



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/2019-20/1287

RLY	CR	COACH NO	199451/C	DATE OF DISPATCH	21/12/2019		
Type	LWSCN1	Shell No.	97630	DISPATCH TO	SSE/STOCK/CR/PUNE	FUR.NO.	LSCNG-367

1. Railway Board's Order No. : 2019/M(C)/142/2,DATED-18.12.2019
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-ACME INDIA NDLS
B	Anti slip friendly Grab Bar	M/s-ACME INDIA NDLS
C	Provision of Health Faucet in lavatories	M/s-ACME INDIA NDLS
D	Washbasin counter Top (Corian of Duport or Montelli)	M/s-ACME INDIA NDLS
E	GFRE ceiling instead of NFTC	M/s-ACME INDIA NDLS
F	DGFRP panels instead of LP panels	M/s-ACME INDIA NDLS
G	Honey Comb partition frame with DGFRP sheet instead of FRP sheet	M/s-ACME INDIA NDLS
H	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 +/-10	NPP/PP 1095, 1104

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO			
1	Under frame	Front	PP END	M/S-NE CHD		
		Part	NPP END	M/S-NE CHD		
		Complete	MCF/RBL/AIRCON	97630		
2	Lav. side wall	M/S-ATHANCY RBL	LAV.1	LAV.2		
		M/S-ATHANCY RBL	LAV.3	LAV.4		
3	Side wall	LH SIDE	M/S-ECBT	59		
		RH SIDE	M/S-ECBT	59		
4	End wall	PP END	M/S-SIPL PALWAL			
		NPP END	MCF/RBL			
5	Roof	MCF/CONT	214			
6	Centre Buffer Coupler	M/s-ESCORT LTD	PP END	2308	NPP END	2323

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.	08sec
		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	89/89	6/12/2019
2	Insulation			Satisfactory		

SSE/QC/MCF/RBL

वरि०अनु० अभियंता
गुणवत्ता विभाग
रे०डि०क०, रायबरेली (लालगंज)



MODERN COACH FACTORY, RAEBARELI

DOC NO.: MCF/RBL/QMF 8002

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RLY	C	R	-	Coach No.	1	9	9	4	5	1	/	C	-	DATE OF DISPATCH	2	1	1	2	2	0	1	9
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DISPATCH	SSE/STOCK/CR/PUNE	Type	L	W	S	C	N	1	Shell No.	9	7	6	3	0	FUR .NO	LSCN-G-367
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9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	192632				192631			
Bogie Type	FIAT				FIAT			
Frame no.	MCF/RBL -1762				MCF/RBL -2110			
Bolster no.	MCF/RBL -2855				MCF/RBL -2839			
Axle No	19 N - 4584 RWF	19 N - 8844 RWF	19 N - 4746 RWF	19 N - 4055 RWF				
Wheel Dia	917.57	917.545	917.561	917.515	917.63	917.525	917.649	917.528
Wheel Disc No	TZ 07-19 63983-9RQ8	TZ 07-19 52994-9QH3	TZ 07-19 67357-9RQ7	TZ 07-19 67590-9RL3	TZ 08-19 75211-9SJ7	TZ 06-19 53989-9QJ8	TZ 07-19 67582-9RL3	TZ 06-19 53990-9QJ8
R.B. Nos.	08-19-28888	08-19-29088	08-19-28257	08-19-29085	08-19-28734	08-19-28420	08-19-29700	08-19-29093
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.	CMFSK09-19-5101-031-156	CMFSK05-19-5100-027-240	CMFSK09-19-5101-031-162	CMFSK05-19-5100-027-318	CMFSK09-19-5101-031-168	CMFSK05-19-5100-027-280	CMFSK09-19-5101-031-161	CMFSK05-19-5100-027-330
Compressed Ht. at Tested Load	516	471	515.5	469	511.5	468	511.5	472
10Alignment deviation (mm)	7	7	8	7	13	13	9	13

