



Modern Coach Factory Raebareilly
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/2020-21/468

RLY	NFR	COACH NO	204747/C	DATE OF DISPATCH	9-Sep-20
Type	LWSCN1	Shell No.	20G158	DISPATCH TO	SSE/C&W/KIR
				FUR.NO.	LSCN-1703

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 1096/1102

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1	Under frame	PP END M/S-MAHAVEER	140
	Part	NPP END M/S-MAHAVEER	137
	Complete	MCFRBL-V4U TECHIE	20G158
2	Lav. side wall	M/S-DTL PUNE	LAV.1
		M/S-DTL PUNE	LAV.4
3	Side wall	LH SIDE MCFRBL-CONT.V4U	33
		RH SIDE MCFRBL-CONT.V4U	33
4	End wall	PP END M/S-ECBT	
		NPP END M/S-RAIL TECH KXH	
5	Roof	MCFRBL-CONT.	39
6	Centre Buffer Coupler	M/S-FRONTIER	PP 221P2 NPP 13P1

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.	7 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	VIBGYOR	M/S-VIBGYOR WOW (S&A)	76/98	30-Sep-20
2	Insulation			Satisfactory		

SSE/QC/MCF/RBL

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गुणवत्ता विभाग
रेल डिब्बा कारखाना, रायबरेली (जालपाड़ा)



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/2020-21/468

RLY	N	F	R	Coach No.	2	0	4	7	4	7	/	C	-	DATE OF DISPATCH	0	9	0	9	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	1	5	8	FUR.NO	LSCN - 1703
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9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	200551				200552			
Bogie Type	FIAT				FIAT			
Frame no.	ECBT-599				ECBT-575			
Bolster no.	RBL/MCF-2273				RBL/MCF-1317			
Axle No	20 W - 6862 RWF	20 y - 6238 RWF			20 Y - 6173 RWF	20 W - 2063 RWF		
Wheel Dia	917.577	917.634	917.579	917.649	917.52	917.557	917.593	917.62
Wheel Disc No	TZ 11-19 92575-9XH3	TZ 11-19 84648-9VD3	TZ 11-19 78253-9WH5	TZ 11-19 92574-9XH3	TZ 12-19 76502-9WJ4	TZ 11-19 83766-9VC4	TZ 12-19 84647-9VE8	TZ 12-19 76521-9WJ4
R.B. Nos.	12-19 34731	11-19 44238	12-19 34648	11-19 33284	11-19 33465	11-19 33977	12-19 35236	11-19 43858
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.	RESISTRO FLEX Sr. NO- 02-20 13007	RESISTRO FLEX Sr. NO- 02-20 12994	RESISTRO FLEX Sr. NO- 02-20 19950	RESISTRO FLEX Sr. NO- 02-20 12828

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	IAI	294702,294110	292697,293642
2.	Primary outer Spring	CMAFI	02-20 1100-(101,86,104,85)	02-20 1100-(253,8,259,06)
3.	Primary Inner Spring	CMAFI	01-20 1101-(204,121,48,73)	01-20 1101-(264,248,228,249)
4.	Primary Damper	IAI	01-20 (299250,300172,301228,300544)	01-20 (299300,299341,299387,299296)
5.	Secondary Damper	IAI	01-20 (296364,296429)	01-20 (296369,296022)
6.	Lateral Damper	IAI	01-20 297685	01-20 297597
7.	Brake Cylinder	KNORR	C (3334,1927,1991,3348)-K29	C (3415,1980,1977,3410)-K29
8.	Brake Caliper	KNORR	C-(9677,9771,9769,9678)-29	C-(9710,9773,9776,9708)-29
9.	Brake Disc	KBI	24226792 0005-01/02,24226792 0002-01/02 24226788 0049-01/02,24226787 0044-01/02	24226790 0004-01/02,24226790 0005-01/02 24226788 0050-01/02,24226788 0052-01/02
10.	Ball Joint Control Arm	GMT		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	SF(SARITA)		
13.	Traction lever make	JJ		
14.	Ball joint traction lever	GMT		
15.	Ball joint traction centre	GMT		
16.	Leveling Valve	KNORR	09-20 C 23959,10-20 C 4039	09-20 C 3948,10-20 C 3932
17.	Check Valve	KNORR	01-20 23959	01-20 23671
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA /GMT		
20.	Fork make	RNG		
21.	Control Arm Upper	IRPL,RVE,KUMAR	2017B28,RVE-(110120-1,080120-5,080120-5)	N7264,D2795,N3307,D2785
22.	Control Arm Lower	IRPL,RVE,KUMAR	2027B33,RVE-(080120-1,080120-3,090120-2)	D2711,N2708,D2038,D2712
23.	Phonic Wheel	KBI	K 07-20	K 06-20

