

137

LBT-140

रेल डिब्बा कारखाना, रायबरेली  
RAIL COACH FACTORY, RAEBARELI

FORM NO. RCF/RBL/QC/RSC  
VERSION: 2013-04-05

**ROLLING STOCK CERTIFICATE**

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

Date: 01/09/2014

SHELL	L	W	A	C	C	N	3	T	0	2	/	2	0	1	3	DATE OF DISPATCH	0	1	0	7	2	0	1	4
RLY	S	W	R	Type	L	W	A	C	C	N	Coach No.	1	4	1	1	4	/	C						

1. Railway Board's Order No : 2014/M(C)/142/1 dated 03.03.2014
2. Tare Weight of Coach : 45.6 Tonnes
3. Carrying Capacity : (a) Seating : 72 (b) Sleeping : 72 (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	4250
4.	CBC height/Buffer height from Rail level 1105 +0/-15	1) 1100 (NPPE) 2) 1105 (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 2812 NPP END 2813

**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 DETAILS:**

S NO	DESCRIPTION	TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE
1.	Paint	P.U.	AKZO NOBEL	91.93/85.71
2.	Insulation		Satisfactory	

136

# रेल डिब्बा कारखाना, रायबरेली RAIL COACH FACTORY, RAEBARELI

RCF

FORM NO. RCF/RBL/QC/RSC  
VERSION 1.1/01/05

## ROLLING STOCK CERTIFICATE

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

Date: 01/09/2014

SHELL	L	W	A	C	C	N	3	T	0	2	/	2	0	1	3	DATE OF DISPATCH	0	1	0	7	2	0	1	4
RLY	S	W	R	Type	L	W	A	C	C	N	Coach No.	1	4	1	1	4	/	C						

### 8. DETAIL OF BOGIES :

ITEMS	PP SIDE				NPP SIDE			
Bogie No	136723				136724			
Bogie Type	Fiat				Fiat			
Axle No	R-3244		R-3148		H-3030		H-3229	
Wheel Dia	916.00	915.50	916.50	916.50	915.50	916.00	916.00	916.00
Wheel Disc No	149-51777/ ZB13	080-51782/ ZB13	323-48744/ ZB13	071-48052/ ZB13	095-51777/ ZB13	063-50854/ ZB13	358-50842/ ZB13	083-50843/ ZB13
R.B. Nos.	02258	25115	25172	02046	02415	02408	02466	25536
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.	DN-01-13-1198	G-19-12-2591	DN-01-13-1303	G-6-12-2335	DN-01-13-1293	G-6-12-2346	DN-01-13-1286	G-6-12-2299
Compressed Ht. at Tested Load	505	467	508	467	505	465	510	468
Alignment deviation (mm)	8	19	7	16	11	11	11	14

### 10. TRACEABILITY OF BOGIE ITEMS:

S NO	ITEM	SERIAL NO		MAKE
		PP SIDE	NPP SIDE	
1.	Primary outer Spring	G-12-8	G-12-8	GF
2.	Primary Inner Spring	L&S-05-12	L&S-05-12	L&S
3.	Primary Damper			SACHS
4.	Secondary Damper			KONI
5.	Lateral Damper			KONI
6.	Yaw Damper			SACHS
7.	Brake Cylinder & Caliper	H2238K35, H5174K35 H6831K35, H5175K35	065K370, 068K370 066K370, 067K370	KBI
8.	Brake Disc			KBI
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			SGA
14.	Ball joint traction centre			SGA
15.	Secondary Rubber Pad			TECSPAC
16.	Rubber Spring			GMT
17.	Anti roll bar make			EMSON
18.	Roll Link make			SGA
19.	Fork make			EMSON

