	Modern Coach Factory Raebareli	DOC NO.: MCF/RBL/QMF 8002
	आधुनिक रेल डिब्बा कारख़ाना, रायबरेली	REV NO: 01
		DATE: 17.04.2018

ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2020-21/160

RLY	CR	COACH NO	204066/C			DATE OF DISPATCH	20-Jul-20
Type	LWSCN1	Shell No.	97871	DISPATCH TO	SSE/STOCK/CR/BB	FUR.NO.	LSCN-1538

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	1102/1098

6. TRACEABILITY OF SHELL ITEMS:

S NO		ITEM		MAKE/SUPPLIER	SERIAL NO			
1	Under frame	Front Part	PP END	M/s-NE CHD				
			NPP END	M/s-NE CHD				
		Complete		MCFRBL-V4U TECHIE	97871			
2	Lav. side wall			M/S-MIDAS GUJRAT	LAV.1		LAV.2	
				M/S-MIDAS GUJRAT	LAV.4		LAV.3	
3	Side wall	LH SIDE		MCF/RBL(CONT.V4U)	500/01			
		RH SIDE		MCF/RBL(CONT.V4U)	500/02			
4	End wall	PP END		M/s-SIPL PALWAL				
		NPP END		MCF (PUSKAR)				
5	Roof			MCF/CONT	288			
6	Centre Buffer Coupler			M/S-ESCORTS LTD	PP	3235	NPP	3570

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.	08 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	G.S. INDUS	M/S-G.S. INDUSTRIES	77/97	16-Jul-20
2	Insulation	Satisfactory				

SSE/QC/MCF/RBL

कार्यकारी 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/**160**

RLY	C	R		Coach No.	2	0	4	0	6	6	/	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	7	1	FUR .NO	LSCN-1538

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	193840				193839			
Bogie Type	FIAT				FIAT			
Frame no.	SIMPLEX-72				SIMPLEX-081			
Bolster no.	APEX-12				AMIT-09			
Axle No	20V – 3769 RWF		20V – 6382 RWF		20 V – 5595 RWF		20 W – 6080 RWF	
Wheel Dia	917.307	917.203	917.336	917.201	917.278	917.171	917.822	917.223
Wheel Disc No	TZ 05-19 41056-9PD6	TZ 12-19 93818-9XH2	TZ 11-19 88086-9WJ2	TZ 11-19 88085-9WJ5	TZ 11-19 82572-9WL2	TZ 12-19 88084-8WJ2	TZ 12-19 93816-9XH2	TZ 12-19 97994-9WJ3
R.B. Nos.	12-19 34926	12-19 36140	12-19 35750	12-19 33842	11-19 35022	12-19 36240	12-19 35771	12-19 35395
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.	CMFSK01-20F09-15B-964	CMAFJ12-19-5100-22	CMFSK01-20-F09-158-787	CMAFJ12-19-5100-46	CMFSK12-19-F09-158-550	CMAFJ12-19-5100-47	CMFSK12-19-158-922	CMAFJ12-19-5100-24
Compressed Ht. at Tested Load	514	471	514.5	471	512	472	513.5	472
Alignment deviation (mm)	11	5	9	5	13	5	12	5

