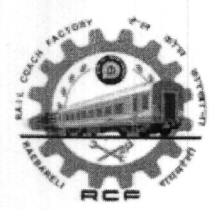




रेल डिब्बा कारखाना, रायबरेली RAIL COACH FACTORY, RAEBARELI



207

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	6	R	B	L	/	1	4	-	1	5	DATE OF DISPATCH	1	1	0	9	2	0	1	5
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RLY	C	R	Type	L	W	A	C	C	N	Coach No.	1	4	1	2	2	/	C
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- Railway Board's Order No. : 2014/M(C)/142/1 dtd 21.07.2014
- Tare Weight of Coach : 45.6 Tonnes
- 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) 1104(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	3930	NPP END	3914

6. AIRBRAKE TEST REPORT:

S NO	ITEM	DESCRIPTION	SPEC. VALUE	OBSERVED
1.	Full brake application	<ul style="list-style-type: none"> ➤ 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/cm ² . OK	8Sec. 3.0 kg/cm ² OK
2.	Insensitivity	➤ Exhaust BP @ 0.3 kg/cm ² /min.	No brake application	OK
3.	Sensitivity	➤ Exhaust BP @ 0.1 kg/cm ² /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.	VIGBYOR	96/95
2.	Insulation	Satisfactory		



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: 10/10/2015

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

ITEMS	PP Side				NPP Side			
Bogie No	150064				150063			
Bogie Type	FIAT				FIAT			
Frame no.	RBL-94				RBL-82			
Bolster no.	RBL-73				RBL-41			
Axle No	RWF 95799 31873 RWF 2012		14000629 CHT 14 106276		2.4820 A 3226		A 3212 8 7237	
Wheel Dia	915	915	915	915	914	914	914	914
Wheel Disc No	06145 00101 VR 15	06145 00105 VR 15	06145 00117 VR 15	06145 00162 VR 15	06145 00203 VR 15	06145 00187 VR 15	06148 00097 VR 15	06145 00116 VR 15
R.B. Nos.	12 14 22525	12 14 22506	12 14 02913	12 14 02903	12 14 22513	12 14 22544	04 14 29444	4 14 30424
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 06 15 836 29	G 13 4 A 4881	CMGBD 06 15 83629	G 13 4 B 4819	CMGBD 06 15 836 29	G 13 4 4998	CMGBD 06 15 836 29	G 13 4B 4793
Compressed Ht. at Tested Load	513.4	467	513.5	468	514.5	465	513	465
Alignment deviation (mm)	8	4	7	4	12	14	8	9

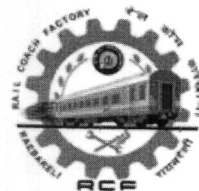
10. TRACEABILITY OF BOGIE ITEMS:

S. NO	ITEM	SERIAL NO.		MAKE
		PP SIDE	NPP SIDE	
1.	Primary outer Spring	L&S 0213 CV (2891)		L&S
2.	Primary Inner Spring	CV 0515 (7143 146 73), CV 0115(7143 143 118) CV 05 15 (7143 146 68),CV 0115(7143 143 110)	CV 0515 (7143 146 20),CV 0515(7143 143 82) CV 0515 (7143 146 6),CV 0515(7143 146 87)	CVFSK
3.	Primary Damper	301530049 KW 44/2014		GEREP
4.	Secondary Damper	301550333 KW (44/2014,40/2014)		GEREP
5.	Lateral Damper	301550332 KW 44/2014		GEREP
6.	Brake Cylinder	420 K 29, 492 K 29, 493 K 29, 436 K 29		KBI
7.	Brake Caliper	413 29, 488 29,485 29, 436 29		KBI
8.	Brake Disc	24044182 0002 40/14, 24044184 0017 39/14 24014183 0023 40/14, 24044182 0008 40/14	24044182 0022 40/14, 24044185 0006 40/14 24044182 0021 40/14,24044183 0014 40/14	KBI
9.	Ball Joint Control Arm			MGN
10.	Lateral Bump Stop			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