135

# रेल डिब्बा कारखाना, रायबरेली RAIL COACH FACTORY, RAEBARELI

RCF

FORM NO. RCF/RBL/QC/SCC  
VERSION: 2012.01.01

## ROLLING STOCK CERTIFICATE

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

Date: 01/09/2014

SHELL	L	W	A	C	C	N	3	T	0	2	/	2	0	1	3	DATE OF DISPATCH	0	1	0	7	2	0	1	4
RLY	S	W	R	Type	L	W	A	C	C	N	Coach No.	1	4	1	1	4	/	C						

### 11. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/s KBI, Faridabad, New Delhi	PASS 13B0559
2.	Pull box	M/s KBI, Faridabad, New Delhi	
3.	DV	M/s KBI, Faridabad, New Delhi	2014A1061
4.	PVC	M/s Responsive, Colaba, Mumbai	
5.	UIC Vestibule (PPE)	M/s COMCEN	
6.	UIC Vestibule (NPPE)	M/s COMCEN	
7.	Decoupling arrangement	M/s SECO	
8.	Body Side Window	M/s Rail Tech, Kapurthala	
9.	Emergency Window	M/s Rail Tech, Kapurthala	
10.	Lavatory Window	M/s Rail Tech, Kapurthala	
11.	Roof Ceiling	M/s KAE Engg. Pvt. Ltd. Satarganj, U.K.	
12.	Non-AC Area Ceiling	M/s Gandhi Enterprises, Jalandhar	
13.	Supply Air Duct	M/s Amirchand Engg. Works, Jalandhar	
14.	Body Side Doors	M/s JBM Faridabad	
15.	Compartment Door (PPE)	M/s Rail Tech, Kapurthala	
16.	Compartment Door (NPPE)	M/s Rail Tech, Kapurthala	
17.	Vestibule Door(PPE)	M/s KALSI Ludhiana	
18.	Vestibule Door(NPPE)	M/s KALSI Ludhiana	
19.	CDTS	M/s Stone India, New Delhi	
20.	Auxiliary Water Tank	M/s Amit Engg, Mohali Punjab	
21.	Under Slung Water Tank(450 L)	M/s Amit Engg, Mohali Punjab	
22.	Under Slung Water Tank(2X685L)	M/s Shivalik Fasteners, Mohali Punjab	
23.	Flexible Faucet	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
24.	Lotah Filler Tap	M/s Metco (New Delhi)	
25.	Lavatory Modoules	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
26.	Lavatory Doors	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
27.	Waste Bin Arrangement	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
28.	Fire Extinguisher	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
29.	Side Wall panel	M/s KAE Engg. Pvt. Ltd. Satarganj, U.K.	
30.	Seat & Berth	M/s Mohan Rail, Kapurthala	
31.	Light Luggage Rack	M/s Virendra Steel Enterprises Chandigarh	
32.	Snack Table	M/s International Tractors Ltd. Hoshiarpur	



134

रेल डिब्बा कारखाना, रायबरेली  
RAIL COACH FACTORY, RAEBARELI

**ROLLING STOCK CERTIFICATE**

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

Date: 01/09/2014

SHELL	L	W	A	C	C	N	3	T	0	2	/	2	0	1	3	DATE OF DISPATCH	0	1	0	7	2	0	1	4
RLY	S	W	R	Type	L	W	A	C	C	N	Coach No.	1	4	1	1	4	/	C						

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 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 falls 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 contact at qualityrcfrbl@gmail.com

DY. CME  
RCF/RBL

उप सु.या.अभि./फर्निश  
DY CME/FURNISHING  
रेल कोच फैक्ट्री / रायबरेली / लागान  
RCF / RBL / LLJ

SSE/QC  
RCF/RBL

सीनियर सेक्शन इंजीनियर (क्यालिटी कन्ट्रोल)  
रेल डिब्बा कारखाना, रायबरेली  
Sr. Section Engineer (Quality Control)  
Rail Coach Factory, Raebareli(Laiganj)



# RAIL COACH FACTORY, KAPURTHALA

Form No. : QMF 9454; Version: 03

Page : 2 of 4

Date: 07-8-2013

Shell No.:-

RLY	Type	LACCN	Coach No.
-----	------	-------	-----------

## 6.0 Wheel & Axle details:

6.0 Wheel & Axle details:								
Items	PP Side				Non PP Side			
Bogie No.	136723				136724			
Frame No.	FIAT-2440				FIAT-2203			
Bolster No.	3109-VT				3151-GT			
Axle No.	R-3244		R-3148		H-3030		H-3229	
Wheel Diameter	916.00	915.50	916.50	916.50	915.50	916.00	916.00	916.00
Wheel Disc No.	149-51777/ ZB13	080-51782/ ZB13	323-48744/ ZB13	071-48052/ ZB13	095-51777/ ZB13	063-50854/ ZB13	358-50842/ ZB13	083-50843/ ZB13
R.B. Nos.	02258	25115	25172	02046	02415	02408	02466	25536
R. B. Make	TIM		TIM		TIM		TIM	
RB Type	CARTRIDGE TAPER ROLLER BEARING							

## 6.1 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.	DN-01-13-1198	G-19-12-2591	DN-01-13-1303	G-6-12-2335	DN-01-13-1293	G-6-12-2346	DN-01-13-1286	G-6-12-2299
Compressed ht. at tested load	505	467	508	467	505	465	510	468
Align deviation	8	19	7	16	11	11	11	14

