



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/2020-21/861

RLY	WCR	COACH NO	205715/C	DATE OF DISPATCH	31-Dec-20
Type	LWSCN1	Shell No.	20G319	DISPATCH T	Sr.DME/JBP
				FUR.NO.	LSCNG-489

1. Railway Board's Order No.	: 2020/M(C)/142/2, DATED-09.07.2020
2. Tare Weight of Coach	: 41.24 Tonnes
3. Carrying Capacity	: (a) Seating: 80 (b) Sleeping: 80 (c) Luggage: NIL

4. Special feature:

A	Epoxy flooring in lavatory	M/S-H.F GLASS WORKS VADODRA
B	Anti slip friendly Grab Bar	M/S-H.F GLASS WORKS VADODRA
C	Provision of Health Faucet in lavatories	M/S-H.F GLASS WORKS VADODRA
D	Washbasin counter Top (Corian of Duport or Montelli)	M/S-H.F GLASS WORKS VADODRA
E	GFRE ceiling instead of NFTC	M/S-H.F GLASS WORKS VADODRA
F	DGFRP panels instead of LP panels	M/S-H.F GLASS WORKS VADODRA
G	Honey Comb partition frame with DGFRP sheet instead of FRP sheet	M/S-H.F GLASS WORKS VADODRA
H	Venturi arrangement in lavatory	M/S-H.F GLASS WORKS VADODRA
I	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 1095/1103

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1	Under frame	PP END M/S-INDIRA	
	Part	NPP END M/S-INDIRA	
	Complete	M/S-INDIRA	31-175
2	Lav. side wall	M/S-MIDAS GUJRAT	LAV.1
		M/S-MIDAS GUJRAT	LAV.2
			LAV.3
			LAV.4
3	Side wall	LH SIDE MCFRBL-CONT.V4U	69/01
		RH SIDE MCFRBL-CONT.V4U	69/02
4	End wall	PP END M/S-DTL PUNE	
		NPP END M/S-DTL PUNE	
5	Roof	MCF/CONT	173
6	Centre Buffer Coupler	M/s-ESCORT	PP END 5706 NPP END 5708

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.	06 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	NEROLAC	M/S-KANSAL NEROLAC	88/87	31.10.2020
2	Insulation			Satisfactory		

Rajma
17/02/2021
SSE/QC/MCF/RBL

वरिष्ठ अनुसंधान विभाग
मुख्य विभाग
रेलवे कारखाना, रायबरेली (उत्तर प्रदेश)



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/-861

RLY	W	C	R	Coach No.	2	0	5	7	1	5	/	C	-	DATE OF DISPATCH	3	1	1	2	2	0	2	0
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DISPATCH	Sr.DME/JBP	Type	L	W	S	C	N	1	Shell No.	2	0	G	3	1	9	FUR.NO	LSCN - G-489
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9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	201643				201644			
Bogie Type	FIAT				FIAT			
Frame no.	VS- 2159				VS-2213			
Bolster no.	AMIT-231				AMIT-351			
Axle No	20Z - 4045	RWF	20 W- 8881	RWF	20 W- 2089	RWF	20 Z- 0669	RWF
Wheel Dia	917.45	917.37	917.50	917.34	917.72	917.39	917.37	917.44
Wheel Disc No	TZ 03-19 30680-9MJ0	TZ 03-19 29280-9MI6	TZ 12-19 94074-9WM5	TZ 02-19 26973-9MG1	TZ 03-19 30337-9MH5	TZ 07-17 25225-7RJ6	TZ 03-19 30099-9MM1	TZ 03-19 29874-9MH1
R.B. Nos.	02-20 501931	01-20 403507	02-20 503165	01-20 405689	01-20 402183	01-20 406192	02-20 501708	01-20 405288
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.	CMFSK11-19- F08-158-680	CMGBD11-19- 5100-34-86	CMFSK12-19- F08-153-566	CMGBD11-19- 5100-34-20	CMFSK12-19- F09-607	CMGBD11-19- 5100-34-115	CMFSK12-19- F08-158-682	CMGBD11-19- 5100-34-133
Compressed Ht. at Tested Load	513.5	470	513	470	513.5	470	513.5	472
Alignment deviation (mm)	8	18	10	18	10	13	12	13

