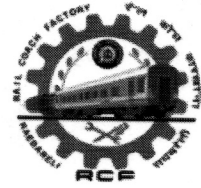




रेल डिब्बा कारखाना, रायबरेली  
RAIL COACH FACTORY, RAEBARELI



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

**ROLLING STOCK CERTIFICATE**

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

Date: 06/04/2015

SHELL NO.	L	W	A	C	C	W	R	B	L	0	8	-	1	4	-	1	5	DATE OF DISPATCH	3	1	0	3	2	0	1	5
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RLY	C	R	Type	L	W	A	C	C	W	Coach No.	1	4	0	6	1	/	C
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- Railway Board's Order No. : 2014/M(C)/142/1, dated 08.09.2014
- Tare Weight of Coach : 44.5 Tonnes
- Carrying Capacity : (a) Seating : 52 (b) Sleeping : 52 (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) 1105(NPPE) 2) 1100(PPE)

**5. TRACEABILITY OF SHELL ITEMS:**

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Buffers	N.A.	
2.	Centre Buffer Coupler	M/S ESCORTS	PP END 3904 NPP END 3905

**6. AIRBRAKE TEST REPORT:**

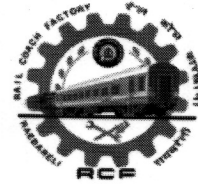
S NO	ITEM	DESCRIPTION	SPEC. VALUE	OBSERVED
1.	Full brake application	<ul style="list-style-type: none"> <li>➤ Reduce pressure of BP from 5.0 to 3.4 kg/cm<sup>2</sup>.</li> <li>➤ Max. pressure in BC</li> <li>➤ All Brake are applied</li> </ul>	6 – 10 sec. 3.0 ±0.15 kg/cm <sup>2</sup> . OK	8 sec. 3.0 kg/cm <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

**7. PAINTING DAETAILS:**

S NO	DESCRIPTION	TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE
1.	Paint	P.U.	VIBGYOR	93.6/92.1
2.	Insulation		Satisfactory	



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RLY	C	R				Type	L	W	A	C	C	W	Coach No.	1	4	0	6	1	/	C							

**8. DETAIL OF BOGIES :**

ITEMS	PP SIDE				NPP SIDE			
Bogie No	146541				146540			
Bogie Type	Fiat				Fiat			
Axle No	126436/481		128086/984		Z-3559		127027/476	
Wheel Dia	915.00	915.00	915.00	915.00	916.00	915.50	915.00	915.00
Wheel Disc No	054-10579	031-61077	170-10533	217-10570	287-63305	262-11600	127-10559	293-10583
R.B. Nos.	00021	00030	00140	00100	34488	34297	34210	00297
CT R B Make	TIM		TIM		TIM		TIM	

**9. SECONDARY SUSPENSION LOAD DEFLECTION VALUES**

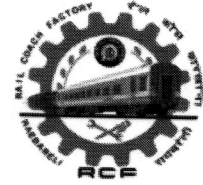
DESCRIPTION	BOGIE PP SIDE				BOGIE NPP SIDE			
	SECONDARY 1		SECONDARY 2		SECONDARY 1		SECONDARY 2	
	OUTER	INNER	OUTER	INNER	OUTER	INNER	OUTER	INNER
Make & Nos.	BPS-2013-105	BPS-2013-156	BPS-2013-84	BPS-2013-029	BPS-2013-92	BPS-2013-059	BPS-2013-77	BPS-2013-195
Compressed Ht. at Tested Load	507	467	507	465	507	468	512	467
Alignment deviation (mm)	05	30	8	30	11	27	15	25

**10. TRACEABILITY OF BOGIE ITEMS:**

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO	
			PP SIDE	NPP SIDE
1.	Primary outer Spring	BPS	BPS-2013	BPS-2013
2.	Primary Inner Spring	BPS	BPS-2013	BPS-2013
3.	Primary Damper	KONI		
4.	Secondary Damper	SACHS		
5.	Lateral Damper	SACHS		
6.	Yaw Damper	KONI	70277,70356	70576,70522
7.	Brake Cylinder & Caliper	KBI		
8.	Brake Disc	KBI		
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	TESPAK		
16.	Rubber Spring	GMT		
17.	Anti roll bar make	EMSON		
18.	Roll Link make	SARITA		
19.	Fork make	SARITA		



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RLY	C	R	Type	L	W	A	C	C	W	Coach No.	1	4	0	6	1	/	C
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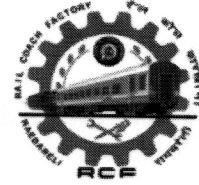
**11. TRACEABILITY OF FURNISHING ITEMS:**

