



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: 04/05/2016

SHELL NO.	L	W	A	C	C	W	5	2	0	1	5	/	1	5	-	1	6	DATE OF DISPATCH	2	3	1	1	2	0	1	5
RLY	E	R	Type	L	W	A	C	C	W	Coach No.	1	5	0	5	7	/	c	-								

- Railway Board's Order No. : 2015/M(C)142/1/DATED-13.10.2015
- Tare Weight of Coach : 44.5 Tonnes
- 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) 1097(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 4035 NPP END 4037

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.	NEROLAC	93/89
2.	Insulation		Satisfactory	



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ROLLING STOCK CERTIFICATE

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Date: 21/01/2016

SHELL No.	R	B	L	-	5	2	0	1	5	-	2	0	1	5	-	1	6	DATE OF DISPATCH	2	3	/	1	1	/	1	5
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RLY	E	R	Type	L	W	A	C	C	W	Coach No.	1	5	0	5	7	/	C		
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8. DETAIL OF BOGIES :

ITEMS	PP Side				NPP Side			
Bogie No	150102				150104			
Bogie Type	FIAT				FIAT			
Frame no.	EC-13				RBL-111			
Bolster no.	RBL-111				RBL-127			
Axle No	105679 CHT 14		106349 CHT 14		131941 CHT 13		106654 CHT 14	
Wheel Dia	915.728	915.483	915.7	915.6	915.789	915.494	915.647	915.481
Wheel Disc No	ZB2014 003-11610	ZB2014 050-11610	ZB2014 151-11610	ZB2014 033-11610	ZB2014 124-11605	ZB2014 270-10582	ZB2014 727-11607	ZB2014 042-10582
R.B. Nos.	04-14-32778	05-14-37881	04-14-32765	05-14-38618	04-14-03012	05-14-38632	05-14-38034	05-14-20036
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.	DN12 P 2437T	G 13-3 4325	DN12 P 2344T	G 13-3 4417	DN12 W 2872T	G 13-3 4642	DN12 S 2530T	G 13-3 4404
Compressed Ht. at Tested Load	506	468	506	467	508	467	510	466
Alignment deviation (mm)	20	15	24	17	19	14	22	14

10. TRACEABILITY OF BOGIE ITEMS:

S. NO	ITEM	SERIAL NO.		MAKE
		PP SIDE	NPP SIDE	
1.	Primary outer Spring	2891 (646,583,610,840)	2891(261,593,637),2101 (1702)	RSK
2.	Primary Inner Spring	1702(2525,2144,2606,2520)	1702(2609,2566,2522,2635)	RSK
3.	Primary Damper	2014-06(21263,21119),2014-09(23796,23885)	2014-09(23896,23874,23887,23966)	KONI
4.	Secondary Damper	301550333 KW (14/2014,14/2015)	301550333 KW 14/2015	GEREP
5.	Lateral Damper	301550332 KW 44/2014	25/2014-2717	GEREP/ KONI
6.	Brake Cylinder	595 K29, 646 K29, 644 K29, 596 K29	619 K29, 687 K29, 688 K29, 620 K29	KBI
7.	Brake Caliper	559-29, 621-29, 619-29, 560-29	583-29, 645-29, 634-29, 584-29	KBI
8.	Brake Disc	24057876-0001 21/15, 24057876-0005 21/15 24057873-0015 21/15, 24057875-0011 21/15	24058113-0011 23/15, 24058115-0020 23/15 24057875-0004 21/15, 24057875-0003 21/15	KBI
9.	Ball Joint Control Arm			GMT
10.	Lateral Bump Stop			GMT
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



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RLY	E	R	Type	L	W	A	C	C	W	Coach No.	1	5	0	5	7	/	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 Frequency	REFERENCE & PERIOD OF TRIAL

