



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/2020-21/175

RLY	CR	COACH NO	204071/C	DATE OF DISPATCH	21-Jul-20
Type	LWSCN1	Shell No.	97929	DISPATCH TO	SSE/STOCK/CR/BB
				FUR.NO.	LSCN-1595

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 1095/1096

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1	Under frame	Front PP END M/S-SFPL Part NPP END M/S-SFPL Complete MCFRBL-V4U-TECHIE	97929
2	Lav. side wall	M/S-MIDAS GUJRAT LAV.1 M/S-MIDAS GUJRAT LAV.4	LAV.2 LAV.3
3	Side wall	LH SIDE M/S-ECBT RH SIDE M/S-ECBT	139 139
4	End wall	PP END M/S-JVR NPP END M/S-JVR	
5	Roof	M/S-ECBT	422
6	Centre Buffer Coupler	M/S-FRONTIER PP	172P2 NPP 252P2

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/cm ² . Max. pressure in BC All Brake are applied	6 – 10 sec. 3.0 ±0.15 kg/cm ² . OK	8 sec 3.0 kg/cm ² OK
2	Insensitivity	Exhaust BP @ 0.3 kg/cm ² /min.	No brake application	OK
3	Sensitivity	Exhaust BP @ 0.1 kg/cm ² /Sec, after 06 Sec.	Brake must apply	OK

8. PAINTING DETAILS:

S NO	DESCRIPTION	TYPE	MAKE	APPLICATION BY MCF/ CONTRACTOR	AVERAGE	DATE OF
		OF PAINT		(SUPPLY & APPLY)	GLOSS VALUE	COMPLETION
1	Paint	P.U	ADVANCE	M/S-ADVANCE	89/88	23-Jun-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

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Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2020-21/175

RLY	C	R		Coach No.	2	0	4	0	7	1	/	C	-	DATE OF DISPATCH	2	1	0	7	2	0	2	0
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DISPATCH	SSE/STOCK/CR/BB	Type	L	W	S	C	N	1	Shell No.	9	7	9	2	9	FUR .NO	LSCN-1595
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9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	200137				200138			
Bogie Type	FIAT				FIAT			
Frame no.	WIL-053				VS-2022			
Bolster no.	APEX-100				AMIT-127			
Axle No	20 V - 2093 RWF	20W - 9572 RWF		20 W - 8877 RWF	20 W - 9714 RWF			
Wheel Dia	917.28	917.55	917.342	917.397	917.334	917.433	917.171	917.657
Wheel Disc No	TZ 11-19 83105-9WG5	TZ 11-19 81120-9VE1	TZ 07-19 68863-9RM5	TZ 12-19 94403-9WM1	TZ 07-19 68864-9RM5	TZ 06-19 53233-9QH5	TZ 11-19 78810-9WE2	TZ 11-19 93387-9WI7
R.B. Nos.	11-19 33494	11-19 33440	11-19 32976	11-19 33297	11-19 33226	11-19 33884	11-19 33190	11-19 32621
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.	CMFSK01-20 F08-158-903	CMFSK05-19- 5100-027-307	CMFSK01-20- F08-158-926	CMFSK05-19- 5100-027-52	CMGBD10-19- F09-750240	CMGBD05-19- 5100-3476	CMGBD10-19- F09-750-214	CMGBD11-19- 5100-124-114
Compressed Ht. at Tested Load	516	470	515	467.5	515	472	514	472
Alignment deviation (mm)	9	8	12	9	27	13	21	14

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	IAI	292489,293627	292562,293632
2.	Primary outer Spring	CMAFI	02-20 1100-(286,291,277,303)	02-20 1100-(2307,288,309,314303)
3.	Primary Inner Spring	CMAFI	01-20 1101-(225,207,95,96)	01-20 1101-(98,238,97,54)
4.	Primary Damper	GABRIEL	01-20 (13126,13130,13136,13125)	01-20 (13122,13123,13121,13131)
5.	Secondary Damper	IAI	01-20 (302306,295648)	01-20 (302828,295642)
6.	Lateral Damper	KONI	04-19 01769	04-19 2205
7.	Brake Cylinder	KBI	C (4230,2984,2989,4229)-K-29	C (8123,6804,8121,6828)-K-29
8.	Brake Caliper	KBI	B-(4637,4152,4537,4638)-29	B-(4070,4169,4170,4072)-29
9.	Brake Disc	KBI	24226785 0024-20/20,24226785 0023-26/20 24226785 0023-01/02,24226785 0040-01/02	24226786 0027-01/02,24226785 0041-01/02 24226789 0004-26/20,24226785 0022-26/20
10.	Ball Joint Control Arm	PRAG		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	SARITA		
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	ARYAN		
18.	Anti roll bar Make	EMSON/ SARITA		
19.	Roll Link make	JUR +GMT		
20.	Fork make	RNG		
21.	Control Arm Upper	SF	SF,127,1765,1274	124,14,1648,20
22.	Control Arm Lower	SF	1038,40,1087,1018	7,1103,952,64
23.	Phonic Wheel	KBI	K 05-20	K 05-20

