L3T- 202

RCF/RBL

रेल डिब्बा कारखाना, रायबरेली
RAIL COACH FACTORY, RAEBARELI

RCF

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

ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: RCF/RBL/QC/RSC Date: 02/09/2015

SHELL No.	L	W	A	C	C	N	4	1	2	4	/	1	4	-	1	5	DATE OF DISPATCH	1	8	0	4	2	0	1	5

RLY	C	R		Type	L	W	A	C	C	N		Coach No.	1	4	1	1	4	/	C	

1. Railway Board's Order No. : 2014/M(C)/142/1 dtd 21.07.2014
2. Tare Weight of Coach : 45.6 Tonnes
3. 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) 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	3833	NPP END	3838

6. AIRBRAKE TEST REPORT:

S NO	ITEM	DESCRIPTION	SPEC. VALUE	OBSERVED
1.	Full brake application	➢ 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/cm². OK	7 Sec. 3.0 kg/cm² OK
2.	Insensitivity	➢ Exhaust BP @ 0.3 kg/cm²/min.	No brake application	OK
3.	Sensitivity	➢ 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	VIGBYOR	88/87
2.	Insulation	Satisfactory		

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

ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: RCF/RBL/QC/RSC Date: 12/05/2015

SHELL No.	LWACCN-4124-14-15	DATE OF DISPATCH	18/04/15

RLY	CR	Type	LWACCN	Coach No.	14114/C

8. DETAIL OF BOGIES :

ITEMS	PP Side				NPP Side			
Bogie No	150015				150016			
Bogie Type	FIAT				FIAT			
Frame no.	SC-06				SC-05			
Bolster no.	RBL-28				RBL-44			
Axle No	CHT-14105729 14000626		2.4370RWF109291		W 4597 C 20401 RWF 2014		C 22523 C 4034 RWF 2014	
Wheel Dia	915	915	915	915	916	916	916	916
Wheel Disc No	ZB 2012 021 45656 W467	ZB 2013 076 48744 W467	ZB 2013 326 50796 W467	ZB 2013 143 46889 W467	ZB 2013 156 50792 W467	ZB 2013 138 50796 W467	ZB 2013 24 50796 W467	ZB 2013 020 46889 W467
R.B. Nos.	V 06 14 25216	V 06 14 23546	V 06 14 25210	V 05 14 20047	V 05 14 20046	V 06 14 26211	V 06 14 24305	V 06 14 25211
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.	CMGBD 08 14 83642	DN12 C 1605V	CMGBD 08 14 83642	DN13 D 1792V	CMGBD 08 14 83642	DN13 E 2018V	CMGBD 08 14 83642	DN12 C 1669V
Compressed Ht. at Tested Load	515	468	515	469	513	461	513	463
Alignment deviation (mm)	8	9	8	7	8	21	8	20

10. TRACEABILITY OF BOGIE ITEMS:

S. NO	ITEM	Serial No.		MAKE
		PP SIDE	NPP SIDE	
1.	Primary outer Spring	G 12-10	02-13 CV & 03-13 CV	G,L&S
2.	Primary Inner Spring	05 14 14328 (CMGBD)	12127143-90 (CVFSK) & 05-14 14328 (CMGBD)	CMGBD, CVFSK
3.	Primary Damper	22571, 21403, 23174, 23011	21337, 23183, 23142, 23212	KONI
4.	Secondary Damper	3771, 3610	3274, 3402	KONI
5.	Lateral Damper	2727 (25/2014)	2515 (25/2014)	KONI
6.	Brake Cylinder	531K29, 575K29, 574K29. 529K29	299K29, 577K29, 498K29,539K29	KBI
7.	Brake Caliper	498 29, 550 29, 549 29, 493 29	298-29, 552-29, 496-29, 503-29	KBI
8.	Brake Disc	0614 1454777 , 10141477335(FTIL) 24042686001035/14, 24042686000935/14 (KBI)	10141477394 , 10141477830(FTIL) 24042686000635/14, 24042687000735/14 (KBI)	KBI, FTIL
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			TECSAK
16.	Rubber Spring			GMT
17.	Anti roll bar make			SARITA
18.	Roll Link make			SARITA
19.	Fork make			SARITA

