



# 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/2019-20/519

RLY	E	Co	R	Coach No.	1	9	5	8	9	9	/	C	DATE OF DISPATCH	2	7	-	0	7	-	1	9
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DISPATCH TO	Sr.CDO/VSKP	Type	L	W	S	C	N	1	Shell No.	9	7	2	8	0	FUR.NO.	LSCN-1123
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1. **Railway Board's Order No.** : 2019/M(C)/142/2, Dated: 03-06-2019
2. **Tare Weight of Coach** : 41.24 Tones
3. **Carrying Capacity** : (a) Seating: 80 (b) Sleeping: 80 (c) Luggage: NIL

4. **Special feature:** - 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

**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) 1098 (NPPE) 2) 1100 (PPE)

**6. TRACEABILITY OF SHELL ITEMS:**

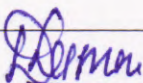
S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Under frame	Front Part	PP END M/s-JBM
		Complete	NPP END M/s-JBM
		Complete	MCF/RBL
2.	Lav. side wall	M/S- MIDAS GUJRAT	LAV.1 - LAV.2 -
		M/S- MIDAS GUJRAT	LAV.3 - LAV.4 -
3.	Side wall	LH SIDE	MCF/RBL(CONTRACTOR V4U)
		RH SIDE	MCF/RBL(CONTRACTOR V4U)
4.	End wall	PP END	M/S-RAIL TECH KXH
		NPP END	M/S-RAIL TECH KXH
5.	Roof	M/S-ECBT	216
6.	Centre Buffer Coupler	M/s- FRONTIER LTD	PP END 86P2 NPP END 20P2

**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 – NEROLAC	M/S-K.NEROLAC	90/88	15.07.19
2.	Insulation			Satisfactory		

  
वरिष्ठ निरीक्षक  
गुणवत्ता विभाग  
रेडिओ, रायबरेली (लालगंज)





MODERN COACH FACTORY, RAEBARELI

आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QMF 8002

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## 9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	190586				190585			
Bogie Type	FIAT				FIAT			
Frame no.	ECBT-1575				VS-1767			
Bolster no.	MCF/RBL-2742				MCF/RBL-2759			
Axle No	19 P - 1855 RWF		19 P - 4870 RWF		19 P - 1579 RWF		19 P - 2683 RWF	
Wheel Dia	917.628	917.696	917.646	917.663	917.747	917.727	917.759	917.715
Wheel Disc No	TZ 05-18 21539-8PM9	TZ 05-18 43698-9PG1	TZ 03-19 33488-9PJ3	TZ 03-19 33490-9QJ3	TZ 02-19 48713-9PF3	TZ 02-19 44196-9PH1	TZ 02-19 43696-9PG1	TZ 02-19 21536-8PQ0
R.B. Nos.	02-19 04014	02-19 04753	02-19 00954	02-19 01280	02-19 03784	02-19 04136	02-19 03655	02-19 02970
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.	CMFSK03-19-5101-551-74	CMRSK05-18-F08-N73-08Y-1259	CMFSK03-19-5101-551-77	CMRSK05-18-F08-N73-08Y-1075	CMFSK03-19-5101-551-16	CMRSK05-18-F08-N73-08Y-898	CMFSK03-19-5101-551-99	CMRSK05-18-F08-N73-08Y-582
Compressed Ht. at Tested Load	514	468	514	472	513	472	514.5	472
Alignment deviation (mm)	12	4	13	4	9	11	9	11

## 11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	13576,13577	13573,13565
2.	Primary outer Spring	CMFSK	05-19 1036-555(693,735,588,765)	05-19 1036-555(575,639,703,566)
3.	Primary Inner Spring	CMFSK	05-19 1037-882(78,97,73,102)	05-19 1037-842(106,120,37,10)
4.	Primary Damper	KONI	03-19 (02025,03957,03908,03951)	03-19 (02915,03947,03950,03982)
5.	Secondary Damper	IAI	06-19 (256999,257073)	06-19 (257057,257184)
6.	Lateral Damper	IAI	05-19 241965	05-19 241737
7.	Brake Cylinder	KBI	B(5612,4692,4699,5597)K-29	B(5613,4700,4668,5601)K-29
8.	Brake Caliper	KBI	B(3052,3059,3058,3054)-29	B(3053,3057,3023,3033)-29
9.	Brake Disc	FAV	10-18(1380,1379,1316)09-18(1315)D-133561-300	10-18(1430,1432,1429,1431)D-133561-300
10.	Ball Joint Control Arm	AR		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	SARITA		
13.	Traction lever make	JI		
14.	Ball joint traction lever	SGA		
15.	Ball joint traction centre	GMT		
16.	Secondary Rubber Pad	PRAG		
17.	Rubber Spring	PPI		
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA/PPI, SARITA/AR		
20.	Fork make	EMSON		
21.	Control Arm Upper	SF/RVE	21,43,18,64	160319-2,170219-2,150319-3,170319-2
22.	Control Arm Lower	SF/RVE	121,18,92,64	171218-1,170319-3,RVE,101218-1
23.	Phonic Wheel	KNORR	K-04-19	K-04-19

