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/2019-20/886

RLY	C	R	-	Coach No.	1	9	7	0	8	9	/	C	DATE OF DISPATCH	1	6	-	1	0	-	1	9

DISPATCH TO	SSE/STOCK/CSTM	Type	L	W	S	C	N	1	Shell No.	9	7	3	9	3	FUR.NO.	LSCN-1280

1. **Railway Board's Order No.** : **2019/M(C)/142/2, Dated: 13-06-2019**

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) 1104 (PPE)

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM		MAKE/SUPPLIER		SERIAL NO			
1.	Under frame	Front Part	PP END	M/S-M-TECH	197			
			NPP END	M/S-M-TECH	197			
		Complete	M/S-M-TECH		197			
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)		270/01			
		RH SIDE	MCF/RBL(CONTRACTOR V4U)		270/02			
4.	End wall	PP END	M/s-DTL/PUNE		---			
		NPP END	M/s-DTL/PUNE		---			
5.	Roof		M/S-ECBT		331			
6.	Centre Buffer Coupler		M/S- SANROK		PP END	13990	NPP END	14009

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-VIBGYOR	(SUPPLY & APPLY)	90/89	28.09.19
2.	Insulation	Satisfactory				

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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/2019-20/886

RLY	C	R	-	Coach No.	1	9	7	0	8	9	/	C	-	DATE OF DISPATCH	1	6	1	0	2	0	1	9

DISPATCH	SSE/STOCK/CSTM	Type	L	W	S	C	N	1	Shell No.	9	7	3	9	3	FUR .NO	LSCN-1280

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	191242				191241			
Bogie Type	FIAT				FIAT			
Frame no.	AML-54				AML-56			
Bolster no.	SECPL-249				SCI-221			
Axle No	19 R – 6951 RWF		19 P– 7453 RWF		19 R – 6274 RWF		19 R– 7041 RWF	
Wheel Dia	917.374	917.439	917.399	917.484	917.342	917.433	917.311	917.385
Wheel Disc No	TZ 06-19 59564-9QH6	TZ 06-19 59952-9QL5	TZ 06-19 59338-9QJ3	TZ 06-19 55325-9PK0	TZ 06-19 54358-9QJ2	TZ 06-19 54359-9QJ2	TZ 06-19 54719-9QJ3	TZ 06-19 60857-9QJ9
R.B. Nos.	07-19-19556	07-19-13350	06-19-21052	06-19-14780	07-19-19766	06-19-14899	07-19-20923	06-19-14758
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 2971	TAYAL & CO. Sr.NO.19-07 2425	TAYAL & CO. Sr.NO.19-07 2398	TAYAL & CO. Sr.NO.19-07 2607

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KNORR	18171,18167	18173,18179
2.	Primary outer Spring	CMSTL	07-19 07A(1167,1676,1571,1142)	07-19 07A(1541,1496,1782,1467)
3.	Primary Inner Spring	CMGBD	07-19 F06-911(749,1061,805,1011)	07-19 F06-911(541,1165,1152,1111)
4.	Primary Damper	KONI	03-19 (05916,05982,05932,06153)	03-19 (05964,05923,08385,06036)
5.	Secondary Damper	KONI	04-19 (01173,01180)	04-19 (03298,00307)
6.	Lateral Damper	KONI	03-19 00149	03-19 00146
7.	Brake Cylinder	KBI	B(6789,5851,6066,6906)K-29	B(7080,6090,6094,7032)K-29
8.	Brake Caliper	KBI	B(3979,4067,4265,4082) -29	B(4270,4337,4335,4278)-29
9.	Brake Disc	KBI	24185219 0046-17/19,24185219 0045-17/19 24185219 0029-17/19,24185220 0004-17/19	24185218 0079-17/19,24185220 0014-17/19 24185218 0073-17/19,24185218 0066-17/19
10.	Ball Joint Control Arm	GMT		
11.	Lateral Bump Stop	AR		
12.	Traction Centre make	SARITA		
13.	Traction lever make	SARITA		
14.	Ball joint traction lever	AR		
15.	Ball joint traction centre	AR		
16.	Leveling Valve	KNORR	16-19-A-10158,16-19-A-10302	16-19-A-10143,16-19-A-10278
17.	Check Valve	KNORR	02-19-16587	02-19-16558
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA /AR,		
20.	Fork make	EMSON		
21.	Control Arm Upper	NIPHA	290619-1,290619-2,270619-3,290619-2	280619-2,RVE,280619-2,210619-2
22.	Control Arm Lower	NIPHA	040619-2,210619-2,270619-3,080619-2	270619-2,270619-2,270619-2,270619-2
23.	Phonic Wheel	KNORR	K-08-19	K-08-19

