

CONSIGNMENT NOTE

NON- NEGOTIABLE COPY

CONSIGNOR/ EXPORTER
METAL ENGINEERING & TREATMENT CO PVT LTD
42B,MOTILAL BASAK LANE,KOLKATA-700054,
INDIA.GST NO:19AADCM0883D1ZJ.

INVOICE NO. & DATE
5421MTEX07725-26

SHIPPER'S REFERENCE
DT:27.06.2025

CONSIGNMENT NO.
A 193210

CONSIGNEE OR ORDER OR TO THE ORDER OF :
SOUTHEAST BANK PLC,CENTRAL TRADE SERVICES
DEPARMENT,INTERNATIONAL DIVISION,HEAD OFFICE
FUNOOS TRADE CENTRE LEVEL-13,52-53,DILKUSHA
C/A,DHAKA-1000,BANHGLADESH.
BANK BIN NO:000000248-0002.

EASTERN ROAD TRANSPORT
28, STRAND ROAD, 1ST FLOOR, KOLKATA-700001
CODE NO.:KKE- 1745

ISSUING AGENT : MONALISA ENTERPRISE
SUBHASNAGAR, JESSORE ROAD
BONGAON, NORTH 24 PGS.

NOTIFY ADDRESS
M/S RENESSA ENTERPRISE,
NOORJAHAN TOWER,136,CIRCULAM ROAD,
MOGBAZAR,DHAKA,BANGLADESH.

ALSO NOTIFY ADDRESS
SOUTHEAST BANK PLC,CENTRAL TRADE SERVICES-
DEPARMENT,INTERNATIONAL DIVISION,HEAD
OFFICE FUNOOS TRADE CENTRE LEVEL-13,52-
53,DILKUSHA C/A,DHAKA-1000,BANHGLADESH.
BANK BIN NO:000000248-0002.

DELIVERY AGENT

CARRIAGE BY	FROM / PORT OF LOADING
BY ROAD	PETRAPOLE/INDIA
PORT OF DISCHARGE	TO / PLACE OF DELIVERY
BENAPOLE/BANGLADESH	DHAKA/BANGLADESH.

MARKS AND NOS.

NUMBER AND KIND OF PACKAGES : DESCRIPTION OF GOODS

GROSS WEIGHT IN KG.

52 PKGS

GROSS WT :13065.00 KGS

FROM:METCO,KOLKATA

NET. WT : 12520.00 KGS

TO
RENESSA ENTERPRISE
NOORJAHAN TOWER,136
CIRCULAM ROAD,MOG-
BAZAR,DHAKA,
BANGLADESH.

DETAILS AS PER INVOICE & PACKING LIST ATTACHED.
INVOICE NO.5421MTEX07725-26 DT:27.06.2025
L/C NO:135626011435 DT:27.04.2025,AMENDMENT 1 DT:20.06.2025
P.I NO.EQ579MT/EXP/PR/005/2025-26 DT:19.05.2025
INSURANCE COVER NOTE NO.PRM/KBB/MC-41292/04/2025 DT:24.04.2025
H.S.CODE:7308.10.00,BIN NO:002819886-0208
APPLICANT TIN NO:496602678883,IRC NO:260326111370820
BANK BIN NO.000000248-0002 & TIN NO:555495486932,

VALUE US\$ 21,910.00

PARTICULARS ABOVE FURNISHED BY CONSIGNOR

TOTAL NO. OF CONTAINERS / PACKAGES
52 PKGS
FREIGHT AND CHARGES
FREIGHT PREPAID

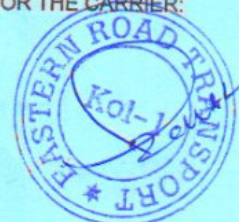
NOTICE
 The consignment covered by thos Lorry Receipt shall be stored at the destination under the control of the Transport Operator and shall be delivered to or to the order of the Consignree Bank whose name is mentioned in the Lorry Receipt. It will under on circumstances be delivered to anyone without the written authority from the Consignee Bank or its order endorsed on the Consignee Copy.

CAUTION
 This Consignment will not be detained delivered, re-routed or re booked without Consignee Bank's written permission.

PLACE AND DATE OF ISSUE

FOR THE CARRIER:

27.06.2025



FOR INTERNATIONAL TRADE ONLY

CERTIFICATE OF ORIGIN

BCC&i
AIDING BUSINESS
SINCE 1833

THE BENGAL CHAMBER OF COMMERCE AND INDUSTRY

Post Box No. 280 Royal Exchange
6, Netaji Subhas Road, Kolkata - 700,001
Telephone : 2230 3711/3733/3746/8394/8396
Fax 2230 1289. Telegram : BENCHAM
E-mail : bencham@bengalchamber.com

1. Goods consigned from (Exporter's business name, address, country)

METAL ENGINEERING & TREATMENT CO PVT LTD
42B, MOTILAL BASAK LANE,
KOLKATA - 700 054, INDIA
Phone No. : +91 33 40658286

email : metcobearings@metcocal.com
IEC CODE NO 0288036743

2. Goods consigned to (Consignee's name, address, country)

M/s. RENESSA ENTERPRISE,
NOORJAHAN TOWER, 136, CIRCULAR ROAD
MOGBAZAR, DHAKA

BANGLADESH
BIN: 002819886-0208
APPLICANT :TIN NO. 496602678883
IRC No 260326111370820
BIN:000000248-0002
AND TIN: 555495486932

Reference No.

006202502023 =

CERTIFICATE OF ORIGIN

(NON PREFERENTIAL)

(Combined declaration and certificate)

Issued in India

3. Means of transport and route (as far as known)

BY ROAD

Kolkata, India

Dhaka / Bangladesh

4. For official use

5. Item number

6. Marks and numbers of packages

7. Number and kind of packages description of goods

8. Origin criteria

INDIA

9. Gross weight or other quantity

10. Number and date of invoices

D-80 metco-Brand Strip Seal type Expansion Joint for a movement upto 80mm for LGED Project.
30 nos. of expansion joint of 7.70 m each length

D-80 metco-Brand Strip Seal type Expansion Joint for a movement upto 80mm for LGED Project.
20 nos. of expansion joint of 4.10 m each length

52PKGS

H.S.CODE

7308 1000

13065 KG

12520 KG

5421MTEX07725-26

Date ::27/06/2025

L/C NO 135625011435

DATED 27.04.2025

11. Certification

It is hereby certified, on the basis of control carried out, that declaration by the exporter is correct



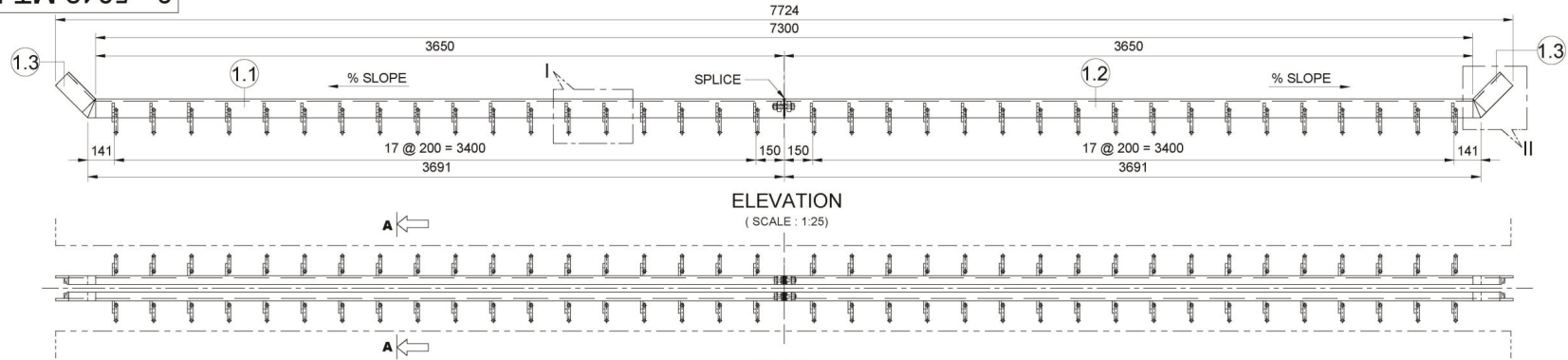
12. Declaration by the exporter

The undersigned hereby declares that the above details and statements are correct; that all the goods were produced in India and that they comply with the origin requirements for exports to

BANGLADESH

(importing country)





ELEVATION
(SCALE : 1:25)

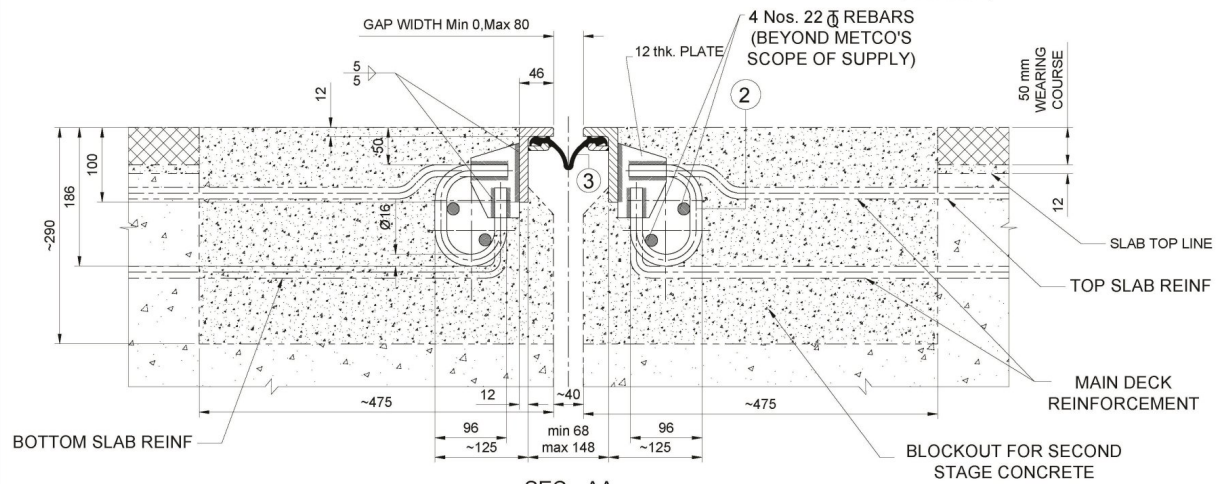
PLAN
(SCALE : 1:25)

NOTE

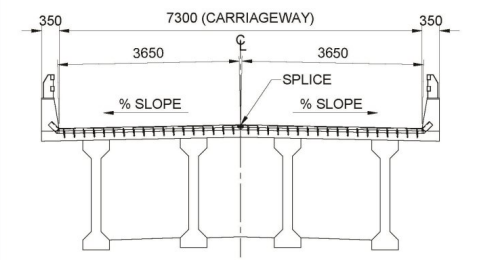
- THIS IS A UNITARY **metco**-BRAND SINGLE GAP STRIP SEAL EXPANSION JOINT.
- CORROSION PROTECTION OF THE JOINTS ALL STEEL SURFACES SHALL BE HOT DIP GALVANIZED AS PER ASTM A123 & MINIMUM FLIM THICKNESS WILL BE 100µm
- ADDITIONAL REINFORCEMENT DURING INSTALLATION / CONCRETING MUST BE FOLLOWED.
- THE GRADE OF CONCRETE FOR 2ND STAGE CONCRETE SHOULD BE AT LEAST C40 & ADEQUATE REINFORCEMENTS SHOULD BE PROVIDED. IF THE JOINTS ARE ANCHORED IN PCC OR INADEQUATE RCC.
- FOR ±1°C OF TEMPERATURE CHANGE, INITIAL GAP WILL BE = STANDARD INITIAL GAP ±(0.012 x EXPANSION SPAN LENGTH IN METER)

REQUIREMENT SCHEDULE :

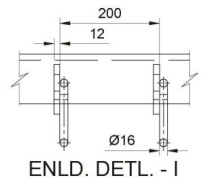
EJ TYPE	LONGITUDINAL MOVEMENT	TRANSVERSE MOVEMENT	EJ LENGTH	NO. OF JOINT (NOS)	TOTAL LENGTH OF JOINT
D80	80 mm	±2 mm	7.700 m.		



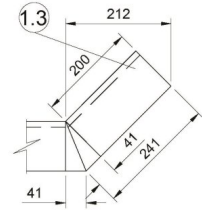
SEC - AA
(SCALE - 1:1.5)



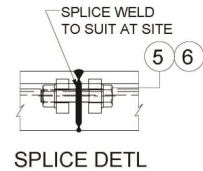
CROSS SECTION OF DECK AT JOINT LOCATION
(SCALE 1:100)



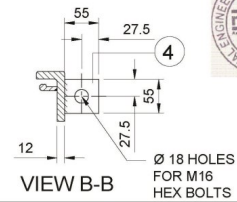
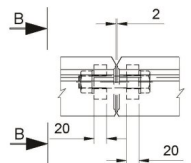
ENL. DETL. - I



ENL. DETL. - II



SPlice DETL



VIEW B-B
Ø 18 HOLES FOR M16 HEX BOLTS

APPROVED
SIGNATURE WITH OFFICE STAMP



2+2+4	M16 x100LG HEX BOLT + NUT + WASHER		5 & 6	-
4	SPlice PLATE	20 THKx55x55 LG	4	ASTM A 709 Gr. A36
1	ELASTOMERIC STRIP / EPDM	7800	3	ASTM D5973
72	LOOP ANCHOR	12 thk. plate with 16dia rod	2	ASTM A 709 Gr. A36
4	EDGE BEAM+LIP	241	1.3	ASTM A 709 Gr. A36
2	EDGE BEAM+LIP	3691	1.2	ASTM A 709 Gr. A36
2	EDGE BEAM+LIP	3691	1.1	ASTM A 709 Gr. A36
NOS.OFF	DESCRIPTIONS	DIMENSIONS (mm)	ITEM	MATERIAL
0	27.4.2021	FOR APPROVAL	B.B.	KB KB

metco®
ISO 9001:2015
KOLKATA
METAL ENGINEERING & TREATMENT CO PVT LTD.
U.R.L : www.metcocal.com

Client : ---	ARTICLE NO :
Contractor : MAE & MMT (JV)	
Sarishabarhi Boro Bazar, Jamalpur.	Scale : 1:100, 1:25, 1:10, 1:5, 1:1.5
	Material : Weight :-
	Ref No : 5042 MT Sheet No 1 of 1
UNITARY metco -BRAND SINGLE GAP STRIP SEAL EXPANSION JOINT, MOVEMENT CAP. :-CATER FOR MOVEMENT:0 TO 80mm)	Location : B.B. N.K.S. K.B.
ADDITIONAL INFORMATION	DRAWN BY : CHECKED BY : APPROVED BY :
	3- 5042 MT-NT
	0

COVER PAGE

❖ OUR ORDER NO. :

DATE:

CERTIFICATE OF QUALITY OR QUANTITY CERTIFICATE

(ITEM: STRIP SEAL EXPANSION JOINT)

CLIENT

PROJECT	Truss Khiru Bridge at 85th. Km Dhaka-Jaydebpur Mymensingh National Highway (N3)
L.C. NO.	135623011259, Dated: 20.06.2023
LOT NO.	1F
QUANTITY	184.800 Mtr.
DATE OF TESTING	29th -"August" 2023
PLACE OF TESTING	K-65, Howrah Industrial Estate, C.T.I., Dasnagar, Howrah, WB, INDIA.
INSP. & ACCEPTING AUTHORITY	Client <input checked="" type="checkbox"/> / Consultant <input checked="" type="checkbox"/> / Manufacturer <input checked="" type="checkbox"/>



INSPECTION CERTIFICATE

Ref. No.:- IC/STRIP SEAL EXP. JT./1P/5238MT/RL-1/August - 2023	Date:- 29/08/2023	Offered Instt. No.:- 1st & Part
Purchaser:- M/s. RENESSA ENTERPRISE Noorjahan Tower, 136 Circular Road Mogbazar, Dhaka, Bangladesh.	Manufacturer:- M/s. METAL ENGINEERING AND TREATMENT CO. PVT. LTD. 42B, Motilal Basak Gardens, Kolkata - 700 054.	
Contract References:- L/C No: 135623011259	Date:- 20.06.2023	Project:- Truss Khiru Bridge at 85th. Km Dhaka-Jaydebpur Mymensingh National Highway (N3)
Place of Inspection:- K-65, Howrah Industrial Estate, C.T.I., Dasnagar, Howrah-711105.	Scope of Inspection:- As per AASHTO Specification.	Inspection Authorities:- Client <input type="checkbox"/> Consultant <input checked="" type="checkbox"/> Manufacturer <input checked="" type="checkbox"/>

Observations:-

The dimensions and all the test requirements of the Expansion Joints are found satisfactory. The total length of Expansion Joints (184.800 m.) covered under the above testings are as mentioned below:

Items Description:

SR. NO.	DRAWING NO.	PROJECT	EJ TYPE	LONGITUDINAL MOVEMENT	TRANSVERSE MOVEMENT	UNIT LENGTH OF JOINT	NO. OF JOINTS	TOTAL LENGTH OF JOINT
1	3 - 5238 MT-NT (Rev.0)	Truss Khiru Bridge at 85th. Km Dhaka-Jaydebpur Mymensingh National Highway (N3)	D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
2			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
3			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
4			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
5			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
6			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
7			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
8			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
9			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
10			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
11			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
12			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
13			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
14			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
15			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
16			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
17			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
18			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
19			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
20			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
21			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
22			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
23			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
24			D80	80 mm	±2 mm	7.700 m	01 No.	7.700 m
OVERALL LENGTH OF JOINTS = 184.800 Mtr.								

Conclusion:-

THE ABOVE EXPANSION JOINTS HAVE BEEN INSPECTED AS PER IRC:SP:69-2011 & MORT&H AND THEREFORE NECESSARY CLEARANCE IS HEREBY GIVEN FOR DESPATCH OF THE SAME TO THE SITE.

Enclosure:- 1. Joint Inspection Reports 2. Internal Inspection Reports 3. Material Test Certificates 4. Calibration Certificates	No. of Visits:- N/A	Date(s) of Inspection:- 29/08/2023	Sheet No.:- 01 of 01
Reason of rejection:- N/A			

WITNESSED BY:


 ASIT DAS
 Dy. HQC,
 METCO, KOLKATA.


 SANTANU BAG
 HEAD QUALITY CONTROL (HQC),
 METCO, KOLKATA.



METAL ENGINEERING & TREATMENT CO. PVT. LTD.

I.I.R. (BRG.) NO.: 5238 MT

QR/IT - 02

INTERNAL INSPECTION REPORT

Job Ref. No.	5238 MT (RL-1)	Name of Unit:	Unit-1 (Bearing Division)		
L/C No.	135623011259 Dtd. 20.06.2023	Purchaser:	M/s. RENESSA ENTERPRISE.		
Joint Description:	Unitary 'Metco-Brand' Single Gap Strip Seal Type Expansion Joint	Date of Inspection:	DD 29	MM 08	YYYY 2023

Items Description:

SR.	DRAWING NO.	EJ TYPE	LONGITUDINAL MOVEMENT	TRANSVERSE MOVEMENT	EJ LENGTH	NO. OF JOINT (NOS)	TOTAL LENGTH OF JOINT
1	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
2	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
3	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
4	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
5	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
6	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
7	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
8	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
9	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
10	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
11	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
12	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
13	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
14	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
15	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
16	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
17	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
18	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
19	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
20	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
21	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
22	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
23	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
24	3-5238 MT-NT (Rev. 0)	D80	80 mm	± 2 mm	7.700 m	1 No.	7.700 m
Total Length of Joint = 284.800 m.							

PROJECT: Truss Khiru Bridge at 85th. Km Dhaka-Jaydebpur Mymensingh National Highway (N3)

PLACE OF INSPECTION: METCO, K-65, Howrah Industrial Estate, C.T.I., Dasnagar, Howrah-711105.

MATERIALS ACCEPTED AGAINST:

1. For Edge Beam:

ANNEXURE – 1: Dimensional Report of Edge Beam enclosed.
ANNEXURE – 2: Dye Penetration Test Report enclosed.
ANNEXURE – 3: Corrosion Protection Report enclosed.

2. For Chloroprene Seal

ANNEXURE – I: Cyclic Motion Test Report enclosed.
ANNEXURE – II: Debris Expelling Test Report enclosed.
ANNEXURE – III: Pull Out Test Report enclosed.
ANNEXURE – IV: Ponding Test Report enclosed.

3. Raw Material Test Report enclosed.

Remarks: The above items visually & dimensionally checked & are in order as per drawing.

