MCF/RBL

	Modern Coach Factory Raebareli **आधुनिक रेल डिब्बा कारख़ाना, 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/2019-20/882

RLY	C	R	-	Coach No.	1	9	6	9	9	7	/	C	DATE OF DISPATCH	1	5	-	1	0	-	1	9

DISPATCH TO	SSE/STOCK/CSTM	Type	L	W	S	C	N	1	Shell No.	9	7	4	7	0	FUR.NO.	LSCN-1247

1. **Railway Board's Order No.** : **2019/M(C)/142/2, Dated: 3-06-2019**
2. **Tare Weight of Coach** : 41.24 Tones
3. **Carrying Capacity** : (a) Seating: 80 (b) Sleeping: 80 (c) Luggage: NIL

4. **Special feature: -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

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) 1105 (PPE)

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM		MAKE/SUPPLIER		SERIAL NO			
1.	Under frame	Front Part	PP END	M/S-M.T.F	215			
			NPP END	M/S-M.T.F	215			
		Complete	M/S-M.T.F		215			
2.	Lav. side wall		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)		257/01			
		RH SIDE	MCF/RBL(CONTRACTOR V4U)		257/02			
4.	End wall	PP END	M/s-P.D.STEEL PANCHKULA		---			
		NPP END	M/s-P.D.STEEL PANCHKULA		---			
5.	Roof		M/s-MCF/CONT		113			
6.	Centre Buffer Coupler		M/S- SANROK		PP END	14002	NPP END	13997

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/cm². ➢ Max. pressure in BC ➢ All Brake are applied	6 – 10 sec. 3.0 ±0.15 kg/cm². OK	07 Sec. 3.0 kg/cm² OK
2.	Insensitivity	➢ Exhaust BP @ 0.3 kg/cm²/min.	No brake application	OK
3.	Sensitivity	➢ Exhaust BP @ 0.1 kg/cm²/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 – VIBGYAR	(SUPPLY & APPLY)	89/87	23.09.19
2.	Insulation	Satisfactory				

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गुणवत्ता विभाग
मे०डि०का०, रायबरेली (लालगंज)

MODERN COACH FACTORY, RAEBARELI आधुनिक रेल डिब्बा कारख़ाना, रायबरेली	DOC NO.: MCF/RBL/QMF 8002 REV NO.: 01 DATE: 16.05.2016

ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2019-20/882

RLY	C	R	-	Coach No.	1	9	6	9	9	7	/	C	-	DATE OF DISPATCH	1	5	1	0	2	0	1	9

DISPATCH	SSE/STOCK/CSTM	Type	L	W	S	C	N	1	Shell No.	9	7	4	7	0	FUR .NO	LSCN-1247

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	191106				191105			
Bogie Type	FIAT				FIAT			
Frame no.	MCF/RBL-LS5-1153				MCF/RBL-LS5-729			
Bolster no.	AMIT-393				AMIT-403			
Axle No	19 R – 2151 RWF		19 P– 7227 RWF		19 R – 2094 RWF		19 R– 6336 RWF	
Wheel Dia	917.566	917.713	917.464	917.613	917.503	917.609	917.484	917.563
Wheel Disc No	TZ 06-19 52327-9PF0	TZ 03-19 30740-9MH7	TZ 06-19 57835-9QJ0	TZ 06-19 52322-9PF0	TZ 06-19 51461-9PH7	TZ 06-19 57834-9QJ0	TZ 06-19 51381-9PH7	TZ 06-19 51382-9PH7
R.B. Nos.	07-19-18653	07-19-18902	07-19-18292	07-19-20066	07-19-20051	07-19-20428	07-19-18928	07-19-21498
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.19-08 3049	TAYAL & CO. Sr.NO.19-08 3160	TAYAL & CO. Sr. NO. 08-19 3134	TAYAL & CO. Sr. NO. 08-19 3152

