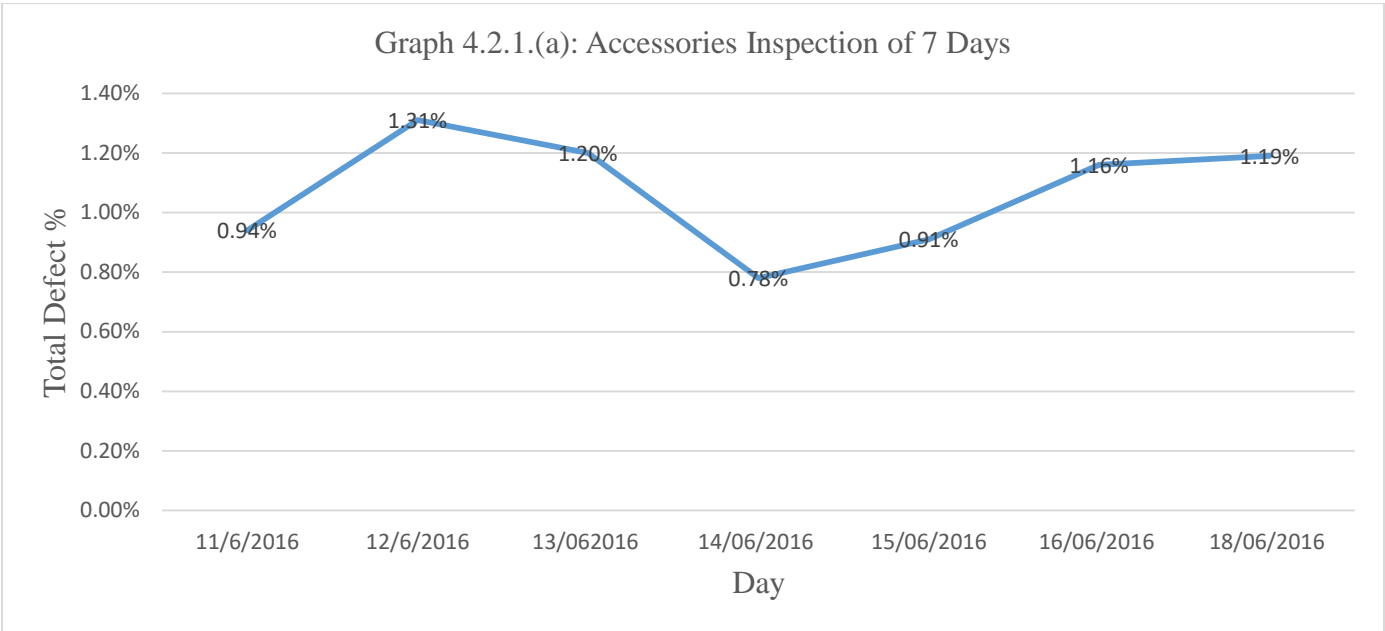


Chart 4.2.1.(a) demonstrates embellishments issues of 7 days where the most astounding flaw happens in 12/06/2016 (1.31%) and least rate blame happens in 14/06/2016 (0.78%)

