



Modern Coach Factory Raebareli

आधुनिक रेल डिब्बा कारखाना, रायबरेली

DGC NO.: MCF/RBL/QMF 8002

REV NO: 01

DATE: 17.04.2018

ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No. MCF/RBL/QC/RSC/2019-20/1108

RLY	N	F	R	Coach No.	1	9	7	6	4	7	/	C	DATE OF DISPATCH	2	3	-	1	1	-	1	9
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DISPATCH TO	Sr.DME/DBRG	Type	L	W	S	C	N	1	Shell No.	9	7	1	3	2	FUR.NO.	LSCNG-299
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1. Railway Board's Order No. : 2019/M(C)/142/2, Dated-21-11-2019
2. Tare Weight of Coach : 41.24 Tones
3. Carrying Capacity : (a) Seating : 80 (b) Sleeping : 80 (c) Luggage : NIL

4. Special feature: -

S NO	DESCRIPTION	MAKE/SUPPLIER
A.	Epoxy flooring in lavatory	M/s-ACME INDS NEW DELHI
B.	Anti slip friendly Grab Bar	M/s-ACME INDS NEW DELHI
C.	Provision of Health Faucet in lavatories	M/s-ACME INDS NEW DELHI
D.	Washbasin counter Top (Corian of Duport or Montelli)	M/s-ACME INDS NEW DELHI
E.	GFRE ceiling instead of NFTC	M/s-ACME INDS NEW DELHI
F.	DGFRP panels instead of LP panels	M/s-ACME INDS NEW DELHI
G.	Honey Comb partition frame with DGFRP sheet instead of FRP sheet	M/s-ACME INDS NEW DELHI
H.	Choke of 5/6 mm in DV side replace with 9 mm in both type (KBI & Faiveley) letter no. MC/LHB/Brake, Dated 27.09.2018	
I.	RFID(Radio frequency identification) fitted for traceability of coach	

5. 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) 1105 (NPPE) 2) 1096 (PPE)

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Under frame	PP END M/S-M.TECH	339
		NPP END M/S-M.TECH	342
	Complete	M/S-V4U	97132
2.	Lav. side wall	M/S- MIDAS GUJRAT	LAV.1 - LAV.2 -
		M/S- MIDAS GUJRAT	LAV.3 - LAV.4 -
3.	Side wall	LH SIDE MCF/RBL(CONTRACTOR V4U)	177/01
		RH SIDE MCF/RBL(CONTRACTOR V4U)	177/02
4.	End wall	PP END M/s-SIPL PALWAL	--
		NPP END M/s-DTL PUNE	--
5.	Roof	M/s-ECBT	275
6.	Centre Buffer Coupler	M/S- SANROK	PP END 13686 NPP END 13691

7. 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

8. PAINTING DETAILS:

S NO	DESCRIPTION	TYPE OF PAINT	MAKE	APPLICATION BY MCF/ CONTRACTOR(SUPPLY & APPLY)	AVERAGE GLOSS VALUE	DATE OF COMPLETION
1.	Paint	P.U	M/s-VIBGYOR	(SUPPLY & APPLY)	90/89	26.08.19
2.	Insulation			Satisfactory		

SSR/QC/MCF/RBL
गुणवत्ता विभाग
रेडिओआर, रायबरेली (लाहमंज)



MODERN COACH FACTORY, RAEBARELI

आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QMF 8002

REV NO.: 01

DATE: 16.05.2016

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DISPATCH	Sr.DME/DBRG	Type	L	W	S	C	N	1	Shell No.	9	7	1	3	2	FUR .NO	LSCN-G-299
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9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	192230				192229			
Bogie Type	FIAT				FIAT			
Frame no.	MCF/RBL-2040				MCF/RBL-1699			
Bolster no.	MCF/RBL-2858				AMIT-769			
Axle No	19 L- 5670 RWF		19 P- 2931 RWF		19 S- 9019 RWF		19 S- 5264 RWF	
Wheel Dia	917.458	917.556	917.514	917.483	917.488	917.524	917.487	917.572
Wheel Disc No	TZ 07-19 69525-9RM5	TZ 07-19 69081-9RL7	TZ 07-19 65822-9RQ0	TZ 07-19 65231-9RP3	TZ 07-19 62547-9RNO	TZ 07-19 68830-9RM5	TZ 07-19 69526-9RM9	TZ 07-19 69084-9RL7
R.B. Nos.	08-19-27891	09-18-22688	09-18-21733	09-18-23016	09-19-38635	09-18-23217	09-19-38197	09-18-21797
CT R B Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	

