Daffodil International University

Faculty of Engineering

Department of Textile Engineering

Study on Fabric Inspection

Submitted by:

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Supervised by:

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

Bachelor of Science in Textile Engineering

LETTER OF APPROVAL

To

The Head

Department of Textile Engineering

Daffodil International University

Daffodil Smart City, Ashulia, Saver, Dhaka-1216

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

Dear Sir

I am just writing to let you know that this report titled as **"Study on Fabric Inspection"** has been prepared by the student bearing Jahid Hasan 181-23-451 This report is completed for final evaluation. The whole report is prepared based on the factory data with the required belongings. The students have directly involved in their industrial attachment activities and the report becomes vital to spark much valuable information for the readers.

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

17.01.2023

Md. Mominur Rahman

Assistant Professor

Department of Textile Engineering

Faculty of Engineering

Daffodil International University

DECLARATION

I hereby declare that the work which is being presented in this report entitled, **"Study on Fabric Inspection''** is original work of my own, has not been presented for a degree of any other university and all the resources of materials used for this thesis have been duly acknowledged.

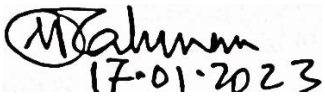
Jahid Hasan

181-23-451

Department of Textile Engineering

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

Supervisor:



Mr.Md. Mominur Rahaman

Assistant Professor, TE, FE, DIU

ACKNOWLEDGEMENT

Above all, I praise my Almighty Allah who gave me His grace to successfully complete this research work. With sincerity, I extend my warmth and deep appreciation and gratitude to my supervisor, Mr, Md Mominur Rahman Head of the textile engineering department of Daffodil international university for their guidance and support to come up with this research work. Working with him, I have not only earned valuable knowledge but was also inspired by his innovativeness which helped to enrich my experience to a greater extent. His ideas and way of working were truly remarkable. I believe that this research could not be finished if he did not help me continuously.

I am grateful to my all colleagues for their encouragement in this research work.

Finally, I am thankful to Mr. Mahbub Alam managing director of the knitting section at green life knit composite ltd who allowed me to conduct two month-long internships at her institute.

ABSTRACT

In this study, I have tried to identify the knitting fault during the inspection. First, a detailed introduction is given about the knitting industry in Bangladesh in the literature review of what other people think or write about knitting defects are given. In the end, I have given data that I was collect from Green life Knit composite ltd. In the thesis report for fabric inspection standard inspection system four-point is used. First of all I analyze the three different fabric S/J, Fleece, and Rib fabric faults in four-point system then separate the different fabric fault with their frequency and level of intensity.

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1 INTRODUCTION

1.1 Background of the Project

Knitting is most important industrial sector in Bangladesh. Among the other RMG sector knitting alone contribute 60% of total RMG export in Bangladesh. According to the report of BGMEA in 2022 total knit export grew 15.61% then last year. In July to November 2022 Bangladesh exports 22 billion worth of knit garments around the world. Exporting knit garments quality maintain is one of the most important things in this sector because export mean quality. Because of growing awareness of quality among people now a days customer want to get quality product. For this reason it need to delivery quality product to the buyer. knitting mills have to produce higher quality fabric to meet the quality standard set by the buyer. Fault detection during production of knitted fabric with circular knitting machine is important for improving quality and productivity. Any variation in knitting process need to be investigate and corrected. The high quality assurance can be guaranted by incorporating high quality standard. Product quality can be improved, and defect cost minimized, by monitoring of the circular knitting process.

Find out the knitting fault and cusses of the fault knit fabric have to be inspect before going to next process. There are several standard way to conduct knit fabric inspection. Human inspection by using knitted fabric inspection machines remains today the most used way to classify faults after knitting and after finishing. Mainly faults are classified by type and by frequency in the inspected knitted roll. Fabric quality totally depend on fault level set by knitter or the minimum number of fault to make the fabric qualityful. Standard fabric inspection method is applied for helping knitter to objectify the fault.

1.2 Objective of the Study

- To described different type of knit fabric fault during knitting production.
- To analyze root causes of fabric fault and their remedies.
- To compare different type of knit fabric with their fault number and frequency.

1.3 Significance of the study

1. As a normal people this project will help you to understand different knit fabric fault which frequently occurred in garments.
2. As a student you can use this knowledge to your future project.
3. As a expert of knit industry this project will help you understand the importance of knit fabric quality.
4. In industry level this project help them to understand the importance of standard inspection method for eliminating fabric fault and improve quality.

1.4 Limitation and challenges of this project

The industry where I had completed my 3month long internship was to much big or a reputed industry most of the things were unorganized and people who were working was not much friendly enough to me. In such tough condition to collect data from this industry was not a easy task but despite all the problem I have manage to collect data to complete this thesis pro

2. Literature Review

2.1 Knitting

Knitting is a process of using long needles to interlink or knot a series of loops made by one continuous thread. Each loop or knot connects to another one, and when enough loops have been made, the result is a flat piece of material called a textile.

2.2 Process flow chart of knitting

Yarn in package form spinning

□

Place the package yarn in the yarn

□

Feeding the yarn by creel

□

Set the machine as per design & GSM

□

Knitting

□

Withdraw the roll fabric and weighing

□

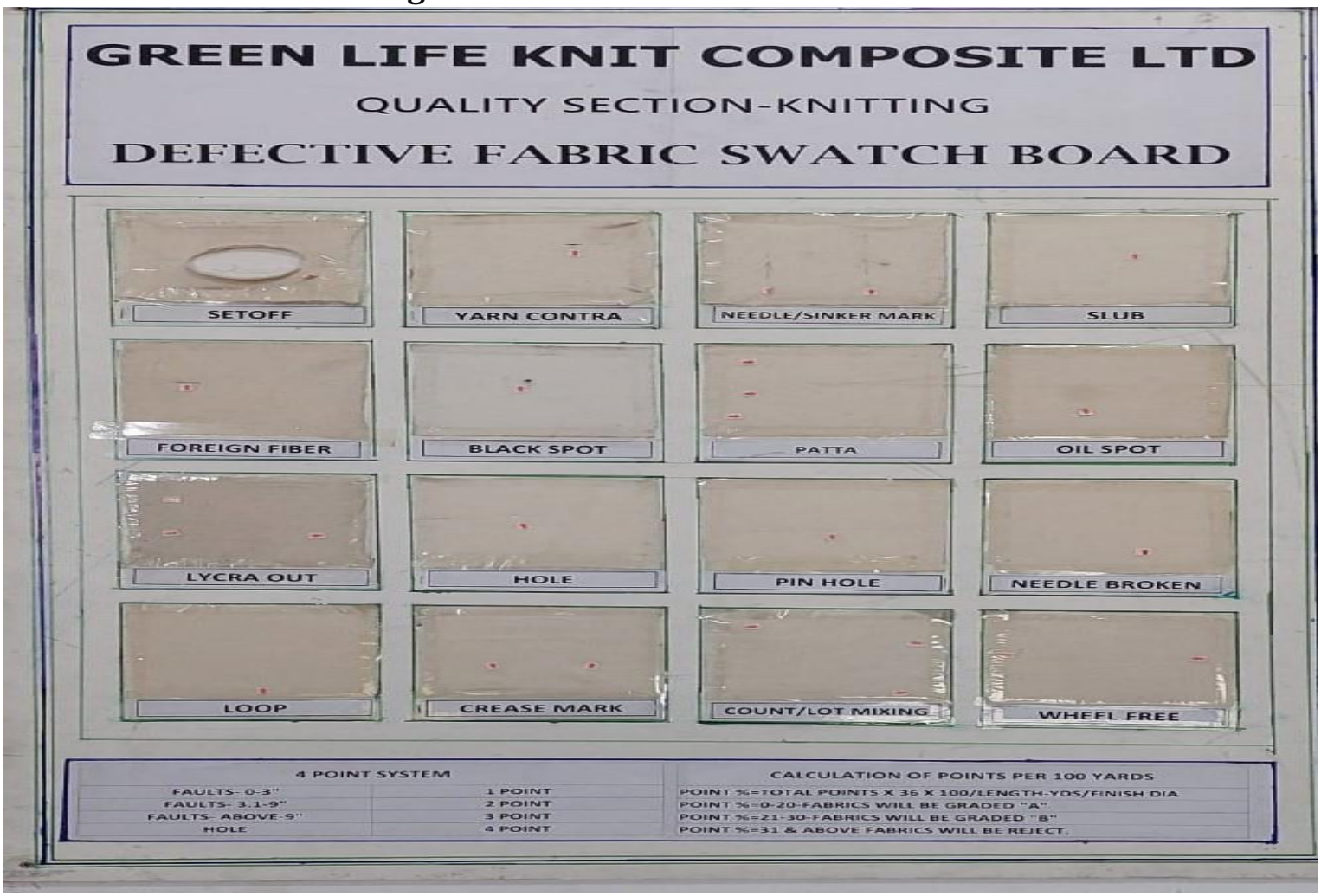
Roll marking

□

Inspection

Numbering

2.3 Different Knitting fault and their Remedies



2.3.1 Hole

Drop Stitches or Holes are randomly appearing small or big holes of the, same or different size, which appear as defects, in the Knitted fabrics

Causes:

1.High yarn tension

2. Yarn overfeed or underfeed

3. Fabric high take-down tension

4. Incorrect gap between dial and cylinder ring **Remedies: 1.** Ensure uniform tension of yarn in all feeder

2. Carefully regulate yarn feed.

3. Gap between the dial and cylinder should be adjusted correctly

2.3.2 Needle or Sinker Mark

Causes

1. During needle breakdown needle mark comes along with the fabric

2. If the sinker or needle then sinker mark the comeon fabric

Remedies:

1. Remove the broken needle immediately
2. after the needle broke.
3. Bend sinker or needle should be changed

2.3.3 Oil Spot

Causes:
Oil licking during production

Remedies:
1. Make sure oil can't lick and doesn't pass on the fabric
2. Maintain the machine oiling system properly

2.3.4 Pin Hole

Causes:

Due to the latch needle breakdown hole in the fabric**.**

Remedies: Change the

latch needle

2.3.5 Foreign Fiber

Causes

Causes:

1.Yarn contain foreign fiber

2. Because of lot and count mixing

Remedies:

1.Try to avoid lot and count mixing

2. Fault less spinning

2.3.6 Patta

Causes:

1.Yarn Count variation 2.

Yarn tension variation

Remedies:

Proper yarn count and tension should be maintained

2.3.7 Lycra Out

Causes:

Breakage of Lycra yarn and uneven tension of Lycra yarn

Remedies:

To maintain Uniform tension

2.3.8 SetOff

Causes:

when some of needle on circular knitting machine fail to function and fabric either fail off the machine or design disrupted or destroyed completely.

Remedies:

1. Needle detector should work perfectly during production so that detector can detect broken needle.
2. Proper yarn tension should be maintained on all the feeder

2.4 Fabric Quality Inspection

In apparel industry inspection defined as the visual examination or review of fabric or accessories. It is one of the important section of garments where avoid reject and passing quality product in next process. The quality of final garments depend on the quality of final fabric when it is received as a roll. There are several standard quality inspection method to determined the roll fabric quality. Normally we inspect 10% of roll we receive and evaluate them with different point system. This way we can avoid fabric related quality problem before put it into production.

Currently 4 types of standard inspection system exist in the industry

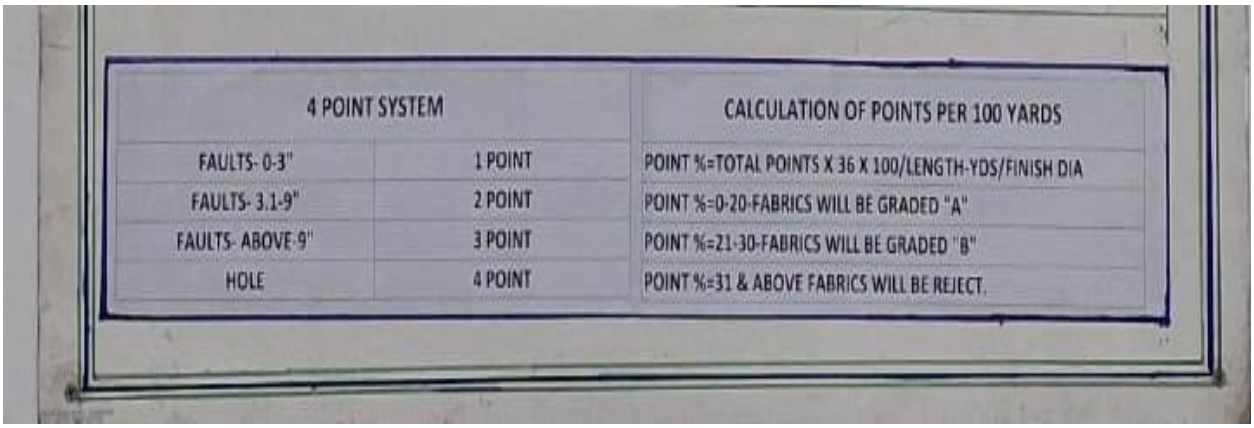
1. 4- point system
2. 10point system
3. Graniteville “78” system
4. Dallas system.