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	IAI	304242,304251	304269,304259
2.	Primary outer Spring	CMGBD	12-19 F07-402(78,169,334,82)	12-19 F07-402(70,201,111,191)
3.	Primary Inner Spring	CMGBD	01-20 F06-400 (18,29,23,19)	01-20 F06-400 (32,28,31,34)
4.	Primary Damper	IAI	01-20 (298564,298964,300693,298417)	01-20 (299257,300968,298411,299312)
5.	Secondary Damper	IAI	02-20 (308626,308934)	02-20 (308137,308713)
6.	Lateral Damper	KONI	03-19 01834	03-19 02116
7.	Brake Cylinder	KBI	D(0830,9579)K29, C(9354,8189)K29	C(9655,7959,8041,9656)K29
8.	Brake Caliper	KBI	C(5242,6348,5303,5157)-29	C(5226,5122,5205,5222)-29
9.	Brake Disc	FAV	08-20 (2832,2978,2830,2831)D133561-300	08-20 (3195,2829,2950,2949)D133561-300
10.	Ball Joint Control Arm	GMT		
11.	Lateral Bump Stop	BONY		
12.	Traction Centre make	SF		
13.	Traction lever make	JI		
14.	Ball joint traction lever	AR		
15.	Ball joint traction centre	GMT		
16.	Secondary Rubber Pad	PRAG		
17.	Rubber Spring	BONY		
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	JU/BASANT		
20.	Fork make	RNG		
21.	Control Arm Upper	IRPL	2014C29,2001C09,2018E27,2036E28	2017C32,2011C29,2004C06,2037C28
22.	Control Arm Lower	IRPL	2001C08,2027F30,2028C11,2014C08	2018E09,2035C15,2028C17,2018E21
23.	Phonic Wheel	KBI	K07-20	K 07-19

Signature of SSE/Bogie/QC



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Type	LWSCN1	Shell No.	20G319			FUR.NO.	LSCNG-489

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO(NPP/PP)
1	Air Brake Module	M/S -KBI	5998-31/20
2	Distribution valve	M/S -KBI	2020G12121
3	Pull box	M/S -KBI	
4	FIBA	NA	
5	Foot Step	M/S-FABRICON INDS KOLKATA	
6	Decoupling arrangement	M/S-PULSAR INDS KOLKATA	
7	Floor board	M/S-SHREERAM PNL GOVINDGARH	
8	PVC	M/S-H.F GLASS WORKS VADODRA	
9	Lavatory inlay	M/S-H.F GLASS WORKS VADODRA	
10	UIC Vestibule (PPE)	M/S-KIRAN RUBBER PRODUCT MUMBAI	
11	UIC Vestibule (NPPE)	M/S-KIRAN RUBBER PRODUCT 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-H.F GLASS WORKS VADODRA	
15	Emergency Window	M/S-H.F GLASS WORKS VADODRA	
16	Lavatory/hopper Window	M/S-H.F GLASS WORKS VADODRA	
17	Side panel	NA	
18	Roof Ceiling	M/S-H.F GLASS WORKS VADODRA	
19	Door way/Gangway Ceiling	M/S-H.F GLASS WORKS VADODRA	
20	Partition panel	M/S-H.F GLASS WORKS VADODRA	
21	Partition pillar	M/S-H.F GLASS WORKS VADODRA	
22	Body Side Doors	M/S-H.F GLASS WORKS VADODRA	
23	Vestibule Door(PPE)	M/S-KALSI INDS LUDHIYANA	
24	Vestibule Door(NPPE)	M/S-KALSI INDS LUDHIYANA	
25	Bio Tank	M/S-RAIL FAB KAPURTHALA	
26	Pressurised Flushing (electro.pneu.)	M/S-SPAC	
27	Auxiliary Water Tank	M/S-AMIT ENGG MOHALI	
28	Under Slung Water Tank (2X685L)	M/S-OASIS	
29	Under Slung Water Tank (1x685 L)	M/S-AMIT ENGG MOHALI	
30	Health Faucet	M/s-KAPCO VALES JALANDHAR	
31	Lotah Filler Tap	M/s-KAPCO VALES JALANDHAR	
32	Controlled discharge tap	M/s-AGMECO PVT LTD UK	
33	Lavatory Doors	M/S-H.F GLASS WORKS VADODRA	
34	Fire Extinguisher	M/s-CHIRAG INDUSTRIES HR,DEVIKA INDS DELHI	162364/6851
35	Seat & Berth	M/S-H.F GLASS WORKS VADODRA	
36	Ventury grill	M/S-H.F GLASS WORKS VADODRA	
37	Water purifier	M/S-H.F GLASS WORKS VADODRA	
38	RFID	N/A	

