



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: 05/05/2015

SHELL No.	L	W	A	C	C	N	4	1	2	9	-	2	0	1	4	DATE OF DISPATCH	3	1	0	3	2	0	1	5
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RLY	C	R	Type	L	W	A	C	C	N	Coach No.	1	4	1	1	1	/	C
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- Railway Board's Order No. : 2014/M(C)/142/3 dated 21.07.2014
- Tare Weight of Coach : 45.6 Tonnes
- Carrying Capacity : (a) Seating : 72 (b) Sleeping : 72 (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	4250	
4.	CBC height/Buffer height from Rail level 1105 +0/-15	1) 1105(NPPE)	2) 1104 (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	3797	NPP END	3803

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 DETAILS:

S NO	DESCRIPTION	TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE
1.	Paint	P.U.	ADVANCE	88/87
2.	Insulation	Satisfactory		



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ROLLING STOCK CERTIFICATE

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Date: 22/04/2015

SHELL No.	L	W	A	C	C	N	-	4	1	2	9	-	1	4	-	1	5	DATE OF DISPATCH	3	1	/	0	3	/	1	5
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8. DETAIL OF BOGIES :

ITEMS	PP Side				NPP Side			
Bogie No	150013				150014			
Bogie Type	FIAT				FIAT			
Frame no.	SC-20				SC-23			
Bolster no.	RBL-08				RBL-34			
Axle No	W 451586980		A3248 B 3122		CHT13 129010 1300 1986		CHT12 114200 1200 0374	
Wheel Dia	916	916	916	916	917	917	917	917
Wheel Disc No	ZB 2013 118 50842 W467	ZB 2013 133 46433 W467	ZB 2013 196 50846 W467	ZB 2013 126 51782 W467	ZB 2013 290 46820 W467	ZB 2013 006 46889 W467	ZB 2013 004 46820 W467	ZB 2013 209 46889 W467
R.B. Nos.	V04-14 30229	V04-1430233	07 14 01840	06 14 01602	07 14 02566	06 14 00850	07 14 02366	07 14 01995
CT R B Make	SKF		TIMK		TIMK		TIMK	

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.	CMGBD 08 14 83642	DN12 C 1614C	CMGBD 08 14 83642	DN12 B 1495V	CMGBD 08 14 83642	DN12 D 1825V	CMGBD 08 14 83642	DN12 C 1602V
Compressed Ht. at Tested Load	515	463	515	468	511	464	510	464
Alignment deviation (mm)	8	17	8	13	7	15	8	17

10. TRACEABILITY OF BOGIE ITEMS:

S NO	ITEM	SERIAL NO		MAKE
		PP SIDE	NPP SIDE	
1.	Primary outer Spring			L&S
2.	Primary Inner Spring			CMGBD
3.	Primary Damper			KONI
4.	Secondary Damper			KONI
5.	Lateral Damper			KONI
6.	Brake Cylinder & Caliper			KBI
7.	Brake Disc			KBI
8.	Ball Joint Control Arm			MGN
9.	Lateral Bump Stop			GMT
10.	Traction Centre make			EMSON
11.	Traction lever make			SARITA
12.	Ball joint traction lever			WINLANE
13.	Ball joint traction centre			GMT
14.	Secondary Rubber Pad			TECSPAK
15.	Rubber Spring			GMT
16.	Anti roll bar make			SARITA
17.	Roll Link make			SARITA
18.	Fork make			SARITA