But among all of them Four point system is widely use in garments industry for quality inspection

2.5 Four Point System

The 4-point system, also called the American Apparel Manufacturers (AAMA) point grading system for determining fabric quality, is widely used by producers of apparel fabrics and is endorsed by the AAMA as well as the ASQC (American Society or Quality Control).The 4-point system assigns 1, 2, 3 and 4 penalty points according to the size and significance of the defect. No more than 4 penalty points can be assigned for any single defect. Defect can be in either length or width direction, the system remains the same. Only major defects are considered. No penalty points are assigned to minor defects.

In this system, one should inspect at least 10 per cent of the total rolls in the shipment and make sure to select at least one roll of each color way. Fabric defects are assigned points based on the following



4 POINT SYSTEM		CALCULATION OF POINTS PER 100 YARDS
FAULTS- 0-3"	1 POINT	POINT %=TOTAL POINTS X 36 X 100/LENGTH-YDS/FINISH DIA
FAULTS- 3.1-9"	2 POINT	POINT %=0-20-FABRICS WILL BE GRADED "A"
FAULTS- ABOVE-9"	3 POINT	POINT %=21-30-FABRICS WILL BE GRADED "B"
HOLE	4 POINT	POINT %=31 & ABOVE FABRICS WILL BE REJECT.

Total defect points / 100 square yards of fabric are calculated and the acceptance criteria are generally not more than 31-penalty points. Fabric rolls containing more than 31-points are considered as rejected.

2.6 The formula to calculate points per 100 square yards

$$\frac{\textit{Total points scored in the roll x 3600}}{\textit{Fabric width in inches x Total yards inspeced}}$$

2.7 General Inspection Procedure

1. Fabric inspection have to done in safe and proper lighting condition.
2. Roll fabric have to lying on the inspection table at 45-60 angle.
3. Fabric speed in inspection table must be within the limit of 15 yard per minute
4. Inspection table lighting with Cool White light 2 F96 fluorescent bulbs.

5. All defect must be marked with marker pen.
6. Fabric width must be checked.
7. No penalty point for minor defect. only major defect are considered.
8. Penalty point not more than 4 in 1 yard of fabric inspection.

2.8 Example

Total Linear points = 28

Total Length of the roll = 105 yards

Width of the roll = 90 inches

Calculation = Total Point Scored in the roll × 3600 ÷ Fabric width in inch × Total Yard Inspected

$= 28 \times 3600 \div 90 \times 105$

= 10.667%

Result: Fabric is acceptable and Fabric grade is “A”

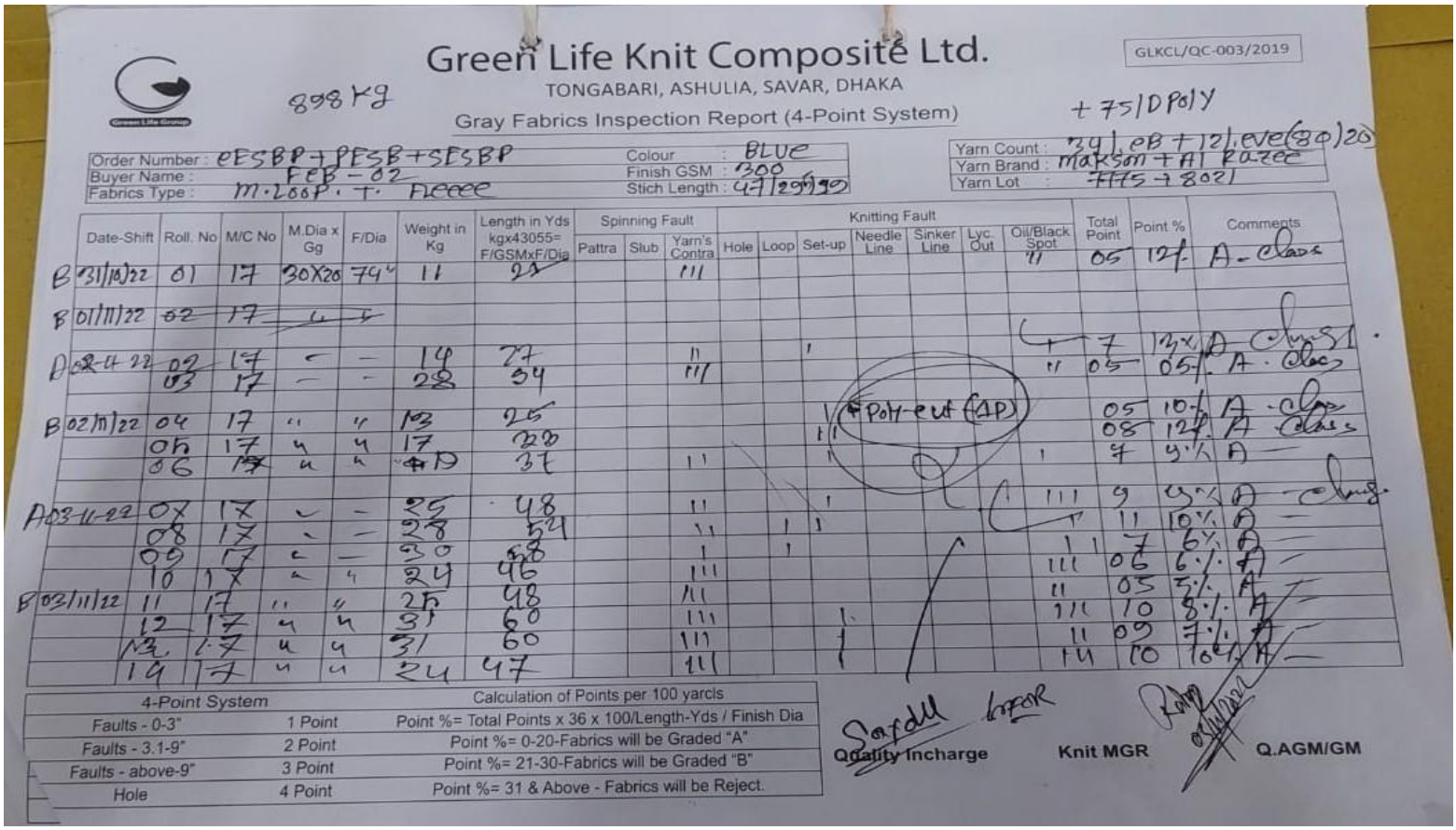
3 DATA COLLECTION

Fabric have been inspected in the factory with the help of some worker then Inspect the collected data of different fabric and analyze the fabric with their fault variation, rejection and frequency of fault. Our industry usage 4-point system so that collected data based on standard 4-point system of fabric inspection.

Collected fabric inspected data are given below

3.1 Inspection Report of Mini Loop Fleece Fabric

Inspection Report no: 1



Green Life Knit Composite Ltd.

GLKCL/QC-003/2019

TONGABARI, ASHULIA, SAVAR, DHAKA

Gray Fabrics Inspection Report (4-Point System)

898 Kg

+ 75/D Poly

Order Number : PESBP+PESB+SESBP
Buyer Name : FEB-02
Fabrics Type : M.Loop. T. Fleece
Colour : BLUE
Finish GSM : 300
Stich Length : 47/29/30

Yarn Count : 34/ eB + 12/ eve(30)20
Yarn Brand : Maksun + Al Razee
Yarn Lot : 7775 + 8021

Date-Shift	Roll. No	M/C No	M.Dia x Gg	F/Dia	Weight in Kg	Length in Yds kgx43055= F/GSMxF/Dia	Spinning Fault: Pattra	Spinning Fault: Slub	Spinning Fault: Yarn's Contra	Knitting Fault: Hole	Knitting Fault: Loop	Knitting Fault: Set-up	Knitting Fault: Needle Line	Knitting Fault: Sinker Line	Knitting Fault: Lyc. Out	Knitting Fault: Oil/Black Spot	Total Point	Point %	Comments
B 31/10/22	01	17	30X20	74"	11	27			III							4	05	12%	A-Class
B 01/11/22	02	17	"	"															
D 02-11-22	02	17	"	"	14	77			II								7	12%	A Class
	03	17	"	"	28	54			III							II	05	05%	A. Class
B 02/11/22	04	17	"	"	13	25							Poly cut (1P)				05	10%	A Class
	05	17	"	"	17	28											08	12%	A Class
	06	17	"	"	19	37			II								7	5%	A —
A 03-11-22	07	17	"	"	25	48			II							III	9	5%	A Class
	08	17	"	"	28	54			II							II	11	10%	A —
	09	17	"	"	30	58			I							I	7	6%	A —
	10	17	"	"	24	46			III							III	06	6%	A —
B 03/11/22	11	17	"	"	25	48			III							II	05	5%	A —
	12	17	"	"	31	60			III							III	10	8%	A —
	13	17	"	"	31	60			III							II	09	7%	A —
	14	17	"	"	24	47			III							14	10	10%	A —

4-Point System		Calculation of Points per 100 yarcls
Faults - 0-3"	1 Point	Point %= Total Points x 36 x 100/Length-Yds / Finish Dia
Faults - 3.1-9"	2 Point	Point %= 0-20-Fabrics will be Graded "A"
Faults - above-9"	3 Point	Point %= 21-30-Fabrics will be Graded "B"
Hole	4 Point	Point %= 31 & Above - Fabrics will be Reject.

Quality Incharge | Knit MGR | Q.AGM/GM

Fig: 1 Show the Scanned Inspection Report of Mini Loop Fleece Fabric

In this report total 618 Yard length of fabric have been inspected in 5 different shift. Where different fault found during inspection Number of fault found during inspection are given below

Number of Loop found in total roll of fabric are 2.

Number of Set-Up found in total roll of fabric are 10.

Number of Oil/Black Spot found in total roll of fabric are 25.

Number of Yarn contamination found in total roll of fabric are 30.

Inspection Report no:-2

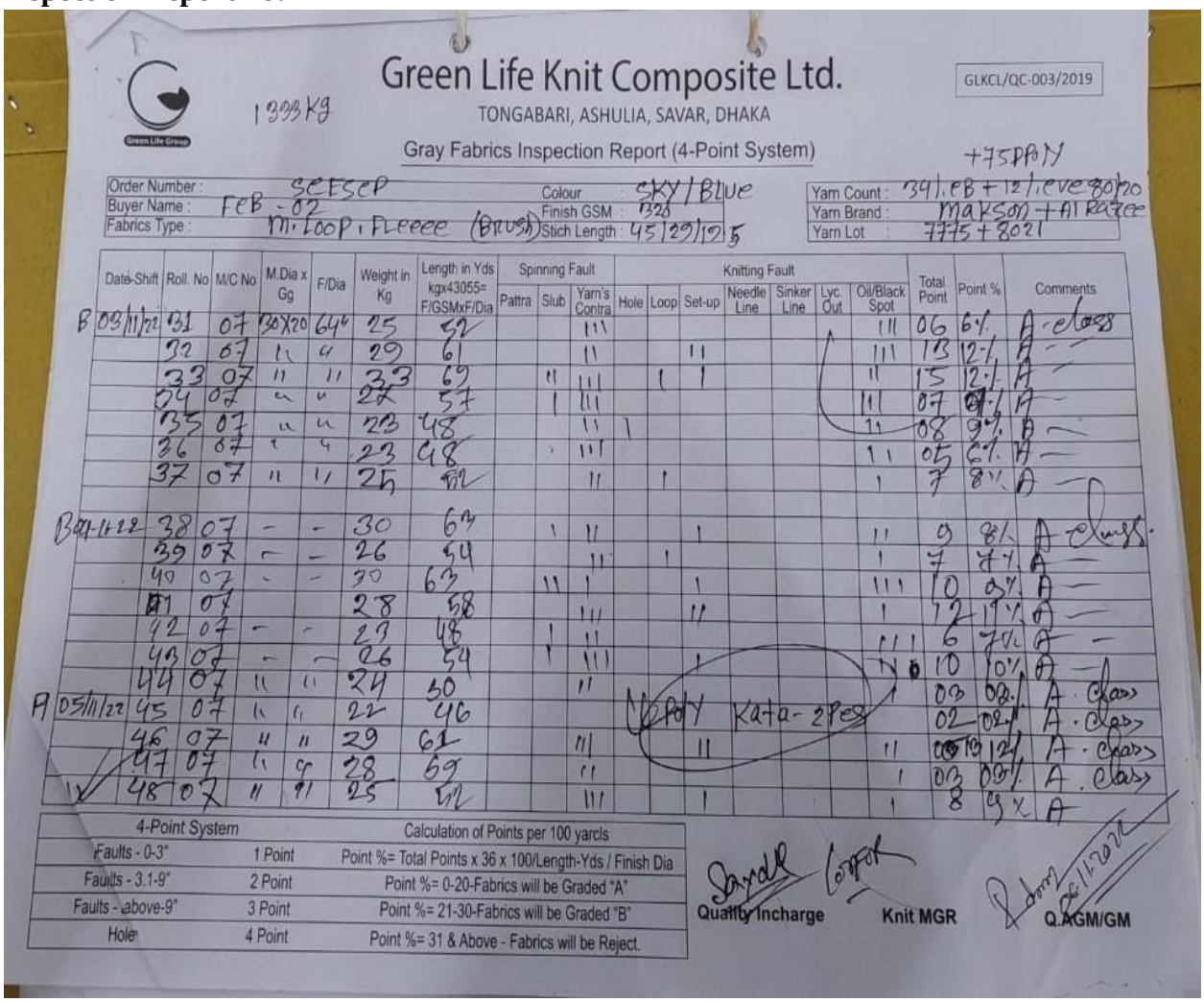


Fig: 2 Show the Scanned Inspection Report of Mini Loop Fleece(Brush) Fabric

In this report total 995 Yard length of fabric have been inspected in 3 different shift. Where different fault found during inspection Number of fault found during inspection are given below

Number of Loop found in total roll of fabric are 3.

