



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/2017-18/339

Coach No.	1	7	1	1	4	/	C	-	DATE OF DISPATCH	1	1	-	1	1	-	1	7
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RLY	E	C	R	-	Type	L	W	A	C	C	N	Shell No.	7	3	0	9	3	-	2	0	1	7	-	1	8
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1. Railway Board's Order No. : 2017/M/(C)/142/2 dated -21-09-17

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/-10	1) 1101 (NPPE) 2) 1105 (PPE)

5. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Underframe	M/S Manjit techno fab raebareli	PP END 58 NPP END 58
	Complete	M/S Manjit techno fab raebareli	
2.	Side wall	M/S MCF/RBL	RH 73093 LH 73093
3.	End wall	M/S E.c.blades & tool pvt. Ltd CDG	PP END 73093 NPP END 73093
		M/S E.c.blades & tool pvt. Ltd CDG	
4.	Roof	M/S MCF/RBL	
5.	Centre Buffer Coupler	M/S Escorts ltd railway equipment FBD	PP END 9847 NPP END 9846
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	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	APPLICATION BY MCF/ CONTRACTOR(SUPPLY & APPLY)	AVERAGE GLOSS VALUE
1.	Paint	P.U	M/S BERGER	SUPPLY & APPLY	91/88
2.	Insulation			Satisfactory	

वरिष्ठ अभियंता
SSE/QC/MCF/RBL

रेडिंकॉ, रायबरेली (लालगंज)



MCF/RBL



MODERN COACH FACTORY, RAEBARELI

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8. DETAIL OF BOGIES :

ITEMS	NPP Side				PP Side			
Bogie No	170813				170814			
Bogie Type	FIAT				FIAT			
Frame no.	MCF/RBL-680				MCF/RBL-665			
Bolster no.	AMIT-65				AMIT-78			
Axle No	F-9621		G-0074		J-2082		F-9522	
Wheel Dia	917.508	917.594	917.524	917.602	917.578	917.624	917.560	917.605
Wheel Disc No	TZ03-17 07381-70J4	TZ04-17 08713-70J7	TZ03-17 07363-70J4	TZ04-17 08709-70J7	TZ03-17 07385-70J4	TZ03-17 04022-7003	TZ04-17 08664-70J7	TZ03-17 07384-70J4
R.B. Nos.	12-16 92361	05-16 60130	12-16 92500	12-16 92721	12-16 92346	12-16 93448	07-16 71872	12-16 93468
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-08-17-83691-179	CVFSK-07-17-9513-291-160	CMGBD-08-17-83691-171	CVFSK-07-17-9513-291-130	CMGBD-08-17-83691-224	CVFSK-07-17-9513-291-107	CMGBD-08-17-83691-31	CVFSK-07-17-9513-291-79
Compressed Ht. at Tested Load	514	464	515	466	514	467.5	515	465
Alignment deviation (mm)	08	08	07	11	12	10	12	10

10. TRACEABILITY OF BOGIE ITEMS:

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Primary outer Spring	CVFSK	01-17-7411-237-245,05-17-F03-410(15,246,292)	05-17-F03-410(01,83,396,78)
2.	Primary Inner Spring	CVFSK	06-17-7143-284(85,25,83,131)	06-17-7143-284(112,107,66,174)
3.	Primary Damper	KONI	08-17(10725,11003,10959,10516)	08-17(10856,10881,10960,10964)
4.	Secondary Damper	KONI	20-2016(8502,9747)	20-2016(8547,8754)
5.	Lateral Damper	KONI	42-2016 5624	42-2016 5945
6.	Brake Cylinder	FAV	H17-142, H17-0183, H17-186, H17-143,	H17-141, H17-231, H17-182, H17-205,
7.	Brake Caliper	FAV	K17252B, K17250B, K17249B, K17251B,	K17248B, K17246B, K17245B, K17247B,
8.	Brake Disc	KBI	24103251-0028-22-17, 24103251-0036-22-17, 24104259-0006-22-17, 24103254-0011-22-17,	24103254-0037-22-17, 24103254-0038-22-17, 24103251-0002-22-17, 24103250-0040-22-17,
9.	Ball Joint Control Arm	S-BLOC		
10.	Lateral Bump Stop	MTC		
11.	Traction Centre make	SARITA		
12.	Traction lever make	JI-01-17		
13.	Ball joint traction lever	S-BLOC		
14.	Ball joint traction centre	MTC		
15.	Secondary Rubber Pad	TECSPAK		
16.	Rubber Spring	GMT		
17.	Anti roll bar make	SARITA		
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)	H17029B
2.	Pull box	M/s Faively transport tech.india ltd baddi(HP)	
3.	Distribution valve	M/s Faively transport tech.india ltd baddi(HP)	17075575B
4.	Foot Step	M/s Super spark pvt.ltd.faridabad	
5.	Decoupling arrangement	M/s Kohinoor Industries Faridabad	
6.	Floor board	M/S Narbada forest bhopal	
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 Rail tech KXH	
13.	Emergency Window	M/s Rail tech KXH	
14.	Lavatory/hopper Window	M/s Tech fab kanghra	
15.	Roof Ceiling	M/s-Hindustan fibre ltd vadodara	
16.	Door way /gang way ceiling	M/s Gandhi safe & allied jalandhar	
17.	Supply Air Duct	M/s Hanspal coach products KXH	
18.	Partition panel	M/s Honey comb associate bagaularu	
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 Hanspal coach products KXH	
26.	Vestibule Door(NPPE)	M/s Hanspal coach products KXH	
27.	Bio Tank	M/s Rail tech KXH	
28.	Auxiliary Water Tank	M/s Amit 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.	Bib cock	M/s Jaquar pvt.ltd. alwar Rajasthan	
34.	Lavatory Modoules	M/s-Hindustan fibre ltd vadodara	
35.	Lavatory Doors	M/s-Hindustan fibre ltd vadodara	
36.	Waste Bin Arrangement	M/s-Hindustan fibre ltd vadodara	
37.	Fire Extinguisher	M/s power Agnee new delhi	NPP-45205,PP-45206
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

