



Modern Coach Factory Raebareli

आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QMF 8002

REV NO: 00

DATE: 16.05.2016

ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2017-18/645

Coach No.										1	8	3	1	0	2	/	C	DATE OF DISPATCH										1	4	-	0	3	-	1	8
RLY	N	R	-	-	Type	L	W	A	C	C	N	Shell No.	7	3	2	4	5	-	2	0	1	7	-	1	8										

2017/M/(C)/142/2 dated -10-01-2017

- Railway Board's Order No. : 2017/M/(C)/142/2 dated -10-01-2017
- 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/-10	1) 1098 (NPPE) 2) 1095 (PPE)

5. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Underframe	Front Part M/S E.c.blades & tool pvt. Ltd CDG	PP END 3187 NPP END 3195
		Complete M/S MCF/RBL	RH 73245 LH 73245
2.	Side wall	M/S MCF/RBL	PP END 73245 NPP END 73245
3.	End wall	PP END M/S E.c.blades & tool pvt. Ltd CDG	
		NPP END M/S E.c.blades & tool pvt. Ltd CDG	
4.	Roof	M/S MCF/RBL	PP END 1346 NPP END 1349
5.	Centre Buffer Coupler	M/S Dellnar INDIA PVT LTD.	
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	07sec. 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 DETAILS:

S NO	DESCRIPTION	TYPE OF PAINT	MAKE	APPLICATION BY MCF/ CONTRACTOR(SUPPLY & APPLY)	AVERAGE GLOSS VALUE
1.	Paint	P.U	M/S -VIBGYOR	MCF	88/88
2.	Insulation			Satisfactory	

[Signature]
SSE/QC/MCF/RBL

गुणवत्ता विभाग
रेडिओका, रायबरेली (लालगंज)





MODERN COACH FACTORY, RAEBARELI

आधुनिक रेल डिब्बा कारखाना, रायबरेली

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RLY	N	R	-	-	Type	L	W	A	C	C	N	Shell No.	7	3	2	4	5	-	-	-	-	-	-	-

8. DETAIL OF BOGIES :

ITEMS	NPP Side				PP Side			
Bogie No	171401				171402			
Bogie Type	LWACCN				LWACCN			
Frame no.	SCI/FM-1545				SCI/FM-1542			
Bolster no.	AMIT-180				AMIT-167			
Axle No	17 B-9644 RWF		17 B-9508 RWF		17 B-8158 RWF		17 B-9498 RWF	
Wheel Dia	917.505	917.488	917.482	917.491	917.500	917.489	917.501	917.443
Wheel Disc No	TZ 05-17 16996-70N2	TZ05-17 16997-70MO	TZ05-17 15821-7PK6	TZ05-17 15822-7PK6	TZ05-17 13394-7OL6	TZ05-17 20391-7PS2	TZ05-17 15739-70N2	TZ05-17 19184-7PL2
R.B. Nos.	06-17 77960	06-17 79398	06-17 79767	06-17 79401	06-17 78005	06-17 76677	06-17 79969	06-17 79756
CT R B Make	SKF		SKF		SKF		SKF	

9. SECONDARY SUSPENSION LOAD DEFLECTION VALUES

DESCRIPTION	Bogie NPP side				Bogie PP side			
	Secondary 1		Secondary 2		Secondary 1		Secondary 2	
	Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner
Make & Nos.	CMGBD 01-18- 5117-10-123	CMFSK01-18 9513-354-61	CMGBD 01-18- 5117-10-127	CMFSK01-18 9513-354-101	CMGBD 01-18- 83610-130	CMFSK01-18 9513-354-37	CMGBD 01-18- 83610-12	CMFSK01-18 9513-354-21
Compressed Ht. at Tested Load	515	468	515	466.5	515	467	515	465
Alignment deviation (mm)	7	12	7	12	9	8	9	8

10. TRACEABILITY OF BOGIE ITEMS:

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	GEREEP	391,353	402,354
2.	Primary outer Spring	CVFSK	11-17 7411-344(352,432,309,295)	11-17 7411-344(307,364,409,391)
3.	Primary Inner Spring	CMGBD	01-18 143 154(127,8,14,222)	01-18 143 154(156,92,132,21)
4.	Primary Damper	KNOOR	07-17(10436,10453,10319,10264)	07-17(10430,10458,9821,9837)
5.	Secondary Damper	GABRIL	08-17(1516,698)	06-17 696,08-17 1514
6.	Lateral Damper	SV	06-17 019524	06-17 019524
7.	Brake Cylinder	ESCORT	38953,38926,38915,38954	37509,37747,37744,37511
8.	Brake Caliper	ESCORT	21578,21551,21540,21579	20757,20899,20896,20759
9.	Brake Disc	KBI	24119144 0023-52/17,24119144 0022-52/17 24119147 0035-52/17,24119148 0029-52/17	24119148 0027-52/17,24119148 0026-52/17 24119147 0037-52/17,24119147 0036-52/17
10.	Ball Joint Control Arm	MTC		
11.	Lateral Bump Stop	PRAG		
12.	Traction Centre make	SARITA		
13.	Traction lever make	JI01-17		
14.	Ball joint traction lever	MTC		
15.	Ball joint traction centre	S-BLOC/GMT		
16.	Secondary Rubber Pad	WINLANE		
17.	Rubber Spring	GMT		
18.	Anti roll bar make	SARITA		
19.	Roll Link make	SARITA/BONY/GMT		
20.	Fork make	SARITA		
21.	Control Arm Upper	RVE	160118-1	251017-4,261017-2,231017-2,251017-4
22.	Control Arm Lower	RVE	110118-1,251017-2,110118-2,241017-1	251017-2,241017-1,150118-2,160815-3

