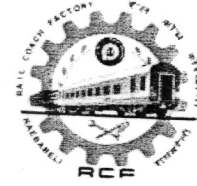




रेल डिब्बा कारखाना, रायबरेली
RAIL COACH FACTORY, RAEBARELI



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

ROLLING STOCK CERTIFICATE

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

Date: 07/05/2013

SHELL NO	L	W	A	C	C	N	-	2	1	1	7	/	2	0	1	3	DATE OF DISPATCH	2	3	0	3	2	0	1	3	
RLY	C	R	Type	L	W	A	C	C	N	Coach No.	1	3	1	0	7	/	C									

- Railway Board's Order No : 2012/M(C)/142/3, dated 15.02.2013
- Tare Weight of Coach : 45.6 Tonnes
- Carrying Capacity : (a) Seating : 72 (b) Sleeping : 72 (c) Luggage : NA

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) 1103 (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 Faiveley	PP END K 12062 NPP END K 12070

6. AIRBRAKE TEST REPORT:

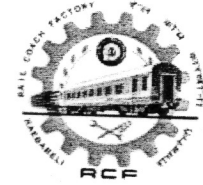
S NO	ITEM	DESCRIPTION	SPEC. VALUE	OBSERVED
1.	Full brake application	<ul style="list-style-type: none"> Reduce pressure of BP from 5.0 to 3.4 kg/cm². Max. pressure in BC All Brake are applied 	6 – 10 sec.	9sec.
2.	Insensitivity	<ul style="list-style-type: none"> Exhaust BP @ 0.3 kg/cm²/min. 	3.0 ± 0.15 kg/cm ² . OK	3.1 kg/cm ² OK
3.	Sensitivity	<ul style="list-style-type: none"> Exhaust BP @ 0.1 kg/cm²/Sec, after 02 Sec. 	No brake application Brake must apply	OK

7. PAINTING DETAILS:

S NO	DESCRIPTION	TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE
1.	Paint	P.U.	M/s VIBGYOR	89.6/88.7/85.0
2.	Insulation		Satisfactory	



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ROLLING STOCK CERTIFICATE

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

Date: 07/05/2013

SHELL NO	L	W	A	C	C	N	-	2	1	1	7	/	2	0	1	3	DATE OF DISPATCH	2	3	0	3	2	0	1	3
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RLY	C	R	Type	L	W	A	C	C	N	Coach No.	1	3	1	0	7	/	C
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8. DETAIL OF BOGIES :

ITEMS	PP SIDE				NPP SIDE			
Bogie No	136101				136102			
Bogie Type	FIAT				FIAT			
Axle No	K-5862		K-5858		K-5900		FIAT	
Wheel Dia	917.00	917.00	917.00	917.00	916.00	916.00	916.50	917.00
Wheel Disc No	055-44519/ ZB-12	092-45656/ ZB-12	077-44519/ ZB-12	035-45656/ ZB-12	139-44519/ ZB-12	193-45320/ ZB-12	217-45320/ ZB-12	173-44519/ ZB-12
R B Nos.	03584	03583	03005	02893	03063	03030	02991	03287
C.T.R.B. Make	TIM		TIM		TIM		TIM	

9. SECONDARY SUSPENSION LOAD DEFLECTION VALUES

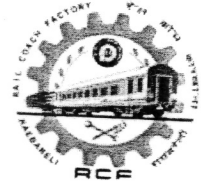
DESCRIPTION	BOGIE PP SIDE				BOGIE NPP SIDE			
	SECONDARY 1		SECONDARY 2		SECONDARY 1		SECONDARY 2	
	OUTER	INNER	OUTER	INNER	OUTER	INNER	OUTER	INNER
Make & Nos.	DN-12-Z- 991	G-12-06- 3443	DN-12-0Z- 1070	G-12-06- 3456	DN-12-Z- 1043	G-12-06- 3549	DN-12-Z- 1014	G-12-06- 3320
Compressed Ht. at Tested Load (mm)	511	467	512	466	506	468	508	465
Alignment deviation (mm)	3	23	5	20	7	11	7	14

