	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/2020-21/402

RLY	NFR	COACH NO	204659/C			DATE OF DISPATCH	31-Aug-20
Type	LWSCN1	Shell No.	20G151	DISPATCH TO	SSE/C&W/KIR	FUR.NO.	LSCN-1663

1. Railway Board's Order No. : 2020/M(C)/142/2,Dated-01.05.2020
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	1103/1095

6. TRACEABILITY OF SHELL ITEMS:

S NO		ITEM		MAKE/SUPPLIER	SERIAL NO			
1	Under frame	Front	PP END	M/S-NF CHD	.			
		Part	NPP END	M/S-NE CHD	.			
		Complete		MCFRBL-V4U TECHIE	20G151			
2	Lav. side wall			M/S-DTL PUNE	LAV.1		LAV.2	
				M/S-DTL PUNE	LAV.4		LAV.3	
3	Side wall	LH SIDE		MCFRBL-V4U LKO	556			
		RH SIDE		MCFRBL-V4U LKO	556			
4	End wall	PP END		M/S-RAIL TECH KXH				
		NPP END		M/S-RAIL TECH KXH				
5	Roof			MCFRBL-CONT.	37			
6	Centre Buffer Coupler			M/S-SANROK	PP	16018	NPP	15990

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.	6 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	AXALTA	M/S-EMPRISE WOW (S&A)	98/95	10-Aug-20
2	Insulation	Satisfactory				

SSE/QC/MCF/RBL

वरि०अनु० अभियंता
गुणवत्ता विभाग
रे०डि०का०, रायबरेली (लालगंज)

MODERN COACH FACTORY, RAEBARELI आधुनिक रेल डिब्बा कारखाना, 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/**402**

RLY	N F R	Coach No.	2 0 4 6 5 9 / C -	DATE OF DISPATCH	3 1 0 8 2 0 2 0

DISPATCH	SSE/C&W/KIR	Type	L W S C N 1	Shell No.	2 0 G 1 5 1	FUR .NO	LSCN - 1663

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	200570				200569			
Bogie Type	FIAT				FIAT			
Frame no.	RBL-0938				RBL-962			
Bolster no.	RBL/MCF-1303				RBL/MCF-2279			
Axle No	20 Y – 3217 RWF		20 W – 9801 RWF		20 Y– 3885 RWF		20 Y– 6300 RWF	
Wheel Dia	917.57	917. 644	917.67	917.51	917.575	917.63	917.595	917.668
Wheel Disc No	TZ 12-19 93389-9WI9	TZ 12-19 78812-9WE7	TZ 12-19 85334-9VF6	TZ 06-19 67058-9RM8	TZ 11-19 88026-9WI0	TZ 06-19 53323-9PD9	TZ 06-19 60590-9QL9	TZ 07-19 67056-9RM8
R.B. Nos.	01-20 405124	01-20 404411	01-20 402940	01-20 402652	01-20 404303	01-20 403248	12-19 39738	12-19 37083
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.	RESISTROFLEX Sr. NO- 02-20 12859	RESISTROFLEX Sr. NO- 02-20 12941	RESISTROFLEX Sr. NO- 02-20 12897	RESISTROFLEX Sr. NO- 02-20 12873

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	IAI	301483,301432	301682,301570
2.	Primary outer Spring	CMAFJ	06-20 1100-(244,254,245,262)	06-20 1100-(248,264,239,260)
3.	Primary Inner Spring	CMAFJ	06-20 1101(297,296,135,298)	06-20 1101(312,123,294,306)
4.	Primary Damper	IAI	01-20 (300925,299220,298996,300286)	01-20 (299451,299596,299322,300882)
5.	Secondary Damper	IAI	01-20 (295557,296059)	12-19 (296348,296485)
6.	Lateral Damper	IAI	09-19 274678	09-19 274712
7.	Brake Cylinder	KNORR	C (5980,4669,4665,5978)-K-29	C (5976,4691,4686,5972)-K-29
8.	Brake Caliper	KNORR	C-(2255,2330,2333,2256)-29	C - (2257,2335,2334,2258) - 29
9.	Brake Disc	KBI	24226787 0020-26/20,24226787 0030-26/30 24226787 0017-26/20,24226787 0018-26/20	24226785 0059-25/20,24226785 0030-25/20 24226784 0007-25/20,24226784 0006-25/20
10.	Ball Joint Control Arm	GMT		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	GMT,SF(SARITA)		
13.	Traction lever make	JI		
14.	Ball joint traction lever	SGA		
15.	Ball joint traction centre	GMT		
16.	Leveling Valve	KNORR	10-20 B-4019,16-19 B-7121	09-20 C -3772,09-20 C -3814
17.	Check Valve	KNORR	01-20 23957	01-20 23930
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA /GMT		
20.	Fork make	RNG		
21.	Control Arm Upper	IRPL	2027B42,2008C20,2005C17,2008C20	N2770,N2785,D2556,N2740
22.	Control Arm Lower	IRPL	1919G78,2014B36,2012B19,RVE	D2718,N2725,D2773,N3855
23.	Phonic Wheel	KBI	K 05-20	K 05-20