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	13663,13667	13649,13646
2.	Primary outer Spring	CMFSK	07-18 1100-053(567,566,642,228)	07-19 1100-058(71,435,265,376)
3.	Primary Inner Spring	CMGBD	07-19 F06-937(485,842,503,858)	07-19 F06-937(09,860,613,405)
4.	Primary Damper	KONI	03-19 (5418,5496,5811,5737)	03-19 (06281,05420,05777,05436)
5.	Secondary Damper	KONI/IAI	04-19 (947,0904)	07-19 (263399,263466)
6.	Lateral Damper	GABRIEL	11-18 1372	11-18 1373
7.	Brake Cylinder	FAV	(C19-664,E19-409,408,C19-519)	E19(896,162,154,861)
8.	Brake Caliper	FAV	E19(1960,1958,1959,1961)B	F19 (820,818,817,819)B
9.	Brake Disc	KBI	24193632 0054-26/19,24193652 0002-28/19 24193632 0051-27/19,24193649 0040-28/19	24193652 0001-28/19,24193649 0039-28/19 24190415 0051-27/19,24193637 0019-27/19
10.	Ball Joint Control Arm	AR		
11.	Lateral Bump Stop	AR		
12.	Traction Centre make	SF		
13.	Traction lever make	SF		
14.	Ball joint traction lever	AR		
15.	Ball joint traction centre	AR		
16.	Leveling Valve	KNORR	16-19-A-10528,16-19-A-10109	16-19-A-10300,16-19-A-10089
17.	Check Valve	KNORR	02-19-16429	02-19-16322
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SF /AR,		
20.	Fork make	EMSON		
21.	Control Arm Upper	NIPHA	0354,0232,0050,0083	0377,224,444,0214
22.	Control Arm Lower	NIPHA	00486,012,111,0419	32,0319,0109,13
23.	Phonic Wheel	FAV	FT/KEP/2019	FT/KEP/2019

Signature of SSE/Bogie/QC

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	Modern Coach Factory Raebareli **आधुनिक रेल डिब्बा कारख़ाना, 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/2019-20/882

RLY	C	R	-	Coach No.	1	9	6	9	9	7	/	C	DATE OF DISPATCH	1	5	-	1	0	-	1	9

DISPATCH TO	SSE/STOCK/CSTM	Type	L	W	S	C	N	1	Shell No.	9	7	4	7	0	FUR.NO.	LSCN-1247

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/S- KBI, FARIDABAD	3633 36/19
2.	Pull box	M/S- KBI, FARIDABAD	
3.	Distribution valve	M/S- KBI, FARIDABAD	2019 H 8844
4.	FIBA	M/S- KBI, FARIDABAD	PP-7588/29 NPP-7639/29
5.	Foot Step	M/s- SUPER SPAR K PVT. LTD. FARIDABAD	
6.	Decoupling arrangement	M/S-ELASTOMER LINING WORKS, MUMBAI	
7.	Floor board	M/s- SHRI RAM PANELS,	
8.	PVC	M/S RESPONSIVE IND.	
9.	Lavatory Inlay	M/s- SEEMA IND. 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- MACEDON BHOPAL	
15.	Emergency Window	M/s-AGF INDS KOLKATA	
16.	Hopper Window	M/S- SHATABDHI VADODARA+VEDANSH RBL	
17.	Side panel	M/S-WONDER LAMINATE KOLKATA	
18.	Roof ceiling	M/s-ACME INDIA DELHI	
19.	Door way ceiling	M/S-JAMM TOOLS RBL	
20.	Body Side Door 1,3	M/S- JVR INDS ,LDH	
21.	Body Side Door 2,4	M/S- JBM INDUSTRIES, FARIDABAD	
22.	Vestibule Door(PPE)	M/S- HANSPAL, KXH	
23.	Vestibule Door(NPPE)	M/S- HANSPAL, KXH	
24.	Bio Tank with pressurized flushing	M/S- OMAX AUTO GURGAON	
25.	Auxiliary Water Tank	M/S- RAIL FAB KXH	
26.	Under Slung Water Tank(2X685L)	M/S- AMIT ENG. MOHALI	
27.	Under Slung Water Tank (1X685L)	M/S- AMIT ENG. MOHALI	
28.	Controlled Discharge Tap	M/s- AGMECO PVT. LTD. UK	
29.	Flexible Faucet	M/s- KAPCO VALVES, JALANDHAR	
30.	Lotah Filler Tap	M/s- KAPCO VALVES, JALANDHAR	
31.	Lavatory Doors 1,3	M/S- JR INDS JALNDHAR	
32.	Lavatory Doors 2,4	M/S -KALSI LTD.LDH	
33.	Seat & Berth	M/S- SUKATA INDS, CDG	
34.	RFID	M/s-TECH SOLUTION GURGAON	Sr.106613,106614

