	Modern Coach Factory Raebareli आधुनिक रेल डिब्बा कारखाना, 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/2020-21/174

RLY	CR	COACH NO	204064/C			DATE OF DISPATCH	21-Jul-20
Type	LWSCN1	Shell No.	97889	DISPATCH TO	SSE/STOCK/CR/BB	FUR.NO.	LSCN-1553

1. Railway Board's Order No. : 2020/M(C)/142/2,DATED-24-06-2020
2. Tare Weight of Coach : 41.24 Tonnes
3. Carrying Capacity : (a) Seating: 80 (b) Sleeping: 80 (c) Luggage: NIL

4. Special feature:

A	Choke of 5/6 mm in DV side replace with 9 mm in both type (KBI & Faiv.)letter no. MC/LHB/Brake, DT. 27.09.18

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	NPP / PP	1096/1098

6. TRACEABILITY OF SHELL ITEMS:

S NO		ITEM		MAKE/SUPPLIER	SERIAL NO			
1	Under frame	Front	PP END	M/s-OMAX AUTO LTD	287			
		Part	NPP END	M/s-OMAX AUTO LTD	286			
		Complete		MCF/RBL/AIRCON	97889			
2	Lav. side wall			M/S-ATHANACY ALD	LAV.1		LAV.2	
				M/S-ATHANACY ALD	LAV.4		LAV.3	
3	Side wall	LH SIDE		MCF/RBL(CONT.V4U)	501/01			
		RH SIDE		MCF/RBL(CONT.V4U)	501/02			
4	End wall	PP END		M/s-SIPL PALWAL				
		NPP END		M/s-SIPL PALWAL				
5	Roof			MCF/CONT	289			
6	Centre Buffer Coupler			M/S-ESCORTS LTD	PP	3622	NPP	3595

7. AIR BRAKE 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.	6 – 10 sec.	07 sec
		Max. pressure in BC	3.0 ±0.15 kg/cm².	3.0 kg/cm²
		All Brake are applied	OK	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	ADVANCE	M/S-ADVANCE	90/88	12-Mar-20
2	Insulation	Satisfactory				

SSE/QC/MCF/RBL

वरि०अनु० अभियंता
गुणवत्ता विभाग
रे०डि०का०, रायबरेली (लालगंज)

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/**2020-21/174**

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

DISPATCH	SSE/STOCK/CR/BB	Type	L	W	S	C	N	1	Shell No.	9	7	8	8	9	FUR .NO	LSCN-1553

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	193884				193883			
Bogie Type	FIAT				FIAT			
Frame no.	SIMPLEX-98				SIMPLEX-93			
Bolster no.	APEX-160				APEX-19			
Axle No	20T – 8636 RWF		20V – 4940 RWF		20 V – 4482 RWF		20 V – 5629 RWF	
Wheel Dia	917.24	917.261	917.206	917.162	917.319	917.329	917.267	917.292
Wheel Disc No	TZ 11-19 88436-9WK9	TZ 11-19 88434-9WK9	TZ 11-19 86142-9WK2	TZ 12-19 16235-8WN1	TZ 04-19 34728-9OI2	TZ 04-19 34720-9OI2	TZ 05-19 46129-9PE1	TZ 11-19 86411-9WK7
R.B. Nos.	12-19 39153	11-19 43001	12-19 44601	11-19 43527	11-19 33738	12-19 39546	11-19 43187	12-19 45217
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.	CMFSK12-19 F09-152-797	CMFSK11-19-5112-080-367	CMFSK01-20 F09-158-793	CMFSK11-19 5112-080-405	CMFSK01-20 F09-158-877	CMFSK11-19 5112-080-266	CMFSK12-19F09-158-735	CMFSK11-19 5112-080-0401
Compressed Ht. at Tested Load	516	470	516	472	512.5	469.5	513	467.5
Alignment deviation (mm)	7	9	7	9	7	8	11	8

