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/2019-20/1179

RLY	N	F	R	Coach No.	1	9	7	6	9	3	/	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	7	6	FUR.NO.	LSCNG-286

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: -**

S NO	DESCRIPTION	MAKE/SUPPLIER
A.	Epoxy flooring in lavatory	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA
B.	Anti slip friendly Grab Bar	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA
C.	Provision of Health Faucet in lavatories	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA
D.	Washbasin counter Top (Corian of Duport or Montelli)	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA
E.	GFRE ceiling instead of NFTC	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA
F.	DGFRP panels instead of LP panels	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA
G.	Honey Comb partition frame with DGFRP sheet instead of FRP sheet	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA
H.	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) 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.	255				
			NPP END	M/S-M.T.F.	255				
		Complete	M/S-M.T.F.		255				
2.	Lav. side wall		M/S- ATHANCY RBL		LAV.1	-	LAV.2	-	
			M/S- ATHANCY RBL		LAV.3	-	LAV.4	-	
3.	Side wall	LH SIDE	M/S-KANSAL MOHALI		10/ KANSAL				
		RH SIDE	M/S-KANSAL MOHALI		10/ KANSAL				
4.	End wall	PP END	M/s- PD STEEL PANCHKULA		--				
		NPP END	M/s- PD STEEL PANCHKULA		--				
5.	Roof		M/S-ECBT.		396				
6.	Centre Buffer Coupler		M/s- SANROK ENT.		PP END	14546	NPP END	14566	

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	M/s–VIBGYOR	90/89	09.11.19
2.	Insulation	Satisfactory				

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SSE/QC/MCF/RBL
मुख्यालय रि-ना-
रे0डि0का0, 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/2019-20/1179

RLY	N	F	R	Coach No.	1	9	7	6	9	3	/	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	7	6	FUR .NO	LSCN-G-286

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	192188				192187			
Bogie Type	FIAT				FIAT			
Frame no.	SCI-2790				SCI-2796			
Bolster no.	SECPAL-327				SECPAL-311			
Axle No	19 P– 6405 RWF		19 S– 2101 RWF		19 R – 6934 RWF		19 R– 7445 RWF	
Wheel Dia	917.454	917.573	917.522	917.56	917.525	917.487	917.626	917.579
Wheel Disc No	TZ 07-19 69382-9RM9	TZ 08-19 73513-9RP2	TZ 08-19 73537-9SL0	TZ 08-19 75933-9SL0	TZ 08-19 74652-9RR3	TZ 08-19 74360-9RL1	TZ 08-19 73645-9SL0	TZ 08-19 75192-9RR3
R.B. Nos.	10-19-39846	10-19-39498	09-19-22032	09-19-22411	10-19-39414	10-19-39543	10-19-39544	08-19-78192
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.19-09 3744	TAYAL & CO. Sr.NO.19-09 3765	TAYAL & CO. Sr.NO.19-09 3745	TAYAL & CO. Sr.NO.19-09 3674

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	16287,16518	16304,16300
2.	Primary outer Spring	CMFSK	09-19 1100-078 (268,80,289,247)	09-19 1100-078 (1897,1824,1823,1839)
3.	Primary Inner Spring	CMFSK	10-19 1101-101 (782,286,251,119)	10-19 1101-101 (196,221,191,94)
4.	Primary Damper	KONIC	03-19 (06265,04850,02990,04849)	03-19 (06580,04825,05043,06988)
5.	Secondary Damper	GB	04-19 (01271,01279)	04-19 (01275,01280)
6.	Lateral Damper	KONI	04-19 01425	04-19 01145
7.	Brake Cylinder	KBI	B(9288,8965,8363,9276)K-29	B(9347,8285,8361,9282)K-29
8.	Brake Caliper	KBI	B(6109,6216,6218,6220)K-29	B(6105,62006298,6204)K-29
9.	Brake Disc	KBI	24200026 0032-35/19,24198280 0039-35/19 24198278 0041-35/19,24198279 0033-35/19	24200052 0028-36/19,24200052 0011-36/19 24200031 0036-36/19M24200033 0052-36/19
10.	Ball Joint Control Arm	ARYAN		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	SF(SARITA)		
13.	Traction lever make	JI		
14.	Ball joint traction lever	GMT/SGA		
15.	Ball joint traction centre	GMT		
16.	Leveling Valve	KNORR		
17.	Check Valve	KNORR	19 B- 4191,19B-4115	19 A- 10171,19 B-4133
18.	Anti roll bar Make	EMSON	19903	19793
19.	Roll Link make	SARITA/GMT		
20.	Fork make	SARITA		
21.	Control Arm Upper	RVE		
22.	Control Arm Lower	RVE	100819-3,100819-3,100819-2,100819-1	100819-3,100819-2,100819-3,100819-3
23.	Phonic Wheel	KBI	220819-1,280819-1,220819-2,240819-1	220819-3,130819-3,130819-3,220819-2
			K-08-19	K-08-19