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MCF/RBL

	Modern Coach Factory Raebareli **आधुनिक रेल डिब्बा कारख़ाना, 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/2019-20/882

RLY	C	R	-	Coach No.	1	9	6	9	9	7	/	C	DATE OF DISPATCH	1	5	-	1	0	-	1	9

DISPATCH TO	SSE/STOCK/CSTM	Type	L	W	S	C	N	1	Shell No.	9	7	4	7	0	FUR.NO.	LSCN-1247

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:

1. This warranty covers free supply of parts which wear out and fails within warranty period of normal service.
2. This doesn't covers faults arising out of accident, non standard maintenance practices, abnormal use or mishandling, vandal activity, arson & deficient/pilferage etc.
3. 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.
4. Whether a defective part is to be replaced or repaired shall be at the discretion of MCF/RBL.
5. For any complain/ suggestion please Mail at qualityrcfrbl@gmail.com
6. 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 वरि0अनु0 अभियंता गुणवत्ता विभाग रे0डि0का0, रायबरेली (लालगंज)	SME/QC/MCF/RBL वरिष्ठ यांत्रिक अभियन्ता/गुणवत्ता Senior Mechanical Engineer/Quality आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory Raebareli	Dy.CQM/MCF/RBL जोगिन्दर सिंह Joginder Singh उप मुख्य गुणवत्ता प्रबन्धक Dy. Chief Quality Manager आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory, Raebareli

SCN - 1247

	Modern Coach Factory Raebareli आधुनिक रेल डिब्बा कारख़ाना, रायबरेली	DOC NO.: MCF/RBL/QEF/8001 REV NO: 00 DATE:18.01.2017

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**	**196997/C**
RAILWAY	**CR**	**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

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

01.	Switch board cabinet Make : **AMIT ENGG.** On Board Sr no : **AE/USBC-1398** HT Panel Sr no : **AE/USBC-1394**	EDTS 333, Rev`01'Am-1	**01**
02.	Pump equipment with PLC controller & pump box Make : **DR AUTO** Sr no PA: **2019/09/0128** Sr no.1 : **5604** Sr no.2 : **5603** Srno.CPA: **NIL-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: **KAVERI**	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-I	**02**
05.	Fitment of Switch Plate Assly(Cabin Side) Make : **RECORD/SALZER**	EDML 086,Rev-03, ITEM-01	**20**
06.	Fitment of Switch Plate Assly Corridor Side),Make : **RECORD /SALZER**	EDML 086, Rev 03, ITEM-02	**20**
07.	Railway carriage Fan 400mm Sweep, 110V DC with crash worthy features. Make: **CG POWER**	IS 6680/92,First Rev, RCF Amdt 4, Col I, Ty XI, RCF Cor I.	**30**
08.	Cabin,Corridor,doorway and Gangway Lights. Make: **DR AUTO**	As per RDSO/PE/SPEC/TL-0091(REV-1) TYPE B-1	**26**
09.	Lavatory Light Make: **RT VISION**	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**

Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

11.	Battery fuse box +ve Make : **RADIANT**	LW 71001,Alt-F	**01**
12.	Battery fuse box –ve Make : **RADIANT**	LW 71002,Alt-F	**01**
13.	Regulated battery charger Make : **WAVES** Sr no:**W4K5H 19693**	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	**01**
14.	9KVA transformer Make :**VIMAL** Sr no : **VTC 3089 LHB-2119**	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 : **AECO**	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 : **KNORR** Sr no : **0119212010**	M/s : **KNORR**	**01 set**
19.	110V,120AH,VRLA SMF BATTERY SET WITH 19 MONOBLOCK (6V EACH) PRECHARGED,WIH MODIFIED TRAY TOSKED-644 Make : **HBL** Lug date : **06/19**	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 वरिष्ठ अनुभाग अभियन्ता गुणवत्ता नियंत्रण आरडीएसओ / लालगंज / रायबरेली S.S.E./Elect-QC/M.C.F./LLJ/RBL	**AWM(ELECT.)/MCF/RBL** **SEE(P)/MCF/RBL** वरिष्ठ विद्युत अभियन्ता रेल कोच फैक्टरी, रायबरेली, लखनऊ Sr. Electrical Engineer / RCF / RBL / Lucknow