



Modern Coach Factory Raebareli

DOC NO.: MCF/RBL/QMF 8002

आधुनिक रेल डिब्बा कारखाना, रायबरेली

REV NO: 01

DATE: 17.04.2018

ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2020-21/574

RLY	NFR	COACH NO	204910/C	DATE OF DISPATCH	29-Sep-20
Type	LWSCN1	Shell No.	20G282	DISPATCH TO	SSE/C&W/GHY/RNY
				FUR.NO.	LSCN-1753

- Railway Board's Order No. : 2020/M(C)/142/2, Dated-21.08.2020
- Tare Weight of Coach : 41.24 Tonnes
- 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 1105/1098

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1	Under frame	Front PP END	M/S-MAHAVEER 146
		Part NPP END	M/S-MTF 515
		Complete	MCFRBL-SIS LINE 20G282
2	Lav. side wall	M/S-ATHANCY ALD	LAV.1 ----- LAV.2 -----
		M/S-ATHANCY ALD	LAV.4 ----- LAV.3 -----
3	Side wall	LH SIDE	M/S-ECBT CDG 175
		RH SIDE	M/S-ECBT CDG 175
4	End wall	PP END	M/S-KANSAL -----
		NPP END	M/S-SIPL -----
5	Roof	M/S-MCFRBL-CONT.	135
6	Centre Buffer Coupler	M/S-FRONTIER	PP 94P1 NPP 96P2

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 .	6 - 10 sec.	9 sec
		Max. pressure in BC	3.0 ± 0.15 kg/cm ² .	3.0 kg/cm ²
		All Brake are applied	OK	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 OF PAINT	MAKE	APPLICATION BY MCF/ CONTRACTOR (SUPPLY & APPLY)	AVERAGE GLOSS VALUE	DATE OF COMPLETION
1	Paint	P.U	K.NEROLAC	M/S-K.NEROLAC (S&A)	88/86	9-Sep-20
2	Insulation			Satisfactory		


 03/12/2020
 SSE/QC/MCF/RBL
 गुणवत्ता विभाग
 रेल डिब्बा कारखाना, रायबरेली (जालमज)



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/2020-21/574

RLY	N	F	R	Coach No.	2	0	4	9	1	0	/	C	-	DATE OF DISPATCH	2	9	0	9	2	0	2	0
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DISPATCH	SSE/C&W/GHY/RNY	Type	L	W	S	C	N	1	Shell No.	2	0	G	2	8	2	FUR .NO	LSCN - 1753
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9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	201094				201093			
Bogie Type	FIAT				FIAT			
Frame no.	MIPL-512				MIPL-603			
Bolster no.	MCF/RBL/LS5 -1439				MCF/RBL/LS5 -1435			
Axle No	20 Y- 8462 RWF	20 Y - 8406 RWF	20 Z- 1395 RWF	20 Y- 8779 RWF				
Wheel Dia	917.497	917.564	917.491	917.588	917.407	917.43	917.497	917.602
Wheel Disc No	TZ 12-19 94350-9WM1	TZ 07-19 62226-9RL4	TZ 07-19 69005-9RL7	TZ 12-19 94499-9VC1	TZ 12-19 94499-9VC1	TZ 07-19 69006-9KG4	TZ 07-19 66923-9RS7	TZ 07-19 66922-9RS7
R.B. Nos.	12-19 36753	12-19 36214	12-19 32184	12-19 36813	11-19 31988	12-19 36496	12-19 35427	12-19 36814
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
Make & Nos.	AVADH RAIL INDRA Sr. NO- 01-20 10076	AVADH RAIL INDRA Sr. NO- 01-20 10072	AVADH RAIL INDRA Sr. NO- 07-20 9916	AVADH RAIL INDRA Sr. NO- 01-20 10009

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	IAI	304127,304103	304233,304148
2.	Primary outer Spring	CMAFI	06-20 - 1100-(10,9,103,101)	06-20 - 1100-(214,104,8,82)
3.	Primary Inner Spring	CMAFI	06-20,1101--(385,70,195,199)	06-20,1101--(46,191,45,193)
4.	Primary Damper	GABRIEL	01-20 (14736,14755,14742,14745)	01-20 (14735,14728,14733,14720)
5.	Secondary Damper	GABRIEL	01-20 (4851,5016)	01-20 (5025,5017)
6.	Lateral Damper	IAI	11-19 283818	11-19 283792
7.	Brake Cylinder	KBI	D(0024,0021)K29,C(8365,8373)K29	D(0032)K29,C(8020,8369,8371)K29
8.	Brake Caliper	KBI	C-(5569,5472,5471,5572)-29	C-(5568,5473,5470,5570)-29
9.	Brake Disc	KBI	24234032 0076-32/20,24234033 0033-32/30 24234033 0032-32/20,24234035 0001-32/20	24234033 0030-32/20,24234035 0003-32/20 24234033 0031-32/20,24234032 0002-32/20
10.	Ball Joint Control Arm	PARAG		
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.	Leveling Valve	KNORR	16-19 B 6275,16-19 B6637	16-19 B 6231,16-19 B6314
17.	Check Valve	KNORR	05-20 23745	02-20 24837
18.	Anti roll bar Make	SARITA/EMSON		
19.	Roll Link make	SARITA /GMT		
20.	Fork make	RNG		
21.	Control Arm Upper	SF	20G162,19L262,20G306,20G48	20G288,CC,19H67,20G266
22.	Control Arm Lower	SF	20G13,20G72,20G15,20G20	19E678,20F109,20G117,20G114
23.	Phonic Wheel	KBI	K 05-20	K 05-20

