



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/2020-21/372

RIY	NFR	COACH NO	204592/C	DATE OF DISPATCH	26-Aug-20
Type	LWSCN1	Shell No.	20G031	DISPATCH TO	SSE/C&W/KIR
				FUR.NO.	LSCN-1616

1. Railway Board's Order No. : 2020/M(C)/142/2, Dated-01.05.2020
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 1101/1100

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1	Under frame	Front PP END M/S-NECHD Part NPP END M/S-NECHD Complete MCFRBL-AIRCON	20G031
2	Lav. side wall	M/S-ATHANCY ALD LAV.1 M/S-ATHANCY ALD LAV.4	LAV.2 LAV.3
3	Side wall	LH SIDE MCFRBL-V4U-LKO RH SIDE MCFRBL-V4U-LKO	543 543
4	End wall	PP END M/S-JVR LDH NPP END M/S-JVR LDH	
5	Roof	M/S-ECBT	451
6	Centre Buffer Coupler	M/S-FRONTIER PP	362P1 NPP 316P2

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	9 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	GSI	M/S-GSI WOW (S&A)	96/94	25-Aug-20
2	Insulation			Satisfactory		

SSE/QC/MCF/RBL

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गुणवत्ता विभाग
रेलवे डिपार्टमेंट, 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/2020-21/372

RLY	N	F	R	Coach No.	2	0	4	5	9	2	/	C	-	DATE OF DISPATCH	2	6	0	8	2	0	2	0
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DISPATCH	SSE/C&W/KIR	Type	L	W	S	C	N	1	Shell No.	2	0	G	0	3	1	FUR .NO	LSCN - 1616
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9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	200140				200139			
Bogie Type	FIAT				FIAT			
Frame no.	VS-2017				WIL-062			
Bolster no.	AMIT-55				APEX-99			
Axle No	20 W - 8723 RWF	20 Y - 0106 RWF	20 Y - 1723 RWF	20 Y - 1883 RWF				
Wheel Dia	917.528	917.448	917.506	917.429	917.445	917.535	917.494	917.381
Wheel Disc No	TZ 12-19 92613-9XH6	TZ 11-19 83785-9VL4	TZ 11-19 80836-9VE2	TZ 11-19 81439-9VD2	TZ 12-19 94339-9WM9	TZ 04-19 39329-90G4	TZ 12-19 89726-9WK1	TZ 11-19 81389-9VD2
R.B. Nos.	11-19 44365	12-19 34748	11-19 44166	12-19 35248	11-19 32363	12-19 44890	11-19 31979	12-19 34745
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.	CMGBD10-19 F09-750-228	CMGBD11-19- 5100-124-119	CMGBD10-19- F09-750-250	CMGBD05-19- 5100-2465	CMFSK01-20 F08-158-760	CMRSK05-19-F08- N98-08Y-693	CMFSK01-20 F08-158-65	CMFSK05-19-F08- N98-08Y-61
Compressed Ht. at Tested Load	516	472	516	469	516	468	516	472
Alignment deviation (mm)	27	18	27	16	13	6	12	6

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	IAI	291916,291992	291364,291521
2.	Primary outer Spring	CMAFI	02-20 1100-(305,310,311,290)	02-20 1100-(287,308,313,306)
3.	Primary Inner Spring	CMAFI	01-20 1101-(213,210,206,236)	01-20 1101-(93,393,94,208)
4.	Primary Damper	GABRIEL	01-20 (13156,13145,13137,13146)	01-20 (13114,13113,13109,13110)
5.	Secondary Damper	IAI/GABRIEL	01-20 (302351,302782)	01-20 (4942,4938)
6.	Lateral Damper	KONI	03-2019 02027	03-2019 01974
7.	Brake Cylinder	KBI	C (8126,6813,6816,8125)-K-29	C (4234,2907,2983,4214)-K-29
8.	Brake Caliper	KBI	C-(4071,4171,4172,4070)-29	C-(0338,0765,0704,0535)-29
9.	Brake Disc	KBI	24226781 0052-25/20,24226781 0051-25/20 24226781 0027-26/20,24226788 0023-26/20	24226787 0001-01/20,24226787 0002-01/20 24226787 0039-26/20,24226787 0042-26/20
10.	Ball Joint Control Arm	PRAG		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	SARITA		
13.	Traction lever make	JJ		
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	SARITA		
19.	Roll Link make	JUR/GMT		
20.	Fork make	SARITA		
21.	Control Arm Upper	SF	1192,178,180,43	138,7,202,41
22.	Control Arm Lower	SF	218,328,98,112	208,32,138,218
23.	Phonic Wheel	KBI	K 06-20	K 06-20

