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: 09/12/2015

SHELL No.	L	W	A	C	C	N	1	4	R	B	L	/	1	4	-	1	5	DATE OF DISPATCH	0	3	0	9	2	0	1	5

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

1. Railway Board's Order No. : **2014/M(C)/142/1 dtd 21.07.2014**
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) 1099(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	3490	NPP END	3156

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/cm². ➢ Max. pressure in BC ➢ All Brake are applied	6 – 10 sec. 3.0 ±0.15 kg/cm². OK	8 Sec. 3.0 kg/cm² OK
2.	Insensitivity	➢ Exhaust BP @ 0.3 kg/cm²/min.	No brake application	OK
3.	Sensitivity	➢ Exhaust BP @ 0.1 kg/cm²/Sec, after 02 Sec.	Brake must apply	OK

7. PAINTING DETAILS:

S NO	DESCRIPTION	TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE
1.	Paint	P.U.	AKZONOBEL	96/94
2.	Insulation	Satisfactory		

L37-204

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

ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: RCF/RBL/QC/RSC Date: 12/10/2015

SHELL No.	R	B	L	-	1	4	-	2	0	1	4	-	1	5				DATE OF DISPATCH	0	3	/	0	9	/	1	5

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

8. DETAIL OF BOGIES :

ITEMS	PP Side				NPP Side			
Bogie No	150054				150053			
Bogie Type	FIAT				FIAT			
Frame no.	RBL-68				RBL-97			
Bolster no.	RBL-52				RBL-77			
Axle No	A 2967 3 3122 RWF 2014		3 3009 A 3516 RWF 2014		105918 14000631 CHT 2014		2 3444 H 3233 RWF 2014	
Wheel Dia	914	914	914	914	916	916	916	916
Wheel Disc No	06148 00100 VR 15	06148 00091 VR 15	06145 00209 VR 15	06145 00080 VR 15	06148 0015 VR 15	06145 00107 VR 15	06145 00161 VR 15	06145 00039 VR 15
R.B. Nos.	10 14 16589	02 15 30072	04 14 02410	04 14 30601	12 14 23080	04 14 29872	04 14 29440	04 14 32449
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.	CMGBD 03 15 836 14	G 13 3 4496	CMGBD 03 15 836 29	G 13 3 4483	CMGBD 08 14 83642	G 13 3 4702	CMGBD 08 14 83642	G 13 3 4477
Compressed Ht. at Tested Load	510.5	468	511.5	467	516	467	515	467
Alignment deviation (mm)	11	16	11	15	8	18	8	19

10. TRACEABILITY OF BOGIE ITEMS:

S. NO	ITEM	SERIAL NO.		MAKE
		PP SIDE	NPP SIDE	
1.	Primary outer Spring	L&S 03 12 CV (0425),(0276),(0551),(0243)	L&S 03 12 CV(0046),(0032),(0039),(0556)	L&S
2.	Primary Inner Spring	YR 10 11(10 11 153),YR 10 11(10 11 063) YR 10 11(10 11 087),YR 10 11(10 11 085)	CV 0515(7143 146 28),CV 05 15(7143 146 71) CV 05 15(7143 146 63),CV 05 15 (7143 90 99)	YR,CVFSK
3.	Primary Damper	21127, 21239, 21208, 21216 (06-2014)	21114, 21224, 21223, 21192 (06-2014)	KONI
4.	Secondary Damper	301550333 KW 40/2014	301550333 KW 40/2014	GEREP
5.	Lateral Damper	41-2014 3027	41-2014 2984	KONI
6.	Brake Cylinder	259 K 29, 11497 K 35, 14733 K 35, 244 K 29	695 K 29, 980 K 29,753 K 29,696 K 29	KBI
7.	Brake Caliper	243 29,13079 35,15996 35, 239 29	659 29, 953 29, 732 29, 660 29	KBI
8.	Brake Disc	BSI 1014 1477803, BSI 1014 1477310 BSI 1014 1477276, BSI 1014 1477279	24044185 0009 40/14,24042692 0012 36/14 24044185 0012 40/14,24044185 0021 40/14	FAV,KBI
9.	Ball Joint Control Arm			MGN
10.	Lateral Bump Stop			GMT,MGN
11.	Traction Centre make			EMSON
12.	Traction lever make			SARITA
13.	Ball joint traction lever			MGN
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
19.	Fork make			SARITA