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	IAI	291928,291642	191545,291596
2.	Primary outer Spring	CMGBD/CMFSK	10-19 F07-873-(902,983,979,944)	11-19 1100-115-(1088,1117,1045,1112)
3.	Primary Inner Spring	CMGBD/CMFSK	10-19 F06-842-(195,883,80,899)	11-19 1101-101-(318,308,310,367)
4.	Primary Damper	IAI	12-19 (288295,287192,288013,286582)	12-19 (288255,287076,287458,286057)
5.	Secondary Damper	KONI	04-19 (00915,00896)	04-19 (00911,01089)
6.	Lateral Damper	IAI	11-19 280604	11-19 280641
7.	Brake Cylinder	KBI	C (5080,3709,3710,4980)-K-29	C (4980,3770,3792,4982)-K-29
8.	Brake Caliper	KBI	B-(1257,1441,1444,1255)-29	B-(1256,1442,1443,1254)-29
9.	Brake Disc	KBI	24208536 0013-53/19,24208536 0012-53/19 24208536 0010-53/19,24208536 0018-53/19	24208536 0011-53/19,24208535 0011-53/19 24208534 0043-52/19,24208536 0013-52/19
10.	Ball Joint Control Arm	GMT		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	RF		
13.	Traction lever make	JI		
14.	Ball joint traction lever	GMT		
15.	Ball joint traction centre	GMT		
16.	Secondary Rubber Pad	PRAG		
17.	Rubber Spring	GMT		
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA +GMT		
20.	Fork make	RF		
21.	Control Arm Upper	RVE	211119-1,261119-1,191119-2,261119-1	21119-2,131119-3,131119-3,261119-1
22.	Control Arm Lower	RVE	221119-3,251119-3,221119-4,221119-4	11119-2,2211119-3,211119-3,251119-1
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/2020-21/160

RLY	CR	COACH NO	204066/C			DATE OF DISPATCH	20-Jul-20
Type	LWSCN1	Shell No.	97871	DISPATCH TO	SSE/STOCK/CR/BB	FUR.NO.	LSCN-1538

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO(NPP/PP)
1	Air Brake Module	M/s-KBI	4786-03/20
2	Distribution valve	M/s-KBI	2020A10219
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 BHOPAL	
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 IR KOLKATA	
15	Emergency Window	M/S-FP INDS KOLKATA	
16	Lavatory/hopper Window	M/S-BET INDS PUNJAB	
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-JBM INDS FARIDABAD	
21	Vestibule Door(PPE)	M/s-JBM INDS FARIDABAD	
22	Vestibule Door(NPPE)	M/s-JBM INDS FARIDABAD	
23	Bio Tank	M/s-RAIL FAB KAPURTHALA	
24	Presurized Flushing(Elect.pneumatic)	M/s-IMI	
25	Auxiliary Water Tank	M/s-AMIT ENGG MOHALI	
26	Under Slung Water Tank (2X685L)	M/s-SHIVALIK FAST 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-OVPL MUMBAI	
33	Ventury grill	NA	
34	RFID	NA	

SSE/QC/MCF/RBL

गुणवत्ता विभाग
रा.रे.का.ज., 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/2020-21/160

RLY	CR	COACH NO	204066/C			DATE OF DISPATCH	20-Jul-20
Type	LWSCN1	Shell No.	97871	DISPATCH TO	SSE/STOCK/CR/BB	FUR.NO.	LSCN-1538

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.CQM/MCF/RBL

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

सुधीर कुमार
Sudhir Kumar
उप मुख्य गुणवत्ता प्रबंधक
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**	**204066/C**	
RAILWAY	**CR**	**ELECT. FIT DATE**	**18-07-2020**	**MCF FUR. NO.**	**LSCN-1538**

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

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/3451/355/0007** HT Panel: **19/09/TCS/MCF/3451/355/0008**	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-2946**	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: **KIND** Sr no : **0081** Pump 1: **20050231** Pump 2: **20050232**	As per spec no. EDTS186,REV-A,AM-2	**01 SET**
05.	Provision & Mounting of Pump controller. Make: **KIND** SL.no.: **20050062**	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: **IC** Sr. no.: **03/20/0036**	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 : **AECO**	As per LW 71002,Alt-I	**01**
11.	Provision of Battery boxes/ Cradles. Make: **HITECH**	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
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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: **SARIA IND.**	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**

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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: **DARSHAN ENTERPRISES** PP: **DARSHAN ENTERPRISES**	EDTS101,REV-C,AM-1	**01 SET**
27.	Provision of Anti Skid Disk Brake System.(WSP) Make : **KNORR** Sr no : **0120084333**	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