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/2019-20/886

RLY	C	R	-	Coach No.	1	9	7	0	8	9	/	C	DATE OF DISPATCH	1	6	-	1	0	-	1	9

DISPATCH TO	SSE/STOCK/CSTM	Type	L	W	S	C	N	1	Shell No.	9	7	3	9	3	FUR.NO.	LSCN-1280

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/S- KBI, FARIDABAD	3686 36/19
2.	Pull box	M/S- KBI, FARIDABAD	
3.	Distribution valve	M/S- KBI, FARIDABAD	2019 J 8883
4.	FIBA	M/S- KBI, FARIDABAD	PP-7564/29 NPP-7541/29
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 GOVINDGARH	
8.	PVC	M/S RESPONSIVE IND DELHI	
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- MAHAVEER MATEL WORKS, KAPURTHALA	
13.	Gangway bridge mounting (NPPE)	M/S- MAHAVEER MATEL WORKS, KAPURTHALA	
14.	Body Side Window	M/s-MECIDON KOLKATA	
15.	Emergency Window	M/s-AGF INDS KOLKATA	
16.	Hopper Window	M/S- SHATABDHI SAFETY GLASS, VADODARA	
17.	Side panel	M/s- WONDER LAMINATE KOLKATA	
18.	Roof ceiling	M/s-ACME INDIA NEW DELHI	
19.	Door way ceiling	M/S-JAMM TOOLS RBL	
20.	Body Side Door 1,3	M/s- JVR INDS, LUDHIYANA	
21.	Body Side Door 2,4	M/S- JBM INDUSTRIES, FARIDABAD	
22.	Vestibule Door(PPE)	M/S- HANSPAL TRADERS, KXH	
23.	Vestibule Door(NPPE)	M/S- HANSPAL TRADERS, KXH	
24.	Bio Tank with pressurized flushing	M/S- JSL LIFE STYLE LTD. ROHTAK	
25.	Auxiliary Water Tank	M/S- AMIT ENG. MOHALI	
26.	Under Slung Water Tank(2X685L)	M/S- AMIT ENG. MOHALI	
27.	Under Slung Water Tank (1X685L)	M/S- AMIT ENG. MOHALI	
28.	Controlled Discharge Tap	M/s- AGMECO PVT. LTD. UK	
29.	Flexible Faucet	M/s- KAPCO VALVES, JALANDHAR	
30.	Lotah Filler Tap	M/s- KAPCO VALVES, JALANDHAR	
31.	Lavatory Doors	M/S- KALSI IND. LUDHIYANA	
32.	Seat & Berth	M/S- TWPL INDS MUMBAI	
33.	Snack Table	N/A	
34.	RFID	M/s-TECH SOLUTION GURGAON	Sr.106615,106616

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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/2019-20/886

RLY	C	R	-	Coach No.	1	9	7	0	8	9	/	C	DATE OF DISPATCH	1	6	-	1	0	-	1	9

DISPATCH TO	SSE/STOCK/CSTM	Type	L	W	S	C	N	1	Shell No.	9	7	3	9	3	FUR.NO.	LSCN-1280

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 वरि0अनु0 अभियंता गुणवत्ता विभाग रे0डि0का0, रायबरेली (लालगंज)	SME/QC/MCF/RBL वरिष्ठ यांत्रिक अभियन्ता/गुणवत्ता Senior Mechanical Engineer/Quality आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory Raebareli	Dy.CQM/MCF/RBL उप मुख्य गुणवत्ता प्रबन्धक/बोल Dy. Chief Quality Manager/Shell आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory, Raebareli

MCF/RBL

SCN-1280

	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**	**197089/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 : **AMIT ENGG.** On Board Sr no : **AE/USBC-1402** HT Panel Sr no : **AE/USBC-1398**	EDTS 333, Rev`01'Am-1	**01**
02.	Pump equipment with PLC controller & pump box Make : **DR AUTO** Sr no PA: **2019/09/0097** Sr no.1 : **19090225** Sr no.2 : **19090121** Srno.CPA: **2019/09/085-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
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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:**W4K5I 19686**	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	**01**
14.	9KVA transformer Make :**VIMAL** Sr no : **VTC 3089 LHB-2056**	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 : **0119242157**	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 : **09/19**	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 आरडीएसओ / 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