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	IAI	291944,292389	292084,292173
2.	Primary outer Spring	CMGBD	10-19 F07-894-(143,42,36,27)	10-19 F07-894-(54,14,24,87)
3.	Primary Inner Spring	CMGBD	10-19 F06-842-(674,191,66,236)	10-19 F06-842-(84,116,73,650)
4.	Primary Damper	IAI	12-19 (288209,287952,286265,288089)	12-19 (287774,287094,288442,287354)
5.	Secondary Damper	GABRIEL	12-19 (4381,4357)	12-19 (4342,4341)
6.	Lateral Damper	KONI	03-19 01016	03-19 01032
7.	Brake Cylinder	KBI	C (4656,3199,3157,4655)-K-29	C (4661,3201,3204,4649)-K-29
8.	Brake Caliper	KBI	B-(0922,0893,0894,0923)-29	B-(0925,0895,0806,0924)-29
9.	Brake Disc	KBI	24217797 0064-06/20,24217798 0019-06/20 24210806 0066-04/20,24210806 0072-04/20	24208531 0029-52/19,24206887 0062-51/19 24206887 0066-51/19,24206887 0065-51/19
10.	Ball Joint Control Arm	GMT		
11.	Lateral Bump Stop	ARYAN		
12.	Traction Centre make	RF		
13.	Traction lever make	JI		
14.	Ball joint traction lever	ARYAN		
15.	Ball joint traction centre	GMT		
16.	Secondary Rubber Pad	PRAG		
17.	Rubber Spring	GMT		
18.	Anti roll bar Make	RF		
19.	Roll Link make	SARITA +GMT		
20.	Fork make	SF		
21.	Control Arm Upper	KUMAR	D2585.N3025,N2551,N2502	D7356,D2523,D2351,D2202
22	Control Arm Lower	KUMAR	D2542,D2597,D2252,D2755	D2592,D2575,D2249,D2284
23.	Phonic Wheel	KBI	K 01-20	K 01-20

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/2020-21/174

RLY	CR	COACH NO	204064/C			DATE OF DISPATCH	21-Jul-20
Type	LWSCN1	Shell No.	97889	DISPATCH TO	SSE/STOCK/CR/BB	FUR.NO.	LSCN-1553

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO(NPP/PP)
1	Air Brake Module	M/s-KBI	4857-04/20
2	Distribution valve	M/s-KBI	2020A10281
3	Pull box	M/s-KBI	
4	FIBA	NA	
5	Foot Step	M/S-SUPER SPARK INDS FARIDABAD	
6	Decoupling arrangement	M/S-ELASTOMER INDS MUMBAI	
7	Floor board	M/S-SHREE RAM PNL GOVINDGARH	
8	PVC	M/S-RESPONSIVE INDS DELHI	
9	Lavatory inlay	M/S-SEEMA INDS BHOPAL	
10	UIC Vestibule (PPE)	M/S-KIRAN RUBBER PRODUCT INDUS PUNE	
11	UIC Vestibule (NPPE)	M/S-KIRAN RUBBER PRODUCT INDUS 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-EXCEL INDS KOLKATA	
15	Emergency Window	M/S-FP INDS KOLKATA	
16	Lavatory/hopper Window	M/S-AXSYS SOLUTION SIMNAOUR	
17	Side panel	M/S-HINDUSTAN FIBER GLASS WORKS VADODRA	
18	Roof Ceiling	M/S-A.B.COMPOSITE KOLKATA	
19	Door way Ceiling	M/S-ZAAM TOOLS RBL	
20	Body Side Doors	M/s-JVR INDS LUDHIANA	
21	Vestibule Door(PPE)	M/s-JVR INDS LUDHIANA	
22	Vestibule Door(NPPE)	M/s-JVR INDS LUDHIANA	
23	Bio Tank	M/S-FLASH FORGE (P) LTD. VIZAG	
24	Presurized Flushing(Elect.pneumatic)	NA	
25	Auxiliary Water Tank	M/s-AMIT ENGG MOHALI	
26	Under Slung Water Tank (2X685L)	M/s-SHIVALIK FAST MOHALI+AMIT ENGG MOHALI	
27	Under Slung Water Tank (1x685L)	M/s-AMIT ENGG MOHALI	
28	Health Faucet	M/S-KAPCO VALVES JALANDHAR	
29	Lotah Filler Tap	M/S-KAPCO VALVES JALANDHAR	
30	Controlled discharge tap	M/s-AGMECO PVT LTD UK	
31	Lavatory Doors	M/S-J.R INDS JALANDHAR	
32	Seat & Berth	M/S-ADVANCE SILICON FARIDABAD	
33	Ventury grill	M/S-VEDANSH PVT RBL	
34	RFID	NA	