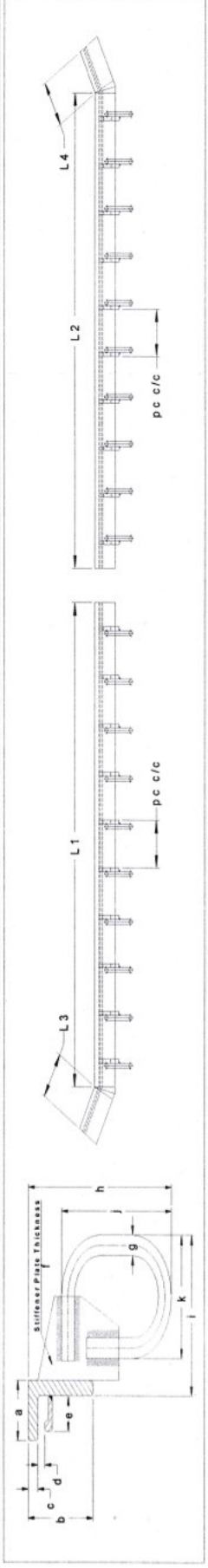
Accepted <input checked="" type="checkbox"/>	Rework <input checked="" type="checkbox"/>	Reject <input checked="" type="checkbox"/>	Signature of HQC: 	Date: 29.08.2023	As per AASHTO Specification. LOT: 1st & Final Ref. No.: 5238 MT Sheet No.: 01 of 01
Rev. No.: 0					Rev. Date: 02.01.17

Internal
Dimension
Check Report

DIMENSION CHART OF EDGE BEAM			
ORD. NO.	DRG. NO.	CELL	
5238 MT (RL. - 1)	3 - 5238 MT- NT (REV. 0)	01	
LENGTH DETAILS:			
UNIT LENGTH : (200mm +3.650mm +200mm) = 7.700 m., NO. OF JOINT : 24 Nos., TOTAL LENGTH OF JOINT : 184.800 m.			



M/S. RENESSA ENTERPRISE.
Bangladesh.



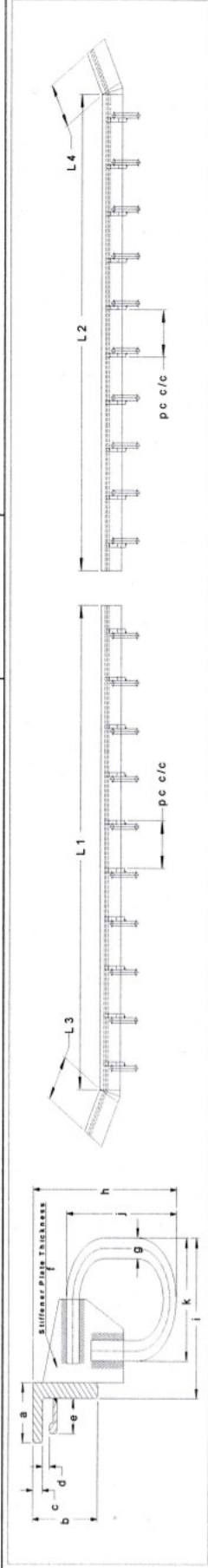
Edge Beam mfg. dimensions: Sr. No.	a	b	c	d	e	f	g	h	i	j	k	L1	L2	L3	L4	Total length	PC c/c 1 & 2	Remarks
1	L	46	100	12	8.8 ^{+0.6}	12	Ø16	186	125	136	96	3650	3650	200	200	7700	17 @ 200	----
	R	46	100	12	9.4	12	Ø16	186	125	136	96	3652	3650	200	200	7702	17 @ 200	OK
2	L	46	100	12	9.2	12	Ø16	186	125	136	96	3650	3650	201	200	7701	17 @ 200	OK
	R	46	100	12	9.4	12	Ø16	186	125	136	96	3650	3651	200	200	7701	17 @ 200	OK
3	L	46	100	12	9.5	12	Ø16	186	125	136	96	3651	3650	200	202	7703	17 @ 200	OK
	R	46	100	12	9.3	12	Ø16	186	125	136	96	3650	3651	201	200	7702	17 @ 200	OK
4	L	46	100	12	9.4	12	Ø16	186	125	136	96	3650	3650	200	201	7701	17 @ 200	OK
	R	46	100	12	9.4	12	Ø16	186	125	136	96	3650	3651	200	201	7702	17 @ 200	OK
5	L	46	100	12	9.5	12	Ø16	186	125	136	96	3652	3650	200	200	7702	17 @ 200	OK
	R	46	100	12	9.4	12	Ø16	186	125	136	96	3650	3651	200	200	7701	17 @ 200	OK
6	L	46	100	12	9.5	12	Ø16	186	125	136	96	3650	3650	201	202	7703	17 @ 200	OK
	R	46	100	12	9.2	12	Ø16	186	125	136	96	3651	3650	200	201	7702	17 @ 200	OK

➤) All dimensions are in mm.
 b) Above dimensions checked & found acceptable limit as per AASHTO Specification.
 c) Balance dimensions checked & found acceptable limit as per AASHTO Specification.



Signature
Asit Das
Dy, HQC, METCO.

DIMENSION CHART OF EDGE BEAM			
ORD. NO.	DRG. NO.	CELL	
5238 MT (RL - 1)	3 - 5238 MT- NT (REV. 0)	01	
LENGTH DETAILS:			
UNIT LENGTH: (200mm +3.650mm +3.650mm+200mm) = 7.700 m., NO. OF JOINT : 24 Nos., TOTAL LENGTH OF JOINT : 184.800 m.			
MANUFACTURER		CONTRACTOR	
metco An ISO 9001:2015 Company		M/S. RENESSA ENTERPRISE. Bangladesh.	




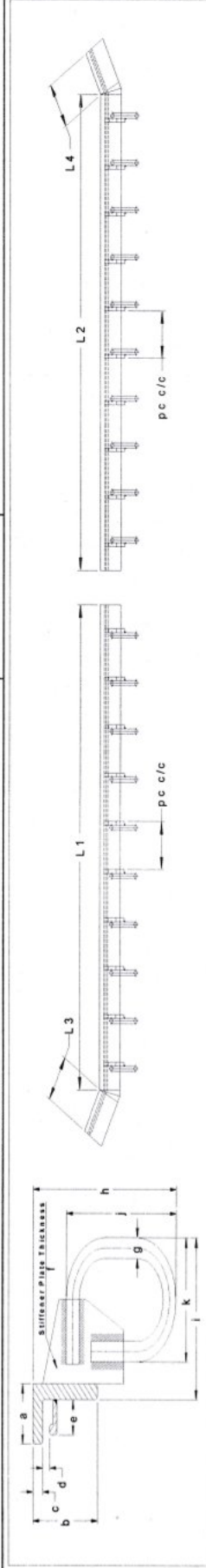
Edge Beam mfg. dimensions:		a	b	c	d	e	f	g	h	i	j	k	L1	L2	L3	L4	Total length	PC c/c 1 & 2	Remarks
7	L	46	100	12	8.8 ^{+0.6}	28 ^{+0.6}	12	Ø16	186	125	136	96	3650	3650	200	200	7700	17 @ 200	----
	R	46	100	12	9.4	28.6	12	Ø16	186	125	136	96	3650	3651	200	200	7701	17 @ 200	OK
8	L	46	100	12	9.2	28.3	12	Ø16	186	125	136	96	3652	3650	201	200	7703	17 @ 200	OK
	R	46	100	12	9.4	28.5	12	Ø16	186	125	136	96	3650	3651	200	201	7702	17 @ 200	OK
9	L	46	100	12	9.5	28.5	12	Ø16	186	125	136	96	3650	3650	201	200	7701	17 @ 200	OK
	R	46	100	12	9.3	28.3	12	Ø16	186	125	136	96	3651	3651	200	201	7703	17 @ 200	OK
10	L	46	100	12	9.4	28.5	12	Ø16	186	125	136	96	3650	3651	201	200	7702	17 @ 200	OK
	R	46	100	12	9.4	28.4	12	Ø16	186	125	136	96	3651	3650	200	200	7701	17 @ 200	OK
11	L	46	100	12	9.5	28.3	12	Ø16	186	125	136	96	3650	3651	201	201	7703	17 @ 200	OK
	R	46	100	12	9.3	28.3	12	Ø16	186	125	136	96	3650	3652	200	200	7702	17 @ 200	OK
12	L	46	100	12	9.4	28.5	12	Ø16	186	125	136	96	3651	3650	200	201	7702	17 @ 200	OK
	R	46	100	12	9.5	28.6	12	Ø16	186	125	136	96	3650	3650	201	200	7701	17 @ 200	OK
		46	100	12	9.2	28.5	12	Ø16	186	125	136	96	3650	3651	200	200	7701	17 @ 200	OK

➤) All dimensions are in mm.
 b) Above dimensions checked & found acceptable limit as per AASHTO Specification.
 c) Balance dimensions checked & found acceptable limit as per AASHTO Specification.


 Signature
 Asit Das
 Dy, HQC, METCO.



DIMENSION CHART OF EDGE BEAM			
ORD. NO.	DRG. NO.	CELL	MANUFACTURER
5238 MT (RL - 1)	3 - 5238 MT- NT (REV. 0)	01	 M/S. RENESSA ENTERPRISE. Bangladesh.
LENGTH DETAILS: UNIT LENGTH: (200mm +3.650mm +3.650mm+200mm) = 7.700 m., NO. OF JOINT : 24 Nos., TOTAL LENGTH OF JOINT : 184.800 m.			



Edge Beam mfg. dimensions: Sr. No.	a	b	c	d	e	f	g	h	i	j	k	L1	L2	L3	L4	Total length	PC c/c 1 & 2	Remarks
	13	L 46	100	12	8.8 ^{+0.6}	28 ^{+0.6}	12	Ø16	186	125	136	96	3650	3650	200	200	7700	17 @ 200
14	L 46	100	12	9.4	28.3	12	Ø16	186	125	136	96	3650	3651	200	201	7702	17 @ 200	OK
	R 46	100	12	9.2	28.5	12	Ø16	186	125	136	96	3650	3650	201	200	7701	17 @ 200	OK
15	L 46	100	12	9.4	28.6	12	Ø16	186	125	136	96	3650	3650	201	200	7701	17 @ 200	OK
	R 46	100	12	9.5	28.6	12	Ø16	186	125	136	96	3651	3651	200	200	7702	17 @ 200	OK
16	L 46	100	12	9.3	28.5	12	Ø16	186	125	136	96	3650	3650	202	200	7702	17 @ 200	OK
	R 46	100	12	9.4	28.3	12	Ø16	186	125	136	96	3650	3650	200	201	7701	17 @ 200	OK
17	L 46	100	12	9.4	28.4	12	Ø16	186	125	136	96	3651	3652	200	200	7703	17 @ 200	OK
	R 46	100	12	9.5	28.6	12	Ø16	186	125	136	96	3650	3651	200	201	7702	17 @ 200	OK
18	L 46	100	12	9.3	28.3	12	Ø16	186	125	136	96	3650	3650	200	201	7701	17 @ 200	OK
	R 46	100	12	9.4	28.6	12	Ø16	186	125	136	96	3650	3651	201	200	7702	17 @ 200	OK
	L 46	100	12	9.5	28.4	12	Ø16	186	125	136	96	3650	3651	200	201	7702	17 @ 200	OK
	R 46	100	12	9.2	28.5	12	Ø16	186	125	136	96	3652	3650	201	200	7703	17 @ 200	OK

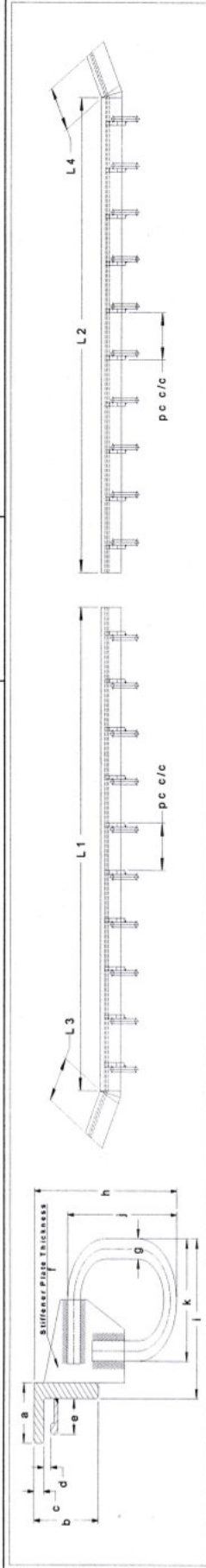
➤) All dimensions are in mm.
 b) Above dimensions checked & found acceptable limit as per AASHTO Specification.
 c) Balance dimensions checked & found acceptable limit as per AASHTO Specification.



Signature
 Asit Das
 Dy, HQC, METCOO

DIMENSION CHART OF EDGE BEAM

ORD. NO.	DRG. NO.	CELL	MANUFACTURER
5238 MT (RL - 1)	3 - 5238 MT- NT (REV. 0)	01	metco An ISO 9001:2015 Company
LENGTH DETAILS: UNIT LENGTH: (200mm +3.650mm +3.650mm+200mm) = 7.700 m., NO. OF JOINT : 24 Nos., TOTAL LENGTH OF JOINT : 184.800 m.			
M/S. RENESSA ENTERPRISE. Bangladesh.			



Edge Beam mfg. dimensions:	a	b	c	d	e	f	g	h	i	j	k	L1	L2	L3	L4	Total length	PC c/c 1 & 2	Remarks
19	L	46	100	12	8.8 ^{+0.6}	12	Ø16	186	125	136	96	3650	3650	200	200	7700	17 @ 200	----
	R	46	100	12	9.6	12	Ø16	186	125	136	96	3650	3651	200	201	7702	17 @ 200	OK
20	L	46	100	12	9.5	12	Ø16	186	125	136	96	3650	3650	201	200	7701	17 @ 200	OK
	R	46	100	12	9.4	12	Ø16	186	125	136	96	3650	3650	201	200	7701	17 @ 200	OK
21	L	46	100	12	9.5	12	Ø16	186	125	136	96	3651	3651	200	200	7702	17 @ 200	OK
	R	46	100	12	9.3	12	Ø16	186	125	136	96	3650	3650	202	200	7702	17 @ 200	OK
22	L	46	100	12	9.4	12	Ø16	186	125	136	96	3650	3650	200	201	7701	17 @ 200	OK
	R	46	100	12	9.6	12	Ø16	186	125	136	96	3650	3650	202	200	7702	17 @ 200	OK
23	L	46	100	12	9.5	12	Ø16	186	125	136	96	3651	3650	200	200	7701	17 @ 200	OK
	R	46	100	12	9.3	12	Ø16	186	125	136	96	3650	3650	202	200	7702	17 @ 200	OK
24	L	46	100	12	9.4	12	Ø16	186	125	136	96	3652	3650	200	201	7703	17 @ 200	OK
	R	46	100	12	9.5	12	Ø16	186	125	136	96	3650	3650	201	200	7701	17 @ 200	OK
					9.2	12	Ø16	186	125	136	96	3650	3651	201	200	7702	17 @ 200	OK

Page 04 of 04

Signature: *Asit Das*
 Asit Das
 Dy, HQC, METCO.

- a) All dimensions are in mm.
- b) Above dimensions checked & found acceptable limit as per AASHTO Specification.
- c) Balance dimensions checked & found acceptable limit as per AASHTO Specification.

Liquid Penetrant
Examination
Report of
Welding Joint

METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

LABORATORY : HOWRAH AMTA ROAD, KANTALIA, HOWRAH-711409



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QR 40

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TC-5182

LIQUID PENETRANT EXAMINATION TEST REPORT		UIN No. TC/5182/20000005047
SOLVENT REMOVABLE COLOUR CONTRAST		T.C. NO. MHA/PM/21/23-24
JOB CARD NO. 111/22/13/1 to 8, Dt. 13-07-2023		DATE: 21/07/2023
DATE OF TEST: 13-07-2023		PAGE NO. 1 of 2
CUSTOMER: Metal Engg & Treatment Co. Pvt. Ltd. Howrah		CONTACT PERSON: Mr. S. Bae
Location of Job: Unit 1/Brg Div 1, Daanagar, Howrah		Letter No. ENG-23/LP-802, Letter, Dt. 13.07.2023
JOB REF. NO. 5238/NT		MOB. NO. 9836709308
Project: Truss Khiro Bridge at 85th Km.		Agency: Aales International Limited
Choke: Jaydebpur Mymensingh National Highway (N3)		
MATERIAL: ASTM A 709 / C 2 A 1 E		SURFACE CONDITION: S/S On & Part
NAME OF PART: Drawing No. Name of Part		
Joint Qty. No. of Unit welding Total Welding Sr. No.		
Expn Joint Length Length		
Edge Beam & Dia. Device 04 Nos. 02 Nos. Joint 3.85 m (approx) 30.80 m (approx) NT-3 & NT-4		
Edge Beam & Splice Plate 04 Nos. 02 Nos. Joint 0.15 m (approx) 1.20 m (approx) NT-3 & NT-4		
APPLICABLE TEST SPEC: SE-165 (2017) or ISO 3452-1:2013 C1.8		ACCEPTABLE CRITERIA: ASME Sec VIII, Div-I, App-8 and ISO 23277-2015, C1.5
PENETRANT: MAKE & IDENTIFICATION: SMART CHOICE		DWELL TIME: 15 minutes (Min)
SP-10 Cor No. 2205035		
D/M - June 22 D/Y - June 24		
PENETRANT REMOVER: MAKE & IDENTIFICATION: SMART CHOICE		DWELL TIME: 15 minutes (Min)
SC-25 Lot No. 2205034		
D/M - June 22 D/Y - June 24		
DEVELOPER: MAKE & IDENTIFICATION: SMART CHOICE		DEVELOPMENT TIME: 15 minutes (approx)
SD-30 Lot No. 2205035		
D/M - Aug 22 D/Y - Aug 24		
SURFACE Temp: 32°C		Ambient Temp: 32°C
VISIBLE LIGHT INTENSITY: 1050 LUX		
CALIBRATION BLOCK IDENTIFICATION: N/A		SURFACE FROM WHICH EXAMINATION CONDUCTED: Only WEID & HAZ
OBSERVATION: No recordable indication was found.		
POST CLEANING: Surface was cleaned after examination.		
OPERATOR'S NAME: S. K. Shee		APPROVED BY: J. Karmakar
LEVEL: MHA/PM/21/23-24		WITNESSED BY: Mr. S. Bae
E CERT NO: INDT/PT/D/23		AGRE WSE LEVEL: MHA/PM/21/23-24
REMARKS: Examination as per ASME Sec VIII, Div-I, App-8 and ISO 23277:2015, C1.5		
Identification of tested job:		

● Test results relate only to the item tested ● This certificate should not be reproduced except in full without the written approval of the laboratory ● The Laboratory is not liable for return of sample after three months from the date of issue of test certificate. ● Appropriate test condition has been maintained without any deviation for the specified test method

METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

LABORATORY : HOWRAH AMTA ROAD, KANTALIA, HOWRAH-711409



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TC-5182

Order No: **MS-18223000000504**
LIQUID PENETRANT EXAMINATION TEST REPORT
 DATE: **21.07.2023**
 PAGE NO: **7/8**
SOLVENT REMOVAL: COLOUR CONTRAST

Job Card No: **111/21/13/96/82** Dt: **13.07.2023** DATE OF TEST: **13.07.2023**

Customer: **Metal Engg & Treatment Co. Pvt. Ltd., Howrah** CONTACT PERSON: **Mr. S. Bae**
 Location of Job: **Unit 1, B16 Div., Daspagar, Howrah** Job Ref. No: **5233 MT**
 Client: **Muller International Limited**
 Project: **Truss Khiru Bridge at 85th Km Dhaka - Jaydebpur Mymensingh National Highway (N2)**

KANTALIA, AMTA ROAD, HOWRAH-711409 SURFACE CONDITION: **Gas Oil & Paint free**

SR.	Drawing No.	Name of Part	Joint Qty	No. of Expn. Joint	Unit welding length	Total Welding Length	Sn. No.
01	13-5233-MT-1	Edge Beam & Lip	04 Nos	02 Nos Joint	0.30 m (approx)	2.40 m (approx)	WT-3 & MT-4
		Edge Beam & Loop Anchor	72 Nos	00 Nos Joint	0.40 m (approx)	27.84 m (approx)	WT-2 & MT-4

APPLICABLE TEST SPEC: **SE-165 (2017) or IS-3452** ACCEPTABLE CRITERIA: **ASME Sec VIII, Div-I, App-8 and ISO 23271-2015, Cl-5**

PENETRANT: **MAKE & IDENTIFICATION: SMART CHOICE** DRYING TIME AFTER CLEANING: **15 minutes (Min)**
 SP Lot No: **2208055** D/M: **June 22** D/E: **June 24**

PENETRANT REMOVER: **MAKE & IDENTIFICATION: SMART CHOICE** DWELL TIME: **15 minutes (min)**
 SP Lot No: **2208054** D/M: **June 22** D/E: **June 24**

DEVELOPER: **MAKE & IDENTIFICATION: SMART CHOICE** DEVELOPMENT TIME: **15 minutes (approx)**
 SP Lot No: **2208026** D/M: **Aug 22** D/E: **Aug 24**