Signature of SSE/Bogie/QC



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				FUR.NO.	LSCN-1753

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO(NPP/PP)
1	Air Brake Module	M/s-KBI	5979 28/20
2	Distribution valve	M/s-KBI	2020G11873
3	Pull box	M/s-KBI	
4	FIBA	M/s-KBI	8968/29,8995/29
5	Foot Step	M/S- FABRICON KOLKATA	
6	Decoupling arrangement	M/S-ELASTOMER MUMBAI	
7	Floor board	M/S-SHREE RAM PNL	
8	PVC	M/S-RESPONSIVE INDS DELHI	
9	Lavatory inlay	M/S-SEEMA BHOPAL	
10	UIC Vestibule (PPE)	M/S-ELASTOMER MUMBAI	
11	UIC Vestibule (NPPE)	M/S-ELASTOMER MUMBAI	
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-SAWALIKA KOLKATA	
15	Emergency Window	M/S-SHATABDI INDS VADODARA	
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 TOOLS RBL	
20	Body Side Doors 2,4	M/s-JVR LDH	
	Body Side Doors 1,3	M/s-SUKATA	
21	Vestibule Door(PPE)	M/s-KALSI LDH	
22	Vestibule Door(NPPE)	M/s-KALSI LDH	
23	Bio Tank	M/s-OMAX AUTO LTD	
24	Presurized Flushing(Elect.pneumatic)	M/S-AIR FLOW	
25	Auxiliary Water Tank	M/s-AMIT ENGG MOHALI	
26	Under Slung Water Tank (2X685L)	M/s-OASIS	
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-MSL MOHALI	
32	Seat & Berth	M/S-DURABLE POLYMER LKO	
33	Ventury grill	NIL	
34	RFID	NIL	

Roma
03/12/2020
SSE/QC/MCF/RBL

वरिष्ठ अनुसंधान विभाग
गुणवत्ता विभाग
रेडिओ, रायबरेली (लालगंज)



Modern Coach Factory Raebareilly
आधुनिक रेल डिब्बा कारखाना, रायबरेली

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RLY	NFR	COACH NO	204910/C	DATE OF DISPATCH	29-Sep-20
Type	LWSCN1	Shell No.	20G282	DISPATCH TO	SSE/C&W/GHY/RNY
				FUR.NO.	LCN-1753

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
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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.

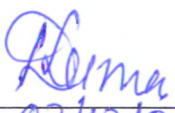
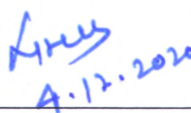
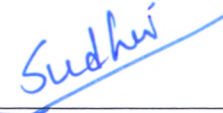
NOTE:

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 qualityrcfbl@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.

 03/12/2020 SSE/QC/MCF/RBL	 4.12.2020 SME/AME/QC/MCF/RBL	 Dy.CQM/MCF/RBL
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गुणवत्ता विभाग
रेडिओका 0, रायबरेली (लालगंज)

Asst. Mechanical Engineer
आ. रे. डि. का. रायबरेली
MCF, RBL

Dy. Chief Quality Manager
आधुनिक रेल डिब्बा कारखाना, रायबरेली
Modern Coach Factory Raebareilly



	Modern Coach Factory Raebareli आधुनिकरेलडिब्बाकारखाना, रायबरेली	DOC NO.: MCF/RBL/QEF/8001
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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB EOG NON AC SCN COACH.

ELECTRICAL TEST CERTIFICATE FOR LHB EOG NON AC SCN COACH.					
TYPE COACH	LWSCN		SHELL/COACH NO		204910/C
RAILWAY	NFR	ELECT. FIT DATE	29-09-2020	MCF EUR. NO.	LSCN-1753
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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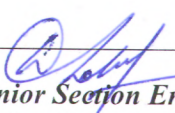
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ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

Sr. no.	Description	Drg./Spec no.	Quantity per Coach
01.	Fitment of Switch board cabinet.(set of panel) Make/Sr.no.: HIND On Board: H355.20F.0855 HT Panel: H355.20F.0832	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 - 3875	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 : 20/08/0063 Pump 1: 3707 Pump 2: 3682	As per spec no. EDTS186,REV-A,AM-2	01 SET
05.	Provision & Mounting of Pump controller. Make: DR AUTO SL.no.: 2019/09/0459	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: PI Sr. no.: 20070353	As per spec no. RDSO/PE/SPEC/AC/0183-2015(REV.- 1)	01
07.	Provision of Feeder Junction Box Make : AECO	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: 06/20	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: LIGHT ENGG.	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:SSK	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, 3ph, 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: 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 :0120245153	As per MDTs 077,Rev.-2 M/s"FAIVELEY" or "Knorr Bremse", or "ESCORTS"	01 SET

	
SSE/EL/QC वरिष्ठ अनुभाग अभियन्ता गुणवत्ता नियंत्रण	AWM(ELECT.)/MCF/RBL SEE(P)/MCF/RBL

आ०रे०डि०का० / लालगंज / रायबरेली
S.S.E./Elect-QC/M.C.F./LLJ/RBL

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



आ०रे०डि०का० / रायबरेली