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Date: 09/12/2015

SHELL No.	L	W	A	C	C	N	1	4	R	B	L	/	1	4	-	1	5	DATE OF DISPATCH	0	3	0	9	2	0	1	5
RLY	C	R	Type	L	W	A	C	C	N		Coach No.	1	4	1	1	6	/	C								

11. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/s KBI ,Faridabad ,New Delhi	14J0809
2.	Pull box	M/s KBI ,Faridabad ,New Delhi	
3.	DV	M/s KBI ,Faridabad ,New Delhi	2014H1334
4.	PVC	M/s Responsive Industries, Mumbai	
5.	UIC Vestibule (PPE)	M/s SUNCREST Industris Best Bengal	
6.	UIC Vestibule (NPPE)	M/s Ameenji Pvt. Ltd. Hyderabad	
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 Aikon Technology Pvt. Ltd. Solan H.P	
12.	Roof Ceiling	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
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 Amit Engineers, Baddi (HP)	
21.	Auxiliary Water Tank	M/s Manoj Enterprises , Mohali Punjab	
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 seemex New Delhi	2124,2125,3637
30.	Side Wall panel	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
31.	Seat & Berth	M/s Mohan Rail Components Pvt. Ltd. KXH	
32.	Light Luggage Rack	M/s Virendra Steel Enterprises Chandigarh	
33.	Snack Table	M/s Anjani Technology Noida	
34.	Yaw Damper	M/s GEREP Sup.- M/s SFT Engineering KOLKATA	

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SHELL No.	L	W	A	C	C	N	1	4	R	B	L	/	1	4	-	1	5	DATE OF DISPATCH	0	3	0	9	2	0	1	5
RLY	C	R	Type	L	W	A	C	C	N									Coach No.	1	4	1	1	6	/	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:

1. This warranty covers free supply of parts which wear out and fails within warranty period of normal service.
2. This doesn't covers faults arising out of accident, non standard maintenance practices, abnormal use or mishandling, vandal activity, arson & deficient/pilferage etc.
3. 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.
4. 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

उप मु.यां.अभि./फर्नि.
DY CME/FURNISHING
रेल कोच फैक्ट्री / रायबरेली / लालगंज
RCF / RBL / LLJ

SSE/QC
RCF/RBL

वरि. अनुभाभियंता
गुणवत्ता विभाग
रायबरेली (लालगंज)

3T- 204

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

RCF/RBL/QEF7001
VER.2014:00

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG AC COACHES

TYPE COACH	**LWACCN**	**SHELL/COACH NO**	**14116/C**
RAILWAY	**CR**	**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 PREACTICE 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	**29.69** Cub mtr/min	OK
3.2	Return Air	**76.49** Cub mtr/min	OK
3.3	Exhaust Air	**5.83** Cub mtr/min	OK
3.4	Conditioned Air	**195.97** Cub mtr/min	OK
4.0	**PRE COOLING TEST: Max 01 hr.** Time taken to pre cool from 45 deg centigrade to 24/22 deg C during OFF LOAD condition PP Side :**21.9°C** NPP Side :**22.0 °C**		OK
5.0	**PULL DOWN TEST: Max 02 hrs.** 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
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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 :	
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 **R 407C**	OK

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Govt. of India- Ministry of Railways
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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 :**AMIT** Sr no of RMPU (NPP side) :**1141-I** Sr no of RMPU (PP side) :**1132-I** Sr no of Microprocessor:**AE.14.01.054/AMIT**	As per rdso/pe/spes/ac/0061/ rev-1/2005	**02**
02.	Switch board cabinet Make :**ABROL** Sr no :**184**	As per spec no . EDTS073,REV-D,AM-6	**01**
03.	Pump equipment with PLC controller & pump box Make: **KALSI** Sr no PA:**4134/10/2014** Sr no.1:**251407/10/2014** Sr no.2:**251408/10/2014** Sr no.CPA:**4186/10/2014**	As per spec EDTS 186,Rev-a, Am- 2	**01**
04.	Double inlet centrifugal blower 415V/03Ph /50Hz /120W/450 cum mtr/hr discharge for exhausting air from lavatory & switch board cabinet Make :**INTEG**	EDTS331, TYPE-1 CORR.-1&2	**02**
05.	Vestibule Light Fitting Single	LW 76004,Alt-b	**07**
06.	Ceiling light fitting DOUBLE w/o diffuser.	LW 76011,Alt -c	**09**
07.	Ceiling light fitting with NL w/o diffuser w/o item 2&3	LW 76013,Alt -c	**09**
08.	Emergency light system for EOG type coaches (AEL)	EDTS 151,Rev –c Am-1 & 2	**04**
09.	Lavatory light fitting assly	LW 76001,Alt nil	**04**
10.	WC gauge signal light	LW 76006,Alt-c	**02**

