	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/2019-20/1030

RLY	C	R	-	Coach No.	1	9	7	2	3	8	/	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	2	1	6	FUR.NO.	LSCNG-252

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: -

S NO	DESCRIPTION	MAKE/SUPPLIER
A.	Epoxy flooring in lavatory	M/S- ACME INDIA NDLS.
B.	Anti slip friendly Grab Bar	M/S- ACME INDIA NDLS.
C.	Provision of Health Faucet in lavatories	M/S- ACME INDIA NDLS.
D.	Washbasin counter Top (Corian of Duport or Montelli)	M/S- ACME INDIA NDLS.
E.	GFRE ceiling instead of NFTC	M/S- ACME INDIA NDLS.
F.	DGFRP panels instead of LP panels	M/S- ACME INDIA NDLS.
G.	Honey Comb partition frame with DGFRP sheet instead of FRP sheet	M/S- ACME INDIA NDLS.
H.	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	
I	**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) 1101 (PPE)

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM		MAKE/SUPPLIER		SERIAL NO			
1.	Under frame	Front Part	PP END	M/S- PENNAR IND. HYD	--			
			NPP END	M/S- PENNAR IND. HYD	--			
		Complete	MCF/RBL		97216			
2.	Lav. side wall		M/S- MIDAS GUJRAT		LAV.1	-	LAV.2	-
			M/S- MIDAS GUJRAT		LAV.3	-	LAV.4	-
3.	Side wall	LH SIDE	MCF/RBL(CONTRACTOR V4U)		32/01			
		RH SIDE	MCF/RBL(CONTRACTOR V4U)		32/02			
4.	End wall	PP END	M/s-RAIL TECH KXH		--			
		NPP END	M/s-RAIL TECH KXH		--			
5.	Roof		M/s-MCF		07			
6.	Centre Buffer Coupler		M/S- SANROK		PP END	13001	NPP END	13014

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)**	89/88	04.07.19
2.	Insulation	Satisfactory				

SSE/QC/MCF/RBL

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MCF/RBL

MCF/RBL

	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/**2019-20/1030**

RLY	C	R		Coach No.	1	9	7	2	3	8	/	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	2	1	6	FUR .NO	LSCN-G-252

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	192160				192159			
Bogie Type	FIAT				FIAT			
Frame no.	MCF/RBL/LS5 - 586				MCF/RBL - 1170			
Bolster no.	SCI-349				SCI-360			
Axle No	19 R– 1973 RWF		19 P– 8105 RWF		19 R – 3455 RWF		19 S– 1974 RWF	
Wheel Dia	917.518	917.473	917.488	917.53	917.482	917.602	917.472	917.512
Wheel Disc No	TZ 07-19 67136-9RM8	TZ 07-19 69473-9RQ9	TZ 07-19 64495-9MH4	TZ 08-19 74986-9RL1	TZ 07-19 70525-9RN6	TZ 07-19 66147-9RK8	TZ 07-19 66212-9RL9	TZ 08-19 75024-9RK9
R.B. Nos.	02-18-16291	05-18-13283	05-18-26878	05-18-26755	07-18-41242	05-18-13267	05-18-13287	06-18-16984
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 4784	TAYAL & CO. Sr.NO.19-10 4708	TAYAL & CO. Sr.NO.19-10 4761	TAYAL & CO. Sr.NO.19-10 4752

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	*KBI*	*17772,17756*	*17762,17771*
2.	Primary outer Spring	*CMFSK*	*07-19 07A (5500,5444,2631,5417)*	*07-19 07A (5390,5568,3545,5504)*
3.	Primary Inner Spring	*CMSTL*	*07-19 06A (110,708,281,242)*	*07-19 06A (168,818,520,127)*
4.	Primary Damper	*KNORR*	*07-19 (65315,65441,65531,65302)*	*07-19 (65320,65324,65355,65375)*
5.	Secondary Damper	*GB*	*01530,01545*	*01532,01539*
6.	Lateral Damper	*KONI*	*04-19 01064*	*04-19 01040*
7.	Brake Cylinder	*KBI*	*B(8900,133,7992,8978)K29*	*B(8883,8128,8029,8982)K29*
8.	Brake Caliper	*KBI*	*B(5926,6199,6045,6028)K-29*	*B(5827,6200,6040,6030)K-29*
9.	Brake Disc	*KBI*	*24200052 0066-36/19,24200052 0055-36/19 24200053 0047-36/19,24200053 0048-36/19*	*24200052 0048-36/19,24200052 0049-36/19 24200052 0058-36/19,24200052 0057-36/19,*
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- 6372,19B-6118*	*19 B- 6628,19B-6600*
17.	Check Valve	*KNORR*	*19647*	*19705*
-18.	Anti roll bar Make	*EMSON*		
19.	Roll Link make	*SARITA/GMT*		
20.	Fork make	*EMSON/ SF(SARITA)*		
21.	Control Arm Upper	*RVE*	*210719-4,210619-2,210619-2,210012-3*	*140819-4,140819-2,190819-2,190819-2*
22.	Control Arm Lower	*RVE*	*180819-3,210619-4,210619-4,210011-4*	*140819-4,140819-4,140819-4,130819-3*
23.	Phonic Wheel	*KBI*	*K-07-19*	*K-08-19*