A graph is given below on the basis of table 4.2.1

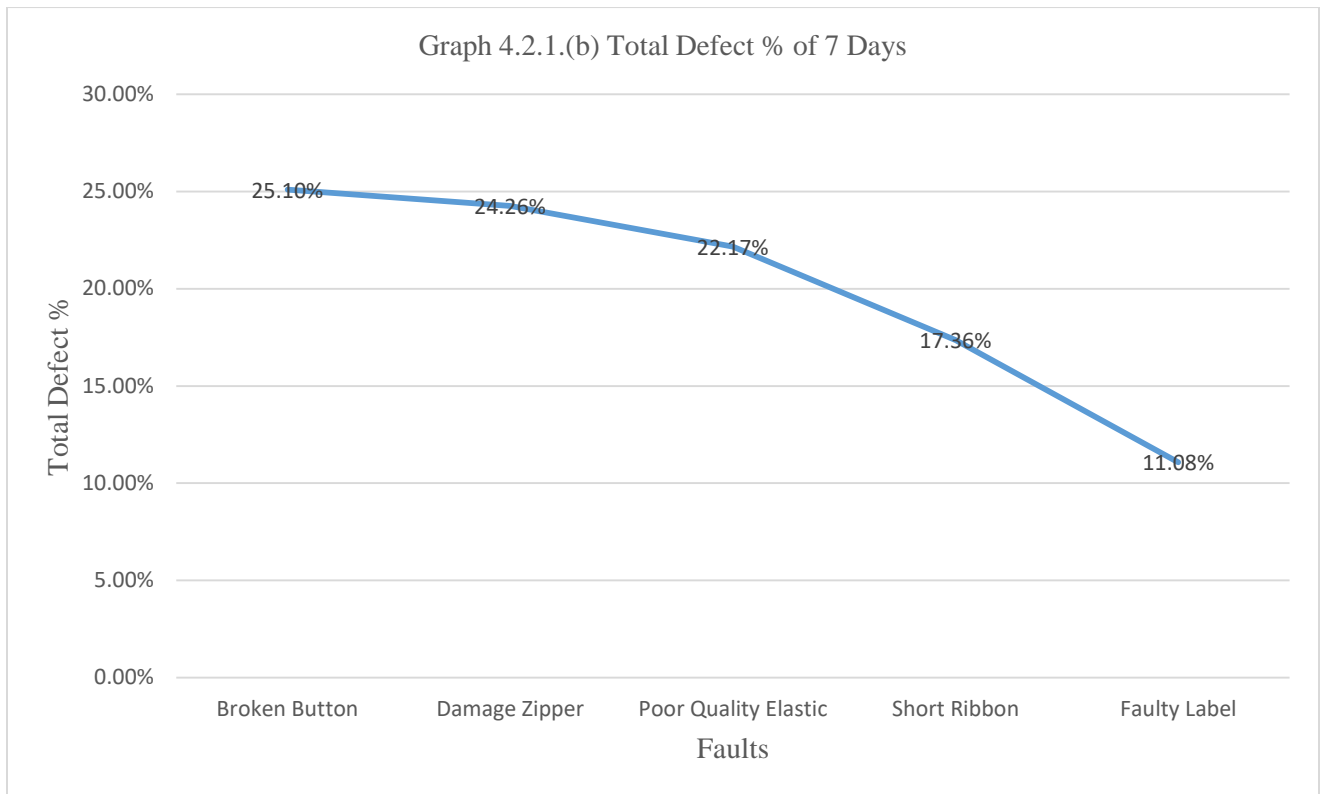


Diagram 4.2.1.b demonstrates avg. imperfection rate (%) is 1.05%. Among those flaws broken catch is higher than some other blame back then. Harm zipper's esteem remain after that. Low quality versatile and Short strip have medium position as per their rate esteem. Broken name has least position among them

From the graph (4.2.1.a) and percentage graph (4.2.1.b) we can see that,

- Within 478 pcs deficiencies, broken catches are discovered 120 pcs and rate esteem is 25.10%. So this blame is profoundly happened in embellishments.
- Within 478 pcs issues, harm zippers are discovered 116 pcs and rate esteem is 24.26%. So this blame is second most elevated blame that is as often as possible happened in cut pieces.
- Within 478 pcs shortcomings, low quality elastics are discovered 106 pcs. Their rate esteems is 22.17%. Those issues are thinking about as third most noteworthy blame that happened in extras.

Discourse:

- Fault free frill ought to be utilized as a part of articles of clothing.
- Suppliers of frill ought to be educated about the deformities found in extras.
- Suppliers ought to give blame free adornments.
- Faulty embellishments ought to be traded by the providers.
- Skillful administrator and specialist ought to be connected to deal with and alter the embellishments with the pieces of clothing
- Supplier of the embellishments might be changed keeping in mind the end goal to show signs of improvement quality adornments.

4.3 Size Mistake Check

Size mistake inspection of 7 days of a sewing section is given below

Table 4.3.1 Size Mistake Check (7 Days)

Size	S	M	L	XL	XXL	Total Inspection	Total Defect	Total Defect %
18.2.2018	04	03	-	03	-	6400	10	0.15%
19.2.2018	-	02	02	-	06	5580	10	0.17%
20.2.2018	-	-	04	08	02	6710	14	0.20%
21.2.2018	03	06	-	02	-	5870	11	0.18%
22.2.2018	01	-	07	-	-	6430	08	0.12%
23.2.2018	04	07	-	05	02	6710	18	0.26%
24.2.2018	-	01	03	04	-	5870	08	0.13%
Total	12	19	16	22	10	43570	79	0.18%
Total Defect % (7 Days)	15.18%	24.05%	20.25%	27.84%	12.65%			

Table (4.3.1) demonstrates the individual size slip-up every day. Pieces of clothing reviewed are 45410 pcs, add up to surrenders are discovered 79 pcs and aggregate imperfection rate is 0.18%