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	GEREP	265,82	52,299
2.	Primary outer Spring	CMFSK	10-19-1100-114 (1434,1294,1229,1486)	10-19-1100-114 (322,323,389,1221)
3.	Primary Inner Spring	CMFSK	10-19-1101-101 (1005,718,672,645)	10-19-1101-101 (656,641,673,937)
4.	Primary Damper	KONIC	03-19 (02750,00245,03089,03067)	03-19 (03031,01055,00858,00851)
5.	Secondary Damper	IAI	09-19 (276986,276987)	09-19 (277067,277115)
6.	Lateral Damper	IAI	05-19 251469	05-19 251451
7.	Brake Cylinder	ESCORT	(50395,49650,50250,50410)	(50217,50802,41651,50396)
8.	Brake Caliper	ESCORT	(29260,28769,29169,29275)	(29136,29669,28770,29261)
9.	Brake Disc	KBI	24206705 0060-46/19,24206705 0064-46/19 24206709 0063-47/19,24206709 0023-47/19	24206705 0058-46/19,24206705 0065-46/19 24206705 0056-46/19,24206713 0017-47/19
10.	Ball Joint Control Arm	GMT		
11.	Lateral Bump Stop	ARYAN/GMT		
12.	Traction Centre make	SF(SARITA)		
13.	Traction lever make	AEW		
14.	Ball joint traction lever	SGA/GMT		
15.	Ball joint traction centre	ARYAN		
16.	Secondary Rubber Pad	PRAG		
17.	Rubber Spring	GMT		
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA/GMT		
20.	Fork make	RNG		
21.	Control Arm Upper	RVE/SF	160919-2,210919-3,SF-186,24	210919-3,210919-1,240919-3,240919-2
22.	Control Arm Lower	RVE/SF	210919-3,210919-3,SF-218,325	270919-2,280819-2,270919-2,210919-3
23.	Phonic Wheel	ESCORT	ESCORT	ESCORT

Signature of SSE/Bogie/QC



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12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO(NPPP/PP)
1	Air Brake Module	M/S- ESCORTS	
2	Distribution valve	M/S- ESCORTS	2019070041
3	Pull box	M/S-FAV	1907A041
4	FIBA	N/A	
5	Foot Step	M/S- SUPER SPARK PVT.LTD.FARIDABAD	
6	Decoupling arrangement	M/S-ELASTOMER LINING WORKS, MUMBAI	
7	Floor board	M/S-TWPL MUMBAI	
8	PVC	M/s-ACME INDIA NDLS	
9	Lavatory inlay	M/s-ACME INDIA NDLS	
10	UIC Vestibule (PPE)	M/S-SUNCREST IND.KOLKATA	
11	UIC Vestibule (NPPE)	M/S-SUNCREST IND.KOLKATA	
12	Gangway bridge mounting (PPE)	M/s-RAKESH IRON & STEEL KXH	
13	Gangway bridge mounting (NPPE)	M/s-RAKESH IRON & STEEL KXH	
14	Body Side Window	M/s-ACME INDIA NDLS	
15	Emergency Window	M/s-ACME INDIA NDLS	
16	Lavatory/hopper Window	M/s-ACME INDIA NDLS	
17	Side panel	M/s-ACME INDIA NDLS	
18	Roof Ceiling	M/s-ACME INDIA NDLS	
19	Door way Ceiling	M/s-ACME INDIA NDLS	
20	Partition panel (FRAME)	M/s-ACME INDIA NDLS	
21	Partition pillar	M/s-ACME INDIA NDLS	
22	Body Side Doors	M/s-JVR LUDHIYANA	
23	Vestibule Door(PPE)	M/S- JBM INDUSTRIES, FARIDABAD	
24	Vestibule Door(NPPE)	M/S- JBM INDUSTRIES, FARIDABAD	
25	Bio Tank	M/S-UNIFAB,CEMCON CASTING PVT LTD	
26	Pressurised flushing (Elect Pneumatic)	NA	
27	Auxiliary Water Tank	M/S-SHIVALIK FAST MOHALI	
28	Under Slung Water Tank (2X685L)	M/S-AMIT ENGG MOHALI	
29	Under Slung Water Tank (1x650 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- EAUSET PVT LTD GURGAON	
33	Lavatory Doors	M/s-ACME INDIA NDLS	
34	Fire Extinguisher	M/s-ACME INDIA NDLS	
35	Seat & Berth	M/s-ACME INDIA NDLS	
36	Water purifier	NA	
37	RFID	NA	

