



# 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/2019-20/950

RLY	N	R	-	Coach No.	1	9	7	1	2	4	/	C	DATE OF DISPATCH	2	4	-	1	0	-	1	9
DISPATCH TO	Sr.DME(CHG)/FZR				Type	L	W	S	C	N	1	Shell No.	9	7	3	9	8	FUR.NO.	LSCN-1294		

- Railway Board's Order No.** : 2019/M(C)/142/2, Dated: 03-06-2019
- Tare Weight of Coach** : 41.24 Tones
- Carrying Capacity** : (a) Seating: 80 (b) Sleeping: 80 (c) Luggage: NIL
- Special feature: -1.-** 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  
**2.-** RFID(Radio frequency identification) fitted for traceability of coach
- 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) 1103 (NPPE) 2) 1105 (PPE)

### 6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Under frame	PP END	M/S-M.TECH
		NPP END	M/S-M.TECH
	Complete	M/S-M.TECH	-
2.	Lav. side wall	M/S- ATHANACY RBL	196
		M/S- ATHANACY RBL	LAV.1 - LAV.2 -
		M/S- ATHANACY RBL	LAV.3 - LAV.4 -
3.	Side wall	LH SIDE	MCF/RBL(CONTRACTOR V4U)
		RH SIDE	MCF/RBL(CONTRACTOR V4U)
4.	End wall	PP END	M/s-DTL PUNE
		NPP END	M/s-DTL PUNE
		M/s-DTL PUNE	---
5.	Roof	MCF/RBL(CONTRACTOR V4U)	---
6.	Centre Buffer Coupler	M/S FRONTIER	124
		PP END	07P1 NPP END 07P2

### 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 <sup>2</sup> . ➤ Max. pressure in BC ➤ All Brake are applied	6 – 10 sec. 3.0 ±0.15 kg/cm <sup>2</sup> . OK	07 Sec. 3.0 kg/cm <sup>2</sup> OK
2.	Insensitivity	➤ Exhaust BP @ 0.3 kg/cm <sup>2</sup> /min.	No brake application	OK
3.	Sensitivity	➤ Exhaust BP @ 0.1 kg/cm <sup>2</sup> /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-KANSAL NEROLAC	(SUPPLY & APPLY)	89/88	06.10.19
2.	Insulation			Satisfactory		

SSE/QC/MCF/RBL

गुणवत्ता विभाग  
रेडिओका, रायबरेली (लालगंज)





MODERN COACH FACTORY, RAEBARELI

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DISPATCH	Sr.DME/CHG/FZR	Type	L	W	S	C	N	1	Shell No.	9	7	3	9	8	FUR.NO	LSCN-1294
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#### 9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	197061				197062			
Bogie Type	FIAT				FIAT			
Frame no.	AML-73				AML-61			
Bolster no.	MCF/RBL/LS5- 921				MCF/RBL/LS5- 886			
Axle No	19 R- 1732 RWF		19 R- 3389 RWF		19 R- 3329 RWF		19 R- 1563 RWF	
Wheel Dia	917.627	917.601	917.635	917.649	917.707	917.739	917.571	917.649
Wheel Disc No	TZ 06-19 59355-9QK4	TZ 06-19 55991-9QI2	TZ 06-19 59354-9QK4	TZ 06-19 59333-9QK8	TZ 06-19 52849-9QH3	TZ 06-19 55892-9QK0	TZ 06-19 18767-8XG0	TZ 06-19 40535-90E3
r.B. Nos.	07-19 19027	07-19 21710	07-19 18910	07-19 21352	07-19 18247	07-19 17982	07-19 18422	07-19 21890
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
Make & Nos.	TAYAL & CO. Sr.NO.19-07 2418	TAYAL & CO. Sr.NO.19-07 2343	TAYAL & CO. Sr.NO.07-19 2446	TAYAL & CO. Sr.NO.07-19 2399