Number of Set-Up found in total roll of fabric are 11.

Number of Oil/Black Spot found in total roll of fabric are 25.

Number of Yarn contamination found in total roll of fabric are 33.

Number of Slub found in total roll of fabric are 8.

Number of Hole in total roll of fabric are 1

Inspection Report No:-3

Fig: 3 Show the Scanned Inspection Report of Mini Loop Fleece Fabric

In this report total 613 Yard length of fabric have been inspected in 3 different shift. Where different fault found during inspection Number of fault found during inspection are given below

Number of Loop found in total roll of fabric are 2.

Number of Set-Up found in total roll of fabric are 5.

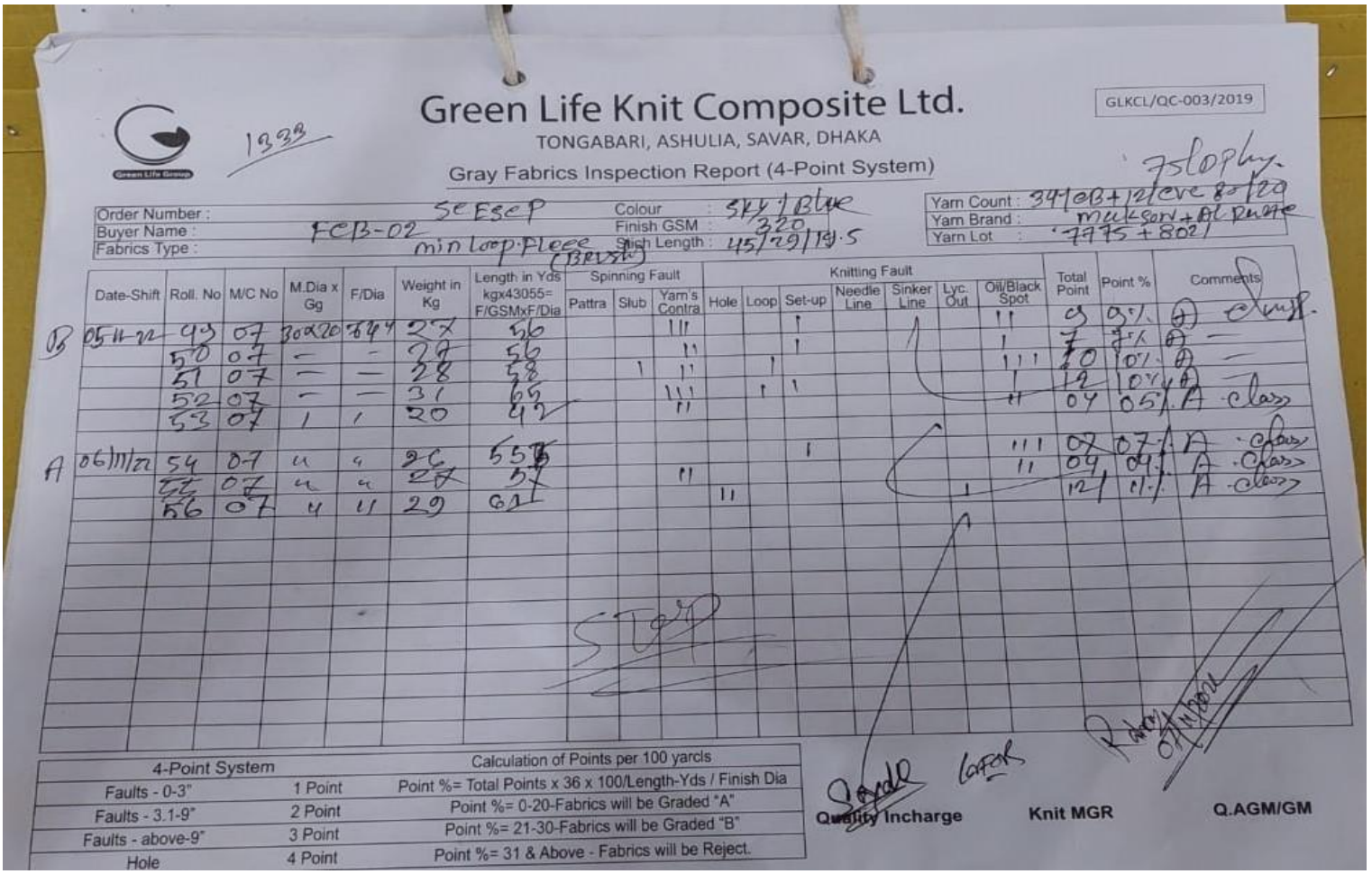
Number of Oil/Black Spot found in total roll of fabric are 23.

Number of Yarn contamination found in total roll of fabric are 26.

Number of Slub found in total roll of fabric are 2.

Number of Hole found in total roll of fabric are 2.

Inspection Report No:-4



Green Life Knit Composite Ltd.

TONGABARI, ASHULIA, SAVAR, DHAKA

GLKCL/QC-003/2019

Gray Fabrics Inspection Report (4-Point System)

Order Number : SE ESEP Colour : SKY / Blue
Buyer Name : FCB-02 Finish GSM : 320
Fabrics Type : min loop Fleece (Brush) Stitch Length : 45/29/19.5
Yarn Count : 34/1 CB + 2/1 CVC 80/20
Yarn Brand : Muksons + Al Rahim
Yarn Lot : 7975 + 8021

Date-Shift	Roll. No	M/C No	M.Dia x Gg	F/Dia	Weight in Kg	Length in Yds kgx43055= F/GSMxF/Dia	Spinning Fault: Pattra	Slub	Yarn's Contra	Knitting Fault: Hole	Loop	Set-up	Needle Line	Sinker Line	Lyc. Out	Oil/Black Spot	Total Point	Point %	Comments
B 05-11-22	49	07	30x20	844	27	56			III			1				II	05	03%	A class
	50	07	—	—	27	56			II			1				I	7	7%	A —
	51	07	—	—	28	58		1	II		1					III	10	10%	A —
	52	07	—	—	31	65			III		1	1				I	12	10%	A —
	53	07	1	1	20	42			II							II	04	05%	A class
A 06/11/22	54	07	4	4	26	55						1				III	03	03%	A class
	55	07	4	4	27	57			II							II	04	04%	A class
	56	07	4	4	29	61				II					1		12	11%	A class

4-Point System		Calculation of Points per 100 yarcls
Faults - 0-3"	1 Point	Point %= Total Points x 36 x 100/Length-Yds / Finish Dia
Faults - 3.1-9"	2 Point	Point %= 0-20-Fabrics will be Graded "A"
Faults - above-9"	3 Point	Point %= 21-30-Fabrics will be Graded "B"
Hole	4 Point	Point %= 31 & Above - Fabrics will be Reject.

Quality Incharge Knit MGR Q.AGM/GM

Fig: 4 Show the Scanned Inspection Report of Mini Loop Fleece(Brush) Fabric

In this report total 450 Yard length of fabric have been inspected in 2 different shift. Where different fault found during inspection Number of fault found during inspection are given below

Number of Loop found in total roll of fabric are 2.

Number of Set-Up found in total roll of fabric are 4.

Number of Oil/Black Spot found in total roll of fabric are 14.

Number of Yarn contamination found in total roll of fabric are 14.

Number of Slub found in total roll of fabric are 1.

Number of Hole found in total roll of fabric are 2.

Number of Lycra-Out found in total roll of fabric are 1.

Inspection Report No:- 5


Green Life Knit Composite Ltd.
TONGABARI, ASHULIA, SAVAR, DHAKA
GLKCL/QC-003/2019
898
Gray Fabrics Inspection Report (4-Point System)

Order Number : CESBP+PESB SESBP
Buyer Name : FCB-02
Fabrics Type : min Loop T-Fleece
Colour : Blue
Finish GSM : 300
Stich Length : 47/29.5/19
Yarn Count : 34/CB+12 Kre 80/20
Yarn Brand : MUKSON+AL Rajee
Yarn Lot : 4775+806

Date-Shift	Roll. No	M/C No	M.Dia x Gg	F/Dia	Weight in Kg	Length in Yds kgx43055= F/GSMxF/Dia	Spinning Fault: Pattra	Spinning Fault: Slub	Spinning Fault: Yarn's Contra	Knitting Fault: Hole	Knitting Fault: Loop	Knitting Fault: Set-up	Knitting Fault: Needle Line	Knitting Fault: Sinker Line	Knitting Fault: Lyc. Out	Knitting Fault: Oil/Black Spot	Total Point	Point %	Comments
B 06-11-22	01	07	30x20	79	23	45			I			I					5	6%	A class
	02	07	–	–	27	52			II		I					I	7	7%	A
	03	07	–	–	28	59		II	I			I				II	9	8%	A
	04	07	–	–	22	52			I		I					I	6	5%	A
	05	07	–	–	16	31			II								02	08%	A class
A 07/11/22	06	07	"	"	15	29						I				I	05	08%	A class
	07	07	"	"	24	47			I							II	03	08%	A class
	08	07	"	"	16	31			II								02	08%	A class
	9	07	–	–	13	29						I				I	5	8%	A
B 07-11-22	10	07	–	–	16														

D-STOP

4-Point System		Calculation of Points per 100 yards
Faults - 0-3"	1 Point	Point %= Total Points x 36 x 100/Length-Yds / Finish Dia
Faults - 3.1-9"	2 Point	Point %= 0-20-Fabrics will be Graded "A"
Faults - above-9"	3 Point	Point %= 21-30-Fabrics will be Graded "B"
Hole	4 Point	Point %= 31 & Above - Fabrics will be Reject.

Quality Incharge
Knit MGR
Q.AGM/GM

Fig: 5 Show the Scanned Inspection Report of Mini Loop Fleece(Brush) Fabric

In this report total 370 Yard length of fabric have been inspected in 2 different shift. Where different fault found during inspection Number of fault found during inspection are given below

Number of Loop found in total roll of fabric are 2.

Number of Set-Up found in total roll of fabric are 4.

