



# Modern Coach Factory Raebareli

## आधुनिक रेल डिब्बा कारखाना, 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/2019-20/477

RLY	E	C	R	Coach No.	1	9	5	8	5	3	/	C	DATE OF DISPATCH	2	0	-	0	7	-	1	9
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DISPATCH TO	Sr.DME/C&W /DNR	Type	L	W	S	C	N	1	Shell No.	9	7	2	7	0	FUR.NO.	LSCN-1108
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1. **Railway Board's Order No.** : 2019/M(C)/142/2, Dated: 03-06-20192. **Tare Weight of Coach** : 41.24 Tones3. **Carrying Capacity** : (a) Seating: 80 (b) Sleeping: 80 (c) Luggage: NIL4. **Special feature** : - Choke of 5/6 mm in DV side replace with 9 mm in both type (KBI & Faiveley) letter no. MC/LHB/Brake, Dated 27.09.20185. **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) 1103 (PPE)

6. **TRACEABILITY OF SHELL ITEMS:**

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Under frame	PP END M/s-NNFPL	11/34
		NPP END M/s-NNFPL	11/34
	Complete	M/s-NNFPL	11/34
2.	Lav. side wall	M/S- MIDAS, GUJRAT	LAV.1 - LAV.2 -
		M/S- MIDAS, GUJRAT	LAV.3 - LAV.4 -
3.	Side wall	MCF/RBL(CONTRACTOR V4U)	85/01
		MCF/RBL(CONTRACTOR V4U)	85/02
4.	End wall	PP END MCF/RBL/SIS	---
		NPP END M/S-OMAX REWARI	---
5.	Roof	MCF/RBL	37
6.	Centre Buffer Coupler	M/S- SANROK ,FARIDABAD	PP END 12960 NPP END 12995

7. **AIRBRAKE TEST REPORT:**

S NO	ITEM	DESCRIPTION	SPEC. VALUE	OBSERVED
1.	Full brake application	<ul style="list-style-type: none"> <li>➤ Reduce pressure of BP from 5.0 to 3.4 kg/cm<sup>2</sup>.</li> <li>➤ Max. pressure in BC</li> <li>➤ All Brake are applied</li> </ul>	6 - 10 sec. 3.0 ±0.15 kg/cm <sup>2</sup> . OK	06 Sec. 3.0 kg/cm <sup>2</sup> OK
2.	Insensitivity	➤ Exhaust BP @ 0.3 kg/cm <sup>2</sup> /min.	No brake application	OK
3.	Sensitivity	➤ Exhaust BP @ 0.1 kg/cm <sup>2</sup> /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	04.07.19
2.	Insulation			Satisfactory		

वरिष्ठ अभियंता  
SSE/OC/MCF/RBL  
गुणवत्ता विभाग

रेडिओका, रायबरेली (लालपंज)







MODERN COACH FACTORY, RAEBARELI

आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QMF 8002

REV NO.: 01

DATE: 16.05.2016

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**9. DETAIL OF BOGIES:**

ITEMS	NPP Side				PP Side			
Bogie No	190984				190983			
Bogie Type	FIAT				FIAT			
Frame no.	MCF/RBL-LS5-1064				MCF/RBL-LS5-555			
Bolster no.	AMIT-23				MCF/RBL-LS5-1055			
Axle No	19 F- 2035 RWF		19 P- 2319 RWF		19 P- 2336 RWF		19 P- 3138 RWF	
Wheel Dia	917.639	917.594	917.611	917.569	917.673	917.611	917.587	917.612
Wheel Disc No	TZ 03-19 30015-9MJ6	TZ 05-18 21835-9MP2	TZ 02-19 23684-8PQ6	TZ 12-18 20656-8WR3	TZ 05-18 24261-8PP7	TZ 05-18 24262-8PP7	TZ 07-18 38240-8PN4	TZ 12-18 14520-8WK0
R.B. Nos.	02-19 04834	02-19 04798	02-19 05196	02-19 03321	02-19 04156	02-19 03319	03-19 36197	03-19 36430
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.19-06 1484	TAYAL & CO. Sr.NO.19-06 1909	TAYAL & CO. Sr.NO.19-06 1488	TAYAL & CO. Sr.NO.19-06 1864

