Modern Coach Factory Raebareli आधुनिक रेल डिब्बा कारख़ाना, रायबरेली	DOC NO.: MCF/RBL/QMF 8002 REV NO: 01 DATE: 17.04.2018

ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2020-21/159

RLY	CR	COACH NO	204067/C			DATE OF DISPATCH	20-Jul-20
Type	LWSCN1	Shell No.	97638	DISPATCH TO	SSE/STOCK/CR/BB	FUR.NO.	LSCN-1588

1. Railway Board's Order No. : 2020/M(C)/142/2,Dated-24.06.2020
2. Tare Weight of Coach : 41.24 Tonnes
3. Carrying Capacity : (a) Seating: 80 (b) Sleeping: 80 (c) Luggage: NIL

4. Special feature:

A	Choke of 5/6 mm in DV side replace with 9 mm in both type (KBI & Faiv.)letter no. MC/LHB/Brake, DT. 27.09.18

5. SHELL LEADING DIMENSIONS:

S NO	DESCRIPTION	DIMENSION (MM)	
1	Maximum length over body	23700	
2	Maximum width over body	3240	
3	Maximum height from Rail Level	4039	
4	CBC height/Buffer height from Rail level 1105 +0/-10	NPP / PP	1095/1102

6. TRACEABILITY OF SHELL ITEMS:

S NO		ITEM		MAKE/SUPPLIER	SERIAL NO			
1	Under frame	Front Part	PP END	M/S-MTF	264			
			NPP END	M/S-MTF	264			
		Complete		M/S-MTF	264			
2	Lav. side wall			M/S-ATHANCY ALD	LAV.1		LAV.2	
				M/S-ATHANCY ALD	LAV.4		LAV.3	
3	Side wall	LH SIDE		M/S-ECBT CDG	133			
		RH SIDE		M/S-ECBT CDG	133			
4	End wall	PP END		M/S-EEPL				
		NPP END		M/S-ECBT CDG				
5	Roof			M/S-ECBT CDG	420			
6	Centre Buffer Coupler			M/S-FRONTIER	PP	208P1	NPP	218P1

7. AIR BRAKE TEST REPORT:

S NO	ITEM	DESCRIPTION	SPEC. VALUE	OBSERVED
1	Full brake application	Reduce pressure of BP from 5.0 to 3.4 kg/cm².	6 – 10 sec.	7 sec
		Max. pressure in BC	3.0 ±0.15 kg/cm².	3.0 kg/cm²
		All Brake are applied	OK	OK
2	Insensitivity	Exhaust BP @ 0.3 kg/cm²/min.	No brake application	OK
3	Sensitivity	Exhaust BP @ 0.1 kg/cm²/Sec, after 06 Sec.	Brake must apply	OK

8. PAINTING DETAILS:

S NO	DESCRIPTION	TYPE OF PAINT	MAKE	APPLICATION BY MCF/ CONTRACTOR (SUPPLY & APPLY)	AVERAGE GLOSS VALUE	DATE OF COMPLETION
1	Paint	P.U	ADVANCE	M/S-ADVANCE	89/87	4-Jun-20
2	Insulation	Satisfactory				

SSE/QC/MCF/RBL

वरि०अनु० अभियंता
गुणवत्ता विभाग
रे०डि०का०, रायबरेली (लालगंज)

	MODERN COACH FACTORY, RAEBARELI आधुनिक रेल डिब्बा कारख़ाना, रायबरेली	DOC NO.: MCF/RBL/QMF 8002 REV NO.: 01 DATE: 16.05.2016

ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/**2020-21/159**

RLY	C	R		Coach No.	2	0	4	0	6	7	/	C	-	DATE OF DISPATCH	2	0	0	7	2	0	2	0

DISPATCH	SSE/STOCK/CR/BB	Type	L	W	S	C	N	1	Shell No.	9	7	6	3	8	FUR .NO	LSCN-1588

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	200232				200231			
Bogie Type	FIAT				FIAT			
Frame no.	AML-134				AML-161			
Bolster no.	SCI-587				SCI-574			
Axle No	20 V – 0587 RWF		20V – 9532 RWF		20 V – 9701 RWF		20 T – 8670 RWF	
Wheel Dia	917.606	917.403	917.661	917.386	917.756	917.44	917.612	917.367
Wheel Disc No	TZ 02-19 28888-9ML9	TZ 11-19 76370-9VO5	TZ 11-19 82026-9WF7	TZ 11-19 83819-9VC0	TZ 11-19 83348-9VE9	TZ 11-19 77890-9VE3	TZ 01-19 21412-8XH7	TZ 02-19 29062-9ML2
R.B. Nos.	01-20 403513	01-20 404779	02-20 501587	01-20 403326	01-20 400891	11-19 31915	01-20 404707	02-20 501892
CT R B Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	

