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/2018-19/1398

RLY	C	R	-	Coach No.	1	9	2	2	6	4	/	C	DATE OF DISPATCH	2	7	-	0	3	-	1	9

DISPATCH TO	SSE(STOCK)/CR/ CSTM	Type	L	W	S	C	N	1	Shell No.	8	7	5	4	4	-	2	0	1	8	-	1	9

1. **Railway Board's Order No.** : **2018/M(C)/142/2 Dated-17-10-2018**
2. **Tare Weight of Coach** : 41.24 Tones
3. **Carrying Capacity** : (a) Seating : 80 (b) Sleeping : 80 (c) Luggage : NIL
4. **Special features-**
   - A. Epoxy flooring in lavatory.
   - B. Anti slip friendly Grab Bar.
   - C. Provision of Health Faucet in lavatories.
   - D. Washbasin counter Top (Corian of Duport or Montelli).
   - E. GFRE ceiling instead of NFTC. (Make- ACME INDIA NDLS)
   - F. DGFRP panels instead of LP panels. (Make- ACME INDIA NDLS)
   - G. Honey Comb partition frame with DGFRP sheet instead of FRP
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. TECH	354			
			NPP END	M/S-M. TECH	344			
		Complete	MCF/RBL		87544			
2.	Lav. side wall		M/S- COMPETANT ENG. JUC		LAV.1	-	LAV.2	-
			M/S- COMPETANT ENG. JUC		LAV.3	-	LAV.4	-
3.	Side wall	LH SIDE	MCF/RBL (CONTRACTOR V4U)		409/01			
		RH SIDE	MCF/RBL (CONTRACTOR V4U)		409/02			
4.	End wall	PP END	M/S- RSM, MOHALI		--			
		NPP END	M/S- P.D. STEEL ,PANCHKULA		--			
5.	Roof		M/S- PIL		346			
6.	Centre Buffer Coupler		M/S- ESCORTS LTD RAILWAY EQUIPMENT, FBD.		PP END	8923	NPP END	8904

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
1.	Paint	P.U	M/s –VIBGYOR	Supply & apply	90/88
2.	Insulation			Satisfactory	

SSE/QC/MCF/RBL

गुणवत्ता विभाग
रे०डि०का०, रायबरेली (यू०पी०)

	MODERN COACH FACTORY, RAEBARELI आधुनिक रेल डिब्बा कारखाना, 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-1398

Coach No.	1	9	2	2	6	4	/	C	-	DATE OF DISPATCH	2	7	.	0	3	.	1	9							
RLY	C	R	-	-	Type	L	W	S	C	N	1	Shell No.	8	7	5	4	4	-	-	-	-	-	-	-	-

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	182884				182883			
Bogie Type	FIAT				FIAT			
Frame no.	ECBT-1582				ECBT-1581			
Bolster no.	AMIT-426				AMIT-433			
Axle No	17 D – 2253 RWF		19 L - 5474 RWF		18 F – 8918 RWF		18 H- 9299 RWF	
Wheel Dia	917. 605	917.695	917.621	917.713	917.65	917.71	917.616	917.688
Wheel Disc No	TZ 05-18 19351-8MT5	TZ 05-18 18643-8PN3	TZ 04-18 13905-8MQ0	TZ 04-18 13906-8NG7	TZ 05-18 25348-8PN9	TZ 05-18 25347-8PN5	TZ 05-18 18642-8PN3	TZ 05-18 21244-8PM9
R.B. Nos.	07-18 18088	08-18 19568	09-18 20841	09-18 20997	08-18 20068	08-18 18815	07-18 18119	08-18 20040
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.	CMGBD02-19-5101-05-138	CMFSK06-17-5100-305-235	CMGBD02-19-5101-05-7	CMFSK06-17-5100-305-105	CMGBD02-19-5101-02-27	CMFSK06-17-5100-305-244	CMGBD02-19-5101-05-12	CMFSK06-17-5100-305-210
Compressed Ht. at Tested Load	514	469	512	468	515	468	516	471
Alignment deviation (mm)	14	10	14	10	20	13	20	13

