LSCN-895

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/2018-19/1175

RLY	E	R	-	Coach No.	1	9	1	9	1	8	/	C	DATE OF DISPATCH	1	1	-	0	2	-	1	9

DISPATCH TO	CWM/LLH	Type	L	W	S	C	N	1	Shell No.	8	7	4	6	6	-	2	0	1	8	-	1	9

1. **Railway Board's Order No.** : **2018/M(C)/142/2, Dated-07-02-2019**
2. **Tare Weight of Coach** : 41.24 Tones
3. **Carrying Capacity** : (a) Seating: 80 (b) Sleeping: 80 (c) Luggage: NIL
4. **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	1) 1102(NPPE) 2)1097(PPE)

5. **TRACEABILITY OF SHELL ITEMS:**

S NO	ITEM		MAKE/SUPPLIER	SERIAL NO
1.	Under frame	Front Part	PP END M/S Trident components pvt.ltd.CNB	13
			NPP END M/S Trident components pvt.ltd.CNB	13
		Complete	M/S Trident components pvt.ltd.CNB	87466
2.	Lav. side wall		M/S Rail tech pvt.ltd. KXH	LAV.1 --- LAV.2 --- / LAV.3 --- LAV.4 ---
3.	Side wall	LH SIDE	M/S Rail tech pvt.ltd. KXH	70
		RH SIDE	M/S E.c.blades &tool pvt. Ltd CDG	70
4.	End wall	PP END	M/S E.c.blades &tool pvt. Ltd CDG	---
		NPP END	M/S Neera chandigarh	---
5.	Roof		M/s AMIT ENG.	277
6.	Centre Buffer Coupler		M/S Pennar ind. Ltd. Thiruvallur Cheenai	PP END 16 NPP END 95
			M/s FRONTIER LTD	

6. **AIRBRAKE 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. ➢ Max. pressure in BC ➢ All Brake are applied	6 – 10 sec. 3.0 ±0.15 kg/cm². OK	06 Sec. 3.0 kg/cm² 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

7. **PAINTING DETAILS:**

S NO	DESCRIPTION	TYPE OF PAINT	MAKE	APPLICATION BY MCF/ CONTRACTOR(SUPPLY & APPLY)	AVERAGE GLOSS VALUE
1.	Paint	P.U	M/s –GS	Supply & apply	89/89
2.	Insulation			Satisfactory	

SSE/QC/MCF/RBL

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गुणवत्ता विभाग
रे०डि०का०, रायबरेली (लालगंज)

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

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Coach No.	1	9	1	9	1	8	/	C	-	DATE OF DISPATCH	1	1	.	0	2	.	1	9

RLY	E	R		-	Type	L	W	S	C	N	1	Shell No.	8	7	4	6	6	-	-	-	-	-	-	-	-

8. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	182630				182629			
Bogie Type	FIAT				FIAT			
Frame no.	MCF/RBL-1436				MCF/RBL-1512			
Bolster no.	APEX-96				APEX-66			
Axle No	18 F– 2436 RWF		18 F - 2653 RWF		18 F- 2455 RWF		18 E - 8674 RWF	
Wheel Dia	917.606	917.594	917.554	917.602	917.631	917.648	917.614	917.649
Wheel Disc No	TZ 04-18 12457-8MQ0	TZ 07-18 41108-8RR0	TZ 06-18 27162-8PP7	TZ 05-18 24884-8QG0	TZ07-18 41107-8RM4	TZ08-18 44744-8RP8	TZ05-18 22140-8PN5	TZ04-18 42005-8RL8
R.B. Nos.	06-18 17137	07-18 42247	07-18 41732	07-18 41760	07-18 41108	05-18 36771	06-18 17078	07-18 41919
CT R B Make	SKF		SKF		SKF		SKF	

9. 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.	CMFSK12-18-5101-512-144	CMGBD05-18-5100-66-451	CMFSK12-18-5101-512-143	CMGBD05-18-5100-66-473	CMFSK12-18-5101-512-87	CMGBD05-18-5100-64-449	CMFSK12-18-5101-512-97	CMGBD05-18-5100-64-662
Compressed Ht. at Tested Load	513.5	472	512	471	513	472	514	472
Alignment deviation (mm)	12	11	11	11	13	6	12	6

