	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/2019-20/353

RLY	N	F	R	Coach No.	1	9	4	6	8	1	/	C	DATE OF DISPATCH	2	5	-	0	6	-	1	9

DISPATCH TO	Sr.DME/GHY	Type	L	W	S	C	N	1	Shell No.	9	7	1	0	9	FUR.NO.	LSCNG-217

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 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
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	

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) 1096 (NPPE) 2) 1095 (PPE)

6. **TRACEABILITY OF SHELL ITEMS:**

S NO	ITEM		MAKE/SUPPLIER	SERIAL NO			
1.	Under frame	Front Part	PP END M/S-DTL	06			
			NPP END M/S-DTL	06			
		Complete	M/S-DTL	06			
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)	470/01			
		RH SIDE	MCF/RBL (CONTRACTOR V4U)	470/02			
4.	End wall	PP END	M/s- P.D STEEL PANCHKULA	--			
		NPP END	M/s- RSM, MOHALI	--			
5.	Roof		M/S- ECBT	140			
6.	Centre Buffer Coupler		M/S- ESCORTS LTD RAILWAY EQUIPMENT, FBD.	PP END	9483	NPP END	9623

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	90/89	18.05.19
2.	Insulation	Satisfactory				

वरि० अनु० अभियंता
SSE/QC/MCF/RBL
रे०डि०का०, 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/**2019-20/353**

RLY	N	F	R	Coach No.	1	9	4	6	8	1	/	C	-	DATE OF DISPATCH	2	5	0	6	2	0	1	9

DISPATCH	Sr.DME/GHY	Type	L	W	S	C	N	1	Shell No.	9	7	1	0	9	FUR .NO	LSCN-G-217

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	190825				190826			
Bogie Type	FIAT				FIAT			
Frame no.	MCF/RBL-LS5-1022				MCF/RBL-LS5-1026			
Bolster no.	AMIT-137				AMIT-154			
Axle No	19 N – 3844 RWF		19 N – 4269 RWF		16 N – 6639 RWF		19 N- 3709 RWF	
Wheel Dia	917.626	917.65	917.601	917.637	917.69	917.69	917.69	917.686
Wheel Disc No	TZ 04-19 34587-9OG1	TZ 04-19 35085-9OI5	TZ 04-19 33908-9OF4	TZ 04-19 35583-8MH3	TZ 03-19 29727-9MM1	TZ 04-19 35008-9OE6	TZ 03-19 30499-9MM1	TZ 04-19 35009-9OJ4
R.B. Nos.	02-19 00993	02-19 02185	02-19 00848	02-19 02171	02-19 03039	02-19 05030	02-19 04866	02-19 04006
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.	RESISTO FLEX DYNAMIC PVT.LTD Sr.19-02 5617	RESISTO FLEX DYNAMIC PVT.LTD Sr.18-12 48500	RESISTO FLEX DYNAMIC PVT.LTD Sr.19-02 5610	RESISTO FLEX DYNAMIC PVT.LTD Sr.19-02 5606

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	IAI	239355,238871	239274,238762
2.	Primary outer Spring	CMFSK	04-19 1036-565(343,478,389,482)	04-19 1036-565(126,423,397,288)
3.	Primary Inner Spring	CMRSK	12-18(4104),11-18 06A(4090,4069,4035)	11-18 06A(3838,4033,3776,3772)
4.	Primary Damper	KNORR	12-18 (47561,47552,47591,47553)	12-18 (47551,47436,47543,47525)
5.	Secondary Damper	IAI	06-19 (257015,27005)	06-19 (257140,256992)
6.	Lateral Damper	GABRIEL	11-18 1213	11-18 1214
7.	Brake Cylinder	KBI	B(1027,0381,0416,1062)K-29	B(1032,0422,1456,2112)K-29
8.	Brake Caliper	KBI	B (9093,9136,9135,9136)--29	B (9094,9138,0159,0056)--29
9.	Brake Disc	FAV	03-19(2306,2307,2310,2309)133561-300-1	04-19(3437,3433,3438,3440)133561-300-1
10.	Ball Joint Control Arm	GMT		
11.	Lateral Bump Stop	AR/Aryan		
12.	Traction Centre make	SARITA		
13.	Traction lever make	JI		
14.	Ball joint traction lever	AR		
15.	Ball joint traction centre	GMT		
16.	Leveling Valve	KNORR	06-19 A 9959,06-19 A 10394	06-19 A 9976,06-19 A 9988
17.	Check Valve	KNORR	02-19 16327	02-19 16318
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA/PPI		
20.	Fork make	EMSON		
21.	Control Arm Upper	RVE	170319-2,170319-2,200319-1,200319-1	170319-2,200319-2,170319-2,170319-2
22.	Control Arm Lower	RVE	290319-2,290319-3,290319-3,200319-1	200519-4,290319-2,190319-2,200319-2
23.	Phonic Wheel	FAV	FT/KEP/1955	FT/KEP/1955

