	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/2019-20/931

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

DISPATCH TO	Sr.DME(CHG)/FZR	Type	L	W	S	C	N	1	Shell No.	9	7	3	8	1	FUR.NO.	LSCN-1282

1. **Railway Board's Order No.** : **2019/M(C)/142/2, Dated: 03-06-2019**
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) 1102 (NPPE) 2) 1105 (PPE)

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM		MAKE/SUPPLIER		SERIAL NO			
1.	Under frame	Front Part	PP END	M/S-M.TECH.	145			
			NPP END	M/S-M.TECH.	145			
		Complete	M/S-M.TECH.		145			
2.	Lav. side wall		M/S- ATHANACY RBL		LAV.1	-	LAV.2	-
			M/S- ATHANACY RBL		LAV.3	-	LAV.4	-
3.	Side wall	LH SIDE	MCF/RBL(CONTRACTOR V4U)		272/01			
		RH SIDE	MCF/RBL(CONTRACTOR V4U)		272/02			
4.	End wall	PP END	M/s-DTL PUNE		---			
		NPP END	M/s-DTL PUNE		---			
5.	Roof		M/s-ECBT		333			
6.	Centre Buffer Coupler		M/S- SANROK		PP END	13639	NPP END	13698

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	07 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 –GSI	Supply & apply	90/88	29.09.19
2.	Insulation	Satisfactory				

SSE/QC/MCF/RBL

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गुणवत्ता विभाग
मे०डि०का०, 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/**2019-20/931**

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

DISPATCH	Sr.DME/CHG/FZR	Type	L	W	S	C	N	1	Shell No.	9	7	3	8	1	FUR .NO	LSCN-1282

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	191108				191107			
Bogie Type	FIAT				FIAT			
Frame no.	MCF/RBL-1146				MCF/RBL-1156			
Bolster no.	SCI-198				AMIT-407			
Axle No	19 R – 3178 RWF		19 R– 6860 RWF		19 R – 7179 RWF		19 R– 2358 RWF	
Wheel Dia	917.595	917.566	917.581	917.585	917.608	917.65	917.557	917.528
Wheel Disc No	TZ 06-19 54602-9QH9	TZ 06-19 51463-9PH7	TZ 06-19 53334-9PD9	TZ 06-19 59615-9QH6	TZ 03-19 30228-9MK5	TZ 06-19 53418-9QJ5	TZ 06-19 57364-9QK6	TZ 06-19 57065-9QJ4
R.B. Nos.	07-19-20567	07-19-20074	07-19-19398	07-19-21133	07-19-17630	07-19-20611	07-19-20069	07-19-19090
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 2794	TAYAL & CO. Sr.NO.19-08 2795	TAYAL & CO. Sr.NO.08-19 3155	TAYAL & CO. Sr.NO.08-19 3138

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	16588,16929	16574,16589
2.	Primary outer Spring	CMSTL/CMFSK	07-19 07A(4809,4886,4545,4274)	07-19 1100-058(569,582,321,575)
3.	Primary Inner Spring	CMGBD	08-19 1101-937(861,597,560,562)	08-19 1101-937(548,498,912,915)
4.	Primary Damper	KONI	03-19 (8038,7992,8047,8051)	03-19 (08007,08048,08032,02454)
5.	Secondary Damper	KONI/IAI	04-19 (1078,2076)	07-19 (263547,256881)
6.	Lateral Damper	GABRIEL	11-18 1376	11-18 1375
7.	Brake Cylinder	FAV	E19(499,503,499,503)	E19(448,456,455,467)
8.	Brake Caliper	FAV	E19(1743,1741,1742,1744)B	E19(1719,1717,1718,1720)B
9.	Brake Disc	KBI	24193661 0050-29/19,24193661 0047-29/19 24195447 0041-30/19,24195447 0032-30/19	24195447 0042-30/19,24195447 0043-30/19 24195447 0022-30/19,24195446 0023-30/19
10.	Ball Joint Control Arm	GMT/AR		
11.	Lateral Bump Stop	BASANT/GMT		
12.	Traction Centre make	SF		
13.	Traction lever make	TAJ/SF		
14.	Ball joint traction lever	AR		
15.	Ball joint traction centre	AR		
16.	Leveling Valve	KNORR	A 10535,A 10620	A 10088,A 10100
17.	Check Valve	KNORR	02-19 16416	05-19 16311
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SF/AR,		
20.	Fork make	EMSON		
21.	Control Arm Upper	RVE/NIPHA	100619-2,100619-2,290619-1,120619-2	0116,0118,423,318
22.	Control Arm Lower	RVE/NIPHA	RVE	0217,0109,0443,0111
23.	Phonic Wheel	FAV	FT/KEP/01	FT/KEP/1548