SURFACE Temp: **32°C** Ambient Temp: **32°C**

VISIBLE LIGHT INTENSITY: **1050 CUX** SURFACE FROM WHICH EXAMINATION CONDUCTED: **Only weld & HAZ**

CALIBRATION BLOCK IDENTIFICATION: **N/A**

OBSERVATION: **No recordable indication was found.**

POST CLEANING: **Surface was cleaned after examination.**

OPERATOR'S NAME: **S. K. Shee** APPROVED BY: **J. Karmakar** WITNESSED BY: **Mr. S. Bae**

INDT/PT/0723 & CERT NO: **INDT/PT/0723** & CERT NO: **224655** CUSTOMER: **METCO**

REMARKS: **Welding joints of above materials are acceptable after liquid penetrant examination as per ASME Sec VIII, Div I, App 8 and ISO 23271: 2015, Cl-5.**

Identification of tested job: **[Signature]** J. Karmakar

● Test results relate only to the item tested ● This certificate should not be reproduced except in full without the written approval of the laboratory ● The Laboratory is not liable for return of sample after three months from the date of issue of test certificate. ● Appropriate test condition has been maintained without any deviation for the specified test method

METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

LABORATORY : HOWRAH AMTA ROAD, KANTALIA, HOWRAH-711409

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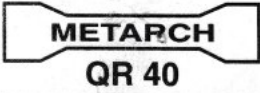
TC-5182

<p>LIQUID PENETRANT EXAMINATION TEST REPORT</p>						<p>UIN No. T051823000000505</p> <p>Job No. MW/P0143/23-24</p> <p>DATE: 21.07.2023</p> <p>PAGE NO. 1 of 2</p>
<p>SOLVENT REMOVABLE COLOUR CONTRAST</p>						
<p>Job Card No. 10523/17/11-8 Dt. 15.07.2023</p>			<p>DATE OF TEST: 15.07.2023</p>			
<p>CUSTOMER: Metal Engrg & Treatment Co. Pvt Ltd, Howrah</p>			<p>CONTACT PERSON: Mr S Bagg</p>			
<p>Location of Job: Link I, B&B, Durgam, Howrah</p>			<p>Letter No. BRG-23/P-804, Letter Dt. 15.07.2023</p>			
<p>Job Ref. No. 5238 MT</p>			<p>Client: Muller International Limited</p>			
<p>Project: Truss Khiru Bridge at 85th Km, Dhaka - Jaydebpur Mymensingh National Highway (N3)</p>						
<p>MATERIAL: ASTM A 307 Gr. A 36</p>			<p>SURFACE CONDITION: S165, Oil & Scale free</p>			
<p>NAME OF PART</p>						
<p>Sr. Drawing No.</p>		<p>Name of Part</p>		<p>Joint Qty.</p>		
<p>No. of Egn. Joint</p>		<p>Unit welding length</p>		<p>Total Welding Length</p>		
<p>Edge Beam & Clamp Design</p>		<p>04 Nos.</p>		<p>02 Nos. Joint</p>		
<p>02</p>		<p>3.85 m (approx)</p>		<p>30.80 m (approx)</p>		
<p>Edge Beam & Splice Plate</p>		<p>04 Nos.</p>		<p>02 Nos. Joint</p>		
<p>02</p>		<p>1.20 m (approx)</p>		<p>NT 5 & NT 5</p>		
<p>APPLICABLE TEST SPEC SE 165 (2017) or ISO 3452-1:2013 Cl.8</p>						
<p>ACCEPTABLE CRITERIA ASME Sec VIII Div 1 App 8 and ISO 23277-2015, Cl.5</p>						
<p>PENETRANT WALT & IDENTIFICATION SMART CHOICE</p>		<p>DRYING TIME AFTER CLEANING 15 minutes (Min)</p>				
<p>SP-10 Lot No. Z206035</p>		<p>D/M: June 22 D/Y: June 24</p>				
<p>PENETRANT REMOVER WALT & IDENTIFICATION SMART CHOICE</p>		<p>DWELL TIME 15 minutes (Min)</p>				
<p>SC-20 Lot No. Z206034</p>		<p>D/M: June 22 D/Y: June 24</p>				
<p>DEVELOPER WALT & IDENTIFICATION SMART CHOICE</p>		<p>DEVELOPMENT TIME 15 minutes (approx)</p>				
<p>SD-30 Lot No. Z208026</p>		<p>D/M: Aug 21 D/Y: Aug 24</p>				
<p>SURFACE Temp 31°C</p>		<p>Ambient Temp 31°C</p>				
<p>VISIBLE LIGHT INTENSITY 1050 LUX</p>						
<p>CALIBRATION BLOCK IDENTIFICATION: A</p>			<p>SURFACE FROM WHICH EXAMINATION CONDUCTED: Only weld & 100%</p>			
<p>OBSERVATION No relevant indication was found</p>						
<p>POST CLEANING: Surface was cleaned after examination.</p>						
<p>OPERATOR'S NAME S. K. Shee</p>		<p>APPROVED BY J. Karmakar</p>		<p>WITNESSED BY Mr. S. Bagg</p>		
<p>LEVEL & CERT. NO. WALT/INT-10-14 / INDT/PT/0723</p>		<p>ASME SEI LEVEL: WALT/INT/10/14/PT & INT / 224655</p>		<p>CUSTOMER: METCO</p>		
<p>REMARKS Welding joints of above materials are acceptable after liquid penetrant examination as per ASME Sec VIII, Div 1, App 8 and ISO 23277-2015 Cl.5</p>						
<p>Identification of tested job</p>		<p><i>(Handwritten signature and stamp)</i></p>				

● Test results relate only to the item tested ● This certificate should not be reproduced except in full without the written approval of the laboratory ● The Laboratory is not liable for return of sample after three months from the date of issue of test certificate. ● Appropriate test condition has been maintained without any deviation for the specified test method

METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

LABORATORY : HOWRAH AMTA ROAD, KANTALIA, HOWRAH-711409



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TC-5182

LIQUID PENETRANT EXAMINATION TEST REPORT

ULR No: TC518223000000534F
 I.C. No: MH/LP0148/73 24
 DATE: 01.08.2023
 PAGE NO: 1 of 2

SOLVENT REMOVABLE COLOUR CONTRAST

JOB CARD NO: July/23/27/L to 8, Dt. 24.07.2023	DATE OF TEST: 24.07.2023
CUSTOMER: Metal Engg. & Treatment Co. Pvt. Ltd., Howrah	CONTACT PERSON: Mr. S. Bag
Location of Job: Unit - 1 (Brg. Div.), Dasnagar Howrah	Letter No. BRG-23/LP-817 Letter Dt. 24.07.2023
	Job Ref. No.: 5238-MT
	Client: Muller International Limited
	Project: Truss Khiru Bridge at 85th Km. Dhaka - Jaydebpur Mymensingh National Highway (N3)
MATERIAL: ASTM A 709 (Gr. A36)	SURFACE CONDITION: Slag, Oil & Paint free
NAME OF PART:	

Sr.	Drawing No.	Name of Part	Joint Qty	No. of Expn. Joint	Unit welding length	Total Welding length	Sr. No.
01	B-5238-MT-WT	Edge Beam & Clamp Device	04 Nos.	02 Nos. Joint	3.85 m (approx)	30.20 m (approx)	NT-7 & NT-8
		Edge Beam & Splice Plate	04 Nos.	02 Nos. Joint	0.15 m (approx)	1.20 m (approx)	NT-7 & NT-8

APPLICABLE TEST SPEC: SE-165 (2017) or ISO 3452 - 1: 2013 Cl.8
 ACCEPTABLE CRITERIA: ASME Sec VIII, Div-I App-8 and ISO 23277-2015, Cl.5

PENETRANT: MAKE & IDENTIFICATION: SMART CHOICE SP-1D Lot No. 2208053 D/M - June '22 D/E - June '24	DRYING TIME AFTER CLEANING: 15 minutes (Min)
REMOVING: MAKE & IDENTIFICATION: SMART CHOICE SC-2D Lot No. 2208034 D/M - June '22 D/E - June '24	DWELL TIME: 15 minutes (Min)
DEVELOPER: MAKE & IDENTIFICATION: SMART CHOICE SD-3D Lot No. 2208026 D/E/M - Aug '22 D/E - Aug '24	DEVELOPMENT TIME: 15 minutes (approx)
SURFACE Temp: 31°C	Ambient Temp: 31°C

VISIBLE LIGHT INTENSITY: 1050 LUX

CALIBRATION BLOCK IDENTIFICATION: N/A
 SURFACE FROM WHICH EXAMINATION CONDUCTED: Only weld & HAZ.

OBSERVATION: No relevant indication was found at this stage.

POST CLEANING: Surface was cleaned after examination.

OPERATOR'S NAME: S. K. Shee
 APPROVED BY: J. Karmakar
 WITNESSED BY: Mr. S. Bag
 LEVEL: N/LPT/SNT-TC-1A
 ASNT NDT LEVEL: N/RT, UT, MT, PT & VT
 CUSTOMER: METCO
 & CERT. NO.: INDT/PT/0723
 & CERT. NO.: 224655

REMARKS: Welding joints of above materials are acceptable after Liquid Penetrant Examination as per ASME Sec VIII, Div-I, App-8 and ISO 23277:2015, Cl.5

Identification of tested job:

● Test results relate only to the item tested ● This certificate should not be reproduced except in full without the written approval of the laboratory ● The Laboratory is not liable for return of sample after three months from the date of issue of test certificate. ● Appropriate test condition has been maintained without any deviation for the specified test method

METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

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TC-5182

LIQUID PENETRANT EXAMINATION TEST REPORT

LIR No: TC51822300000934F

J.C. NO: MH/LP0148/23-24

DATE: 01.08.2023

PAGE NO: 2 of 2

SOLVENT: REMOVABLE COLOUR: CONTRAST

JOB CARD NO: JWH/23/27/9 to 84 Dt: 24.07.2023

RATE OF TEST: 24.07.2023

CUSTOMER: Metal Engg. & Treatment Co. Pvt. Ltd. Howrah

CONTACT PERSON: Mr. S. Bag

Location of Job: Unit - I (Brg. Div.) Dasnagar, Howrah

Letter No: BRG-23/LP-817, Letter, Dt: 24.07.2023

Job Ref. No: S238 MT

Client: Muller International Limited

Project: Truss Khiru Bridge at 85th Km.

Dhaka - Jaydippur Mymensingh National Highway (N3)

MATERIAL: ASTM A 709 (Gr. A36)

SURFACE CONDITION: Slag, Oil & Paint free

NAME OF PART:

Sl. No.	Drawing No.	Name of Part	Joint Qty	No. of Expt. Joint	Unit welding length	Total Welding Length	Sl. No.
01	P-5239 647 MT	Edge Beam & Lip	02 Nos.	02 Nos. joint	0.30 m (approx)	2.40 m (approx)	NT-7 & NT-8
02		Edge Beam & Joint Anchor	72 Nos.	02 Nos. joint	0.40 m (approx)	57.60 m (approx)	NT-7 & NT-8

APPLICABLE TEST SPEC: SE-165 (2017) or ISO 3452-1: 2015 C1.8

ACCEPTABLE CRITERIA: ASME Sec VIII, Div-I, App-8 and ISO 23277-2015, C1.5

PENETRANT: MAKE & IDENTIFICATION: SMART CHOICE 5P-10 Lot No. 2206035 D/M - June '22 D/E - June '24

DRYING TIME AFTER CLEANING: 15 minutes (Min)

PENETRANT REMOVER: MAKE & IDENTIFICATION: SMART CHOICE 5C-20 Lot No. 2206034 D/M - June '22 D/E - June '24

DWELL TIME: 15 minutes (Min)

DEVELOPER: MAKE & IDENTIFICATION: SMART CHOICE 5D-30 Lot No. 2206026 D/D/M - Aug '22 D/E - Aug '24

DEVELOPMENT TIME: 15 minutes (approx)

SURFACE Temp: 31°C

Ambient Temp: 31°C

VISIBLE LIGHT INTENSITY: 1050 LUX

CALIBRATION BLOCK IDENTIFICATION: N/A

SURFACE FROM WHICH EXAMINATION CONDUCTED: Only weld & HAZ.

OBSERVATION: No relevant indication was found at this stage.

POST CLEANING: Surface was cleaned after examination.

OPERATOR'S NAME: S. K. Shee

APPROVED BY: J. Karmakar

WITNESSED BY: Mr. S. Bag

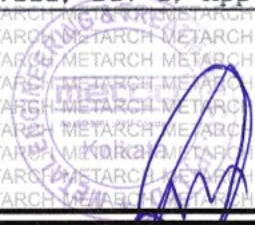
LEVEL & CERT. NO: N/LP/SNT-JC-2A INDI/PT/0723

ASNT NDT LEVEL: III, RT, UT, MT, PT & VT & CERT. NO: 224655

CUSTOMER: METCO

REMARKS: Welding joints of above materials are acceptable after liquid Penetrant Examination as per ASME Sec VIII, Div-I, App-8 and ISO 23277:2015, C1.5.

Identification of tested job



3-14-2023
 Jointly witnessed by
 1. Mr. S. Bag
 2. Mr. S. K. Shee
 For Metal Engg. & Testing & Research Centre
 Howrah

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- Appropriate test condition has been maintained without any deviation for the specified test method

METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

LABORATORY : HOWRAH AMTA ROAD, KANTALIA, HOWRAH-711409

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TC-5182

LIQUID PENETRANT EXAMINATION TEST REPORT

UJR No. TC518223000000535F

T.C. NO: MH/1P0149/23-24

DATE: 01.08.2023

PAGE NO 1 of 2

SOLVENT REMOVABLE COLOUR CONTRAST

JOB CARD NO: July/23/30/1 to 8, Dt: 25.07.2023	DATE OF TEST: 25.07.2023
CUSTOMER: Metal Engg. & Treatment Co. Pvt. Ltd., Howrah	CONTACT PERSON: Mr. S. Bag
Location of Job: Unit 1 (Brg. Div.) Dasnagar Howrah	Letter No. BRG-23/LP-820, Letter, Dt. 25.07.2023
	Job Ref. No. 5238 MT
	Client: Muller International Limited
	Project: Truss Khiru Bridge at 85th Km.
	Onaka - Jaydepur Mymensingh National Highway (N3)

MATERIAL: ASTM A 709 (Gr. A36) SURFACE CONDITION: Slag, Oil & Paint free

NAME OF PART:

Sr.	Drawing No.	Name of Part	Joint Qty	No. of Expn. Joint	Unit welding length	Total Welding Length	Sr. No.
01	3-5238 MT-NT	Edge Beam & Clamp Device	04 Nos.	02 Nos. Joint	3.85 m (approx)	30.80 m (approx)	NT-9 & NT-10
		Edge Beam & Splice Plate	04 Nos.	02 Nos. Joint	0.15 m (approx)	1.20 m (approx)	NT-9 & NT-10

APPLICABLE TEST SPEC: SE-165 (2017) or ISO 3452 -1: 2013 E1.8 ACCEPTABLE CRITERIA: ASME Sec VIII, Div-I, App-8 and ISO 23277-2015, E1.5

PENETRANT: MAKE & IDENTIFICATION: ORION-115P Batch No. P/007/2023 D/M - July '23 D/E - June '25 DRYING TIME AFTER CLEANING: 15 minutes (Min)

PENETRANT REMOVER: MAKE & IDENTIFICATION: ORION-115PR Batch No. R/005/2023 D/M - May '23 D/E - Apr '25 DWELL TIME: 15 minutes (Min)

DEVELOPER: MAKE & IDENTIFICATION: ORION-115D Batch No. D/003/2023 D/M - Mar '23 D/E - Feb '25 DEVELOPMENT TIME: 15 minutes (approx)

SURFACE Temp: 31°C Ambient Temp: 31°C

VISIBLE LIGHT INTENSITY: 1050 LUX

CALIBRATION BLOCK IDENTIFICATION: N/A SURFACE FROM WHICH EXAMINATION CONDUCTED: Only weld & HAZ.

OBSERVATION: No relevant indication was found at this stage.

POST CLEANING: Surface was cleaned after examination

OPERATOR'S NAME: S. K. Shee APPROVED BY: J. Karmakar WITNESSED BY: Mr. S. Bag

LEVEL: III/PT/INT-TC-1A ASNT NDT LEVEL: III/RT, UT, MT, PT & VT CUSTOMER: METCO

& CERT. NO.: INDI/PT/0723 & CERT. NO.: 224655

REMARKS: Welding joints of above materials are acceptable after Liquid Penetrant Examination as per ASME Sec VIII, Div-I, App-8 and ISO 23277: 2015, E1.5

Identification of tested job



J. Karmakar
Head of Quality Management
For Metal Engg. & Testing & Research Centre

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METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

LABORATORY : HOWRAH AMTA ROAD, KANTALIA, HOWRAH-711409



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TC-5182

LIQUID PENETRANT EXAMINATION TEST REPORT

ULR No. TC518223000000535F
 T.C. NO. MH/UP0149/23-24
 DATE: 01.08.2023
 PAGE NO. 2 of 2

SOLVENT REMOVABLE COLOUR CONTRAST

JOB CARD NO: July/23/30/9 to 84 Dt. 25.07.2023 **DATE OF TEST:** 25.07.2023
CUSTOMER: Metal Engg. & Treatment Co. Pvt. Ltd., Howrah **CONTACT PERSON:** Mr. S. Bag
Location of Job: Unit - 1 (Brg Div.) Dasnagar, Howrah **Letter No:** BRG-23/LP-820 Letter Dt. 25.07.2023
Job Ref No: 5238 MT **Client:** Muller International Limited
Project: Truss Khiru Bridge at 85th Km Dhaka - Jaydebpur Mymensingh National Highway (N3)
MATERIAL: ASTM A 709 (Gr. A36) **SURFACE CONDITION:** Slag, Oil & Paint free

Sr.	Drawing No.	Name of Part	Joint Qty	No. of Expn. Joint	Unit welding length	Total Welding Length	Sr. No.
01	3-5238 MT-MT	Edge Beam & Lip	04 Nos.	02 Nos. Joint	0.30 m (approx)	2.40 m (approx)	NT-9 & NT-10
		Edge Beam & Loop Anchor	72 Nos.	02 Nos. Joint	0.40 m (approx)	57.60 m (approx)	NT-9 & NT-10

APPLICABLE TEST SPEC: SE-165 (2017) or ISO 3452 - 1: 2013 C1.8 **ACCEPTABLE CRITERIA:** ASME Sec VIII, Div-I, App-8 and ISO 23277-2015 C1.5

PENETRANT: MAKE & IDENTIFICATION: ORION-215P Batch No. P/007/2023 D/M - July '23 D/E - June '25 **DRYING TIME AFTER CLEANING:** 15 minutes (Min)

PENETRANT REMOVER: MAKE & IDENTIFICATION: ORION-115PR Batch No. R/005/2023 D/M - May '23 D/E - Apr '25 **DWELL TIME:** 15 minutes (Min)

DEVELOPER: MAKE & IDENTIFICATION: ORION-115D Batch No. D/003/2023 D/M - Mar '23 D/E - Feb '25 **DEVELOPMENT TIME:** 15 minutes (approx)

SURFACE Temp: 31°C **Ambient Temp:** 31°C

VISIBLE LIGHT INTENSITY: 1050 LUX **CALIBRATION BLOCK IDENTIFICATION:** N/A **SURFACE FROM WHICH EXAMINATION CONDUCTED:** Only weld & HAZ

OBSERVATION: No relevant indication was found at this stage

POST CLEANING: Surface was cleaned after examination.

OPERATOR'S NAME: S.K. Shee **APPROVED BY:** J. Karmakar **WITNESSED BY:** Mr. S. Bag
LEVEL & CERT. NO.: II/LPT/SNT-TC-1A (INDI/PT/0725) **ASNT NDT LEVEL & CERT. NO.:** III/RT, UT, MT, PT & VT 224655 **CUSTOMER:** METCO

REMARKS: Welding joints of above materials are acceptable after Liquid Penetrant Examination as per ASME Sec VIII, Div-1, App-8 and ISO 23277: 2015, C1.5.

