	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/2019-20/1134

RLY	N	F	R	Coach No.	1	9	7	6	4	0	/	C	DATE OF DISPATCH	2	7	-	1	1	-	1	9

DISPATCH TO	Sr.DME/DBRG	Type	L	W	S	C	N	1	Shell No.	9	7	4	9	2	FUR.NO.	LSCN-1321

1. **Railway Board's Order No.** : 2019/M(C)/142/2, Dated: 23-10-2019

2. **Tare Weight of Coach** : 41.24 Tones

3. **Carrying Capacity** : (a) Seating: 80 (b) Sleeping: 80 (c) Luggage: NIL

4. **Special feature: -1.-** Choke of 5/6 mm in DV side replace with 9 mm in both type (KBI & Faiveley) letter no. MC/LHB/Brake, Dated 27.09.2018

2.- RFID(Radio frequency identification) fitted for traceability of coach

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	1) 1105 (NPPE) 2) 1098 (PPE)

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM		MAKE/SUPPLIER		SERIAL NO			
1.	Under frame	Front Part	PP END	M/S-M.T.F	228			
			NPP END	M/S-M.T.F	228			
		Complete	M/S-M.T.F		228			
2.	Lav. side wall		M/S- R.NARAYAN BARABAKI		LAV.1	-	LAV.2	-
			M/S- R.NARAYAN BARABAKI		LAV.3	-	LAV.4	-
3.	Side wall	LH SIDE	MCF/RBL(CONTRACTOR V4U)		281/01			
		RH SIDE	MCF/RBL(CONTRACTOR V4U)		281/02			
4.	End wall	PP END	M/s-DTL PUNE		---			
		NPP END	M/s-DTL PUNE		---			
5.	Roof		M/s-ECBT		341			
6.	Centre Buffer Coupler		M/S- SANROK		PP END	14188	NPP END	14187

7. AIRBRAKE 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. ➢ Max. pressure in BC ➢ All Brake are applied	6 – 10 sec. 3.0 ±0.15 kg/cm². OK	08 Sec. 3.0 kg/cm² 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	M/s –NEROLAC	(SUPPLY & APPLY)	90/88	21.10.19
2.	Insulation	Satisfactory				

SSE/QC/MCF/RBL

वरिष्ठ अनुभाग अभियंता
गुणवत्ता विभाग
एमसीएफ, रायबरेली (लालगंज)

MCF/RBL

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/**2019-20/1134**

RLY	N	F	R	Coach No.	1	9	7	6	4	0	/	C	-	DATE OF DISPATCH	2	7	1	1	2	0	1	9

DISPATCH	Sr.DME/DBRG	Type	L	W	S	C	N	1	Shell No.	9	7	4	9	2	FUR .NO	LSCN-1321

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	192404				192403			
Bogie Type	FIAT				FIAT			
Frame no.	RBL-LS5-1305				RBL-LS5-1285			
Bolster no.	RBL-LS5-547				RBL-LS5-1143			
Axle No	19 L– 5185 RWF		19 L– 5295 RWF		19 R – 3379 RWF		19 L– 5604 RWF	
Wheel Dia	917.457	917.506	917.452	917.489	917.434	917.423	917.459	917.47
Wheel Disc No	TZ 07-19 61879-9RR7	TZ 07-19 67884-9RQ5	TZ 07-19 67586-9RL3	TZ 08-19 74533-9RP2	TZ 07-19 67588-9RL3	TZ 07-19 61816-9RM4	TZ 07-19 62860-9RP8	TZ 08-19 73394-9RL
R.B. Nos.	09-18-21550	09-18-22096	09-18-22682	09-18-22876	09-18-21747	09-18-23000	09-18-21893	09-18-21831
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.	TAYAL & CO. Sr.NO.19-08 3007	TAYAL & CO. Sr.NO.19-08 3019	TAYAL & CO. Sr.NO.19-08 3025	TAYAL & CO. Sr.NO.19-08 2779

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	16845,16861	16846,16847
2.	Primary outer Spring	CMFSK	10-19 1100-114 (862,822,845,877)	10-19 1100-114 (1165,1975,951,970)
3.	Primary Inner Spring	CMFSK	10-19 1101-101 (1759,1824,1727,1804)	10-19 1101-101 (1776,1777,1754,1229)
4.	Primary Damper	KONIC	03-19 (08407,01163,01252,05359)	03-19 (05411,08417,05312,06753)
5.	Secondary Damper	KONI	04-19 (00530,00517)	04-19 (00521,00548)
6.	Lateral Damper	KONI	04-19 01946	04-19 02000
7.	Brake Cylinder	KBI	B(9405,8671,8785,9739)K-19	B(9441,8701,8672,9515)K-19
8.	Brake Caliper	KBI	B(6592,6656,6752,6615) -19	B(6600,6559,6657,6601) -19
9.	Brake Disc	KBI	24203756 0029-42/19,24203756 0027-42/19 24203756 0026-42/19,24203758 0002-42/19	24203756 0069-42/19,24203758 0005-42/19 24203749 0067-42/19,24203749 0054-41/19
10.	Ball Joint Control Arm	AR/ARYAN		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	SF(SARITA)		
13.	Traction lever make	JI		
14.	Ball joint traction lever	ARYAN		
15.	Ball joint traction centre	GMT		
16.	Leveling Valve	KNORR	16-19 B- 7143,16-19B-7245	16-19 B- 3025,16-19B-7236
17.	Check Valve	KNORR	07-19-20190	07-19-29273
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA/**ARYAN**		
20.	Fork make	RNG		
21.	Control Arm Upper	SF/RVE	221,257,38,37	290819-3,270819-2,270819-2,260819-2
22.	Control Arm Lower	SF/RVE	117,101,78,371	270819-2,070819-2,200819-2,270819-2
23.	Phonic Wheel	FAV	FT/KEP/194	FT/KEP/194