10. 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.	CMAFJ09-19-5101-124	CMFSK08-19-5100-027-521	CMAFJ09-19-5101-147	CMFSK08-19-5100-027-538	CMAFJ09-19-5101-163	CMFSK08-19-5100-027-514	CMAFJ09-19-5101-155	CMFSK08-19-5100-027-538
Compressed Ht. at Tested Load	515	470.5	516	471	516	472	515	471.5
10Alignment deviation (mm)	10	9	10	13	5	9	5	7

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	11931,11920	11938,11939
2.	Primary outer Spring	CMFSK	10-19 1100-114 (971,962,997,1072)	10-19 1100-114 (1073,930,919,910)
3.	Primary Inner Spring	CMFSK	10-19 1101-101 (6,490,262,80)	10-19 1101-101 (483,1854,73,455)
4.	Primary Damper	KONIC	03-19 (05159,05623,06043,05645)	03-19 (06709,06696,06639,06373)
5.	Secondary Damper	IAI	04-19 (272827,272830)	04-19 (272726,272790)
6.	Lateral Damper	KNORR	06-19 9559	06-19 09587
7.	Brake Cylinder	ESCORT	(45907,46211,47879,47785)	(47787,47820,47483,47728)
8.	Brake Caliper	ESCORT	(25727,25938,27406,27354)	(27356,27407,27085,27330)
9.	Brake Disc	KBI	24200057 0073-38/19,24203754 0022-42/19 24200055 0040-37/19,24200057 0070-38/19	24200055 0038-37/19,24200057 0069-38/19 24200059 0060-38/19,24200059 0057-38/19
10.	Ball Joint Control Arm	ARYAN		
11.	Lateral Bump Stop	ARYAN		
12.	Traction Centre make	SARITA		
13.	Traction lever make	TAJ		
14.	Ball joint traction lever	ARYAN		
15.	Ball joint traction centre	ARYAN		
16.	Secondary Rubber Pad	PRAG		
17.	Rubber Spring	AR		
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	EMSON / ARYAN		
20.	Fork make	RNG		
21.	Control Arm Upper	RVE	210819-2,300719-2,270819-3,210819-2	280819-2,210819-2,290819-3,RVE
22.	Control Arm Lower	RVE	280819-2,RVE,230819-3,RVE	RVE,230819-5,RVE,210819-2
23.	Phonic Wheel	KBI	K-05-19	K-05-19

Signature of SSE/Bogie/QC



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12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/S -FAIVELY TRANS. TECH.INDIA LTD BADDI(HP)	E19014B
2.	Distribution valve	M/S -FAIVELY TRANS. TECH.INDIA LTD BADDI(HP)	19055515B
3.	Pull box	M/S- KBI, FARIDABAD	
4.	FIBA	N/A	
5.	Foot Step	M/s- SUPER SPARK PVT. LTD. FARIDABAD	
6.	Decoupling arrangement	M/S-ELASTOMER LINING WORKS, MUMBAI	
7.	Floor board	M/s-TWPL MUMBAI	
8.	PVC	M/s-ACME INDS NEW DELHI	
9.	Lavatory Inlay	M/S- SEEMA INDS. BHOPAL	
10.	UIC Vestibule (PPE)	M/S-SUNCREST IND.KOLKATA	
11.	UIC Vestibule (NPPE)	M/S-SUNCREST IND.KOLKATA	
12.	Gangway bridge mounting (PPE)	M/S- RAKESH IRON STORE, KXH	
13.	Gangway bridge mounting (NPPE)	M/S- RAKESH IRON STORE, KXH	
14.	Body Side Window	M/s-ACME INDS NEW DELHI	
15.	Emergency Window	M/s-ACME INDS NEW DELHI	
16.	Hopper Window	M/s-ACME INDS NEW DELHI	
17.	Side panel	M/s-ACME INDS NEW DELHI	
18.	Roof ceiling	M/s-ACME INDS NEW DELHI	
19.	Door way ceiling	M/s-ACME INDS NEW DELHI	
20.	Partition frame	M/S-SARITA HITECH	
21.	Partition pillar	M/s-ACME INDS NEW DELHI	
22.	Body Side Doors	M/S- JBM INDUSTRIES, FARIDABAD	
23.	Vestibule Door(PPE)	M/S- HANSAL COACH PRODUCTS, KXH	
24.	Vestibule Door(NPPE)	M/S- HANSAL COACH PRODUCTS, KXH	
25.	Bio Tank	M/S- JSL LIFE STYLE LTD GURGAON	
26.	Auxiliary Water Tank	M/s- AMIT ENG. MOHALI	
27.	Under Slung Water Tank(2X685L)	M/s- SHIVALIK FAST MOHALI	
28.	Under Slung Water Tank (1X685L)	M/s- AMIT ENG. MOHALI	
29.	Health Faucet	M/s- KAPCO VALVES JALANDHAR	
30.	Lotah Filler Tap	M/s- KAPCO VALVES JALANDHAR	
31.	Controlled Discharge Tap	M/s- AGMECO (P) LTD. UK	
32.	Lavatory Doors	M/s-ACME INDS NEW DELHI	
33.	Seat & Berth	M/s-ACME INDS NEW DELHI	
34.	Snack Table	N/A	
35.	RFID	M/s-TECH SOLUTION GURGAON	Sr.103712,10314