Identification of tested job



(Signatures)

- Test results relate only to the item tested • This certificate should not be reproduced except in full without the written approval of the laboratory • The Laboratory is not liable for return of sample after three months from the date of issue of test certificate.
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METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

LABORATORY : HOWRAH AMTA ROAD, KANTALIA, HOWRAH-711409

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TC-5182

LIQUID PENETRANT EXAMINATION TEST REPORT

ULR No. TC518223000000598F
T. C NO: MH/LP0182/23-24
DATE: 07.09.2023
PAGE NO. 2 of 2

SOLVENT REMOVABLE COLOUR CONTRAST

JOB CARD NO: July/23/35/9 to 84, Dt. 28.07.2023

DATE OF TEST: 28.07.2023

CUSTOMER: Metal Engg. & Treatment Co. Pvt. Ltd. - Howrah
Location of Job : Unit - 1 (Brg. Div.), Dasnagar, Howrah

CONTACT PERSON: Mr. S. Bag
Letter No. BRG-23/LP-823, Letter, Dt. 28.07.2023
Job Ref. No. 5238 MT

Client : Muller International Limited
Project : Truss Khiru Bridge at 85th Km.
Dhaka - Jaydebpur Mymensingh National Highway (N3)

MATERIAL: ASTM A 709 (Gr. A36)

SURFACE CONDITION: Slag, Oil & Paint free

NAME OF PART:

Sr.	Drawing No.	Name of Part	Joint Qty	No. of Expn. Joint	Unit welding length	Total Welding Length	Sr. No.
01	3-5238 MT-NT	Edge Beam & Lip	04 Nos.	02 Nos. Joint	0.30 m (approx)	2.40 m (approx)	NT-11 & NT-12
		Edge Beam & Loop Anchor	72 Nos.	02 Nos. Joint	0.40 m (approx)	57.60 m (approx)	NT-11 & NT-12

APPLICABLE TEST SPEC. : SE-165 (2017) or ISO 3452 -1: 2013 Cl.8

ACCEPTABLE CRITERIA : ASME Sec VIII, Div-I, App-8 and ISO 23277-2015, Cl.5

PENETRANT MAKE & IDENTIFICATION:
ORION-115P Batch No. P/007/2023
D/M - July'23 D/E - June '25

DRYING TIME AFTER CLEANING: 15 minutes (Min)

PENETRANT REMOVER MAKE & IDENTIFICATION:
ORION-115PR Batch No. R/005/2023
D/M - May'23 D/E - Apr '25

DWELL TIME: 15 minutes (Min)

DEVELOPER MAKE & IDENTIFICATION:
ORION-115D Batch No. D/003/2023
D/M - Mar'23 D/E - Feb '25

DEVELOPMENT TIME: 15 minutes (approx)

SURFACE Temp. 32°C

Ambient Temp. 32°C

VISIBLE LIGHT INTENSITY: 1050 LUX

CALIBRATION BLOCK IDENTIFICATION: N/A

SURFACE FROM WHICH EXAMINATION CONDUCTED: Only weld & HAZ.

OBSERVATION: No relevant indication was found at this stage.

POST CLEANING: Surface was cleaned after examination

OPERATOR'S NAME: S. K. Shee

APPROVED BY: J. Karmakar

WITNESSED BY: Mr. S. Bag

LEVEL: II/LPT/SNT-TC-1A

ASNT NDT LEVEL: III/RT, UT, MT, PT & VT

CUSTOMER: METCO

& CERT. NO.: INDT/PT/0723

& CERT. NO.: 224655

REMARKS: Welding joints of above materials are acceptable after Liquid Penetrant Examination as per ASME Sec VIII, Div-I, App-8 and ISO 23277: 2015, Cl.5.

Identification of tested job



J. Karmakar
Authorised Signatory
(Chief Manager NDT)

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METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

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TC-5182

LIQUID PENETRANT EXAMINATION TEST REPORT

ULR No: TC518223000000598F

T.C. NO.: MH/LP0182/23-24

DATE: 07.09.2023

PAGE NO. 1 of 2

SOLVENT REMOVABLE COLOUR CONTRAST

JOB CARD NO: July/23/35/1 to 8, Dt. 28.07.2023

DATE OF TEST : 28.07.2023

CUSTOMER: Metal Engg. & Treatment Co. Pvt. Ltd., Howrah

CONTACT PERSON: Mr. S. Bag

Location of Job : Unit - 1 (Brg. Div.) Dasnagar, Howrah

Letter No. BRG-23/LP-823, Letter, Dt. 28.07.2023

Job Ref. No. 5238 MT

Client : Muller International Limited

Project : Truss Khiru Bridge at 85th Km

MATERIAL: ASTM A 709 (Gr. A36)

Dhaka - Jaydebpur Mymensingh National Highway (N3)

NAME OF PART:

SURFACE CONDITION: Slag, Oil & Paint free

Sr.	Drawing No.	Name of Part	Joint Qty	No. of Expn. Joint	Unit welding length	Total Welding Length	Sr. No.
01	3-5238 MT-NT	Edge Beam & Clamp Device	04 Nos.	02 Nos. Joint	3.85 m (approx)	30.80 m (approx)	NT-11 & NT-12
		Edge Beam & Splice Plate	04 Nos.	02 Nos. Joint	0.15 m (approx)	1.20 m (approx)	NT-11 & NT-12

APPLICABLE TEST SPEC.: SE-165 (2017) or ISO 3452 -1: 2013 Cl.8

ACCEPTABLE CRITERIA : ASME Sec VIII, Div-I, App-8 and ISO 23277-2015, Cl.5

PENETRANT:

MAKE & IDENTIFICATION:
ORION-115P Batch No. P/007/2023
D/M - July'23 D/E - June '25

DRYING TIME AFTER CLEANING: 15 minutes (Min)

PENETRANT REMOVER:

MAKE & IDENTIFICATION:
ORION-115PR Batch No. R/005/2023
D/M - May'23 D/E - Apr '25

DWELL TIME: 15 minutes (Min)

DEVELOPER:

MAKE & IDENTIFICATION:
ORION-115D Batch No. D/003/2023
D/M - Mar'23 D/E - Feb '25

DEVELOPMENT TIME: 15 minutes (approx)

SURFACE Temp. 32°C

Ambient Temp. 32°C

VISIBLE LIGHT INTENSITY: 1050 LUX

CALIBRATION BLOCK IDENTIFICATION: N/A

SURFACE FROM WHICH EXAMINATION CONDUCTED: Only weld & HAZ.

OBSERVATION : No relevant indication was found at this stage.

POST CLEANING: Surface was cleaned after examination

OPERATOR'S NAME: S. K. Shee

APPROVED BY: J. Karmakar

WITNESSED BY: Mr. S. Bag

LEVEL: II/LPT/SNT-TC-1A

ASNT NDT LEVEL: III/RT, UT, MT, PT & VT & CERT. NO.: 224655

CUSTOMER: METCO

& CERT. NO.: INDT/PT/0723

REMARKS: Welding joints of above materials are acceptable after Liquid Penetrant Examination as per ASME Sec VIII, Div-I, App-8 and ISO 23277: 2015, Cl.5

Identification of tested job



J. Karmakar
Authorised Signatory
(Chief Manager NDT)
For Metal Engg. & Testing & Research Centre, Howrah

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LIQUID PENETRANT EXAMINATION TEST REPORT

ULR No: TC51822300000597F

T. C. NO: MH/LP0181/23-24

DATE : 07.09.2023

PAGE NO. 1 of 2

SOLVENT REMOVABLE COLOUR CONTRAST

JOB CARD NO: July/23/37/1 to 8, Dt. 29.07.2023

DATE OF TEST : 29.07.2023

CUSTOMER: Metal Engg. & Treatment Co. Pvt. Ltd., Howrah
Location of Job: Unit - 1 (Brg. Div.), Dasnagar, Howrah

CONTACT PERSON: Mr. S. Bag
Letter No. BRG-23/LP-824, Letter, Dt. 29.07.2023

Job Ref. No. 5238 MT
Client : Muller International Limited
Project : Truss Khiru Bridge at 85th Km.
Dhaka - Jaydebpur Mymensingh National Highway (N3)

MATERIAL: ASTM A 709 (Gr. A36)

SURFACE CONDITION: Slag, Oil & Paint free

NAME OF PART:

Sr.	Drawing No.	Name of Part	Joint Qty	No. of Expn. Joint	Unit welding length	Total Welding Length	Sr. No.
01	3-5238 MT-NT	Edge Beam & Clamp Device	04 Nos.	02 Nos. Joint	3.85 m (approx)	30.80 m (approx)	NT-13 & NT-14
		Edge Beam & Splice Plate	04 Nos.	02 Nos. Joint	0.15 m (approx)	1.20 m (approx)	NT-13 & NT-14

APPLICABLE TEST SPEC. : SE-165 (2017) or
ISO 3452 -1: 2013 Cl.8

ACCEPTABLE CRITERIA : ASME Sec VIII, Div-I, App-8 and
ISO 23277-2015, Cl.5

PENETRANT:

MAKE & IDENTIFICATION:

ORION-115P Batch No. P/007/2023
D/M = July'23 D/E = June '25

DRYING TIME AFTER CLEANING: 15 minutes (Min)

PENETRANT REMOVER:

MAKE & IDENTIFICATION:

ORION-115PR Batch No. R/005/2023
D/M = May'23 D/E = Apr '25

DWELL TIME: 15 minutes (Min)

DEVELOPER:

MAKE & IDENTIFICATION:

ORION-115D Batch No. D/003/2023
D/M = Mar'23 D/E = Feb '25

DEVELOPMENT TIME: 15 minutes (approx)

SURFACE Temp. 32°C

Ambient Temp. 32°C

VISIBLE LIGHT INTENSITY: 1050 LUX

CALIBRATION BLOCK IDENTIFICATION:

N/A

SURFACE FROM WHICH EXAMINATION CONDUCTED:

Only weld & HAZ.

OBSERVATION : No relevant indication was found at this stage.

POST CLEANING: Surface was cleaned after examination.

OPERATOR'S NAME: S. K. Shee

APPROVED BY: J. Karmakar

WITNESSED BY: Mr. S. Bag

LEVEL & CERT. NO. : II/LPT/SNT-TC-1A
INDT/PT/0723

ASNT NDT LEVEL: III/RT, UT, MT, PT & VT
& CERT. NO. : 224655

CUSTOMER: METCO

REMARKS: Welding joints of above materials are acceptable after Liquid Penetrant Examination as per ASME Sec VIII, Div-I, App-8 and ISO 23277:2015, Cl.5.

Identification of tested job



J. Karmakar
Authorised Signatory
(Chief Manager NDT)
For Metal Engg. & Testing & Research Centre, Howrah

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TC-5182

LIQUID PENETRANT EXAMINATION TEST REPORT

ULR No. TC518223000000597F
T. c. no: MH/LP0181/23-24
DATE: 07.09.2023
PAGE NO. 2 of 2

SOLVENT REMOVABLE COLOUR CONTRAST

JOB CARD NO.: July/23/37/9 to 84, Dt. 29.07.2023

DATE OF TEST : 29.07.2023

CUSTOMER: Metal Engg. & Treatment Co. Pvt. Ltd., Howrah
Location of Job : Unit - 1 (Brg. Div.), Dasnagar, Howrah

CONTACT PERSON: Mr. S. Bag
Letter No. BRG-23/LP-824, Letter, Dt. 29.07.2023
Job Ref. No. 5238 MT

Client : Muller International Limited
Project : Truss Khiru Bridge at 85th Km.
Dhaka - Jaydebpur Mymensingh National Highway (N3)

MATERIAL: ASTM A 709 (Gr. A36)

SURFACE CONDITION: Slag, Oil & Paint free

NAME OF PART:

Sr	Drawing No.	Name of Part	Joint Qty	No. of Expn. Joint	Unit welding length	Total Welding Length	Sr. No.
01	3-5238 MT-NT	Edge Beam & Lip	04 Nos.	02 Nos. Joint	0.30 m (approx)	2.40 m (approx)	NT-13 & NT-14
		Edge Beam & Loop Anchor	72 Nos.	02 Nos. Joint	0.40 m (approx)	57.60 m (approx)	NT-13 & NT-14

APPLICABLE TEST SPEC.: SE-165 (2017) or ISO 3452 -1: 2013 Cl.8

ACCEPTABLE CRITERIA : ASME Sec VIII, Div-I, App-8 and ISO 23277-2015, Cl.5

PENETRANT: MAKE & IDENTIFICATION:
ORION-115P Batch No. P/007/2023
D/M - July '23 D/E - June '25

DRYING TIME AFTER CLEANING: 15 minutes (Min)

PENETRANT REMOVER: MAKE & IDENTIFICATION:
ORION-115PR Batch No. R/005/2023
D/M - May '23 D/E - Apr '25

DWELL TIME: 15 minutes (Min)

DEVELOPER: MAKE & IDENTIFICATION:
ORION-115D Batch No. D/003/2023
D/M - Mar '23 D/E - Feb '25

DEVELOPMENT TIME: 15 minutes (approx)

SURFACE Temp. 32°C

Ambient Temp. 32°C

VISIBLE LIGHT INTENSITY: 1050 LUX

CALIBRATION BLOCK IDENTIFICATION:

N/A

SURFACE FROM WHICH EXAMINATION CONDUCTED:

Only weld & HAZ.

OBSERVATION : No relevant indication was found at this stage.

POST CLEANING: Surface was cleaned after examination.

OPERATOR'S NAME: S. K. Shee

APPROVED BY : J. Karmakar

WITNESSED BY: Mr. S. Bag

LEVEL : II/LPT/SNT-TC-1A

ASNT NDT LEVEL: III/RT, UT, MT, PT & VT

CUSTOMER: METCO

CERT. NO. : INDT/PT/0723

& CERT. NO. : 224655

REMARKS : Welding joints of above materials are acceptable after Liquid Penetrant Examination as per ASME Sec VIII, Div-I, App-8 and ISO 23277: 2015, Cl.5.

Identification of tested job



J. Karmakar
Authorised Signatory
(Chief Manager NDT)

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METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

LABORATORY : HOWRAH AMTA ROAD, KANTALIA, HOWRAH-711409

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TC-5182

LIQUID PENETRANT EXAMINATION TEST REPORT

ULR No: TC518223000000603F

T.C No: MH/LP0184/23-24

DATE: 08.09.2023

PAGE NO. 1 of 2

SOLVENT REMOVABLE COLOUR CONTRAST

JOB CARD NO: July/23/39/1 to 8, Dt. 31.07.2023

DATE OF TEST: 31.07.2023

CUSTOMER: Metal Engg. & Treatment Co. Pvt. Ltd., Howrah

CONTACT PERSON: Mr. S. Bag

Location of Job : Unit - 1 (Brg. Div.), Dasnagar, Howrah

Letter No. BRG-23/LP-826, Letter, Dt. 31.07.2023

Job Ref. No. 5238 MT

Client : Muller International Limited

Project : Truss Khiru Bridge at 85th Km.

Dhaka - Jaydebpur Mymensingh National Highway (N3)

MATERIAL: ASTM A 709 (Gr. A36)

SURFACE CONDITION: Slag, Oil & Paint free

NAME OF PART:

Sr	Drawing No.	Name of Part	Joint Qty	No. of Expn. Joint	Unit welding length	Total Welding Length	Sr. No.
01	3-5238 MT-NT	Edge Beam & Clamp Device	04 Nos.	02 Nos. Joint	3.85 m (approx)	30.80 m (approx)	NT-15 & NT-16
		Edge Beam & Splice Plate	04 Nos.	02 Nos. Joint	0.15 m (approx)	1.20 m (approx)	NT-15 & NT-16

APPLICABLE TEST SPEC.: SE-165 (2017) or ISO 3452 -1: 2013 Cl.8

ACCEPTABLE CRITERIA : ASME Sec VIII, Div-I, App-8 and ISO 23277-2015, Cl.5

Penetrant: MAKE & IDENTIFICATION: ORION-115P Batch No. P/007/2023
D/M - July/23 D/E - June '25

DRYING TIME AFTER CLEANING: 15 minutes (Min)

Penetrant Remover: MAKE & IDENTIFICATION: ORION-115PR Batch No. R/005/2023
D/M - May'23 D/E - Apr '25

DWELL TIME: 15 minutes (Min)

Developer: MAKE & IDENTIFICATION: ORION-115D Batch No. D/003/2023
D/M - Mar'23 D/E - Feb '25

DEVELOPMENT TIME: 15 minutes (approx)

SURFACE Temp. 32°C

Ambient Temp. 32°C

VISIBLE LIGHT INTENSITY: 1050 LUX

CALIBRATION BLOCK IDENTIFICATION: N/A

SURFACE FROM WHICH EXAMINATION CONDUCTED: Only weld & HAZ.

OBSERVATION: No relevant indication was found at this stage.

POST CLEANING: Surface was cleaned after examination.

OPERATOR'S NAME: S. K. Shee

APPROVED BY: J. Karmakar

WITNESSED BY: Mr. S. Bag

LEVEL: II/LPT/SNT-TC-1A

ASNT NDT LEVEL: III/RT, UT, MT, PT & VT

CUSTOMER: METCO

& CERT. NO.: INDT/PT/0723

& CERT. NO.: 224655

REMARKS: Welding joints of above materials are acceptable after Liquid Penetrant Examination as per ASME Sec VIII, Div-I, App-8 and ISO 23277: 2015, Cl.5

Identification of tested job



J. Karmakar
Authorised Signatory
(Chief Manager NDT)
For Metal Engg. & Testing
Research Centre, Howrah

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- Appropriate test condition has been maintained without any deviation for the specified test method

METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

LABORATORY : HOWRAH AMTA ROAD, KANTALIA, HOWRAH-711409

METARCH
QR 40

Ph. : 9836709308, E-mail : metarch.howrah@gmail.com
REGD. OFFICE : 235/2, B. B. Ganguly Street (5th Floor) Kolkata-700 012
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TC-5182

LIQUID PENETRANT EXAMINATION TEST REPORT		ULR No. TC518223000000603F T. C. NO: MH/LP0184/23-24 DATE : 08.09.2023 PAGE NO. 2 of 2
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SOLVENT REMOVABLE COLOUR CONTRAST JOB CARD NO: July/23/39/9 to 84 Dt. 31.07.2023 CUSTOMER: Metal Engg. & Treatment Co. Pvt. Ltd., Howrah Location of Job: Unit - 1 (Brg. Div.), Dasnagar, Howrah		DATE OF TEST : 31.07.2023 CONTACT PERSON: Mr. S. Bag Letter No. BRG-23/LP-826, Letter, Dt. 31.07.2023 Job Ref. No. 5238 MT Client : Muller International Limited Project : Truss Khiru Bridge at 85th Km. Dhaka - Jaydebpur Mymensingh National Highway (N3)
--	--	--

MATERIAL: ASTM A 709 (Gr. A36) NAME OF PART:		SURFACE CONDITION: Slag, Oil & Paint free					
Sr.	Drawing No.	Name of Part	Joint Qty	No. of Expn. Joint	Unit welding length	Total Welding Length	Sr.No.
01	3-5238 MT-NT	Edge Beam & Lip	04 Nos.	02 Nos. Joint	0.30 m (approx)	2.40 m (approx)	NT-15 & NT-16
		Edge Beam & Loop Anchor	72 Nos.	02 Nos. Joint	0.40 m (approx)	57.60 m (approx)	NT-15 & NT-16

APPLICABLE TEST SPEC : SE-165 (2017) or ISO 3452 -1: 2013 Cl.8		ACCEPTABLE CRITERIA : ASME Sec VIII, Div-I, App-8 and ISO 23277-2015, Cl.5	
PENETRANT: MAKE & IDENTIFICATION: ORION-115P Batch No. P/007/2023 D/M - July '23 D/E - June '25		DRYING TIME AFTER CLEANING: 15 minutes (Min)	
PENETRANT REMOVER: MAKE & IDENTIFICATION: ORION-115PR Batch No. R/005/2023 D/M - May '23 D/E - Apr '25		DWELL TIME: 15 minutes (Min)	
DEVELOPER: MAKE & IDENTIFICATION: ORION-115D Batch No. D/003/2023 D/M - Mar '23 D/E - Feb '25		DEVELOPMENT TIME: 15 minutes (approx)	
SURFACE Temp. 32°C		Ambient Temp. 32°C	

VISIBLE LIGHT INTENSITY: 1050 LUX CALIBRATION BLOCK IDENTIFICATION: N/A	SURFACE FROM WHICH EXAMINATION CONDUCTED: Only weld & HAZ
--	---

OBSERVATION: No relevant indication was found at this stage.		
POST CLEANING: Surface was cleaned after examination.		
OPERATOR'S NAME: S. K. Shee	APPROVED BY: J. Karmakar	WITNESSED BY: Mr. S. Bag
LEVEL & CERT. NO.: II/LPT/SNT-TC-1A INDT/PT/0723	ASNT NDT LEVEL: III/RT, UT, MT, PT & VT & CERT. NO.: 224655	CUSTOMER: METCO

REMARKS: Welding joints of above materials are acceptable after Liquid Penetrant Examination as per ASME Sec VIII, Div-I, App-8 and ISO 23277: 2015, Cl.5.		
Identification of tested job		J. Karmakar Authorised Signatory (Chief Manager NDT) For Metal Engg. & Testing & Research Centre, Howrah

● Test results relate only to the item tested ● This certificate should not be reproduced except in full without the written approval of the laboratory ● The Laboratory is not liable for return of sample after three months from the date of issue of test certificate. ● Appropriate test condition has been maintained without any deviation for the specified test method

METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

LABORATORY : HOWRAH AMTA ROAD, KANTALIA, HOWRAH-711409



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TC-5182

ULR No. TC518223000000578F

LIQUID PENETRANT EXAMINATION TEST REPORT

T.C. NO. : MH/LP0177/23-24

DATE : 01.09.2023

PAGE NO. 1 of 2

SOLVENT REMOVABLE COLOUR CONTRAST

JOB CARD NO. : July/23/32/1 to 8, Dt. 27.07.2023

DATE OF TEST : 27.07.2023

CUSTOMER : Metal Engg. & Treatment Co. Pvt. Ltd., Howrah

CONTACT PERSON : Mr. S. Bag

Location of Job : Unit - 1 (Brg. Div.), Dasnagar, Howrah

Letter No. BRG-23/LP-827, Letter, Dt. 27.07.2023

Job Ref. No. : 5238 MT

Client : Muller International Limited

Project : Truss Khiru Bridge at 85th Km.

