



Modern Coach Factory Raebareli

आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QMF 8002

REV NO: 01

DATE: 17.04.2018

ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2018-19/1015

RLY	E	R	-	Coach No.	1	9	1	0	0	9	/	C	DATE OF DISPATCH	1	0	-	0	1	-	1	9
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DISPATCH TO	CWM/LILUAH	Type	L	W	S	C	N	1	Shell No.	8	7	3	2	6	-	2	0	1	8	-	1	9
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- Railway Board's Order No. : 2018/M(C)/142/2, Dated-17-09-2018
- Tare Weight of Coach : 41.24 Tones
- Carrying Capacity : (a) Seating: 80 (b) Sleeping: 80 (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	4039
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.	Under frame	PP END M/S- DTL, PUNE	25
		NPP END M/S- DTL, PUNE	25
	Complete	M/S- DTL, PUNE	25
2.	Lav. side wall	M/S- RAIL FAB, KXH	LAV.1 - LAV.2 -
		M/S- RAIL FAB, KXH	LAV.3 - LAV.4 -
3.	Side wall	LH SIDE M/s-ECBT, CDG	27
		RH SIDE M/s-ECBT, CDG	27
4.	End wall	PP END M/s- SFPL, MOHALI	---
		NPP END M/s- SFPL, MOHALI	---
5.	Roof	M/S- PENNAR, THIRUVALLUR	238
6.	Centre Buffer Coupler	M/S- DELLNER INDIA PVT.LTD.	PP END 3524 NPP END 3523

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	08 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 DETAILS:

S NO	DESCRIPTION	TYPE OF PAINT	MAKE	APPLICATION BY MCF/ CONTRACTOR(SUPPLY & APPLY)	AVERAGE GLOSS VALUE
1.	Paint	P.U	M/s -GS	Supply & apply	89/88
2.	Insulation			Satisfactory	

[Signature]
SSE/OC/MCF/RBL

वरिष्ठ अभियंता
गुणवत्ता विभाग
रेडिओ, रायबरेली (लालगंज)



MODERN COACH FACTORY, RAEBARELI

आधुनिक रेल डिब्बा कारखाना, रायबरेली

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RLY	E	R	-	Type	L	W	S	C	N	1	Shell No.	8	7	3	2	6	-	-

8. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	180450				180449			
Bogie Type	FIAT				FIAT			
Frame no.	VS-1538				VS-1549			
Bolster no.	APEX-57				APEX-54			
Axle No	18 G-3085 RWF		18 G-3440 RWF		18 F-7878 RWF		18F- 4538 RWF	
Wheel Dia	917.51	917.513	917.506	917.526	917.544	917.64	917.534	917.638
Wheel Disc No	TZ07-18 40019-8RL3	TZ07-18 36601-8RP4	TZ07-18 34661-8QN1	TZ07-18 34656-8QN6	TZ07-18 33793-8RG5	TZ07-18 38842-8RQ2	TZ07-18 40180-8RL7	TZ07-18 34629-8RG3
R.B. Nos.	05-18 39316	05-18 39187	05-18 39886	05-18 39181	05-18 38821	05-18 39131	05-18 38829	05-18 39123
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.	CMFSK12-18- 5101-512-20	CMRSK05-18-F08- RN12-08Y-1160	CMFSK12-18- 5101-512-32	CMRSK05-18-F08- R58-08Y-204	CMFSK12-18- 5101-512-15	CMRSK05-18-F08- R58-08Y-1832	CMFSK12-18- 5101-512-28	CMRSK05-18-F08- R18-08Y-1677
Compressed Ht. at Tested Load	513	472	513	472	514	467	513.5	470
Alignment deviation (mm)	10	4	9	2	8	7	9	9

