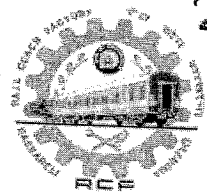


रेल डिब्बा कारखाना, रायबरेली
RAIL COACH FACTORY, RAEBARELI



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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: 07/06/2016

SHELL No.	L	W	A	C	C	N	5	0	4	1	-	1	5	-	1	6	DATE OF DISPATCH	1	9	0	3	2	0	1	6
RLY	S	E	R	Type	L	W	A	C	C	N	Coach No.	1	5	8	1	3	3	/	c						

Railway Board's Order No. : 2015/M(C)/142/1 dtd 11.12.2015

- Tare Weight of Coach : 45.6 Tonnes
- Carrying Capacity : (a) Seating : 72 (b) Sleeping : 72 (c) Luggage : NIL
- 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) 1095(NPPE) 2) 1105(PPE)

4. TRACEABILITY OF SHELL ITEMS:

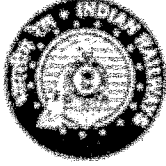
S NO	ITEM	MAKE/SUPPLIER	SERIAL NO			
1.	Buffers	N.A.				
2.	Centre Buffer Coupler	M/s ESCORTS	PP END	4448	NPP END	4401

5. AIRBRAKE TEST REPORT:

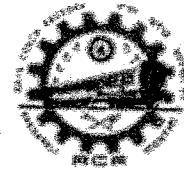
S NO	ITEM	DESCRIPTION	SPEC. VALUE	OBSERVED
1.	Full brake application	<ul style="list-style-type: none"> Reduce pressure of BP from 5.0 to 3.4 kg/cm². Max. pressure in BC All Brake are applied 	6 - 10 sec. 3.0 ± 0.15 kg/cm ² . OK	8 Sec. 3.0 kg/cm ² OK
2.	Insensitivity	<ul style="list-style-type: none"> 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

6. PAINTING DETAILS:

S NO	DESCRIPTION	TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE
1.	Paint	P.U.	ADVANCE	91/89
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.: MCF/RBL/QC/RSC

SHELL No.	R	B	L	-	5	0	4	1	-	2	0	1	5	-	1	6	DATE OF DISPATCH	1	9	/	0	3	/	1	6
RLY	S	E	Type	L	W	A	C	C	N	-	Coach No.	1	5	8	1	3	3	/	C	-					

8. DETAIL OF BOGIES :

ITEMS	PP Side				NPP Side			
Bogie No	150336 (MCF/RBL)				150335 (MCF/RBL)			
Bogie Type	FIAT				FIAT			
Frame no.	BEC-118				BEC-126			
Bolster no.	RBL-302				RBL-353			
Axle No	127964 CHT 13		106656 CHT 14		C 24389J-8337		C 25946J-8452	
Wheel Dia	915.738	915.711	915.773	915.697	915.810	915.798	915.790	915.739
WheelDisc No	6192-00053 VR 15	6228-00091 VR 15	6192-00029 VR 15	6192-00102 VR 15	6202-00146 VR 15	6208-00036 VR 15	6228-00134 VR 15	7172-00077 VR 15
R.B. Nos.	05-15-06259	05-15-06253	05-15-06199	02-15-02366	05-15-06429	05-15-06093	05-15-06311	02-15-02933
CT R B Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	

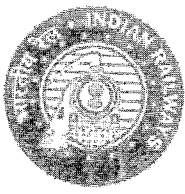
9. SECONDARY SUSPENSION LOAD DEFLECTION VALUES

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.	G-15-11-806	RSK-568	G-15-11-777	RSK-564	G-15-11-830	RSK-891	G-15-11-831	RSK-030
Compressed Ht. at Tested Load	513	468	515	467	513	464	512	464
Alignment deviation (mm)	15	42	13	40	14	32	15	34

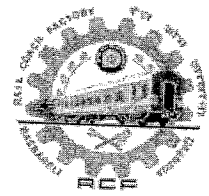
10. TRACEABILITY OF BOGIE ITEMS:

S. NO	ITEM	SERIAL NO.		MAKE
		PP SIDE	NPP SIDE	
1.	Primary outer Spring	RSK (309,143,656,131)		RSK
2.	Primary Inner Spring	CVFSK 01-15 7143-143-67,CVFSK 06-15 7143 167(69,24,51)		CVFSK
3.	Primary Damper	2015-08 (27934,27911,27897,27913)		KONI
4.	Secondary Damper	36-2015 (6380,6641)		KONI
5.	Lateral Damper	37-2015 3860		KONI
6.	Brake Cylinder	1285 K 29,1368 K 29,1329 K 29,1283 K 29		KBI
7.	Brake Caliper	1248-29,1344-29,1305-29,1246-29		KBI
8.	Brake Disc	24046175 0003 51/14,24046175 0007 51/14 24055164 0006 11/15,24051407 0024 09/15		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			GMT,SGA
14.	Ball joint traction centre			SGA
15.	Secondary Rubber Pad			TECSPAK
16.	Rubber Spring			GMT
17.	Anti roll bar make			SARITA
18.	Roll Link make			SARITA/GMT
19.	Fork make			SARITA

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रेल डिब्बा कारखाना, रायबरेली
RAIL COACH FACTORY, RAEBARELI



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

ROLLING STOCK CERTIFICATE

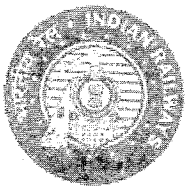
Rolling Stock Certificate No.: MCF/RBL/QC/RSC

Date: 07/06/2016

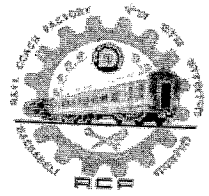
SHELL No.	L	W	A	C	C	N	5	0	4	1	-	1	5	-	1	6	DATE OF DISPATCH	1	9	0	3	2	0	1	6
RLY	S	E	R	Type	L	W	A	C	C	N	Coach No.	1	5	8	1	3	3	/	c						

11. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/s KBI, Faridabad, New Delhi	
2.	Pull box	M/s KBI, Faridabad, New Delhi	15E1024
3.	DV	M/s KBI, Faridabad, New Delhi	
4.	PVC	M/s Premier Polyfilm Ltd. Sahibabad	2015E1582
5.	UIC Vestibule (PPE)	M/s Suncrest.Rubber Pvt.Ltd,West Bengal	
6.	UIC Vestibule (NPPE)	M/s Suncrest.Rubber Pvt.Ltd,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 Birken Engg.Pvt,Ltd,GZB	
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 Sataraganj U.K.	
13.	Non-AC Area Ceiling	M/s Gandhi Enterprises, Jalandhar	
14.	Supply Air Duct	M/s Amirchand Engg. 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.	Bio Tank	M/s OASIS Fabricator's	
21.	Auxiliary Water Tank	M/s Shivalik Fastener Mohali PB	
22.	Under Slung Water Tank(450 L)	M/s Amit Engineers, Mohali PB	
23.	Under Slung Water Tank(2X685L)	M/s Shivalik Fastener Mohali PB	
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 Fox	
30.	Side Wall panel	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	NPP 438 ,PP 026
31.	Seat & Berth	M/s Savitri Engg. Products Pontasahib HP	
32.	Light Luggage Rack	M/s Techno India ,ALD.	
33.	Snack Table	M/s International Tractor's Limited,Hoshiarpur	
34.	Yaw Damper	M/s KONI M/s KONI Supplier- M/s Pan India Consultant Pvt.Ltd 105 Phase -IVUdyog Vihar, Gurgoan-122015 Haryana	NPP-72869,72544 PP-72924,72522



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: 07/06/2016

SHELL No.	L	W	A	C	C	N	5	0	4	1	-	1	5	-	1	6	DATE OF DISPATCH	1	9	0	3	2	0	1	6
RLY	S	E	R	Type	L	W	A	C	C	N	Coach No.	1	5	8	1	3	3	/	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:

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

[Signature]
DY CME
MCF/RBL
उप नि. / फनि.
DY CME/FURNISHING
रेल कोच फैक्ट्री / रायबरेली / लालगंज
RCF / RBL / LLJ

