



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: 18/05/2016

SHELL NO.	L	W	A	C	C	W	5	2	0	2	9	/	1	5	-	1	6	DATE OF DISPATCH	3	0	1	2	2	0	1	5
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RLY	S	E	R	Type	L	W	A	C	C	W	Coach No.	1	5	8	0	5	6	/	C
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1. Railway Board's Order No. : 2015/M(C)/142/1, dated 11.12.2015
2. Tare Weight of Coach : 44.5 Tonnes
3. Carrying Capacity : (a) Seating : 52 (b) Sleeping : 52 (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	4039
4.	CBC height/Buffer height from Rail level 1105 +0/-15	1) 1102(NPPE) 2) 1103(PPE)

5. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Buffers	N.A.	
2.	Centre Buffer Coupler	M/S Faively	PP END L14008B NPP END L14002B

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	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

7. PAINTING DAETAILS:

S NO	DESCRIPTION	TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE
1.	Paint	P.U.	AKZONOBEL	97/93
2.	Insulation		Satisfactory	



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ROLLING STOCK CERTIFICATE

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

Date: 09 /02/2016

SHELL No.	R	B	L	-	5	2	0	2	9	-	2	0	1	5	-	1	6	DATE OF DISPATCH	3	0	/	1	2	/	1	5
RLY	S	E	R	Type	L	W	A	C	C	W	Coach No.	1	5	8	0	5	6	/	C							

8. DETAIL OF BOGIES :

ITEMS	NPP Side				PP Side			
Bogie No	150185				150186			
Bogie Type	FIAT				FIAT			
Frame no.	VS/RBL/26				VS/RBL/25			
Bolster no.	RBL-201				RBL-222			
Axle No	CHT 13 128658		CHT 13 125992		CHT 13 130182		CHT 13 128800	
Wheel Dia	915.569	915.706	915.679	915.737	915.618	915.765	915.519	915.661
Wheel Disc No	6196 00043 VR-15	6148 00052 VR-15	6196 00069 VR-15	6219 00117 VR-15	6198 00034 VR-15	6212 00034 VR-15	6191 00045 VR-15	6191 00071 VR-15
R.B. Nos.	12-14-22372	10-14-16246	04-14-30262	10-14-16785	12-14-23115	10-14-15055	02-15-29870	12-14-21197
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.	DN 13A 3452 T	RSK 556	DN13 A 3483T	RSK 563	DN13 D 3572T	RSK 535	DN13 D 3573T	RSK 643
Compressed Ht. at Tested Load	504	467	505	468	506	464	507	465
Alignment deviation (mm)	22	37	22	39	19	41	19	44

10. TRACEABILITY OF BOGIE ITEMS:

S. NO	ITEM	SERIAL NO.		MAKE
		NPP SIDE	PP SIDE	
1.	Primary outer Spring	RSK (038,453,454,474)	RSK (100,530,415,483)	RSK
2.	Primary Inner Spring	RSK (225,564,552,345)	RSK (102,134,378,353)	RSK
3.	Primary Damper	301530049 KW 14/2015	301530049 KW 14/2015	GREEP
4.	Secondary Damper	14/2015-5879,23/2012-3905	14/2015-5747,5810	KONI
5.	Lateral Damper	11/2015-3399	11/2015-3688	KONI
6.	Brake Cylinder	370 K 29, 449 K 29, 448 K 29, 377 K 29	376 K 29, 424 K 29, 425 K 29, 379 K 29	KBI
7.	Brake Caliper	372-29, 443-29, 442-29, 371-29	373-29, 423-29, 422-29, 374-29	KBI
8.	Brake Disc	24057876-0015 22/15, 24057876-0016 22/15 24057875-0022 22/15, 24057876-0012 22/15	24057875-002122/15, 24057876-0013 22/15 24057871-0023 22/15, 24057871-0022 22/15	KBI
9.	Ball Joint Control Arm			MGN
10.	Lateral Bump Stop			GMT
11.	Traction Centre make			EMSON
12.	Traction lever make			SARITA
13.	Ball joint traction lever			GMT
14.	Ball joint traction centre			GMT
15.	Secondary Rubber Pad			TECSPAK
16.	Rubber Spring			GMT
17.	Anti roll bar make			EMSON
18.	Roll Link make			SARITA, GMT
19.	Fork make			SARITA



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RLY	S	E	R	Type	L	W	A	C	C	W	Coach No.	1	5	8	0	5	6	/	C							

11. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/s KBI Faridabad New Delhi	15C0953
2.	Pull box	M/s KBI Faridabad New Delhi	
3.	DV	M/s KBI Faridabad New Delhi	
4.	PVC	M/s Responsive Industries, Colaba, Mumbai	2014M1497
5.	UIC Vestibule (PPE)	-----	
6.	UIC Vestibule (NPPE)	-----	
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 HP	
10.	Emergency Window	M/s Aikon Technology Pvt. Ltd. Solan HP	
11.	Lavatory/hoooper Window	M/s Aikon Technology Pvt. Ltd. Solan HP	
12.	Roof Ceiling	M/s KAE Engg. pvt.Ltd. Satarganj (UK)	
13.	Non-AC Area Ceiling	M/s Gandhi Enterprises, Jalandhar	
14.	Supply Air Duct	M/s Hanspal Coach Product Kapurthala	
15.	Body Side Doors	M/s Kalsi Ludhiyana	
16.	Compartment Door (PPE)	M/s Rail Tech KXH	
17.	Compartment Door (NPPE)	M/s Rail Tech KXH	
18.	Vestibule Door(PPE)	M/s Kalsi Ludhiyana	
19.	Vestibule Door(NPPE)	M/s Kalsi Ludhiyana	
20.	CDTS	M/s Darshan Enterprises.	
21.	Auxiliary Water Tank	M/s Amit Engineers, Mohali Punjab	
22.	Under Slung Water Tank(450 L)	M/s Shivalik Fasteners, Mohali Punjab	
23.	Under Slung Water Tank (2X685L)	M/s Shivalik Fasteners, Mohali Punjab	
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 Hindustan Fibre Ltd. Vadodra (Gujrat)	
30.	Side Wall panel	M/s Fire fox	161,189
31.	Seat & Berth	M/s KAE Engg. pvt.Ltd. Satarganj (UK)	
32.	Light Luggage Rack	M/s Oriental Veneer products Ltd. Mumbai	
33.	Snack Table	M/s Virendra Steel Enterprises Chandigarh	
		M/s International Tractor Limited, Hoshiarpur	





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RLY	S	E	R	Type	L	W	A	C	C	W	Coach No.	1	5	8	0	5	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	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
वरिष्ठ अभियन्ता (फर्निचर)
Sr. Mech. Engineer (Fur.)
रेल डिब्बा कारखाना, रायबरेली लालगंज
Rail Coach Factory, Raebareli Lalganj

सहायक यान्त्रिक अभियन्ता/ गुणवत्ता
Asst. Mechanical Engineer/ Quality
रेल डिब्बा कारखाना, लालगंज, रायबरेली
Rail Coach Factory, Lalganj, Raebareli
AME/QC
MCF/RBL





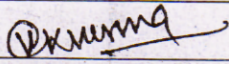
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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG 2T AC COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG AC COACHES

TYPE COACH	LWACCW	SHELL/COACH NO	158056/C
RAILWAY	SE	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	29.16 Cub mtr/min	OK
3.2	Return Air	74.56 Cub mtr/min	OK
3.3	Exhaust Air	5.28 Cub mtr/min	OK
3.4	Conditioned Air	195.78 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 : 19.7°C NPP Side : 23.1°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
Rail Coach Factory Raebareli



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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG 2T AC COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB EOG AC COACHES

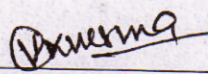
Sr no	Description of test	Remarks
6.0	HUMIDITY CONTROL	OK
7.0	PUMP EQUIPMENTS	OK
8.0	WORKING OF EXHAUST FANS OVER LAVATORIES	OK
9.0	WORKING OF COMPOSITE PANTRY	OK
10.0	BERTH READING LIGHTS	OK
11.0	COMPARTMENT LIGHT	OK
12.0	PUBLIC ADDRESSING SYSTEM (PAS)	OK
13.0	WHEEL SLIDE PROTECTION SYSTEM (WSP)	OK
14.0	WORKING OF 60KVA TRANSFORMER	OK
15.0	WORKING OF REGULATED BATTERY CHARGER	OK
16.0	WORKING OF EMERGENCY BATTERY CHARGER	OK
17.0	SAFETY ITEMS	
17.1	THERMOSTAT :	OK
17.2	ROTARY 07 SET POINTS (NORMAL CONDITION)	OK
17.3	MID SET POINTS (SENSORS FAILED CONDITIONS)	OK
17.4	HYGROSTAT	OK
17.5	CONTROL CIRCUIT	OK
17.6	POWER CIRCUIT	OK
18.0	REFRIGERANT USED R 407C	OK

