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/2020-21/756

RLY	NFR	COACH NO	205262/C			DATE OF DISPATCH	25-Nov-20
Type	LWSCN1	Shell No.	20G184	DISPATCH TO	SSE/C&W/GHY	FUR.NO.	LSCN-1700

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	1097/1098

6. TRACEABILITY OF SHELL ITEMS:

S NO		ITEM		MAKE/SUPPLIER	SERIAL NO			
1	Under frame	Front	PP END	M/S-AMIT ENGG.	------			
		Part	NPP END	M/S-AMIT ENGG.	------			
		Complete		MCFRBL AIRCON	20G184			
2	Lav. side wall			M/S-DTL PUNE	LAV.1	------	LAV.2	------
				M/S-DTL PUNE	LAV.4	------	LAV.3	------
3	Side wall	LH SIDE		MCFRBL-CONT.LKO	562			
		RH SIDE		MCFRBL-CONT.LKO	562			
4	End wall	PP END		M/S-RAIL TECH KXH	---------			
		NPP END		M/S-RAIL TECH KXH	---------			
5	Roof			MCFRBL CONT.	46			
6	Centre Buffer Coupler			M/S-FRONTIER	PP	112P2	NPP	247P1

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	AXALTA	M/S-EMPRISE WOW (S&A)	99/97	25-Aug-20
2	Insulation	Satisfactory				

25/01/2021

SSE/QC/MCF/RBL

MODERN COACH FACTORY, RAEBARELI आधुनिक रेल डिब्बा कारख़ाना, 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/-**756**

RLY	N	F	R	Coach No.	2	0	5	2	6	2	/	C	-	DATE OF DISPATCH	2	5	1	1	2	0	2	0

DISPATCH	SSE/C&W/GHY	Type	L	W	S	C	N	1	Shell No.	2	0	G	1	8	4	FUR .NO	LSCN – 1700

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	201406				201405			
Bogie Type	FIAT				FIAT			
Frame no.	ECBT-921				AML - 215			
Bolster no.	APEX-351				APEX- 391			
Axle No	20 Z – 4446 RWF		20 A– 3335 RWF		20 A – 0050 RWF		20 W – 2396 RWF	
Wheel Dia	917.62	917. 58	917.62	917.57	917.77	917.56	917.61	917.68
Wheel Disc No	TZ 06-19 53289-9PD8	TZ 01-19 21402-9XH9	TZ 11-19 90695-9VD6	TZ 12-19 86197-9WK4	TZ 04-19 39955-90E1	TZ 11-19 88145-9WI0	TZ 11-19 80476-9VE5	TZ 11-19 80879-9WH2
R.B. Nos.	12-19 38782	12-19 38716	12-19 36750	12-19 38884	12-19 39905	12-19 35662	12-19 44434	12-19 38370
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 9978	TAYAL & CO. Sr. NO- 06-20 0015	TAYAL & CO. Sr. NO- 06-20 718	TAYAL & CO. Sr. NO- 06-20 0715

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	201774,21789	21782,21824
2.	Primary outer Spring	CMFSK	10-19 1100-114(1202,968,970,611)	10-19 1100-114(848,818,815,1153)
3.	Primary Inner Spring	CMFSK	09-19 1101-101 (469,544,454,452)	10-19 1101-103 (644,676,883,790)
4.	Primary Damper	IAI	12-19 (289609,289689,289885,290345)	12-19 (290779,289014,288846,290936)
5.	Secondary Damper	IAI	01-20 (302691,302475)	01-20 (302352,326873)
6.	Lateral Damper	GBES	05-20 1478	05-20 01542
7.	Brake Cylinder	KBI	D(9590,9888),C(9037,8013)K29	D(9588,9011,),C(9014,9587)K29
8.	Brake Caliper	KBI	C(5169,5246,5232,5170)-29	C(5168,5238,5240,5167)-29
9.	Brake Disc	FAV	03-20 (2312,1883,518,516)-D133561-300	03-20 (8413,8394,143,530) -D133561-300
10.	Ball Joint Control Arm	PRAG		
11.	Lateral Bump Stop	BONY/BASANT		
12.	Traction Centre make	RNG		
13.	Traction lever make	JI		
14.	Ball joint traction lever	BASANT/GMT		
15.	Ball joint traction centre	GMT		
16.	Leveling Valve	ESCORT	1912,1912	1912,1912
17.	Check Valve	ESCORT	1912	1912
18.	Anti roll bar Make	EMSON/SARITA		
19.	Roll Link make	JUR/GMT RF/GMT		
20.	Fork make	RNG/SARITA		
21.	Control Arm Upper	CC	20G245,20A31,20G78,20B128	20G364,20G399,20G92,20G319
22.	Control Arm Lower	CC	20G314,20A213,20F326,20B212	20F82,20B57,20B18,20F292
23.	Phonic Wheel	KBI	01-20 640209	12-19

