



# 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/2018-19/1179

Rolling Stock Certificate No.: MCF/RBL/QOR/00120																						
RLY	E	R	-	Coach No.	1	9	1	9	2	0	/	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	7	8	-	2	0	1	8	-	1	9

- Railway Board's Order No. : 2018/M(C)/142/2, Dated-07-02-2019
- Tare Weight of Coach : 41.24 Tones
- 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) 1096(NPPE) 2) 1099(PPE)

#### 5. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Under frame	PP END M/S Neera chandigarh	11
		NPP END M/S Neera chandigarh	11
	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	72
		RH SIDE M/S E.c.blades & tool pvt. Ltd CDG	72
4.	End wall	PP END M/S Neera chandigarh	---
		NPP END M/S Neera chandigarh	---
5.	Roof	M/S E.c.blades & tool pvt. Ltd CDG	41
6.	Centre Buffer Coupler	M/s FRONTIER LTD	PP END 96 NPP END 77

#### 6. 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/cm <sup>2</sup> . ➤ Max. pressure in BC ➤ All Brake are applied	6 - 10 sec. 3.0 ± 0.15 kg/cm <sup>2</sup> . OK	07 Sec. 3.0 kg/cm <sup>2</sup> OK
2.	Insensitivity	➤ Exhaust BP @ 0.3 kg/cm <sup>2</sup> /min.	No brake application Brake must apply	OK
3.	Sensitivity	➤ Exhaust BP @ 0.1 kg/cm <sup>2</sup> /Sec, after 06 Sec.		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 -BERGER	Supply & apply	90/90
2.	Insulation			Satisfactory	

*[Signature]*  
SSE/QC/MCF/RBL  
गुणवत्ता विभाग  
रेडिओ, रायबरेली (लालगंज)





MODERN COACH FACTORY, RAEBARELI

आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QMF 8002

REV NO.: 01

DATE: 16.05.2016

## ROLLING STOCK CERTIFICATE

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Coach No.	1	9	1	9	2	0	/	C	-	DATE OF DISPATCH	1	1	.	0	2	.	1	9
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RLY	E	R	-	Type	L	W	S	C	N	1	Shell No.	8	7	4	7	8	-	-	-	-	-	-	-	-
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## 8. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	182157				182158			
Bogie Type	FIAT				FIAT			
Frame no.	VS-1332				VS-1329			
Bolster no.	AMIT-244				AMIT-250			
Axle No	18 D-1815 RWF		18 D - 9094 RWF		18G-8146 RWF		18F-8488 RWF	
Wheel Dia	917.531	917.526	917.53	917.488	917.491	917.468	917.511	917.503
Wheel Disc No	TZ 07-17 24440-7QK4	TZ 07-17 24439-7QK4	TZ 07-17 24442-7QK4	TZ 07-17 25317-7KH3	TZ 07-17 25307-7RH3	TZ 07-17 25312-7RH3	TZ 07-17 25306-7RH3	TZ 06-17 23574-7QL3
R.B. Nos.	07-18 17051	07-18 17109	07-18 17004	08-18 18860	07-18 16670	08-18 18652	08-18 19079	07-18 16685
CT R B Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	

## 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.	CMAFJ09-18-5101-111	CMRSK 12-16-F08-N12-08Y-971	CMAFJ 09-18-5101-116	CMRSK12-16-F08-N12-08Y-1321	CMGBD10-17-5101-104-41	CMRSK12-16-F08-N12-08Y-841	CMGBD09-17-5101-87-09	CMRSK12-16-F08-N12-08Y-1019
Compressed Ht. at Tested Load	514	471	516	472	515	472	515	472
Alignment deviation (mm)	5	7	6	7	6	13	6	13

## 10. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	13532,13536	13546,13504
2.	Primary outer Spring	CMGBD	12-18 1100(119-8,121-93,122-27,122-83)	12-18 1100- (121-16,122-41,122-46,122-100)
3.	Primary Inner Spring	CMGBD	05-17 1101-36 (765,250,775,772)	05-17 1101-36 (899,898,724,626)
4.	Primary Damper	KNORR	07-18(27184,26258,27180,27179)	07-18(27177,27182,27186,27178)
5.	Secondary Damper	GEREP	KW 16-2018 301550739	KW16-2018 301550739
6.	Lateral Damper	SV	01- 18 019949	01-18 019949
7.	Brake Cylinder	KBI	A(8772,8265,8275,8782)K29	A(8759,8196,8263,8782)K29
8.	Brake Caliper	KBI	A(7073,7170,7172,7076)-29	A(7050,7098,7164,7074)-29
9.	Brake Disc	KBI	11-18(5172,5171,5194,5193)D133561-300	11-18(5167,5166),10-18(4703,4704)D133561-300
10.	Ball Joint Control Arm	AR		
11.	Lateral Bump Stop	BONY		
12.	Traction Centre make	SARITA		
13.	Traction lever make	SARITA		
14.	Ball joint traction lever	AR		
15.	Ball joint traction centre	AR		
16.	Secondary Rubber Pad	TECSPAK		
17.	Rubber Spring	PPI/UKI		
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA/AR,		
20.	Fork make	ASL		
21.	Control Arm Upper	RVE	111018-1,171018-2,181018-1,121018-5	121018-1,181018-3,181018-1,181018-3
22.	Control Arm Lower	RVE	161018-4,181018-4,RVE,161018-4	261018-1,161018-3,161018-5,271018-1