A graph is given on the basis of table 4.3.1

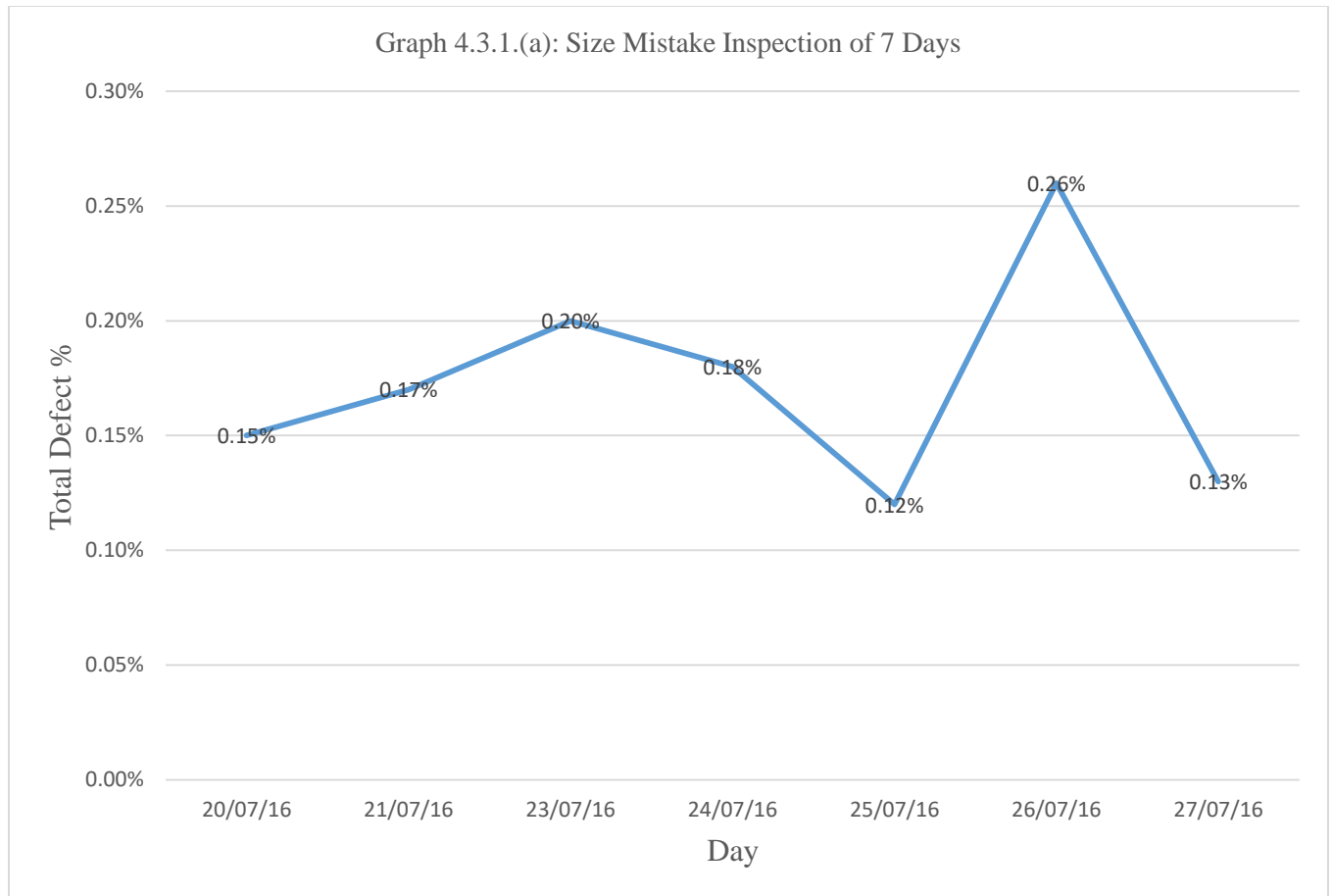


Chart 4.3.1.a shows measure mix-ups of 7 days where the most elevated blame happens in 26/072016 (0.36%) and least rate blame happens in 25/07/2016 (0.12%)

A graph is given below on the basis of table 4.3.1

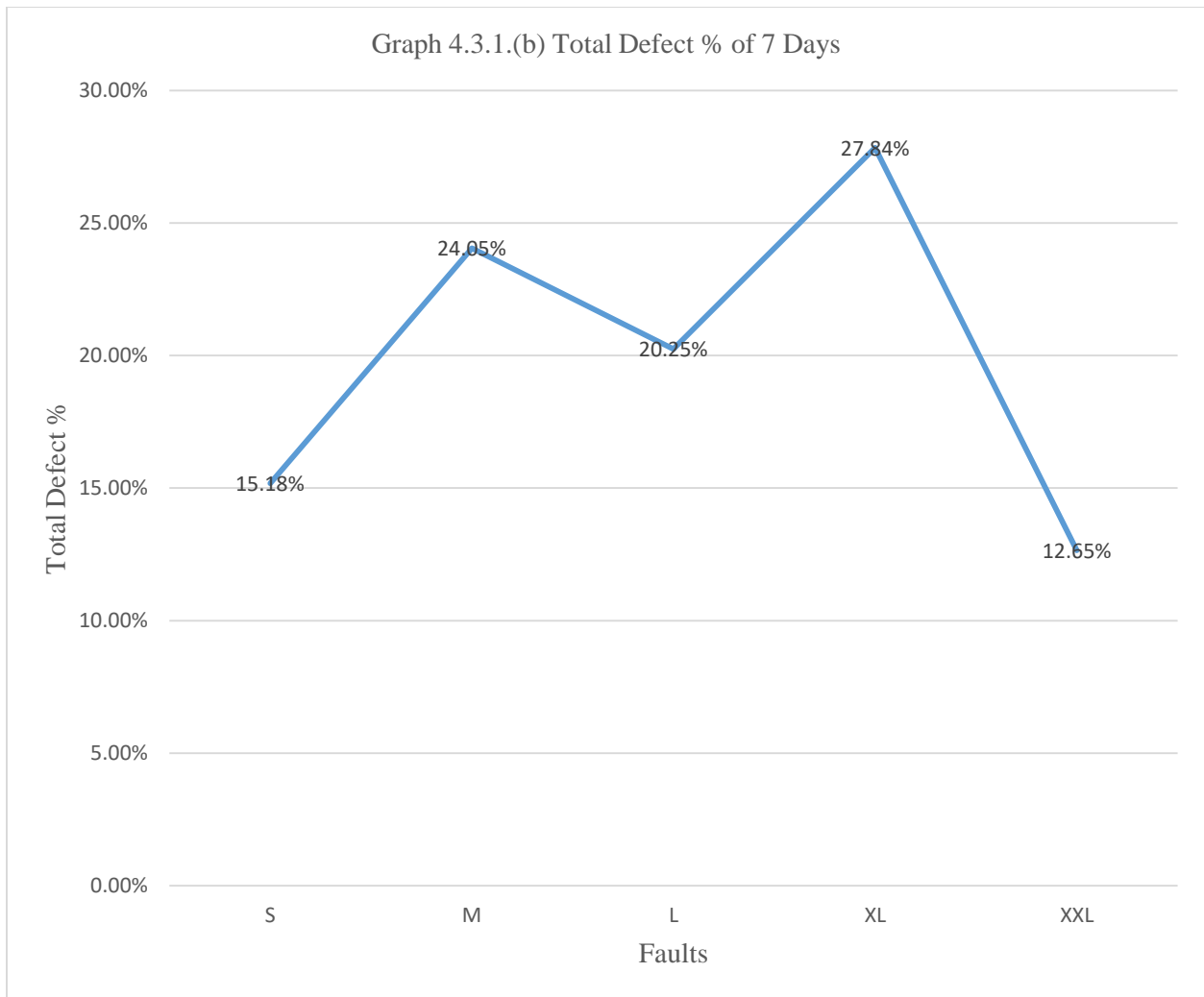


Chart 4.3.1.b demonstrates avg. deformity rate (%) is 0.18%. Among those flaws XL measure is higher than some other blame back then. M size's esteem remain after that. L estimate has medium position as indicated by their rate esteem. S measure has most minimal position among them.