(Signature)
SSE/QC/MCF/RBL

गुणवत्ता विभाग

#0डि0का0, रायबरेली (लालमंज)



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DISPATCH TO		Sr.DME/DBRG			Type		L	W	S	C	N	1	Shell No.	9	7	1	3	2	FUR.NO.	LSCNG-299	

13. MODIFICATION (IF ANY)

:

Partition frame & Partition will

13. MODIFICATION (IF ANY)

: Partition frame & Partition pillar

14. DEVIATION (IF ANY)

: NIL

15. ITEM FITTED ON THE COACH ON TRIAL : NIL

S NO	ITEM PARTICULARS	PURPOSE	REPORT Frequency	REFERENCE & PERIOD OF TRIAL

16. 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 qualityrcfrbl@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 70डि0का0, रायबरेली (लालगंज)	SME/QC/MCF/RBL Assistant Mechanical Engineer / Quality आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory, Raebareli	Dy.CQM/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
आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QEF/8001

REV NO: 00

DATE:18.01.2017

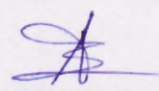
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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG/HOG NON AC SCN COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG/HOG NON AC COACHES

TYPE COACH	LWSCN	SHELL/COACH NO	197647/C
RAILWAY	NFR	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





Modern Coach Factory Raebareli
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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG/HOG NON AC SCN COACHES

01.	Switch board cabinet Make : MREM On Board Sr no : MREM-355048 HT Panel Sr no : MREM-355057	EDTS 333, Rev` 01`Am-1	01
02.	Pump equipment with PLC controller & pump box Make : DR AUTO Sr no PA: 2019/10/0055 Sr no.1 : 2822 Sr no.2 : 3832 Srno.CPA: 2019/11/012-DR AUTO	As per spec EDTS 186,Rev-a, Am- 2	01
03.	Emergency light system for EOG type coaches (AEL), Make : DR AUTO	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 : SALZER/SSK	EDML 086,Rev-03, ITEM-01	20
06.	Fitment of Switch Plate Assly Corridor Side),Make : SALZER	EDML 086, Rev 03, ITEM-02	20
07.	Railway carriage Fan 400mm Sweep, 110V DC with crash worthy features. Make: ORIENT	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 : DR AUTO	CC76289 & CC76443	09

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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG/HOG NON AC SCN COACHES

11.	Battery fuse box +ve Make : RADIANT	LW 71001,Alt-F	01
12.	Battery fuse box -ve Make : SSK	LW 71002,Alt-F	01
13.	Regulated battery charger Make : WAVES Sr no : W4K5H 19651	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	01
14.	9KVA transformer Make : VIMAL Sr no : VTC 3089 LHB-2497	As per RDSO/PE/SPEC/TL 0158, 2010, Rev`0`,Ty I.	01
15.	ZS coupling 400A/750V/03Ph/50hz. Make : PRIME ELECT.	As per spec No EDTS 105,Rev`e` Am-3, TYPE-2	01 set
16.	Feeder junction boxes. Make : ESBEE	EDTS-328 REV-C	01 set
17.	Wheel set earthling equipment. Make : PRIME ELECT.	EDTS101,REV-C,AM-1	02 sets
18.	Wheel Slide Protection System (WSP) Make : FAIVELEY Sr no : 09/17/278	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 : 09/19	RDSO/pe/spec/ac-0009 rev-1- 2008 amdt-1	01 set
20.	Battery box for LHB coaches. Make : ANANYA	CC 91205	01

SSE/EL/QC वरिष्ठ अनुभाग अभियन्ता गुणवत्ता नियंत्रण	AWM(ELECT.)/MCF/RBL SEE(P)/MCF/RBL

आ0रे0डि0का0 / लालगंज / रायबरेली
S.S.E./Elect-QC/M.C.F./LLJ/RBL

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

