

L27-18

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: 23/09/2013

SHELL NO	L	W	A	C	C	W	-	3	5	/	2	0	1	3	DATE OF DISPATCH	1	5	0	4	2	0	1	3
RLY	C	R	Type	L	W	A	C	C	W	Coach No.	1	3	0	5	7	/	C						

1. Railway Board's Order No. : 2012/M(C)/142/3, dated 15.02.2012
2. Tare Weight of Coach : 44.5 Tonnes
3. Carrying Capacity : (a) Seating : 52 (b) Sleeping : 52 (c) Luggage : N/A

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	4039
4.	CBC height/Buffer height from Rail level 1105 +0/-15	1) 1102 (NPPE) 2) 1096 (PPE)

5. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO			
1.	Buffers	N.A.				
2.	Centre Buffer Coupler	M/s ESCORT	PP END	J 155L/2009	NPP END	1228/2009

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 02 Sec. 	Brake must apply	OK

7. PAINTING DAETAILS:

S NO	DESCRIPTION	TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE
1.	Paint	P.U.	Advance Paints Mumbai	87.5/86.9
2.	Insulation	Satisfactory		

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RLY	C	R	Type	L	W	A	C	C	W	Coach No.	1	3	0	5	7	/	C
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8. DETAIL OF BOGIES :

ITEMS	PP SIDE				NPP SIDE			
Bogie No	136237				136231			
Bogie Type	FIAT				FIAT			
Axle No	H-3116		G-7651		RWF-73107		G-7910	
Wheel Dia.	916.50	916.50	916.50	916.50	918.00	918.00	916.50	916.50
Wheel Disc No	162- 46426/ ZB-12	190- 46426/ ZB-12	366- 46426/ ZB-12	119- 45320/ ZB-12	220- 44519/ ZB-12	194- 46426/ ZB-12	342- 44519/ ZB-12	102- 44519/ ZB-12
R B Nos.	04942	04829	05304	02975	04880	03681	04565	04522
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-T- 1903	DN-11-V- 1180	DN-12-T- 1825	DN-11-V- 1197	G-12-6-1343	G-12-6-2640	G-12-6-1403	G-12-6-2540
Compressed Ht. at Tested Load	509	460	505	461	509	466	509	467
Alignment deviation(mm)	14	16	18	16	04	24	7	21

10. TRACEABILITY OF BOGIE ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO	
			PP SIDE	NPP SIDE
1.	Primary outer Spring	L&S	L&S-08-12	L&S-09-12
2.	Primary Inner Spring	L&S	L&S-08-12	L&S-05-12
3.	Primary Damper	GEREP	70,880,768,502	479,250,512,481
4.	Secondary Damper	GEREP	399,137	255,280
5.	Lateral Damper	GEREP	232	158
6.	Brake Cylinder & Caliper	FTI	L12143/600,L12154/600 L12150/600,L12147/600	L12045/600,L12029/600 L12033/600,L12027/600
7.	Yaw Damper	KONI	3338,3650	3681,3630
8.	Brake Disc	KBI		
9.	Traction Centre Elastic	---		
10.	Ball Joint Control Arm	GMT		
11.	Rubber Spring	GMT		
12.	Ball Joint Roll Link	---		
13.	Lateral Bump Stop	GMT		
14.	Ball Joint Traction Lever	GMT		
15.	Secondary Rubber Pad	TESCPAK		
16.	Air Spring	N.A.		

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11. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/s KBI	12E 0218
2.	Pull box	M/s KBI	
3.	DV	M/s KBI	2012D 0545
4.	PVC	M/s Responsive	
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 RAIL TECH	
9.	Decoupling arrangement	M/s SECO	
10.	Body Side Window	M/s Rail Tech & AIKON	---
11.	Emergency Window	M/s Rail Tech & AIKON	
12.	Lavatory/hooper Window	M/s AIKON	
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 Pooja (Risabh Enterprises)	
25.	Lotah Filler Tap	M/s METCO	
26.	Lavatory Modoules	M/s Hindustan Fibre Ltd.	
27.	Lavatory Doors	M/s Hindustan Fibre Ltd.	
28.	Waste Bin Arrangement	M/s Hindustan Fibre Ltd.	
29.	Fire Extinguisher	M/s Hindustan Fibre Ltd.	
30.	Side Wall panel	M/s KAE	
31.	AC Trough	M/s CRG Industries	
32.	Bellows of Circulating 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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RLY	C	R	Type	L	W	A	C	C	W	Coach No.	1	3	0	5	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:

1. This warranty covers free supply of parts which wear out and falls 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.