From the graph (4.3.1.a) and percentage graph (4.3.1.b) we can see that,

- Within 79 pcs flaws, XL estimate is discovered 22 pcs and rate esteem is 27.84%. So this blame is very happened in articles of clothing
- Within 79 pcs deficiencies, M estimate is discovered 19 pcs and rate esteem is 24.05%. So this blame is second most noteworthy blame that is much of the time happened in articles of clothing
- Within 79 pcs deficiencies, L measure is discovered 16 pcs. Their rate esteem is 20.25%. Those issues are thinking about as third most noteworthy blame that happened in pieces of clothing.
- Within 79 pcs issues, S measure is found 12 pcs and rate esteem is 15.18%. So this shortcomings are most reduced blame that are much of the time happened in articles of clothing.
- Inside 79 pcs issues, XXL size is discovered 10 pcs and rate esteem is 12.65%. So this blame is the least blame that are every now and again happened in articles of clothing

Discussion:

- Size batch checking ought to be done appropriately.
- Numbering and Bundling of cut pieces ought to be done mindfully
- Operator in sewing segment ought to be mindful before joining the size mark in pieces of clothing
- Line regulating ought to be done appropriately

4.4 Needle Check:

Needle inspection data of 7 days is given below on the table

Table 4.4.1: Needle Inspection Data of 7 Days

Size	Size 7	Size 8	Size 9	Size 10	Size 11	Size 12	Size 13	Total
25.2.2018	04	02	01	07	02	03	02	21
26.2.2018	02	01	06	01	Not Used	Not Used	Not Used	10
27.2.2018	01	02	08	04	Not Used	Not Used	Not Used	15
28.2.2018	06	03	02	01	03	03	01	19
1.3.2018	02	02	05	03	06	04	01	23
2.3.2018	03	05	01	06	01	08	06	30
3.3.2018	05	04	04	07	Not Used	Not Used	Not Used	20
Total	23	19	27	29	12	18	10	138

Table (4.4.1) shows the individual needle estimate batch every day. Add up to abandons are discovered 138 pcs