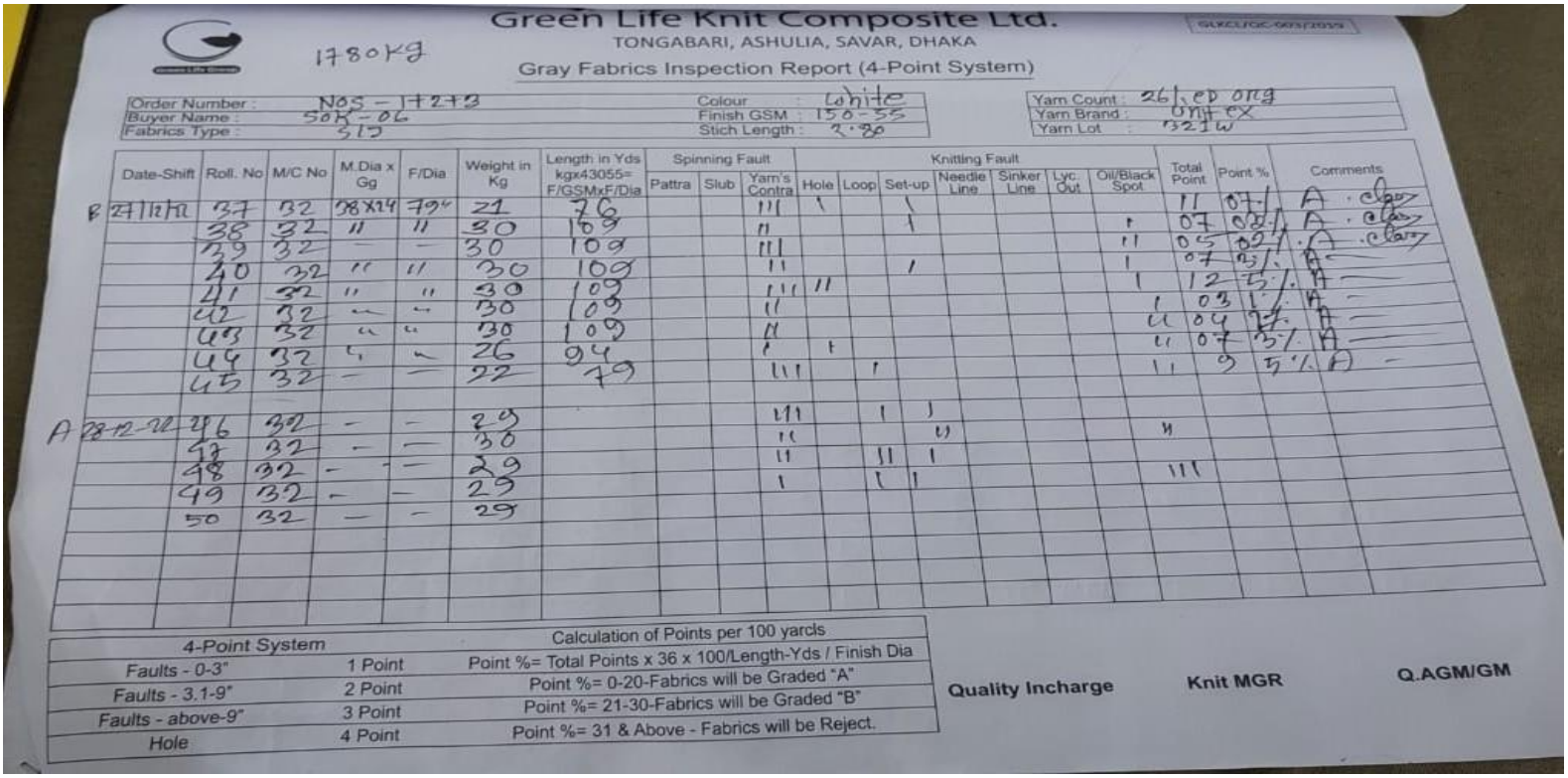
Number of Oil/Black Spot found in total roll of fabric are 8.

Number of Yarn contamination found in total roll of fabric are 10.

Number of Slub found in total roll of fabric are 2.

3.2 Inspection Report of S/J Fabric

Inspection Report No:-1



Green Life Knit Composite Ltd.

TONGABARI, ASHULIA, SAVAR, DHAKA

Gray Fabrics Inspection Report (4-Point System)

1780kg

Order Number : NOS - 17273
Buyer Name : SOK - 06
Fabrics Type : S/J

Colour : White
Finish GSM : 150-55
Stich Length : 2.80

Yarn Count : 26/1 CD OTG
Yarn Brand : UNIT EX
Yarn Lot : 321W

Date-Shift	Roll. No	M/C No	M.Dia x Gg	F/Dia	Weight in Kg	Length in Yds kgx43055= F/GSMxF/Dia	Spinning Fault: Pattra	Slub	Yarn's Contra	Knitting Fault: Hole	Loop	Set-up	Needle Line	Sinker Line	Lyc. Out	Oil/Black Spot	Total Point	Point %	Comments
B 27/12/22	37	32	28X24	79"	21	76			III	1		1					11	07.1	A
	38	32	11	11	30	109			II			1				1	07	02.1	A
	39	32	—	—	30	109			III							11	05	02.1	A
	40	32	11	11	30	109			II			1				1	07	03.1	A
	41	32	11	11	30	109			III	II						1	12	05.1	A
	42	32	11	11	30	109			II							1	03	1.1	A
	43	32	11	11	30	109			II							11	04	02.1	A
	44	32	11	11	26	94			I	I						11	07	03.1	A
	45	32	—	—	22	79			III		I					11	9	04.1	A
A 28-12-22	46	32	—	—	29				III		I	I							
	47	32	—	—	30				II			II				II			
	48	32	—	—	29				II		II	I							
	49	32	—	—	29				I		I	I				III			
	50	32	—	—	29														

4-Point System		Calculation of Points per 100 yarcls
Faults - 0-3"	1 Point	Point %= Total Points x 36 x 100/Length-Yds / Finish Dia
Faults - 3.1-9"	2 Point	Point %= 0-20-Fabrics will be Graded "A"
Faults - above-9"	3 Point	Point %= 21-30-Fabrics will be Graded "B"
Hole	4 Point	Point %= 31 & Above - Fabrics will be Reject.

Quality Incharge Knit MGR Q.AGM/GM

Fig: 1 Show the Scanned Inspection Report of S/J Fabric

In this report total 903 Yard length of fabric have been inspected in 2 different shift. Where different fault found during inspection Number of fault found during inspection are given below

Number of Loop found in total roll of fabric are 5.

Number of Set-Up found in total roll of fabric are 8.

Number of Oil/Black Spot found in total roll of fabric are 17.

Number of Yarn Contamination found in total roll of fabric are 29.

Number of Hole found in total roll of fabric are 4.

Inspection Report No:- 2

Green Life Knit Composite Ltd.

TONGABARI, ASHULIA, SAVAR, DHAKA

Gray Fabrics Inspection Report (4-Point System)

4762 Kg

Order Number : Fmlayson - 304+316+17+18+21+22 Colour : White (AOP)
Buyer Name : SOK-06 Finish GSM : 230-35
Fabrics Type : L-S/J (AOP) Stich Length : 3.20

Yarn Count : 28/1 CD org + 30 DLY
Yarn Brand : Unitex
Yarn Lot : 30

Date-Shift	Roll. No	M/C No	M.Dia x Gg	F/Dia	Weight in Kg	Length in Yds kgx43055= F/GSMxF/Dia	Spinning Fault: Pattra	Slub	Yarn's Contra	Knitting Fault: Hole	Loop	Set-up	Needle Line	Sinker Line	Lyc. Out	Oil/Black Spot	Total Point	Point %	Comments
B 27/12/21	50	20	36x24	73"	24	62			IIII	II		I	Lycra Problem (1m)				20	16%	A · Class
	51	20	"	"	29	74			II			II					15	10%	A · Class
	52	20	"	"	22	56			IIII			I				II	10	06%	A · Class
	53	20	"	"	28	72			I	Cyl. out 01m					I	II	11	2%	A —
	54	20	"	"	26	67			II							II	04	3%	A —
	55	20	"	"	29	74		I	III							4	06	4%	A —
	56	20	—	—	21	54			II	I						III	9	8%	A —
A 28-12-21	57	20	—	—	16														
	58	20	—	—	23														
	59	20	—	—	28														
	60	20	—	—	24														

4-Point System		Calculation of Points per 100 yards
Faults - 0-3"	1 Point	Point %= Total Points x 36 x 100/Length-Yds / Finish Dia
Faults - 3.1-9"	2 Point	Point %= 0-20-Fabrics will be Graded "A"
Faults - above-9"	3 Point	Point %= 21-30-Fabrics will be Graded "B"
Hole	4 Point	Point %= 31 & Above - Fabrics will be Reject.

Quality Incharge Knit MGR Q.AGM/GM

Fig: 2 Show the Scanned Inspection Report of S/J Fabric

In this report total 459 Yard length of fabric have been inspected in 1 shift. Where different fault found during inspection Number of fault found during inspection are given below

Number of Loop found in total roll of fabric are 5.

Number of Set-Up found in total roll of fabric are 4.

Number of Oil/Black Spot found in total roll of fabric are 11.

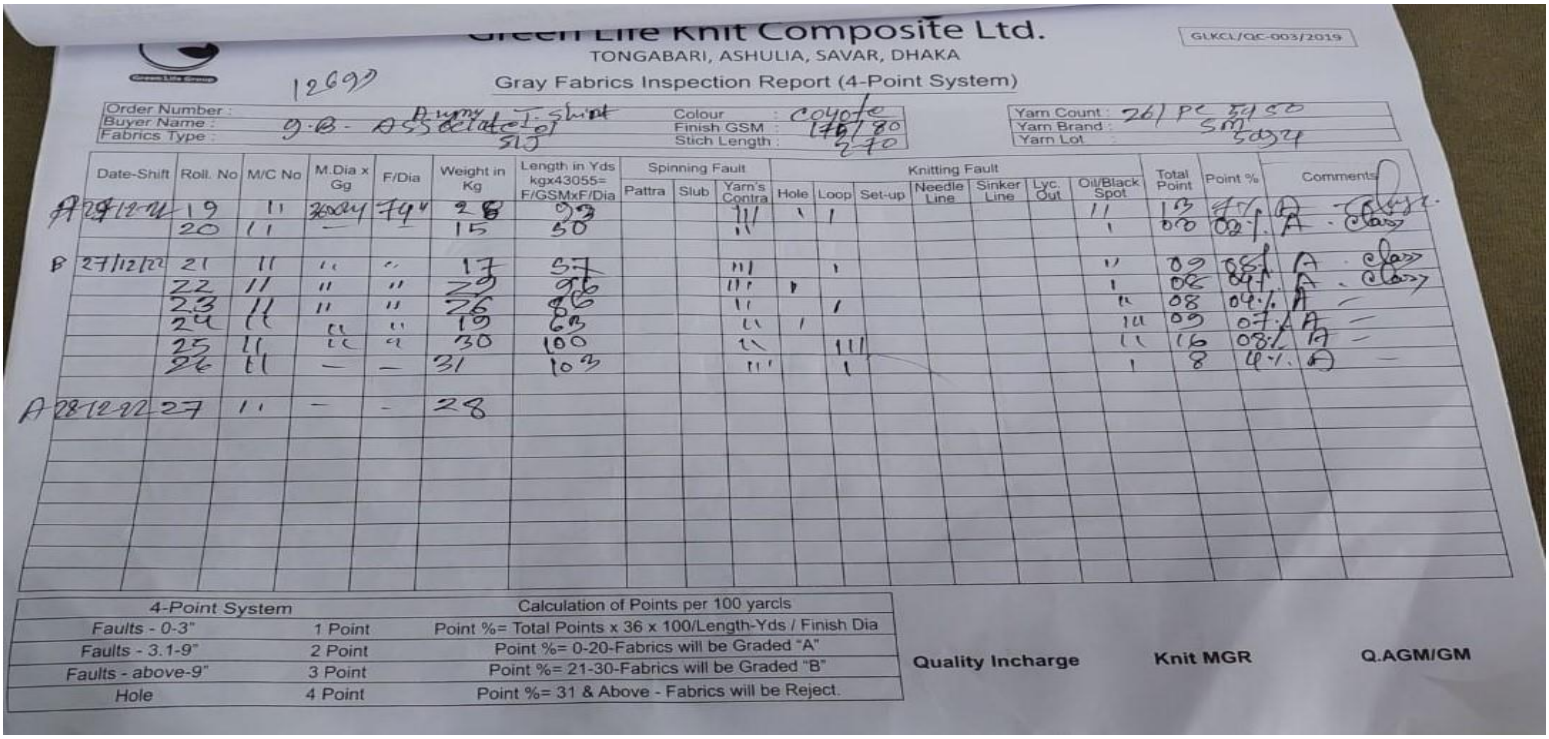
Number of Yarn Contamination found in total roll of fabric are 19.

Number of Hole found in total roll of fabric are 3.

Number of Slub found in total roll of fabric are 1.

Number of Lycra-Out found in total roll of fabric are 1.

