



Modern Coach Factory Raebareli

DOC NO.: MCF/RBL/QMF 8002

REV NO: 00

DATE: 16.05.2016

आधुनिक रेल डिब्बा कारखाना, रायबरेली

ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2017-18/253

Coach No.	1	7	9	6	1	/	C	-	DATE OF DISPATCH	1	6	-	0	9	-	1	7
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RLY	C	R	-	-	Type	L	W	A	C	C	N	Shell No.	7	3	0	8	5	-	2	0	1	7	-	1	8
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1. Railway Board's Order No. : 2017/M/(C)/142/2 dated -25.08.2017
2. Tare Weight of Coach : 45.6 Tonnes
3. 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) 1101 (PPE)

5. TRACEABILITY OF SHELL ITEMS:

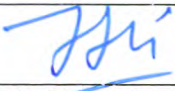
S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Underframe	Front Part	M/S Omax auto gurgaon M/S Neera chandigarh
		Complete	M/S MCF/RBL
2.	Side wall	M/S MCF/RBL	RH 73085 LH 73085
3.	End wall	M/S Neera chandigarh	PP END 73085 NPP END 73085
		M/s Amit Engg.	
4.	Roof	M/S MCF/RBL	
5.	Centre Buffer Coupler	M/S Sanrok faridabad	PP END 3902 NPP END 3961
6.	Buffers	n.a	

6. AIRBRAKE TEST REPORT:

S NO	ITEM	DESCRIPTION	SPEC. VALUE	OBSERVED
1.	Full brake application	➤ Reduce pressure of BP from 5.0 to 3.4 kg/cm ² . ➤ Max. pressure in BC ➤ All Brake are applied	6 – 10 sec. 3.0 ±0.15 kg/cm ² . OK	07 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 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- BERGER	91/88
2.	Insulation		Satisfactory	


SSE/QC/MCF/RBL

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गुणवत्ता विभाग
रे०डि०आ०, रायबरेली (लालगंज)



MODERN COACH FACTORY, RAEBARELI

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RLY	C	R	-	-	Type	L	W	A	C	C	N	Shell No.	7	3	0	8	5	-	2	0	1	7	-	1	8

8. DETAIL OF BOGIES :

ITEMS	PP Side				NPP Side			
Bogie No	170657				170658			
Bogie Type	FIAT				FIAT			
Frame no.	VS/RBL-0524				MCF/RBL -0639			
Bolster no.	MCF/RBL/VS-0196				MCF/RBL/VS-0194			
Axle No	F-9969		N-6946		N-6173		N-6406	
Wheel Dia	917.361	917.366	917.372	917.365	917.403	917.370	917.671	917.772
Wheel Disc No	06025-7006 TZ03-17	06026-70G2 TZ03-17	08765-70J7 TZ04-17	08344-70G4 TZ03-17	09526-7NL8 TZ04-17	08766-70J7 TZ04-17	10917-7NM5 TZ04-17	10013-70J4 TZ04-17
R.B. Nos.	07-16 71870	02-16 80845	05-16 96837	02-16 81599	07-16 69995	02-16 79864	05-16 99667	02-16 81974
CT R B Make	SKF		SKF		SKF		SKF	

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.	CMFSK-04-17- F-169-47	CMAFJ-12-16- 9513-47	CMFSK-04-17- F-16-169-34	CMAFJ-12-16- 9513-43	CMAFJ-03-17- 8836-92	CMAFJ-12-16- 9513-44	CMAFJ-03-17- 8836-32	CMAFJ-12-16- 9513-45
Compressed Ht. at Tested Load	511.5	466	512.5	468	512	468	510	467
Alignment deviation (mm)	14	19	13	15	08	13	10	14

10. TRACEABILITY OF BOGIE ITEMS:

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			PP SIDE	NPP SIDE
1.	Primary outer Spring	CVFSK	05-17-F03-410(212,44,395,272)	05-17-F03-410(115,176,920,435)
2.	Primary Inner Spring	CVFSK	03-17-F04(255,125,233,219)	03-17-F04(222,217,218,24)
3.	Primary Damper	IAI	04-17(179432,179496,179399,17550)	04-17(179431,179462,179405,179426)
4.	Secondary Damper	KONI	25-2016-9896,15-2016-7255	25-2016 (9968,9984)
5.	Lateral Damper	KONI	42-2016 5939	42-2016 5899
6.	Brake Cylinder	FAV	E17-351, F17-156, F17-153, D17-298,	E17-354,, F17-209, F17-210, F17-221,
7.	Brake Caliper	FAV	F17759B,F17756B,F17757B,F17758B	G17071B,G17069B,G17070B,G17072B
8.	Brake Disc	FAV	05-17-3065-D133561-300, 05-17-3066-D133561-300, 06-17-3480-D133561-300, 05-17-3481-D133561-300,	06-17-3362-D133561-300, 06-17-3361-D133561-300, 06-17-3444-D133561-300, 06-17-3443-D133561-300,
9.	Ball Joint Control Arm	GMT		
10.	Lateral Bump Stop	MTC		
11.	Traction Centre make	EMSON		
12.	Traction lever make	JI-01-17		
13.	Ball joint traction lever	MTC		
14.	Ball joint traction centre	GMT/S-BLOC		
15.	Secondary Rubber Pad	PRAG		
16.	Rubber Spring	GMT		
17.	Anti roll bar make	EMSON		
18.	Roll Link make	SARITA/S-BLOC		
19.	Fork make	SARITA		