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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	**02**
12.	Fluorescent lamp 18W	RDSO/PE/SPEC/ D/TL 0011-2000,Rev I, Sec-I , 07/2001	**34**
13.	Diffuser complete w/o item 1& 2.	LW 76012,Alt-a	**25**
14.	Razor socket for WC 110/240V.	EDML 047 ,Rev nil	**04**
15.	Terminal strip	EDML 034,Rev-a	**01**
16.	Terminal connector	EDML 037,Rev`a'	**04**
17.	Single switch 06A/250V/AC ONE WAY ,complete with steel plate & cover frame	EDML 047,Rev nil, Item 1.	**09**
18.	Single switch 06A/250V/AC ONE WAY complete with steel plate & cover frame	EDML 047,Rev nil ,Item 2.	**09**
19.	PA system for LHB coaches Make :**AHUJA**	EDTS 173,Rev-a Am-1,2&3	**01 set**
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 :**AMARA RAJA** Lug date :**02/2015**	EDTS 129,Rev nil	**01 set**
21.	Battery box for LHB coaches.	1 10113 0 76 700 005 w/o item 5,22 ,23 ,26 & 27.	**01**

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RCF, Raebareli

ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
22.	Battery fuse box +ve Make :**ISG**	As per LW 71001,Alt-F	**01**
23.	Battery fuse box –ve Make :**INTEG**	As per LW 71002,Alt-F	**01**
24.	Regulated battery charger Make :**HIREL** Sr no:**14100115**	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	**01**
25.	Emergency battery charger Make :**WAVES** Sr no:**WEBCH-14528**	EDTS 163,Rev `c' corg.-2&3	**01**
26.	60KVA transformer Make :**VIMAL** Sr no :**2369**	As per rdso/pe/spec/ac/0080/rev-0 (2007)/Am-1&2/Corr. 1,2&3	**01**
27.	ZS coupling 400A/750V/03Ph/50hz. Make :**MAA LAXMI INDUSTRIES**	As per spec No EDTS 105,Rev`e' Am-2	**02 sets**
28.	Feeder junction boxes. Make :**NEC**	EDML 020,Rev-I	**02**
29.	Wheel set earthling equipment. Make : **DARSHAN ENTERPRISES**	EDTS101,REV-C,AM-1	**02**
30.	Wheel Slide Protection System (WSP) Make**: KNORR** Sr no :**0114191141**	M/s :**KNORR**	**01 set**
31.	PANTRY EQUIPMENTS : Hot Case & Bottle cooler cum deep freezer Make :**SD ENGINEERS**	As per spec no EDTS 139, Rev- E ,Sec,II.	**01**

SSE/EL/QC	**DYCEE(P)/RCF/RBL**
वरिष्ठ खण्ड अभियन्ता विद्युत उत्पादन–गुणवत्ता रेल कोच फैक्टरी / 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

EMPRISE
Marketing

B-1/31, Sector H, Aliganj
Lucknow - 226 024 (India)
Tel.: (0522) 3208468, 3221900
Tele Fax : (0522) 4017682
E-mail : emprisemarketing@hotmail.com

Date: 23.02.2015

DY CME/P
RAIL COACH FACTORY
LALGANJ
RAEBARELI

Contract Agreement no-RCF/RBL/MECH/PTG/13-14/0005 DT 23.07.2014

WARRANTY CERTIFICATE NO:EMP/FEB/2015

This is to certify that POLYURETHANE PAINTING work done under your contract no-RCF/RBL/MECH/PTG/13-14/0005 dated 23.07.2014 has been completed on:

SL	COACH TYPE	RCF/RBL Furnishing no	Completion date	Coach Number	Railways
1	LWACCN-14	L3T-204	21.02.2015	14116/c	CR

The Pu Painting work done on each coach shall be warranted for a period of 03 years from the date of completion of the work for the coaches for gloss retention/color retention & adherence properties as per RDSO specification: M&C/PCN/100/2009. If any imperfection is noticed or any defect arise during the warranty period due to improper material used or due to bad workmanship EMPRISE MARKETING shall be bound to set right the defect/imperfection on free of cost basis.

For: EMPRISE MARKETING

(Authorised Signatory)

Dy. CME/P

SSE/Paint

AUTHORISED DISTRIBUTORS :
INDUSTRIAL BUSINESS