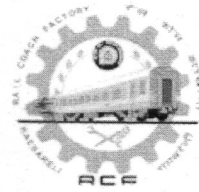




रेल डिब्बा कारखाना, रायबरेली RAIL COACH FACTORY, RAE BARELI



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

ROLLING STOCK CERTIFICATE

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

Date: 26/05/2016

SHELL No.	L	W	A	C	C	N	3	1	R	B	L	1	4	-	1	5	DATE OF DISPATCH	1	0	1	2	2	0	1	5
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RLY	E	R	Type	L	W	A	C	C	N	Coach No.	1	4	1	0	6	/	C	-
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Railway Board's Order No : 2013/M(C)/142/3 dtd 27.12.13

- Tare Weight of Coach : 45.6 Tonnes
- 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) 1101(NPPE) 2) 1105(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 3879 NPP END 3888

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.	ADVANCE	91/90
2.	Insulation	Satisfactory		



आधुनिक रेल डिब्बा कारखाना रायबरेली
MODERN 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: 01/06/2016

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

ITEMS	PP Side				NPP Side			
Bogie No	150172 (MCF/RBL)				150171 (MCF/RBL)			
Bogie Type	FIAT				FIAT			
Frame no.	RBL-137				RBL-127			
Bolster no.	RBL-153				RBL-164			
Axle No	106622 CHT 14		106538 CHT 14		106274 CHT 14		106227 CHT 14	
Wheel Dia	915.549	915.546	915.584	915.516	915.567	915.544	915.365	915.463
Wheel Disc No	ZB 2014 092-11611	ZB 2014 272-11607	ZB 2014 251-11607	ZB 2014 147-11605	ZB 2014 101-61017	ZB 2014 070-10582	ZB 2014 278-11610	ZB 2014 110-11610
R.B. Nos.	03-15 33802	12-15 02864	12-14 22913	12-14 23324	03 15 33795	03 15 33734	03 15 03115	03 15 34134
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 07-15 8836-169	G 13-3-4638	CMFSK 07-15 8836-169	G 12-10-3783	CMFSK 07-15 8836-169	G 13-4B-4826	CMFSK 07-15 8836-169	DN 12C-1697V
Compressed Ht. at Tested Load	514.5	466	514.5	466	510	468	511	468
Alignment deviation (mm)	10	16	8	15	10	10	11	11

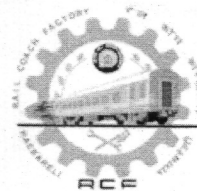
10. TRACEABILITY OF BOGIE ITEMS:

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 09-05-143-56	CMGBD
3.	Primary Damper	2014-09 (23547,23826,24581,26882)	2015-03 (26426,26717,26728,26723)	KONI
4.	Secondary Damper	14-2015 (5803,5572)	14-2015 (6060,6201)	KONI
5.	Lateral Damper	11-2015 3326	41-2014 2983	KONI
6.	Brake Cylinder	G-15(081,043,056,078)	G-15(083,046,031,082)	FAV
7.	Brake Caliper	G-15(103B,102B,101B,104B)	G-15(096B,093B,095B,094B)	FAV
8.	Brake Disc	21057859-0009-20/15,24057860-0017-20/15, 24057855-0011-19/15,24057858-0024-19/15	24056187-0016-19/15,24057856-0023-19/15, 240578560-0019-20/15,24057863-0005-20/15	KBI
9.	Ball Joint Control Arm			GMT
10.	Lateral Bump Stop			MGN/GMT
11.	Traction Centre make			EMSON
12.	Traction lever make			SARITA/MGN
13.	Ball joint traction lever			MGN
14.	Ball joint traction centre			GMT
15.	Secondary Rubber Pad			TECSPAK
16.	Rubber Spring			TECSPAK/GMT
17.	Anti roll bar make			GMT/EMSON
18.	Roll Link make			EMSON/SARITA
19.	Fork make			SARITA

Responsible
SSE/QC/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.: MCF/RBL/QC/RSC