Signature of SSE/Bogie/QC

आयोजित / रायबरेली

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/2019-20/1030

RLY	C	R	-	Coach No.	1	9	7	2	3	8	/	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	2	1	6	FUR.NO.	LSCNG-252

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/S- KBI, FARIDABAD	3820 38/19
2.	Distribution valve	M/S- KBI, FARIDABAD	2019 J 8998
3.	Pull box	M/S- KBI, FARIDABAD	
4.	FIBA	M/S- KBI, FARIDABAD	PP-9185/29 NPP-9328/29
5.	Foot Step	M/s- SUPER SPARK PVT. LTD. FARIDABAD	
6.	Decoupling arrangement	M/S-ELASTOMER LINING WORKS, MUMBAI	
7.	Floor board	M/s-TWPL MUMBAI	
8.	PVC	M/S- ACME INDIA NDLS.	
9.	Lavatory Inlay	M/S- SEEMA INDS. 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- ACME INDIA NDLS.	
15.	Emergency Window	M/S- ACME INDIA NDLS.	
16.	Hopper Window	M/S- ACME INDIA NDLS.	
17.	Side panel	M/S- ACME INDIA NDLS.	
18.	Roof ceiling	M/S- ACME INDIA NDLS.	
19.	Door way ceiling	M/S- ACME INDIA NDLS.	
20.	Partition frame	M/S-SARITA HITECH	
21.	Partition pillar	M/S- ACME INDIA NDLS.	
22.	Body Side Doors	M/S- JBM INDUSTRIES, FARIDABAD	
23.	Vestibule Door(PPE)	M/S- HANSPAL COACH PRODUCTS, KXH	
24.	Vestibule Door(NPPE)	M/S- HANSPAL COACH PRODUCTS, KXH	
25.	Bio Tank	M/S- FLASH FORGE (P) LTD VIZAG	
26.	Auxiliary Water Tank	M/s- AMIT ENG. MOHALI	
27.	Under Slung Water Tank(2X685L)	M/s- AMIT ENG. MOHALI	
28.	Under Slung Water Tank (1X685L)	M/s- AMIT ENG. MOHALI	
29.	Health Faucet	M/s- KAPCO VALVES JALANDHAR	
30.	Lotah Filler Tap	M/s- KAPCO VALVES JALANDHAR	
31.	Controlled Discharge Tap	M/s- AGMECO (P) LTD. UK	
32.	Lavatory Doors	M/s- AMIT ENG. MOHALI	
33.	Seat & Berth	M/s- AMIT ENG. MOHALI (DURABLE IND.LKO)	
34.	Snack Table	N/A	
35.	RFID	M/s-TECH SOLUTION GURGAON	Sr.106158,106156

SSE/QC/MCF/RBL

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एम०डी०का०, 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/2019-20/1030

RLY	C	R	-	Coach No.	1	9	7	2	3	8	/	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	2	1	6	FUR.NO.	LSCNG-252

13. MODIFICATION (IF ANY) : Partition frame & Partition pillar

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, 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 अभियंता
गुणवत्ता विभाग
रे०ड०का०, रायबरेली (लालगंज)

वरिष्ठ यांत्रिक अभियन्ता/गुण...
Senior Mechanical Engineer/Q...
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 ... Raebareli

CJ-252

	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**	**197238/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 : **MODERN RAILTECH EQUIPMENT** On Board Sr no : **NIL** HT Panel Sr no : **NIL**	EDTS 333, Rev`01'Am-1	**01**
02.	Pump equipment with PLC controller & pump box Make : **DR AUTO** Sr no PA: **2019/09/0047** Sr no.1 : **6136** Sr no.2 : **6222** Srno.CPA: **2019/10/051-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 : **SALZER/SSK**	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
Quality control / Electrical
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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 : **RADIANT**	LW 71002,Alt-F	**01**
13.	Regulated battery charger Make : **PI ENGG.WORKS** Sr no: **PI-19080061**	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	**01**
14.	9KVA transformer Make :**VIMAL** Sr no :**VTC 3089 LHB-2018**	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 : **AECO**	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 : **0119242154**	M/s : **KNORR**	**01 set**
19.	110V,120AH,VRLA SMF BATTERY SET WITH 19 MONOBLOCK (6V EACH) PRECHARGED,WIH MODIFIED TRAY TOSKED-644 Make : **HBL** Lug date : **06/19**	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 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