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 Faively transport tech.india ltd baddi(HP)	G17021B
2.	Pull box	M/s Faively transport tech.india ltd baddi(HP)	
3.	Distribution valve	M/s Faively transport tech.india ltd baddi(HP)	17055505B
4.	Foot Step	M/s Super spark pvt.ltd.faridabad	
5.	Decoupling arrangement	M/s Kohinoor Industries Faridabad	
6.	Floor board	M/S Oriental mumbai	
7.	PVC	M/s-Responsive ind. Delhi	
8.	UIC Vestibule (PPE)	M/s Cemcon ind.DLI	
9.	UIC Vestibule (NPPE)	M/s Cemcon ind.DLI	
10.	Gangway bridge mounting (PPE)	M/s Mahaveer metal workshop KXH	
11.	Gangway bridge mounting (NPPE)	M/s Mahaveer metal workshop KXH	
12.	Body Side Window	M/s Shatabdhi safety glass vadodara	
13.	Emergency Window	M/s Birkan engg.pvt.ltd.GAZIABAD	
14.	Lavatory/hopper Window	M/s Rail tech KXH	
15.	Roof Ceiling	M/s KAE Eng.pvt.ltd.esipl U.K	
16.	Door way /gang way ceiling	M/s Galaxy enterprises Jalandhar	
17.	Supply Air Duct	M/s Hanspal coach products KXH	
18.	Partition panel	M/s Sahai seating enterprises KXH	
19.	Partition pillar	M/s Rail tech KXH	
20.	Side Wall panel	M/s-Hindustan fibre ltd vadodara	
21.	AC Trough	M/s MSL CDG	
22.	Body Side Doors	M/s Sukata CDG	
23.	Compartment Door (PPE)	M/s Hanspal coach products KXH	
24.	Compartment Door (NPPE)	M/s Hanspal coach products KXH	
25.	Vestibule Door(PPE)	M/s Kalsi LDH	
26.	Vestibule Door(NPPE)	M/s Kalsi LDH	
27.	Bio Tank	M/s-Oriental veneer products	
28.	Auxiliary Water Tank	M/s manoj Engg, mohali	
29.	Under Slung Water Tank (2X685L)	M/s Amit Engg, Baddi	
30.	Under Slung Water Tank (1x450 L)	M/s Amit Engg, mohali	
31.	Flexible Faucet	M/s-HF Glass vadodara	
32.	Lotah Filler Tap	M/s-Metco delhi	
33.	Lavatory Modoules	M/s-Hindustan fibre ltd vadodara	
34.	Lavatory Doors	M/s-Hindustan fibre ltd vadodara	
35.	Waste Bin Arrangement	M/s-Hindustan fibre ltd vadodara	
36.	Fire Extinguisher	M/s Classic agnee	NPP-2549,PP-2550
37.	Seat & Berth	M/s Oriental veneer products mumbai	
38.	Light Luggage Rack	M/s- Techno ind. ALD	
39.	Snack Table	M/s-International tractors ltd. Hoshiarpur	

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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 Frequency	REFERENCE & PERIOD OF TRIAL

15. WARRANTY:

S NO	COMPONENTS	WARRANTY
1	Brake pads, wheels, push gravity cocks, flushing valves, mouldings, 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 qualityrcfbl@gmail.com

SSE/QC/MCF/RBL	AME/QC/MCF/RBL	Dy. Chief Quality Manager

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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG AC COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG AC COACHES				
TYPE COACH		LWACCN	SHELL/COACH NO	17961/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	29.73 Cub mtr/min		OK
3.2	Return Air	81.28 Cub mtr/min		OK
3.3	Exhaust Air	9.04 Cub mtr/min		OK
3.4	Conditioned Air	172.12 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 PP Side :21.6 °C NPP Side :20.2 °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.			OK

(Signature)
 Senior Section Engineer
 Quality control / Electrical
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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)

