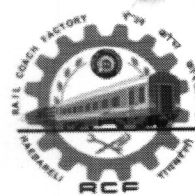


रेल डिब्बा कारखाना, रायबरेली RAIL COACH FACTORY, RAEBARELI



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

ROLLING STOCK CERTIFICATE

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

Date: 28/05/2016

SHELL No.	L	W	A	C	C	N	5	3	0	0	3	1	5	-	1	6	DATE OF DISPATCH	0	2	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	1	8	/	C	-
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Railway Board's Order No. : 2015/M(C)/142/1 dtd 13.10.2015

1. Tare Weight of Coach : 45.6 Tonnes
2. 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) 1104(NPPE) 2) 1103(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 3994 NPP END 4007

5. 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	8 Sec. 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

6. PAINTING DETAILS:

S NO	DESCRIPTION	TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE
1.	Paint	P.U.	AKZO NOBEL	94/92
2.	Insulation	Satisfactory		





आधुनिक रेल डिब्बा कारखाना रायबरेली MODERN COACH FACTORY RAE BAREILLY



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

ROLLING STOCK CERTIFICATE

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

Date: 13/04/2016

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

ITEMS	PP Side				NPP Side			
Bogie No	150136 (MCF/RBL)				150135 (MCF/RBL)			
Bogie Type	FIAT				FIAT			
Frame no.	RBL-25				RBL-37			
Bolster no.	RBL-120				HEI-34			
Axle No	106531 CHT 15		106536 CHT 14		0.0059 RWF		110039 RWF	
Wheel Dia	914	914	914	914	915.469	915.375	915.429	915.347
Wheel Disc No	06225 00177 VR 15	06225 00205 VR 15	06202 00011 VR 15	06208 00061 VR 15	ZB 2014 188 10570	ZB 2014 097 10559	ZB 2014 002 10582	ZB 2014 076 11607
R.B. Nos.	12 14 22541	12 14 22522	12 14 22809	12 14 22800	12 14 21291	12 14 02333	12 14 01136	12 14 23386
CT R B Make	SKF		SKF		SKF		SKF	

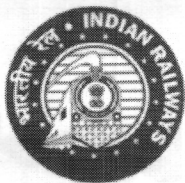
9. SECONDARY SUSPENSION LOAD DEFLECTION VALUES

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 09-15 8836-179-1	G 13 3 4657	CMFSK 09-15 8836-179-7	G 13 3 4705	G 15 5 093	G 13 3 4671	G 15 5 073	G 13 3 4518
Compressed Ht. at Tested Load	513	468	515	467	512	468	513	466
Alignment deviation (mm)	8	21	10	23	16	17	14	15

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	G 15 4, G 15 4A	CMGBD 143-56 (09-15)	G, CMGBD
3.	Primary Damper	2014-10 (25056, 24825, 24863, 24814)	2014-09(23357, 24133, 23898), 2014-06-21451	KONI
4.	Secondary Damper	301550333 KW 14-2015	301550333 KW 14-2015	GEREP
5.	Lateral Damper	3741 -11-2015	2925 -41-2014	KONI
6.	Brake Cylinder	1534 K 29, 1615 K 29, 1618 K 29, 1559 K 29	1558 K 29, 1617 K 29, 1612 K 29, 1560 K 29	KBI
7.	Brake Caliper	1497 -29, 1576- 29, 1579- 29, 1522- 29	1521-29, 1578-29, 1573-29, 1523-29	KBI
8.	Brake Disc	24057877 0008 22/15, 24057937 0010 22/15 24057877 0011 22/15, 24057877 0010 22/15	24056185 0022 19/15, 24056185 0021 19/15 24057856 0008 19/15, 24056185 0023 19/15	KBI
9.	Ball Joint Control Arm			GMT
10.	Lateral Bump Stop			GMT
11.	Traction Centre make			SARITA, EMSON
12.	Traction lever make			SARITA
13.	Ball joint traction lever			SGA
14.	Ball joint traction centre			SGA
15.	Secondary Rubber Pad			TECSPAK
16.	Rubber Spring			GMT
17.	Anti roll bar make			EMSON, SARITA
18.	Roll Link make			SARITA, MGN, GMT
19.	Fork make			SARITA