10. SECONDARY SUSPENSION LOAD DEFLECTION VALUES : -

DESCRIPTION	Bogie NPP side		Bogie PP side	
	Secondary 1	Secondary 2	Secondary 1	Secondary 2
Make & Nos.	GB. Sr.NO- 01-20 00270	GB. Sr.NO- 01-20 00314	GB. Sr.NO- 01-20 00283	GB. Sr.NO- 01-20 00295

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	IAI	291970,291361	291316,291976
2.	Primary outer Spring	CMGBD	11-19 F07-894-(257,229,295,,349)	11-19 F07-894-(279,352,271,340)
3.	Primary Inner Spring	CMGBD	10-19 F06-400-(120,452,342,463)	10-19 F06-842-(249,309,114,352)
4.	Primary Damper	GABRIEL/IAI	12-19 (12560,12550,12556,12554)	12-19 (12964,12957,12956,12958)
5.	Secondary Damper	GABRIEL	01-20 (5007,05015)	01-20 (4987,4990)
6.	Lateral Damper	KONI	04-19 01983	04-19 00860
7.	Brake Cylinder	KBI	C (4159,2009,2829,4268)-K-29	C (4300,2827,2884,4160)-K-29
8.	Brake Caliper	KBI	B-(0425,0618,0324,0291)-29	C-(0594,0524,0567,0455)-29
9.	Brake Disc	KBI	24217800 0054-07/20,24217801 0034-07/20 24217802 0001-07/20,24217802 0002-07/20	24217803 0015-07/20,24217803 0016-07/20 24217800 0053-07/20,24217807 0037-07/20
10.	Ball Joint Control Arm	GMT		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	SF/SARITA		
13.	Traction lever make	JI		
14.	Ball joint traction lever	GMT		
15.	Ball joint traction centre	GMT		
16.	Leveling Valve	KNORR	12-19 B 6508,12-19 B 6056	12-19 B 6179,12-19 B 6161
17.	Check Valve	KNORR	07-19 19817	07-19 19555
18.	Anti roll bar Make	SARITA		
19.	Roll Link make	SARITA/GMT		
20.	Fork make	SARITA		
21.	Control Arm Upper	IRPL	2011A32,2028B56,2003B26,2019B18	2011A22,2018B27,2004A07,2008B08
22.	Control Arm Lower	IRPL	2006A19,1920B32,1928E12,2008A03	2006A05,2018B27,2009A07,2011B17
23.	Phonic Wheel	KBI	K 03-20	K 03-20

Signature of SSE/Bogie/QC

	Modern Coach Factory Raebareli आधुनिक रेल डिब्बा कारख़ाना, रायबरेली	DOC NO.: MCF/RBL/QMF 8002 REV NO: 01 DATE: 17.04.2018

ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2020-21/159

RLY	CR	COACH NO	204067/C			DATE OF DISPATCH	20-Jul-20
Type	LWSCN1	Shell No.	97638	DISPATCH TO	SSE/STOCK/CR/BB	FUR.NO.	LSCN-1588