11. TRACEABILITY 9OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	IAI	238882,239637	238642,239447
2.	Primary outer Spring	CMSTL	01-19 07A-(1474,2391,1800,2113)	01-19 07A-(2039,1983,2357,1672)
3.	Primary Inner Spring	CMFSK	02-18 1037-378(490,371,115,448)	02-18 1037-378(149,241,226,526)
4.	Primary Damper	KNORR	12-18(48514,48658,48637,47782)	12-18(48651,49036,48013,48017)
5.	Secondary Damper	GB	02-19 (00401,00413)	02-19 (00402,00414)
6.	Lateral Damper	IAI	02-19 241307	02-19 241336
7.	Brake Cylinder	FAV	(N18-355,A19-057,N18-523,350)	(N18-385,524,540,A19-163)
8.	Brake Caliper	FAV	A19(1178,1175,1188,1190)B	A19(1189,1187,1180,1182)B
9.	Brake Disc	KBI	24172301 0046-06/19,24172302 0032-04/19 24173120 0070-06/19,24173121 0065-06/19	24173119 0011-06/19,24173118 0014-06/19 24172301 0047-04/19,24173121 0066-06/19
10.	Ball Joint Control Arm	GMT		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	SARITA		
13.	Traction lever make	JI		
14.	Ball joint traction lever	MGN		
15.	Ball joint traction centre	AR		
16.	Secondary Rubber Pad	PRAG		
17.	Rubber Spring	AR		
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA/ GMT		
20.	Fork make	ASL		
21.	Control Arm Upper	RVE	RVE,111218-3,281218-3,151218-2	191218-3,111218-3,281218-3,121218-1
22.	Control Arm Lower	RVE	191018-4,010119-4,RVE,121018-4	050113-2,050113-2,181218-1,211218-1
23.	Phonic Wheel.	FAV	FT/KEP-1548	FT/KEP-1548

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/2018-19/1398

RLY	C	R	-	Coach No.	1	9	2	2	6	4	/	C	DATE OF DISPATCH	2	7	-	0	3	-	1	9

DISPATCH TO	SSE(STOCK)/CR/ CSTM	Type	L	W	S	C	N	1	Shell No.	8	7	5	4	4	-	2	0	1	8	-	1	9

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/S- FAIVELY TRANSPORT TECH.INDIA LTD BADDI(HP)	A 19150 B
2.	Distribution valve	M/S- FAIVELY TRANSPORT TECH.INDIA LTD BADDI(HP)	19015607 B
3.	Pull box	M/S- KBI LTD	
4.	Foot Step	M/s- SUPER SPARK PVT. LTD. FARIDABAD	
5.	Decoupling arrangement	M/S- KOHINOOR INDIA JUC.	
6.	Floor board	M/S- SHRI RAM PANEL PUNJAB	
7.	PVC	M/s ACME INDIA, NDLS	
8.	Lavatory Inlay	M/S- SEEMA INDS. BHOPAL	
9.	UIC Vestibule (PPE)	M/S-ELASTOMER LINING WORKS, MUMBAI	
10.	UIC Vestibule (NPPE)	M/S-ELASTOMER LINING WORKS, MUMBAI	
11.	Gangway bridge mounting (PPE)	M/S- COMPETANT ENG. JUC	
12.	Gangway bridge mounting (NPPE)	M/S- COMPETANT ENG. JUC	
13.	Body Side Window	M/s- ACME INDIA NDLS	
14.	Emergency Window	M/s- ACME INDIA NDLS	
15.	Hopper Window	M/s- ACME INDIA NDLS	
16.	Side panel	M/s- ACME INDIA NDLS	
17.	Roof ceiling	M/s- ACME INDIA NDLS	
18.	Door way ceiling	M/s- ACME INDIA NDLS	
19.	Partition frame	M/s- ACME INDIA NDLS	
20.	Partition pillar	M/s- ACME INDIA NDLS	
21.	Body Side Door	M/S- JBM INDUSTRIES, FARIDABAD	
22.	Vestibule Door(PPE)	M/S- KALSI, LDH	
23.	Vestibule Door(NPPE)	M/S- KALSI, LDH	
24.	Bio Tank	M/s- RAIL FAB, KXH	
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- SHIVALIK FAST, MOHALI	
28.	Flexible Faucet	M/s- ACME INDIA NDLS	
29.	Lotah Filler Tap	M/s- ACME INDIA NDLS	
30.	Controlled Discharge Tap	M/s- HINDWARE ,(HSIL LTD) GURGAON	
31.	Lavatory Doors	M/s- ACME INDIA NDLS	
32.	Seat & Berth	M/s- ACME INDIA NDLS	
33.	Snack Table	N/A	