Signature of SSE/Bogie/QC

MCF/RBL

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/2020-21/756

RLY	NFR	COACH NO	205262/C			DATE OF DISPATCH	25-Nov-20
Type	LWSCN1	Shell No.	20G184	DISPATCH TO	SSE/C&W/GHY	FUR.NO.	LSCN-1700

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO(NPP/PP)
1	Air Brake Module	M/s-KBI	6026 34/20
2	Distribution valve	M/s-KBI	2020H12216
3	Pull box	M/s-KBI	
4	FIBA	M/s-FAIVELEY	F20011,F20005
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-AGF KOLKATA	
15	Emergency Window	M/S-FP KOLKATA	
16	Lavatory/hopper Window	M/S-BEI INDS PUNJAB	
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	M/s-JVR LDH	
21	Vestibule Door(PPE)	M/s-JBM FARIDABAD	
22	Vestibule Door(NPPE)	M/s-JBM FARIDABAD	
23	Bio Tank	M/s-RAIL FAB KXH	
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-SHIVALIK FAST. MOHALI	
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 LTD	
31	Lavatory Doors	M/S-JR JUC	
32	Seat & Berth	M/S-DURABLE POLYMER LKO	
33	Ventury grill	NIL	
34	RFID	NIL	

25/01/2021

SSE/QC/MCF/RBL

गुणवत्ता विभाग

	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/2020-21/756

RLY	NFR	COACH NO	205262/C			DATE OF DISPATCH	25-Nov-20
Type	LWSCN1	Shell No.	20G184	DISPATCH TO	SSE/C&W/GHY	FUR.NO.	LSCN-1700

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.

Rekha 28/01/2021	25.01.2021	Sudhir 27/01/2021
SSE/QC/MCF/RBL	SME/AME/QC/MCF/RBL	Dy.COM/MCF/RBL

वा.रे.अनु.० अभियंता
गुणवत्ता विभाग
रे०डि०का०, रायबरेली (लालगंज)

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

Sudhir Kumar
Dy. Chief Quality Manager
आधुनिक रेल डिब्बा कारखाना, रा
Modern Coach Factory, R

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**	**205262/C**	
RAILWAY	**NFR**	**ELECT. FIT DATE**	**17-11-2020**	**MCF EUR. NO.**	**LSCN-1700**

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.0837** HT Panel: **H355.20E.0731**	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 3488**	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 : **20/08/0195** Pump 1: **4883** Pump 2: **4918**	As per spec no. EDTS186,REV-A,AM-2	**01 SET**
05.	Provision & Mounting of Pump controller. Make:**DR AUTO** SL.no.:**20/08/0218**	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.: **08200085**	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 :**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:**09/19**	As per RDSO/PE/SPEC/AC/0009-2014 (Rev-2) with inner cell connectors or Latest.	**01 SET**

Senior Section Engineer
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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:**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: **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: **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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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 : **0120074193**	As per MDTS 077,Rev.-2 M/s"FAIVELEY" or "Knorr Bremse", or "ESCORTS" or "JWL-DAKO-CZ"	**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