



# Modern Coach Factory Raebareli

## आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QMF 8002

REV NO: 00

DATE: 16.05.2016

### ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2016-17/ 360

Coach No.	1	6	2	9	5	/	C	-	DATE OF DISPATCH	2	5	0	1	2	0	1	7						
RLY	C	R	-	Type	L	W	S	C	N	Shell No.	6	7	1	2	8	-	2	0	1	6	-	1	7

- Railway Board's Order No. : 2016/M(C)/142/1 Dated- 18.05.2016
- 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/-15	1)1100 (NPPE) 2)1096 (PPE)

#### 5. TRACEABILITY OF SHELL ITEMS:

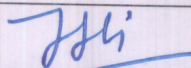
S NO	ITEM	MAKE/SUPPLIER	SERIAL NO				
1.	Underframe	Front Part Complete	M/s E.C.Blade & Tool Chandigarh	PP END	67128	NPP END	67128
2.	Side wall		M/s-MCF/RBL				
3.	End wall		PP- M/s E.C.Blade & Tool Chandigarh	RH	67128	LH	67128
			NPP- M/s E.C.Blade & Tool Chandigarh	PP END	67128	NPP END	67128
4.	Roof		M/s-DTL Ancillaries Ltd. PUNE				
5.	Centre Buffer Coupler		M/s ESCORTS				
6.	Buffers		N.A.	PP END	6620	NPP END	6626

#### 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	9 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 DAETAILS:

S NO	DESCRIPTION	TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE
1.	Paint	P.U	BERGER	92/88
2.	Insulation		Satisfactory	

  
 J. S. Jha  
 डी.डी.एम.सी.ए. विभागा  
 गुणवत्ता विभाग  
 रेलवे कारखाना, रायबरेली (लखनऊ)

LSCN-211

	<b>Modern Coach Factory Raebareli</b> <b>आधुनिक रेल डिब्बा कारखाना, रायबरेली</b>	DOC NO.: MCF/RBL/QMF 8002
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RLY	C	R		Type	L	W	S	C	N	Shell No.	6	7	1	2	8	-	2	0	1	6	-	1	7

**8. DETAIL OF BOGIES:**

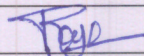
ITEMS	PP Side				NPP Side			
Bogie No	160902				160901			
Bogie Type	FIAT				FIAT			
Frame no.	MCF/RBL/ECBT-124				MCF/RBL-302			
Bolster no.	RBL-827				RBL-825			
Axle No	S - 3873 RWF		S - 3519 RWF		S - 1296 RWF		S - 3390 RWF	
Wheel Dia	917.307	917.367	917.287	917.410	917.247	917.350	917.245	917.383
Wheel Disc No	00089-6070 VR 07-16	00139-6048 VR 06-16	00111-6070 VR 06-16	00178-6070 VR 06-16	00168-6110 VR 07-16	00128-6070 VR 06-16	00079-6071 VR 06-16	00168-6047 VR 06-16
R.B. Nos.	07-16 05834	07-16 05426	07-16 05569	07-16 05065	07-16 05122	07-16 05935	07-16 06061	07-16 05082
CT R B Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	

**9. SECONDARY SUSPENSION LOAD DEFLECTION VALUES**

DESCRIPTION	Bogie PP side				Bogie NPP side			
	Secondary 1		Secondary 2		Secondary 1		Secondary 2	
	Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner
Make & Nos.	DN15-0-1212	DN15-G-936	DN15-0-1362	DN15-G-826	DN15-0-1308	DN15-G-838	DN15-0-2208	DN15-G-864
Compressed Ht. at Tested Load	516	469	516	469	516	469	515	469
Alignment deviation (mm)	10	13	7	13	11	11	11	8

**10. TRACEABILITY OF BOGIE ITEMS:**

S. NO	ITEM	MAKE/SUPPLIER	SERIAL NO.	
			PP SIDE	NPP SIDE
1.	Primary outer Spring	CMGBD	10-16 1100-112(21,69,31,12)	10-16 1100-112(49,93,45,34)
2.	Primary Inner Spring	G	G 16-6	G 16-6
3.	Primary Damper	KONI	06-2016(33254,33313,33250,33251)	06-2016(33208,33385,33315,33163)
4.	Secondary Damper	KONI	18-2016(9265,9153)	18-2016(9139,9253)
5.	Lateral Damper	KONI/S.V	22-2016 5566	22-2016 5318
6.	Brake Cylinder	KBI	4781K29,4580K29,4577K29,4782K29	4783K29,4581K29,4582K29,4780K29
7.	Brake Caliper	KBI	4326-29,4381-29,4280-29,4327-29	4325-29,4282-29,4283-29,4324-29
8.	Brake Disc	KBI	24085281 0031-37/16,24085281 0017-37/16 24085685 0006-39/16,24085685 0005-39/16	24085281 0015-37/16,24085281 0032-37/16 24085683 0039-39/16,24085683 0038-39/16
9.	Ball Joint Control Arm	SGA		
10.	Lateral Bump Stop	GMT		
11.	Traction Centre make	SARITA		
12.	Traction lever make	SARITA		
13.	Ball joint traction lever	GMT		
14.	Ball joint traction centre	SGA		
15.	Secondary Rubber Pad	TECSPAK		
16.	Rubber Spring	GMT		
17.	Anti roll bar make	EMSON		
18.	Roll Link make	SARITA/MGN		
19.	Fork make	SARITA		