#### 11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KNORR	16584,17281	16736,17286
2.	Primary outer Spring	CMFSK	07-19 1100-058(490,483,537,485)	07-19 1100-058(90,65,367,361)
3.	Primary Inner Spring	CMGBD	07-19 F06-119- (1136,1203,1188,1103)	07-19 F06-119- (1077,1036,1014,468)
4.	Primary Damper	KONI	03-19 (01171,01037,01033,01480)	03-19 (05858,04721,01676,01255)
5.	Secondary Damper	KONI	04-19 (00982,00948)	04-19 (00968,00949)
6.	Lateral Damper	GABRIEL	11-18 1253	11-18 1256
7.	Brake Cylinder	KBI	B(8127,7758,7344,8138)K29	B(8123,7369,7363,8124)K29
8.	Brake Caliper	KBI	B(5151,5403,5402,5152)-29	B(5150,5402,5401,5149)-29
9.	Brake Disc	KBI	24193644 0006-28/19,24193659 0001-29/19 24193644 0019-28/19,24193652 0072-29/19	24195445 0034-30/19,24193642 0069-28/19 24195445 0078-30/19,24195445 0075-30/19
10.	Ball Joint Control Arm	AR		
11.	Lateral Bump Stop	AR		
12.	Traction Centre make	SARITA		
13.	Traction lever make	SARITA		
14.	Ball joint traction lever	AR		
15.	Ball joint traction centre	AR		
16.	Leveling Valve	KNORR	16-19 A-10665,16-19A 10196	
17.	Check Valve	KNORR	06-19 16479	
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA/AR,		
20.	Fork make	EMSON		
21.	Control Arm Upper	NIPHA	334,13,8140,0350	0232,0256,0418,0376
22.	Control Arm Lower	NIPHA	0134,0520,0021,0410	0332,0148,0521,0281
23.	Phonic Wheel	KNOOR	K-07-19	K-07-19

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- KBI, FARIDABAD	
2.	Pull box	M/S- KBI, FARIDABAD	3653 36/19
3.	Distribution valve	M/S- KBI, FARIDABAD	
4.	FIBA	M/S- KBI, FARIDABAD	2019 H 8799
5.	Foot Step		10469/29
6.	Decoupling arrangement	M/s- SUPER SPAR K PVT. LTD. FARIDABAD	10371/29
7.	Floor board	M/S-ELASTOMER LINING WORKS, MUMBAI	
8.	PVC	M/S-SHREE RAM PNL GOVINDGARH	
9.	Lavatory Inlay	M/S RESPONSIVE IND.MUMBAI	
10.	UIC Vestibule (PPE)	M/s- SEEMA IND. BHOPAL	
11.	UIC Vestibule (NPPE)	M/S-SUNCREST IND.KOLKATA	
12.	Gangway bridge mounting (PPE)	M/S-SUNCREST IND.KOLKATA	
13.	Gangway bridge mounting (NPPE)	M/s-RAKESH IRON KXH	
14.	Body Side Window	M/s-RAKESH IRON KXH	
15.	Emergency Window	M/S- MECIDON BHOPAL	
16.	Hopper Window	M/s-AGF KOLKATA	
17.	Side panel	M/S- SHATABDHI SAFETY GLASS, VADODARA	
18.	Roof ceiling	M/s- WONDER LAMINATE KOLKATA	
19.	Door way ceiling	M/s-ACME INDIA NEW DELHI	
20.	Body Side Doors	M/S-JAMM TOOLS RBL	
21.	Vestibule Door(PPE)	M/s- JVR INDS, LUDHIYANA	
22.	Vestibule Door(NPPE)	M/S- HANSPAL TRADERS, KXH	
23.	Bio Tank with pressurized flushing	M/S- HANSPAL TRADERS, KXH	
24.	Auxiliary Water Tank	M/s-RASANDIK ENGG. INDUSTRIES GURGAON	
25.	Under Slung Water Tank( 2X685L)	M/S- AMIT ENG. MOHALI	
26.	Under Slung Water Tank (1X685L)	M/S- AMIT ENG. MOHALI	
27.	Controlled Discharge Tap	M/S- AMIT ENG. MOHALI	
28.	Flexible Faucet	M/s- EAU BATHING SOLUTION PVT LTD GURGAON	
29.	Lotah Filler Tap	M/s- EAU BATHING SOLUTION PVT LTD GURGAON	
30.	Lavatory Doors 1,2,3	M/s- EAU BATHING SOLUTION PVT LTD GURGAON	
31.	Lavatory Doors 4	M/S -KALSI AUTOMATIC DOOR SYSTEM LTD.LDH	
32.	Seat & Berth	M/S-JR JALANDHAR	
33.	Snack Table	M/S- ORIENTAL VENEER PRODUCTS, MUMBA	
34.	RFID	N/A	
		M/s-TECH SOLUTION GURGAON	Sr.104333,104334

SSE/QC/MCF/RBL

रेडि०का०, रायबरेली (लालगज)



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13. MODIFICATION (IF ANY)

: NIL

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

### 16WARRANTY:

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	SME/QC/MCF/RBL	Dy.CQM/MCF/RBL