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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	14K0876
2.	Pull box	M/s KBI ,Faridabad ,New Delhi	
3.	DV	M/s KBI ,Faridabad ,New Delhi	2014K1401
4.	PVC	M/s Responsive Industries, Mumbai	
5.	UIC Vestibule (PPE)	M/s Suncrest Ind. West Bengal	
6.	UIC Vestibule (NPPE)	M/s Suncrest Ind. West Bengal	
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 Aikon Technology Pvt. Ltd. Solan H.P	
12.	Roof Ceiling	M/s KAE Engg. Pvt. Ltd. Satarganj, U.K.	
13.	Non-AC Area Ceiling	M/s Amirchand Eng. Works Jalandhar	
14.	Supply Air Duct	M/s Amirchand Eng. Works Jalandhar	
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 Amit Engineers, Baddi (HP)	
21.	Auxiliary Water Tank	M/s Manoj Enterprises Mohali	
22.	Under Slung Water Tank(450 L)	M/s Shivalik Fastener Mohali PB	
23.	Under Slung Water Tank(2X685L)	M/s Amit Engineers 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 seemex 2740/2741	
30.	Side Wall panel	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
31.	Seat & Berth	M/s Oriental VENEER Products Ltd.Delhi	
32.	Light Luggage Rack	M/s Virendra Steel Enterprises Chandigarh	
33.	Snack Table	M/s Anjani Technology Noida	
34.	Yaw Damper	M/s Koni	70627,70086 (NPP) 70151,70458(PP)



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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 qualityrcfbl@gmail.com

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

SSE/QC
RCF/RBL

सीनियर सेक्शन इंजीनियर (क्वालिटी कन्ट्रोल)
रेल डिब्बा कारखाना, रायबरेली



Govt. of India- Ministry of Railways
(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	14111/C
RAILWAY		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	29.12 Cub mtr/min	OK
3.2	Return Air	77.65 Cub mtr/min	OK
3.3	Exhaust Air	9.15 Cub mtr/min	OK
3.4	Conditioned Air	214.13 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 Not done due to ambient temp below 22 ⁰ 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 due to ambient temp below 22 ⁰ C		OK

[Signature]
Senior Section Engineer
Quality control / Electrical
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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	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 :	OK
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	R 407C OK

(Signature)
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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) : 1025 F 14 Sr no of RMPU (PP side) : 1027 F 14 Sr no of Microprocessor: AE 14-09-327/AMIT	As per rdso/pe/spes/ac/0061/rev-1/2005	02
02.	Switch board cabinet Make: ABROL ENG. Sr no : 189/12-2014	As per spec no . EDTS073,REV-D,AM-6	01
03.	Pump equipment with PLC controller & pump box Make: KALSI Sr no PA: 4205/10/2014 Sr no.1: 251813/10/2014 Sr no.2: 251814/10/2014 Sr no.CPA: 4209/102014	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)
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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 16A/250V/AC ONE WAY complete with steel plate & cover frame	EDML 045,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 : A.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

(Signature)

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RCF, Raebareli**



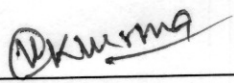
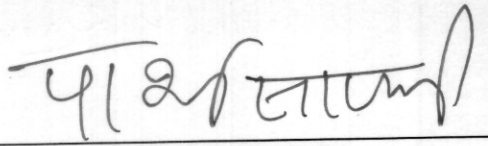
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ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

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 : NEC	As per LW 71002,Alt-F	01
24.	Regulated battery charger Make : HI-RELL Sr no: 14100099	As per RDSO/pe/spec/ac/01 29, Rev.-1 (2009)	01
25.	Emergency battery charger Make : BHASIN Sr no: 04140474	EDTS 163,Rev `c` corg.-2&3	01
26.	60KVA transformer Make : VIMAL Sr no : 2361	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 : NEC	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: KNORR Sr no : 0114201200	M/s : KNORR	01 set
31.	PANTRY EQUIPMENTS : Hot Case & Bottle cooler cum deep freezer Make : S D ENGINEERS	As per spec no EDTS 139, Rev- E ,Sec II.	01

 SSE/EL/QC	 DYCEE(P)/RCF/RBL
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वरिष्ठ खण्ड अभियंता
विद्युत उत्पादन-गुणवत्ता
रेल कोच फॅक्टरी / लालगंज / रायबरेली
Sr. Section Engineer
Electric Production - Quality
RCF / RBL / LLJ

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