Signature of SSE/Bogie/QC

MCF/RBL

	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/2019-20/353

RLY	N	F	R	Coach No.	1	9	4	6	8	1	/	C	DATE OF DISPATCH	2	5	-	0	6	-	1	9

DISPATCH TO	Sr.DME/GHY	Type	L	W	S	C	N	1	Shell No.	9	7	1	0	9	FUR.NO.	LSCNG-217

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/S- KBI, FARIDABAD	2596 15/19
2.	Distribution valve	M/S- KBI, FARIDABAD	2019 C 7357
3.	Pull box	M/S- KBI, FARIDABAD	
4.	fiba	M/S- KBI, FARIDABAD	PP-5436/29 NPP-5534/29
5.	Foot Step	M/s- SUPER SPARK PVT. LTD. FARIDABAD	
6.	Decoupling arrangement	M/S- KOHINOOR INDIA JUC.	
7.	Floor board	M/S- SHRI RAM PANEL PUNJAB	
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- COMPETANT ENG. JUC	
13.	Gangway bridge mounting (NPPE)	M/S- COMPETANT ENG. JUC	
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- ACME INDIA NDLS	
21.	Partition pillar	M/s- ACME INDIA NDLS	
22.	Body Side Doors	M/S- JVR IND LDH	
23.	Vestibule Door(PPE)	M/S- JBM INDUSTRIES, FARIDABAD	
24.	Vestibule Door(NPPE)	M/S- JBM INDUSTRIES, FARIDABAD	
25.	Bio Tank with pressurized flushing	M/s- FLASH FORGE (P)LTD. VIZAG,M/s- IMI	
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- SHIVALIK FASTNERS PVT.LTD. MOHALI	
29.	Flexible Faucet	M/s- ACME INDIA NDLS	
30.	Lotah Filler Tap	M/s- ACME INDIA NDLS	
31.	Controlled Discharge Tap	M/s- HINDWARE ,(HSIL LTD) GURGAON	
32.	Lavatory Doors	M/s- ACME INDIA NDLS	
33.	Seat & Berth	M/s- OVPL, MUMBAI	
34.	Snack Table	N/A	

SSE/QC/MCF/RBL

वरि0अभि0 अभियंता
गुणवत्ता नियंत्रण
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/2019-20/353

RLY	N	F	R	Coach No.	1	9	4	6	8	1	/	C	DATE OF DISPATCH	2	5	-	0	6	-	1	9

DISPATCH TO	Sr.DME/GHY	Type	L	W	S	C	N	1	Shell No.	9	7	1	0	9	FUR.NO.	LSCNG-217

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

09-217

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**	**194681/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 :**TRINITRON** On Board Sr no :**19/05/TCS/MCF/3436/355/0018** HT Panel Sr no :**19/05/TCS/MCF/3436/355/0018**	EDTS 333, Rev`01'Am-1	**01**
02.	Pump equipment with PLC controller & pump box Make : **DR AUTO** Sr no PA: **2019/06/036** Sr no.1 : **19050634** Sr no.2 : **19050657** Srno.CPA:**19050048-KIND**	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 :**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:**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 :**AGASTYA**	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 : **INDORAIL**	LW 71001,Alt-F	**01**
12.	Battery fuse box –ve Make : **INTEG**	LW 71002,Alt-F	**01**
13.	Regulated battery charger Make :**WAVES** Sr no: **W4KSE 19035**	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	**01**
14.	9KVA transformer Make :**VIMAL** Sr no :**VTC 3089 LHB-1747**	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 : **MAA LAXMI INDUSTRIES**	EDTS-328 REV-C	**01 set**
17.	Wheel set earthling equipment. Make :**DARSHAN INTERPRISES**	EDTS101,REV-C,AM-1	**02 sets**
18.	Wheel Slide Protection System (WSP) Make :**KNORR** Sr no : **0118390316**	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 :**05/19**	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 आ०रे०डि०का० / लालगंज / रायबरेली S.S.E./Elect-QC/M.C.F./LLJ/RBL	**AWM(ELECT.)/MCF/RBL** **SEE(P)/MCF/RBL** स० कार्य प्रबन्धक / विद्युत आ०रे०डि०का० / रायबरेली A.W.M./Electrical/MCF/RBL