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
MCF/RBL

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

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

ABBREVIATIONS USED

S. N.	ITEMS	CODE	MAKE	SUPPLIER
1	Spring	GF	M/s Federnwerke J.P Grueber, Germany	M /s Pan India Consultant Pvt.Ltd 105 Phase -IV Udyog Vihar, Gurgoan-122015 Haryana
		CVFSK	M/s Frontier Springs Ltd, Kanpur	M/s Frontier Springs Ltd, Kanpur
		CMGBD/GB	M/s G.B. Springs (P) Ltd, Dehradun	M/s G.B. Springs (P) Ltd, Dehradun
		BPS	M/s B.P. Springs &Engineering Co. Pvt. Hwh	M/s B.P. Springs &Engineering Co. Pvt. Hwh
		HZ	M/s Hanacke Zelezarny A Perovny, Czech Re Public	M/s Abrol Egeineering Co. Pvt Ltd, KXH
		L&S	M/s Langen &Sondermann GMBH &Co.KG, Germany	M/s Abrol Egeineering Co. Pvt Ltd, KXH
2	Dampers	GEREP	M/s GEREP MASCHINENBAU Gmbh, alter postweg 10, 29556Suderburg	M/s SFT Engineering KOLKATA
		KONI	M/s KONI Shock Absorbers Beyerland, Lageweg	M /s Pan India Consultant Pvt.Ltd 105 Phase -IV Udyog Vihar, Gurgoan-122015 Haryana
		SV	M/s Suomen Vaimennin OY Finland	River Engineering Pvt. Ltd. Plot no. 54-55 Toy City Ecotech-III Greater noida UP
		KBI		
		FTI	Knorr Bremse India Private Limited.	14/6, Mathura Road, Faridabad, 121003, India
			Faiveley Transport India	Faiveley Transport India Plot No. 3A , Bhatoli, Baddi, Distt:- solan (HP)
3	Rubbers items	GMT	M/s Gummi-Metall-Technik Gmbh, ErlenstraBe 15,D-77815 Buhl	Sh. K Lakshman of M/s Gummi-Metall-Technik 27C, KIAB Industrial area Bidadi, Bangalore
		SGA	M/s SGA Societa Gomma Anti Vbrante S.R.L 2009Opera (MI) Via Laubro 45147 Italy	M /s Pan India Consultant Pvt.Ltd 105 Phase -IV Udyog Vihar, Gurgoan-122015 Haryana
		MGN	M/s MGN, C/Calvario s/n 28864 Ajalvir Madrid	M/s Abrol Egeineering Co. Pvt Ltd, KXH
		MTC	M/s Metalo Caucho Spain	M/s MTC India Polymer Product Pvt. Ltd. Bangalore
		EMSON	Emson Tools Mfg Corporation Limited	D-2 Focal Point, Dhandari Kalan Ludhiana
		SARITA	Sarita Forgings Pvt.	2nd Km Milestone, G.T. Road, Vill Rajgarh, Doraha, Ludhiana

quality/fur/springdetails



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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG 2T AC COACHES

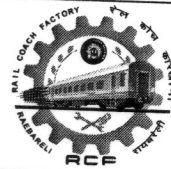
ELECTRICAL TEST CERTIFICATE FOR LHB/EOG AC COACHES

TYPE COACH	LWACCW	SHELL/COACH NO	15057/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	29.02 Cub mtr/min	OK
3.2	Return Air	69.98 Cub mtr/min	OK
3.3	Exhaust Air	5.28 Cub mtr/min	OK
3.4	Conditioned Air	177.99 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 : 22.6°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	

P. Kumar
**Senior Section Engineer
Quality control / Electrical
Rail Coach Factory Raebareli**



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FOR ELECTRICAL ITEMS

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ELECTRICAL TEST CERTIFICATE FOR LHB EOG AC COACHES

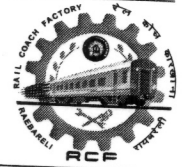
Sr no	Description of test	Remarks
6.0	HUMIDITY CONTROL	OK
7.0	PUMP EQUIPMENTS	OK
8.0	WORKING OF EXHAUST FANS OVER LAVATORIES	OK
9.0	WORKING OF COMPOSITE PANTRY	OK
10.0	BERTH READING LIGHTS	OK
11.0	COMPARTMENT LIGHT	OK
12.0	PUBLIC ADDRESSING SYSTEM (PAS)	OK
13.0	WHEEL SLIDE PROTECTION SYSTEM (WSP)	OK
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	SAFETIES :	
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	OK

R 407C

**Senior Section Engineer
Quality control / Electrical
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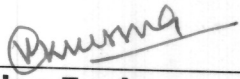
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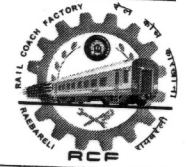
ROLLING STOCK CERTIFICATE OF LHB/EOG 2T AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
01.	Roof Mounted AC package unit for LHB AC coaches Make : INTEC Sr no of RMPU 1(NPP side): 15-E-343 Sr no of RMPU 2(PP side): 15-E-336 Sr no of Microprocessor: 15.07.116/SDWL	As per rdso/pe/spes/ac/0061/rev-1/2005	02
02.	Switch board cabinet Make : TRANSTEL Sr no : 020-07/2015	As per spec no .EDTS073,REV-D,AM-6	01
03.	Pump equipment with PLC controller & pump box Make: KALSI Sr no PA- 4187/10/14 Sr no.1- 251777/10/14 Sr no.2- 251778/10/14 Sr no.CPA- 4137/10/14	As per spec EDTS 186,Rev-a, Am- 2	01
04.	Double inlet centrifugal blower 415V/03Ph /50Hz /120W/450 cummtr/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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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

[Signature]
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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 drgno 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 : INTEG	LW 71002,Alt-F	01
29.	Regulated battery charger Make : HIREL Sr no: 15060324	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	01
30.	Emergency battery charger Make : BHASIN Sr no: 09140778	EDTS 163,Rev `c` corg.-2&3	01
31.	60KVA transformer Make : VIMAL Sr no : 2921	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 : MAA LAXMI INDUSTRIES	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 : 0114321303	M/s : KNORR	01 set
36.	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

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

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