**11. TRACEABILITY OF BOGIE ITEMS :-**

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	14324,14370	14378,14388
2.	Primary outer Spring	CMRSK	06-16 07W(1130,518,1072,505)	06-16 07W(246,376,1058,511)
3.	Primary Inner Spring	CMFSK	05-19 1036-559(50,22,39,56)	05-19 1036-559(42,10,51,43)
4.	Primary Damper	KONI	03-19 (01286,00763,00718,00731)	03-19 (00740,00808,00756,01068)
5.	Secondary Damper	IAI	06-19 (256971,256940)	06-19 (256989,256964)
6.	Lateral Damper	GABRIEL	11-18 1009	11-18 1007
7.	Brake Cylinder	KBI	B(3913,3081,3068,3893)K-29	B(3912,3090,3155,3921)K-29
8.	Brake Caliper	KBI	B(1518,1552,1554,1520)K-29	B(1521,1550,1595,1550)K-29
9.	Brake Disc	FAV	06-19(5529)10-18(1572,1317,1318)133561-300-1	10-18 (5620,5619)06-19(1505,1506)133561-300-1
10.	Ball Joint Control Arm	AR		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	SARITA		
13.	Traction lever make	JJ		
14.	Ball joint traction lever	AR		
15.	Ball joint traction centre	GMT		
16.	Leveling Valve	KNORR	13-19 B 1779,13-19 B 1792	13-19 B 1752,13-19 B 1765
17.	Check Valve	KNORR	03-19 17644	02-19 17683
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA/PPI		
20.	Fork make	EMSON		
21.	Control Arm Upper	RVE	310119-1,300119-1,150219-1,010219-1	291819-2,050219-4,RVE,310119-2
22.	Control Arm Lower	RVE	230119-3,171218-1,RVE,280119-2	RVE,171218-1,RVE,280119-2
23.	Phonic Wheel	KNORR	K-03-19	K-03-19

Signature of SSE/Bogie/QC





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**12. TRACEABILITY OF FURNISHING ITEMS:**

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/S- FAIVELY TRANSPORT TECH.INDIA LTD BADDI(HP)	E 19181 B
2.	Pull box	M/S- KBI, FARIDABAD	
3.	Distribution valve	M/S- FAIVELY TRANSPORT TECH.INDIA LTD BADDI(HP)	19055706 B
4.	Fiba	M/S- KBI, FARIDABAD	PP-7258/29 NPP-7053/29
5.	Foot Step	M/s- SUPER SPARK PVT. LTD. FARIDABAD	
6.	Decoupling arrangement	M/S-ELASTOMER INDS, MUMBAI	
7.	Floor board	M/s-SHREE RAM PNL GOVINDGARH P.B	
8.	PVC	M/S- RESPONSIVE INDS.DELHI	
9.	Lavatory Inlay	M/s- SEEMA INDS. BHOPAL	
10.	UIC Vestibule (PPE)	M/S-KRP, PUNE	
11.	UIC Vestibule (NPPE)	M/S-KRP, PUNE	
12.	Gangway bridge mounting (PPE)	M/S- HARE KRISHNA COMPONENTS KXH	
13.	Gangway bridge mounting (NPPE)	M/S- HARE KRISHNA COMPONENTS KXH	
14.	Body Side Window	M/S- FIBRO PLASTIC + EXCEL INDS. KOLKATA	
15.	Emergency Window	M/S- AGF KOLKATA	
16.	Hopper Window	M/S- VEDANSH ENT. RBL	
17.	Side panel	M/S-ACME INDS DELHI	
18.	Roof ceiling	M/S-ACME INDS DELHI	
19.	Door way ceiling	M/s- RAJA IND. KHANNA	
20.	Body Side Doors	M/S- JBM INDUSTRIES, FARIDABAD	
21.	Vestibule Door(PPE)	M/S- JBM INDUSTRIES, FARIDABAD	
22.	Vestibule Door(NPPE)	M/S- JBM INDUSTRIES, FARIDABAD	
23.	Bio Tanks	M/s- FLASH FORGE (P)LTD. VIZAG	
24.	Auxiliary Water Tank	M/S- AMIT ENG. MOHALI	
25.	Under Slung Water Tank( 2X685L)	M/S- RAL FAB. KAPURTHALA	
26.	Under Slung Water Tank (1X685L)	M/S- AMIT ENG. MOHALI	
27.	Controlled Discharge Tap	M/s- HINDWARE HSIL PVT. LTD. GURUGRAM	
28.	Health Faucet	M/S-ACME INDS DELHI	
29.	Lotah Filler Tap	M/S-ACME INDS DELHI	
30.	Lavatory Doors	M/S-ACME INDS DELHI	
31.	Seat & Berth	M/S - OVPL MUMBAI	
32.	Snack Table	N/A	

वरिष्ठ अधिकारी  
SSE/QC/MCF/RBL  
70 डि० नं०, रायबरेली (लाहौर)



अतिरिक्त / रायबरेली





# Modern Coach Factory Raebareli

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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

### 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:

- This warranty covers free supply of parts which wear out and fails within warranty period of normal service.
- This doesn't covers faults arising out of accident, non standard maintenance practices, abnormal use or mishandling, vandal activity, arson & deficient/pilferage etc.
- 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.
- Whether a defective part is to be replaced or repaired shall be at the discretion of MCF/RBL.
- For any complain/ suggestion please Mail at qualityrcfrbl@gmail.com
- 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.