Signature of SSE/Bogie/QC





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

SNO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/s KBI Faridabad. New Delhi	1918 52/18
2.	Pull box	M/s KBI Faridabad. New Delhi	
3.	Distribution valve	M/s KBI Faridabad. New Delhi	2018M6451
4.	Foot Step	M/s- SUPER SPARK PVT. LTD. FARIDABAD	
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 EXCEL IND KOLKATA	
18.	Door way ceiling	M/s- RAJA IND. KHANNA	
19.	Body Side Door1,2,3	M/S- JVR LDH	
20.	Body Side Door4	M/S- SUKATA CDG	
21.	Vestibule Door(PPE)	M/s- KALSI LDH	
22.	Vestibule Door(NPPE)	M/s- KALSI LDH	
23.	Bio Tank	M/s- VEEPEE ENG.	
24.	Auxiliary Water Tank	M/s- AMIT ENG. MOHALI	
25.	Under Slung Water Tank( 2X685L)	M/s- AMIT ENG. MOHALI	
26.	Under Slung Water Tank (1X685L)	M/s Shivalic fastners pvt.ltd. mohali	
27.	Flexible Faucet	M/s- KAPCO VALVES, JALANDHAR	
28.	Lotah Filler Tap	M/s- KAPCO VALVES, JALANDHAR	
29.	Controlled Discharge Tap	M/s- AGMECO PVT. LTD. UK	
30.	Lavatory Doors	M/s- KALSI, LDH	
31.	Seat & Berth	M/S- CMT MECHANISED SYS.LTD VADODARA	
32.	Snack Table	N/A	

*Signature*  
SSE/QC/MCF/RBL

गुणवत्ता विभाग  
रेडिओका, रायबरेली (लालगंज)





# Modern Coach Factory Raebareli

## आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QMF 8002

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### ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2018-19/1179

Rolling Stock Certificate No.: MCF/RBL/QC/R35/2019																								
RLY	E	R	-	Coach No.	1	9	1	9	2	0	/	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	7	8	-	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 qualityrcfbl@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.

SSE/QC/MCF/RBL	AME/QC/MCF/RBL	Dy.COM/MCF/RBL
वरिष्ठ सहायक अभियन्ता/गुणवत्ता	वरिष्ठ सहायक अभियन्ता/गुणवत्ता	ज्येष्ठ मुख्य गुणवत्ता प्रबन्धक
गुणवत्ता विभाग	Senior Mechanical Engineer/Quality	Dy. Chief Quality Manager
रेडिओका0, रायबरेली (लालगंज)	आधुनिक रेल डिब्बा कारखाना, रायबरेली	आधुनिक रेल डिब्बा कारखाना, रायबरेली
	Modern Coach Factory, Raebareli	Modern Coach Factory, Raebareli





Modern Coach Factory Raebareli  
आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QEF/8001

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**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	191920/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







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>NEC</b> On Board Sr no : <b>2018/16/23</b> HT Panel Sr no : <b>2018/16/10</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>2018/12/001</b> Sr no.1 : <b>18110174</b> Sr no.2 : <b>18110219</b> Sr no.CPA: <b>2018/12/022-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/RECORD</b>	EDML 086,Rev-03, ITEM-01	<b>20</b>
06.	Fitment of Switch Plate Assly Corridor Side),Make : <b>SSK</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>RT VISION</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>

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>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>12-18-0094</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-18018056</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>SIDWAL</b>	EDTS-328 REV-C	<b>01 set</b>
17.	Wheel set earthling equipment. Make : <b>CHANDA &amp; CHANDA</b>	EDTS101,REV-C,AM-1	<b>02 sets</b>
18.	Wheel Slide Protection System (WSP) Make : <b>KNORR</b> Sr no : <b>0118380245</b>	M/s : <b>KNORR</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>SOUTHERN</b> Lug date : <b>12/17</b>	RDSO/pe/spec/ac-0009 rev-1- 2008 amdt-1	<b>01 set</b>
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  
आ०रे०डि०का० / लालगंज / रायबरेली  
S.S.E./Elect-QC/M.C.F./LLJ/RBL

स० कार्य प्रबन्धक / विद्युत  
आ०रे०डि०का० / रायबरेली  
A.W.M./Electrical/MCF/RBL

