	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/2019-20/1165

RLY	N	F	R	Coach No.	1	9	7	6	8	1	/	C	DATE OF DISPATCH	3	0	-	1	1	-	1	9

DISPATCH TO	Sr.DME/DBRG	Type	L	W	S	C	N	1	Shell No.	9	7	5	5	3	FUR.NO.	LSCN-1363

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: -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) 1100 (NPPE) 2) 1103 (PPE)

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM		MAKE/SUPPLIER		SERIAL NO			
1.	Under frame	Front Part	PP END	M/S-NECHD	08/2019			
			NPP END	M/S-NECHD	09/2019			
		Complete	MCF/RBL		97553			
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)		347/01			
		RH SIDE	MCF/RBL(CONTRACTOR V4U)		347/02			
4.	End wall	PP END	M/s-DTL PUNE		---			
		NPP END	M/s-DTL PUNE		---			
5.	Roof		M/s-ECBT		397			
6.	Centre Buffer Coupler		M/S- SANROK		PP END	14545	NPP END	14562

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	08 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 –VIBGYOR	(SUPPLY & APPLY)	89/87	09.11.19
2.	Insulation	Satisfactory				

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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/2019-20/1165

RLY	N	F	R	Coach No.	1	9	7	6	8	1	/	C	-	DATE OF DISPATCH	3	0	1	1	2	0	1	9

DISPATCH	Sr.DME/DBRG	Type	L	W	S	C	N	1	Shell No.	9	7	5	5	3	FUR .NO	LSCN-1363

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	192260				192259			
Bogie Type	FIAT				FIAT			
Frame no.	MCF/RBL-1715				MCF/RBL-2058			
Bolster no.	RBL-2930				RBL-2275			
Axle No	19 L– 5760 RWF		19 L – 5647 RWF		19 S – 1933 RWF		19 L– 9945 RWF	
Wheel Dia	917.41	917.464	917.427	917.453	917.548	917.542	917.428	917.466
Wheel Disc No	TZ 08-19 72460-9RR3	TZ 07-19 61765-9RH4	TZ 08-19 72469-9RR3	TZ 08-19 08-19-74161	TZ 07-19 6830-9RQ0	TZ 07-19 70324-9RN9	TZ 07-19 63031-9RS1	TZ 08-19 73548-9RS8
R.B. Nos.	09-18-37681	09-19-37356	09-19-38541	09-19 38065	09-19-37831	09-19-37941	09-19-38253	08-19-23242
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.	CMGBD10-19-F09-750-60	CMFSK05-19-5100-027-593	CMGBD10-19-F09-750-8	CMFSK05-19-5100-027-592	CMGBD10-19-F09-750-72	CMFSK05-19-5100-027-450	CMGBD10-19-F09-750-	CMFSK05-19-5100-027-449
Compressed Ht. at Tested Load	513	470	515	470	513	472	513	472
10Alignment deviation (mm)	19	10	19	10	26	7	26	7

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	17194,18101	18091,17190
2.	Primary outer Spring	CMFSK	10-19 1100-114 (894,836,879,850)	10-19 1100-114 (813,804,803,839)
3.	Primary Inner Spring	CMFSK	10-19 1101-101 (535,540,883,567)	10-19 1101-101 (545,598,577,533)
4.	Primary Damper	KONIC	03-19 (06728,06834,06034,06842)	03-19 (06843,06054,06847,06868)
5.	Secondary Damper	IAI	09-19 (272834,272751)	09-19 (272690,272798)
6.	Lateral Damper	IAI	04-19 251196	04-19 251320
7.	Brake Cylinder	ESCORT	(49336,49074,47465,47701)	(47527,47466,49072,49335)
8.	Brake Caliper	ESCORT	(28532,78414,27067,27303)	(27304,27068,28412,28531)
9.	Brake Disc	KBI	24200033 0042-36/19,24200036 0002-36/19 24200033 0071-36/19,24200033 0079-36/19	24200059 0010-38/19,24200059 0011-38/19 24200060 0002-38/19,24200059 0012-38/19
10.	Ball Joint Control Arm	GMT		
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	SGA		
16.	Secondary Rubber Pad	PRAG		
17.	Rubber Spring	AR		
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA /GMT SARITA /ARYAN		
20.	Fork make	RNG		
21.	Control Arm Upper	SF	268,007,55,671	66,354,898,122
22.	Control Arm Lower	SF	135,63,98,235	118,217,308,232
23.	Phonic Wheel	KBI	K-05-19	K-05-19

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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/2019-20/1165

