



आधुनिक रेल डिब्बा कारखाना, रायबरेली

MODERN COACH FACTORY, RAEBARELI

L37-495

FORM NO: RCF/RBL/QMF 8002
VERSION: 2016-01-13**ROLLING STOCK CERTIFICATE**

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2016-17/120

SHELL NO.	6 3 0 0 5 - 2 0 1 6 - 1 7 - -	DATE OF DISPATCH	0 2 0 8 2 0 1 6
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RLY	C	R	-	-	Type	L	W	A	C	C	N	Coach No.	1	6	1	4	0	/	C	-
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- Railway Board's Order No. : 2015/M(C)/142/1 Dtd. 18.05.2016
- 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) 1100 (NPPE) 2) 1099 (PPE)

5. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO				
1.	Underframe	Front Part	MCF/RBL	PP END	63005	NPP END	63005
		Complete	MCF/RBL				
2.	Side wall	M/s DTL Ancillaries Ltd. PUNE	RH	63005	LH		63005
3.	End wall	NPP- M/s Rail Tech KXH	PP END	63005	NPP END		63005
		PP- M/s Rail Tech KXH					
4.	Roof	M/s DTL Ancillaries Ltd. PUNE					
5.	Centre Buffer Coupler	M/s ESCORTS	PP END	5471	NPP END		5468
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	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 06 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	96/91
2.	Insulation		Satisfactory	

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SSE/QC/MSE/RBL
रेलवे कारखाना, रायबरेली (त.राजंज)



आधुनिक रेल डिब्बा कारखाना
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RLY	C	R	Type	L	W	A	C	C	N	Coach No.	1	6	1	4	0	/	C			
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8. DETAIL OF BOGIES :

ITEMS	PP Side				NPP Side			
Bogie No	160174				160173			
Bogie Type	LWACCN				LWACCN			
Frame no.	VS/RBL-66				VS/RBL-64			
Bolster no.	RBL-610				RBL-633			
Axle No	P- 9639 RWF		P- 9441 RWF		P- 9131 RWF		P- 9200 RWF	
Wheel Dia	917.075	917.154	917.049	916.946	917.048	916.945	917.107	917.061
Wheel Disc No	6210-00098 15 VR	6208-00181 15 VR	6225-00087 15 VR	6228-00146 15 VR	6223-00118 15 VR	6228-00011 15 VR	6276-00164 15 VR	7276-00178 15 VR
R.B. Nos.	06-14 00962	06-14 00893	07-14 01926	06-14 01281	07-14 02489	06-14 01520	07-14 02572	06-14 01130
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.	CMGBD04-16- 83683-37	CVFSK04-16- 9513-193-37	CMGBD12-15- 83683-15	CVFSK04-16- 9513-193-282	CMGBD12-15- 83683-42	CVFSK04-16-9513- 193-6	CMGBD12-15- 83683-7	CVFSK04-16-9513- 193-175
Compressed Ht. at Tested Load	513	467	512	464	512	464	510	467
Alignment deviation (mm)	12	9	11	8	8	6	12	7

10. TRACEABILITY OF BOGIE ITEMS:

S. NO	ITEM	SERIAL NO.		MAKE
		PP SIDE	NPP SIDE	
1.	Primary outer Spring	RSK 03WA (1646,1640,721,1697)	RSK (03WA-577,1426-2611,2542,03WA-182)	RSK
2.	Primary Inner Spring	CVFSK 04-16-7143-195(107,172,167,104)	CVFSK 04-16-7143-195(273,284,262,254)	CVFSK
3.	Primary Damper	05-2016(32708,32778,32456,32667)	05-2016(32579,32580,32723,32701)	KONI
4.	Secondary Damper	42-2014(5289,5416)	42-2014(5007,5227)	KONI
5.	Lateral Damper	S.V.DWAN12-15 018497	S.V.DWAN12-15 018497	S.V.DWAN
6.	Brake Cylinder	2153K29,2216K29,2150K29,2215K29	2154K29,2214K29,2213K29,2151K29	KBI
7.	Brake Caliper	2110-29,2171-29,2108-29,2170-29	2111-29,2169-29,2168-29,2109-29	KBI
8.	Brake Disc	24067813 0002-08/16,24067814 0022-08/16 24067808 0007-06/16,24067808 0008-06/16	24067814 0024-08/16,24067896 0006-08/16 24067813 0004-08/16,24067813 0005-08/16	KBI
9.	Ball Joint Control Arm			MGN
10.	Lateral Bump Stop			MGN
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			EMSON
18.	Roll Link make			SARITA/MGN
19.	Fork make			SARITA