D. K. Sharma
Senior Section Engineer
Quality control / Electrical
Rail Coach Factory Raebareli



ROLLING STOCK CERTIFICATE OF LHB/EOG 2T 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 1(NPP side): 15-H-378 Sr no of RMPU 2 (PP side) : 15-H-370 Sr no of Microprocessor: 15.05.054/SDWL	As per rdso/pe/spes/ac/0061/rev-1/2005	02
02.	Switch board cabinet Make : AMIT Sr no : AE.SB.109/07/2015	As per spec no EDTS073,REV-D,AM-6	01
03.	Pump equipment with PLC controller & pump box Make: KALSI Sr no PA- 4020/8/2014 Sr no.1- 250786/8/2014 Sr no.2- 250787/8/2014 Sr no.CPA- 4043/8/2014	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 w/o diffuser	LW 76004,Alt-b	06
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


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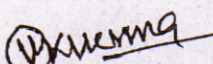
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ROLLING STOCK CERTIFICATE OF LHB/EOG 2T AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
10.	WC gauge signal light	LW 76006,Alt-c	02
11.	Passenger alarm coach indication light	LW 76005,Alt-e	02
12.	Reading Light fitting (Upper berth)	LW 76023,Alt-e	26
13.	Reading light for longitudinal berth LHS	LW 76022,Alt-e	09
14.	Reading light for transverse Lower Berth -LH	LW 76020,Alt-e	09
15.	Reading light for transverse Lower berth RH	LW 76021,Alt-e	08
16.	Fluorescent lamp 18W	RDSO/PE/SPEC/D/TL 0011-2000,Rev I, Sec- I , 07/2001	33
17.	Diffuser complete w/o item 1& 2.	LW 76012,Alt-a	25
18.	Razor socket for WC 110/240V.	EDML 047 ,Rev nil	04
19.	Terminal strip	EDML 033,Rev-c	01
20.	Terminal connector	EDML 037,Rev` a`	04
21.	Single switch 06A/250V/AC ONE WAY ,complete with steel plate & cover frame	EDML 047,Rev_C, Item 1.	09
22.	Single switch 06A/250V/AC ONE WAY complete with steel plate & cover frame	EDML 047,Rev_A ,Item 2.	09
23.	Provision of switch socket combined 5PIN (06A, 250V AC) along with 1A glass fuse fitted powder coated steel plate & cover frame	As per cat no EL-243 (EL signature series) of M/s SSK	09
24.	PA system for LHB coaches Make :AHUJA	EDTS 173 Rev- a Am- 1,2&3	01 set


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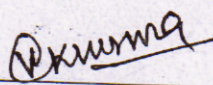
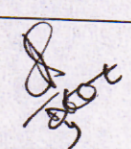
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ROLLING STOCK CERTIFICATE OF LHB/EOG 2T AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
25.	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
26.	Battery box for LHB coaches.	As per drg no 1 10113 0 76 700 005,Alt C	01
27.	Battery fuse box +ve Make : NEC	LW 71001,Alt-F	01
28.	Battery fuse box -ve Make : NEC	LW 71002,Alt-F	01
29.	Regulated battery charger Make : HIREL Sr no : 15060296	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	01
30.	Emergency battery charger Make : BHASIN Sr no : 05140610	EDTS 163,Rev `c` corg.-2&3	01
31.	60KVA transformer Make : PANTRONICS Sr no : PAN-14011969	As per rdso/pe/spec/ac/0080/re v-0 (2007)/Am-1&2/Corr. 1,2&3	01
32.	ZS coupling 400A/750V/03Ph/50hz. Make : MAA LAXMI INDUSTRIES	As per spec No EDTS 105,Rev `e` Am-2	02 sets
33.	Feeder junction boxes. Make : ISG	EDML 020,Rev-I	02
34.	Wheel set earthling equipment. Make : CHANDA & CHANDA	EDTS101,REV-C,AM-1	02
35.	Wheel Slide Protection System (WSP) Make: KNORR & Sr no : 0115161626	M/s : KNORR	01 set
36.	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

Date: 06.08.2015



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

DY CME/Eur
RAIL COACH FACTORY
LALGANJ
RAEBARELI

Ssg/ail
उप मुख्या.अभि./फर्नि.
DY CME/FURNISHING
रेल कोच फैक्ट्री / रायबरेली / लालगंज
RCF / RBL / LLJ

Contract Agreement no: M-200/EXT.PTG/14-16/0007 DATE 22.06.2015

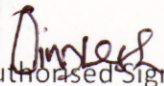
WARRANTY CERTIFICATE NO:EMP/AUG/2015

This is to certify that POLYURETHANE PAINTING work done under your contract no: M-200/EXT.PTG/14-16/0007 date 22.06.2015 has been completed on:

SL	COACH TYPE	RCF/RBL Furnishing no	Completion date	Coach Number	Railways
1.	LWACCW-52029 ✓	L2T-137	08.08.2015	158056/C ✓	SE

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/100/2013. 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


(Authorized Signatory)



AUTHORISED DISTRIBUTORS :
INDUSTRIAL BUSINESS
RAIL TRANSPORT

