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/2019-20/1029

RLY	C	R	-	Coach No.	1	9	7	2	3	4	/	C	DATE OF DISPATCH	0	8	-	1	1	-	1	9

DISPATCH TO	SSE/STOCK/CR/BB	Type	L	W	S	C	N	1	Shell No.	9	7	3	5	2	FUR.NO.	LSCN-1324

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) 1105 (NPPE) 2) 1100 (PPE)

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM		MAKE/SUPPLIER		SERIAL NO			
1.	Under frame	Front Part	PP END	M/S-CHENNAI RADHA ENG.	64			
			NPP END	M/S-CHENNAI RADHA ENG.	64			
		Complete	M/S-CHENNAI RADHA ENG.		64			
2.	Lav. side wall		M/S- JSL HARYANA		LAV.1	-	LAV.2	-
			M/S- JSL HARYANA		LAV.3	-	LAV.4	-
3.	Side wall	LH SIDE	MCF/RBL(CONTRACTOR V4U)		311/01			
		RH SIDE	MCF/RBL(CONTRACTOR V4U)		311/02			
4.	End wall	PP END	M/s-DTL PUNE		---			
		NPP END	M/s-DTL PUNE		---			
5.	Roof		M/s-ECBT		359			
6.	Centre Buffer Coupler		M/s- FRONTIER		PP END	80P1	NPP END	82P1

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 –NEROLAC	Supply & apply	89/88	22.10.19
2.	Insulation	Satisfactory				

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रे०डि०का०, रायबरेली (लालगंज)

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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/2019-20/1029

RLY	C	R		Coach No.	1	9	7	2	3	4	/	C	-	DATE OF DISPATCH	0	8	1	1	2	0	1	9

DISPATCH	SSE/(STOCK)/CR/BB	Type	L	W	S	C	N	1	Shell No.	9	7	3	5	2	FUR .NO	LSCN-1324

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	192123				192124			
Bogie Type	FIAT				FIAT			
Frame no.	MCF/RBL/LS5 - 1093				MCF/RBL - 0624			
Bolster no.	AMIT ENGG-509				AMIT ENGG-512			
Axle No	19 R- 1603 RWF		19 S- 2913 RWF		19 S- 1545 RWF		19 S- 1943 RWF	
Wheel Dia	917.414	917.573	917.447	917.575	917.446	917.576	917.415	917.653
Wheel Disc No	TZ 08-19 75045-9SL4	TZ 07-19 62057-9RL0	TZ 08-19 75800-9SK3	TZ 08-19 75042-9SK0	TZ 08-19 74962-9RL1	TZ 07-19 62057-9RL0	TZ 08-19 74963-9RK9	TZ 06-19 69680-9RN3
R.B. Nos.	05-18-26884	06-18-16670	05-18-26937	05-18-36800	05-18-38688	06-18-16659	05-18-36791	05-18-36795
CT R B Make	SKF		SKF		SKF		SKF	

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.19-10 4808	TAYAL & CO. Sr.NO.19-10 4820	TAYAL & CO. Sr.NO.19-10 4808	TAYAL & CO. Sr.NO.19-10 4820

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	14407,14404	14418,13970
2.	Primary outer Spring	CMFSK	09-19 1100-078- (2210,2209,2226,2211)	09-19 1100-078- (224,12217,2089,2243)
3.	Primary Inner Spring	CMSTL	07-19 06A (174,8025,776,499)	07-19 06A (515,244,173,187)
4.	Primary Damper	KONIC	03-19 (02361,01738,05650,02213)	03-19 (02361,01738,05650,02213)
5.	Secondary Damper	GB	5102-1,5102-1	5102-1,5102-1
6.	Lateral Damper	KONI	04-19 02386	04-19 02386
7.	Brake Cylinder	KBI	B(8938,7884,7879,8933)K29	B(9007,7911,7914,8939)K29
8.	Brake Caliper	KBI	B(6013,6019,6018,6012)K-29	B(6010,602,06021,6011)K-29
9.	Brake Disc	KBI	24198278 0039-35/19,24198278 0040-35/19 24198280 0008-35/19,24198277 0020-34/19	24198280 0073-36/19,24200026 0070-36/19 24200055 0003-37/19,24200055 0002-37/19
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	19 B- 4165,19B-4170	19 B- 4165,19B-4170
17.	Check Valve	KNORR	18803	18803
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA/GMT		
20.	Fork make	SF(SARITA)		
21.	Control Arm Upper	SF	252,64,1817,170	261,281,210,211
22.	Control Arm Lower	SF	188,178,2,327	305,71,282,249
23.	Phonic Wheel	KBI	K-08-19	K-08-19