Signature of SSE/Bogie/QC

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/2019-20/1179

RLY	N	F	R	Coach No.	1	9	7	6	9	3	/	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	7	6	FUR.NO.	LSCNG-286

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/S- ESCORT ENT.	2018120161
2.	Distribution valve	M/S- ESCORT ENT.	1812A161
3.	Pull box	M/S- KBI, FARIDABAD	
4.	Foot Step	M/s- SUPER SPARK PVT. LTD. FARIDABAD	
5.	Decoupling arrangement	M/S-ELASTOMER LINING WORKS, MUMBAI	
6.	Floor board	M/s-TWPL MUMBAI	
7.	PVC	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
8.	Lavatory Inlay	M/S- SEEMA INDS. BHOPAL	
9.	UIC Vestibule (PPE)	M/S-KRP PUNE	
10.	UIC Vestibule (NPPE)	M/S-KRP PUNE	
11.	Gangway bridge mounting (PPE)	M/s-RAKESH IRON & STEEL WORKS, KXH	
12.	Gangway bridge mounting (NPPE)	M/s-RAKESH IRON & STEEL WORKS, KXH	
13.	Body Side Window	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
14.	Emergency Window	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
15.	Hopper Window	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
16.	Side panel	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
17.	Roof ceiling	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
18.	Door way ceiling	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
19.	Partition frame	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
20.	Partition pillar	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
21.	Body Side Doors	M/s- JBM INDS FARIDABAD	
22.	Vestibule Door(PPE)	M/S- HANSPAL TRADERS KXH	
23.	Vestibule Door(NPPE)	M/S- HANSPAL TRADERS KXH	
24.	Bio Tanks	M/S- JSL LIFESTYLE GURGAON	
25.	Auxiliary Water Tank	M/s- AMIT ENG. MOHALI	
26.	Under Slung Water Tank(2X685L)	M/s- SHIVALIK FAST. MOHALI	
27.	Under Slung Water Tank (1X685L)	M/s- SHIVALIK FAST. MOHALI	
28.	Health Faucet	M/s- KAPCO VALVES JALANDHAR	
29.	Lotah Filler Tap	M/s- KAPCO VALVES JALANDHAR	
30.	Controlled Discharge Tap	M/s- EAUSET PVT GURGAON	
31.	Lavatory Doors	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
32.	Seat & Berth	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
33.	Snack Table	N/A	
34.	RFID	NA	

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गुणवत्ता विभाग
रे0डि0का0, रायबरेली (लालगंज)

	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/2019-20/1179

RLY	N	F	R	Coach No.	1	9	7	6	9	3	/	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	7	6	FUR.NO.	LSCNG-286						

13. MODIFICATION (IF ANY) : Partition frame & Partition pillar

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	

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:

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.COM/MCF/RBL

वरिष्ठ अनुभाग अभियन्ता
गुणवत्ता विभाग
रे०डि०का०, रायबरेली (लालगंज)

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

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

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 NONAC SCN COACHES

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

TYPE COACH	**LWSCN**	**SHELL/COACH NO**	**197693/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 NONAC SCN COACHES

01.	Switch board cabinet Make : **HIND RECTIFIERS** On Board Sr no : **NIL** HT Panel Sr no : **H.355.19.G.332**	EDTS 333, Rev`01'Am-1	**01**
02.	Pump equipment with PLC controller & pump box Make : **DR AUTO** Sr no PA: **2019/11/0071** Sr no.1 : **19100100** Sr no.2 : **19100106** 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 : **SALZER/RECORD**	EDML 086,Rev-03, ITEM-01	**20**
06.	Fitment of Switch Plate Assly Corridor Side),Make : **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
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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG/HOG NONAC SCN COACHES

11.	Battery fuse box +ve Make : **SSK**	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: **W4K5K 19963**	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	**01**
14.	9KVA transformer Make :**VIMAL** Sr no :**VTC 3089 LHB-2515**	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 : **DARSHAN ENTERPRISES**	EDTS101,REV-C,AM-1	**02 sets**
18.	Wheel Slide Protection System (WSP) Make : **ESCORT** Sr no : **180370-59826-0116**	M/s : **ESCORT**	**01 set**
19.	110V,120AH,VRLA SMF BATTERY SET WITH 19 MONOBLOCK (6V EACH) PRECHARGED,WIH MODIFIED TRAY TOSKED-644 Make : **AMARA RAJA** 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**

वरिष्ठ अनुभाग अभियन्ता गुणवत्ता नियंत्रण आरे0डि0का0 / लालगंज / रायबरेली S.S.E./Elect-QC/M.C.F./LLJ/RBL **SSE/EL/QC**	वरिष्ठ विद्युत अभियन्ता रेल कोच फैक्टरी, रायबरेली, Sr. Electrical Engineer / RCF / RBL **AWM(ELECT.)/MCF/RBL** **SEE(P)/MCF/RBL**

MCF/RBL