10. TRACEABILITY OF BOGIE ITEMS:

S. NO.	ITEM	SERIAL NO.		MAKE
		PP SIDE	NPP SIDE	
1.	Primary outer Spring	L&S-08-12	L&S-08-12	L&S
2.	Primary Inner Spring	L&S-09-12	L&S-09-12	L&S
3.	Primary Damper	619,642,651,393	595,376,341,645	GEREP
4.	Secondary Damper	36,169	194,189	GEREP
5.	Lateral Damper	A-342	A-339	SACHS
6.	Yaw Damper	3630,3681	3387,3650	KONI
7.	Brake Cylinder & Caliper	G-4722/691,G-3405/691 G-4719/691,G-3418/691	F-8036/691,G-356/691 G-0165/691,G-0547/691	KBI
8.	Brake Disc			KBI
9.	Ball Joint Control Arm			MGN
10.	Lateral Bump Stop			GMT
11.	Ball Joint Traction Lever			GMT
12.	Ball Joint Traction Centre			SGA
13.	Secondary Rubber Pad			TESPAK
14.	Rubber Spring			GMT
15.	Roll Link			SARITA
16.	Air Spring			N.A.



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: 07/05/2013

SHELL NO	L	W	A	C	C	N	-	2	1	1	7	/	2	0	1	3	DATE OF DISPATCH	2	3	0	3	2	0	1	3
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RLY	C	R	Type	L	W	A	C	C	N	Coach No.	1	3	1	0	7	/	C
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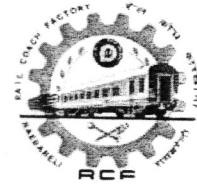
11. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/s KBI	
2.	Pull box	M/s KBI	1178308
3.	DV	M/s KBI	
4.	PVC Flooring	M/s Responsive	2012 M 0699
5.	UIC Vestibule (PPE)	M/s KRP	
6.	UIC Vestibule (NPPE)	M/s KRP	
7.	Foot Step	M/s JVR	
8.	Entrance Hand Rail	M/s SMS	
9.	Decoupling arrangement	M/s SECO	
10.	Body Side Window	M/s AIKON & Rail Tech	
11.	Emergency Window	M/s AIKON & Rail Tech	
12.	Lavatory/Hooper Window	M/s AIKON & Rail Tech	
13.	Roof Ceiling	M/s KAE Engineers	
14.	Body Side Doors	M/s AIR FLOW	
15.	Compartment Door (PPE)	-----	
16.	Compartment Door (NPPE)	-----	
17.	Vestibule Door(PPE)	M/s AIR FLOW	
18.	Vestibule Door(NPPE)	M/s AIR FLOW	
19.	CDTS (ORIENT)	M/s VIBHU	
20.	CDTS (WESTERN)	M/s VIBHU	
21.	Auxiliary Water Tank	M/s Shivalik Fasteners	
22.	Under Slung Water Tank(450 L)	M/s Amit Engineers	
23.	Under Slung Water Tank (2X685L)	M/s Amit Engineers	
24.	Flexible Faucet	M/s Rishabh Enterprises (Pooja)	
25.	Lotah Filler Tap	M/s Metro	
26.	Lavatory Modoules	M/s Hindustan Fibre Ltd. Gujarat	
27.	Lavatory Doors	M/s Hindustan Fibre Ltd. Gujarat	
28.	Waste Bin Arrangement	M/s Hindustan Fibre Ltd. Gujarat	
29.	Fire Extinguisher	M/s Hindustan Fibre Ltd. Gujarat	
30.	Side Wall panel	M/s KAE Engineers	
31.	AC Trough	M/s CRG Industries	
32.	Bellows of circulation units	-----	
33.	Seat & Berth	M/s Savitri Engineering	
34.	Light Luggage Rack	M/s Rail Fab	
35.	Snack Table	M/s International T. Ltd.	

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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: 07/05/2013

SHELL NO	L	W	A	C	C	N	-	2	1	1	7	/	2	0	1	3	DATE OF DISPATCH	2	3	0	3	2	0	1	3
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RLY	C	R	Type	L	W	A	C	C	N	Coach No.	1	3	1	0	7	/	C
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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 falls 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.