Signature of SSE/Bogie/QC

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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/2019-20/1029

RLY	C	R	-	Coach No.	1	9	7	2	3	4	/	C	DATE OF DISPATCH	0	8	-	1	1	-	1	9

DISPATCH TO	SSE/STOCK/CR/BB	Type	L	W	S	C	N	1	Shell No.	9	7	3	5	2	FUR.NO.	LSCN-1324

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/S- KBI, FARIDABAD	3741 39/19
2.	Pull box	M/S- KBI, FARIDABAD	
3.	Distribution valve	M/S- KBI, FARIDABAD	2019 J 8928
4.	FIBA	M/S- KBI, FARIDABAD	PP-7665/29
5.	Foot Step	M/s- SUPER SPAR K PVT. LTD. FARIDABAD	NPP-7672/29
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-SUNCREST IND.KOLKATA	
11.	UIC Vestibule (NPPE)	M/S-SUNCREST IND.KOLKATA	
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- AGF 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 NEW DELHI	
19.	Door way ceiling	M/S-JAMM TOOLS RBL	
20.	Body Side Door	M/S- SUKATA INDS, CDG	
21.	Vestibule Door(PPE)	M/S- HANSPAL, KXH	
22.	Vestibule Door(NPPE)	M/S- HANSPAL, KXH	
23.	Bio Tank	M/S- FLASH FORGE (P) LTD VIZAG.	
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.	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 1,3	M/S- KALSI, LUDHIYANA	
31.	Lavatory Doors 2,4	M/S- JR INDS JALNDHAR	
32.	Seat & Berth	M/S- TWPL MUMBAI	
33.	RFID	M/s-ID TECH SOLUTION GURGAON	Sr.103721,103722

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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/2019-20/1029

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DISPATCH TO	SSE/STOCK/CR/BB	Type	L	W	S	C	N	1	Shell No.	9	7	3	5	2	FUR.NO.	LSCN-1324

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

वरि० खण्ड अभियन्ता
गुणवत्ता विभाग
रे०डि०का०, 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

MCF/RBL

SCN- 1324

	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**	**197234/C**
RAILWAY	**CR**	**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 : **TRINITRON** On Board Sr no : **19/08/TCS/MCF/3436/355/0127** HT Panel Sr no : **19/08/TCS/MCF/3436/355/0127**	EDTS 333, Rev`01'Am-1	**01**
02.	Pump equipment with PLC controller & pump box Make : **DR AUTO** Sr no PA: **2019/09/0053** Sr no.1 : **5825** Sr no.2 : **5850** Srno.CPA: sr no **-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 : **SALZER**	EDML 086, Rev 03, ITEM-02	**20**
07.	Railway carriage Fan 400mm Sweep, 110V DC with crash worthy features. Make: **LIGHT ENGG.**	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: **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
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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

11.	Battery fuse box +ve Make : **INDORAIL**	LW 71001,Alt-F	**01**
12.	Battery fuse box –ve Make : **SSK**	LW 71002,Alt-F	**01**
13.	Regulated battery charger Make : **PI ENGG.WORKS** Sr no: **PI-19100128**	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	**01**
14.	9KVA transformer Make :**VIMAL** Sr no : **VTC 3089 LHB-2091**	As per RDSO/PE/SPEC/TL 0158, 2010, Rev`0',Ty I.	**01**
15.	ZS coupling 400A/750V/03Ph/50hz. Make : **MAA LAXMI INDUSTRIES**	As per spec No EDTS 105,Rev`e' Am-3, TYPE-2	**01 set**
16.	Feeder junction boxes. Make : **ESBEE**	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 : **0119201973**	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 : **NIL**	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 आ०रे०डि०का० / लालगंज / रायबरेली S.S.E./Elect-QC/M.C.F./LLJ/RBL	**AWM(ELECT.)/MCF/RBL** For **SEE(P)/MCF/RBL** स० कार्य प्रबन्धक / विद्युत आ०रे०डि०का० / रायबरेली A.W.M./Electrical/MCF/RBL