

रेल डिब्बा कारखाना, रायबरेली  
RAIL COACH FACTORY, RAEBARELI



FORM NO: RCF/RBL/QMF 8001  
VERSION: 2012-01-01

**ROLLING STOCK CERTIFICATE**

Rolling Stock Certificate No.: MCF/RBL/QC/RSC

Date: 26/05/2016

SHELL No.	L	W	A	C	C	N	5	3	0	0	4	1	5	-	1	6	DATE OF DISPATCH	0	5	1	2	2	0	1	5
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RLY	E	R	Type	L	W	A	C	C	N	Coach No.	1	5	1	2	0	/	C	-
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Railway Board's Order No. : 2015/M(C)/142/1 dtd 13.10.2015

- Tare Weight of Coach : 45.6 Tonnes
- Carrying Capacity : (a) Seating : 72 (b) Sleeping : 72 (c) Luggage : NIL

**3. 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	4250
4.	CBC height/Buffer height from Rail level 1105 +0/-15	1) 1123(NPPE) 2) 1109(PPE)

**4. TRACEABILITY OF SHELL ITEMS:**

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Buffers	N.A.	
2.	Centre Buffer Coupler	M/s ESCORTS	PP END 3981 NPP END 3995

**5. 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	8 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 02 Sec.</li> </ul>	Brake must apply	OK

**6. PAINTING DETAILS:**

S NO	DESCRIPTION	TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE
1.	Paint	P.U.	APEX	97/96
2.	Insulation	Satisfactory		



# आधुनिक रेल डिब्बा कारखाना रायबरेली MODERN COACH FACTORY RAEBARELI



FORM NO: RCF/RBL/QMF 8001  
VERSION: 2012-01-01

## ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: RCF/RBL/QC/RSC

Date: 15/04/2016

SHELL No.	5	3	0	0	4	-	R	B	L	-	1	5	-	1	6	DATE OF DISPATCH	0	5	/	1	2	/	1	5
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RLY	E	R	Type	L	W	A	C	C	N	Coach No.	1	5	1	2	0	/	C	-
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### 8. DETAIL OF BOGIES :

ITEMS	PP Side				NPP Side			
Bogie No	150141 (MCF/RBL)				150142 (MCF/RBL)			
Bogie Type	FIAT				FIAT			
Frame no.	RBL-28				RBL-29			
Bolster no.	RBL-122				RBL-126			
Axle No	129179 CHT 13		126122 CHT 13		106380 CHT 14		106363 CHT 14	
Wheel Dia	914	914	912	912	915.66	915.414	915.569	915.443
Wheel Disc No	06202 00205 VR 15	06202 00195 VR 15	06208 00034 VR 15	06208 00011 VR 15	ZB 2014 322-10582	ZB 2014 341-10533	ZB 2014 068-11607	ZB 2014 122-11610
R.B. Nos.	12 14 22504	12 14 01083	12 14 22509	12 14 23135	03 15 34118	02 15 30996	10 14 16705	12 14 23263
CT R B Make	SKF		SKF		SKF		SKF	

### 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.	CMFSK 07-15 8836-159-14	G13-3- 4525	CMFSK 07-15 8836-159-10	G13-3- 4257	CMFSK 07-15 8836-159-75	G-13-4-C 5304	CMFSK 07-15 8836-159-60	G13-3-4481
Compressed Ht. at Tested Load	513.5	466	513	466	514.5	468	515	467
Alignment deviation (mm)	9	12	9	10	10	19	8	18

### 10. TRACEABILITY OF BOGIE ITEMS:

S. NO	ITEM	SERIAL NO.		MAKE
		PP SIDE	NPP SIDE	
1.	Primary outer Spring	G 12-10	G 12-10	G
2.	Primary Inner Spring	CMGBD 143-56 ( 09-15)	CMGBD 143-56 ( 09-15)	CMGBD
3.	Primary Damper	2014-10 (24821,24827,24852),2015-03-29621	2015-03-26943,2014-09-23928, 2014-10(25078,24881)	KONI
4.	Secondary Damper	14-2015 (5917,5727)	14-2015 (5973,5692)	KONI
5.	Lateral Damper	12-2015 (3511)	11-2015 (3748)	KONI
6.	Brake Cylinder	1547 K 29, 1628 K 29, 1627 K 29, 1546 K 29	1548 K 29,1630 K 29,1629 K 29,1549 K 29	KBI
7.	Brake Caliper	1510-29,1589-29,1588-29,1509-29	1511-29,1591-29,1590-29,1512-29	KBI
8.	Brake Disc	KBI 24058117 0001 23/15,FAV BSI 12/12 75054 KBI 24057937 0007 22/15,24057937 0008 22/15	FAV 0315 1495107,FAV 0315 1495123 KBI 24043491 0019 35/14,24043541 0013 35/14	KBI,FAV
9.	Ball Joint Control Arm			GMT
10.	Lateral Bump Stop			GMT
11.	Traction Centre make			SARITA
12.	Traction lever make			SARITA
13.	Ball joint traction lever			MGN,GMT
14.	Ball joint traction centre			GMT
15.	Secondary Rubber Pad			TECSPAK
16.	Rubber Spring			GMT
17.	Anti roll bar make			SARITA
18.	Roll Link make			SARITA, MGN,GMT
19.	Fork make			SARITA