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/2019-20/931

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

DISPATCH TO	Sr.DME(CHG)/FZR	Type	L	W	S	C	N	1	Shell No.	9	7	3	8	1	FUR.NO.	LSCN-1282

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/S- KBI, FARIDABAD	3702 36/19
2.	Pull box	M/S- KBI, FARIDABAD	
3.	Distribution valve	M/S- KBI, FARIDABAD	2019 J 8876
4.	FIBA	M/S- KBI, FARIDABAD	PP-7593/29 NPP-7590/29
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-SHREE RAM PNL.	
8.	PVC	M/S -RESPONSIVE IND.	
9.	Lavatory Inlay	M/s- SEEMA IND. BHOPAL	
10.	UIC Vestibule (PPE)	M/S-KIRAN RUBBER PRODUCT, PUNE	
11.	UIC Vestibule (NPPE)	M/S-KIRAN RUBBER PRODUCT, PUNE	
12.	Gangway bridge mounting (PPE)	M/S- RAKESH IRON STORE, KXH	
13.	Gangway bridge mounting (NPPE)	M/S- RAKESH IRON STORE, KXH	
14.	Body Side Window	M/s-FP INDS KOLKATA	
15.	Emergency Window	M/s-AGF INDS KOLKATA	
16.	Hopper Window	M/S-SHATABDHI VADODARA+VEDANSH RBL	
17.	Side panel	M/s-WONDER LAMINATE KOLKATA	
18.	Roof ceiling	M/s-ACME INDS DELHI	
19.	Door way ceiling	M/S-JAMM TOOLS RBL	
20.	Body Side Door	M/S- JVR INDS ,LDH	
21.	Vestibule Door(PPE)	M/S- HANSPAL, KXH	
22.	Vestibule Door(NPPE)	M/S- HANSPAL, KXH	
23.	Bio Tank with pressurized flushing	M/S- OMAX AUTO GURGAON	
24.	Auxiliary Water Tank	M/S- AMIT ENG. MOHALI	
25.	Under Slung Water Tank(2X685L)	M/S- AMIT ENG. MOHALI	
26.	Under Slung Water Tank (1X685L)	M/S- AMIT ENG. MOHALI	
27.	Controlled Discharge Tap	M/s-KAPCO VALES JALANDHAR	
28.	Flexible Faucet	M/s-KAPCO VALES JALANDHAR	
29.	Lotah Filler Tap	M/s- AGMECO (P) LTD. UK	
30.	Lavatory Doors	M/s-KALSI LDH	
31.	Seat & Berth	M/s- T.W.P.L. INDUS. MUMBAI	
32.	RFID	M/s-ID TECH SOLUTION GURGAON	Sr.104331,104332

SSE/QC/MCF/RBL

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रे0डि0का0, 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/2019-20/931

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

DISPATCH TO	Sr.DME(CHG)/FZR	Type	L	W	S	C	N	1	Sheli No.	9	7	3	8	1	FUR.NO.	LSCN-1282

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 खण्ड 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

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

SCN – 1282

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 NONAC SCN COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG NON AC COACHES			
TYPE COACH	**LWSCN**	**SHELL/COACH NO**	**197116/C**
RAILWAY	**NR**	**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

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

01.	Switch board cabinet Make : **HIND RECTIFIERS** On Board Sr no : **H-355-19 H-419** HT Panel Sr no : **H-355-19 H-410**	EDTS 333, Rev`01'Am-1	**01**
02.	Pump equipment with PLC controller & pump box Make : **DR AUTO** Sr no PA: **2019/09/002** Sr no.1 : **19090076** Sr no.2 : **19090131** Srno.CPA: **NIL-DR AUTO**	As per spec EDTS 186,Rev-a, Am- 2	**01**
03.	Emergency light system for EOG type coaches (AEL), Make : **VGS**	EDTS 151,Rev –c Am-1 & 2	**04**
04.	Passenger Alarm Cum Indication Light (PACIL) Make: **KAVERI**	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 : **RECORD /SALZER**	EDML 086, Rev 03, ITEM-02	**20**
07.	Railway carriage Fan 400mm Sweep, 110V DC with crash worthy features. Make: **CG POWER**	IS 6680/92,First Rev, RCF Amdt 4, Col I, Ty XI, RCF Cor I.	**30**
08.	Cabin,Corridor,doorway and Gangway Lights. Make: **RT VISION**	As per RDSO/PE/SPEC/TL-0091(REV-1) TYPE B-1	**26**
09.	Lavatory Light Make: **RT VISION**	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 NONAC SCN COACHES

11.	Battery fuse box +ve Make : **RADIANT**	LW 71001,Alt-F	**01**
12.	Battery fuse box –ve Make : **RADIANT**	LW 71002,Alt-F	**01**
13.	Regulated battery charger Make : **WAVES** Sr no:**W4K5H 19456**	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	**01**
14.	9KVA transformer Make :**VIMAL** Sr no : **VTC 3089 LHB-2257**	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 : **SYSTEMS**	EDTS-328 REV-C	**01 set**
17.	Wheel set earthling equipment. Make : **DARSHAN ENTERPRISES**	EDTS101,REV-C,AM-1	**02 sets**
18.	Wheel Slide Protection System (WSP) Make : **KNORR** Sr no : **0119071075**	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 : **08/19**	RDSO/pe/spec/ac-0009 rev-1-2008 amdt-1	**01 set**
20.	Battery box for LHB coaches. Make : **HITECH**	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, लखनऊ Sr. Electrical Engineer / RCF / RBL / Lucknow