	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/2019-20/713

RLY	N	F	R	Coach No.	1	9	6	2	8	3	/	C	DATE OF DISPATCH	1	3	-	0	9	-	1	9

DISPATCH TO	Sr.DME/GHY	Type	L	W	S	C	N	1	Shell No.	9	7	3	7	4	FUR.NO.	LSCN-1195

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

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) 1104 (NPPE) 2) 1105 (PPE)

5. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM		MAKE/SUPPLIER		SERIAL NO			
1.	Under frame	Front Part	PP END	M/S-M TECH.	199			
			NPP END	M/S-M TECH.	199			
		Complete	M/S-M TECH.		199			
2.	Lav. side wall		M/S- COMPETENT ENG. JUC		LAV.1	-	LAV.2	-
			M/S- COMPETENT ENG. JUC		LAV.3	-	LAV.4	-
3.	Side wall	LH SIDE	MCF/RBL(CONTRACTOR V4U)		161/01			
		RH SIDE	MCF/RBL(CONTRACTOR V4U)		161/02			
4.	End wall	PP END	M/S- RAIL TECH PVT.LTD. KXH		---			
		NPP END	M/S- RAIL TECH PVT.LTD. KXH		---			
5.	Roof		M/s-ECBT		259			
6.	Centre Buffer Coupler		M/S-FRONTIER		PP END	23P1	NPP END	123P2

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/cm². ➢ Max. pressure in BC ➢ All Brake are applied	6 – 10 sec. 3.0 ±0.15 kg/cm². OK	09 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

7. 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)	89/89	25.08.19
2.	Insulation	Satisfactory				

SSE/QC/MCF/RBL

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गुणवत्ता विभाग
रे०डि०का०, 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/2019-20/713

RLY	N	F	R	Coach No.	1	9	6	2	8	3	/	C	-	DATE OF DISPATCH	1	3	0	9	2	0	1	9

DISPATCH	Sr.DME/GHY	Type	L	W	S	C	N	1	Shell No.	9	7	3	7	4	FUR .NO	LSCN-1195

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	194100				194099			
Bogie Type	FIAT				FIAT			
Frame no.	AML-57				RBL/LS- 1087			
Bolster no.	RBL/LS-820				RBL/LS- 798			
Axle No	19 R – 2727 RWF		19 R– 1150 RWF		18 J – 1843 RWF		19 R– 2486 RWF	
Wheel Dia	917.496	917.471	917.495	917.52	917.467	917.448	917.494	917.482
Wheel Disc No	TZ 05-19 42642-9PI0	TZ 05-19 42643-9PI0	TZ 05-19 43681-9PG1	TZ 05-19 42650-9PI0	TZ 05-19 41764-9PN3	TZ 05-19 41760-9PN0	TZ 05-19 49955-9PK2	TZ 05-19 42649-9PI0
R.B. Nos.	05-18 27768	05-18 27898	41668	05-18 27767	06-18 16700	07-18 41150	07-18 41993	05-18 27891
CT R B Make	SKF		SKF		SKF		SKF	

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.19-07-2355	TAYAL&CO.19-07-2439	TAYAL&CO.19-07-2654	TAYAL&CO.19-07-2655

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	14327,14320	14329,14321
2.	Primary outer Spring	CMFSK	07-19 1100-058 (207,356,2,240)	07-19 1100-058 (486,482,112,530)
3.	Primary Inner Spring	CMGBD	03-19 1101 -064(664,339,709,205)	03-19 1101 -064(684,669,353,174)
4.	Primary Damper	KONI	03-19 (00713,05931,06147,08472)	03-19 (05913,08273,05895,08139)
5.	Secondary Damper	IAI	07-19 (263563,2563640)	07-19 (263557,263676)
6.	Lateral Damper	GABRIEL	11-18 1027	11-18 957
7.	Brake Cylinder	KBI	B(5765,5045,5046,6038)K29	B(6048,5143,5119,6015)K29
8.	Brake Caliper	KBI	B(3334,3388,3385,3487)-29	B(3475,3513,3467,3457)-29
9.	Brake Disc	KBI	24193644 0048-28/19,24193647 0063-28/19 24193647 0047-28/19,24193644 0049-28/19	24190409 0003-24/19,24190408 0043-23/19 24190408 0012-24/19,24190408 0041-24/19
10.	Ball Joint Control Arm	AR		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	SARITA		
13.	Traction lever make	TAJ		
14.	Ball joint traction lever	AR		
15.	Ball joint traction centre	AR		
16.	Leveling Valve	KNORR	16-19 B 3834,16-19 B-3837	16-19 B 6027,16-19 B 6012
17.	Check Valve	KNORR	05-19 18777	05-19 19438
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA/AR		
20.	Fork make	EMSON		
21.	Control Arm Upper	RVE	100619-2, 100619-2,100619-2,240619-2	100619-2,210619-1, 100619-2, 100619-2,
22.	Control Arm Lower	RVE	,010619-3,010619-3,RVE,010619-3	240619-2,010619-2,010519-3,240619-2
23.	Phonic Wheel	KNORR	K-06-19	K-06-19