  
 Signature of SSE/Bogie/QC



**Modern Coach Factory Raebareli**  
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**11. TRACEABILITY OF FURNISHING ITEMS:**

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/s KBI ,Palwal Haryana	16J1815
2.	Pull box	M/s KBI ,Palwal Haryana	
3.	DV	M/s KBI ,Palwal Haryana	
4.	PVC	M/s Premier polyfilm, New Delhi	2016H2609
5.	UIC Vestibule (PPE)	M/s Sun crest Industries West Bengal	
6.	UIC Vestibule (NPPE)	M/s Sun crest Industries West Bengal	
7.	Foot Step	M/s Hi-tech Infra RBL	
8.	Lavatory Inlay	M/s Oasis Fabrication Jagdhari	
9.	Decoupling arrangement	M/s Kohinoor Industries, Faridabad	
10.	Body Side Window	M/s AGF Pvt. Ltd. Kolkata	
11.	Emergency Window	M/s AB Composites, Kolkata	
12.	Hopper Window	M/s Aikon Technologies Pvt. Ltd. Solan(H.P.)	
13.	Non-AC Area Ceiling	M/s J.R. Industries, Jalandhar	
14.	Body Side Doors	M/s JBM ,Faridabad/Sukata CDH	
15.	Vestibule Door(PPE)	M/s Hans pal KXH	
16.	Vestibule Door(NPPE)	M/s Hans pal KXH	
17.	Bio Tank	M/s Rail Fab ,KXH	
18.	Auxiliary Water Tank	M/s Manoj Enterprises Mohali Punjab	
19.	Under Slung Water Tank ( 2X685L)	M/s Shivalik Fasteners, Mohali Punjab	
20.	Under Slung Water Tank (1X450L)	M/s Shivalik Fasteners, Mohali Punjab	
21.	Bib Cock/Controlled Discharge Tap	M/s KPR Industries, Mohali	
22.	Lavatory Doors	N/A	
23.	Seat & Berth	M/s Savitri Engg. Products Ponta Sahib, HP	
24.	Snack Table	M/s Gandhi Enterprises, Jalandhar	

*JH*  
वर्गिक रेल डिब्बा कारखाना  
SSB/QC/MCF/RBL  
गुणवत्ता विभाग

रेडिंक 0, रायबरेली (लालगंज)





**Modern Coach Factory Raebareli**  
**आधुनिक रेल डिब्बा कारखाना, रायबरेली**

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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	REFERENCE & PERIOD OF TRIAL
			Frequency	

**15. WARRANTY:**

S NO	COMPONENTS	WARRANTY
1	Brake blocks, wheels, push gravity cocks, flushing valves, moldings, window glasses, mirrors, roller blinds, curtain & bulbs etc. ( items which are consumable in nature)	NIL
2	Other coach furnishing sub assemblies(bought out items)	24 months date of dispatch of coach or 30 months from 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

SSE/OC/MCF/RBL	AME/QC/MCF/RBL G.S. Pandey	Dy.CME/FUR/MCF/RBL

वरिष्ठ अधिकारी/गुणवत्ता विभाग  
रेल डिब्बा कारखाना, रायबरेली (लालगंज)

सहायक यांत्रिक अभियंता/गुणवत्ता  
Assistant Mechanical Engineer/Quality  
आधुनिक रेल डिब्बा कारखाना, रायबरेली  
Modern Coach Factory, Raebareli

उप मुख्याधिकारी/फर्निशिंग  
Dy CME/ Furnishing  
आधुनिक रेल डिब्बा कारखाना लालगंज, रायबरेली  
Modern Coach Factory Laigarj, Raebareli



SCN-211



Govt. of India- Ministry of Railways  
(MODERN COACH FACTORY RAEBARELI)



MCF/RBL/QEFSCN-8001

VER. 01.06.2016

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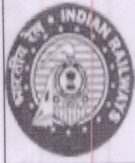
**FOR ELECTRICAL ITEMS**

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG NON AC COACHES

TYPE COACH	LWSCN	SHELL/COACH NO	16295/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	

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



Govt. of India- Ministry of Railways  
(MODERN COACH FACTORY RAEBARELI)