10. TRACEABILITY 9OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	GEREP	356,261	361,352
2.	Primary outer Spring	CMGBD	10-18 1100 (121-181,119-232,122-7,121-182)	10-18 1100- (121-75,122-185,122-591,121-133)
3.	Primary Inner Spring	CMGBD/CMRSK	10-18 1101-(36-96,36-127,96-19,31-2464)	02-18 06Y-(410,4267,249,346)
4.	Primary Damper	KNORR	05-18(21406,21411,21414,21415)	05-18(21397,21401,21399,21392)
5.	Secondary Damper	GEREP	16-2018 301550739	16-2018 301550739
6.	Lateral Damper	KNORR	03-18 2009	03-18 2008
7.	Brake Cylinder	FAV	L18(584,566,604,652)	L18- (449,480,406,647)
8.	Brake Caliper	FAV	M18(595,593,594,596)	M18(583,581,582,584)B
9.	Brake Disc	FAV	11-18(6415,6414,6413,6419)D133561-300	11-18 6420,10-18(3413,3414,3416)D133561-300
10.	Ball Joint Control Arm	AR/BONY		
11.	Lateral Bump Stop	BONY		
12.	Traction Centre make	SARITA/SF		
13.	Traction lever make	JI		
14.	Ball joint traction lever	SGA		
15.	Ball joint traction centre	AR		
16.	Secondary Rubber Pad	DUREL		
17.	Rubber Spring	AR/PPI		
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA/PPI/UK /SF/PPI		
20.	Fork make	EMSON		
21.	Control Arm Upper	RVE	211118-2,201118-4,221118-1,201118-4	221118-1,201118-2,201118-2,231118-3
22.	Control Arm Lower	RVE	211118-4,191118-3,191118-2,201118-2	271118-2,271118-2,271118-2,271118-2

Signature

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)	M 18043 B
2.	Pull box	M/s- FAIVELY TRANSPORT TECH.INDIA LTD BADDI(HP)	
3.	Distribution valve	M/s- FAIVELY TRANSPORT TECH.INDIA LTD BADDI(HP)	18115563 B
4.	Foot Step	M/s- SUPER SPARK PVT. LTD. FARIDABAD	
5.	Decoupling arrangement	M/S- KOHINOOR INDUSTRIES, JALANDHAR	
6.	Floor board	M/s- SHREE RAM PANELS, GOVINDGARH P.B.	
7.	PVC	M/S- RESPONSIVE IND.DELHI	
8.	Lavatory Inlay	M/s- SEEMA IND. BHOPAL	
9.	UIC Vestibule (PPE)	M/S-ELASTOMER LINING WORKS, MUMBAI	
10.	UIC Vestibule (NPPE)	M/S-ELASTOMER LINING WORKS, MUMBAI	
11.	Gangway bridge mounting (PPE)	M/S- HAREKRISHNA COMPONENTS. KXH	
12.	Gangway bridge mounting (NPPE)	M/S- HAREKRISHNA COMPONENTS. KXH	
13.	Body Side Window	M/S- AJC, KOLKATA	
14.	Emergency Window	M/S- MECDOWN INDS, KOLKATA	
15.	Hopper Window	M/S- TECH FAB. KXH	
16.	Side panel	M/S-SUNGLOW PUNJAB LAMINATE	
17.	Roof ceiling	M/S- A.B. COMPONENTS, KOLKATA	
18.	Door way ceiling	M/s- RAJA IND. KHANNA	
19.	Body Side Door 1,2	M/S- JVR INDUSTRIES, LDH	
20.	Body Side Door 3,4	M/S- JBM INDUSTRIES, FARIDABAD	
21.	Vestibule Door(PPE)	M/S- KALSI, LUDHIANA	
22.	Vestibule Door(NPPE)	M/S- KALSI, LUDHIANA	
23.	Bio Tank LAV-1,3	M/S-M.K. METAL PARTS, MUMBAI	
24.	Bio Tank LAV-2	M/s- RAIL FAB	
25.	Bio Tank LAV-4	M/s- FLASH FORGE (P)LTD. VIZAG	
26.	Auxiliary Water Tank	M/s- AMIT ENG. MOHALI	
27.	Under Slung Water Tank(2X685L)	M/s- AMIT ENG. BADDI, AMIT ENG. MOHALI	
28.	Under Slung Water Tank (1X685L)	M/s- AMIT ENG. MOHALI	
29.	Controlled Discharge Tap	M/s- AGMECO PVT. LTD. UK	
30.	Lavatory Doors	M/s- KALSI, LDH	
31.	Flexible Faucet	M/s- KAPCO VALVES, JALANDHAR	
32.	Lotah Filler Tap	M/s- KAPCO VALVES, JALANDHAR	
33.	Seat & Berth	M/S- ORIENTAL VENEER PRODUCTS MUMBAI	
34.	Snack Table	N/A	

Signature

SSE/QC/MCF/RBL.