A graph is given below on the basis of table 4.4.1

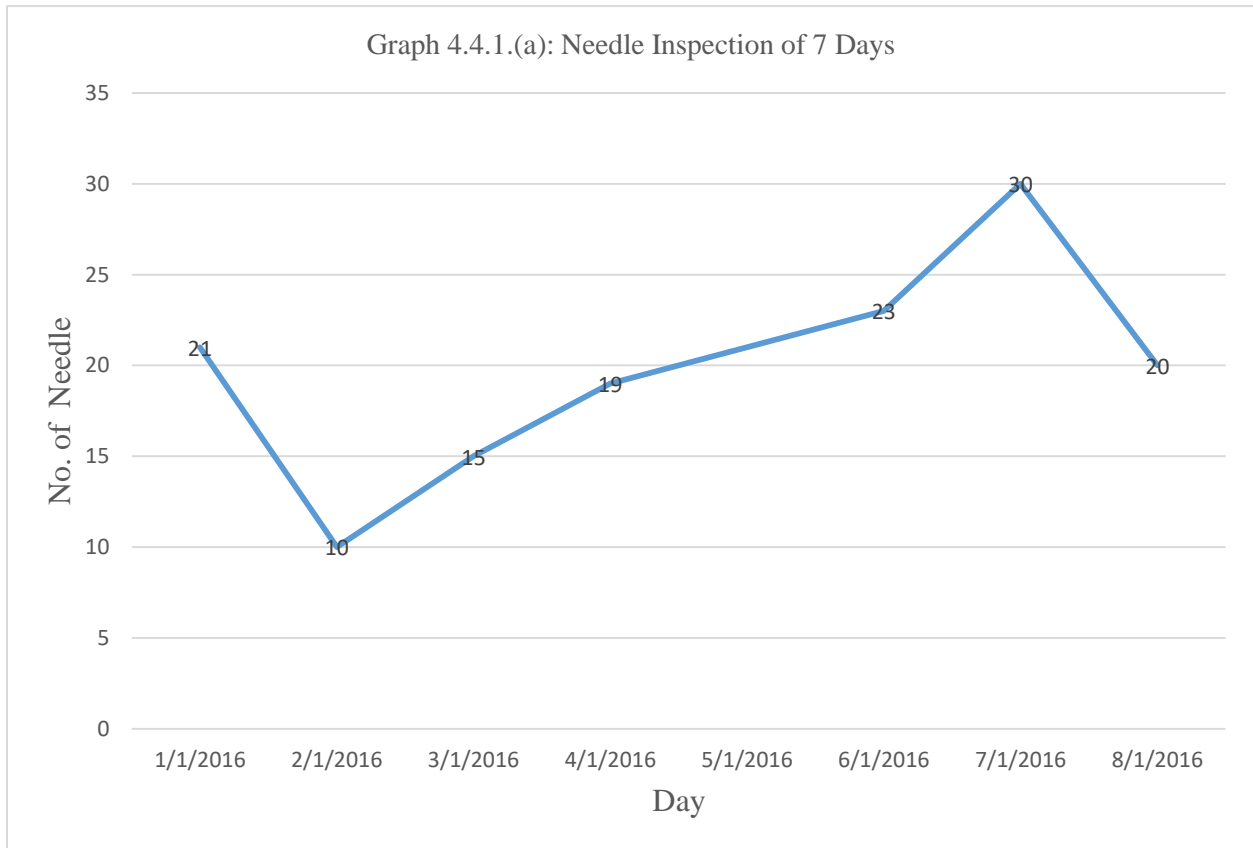


Chart 4.4.1.(a) demonstrates needle review information of 7 days where the most elevated blame happens in 7/01/2016 (30 pcs) and least blame happens in 2/08/2016 (10 pcs)

A graph is given below on the basis of table 4.4.1

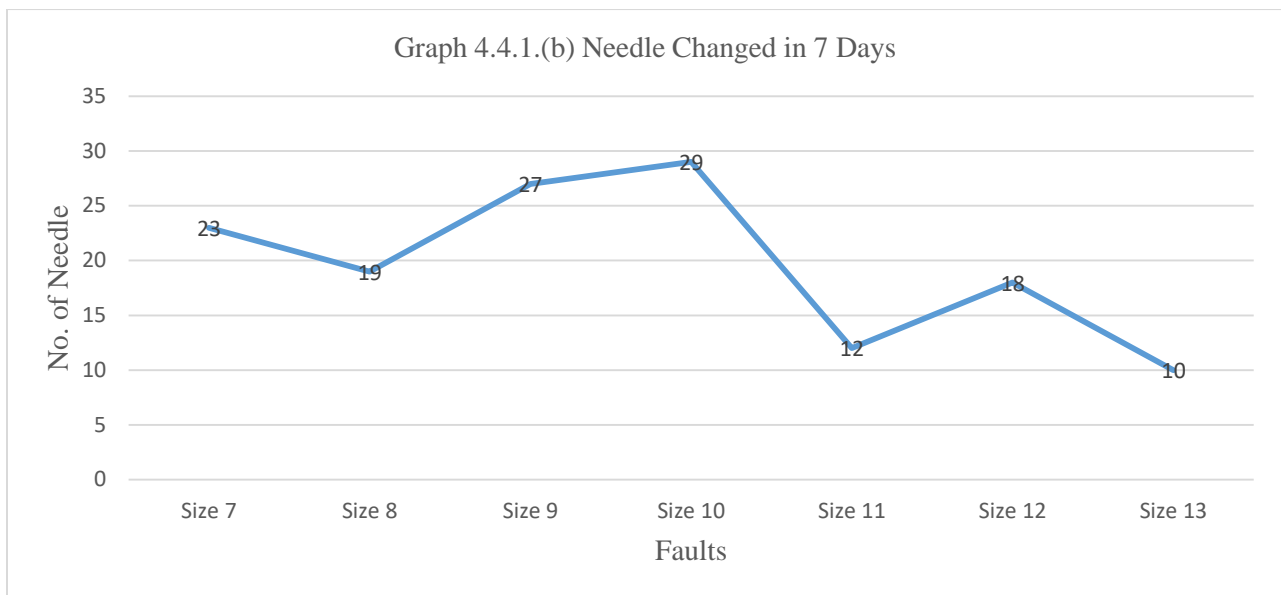


Diagram 4.4.1.(b) shows those shortcomings estimate 10 needle is higher than some other blame back then. Measure 9 needle esteem remains after that. Measure 7 needle has medium position as indicated by their esteem. Measure 13 needle has most minimal position among them.

From the graph (4.4.1.a) and percentage graph (4.3.1.b) we can see that,

- Within 138 pcs flawed needle, estimate 10 needle is discovered 29 pcs.
- Within 138 pcs flawed needle, size 9 needle is discovered 27 pcs
- Within 138 pcs broken needle, size 7 needle is discovered 23 pcs.
- Within 138 pcs broken needle, estimate 8 needle is found 19 pcs.
- Within 79 pcs broken needle, measure 12 is discovered 18 pcs.
- Within 79 pcs broken needle, measure 11 needle is discovered 12 pcs. Within 79 pcs faulty needle, size 13 needle is found 10 pcs

Discussion:

- Excessive weight on the machine ought to be diminished.
- Skillful specialist ought to be connected to work the machine
- Fault free needle ought to be utilized as a part of the machine.
- Good nature of needle ought to be utilized.
- Proper machine ought to be utilized based on texture compose and thickness.
- Supplier of the needle ought to be changed with a specific end goal to show signs of improvement quality needle

4.5 Sewing Faults

Table 4.5.1 Sewing faults of 7 days

Day	Label Wrong Placed	Broken Stich	Pleat	Open Seam	Bad Tension	Puckering	Uneven Stich	Skip Stich	Raw Edge	Spot&Oil Stain	Uncut Thread	Total Inspection	Total Defect	Total Defect %
Day 1	02	05	09	08	04	26	10	07	10	130	05	6400	216	3.37%
Day 2	06	09	04	08	08	32	25	40	15	122	15	5580	284	5.08%
Day 3	07	04	11	08	02	04	10	10	15	26	03	6710	100	1.49%
Day 4	15	62	67	20	24	50	30	30	35	32	17	5870	382	6.50%
Day 5	18	07	12	18	13	05	20	23	16	86	02	6430	220	3.34%
Day 6	02	26	02	03	05	05	10	41	07	10	19	6710	130	1.93%
Day 7	15	09	08	12	06	12	16	22	18	16	02	5870	136	2.35%
Total	65	122	113	77	62	134	121	173	116	422	63	43570	1468	3.36%