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	7075 25/19
2.	Pull box	M/S- KBI, FARIDABAD	
3.	Distribution valve	M/S- KBI, FARIDABAD	
4.	Foot Step	M/s- SUPER SPARK PVT. LTD. FARIDABAD	2019 F 8067
5.	Decoupling arrangement	M/S-ELASTOMER INDS, MUMBAI	
6.	Floor board	M/s- SHRI RAM PANELS,	
7.	PVC	M/S RESPONSIVE IND.	
8.	Lavatory Inlay	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
9.	UIC Vestibule (PPE)	M/S-KIRAN RUBBER PRODUCT, PUNE	
10.	UIC Vestibule (NPPE)	M/S-KIRAN RUBBER PRODUCT, PUNE	
11.	Gangway bridge mounting (PPE)	M/S- MAHAVEER MATEL WORKS,	
12.	Gangway bridge mounting (NPPE)	M/S- MAHAVEER MATEL WORKS,	
13.	Body Side Window	M/S-EXCEL INDS. KOLKATA	
14.	Emergency Window	M/S-AGF INDS KOLKATA	
15.	Hopper Window	M/S- VEDANSH ENT.RBL	
16.	Side panel	M/S-ACME INDS DELHI	
17.	Roof ceiling	M/S-ACME INDS DELHI	
18.	Door way ceiling	M/S-RAJA INDS KHANNA	
19.	Body Side Doors 1,3	M/S- SUKATA INDS CDG	
20.	Body Side Doors 2,4	M/s- JVR INDS, LUDHIYANA	
21.	Vestibule Door(PPE)	M/S- JBM INDUSTRIES, FARIDABAD	
22.	Vestibule Door(NPPE)	M/S- JBM INDUSTRIES, FARIDABAD	
23.	Bio Tank with pressurized flushing	M/s- RASANDIK ENG. INDUSTRIES, GURUGRAM,	
24.	Auxiliary Water Tank	M/S- AMIT ENG. MOHALI	
25.	Under Slung Water Tank( 2X685L)	M/S- RAIL FAB KXH	
26.	Under Slung Water Tank (1X685L)	M/S- AMIT ENG. MOHALI	
27.	Controlled Discharge Tap	M/s- AGMECO PVT.LTD.U.K	
28.	Health Faucet	M/S-KAPCO VALVES JALANDHAR	
29.	Lotah Filler Tap	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
30.	Lavatory Doors	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
31.	Seat & Berth	M/s- NARMADA FOREST SERVICE LTD. BHOPAL	
32.	Snack Table	N/A	

*Alma*  
SSE/QC/MCF/RBL  
वरिष्ठ निरीक्षक  
गुणवत्ता विभाग  
कोडि०का०, रायबरेली (लालगंज)





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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

### 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 वरिष्ठ गुणवत्ता विभाग गुणवत्ता विभाग रेडिओकां०, रायबरेली (लालगंज)	SMC/QC/MCF/RBL वरिष्ठ यंत्रि/अभियंता/गुणवत्ता Senior Mechanical Engineer/Quality आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory Raebareli	Dy. Chief Quality Manager/Shell उप मुख्यालय/सेल आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory, Raebareli





Modern Coach Factory Raebareli  
आधुनिक रेल डिब्बा कारखाना, रायबरेली

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REV NO: 00

DATE: 18.01.2017

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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	195899/C
RAILWAY	ECoR	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	

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





Modern Coach Factory Raebareli  
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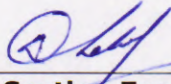
DATE:18.01.2017

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**FOR ELECTRICAL ITEMS**

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

01.	Switch board cabinet Make : <b>SSK</b> On Board Sr no : <b>2019/06/066</b> HT Panel Sr no : <b>2019/05/017</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>2019/06/0121</b> Sr no.1 : <b>19060535</b> Sr no.2 : <b>19060591</b> Srno.CPA: <b>2019/06/0121-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>RT VISION</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>SSK/SALZER</b>	EDML 086,Rev-03, ITEM-01	<b>20</b>
06.	Fitment of Switch Plate Assly Corridor Side),Make : <b>SSK/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>IMT CABLES</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>DR AUTO/ 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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**FOR ELECTRICAL ITEMS**

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>PI ENGG.</b> Sr no: <b>PI/19060016</b>	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	<b>01</b>
14.	9KVA transformer Make : <b>VIMAL</b> Sr no : <b>NIL</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>INNOMAX</b>	EDTS-328 REV-C	<b>01 set</b>
17.	Wheel set earthing equipment. Make : <b>CHANDA &amp; CHANDA</b>	EDTS101,REV-C,AM-1	<b>02 sets</b>
18.	Wheel Slide Protection System (WSP) Make : <b>KNORR</b> Sr no : <b>0119071120</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>HBL</b> Lug date : <b>06/19</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>AWM(ELECT.)/MCF/RBL</b>
<b>वरिष्ठ अनुभाग अभियन्ता</b>	<b>SEE(P)/MCF/RBL</b>

गुणवत्ता नियंत्रण  
आ०रे०डि०का० / लालगंज / रायबरेली  
S.S.E./Elect-QC/M.C.F./LLJ/RBL

स० कार्य प्रबन्धक / विद्युत  
आ०रे०डि०का० / रायबरेली  
A.W.M./Electrical/MCF/RBL