Signature of SSE/Bogie/QC

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/2019-20/713

RLY	N	F	R	Coach No.	1	9	6	2	8	3	/	C	DATE OF DISPATCH	1	3	-	0	9	-	1	9

DISPATCH TO	Sr.DME/GHY	Type	L	W	S	C	N	1	Shell No.	9	7	3	7	4	FUR.NO.	LSCN-1195

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)	F19012B
2.	Pull box	M/S- KBI, FARIDABAD	
3.	Distribution valve	M/S- FAIVELY TRANSPORT TECH.INDIA LTD BADDI(HP)	19055503B
4.	FIBA	M/S- KBI, FARIDABAD	PP-8037/29 NPP-7955/29
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-SHREE RAM PNL GOVINDGARH	
8.	PVC	M/S- RESPONSIVE INDS.DELHI	
9.	Lavatory Inlay	M/s- SEEMA IND. BHOPAL	
10.	UIC Vestibule (PPE)	M/S-KIRAN RUBBER PRODUCT, PUNE	
11.	UIC Vestibule (NPPE)	M/S-KIRAN RUBBER PRODUCT, PUNE	
12.	Gangway bridge mounting (PPE)	M/s- MAHAVEER METAL WORKS, KXH	
13.	Gangway bridge mounting (NPPE)	M/s- MAHAVEER METAL WORKS, KXH	
14.	Body Side Window	M/S-FP INDS ,KOLKATA	
15.	Emergency Window	M/S-AJC INDS ,KOLKATA	
16.	Hopper Window	M/S-KTS-CDG +VEDANSH RBL	
17.	Side panel	M/S-WONDER LAMINATE KOLKATA	
18.	Roof ceiling	M/S-ACME INDIA NDLS	
19.	Door way ceiling	M/s- VR MANUFACTURE NDLS	
20.	Body Side Door 1,3	M/S- EEPL INDS. LDH	
21.	Body Side Door 2,4	M/S- JBM INDUSTRIES, FARIDABAD	
22.	Vestibule Door(PPE)	M/S- HANSPAL TRADERS, KXH	
23.	Vestibule Door(NPPE)	M/S- HANSPAL TRADERS, KXH	
24.	Bio Tank with pressurized flushing	M/s- FLASH FORGE (P)LTD. VIZAG	
25.	Auxiliary Water Tank	M/S- AMIT ENG. MOHALI	
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- HINDWARE HSIL PVT. LTD. GURUGRAM	
29.	Flexible Faucet	M/s- VR MANUFACTURE NDLS	
30.	Lotah Filler Tap	M/s- VR MANUFACTURE NDLS	
31.	Lavatory Door	M/s- VR MANUFACTURE NDLS	
32.	Seat & Berth	M/s- TWPL INDUS. MUMBAI	
33.	Snack Table	N/A	
34.	RFID	M/s- TECH SOLUTION PVT LTD	Sr.No.-104241-104242

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आ0डि0का0, रायबरेली (लालगंज)

आयुक्त / रायबरेली

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/2019-20/713

RLY	N	F	R	Coach No.	1	9	6	2	8	3	/	C	DATE OF DISPATCH	1	3	-	0	9	-	1	9

DISPATCH TO	Sr.DME/GHY	Type	L	W	S	C	N	1	Shell No.	9	7	3	7	4	FUR.NO.	LSCN-1195

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 Frequency	REFERENCE & PERIOD OF TRIAL

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:

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	SME/QC/MCF/RBL	Dy.CQM/MCF/RBL
वरिष्ठ खण्ड अभियन्ता गुणवत्ता विभाग आ०रे०का०, रायबरेली (लालगंज)	वरिष्ठ यांत्रिक अभियन्ता/गुणवत्ता Senior Mechanical Engineer/Quality आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory Raebareli	उप मुख्य गुणवत्ता प्रबन्धक/रेल Dy. Chief Quality Manager/Rail आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory, Raebareli

LSCN-1195

MCF/RBL

	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**	**196283/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

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

01.	Switch board cabinet Make :**TRINITRON** On Board Sr no : **19/08/TCS/MCF/3436/355/0123** HT Panel Sr no :**19/08/TCS/MCF/3436/355/0123**	EDTS 333, Rev`01'Am-1	**01**
02.	Pump equipment with PLC controller & pump box Make : **DR AUTO** Sr no PA: **2019/08/121** Sr no.1 : **19080412** Sr no.2 : **19080404** Srno.CPA:**2019/08/116-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 :**SSK/SALZER**	EDML 086,Rev-03, ITEM-01	**20**
06.	Fitment of Switch Plate Assly Corridor Side),Make :**SSK/SALZER**	EDML 086, Rev 03, ITEM-02	**20**
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:**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 :**ISGPL**	LW 71002,Alt-F	**01**
13.	Regulated battery charger Make : **WAVES** Sr no:**W4K5H 19304**	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	**01**
14.	9KVA transformer Make :**VIMAL** Sr no :**VTC 3089 LHB-2107**	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 :**ISG**	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 : **21-19-767**	M/s :**FAIVELEY**	**01 set**
19.	110V,120AH,VRLA SMF BATTERY SET WITH 19 MONOBLOCK (6V EACH) PRECHARGED,WIH MODIFIED TRAY TOSKED-644 Make : **HBL**Lug date : **08/19**	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	**AWM(ELECT.)/MCF/RBL** **SEE(P)/MCF/RBL**

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

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