Defect %	4.42%	8.31%	7.69%	5.24%	4.22%	9.12%	8.24%	11.78%	7.90%	28.74%	4.29%			
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Table (4.5.1) shows the individual sewing issues every day. Articles of clothing reviewed are 43570 pcs, add up to abandons are discovered 1468 pcs and aggregate imperfection rate is 3.36%

A Graph is given below on the basis of 4.5.1 is given below

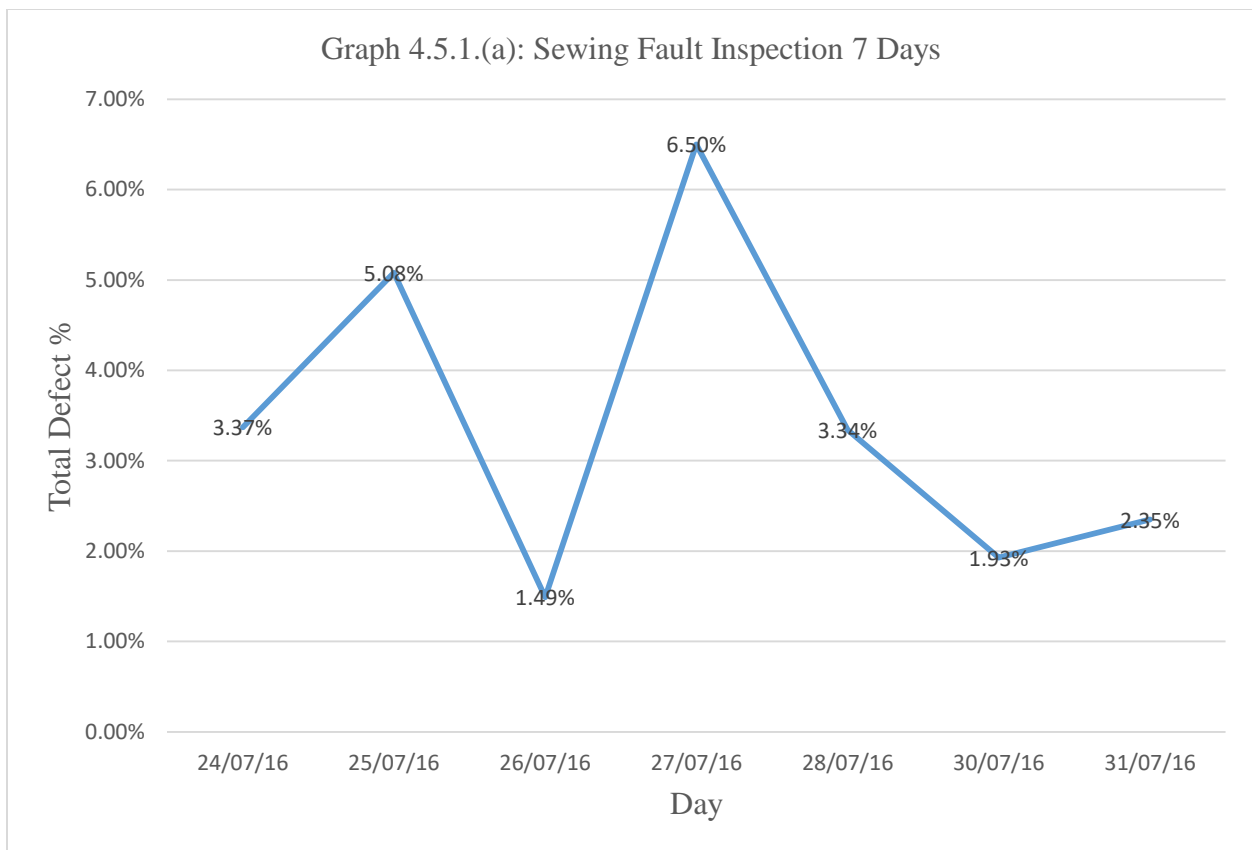


Diagram 4.5.1.(a) indicates measure errors of 7 days where the most astounding deficiency happens in 27/072016 (6.50%) and least percentagefault happens in 26/07/2016 (1.49%)

