

437-401

आधुनिक रेल डिब्बा कारखाना, रायबरेली

MODERN COACH FACTORY, RAEBARELI

FORM NO: RCF/RBL/QMF 8002
VERSION: 2016-01-13

ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2016-17/058

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

- Railway Board's Order No. : 2016/M(C)142/1 Dtd. 12.05.2016
- 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) 1098 (NPPE) 2) 1104 (PPE)

5. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Underframe	M/s E.C. Blades & Tool Chandigarh	PP END 53159 NPP END 53159
	Front Part		
	Complete	MCF/RBL	
2.	Side wall	MCF/RBL	RH 53159 LH 53159
3.	End wall	NPP- M/s Rail Tech KXH	PP END 53159 NPP END 53159
		PP-M/s Rail Tech KXH	
4.	Roof	MCF/RBL	
5.	Centre Buffer Coupler	M/s FAIVELY	PP END B16050 NPP END FP0050992
6.	Buffers	N.A.	

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	7 sec. 3.0 kg/cm ² OK
2.	Insensitivity	Exhaust BP @ 0.3 kg/cm ² /min.	No brake application	OK
3.	Sensitivity	Exhaust BP @ 0.1 kg/cm ² /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	M/s VIBGYOR	95/95
2.	Insulation		Satisfactory	

वरिष्ठ अभियंता
SSE/QC/MCF/RBL
रेल डिब्बा कारखाना, रायबरेली (बालगंज)



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RLY	N	R	-	Type	L	W	A	C	C	N	Coach No.	1	6	3	9	4	8	/	C
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8. DETAIL OF BOGIES :

ITEMS	PP Side				NPP Side			
Bogie No	160046				160045			
Bogie Type	LWACCN				LWACCN			
Frame no.	SCI/FM-466				SCI-474			
Bolster no.	MCF/RBL-0369				BEC-02			
Axle No	K 6051		N 0607		N-0765		K-6039	
Wheel Dia	915	915	915	915	915	915	915	915
Wheel Disc No	7277-00084 VR 15	07302-00158 VR 15	07302-00159 VR 15	7303-00036 VR 15	7270-00025 VR 15	7270-00030 VR 15	7283-00143 VR 15	7277-00062 VR 15
R.B. Nos.	02-15 02220	03-15 03585	02-15 02742	03-15 03561	02-15 02823	03-15 04226	02-15 02097	03-15 04334
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.	CMAFJ02-16-88-36	CVFSK04-16-9513-193-68	CMAFJ02-16-88-36	CVFSK04-16-9513-193-251	CMFSK02-16-8836-188-78	CVFSK04-16-9513-198-258	CMFSK02-16-883-109	CVFSK03-16-9513-193-270
Compressed Ht. at Tested Load	515	468	515	468	514	465	514	466
Alignment deviation (mm)	3	9	5	10	9	6	7	6

10. TRACEABILITY OF BOGIE ITEMS:

S. NO	ITEM	SERIAL NO.		MAKE
		PP SIDE	NPP SIDE	
1.	Primary outer Spring	RSK03 WA (263,220,339),RSK3810-2891	RSK03 WA (331,083,192,131)	RSK
2.	Primary Inner Spring	CVFSK12-15-7143-186(111,22,101,26)	CMGBD 02-16-143-72(69,38,187,102)	CVFSK/CMGBD
3.	Primary Damper	KW 37-2015 301530049	KW 37-2015 301530049	GEREP
4.	Secondary Damper	KNORR 03-16(0218,0181)	KNOOR-BREMSE03-16(182,0199)	KNORR
5.	Lateral Damper	KW 37-2015 301550332	KW 37-2015 301550332	GEREP
6.	Brake Cylinder	2275-K-29,2297-K-29,2300-K-29,2267-K-29	2089-K-29,2199-K-29,2200-K-29,2146-K-29	KBI
7.	Brake Caliper	2227-29,2267-29,2266-29,2230-29	2047-29,2155-29,2151-29,2104-29	KBI
8.	Brake Disc	24073415-0037-14-16,24073415-0036-14-16,24073417-0023-14-16,24073417-0025-14-16	24073415-0034-14-16,24073415-0038-14-16,24073417-0004-14-16,24073415-0028-14-16	KBI
9.	Ball Joint Control Arm			MGN
10.	Lateral Bump Stop			MGN/GMT
11.	Traction Centre make			SARITA
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			SARITA
18.	Roll Link make			SARITA/GMT
19.	Fork make			EMSON/SARITA