 <b>SSE/OC/MCF/RBL</b> वरिष्ठ यांत्रिक अभियंता गुणवत्ता विभाग १० डि० का०, रायबरेली (लालगंज)	 <b>SME/OC/MCF/RBL</b> वरिष्ठ यांत्रिक अभियंता/गुणवत्ता Senior Mechanical Engineer/Quality आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory Raebareli	 <b>Dy.CQM/MCF/RBL</b> जोगिन्दर सिंह Dy. Chief Quality Manager आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory, Raebareli
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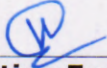
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**FOR ELECTRICAL ITEMS**

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG NON AC COACHES

TYPE COACH	LWSCN	SHELL/COACH NO	195853/C
RAILWAY	ECR	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





Modern Coach Factory Raebareli  
आधुनिक रेल डिब्बा कारखाना, रायबरेली

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**FOR ELECTRICAL ITEMS**

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

01.	Switch board cabinet Make : <b>ISG</b> On Board Sr no : <b>NIL</b> HT Panel Sr no : <b>SOP-MAC-RCF-17-08-0064</b>	EDTS 333, Rev`01'Am-1	<b>01</b>
02.	Pump equipment with PLC controller & pump box Make : <b>DR AUTO</b> Sr no PA: <b>2019/06/0167</b> Sr no.1 : <b>19060547</b> Sr no.2 : <b>19060621</b> Srno.CPA: <b>2019/06/070-DR AUTO</b>	As per spec EDTS 186,Rev-a, Am- 2	<b>01</b>
03.	Emergency light system for EOG type coaches (AEL), Make : <b>VGS</b>	EDTS 151,Rev -c Am-1 & 2	<b>04</b>
04.	Passenger Alarm Cum Indication Light (PACIL) Make: <b>DR AUTO</b>	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-I	<b>02</b>
05.	Fitment of Switch Plate Assly(Cabin Side) Make : <b>RECORD/SALZER</b>	EDML 086,Rev-03, ITEM-01	<b>20</b>
06.	Fitment of Switch Plate Assly Corridor Side),Make : <b>SSK/SALZER</b>	EDML 086, Rev 03, ITEM-02	<b>20</b>
07.	Railway carriage Fan 400mm Sweep, 110V DC with crash worthy features. Make: <b>IMT CABLES</b>	IS 6680/92,First Rev, RCF Amdt 4, Col I, Ty XI, RCF Cor I.	<b>30</b>
08.	Cabin,Corridor,doorway and Gangway Lights. Make: <b>RT VISION</b>	As per RDSO/PE/SPEC/TL-0091(REV-1) TYPE B-1	<b>26</b>
09.	Lavatory Light Make: <b>DR AUTO</b>	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-D &	<b>04</b>
10.	Night Light Fitting (LED BASED) Sticker For Berth Number On Night light Fitting For LHBSCN(80-BERTHER)Coaches Make : <b>DR AUTO</b>	CC76289 & CC76443	<b>09</b>

**Senior Section Engineer**  
**Quality control / Electrical**  
**Modern Coach Factory Raebareli**





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**FOR ELECTRICAL ITEMS**

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

11.	Battery fuse box +ve Make : <b>RADIANT</b>	LW 71001,Alt-F	<b>01</b>
12.	Battery fuse box -ve Make : <b>ISGPL</b>	LW 71002,Alt-F	<b>01</b>
13.	Regulated battery charger Make : <b>PI ENGG.</b> Sr no: <b>PI/19060021</b>	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	<b>01</b>
14.	9KVA transformer Make : <b>VIMAL</b> Sr no : <b>VTC 3089 LHB-1971</b>	As per RDSO/PE/SPEC/TL 0158, 2010, Rev` 0',Ty I.	<b>01</b>
15.	ZS coupling 400A/750V/03Ph/50hz. Make : <b>MAA LAXMI INDUSTRIES</b>	As per spec No EDTS 105,Rev` e' Am-3, TYPE-2	<b>01 set</b>
16.	Feeder junction boxes. Make : <b>AECO</b>	EDTS-328 REV-C	<b>01 set</b>
17.	Wheel set earthing equipment. Make : <b>CHANDA &amp; CHANDA</b>	EDTS101,REV-C,AM-1	<b>02 sets</b>
18.	Wheel Slide Protection System (WSP) Make : <b>FAIVELEY</b> Sr no : <b>18/19/656</b>	M/s : <b>FAIVELEY</b>	<b>01 set</b>
19.	110V,120AH,VRLA SMF BATTERY SET WITH 19 MONOBLOCK (6V EACH) PRECHARGED,WIH MODIFIED TRAY TOSKED-644 Make : <b>HBL</b> Lug date : <b>06/19</b>	RDSO/pe/spec/ac-0009 rev-1- 2008 amdt-1	<b>01 set</b>
20.	Battery box for LHB coaches. Make : <b>HITECH</b>	CC 91205	<b>01</b>

 <b>SSE/EL/QC</b> <b>वरिष्ठ अनुभाग अभियन्ता</b> <b>गुणवत्ता नियंत्रण</b> <b>आ०रे०डि०का० / लालगंज / रायबरेली</b> <b>S.S.E./Elect-QC/M.C.F./LLJ/RBL</b>	 <b>AWM(ELECT.)/MCF/RBL</b> <b>SEE(P)/MCF/RBL</b> <b>स० कार्य प्रबन्धक / विद्युत</b> <b>आ०रे०डि०का० / रायबरेली</b> <b>A.W.M./Electrical/MCF/RBL</b>
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