A Graph is given below on the basis of 4.5.1 is given below

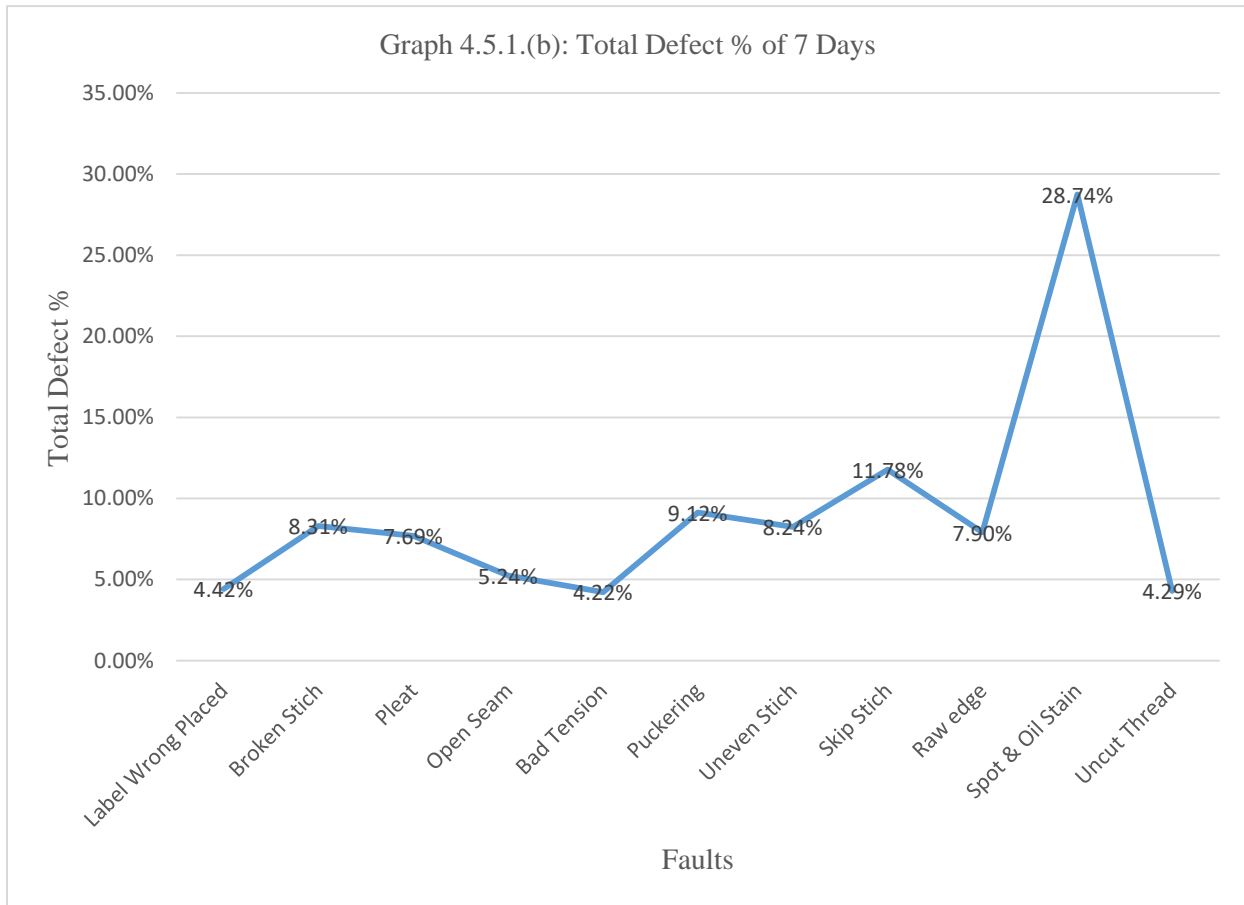


Diagram 4.5.1.(b) demonstrates the avg. deformity rate (%) is 3.36%. Among those deficiencies Spot and Oil is higher than some other blame back then. Skirt join's esteem remain after that. Puckering and Broken join has medium position as indicated by their rate esteem. Uncut string has most minimal position among them.

From the graph (4.5.1.a) and percentage graph (4.5.1.b) we can see that,

- Within 1468 pcs issues, Oil and shading spots are discovered 422 pcs and rate esteem is 28.07%. So this blame is very happened in pieces of clothing.

- Within 1468 pcs issues, Skip Stiches are discovered 173 pcs and rate esteem is 11.78%. So this blame is second most elevated blame that is every now and again happened in pieces of clothing.

- Within 1468 pcs flaws, Puckering, Broken stich, Uneven stich, Pleats are discovered 134, 122, 121, 113 pcs. Their rate esteems are 11.78%, 9.12%, 8.31%, 8.24%. Those flaws are thinking about as medium range blames that happened in pieces of clothing.

- Within 1468 pcs deficiencies, Open crease, name wrong put, awful pressure, uncut strings are discovered 77, 65, 63, 62 pcs and rate esteem is 5.24%, 4.42%, 4.22%, 4.29%. So these four flaws are least blame that are much of the time happened in articles of clothing.

Discussion:

- Uncut/free strings are one of those deformities which are calmly passed by the checkers of sewing and also completing office. This on later stage causes pieces dismissal of the style amid the review procedure, along these lines not meeting the AQL standard set by the purchaser. To decrease this blame string shaper man need to cognizant about uncut string.

- Puckering is the twisting or wrinkling of a texture along a sewing line. Crease pucker is the most well-known issue to the making-up exchange. It is an issue that likewise

concern texture finishers, sewing machine producers and sewing string makers. This issue has been amplified with the presentation of new and unpredictable textures and completions. For all intents and purposes it is extremely hard to dodge crease pucker, in light of the fact that there must be some clasping along the crease line. There is no standard level of worthiness. Select the correct sewing string thickness, the needle thickness and a fine encourage pooch, as per the texture being utilized, considering the required crease quality. Customary examination and support of the sewing machine and general needle substitutions can lessen crease puckering.

- Spots are another significant issue in sewing segment. At the point when the spot of oil and wax are found on the texture surface then this shortcomings are happened. Spots are for the most part happened for old machine. Spots are expelled from the texture by an extraordinary kind of shower named 'Spot lifter' and 'Millat powder'.