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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): 1758 J Sr no of RMPU (PP side) : 1763 J Sr no of Microprocessor: AE 17.07.097	As per rdso/pe/spes/ac/0061/rev-1/2005	02
02.	Switch board cabinet Make : ISG Sr no : 17/05/0033	RDSO/PE/SPEC/AC/0184-2015 REV-0	01
03.	Pump equipment with PLC controller & pump box Make : KALSI Sr no PA : 4648/10/15 Sr no.1 : 259854 Sr no.2 : 259855 Sr no.CPA : 5012/02/2016	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 : EYYANI	EDTS331, TYPE-1 CORR.-1&2	02
05.	Vestibule Light Fitting Single Make : DR. AUTO	0091 Rev-1,type-N	07
06.	Ceiling light fitting DOUBLE w/o diffuser. Make : INTEG	LW 76011,Alt -c	09
07.	Ceiling light fitting with NL w/o diffuser w/o item 2&3 Make : KAVERI,DEW	LW 76013,Alt -c	09
08.	Emergency light system for EOG type coaches (AEL) Make : VGS	EDTS 151,Rev -c Am-1 & 2	04
09.	Lavatory light fitting assly Make : NIL	LW 76001,Alt nil	04
10.	WC gauge signal light Make : KAVERI	LW 76006,Alt-c	02
11.	Passenger alarm coach indication light Make : DR. AUTO	LW 76005,Alt-e	02
12.	Fluorescent lamp 18W	RDSO/PE/SPEC/D/TL 0011-2000,Rev I, Sec- I , 07/2001	34

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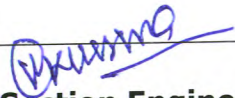
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ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
13.	Diffuser complete w/o item 1& 2.	LW 76012,Alt-a	25
14.	Razor socket for WC 110/240V. Make : SSK	EDML 047 ,Rev nil	04
15.	Terminal strip Make : WAGO	EDML 034,Rev-a	01
16.	Terminal connector Make : WAGO	EDML 037,Rev`a`	04
17.	Single switch 06A/250V/AC ONE WAY ,complete with steel plate & cover frame Make : SSK	EDML 0,64,Rev-B, Item 04.	09
18.	Single switch 06A/250V/AC ONE WAY complete with steel plate & cover frame Make : SSK	EDML 0,64,Rev-B, Item 05.	09
19.	Provision of switch socket combined 5PIN (06A, 250V AC) along with 1A glass fuse fitted powder coated steel plate & cover frame Make : MV ELECTRICAL	EDML 0,64,Rev-B, Item -16.	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 : A RAJA Lug date : 06/2017	EDTS 129,Rev nil	01 set
22.	Battery box for LHB coaches. Make : HI TECH	1 10113 0 76 700 005 w/o item 5,22 ,23 ,26 & 27.	01
23.	Battery fuse box +ve Make : AECO	As per LW 71001,Alt- F	01
24.	Battery fuse box -ve Make : INDORAIL	As per LW 71002,Alt- F	01


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Sr no	Description	Drg/Spec no.	Quantity per Coach
25.	Regulated battery charger Make : IC Elect. Sr no: 1703047	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	01
26.	Emergency battery charger Make : WAVES Sr no: 172455	EDTS 163, Rev `c` corg.-2&3	01
27.	Provision of 5KVA TFR Make : AUTOMATIC Elect Ltd SL.no : T 509081/120	As Per EDTS-366, REV- NIL & CC-71510	01
28.	Provision of capacitor Bank Make : ISG SL.no : 17/06/140	As per EDML-130 Rev- 1, Corr-1	01
29.	60KVA transformer Make : PANTRONICS Sr no : 160111723	As per rdso/pe/spec/ac/0080/re v-0 (2007)/Am-1&2/Corr. 1,2&3	01
30.	ZS coupling 400A/750V/03Ph/50hz. Make : S.INTERNATIONAL	As per spec No EDTS 105, Rev `e` Am-2	01 set
31.	Feeder junction boxes. Make : NEC	EDTS-328 REV-C	01 set
32.	Wheel set earthing equipment. Make : CHANDA & CHANDA	EDTS101, REV-C, AM-1	02 sets
33.	Wheel Slide Protection System (WSP) Make : FAIVELEY Sr no : 09/17/328	M/s : FAIVELEY	01 set
34.	PANTRY EQUIPMENTS : Hot Case & Bottle cooler cum deep freezer Make : HIND RECTIFIERS	As per EDTS -139, Rev- E ,Sec II.	01

SSE/EL/QC	SEE(P)/MCF/RBL

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आधुनिक रेल डिब्बा कारखाना / लालगंज / रायबरेली
S.S.Elect-QC/M.C.F./LLJ/RBL

वरिष्ठ विद्युत अभियन्ता
रेल कोच फैक्टरी, रायबरेली, लखनऊ
Sr. Electrical Engineer / RCF / RBL / Lucknow