Inspection Report No:- 3



Green Life Knit Composite Ltd.
TONGABARI, ASHULIA, SAVAR, DHAKA
GLKCL/QC-003/2019
Gray Fabrics Inspection Report (4-Point System)

12697

Order Number :
Buyer Name : D-B- Associated of
Fabrics Type : Jersey T-shirt
Colour : coyote
Finish GSM : 145/180
Stich Length : 2.40
Yarn Count : 26/1 PC 50/50
Yarn Brand : SM
Yarn Lot : 5024

Date-Shift	Roll. No	M/C No	M.Dia x Gg	F/Dia	Weight in Kg	Length in Yds kgx43055= F/GSMxF/Dia	Spinning Fault: Pattra	Slub	Yarn's Contra	Knitting Fault: Hole	Loop	Set-up	Needle Line	Sinker Line	Lyc. Out	Oil/Black Spot	Total Point	Point %	Comments
A 27/12/22	19	11	30x24	74"	28	93			III	1	1					II	13	07.1	A
	20	11	—		15	50			II							1	00	00	A
B 27/12/22	21	11	"	"	17	57			III		1					II	09	08.1	A
	22	11	"	"	29	96			III	1						1	06	04.1	A
	23	11	"	"	26	86			II		1					II	08	09.1	A
	24	11	"	"	19	63			II	1						III	09	07.1	A
	25	11	"	"	30	100			II		III					II	16	08.1	B
	26	11	—	—	31	103			III		1					1	8	4.1	A
A 28-12-22	27	11	—	—	28														

4-Point System		Calculation of Points per 100 yarcls
Faults - 0-3"	1 Point	Point %= Total Points x 36 x 100/Length-Yds / Finish Dia
Faults - 3.1-9"	2 Point	Point %= 0-20-Fabrics will be Graded "A"
Faults - above-9"	3 Point	Point %= 21-30-Fabrics will be Graded "B"
Hole	4 Point	Point %= 31 & Above - Fabrics will be Reject.

Quality Incharge Knit MGR Q.AGM/GM

Fig: 3 Show the Scanned Inspection Report of S/J Fabric

In this report total 648Yard length of fabric have been inspected in 2 different shift. Where different fault found during inspection Number of fault found during inspection are given below

Number of Loop found in total roll of fabric are 7.

Number of Oil/Black Spot found in total roll of fabric are 13.

Number of Yarn Contamination found in total roll of fabric are 20.

Number of Hole found in total roll of fabric are 3.

Inspection Report No:-4

Green Life Knit Composite Ltd.

TONGABARI, ASHULIA, SAVAR, DHAKA

GLKCL/QC-003/2019

Gray Fabrics Inspection Report (4-Point System)

Order Number : CESHPACESBP Colour : Garnet+Blue
Buyer Name : FCB-02 Finish GSM : 200
Fabrics Type : S/J (Peach) Stich Length : 2.55

Yarn Count : 20/CB
Yarn Brand : Metsom
Yarn Lot : 1188

Date-Shift	Roll. No	M/C No	M.Dia x Gg	F/Dia	Weight in Kg	Length in Yds kgx43055= F/GSMxF/Dia	Spinning Fault: Pattra	Spinning Fault: Slub	Spinning Fault: Yarn's Contra	Knitting Fault: Hole	Knitting Fault: Loop	Knitting Fault: Set-up	Knitting Fault: Needle Line	Knitting Fault: Sinker Line	Knitting Fault: Lyc. Out	Knitting Fault: Oil/Black Spot	Total Point	Point %	Comments
A 1.11.22	01	05	30x24	72"	25	95			III							II	05	03%	A - class
	02	05	11	11	20	60			II	I						III	09	06%	A - class
B 01.11.22	03	05	4	4	28	84			II							I	03	02%	A - class
	04	05	4	4	32	96				I	III	I				20	10%	A - class
	05	05	11	11	32	96			II							II	04	2%	A -
	06	05	4	4	25	75			III							III	06	4%	A -
	07	05	4	4	35	105			II	II						II	12	8%	A -
A 02.11.22	08	05	-	-	34	101	I		II	I		I				III	14	6%	A - class
	09	05	I	I	35	104			II	II	I					I	16	8%	A -
	10	05	-	-	26	77				II						II	10	6%	A -
	11	05	-	-	33	98			III	I	I	I				II	13	4%	A -
	12	05	-	-	33	98			I	I						I	4	4%	A -
	13	05	-	-	27	81			III	I						III	09	06%	A - class
B 02.11.22	14	05	11	4	24	72	I		II							II	05	04%	A - class
	15	05	4	4	32	96			II	II	I					I	15	08%	A - class
	16	05	4	4	30	90			III							III	09	08%	A - class
	17	05	4	4	32	96			II	I						II	04	04%	A - class

4-Point System		Calculation of Points per 100 yards
Faults - 0-3"	1 Point	Point %= Total Points x 36 x 100/Length-Yds / Finish Dia
Faults - 3.1-9"	2 Point	Point %= 0-20-Fabrics will be Graded "A"
Faults - above-9"	3 Point	Point %= 21-30-Fabrics will be Graded "B"
Hole	4 Point	Point %= 31 & Above - Fabrics will be Reject.

Quality Incharge Knit MGR Q.AGM/GM

Fig: 4 Show the Scanned Inspection Report of S/J Fabric

In this report total 1406 Yard length of fabric have been inspected in 4 different shift. Where different fault found during inspection Number of fault found during inspection are given below

Number of Oil/Black Spot found in total roll of fabric are 32. Number of Yarn Contamination found in total roll of fabric are 33

Number of Hole found in total roll of fabric are 15.

Number of Slub found in total roll of fabric are 3.

Number of Loop found in total roll of fabric are 6.

Number of Set-Up found in total roll of fabric are 3.

Inspection Report No:- 5

Fig: 5 Show the Scanned Inspection Report of S/J Fabric

Green Life Knit Composite Ltd.

GLKCL/QC-003/2019

TONGABARI, ASHULIA, SAVAR, DHAKA

Gray Fabrics Inspection Report (4-Point System)

Order Number : 2443 K2 | Colour : Sky Blue | Yarn Count : 20/1 CB

Buyer Name : FCB-2 CESOP | Finish GSM : 200 | Yarn Brand : mukson

Fabrics Type : SJ | Stich Length : 2.93 | Yarn Lot : 1188

Date-Shift	Roll. No	M/C No	M.Dia x Gg	F/Dia	Weight in Kg	Length in Yds kgx43055= F/GSMxF/Dia	Spinning Fault: Pattra	Slub	Yarn's Contra	Knitting Fault: Hole	Loop	Set-up	Needle Line	Sinker Line	Lyc. Out	Oil/Black Spot	Total Point	Point %	Comments
D 31-10-22	01	05	30x24	72"	10	30			11			1				1	7	7%	A - Class
	02	04	-	-	20	54			111	1		1				1	12	10%	A
	03	05	-	-	18	54		1	1	1						11	8	7%	A
	04	05	-	-	25	75			11	11							10	6%	A
	05	05	-	-	15	44			11			1				11	8	8%	A
	06	06	"	"	32	96			111							1	04	02%	A - Class
B 31/10/22	07	05	"	"	24	72			11	1						111	09	06%	A - Class
	08	05	"	"	30	90			111							11	05	03%	A - Class
	09	05	"	"	32	96		1	11							111	06	03%	A - Class
	10	05	"	"	32	96			111		1	1				1	10	07%	A - Class
	11	05	"	"	23	69			11	11						111	14	10%	A
	12	05	"	"	33	99			111	1						11	09	6%	A
	13	05	"	"	32	96		11	11	11						1	13	7%	A
D 01-11-22	14	05	-	-	29	86		11	111	1	1					11	15	8%	A
	15	05	—	-	35	104			11	11		1				111	17	8%	A
	16	05	—	-	33	99			111	1	1					1	16	8%	A
	17	05	—	—	19	50										1	10	10%	A

4-Point System		Calculation of Points per 100 yards
Faults - 0-3"	1 Point	Point %= Total Points x 36 x 100/Length-Yds / Finish Dia
Faults - 3.1-9"	2 Point	Point %= 0-20-Fabrics will be Graded "A"
Faults - above-9"	3 Point	Point %= 21-30-Fabrics will be Graded "B"
Hole	4 Point	Point %= 31 & Above - Fabrics will be Reject.

Quality Incharge | Knit MGR | Q.AGM/GM

In this report total 1504 Yard length of fabric have been inspected in 4 different shift. Where different fault found during inspection Number of fault found during inspection are given below

Number of Oil/Black Spot found in total roll of fabric are 31.

Number of Yarn Contamination found in total roll of fabric are 39.

Number of Hole found in total roll of fabric are 15.

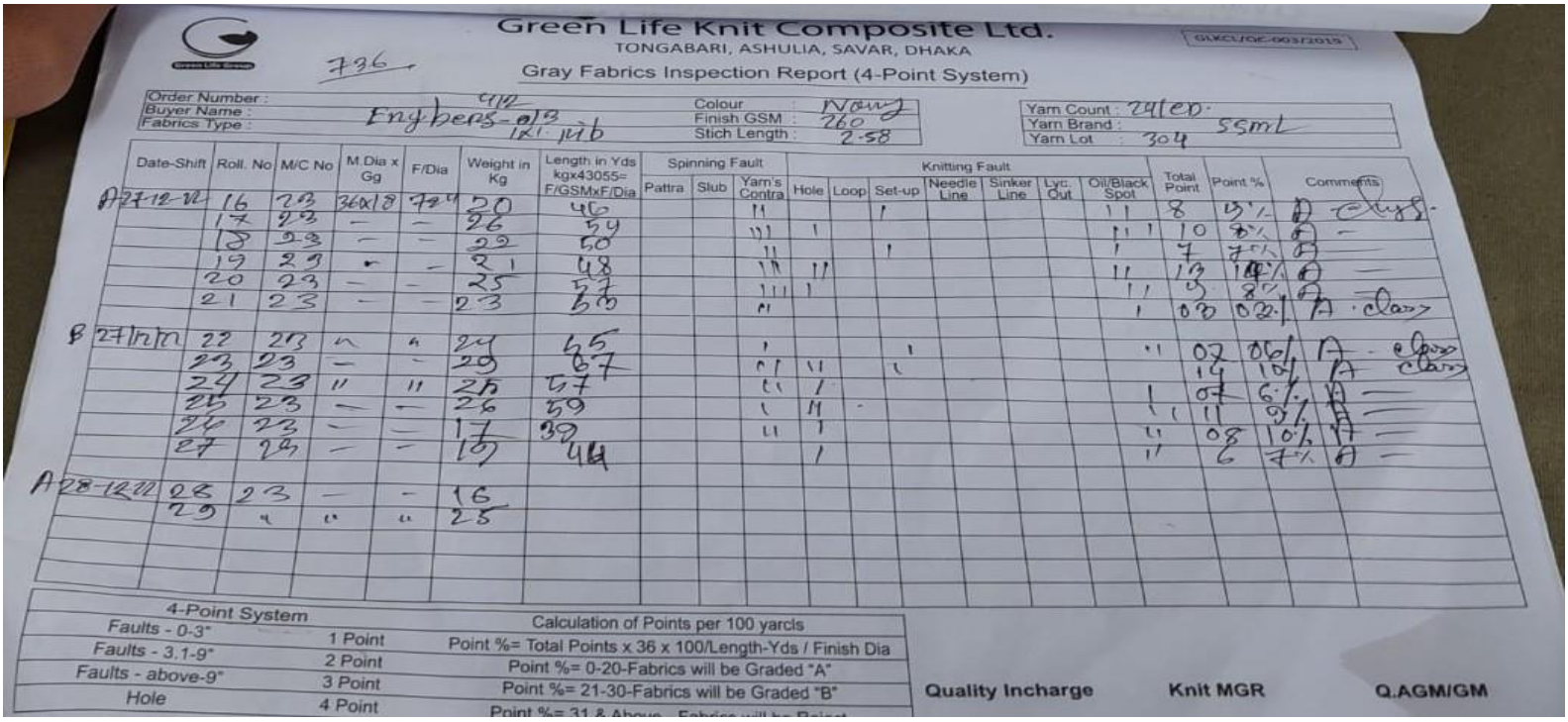
Number of Slub found in total roll of fabric are 6.

Number of Loop found in total roll of fabric are 4.

Number of Set-Up found in total roll of fabric are 5.