Signature of SSE/Bogie/QC



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Type	LWSCN1	Shell No.	20G158	DISPATCH TO	SSE/C&W/KIR
				FUR.NO.	LSCN-1703

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO(NPP/PP)
1	Air Brake Module	M/s-KBI	5528-22/20
2	Distribution valve	M/s-KBI	2020611179
3	Pull box	M/s-KBI	
4	FIBA	M/s-KBI	9045/29,9370/29
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-SHATABDI INDS VADODARA	
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 1,4	M/s- SUKATA INDS HARIYANA	
	Body Side Doors 2,3	M/s- JVR LDH	
21	Vestibule Door(PPE)	M/s- KALSI LDH	
22	Vestibule Door(NPPE)	M/s- KALSI LDH	
23	Bio Tank	M/s-JSL LIFE STYLE LTD	
24	Presurized Flushing(Elect.pneumatic)	M/S-SPAC	
25	Auxiliary Water Tank	M/s- OASIS	
26	Under Slung Water Tank (2X685L)	M/s- AMIT ENGG MOHALI	
27	Under Slung Water Tank (1x685 L)	M/s-SHIVALIK FAST 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 INDS PUNJAB	
32	Seat & Berth	M/S-ADVANCE SILICON PALWAL	
33	Ventury grill	NIL	
34	RFID	NIL	


SSE/QC/MCF/RBL

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गुणवत्ता विभाग
रे०डि०का०, रायबरेली (लालगंज)



Modern Coach Factory Raebareli
आधुनिक रेल डिब्बा कारखाना, रायबरेली

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RLY	NFR	COACH NO	204747/C	DATE OF DISPATCH	9-Sep-20
Type	LWSCN1	Shell No.	20G158	DISPATCH TO	SSE/C&W/KIR
				FUR.NO.	LSCN-1703

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. QCM/MCF/RBL

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गुणवत्ता विभाग
रेल डिपार्टमेंट, रायबरेली (लालमंज)

सहायक अभियंता (गुणवत्ता)
Assistant Industrial Engineer / Quality
आधुनिक रेल डिब्बा कारखाना, रायबरेली
Modern Coach Factory, Raebareli

Sudhir Kumar
Dy. QCM/MCF/RBL
आधुनिक रेल डिब्बा कारखाना
Modern Coach Factory, Raebareli



	Modern Coach Factory Raebareli आधुनिक रेल डिब्बा कारखाना, 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		204747/C
RAILWAY		NFR	ELECT. FIT DATE	08-09-2020	MCF FUR. NO.	SCN-1703
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



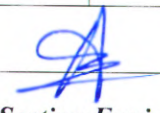


	Modern Coach Factory Raebareli आधुनिक रेल डिब्बा कारखाना, रायबरेली	DOC NO.: MCF/RBL/QEF/8001
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ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

Sr. no.	Description	Drg./Spec no.	Quantity per Coach
01.	Fitment of Switch board cabinet.(set of panel) Make/Sr.no.: NEC On Board: 2020076451 HT Panel: 2020065556	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 3916	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 : 2019/12/098 Pump 1: 19100034 Pump 2: 19000310	As per spec no. EDTS186,REV-A,AM-2	01 SET
05.	Provision & Mounting of Pump controller. Make: DR AUTO SL.no.: 2019/07/0469	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.: 08201918	As per spec no. RDSO/PE/SPEC/AC/0183-2015(REV.- 1)	01
07.	Provision of Feeder Junction Box Make : RSI	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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MCF/RBL

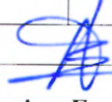


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ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

Sr. no.	Description	Drg./Spec no.	Quantity per Coach
13.	Fitment of Railway carriage Fan 400mm Sweep, 110V AC with crash worthy features. Make: 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	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: SSK	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: 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 : 0119423142	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



MCF/RBL