Dhaka - Jaydebpur Mymensingh National Highway (N3)

MATERIAL : ASTM A 709 (Gr. A36)

SURFACE CONDITION : Slag, Oil & Paint free

NAME OF PART :

Sr.	Drawing No.	Name of Part	Joint Qty	No. of Expn. Joint	Unit welding length	Total Welding Length	Sr. No.
01	3-5238 MT-NT	Edge Beam & Clamp Device	04 Nos.	02 Nos. Joint	3.85 m (approx)	30.80 m (approx)	NT-17 & NT-18
		Edge Beam & Splice Plate	04 Nos.	02 Nos. Joint	0.15 m (approx)	1.20 m (approx)	NT-17 & NT-18

APPLICABLE TEST SPEC. : SE-165 (2017) or
ISO 3452-1: 2013 Cl.8

ACCEPTABLE CRITERIA : ASME Sec VIII, Div-I, App-8 and
ISO 23277-2015, Cl.5

PENETRANT : MAKE & IDENTIFICATION : ORION-115P Batch No. P/007/2023
D/M - July '23 D/E - June '25

DRYING TIME AFTER CLEANING : 15 minutes (Min)

PENETRANT REMOVER : MAKE & IDENTIFICATION : ORION-115PR Batch No. R/005/2023
D/M - May '23 D/E - Apr '25

DWELL TIME : 15 minutes (Min)

DEVELOPER : MAKE & IDENTIFICATION : ORION-115D Batch No. D/003/2023
D/M - Mar '23 D/E - Feb '25

DEVELOPMENT TIME : 15 minutes (approx)

SURFACE Temp 32°C

Ambient Temp. 32°C

VISIBLE LIGHT INTENSITY : 1050 LUX

CALIBRATION BLOCK IDENTIFICATION : N/A

SURFACE FROM WHICH EXAMINATION CONDUCTED :

Only weld & HAZ.

OBSERVATION : No relevant indication was found at this stage.

POST CLEANING : Surface was cleaned after examination.

OPERATOR'S NAME : S. K. Shee

APPROVED BY : J. Karmakar

WITNESSED BY : Mr. S. Bag

LEVEL : II/LPT/SNT-TC-1A
& CERT. NO. : INDT/PT/0723

ASNT NDT LEVEL : III/RT, UT, MT, PT & VT
& CERT. NO. : 224655

CUSTOMER : METCO

REMARKS : Welding joints of above materials are acceptable after Liquid Penetrant Examination as per ASME Sec VIII, Div-I, App-8 and ISO 23277: 2015, cl.5.

Identification of tested job

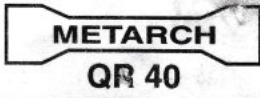


J. Karmakar
Authorised Signatory
(Chief Manager NDT)
For Metal Engg. & Testing &
Research Centre, Howrah

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- Appropriate test condition has been maintained without any deviation for the specified test method

METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

LABORATORY : HOWRAH AMTA ROAD, KANTALIA, HOWRAH-711409



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TC-5182

LIQUID PENETRANT EXAMINATION TEST REPORT

ULR No TC518223000000602F
 T.C. No: MH/LP0183/23-24
 DATE: 08.09.2023
 PAGE NO.. 1 of 2

SOLVENT REMOVABLE COLOUR CONTRAST

JOB CARD NO: Aug/23/2/1 to 8, Dt. 01.08.2023 DATE OF TEST : 01.08.2023
 CUSTOMER: Metal Engg. & Treatment Co. Pvt. Ltd., Howrah CONTACT PERSON: Mr. S. Bag
 Location of Job : Unit - 1 (Brg. Div.), Dasnagar, Howrah Letter No. BRG-23/LP-831, Letter, Dt. 01.08.2023
 Job Ref. No: 5238 MT
 Client : Muller International Limited
 Project : Truss Khiru Bridge at 85th Km.
 Dhaka - Jaydebpur Mymensingh National Highway (N3)

MATERIAL: ASTM A 709 (Gr. A36) SURFACE CONDITION: Slag, Oil & Paint free

NAME OF PART:

Sr.	Drawing No.	Name of Part	Joint Qty.	No. of Expn. Joint	Unit welding length	Total Welding Length	Sr. No.
01	3-5238 MT-NT	Edge Beam & Clamp Device	04 Nos.	02 Nos. Joint	3.85 m (approx)	30.80 m (approx)	NT-19 & NT-20
		Edge Beam & Splice Plate	04 Nos.	02 Nos. Joint	0.15 m (approx)	1.20 m (approx)	NT-19 & NT-20

APPLICABLE TEST SPEC: SE-165 (2017) or ISO 3452 -1: 2013 Cl.8 ACCEPTABLE CRITERIA : ASME Sec VIII, Div-I, App-8 and ISO 23277-2015, Cl.5

PENETRANT: MAKE & IDENTIFICATION: ORION-115P Batch No. P/007/2023 D/M - July'23 D/E - June '25 DRYING TIME AFTER CLEANING: 15 minutes (Min)

PENETRANT REMOVER: MAKE & IDENTIFICATION: ORION-115PR Batch No. R/005/2023 D/M - May'23 D/E - Apr '25 DWELL TIME: 15 minutes (Min)

DEVELOPER: MAKE & IDENTIFICATION: ORION-115D Batch No. D/003/2023 D/M - Mar'23 D/E - Feb '25 DEVELOPMENT TIME: 15 minutes (approx)

SURFACE Temp. 30°C Ambient Temp. 30°C

VISIBLE LIGHT INTENSITY: 1050 LUX

CALIBRATION BLOCK IDENTIFICATION: N/A SURFACE FROM WHICH EXAMINATION CONDUCTED: Only weld & HAZ.

OBSERVATION: No relevant indication was found at this stage.

POST CLEANING: Surface was cleaned after examination.

OPERATOR'S NAME: S. K. Shee APPROVED BY: J. Karmakar WITNESSED BY: Mr. S. Bag
 LEVEL: II/LPT/SNT-TC-1A ASNT NDT LEVEL: III/RT, UT, MT, PT & VT CUSTOMER: METCO
 & CERT. NO: INDT/PT/0723 & CERT. NO: 224655

REMARKS: Welding joints of above materials are acceptable after Liquid Penetrant Examination as per ASME Sec VIII, Div-I, App-8 and ISO 23277: 2015, Cl.5.

Identification of tested job  J. Karmakar
 Authorised Signatory
 (Chief Manager NDT)
 For Metal Engg. & Testing & Research Centre, Howrah

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METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

LABORATORY : HOWRAH AMTA ROAD, KANTALIA, HOWRAH-711409

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TC-5182

LIQUID PENETRANT EXAMINATION TEST REPORT

ULR No TC51822300000602F

T. C. NO: MH/LP0183/23-24

DATE: 08.09.2023

PAGE NO. 2 of 2

SOLVENT REMOVABLE COLOUR CONTRAST

JOB CARD NO: Aug/23/2/9 to 84, Dt. 01.08.2023

DATE OF TEST : 01.08.2023

CUSTOMER: Metal Engg. & Treatment Co. Pvt. Ltd., Howrah

CONTACT PERSON: Mr. S. Bag

Location of Job: Unit - 1 (Brg. Div.), Dasnagar, Howrah

Letter No. BRG-23/LP-831, Letter, Dt. 01.08.2023

Job Ref. No: 5238 MT

Client: Muller International Limited

Project: Truss Khiru Bridge at 85th Km.

Dhaka - Jaydebpur Mymensingh National Highway (N3)

MATERIAL: ASTM A 709 (Gr. A36)

SURFACE CONDITION: Slag, Oil & Paint free

NAME OF PART:

Sr.	Drawing No.	Name of Part	Joint Qty.	No. of Expn. Joint	Unit welding length	Total Welding Length	Sr. No.
01	3-5238 MT-NT	Edge Beam & Lip	04 Nos.	02 Nos. Joint	0.30 m (approx)	2.40 m (approx)	NT-19 & NT-20
		Edge Beam & Loop Anchor	72 Nos.	02 Nos. Joint	0.40 m (approx)	57.60 m (approx)	NT-19 & NT-20

APPLICABLE TEST SPEC.: SE-165 (2017) or ISO 3452-1: 2013 Cl.8

ACCEPTABLE CRITERIA: ASME Sec VIII, Div-I, App-8 and ISO 23277-2015, Cl.5

PENETRANT: MAKE & IDENTIFICATION:
ORION-115P Batch No. P/007/2023
D/M - July '23 D/E - June '25

DRYING TIME AFTER CLEANING: 15 minutes (Min)

PENETRANT REMOVER: MAKE & IDENTIFICATION:
ORION-115PR Batch No. R/005/2023
D/M - May '23 D/E - Apr '25

DWELL TIME: 15 minutes (Min)

DEVELOPER: MAKE & IDENTIFICATION:
ORION-115D Batch No. D/003/2023
D/M - Mar '23 D/E - Feb '25

DEVELOPMENT TIME: 15 minutes (approx)

SURFACE Temp. 30°C

Ambient Temp. 30°C

VISIBLE LIGHT INTENSITY: 1050 LUX

CALIBRATION BLOCK IDENTIFICATION: N/A

SURFACE FROM WHICH EXAMINATION CONDUCTED: Only weld & HAZ.

OBSERVATION: No relevant indication was found at this stage.

POST CLEANING: Surface was cleaned after examination.

OPERATOR'S NAME: S. K. Shee

APPROVED BY: J. Karmakar

WITNESSED BY: Mr. S. Bag

LEVEL & CERT. NO.: II/LPT/SNT-TC-1A

ASNT NDT LEVEL: III/RT, UT, MT, PT & VT

CUSTOMER: METCO

& CERT. NO.: INDT/PT/0723

& CERT. NO.: 224655

REMARKS: Welding joints of above materials are acceptable after Liquid Penetrant Examination as per ASME Sec VIII, Div-I, App-8 and ISO 23277: 2015, Cl.5.

Identification of tested job



J. Karmakar
Authorised Signatory
(Chief Manager NDT)
For Metal Engg. & Testing Research Centre, Howrah

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METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

LABORATORY : HOWRAH AMTA ROAD, KANTALIA, HOWRAH-711409

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TC-5182

LIQUID PENETRANT EXAMINATION TEST REPORT

ULR No. TC51822300000604F

T.C. No: MH/LP0185/23-24

DATE: 08.09.2023

PAGE NO. : 1 of 2

SOLVENT REMOVABLE COLOUR CONTRAST

JOB CARD NO: Aug/23/5/1 to 8; Dt. 07.08.2023

DATE OF TEST : 07.08.2023

CUSTOMER: Metal Engg. & Treatment Co. Pvt. Ltd., Howrah

CONTACT PERSON: Mr. S. Bag

Location of Job : Unit - 1 (Brg. Div.), Dasnagar, Howrah

Letter No. BRG-23/LP-835, Letter, Dt. 07.08.2023

Job Ref. No. 5238 MT

Client : Muller International Limited

Project : Truss Khiru Bridge at 85th Km.

Dhaka - Jaydebpur Mymensingh National Highway (N3)

MATERIAL: ASTM A 709 (Gr. A36)

SURFACE CONDITION: Slag, Oil & Paint free

NAME OF PART:

Sr.	Drawing No.	Name of Part	Joint Qty	No. of Expn. Joint	Unit welding length	Total Welding Length	Sr. No.
01	3-5238 MT-NT	Edge Beam & Clamp Device	04 Nos.	02 Nos. Joint	3.85 m (approx)	30.80 m (approx)	NT-21 & NT-22
		Edge Beam & Splice Plate	04 Nos.	02 Nos. Joint	0.15 m (approx)	1.20 m (approx)	NT-21 & NT-22

APPLICABLE TEST SPEC.: SE-165 (2017) or ISO 3452 -1: 2013 Cl.8

ACCEPTABLE CRITERIA : ASME Sec VIII, Div-I, App-8 and ISO 23277-2015, Cl.5

PENETRANT:

MAKE & IDENTIFICATION:

DRYING TIME AFTER CLEANING: 15 minutes (Min)

ORION-115P Batch No. P/007/2023
D/M - July'23 D/E - June '25

PENETRANT REMOVER:

MAKE & IDENTIFICATION:

DWELL TIME: 15 minutes (Min)

ORION-115PR Batch No. R/005/2023
D/M - May'23 D/E - Apr '25

DEVELOPER:

MAKE & IDENTIFICATION:

DEVELOPMENT TIME: 15 minutes (approx)

ORION-115D Batch No. D/003/2023
D/M - Mar'23 D/E - Feb '25

SURFACE Temp. 30°C

Ambient Temp. 30°C

VISIBLE LIGHT INTENSITY: 1050 LUX

CALIBRATION BLOCK IDENTIFICATION:

N/A

SURFACE FROM WHICH EXAMINATION CONDUCTED:

Only weld & HAZ.

OBSERVATION: No relevant indication was found at this stage.

POST-CLEANING: Surface was cleaned after examination

OPERATOR'S NAME: S. K. Shee

APPROVED BY : J. Karmakar

WITNESSED BY: Mr. S. Bag

LEVEL : II/LPT/SNT-TC-1A

ASNT NDT LEVEL: III/RT, UT, MT, PT & VT

CUSTOMER: METCO

& CERT. NO. : INDT/PT/0723

& CERT. NO. : 224655

REMARKS : Welding joints of above materials are acceptable after Liquid Penetrant Examination as per ASME Sec VIII, Div-I, App-8 and ISO 23277: 2015, Cl.5.

Identification of tested job




J. Karmakar
Authorised Signatory
(Chief Manager NDT)
For Metal Engg. & Testing & Research Centre, Howrah

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METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

LABORATORY : HOWRAH AMTA ROAD, KANTALIA, HOWRAH-711409

METARCH

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TC-5182

LIQUID PENETRANT EXAMINATION TEST REPORT

ULR No. TC518223000000604F

T.C. No. MH/LP0185/23-24

DATE: 08.09.2023

PAGE NO. 2 of 2

SOLVENT REMOVABLE COLOUR CONTRAST

JOB CARD NO: Aug/23/5/9 to 84, Dt. 07.08.2023

DATE OF TEST : 07.08.2023

CUSTOMER: Metal Engg. & Treatment Co. Pvt. Ltd., Howrah

CONTACT PERSON: Mr. S. Bag

Location of Job : Unit - 1 (Brg. Div.), Dasnagar, Howrah

Letter No. BRG-23/LP-835, Letter, Dt. 07.08.2023

Job Ref. No. 5238 MT

Client : Muller International Limited

Project : Truss Khiru Bridge at 85th Km.

Dhaka - Jaydebpur Mymensingh National Highway (N3)

MATERIAL: ASTM A 709 (Gr. A36)

SURFACE CONDITION: Slag, Oil & Paint free

NAME OF PART:

Sl.	Drawing No.	Name of Part	Joint Qty	No. of Expn. Joint	Unit welding length	Total Welding Length	Sr. No.
01.	3-5238 MT-NT	Edge Beam & Lip	04 Nos.	02 Nos. Joint	0.30 m (approx)	2.40 m (approx)	NT-21 & NT-22
		Edge Beam & Loop Anchor	72 Nos.	02 Nos. Joint	0.40 m (approx)	57.60 m (approx)	NT-21 & NT-22

APPLICABLE TEST SPEC. : SE-165 (2017) or ISO 3452 -1: 2013 Cl.8

ACCEPTABLE CRITERIA : ASME Sec VIII, Div-I, App-8 and ISO 23277-2015, Cl.5

PENETRANT: MAKE & IDENTIFICATION: ORION-115P Batch No. P/007/2023 D/M - July '23 D/E - June '25
DRYING TIME AFTER CLEANING: 15 minutes (Min)

PENETRANT REMOVER: MAKE & IDENTIFICATION: ORION-115PR Batch No. R/005/2023 D/M - May '23 D/E - Apr '25
DWELL TIME: 15 minutes (Min)

DEVELOPER: MAKE & IDENTIFICATION: ORION-115D Batch No. D/003/2023 D/M - Mar '23 D/E - Feb '25
DEVELOPMENT TIME: 15 minutes (approx)
SURFACE Temp. 30°C Ambient Temp. 30°C

VISIBLE LIGHT INTENSITY: 1050 LUX

CALIBRATION BLOCK IDENTIFICATION: N/A

SURFACE FROM WHICH EXAMINATION CONDUCTED:

Only weld & HAZ.

OBSERVATION : No relevant indication was found at this stage.

POST CLEANING: Surface was cleaned after examination.

OPERATOR'S NAME : S. K. Shee

APPROVED BY : J. Karmakar

WITNESSED BY: Mr. S. Bag

LEVEL : II/LPT/SNT-TC-1A

ASNT NDT LEVEL: III/RT, UT, MT, PT & VT

CUSTOMER: METCO

S. CERT. NO. : HINDT/PT/0723

& CERT. NO. : 224655

REMARKS : Welding joints of above materials are acceptable after Liquid Penetrant Examination as per ASME Sec VIII, Div-I, App-8 and ISO 23277: 2015, Cl.5.

Identification of tested job



J. Karmakar
Authorised Signatory
(Chief Manager, NDT)
For Metal Engg. & Testing &

- Test results relate only to the item tested ● This certificate should not be reproduced except in full without the written approval of the laboratory ● The Laboratory is not liable for return of sample after three months from the date of issue of test certificate.
- Appropriate test condition has been maintained without any deviation for the specified test method

METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

LABORATORY : HOWRAH AMTA ROAD, KANTALIA, HOWRAH-711409

METARCH
QR 40

Ph. : 9836709308, E-mail : metarch.howrah@gmail.com
REGD. OFFICE : 235/2, B. B. Ganguly Street (5th Floor) Kolkata-700 012
Ph. : +91 (033) 2215 5731 / 5846, Fax : +91 (033) 2225 7995



An Autonomous Quality Testing Laboratory & Research Centre registered under Society's Act' 1961, Reg. No. S/61855 of 1989-90.

TC-5182

LIQUID PENETRANT EXAMINATION TEST REPORT

ULR No. TC518223000000618F
T. C. No. : MH/LP0187/23-24
DATE : 11.09.2023
PAGE NO. 2 of 2

SOLVENT REMOVABLE COLOUR CONTRAST

JOB CARD NO. : Aug/23/8/9 to 84, Dt. 08.08.2023

DATE OF TEST : 08.08.2023

CUSTOMER : Metal Engg. & Treatment Co. Pvt. Ltd., Howrah

CONTACT PERSON : Mr. S. Bag

Location of Job : Unit - 1 (Brg. Div.), Dasnagar, Howrah

Letter No. BRG-23/LP-839, Letter, Dt. 08.08.2023

Job Ref. No. : 5238 MT

Client : Muller International Limited

Project : Truss Khiru Bridge at 85th Km.

Dhaka - Jaydebpur Mymensingh National Highway (N3)

MATERIAL : ASTM A 709 (Gr. A36)

SURFACE CONDITION : Slag, Oil & Paint free

NAME OF PART :

Sr.	Drawing No.	Name of Part	Joint Qty	No. of Expn. Joint	Unit welding length	Total Welding Length	Sr. No.
01	3-5238 MT-NT	Edge Beam & Lip	04 Nos.	02 Nos. Joint	0.30 m (approx)	2.40 m (approx)	NT-23 & NT-24
		Edge Beam & Loop Anchor	72 Nos.	02 Nos. Joint	0.40 m (approx)	57.60 m (approx)	NT-23 & NT-24

APPLICABLE TEST SPEC. : SE-165 (2017) or ISO 3452 -1: 2013 Cl.8

ACCEPTABLE CRITERIA : ASME Sec VIII, Div-I, App-8 and ISO 23277-2015, Cl.5

PENETRANT :
MAKE & IDENTIFICATION:
ORION-115P Batch No. P/007/2023
D/M - July '23 D/E - June '25

DRYING TIME AFTER CLEANING : 15 minutes (Min)

PENETRANT REMOVER :
MAKE & IDENTIFICATION:
ORION-115PR Batch No. R/005/2023
D/M - May '23 D/E - Apr '25

DWELL TIME : 15 minutes (Min)

DEVELOPER :
MAKE & IDENTIFICATION:
ORION-115D Batch No. D/003/2023
D/M Mar '23 D/E - Feb '25

DEVELOPMENT TIME : 15 minutes (approx)

SURFACE Temp. 33°C

Ambient Temp. 33°C

VISIBLE LIGHT INTENSITY : 1050 LUX

CALIBRATION BLOCK IDENTIFICATION : N/A

SURFACE FROM WHICH EXAMINATION CONDUCTED : Only weld & HAZ

OBSERVATION : No relevant indication was found at this stage.

