	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/2019-20/689

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

DISPATCH TO	Sr.DME/GHY	Type	L	W	S	C	N	1	Shell No.	9	7	3	2	3	FUR.NO.	LSCNG-284

1. Railway Board's Order No. : 2019/M(C)/142/2 Dated-3-06-2019
2. Tare Weight of Coach : 41.24 Tones
3. Carrying Capacity : (a) Seating : 80 (b) Sleeping : 80 (c) Luggage : NIL
4. **Special features :**

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

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-M.TECH	486			
			NPP END	M/S-M.TECH	486			
		Complete	MCF/RBL(SIS)		97323			
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)		148/01			
		RH SIDE	MCF/RBL (CONTRACTOR V4U)		148/02			
4.	End wall	PP END	M/s- OMAX REWARI		--			
		NPP END	M/s- OMAX REWARI		--			
5.	Roof		M/S-ECBT		252			
6.	Centre Buffer Coupler		M/s- FRONTIER LTD.		PP END	82P2	NPP END	203P2

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 –VIBGYOR	Supply & apply	90/88	05.08.19
2.	Insulation	Satisfactory				

SSE/QC/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/2019-20/689

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

DISPATCH	Sr.DME/GHY	Type	L	W	S	C	N	1	Shell No.	9	7	3	2	3	FUR .NO	LSCN-G-284

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	191038				191037			
Bogie Type	FIAT				FIAT			
Frame no.	MCF/RBL-1567				MCF/RBL-1952			
Bolster no.	MCF/RBL-2147				MCF/RBL-2184			
Axle No	19 P – 6801 RWF		19 P – 6429 RWF		19 P – 7647 RWF		19 P – 7568 RWF	
Wheel Dia	917.497	917.474	917.433	917.442	917.431	917.478	917.564	917.569
Wheel Disc No	TZ 04-19 35000-9MH6	TZ 04-19 34999-90D8	TZ 03-19 32305-90E9	TZ 05-19 43377-9PI8	TZ 05-19 51119-9PF7	TZ 05-19 35005-90I7	TZ 05-19 39761-90E1	TZ 05-19 40416-90H3
R.B. Nos.	09-18 25973	09-18 25793	09-18 24718	09-18 26459	09-18 24723	09-18 25955	08-18 21578	08-18 22413
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	
	Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner
Make & Nos.	CMFSK06-19-5101-031-86	CMFSK06-17-5100-285-107	CMFSK06-19-5101-031-26	CMFSK06-17-5100-285-192	CMAFJ06-19-5101-81	CMFSK06-17-5100-235-208	CMAFJ06-19-5101-97	CMTSL06-17-5100-235-144
Compressed Ht. at Tested Load	515	471	514	472	516	470	516	472
Alignment deviation (mm)	11	7	13	10	5	11	01	9

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	**12393,14399**	**12788,12374**
2.	Primary outer Spring	CMSTL	07-19 F07-N88(1588,1654,1597,1739)	07-19 F07-N86 (1511,1687,1738,1708)
3.	Primary Inner Spring	CMAFJ	01-19 (25,2,24,26)	01-19 (50,44,49,27)
4.	Primary Damper	KONI	03-19 (02999,8293,4336,7006)	03-19 (01179,05003,01640,01660)
5.	Secondary Damper	KONI	04-19 (525,514)	04-19 (510,0673)
6.	Lateral Damper	KONI	03-19 0455	03-19 00252
7.	Brake Cylinder	KBI	B (0609,4440,3172,0610)K29	B (4240,3614,3619,4395)K29
8.	Brake Caliper	KBI	D19(3466,0970,3518,8700)-29	D19(1753,2009,2010,1959)-29
9.	Brake Disc	KBI	24173129 0015-08/19,24173130 0007-08/19 24185217 0030-16/19,24185216 0065-16/19	24185216 0068-16/19,24185217 0033-16/19 24185215 0046-15/19,24185215 0044-15/19
10.	Ball Joint Control Arm	AR		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	SF		
13.	Traction lever make	SF/JI		
14.	Ball joint traction lever	ARYAN		
15.	Ball joint traction centre	ARYAN		
16.	Secondary Rubber Pad	PPI		
17.	Rubber Spring	GMT		
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	**SF/AR**		
20.	Fork make	EMSON		
21.	Control Arm Upper	RVE	030619-3,040619-2,040619-3,020619-2	020619-2
22.	Control Arm Lower	RVE	280519-3,282519-3,280519-3,280519-3	270519-2,280519-3,270519-2,280519-3
23.	Phonic Wheel	KNORR/FAV	K-06-19 640209	FT/KEP-2019