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संस्था रायबरेली





# रेल डिब्बा कारखाना, रायबरेली RAIL COACH FACTORY, RAEBARELI



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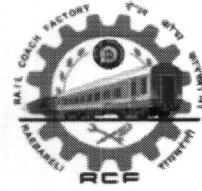
RLY	E	R	Type	L	W	A	C	C	N	Coach No.	1	5	1	2	0	/	C	-
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### 11. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/s KBI ,Faridabad ,New Delhi	15D1003
2.	Pull box	M/s KBI ,Faridabad ,New Delhi	
3.	DV	M/s KBI ,Faridabad ,New Delhi	2015D1559
4.	PVC	M/s Responsive Industries, Mumbai	
5.	UIC Vestibule (PPE)	M/s Elastomer Lining Works ,Thane	
6.	UIC Vestibule (NPPE)	Elastomer Lining Works ,Thane	
7.	Foot Step	M/s Super Spark Pvt. Ltd. Faridabad	
8.	Decoupling arrangement	M/s SECO Industries, Mumbai	
9.	Body Side Window	M/s Aikon Technology Pvt.Ltd.Solan (H.P)	
10.	Emergency Window	M/s Aikon Technology Pvt.Ltd.Solan (H.P)	
11.	Lavatory Window	M/s Rail Tech, Kapurthala	
12.	Roof Ceiling	M/s KAE Sataraganj Pvt. Ltd. ESIPL U.K.	
13.	Non-AC Area Ceiling	M/s Amirchand Engg. Works , Jalandhar	
14.	Supply Air Duct	M/s Amirchand Engg. Works , Jalandhar	
15.	Body Side Doors	M/s JBM Faridabad	
16.	Compartment Door (PPE)	M/s Rail Tech, Kapurthala	
17.	Compartment Door (NPPE)	M/s Rail Tech, Kapurthala	
18.	Vestibule Door(PPE)	M/s Kalsi Ludhiana	
19.	Vestibule Door(NPPE)	M/s Kalsi Ludhiana	
20.	CDTS	M/s Airflow Equipments Pvt. Ltd. Chennai,	
21.	Auxiliary Water Tank	M/s Amit Engineers, Baddi (HP)	
22.	Under Slung Water Tank(450 L)	M/s Shivalik Fastener Mohali PB	
23.	Under Slung Water Tank( 2X685L)	M/s Shivalik Fastener Mohali PB	
24.	Flexible Faucet	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
25.	Lotah Filler Tap	M/s Metco Delhi	
26.	Lavatory Modoules	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
27.	Lavatory Doors	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
28.	Waste Bin Arrangement	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
29.	Fire Extinguisher	M/s Fire fox	NPP 166, PP 182
30.	Side Wall panel	M/s KAE Sataraganj U.K.	
31.	Seat & Berth	M/s Oriental veneer Products Ltd Mumbai	
32.	Light Luggage Rack	M/s Verendra Steel Enterprises Chandigarh	
33.	Snack Table	M/s Anjani Technology Noida	
34.	Yaw Damper	M/s KONI M/s KONI Supplier- M/s Pan India Consultant Pvt.Ltd 105 Phase -IVUdyog Vihar, Gurgoan-122015 Haryana	NPP-71235,71300 PP -70827, NIL



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RLY	E	R	Type	L	W	A	C	C	N	Coach No.	1	5	1	2	0	/	C	-
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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 RCF/RBL.
- For any complain/ suggestion please mail at [qualityrcfbl@gmail.com](mailto:qualityrcfbl@gmail.com)

DY CME  
MCF/RBL  
उप निरीक्षक/फर्नि.  
DY CME/FURNISHING  
रेल कोच फैक्ट्री / रायबरेली / लालगंज  
RCF / RBL / LLJ