POST CLEANING : Surface was cleaned after examination.

OPERATOR'S NAME : S. K. Shee

APPROVED BY : J. Karmakar

WITNESSED BY : Mr. S. Bag

LEVEL : II/LPT/SNT-TC-1A

ASNT NDT LEVEL : III/RT, UT, MT, PT & VT

CUSTOMER : METCO

& CERT. NO. : INDT/PT/0723

& CERT. NO. : 224655

REMARKS : Welding joints of above materials are acceptable after Liquid Penetrant Examination as per ASME Sec VIII, Div-I, App-8 and ISO 23277: 2015 Cl. 5

Identification of tested job



J. Karmakar
Authorised Signatory
(Chief Manager NDT)

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- Appropriate test condition has been maintained without any deviation for the specified test method

METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

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QR 40

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TC-5182

LIQUID PENETRANT EXAMINATION TEST REPORT

ULR No. TC518223000000618F
T. C. No. MH/LP0187/23-24
DATE: 11.09.2023
PAGE NO. 1 of 2

SOLVENT REMOVABLE COLOUR CONTRAST

JOB CARD NO: Aug/23/8/1 to 8, Dt. 08.08.2023

DATE OF TEST : 08.08.2023

CUSTOMER: Metal Engg. & Treatment Co. Pvt. Ltd., Howrah

CONTACT PERSON: Mr S. Bag

Location of Job : Unit - 1 (Br. Div.), Dasnagar, Howrah

Letter No. BRG-23/LP-839, Letter, Dt. 08.08.2023

Job Ref. No. 5238 MT

Client : Muller International Limited

Project : Truss Khiru Bridge at 85th Km

Dhaka - Jaydebpur Mymensingh National Highway (N3)

MATERIAL: ASTM A 709 (Gr. A36)

SURFACE CONDITION: Slag, Oil & Paint free

NAME OF PART

Sr.	Drawing No.	Name of Part	Joint Qty	No. of Expn. Joint	Unit welding length	Total Welding Length	Sr. No.
01	3-5238 MT-NT	Edge Beam & Clamp Device	04 Nos.	02 Nos. Joint	3.85 m (approx)	30.80 m (approx)	NT-23 & NT-24
		Edge Beam & Splice Plate	04 Nos.	02 Nos. Joint	0.15 m (approx)	1.20 m (approx)	NT-23 & NT-24

APPLICABLE TEST SPEC.: SE-165 (2017) or ISO 3452 -1: 2013 Cl.8

ACCEPTABLE CRITERIA : ASME Sec VIII, Div-I, App-8 and ISO 23277-2015, Cl.5

Penetrant: MAKE & IDENTIFICATION: ORION-115P Batch No. P/007/2023
D/M - July/23 D/E - June '25

DRYING TIME AFTER CLEANING: 15 minutes (Min)

Penetrant Remover: MAKE & IDENTIFICATION: ORION-115PR Batch No. R/005/2023
D/M - May/23 D/E - Apr '25

DWELL TIME: 15 minutes (Min)

Developer: MAKE & IDENTIFICATION: ORION-115D Batch No. D/003/2023
D/M - Mar/23 D/E - Feb '25

DEVELOPMENT TIME: 15 minutes (approx)

SURFACE Temp. 33°C

Ambient Temp. 33°C

VISIBLE LIGHT INTENSITY: 1050 LUX

CALIBRATION BLOCK IDENTIFICATION: N/A

SURFACE FROM WHICH EXAMINATION CONDUCTED: Only weld & HAZ.

OBSERVATION : No relevant indication was found at this stage.

POST CLEANING: Surface was cleaned after examination.

OPERATOR'S NAME : S. K. Shee

APPROVED BY : J. Karmakar

WITNESSED BY : Mr. S. Bag

LEVEL : II/LPT/SNT-TC-1A

ASNT NDT LEVEL: III/RT, UT, MT, PT & VT

CUSTOMER: METCO

& CERT. NO. : INDT/PT/0723

& CERT. NO. : 224655

REMARKS : Welding joints of above materials are acceptable after Liquid Penetrant Examination as per ASME Sec VIII, Div-I, App-8 and ISO 23277: 2015, Cl.5

Identification of tested job



J. Karmakar
Authorised Signatory
(Chief Manager NDT)
For Metal Engg. & Testing & Research Centre

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- Appropriate test condition has been maintained without any deviation for the specified test method

METAL ENGINEERING & TREATMENT CO. PVT. LTD.

42B, Motilal Basak Gardens, Kolkata - 700 054.

**INSPECTION AND TEST PLAN - GRID BLASTING INSPECTION REPORT**

TEST REPORT NO. : IIR/GB/1F/5238MT/RL-1/2023

DATE : 29.08.2023

- ❖ **CLIENT** : M/s. RENESSA ENTERPRISE, BANGLADESH.
- ❖ **PROJECT** : Truss Khiru Bridge at 85th. Km Dhaka-Jaydebpur Mymensingh National Highway (N3)
- ❖ **L.C. NO.** : 135623011259, Dated: 20.06.2023
- ❖ **PLACE OF TEST** : METCO C.T.I. WORKS, DASNAGAR, HOWRAH.
- ❖ **TEST DONE BY** : ASIT DAS
- ❖ **DATE OF TEST** : 24th to 26th 'August' - 2023

 JOINT DETAILS:

TECHNICAL SPECIFICATIONS	WORK DESCRIPTIONS	DIMENSIONS (in mm.)	QTY./ NO. OFF
<ul style="list-style-type: none"> ● DRAWING NO. : 3 - 5238 MT-NT ● UNIT LENGTH : 7.700 m x 24 Nos ● TOTAL QTY. : 24 Nos. ● TOTAL LENGTH : 184.800 m. ● CELL : 1 	1. EDGE BEAM	1. 3.850 m. of each part.	1. 96 Nos.

 WORKING SCOPE:

ACTIVITY PERFORMED	OBSERBATION	REMARKS
☞ All visible Rust, Mill Scale, Contaminants etc. removed from the material surface.	☞ Removed & found Satisfactory.	
☞ Blasting Surface as per SA 2½.	☞ Near to white Surface (SA 2½). ☞ Anchor Profile 45 - 60 microns.	

Authorized Signatory:



Name: Asit Das
 Designation: Dy. HQC-Brg.
 For, Metal Engineering & Treatment Co. Pvt. Ltd.

Internal Test
Report of
Chloroprene Seal
(as per AASHTO LRFD)



WORK TEST REPORT

DOC. NO. : IIR/WTR/CS		Rev. No. : 01
Prepare By : SB	Approved By : AS	Rev. Date : 01.01.2016

INSPECTION AND TEST PLAN - CYCLIC MOTION TEST

TEST REPORT NO. : WTR/CYCLIC_MOTION/IF/5238MT/RL-1/2023

DATE : 29.08.2023

- ❖ CLIENT : M/s. RENESSA ENTERPRISE, BANGLADESH.
- ❖ PROJECT : Truss Khiru Bridge at 85th. Km Dhaka-Jaydebpur Mymensingh National Highway (N3)
- ❖ L.C. NO. : 135623011259, Dated: 20.06.2023
- ❖ COMPONENT : CHOLOROPRENE SEAL
- ❖ SPECIFICATION : ELASTOMER ASTM D 3542
- ❖ PLACE OF TEST : METCO C.T.I. WORKS, DASNAGAR, HOWRAH
- ❖ TEST DONE BY : ASIT DAS
- ❖ DATE OF TEST : 13th 'August' 2023 to 28th 'August' 2023

TEST DETAILS:

PROPERTY	SPECIFICATION/ TEST METHOD	REQUIREMENT	OBSERVED VALUE	REMARKS
Cyclic Motion Test	According to Appendix A19, AASTHO LRFD B.C.S. 2004/NCHRP Report	a) The test is performed on one meter of the sample piece. b) The test sample is expanded & contracted for 5000 cycles @ min. 30 cycles per hour. c) The test rated movement shall be 10% more than the designed value.	a) No sign of distress was found. b) No permanent set of any component was noticed.	5012 cycles applied. No significant defects were observed and the result found as per the requirement.

Authorized Signatory:

Name: Asit Das
 Designation: Dy. HQC-Brg.
 For, Metal Engineering & Treatment Co. Pvt. Ltd.



WORK TEST REPORT

DOC. NO. : IIR/WTR/CS

Rev. No. : 01

Prepare
By : SBApproved
By : ASRev. Date :
01.01.2016

INSPECTION AND TEST PLAN - DEBRIS EXPELLING TEST

TEST REPORT NO. : WTR/DEBRIS_EXPELLING/1F/5238MT/RL-1/2023

DATE : 29.08.2023

- ❖ CLIENT : M/s. RENESSA ENTERPRISE, BANGLADESH.
- ❖ PROJECT : Truss Khiru Bridge at 85th. Km Dhaka-Jaydebpur Mymensingh National Highway (N3)
- ❖ L.C. NO. : 135623011259, Dated: 20.06.2023
- ❖ COMPONENT : CHOLOROPRENE SEAL
- ❖ SPECIFICATION : ELASTOMER ASTM D 3542
- ❖ PLACE OF TEST : METCO C.T.I. WORKS, DASNAGAR, HOWRAH
- ❖ TEST DONE BY : ASIT DAS
- ❖ DATE OF TEST : 28th 'August' 2023

TEST DETAILS:

PROPERTY	SPECIFICATION/ TEST METHOD	REQUIREMENT	OBSERVED VALUE	REMARKS
Debris Expelling Test	According to Appendix A19, AASTHO LRFD B.C.S. 2004/NCHRP Report	a) The test is done on one meter of the sample piece and fully open gap is filled up with granular debris.	a) 30 Nos. cycles were performed. b) Nearly 21% debris retained after 25 Nos. cycle test.	Satisfactory

Authorized Signatory:



Name: Asit Das
 Designation: Dy. HQC-Brg.
 For, Metal Engineering & Treatment Co. Pvt. Ltd.



WORK TEST REPORT

DOC. NO. : IIR/WTR/CS

Rev. No. : 01

Prepare
By : SBApproved
By : ASRev. Date :
01.01.2016

INSPECTION AND TEST PLAN - PULL OUT TEST

TEST REPORT NO. : WTR/PULL_OUT/1F/5238 MT/RL-1/2023

DATE : 29.08.2023

- ❖ CLIENT : M/s. RENESSA ENTERPRISE, BANGLADESH.
- ❖ PROJECT : Truss Khiru Bridge at 85th. Km Dhaka-Jaydebpur Mymensingh National Highway (N3)
- ❖ L.C. NO. : 135623011259, Dated: 20.06.2023
- ❖ COMPONENT : CHOLOROPRENE SEAL
- ❖ SPECIFICATION : ELASTOMER ASTM D 3542
- ❖ PLACE OF TEST : METCO C.T.I. WORKS, DASNAGAR, HOWRAH
- ❖ TEST DONE BY : ASIT DAS
- ❖ DATE OF TEST : 28th 'August' 2023

TEST DETAILS:

PROPERTY	SPECIFICATION/ TEST METHOD	REQUIREMENT	OBSERVED VALUE	REMARKS
Pull-Out Test	According to Appendix A19, AASTHO LRFD B.C.S. 2004/NCHRP Report	a) The test is performed on one meter of the sample piece and stretched up to 150% of the rated movement.	a) Stretching has observed as 122 mm. b) No slip-off the seal was observed.	No significant defects was observed and found Satisfactory.

Authorized Signatory:

Name: Asit Das
 Designation: Dy. HQC-Brg.
 For, Metal Engineering & Treatment Co. Pvt. Ltd.

METAL ENGINEERING & TREATMENT CO. (P) LTD.

I.I.R. (E.J.) NO.: 5238 MT

ANNEXURE - 8

INSPECTION AND TEST PLAN - GALVANIZING DFT CHECK RECORDS

REPORT NO.	DFT/GALVANIZING/1F/5238MT/RL-1/2023	DATE	29.08.2023
JOINT TYPE	Strip Seal Expansion Joint	PROJECT	Truss Khiru Bridge at 85th. Km Dhaka-Jaydebpur Mymensingh National Highway (N3)
L.C. NO.	135623011259, Dated: 20.06.2023	CONTRACTOR	M/S. RENESSA ENTERPRISE, BANGLA DESH.

DRAWING NO.	EJ TYPE	LENGTH OF JOINT	ELCOMETER READING (D.F.T. CHECKED AT RANDOMLY)																		REMARKS
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
3-5238 MT-NT	D80	7.700 m.	140	120	129	117	105	109	127	107	114	187	154	135	154	137	140	120	129	117	Accepted
3-5238 MT-NT	D80	7.700 m.	167	134	122	101	171	162	130	157	125	137	156	149	107	171	120	179	145	140	Accepted
3-5238 MT-NT	D80	7.700 m.	225	104	157	125	137	156	149	121	134	188	136	175	199	146	112	120	140	187	Accepted
3-5238 MT-NT	D80	7.700 m.	139	174	158	181	190	164	130	148	120	121	134	108	140	120	129	154	134	155	Accepted
3-5238 MT-NT	D80	7.700 m.	154	135	154	123	125	145	149	107	107	109	115	109	139	139	174	154	134	155	Accepted
3-5238 MT-NT	D80	7.700 m.	192	154	172	120	121	134	175	199	139	127	107	114	187	154	135	120	129	117	Accepted
3-5238 MT-NT	D80	7.700 m.	134	155	198	107	109	115	181	167	187	140	181	167	134	122	101	139	174	158	Accepted
3-5238 MT-NT	D80	7.700 m.	119	137	164	139	139	174	187	143	154	187	143	125	104	157	125	154	135	154	Accepted
3-5238 MT-NT	D80	7.700 m.	143	154	146	187	154	135	154	134	155	144	180	129	117	105	109	127	107	155	Accepted
3-5238 MT-NT	D80	7.700 m.	120	115	109	139	139	174	158	129	117	156	132	181	167	172	163	178	137	167	Accepted
3-5238 MT-NT	D80	7.700 m.	107	107	114	187	154	135	154	181	167	134	122	101	171	162	130	148	119	105	Accepted
3-5238 MT-NT	D80	7.700 m.	129	117	105	109	127	107	155	143	185	104	157	125	137	156	149	107	171	173	Accepted
3-5238 MT-NT	D80	7.700 m.	181	167	172	163	178	137	167	154	172	120	121	134	188	136	175	199	146	137	Accepted
3-5238 MT-NT	D80	7.700 m.	172	120	121	134	188	136	175	199	198	107	109	115	145	140	181	167	134	122	Accepted
3-5238 MT-NT	D80	7.700 m.	198	107	109	115	145	140	181	167	105	109	127	107	140	187	143	225	104	157	Accepted
3-5238 MT-NT	D80	7.700 m.	105	109	127	107	140	187	143	225	112	120	140	117	143	225	104	157	125	181	Accepted
3-5238 MT-NT	D80	7.700 m.	112	120	140	117	143	225	104	157	139	174	158	192	154	172	120	121	134	162	Accepted
3-5238 MT-NT	D80	7.700 m.	148	102	108	129	143	154	146	187	154	135	154	134	155	198	107	109	115	118	Accepted
3-5238 MT-NT	D80	7.700 m.	120	179	145	140	181	164	122	154	137	140	154	146	187	154	135	188	136	175	Accepted
3-5238 MT-NT	D80	7.700 m.	112	120	140	187	143	145	183	120	179	145	167	134	125	132	135	154	181	178	Accepted
3-5238 MT-NT	D80	7.700 m.	139	174	158	192	154	134	172	120	121	134	185	104	134	108	140	121	134	108	Accepted
3-5238 MT-NT	D80	7.700 m.	134	188	136	175	199	115	198	107	109	115	172	120	115	109	139	109	115	109	Accepted
3-5238 MT-NT	D80	7.700 m.	115	145	140	181	167	174	158	192	154	176	198	107	107	114	187	179	145	140	Accepted
3-5238 MT-NT	D80	7.700 m.	159	104	157	125	137	156	149	121	134	188	136	175	199	146	112	120	140	187	Accepted

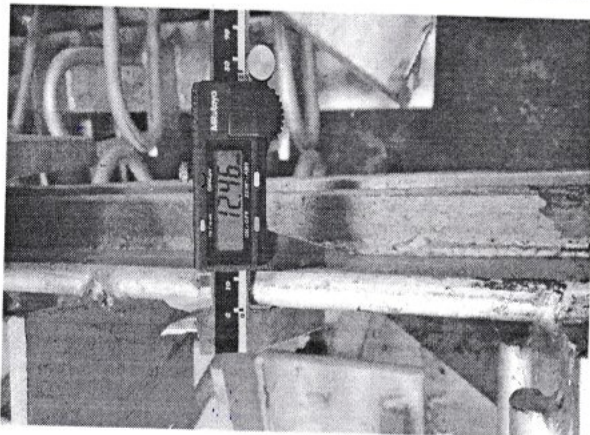
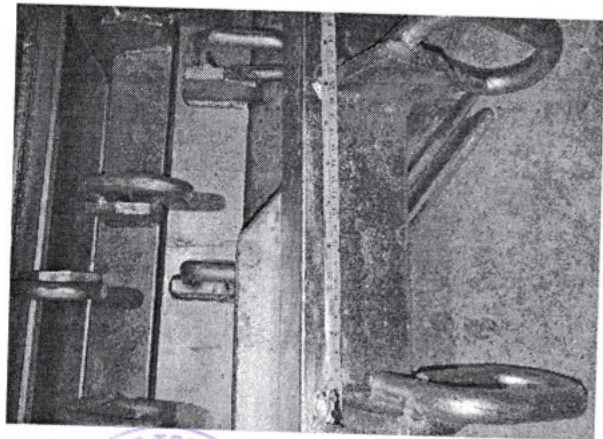
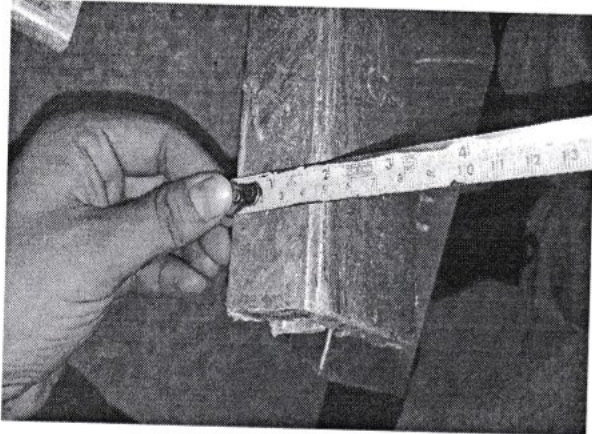
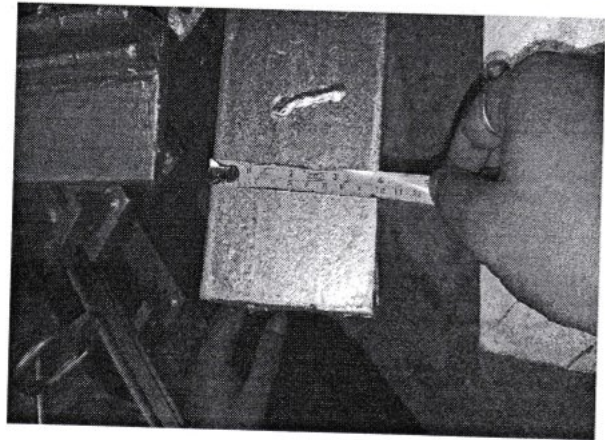
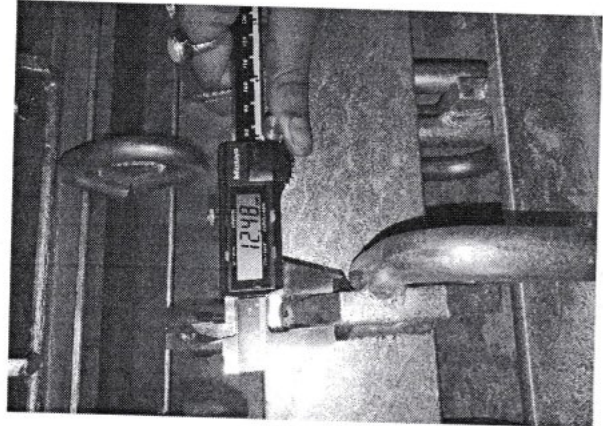
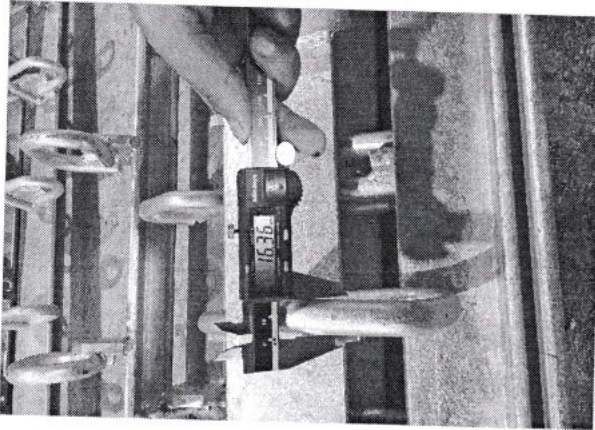
NOTE:

- a) Galvanizing done as per : ASTM A 123 Specification
- b) Required Zinc Coating : 100µm (minimum)
- c) After Galvanized few rectification portion has been applied Cold Zinc Spray.