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/2019-20/1134

RLY	N	F	R	Coach No.	1	9	7	6	4	0	/	C	DATE OF DISPATCH	2	7	-	1	1	-	1	9

DISPATCH TO	Sr.DME/DBRG	Type	L	W	S	C	N	1	Shell No.	9	7	4	9	2	FUR.NO.	LSCN-1321

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/S- KBI, FARIDABAD	3635 36/19
2.	Pull box	M/S- KBI, FARIDABAD	
3.	Distribution valve	M/S- KBI, FARIDABAD	2019 H 8773
4.	FIBA	M/S- KBI, FARIDABAD	PP-10465/29 NPP-10394/29
5.	Foot Step	M/s- SUPER SPAR K PVT. LTD. FARIDABAD	
6.	Decoupling arrangement	M/S-ELASTOMER LINING WORKS, MUMBAI	
7.	Floor board	M/s- A.B.COMPOSTE KOLKATA	
8.	PVC	M/s- A.B.COMPOSTE KOLKATA	
9.	Lavatory Inlay	M/s- SEEMA IND. BHOPAL	
10.	UIC Vestibule (PPE)	M/S-SUNCREST IND.KOLKATA	
11.	UIC Vestibule (NPPE)	M/S-SUNCREST IND.KOLKATA	
12.	Gangway bridge mounting (PPE)	M/S- MAHAVEER MATEL WORKS, KAPURTHALA	
13.	Gangway bridge mounting (NPPE)	M/S- MAHAVEER MATEL WORKS, KAPURTHALA	
14.	Body Side Window	M/s- A.B.COMPOSTE KOLKATA	
15.	Emergency Window	M/s- A.B.COMPOSTE KOLKATA	
16.	Hopper Window	M/s- A.B.COMPOSTE KOLKATA	
17.	Side panel	M/s- A.B.COMPOSTE KOLKATA	
18.	Roof ceiling	M/s- A.B.COMPOSTE KOLKATA	
19.	Door way ceiling	M/s- A.B.COMPOSTE KOLKATA	
20.	Body Side Door	M/s- JVR INDS, LUDHIYANA	
21.	Vestibule Door(PPE)	M/S- JBM INDUSTRIES, FARIDABAD	
22.	Vestibule Door(NPPE)	M/S- JBM INDUSTRIES, FARIDABAD	
23.	Bio Tank	M/S- JSL LIFE STYLE LTD.	
24.	Auxiliary Water Tank	M/S- AMIT ENG. MOHALI	
25.	Under Slung Water Tank(2X685L)	M/S- SHIVALIK FAST. MOHALI	
26.	Under Slung Water Tank (1X685L)	M/S- AMIT ENG. MOHALI	
27.	Flexible Faucet	M/s-KAPCO VALES JALANDHAR	
28.	Lotah Filler Tap	M/s-KAPCO VALES JALANDHAR	
29.	Controlled Discharge Tap	M/s- EAUSET PVT LTD GURGAON	
30.	Lavatory Doors	M/s- A.B.COMPOSTE KOLKATA	
31.	Seat & Berth	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
32.	RFID	M/s-ID TECH SOLUTION GURGAON	Sr.103737,103738

SSE/QC/MCF/RBL

वरिष्ठ गुणवत्ता नियंत्रक
गुणवत्ता विभाग
आधुनिक रेल डिब्बा कारखाना, 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/2019-20/1134

RLY	N	F	R	Coach No.	1	9	7	6	4	0	/	C	DATE OF DISPATCH	2	7	-	1	1	-	1	9

DISPATCH TO	Sr.DME/DBRG	Type	L	W	S	C	N	1	Shell No.	9	7	4	9	2	FUR.NO.	LSCN-1321

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

16WARRANTY:

S NO	COMPONENTS	WARRANTY
1	Brake Pad, wheels, flushing valves, push gravity cocks, moldings, window glasses, mirrors, 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 30 months 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 case extend 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 date of 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 60°)	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/QC/MCF/RBL	Dy.CQM/MCF/RBL

वरिष्ठ यांत्रिक अभियन्ता
गुणवत्ता विभाग
आ.रे.डि.का, रायबरेली (लालगंज)