SSE/QC/MCF/RBL

वरि0अनु0 अभियंता
गुणवत्ता विभाग
मे0डि0का0, 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/2020-21/174

RLY	CR	COACH NO	204064/C			DATE OF DISPATCH	21-Jul-20
Type	LWSCN1	Shell No.	97889	DISPATCH TO	SSE/STOCK/CR/BB	FUR.NO.	LSCN-1553

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

16. WARRANTY:

S NO	COMPONENTS	WARRANTY
1	Brake Pad, wheels, flushing valves, push gravity cocks, moldings, window glasses, mirrors, curtain 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 30months 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 caseextend 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 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 60º)	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/AME/QC/MCF/RBL	Dy.COM/MCF/RBL

वरि0अनु0 अभियंता
गुणवत्ता विभाग
रे0डि0का0, रायबरेली (लालगंज)

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

सुधीर कुमार
Sudhir Kumar
उप मुख्य प्रबन्धक
Dy. Chief Quality Manager
आधुनिक रेल डिब्बा कारखाना, रायबरेली
Modern Coach Factory, Raebareli

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB EOG NON AC COACH.

ELECTRICAL TEST CERTIFICATE FOR LHB EOG NON AC COACH.

TYPE COACH	**LWSCN**		**SHELL/COACH NO**	**204064/C**	
RAILWAY	**CR**	**ELECT. FIT DATE**	**20-07-2020**	**MCF FUR. NO.**	**LSCN-1553**

Sr. no.	Description of tests	Remarks
1.	PUMP EQUIPMENTS	OK
2.	LIGHTS, NL,LAP CHARGING SOCKETS	OK
3.	WORKING OF ACCIDENTAL, EMERGENCY LIGHTS.	OK
4.	RAILWAY CARRIAGE FAN	OK
5.	WHEEL SLIDE PROTECTION SYSTEM (**WSP**)	OK
6.	WORKING OF 9 KVA TRANSFORMER	OK
7.	WORKING OF REGULATED BATTERY CHARGER/EMERGENCY BATTERY CHARGER.	OK
8.	SAFETY :	----
8.1.	FUSES AND THEIR RATING	OK
8.2	CONTROL CIRCUIT	OK
8.3	POWER CIRCUIT	OK

Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli

MCF/RBL

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

Sr. no.	Description	Drg./Spec no.	Quantity per Coach
01.	Fitment of Switch board cabinet.(set of panel) Make/Sr.no.: **TRINITRON** On Board: **19/09/TCS/MCF/3451/355/0002** HT Panel: **19/09/TCS/MCF/3451/355/0002**	EDTS 355, Rev`01'.Am-3	**01 SET**
02.	Provision of 9 KVA 750/415/190V, 03Ø AC. Make: **VIMAL** Sr no.: **VTC 3089 LHB-3125**	RDSO/PE/SPEC/TL 0158, 2010, Rev`0',Ty I.	**01**
03.	Mounting of 09KVA TFR.	As per drg no 1.10113.0.76.300.001,Alt –B.	OK
04.	Provision of Pump equipment with pump box. Make: **DR AUTO** Sr no : **19/08/0108** Pump 1: **3673** Pump 2: **3718**	As per spec no. EDTS186,REV-A,AM-2	**01 SET**
05.	Provision & Mounting of Pump controller. Make: **DR AUTO** SL.no.: **2019/06/119**	As per Spec. EDTS186 Rev-a Am-2, & drg no. CC71328 & LW70020	**01**
06.	4.5 Kw Under slung type Constant Voltage Regulated Battery charger cum Emergency battery charger Make: **WAVES** Sr. no.: **W4K5 119684**	As per spec no. RDSO/PE/SPEC/AC/0183-2015(REV.-1)	**01**
07.	Provision of Feeder Junction Box Make : **MAA LAXMI INDUSTRIES**	EDTS-328 REV-C,AM-4,Type-II,COR-2	**01 SET**
08.	Provision of IVC dummy Socket assembly.	As per Drg. No. LW71302,Alt-nil	**01 SET**
09.	Battery fuse box +ve Make : **RICHMOND**	As per LW 71001,Alt- H	**01**
10.	Battery fuse box –ve Make : **RICHMOND**	As per LW 71002,Alt-I	**01**
11.	Provision of Battery boxes/ Cradles. Make: **TECHNO**	As per Drg. No. 110113.0.76.700.005 W/O item 5,22,23,26 & 27,Alt-C or Latest.	**01**
12.	Provision of batteries Type: 110 V, 120 AH VRLA SMF Battery Set. Make: **HBL** Lug Date: **03/20**	As per RDSO/PE/SPEC/AC/0009-2014 (Rev-2) with inner cell connectors or Latest.	**01 SET**

Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

Sr. no.	Description	Drg./Spec no.	Quantity per Coach
13.	Fitment of Railway carriage Fan 400mm Sweep, 110V AC with crash worthy features. Make: **KAPSONS**	As per Drg. No. ICF/SK-7-6-158,alt-g. RDSO/PE/SPEC/TL/0021-2005 (Rev-3) with RCF annex-1,am-1.	**30**
14.	Fitment of LED Light fittings for Cabin, Doorway and Gangway area. 9 watt. Make: **FIEM IND.**	As per RDSO/PE/SPEC/TL/0091-2016,Rev-1 with RCF Annex-1 .Type-B1.Drg. No. CC76453.	**26**
15.	Fitment of LED Light fittings for Night Light with berth indication Type-E (1 watt). Make: **RT VISION**	As per RDSO/PE/SPEC/TL/0091-2016,Rev-1 with RCF Annex-1, ICF/STB-7-6-053.Type- E. Drg. No. CC76461	**10**
16.	Fitment of LED Light fittings for Lavatory Lights. 9 Watt. Make: **RT VISION**	As per RDSO/PE/SPEC/TL/0091-2016,Rev-1 with RCF Annex-1Type-D. Drg. No. LW76092.	**04**
17.	Fitment of LED Light fittings for PACIL. Make: **KAVERI**	As per RDSO/SPEC/TL/0091-2016,Rev-1 with RCF Annex-1Type-I. Drg. No. LW76098.	**02**
18.	Fitment of Accidental Emergency Light (AEL) Make: **INTEG**	As per RDSO/SPEC/AC/0180-2016,Rev-0 ,Type-II.	**04**
19.	Provision of Cable binder	Drg. No. CC76120,Item - 1,2,3.100mm,200mm,300mm respectively.	**OK**
20.	Provision of Cable Jacket System.	EDTS-138,Cor-2,Item-5,7,8,9,11.	**OK**

Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli

MCF/RBL

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

Sr. no.	Description	Drg./Spec no.	Quantity per Coach
21.	Provision of Switch plate assembly along with mobile charging sockets. Make: **SALZER**	EDML-086, Rev-6, Am-1, Table-1, Item-1.	**10**
22.	Provision of Switch plate assembly along with mobile charging sockets. Make: **SALZER**	EDML-086, Rev-6, Am-1, Table-1, Item-2.	**10**
23.	Provision of Switch plate assembly along with mobile charging sockets. Make: **SALZER**	EDML-086, Rev-5, Am-1, Table-1, Item-3.	**20**
24.	Provision of High Capacity Inter – Vehicular Coupler Unit (ZS Coupling) (500 A, 750 V,3 ph, 50 Hz). Make:- 1.(NPP): **PRIME ELECT.** 2.(PP): **PRIME ELECT.**	As per Spec. no. RDSO/PE/SPEC/AC/0177(Rev.-0)-2013 with annexure-A, B.	**01 SET**
25.	Mounting of Inter Vehicle coupler	As per drg no.1.10113.0.74.000.001,Alt-B	**OK**
26.	Provision of Wheel Set Earthing equipment. Make:- NPP: **PRIME ELECT.** PP: **PRIME ELECT.**	EDTS101,REV-C,AM-1	**01 SET**
27.	Provision of Anti Skid Disk Brake System.(WSP) Make : **KNORR** Sr no : **0120104456**	As per MDTS 077,Rev.-2 M/s"FAIVELEY" or "Knorr Bremse", or "ESCORTS"	**01 SET**

SSE/EL/QC वरिष्ठ अनुभाग अभियन्ता गुणवत्ता नियंत्रण आ०रे०डि०का० / लालगंज / रायबरेली S.S.E./Elect-QC/M.C.F./LLJ/RBL	**AWM(ELECT.)/MCF/RBL** **SEE(P)/MCF/RBL** स० कार्य प्रबन्धक / विद्युत आ०रे०डि०का० / रायबरेली A.W.M./Electrical/MCF/RBL

MCF/RBL