मुख्यता विभाग  
रेडिओ, रायबरेली (नालगंज)

आधुनिक रेल डिब्बा कारखाना, रायबरेली  
Modern Coach Factory, Raebareli

जोगिन्दर सिंह  
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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**FOR ELECTRICAL ITEMS**

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES  
ELECTRICAL TEST CERTIFICATE FOR LHB/EOG NON AC COACHES

TYPE COACH	LWSCN	SHELL/COACH NO	197124/C
RAILWAY	NR	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**

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

01.	Switch board cabinet Make : <b>HIND</b> On Board Sr no : <b>H 355 19 H 409</b> HT Panel Sr no : <b>H 355 19 H 420</b>	EDTS 333, Rev` 01`Am-1	<b>01</b>
02.	Pump equipment with PLC controller & pump box Make : <b>DR AUTO</b> Sr no PA: <b>2019/09/0096</b> Sr no.1 : <b>19090217</b> Sr no.2 : <b>19090059</b> Srno.CPA: sr no - <b>2019/09/068-DR AUTO</b>	As per spec EDTS 186,Rev-a, Am- 2	<b>01</b>
03.	Emergency light system for EOG type coaches (AEL), Make : <b>VGS</b>	EDTS 151,Rev -c Am-1 & 2	<b>04</b>
04.	Passenger Alarm Cum Indication Light (PACIL) Make: <b>KAVERI</b>	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-I	<b>02</b>
05.	Fitment of Switch Plate Assly(Cabin Side) Make : <b>RECORD /SALZER</b>	EDML 086,Rev-03, ITEM-01	<b>20</b>
06.	Fitment of Switch Plate Assly Corridor Side),Make : <b>RECORD /SALZER</b>	EDML 086, Rev 03, ITEM-02	<b>20</b>
07.	Railway carriage Fan 400mm Sweep, 110V DC with crash worthy features. Make: <b>CG POWER</b>	IS 6680/92,First Rev, RCF Amdt 4, Col I, Ty XI, RCF Cor I.	<b>30</b>
08.	Cabin,Corridor,doorway and Gangway Lights. Make: <b>RT VISION</b>	As per RDSO/PE/SPEC/TL-0091(REV-1) TYPE B-1	<b>26</b>
09.	Lavatory Light Make: <b>RT VISION</b>	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-D &	<b>04</b>
10.	Night Light Fitting (LED BASED) Sticker For Berth Number On Night light Fitting For LHBSCN(80-BERTHER)Coaches Make : <b>DR AUTO</b>	CC76289 & CC76443	<b>09</b>

**Senior Section Engineer**  
**Quality control / Electrical**  
**Modern Coach Factory Raebareli**



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ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

11.	Battery fuse box +ve Make : <b>RADIANT</b>	LW 71001,Alt-F	<b>01</b>
12.	Battery fuse box -ve Make : <b>RADIANT</b>	LW 71002,Alt-F	<b>01</b>
13.	Regulated battery charger Make : <b>WAVES</b> Sr no: <b>W4K5H 19482</b>	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	<b>01</b>
14.	9KVA transformer Make : <b>VIMAL</b> Sr no : <b>VTC 3089 LHB-2288</b>	As per RDSO/PE/SPEC/TL 0158, 2010, Rev`0`,Ty I.	<b>01</b>
15.	ZS coupling 400A/750V/03Ph/50hz. Make : <b>PRIME ELECT.</b>	As per spec No EDTS 105,Rev`e` Am-3, TYPE-2	<b>01 set</b>
16.	Feeder junction boxes. Make : <b>AECO</b>	EDTS-328 REV-C	<b>01 set</b>
17.	Wheel set earthling equipment. Make : <b>PRIME ELECT.</b>	EDTS101,REV-C,AM-1	<b>02 sets</b>
18.	Wheel Slide Protection System (WSP) Make : <b>KNORR</b> Sr no : <b>0119071088</b>	M/s : <b>KNORR</b>	<b>01 set</b>
19.	110V,120AH,VRLA SMF BATTERY SET WITH 19 MONOBLOCK (6V EACH) PRECHARGED, WIH MODIFIED TRAY TOSKED-644 Make : <b>AMARA RAJA</b> Lug date : <b>08/19</b>	RDSO/pe/spec/ac-0009 rev-1- 2008 amdt-1	<b>01 set</b>
20.	Battery box for LHB coaches. Make : <b>HITECH</b>	CC 91205	<b>01</b>

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

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

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