METCO QC
Name: <i>Asit Das</i>
Signature: <i>[Signature]</i>
Date: <i>29/8/23</i>

DIMENSION CHECK



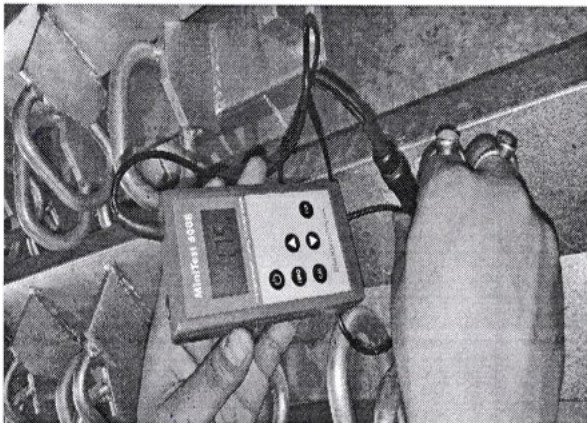
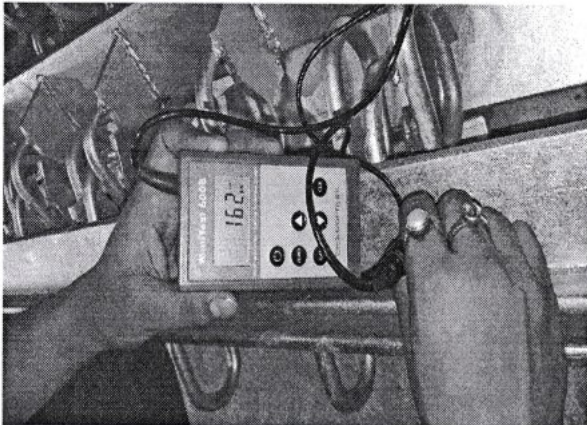
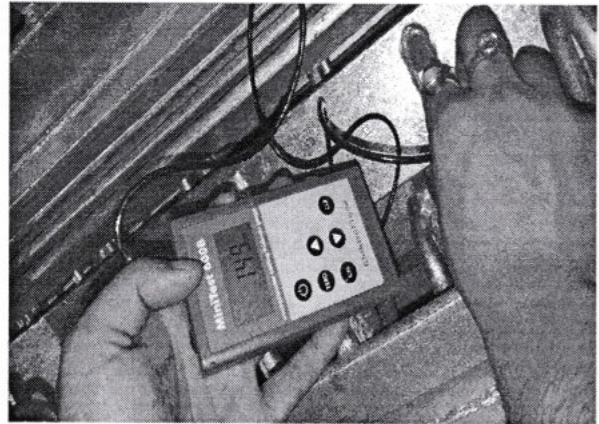
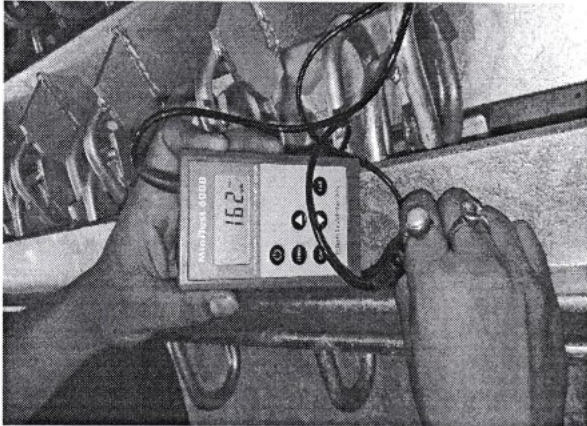
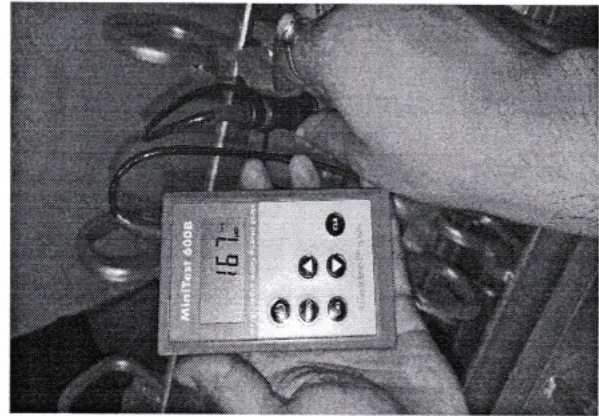
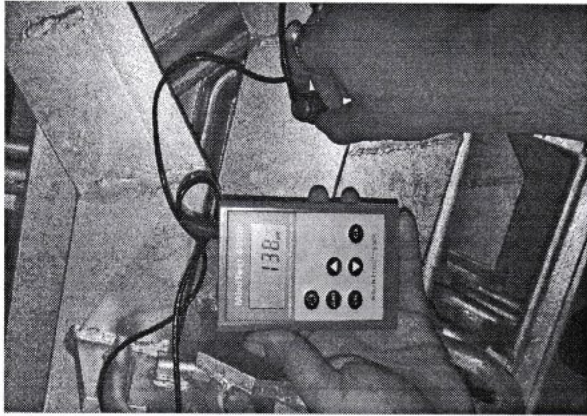
METAL ENGINEERING & TREATMENT CO. PVT. LTD.
An ISO 9001:2015 Company
Santanu Bag

SANTANU BAG
HEAD QUALITY CONTROL (HQC),
METCO, KOLKATA.

METAL ENGINEERING & TREATMENT CO. PVT. LTD.
An ISO 9001:2015 Company
Kolkata
Asit Das

ASIT DAS
DEPUTY HQC,
METCO, KOLKATA.

GALVANIZING DFT CHECK



Santanu Bag

SANTANU BAG
 HEAD QUALITY CONTROL (HQC),
 METCO, KOLKATA

Asit Das

ASIT DAS
 DEPUTY HQC,
 METCO, KOLKATA.

Material Test Certificate

Chloroprene Rubber



Aglow Quality Control Laboratory Pvt. Ltd.

Admin & Accounts Office : 1837, Rajdanga Main Road, Block GD-9,
Ground Floor, Kolkata 700 107
Laboratory : 424, Chota Finga, Dist.- North 24 Parganas, Nimta,
Kolkata - 700 049
Ph. : (033) 2441 8164, 4008 9633
E-mail: info@aglowlab.com; aqcl@rediffmail.com
Website : www.aglowqualitycontrollaboratory.com
CIN : U73100WB2004 PTC 098690
GSTIN: 19AAFCA4791A1ZS



TC-10530

TEST REPORT

ULR : T C 1 0 5 3 0 2 3 0 0 0 0 0 6 6 3 F

Test Report No. : TR-84-06/23 Date of Issue : 11.07.2023

Name of the Customer : M/s. Metal Engineering & Treatment Co. Pvt. Ltd.
Joint & Bearings Division
42B, Motilal Basak Garden Lane,
Kolkata-700 054

Customer letter Ref. No. : NIL Date : 29.06.2023

Sample Description : One no. sample of Rubber Slab & 2 nos. Button, bearing Ref.:
EBPI./CR/45128 & Mix Batch No.: 10828, received from
M/s. Metal Engineering & Treatment Co. Pvt. Ltd.

Product Specification : ASTM D 5973 – 97 (2012), Table 1

Date of Receipt of Sample : 26.06.2023 Date of performance
of Test : 02 - 08.07.2023

TEST RESULTS

The samples have been tested with the following results:-

Sl. No	Test Item	Observed Value		Specified value (ASTM D 5973, Table 1)	Method of Test
		Slab	Button		
1	Shore-A-Hardness	---	62	60 ± 5	ASTM-D-2240-05
2	Tensile Strength, MPa	14.72	---	13.8 Min.	ASTM - D - 412
3	Elongation at Break, %	385.00	---	250 Min.	Do
4	Oil Swell (IRM-903 at 100°C for 70 hrs.)				ASTM - D - 471
a)	Change in Weight, %	+ 22.48	---	45 Max.	
5	Compression Set, % at 70°C for 22 hrs.	---	12.46	35 Max.	ASTM - D - 395
6	Accelerated ageing Test at 100°C for 70 hours.				ASTM - D - 573
a)	Change in Hardness	---	+ 4	0 to 10	
b)	Change in Tensile Strength, %	(-) 6.85	---	20 Max.	
c)	Change in Elongation at break, %	(-) 15.58	---	20 Max.	

Aglow Quality Control Laboratory Pvt. Ltd.,

(Dr. R. K. Mondal, Director)
(Authorized Signatory)

--- End of the report ---

- Note:
- 1) This Report refers to the values obtained at the time of testing and results related to the items tested.
 - 2) This Report can not be reproduced in part or full without written permission of the management.
 - 3) Liability for return of samples ceases after 15 days from the date of the test report.



IRMRA



INDIAN RUBBER MANUFACTURERS RESEARCH ASSOCIATION

An Autonomous Institute Under DPIIT, Ministry of Commerce & Industry, Government of India
E-mail : info@irmra.org • Website : www.irmra.org

DEVELOPMENTAL EVALUATION REPORT

ULR No : TC771923000001894	03 Aug 2023	Page 1 of 2
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--- CUSTOMER DETAILS ---

Customer Name & Address :	
M/s.Metal Enngineering & Treatment Co. Pvt. Ltd. Joints and Bearings Division 42B, Motilal Basak Gardens, Kolkata-700054	
Contact Person & Telephone No :	Ashim 033-2359-4081
Period of Testing:	27 Jul 2023 to 03 Aug 2023
Customer Letter Ref No with Date :	Metco/CR/45235/2023 Dated 20 Jul 2023
Date of Receipt :	27 Jul 2023
Any Other Information like witness / third party	Rubber Slab-Mix Batch no-10828

--- SAMPLE DETAILS ---

Sample Code / Description	Rubber Slab-Mix Batch no-10828
Product Specification	-NIL-

--- REPORT DETAILS ---

Description of Report	Page Nos
TC771923000001894 - M & R -	2 of 2
TC771923000001894 - C & I -	--

Terms and Conditions

1. Sample was not drawn by IRMRA, unless otherwise stated.
2. The result enclosed are only related to the sample submitted to us.
3. The report shall not be reproduced except in full without prior written permission of laboratory.
4. Information contained in this letter / or enclosed reports is/are purely meant for your guidance and should not be used for litigation/evidence/advertisement, without prior permission from the laboratory.

Prepared and Checked By



भारतीय रबर निरीक्षण अनुसंधान संस्थान
Indian Rubber Manufacturers Research Association

डॉ. भारत कापगते
Dr. Bharat Kapgate

अध्यक्ष निदेशक
Assistant Director



IRMRA



INDIAN RUBBER MANUFACTURERS RESEARCH ASSOCIATION

An Autonomous Institute Under DPIIT, Ministry of Commerce & Industry, Government of India
E-mail : info@irmra.org • Website : www.irmra.org

TECHNICAL REPORT / M & R

ULR No : TC771923000001894

03 AUG 2023

Page 2 of 2

Sample : Rubber Slab-Mix Batch no-10828 Specn.

Test (Condition)	Method	Unit	Specified Value	Observed Value
Ozone Resistance (300pphm/40±2°C/20%Strain /70hrs)	ASTMD-1149	-	-	No cracks observed up to 70 hours.

Prepared and Checked By



भारतीय रबड़ निर्माता अनुसंधान संघ
Indian Rubber Manufacturers Research Association

Authorised Signatory

डॉ. भरत कापगत
Dr. Bharat Kappate

उप-निदेशक
Assistant Director





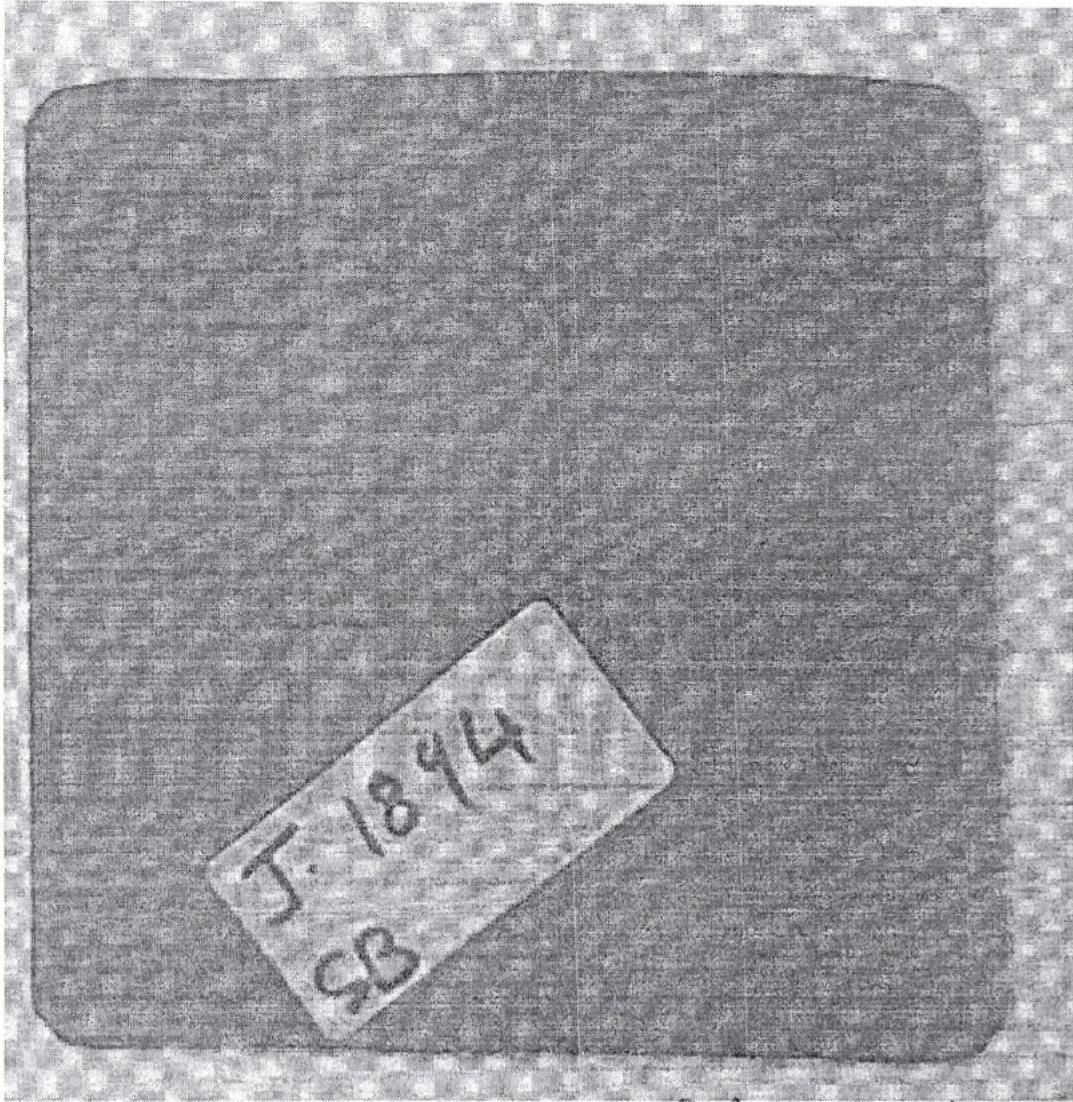
IRMRA

INDIAN RUBBER MANUFACTURERS RESEARCH ASSOCIATION

An Autonomous Institute Under DPIIT, Ministry of Commerce & Industry, Government of India

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ULR No. TC771923000001894



J. 1894
SB



भारतीय रबर निर्माता अनुसंधान संघ
Indian Rubber Manufacturers Research Association

डॉ. भरत कापगते
Dr. Bharat Kapgate

सहायक निदेशक
Assistant Director



Material Test Certificate

MS Angle



SANVIJAY ROLLING & ENGINEERING LTD. (UNIT-H-3)

Head Office - 9, Imambada Road, Nagpur - 440 018
Works : F-1,12&41/43, M.I.D.C. Hingna Road Nagpur - 440 016



TEST CERTIFICATE NO.

SRE/OC/614/22-23

Date: 15/11/2022

To, **M/s. METAL ENGG. & TREATMENT CO. PVT.L-KOLKATA.**

We certified that the material described below fully conforms to IS 2062:2011, Chemical Composition and Mechanical properties of the product as tested in accordance with the Scheme of testing and inspection contained in the BIS Certification Marks Licence No. CMIL-7967713 are as indicated below against each order No. etc.
(Please refer to IS 2062:2011 for details of specification requirements)

Order No. & Date	SECTION (NOMINAL SIZE) (mm)	CAST/ LOT NO.	QUANTITY MT.	CHEMICAL ANALYSIS										YIELD STRESS (Mpa)	ULTIMATE TENSILE STRENGTH (Mpa)	Elong. %	Bend Test	IMPACT TEST			GRADE				
				C %	S %	P %	MN %	SI %	CU %	MO %	NI %	V %	NO %					TP %	CE %	1		2	3	Avg.	
	MS ANGLE 100X46X12	MS/SB/95	32.050	0.19	0.039	0.031	0.67	0.198	-	-	-	-	-	-	-	338.07	479.44	33.75	OK	-	-	-	-	E 250 A	
			32.050																						

REMARKS The material supplied conforms to the standard rolling and weight tolerances.

For SANVIJAY ROLLING & ENGINEERING LTD.

SHIPPING ADVISE NO. 22031.02200
CHAL. No. NL01AD5831

[Signature]
IN CHARGE/CHEMIST



[Signature]
22/11/22
M/s. METAL ENGG. & TREATMENT CO. (P) LTD. Kolkata
An ISO 9001:2015 Company

METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

LABORATORY : HOWRAH AMTA ROAD, KANTALIA, HOWRAH-711409



METARCH
QR 40

Ph. : 9836709308, E-mail : metarch.howrah@gmail.com
REGD. OFFICE : 235/2, B. B. Ganguly Street (5th Floor) Kolkata-700 012
Ph. : +91 (033) 2215 5731 / 5846, Fax : +91 (033) 2225 7995

An Autonomous Quality Testing Laboratory & Research Centre registered under Society's Act' 1961, Reg. No. S/61855 of 1989-90.

TC-5182

ULR No. TC518233000000381F

TEST CERTIFICATE

MECHANICAL CHEMICAL TEST

T. C. No. MET/MEC0031/23-24

Date : 07.06.2023

Page No. 1 of 1

Customer's Name & Address: Metal Engg. & Treatment Co. Pvt. Ltd. K-65, Howrah Industrial Estate, Howrah

Customer's Ref.: Ref. No. 2222 MT. Dt. 31.05.2023

Description of Sample: 1 No. Machined Tensile Test Piece & 1 No. Packet of Boring with identity mark.
Test Specimen from 100 mm x 46 mm x 12 mm thk. Angle.
Make : SANVIJAY ROLLING & ENGINEERING LTD.

Stamped as: Not stamped

Sample Drawn by: Customer

Sample received on: 31.05.23

TEST RESULT

MECHANICAL

Specification: ASTM A709, Gr. A36

Test Method: ASTM A370-2019

Date of Test: 01.06.23

Job No.	Identity Mark	Yield Strength Mpa	Tensile Strength (Mpa)	Elongation % On 50 mm. GL
May/23/35	Cast No. MS/SB/95	314.67	512.0	30.24
	SPECIFIED	250 (Min)	(400 - 550)	23 (Min)

CHEMICAL

Specification: ASTM A709, Gr. A36

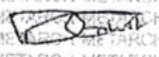
Test Method: IS: 228 (Pt-1) - 1987, IS: 228 (Pt-2) - 1987, IS: 228 (Pt-3) - 198, IS: 228 (Pt-8) - 1989 & IS: 228 (Pt-9) - 1989

Date of Test: 02.06.23 - 07.06.23

Job No.	Identity Mark	C %	Mn %	Si %	S %	P %
May/23/35	Cast No. MS/SB/95	0.22	0.78	0.25	0.037	0.034
	SPECIFIED	0.26 Max		0.40 Max	0.050 Max	0.040 Max

Witnessed by: Not witnessed.