Deema
17/04/2021
वरिष्ठ निरीक्षक
SSE/QC/MCF/RBL
गुणवत्ता विभाग
रेलवे भवन, रायबरेली (लालगंज)



Modern Coach Factory Raebareilly
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13. MODIFICATION (IF ANY) : Partition frame & Partition pillar

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:

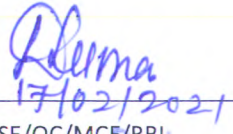
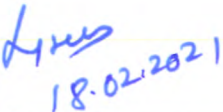

S NO	COMPONENTS	WARRANTY
1	Brake Pad, wheels, flushing valves, push gravity cocks, moldings, window glasses, mirrors, curtain clutch wire etc. (items which are consumable in nature)	NIL
2	Other coach furnishing sub assemblies(bought out items)	24 months from the date of dispatch of coach OR 30months 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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गुणवत्ता विभाग
रेडिओका 0, रायबरेली (मालगंज)

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



Modern Coach Factory Raebareli
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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	205715/C
RAILWAY	WCR	ELECT. FIT DATE	23-12-2020
			MCF FUR. NO.
			SCN-G-489
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






	Modern Coach Factory Raebareli आधुनिक रेल डिब्बा कारखाना, रायबरेली	DOC NO.: MCF/RBL/QEF/8001
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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.0847 HT Panel: H355.20E.0720	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-3535	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 : 20/8/0162 Pump 1: 4871 Pump 2: 4926	As per spec no. EDTS186,REV-A,AM-2	01 SET
05.	Provision & Mounting of Pump controller. Make: KIND SL.no.: 20070153	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: ELECTRONIC Sr. no.: 02200038	As per spec no. RDSO/PE/SPEC/AC/0183-2015(REV.- 1)	01
07.	Provision of Feeder Junction Box Make : INDORAIL ENGG.	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 : INDORAIL	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: 9/19	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: VIDISHA	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	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: K.LITE	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: RT VISION	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: INTRA	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: RECORD/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): S.INTERATIONALS 2.(PP): S.INTERATIONALS	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 : 0120104436	As per MDTS 077,Rev.-2 M/s"FAIVELEY" or "Knorr Bremse", or "ESCORTS"	01 SET

 SSE/EL/QC वरिष्ठ लघु उप अभियन्ता गुणवत्ता नियंत्रण आर०डि०का० / लालगंज / रायबरेली S.S.E./Elect-QC/M.C.F./LLJ/RBL	 स० कार्य प्रबन्धक / विद्युत आर०डि०का० / रायबरेली AWM/Electrical/MCF/RBL AWM(ELECT)/MCF/RBL SEE(P)/MCF/RBL
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