3.3 Inspection Report of Rib Fabric

Inspection Report No:-1



Green Life Knit Composite Ltd.
TONGABARI, ASHULIA, SAVAR, DHAKA
Gray Fabrics Inspection Report (4-Point System)

Order Number : 736
Buyer Name : Engbers-o/g
Fabrics Type : 1x1 rib
Colour : Navy
Finish GSM : 260
Stich Length : 2.58
Yarn Count : 24/1 CD
Yarn Brand : SSML
Yarn Lot : 304

Date-Shift	Roll. No	M/C No	M.Dia x Gg	F/Dia	Weight in Kg	Length in Yds kgx43055= F/GSMxF/Dia	Spinning Fault: Pattra	Slub	Yarn's Contra	Knitting Fault: Hole	Loop	Set-up	Needle Line	Sinker Line	Lyc. Out	Oil/Black Spot	Total Point	Point %	Comments
A 27-12-22	16	23	36x18	72"	20	46			11			1				11	8	5%	A class
	17	23	—	—	26	54			111	1						11 1	10	5%	A
	18	23	—	—	22	50			11			1				1	7	7%	A
	19	23	—	—	21	48			111	11						11	13	14%	A
	20	23	—	—	25	57			111	1						11	5	8%	A
	21	23	—	—	23	50			11							1	00	00%	A class
B 27-12-22	22	23	11	4	24	45 67			1			1				11	07	06%	A class
	23	23	—	—	29				111	11		1					14	10%	A class
	24	23	11	11	25	57			11	1						1 1	07	6%	A
	25	23	—	—	26	59			1	11							11	9%	A
	26	23	—	—	17	39 44			11	1						11	08	10%	A
	27	24	—	—	10					1						11	6	7%	A
A 28-12-22	28	23	—	—	16														
	29	4	11	11	25														

4-Point System		Calculation of Points per 100 yarcls
Faults - 0-3"	1 Point	Point %= Total Points x 36 x 100/Length-Yds / Finish Dia
Faults - 3.1-9"	2 Point	Point %= 0-20-Fabrics will be Graded "A"
Faults - above-9"	3 Point	Point %= 21-30-Fabrics will be Graded "B"
Hole	4 Point	Point %= 31 & Above - Fabrics will be Reject

Quality Incharge | Knit MGR | Q.AGM/GM

Fig: 1 Show the Scanned Inspection Report of RIB Fabric

In this report total 584 Yard length of fabric have been inspected in 2 different shift. Where different fault found during inspection Number of fault found during inspection are given below

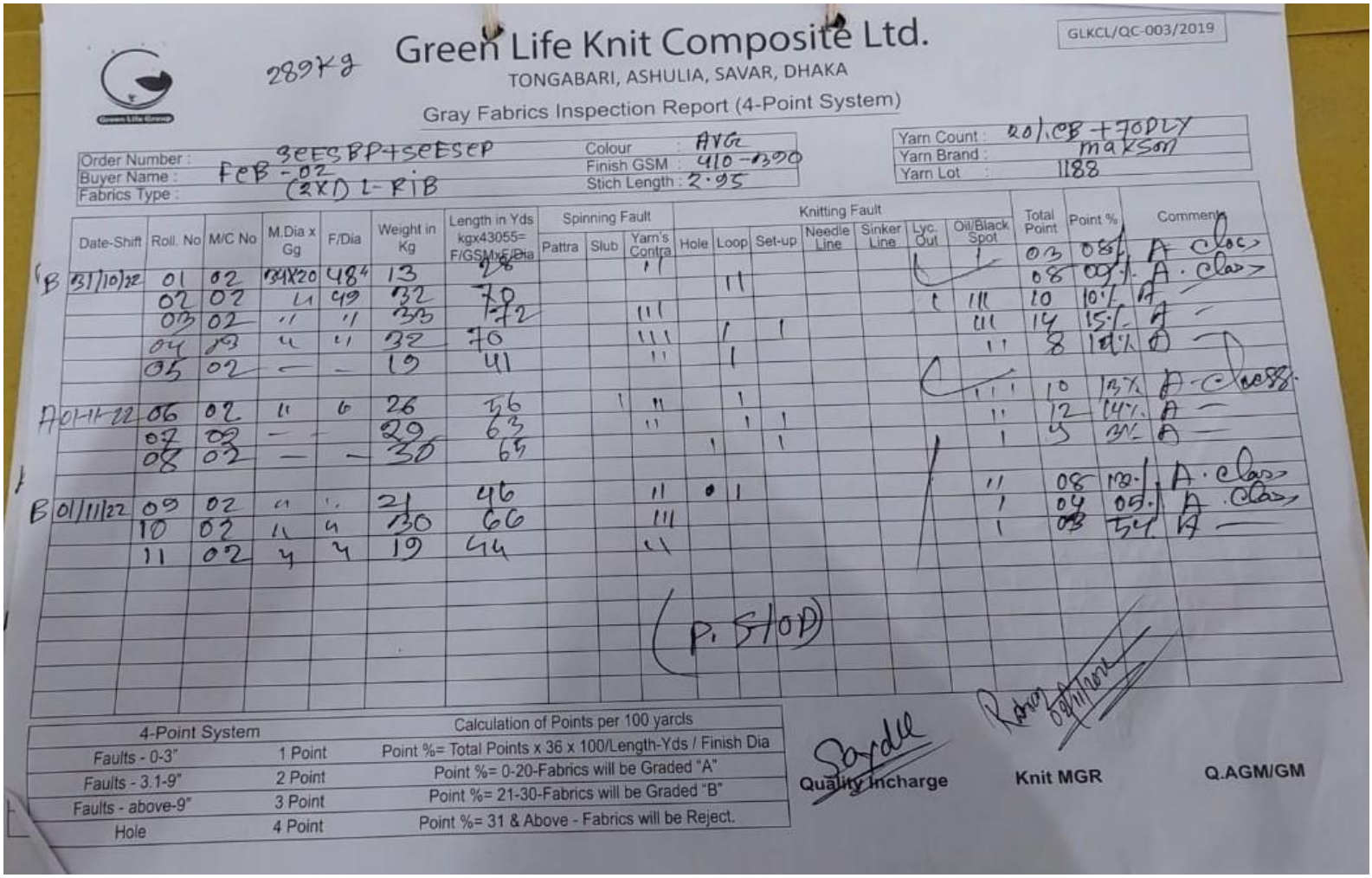
Number of Oil/Black Spot found in total roll of fabric are 20.

Number of Yarn Contamination found in total roll of fabric are 23.

Number of Hole found in total roll of fabric are 11.

Number of Set-Up found in total roll of fabric are 4.

Inspection Report No:-2



Green Life Knit Composite Ltd.
TONGABARI, ASHULIA, SAVAR, DHAKA
GLKCL/QC-003/2019
289Kg
Gray Fabrics Inspection Report (4-Point System)

Order Number : 3CESBP+3CESCP
Buyer Name : FEB-02
Fabrics Type : (2X1) L-RIB
Colour : AVG
Finish GSM : 410-300
Stich Length : 2.95
Yarn Count : 20/1 CB + 70DLY
Yarn Brand : maksom
Yarn Lot : 1188

Date-Shift	Roll. No	M/C No	M.Dia x Gg	F/Dia	Weight in Kg	Length in Yds kgx43055= F/GSMxF/Dia	Spinning Fault: Pattra	Spinning Fault: Slub	Spinning Fault: Yarn's Contra	Knitting Fault: Hole	Knitting Fault: Loop	Knitting Fault: Set-up	Knitting Fault: Needle Line	Knitting Fault: Sinker Line	Lyc. Out	Oil/Black Spot	Total Point	Point %	Comment
B 31/10/22	01	02	34X20	484	13	28			1							1	03	08%	A cloc
	02	02	11	49	32	70			11		11						08	09%	A. clas
	03	02	11	11	33	72			111		1	1			1	111	10	10%	A
	04	03	4	11	32	70			111		1	1				111	14	15%	A
	05	02	—	—	19	41			11		1					11	8	12%	A
A 01-11-22	06	02	11	6	26	56		1	11		1					111	10	13%	A clas
	07	03	—	—	29	63			11		1	1				11	12	14%	A
	08	02	—	—	30	65				1		1				1	4	3%	A
B 01/11/22	09	02	11	4	21	46			11		1					11	08	18%	A. clas
	10	02	11	4	30	66			111							1	04	05%	A clas
	11	02	4	4	19	44			11							1	03	5%	A

(P. Stop)

4-Point System		Calculation of Points per 100 yards
Faults - 0-3"	1 Point	Point %= Total Points x 36 x 100/Length-Yds / Finish Dia
Faults - 3.1-9"	2 Point	Point %= 0-20-Fabrics will be Graded "A"
Faults - above-9"	3 Point	Point %= 21-30-Fabrics will be Graded "B"
Hole	4 Point	Point %= 31 & Above - Fabrics will be Reject.

Quality Incharge Knit MGR Q.AGM/GM

Fig: 2 Show the Scanned Inspection Report of RIB Fabric

In this report total 621 Yard length of fabric have been inspected in 3 different shift. Where different fault found during inspection Number of fault found during inspection are given below

Number of Oil/Black Spot found in total roll of fabric are 19.

Number of Yarn Contamination found in total roll of fabric are 21.

Number of Hole found in total roll of fabric are 1.

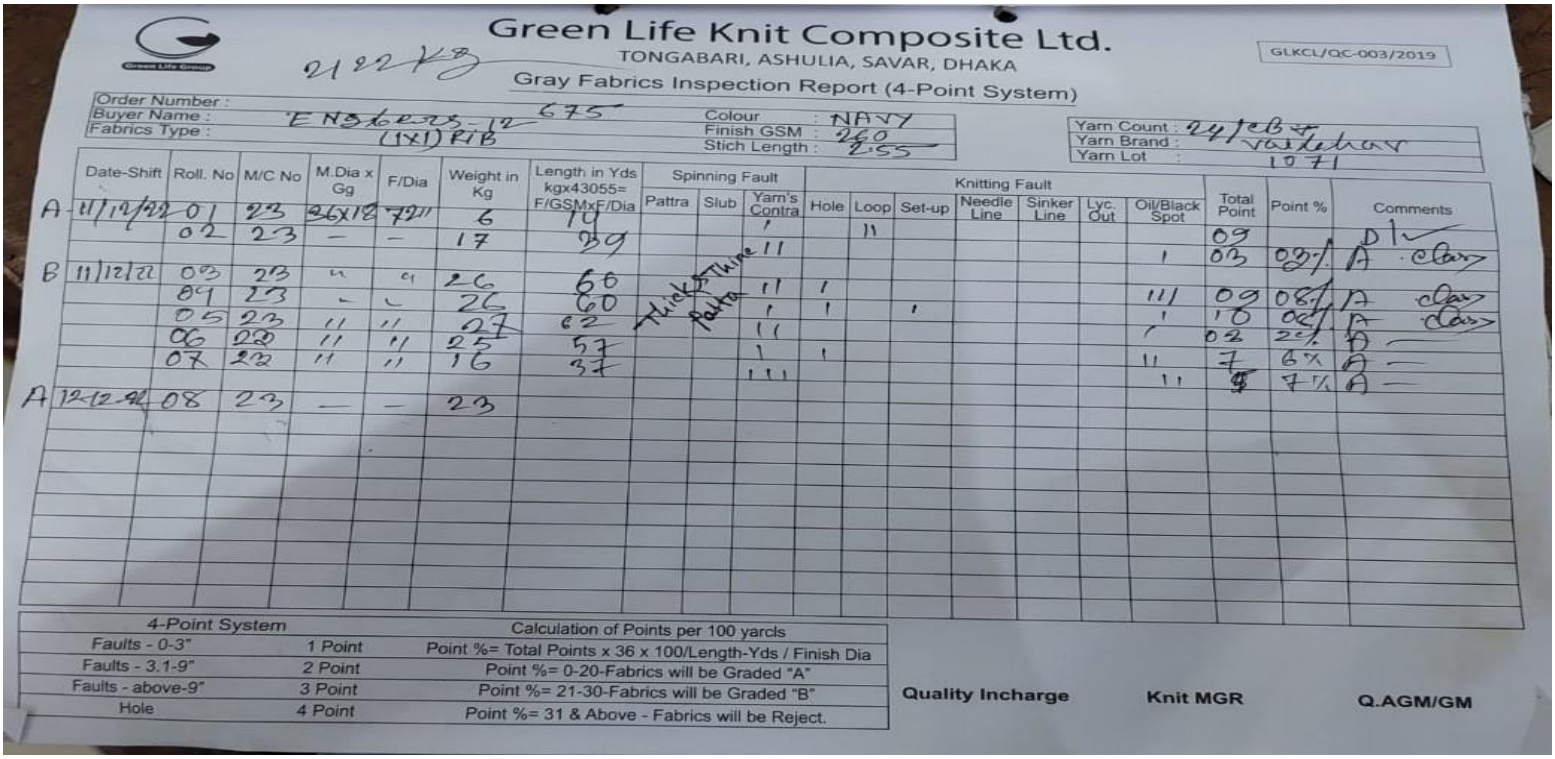
Number of Set-Up found in total roll of fabric are 3.

Number of Slub found in total roll of fabric are 1.

Number of Loop found in total roll of fabric are 7.

