	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/2020-21/777

RLY	NFR	COACH NO	205281/C			DATE OF DISPATCH	5-Dec-20
Type	LWSCN1	Shell No.	20G265	DISPATCH TO	SSE/C&W/GHY	FUR.NO.	LSCN-1778

1. Railway Board's Order No. : 2020/M(C)/142/2,Dated-21.08.2020
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	1105/1105

6. TRACEABILITY OF SHELL ITEMS:

S NO		ITEM		MAKE/SUPPLIER	SERIAL NO			
1	Under frame	Front Part	PP END	M/S-OMAX AUTO	------			
			NPP END	M/S-NE	------			
		Complete		MCFRBL-V4U-TECHIE	20G265			
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		MCFRBL CONT.AAA/RBL	13			
		RH SIDE		MCFRBL CONT.AAA/RBL	13			
4	End wall	PP END		M/S-OMAX REWARI	---------			
		NPP END		M/S-OMAX REWARI	---------			
5	Roof			MCFRBL-CONT.	90			
6	Centre Buffer Coupler			M/S-FRONTIER	PP	70P2	NPP	08P2

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/cm².	6 – 10 sec.	8 sec
		Max. pressure in BC	3.0 ±0.15 kg/cm².	3.0 kg/cm²
		All Brake are applied	OK	OK
2	Insensitivity	Exhaust BP @ 0.3 kg/cm²/min.	No brake application	OK
3	Sensitivity	Exhaust BP @ 0.1 kg/cm²/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)	74/96	17-Nov-20
2	Insulation	Satisfactory				

06/02/2021

SSE/QC/MCF/RBL

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गुणवत्ता विभाग
मे0डि0का0, रायबरेली (लखनऊ)

	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/-777**

RLY	N	F	R	Coach No.	2	0	5	2	8	1	/	C	-	DATE OF DISPATCH	0	5	1	2	2	0	2	0

DISPATCH	SSE/C&W/GHY	Type	L	W	S	C	.N	1	Shell No.	2	0	G	2	6	5	FUR .NO	LSCN – 1778

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	201334				201333			
Bogie Type	FIAT				FIAT			
Frame no.	MCF/RBL/LS5- 2271				MCF/RBL/LS5- 2014			
Bolster no.	MCF/RBL/LS5- 1415				MCF/RBL/LS5- 1402			
Axle No	20 W – 8599 RWF		20Y– 1698 RWF		20 Y – 3189 RWF		20 Y – 3321 RWF	
Wheel Dia	917.687	917. 606	917.686	917.549	917.698	917.458	917.698	917.51
Wheel Disc No	TZ 11-19 35402-9MH2	TZ 12-19 390662-9VD6	TZ 11-19 80882-9VF2	TZ 12-19 15172-9VF5	TZ 01-19 21194-8XH1	TZ 11-19 84898-9VF4	TZ 11-19 81899-9WE8	TZ 06-19 58981-9QH7
R.B. Nos.	12-19 46085	12-19 45340	12-19 45458	12-19 45051	12-19 45368	12-19 45105	12-19 37994	12-19 45510
CT R B Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	

10. SECONDARY SUSPENSION LOAD DEFLECTION VALUES : -

DESCRIPTION	Bogie NPP side		Bogie PP side	
Make & Nos.	Secondary 1	Secondary 2	Secondary 1	Secondary 2
	TAYAL &CO. Sr. NO- 06-20 0603	TAYAL &CO. Sr. NO- 06-20 0579	TAYAL &CO. Sr. NO- 06-20 0403	TAYAL &CO. Sr. NO- 06-20 0603

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	IAI	304006,304067	304273,303927
2.	Primary outer Spring	CMFSK	11-19 1100-116(776,741,718,748)	06-20 F07-200 (655,947,741,934)
3.	Primary Inner Spring	CMFSK	10-19 1101-103- (822,819,810,938)	06-20 F06-198 - (857,594,117,234)
4.	Primary Damper	IAI	02-20 (310522,310086,310256,310548)	02-20 (310167,309785,309920,310475)
5.	Secondary Damper	IAI	02-20 (306024,306684)	02-20 (296222,296329)
6.	Lateral Damper	GBE	05-20 01531	05-20 01692
7.	Brake Cylinder	KBI	,C(9465,7928,7925,8753)K29	C(7777,6358,6330,7822)K29
8.	Brake Caliper	KBI	C(5048,5117,5115,5047)-29	C(3744,3834,3833,3742)-29
9.	Brake Disc	FAV	08-20 (2696,2805,2807,2806)D133561-300	08-20 (2694,2695,2692,2808)D133561-300
10.	Ball Joint Control Arm	BONY/PRAG		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	RNG		
13.	Traction lever make	JI		
14.	Ball joint traction lever	GMT		
15.	Ball joint traction centre	GMT/PPI		
16.	Leveling Valve	FAV	F20-133,F20-210	F20-242,F20-118
17.	Check Valve	FAV	F20-209	F20-190
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	RF/GMT		
20.	Fork make	RF		
21.	Control Arm Upper	SFL	H138,H111,H87,H13	H131,H102,H124,H140
22.	Control Arm Lower	SFL	481,H88,H190,H181	116,H86,202,H157
23.	Phonic Wheel	KBI	K 12-19	K 012-19