[Signature]
सहायक यंत्रियन्ता/ गुणवत्ता
Asst. Mechanical Engineer/ Qa: V
रेल डिब्बा कारखाना, लालगंज, रायबरेली
Rail Coach Factory, Lalganj, Raebareli



3T-299

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



RCF/RBL/QEF8001
VER. 10.08.2015
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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	158133/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	30.57 Cub mtr/min	OK
3.2	Return Air	88.17 Cub mtr/min	OK
3.3	Exhaust Air	11.12 Cub mtr/min	OK
3.4	Conditioned Air	209.56 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°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°C		OK

(Signature)
**Senior Section Engineer
Quality control / Electrical
RCF, Raebareli**





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



RCF/RBL/QEF8001

VER. 10.08.2015

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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	SAFETY ITEMS	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

Senior Section Engineer
Quality control / Electrical
RCF, Raebareli





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



RCF/RBL/QEF8001

VER. 10.08.2015

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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 : LEEL Sr no of RMPU 1 (NPP side): 15.11.1165 Sr no of RMPU 2(PP side) : 15.11.1180 Sr no of Microprocessor: SA.15.10.099	As per rdso/pe/spes/ac/0061/rev -1/2005	02
02.	Switch board cabinet Make : AMIT Sr no : AE/SB/-126	As per spec no . EDTS073,REV-D,AM-6	01
03.	Pump equipment with PLC controller & pump box Make : DR AUTO Sr no PA- 2015-09-017 Sr no.1- 1509106 Sr no.2- 1509061 Sr no.CPA- 2015-09-0051	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)

**Senior Section Engineer
Quality control / Electrical
RCF, Raebareli**





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



RCF/RBL/QEF8001

VER. 10.08.2015

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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- C, Item 1.	09
18.	Single switch 06A/250V/AC ONE WAY complete with steel plate & cover frame	EDML 047,Rev-A, Item 2.	09
19.	Provision of switch socket combined 5PIN (06A, 250V AC) along with 1A glass fuse fitted powder coated steel plate & cover	As per cat no EL-243 (EL signature series) of M/s SSK	09
20.	PA system for LHB coaches Make : AHUJA	EDTS 173,Rev- a Am- 1,2&3	01 set
21.	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 : 05/2015	EDTS 129,Rev nil	01 set
22.	Battery box for LHB coaches.	1 10113 0 76 700 005 w/o item 5, 22, 23, 26 & 27.	01

**Senior Section Engineer
Quality control / Electrical
RCF, Raebareli**





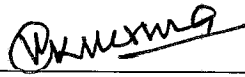

Govt. of India- Ministry of Railways
(RAIL COACH FACTORY-RAEBARELI)



RCF/RBL/QEF8001
VER. 10.08.2015
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ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
23.	Battery fuse box +ve Make : ABROL	As per LW 71001,Alt-F	01
24.	Battery fuse box -ve Make : ABROL	As per LW 71002,Alt-F	01
25.	Regulated battery charger Make : HIREL Sr no : 15090487	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	01
26.	Emergency battery charger Make : WAVES Sr no : WEBCG-151109	EDTS 163,Rev `c` corg.-2&3	01
27.	60KVA transformer Make : VIMAL Sr no : 3118	As per rdso/pe/spec/ac/0080/rev -0 (2007)/Am-1&2/Corr. 1,2&3	01
28.	ZS coupling 400A/750V/03Ph/50hz. Make : MAA LAXMI INDUSTRIES	As per spec No EDTS 105,Rev `e` Am-2	02 sets
29.	Feeder junction boxes. Make : NEC	EDML 020, Rev- I/EDTS-328 REV-C.	02
30.	Wheel set earthing equipment. Make : DARSHAN & CHANDA	EDTS101,REV-C,AM-1	02
31.	Wheel Slide Protection System (WSP) Make : KNORR & Sr no : 0115111496	M/s : KNORR	01 set
32.	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
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वसिष्ठ खण्ड अभियंता
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