वार ०८/०४/२०१८ अभियंता

गुणवत्ता विभाग

रे०डि०का०, रायबरेली (लागूगंज)



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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 Pad, wheels, flushing valves, push gravity cocks, moldings, window glasses, mirrors, 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 वरिष्ठ गुणवत्ता अधिकारी गुणवत्ता विभाग रेडिक्लॉ, रायबरेली (सालगंज)	AME/QC/MCF/RBL Assistant Mechanical Engineer / Quality-II आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory, Raebareli	Dy.COM/MCF/RBL उप मुख्य गुणवत्ता प्रबंधक Dy. Chief Quality Manager आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory, Raebareli



Modern Coach Factory Raebareli
आधुनिक रेल डिब्बा कारखाना, रायबरेली

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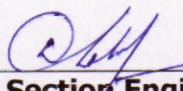
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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NON AC SCN COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG NON AC COACHES

TYPE COACH	LWSCN	SHELL/COACH NO	191009/C
RAILWAY	ER	DATE OF DESPATCH	
Sr no	Description of test	Remarks	
1.	PUMP EQUIPMENTS	OK	
2.	LIGHTS, NL,LAP CHARGING SOCKETS	OK	
3.	RAILWAY CARRIAGE FAN	OK	
4.	WHEEL SLIDE PROTECTION SYSTEM (WSP)	OK	
5.	WORKING OF 9 KVA TRANSFORMER	OK	
6.	WORKING OF REGULATED BATTERY CHARGER	OK	
7.	SAFETIES :		
7.1.	FUSES AND THEIR RATING	OK	
7.2.	CONTROL CIRCUIT	OK	
7.3.	POWER CIRCUIT	OK	


Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli



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FOR ELECTRICAL ITEMS

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01.	Switch board cabinet Make : AMIT ENGG. On Board Sr no : AE/USBC-827 HT Panel Sr no : AE/USBC-838	EDTS 333, Rev` 01'Am-1	01
02.	Pump equipment with PLC controller & pump box Make : DR AUTO Sr no PA: 2018/12/184 Sr no.1 : 18120108 Sr no.2 : 18110474 Sr no.CPA: 2018/12/132-DR AUTO	As per spec EDTS 186,Rev-a, Am- 2	01
03.	Emergency light system for EOG type coaches (AEL), Make : VGS	EDTS 151,Rev -c Am-1 & 2	04
04.	Passenger Alarm Cum Indication Light (PACIL) Make: DR AUTO	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-I	02
05.	Fitment of Switch Plate Assly(Cabin Side) Make : SSK/SALZER	EDML 086,Rev-03, ITEM-01	10
06.	Fitment of Switch Plate Assly Corridor Side),Make : SSK/SALZER	EDML 086, Rev 03, ITEM-02	10
07.	Railway carriage Fan 400mm Sweep, 110V DC with crash worthy features. Make : IMT CABLES	IS 6680/92,First Rev, RCF Amdt 4, Col I, Ty XI, RCF Cor I.	30
08.	Cabin, Corridor, doorway and Gangway Lights. Make: RT VISION	As per RDSO/PE/SPEC/TL-0091(REV-1) TYPE B-1	26
09.	Lavatory Light Make: DR AUTO	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-D &	04
10.	Night Light Fitting (LED BASED) Sticker For Berth Number On Night light Fitting For LHBSCN(80-BERTHER)Coaches Make : AGASTYA	CC76289 & CC76443	10

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11.	Battery fuse box +ve Make : NEC	LW 71001,Alt-F	01
12.	Battery fuse box -ve Make : NEC	LW 71002,Alt-F	01
13.	Regulated battery charger Make : IC ELECTRICAL Sr no: 10-18-0037	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	01
14.	9KVA transformer Make : VIMAL Sr no : VTC-3089-LHB-1508	As per RDSO/PE/SPEC/TL 0158, 2010, Rev`0`,Ty I.	01
15.	ZS coupling 400A/750V/03Ph/50hz. Make : MAA LAXMI INDUSTRIES	As per spec No EDTS 105,Rev`e` Am-3, TYPE-2	01 set
16.	Feeder junction boxes. Make : SIDWAL	EDTS-328 REV-C	01 set
17.	Wheel set earthing equipment. Make : MAA LAXMI INDUSTRIES	EDTS101,REV-C,AM-1	02 sets
18.	Wheel Slide Protection System (WSP) Make : FAIVELEY Sr no : 28-18-1229	M/s : FAIVELEY	01 set
19.	110V,120AH,VRLA SMF BATTERY SET WITH 19 MONOBLOCK (6V EACH) PRECHARGED,WIH MODIFIED TRAY TOSKED-644 Make : AMARA RAJA Lug date : 04/18	RDSO/pe/spec/ac-0009 rev-1- 2008 amdt-1	01 set
20.	Battery box for LHB coaches. Make : HITECH	CC 91205	01

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

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गुणवत्ता निबन्धन
आपरेटिंग/लालगंज/रायबरेली
S.S.E./Elect-QC/M.C.F./LLJ/RBL

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