REMARKS : The above Sample conforms to ASTM A709, Gr. A36 with respect to above specified Mechanical & Chemical tests only


Dr. D. Ghosh
Authorized Signatory
(Quality Manager)
Metal Engg. & Testing & Research Centre, Howrah

- Test results relate only to the item tested • This certificate should not be reproduced except in full without the written approval of the laboratory • The Laboratory is not liable for return of sample after three months from the date of issue of test certificate.
- Appropriate test condition has been maintained without any deviation for the specified test method

Material Test Certificate

Clamp Device

Test Certificate



T.C. No : 1314	Date : 13-SEP-22	Test Certificate To: METAL ENGINEERING & TREATMENT COMPANY PVT. LTD, 42B, MOTILAL BASAK LANE, KOLKATA--700054. KOLKATA 700054			
Challan No: 15375	Date : 13-SEP-22				
Invoice No: 1371	Date : 13-SEP-22				
PKSlip No : 1314	ExcNo: 1566				
Truck: WB23E-1366					
Material Descriptions	Grade	Section	No.of.Bund	Weight (T)	
HOT RE-ROLLED CLAMP DEVICE	Bun/Cut Length	AISI-1010	5311	10	
				Total:	9.459

Chemical Composition(%)

Heat No	C	Mn	S	P	Si	Al	N	Cr	Ni	Pb	V	Mo	Cu
E901180	0.108	0.390	0.006	0.018	0.083	0.034	0.004	NA	NA	NA	NA	NA	NA
E901184	0.104	0.390	0.004	0.015	0.097	0.035	0.004	NA	NA	NA	NA	NA	NA

MECHANICAL & METALLURGICAL PROPERTIES

Profile	Heat No	Customer Ref/Drg	Bund.Nos	Colour Code	Hardness	Tensile	Elong	Yield
5311	E901184	SKETCH	09-13	-				
5311	E901180	SKETCH	09-15	-				
5311	E901180	SKETCH	09-14	-				
5311	E901184	SKETCH	09-12	-				
5311	E901180	SKETCH	09-11	-				
5311	E901180	SKETCH	09-10	-				
5311	E901184	SKETCH	09-9	-				
5311	E901184	SKETCH	09-6	-				
5311	E901184	SKETCH	09-7	-				
5311	E901184	SKETCH	09-8	-				



Authorized Signatory

(Signature)
 NITESH KUNKNA
 9099075617

THE MATERIALS COVERED IN THIS TEST CERTIFICATE HAVE BEEN INSPECTED, TESTED AND APPROVED.

THIS PRECISION STEEL INDIA PRIVATE LIMITED

Doc No: PRF/FMT/009

Regd. Office & Workshop GIDC N H No 8 P C Kabilpore 396 424 Navsari Gujarat India Tel 91 2637 864 150 Fax 91 2637 283473
 E-mail: info@theis.in Web: www.theis.in

CIN NUMBER - U27310G12007PTC054839

METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

LABORATORY : HOWRAH AMTA ROAD, KANTALIA, HOWRAH-711409

METARCH
QR 40

Ph. : 9836709308, E-mail : metarch.howrah@gmail.com
REGD. OFFICE : 235/2, B. B. Ganguly Street (5th Floor) Kolkata-700 012
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An Autonomous Quality Testing Laboratory & Research Centre registered under Society's Act' 1961, Reg. No. S/61855 of 1989-90.

TC-5182

TEST CERTIFICATE MECHANICAL CHEMICAL TEST

ULR No. TC518222000000683E

T. C. No. MH/MC01222223

Date 08.11.2022

Page No. 1 of 1

Customer's Name & Address : Metal Engg. & Treatment Co. Pvt. Ltd. K-65, Howrah Industrial Estate, Howrah

Customer's Ref. : Ref. No. 2222 MT. Dt. 07.11.2022

Description of Sample : 2 Nos. Machined Tensile Test Pieces & 2 Nos. Packet of Borings with identity marks
Test specimen from 28 mm x 6 mm thick Clamp Device.

Stamped as Not stamped Sample Drawn by: Customer Sample received on: 07.11.2022

TEST RESULT

MECHANICAL

Specification: AISI 1010 Test Method: IS: 1608 (Pt-1) - 2015 & IS: 1500 (Pt-1) 2019

Date of Test: 08.11.22

Job No.	Identity Mark	Yield Strength Mpa	Tensile Strength Mpa	Elongation % On 50 mm GL	Average Hardness (HBW) (Load 187.5 kgf/Ball 5 mm)
Nov/22/71	Heat No. E901180	356.76	423.99	38.76	131
Nov/22/72	Heat No. E901184	352.0	418.67	40.52	131
	SPECIFIED	305 Mpa (Min)	365 Mpa (Min)	20% (Min)	105 HBW (Min)

CHEMICAL

Specification: AISI 1010

Test Method: IS: 228 (Pt-1) '87, IS: 228 (Pt-2) '87, IS: 228 (Pt-9) '89 & IS: 228 (Pt-3) '87

Date of Test: 07.11.22 + 08.11.22

Job No.	Identity Mark	C %	Mn %	S %	P %
Nov/22/71	Heat No. E901180	0.10	0.42	0.030	0.032
Nov/22/72	Heat No. E901184	0.10	0.45	0.027	0.033
	SPECIFIED	(0.08 - 0.13)	(0.30 - 0.60)	0.050 Max	0.040 Max

Witnessed by: Not witnessed

REMARKS: Conform to the above specified Mechanical & Chemical requirements of AISI - 1010

Dr. D. Ghosh

Dr. D. Ghosh
Authorized Signatory
(Quality Manager)

For Metal Engg. & Testing & Research Centre Howrah

- Test results relate only to the item tested • This certificate should not be reproduced except in full without the written approval of the laboratory • The Laboratory is not liable for return of sample after three months from the date of issue of test certificate.
- Appropriate test condition has been maintained without any deviation for the specified test method

Material Test Certificate

Mild Steel Flat

METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

LABORATORY : HOWRAH AMTA ROAD, KANTALIA, HOWRAH-711409

METARCH
QR 40

Ph. : 9836709308, E-mail : metarch.howrah@gmail.com
REGD. OFFICE : 235/2, B. B. Ganguly Street (5th Floor) Kolkata-700 012
Ph. : +91 (033) 2215 5731 / 5846, Fax : +91 (033) 2225 7995



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TC-5182

TEST CERTIFICATE MECHANICAL CHEMICAL TEST

ULR No: TC518221000000382F

T/C No: MH/MC0012/23-24

Date: 07.06.2023

Page No. 1 of 1

Customer's Name & Address: Metal Engg. & Treatment Co. Pvt. Ltd. K-65, Howrah Industrial Estate, Howrah

Customer's Ref: Ref. No. 2222 MT Dt. 31.05.2023

Description of Sample: 1 No. Machined Tensile Test Piece & 1 No. Packet of Boring
Test Specimen from 65 mm x 13 mm thk. Flat

Stamped as: Not stamped Sample Drawn by: Customer Sample received on: 31.05.23

TEST RESULT

MECHANICAL

Specifications: ASTM A709, Gr. A36

Test Method: ASTM A370-2019

Date of Test: 01.06.23

Job No	Identity Mark	Yield Strength Mpa	Tensile Strength (Mpa)	Elongation % On 50 mm VA GL
May/23/36		369.33	493.33	29.84
	SPECIFIED	250 (Min)	(400 - 550)	23 (Min)

CHEMICAL

Specifications: ASTM A709, Gr. A36

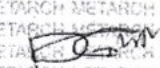
Test Method: IS: 228 (Pt-1) - 1987, IS: 228 (Pt-2) - 1987, IS: 228 (Pt-3) - 198, IS: 228 (Pt-8) - 1989 & IS: 228 (Pt-9) - 1989

Date of Test: 02.06.23 - 07.06.23

Job No	Identity Mark	C %	Mn %	Si %	S %	P %
May/23/36		0.21	0.75	0.24	0.032	0.035
	SPECIFIED	0.26 Max		0.40 Max	0.050 Max	0.040 Max

Witnessed by: Not witnessed

REMARKS: The above Sample conforms to ASTM A709, Gr. A36 with respect to above specified Mechanical & Chemical tests only


Dr. Q. Ghosh
Authorised Signatory
(Quality Manager)
For Metal Engg. & Testing & Research Centre, Howrah

- Test results relate only to the item tested • This certificate should not be reproduced except in full without the written approval of the laboratory • The Laboratory is not liable for return of sample after three months from the date of issue of test certificate.
- Appropriate test condition has been maintained without any deviation for the specified test method

Material Test Certificate

Mild Steel Round



Aanchal Ispat Limited



Works Reg. Office :National Highway No. 6, Chamrail, Howrah - 711114
Test Certificate for Hot Rolled Low, Medium and High Tensile Structural Steel

Test Certificate No. : AIL/S/0334

Date : 18.05.2023

To M/S R. R. Steel Syndicate
173A, Vivekananda Road, Kolkata-700006

We certify that the material described below fully conforms to IS 2062 : 2011 Chemical composition and mechanical properties of the product. as tested in accordance with the Scheme of Testing and Inspection contained in the BIS Certification Marks License No. CM/L 5489992 are as indicated below against each order No.

{Please Refer to IS 2062 : 2011 for Details of Specification Requirements}

TEST RESULTS

Order No. & Date	Section (Nominal Size)	Cast No.	Coil/Plate No	Quantity in Mt.	Chemical Composition							Mechanical Properties					Remarks					
					C %	S %	P %	Si %	Mn %	Cu %	@ Micro Alloying Elements %	CE	Yield Stress MPA	Tensile Strength MPA	Elongation %	Bend Test		Impact Test	Crack Ability Test	Grade		
	Round Bar 16mm	AI/R/016		3.480	0.17	0.031	0.031	0.16	0.74			0.29	343	433	30.49			NA	NA	E-250-A	OK	
	Round Bar 20mm	AI/R/020		3.360	0.20	0.039	0.041	0.21	0.82			0.33	392	521	32.27			NA	NA	E-250-A	OK	
					0.18	0.032	0.030	0.18	0.72			0.30	336	441	30.39			NA	NA	E-250-A	OK	
					0.22	0.040	0.039	0.21	0.79			0.35	396	534	32.12							OK

*For copper-bearing quality

@ Micro-alloying element present should be indicated
The Material supplied conforms to the specified dimensions and tolerances.

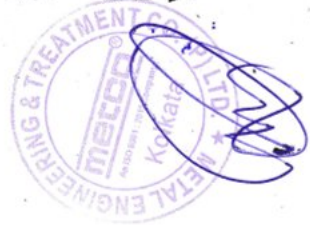
We hereby certify that this Certificate is issued against our Invoice No. AIL/P/23-24/0524

Dated 18.05.2023

Item. Round bar

Size 16, 20

Vehicle No. WB15A-7628



For Aanchal Ispat Limited
S.K. Barua
Quality control Incharge

Remarks :
Invoice No. : AIL/P/23-24/0524
Vehicle No. : WB15A-7628

METAL ENGG. & TESTING & RESEARCH CENTRE, HOWRAH

LABORATORY : HOWRAH AMTA ROAD, KANTALIA, HOWRAH-711409

METARCH
QR 40

Ph. : 9836709308, E-mail : metarch.howrah@gmail.com
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Ph. : +91 (033) 2215 5731 / 5846, Fax : +91 (033) 2225 7995



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TC-5182

ULR No: TC518223000000379F

TEST CERTIFICATE MECHANICAL CHEMICAL TEST

T. C. No. MH/MCO029/23-24

Date : 07.06.2023

Page No. 1 of 1

Customer's Name & Address : Metal Engg. & Treatment Co. Pvt. Ltd. K-65 Howrah Industrial Estate Howrah

Customer's Ref. Ref. No. 2222 MT-DE-31.05.2023

Description of Sample 1 No. Un-machined Tensile Test Piece & 1 No. Packet of Boring with identity mark
Test Specimen from 20 mm Dia Structural Steel Round
Make : Aanchal Ispat Limited

Stamped as : Not stamped

Sample Drawn by: Customer

Sample received on: 31.05.23

TEST RESULT

MECHANICAL

Specification: ASTM A709, Gr. A36

Test Method: ASTM A370-2019

Date of Test: 06.06.23

Job No.	Identity Mark	Yield Strength Mpa	Tensile Strength (Mpa)	Elongation % On 35 mm GL
May/23/26	Heat No. AI/R/020	365.21	459.83	35.20
	SPECIFIED	250 (Min)	(400 - 550)	23 (Min)

CHEMICAL

Specification: ASTM A709 Gr. A36

Test Method: IS: 228 (Pt-1) - 1987, IS: 228 (Pt-2) - 1987, IS: 228 (Pt-3) - 198, IS: 228 (Pt-8) - 1989 & IS: 228 (Pt-9) - 1989

Date of Test: 02.06.23 - 07.06.23

Job No.	Identity Mark	C %	Mn %	Si %	MS %	P %
May/23/26	Heat No. AI/R/020	0.22	0.72	0.24	0.038	0.032
	SPECIFIED	0.26 Max		0.40 Max	0.050 Max	0.040 Max

Witnessed by: Not witnessed

REMARKS : The above Sample conforms to ASTM A709, Gr. A36 with respect to above specified Mechanical & Chemical tests only

Dr. D. Ghosh
Authorized Signatory
(Quality Manager)
For Metal Engg. & Testing & Research Centre, Howrah

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- Appropriate test condition has been maintained without any deviation for the specified test method


Material Test Certificate

Welding Consumable

Superon Schweisstechnik India Ltd.

Plot No. 35, Sector-35, Udyog Vihar Phase VII, Gurgaon, Haryana - 122001, India
 Regd. Office - 15, 16, Old Sewa Nagar Market, Lodhi Road, New Delhi-110003, India
 Web: superonindia.com, Email: sales@superonindia.com

INSPECTION CERTIFICATE AS PER EN 10204-3.1

CUSTOMER : ANOP ASSOCIATES		 An ISO 9001, ISO 14001 & ISO 45001 Certified Company		MTR NO. / ISSUE DATE	3038/21-02-2023	
INVOICE NO.: STK/35/22/40309				BRAND NAME	SUPER FEED 705-6	
				BATCH NO.	MIG-3222	
				GRADE	ER 705-6	
CHEMICAL COMPOSITION OF WIRE:-		SUPPLY CONDITION				CCMS MIG WELDING WIRE
SR. NO.	DIAMETER (mm)	NUMBER OF SPOOLS	WEIGHT (KGS)	HEAT NO SPECIFIED	ELEMENTS % (SPECIFIED)	
1	1.20	72	1080	E919672	%C 0.06 %Mn 1.40 %Si 0.80 %P 0.025 %S 0.035 %Cr 0.15 %Ni 0.15 %Cu 0.50 %Mo 0.15	
MECHANICAL PROPERTIES OF ALL WELD METAL:-						
SL. NO.	RESULT	TENSILE STRENGTH	0.2% PROOF STRESS	ELONGATION %	CHARPY IMPACT VALUE (Avg) at Temp.(-30°C)	HARDNESS (BHN)
	SPECIFIED VALUES	(N/mm ²)	(N/mm ²)	(4d)	-	-
1	OBSERVED VALUE	490.00 (Min.)	400.00 (Min.)	22 (Min.)	27 (Min.)	-
		521	472	24	72	-

MATERIAL FREE FROM WELD AND WELD REPAIRS.
 RADIOACTIVITY TEST: WE CONFIRM THE MATERIAL HAS BEEN TESTED AND FOUND TO BE FREE FROM RADIOACTIVE CONTAMINATION.



AUTHORIZED SIGNATORY

WE CERTIFY THAT THE STATEMENT IN THIS TEST REPORT ARE CORRECT AND THAT THE TEST WELD WIRE PREPARED, WELDED AND TESTED IN ACCORDANCE WITH THE REQUIREMENTS CONFORMING TO AWS A5.18/A5.18M:2017 & ASME SECTION II Part C SFA-5.18/5FA-5.18M: 2019

Test Certificate
of
Galvanizing

ACCEPTANCE TEST REPORT

Date : 08.08.2022

Name & Address of Works	INDUSTRIAL FORGING INDUSTRIES (P) LTD Jalan Complex, Gate No. 1, Biparnapara, Howrah - 711 411
Client	Metal Engineering & Treatment Co. Pvt. Ltd

ITEM DESCRIPTION

S. No.	Item	Qty.
1.0	Edge Beam	96 Nos.

Samples Drawn Randomly pick up form lot

S.No.	Name of Test	Results	Remarks
01.	Visual Examination	No defects of surface	OK

GALVANIZING TEST

Sl. No.	Sample Description / Sample Mark	Customer Specification (average)	Dip Test as per IS :2633/86 Cl. No. 5.2 Ref. 2001	Adhesion Test As per IS : 2629	Remarks
1.0	Edge Beam	109	4 dips in CuSO4 Solution one minute each shows no copper deposition has been found	Found OK	Satisfactory
	Specified value	100 Micron (min)			



Arindam Datta
(QA & I)
Industrial Forging Industries (P) Ltd



Material Test Certificate

Fasteners



SUPER MAGNET (P) LIMITED

Govt. Approved • Regd. No. 30428

TEST CERTIFICATE NO:- SMPL/C/16390/20

DATED :- 02/05/2022

ISSUED TO :- M/S. Costal Bearing Centre.
20, N.S. Road, Ground Floor, Kolkata-700001

OUR REFERENCE :- C/16390/20

SAMPLE RECEIVED ON :-28/04/2022


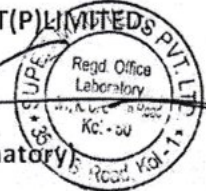
SAMPLE OF: - Hex Screw,M16 x 100mm long.

CHEMICAL COMPOSITION & PHYSICAL TEST REPORT

Parameter	C%	S%	P%	Hardness
Hex Screw,M16 x 100mm long	0.16	0.024	0.022	142 – 146 BHN

Remarks :- The above material conform to IS-1367,Grade-4.6 as per test.

From, SUPER MAGNET(P) LIMITED'S PVT.LTD.


(Authorized Signatory)


*TC issued to Metal Engineering & Treatment Co Pvt Ltd
against challan no - CBE/1580/22-23*



Certificate Accepted by Govt., Semi Govt. & Others Inspection Authorities.

Regd. Office : 9/1, Kali Charan Ghosh Road, Kolkata - 700 050. Ph. : 3259-3834

City Office : 35, Netaji Subhas Road, Kolkata - 700001. Mob. : 9831460355, 9874995562, 9874980395

Branch Lab : Thakurani Chowk, Belanagar, Bally Durgapur, Howrah - 711205

Laboratory : 2, R. N. Tagore Road, Kolkata - 700076

E-mail : magglabb@gmail.com

QUALITY CONTROL DIVISION • GENERAL INSPECTION DIVISION • CARGO SURVEY DIVISION





SUPER MAGNET (P) LIMITED

Govt. Approved • Regd. No. 30428

TEST CERTIFICATE NO:- SMPL/C/16390/21

DATED :- 02/05/2022

ISSUED TO :- M/S. Costal Bearing Centre.
20, N.S. Road, Ground Floor, Kolkata-700001

OUR REFERENCE :- C/16390/21

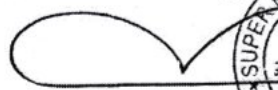
SAMPLE RECEIVED ON :-28/04/2022

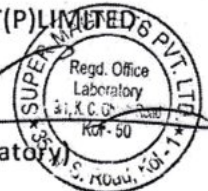
SAMPLE OF: - Nut,M16

CHEMICAL COMPOSITION & PHYSICAL TEST REPORT

Parameter	C%	S%	P%	Hardness
Nut,M16	0.16	0.045	0.026	155 HV (Avg.)

Remarks :- The above material conform to IS-1367,Grade-4 as per test.

From, SUPER MAGNET(P) LIMITED

(Authorized Signatory)



*TC issued to Metal Engineering & Treatment Co Pvt Ltd.
against challan NO. - CBe/1580/22-23*



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Regd. Office : 9/1, Kali Charan Ghosh Road, Kolkata - 700 050. Ph. : 3259-3834

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SUPER MAGNET (P) LIMITED

Govt. Approved • Regd. No. 30428

TEST CERTIFICATE NO:- SMPL/C/16390/22

DATED :- 02/05/2022

ISSUED TO :- M/S. Costal Bearing Centre.
20, N.S. Road, Ground Floor, Kolkata-700001

OUR REFERENCE :- C/16390/22

SAMPLE RECEIVED ON :-28/04/2022


SAMPLE OF: - Plain Washer,M16

CHEMICAL COMPOSITION & PHYSICAL TEST REPORT

Parameter	C%	S%	P%	Mn%	Si%	Hardness
Plain Washer,M16	0.15	0.021	0.018	0.62	0.20	137 -141 BHN

Remarks :- The above material conform to IS-2062/IS-2016 as per test.

From, SUPER MAGNET(P)LIMITED


(Authorized Signatory)



*TC issued to Metal Engineering & Treatment Co Pvt Ltd
against Challan no. - CBC/1580/22-23*



Certificate Accepted by Govt., Semi Govt. & Others Inspection Authorities.

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