Signature

Signature of SSE/Bogie/QC



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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	15L1309
2	Pull box	M/s KBI ,Faridabad ,New Delhi	
3	DV	M/s KBI ,Faridabad ,New Delhi	2015K1877
4.	PVC	M/s Responsive Industries, Mumbai	
5	UIC Vestibule (PPE)	M/s Suncrest Industries West Bengal	
6	UIC Vestibule (NPPE)	M/s Suncrest Industries West Bengal	
7	Foot Step	M/s Hitech Infra RBL	
8	Decoupling arrangement	M/s Kohinoor Industries, Faridabad	
9	Body Side Window	M/s Rail Tech, Kapurthala	
1	Emergency Window	M/s Rail Tech, Kapurthala	
1	Lavatory/hooper Window	M/s Aikon Technology Pvt.Ltd.Solan (H.P)	
1	Roof Ceiling	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
1	Non-AC Area Ceiling	M/s Gandhi Safe & Allied, Jalandhar	
1	Supply Air Duct	M/s Hanspal Coach Products Kapurthala	
1	Body Side Doors	M/s JBM Faridabad	
1	Compartment Door (PPE)	M/s Rail Tech, Kapurthala	
1	Compartment Door (NPPE)	M/s Rail Tech, Kapurthala	
1	Vestibule Door(PPE)	M/s Kalsi,Ludhiana	
1	Vestibule Door(NPPE)	M/s Kalsi ,Ludhiana	
2	CDTS/Bio Tank	M/s Rail Tech, Kapurthala	
2	Auxiliary Water Tank	M/s Shivalik Fastener Mohali PB	
2	Under Slung Water Tank(450 L)	M/s Shivalik Fastener Mohali PB	
2:	Under Slung Water Tank (2X685L)	M/s Shivalik Fastener Mohali PB	
2	Flexible Faucet	M/s Hindustan Fibre Ltd. Vadodra (Gujarat)	
2	Lotah Filler Tap	M/s Metco Delhi	
2	Lavatory Modoules	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
2	lavatory Doors	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
2	Waste Bin Arrangement	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
2	Fire Extinguisher	M/s Agni Safety Devices Haryana	NPP-7813 PP-7815
3	Side Wall panel	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
3	Seat & Berth	M/s Savitri Engg. Products Pontasahib HP	
3:	Light Luggage Rack	M/s Techno Industries, Allahabad	
3	Snack Table	M/s Anjani Techno Plasts Noida	

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SSE/RC/MCF/RBL
रे०डि०का०, रायबरेली (जालगंज)





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12. MODIFICATION (IF ANY) : NIL

13. DEVIATION (IF ANY) : NIL

14. ITEM FITTED ON THE COACH ON TRIAL : NIL

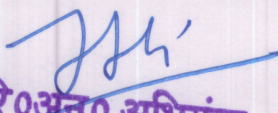

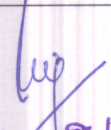
S NO	ITEM PARTICULARS	PURPOSE	REPORT	REFERENCE & PERIOD OF TRIAL
			Frequency	

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 qualityrcfrbl@gmail.com

 वरि०अनु० अभियंता गुणवत्ता विभाग रे०डि०का०, रायबरेली (लालगंज)	 सहायक यंत्रिक अभियंता/ गुणवत्ता Ast. Mechanical Engineer/Quality रेल डिब्बा कारखाना, लालगंज, रायबरेली Rail Coach Factory, Lalganj, Raebareli	 डि०सी०एम०/फर्नि. DY CME/FURNISHING 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

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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	16140/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 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	29.49 Cub mtr/min	OK
3.2	Return Air	66.38 Cub mtr/min	OK
3.3	Exhaust Air	8.82 Cub mtr/min	OK
3.4	Conditioned Air	181.90 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		OK
	PP Side :21.6°C	NPP Side :21.4°C	
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.		OK
	Not done		

(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
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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	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)

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



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



MCF/RBL/QEF8001
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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): 1608 E Sr no of RMPU (PP side) : 1610 E Sr no of Microprocessor: AE 16.04.725	As per rdso/pe/spes/ac/0061/rev -1/2005	02
02.	Switch board cabinet Make : ISG Sr no : 16.03.0038	As per spec no . EDTS073,REV-D,AM-6	01
03.	Pump equipment with PLC controller & pump box Make: KALSI Sr no PA: 5209/05/2016 Sr no.1: 267460/05/2016 Sr no.2: 267461/05/2016 Sr no.CPA: 5281/05/2016	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)

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MCF/RBL/QEF8001
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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 : 03/2016	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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MCF/RBL/QEF8001
VER. 01.06.2016
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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 : AAL Sr no: 061606095	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	01
26.	Emergency battery charger Make : WAVES Sr no: 161700	EDTS 163,Rev `c` corg.-2&3	01
27.	60KVA transformer Make : VIMAL Sr no : 3764	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 : NEC	EDTS-328 REV-C	02
30.	Wheel set earthling equipment. Make : MAA LAXMI INDUSTRIES	EDTS101,REV-C,AM-1	02
31.	Wheel Slide Protection System (WSP) Make: KNORR Sr no : 0115431892	M/s : KNORR	01 set
32.	PANTRY EQUIPMENTS : Hot Case & Bottle cooler cum deep freezer Make : SUPER REFRIGERATION	As per spec no EDTS 139, Rev- E ,Sec II.	01


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


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