Date: 26/05/2016

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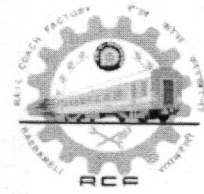
RLY	E	R	Type	L	W	A	C	C	N	Coach No.	1	4	1	0	6	/	C	-
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11. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/s Faveley Transport India Kathe Bhatoli, Baddi, Distt:- solan (HP)	N13022/B
2.	Pull box	M/s Faveley Transport India Kathe Bhatoli, Baddi, Distt:- solan (HP)	
3.	DV	M/s Faveley Transport India Kathe Bhatoli, Baddi, Distt:- solan (HP)	13125524/B
4.	PVC	M/s Responsive Industries, Mumbai	
5.	UIC Vestibule (PPE)	M/s Indian Friction Materials U.P	
6.	UIC Vestibule (NPPE)	M/s Indian Friction Materials U.P	
7.	Foot Step	M/s Super Spark Pvt. Ltd. Faridabad	
8.	Decoupling arrangement	M/s SECO Industries, Mumbai	
9.	Body Side Window	M/s Rail Tech, Kapurthala	
10.	Emergency Window	M/s Rail Tech, Kapurthala	
11.	Lavatory Window	M/s Rail Tech, Kapurthala	
12.	Roof Ceiling	M/s KAE Sataraganj Pvt. Ltd. ESIP U.K.	
13.	Non-AC Area Ceiling	M/s Shree Ganesh Enterprises Jalandhar	
14.	Supply Air Duct	M/s Hanspal Coach Products KXH	
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 Darshan Interprises, New Delhi	
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 Jagour & 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 NAAZ	NPP-208, PP-212
30.	Side Wall panel	M/s KAE Sataraganj U.K.	
31.	Seat & Berth	M/s Savitri Engg. Products Paonta Sahib H.P	
32.	Light Luggage Rack	M/s Virendra 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 -IV Udyog Vihar, Gurgaon- 122015 Haryana	70790, 71018(NPP), 71027, 70677(PP)



रेल डिब्बा कारखाना, रायबरेली RAIL COACH FACTORY, RAEBARELI



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RLY	E	R	Type	L	W	A	C	C	N	Coach No.	1	4	1	0	6	/	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
MCF/RBL/फर्नि.
DY CME/FURNISHING
रेल कोच फैक्ट्री / रायबरेली / लालगंज
RCF/RBL/LLJ

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



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(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	14106/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	29.73 Cub mtr/min	OK
3.2	Return Air	74.79 Cub mtr/min	OK
3.3	Exhaust Air	7.11 Cub mtr/min	OK
3.4	Conditioned Air	189.13 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 : 21.4°C NPP Side : 21.4°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
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

(Signature)

Senior Section Engineer
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RCF, Raebareli



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(RAIL COACH FACTORY-RAEBARELI)

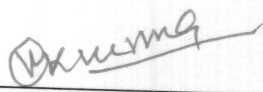


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ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
01.	Roof mounted AC package unit for LHB AC coaches Make : AMIT Sr no of RMPU (NPP side) : 1265-B Sr no of RMPU (PP side) : 1264-B Sr no of Microprocessor: AE.15.09.560/AMIT	As per rdso/pe/spes/ac/0061/ rev-1/2005	02
02.	Switch board cabinet Make : ISG Sr no : 0009-04/2015	As per spec no . EDTS073,REV-D,AM-6	01
03.	Pump equipment with PLC controller & pump box Make: KALSI Sr no PA: 4144/10/2014 Sr no.1: 251427/10/2014 Sr no.2: 251428/10/2014 Sr no.CPA: 4139/10/2014	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


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



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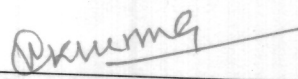
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ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

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 :AMARA RAJA Lug date :02/2014	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)



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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 : INTEG	As per LW 71002,Alt-F	01
24.	Regulated battery charger Make : AUTOMETER Sr no: BCH-061505001	As per RDSO/pe/spec/ac/01 29, Rev.-1 (2009)	01
25.	Emergency battery charger Make : BHASIN Sr no: 04140478	EDTS 163,Rev `c` corg.-2&3	01
26.	60KVA transformer Make : VIMAL Sr no : 2845	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 : S INTERNATIONAL	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 earthing equipment. Make : CHANDA & CHANDA	EDTS101,REV-C,AM-1	02
30.	Wheel Slide Protection System (WSP) Make: FAIVELEY Sr no : 42/14/443	M/s : FAIVELEY	01 set
31.	PANTRY EQUIPMENTS : Hot Case & Bottle cooler cum deep freezer Make : VISHAL GAS SERVICE	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