Signature
SCE/SC/Bogie



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	6	R	B	L	/	1	4	-	1	5	DATE OF DISPATCH	1	1	0	9	2	0	1	5
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RLY	C	R	Type	L	W	A	C	C	N	Coach No.	1	4	1	2	2	/	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	2014J0812
2.	Pull box	M/s KBI ,Faridabad ,New Delhi	
3.	DV	M/s KBI ,Faridabad ,New Delhi	2014H1347
4.	PVC	M/s Responsive Industries, Mumbai	
5.	UIC Vestibule (PPE)	M/s Ameenji Rubber Pvt. Ltd. Hyderabad	
6.	UIC Vestibule (NPPE)	M/s Ameenji Rubber 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 Rail Tech, Kapurthala	
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 Jagaur & Co. pvt. Ltd. Alwar Rajasthan	
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	141223-1372,1373
30.	Side Wall panel	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
31.	Seat & Berth	M/s Savitry Engg.Products Pontasahib	
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	



रेल डिब्बा कारखाना, रायबरेली
RAIL COACH FACTORY, RAEBARELI



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RLY	C	R	Type	L	W	A	C	C	N	Coach No.	1	4	1	2	2	/	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:

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.
5. For any complain/ suggestion please mail at qualityrcfrbl@gmail.com

DY CME
RCF/RBL

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

SSE/QC
RCF/RBL
वरि०अनु० अभियंता
गुणवत्ता विभाग
रे०डि०फा०, रायबरेली (लालगंज)



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



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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	14122/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 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	29.24 Cub mtr/min	OK
3.2	Return Air	81.89 Cub mtr/min	OK
3.3	Exhaust Air	8.80 Cub mtr/min	OK
3.4	Conditioned Air	173.73 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 :22.3°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

P. Kumar
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 :	
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

[Handwritten Signature]

Senior Section Engineer
Quality control / Electrical
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(RAIL COACH FACTORY-RAEBARELI)



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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) : 1061-G Sr no of RMPU (PP side) : 1064-G Sr no of Microprocessor: AE.14.06.0191/AMIT	As per rdso/pe/spes/ac/0061/ rev-1/2005	02
02.	Switch board cabinet Make: AMIT Sr no : AE/SB/069	As per spec no . EDTS073,REV-D,AM- 6	01
03.	Pump equipment with PLC controller & pump box Make: KALSI Sr no PA: 4136/10/2014 Sr no.1: 251411/10/2014 Sr no.2: 251412/10/2014 Sr no.CPA: 1480/10/2014	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

(Signature)

Senior Section Engineer
Quality control / Electrical
RCF, Raebareli



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(RAIL COACH FACTORY-RAEBARELI)



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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

Dharmg

Senior Section Engineer
Quality control / Electrical
RCF, Raebareli



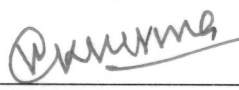
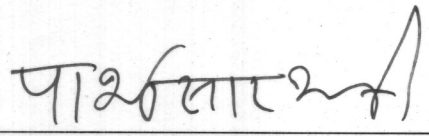
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(RAIL COACH FACTORY-RAEBARELI)



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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 : NEC	As per LW 71002,Alt-F	01
24.	Regulated battery charger Make : HIREL Sr no: 14100081	As per RDSO/pe/spec/ac/01 29, Rev.-1 (2009)	01
25.	Emergency battery charger Make : BHASIN Sr no: 06130080	EDTS 163,Rev `c` corg.-2&3	01
26.	60KVA transformer Make : VIMAL Sr no : 2317	As per rdso/pe/spec/ac/008 0/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 : 0114201201	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 अभियन्ता (उत्पादन)
रेल कोच फैक्टरी-रायबरेली, लालगंज
DY.CEE/P-RCF/RBL/LLJ