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 Escorts ltd railway equipment FBD	2017120056
2.	Pull box	M/s Faively transport tech.india ltd baddi(HP)	
3.	Distribution valve	M/S Escorts ltd railway equipment FBD	1712A056
4.	Foot Step	M/s Super spark pvt.ltd. faridabad	
5.	Decoupling arrangement	M/s Kohinoor Industries Faridabad	
6.	Floor board	M/S Twpl mumbai	
7.	PVC	M/s Premier polyfilm, New Delhi	
8.	UIC Vestibule (PPE)	M/s-Sunrest ind.kolkata	
9.	UIC Vestibule (NPPE)	M/s-Sunrest ind.kolkata	
10.	Gangway bridge mounting (PPE)	M/s Rakesh iron store KXH	
11.	Gangway bridge mounting (NPPE)	M/s Rakesh iron store KXH	
12.	Body Side Window	M/s Aikon ind.salon H.P	
13.	Emergency Window	M/s Rail tech KXH	
14.	Lavatory/hopper Window	M/s Aikon ind.salon H.P	
15.	Roof Ceiling	M/s CENTURY POLMER IND.VADODARA	
16.	Door way /gang way ceiling	M/s Rail experts . jalandhar	
17.	Supply Air Duct	M/s Amirchand engg.works Jalandhar	
18.	Partition panel	M/s Rail tech KXH	
19.	Partition pillar	M/s Rail tech KXH	
20.	Side Wall panel	M/s-KAE ENGG.U.K	
21.	AC Trough	M/s MSL CDG	
22.	Body Side Door	M/s JBM Faridabad	
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 Hanspal coach products KXH	
26.	Vestibule Door(NPPE)	M/s Hanspal coach products KXH	
27.	Bio Tank	M/s RUBICON STEEL	
28.	Auxiliary Water Tank	M/s Amit Engg, Baddi	
29.	Under Slung Water Tank (2X685L)	M/s Amit Engg, Baddi	
30.	Under Slung Water Tank (1x450 L)	M/s Shivalic fastners pvt.ltd. mohali	
31.	Flexible Faucet	M/s-HF Glass vadodara	
32.	Lotah Filler Tap	M/s-Metco delhi	
33.	Bib cock	M/s KPR ENT.MOHALI	
34.	Lavatory Modoules	M/s-ARHAM HI TECH MUMBAI	
35.	Lavatory Doors	M/s-ARHAM HI TECH MUMBAI	
36.	Waste Bin Arrangement	M/s-ARHAM HI TECH MUMBAI	
37.	Fire Extinguisher	M/s FIRE BOX	NPP-327,PP-297
38.	Seat & Berth	M/s Oriental veneer products mumbai	
39.	Light Luggage Rack	M/s- Techno ind. ALD	
40.	Snack Table	M/s- International tractors ltd. Hoshiarpur	

SSE/QC/MCF/RBL

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रेडि०का०, रायबरेली (लालगंज)





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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 Pad, wheels, flushing valves, push gravity cocks, moldings, window glasses, mirrors, curtain clutch wire etc. (items which are consumable in nature)	NIL
2	Other coach furnishing sub assemblies(bought out items)	24 months from the date of dispatch of coach OR 30 months from the date of supply of material whichever is earlier.

NOTE:

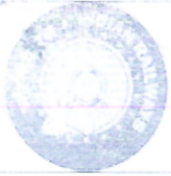
- This warranty covers free supply of parts which wear out and fails within warranty period of normal service.
- This doesn't covers faults arising out of accident, non standard maintenance practices, abnormal use or mishandling, vandal activity, arson & deficient/pilferage etc.
- This doesn't cover 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 MCF/RBL.
- For any complain/ suggestion please Mail at qualityrcfbl@gmail.com
- Painting on supply & apply contract :- supply of material and application shall be warranted for a period of three years from date of Application for any manufacturing /Application as per clause -4, para- V of RDSO specification no .M&C/PCN/100/2013-Given below -

S.No	Time period	Gloss Retention (initial gloss >85 unit at 60°)	Colour Retention rating on 0-10 scale (initial rating of painted panels/coach or ISC/RAL shade card shall be taken as 10)	Adherence of paints (with each other and with substrate)Cross-cut tape adhesion test as per ASTM D:3359/97(or latest)
1	After 1 year	80% of initial gloss	7	5B
2	After 2 year	70% of initial gloss	6	5B
3	After 3 year	60% of initial gloss	5	4B

If any imperfection is noticed or any defect arises during the warranty -period due to improper material used or due to bad workmanship, the contractor shall be bounded to set right the defect/ imperfection on free of cost basis at the base depot of the coach.

