



# 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/2018-19/1176

RLY	E	R	-	Coach No.	1	9	1	9	1	9	/	C	DATE OF DISPATCH	1	1	-	0	2	-	1	9			
DISPATCH TO		CWM/LLH		Type	L	W	S	C	N	1	Shell No.	8	7	4	5	9	-	2	0	1	8	-	1	9

1. Railway Board's Order No. : 2018/M(C)/142/2, Dated-07-02-2019
2. Tare Weight of Coach : 41.24 Tones
3. Carrying Capacity : (a) Seating: 80 (b) Sleeping: 80 (c) Luggage: NIL

**4. 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) 1097(NPPE) 2)1101(PPE)

**5. TRACEABILITY OF SHELL ITEMS:**

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Under frame	PP END M/S Manjit techno fab raebareli	211
		NPP END M/S Manjit techno fab raebareli	215
	Complete	MCF/RBL	87459
2.	Lav. side wall	M/S Rail tech pvt.ltd. KXH	LAV.1 --- LAV.2 ---
		M/S Rail tech pvt.ltd. KXH	LAV.3 --- LAV.4 ---
3.	Side wall	LH SIDE M/S E.c.blades & tool pvt. Ltd CDG	73
		RH SIDE M/S E.c.blades & tool pvt. Ltd CDG	73
4.	End wall	PP END M/s Shivalic fastners pvt.ltd. mohali	---
		NPP END M/s Shivalic fastners pvt.ltd. mohali	---
5.	Roof	M/S Pennar ind. Ltd. Thiruvallur Cheenai	277
6.	Centre Buffer Coupler	M/s FRONTIER LTD	PP END 98 NPP END 04

**6. 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	<ul style="list-style-type: none"> <li>➤ Exhaust BP @ 0.3 kg/cm<sup>2</sup>/min.</li> </ul>	No brake application	OK
3.	Sensitivity	<ul style="list-style-type: none"> <li>➤ Exhaust BP @ 0.1 kg/cm<sup>2</sup>/Sec, after 06 Sec.</li> </ul>	Brake must apply	OK

**7. PAINTING DETAILS:**

S NO	DESCRIPTION	TYPE OF PAINT	MAKE	APPLICATION BY MCF/ CONTRACTOR(SUPPLY & APPLY)	AVERAGE GLOSS VALUE
1.	Paint	P.U	M/s -GS	Supply & apply	89/89
2.	Insulation			Satisfactory	

S. S. S. S. S.  
 गुणवत्ता विभाग  
 रेडिओ, रायबरेली (लालगंज)





MODERN COACH FACTORY, RAEBARELI

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RLY	E	R	-	Type	L	W	S	C	N	1	Shell No.	8	7	4	5	9	-	-

**8. DETAIL OF BOGIES:**

ITEMS	NPP Side				PP Side			
Bogie No	182635				182636			
Bogie Type	FIAT				FIAT			
Frame no.	ECBT-1410				ECBT-1409			
Bolster no.	MCF/RBL-2424				MCF/RBL-2414			
Axle No	18 G-2517 RWF		18 E - 7835 RWF		18E-8668 RWF		18E-8304 RWF	
Wheel Dia	917.584	917.607	917.527	917.564	917.574	917.548	917.573	917.594
Wheel Disc No	TZ 07-18 33681-8RG5	TZ 05-18 16347-8MT7	TZ 04-18 10932-8MQ6	TZ 06-18 31389-8QM7	TZ 05-18 19940-8PR3	TZ 05-18 17116-8MS7	TZ 04-18 11955-8NG7	TZ 05-18 24010-8PS5
R.B. Nos.	07-18 41799	08-18 19143	06-18 17164	08-18 19593	08-18 19490	08-18 19588	07-18 41941	08-18 16944
CTR B Make	SKF		SKF		SKF		SKF	

**9. 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.	CMRSK02-17- 5101-320-23	CMGBD05-18- 5100-66-476	CMRSK12-18- 5101-320-30	CMGBD05-18- 5100-66-567	CMRSK12-18- 5101-512-96	CMGBD05-18- 5100-64-568	CMRSK11-17- 5101-320-105	CMGBD03-18- 5100-64-535
Compressed Ht. at Tested Load	512	472	513	472	515.5	472	512	471
Alignment deviation (mm)	16	5	14	5	7	6	8	6