10. TRACEABILITY 9OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	12192,12188	12202,12187
2.	Primary outer Spring	CMGBD	10-18 1100-121(147,89,155,764)	10-18 1100-121-121,121-171,122-106,122-175)
3.	Primary Inner Spring	CMGBD	03-18 1101-31-2965,32 2956,31-2406,31-2446	03-18 1101-31-2489,31-2425,32-2445,32-2594
4.	Primary Damper	IAI	12-18 (234885,234463,234356,235123)	12-18(235143,234319,234373,234939)
5.	Secondary Damper	GEREP	KW16-2018 301550739	KW 16-2018 301550739
6.	Lateral Damper	IAI	12-18 235400	12-18 235263
7.	Brake Cylinder	KBI	A (9596,9012,8985,9590)K29	A (9594,8984,9016,9597)K29
8.	Brake Caliper	KBI	A (7781,7805,7809,7782)-29	A (7784,7802,7815,7788)-29
9.	Brake Disc	KBI	24162515 0026-41/18 24162275 0020-39/18 24167529 0015-44/18 24167529 0016-44/18	24162515 0041-41/18 24162522 0027-41/18 24167534 0028-44/18 24167533 0032-44/18
10.	Ball Joint Control Arm	AR		
11.	Lateral Bump Stop	AR		
12.	Traction Centre make	SARITA		
13.	Traction lever make	JI		
14.	Ball joint traction lever	PPI/UK		
15.	Ball joint traction centre	AR		
16.	Secondary Rubber Pad	DUREL		
17.	Rubber Spring	AR		
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA/AR		
20.	Fork make	ASL/ EMSON		
21.	Control Arm Upper	RVE	051218-3,051118-3,301118-2,301118-4	301118-2,301118-2,301118-2,301118-4
22.	Control Arm Lower	RVE	281118-4,071218-1,281118-1,061218-3	061218-3,051218-4,071218-1,031218-1

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

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DISPATCH TO	CWM/LLH	Type	L	W	S	C	N	1	Shell No.	8	7	4	6	6	-	2	0	1	8	-	1	9

11. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/s KBI Faridabad. New Delhi	1945 02/19
2.	Pull box	M/s KBI Faridabad. New Delhi	
3.	Distribution valve	M/s KBI Faridabad. New Delhi	2019A6524
4.	Foot Step	M/s- SUPER SPARK PVT. LTD. FARIDABAD	
5.	Decoupling arrangement	M/S- ELASTOMER MUMBAI	
6.	Floor board	M/s- EG WOOD BOARD HYDARABAD	
7.	PVC	M/s Responsive ind.mumbai	
8.	Lavatory Inlay	M/s- SEEMA INDS. BHOPAL	
9.	UIC Vestibule (PPE)	M/S- ELASTOMER MUMBAI	
10.	UIC Vestibule (NPPE)	M/S- ELASTOMER MUMBAI	
11.	Gangway bridge mounting (PPE)	M/s COMPETENT ENGG.	
12.	Gangway bridge mounting (NPPE)	M/s COMPETENT ENGG.	
13.	Body Side Window	M/S- AGF INDS, KOLKATA	
14.	Emergency Window	M/S- AGF INDS, KOLKATA	
15.	Hopper Window	M/S- S.S PUNJAB	
16.	Side panel	M/S-SUNGLOW PUNJAB LAMINATE	
17.	Roof ceiling	M/s SYNTHITIC MODULAR KOLKATA	
18.	Door way ceiling	M/s- RAJA IND. KHANNA	
19.	Body Side Door	M/s- JVR LDH	
20.	Vestibule Door(PPE)	M/s- KALSI LDH	
21.	Vestibule Door(NPPE)	M/s- KALSI LDH	
22.	Bio Tank	M/s- RASANDIK IND	
23.	Auxiliary Water Tank	M/s- AMIT ENG. MOHALI	
24.	Under Slung Water Tank(2X685L)	M/s Shivalic fastners pvt.ltd. mohali	
25.	Under Slung Water Tank (1X685L)	M/s Shivalic fastners pvt.ltd. mohali	
26.	Flexible Faucet	M/s- KAPCO VALVES, JALANDHAR	
27.	Lotah Filler Tap	M/s- KAPCO VALVES, JALANDHAR	
28.	Controlled Discharge Tap	M/s- AGMECO PVT. LTD. UK	
29.	Lavatory Doors	M/s- KALSI, LDH	
30.	Seat & Berth	M/S- SUKATA CDG	
31.	Snack Table	N/A	

SSE/QC/MCF/RBL

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Modern Coach Factory Raebareli **आधुनिक रेल डिब्बा कारख़ाना, रायबरेली**	DOC NO.: MCF/RBL/QMF 8002	
	REV NO: 01	
	DATE: 17.04.2018	

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DISPATCH TO	CWM/LLH	Type	L	W	S	C	N	1	Shell No.	8	7	4	6	6	-	2	0	1	8	-	1	9

12. MODIFICATION (IF ANY) : NIL

13. DEVIATION (IF ANY) : NIL

14 . ITEM FITTED ON THE COACH ON TRIAL : NIL

S NO	ITEM PARTICULARS	PURPOSE	REPORT Frequency	REFERENCE & PERIOD OF TRIAL

15. WARRANTY:

S NO	COMPONENTS	WARRANTY
1	Brake Pad, wheels, flushing valves, push gravity cocks, moldings, window glasses, mirrors, 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 30 months 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 qualityrcfrbl@gmail.com
6. Painting on supply & apply contract :- supply of material and application shall be warranted for a period of three years from date of 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	AME/QC/MCF/RBL	Dy.CQM/MCF/RBL