Signature of SSE/Bogie/QC





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				FUR.NO.	LSCN-1595

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO(NPP/PP)
1	Air Brake Module	M/s-KBI	4774 02/20
2	Distribution valve	M/s-KBI	2020A10234
3	Pull box	M/s-KBI	
4	FIBA	NIL	
5	Foot Step	M/S- SUPER SPARKS LTD FARIDABAD	
6	Decoupling arrangement	M/S-ELASTOMER MUMBAI	
7	Floor board	M/S-SHREE RAM PNL	
8	PVC	M/S-RESPONSIVE INDS.	
9	Lavatory inlay	M/S-SEEMA INDS BHOPAL	
10	UIC Vestibule (PPE)	M/S-SUNCREAST KOLKATA	
11	UIC Vestibule (NPPE)	M/S-KRP 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-HF VADODARA	
15	Emergency Window	M/S-HF VADODARA	
16	Lavatory/hopper Window	M/S-BEI PUNJAB	
17	Side panel	M/S-HF VADODARA	
18	Roof Ceiling	M/S-A.B. COMPOSITE	
19	Door way Ceiling	M/S-ZAAM TOOLS RBL	
20	Body Side Doors	M/s- JBM FARIDABAD	
21	Vestibule Door(PPE)	M/s- JBM FARIDABAD	
22	Vestibule Door(NPPE)	M/s- JBM FARIDABAD	
23	Bio Tank	M/s-RAIL FAB KXH	
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 (1x685 L)	M/s- AMIT ENGG.MOHALI	
28	Health Faucet	M/s- KAPCO VALVES JUC	
29	Lotah Filler Tap	M/s- KAPCO VALVES JUC	
30	Controlled discharge tap	M/s-AGMECO PVT LTD	
31	Lavatory Doors	M/S-JVR LDH	
32	Seat & Berth	M/S-OVPL MUMBAI	
33	Ventury grill	NIL	
34	RFID	NIL	


SSE/QC/MCF/RBL

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Type	LWSCN1	Shell No.	97929	DISPATCH TO	SSE/STOCK/CR/BB
				FUR.NO.	LSCN-1595

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 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 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/AME/QC/MCF/RBL	Dy. Chief Quality Manager

वरिष्ठ अनु० अभियंता
गुणवत्ता विभाग
रेडि०का०, रायबरेली (लालगंज)

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

सुधीर कुमार
Dy. Chief Quality Manager
आधुनिक रेल डिब्बा कारखाना, रायबरेली
Modern Coach Factory Raebareli



Modern Coach Factory Raebareli
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DOC NO.: MCF/RBL/QEF/8001

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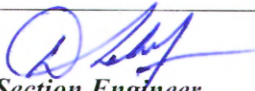
PAGE 1 OF 4

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB EOG NON AC COACH.

ELECTRICAL TEST CERTIFICATE FOR LHB EOG NON AC COACH.

ELECTRICAL TEST CERTIFICATE FOR LHB EOG NON AC COACH.						
TYPE COACH		LWSCN		SHELL/COACH NO		204071/C
RAILWAY		CR	ELECT. FIT DATE	20-07-2020	MCF FUR. NO.	LSCN-1595
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





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PAGE 2 OF 4

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: 19/08/TCS/MCF/3436/355/0128 HT Panel: 19/08/TCS/MCF/3436/355/0128	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-2656	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 : 0069 Pump 1: 20050207 Pump 2: 20050208	As per spec no. EDTS186,REV-A,AM-2	01 SET
05.	Provision & Mounting of Pump controller. Make: KIND SL.no.: 20050045	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.: 03/20/0019	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

(Signature)
Senior Section Engineer
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PAGE 3 OF 4

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: RT VISION	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: AGASTYA	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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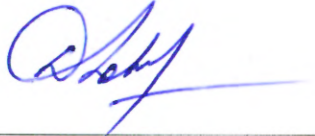


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PAGE 4 OF 4

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 : 0120114697	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