DY CME
RCF/RBL
Chief Mechanical Engineer
RCF, Raebareli
Project M&E Office,
Lucknow

SSE/QC/MECH
RCF/RBL

सीनियर सेक्शन इंजीनियर (क्वालिटी कंट्रोल)
रेल डिब्बा कारखाना, रायबरेली
Sr Section Engineer (Quality Control)
Rail Coach Factory, Raebareli(Lalganj)



रेल कोच फैक्टरी, कपूरथला
RAIL COACH FACTORY, KAPURTHALA



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Date: 18-03-2013

Shell No.:-

RLY	Type	LSCN	Coach No.					
6.0 Wheel & Axle details:								
Items	PP Side			Non PP Side				
Bogie No.	136231			136237				
Frame No.	ECBT-563			ECBT-544				
Bolster No.	2717-VT			2737-VT				
Axle No.	H-3184		RWF-96486		H-3116		G-7654	
Wheel Diameter	918.00	918.00	916.50	916.50	916.50	916.50	916.50	
Wheel Disc No.	220- 44519/ ZB12	194- 46426/ ZB12	342- 44519/ ZB12	102- 44519/ ZB12	162- 46426/ ZB12	190- 46426/ ZB12	366- 46426/ ZB12	119- 45320/ ZB12
R.B. Nos.	04880	03651	04565	04522	04942	04829	05304	02975
R. B. Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	
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.	G-12-6- 1343	G-12-6- 2640	G-12-6- 1403	G-12-6- 2540	DN-12-T- 1903	DN-11-V- 1180	DN-12-T- 1825	DN-11-V- 1197
Compressed ht. at tested load	509	466	509	467	509	460	505	461
Alignment	4	24	7	21	14	18	16	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-09-12	L&S-08-12	L&S
2	Primary inner Spring batch no.	L&S-05-12	L&S-08-12	L&S
3	Primary Damper	479,250,512,481	70,880,761,502	GEREP
4	Secondary damper	255,280	399,137	GEREP
5	Lateral Damper	158	232	GEREP
6	Brake cylinder & Caliper	L12045/600,L12029/600, L12033/600,L12027/600	L12143/600,L12154/600, L12150/600,L12147/600	FTI
7	Brake Disc			KBI
8	Ball joint Control arm			GMT
9	Lateral Bump stop			GMT
10	Traction center make			-
11	Traction lever make			-
12	Ball joint traction lever			GMT
13	Ball joint Traction centre			GMT
14	Secondary rubber pad			TESPAK
15	Rubber spring			GMT
16	Anti roll bar make			SARITA
17	Roll link make			-
18	Fork make			EMSON
19	Yaw Damper make			-


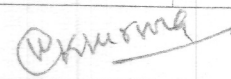
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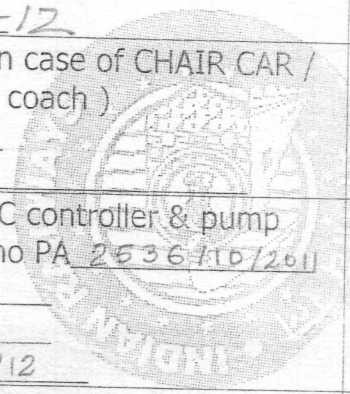
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RAIL COACH FACTORY - RAIPUR



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ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES


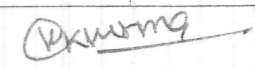
COACH NO CR-13057/C		SHELL NO	
TYPE OF COACH LWACCW		DATE: 5.4.13	
Sr no	Description	Drg/Spec no.	Quantity per Coach
01.	Roof mounted AC package unit for LHB AC coaches Make : <u>Amit</u> Sr no of RMPU (PP side) : <u>675-I-12</u> Sr no of RMPU (NPP side) : <u>697-I-12</u> Sr no of Microprocessor. : <u>AEM-368-I-12</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>Steplit</u> Sr no : <u>073/310</u>	EDTS 073 / 134 , Rev 'b'	01 ✓
03.	Pump equipment with PLC controller & pump box Make: <u>Kalzi</u> Sr no PA <u>2536/10/2011</u> Sr no.1 <u>225713/10/11</u> Sr no.2 <u>225714/10/11</u> Sr no.CPA <u>3064/08/12</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>X</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>Anteg</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
 A.K. Mishra SSE/Elect/Production (Testing)		 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
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) Only II,ACC ✗	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
		Signature	
	A.R. Mishra	Name	V.K. Verma
	SSE/Elect/Production (Testing)	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
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
		Signature	
	D.K. Mishra	Name	V.K. Verma
	SSE/Elect/Production (Test)	Designation	SSE/Elect/Quality



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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>08/2012</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>NEC</u>	LW 71001,Alt `a`	01 ✓
48.	Battery fuse box -ve Make : <u>ISG</u>	LW 71002,Alt `a`	01 ✓
49.	Regulated battery charger Make : <u>Pyramid</u> Sr no <u>PRBCA-137-32</u>	EDTS 074,Rev `b`	01 ✓
	Emergency battery charger Make : <u>Pyramid</u> Sr no <u>PRBC1-123-65</u>	EDTS 163,Rev `c` corg.-2	01 ✓
50.	60KVA transformer Make : <u>VIMAL</u> Sr no 1 : <u>1329/2011-12</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>Dazhan Enterprise</u>	EDTS 101,Rev `a`	02 ✓
54.	Wheel Slide Protection System (WSP) Make & Sr no : <u>0110270084/</u>	M/s : <u>KNORR</u> .	01 set
55.	Composite pantry Make : _____ Sr no : _____	EDTS 130,Sec-1 For LHB/EOG /AC Chair cars only	01 ✓
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 ✓
		Signature	
	A.K. Mishra	Name	V.K. Verma
	SSE/Elect/Production (T&A)	Designation	SSE/Elect/Quality