MCF/RBL/QEFSCN- 8001  
VER. 01.06.2016  
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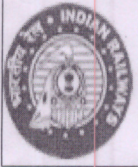
**FOR ELECTRICAL ITEMS**

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

01.	Switch board cabinet Make : <b>SSK</b> On board Sr no : <b>2016/10/024</b> HT panel Sr no : <b>2016/10/002</b>	EDTS 333, Rev` 01`Am-1	<b>01</b>
02.	Pump equipment with PLC controller& pump box Make: <b>KALSI</b> Sr no PA: <b>5494/07/16</b> Sr no.1: <b>269245/07/16</b> Sr no.2: <b>269246/07/16</b> Srno.CPA: <b>5517/07/16</b>	As per spec EDTS 186,Rev-a, Am- 2	<b>01</b>
03.	Emergency light system for EOG type coaches (AEL)	EDTS 151,Rev -c Am-1 & 2	<b>04</b>
04.	Lavatory light fitting assly	LW 76001,Alt nil	<b>04</b>
05.	Fitment of Passenger Alarm cum indication light (PACIL).	As per drg no. LW 76005,Alt -e 02 nos	
06.	Fitment of Switch Plate Assly(Cabin Side)	EDML 086, Rev-03.	<b>10</b>
07.	Fitment of Switch Plate Assly Corridor Side)	EDML 086, Rev 03.	<b>10</b>
08.	Fitment of Railway carriage Fan 400mm Sweep, 110V DC with crash worthy features. Make : <b>R KANWAR</b>	IS 6680/92,First Rev, RCF Amdt 4, Col I, Ty XI, RCF Cor I.	<b>30</b>
09.	Fitment of Fluorescent light fitting for LHB type coaches.	LW 76033,Alt` c,	<b>04</b>
10.	Fitment of Fluorescent light fitting, SINGLE with 110V AC/DC ballast.	CC 76213,Alt` d`.	<b>24</b>
11.	Night Light Fitting (LED BASED) Sticker For Berth Number On Night light Fitting For LHBSCN(80-BERTHER)Coaches	CC76289 & CC76443	<b>10</b>

*(Signature)*

**Senior Section Engineer  
Quality control / Electrical  
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**FOR ELECTRICAL ITEMS**

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

12.	Fitment of Compact Fluorescent Light fitting DOUBLE with 110V AC/DC ballast.	CC 76216, Alt `c'.	<b>02</b>
13.	FL Tubes, 02 Feet ,18Watt ,colour temp 6500K	RDSO/PE/SPEC/TL 0011, Sec I, Rev I, 07 2001.	<b>24</b>
14.	Battery fuse box +ve Make : <b>NEC</b>	LW 71001,Alt-F	<b>01</b>
15.	Battery fuse box -ve Make : <b>INTEG</b>	LW 71002,Alt-F	<b>01</b>
16.	Regulated battery charger Make : <b>HI REL</b> Sr no: <b>16100245</b>	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	<b>01</b>
17.	9KVA transformer Make : <b>PANTRONICS</b> Sr no : <b>15015629</b>	As per RDSO/PE/SPEC/TL 0158, 2010, Rev `0',Ty I.	<b>01</b>
18.	ZS coupling 400A/750V/03Ph/50hz. Make : <b>S INTERNATIONAL</b>	As per spec No EDTS 105,Rev `e' Am-2	<b>02 sets</b>
19.	Feeder junction boxes. Make : <b>AECO</b>	EDTS-328 REV-C	<b>02</b>
20.	Wheel set earthing equipment. Make : <b>DARSHAN ENTERPRISES</b>	EDTS101,REV-C,AM-1	<b>02</b>
21.	Wheel Slide Protection System (WSP) Make : <b>KNORR</b> Sr no : <b>0116132346</b>	M/s : <b>KNORR</b>	<b>01 set</b>
22.	110V,120AH,VRLA SMF BATTERY SET WITH 19 MONOBLOCK (6V EACH) PRECHARGED,WIHI MODIFIED TRAY TOSKED-644 Make : <b>A.RAJA</b> Lug date : <b>12/2016</b>	RDSO/pe/spec/ac-0009 rev-1-2008 amdt-1	<b>01 set</b>
23.	Battery box for LHB coaches.	CC 91205	<b>01</b>

**SSE/EL/QC**

वरिष्ठ खण्ड अभियन्ता  
विद्युत उत्पादन-गुणवत्ता  
रेल कोच फैक्टरी / लालगंज / रायबरेली  
Sr. Section Engineer  
Electric Production - Quality  
RCF / RBL / LLJ

**Dy CEE(P)/MCF/RBL**

उप मुख्य विद्युत अभियन्ता (उत्पादन)  
रेल कोच फैक्ट्री-रायबरेली, लालगंज  
DY.CEE/P-RCF/RBL/LLJ