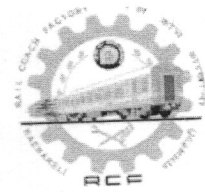




रेल डिब्बा कारखाना, रायबरेली RAIL COACH FACTORY, RAEBARELI



249

FORM NO: RCF/RBL/QMF 8001
VERSION: 2012-01-01**ROLLING STOCK CERTIFICATE**

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

Date: 06/06/2016

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

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.	PP END 4022 NPP END 3951
2.	Centre Buffer Coupler	M/s ESCORTS	

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	<ul style="list-style-type: none"> ➤ Exhaust BP @ 0.3 kg/cm²/min. 	No brake application	OK
3.	Sensitivity	<ul style="list-style-type: none"> ➤ Exhaust BP @ 0.1 kg/cm²/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.	NEROLAC	95/89
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: 15/04/2016

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

8. DETAIL OF BOGIES :

ITEMS	PP Side				NPP Side			
Bogie No	150139 (MCF/RBL)				150140 (MCF/RBL)			
Bogie Type	FIAT				FIAT			
Frame no.	RBL-55				RBL-51			
Bolster no.	RBL-123				RBL-124			
Axle No	105857 CHT 14		129339 CHT 13		129287 CHT 13		129291 CHT 13	
Wheel Dia	914	914	914	914	914	914	914	914
Wheel Disc No	06225 00130 VR 15	06208 00026 VR 15	06207 00053 VR 15	06225 00217 VR 15	06225 00188 VR 15	06225 00051 VR 15	06225 00185 VR 15	06225 00126 VR 15
R.B. Nos.	12 14 22505	12 14 22546	12 14 23389	12 14 22796	12 14 22500	12 14 02340	12 14 21738	12 14 22536
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 8836-179-30	G13-3-4687	CMFSK 09-15 8836-179-2	G13-3-4663	CMFSK 07-15 8836-159-21	G 13 3 4571	CMFSK 07-15 8836-159-84	G 13 3 4662
Compressed Ht. at Tested Load	510	466	511	467	510.5	467	511.5	467
Alignment deviation (mm)	9	16	10	17	8	21	8	26

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	CMGBD 09-15 143-56	CMGBD 09-15 143-56	CMGBD
3.	Primary Damper	2014-09 (24823), 2014-10(25086, 24870, 24892)	2014-09(23920, 24519, 23795, 23824)	KONI
4.	Secondary Damper	301550333 KW 14/2015	301550333 KW 14/2015	GEREP
5.	Lateral Damper	41-2014 (2969)	11-2015 (3632)	KONI
6.	Brake Cylinder	1550 K 29, 1624 K 29, 1623 K 29, 1551 K 29	1553 K 29, 1626 K 29, 1625 K 29, 1552 K 29	KBI
7.	Brake Caliper	1513-29, 1585-29, 1584-29, 1514-29	1515-29, 1587-29, 1586-29, 1516-29	KBI
8.	Brake Disc	24058117 0002 23/15, 24057877 0013 23/15 24058117 0012 23/15, 24058117 0019 23/15	24058116 0003 23/15, 24058117 0013 23/15 24058117 0016 23/15, 24058117 0018 23/15	KBI
9.	Ball Joint Control Arm			GMT
10.	Lateral Bump Stop			GMT
11.	Traction Centre make			EMSON, SARITA
12.	Traction lever make			SARITA
13.	Ball joint traction lever			MGN
14.	Ball joint traction centre			SGA
15.	Secondary Rubber Pad			TECSPAK
16.	Rubber Spring			GMT
17.	Anti roll bar make			SARITA
18.	Roll Link make			SARITA.MGN
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

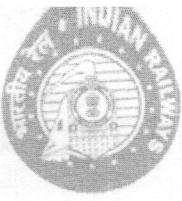
Date: 06/06/2016

SHELL No.	L	W	A	C	C	N	5	1	R	B	L	1	4	-	1	5	DATE OF DISPATCH	0	5	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	9	/	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	15C0956
2.	Pull box	M/s KBI ,Faridabad ,New Delhi	
3.	DV	M/s KBI ,Faridabad ,New Delhi	2014M1500
4.	PVC	M/s Responsive Industries, Mumbai	
5.	UIC Vestibule (PPE)	M/s Ameenji Pvt. Ltd. Hyderabad	
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 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, Baddi (HP)	
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 198, PP 187
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 Supplier- M/s Pan India Consultant Pvt.Ltd 105 Phase -IVUdyog Vihar, Gurgoan-122015 Haryana	NPP-71319,70623 PP -71221,70078



रेल डिब्बा कारखाना, रायबरेली RAIL COACH FACTORY, RAEBARELI



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

ROLLING STOCK CERTIFICATE

Date: 06/06/2016

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

SHELL No.	L	W	A	C	C	N	5	1	R	B	L	1	4	-	1	5	DATE OF DISPATCH	0	5	1	2	2	0	1	5
RLY	E	R	Type	L	W	A	C	C	N	Coach No.	1	5	1	1	9	/	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	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 qualityrcfrbl@gmail.com

DY CME
MCF/RBL

कार्य प्रबन्धक

Work A

रेल डिब्बा कारखाना
Rail Coach Factory

लालगंज

रायबरेली

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



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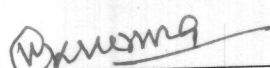
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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG AC COACHES

TYPE COACH	LWACCN	SHELL/COACH NO	15119/C
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	29.00 Cub mtr/min	OK
3.2	Return Air	66.19 Cub mtr/min	OK
3.3	Exhaust Air	5.50 Cub mtr/min	OK
3.4	Conditioned Air	225.71 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 :24.2°C NPP Side :19.8°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


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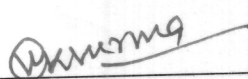
FOR ELECTRICAL ITEMS

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


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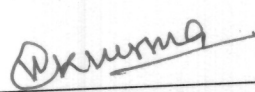
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(RAIL COACH FACTORY-RAEBARELI)



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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 : INTEC Sr no of RMPU (NPP side) : 15-E-330 Sr no of RMPU (PP side) : 15-E-324 Sr no of Microprocessor: 15.08.121/SDWL	As per rdso/pe/spes/ac/0061/ rev-1/2005	02
02.	Switch board cabinet Make : AMIT Sr no : AE/SB/096	As per spec no . EDTS073,REV-D,AM-6	01
03.	Pump equipment with PLC controller & pump box Make : KALSI Sr no PA: 4174/10/14 Sr no.1: 251487/10/14 Sr no.2: 251488/10/14 Sr no.CPA: 4146/10/14	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


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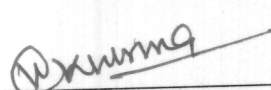
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ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

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 :HBL Lug date :04/2015	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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**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
22.	Battery fuse box +ve Make : NEC	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: 15060330	As per RDSO/pe/spec/ac/01 29, Rev.-1 (2009)	01
25.	Emergency battery charger Make : BHASIN Sr no: 09140783	EDTS 163,Rev `c` corg.-2&3	01
26.	60KVA transformer Make : PANTRONICS Sr no : PAN-14011964	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 : CHANDA,DARSHAN	EDTS101,REV- C,AM-1	02
30.	Wheel Slide Protection System (WSP) Make : KNORR Sr no : 0115161627	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

वरिष्ठ खण्ड अभियन्ता
विद्युत उत्पादन-गुणवत्ता
रेल कोच फैक्टरी / लालगंज / रायबरेली
Sr. Section Engineer
Electric Production - Quality
RCF / RBL / LLJ

DYCEE(P)/RCF/RBL

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