DY CME
RCF/RBL

Dy CME/M&P
उप मु० यां० अभि०/एम.&पी.
RCF/RBL(LLJ)
रे. डि.का. रायबरेली (लालगंज)

RCF

SSE/QC/MECH
RCF/RBL

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बॉरिंग अनुसंधान विभाग (त्रिक)
रेल कोच फैक्ट्री, रायबरेली
SSE (Mech) RCF/RBL



रेल कोच फैक्टरी, कपूरथला
RAIL COACH FACTORY, KAPURTHALA



Form No. : QMF 9454; Version: 03

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Date: 02-02-2013

L31-35

Shell No.:-

RLY	Type	LACCN	Coach No.
-----	------	-------	-----------

6.0 Wheel & Axle details:

Items	PP Side				Non PP Side			
Bogie No.	136101				136102			
Frame No.	ECBT-505				ECBT-501.			
Bolster No.	2600-VT				2616-VT			
Axle No.	K-5862		K-5858		K-5900		RWF-96517	
Wheel Diameter	917.00	917.00	917.00	917.00	916.00	916.00	916.50	917.00
Wheel Disc No.	055-44519/ ZB-12	092-45656/ ZB-12	077-44519/ ZB-12	035-45656/ ZB-12	139-44519/ ZB-12	193-45320/ ZB-12	217-45320/ ZB-12	173-44519/ ZB-12
R.B. Nos.	03584	03583	03005	02893	03063	03030	02991	03287
R. B. Make	TIM		TIM		TIM		TIM	
RB Type	CARTRIDGE TAPER ROLLER BEARING							

6.1 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.	DN-12-Z-991	G-12-06-3443	DN-12-0Z-1070	G-12-06-3456	DN-12-Z-1043	G-12-06-3549	DN-12-Z-1014	G-12-06-3320
Compressed ht. at tested load	511	467	512	466	506	468	508	465
Alignment deviation (mm)	3	23	5	20	7	11	7	14

6.2 Component traceability:

SNO	ITEM	PP Side Bogie	NPP side Bogie	Make
		Sr. nos	Sr. nos.	
1	Primary Outer Spring batch no.	L&S-08-12	L&S-08-12	L&S
2	Primary inner Spring batch no	L&S-09-12	L&S-09-12	L&S
3	Primary Damper	619,642,651,393	595,376,341,645	GEREP
4	Secondary damper	36,169	194,189	GEREP
5	Lateral Damper	A-342	A-339	SACHS
6	Brake cylinder & Caliper	G-4722/691,G-3405/691 G-4719/691,G-3418/691	F-8036/691,G-356/691 G-0165/691,G-0547/691	KBI
7	Brake Disc			KBI
8	Ball joint Control arm			MGN
9	Lateral Bump stop			GMT
10	Traction center make			EMSON
11	Traction lever make			SARITA
12	Ball joint traction lever			GMT
13	Ball joint Traction centre			ŞGA
14	Secondary rubber pad			TESPAK
15	Rubber spring			GMT
16	Anti roll bar make			SARITA
17	Roll link make			GMT
18	Fork make			EMSON
19	Yaw Damper make			



Govt. of India- Ministry of Railways
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ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