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/2020-21/402

RLY	NFR	COACH NO	204659/C			DATE OF DISPATCH	31-Aug-20
Type	LWSCN1	Shell No.	20G151	DISPATCH TO	SSE/C&W/KIR	FUR.NO.	LSCN-1663

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO(NPP/PP)
1	Air Brake Module	M/s-KBI	5899 28/20
2	Distribution valve	M/s-KBI	2020G11765
3	Pull box	M/s-KBI	
4	FIBA	M/s-FAIVELY	F20121/E20008
5	Foot Step	M/S- FABRICON INDS KOLKATA	
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 BHOPAL	
10	UIC Vestibule (PPE)	M/S-SUNCREAST KOLKATA	
11	UIC Vestibule (NPPE)	M/S-SUNCREAST KOLKATA	
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-EXCEL KOLKATA	
15	Emergency Window	M/S-F.P KOLKATA	
16	Lavatory/hopper Window	M/S-BET INDS PUNJAB	
17	Side panel	M/S-HF VADODARA	
18	Roof Ceiling	M/S-A.B.COMPOSITE KOLKATA	
19	Door way Ceiling	M/S-ZAAM TOOLS RBL	
20	Body Side Doors	M/s- SVARN INFRATEL	
21	Vestibule Door(PPE)	M/s- KALSI LDH	
22	Vestibule Door(NPPE)	M/s- KALSI LDH	
23	Bio Tank	M/s-JSL LIFESTYLE LTD	
24	Presurized Flushing(Elect.pneumatic)	M/S-SPAC	
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- SHIVALIK FAST 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 JUC	
32	Seat & Berth	M/S-OVPL SILICON MUMBAI(SLIDING)	
33	Ventury grill	NIL	
34	RFID	NIL	

SSE/QC/MCF/RBL

वरि०अनु० अभियंता
गुणवत्ता विभाग
मे०डि०का०, रायबरेली (लालगंज)

MCF / RBL

	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/2020-21/402

RLY	NFR	COACH NO	204659/C			DATE OF DISPATCH	31-Aug-20
Type	LWSCN1	Shell No.	20G151	DISPATCH TO	SSE/C&W/KIR	FUR.NO.	LSCN-1663

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.CQM/MCF/RBL

वरि०उपनु० अभियंता
गुणवत्ता विभाग
रे०डि०का०, रायबरेली (लालगंज)

सहायक यांत्रिक अभियन्ता/गुणवत्ता -1
Assistant Mechanical Engineer / Quality-1
आधुनिक रेल डिब्बा कारखाना, रायबरेली
Modern Coach Factory, Raebareli

MCF/RBL

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**	**204659/C**	
RAILWAY	**NFR**	**ELECT. FIT DATE**	**31-08-2020**	**MCF FUR. NO.**	**SCN-1663**

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.: **SSK** On Board: **2019/07/153** HT Panel: **2019/06/098**	EDTS 355, Rev`01'.Am-3	**01 SET**
02.	Provision of 9 KVA 750/415/190V, 03Ø AC. Make: **PANTRONICS** Sr no.: **PAN 20018911**	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 : **ASY/0113** Pump 1: **20070315** Pump 2: **20070316**	As per spec no. EDTS186,REV-A,AM-2	**01 SET**
05.	Provision & Mounting of Pump controller. Make: **DR AUTO** SL.no.:**2020/08/0012**	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: **ELECTRONIC** Sr. no.: **02200007**	As per spec no. RDSO/PE/SPEC/AC/0183-2015(REV.-1)	**01**
07.	Provision of Feeder Junction Box Make : **AUTO IND.**	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 :**RICHMOND**	As per LW 71002,Alt-I	**01**
11.	Provision of Battery boxes/ Cradles. Make: **HITECH**	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:**07/19**	As per RDSO/PE/SPEC/AC/0009-2014 (Rev-2) with inner cell connectors or Latest.	**01 SET**

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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: **CG POWER**	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:**RT VISION**	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**

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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: **SSK**	EDML-086, Rev-6, Am-1, Table-1, Item-1.	**10**
22.	Provision of Switch plate assembly along with mobile charging sockets. Make: **SSK**	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 : **0120165019**	As per MDTS 077,Rev.-2 M/s"FAIVELEY" or "Knorr Bremse", or "ESCORTS"	**01 SET**

SSE/EL/QC वरिष्ठ अनुभाग अभियन्ता गुणवत्ता नियंत्रण आ०रे०डि०का० / लालगंज / रायबरेली S.S.E./Elect-QC/M.C.F./LLJ/RBL	**AWM(ELECT.)/MCF/RBL** **SEE(P)/MCF/RBL** स० कार्य प्रबन्धक / विद्युत आ०रे०डि०का० / रायबरेली A.W.M./Electrical/MCF/RBL