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/s KBI ,Faridabad ,New Delhi	14G0743
2.	Pull box	M/s KBI ,Faridabad ,New Delhi	
3.	DV	M/s KBI ,Faridabad ,New Delhi	2014G1268
4.	PVC	M/s Responsive, Colaba, Mumbai	
5.	UIC Vestibule (PPE)	M/s Suncrest, west bangal	
6.	UIC Vestibule (NPPE)	M/s Suncrest, west bangal	
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 Rail Tech KXH	
11.	Lavatory/hoooper Window	M/s Rail Tech KXH	
12.	Roof Ceiling	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
13.	Non-AC Area Ceiling	M/s Galaxy enterprises, jalandhar	
14.	Supply Air Duct	M/s Hanspal Coach products, jalandhar	
15.	Body Side Doors	M/s JBM Faridabad	
16.	Compartment Door (PPE)	M/s Rail Tech KXH	
17.	Compartment Door (NPPE)	M/s Rail Tech KXH	
18.	Vestibule Door(PPE)	M/s Kalsi Ludhiana	
19.	Vestibule Door(NPPE)	M/s Kalsi Ludhiana	
20.	CDTS	M/s Amit Engineers Baddi H.P.	
21.	Auxiliary Water Tank	M/s Manoj enterprises, Mohali Punjab	
22.	Under Slung Water Tank(450 L)	M/s Shivalik Fasteners, Mohali Punjab	
23.	Under Slung Water Tank ( 2X685L)	M/s Shivalik Fasteners, Mohali Punjab	
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 Hindustan Fibre Ltd. Vadodra (Gujrat)	
30.	Side Wall panel	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
31.	Seat & Berth	M/s Amirchand Eng. Works,jalandhar	
32.	Light Luggage Rack	M/s Virendra Steel Enterprises Chandigarh	
33.	Snack Table	M/s Anjani techno plast Noida	

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रेल डिब्बा कारखाना, रायबरेली  
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RLY	C	R	Type	L	W	A	C	C	W	Coach No.	1	4	0	6	1	/	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 &
			Frequency	PERIOD OF TRIAL

**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 qualityrcfrbl@gmail.com

DY CME  
RCF/RBL

रुप सु.यां.अभि./फर्नि.  
DY CME/FURNISHING  
रेल डिब्बा कारखाना / रायबरेली / लालगंज  
RCF / RBL / LLJ

SSE/QC  
RCF/RBL

सीनियर सेक्शन इंजीनियर (क्वालिटी कन्ट्रोल)  
रेल डिब्बा कारखाना, रायबरेली



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

2T-105



RCF/RBL/QEF 7001  
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**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF LHB/EOG 2T AC COACHES**

**ELECTRICAL TEST CERTIFICATE FOR LHB/EOG AC COACHES**

TYPE COACH	LWACCW	SHELL/COACH NO	14061/C
RAILWAY	CR	DATE OF DESPATCH	
<b>Sr no</b>	<b>Description of tests</b>		<b>Remarks</b>
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	29.50 Cub mtr/min	OK
3.2	Return Air	73.59 Cub mtr/min	OK
3.3	Exhaust Air	5.92 Cub mtr/min	OK
3.4	Conditioned Air	196.85 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.  Not done due to ambient temp. below 22°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 due to ambient temp. below 22°C		OK

*(Signature)*  
**Senior Section Engineer**  
**Quality control / Electrical**  
**Rail Coach Factory Raebareli**



**FOR ELECTRICAL ITEMS**

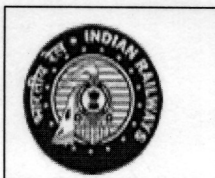
**ROLLING STOCK CERTIFICATE OF LHB/EOG 2T AC COACHES**

**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	BERTH READING LIGHTS	OK
11.0	COMPARTMENT LIGHT	OK
12.0	PUBLIC ADDRESSING SYSTEM ( PAS )	OK
13.0	WHEEL SLIDE PROTECTION SYSTEM ( WSP )	OK
14.0	WORKING OF 60KVA TRANSFORMER	OK
15.0	WORKING OF REGULATED BATTERY CHARGER	OK
16.0	WORKING OF EMERGENCY BATTERY CHARGER	OK
17.0	SAFETIES :	OK
17.1	THERMOSTAT :	OK
17.2	ROTARY 07 SET POINTS (NORMAL CONDITION)	OK
17.3	MID SET POINTS (SENSORS FAILED CONDITIONS)	OK
17.4	HYGROSTAT	OK
17.5	CONTROL CIRCUIT	OK
17.6	POWER CIRCUIT	OK
18.0	REFRIGERANT USED	OK

**R 407C**

*(Signature)*  
**Senior Section Engineer  
Quality control / Electrical  
Rail Coach Factory Raebareli**



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(RAIL COACH FACTORY-RAEBARELI)