COACH NO		SHELL NO	
TYPE OF COACH		DATE:	
Sr no	Description	Drg/Spec no.	Quantity per Coach
	13107/C - CR.		
	LW ACC	18.3.13	
01.	Roof mounted AC package unit for LHB AC coaches Make : <u>SIDWAL</u> Sr no of RMPU (PP side) : <u>L-705-2012</u> Sr no of RMPU (NPP side) : <u>L-705-2012</u> Sr no of Microprocessor. : <u>SIDWAL-12-LSR-499</u>	EDTS 075,Rev`a`, Col I.	02 ✓
02.	Switch board cabinet (In case of CHAIR CAR / In case of 2T/3T & FAC coach) Make : <u>Stedlit</u> Sr no : <u>073/267 date 03/12</u>	EDTS 073 / 134 ,Rev `b`	01 ✓
03.	Pump equipment with PLC controller & pump box Make: <u>Kalsi</u> Sr no PA <u>3058 / 8/12</u> Sr no.1 <u>233120</u> Sr no.2 <u>233121</u> Sr no.CPA <u>2558 / 10/2011</u>	EDTS 094,Rev`a`	01 ✓
05.	Single inlet radial blower 415V/03Ph/50Hz /185W /1045 cum mtr/hr discharge for exhausting air from PANTRY Make : <u>A</u>	02D133-AB06-19 In case of Chair Car's	01 ✓
06.	Double inlet centrifugal blower 415V/03Ph /50Hz /120W/450 cum mtr/hr discharge for exhausting air from lavatory & switch board cabinet Make : <u>Antig</u>	Cat no D2D 133 -AB06-19 of EBM or equivalent approved	02 ✓
07.	Ceiling light fitting w/o diffuser w/o item 3&4 EOG 3T/2T/FAC/Ex ACC/II ACC	LW 76004,Alt nil	03/03/06 03/03
08.	Ceiling light fitting DOUBLE w/o diffuser. EOG 3T/2T/FAC	LW 76011,Alt nil	09/09/07
<u>Anil</u>		Signature	<u>V.K. Verma</u>
<u>Jwala Prasad</u>		Name	<u>V.K. Verma</u>
SSE/Elect/Production		Designation	SSE/Elect/Quality

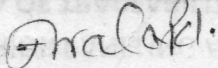
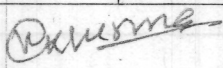


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ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
09.	Ceiling light fitting with NL w/o diffuser w/o item 2&3 EOG 3T/2T/FAC/Ex ACC/II ACC	LW 76013,Alt nil	09/09/11/26 /26
10.	Emergency light system for EOG type coaches	EDTS 151,Rev nil	04 ✓
12.	Lavatory light fitting assly EOG 3T/2T/FAC/Ex ACC/II ACC	LW 76001,Alt nil	04/04/03 03/03
13.	Entry door lamp assly	LW 76003,Alt nil	04 no's ✓
14.	WC gauge signal light EOG 3T/2T/FAC/Ex ACC/II ACC	LW 76006,Alt`a`	02/02/03 03/03
15.	Passenger alarm coach indication cum Reservation Chart illumination light	LW 76005,Alt`a`	02 ✓
16.	Reading Light fitting (Upper berth) EOG 2T/FAC	AW 76023,Alt nil	27/12 ✗
17.	Reading light for longitudinal berth (LHS) EOG/2T	LW 76023,Alt nil	09 ✗
18.	Reading light for transverse -LH EOG/2T/FAC ✗	LW 76020,Alt nil	09/04 ✗
19.	Reading Lights (02 seater) Ex.ACC / II,ACC	LW 76031,Alt nil	28/18 ✗
20.	Reading Lights (03 seater) II,ACC Only	LW 76030,Alt nil	14 ✗
21.	Reading light for longitudinal berth RH EOG/2T/FAC	LW 76021,Alt nil	09/08 ✗
22.	Fluorescent lamp 18W EOG 3T/2T/FAC/Ex ACC/II ACC	RDSO/PE/SPEC/D/ TL 0011-2000,Rev I, Sec- I , 07/2001	38/37/38 37/37
23.	Diffuser complete w/o item 1& 2. EOG 3T/2T/FAC/Ex ACC/II ACC	LW 76012,Alt nil	21/21/24 04/04
24.	Electronic inverter for reading lights. EOG Ex ACC/ II ACC ✗	EDTS 108,Rev nil Amdt -1	14/08 ✗ 14/20
25.	Razor socket for WC 110/240V. EOG 3T/2T/FAC/Ex ACC/ II ACC	EDML 047 ,Rev nil	04/04/03 03/03
 Jwala Prasad SSE/Elect/Production		 V-K Verma SSE/Elect/Quality	
		Signature	
		Name	
		Designation	