वरिष्ठ यांत्रिक अभियन्ता
गुणवत्ता विभाग
रे०डि०का०, रायबरेली (लालगंज)

वरिष्ठ यांत्रिक अभियन्ता/गुणवत्ता
Sr. Mechanical Engineer/Quality
आधुनिक रेल डिब्बा कारख़ाना, रायबरेली
Modern Coach Factory Raebareli

Joginder Singh
उप मुख्य गुणवत्ता प्रबंधक
Dy. Chief Quality Manager
आधुनिक रेल डिब्बा कारख़ाना, रायबरेली
Modern Coach Factory, Raebareli

SCN-895

Modern Coach Factory Raebareli आधुनिक रेल डिब्बा कारखाना, रायबरेली	DOC NO.: MCF/RBL/QEF/8001 REV NO: 00 DATE:18.01.2017

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NON AC SCN COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG NON AC COACHES

TYPE COACH	**LWSCN**	**SHELL/COACH NO**	**191918/C**
RAILWAY	**ER**	**DATE OF DESPATCH**	

Sr no	Description of test	Remarks
1.	PUMP EQUIPMENTS	OK
2.	LIGHTS, NL,LAP CHARGING SOCKETS	OK
3.	RAILWAY CARRIAGE FAN	OK
4.	WHEEL SLIDE PROTECTION SYSTEM (**WSP**)	OK
5.	WORKING OF 9 KVA TRANSFORMER	OK
6.	WORKING OF REGULATED BATTERY CHARGER	OK
7.	SAFETIES :	
7.1.	FUSES AND THEIR RATING	OK
7.2	CONTROL CIRCUIT	OK
7.3	POWER CIRCUIT	OK

Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

01.	Switch board cabinet Make : **ISG** On Board Sr no : **17-10-0038** HT Panel Sr no : **17-10-0010**	EDTS 333, Rev`01'Am-1	**01**
02.	Pump equipment with PLC controller & pump box Make :**DR AUTO** Sr no PA:**2018/12/88** Sr no.1 :**18110498** Sr no.2 :**18110203** Sr no.CPA:**2018/12/017-DR AUTO**	As per spec EDTS 186,Rev-a, Am- 2	**01**
03.	Emergency light system for EOG type coaches (AEL), Make : **CONCORD**	EDTS 151,Rev –c Am-1 & 2	**04**
04.	Passenger Alarm Cum Indication Light (PACIL) Make: **KAVERI**	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-I	**02**
05.	Fitment of Switch Plate Assly(Cabin Side) Make : **SALZER/RECORD**	EDML 086,Rev-03, ITEM-01	**20**
06.	Fitment of Switch Plate Assly Corridor Side),Make : **SSK/SALZER**	EDML 086, Rev 03, ITEM-02	**20**
07.	Railway carriage Fan 400mm Sweep, 110V DC with crash worthy features. Make :**CG POWER**	IS 6680/92,First Rev, RCF Amdt 4, Col I, Ty XI, RCF Cor I.	**30**
08.	Cabin, Corridor, doorway and Gangway Lights. Make: **RT VISION**	As per RDSO/PE/SPEC/TL-0091(REV-1) TYPE B-1	**26**
09.	Lavatory Light Make: **RT VISION/DR AUTO**	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-D &	**04**
10.	Night Light Fitting (LED BASED) Sticker For Berth Number On Night light Fitting For LHBSCN(80-BERTHER)Coaches Make : **AGASTYA**	CC76289 & CC76443	**09**

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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

11.	Battery fuse box +ve Make :**INTEG**	LW 71001,Alt-F	**01**
12.	Battery fuse box –ve Make :**NEC**	LW 71002,Alt-F	**01**
13.	Regulated battery charger Make : **IC ELECTRICAL** Sr no: **12-18-0069**	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	**01**
14.	9KVA transformer Make : **PANTRONICS** Sr no : **PAN-18018034**	As per RDSO/PE/SPEC/TL 0158, 2010, Rev`0',Ty I.	**01**
15.	ZS coupling 400A/750V/03Ph/50hz. Make : **MAA LAXMI INDUSTRIES.**	As per spec No EDTS 105,Rev`e' Am-3, TYPE-2	**01 set**
16.	Feeder junction boxes. Make : **MAA LAXMI INDUSTRIES.**	EDTS-328 REV-C	**01 set**
17.	Wheel set earthling equipment. Make : **PRIME ELECT.**	EDTS101,REV-C,AM-1	**02 sets**
18.	Wheel Slide Protection System (WSP) Make :**KNORR** Sr no :**0118420527**	M/s : **KNORR**	**01 set**
19.	110V,120AH,VRLA SMF BATTERY SET WITH 19 MONOBLOCK (6V EACH) PRECHARGED,WIH MODIFIED TRAY TOSKED-644 Make :**SOUTHERN** Lug date :**12/17**	RDSO/pe/spec/ac-0009 rev-1-2008 amdt-1	**01 set**
20.	Battery box for LHB coaches. Make :**TECHNO**	CC 91205	**01**

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