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

जोगिन्दर सिंह
Joginder Singh
उप मुख्य गुणवत्ता प्रबन्धक
Dy. Chief Quality Manager
आधुनिक रेल डिब्बा कारखाना, रायबरेली
Modern Coach Factory, Raebareli

SCN-1321

	Modern Coach Factory Raebareli आधुनिक रेल डिब्बा कारख़ाना, रायबरेली	DOC NO.: MCF/RBL/QEF/8001 REV NO: 00 DATE:18.01.2017

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG/HOG NON AC SCN COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG/HOG NON AC COACHES

TYPE COACH	**LWSCN**	**SHELL/COACH NO**	**197640/C**
RAILWAY	**NFR**	**DATE OF DESPATCH**	

Sr no	Description of test	Remarks
1.	PUMP EQUIPMENTS	OK
2.	LIGHTS, NL,LAP CHARGING SOCKETS	OK
3.	RAILWAY CARRIAGE FAN	OK
4.	WHEEL SLIDE PROTECTION SYSTEM **(WSP)**	OK
5.	WORKING OF 9 KVA TRANSFORMER	OK
6.	WORKING OF REGULATED BATTERY CHARGER	OK
7.	SAFETIES :	
7.1.	FUSES AND THEIR RATING	OK
7.2	CONTROL CIRCUIT	OK
7.3	POWER CIRCUIT	OK

Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli

MCF/RBL

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG/HOG NON AC SCN COACHES

01.	Switch board cabinet Make : **TRINITRON** On Board Sr no : **19/08/TCS/MCF/3436/355/0106** HT Panel Sr no : **19/08/TCS/MCF/3436/355/0106**	EDTS 333, Rev`01'Am-1	**01**
02.	Pump equipment with PLC controller & pump box Make : **DR AUTO** Sr no PA: **2019/10/0063** Sr no.1 : **5672** Sr no.2 : **5662** Srno.CPA: sr no **-2019/11/077-DR AUTO**	As per spec EDTS 186,Rev-a, Am- 2	**01**
03.	Emergency light system for EOG type coaches (AEL), Make : **DR AUTO**	EDTS 151,Rev –c Am-1 & 2	**04**
04.	Passenger Alarm Cum Indication Light (PACIL) Make: **RT VISION**	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-I	**02**
05.	Fitment of Switch Plate Assly(Cabin Side) Make : **RECORD/SALZER**	EDML 086,Rev-03, ITEM-01	**20**
06.	Fitment of Switch Plate Assly Corridor Side),Make : **SALZER**	EDML 086, Rev 03, ITEM-02	**20**
07.	Railway carriage Fan 400mm Sweep, 110V DC with crash worthy features. Make: **ORIENT**	IS 6680/92,First Rev, RCF Amdt 4, Col I, Ty XI, RCF Cor I.	**30**
08.	Cabin,Corridor,doorway and Gangway Lights. Make: **DR AUTO**	As per RDSO/PE/SPEC/TL-0091(REV-1) TYPE B-1	**26**
09.	Lavatory Light Make: **DR AUTO**	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-D &	**04**
10.	Night Light Fitting (LED BASED) Sticker For Berth Number On Night light Fitting For LHBSCN(80-BERTHER)Coaches Make : **DR AUTO**	CC76289 & CC76443	**09**

Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG/HOG NON AC SCN COACHES

11.	Battery fuse box +ve Make : **SSK**	LW 71001,Alt-F	**01**
12.	Battery fuse box –ve Make : **SSK**	LW 71002,Alt-F	**01**
13.	Regulated battery charger Make : **WAVES** Sr no: **W4K5G 19104**	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	**01**
14.	9KVA transformer Make :**VIMAL** Sr no : **VTC 3089 LHB-2489**	As per RDSO/PE/SPEC/TL 0158, 2010, Rev`0',Ty I.	**01**
15.	ZS coupling 400A/750V/03Ph/50hz. Make : **PRIME ELECT.**	As per spec No EDTS 105,Rev`e' Am-3, TYPE-2	**01 set**
16.	Feeder junction boxes. Make : **AUTO**	EDTS-328 REV-C	**01 set**
17.	Wheel set earthling equipment. Make : **PRIME ELECT.**	EDTS101,REV-C,AM-1	**02 sets**
18.	Wheel Slide Protection System (WSP) Make : **KNORR** Sr no : **0119232109**	M/s : **KNORR**	**01 set**
19.	110V,120AH,VRLA SMF BATTERY SET WITH 19 MONOBLOCK (6V EACH) PRECHARGED,WIH MODIFIED TRAY TOSKED-644 Make : **AMARA RAJA** Lug date : **09/19**	RDSO/pe/spec/ac-0009 rev-1-2008 amdt-1	**01 set**
20.	Battery box for LHB coaches. Make : **ANANYA**	CC 91205	**01**

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** वरिष्ठ विद्युत अभियन्ता रेल कोच फैक्टरी, रायबरेली, Sr. Electrical Engineer / RCF / RBL

MCF/RBL