4.6 Machine Check

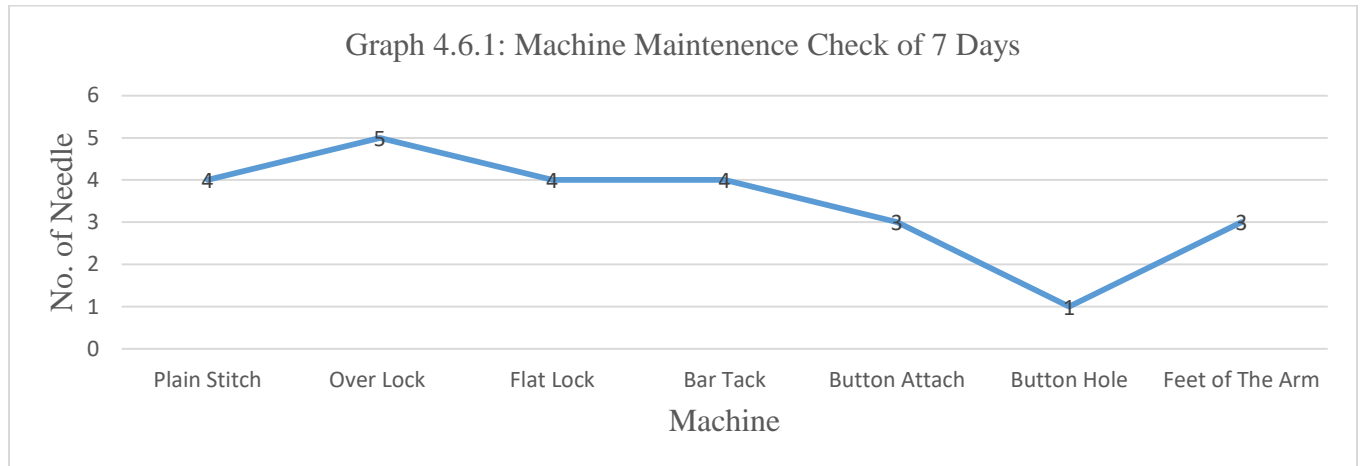
Data of machine inspection of 7 days is given below on the table

Table 4.6.1: Machine Maintenance Check of 7 Days

Date	Plain Stich m/c	Over Lock m/c	Flat lock m/c	Bar tack m/c	Button attach m/c	Button hole m/c	Feet of the arm m/c
4.3.2018	No Problem	No Problem	Fabric is not feeding	Skip stiches	No Problem	No Problem	No Problem
5.3.2018	No Problem	Breaking Needles	Skip Stiches	Seam puckering	No Problem	No Problem	Unbalance stich
6.3.2018	Thread is bunching	Mechanical noise	No Problem	Variable stich density	Button not attach in exact position	No Problem	Seam line does not look perfect
7.3.2018	Skip stich	No Problem	Thread is bunching	No Problem	Mechanical noise	Mechanical noise	No Problem
8.3.2018	Unbalance stich	Breaking needles	No Problem	Mechanical noise	No Problem	No Problem	No Problem
9.3.2018	No Problem	Mechanical noise	No Problem	No Problem	No Problem	No Problem	No Problem
10.3.2018	Mechanical noise	Skip stiches	Mechanical noise	No Problem	Button not attached in exact position	No Problem	Unbalance stich
Total no. of occurrences	04	05	04	04	03	01	03

Table (4.6.1) indicates the individual machine faults per day. Total defects are found 24.

A graph is given on the basis of table 4.6.1



Graph 4.6.1 indicates those blames over bolt machine has higher than some other blame back then. Plain fasten, level bolt and bar tack has medium position as per their esteem. Catch opening machine has most minimal position among them.

From the above table and chart we can see that

- In 7 days Over bolt machine has the most noteworthy blame event (5 times)
- In 7 days Plain stich, Flat bolt and Bar Tack machine has second most astounding flaw events (4 times)
- In 7 days Button appending machine has medium blame event (3 times)
- In 7 days Button opening machine has the most minimal blame event (1 time)

Discussion:

- Machines ought to be appropriately checked after a timeframe.
- Machine maintenancesction ought to be educated about the machine blame.
- Machine administrator ought to be sufficiently able to work the machine.

- Worker and Technician of machine support area ought to be handy.
- Machine support area ought to be dynamic.
- Machine ought to be changed if there are visit blame events.

CHAPTER – 5: CONCLUSION

Quality assumes an essential part in sew articles of clothing generation. These days purchaser requires particular quality in every single real piece of the articles of clothing item. Distinguishing proof of flaws amid creation of sewed texture is critical for enhanced quality and profitability. This paper is closed as

- In cut pieces imperfection rate 1.53% is found from 43570 pcs for seven days.
- In extras deformity rate 1.05% is found from 45410 pcs for seven days.
- In measure botch deformity rate 0.18% are found from 43570 pcs for seven days.
- In needle check add up to surrender 138 are found for seven days.
- In sewing flaw deformity rate 3.36% is found from 43570 pcs for seven days.
- In machine upkeep 24 deserts are found for seven days.

To assure the quality of garments product we suggested some solutions to avoid the fault in sewing section. Now-a-days buyers are very much quality conscious. If we ensure high quality inspection system then buyer will be motivated and more quality product can be possible to produce. For the betterment of RMG sector, we should need to introduce modern quality inspection system and quality management techniques.

We have really worked hard to complete this project well ahead. We wished to make it as a replica of production so that it provides a complete knowledge about quality assurance in sewing section. Though there were some limitations like shortage of time that compelled us to complete the thesis as soon as possible, even then we have tried to give our best. Also we wished that anyone worked on this surely will give more information.

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