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: 28/05/2016

SHELL No.	L	W	A	C	C	N	5	3	0	0	3	1	5	-	1	6	DATE OF DISPATCH	0	2	1	2	2	0	1	5
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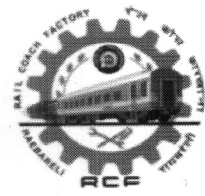
RLY	E	R	Type	L	W	A	C	C	N	Coach No.	1	5	1	1	8	/	C	-
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11. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/s KBI ,Faridabad ,New Delhi	14M0927
2.	Pull box	M/s KBI ,Faridabad ,New Delhi	
3.	DV	M/s KBI ,Faridabad ,New Delhi	2014M1474
4.	PVC	M/s Responsive Industries, Mumbai	
5.	UIC Vestibule (PPE)	Ameenji Rubber Pvt. Ltd. Hyderabad	
6.	UIC Vestibule (NPPE)	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 Aikon Technology Pvt.Ltd.Solan (H.P)	
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 Kalsi Ludhiana	
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 Shivalik Fastener Mohali PB	
22.	Under Slung Water Tank(450 L)	M/s Shivalik Fastener Mohali PB	
23.	Under Slung Water Tank(2X685L)	M/s Amit Engineers Mohali	
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 164, PP194
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- 70,350 PP -69,70



रेल डिब्बा कारखाना, रायबरेली RAIL COACH FACTORY, RAEBARELI



FORM NO: RCF/RBL/QMF 8001
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ROLLING STOCK CERTIFICATE

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SHELL No.	L	W	A	C	C	N	5	3	0	0	3	1	5	-	1	6	DATE OF DISPATCH	0	2	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	1	8	/	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

DY CME / फनि.
MCF/RBL
DY CME / FURNISHING
रेल कोच फैक्ट्री / रायबरेली / लालगंज
RCF / RBL / LLJ

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





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: 09.07.2015

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/JUNE/JULY/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-47	L3T-241	29.06.2015	15111/C	ER
2.	LWACCN-46	L3T-243	01.07.2015	15113/C	ER
3.	LWACCN-49	L3T-244	02.07.2015	15114/C	ER
4.	LWACCN-50	L3T-245	06.07.2015	15115/C	ER
5.	LWACCN-53002	L3T-246	07.07.2015	15116/C	ER
6.	LWACCN-53001	L3T-247	09.07.2015	15117/C	ER
7.	LWACCN-53003	L3T-248	09.07.2015	15118/C	ER

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

Dimlesh
(Authorised Signatory)



AUTHORISED DISTRIBUTORS :
INDUSTRIAL BUSINESS
RAIL TRANSPORTATION
COMMERCIAL CARE





PAGE 1 OF 5

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG AC COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG AC COACHES			
TYPE COACH		LWACCN	SHELL/COACH NO
RAILWAY		ER	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	30.01 Cub mtr/min	OK
3.2	Return Air	73.86 Cub mtr/min	OK
3.3	Exhaust Air	5.50 Cub mtr/min	OK
3.4	Conditioned Air	197.60 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 : 21.8°C <div style="float: right;">NPP Side :22.2°C</div>		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

Prüfung

Senior Section Engineer
Quality control / Electrical
RCF, Raebareli



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



RCF/RBL/QEF7001

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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

(Signature)

Senior Section Engineer
Quality control / Electrical
RCF, Raebareli



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



RCF/RBL/QEF7001

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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 : INTEC Sr no of RMPU (NPP side) : 15-E-366 Sr no of RMPU (PP side) : 15-D-332 Sr no of Microprocessor: 15.08.122/SDWL	As per rdso/pe/spes/ac/0061/ rev-1/2005	02
02.	Switch board cabinet Make : AMIT Sr no : AE/SB/095	As per spec no . EDTS073,REV-D,AM-6	01
03.	Pump equipment with PLC controller & pump box Make : KALSI Sr no PA- 4160/10/14 Sr no.1: 251459/10/14 Sr no.2: 251460/10/14 Sr no.CPA: 4132/10/14	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



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



.RCF/RBL/QEF7001

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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

Prumg

Senior Section Engineer
Quality control / Electrical
RCF, Raebareli



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



RCF/RBL/QEF7001

VER.2014:00

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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 : NEC	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: 15050267	As per RDSO/pe/spec/ac/01 29, Rev.-1 (2009)	01
25.	Emergency battery charger Make : BHASIN Sr no: 09140780	EDTS 163,Rev `c` corg.-2&3	01
26.	60KVA transformer Make : PANTRONICS Sr no : PAN-14011960	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 : MAA LAXMI INDUSTRIES	EDML 020,Rev-I	02
29.	Wheel set earthling equipment. Make : DARSHAN	EDTS101,REV- C,AM-1	02
30.	Wheel Slide Protection System (WSP) Make : KNORR Sr no : 0114341352	M/s : KNORR	01 set
31.	PANTRY EQUIPMENTS : Hot Case & Bottle cooler cum deep freezer Make : SUPER REFRIGRATION	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