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO(NPP/PP)
1	Air Brake Module	M/s-KBI	5604 23/20
2	Distribution valve	M/s-KBI	2020E11336
3	Pull box	M/s-KBI	
4	FIBA	M/s-KBI	9693/29,9644/29
5	Foot Step	M/S- SUPER SPARKS LTD FARIDABAD	
6	Decoupling arrangement	M/S-ELASTOMER MUMBAI	
7	Floor board	M/S-SHREE RAM PNL	
8	PVC	M/S-RESPONSIVE INDS.	
9	Lavatory inlay	M/S-SEEMA INDS BHOPAL	
10	UIC Vestibule (PPE)	M/S-KRP PUNE	
11	UIC Vestibule (NPPE)	M/S-KRP PUNE	
12	Gangway bridge mounting (PPE)	M/s- MAHAVEER METAL WORKS, KXH	
13	Gangway bridge mounting (NPPE)	M/s- MAHAVEER METAL WORKS, KXH	
14	Body Side Window	M/S-HF VADODARA	
15	Emergency Window	M/S-HF VADODARA	
16	Lavatory/hopper Window	M/S-BET INDS PUNJAB	
17	Side panel	M/S-HF VADODARA	
18	Roof Ceiling	M/S-A.B KOLKATA	
19	Door way Ceiling	M/S-ZAAM TOOLS RBL	
20	Body Side Doors	M/s- JBM FARIDABAD	
21	Vestibule Door(PPE)	M/s- JBM FARIDABAD	
22	Vestibule Door(NPPE)	M/s- JBM FARIDABAD	
23	Bio Tank	M/s-JSL LIFE LTD	
24	Presurized Flushing(Elect.pneumatic)	M/S-IMI	
25	Auxiliary Water Tank	M/s- OASIS	
26	Under Slung Water Tank (2X685L)	M/s-SHIVALIK FAST MOHALI	
27	Under Slung Water Tank (1x685 L)	M/s- AMIT ENGG.MOHALI	
28	Health Faucet	M/s- KAPCO VALVES JUC	
29	Lotah Filler Tap	M/s- KAPCO VALVES JUC	
30	Controlled discharge tap	M/s-AGMECO PVT LTD	
31	Lavatory Doors	M/S-JR INDS JUC	
32	Seat & Berth	M/S-ADVANCE SILICON PALWAL	
33	Ventury grill	NIL	
34	RFID	NIL	

SSE/QC/MCF/RBL

वरि०अनु० अभियंता
गुणवत्ता विभाग
रे०डि०का०, रायबरेली (लालगंज)

	Modern Coach Factory Raebareli आधुनिक रेल डिब्बा कारख़ाना, रायबरेली	DOC NO.: MCF/RBL/QMF 8002 REV NO: 01 DATE: 17.04.2018

ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2020-21/159

RLY	CR	COACH NO	204067/C			DATE OF DISPATCH	20-Jul-20
Type	LWSCN1	Shell No.	97638	DISPATCH TO	SSE/STOCK/CR/BB	FUR.NO.	LSCN-1588

13. MODIFICATION (IF ANY) : NIL

14. DEVIATION (IF ANY) : NIL

15. ITEM FITTED ON THE COACH ON TRIAL : NIL

S NO	ITEM PARTICULARS	PURPOSE	REPORT Frequency	REFERENCE & PERIOD OF TRIAL

16. WARRANTY:

S NO	COMPONENTS	WARRANTY
1	Brake Pad, wheels, flushing valves, push gravity cocks, moldings, window glasses, mirrors, curtain clutch wire etc. (items which are consumable in nature)	NIL
2	Other coach furnishing sub assemblies(bought out items)	24 months from the date of dispatch of coach OR 30months from the date of supply of material whichever is earlier.

NOTE:

1. This warranty covers free supply of parts which wear out and fails within warranty period of normal service.
2. This doesn't covers faults arising out of accident, non standard maintenance practices, abnormal use or mishandling, vandal activity, arson & deficient/pilferage etc.
3. This doesn't cover any consequential liabilities or damages/loss incurred by anybody; furthermore, it shall in no caseextend to repayment, return of the coach or replacement of complete coach.
4. Whether a defective part is to be replaced or repaired shall be at the discretion of MCF/RBL.
5. For any complain/ suggestion please Mail at qualityrcfrbl@gmail.com
6. Painting on supply & apply contract :- supply of material and application shall be warranted for a period of three years from Application for any manufacturing /Application as per clause -4,para- V of RDSO specification no .M&C/PCN/100/2013-Given below

S.No	Time period	Gloss Retention (initial gloss >85 unit at 60º)	Colour Retention rating on 0-10 scale (initial rating of painted panels/coach or ISC/RAL shade card shall be taken as 10)	Adherence of paints (with each other and with substrate) Cross-cut tape adhesion test as per ASTM D:3359/97(or latest)
1	After 1 year	80% of initial gloss	7	5B
2	After 2 year	70% of initial gloss	6	5B
3	After 3 year	60% of initial gloss	5	4B

If any imperfection is noticed or any defect arises during the warranty –period due to improper material used or due to bad workmanship, the contractor shall be bounded to set right the defect/ imperfection on free of cost basis at the base depot of the coach.