Signature of SSE/Bogie/QC

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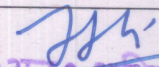
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11. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/s KBI ,Faridabad ,New Delhi	15M1346
2.	Pull box	M/s KBI ,Faridabad ,New Delhi	
3.	DV	M/s KBI ,Faridabad ,New Delhi	2015M1953
4.	PVC	M/s Responsive Industries, Mumbai	
5.	UIC Vestibule (PPE)	M/s Cemcon Industries New Delhi	
6.	UIC Vestibule (NPPE)	M/s Cemcon Industries New Delhi	
7.	Foot Step	M/s Hitech Infra RBL	
8.	Decoupling arrangement	M/s Kohinoor Industries, Faridabad	
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/hooper Window	M/s Rail Tech, Kapurthala	
12.	Roof Ceiling	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
13.	Non-AC Area Ceiling	M/s Amirchand Engg. Works 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 Kalsi, Ludhiana	
18.	Vestibule Door(PPE)	M/s Kalsi, Ludhiana	
19.	Vestibule Door(NPPE)	M/s Hanspal Kapurthala	
20.	CDTS	M/s Oasis Fabrication, Jagadari	
21.	Auxiliary Water Tank	M/s Manoj Enterprises Mohali PB	
22.	Under Slung Water Tank(450 L)	M/s Shivalik Fastener Mohali PB	
23.	Under Slung Water Tank (2X685L)	M/s Shivalik Fastener Mohali PB	
24.	Flexible Faucet	M/s Hindustan Fibre Ltd. Vadodra (Gujarat)	
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 Pahal Fire	NPP-7819 PP-7813
30.	Side Wall panel	M/s KAE Engg. pvt.Ltd Satarganj (UK)	
31.	Seat & Berth	M/s Oriental veneer Products Ltd Mumbai	
32.	Light Luggage Rack	M/s Techno Industries, Allahabad	
33.	Snack Table	M/s Anjani Techno Plasts Noida	


 वरिष्ठ अधिकारी
 SSE/QC/MCF/RBL
 गुणवत्ता विभाग

रॉडिकॉ, (लालगंज)

आधुनिक रेल डिब्बा कारखाना, रायबरेली

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12. MODIFICATION (IF ANY) : NIL

13. DEVIATION (IF ANY) : NIL

14. ITEM FITTED ON THE COACH ON TRIAL : NIL

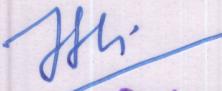
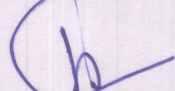
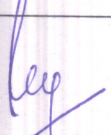
S NO	ITEM PARTICULARS	PURPOSE	REPORT	REFERENCE & PERIOD OF TRIAL
			Frequency	

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:

- 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

 वरिष्ठ अभियंता SSE/OC/MCF/RBL गुणवत्ता विभाग रेडिंक 0, रायबरेली (लालगंज)	 सहायक यंत्रिक अभियंता/ गुणवत्ता AME/OC/MCF/RBL रेल डिब्बा कारखाना, लालगंज, रायबरेली Rail Coach Factory, Lalganj, Raebareli	 उप सहायक अभियंता Dy. CME/FUR/MCF/RBL रेल कोच फैक्ट्री / रायबरेली / लालगंज RCF / RBL / LLJ
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**Govt. of India- Ministry of Railways
(MODERN COACH FACTORY RAEBARELI)**



MCF/RBL/QEF8001

VER. 01.06.2016

PAGE 2 OF 5

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	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	OK

R 407C

(Signature)
**Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli**





**Govt. of India- Ministry of Railways
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MCF/RBL/QEF8001

VER. 01.06.2016

PAGE 3 OF 5

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 (NPP side): 16.04.0618 Sr no of RMPU (PP side) : 16.03.0488 Sr no of Microprocessor: 16.03.008/A. PAUL	As per rdso/pe/spes/ac/0061/rev -1/2005	02
02.	Switch board cabinet Make : ISG Sr no : 15.12.0011	As per spec no . EDTS073,REV-D,AM-6	01
03.	Pump equipment with PLC controller & pump box Make: KALSI Sr no PA- 5031/02/2016 Sr no.1- 262795/02/2016 Sr no.2- 262796/02/2016 Sr no.CPA- 5000/02/2016	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
Modern Coach Factory Raebareli**





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



MCF/RBL/QEF8001

VER. 01.06.2016

PAGE 4 OF 5

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 : 11/2015	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

(Signature)

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VER. 01.06.2016

PAGE 5 OF 5

ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
23.	Battery fuse box +ve Make : ISG	As per LW 71001,Alt-F	01
24.	Battery fuse box -ve Make : NEC	As per LW 71002,Alt-F	01
25.	Regulated battery charger Make : HIREL Sr no : 16010704	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	01
26.	Emergency battery charger Make : BHASIN Sr no : 10151611	EDTS 163,Rev `c` corg.-2&3	01
27.	60KVA transformer Make : VIMAL Sr no : 3638	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: S. INTERNATIONAL	As per spec No EDTS 105,Rev`e` Am-2	02 sets
29.	Feeder junction boxes. Make : ABROL	EDTS-328 REV-C	02
30.	Wheel set earthing equipment. Make : MLI,DARSHAN	EDTS101,REV-C,AM-1	02
31.	Wheel Slide Protection System (WSP) Make : KNORR Sr no : 0115522033	M/s : KNORR	01 set
32.	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)/MCF/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