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

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	13010,13014	13020,13006
2.	Primary outer Spring	CMGBD	10-18 1100(122-400,122-389,121-404,119-597)	10-18 1100- (122-81,121-621,122-623,121-582)
3.	Primary Inner Spring	CMGBD	03-18 1101-32 (2998,2440,2472,2443)	03-18 1101-32(2453,2927,2461,2472)
4.	Primary Damper	IAI	12-18(234495,234275,234659,235176)	12-18(235050,234644,234686,231550)
5.	Secondary Damper	GEREP	KW 16-2018 301550739	KW16-2018 301550739
6.	Lateral Damper	IAI	12-18 235373	12-18 235247
7.	Brake Cylinder	KBI	A(9609,9027,9003,9602)K29	A(9607,9005,9026,9606)K29
8.	Brake Caliper	KBI	A(7773,7848,7796,7795)-29	A(7776,7797,7849,7774)-29
9.	Brake Disc	KBI	24167553 0002-47/18,24167553 0001-47/18 24167553 0006-47/18,24167550 0038-47/18	24167516 0005-47/18 24167551 0009-47/18 24162515 0008-41/18 24167534 0017-44/18
10.	Ball Joint Control Arm	AR		
11.	Lateral Bump Stop	AR		
12.	Traction Centre make	SARITA		
13.	Traction lever make	JI		
14.	Ball joint traction lever	AR/PPI/UK		
15.	Ball joint traction centre	AR		
16.	Secondary Rubber Pad	DUREL		
17.	Rubber Spring	AR		
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA/AR,		
20.	Fork make	EMSON		
21.	Control Arm Upper	RVE	051218-3,051218-1,031218-2,031218-1	051218-1,0512158-1,051218-1,051218-1,
22.	Control Arm Lower	RVE	061218-2,071218-1,061218-2,061218-2	071218-2,071218-2,061218-2,081218-2

Signature of SSE/Bogie/QC





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DISPATCH TO	CWM/LLH			Type	L	W	S	C	N	1	Shell No.	8	7	4	5	9	-	2	0	1	8	-	1	9

**11. TRACEABILITY OF FURNISHING ITEMS:**

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/s KBI Faridabad. New Delhi	1938 01/19
2.	Pull box	M/s KBI Faridabad. New Delhi	
3.	Distribution valve	M/s KBI Faridabad. New Delhi	
4.	Foot Step	M/s- SUPER SPARK PVT. LTD. FARIDABAD	2018M6474
5.	Decoupling arrangement	M/S- ELASTOMER MUMBAI	
6.	Floor board	M/s- EG WOOD BOARD HYDARABAD	
7.	PVC	M/s Responsive ind.mumbai	
8.	Lavatory Inlay	M/s- SEEMA INDS. BHOPAL	
9.	UIC Vestibule (PPE)	M/S- ELASTOMER MUMBAI	
10.	UIC Vestibule (NPPE)	M/S- ELASTOMER MUMBAI	
11.	Gangway bridge mounting (PPE)	M/s COMPETENT ENGG.	
12.	Gangway bridge mounting (NPPE)	M/s COMPETENT ENGG.	
13.	Body Side Window	M/S- AGF INDS, KOLKATA	
14.	Emergency Window	M/S- AGF INDS, KOLKATA	
15.	Hopper Window	M/S- S.S PUNJAB	
16.	Side panel	M/S-SUNGLOW PUNJAB LAMINATE	
17.	Roof ceiling	M/s SYNTHITIC MODULAR KOLKATA	
18.	Door way ceiling	M/s- RAJA IND. KHANNA	
19.	Body Side Door	M/S- AGF INDS, KOLKATA	
20.	Vestibule Door(PPE)	M/s- KALSI LDH	
21.	Vestibule Door(NPPE)	M/s- KALSI LDH	
22.	Bio Tank	M/s- SARVAN INFRATEL LTD	
23.	Auxiliary Water Tank	M/s- AMIT ENG. MOHALI	
24.	Under Slung Water Tank( 2X685L)	M/s- AMIT ENG. MOHALI	
25.	Under Slung Water Tank (1X685L)	M/s Shivalic fastners pvt.ltd. mohali	
26.	Flexible Faucet	M/s- KAPCO VALVES, JALANDHAR	
27.	Lotah Filler Tap	M/s- KAPCO VALVES, JALANDHAR	
28.	Controlled Discharge Tap	M/s- AGMECO PVT. LTD. UK	
29.	Lavatory Doors	M/s- KALSI, LDH	
30.	Seat & Berth	M/S-CMT MECHANISED SYS.LTD VADODARA	
31.	Snack Table	N/A	