SSE/QC/MCF/RBL	SME/AME/QC/MCF/RBL	Dy.COM/MCF/RBL

वरि0अनु0 अभियंता
गुणवत्ता विभाग
रे0डि0का0, रायबरेली (लालगंज)

वरिष्ठ यांत्रिक अभियन्ता/गुणवत्ता
Senior Mechanical Engineer/Quality
आधुनिक रेल डिब्बा कारखाना, रायबरेली
Modern Coach Factory Raebareli

Sudhir Kumar
Dy. Chief Quality Mana
आधुनिक रेल डिब्बा कारखाना,
Modern Coach Factory

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB EOG NON AC COACH.

ELECTRICAL TEST CERTIFICATE FOR LHB EOG NON AC COACH.

TYPE COACH	**LWSCN**		**SHELL/COACH NO**	**204067/C**	
RAILWAY	**CR**	**ELECT. FIT DATE**	**16-07-2020**	**MCF FUR. NO.**	**LSCN-1588**

Sr. no.	Description of tests	Remarks
1.	PUMP EQUIPMENTS	OK
2.	LIGHTS, NL,LAP CHARGING SOCKETS	OK
3.	WORKING OF ACCIDENTAL; EMERGENCY LIGHTS.	OK
4.	RAILWAY CARRIAGE FAN	OK
5.	WHEEL SLIDE PROTECTION SYSTEM (**WSP**)	OK
6.	WORKING OF 9 KVA TRANSFORMER	OK
7.	WORKING OF REGULATED BATTERY CHARGER/EMERGENCY BATTERY CHARGER.	OK
8.	SAFETY :	----
8.1.	FUSES AND THEIR RATING	OK
8.2	CONTROL CIRCUIT	OK
8.3	POWER CIRCUIT	OK

Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

Sr. no.	Description	Drg./Spec no.	Quantity per Coach
01.	Fitment of Switch board cabinet.(set of panel) Make/Sr.no.: **AMIT ENGG.** On Board: **AE/USBC/1797** HT Panel: **AE/USBC/1823**	EDTS 355, Rev`01'.Am-3	**01 SET**
02.	Provision of 9 KVA 750/415/190V, 03Ø AC. Make: **VIMAL** Sr no.: **VTC 3089 LHB-3189**	RDSO/PE/SPEC/TL 0158, 2010, Rev`0`,Ty I.	**01**
03.	Mounting of 09KVA TFR.	As per drg no 1.10113.0.76.300.001,Alt –B.	OK
04.	Provision of Pump equipment with pump box. Make: **KIND** Sr no : **0098** Pump 1: **20050265** Pump 2: **20050266**	As per spec no. EDTS186,REV-A,AM-2	**01 SET**
05.	Provision & Mounting of Pump controller. Make: **KIND** SL.no.: **20050079**	As per Spec. EDTS186 Rev-a Am-2, & drg no. CC71328 & LW70020	**01**
06.	4.5 Kw Under slung type Constant Voltage Regulated Battery charger cum Emergency battery charger Make: **WAVES** Sr. no.: **W4K5H 19563**	As per spec no. RDSO/PE/SPEC/AC/0183-2015(REV.-1)	**01**
07.	Provision of Feeder Junction Box Make : **MAA LAXMI INDUSTRIES**	EDTS-328 REV-C,AM-4,Type-II,COR-2	**01 SET**
08.	Provision of IVC dummy Socket assembly.	As per Drg. No. LW71302,Alt-nil	**01 SET**
09.	Battery fuse box +ve Make : **RICHMOND**	As per LW 71001,Alt- H	**01**
10.	Battery fuse box –ve Make : **AECO**	As per LW 71002,Alt-I	**01**
11.	Provision of Battery boxes/ Cradles. Make: **TECHNO**	As per Drg. No. 110113.0.76.700.005 W/O item 5,22,23,26 & 27,Alt-C or Latest.	**01**
12.	Provision of batteries Type: 110 V, 120 AH VRLA SMF Battery Set. Make: **HBL** Lug Date: **03/20**	As per RDSO/PE/SPEC/AC/0009-2014 (Rev-2) with inner cell connectors or Latest.	**01 SET**

Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

Sr. no.	Description	Drg./Spec no.	Quantity per Coach
13.	Fitment of Railway carriage Fan 400mm Sweep, 110V AC with crash worthy features. Make: **SARIA**	As per Drg. No. ICF/SK-7-6-158,alt-g. RDSO/PE/SPEC/TL/0021-2005 (Rev-3) with RCF annex-1,am-1.	**30**
14.	Fitment of LED Light fittings for Cabin, Doorway and Gangway area. 9 watt. Make: **FIEM IND.**	As per RDSO/PE/SPEC/TL/0091-2016,Rev-1 with RCF Annex-1 .Type-B1.Drg. No. CC76453.	**26**
15.	Fitment of LED Light fittings for Night Light with berth indication Type-E (1 watt). Make: **RT VISION**	As per RDSO/PE/SPEC/TL/0091-2016,Rev-1 with RCF Annex-1, ICF/STB-7-6-053.Type- E. Drg. No. CC76461	**10**
16.	Fitment of LED Light fittings for Lavatory Lights. 9 Watt. Make: **RT VISION**	As per RDSO/PE/SPEC/TL/0091-2016,Rev-1 with RCF Annex-1Type-D. Drg. No. LW76092.	**04**
17.	Fitment of LED Light fittings for PACIL. Make: **KAVERI**	As per RDSO/SPEC/TL/0091-2016,Rev-1 with RCF Annex-1Type-I. Drg. No. LW76098.	**02**
18.	Fitment of Accidental Emergency Light (AEL) Make: **INTEG**	As per RDSO/SPEC/AC/0180-2016,Rev-0 ,Type-II.	**04**
19.	Provision of Cable binder	Drg. No. CC76120,Item - 1,2,3.100mm,200mm,300mm respectively.	**OK**
20.	Provision of Cable Jacket System.	EDTS-138,Cor-2,Item-5,7,8,9,11.	**OK**

Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

Sr. no.	Description	Drg./Spec no.	Quantity per Coach
21.	Provision of Switch plate assembly along with mobile charging sockets. Make: **SALZER**	EDML-086, Rev-6, Am-1, Table-1, Item-1.	**10**
22.	Provision of Switch plate assembly along with mobile charging sockets. Make: **SALZER**	EDML-086, Rev-6, Am-1, Table-1, Item-2.	**10**
23.	Provision of Switch plate assembly along with mobile charging sockets. Make: **SALZER**	EDML-086, Rev-5, Am-1, Table-1, Item-3.	**20**
24.	Provision of High Capacity Inter – Vehicular Coupler Unit (ZS Coupling) (500 A, 750 V,3 ph, 50 Hz). Make:- 1.(NPP): **MAA LAXMI INDUSTRIES** 2.(PP): **MAA LAXMI INDUSTRIES**	As per Spec. no. RDSO/PE/SPEC/AC/0177(Rev.-0)-2013 with annexure-A, B.	**01 SET**
25.	Mounting of Inter Vehicle coupler	As per drg no.1.10113.0.74.000.001,Alt-B	**OK**
26.	Provision of Wheel Set Earthing equipment. Make:- NPP: **DARSHAN ENTERPRISES** PP: **DARSHAN ENTERPRISES**	EDTS101,REV-C,AM-1	**01 SET**
27.	Provision of Anti Skid Disk Brake System.(WSP) Make : **KNORR** Sr no : **0120074158**	As per MDTS 077,Rev.-2 M/s"FAIVELEY" or "Knorr Bremse", or "ESCORTS"	**01 SET**

SSE/EL/QC वरिष्ठ अनुभाग अभियन्ता गुणवत्ता नियंत्रण आ0रे0डि0का0 / लालगंज / रायबरेली S.S.E./Elect-QC/M.C.F./LLJ/RBL	**AWM(ELECT.)/MCF/RBL** **SEE(P)/MCF/RBL** वरि0 कार्य प्रबन्धक / विद्युत आ0रे0डि0का0 / रायबरेली A.W.M./Electrical/MCF/RBL