SSE/QC/MCF/RBL गुणवत्ता विभाग रेडि०का०, रायबरेली (लालगंज)	AME/QC/MCF/RBL Assistant Mechanical Engineer / Quality आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory, Raebareli	Dy.QM/MCF/RBL जोगिन्दर सिंह उप मुख्य गुणवत्ता प्रबन्धक Dy. Chief Quality Manager आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory, Raebareli





Modern Coach Factory Raebareli
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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	183102/C
RAILWAY		NR	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	29.11 Cub mtr/min		OK
3.2	Return Air	64.21 Cub mtr/min		OK
3.3	Exhaust Air	6.27 Cub mtr/min		OK
3.4	Conditioned Air	168.78 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 Not done due to ambient temp. below 22 ⁰ 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 due to ambient temp. below 22 ⁰ C			OK


Senior Section Engineer
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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 :	
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


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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): 2320-A Sr no of RMPU (PP side) : 2322-A Sr no of Microprocessor: AE-18.01.371	As per rdso/pe/spes/ac/0061/rev-1/2005	02
02.	Switch board cabinet Make : ABROL Sr no : 21-01-2018	RDSO/PE/SPEC/AC/0184-2015 REV-0	01
03.	Pump equipment with PLC controller & pump box Make : KIND Sr no PA : 0064 Sr no.1 : 17070355 Sr no.2 : 17070356 Sr no.CPA : 17070063	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.	Door way/Gangway Light Make : RT VISION	RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-N	07
06.	Provision of Passenger area light(Cabin) Make: RT VISION	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-L	09
07.	Corridor Light with Night light Make: RT VISION	RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-M	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 : ACTIVE INDUSTRIES	LW 76001,Alt nil	04
10.	Toilet indication (WC) light, Make: DR AUTO	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-H1	04
11.	Passenger alarm coach indication light Make : DR AUTO	LW 76005,Alt-e	02


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ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
12.	Razor socket for WC 110/240V. Make : SSK	EDML 047,Rev nil	04
13.	Terminal strip Make : WAGO	EDML 034,Rev-a	01
14.	Terminal connector Make : WAGO	EDML 037,Rev`a`	04
15.	Single switch 06A/250V/AC ONE WAY ,complete with steel plate & cover frame Make : SSK	EDML 0,64,Rev-B, Item 04.	09
16.	Single switch 06A/250V/AC ONE WAY complete with steel plate & cover frame Make : SSK	EDML 0,64,Rev-B, Item 05.	09
17.	Provision of switch socket combined 5PIN (06A, 250V AC) along with 1A glass fuse fitted powder coated steel plate & cover frame Make : SSK	EDML 0,64,Rev-B, Item -16.	09
18.	PA system for LHB coaches Make : AHUJA	EDTS 173,Rev- a Am- 1,2&3	01 set
19.	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 : 12/2017	EDTS 129,Rev nil	01 set
20.	Battery box for LHB coaches. Make : HITECH	1 10113 0 76 700 005 w/o item 5,22 ,23 ,26 & 27.	01
21.	Battery fuse box +ve Make : INDORAIL	As per LW 71001,Alt- F	01
22.	Battery fuse box -ve Make : SSK	As per LW 71002,Alt- F	01


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Sr no	Description	Drg/Spec no.	Quantity per Coach
23.	Emergency battery charger Make : BHASIN Sr no: 10174406 Make : BHASIN Sr no: 10174544	EDTS 163,Rev 'c' corg.-2&3	02
24.	Provision of 5KVA TFR Make : AUTOMATIC Elect Ltd SL.no : 03/17/T 509081/204	As Per EDTS-366,REV-NIL & CC-71510	01
25.	Provision of capacitor Bank Make : ISG SL.no : CB-MCF-18-01-0191	As per EDML-130 Rev-1,Corr-1	01
26.	60KVA transformer Make : VIMAL Sr no : VTC-3089-LHB-5314	As per rdso/pe/spec/ac/0080/rev-0 (2007)/Am-1&2/Corr. 1,2&3	01
27.	Inter Vehicle (ZS)coupler Make: PRIME ELECT.	As per RDSO PE SPEC-0177-2013 REV-0	01 set
28.	Feeder junction boxes. Make : NEC	EDTS-328 REV-C	01 set
29.	Wheel set earthling equipment. Make : MAA LAXMI INDUSTRIES	EDTS101,REV-C,AM-1	02 sets
30.	Wheel Slide Protection System (WSP) Make : ESCORTS Sr no : 170076-11932-0040	M/s : ESCORTS	01 set
31.	PANTRY EQUIPMENTS : Hot Case & Bottle cooler cum deep freezer Make : SUPER REFFIGERATION	As per EDTS -139, Rev- E ,Sec II.	01

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

वरिष्ठ अनुभाग अभियन्ता
गुणवत्ता नियंत्रण
आउटरीडिंग/लालगंज/रायबरेली
S.S.E./Elect-QC/M.C.F./RBL

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