*Signature*  
वरिष्ठ/ए.एस.एस.टी.  
मुख्यवर्तमान विभाग  
रेडिओका, रायबरेली (लालगंज)





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DISPATCH TO	CWM/LLH	Type	L	W	S	C	N	1	Shell No.	8	7	4	5	9	-	2	0	1	8	-	1	9

12. MODIFICATION (IF ANY) : NIL

13. DEVIATION (IF ANY) : NIL

14. ITEM FITTED ON THE COACH ON TRIAL : NIL

S NO	ITEM PARTICULARS	PURPOSE	REPORT Frequency	REFERENCE & PERIOD OF TRIAL

**15. 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/QC/MCF/RBL</b> गुणवत्ता विभाग रेडिओका, रायबरेली (लालगंज)	 <b>Dy. Chief Quantity Surveyor</b> आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory, Raebareli	 <b>Dy. Chief Quantity Surveyor</b> आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory, Raebareli
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Modern Coach Factory Raebareli  
आधुनिक रेल डिब्बा कारखाना, रायबरेली

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PAGE 1 OF 3

**FOR ELECTRICAL ITEMS**

ROLLING STOCK CERTIFICATE OF LHB/EOG NON AC SCN COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG NON AC COACHES

TYPE COACH	LWSCN	SHELL/COACH NO	191919/C
RAILWAY	ER	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





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PAGE 2 OF 3

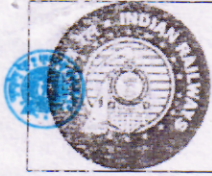
**FOR ELECTRICAL ITEMS**

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

01.	Switch board cabinet Make : <b>ISG</b> On Board Sr no : <b>17-10-0032</b> HT Panel Sr no : <b>17-10-0032</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>2018/12/43</b> Sr no.1 : <b>18100599</b> Sr no.2 : <b>18100577</b> Sr no.CPA: <b>2018/12/011-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>CONCORD</b>	EDTS 151,Rev -c Am-1 & 2	<b>04</b>
04.	Passenger Alarm Cum Indication Light (PACIL) Make: <b>KAVERI</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>SSK/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>CG POWER</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>INTRA ELECT.</b>	As per RDSO/PE/SPEC/TL-0091(REV-1) TYPE B-1	<b>26</b>
09.	Lavatory Light Make: <b>RT VISION</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>AGASTYA</b>	CC76289 & CC76443	<b>09</b>

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Quality control / Electrical  
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PAGE 3 OF 3

## FOR ELECTRICAL ITEMS

## ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

11.	Battery fuse box +ve Make : <b>INTEG</b>	LW 71001,Alt-F	<b>01</b>
12.	Battery fuse box -ve Make : <b>NEC</b>	LW 71002,Alt-F	<b>01</b>
13.	Regulated battery charger Make : <b>IC ELECTRICAL</b> Sr no : <b>12-18-0059</b>	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	<b>01</b>
14.	9KVA transformer Make : <b>PANTRONICS</b> Sr no : <b>PAN-18017999</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</b> set
16.	Feeder junction boxes. Make : <b>AECO</b>	EDTS-328 REV-C	<b>01</b> set
17.	Wheel set earthling equipment. Make : <b>PRIME ELECT.</b>	EDTS101,REV-C,AM-1	<b>02</b> sets
18.	Wheel Slide Protection System (WSP) Make : <b>KNORR</b> Sr no : <b>0118430559</b>	M/s : <b>KNORR</b>	<b>01</b> set
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>07/18</b>	RDSO/pe/spec/ac-0009 rev-1- 2008 amdt-1	<b>01</b> set
20.	Battery box for LHB coaches. Make : <b>TECHNO</b>	CC 91205	<b>01</b>

<b>SSE/EL/QC</b>	<b>AWM(ELECT.)/MCF/RBL</b>
<b>वरिष्ठ अनुभाग अभियन्ता</b>	<b>SEE(P)/MCF/RBL</b>

गुणवत्ता नियंत्रण  
आधुनिक रेल डिब्बा कारखाना / लालगंज / रायबरेली  
S.S.E./Elect-QC/M.C.F./LLJ/RBL

सं कार्य प्रबन्धक / विद्युत  
आधुनिक रेल डिब्बा कारखाना / रायबरेली  
A.W.M./Electrical/MCF/RBL