Signature of SSE/Bogie/QC



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				FUR.NO.	LSCN-1616

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO(NPP/PP)
1	Air Brake Module	M/s-KBI	5648 23/20
2	Distribution valve	M/s-KBI	2020F11410
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 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-EXCEL IR KOLKATA	
15	Emergency Window	M/S-F.P.KOLKATA	
16	Lavatory/hopper Window	M/S BET INDS PUNJAB	
17	Side panel	M/S-HF VADODARA	
18	Roof Ceiling	M/S-A.B.COMPOSITE	
19	Door way Ceiling	M/S-ZAAM TOOL RBL	
20	Body Side Doors 1,2,3	M/s- SVARN INFRATEL	
	Body Side Doors 4	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-OMAX AUTO LTD	
24	Presurized Flushing(Elect.pneumatic)	M/S-SPAC	
25	Auxiliary Water Tank	M/s- OASIS	
26	Under Slung Water Tank (2X685L)	M/s- SHIVALIK FAST MOHALI	
27	Under Slung Water Tank (1x685 L)	M/s- AMIT ENG.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 SILICON MUMBAI(SLIDING)	
33	Ventury grill	NIL	
34	RFID	NIL	

SSE

SSE/QC/MCF/RBL

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रेलवे डिपार्टमेंट, रायबरेली (लालगंज)





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				FUR.NO.	LSCN-1616

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:

- This warranty covers free supply of parts which wear out and fails within warranty period of normal service.
- This doesn't covers faults arising out of accident, non standard maintenance practices, abnormal use or mishandling, vandal activity, arson & deficient/pilferage etc.
- 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.
- Whether a defective part is to be replaced or repaired shall be at the discretion of MCF/RBL.
- For any complain/ suggestion please Mail at qualityrcfrbl@gmail.com
- 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.CQM/MCF/RBL

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आधुनिक रेल डिब्बा कारखाना, रायबरेली
Modern Coach Factory, Raebareilly

सुधीर कुमार
Sudhir Kumar
एच. प्रमुख गुणवत्ता प्रबंधक
Dy. Chief Quality Manager
आधुनिक रेल डिब्बा कारखाना, रायबरेली
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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	
				204592/C	
RAILWAY		NFR		ELECT. FIT DATE	
				22-08-2020	
				MCF FUR. NO.	
				SCN-1616	
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

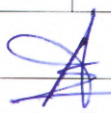


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ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

Sr. no.	Description	Drg./Spec no.	Quantity per Coach
01.	Fitment of Switch board cabinet.(set of panel) Make/Sr.no.: ABROL On Board: NO.PLATE MISSING. HT Panel: 2020/07/225A	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-2753	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: GEM Sr no : 20070066 Pump 1: 20070131 Pump 2: 20070132	As per spec no. EDTS186,REV-A,AM-2	01 SET
05.	Provision & Mounting of Pump controller. Make: GEM SL.no.: 20070019	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: SIGNOTRON Sr. no.: 06201508	As per spec no. RDSO/PE/SPEC/AC/0183-2015(REV.- 1)	01
07.	Provision of Feeder Junction Box Make : RSI SWITHGEARS LTD	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: 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: AMARA RAJA Lug Date: 01/20	As per RDSO/PE/SPEC/AC/0009-2014 (Rev-2) with inner cell connectors or Latest.	01 SET


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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: VENTWELL	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: 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): MAA LAXMI INDUSTRIES 2.(PP): MAA LAXMI INDUSTRIES	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 : 0120094394	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