सहायक अभियन्ता/ गुणवत्ता  
Asstt. Engineer/ Quality  
रेल डिब्बा कारखाना, लालगंज, रायबरेली  
Rail Coach Factory, Lalganj, Raebareli



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## FOR ELECTRICAL ITEMS

## ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

## ELECTRICAL TEST CERTIFICATE FOR LHB/EOG AC COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG AC COACHES			
TYPE COACH		LWACCN	SHELL/COACH NO
RAILWAY		ER	15120/C
		DATE OF DESPATCH	
Sr no	Description of tests		Remarks
1.0	REFERENCE SPECIFICATION : L 446		
1.1	AIR CONDITIONING TEST : ELPS/TP/AC 01.		
1.2	CODE OF PRACTICE OF WIRING : ELPS/SPEC/EOG/AC-01		
2.0	INSULATION RESISTANCE : Setting of insulation monitoring relay at 30K ohms as per TD 111 of M/s LHB.		
	Observed status : HEALTHY		
3.0	AIR DELIVERY MEASUREMENT	OBSERVED VALUE	OK
3.1	Fresh Air	28.77 Cub mtr/min	OK
3.2	Return Air	77.53 Cub mtr/min	OK
3.3	Exhaust Air	10.01 Cub mtr/min	OK
3.4	Conditioned Air	198.62 Cub mtr/min	OK
4.0	<b>PRE COOLING TEST: Max 01 hr.</b> Time taken to pre cool from 45 deg centigrade to 24/22 deg C during OFF LOAD condition  PP Side :24.2°C NPP Side :19.8°C		c  OK
5.0	<b>PULL DOWN TEST: Max 02 hrs.</b> Time taken to pull down from 45 deg C to 24/22 deg C during FULL LOAD condition.  NOT DONE.		OK

**Senior Section Engineer**  
**Quality control / Electrical**  
**RCF, Raebareli**



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**FOR ELECTRICAL ITEMS**

ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB EOG AC COACHES

Sr no	Description of test	Remarks
6.0	HUMIDITY CONTROL	OK
7.0	PUMP EQUIPMENTS	OK
8.0	WORKING OF EXHAUST FANS OVER LAVATORIES	OK
9.0	WORKING OF COMPOSITE PANTRY	OK
10.0	COMPARTMENT LIGHT	OK
11.0	PUBLIC ADDRESSING SYSTEM ( PAS )	OK
12.0	WHEEL SLIDE PROTECTION SYSTEM ( WSP )	OK
13.0	WORKING OF 60KVA TRANSFORMER	OK
14.0	WORKING OF REGULATED BATTERY CHARGER	OK
15.0	WORKING OF EMERGENCY BATTERY CHARGER	OK
16.0	SAFETIES :	OK
16.1	THERMOSTAT :	OK
16.2	ROTARY 07 SET POINTS (NORMAL CONDITION)	OK
16.3	MID SET POINTS (SENSORS FAILED CONDITIONS)	OK
16.4	HYGROSTAT	OK
16.5	CONTROL CIRCUIT	OK
16.6	POWER CIRCUIT	OK
17.0	REFRIGERANT USED	OK

**R 407C**

*D. Kumar*

Senior Section Engineer  
Quality control / Electrical  
RCF, Raebareli





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



RCF/RBL/QEF8001

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**ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES**

Sr no	Description	Drg/Spec no.	Quantity per Coach
01.	Roof mounted AC package unit for LHB AC coaches Make : <b>SSK</b> Sr no of RMPU 1(NPP side): <b>SSK-011</b> Sr no of RMPU 2 (PP side ): <b>SSK-013</b> Sr no of Microprocessor.: <b>LHB-01/SSK</b>	As per rdso/pe/spes/ac/0061/rev -1/2005	<b>02</b>
02.	Switch board cabinet Make : <b>ISG</b> Sr no : <b>15-06-034</b>	As per spec no. EDTS073,REV-D,AM-6	<b>01</b>
03.	Pump equipment with PLC controller & pump box Make : <b>KALSI</b> Sr no <b>PA-4199/10/14</b> Sr no.1: <b>251801/10/14</b> Sr no.2: <b>251802/10/14</b> Sr no.CPA: <b>4159/10/14</b>	As per spec EDTS 186,Rev-a, Am- 2	<b>01</b>
04.	Double inlet centrifugal blower 415V/03Ph /50Hz /120W/450 cum mtr/hr discharge for exhausting air from lavatory & switch board cabinet Make : <b>INTEG</b>	EDTS331, TYPE-1 CORR.-1&2	<b>02</b>
05.	Vestibule Light Fitting Single	LW 76004,Alt-b	<b>07</b>
06.	Ceiling light fitting DOUBLE w/o diffuser.	LW 76011,Alt -c	<b>09</b>
07.	Ceiling light fitting with NL w/o diffuser w/o item 2&3	LW 76013,Alt -c	<b>09</b>
08.	Emergency light system for EOG type coaches (AEL)	EDTS 151,Rev -c Am-1 & 2	<b>04</b>
09.	Lavatory light fitting assly	LW 76001,Alt nil	<b>04</b>
10.	WC gauge signal light	LW 76006,Alt-c	<b>02</b>