RCF/RBL/QEF7001

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ROLLING STOCK CERTIFICATE OF LHB/EOG 2T AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
01.	Roof Mounted AC package unit for LHB AC coaches Make : <b>AMIT</b> Sr no of RMPU 1(NPP side): <b>1021-F</b> Sr no of RMPU 2(PP side) : <b>1022-F</b> Sr no of Microprocessor: <b>AE.14.09.0273/AMIT</b>	As per rdso/pe/spes/ac/0061/rev-1/2005	<b>02</b>
02.	Switch board cabinet Make : <b>ISGPL</b> Sr no : <b>14-11-0006</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 PA: <b>4155/10-14</b> Sr no.1: <b>251449/10-2014</b> Sr no.2: <b>251450/10-2014</b> Sr no.CPA: <b>4197/10-2014</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 w/o diffuser	LW 76004,Alt-b	<b>06</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>

*(Signature)*

**Senior Section Engineer  
Quality control / Electrical  
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Govt. of India- Ministry of Railways  
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RCF/RBL/QEF7001

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ROLLING STOCK CERTIFICATE OF LHB/EOG 2T AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
10.	WC gauge signal light	LW 76006,Alt-c	02
11.	Passenger alarm coach indication light	LW 76005,Alt-e	02
12.	Reading Light fitting ( Upper berth )	LW 76023,Alt-e	27
13.	Reading light for longitudinal berth LHS	LW 76022,Alt-e	09
14.	Reading light for transverse Lower Berth -LH	LW 76020,Alt-e	09
15.	Reading light for transverse Lower berth RH	LW 76021,Alt-e	09
16.	Fluorescent lamp 18W	RDSO/PE/SPEC/D/TL 0011-2000,Rev I, Sec- I , 07/2001	33
17.	Diffuser complete w/o item 1& 2.	LW 76012,Alt-a	25
18.	Razor socket for WC 110/240V.	EDML 047 ,Rev nil	04
19.	Terminal strip	EDML 033,Rev-c	01
20.	Terminal connector	EDML 037,Rev` a`	04
21.	Single switch 06A/250V/AC ONE WAY ,complete with steel plate & cover frame	EDML 047,Rev nil, Item 1.	09
22.	Single switch 16A/250V/AC ONE WAY complete with steel plate & cover frame	EDML 045,Rev nil ,Item 2.	09
23.	PA system for LHB coaches Make :AHUJA	EDTS 173 Rev- a Am- 1,2&3	01 set

*(Signature)*  
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Rail Coach Factory Raebareli



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RCF/RBL/QEF7001

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ROLLING STOCK CERTIFICATE OF LHB/EOG 2T AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
24.	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>A.RAJA</b> Lug date : <b>02/2015</b>	EDTS 129,Rev nil	<b>01 set</b>
25.	Battery box for LHB coaches.	As per drg no 1 10113 0 76 700 005,Alt C	<b>01</b>
26.	Battery fuse box +ve Make : <b>ISG</b>	LW 71001,Alt-F	<b>01</b>
27.	Battery fuse box -ve Make : <b>NEC</b>	LW 71002,Alt-F	<b>01</b>
28.	Regulated battery charger Make : <b>HIREL</b> Sr no: <b>14100080</b>	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	<b>01</b>
29.	Emergency battery charger Make : <b>WAVES</b> Sr no: <b>WEBCH-14652</b>	EDTS 163,Rev `c` corg.-2&3	<b>01</b>
30	60KVA transformer Make : <b>VIMAL</b> Sr no 1: <b>2360</b>	As per rdso/pe/spec/ac/0080/rev-0 (2007)/Am-1&2/Corr. 1,2&3	<b>01</b>
31.	ZS coupling 400A/750V/03Ph/50hz. Make : <b>MAALAXMI INDUSTRIES</b>	As per spec No EDTS 105,Rev `e` Am-2	<b>02 sets</b>
32.	Feeder junction boxes. Make : <b>NEC</b>	EDML 020,Rev-I	<b>02</b>
33.	Wheel set earthling equipment. Make : <b>CHANDA&amp;CHANDA</b>	EDTS101,REV-C,AM-1	<b>02</b>
34.	Wheel Slide Protection System (WSP) Make: <b>KNORR</b> Sr no : <b>0114241276</b>	M/s : <b>KNORR</b>	<b>01 set</b>
35.	PANTRY EQUIPMENTS : Hot Case, Bottle cooler cum deep freezer Make : <b>SD ENGINEERS</b>	As per spec no EDTS 139, Rev- E, Sec II.	<b>01</b>

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SSE/EL/QC

विद्युत उत्पादन-गुणवत्ता  
रेल कोच फैक्ट्री / लालगंज / रायबरेली  
Sr. Section Engineer  
Electric Production - Quality  
RCF / RBL / LLJ

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