गुणवत्ता विभाग

रेलवे कारखाना, रायबरेली (ला.वि.)





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RLY	E	C	R	-	Type	L	W	A	C	C	N	Shell No.	7	3	0	9	3	-	2	0	1	7	-	1	8

11. MODIFICATION (IF ANY) : NIL

12. DEVIATION (IF ANY) : NIL

13. 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 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 MCF/RBL.
- For any complain/ suggestion please Mail at qualitycfrbl@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	AME/QC/MCF/RBL	Dy.CQM/MCF/RBL

रैलवे कारखाना, रायबरेली

जोगिन्दर सिंह
उप मुख्य गुणवत्ता प्रबन्धक
Dy. Chief Quality Manager
आधुनिक रेल डिब्बा कारखाना, रायबरेली
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	17114/C
RAILWAY		EC	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	29.01 Cub mtr/min		OK
3.2	Return Air	71.42 Cub mtr/min		OK
3.3	Exhaust Air	9.13 Cub mtr/min		OK
3.4	Conditioned Air	177.62 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 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 ambient temp. below 22 ⁰ C			OK

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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


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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 : DAULATRAM Sr no of RMPU (NPP side): 132 Sr no of RMPU (PP side) : 136 Sr no of Microprocessor: A PAUL-17.09.007	As per rdso/pe/spes/ac/0061/rev-1/2005	02
02.	Switch board cabinet Make : ISG Sr no : CBS-MCF-17-08-0089	RDSO/PE/SPEC/AC/0184-2015 REV-0	01
03.	Pump equipment with PLC controller & pump box Make : KIND Sr no PA : 07/17-0036 Sr no.1 : 17070299 Sr no.2 : 17070300 Sr no.CPA : 17070013	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.	Door way/Gangway Light Make : D R AUTO	RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-N	07
06.	Provision of Passenger area light(Cabin) Make: D R AUTO	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-L	09
07.	Corridor Light with Night light Make: D R AUTO	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 : D R AUTO	LW 76001,Alt nil	04
10.	Toilet indication (WC) light, Make: D R AUTO	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-H1	04
11.	Passenger alarm coach indication light Make : D R 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 : NIL	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 : 09/2017	EDTS 129,Rev nil	01 set
20.	Battery box for LHB coaches. Make : TECHNO	1 10113 0 76 700 005 w/o item 5,22 ,23 ,26 & 27.	01
21.	Battery fuse box +ve Make : ISG	As per LW 71001,Alt- F	01
22.	Battery fuse box -ve Make : ISG	As per LW 71002,Alt- F	01

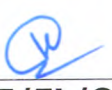


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Sr no	Description	Drg/Spec no.	Quantity per Coach
23.	Regulated battery charger Make: IC ELECT. Sr no: 1702025	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	01
24.	Emergency battery charger Make : WAVES Sr no: 1173250	EDTS 163,Rev `c` corg.- 2&3	01
25.	Provision of 5KVA TFR Make : VIMAL SL.no : VTC-3089-CHB-118	As Per EDTS-366,REV- NIL & CC-71510	01
26.	Provision of capacitor Bank Make : ISG SL.no : CB-MCF-17-06-0108	As per EDML-130 Rev- 1,Corr-1	01
27.	60KVA transformer Make : AUTOMATIC Elect Ltd Sr no : 4/17/T 116503/197	As per rdso/pe/spec/ac/0080/rev- 0 (2007)/Am-1&2/Corr. 1,2&3	01
28.	Inter Vehicle (ZS)coupler Make: S INTERNATIONAL	As per RDSO PE SPEC- 0177-2013 REV-0	01 set
29.	Feeder junction boxes. Make : AECO	EDTS-328 REV-C	01 set
30.	Wheel set earthling equipment. Make : MAA LAXMI INDUSTRIES	EDTS101,REV-C,AM-1	02 sets
32.	Wheel Slide Protection System (WSP) Make : FAIVELEY Sr no : 17/17/531	M/s : FAIVELEY	01 set
33.	PANTRY EQUIPMENTS : Hot Case & Bottle cooler cum deep freezer Make : SUPER REFRIGERATION	As per EDTS -139, Rev- E ,Sec II.	01

 SSE/EL/QC वरिष्ठ अनुभाग अभियन्ता गुणवत्ता नियंत्रण आ0रे0डि0का0 / लालगंज / रायबरेली S.S.E./Elect-QC/M.C.F./LLJ/RBL	 SEE(P)/MCF/RBL/ DYCEE/P&P/MCF/RBL वरिष्ठ विद्युत अभियन्ता रेल कोच फैक्टरी, रायबरेली, लखनऊ Senior Engineer / RCF / RBL / Lucknow
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