*(Signature)*  
**Senior Section Engineer  
Quality control / Electrical  
RCF, Raebareli**



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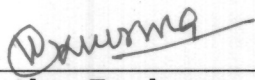
RCF/RBL/QEF8001

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ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
11.	Passenger alarm coach indication light	LW 76005,Alt-e	<b>02</b>
12.	Fluorescent lamp 18W	RDSO/PE/SPEC/D/TL 0011-2000,Rev I, Sec-I, 07/2001	<b>34</b>
13.	Diffuser complete w/o item 1& 2.	LW 76012,Alt-a	<b>25</b>
14.	Razor socket for WC 110/240V.	EDML 047 ,Rev nil	<b>04</b>
15.	Terminal strip	EDML 034,Rev-a	<b>01</b>
16.	Terminal connector	EDML 037,Rev`a`	<b>04</b>
17.	Single switch 06A/250V/AC ONE WAY ,complete with steel plate & cover frame	EDML 047,Rev- C, Item 1.	<b>09</b>
18.	Single switch 06A/250V/AC ONE WAY complete with steel plate & cover frame	EDML 047,Rev-A, Item 2.	<b>09</b>
19.	Provision of switch socket combined 5PIN (06A, 250V AC) along with 1A glass fuse fitted powder coated steel plate & cover	As per cat no EL-243 (EL signature series ) of M/s SSK	<b>09</b>
20.	PA system for LHB coaches Make : <b>AHUJA</b>	EDTS 173,Rev- a Am- 1,2&3	<b>01 set</b>
21.	70AH/110V,54 Cells,02V each ,maintenance free pure lead acid tin monoblock ,battery set with 09 modules 12V each. , factory pre charged. Make : <b>HBL</b> Lug date : <b>04/2015</b>	EDTS 129,Rev nil	<b>01 set</b>
22.	Battery box for LHB coaches.	1 10113 0 76 700 005 w/o item 5, 22, 23, 26 & 27.	<b>01</b>

  
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**ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES**

Sr no	Description	Drg/Spec no.	Quantity per Coach
23.	Battery fuse box +ve Make : <b>NEC</b>	As per LW 71001,Alt-F	<b>01</b>
24.	Battery fuse box -ve Make : <b>INTEG</b>	As per LW 71002,Alt-F	<b>01</b>
25.	Regulated battery charger Make : <b>HIREL</b> Sr no: <b>15060289</b>	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	<b>01</b>
26.	Emergency battery charger Make : <b>BHASIN</b> Sr no: <b>09140772</b>	EDTS 163,Rev `c` corg.-2&3	<b>01</b>
27.	60KVA transformer Make : <b>PANTRONICS</b> Sr no : <b>14011459</b>	As per rdso/pe/spec/ac/0080/rev -0 (2007)/Am-1&2/Corr. 1,2&3	<b>01</b>
28.	ZS coupling 400A/750V/03Ph/50hz. Make : <b>MAA LAXMI INDUSTRIES</b>	As per spec No EDTS 105,Rev `e` Am-2	<b>02 sets</b>
29.	Feeder junction boxes. Make : <b>MAA LAXMI INDUSTRIES</b>	EDML 020,Rev-I	<b>02</b>
30.	Wheel set earthing equipment. Make : <b>DARSHAN ENTERPRISES</b>	EDTS101,REV-C,AM-1	<b>02</b>
31.	Wheel Slide Protection System (WSP) Make : <b>KNORR</b> Sr no : <b>0115161628</b>	M/s : <b>KNORR</b>	<b>01 set</b>
32.	PANTRY EQUIPMENTS : Hot Case & Bottle cooler cum deep freezer Make : <b>SUPER REFRIGERATION</b>	As per spec no EDTS 139, Rev- E , Sec II.	<b>01</b>

<b>SSE/EL/QC</b>	<b>DyCEE(P)/RCF/RBL</b>

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

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