SSE/QC/MCF/RBL

वरि० खण्ड अभियंता
गुणवत्ता विभाग
रे०डि०का०, 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/2018-19/1398

RLY	C	R	-	Coach No.	1	9	2	2	6	4	/	C	DATE OF DISPATCH	2	7	-	0	3	-	1	9

DISPATCH TO	SSE(STOCK)/CR/ CSTM	Type	L	W	S	C	N	1	Shell No.	8	7	5	4	4	-	2	0	1	8	-	1	9

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 Frequency	REFERENCE & PERIOD OF TRIAL

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.CQM/MCF/RBL

वरिष्ठ अभियंता
गुणवत्ता विभाग
रे०डि०का०, रायबरेली (लालगंज)

सहायक यांत्रिक अभियन्ता/गुणवत्ता–1
Assistant Mechanical Engineer / Quality-1
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

CS-171

	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**	**192264/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 :**SSK** On Board Sr no :**2018/12/071** HT Panel Sr no :**2018/12/111**	EDTS 333, Rev`01'Am-1	**01**
02.	Pump equipment with PLC controller & pump box Make :**KALSI** Sr no PA:**7755/10/18** Sr no.1 :**298949** Sr no.2 :**298950** Srno.CPA:**7751/10/18-KALSI**	As per spec EDTS 186,Rev-a, Am- 2	**01**
03.	Emergency light system for EOG type coaches (AEL), Make :**VGS**	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**	EDML 086,Rev-03, ITEM-01	**20**
06.	Fitment of Switch Plate Assly Corridor Side),Make :**SSK**	EDML 086, Rev 03, ITEM-02	**20**
07.	Railway carriage Fan 400mm Sweep, 110V DC with crash worthy features. Make:**CROMPTON**	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:**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 :**AGASTYA**	CC76289 & CC76443	**09**

Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli

MCF/RBL

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

11.	Battery fuse box +ve Make :**NEC**	LW 71001,Alt-F	**01**
12.	Battery fuse box –ve Make :**NEC**	LW 71002,Alt-F	**01**
13.	Regulated battery charger Make :**IC ELECTRICAL** Sr no:**03-19-0039**	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	**01**
14.	9KVA transformer Make :**VIMAL** Sr no :**VTC 3089 LHB-1638**	As per RDSO/PE/SPEC/TL 0158, 2010, Rev`0',Ty I.	**01**
15.	ZS coupling 400A/750V/03Ph/50hz. Make :**S.INTERNATIONALS**	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 :**DARSHAN INTERPRISES**	EDTS101,REV-C,AM-1	**02 sets**
18.	Wheel Slide Protection System (WSP) Make :**FAIVELEY**Sr no :**40-18-1682**	M/s : **FAIVELEY**	**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 :**11/18**	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**

वरिष्ठ अनुभाग अभियन्ता
गुणवत्ता नियंत्रण
आ०रे०डि०का० / लालगंज / रायबरेली
S.E./Elect-QC/M.C.F./LLJ/RBL

स० कार्य प्रबन्धक / विद्युत
आ०रे०डि०का० / रायबरेली
A.W.M./Electrical/MCF/RBL