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/2019-20/689

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

DISPATCH TO	Sr.DME/GHY	Type	L	W	S	C	N	1	Shell No.	9	7	3	2	3	FUR.NO.	LSCNG-284

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/S- KBI, FARIDABAD	323229/19
2.	Distribution valve	M/S- KBI, FARIDABAD	2019G8267
3.	Pull box	M/S- KBI, FARIDABAD	
4.	Foot Step	M/s- SUPER SPARK PVT. LTD. FARIDABAD	
5.	Decoupling arrangement	M/S-ELASTOMER LINING WORKS, MUMBAI	
6.	Floor board	M/S- SHRI RAM PANEL PUNJAB	
7.	PVC	M/s ACME INDIA, NDLS	
8.	Lavatory Inlay	M/S- SEEMA INDS. BHOPAL	
9.	UIC Vestibule (PPE)	M/S-K.R.P PUNE	
10.	UIC Vestibule (NPPE)	M/S-K.R.P PUNE	
11.	Gangway bridge mounting (PPE)	M/S- HARE KRISHNA COACH PRODUCT KXH	
12.	Gangway bridge mounting (NPPE)	M/S- HARE KRISHNA COACH PRODUCT KXH	
13.	Body Side Window	M/s- ACME INDIA NDLS	
14.	Emergency Window	M/s- ACME INDIA NDLS	
15.	Hopper Window	M/s- ACME INDIA NDLS	
16.	Side panel	M/s- ACME INDIA NDLS	
17.	Roof ceiling	M/s- ACME INDIA NDLS	
18.	Door way ceiling	M/s- ACME INDIA NDLS	
19.	Partition frame	M/s- SARITA HITECH UMB.	
20.	Partition pillar	M/s- ACME INDIA NDLS	
21.	Body Side Door	M/s- JVR INDS, LUDHIYANA	
22.	Vestibule Door(PPE)	M/S- KALSI,INDS LUDHIYANA	
23.	Vestibule Door(NPPE)	M/S- KALSI,INDS LUDHIYANA	
24.	Bio Tank with pressurized flushing	M/s- FLASH FORGE (P)LTD. VIZAG	
25.	Auxiliary Water Tank	M/s- AMIT ENG. MOHALI	
26.	Under Slung Water Tank(2X685L)	M/s- AMIT ENG. BADDI	
27.	Under Slung Water Tank (1X685L)	M/s- AMIT ENG. MOHALI	
28.	Flexible Faucet	M/s- ACME INDIA NDLS	
29.	Lotah Filler Tap	M/s- ACME INDIA NDLS	
30.	Controlled Discharge Tap	M/s- HINDWARE ,(HSIL LTD) GURGAON	
31.	Lavatory Doors	M/S- KALSI,INDS LUDHIYANA	
32.	Seat & Berth	M/s- ACME INDIA NDLS (DURABLE POLYMER)	
33.	Snack Table	N/A	

SSE/QC/MCF/RBL

वरिष्ठ अभियंता
गुणवत्ता विभाग
रे०डि०का०, 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/2019-20/689

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

DISPATCH TO	Sr.DME/GHY	Type	L	W	S	C	N	1	Shell No.	9	7	3	2	3	FUR.NO.	LSCNG-284

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

वरिष्ठ अनुभाग अभियंता
गुणवत्ता विभाग
आ०रे०का०, रायबरेली (लालगंज)

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

SCN-G1-284

	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**	**196254/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

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

01.	Switch board cabinet Make :**MV ELECTRO SYSTEM** On Board Sr no : **NIL** HT Panel Sr no :**047/H/19-20**	EDTS 333, Rev`01'Am-1	**01**
02.	Pump equipment with PLC controller & pump box Make : **DR AUTO** Sr no PA: **2019/06/089** Sr no.1 : **19060439** Sr no.2 : **19060517** Srno.CPA:**2019/06/050-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:**KAVERI**	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-I	**02**
05.	Fitment of Switch Plate Assly(Cabin Side) Make :**SSK/SALZER**	EDML 086,Rev-03, ITEM-01	**20**
06.	Fitment of Switch Plate Assly Corridor Side),Make :**SSK/SALZER**	EDML 086, Rev 03, ITEM-02	**20**
07.	Railway carriage Fan 400mm Sweep, 110V DC with crash worthy features. Make:**IMT CABLES**	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:**MIKA ENGG.**	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**

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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 :**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 19327**	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	**01**
14.	9KVA transformer Make :**VIMAL** Sr no :**VTC 3089 LHB-2112**	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 :**NEC**	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 : **0119121591**	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 :**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	**AWM(ELECT.)/MCF/RBL** **DY CEE (PLG)/MCF/RBL**

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आ०रे०डि०का० / लालगंज / रायबरेली
S.S.E./Elect-QC/M.C.F./LLJ/RBL

सं० कार्य प्रबन्धक / विद्युत
आ०रे०डि०का० / रायबरेली
A.W.M./Electrical/MCF/RBL