## 6.2 Component traceability:

SNO	ITEM	PP Side Bogie	NPP side Bogie	Make
		Sr. nos	Sr. nos.	
1	Primary Outer Spring batch no.	G-12-8	G-12-8	GF
2	Primary inner Spring batch no	L&S-05-12	L&S-05-12	L&S
3	Primary Damper			SACHS
4	Secondary damper			KONI
5	Lateral Damper			KONI
6	Brake cylinder & Caliper			--
7	Brake Disc			KBI
8	Ball joint Control arm			GMT
9	Lateral Bump stop			GMT
10	Traction center make			SARITA
11	Traction lever make			SARITA
12	Ball joint traction lever			SGA
13	Ball joint Traction centre			SGA
14	Secondary rubber pad			TESPAK
15	Rubber spring			GMT
16	Anti roll bar make			EMSON
17	Roll link make			SGA
18	Fork make			EMSON
19	YAW DAMPER			

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

131



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



RCF/RBL/QEF7001  
VER.2014:00  
PAGE 2 OF 5

**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 <b>R 407C</b>	OK

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



130

	<b>Govt. of India- Ministry of Railways</b> <b>(RAIL COACH FACTORY-RAEBARELI)</b>	
--	--	--


RCF/RBL/QEF7001

VER.2014:00

PAGE 3 OF 5

## 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>INTEC</b> Sr no of RMPU (NPP side ) : <b>14-D-118</b> Sr no of RMPU (PP side) : <b>14-D-104</b> Sr no of Microprocessor: <b>AE.14.03.116/AMIT</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>0075-03-2014</b>	As per spec no . EDTS073,REV-D,AM-6	<b>01</b>
03.	Pump equipment with PLC controller & pump box Make: KALSI Sr no PA: <b>3435/8/13</b> Sr no.1 : <b>243210/8/13</b> Sr no.2 : <b>243211/8/13</b> Sr no.CPA: <b>3423/8/13</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>

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

(129)

	<b>Govt. of India- Ministry of Railways</b> <b>(RAIL COACH FACTORY-RAEBARELI)</b>	
---	--	--

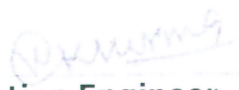
RCF/RBL/QEF7001

VER.2014:00

PAGE 4 OF 5

## 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 nil, Item 1.	<b>09</b>
18.	Single switch 16A/250V/AC ONE WAY complete with steel plate & cover frame	EDML 045,Rev nil ,Item 2.	<b>09</b>
19.	PA system for LHB coaches Make : <b>AHUJA</b>	EDTS 173,Rev-a Am-1,2&3	<b>01 set</b>
20.	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>08/2013</b>	EDTS 129,Rev nil	<b>01 set</b>
21.	Battery box for LHB coaches.	1 10113 0 76 700 005 w/o item 5,22 ,23 ,26 & 27.	<b>01</b>

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

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

RCF/RBL/QEF7001  
VER.2014:00  
PAGE 5 OF 5

ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
22.	Battery fuse box +ve Make : <b>INTEG</b>	As per LW 71001,Alt-F	<b>01</b>
23.	Battery fuse box -ve Make : <b>INTEG</b>	As per LW 71002,Alt-F	<b>01</b>
24.	Regulated battery charger Make : <b>STESALIT</b> Sr no: <b>1213385</b>	As per RDSO/pe/spec/ac/01 29, Rev.-1 (2009)	<b>01</b>
25.	Emergency battery charger Make : <b>BHASIN</b> Sr no: <b>04140511</b>	EDTS 163,Rev `c` corg.-2&3	<b>01</b>
26.	60KVA transformer Make : <b>PANTRONICS</b> Sr no 1 : <b>13121820</b>	As per rdso/pe/spec/ac/008 0/rev-0 (2007)/Am- 1&2/Corr. 1,2&3	<b>01</b>
27.	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>
28.	Feeder junction boxes. Make : <b>NEC</b>	EDML 020,Rev-I	<b>02</b>
29.	Wheel set earthing equipment. Make : <b>DARSHAN ENTERPRISES</b>	EDTS101,REV- C,AM-1	<b>02</b>
30.	Wheel Slide Protection System (WSP) Make: <b>KNORR</b> Sr no : <b>0114020936</b>	M/s : <b>KNORR</b>	<b>01 set</b>
31.	PANTRY EQUIPMENTS : Hot Case & Bottle cooler cum deep freezer Make : <b>VISHAL GAS SERVICES</b>	As per spec no EDTS 139, Rev- E ,Sec II.	<b>01</b>

Approved by

Sr Electrical Engineer / RCF / RBL / Lucknow

SSE/EL/QC

Sr. Section Engineer  
Electric Production - Quality  
RCF / RBL / LLJ