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ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
26.	Terminal connector (for CDTS) EOG 3T/2T/FAC/Ex ACC/II ACC	EDML 037,Rev`a'	04/04/03 03/03
27.	Terminal strip (EOG/3T)	EDML 034,Rev`a'	01 ✓
28.	Terminal strip (EOG/2T)	EDML 033,Rev`a'	01 ✗
29.	Terminal connector EOG/3T/2T	EDML 037,Rev`a'	04/04
30.	Connectors for lights (For chair cars only)	EDML 014,Rev nil	01 ✗
35.	Single switch 06A/250V/AC ONE WAY ,complete with steel plate & cover frame EOG 3T/2T/FAC	EDML 047,Rev nil, Item 1.	09/09/08 ✓
36.	Single switch 16A/250V/AC ONE WAY complete with steel plate & cover frame EOG 3T/2T/FAC	EDML 045,Rev nil ,Item 2.	09/09/08 ✓
37.	Switch plate (CORRIDOR) for FAC only	EDML 040,Rev nil	01 ✗
38.	Switch plate (CORRIDOR) for FAC only	EDML 042,Rev nil	01 ✗
39.	Switch plate (CORRIDOR & ATTENDANT) For FAC only	EDML 041,Rev nil	02 ✗
40.	Switch socket 5 Pin, 06A, 250V fitted with powder coated steel plate & cover frame. (Ex ACC/ II ACC)	Cat no EL-243 of M/s SIGNATURE series or equiv approved	18/18 ✓
42.	Bell push & single switch 06A/250V/AC ,TWO WAY ,complete with steel plate & cover frame (FAC only)	EDML 047,Rev nil	✗ 02
43.	Call cum reset indicator & Annunciator (FAC only)	EDTS 117,Rev nil	✗ 01
44.	PA system for LHB coaches Make : Ahuja	EDTS 173,Rev nil Ty -V.	01 set
SSE/Elect/Production		Signature Name Designation	 V. K. Verma SSE/Elect/Quality



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ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
45.	70AH/110V,54 Cells,02V each ,maintenance free pure lead acid tin monoblock ,battery set with 09 modules 12V each. ,factory pre charged. Make : <u>HBL</u> Lug date : <u>8/2012</u>	EDTS 129,Rev nil	01 set ✓
46.	Battery box for LHB coaches.	1 10113 0 76 700 005 w/o item 5,22 ,23 ,26 & 27.	01 ✓
47	Battery fuse box +ve Make : <u>International swichgear</u>	LW 71001,Alt`a'	01 ✓
48.	Battery fuse box -ve Make : <u>International swichgear.</u>	LW 71002,Alt`a'	01 ✓
49.	Regulated battery charger Make : <u>Pyramid Sr no PRBCA - 13724</u>	EDTS 074,Rev `b'	01 ✓
	Emergency battery charger Make : <u>Pyramid Sr no PEBC1 - 12393</u>	EDTS 163,Rev `c' corg.-2	01 ✓
50.	60KVA transformer Make : <u>VIMAL</u> Sr no 1 : <u>VTC - 1110</u> Sr no 2 : _____ 2T/3T/FAC/HB	EDTS 076 ,Rev nil	01/01/01/0 2 ✓
51.	ZS coupling 400A/750V/03Ph/50hz. Make : <u>S. International</u>	EDTS 105,Rev`c'	02 sets ✓
52.	Feeder junction boxes. Make : <u>NEC</u>	EDML 020,Rev`a'	02 ✓
53.	Wheel set earthing equipment. Make : <u>Darrhan Enterprise</u>	EDTS 101,Rev`a'	02 ✓
54.	Wheel Slide Protection System (WSP) Make & Sr no : <u>Knorr - 0111460423</u>	M/s : <u>Knorr.</u>	01 set ✓
55.	Composite pantry Make : <u>Spectrum</u> X Sr no : _____	EDTS 130,Sec-1 For LHB/EOG /AC Chair cars only	01 X
56.	PANTRY EQUIPMENTS : a.) Hot Case Make : <u>Spectrum.</u> b.) Bottle coler cum deep freezer Make : <u>spectrum.</u>	EDTS 139,Corr-1, Case of EOG/3T & FAC EDTS -130, Sec II, In case of EOG/2T	01 ✓
	<u>Anand</u>	Signature	<u>V.K. Verma</u>
	<u>Jwala Prasad</u>	Name	<u>V. K. Verma</u>
	SSE/Elect/Production	Designation	SSE/Elect/Quality

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