	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/2019-20/1156

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

DISPATCH TO	Sr.DME/DBRG	Type	L	W	S	C	N	1	Shell No.	9	7	5	3	2	FUR.NO.	LSCN-1347

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) 1105 (NPPE) 2) 1096 (PPE)

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM		MAKE/SUPPLIER		SERIAL NO			
1.	Under frame	Front Part	PP END	M/S-MTF	232			
			NPP END	M/S-MTF	232			
		Complete	M/S-MTF		232			
2.	Lav. side wall		M/S- R.TECH KXH		LAV.1	-	LAV.2	-
			M/S- R.TECH KXH		LAV.3	-	LAV.4	-
3.	Side wall	LH SIDE	MCF/RBL(CONTRACTOR V4U)		324/01			
		RH SIDE	MCF/RBL(CONTRACTOR V4U)		324/02			
4.	End wall	PP END	M/S- PD STEEL PKL		---			
		NPP END	M/S- PD STEEL PKL		---			
5.	Roof		MCF/CONT.		151			
6.	Centre Buffer Coupler		M/s- ESCORTS LTD		PP END	2049	NPP END	2006

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	06 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)	89/88	05.11.19
2.	Insulation	Satisfactory				

SSE/QC/MCF/RBL

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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/2019-20/1156

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

DISPATCH	Sr.DME/DBRG	Type	L	W	S	C	N	1	Shell No.	9	7	5	3	2	FUR .NO	LSCN-1347

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	192385				192386			
Bogie Type	FIAT				FIAT			
Frame no.	AML-173				AML-166			
Bolster no.	SCI-407				SCI-398			
Axle No	19 L– 4971 RWF		19 L– 5575 RWF		19 R – 7154 RWF		19 P– 2108 RWF	
Wheel Dia	917.454	917.46	917.47	917.466	917.481	917.467	917.551	917.451
Wheel Disc No	TZ 07-19 62549-9RN0	TZ 07-19 69073-9RL7	TZ 07-19 67827-9RQ3	TZ 07-19 66744-9PI7	TZ 08-19 72771-9SK0	TZ 07-19 68347-9RQ1	TZ 08-19 75217-9SK7	TZ 08-19 75218-9SK7
R.B. Nos.	09-19-36986	09-19-37132	09-19-36808	09-19-37399	09-19-38236	09-19-37167	07-19-21919	08-19-27879
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.	AVADH RAIL INDRA Sr.NO.07-19 4319	AVADH RAIL INDRA Sr.NO.07-19 4377	TAYAL & CO. Sr.NO.19-07 2460	TAYAL & CO. Sr.NO.19-07 2406

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	13356,13341	14673,14663
2.	Primary outer Spring	CMFSK	10-19 1100-114 (1014,837,1017,861)	10-19 1100-114 (7873,871,826,1016)
3.	Primary Inner Spring	CMFSK	10-19 1101-101 (1789,851,1836,1832)	10-19 1101-101 (1734,451,1822,1980)
4.	Primary Damper	KONIC	03-19 (07828,06434,06925,06431)	03-19 (06443,06473,06370,07902)
5.	Secondary Damper	IAI	07-19 (273052,272805)	09-19 (272928,272999)
6.	Lateral Damper	KONI	04-19 02066	04-19 01396
7.	Brake Cylinder	ESCORT	(48954,49088,49090,48953)	(48009,49022,49026,48007)
8.	Brake Caliper	ESCORT	(28302,28428,28430,28301)	(27672,28362,28364,27670)
9.	Brake Disc	KBI	24203751 0015-42/19,24203758 0055-42/19 24200057 0023-38/19,24200059 0059-38/19	24203757 0064-42/19,24203757 0001-42/19 24203755 0019-42/19,24203755 0007-42/19
10.	Ball Joint Control Arm	ARYAN		
11.	Lateral Bump Stop	GMT/ ARYAN		
12.	Traction Centre make	SF(SARITA)		
13.	Traction lever make	TAJ		
14.	Ball joint traction lever	SGA		
15.	Ball joint traction centre	GMT		
16.	Leveling Valve	KNORR/ESCORT	19 B- 6325,19B-6528	1906,1906
17.	Check Valve	KNORR/ESCORT	19707	1906
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA/ARYAN SARITA/GMT		
20.	Fork make	RNG		
21.	Control Arm Upper	RVE	240819-3,240819-2,240819-2,240819-3	240819-2,RVE,240819-3,290819-1
22.	Control Arm Lower	RVE	290819-1,280819-4,290819-3,290819-1	210819-3,290819-1,230819-2,RVE
23.	Phonic Wheel	ESCORT	ESCORT	ESCORT

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/2019-20/1156

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

DISPATCH TO	Sr.DME/DBRG	Type	L	W	S	C	N	1	Shell No.	9	7	5	3	2	FUR.NO.	LSCN-1347

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/S- ESCORTS	2018110137
2.	Distribution valve	M/S- ESCORTS	1811A137
3.	Pull box	M/S- KBI, FARIDABAD	
4.	FIBA	M/S- KBI, FARIDABAD	PP-9137/29 NPP-9195/29
5.	Foot Step	M/s- SUPER SPARK 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 IND DEHLI	
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 INDS 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 DELHI	
19.	Door way ceiling	M/s-ZAAM TOOLS RBL	
20.	Body Side Door	M/S- JVR INDUSTRIES, LDH	
21.	Vestibule Door(PPE)	M/S- JBM INDUSTRIES, FARIDABAD	
22.	Vestibule Door(NPPE)	M/S- JBM INDUSTRIES, FARIDABAD	
23.	Bio Tanks	M/s-JSL LIFESTYLE	
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.	Controlled Discharge Tap	M/s- EAUSET PVT LTD GURGAON	
28.	Flexible Faucet	M/s-KAPCO VALES JALANDHAR	
29.	Lotah Filler Tap	M/s-KAPCO VALES JALANDHAR	
30.	Lavatory Doors	M/s-J.R. JALANDHAR	
31.	Seat & Berth	M/S- HINDUSTAN FIBRE GLASS WORKS	
32.	RFID	M/s-ID TECH SOLUTION GURGAON	Sr.104717-104718

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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/2019-20/1156

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

DISPATCH TO	Sr.DME/DBRG	Type	L	W	S	C	N	1	Shell No.	9	7	5	3	2	FUR.NO.	LSCN-1347

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	REFERENCE & PERIOD OF TRIAL
			Frequency	

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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SCN-1347

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**	**197676/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/HOG NON AC SCN COACHES

01.	Switch board cabinet Make : **HIND RECTIFIERS** On Board Sr no : **H.355.19.H.393** HT Panel Sr no : **H.355.19.G.317**	EDTS 333, Rev`01'Am-1	**01**
02.	Pump equipment with PLC controller & pump box Make : **DR AUTO** Sr no PA: **2019/11/0033** Sr no.1 : **19100068** Sr no.2 : **19100186** Srno.CPA: sr no **-2019/11/011-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: **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

FOR ELECTRICAL ITEMS

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

11.	Battery fuse box +ve Make : **SSK**	LW 71001,Alt-F	**01**
12.	Battery fuse box –ve Make : **SSK**	LW 71002,Alt-F	**01**
13.	Regulated battery charger Make : **WAVES** Sr no: **W4K5G 19243**	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	**01**
14.	9KVA transformer Make :**VIMAL** Sr no : **VTC-3089-LHB-2540**	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 : **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 : **ESCORT** Sr no : **180370-59826-0032**	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 : **ANANYA**	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