SSE/QC/MCF/RBL

वरि०अनु० अभियंता

गुणवत्ता विभाग

रे०डि०का०, रायबरेली (लालगंज)



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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	REFERENCE &
			Frequency	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 वरिष्ठ अभियंता गुणवत्ता विभाग रेडिंकॉ, रायबरेली (लालगंज)	SME/AME/QC/MCF/RBL वरिष्ठ अभियंता/गुणवत्ता Senior Mechanical Engineer/Quality आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory Raebareli	Dy. COM/MCF/RBL Joginder Singh उप मुख्य गुणवत्ता प्रबन्धक Dy. Chief Quality Manager आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory, Raebareli



Modern Coach Factory Raebareli
आधुनिक रेल डिब्बा कारखाना, रायबरेली

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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG/HOG NONAC SCN COACHES
ELECTRICAL TEST CERTIFICATE FOR LHB/EOG/HOG NON AC COACHES

TYPE COACH	LWSCN	SHELL/COACH NO	199451/C
RAILWAY	CR	ELECT.FIT DATE	19-12-2019
Sr no	Description of test	FUR.NO	SCN-G-367
			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





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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG/HOG NONAC SCN COACHES

01.	Switch board cabinet Make : PD STEELS On Board Sr no : PDS/1911030 HT Panel Sr no : PDS/1911004	EDTS 333, Rev` 01`Am-1	01
02.	Pump equipment with PLC controller & pump box Make : DR AUTO Sr no PA: 2019/08/0052 Sr no.1 : 3486 Sr no.2 : 3481 Srno.CPA: 2019/08/007-DR AUTO	As per spec EDTS 186,Rev-a, Am- 2	01
03.	Emergency light system for EOG type coaches (AEL), Make : INTEG ELECT.	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 : SALZER/RECORD	EDML 086, Rev 03, ITEM-02	20
07.	Railway carriage Fan 400mm Sweep, 110V DC with crash worthy features. Make: C G 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: 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 : INTRA	CC76289 & CC76443	09

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Quality control / Electrical
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11.	Battery fuse box +ve Make : SSK	LW 71001,Alt-F	01
12.	Battery fuse box -ve Make : SSK	LW 71002,Alt-F	01
13.	Regulated battery charger Make : WAVES Sr no: W4K5J 19791	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	01
14.	9KVA transformer Make : VIMAL Sr no : VTC-3089-LHB-2586	As per RDSO/PE/SPEC/TL 0158, 2010, Rev`0',Ty I.	01
15.	ZS coupling 400A/750V/03Ph/50hz. Make : PRIME ELECT.	As per spec No EDTS 105,Rev`e' Am-3, TYPE-2	01 set
16.	Feeder junction boxes. Make : AECO	EDTS-328 REV-C	01 set
17.	Wheel set earthing equipment. Make : DARSHAN ENTERPRISES	EDTS101,REV-C,AM-1	02 sets
18.	Wheel Slide Protection System (WSP) Make : ESCORT Sr no : 170728-59015-0023	M/s : ESCORT	01 set
19.	110V,120AH,VRLA SMF BATTERY SET WITH 19 MONOBLOCK (6V EACH) PRECHARGED,WIHI MODIFIED TRAY TOSKED-644 Make : HBL Lug date : 11/19	RDSO/pe/spec/ac-0009 rev-1- 2008 amdt-1	01 set
20.	Battery box for LHB coaches. Make : NIL	CC 91205	01

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

वरिष्ठ विद्युत अभियन्ता
रेल कोच फॅक्टरी, रायबरेली,
Sr. Electrical Engineer / RCF / RBL