RLY	N	F	R	Coach No.	1	9	7	6	8	1	/	C	DATE OF DISPATCH	3	0	-	1	1	-	1	9

DISPATCH TO	Sr.DME/DBRG	Type	L	W	S	C	N	1	Shell No.	9	7	5	5	3	FUR.NO.	LSCN-1363

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/S- ESCORTS LTD	2019030080
2.	Pull box	M/S- KBI, FARIDABAD	
3.	Distribution valve	M/S- ESCORTS LTD	190A080
4.	FIBA	N/A	
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	
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- MAHAVEER MATEL WORKS, KAPURTHALA	
13.	Gangway bridge mounting (NPPE)	M/S- MAHAVEER MATEL WORKS, KAPURTHALA	
14.	Body Side Window	M/s-EXCEL & FP KOLKATA	
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 INDS NEW DELHI	
19.	Door way ceiling	M/s-JAAM TOOLS RBL	
20.	Body Side Door	M/S- JBM INDUSTRIES, FARIDABAD	
21.	Vestibule Door(PPE)	M/S- JBM INDUSTRIES, FARIDABAD	
22.	Vestibule Door(NPPE)	M/S- JBM INDUSTRIES, FARIDABAD	
23.	Bio Tank	M/S- JSL LIFE STYLE LTD.	
24.	Auxiliary Water Tank	M/S- AMIT ENG. MOHALI	
25.	Under Slung Water Tank{ 2X685L)	M/S- AMIT ENG. BADDI	
26.	Under Slung Water Tank (1X685L)	M/S- SHIVALIK FAST. MOHALI	
27.	Flexible Faucet	M/s-KAPCO VALES JALANDHAR	
28.	Lotah Filler Tap	M/s-KAPCO VALES JALANDHAR	
29.	Controlled Discharge Tap	M/s- EAUSET PVT LTD GURGAON	
30.	Lavatory Doors D3	M/S- KALSI, LUDHIYANA	
31.	Lavatory Doors D1,D2,D4	M/S- JR INDS JALNDHAR	
32.	Seat & Berth	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
33.	RFID	M/s-ID TECH SOLUTION GURGAON	Sr.104723,104724

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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/2019-20/1165

RLY	N	F	R	Coach No.	1	9	7	6	8	1	/	C	DATE OF DISPATCH	3	0	-	1	1	-	1	9

DISPATCH TO	Sr.DME/DBRG	Type	L	W	S	C	N	1	Shell No.	9	7	5	5	3	FUR.NO.	LSCN-1363

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.

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आ०डि०का०, रायबरेली (लालगंज)

वरिष्ठ यांत्रिक अभियन्ता/गुणवत्ता
Senior Mechanical Engineer/Quality
आधुनिक रेल डिब्बा कारखाना, रायबरेली
Modern Coach Factory Raebareli

जोगिन्दर सिंह
Joginder Singh
उप मुख्य गुणवत्ता प्रबन्धक
Dy. Chief Quality Manager
आधुनिक रेल डिब्बा कारखाना, रायबरेली
Modern Coach Factory, Raebareli

SCN-1363

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/HOG NON AC SCN COACHES

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

TYPE COACH	**LWSCN**	**SHELL/COACH NO**	**197681/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

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FOR ELECTRICAL ITEMS

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

01.	Switch board cabinet Make : **HIND RECTIFIERS** On Board Sr no : **H.355.19.H.388** HT Panel Sr no : **H.355.19.G.319**	EDTS 333, Rev`01'Am-1	**01**
02.	Pump equipment with PLC controller & pump box Make : **DR AUTO** Sr no PA: **2019/11/0056** Sr no.1 : **19100052** Sr no.2 : **19100059** Srno.CPA: sr no **-2019/11/005-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 : **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: **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 : **INTRA**	CC76289 & CC76443	**09**

Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli

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FOR ELECTRICAL ITEMS

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

11.	Battery fuse box +ve Make : **ISGPL**	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: **W4K5G-19263**	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	**01**
14.	9KVA transformer Make :**VIMAL** Sr no : **VTC-3089-LHB-2545**	As per RDSO/PE/SPEC/TL 0158, 2010, Rev`0',Ty I.	**01**
15.	ZS coupling 400A/750V/03Ph/50hz. Make : **MAA LAXMI INDUSTRIES.**	As per spec No EDTS 105,Rev`e' Am-3, TYPE-2	**01 set**
16.	Feeder junction boxes. Make : **AUTO**	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 : **ESCORT** Sr no : **18064-60147-0048**	M/s : **ESCORT**	**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 : **TECHNO**	CC 91205	**01**

SSE/EL/QC वरिष्ठ अनुभाग अभियन्ता गुणवत्ता नियंत्रण आ0रे0डि0का0 / 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. Sr. Electrical Engineer / RCF / RBL

MCF/RBL