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RLY	C	R		Type	L	W	A	C	C	N		Coach No.	1	4	1	1	4	/	C	

11. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/s KBI ,Faridabad ,New Delhi	PASS 14K0851
2.	Pull box	M/s KBI ,Faridabad ,New Delhi	
3.	DV	M/s KBI ,Faridabad ,New Delhi	2014J1386
4.	PVC	M/s Responsive Industries, Mumbai	
5.	UIC Vestibule (PPE)	M/s Suncrest Industries, West Bengal	
6.	UIC Vestibule (NPPE)	M/s Ameenji Rubber 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 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 Interprises, Mohali Punjab	
22.	Under Slung Water Tank(450 L)	M/s Shivalik Fastener , Mohali Punjab	
23.	Under Slung Water Tank(2X685L)	M/s Shivalik Fastener , 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 Fire maties Gurgaon Hariyana	2199/2013, 2170/2013
30.	Side Wall panel	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
31.	Seat & Berth	M/s Oriental Veneer Products Pvt. Ltd. Thane Mumbai.	
32.	Light Luggage Rack	M/s Virendra Steel Enterprises Chandigarh	
33.	Snack Table	M/s Anjani Technology Noida	
34.	Yaw Damper	M/s Koni	NPP(70306,70297), PP(70089,70125)

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ROLLING STOCK CERTIFICATE

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

Date: 02/09/2015

SHELL No.	L	W	A	C	C	N	4	1	2	4	/	1	4	-	1	5	DATE OF DISPATCH	1	8	0	4	2	0	1	5

RLY	C	R		Type	L	W	A	C	C	N		Coach No.	1	4	1	1	4	/	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:

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

SSE/QC
RCF/RBL
सीनियर सेक्शन इंजीनियर (क्वालिटी कन्ट्रोल)
रेल डिब्बा कारखाना, रायबरेली

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

Govt. of India- Ministry of Railways
(RAIL COACH FACTORY-RAEBARELI)

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**	**14114/C**
RAILWAY	**CR**	**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 PREACTICE 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	**29.49** Cub mtr/min	OK
3.2	Return Air	**88.41** Cub mtr/min	OK
3.3	Exhaust Air	**8.36** Cub mtr/min	OK
3.4	Conditioned Air	**224.68** 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 :**22.1 ^{0}C** NPP Side :**21.7 ^{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		OK

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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

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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) :**1122-H** Sr no of RMPU (PP side) :**1126-H** Sr no of Microprocessor:**AE.14.06.187.AMIT**	As per rdso/pe/spes/ac/0061/ rev-1/2005	**02**
02.	Switch board cabinet Make: **ABROL** Sr no :**175**	As per spec no . EDTS073,REV-D,AM-6	**01**
03.	Pump equipment with PLC controller & pump box Make: **KALSI** Sr no PA: **4178/10/2014** Sr no.1:**251495/10/2014** Sr no.2:**251496/10/2014** Sr no.CPA:**4192/10/2014**	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**

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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**

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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 :**HI-RELL** Sr no:**14100104**	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	**01**
25.	Emergency battery charger Make :**WAVES** Sr no:**WEBCH-14641**	EDTS 163,Rev `c' corg.-2&3	**01**
26.	60KVA transformer Make :**VIMAL** Sr no :**2300**	As per rdso/pe/spec/ac/0080/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 earthling equipment. Make :**CHANDA & CHANDA**	EDTS101,REV-C,AM-1	**02**
30.	Wheel Slide Protection System (WSP) Make: **KNORR** Sr no :**0114231242**	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 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 अभियंता (उत्पादन) रेल कोच फैक्ट्री-रायबरेली, लालगंज DY.CEE/P-RCF/RBL/LLJ