Number of Lycra-Out found in total roll of fabric is 1

Inspection Report No:-3



Green Life Knit Composite Ltd.
TONGABARI, ASHULIA, SAVAR, DHAKA
GLKCL/QC-003/2019
Gray Fabrics Inspection Report (4-Point System)

Order Number :
Buyer Name : ENGLERS-12
Fabrics Type : (1X1) RIB
Colour : NAVY
Finish GSM : 260
Stich Length : 2.55
Yarn Count : 24/1 CB
Yarn Brand : Vaishnav
Yarn Lot : 1071

	Date-Shift	Roll. No	M/C No	M.Dia x Gg	F/Dia	Weight in Kg	Length in Yds kgx43055= F/GSMxF/Dia	Spinning Fault: Pattra	Slub	Yarn's Contra	Knitting Fault: Hole	Loop	Set-up	Needle Line	Sinker Line	Lyc. Out	Oil/Black Spot	Total Point	Point %	Comments
A	11/12/22	01	23	26x12	72"	6	19			1										
		02	23	—	—	17	39			11		11					1	03	02%	A
B	11/12/22	03	23	"	"	26	60	Thick & Thin Patta		11	1						111	09	08%	A
		04	23	"	"	26	60			1	1		1				1	10	09%	A
		05	23	"	"	27	62			11							1	02	2%	A
		06	22	"	"	25	57			1	1						11	7	6%	A
		07	22	"	"	16	37			111							11	5	7%	A
A	12-12-22	08	23	—	—	23														

4-Point System		Calculation of Points per 100 yards
Faults - 0-3"	1 Point	Point %= Total Points x 36 x 100/Length-Yds / Finish Dia
Faults - 3.1-9"	2 Point	Point %= 0-20-Fabrics will be Graded "A"
Faults - above-9"	3 Point	Point %= 21-30-Fabrics will be Graded "B"
Hole	4 Point	Point %= 31 & Above - Fabrics will be Reject.

Quality Incharge Knit MGR Q.AGM/GM

Fig: 3 Show the Scanned Inspection Report of RIB Fabric

In this report total 329 Yard length of fabric have been inspected in 2 different shift. Where different fault found during inspection Number of fault found during inspection are given below

Number of Oil/Black Spot found in total roll of fabric are 10.

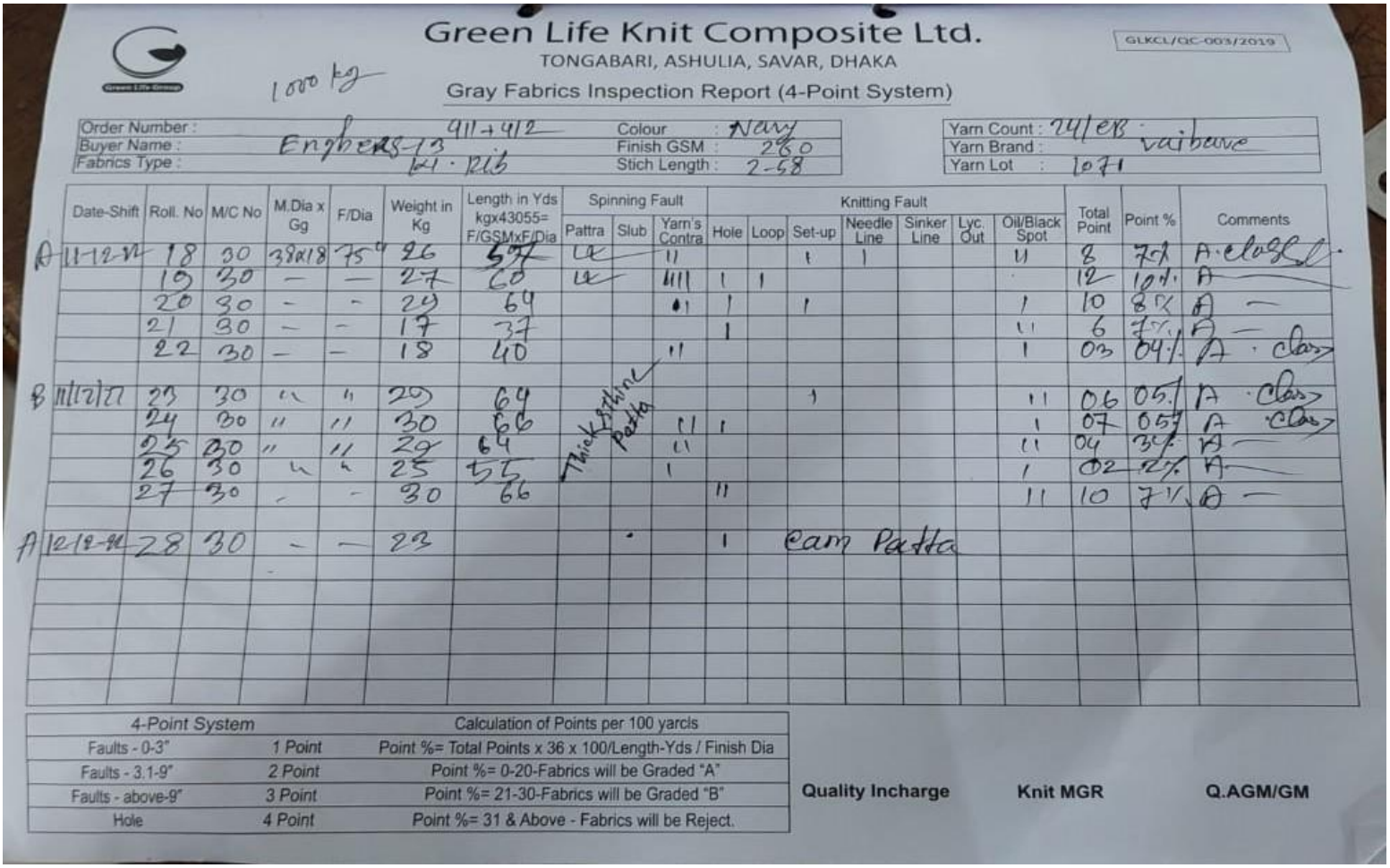
Number of Yarn Contamination found in total roll of fabric are 12.

Number of Hole found in total roll of fabric are 3.

Number of Set-Up found in total roll of fabric are 1.

Number of Loop found in total roll of fabric are 2.

Inspection Report No:-4



Green Life Knit Composite Ltd.
TONGABARI, ASHULIA, SAVAR, DHAKA
GLKCL/QC-003/2019
Gray Fabrics Inspection Report (4-Point System)

1000 kg

Order Number : 911+912 | Colour : Navy | Yarn Count : 24/1 CB
Buyer Name : Engbers-13 | Finish GSM : 280 | Yarn Brand : vaibave
Fabrics Type : 1x1 Rib | Stich Length : 2.58 | Yarn Lot : 1071

Date-Shift	Roll. No	M/C No	M.Dia x Gg	F/Dia	Weight in Kg	Length in Yds kgx43055= F/GSMxF/Dia	Spinning Fault: Pattra	Spinning Fault: Slub	Spinning Fault: Yarn's Contra	Knitting Fault: Hole	Knitting Fault: Loop	Knitting Fault: Set-up	Knitting Fault: Needle Line	Knitting Fault: Sinker Line	Knitting Fault: Lyc. Out	Knitting Fault: Oil/Black Spot	Total Point	Point %	Comments
A 11-12-21	18	30	38x18	75"	26	57	Lt		11			1	1			11	8	7%	A. close
	19	30	—	—	27	60	Lt		111	1	1						12	10%	A
	20	30	-	-	29	64			01	1		1				1	10	8%	A —
	21	30	—	—	17	37				1						11	6	5%	A —
	22	30	—	—	18	40			11							1	03	04%	A · clos
B 11/12/21	23	30	11	11	29	64						1				11	06	05%	A · clos
	24	30	11	11	30	66	Thick & thin Patta		11	1						1	07	05%	A · clos
	25	30	11	11	29	64			11							11	04	3%	A —
	26	30	11	11	25	55			1							1	02	2%	A —
	27	30	-	-	30	66				11						11	10	7%	B —
A 12-12-21	28	30	—	—	23					1		Cam Patta							

4-Point System		Calculation of Points per 100 yarcls
Faults - 0-3"	1 Point	Point %= Total Points x 36 x 100/Length-Yds / Finish Dia
Faults - 3.1-9"	2 Point	Point %= 0-20-Fabrics will be Graded "A"
Faults - above-9"	3 Point	Point %= 21-30-Fabrics will be Graded "B"
Hole	4 Point	Point %= 31 & Above - Fabrics will be Reject.

Quality Incharge | Knit MGR | Q.AGM/GM

Fig: 4 Show the Scanned Inspection Report of RIB Fabric

In this report total 537 Yard length of fabric have been inspected in 2 different shift. Where different fault found during inspection Number of fault found during inspection are given below

Number of Oil/Black Spot found in total roll of fabric are 14.

Number of Yarn Contamination found in total roll of fabric are 14.

Number of Hole found in total roll of fabric are 7.

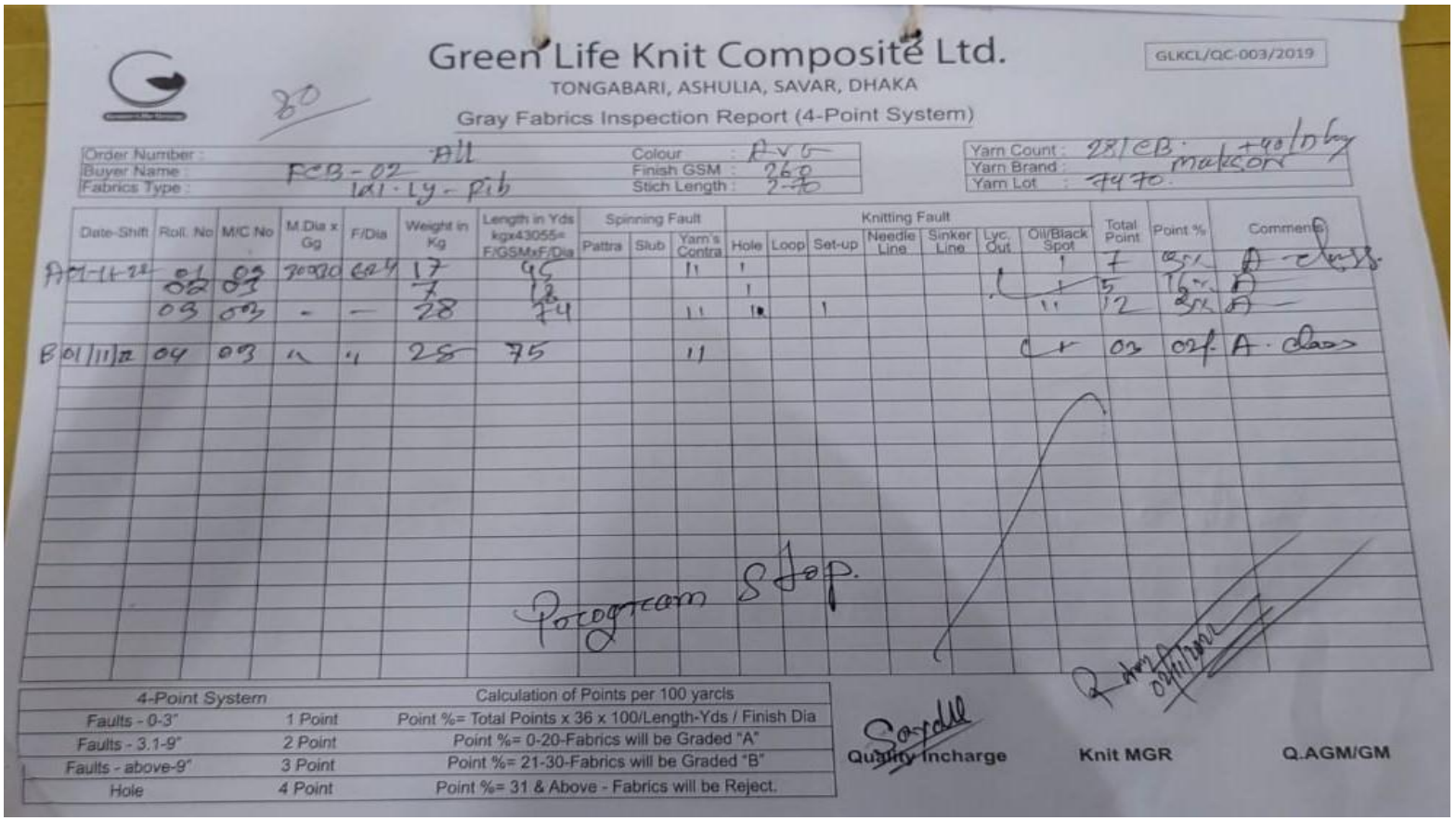
Number of Set-Up found in total roll of fabric are 3.

Number of Loop found in total roll of fabric are 1.

Number of Patta found in total roll of fabric are 4.

Number of Needle Line found in total roll of fabric are 1.

Inspection Report No:-5



Green Life Knit Composite Ltd.

TONGABARI, ASHULIA, SAVAR, DHAKA

GLKCL/QC-003/2019

Gray Fabrics Inspection Report (4-Point System)

Order Number : ALL
Buyer Name : FCB-02
Fabrics Type : 1x1 Ly-Rib
Colour : A-V-G
Finish GSM : 260
Stich Length : 2.75
Yarn Count : 28/CB. +40/1 Lyc
Yarn Brand : maksons
Yarn Lot : 4470.