Signature of SSE/Bogie/QC

	Modern Coach Factory Raebareli आधुनिक रेल डिब्बा कारख़ाना, 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/2020-21/777

RLY	NFR	COACH NO	205281/C			DATE OF DISPATCH	5-Dec-20
Type	LWSCN1	Shell No.	20G265	DISPATCH TO	SSE/C&W/GHY	FUR.NO.	LSCN-1778

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO(NPP/PP)
1	Air Brake Module	M/s-KBI	6085 34 /20
2	Distribution valve	M/s-KBI	2020H12300
3	Pull box	M/s-KBI	
4	FIBA	M/s-FAIVELEY	F20075,C20127
5	Foot Step	M/S- FABRICON KOLKATA	
6	Decoupling arrangement	M/S-PULSER KOLKATA	
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-SUNCREST KOLKATA	
11	UIC Vestibule (NPPE)	M/S-SUNCREST KOLKATA	
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-SHATABDI INDS VADODARA	
17	Side panel	M/S-HFGW VADODARA	
18	Roof Ceiling	M/S-A.B COMPOSITE	
19	Door way Ceiling	M/S-ZAAM TOOLS RBL	
20	Body Side Doors 1,2,3	M/S-JVR LDH	
	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-CEMCON-02 NOS+UNIFAB-02 NOS	
24	Presurized Flushing(Elect.pneumatic)	M/S-AIR FLOW	
25	Auxiliary Water Tank	M/s-SHIVALIK FAST. MOHALI	
26	Under Slung Water Tank (2X685L)	M/s-OASIS	
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 LTD	
31	Lavatory Doors	M/S-JR JUC1,3+MSL -2,4	
32	Seat & Berth	M/S-DURABLE POLYMER LKO	
33	Ventury grill	NIL	
34	RFID	NIL	

06/12/2021

SSE/QC/MCF/RBL

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गुणवत्ता विभाग
मे0डि0का0, रायबरेली (लालगंज)

	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/2020-21/777

RLY	NFR	COACH NO	205281/C			DATE OF DISPATCH	5-Dec-20
Type	LWSCN1	Shell No.	20G265	DISPATCH TO	SSE/C&W/GHY	FUR.NO.	LSCN-1778

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 caseextend 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 60º)	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.

06/02/2021 SSE/QC/MCF/RBL	6.2.2021 SME/AME/QC/MCF/RBL	Dy.CQM/MCF/RBL

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गुणवत्ता विभाग
रे0डि0का0, रायबरेली (उ0प्र0)

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

उप मुख्य गुणवत्ता प्रबंधक
आधुनिक रेल डिब्बा कारखाना,
Modern Coach Factory

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**	**205281/C**	
RAILWAY	**NFR**	**ELECT. FIT DATE**	**23-11-2020**	**MCF EUR. NO.**	**LSCN-1778**

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

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.0838** HT Panel: **H355.20E.0732**	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 3548**	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 : **20/08/0183** Pump 1: **4953** Pump 2: **4935**	As per spec no. EDTS186,REV-A,AM-2	**01 SET**
05.	Provision & Mounting of Pump controller. Make:**DR AUTO** SL.no.:**20/08/0383**	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: **SYDLER** Sr. no.: **08200094**	As per spec no. RDSO/PE/SPEC/AC/0183-2015(REV.-1)	**01**
07.	Provision of Feeder Junction Box Make : **SYSTEMS & SERVICES POWER**	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:**11/19**	As per RDSO/PE/SPEC/AC/0009-2014 (Rev-2) with inner cell connectors or Latest.	**01 SET**

Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli

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:**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: **DR AUTO**	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: **AGASTYA**	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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Modern Coach Factory Raebareli

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:**SKS**	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): **S.INTERNATIONALS** 2.(PP): **S.INTERNATIONALS**	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 : **0119463343**	As per MDTS 077,Rev.-2 M/s"FAIVELEY" or "Knorr Bremse", or "ESCORTS" or "JWL-DAKO-CZ"	**01 SET**

वरिष्ठ अनुभाग अभियन्ता गुणवत्ता नियंत्रण आ0रे0डि0का0 / लालगंज / रायबरेली S.S.E./Elect-QC/M.C.F./LLJ/RBL **SSE/EL/QC**	वरिष्ठ विद्युत अभियन्ता Sr. Electrical Engineer **AWM(ELECT.)/MCF/RBL** **SEE(P)/MCF/RBL**

MCF/RBL