Date-Shift	Roll No	M/C No	M.Dia x Gg	F/Dia	Weight in Kg	Length in Yds kgx43055÷ F/GSM×F/Dia	Spinning Fault: Pattra	Slub	Yarn's Contra	Knitting Fault: Hole	Loop	Set-up	Needle Line	Sinker Line	Lyc. Out	Oil/Black Spot	Total Point	Point %	Comments
A 01-11-22	01	03	30	64	17	95			11	1						1	7	05%	A-class.
	02	03			7	13				1							5	1%	A
	03	03	-	-	28	74			11	1		1				11	12	3%	A
B 01/11/22	04	03	30	64	28	75			11								03	02%	A-class

Program Stop.

4-Point System		Calculation of Points per 100 yards
Faults - 0-3"	1 Point	Point %= Total Points x 36 x 100/Length-Yds / Finish Dia
Faults - 3.1-9"	2 Point	Point %= 0-20-Fabrics will be Graded "A"
Faults - above-9"	3 Point	Point %= 21-30-Fabrics will be Graded "B"
Hole	4 Point	Point %= 31 & Above - Fabrics will be Reject.

Quality Incharge | Knit MGR | Q.AGM/GM

Fig: 5 Show the Scanned Inspection Report of RIB Fabric

In this report total 212 Yard length of fabric have been inspected in 2 different shift. Where different fault found during inspection Number of fault found during inspection are given below

Number of Oil/Black Spot found in total roll of fabric are 5.

Number of Yarn Contamination found in total roll of fabric are 6.

Number of Hole found in total roll of fabric are 3.

Number of Set-Up found in total roll of fabric are 1.

4 Discussion of Result

4.1 For Mini Loop Fleece Fabric

Table 1. Fault of Mini Loop Fleece Fabric

Inspection No	Total Length in Yard	Number of Slub	Number of Yarn Contamination	Number of Hole	Number of Loop	Number of Oil/Black Spot	Number of Set-Up
1	618		30		2	25	10
2	995	8	33	1	3	25	11
3	613	2	26	2	2	23	5
4	450	1	14		2	14	4
5	370	2	10		2	8	4
Total Point	3046	13	113	3	11	95	34
Point%= (Fault/Total Fault)*100		5%	42%	1%	4%	35%	13%

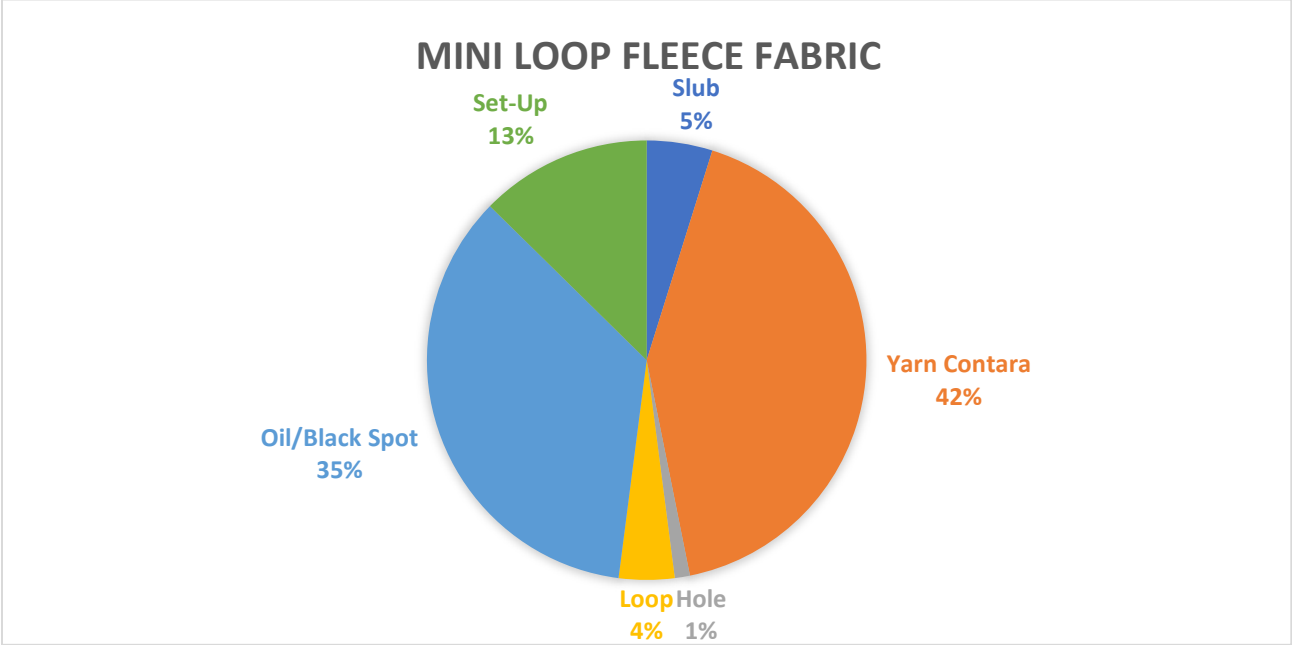


Diagram 4.1: Pie Chart diagram of Mini Loop Fleece Fabric

From above chart we can see the overall fault % of Mini Loop Fleece Fabric. Where Yarn contamination is 42%, Oil/Black spot is 35%, Loop, Setup, Hole, Slub fault % is 4%, 13%, 1%, 5% respectively. In Mini Loop fleece fabric inspection its found that Yarn contamination is one of the major fault that frequiently found during inspection.

Causes of Yarn Contamination are:-

1.If yarn contain foreign fiber and it remains in the fabric after finishing

2. If lot and Count mixing occurs

4.2 For Single Jersey Fabric

Table 2: Fault of S/J Fabric

Inspection No	Total Length in Yard	Number of Slub	Number of Yarn Contamination	Number of Hole	Number of Loop	Number of Oil/Black Spot	Number of Set-Up	Lycra-Out
1	903		29	4	5	17	8	
2	459	1	19	3	5	11	4	1
3	648		20	3	7	13	5	
4	1406	3	33	15	6	32	3	
5	1504	6	39	15	4	31	5	
Total Point	4920	10	140	40	27	104	25	1
Point%= (Fault/Total Fault)*100		3%	41%	12%	8%	30%	7%	0.28%

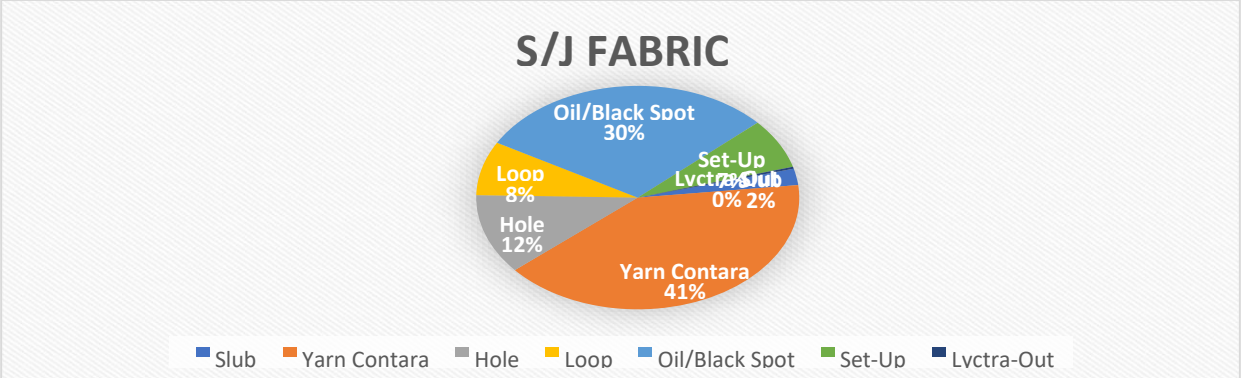


Diagram 4.2: Pie Chart diagram of S/J Fabric

From above chart we can see the overall fault % of S/J Fabric. Where Yarn contamination is 41%, Oil/Black spot is 30%, Loop, Setup, Hole, Slub fault % are 8%, 7%, 12%, 2% respectively and the Lycra-Out is 1%. In S/J fabric inspection its found that Yarn contamination is one of the major fault that frequiently found during inspection after yarn contamination Oil/Black Spot is second highest fabric fault of S/J fabric inspection.

Causes of Oil/Black Spot are:-

1. Oil licking during production
2. Careless material handling

4.3 For Rib Fabric

Table 2: Fault of Rib Fabric

Inspection No	Total Length in Yard	Number of Slub	Number of Yarn Contamination	Number of Hole	Number of Loop	Number of Oil/Black Spot	Number of Set-Up	Lycra-Out	Patta	Needle Line
1	584		23	11		20	4			
2	621	1	21	1	7	19	3	1		
3	329		12	3	2	10	1			
4	537		14	7	1	14	3		4	1
5	212		6	3		5	1			
Total Point	2283	1	76	25	10	68	12	1	4	1

Point%= (Fault/Total Fault)*100		.5%	39%	13%	5%	35%	6%	0.5%	2%	.5%

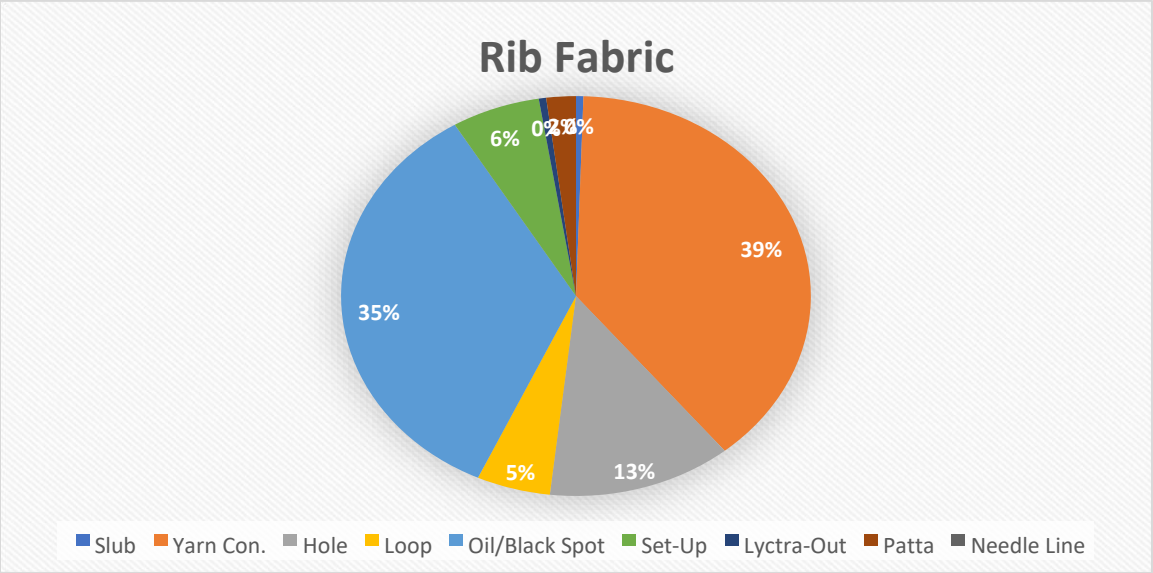


Diagram 4.3: Pie Chart diagram of Rib Fabric

From above chart we can see the overall fault % of Rib Fabric. Where Yarn contamination is 39%, Oil/Black spot is 35%, Loop, Setup, Hole, Slub fault % are 5%, 6%, 13%, .5% respectively. In Rib fabric inspection its found that Yarn contamination is one of the major fault that frequiently found during inspection and Needle Line is least found fault during inspection.

Causes of Needle line defect are:-

1.Heavy running needle

2. Defected needle latch

3.Defected cylinder or dial

4. Bent needle

5 CONCLUSION

In this inspection report I actually wanted to find out the fabric fault that usually affect the quality of fabric, their intensity and frequency of any fault. After this inspection, I have come out with several data that is—

- Yarn Contamination is the most found fabric fault in all types of fabric inspection
- After the Yarn Contra Oil/Black Spot is the second highest visible fault in the fabric inspection
- All other defects Needle Line defect and Lycra-Out are the lowest found defect of this entire fabric inspection. Only 1 & 2 defects were found in all inspections.

6. REFERENCE

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2. https://www.researchgate.net/publication/312911527_Study_on_Different_Types_of_Knitting_Faults_Causes_and_Remedies_of_Knit_Fabrics

3. Taher, M. A. (n.d.). *Study on Different Types of Knitting Faults, Causes and Remedies of Knit Fabrics*. http://article.sapub.org/10.5923.j.textile.20160506.01.html

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