



**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/2019-20/1286

<b>RLY</b>	CR	<b>COACH NO</b>	199450/C	<b>DATE OF DISPATCH</b>	21/12/2019
<b>Type</b>	LWSCN1	<b>Shell No.</b>	97598	<b>DISPATCH TO</b>	SSE/STOCK/CR/PUNE
<b>FUR.NO.</b>	LSCNG-354				

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:**

<b>A</b>	Epoxy flooring in lavatory	M/s-ACME INDIA NDLS
<b>B</b>	Anti slip friendly Grab Bar	M/s-ACME INDIA NDLS
<b>C</b>	Provision of Health Faucet in lavatories	M/s-ACME INDIA NDLS
<b>D</b>	Washbasin counter Top (Corian of Duport or Montelli)	M/s-ACME INDIA NDLS
<b>E</b>	GFRE ceiling instead of NFTC	M/s-ACME INDIA NDLS
<b>F</b>	DGFRP panels instead of LP panels	M/s-ACME INDIA NDLS
<b>G</b>	Honey Comb partition frame with DGFRP sheet instead of FRP sheet	M/s-ACME INDIA NDLS
<b>H</b>	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	M/s-ACME INDIA NDLS

**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 PP END	M/S-SFPL
		Part NPP END	M/S-SFPL
	Complete	MCF/RBL/AIRCON	97598
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
		RH SIDE	M/S-ECBT
4	End wall	PP END	M/S-SIPL PALWAL
		NPP END	M/S-SIPL PALWAL
5	Roof	MCF/CONT	178
6	Centre Buffer Coupler	M/s-ESCORT LTD	PP END 2342 NPP END 2332

**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 <sup>2</sup> .	6 - 10 sec.	08sec
		Max. pressure in BC	3.0 ± 0.15 kg/cm <sup>2</sup> .	3.0 kg/cm <sup>2</sup>
		All Brake are applied	OK	OK
2	Insensitivity	Exhaust BP @ 0.3 kg/cm <sup>2</sup> /min.	No brake application	OK
3	Sensitivity	Exhaust BP @ 0.1 kg/cm <sup>2</sup> /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	EMPRISE	M/S-EMPRISE MARKETING	99/93	30/11/2019
2	Insulation			Satisfactory		

*Prerna*

SSE/QC/MCF/RBL

गुणवत्ता विभाग

रेडिंकॉ, रायबरेली (कालगंज)



MODERN COACH FACTORY, RAEBARELI

आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QMF 8002

REV NO.: 01

DATE: 16.05.2016

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RLY	C	R	-	Coach No.	1	9	9	4	5	0	/	C	-	DATE OF DISPATCH	2	1	1	2	2	0	1	9
DISPATCH				SSE/STOCK/CR/PUNE	Type	L	W	S	C	N	1	Shell No.	9	7	5	9	8	FUR.NO	LSCN-G-354			

**9. DETAIL OF BOGIES:**

ITEMS	NPP Side				PP Side			
Bogie No	192623				192624			
Bogie Type	FIAT				FIAT			
Frame no.	wil-02				MCF/RBL-2141			
Bolster no.	APEX-76				APEX-75			
Axle No	19 N - 4760 RWF		19 N - 4881 RWF		19 N - 9361 RWF		19 N - 4911 RWF	
Wheel Dia	917.501	917.451	917.523	917.475	917.613	917.424	917.588	917.55
Wheel Disc No	TZ 06-19 53273-9PD9	TZ 06-19 52745-9QH5	TZ 07-19 63402-9RP6	TZ 07-19 63403-9RP4	TZ 06-19 51306-9PL9	TZ 06-19 53266-9PQ9	TZ 06-19 53986-9QL8	TZ 06-19 51301-9PL9
R.B. Nos.	08-19 30153	08-19 29821	08-19 28320	10-19 39288	08-19 28804	08-19 30234	08-19 29066	08-19 28203
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.	CMFSK09-19-5101-081-150	CMFSK09-19-5100-027-170	CMFSK09-19-5101-081-134	CMFSK09-19-5100-027-215	CMFSK09-19-5101-081-46	CMFSK09-19-5100-027-357	CMFSK09-19-5101-081-133	CMFSK09-19-5100-027-383
Compressed Ht. at Tested Load	514.5	471.5	515	470.5	513	472	514	472
10Alignment deviation (mm)	9	10	9	10	10	8	13	8

**11. TRACEABILITY OF BOGIE ITEMS :-**

S. NO	ITEM	MAKE/SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	GEREP	90,84	92,182
2.	Primary outer Spring	CMFSK	10-19-1100-114 (1530,1191,1509,1476)	10-19-1100-114 (1183,1442,1472,1527)
3.	Primary Inner Spring	CMFSK	10-19-1101-101 (757,711,802,743)	10-19-1101-101 (722,740,491,712)
4.	Primary Damper	KONIC	03-19 (02205,0263,02399,02366)	03-19 (02193,02202,02368,02023)
5.	Secondary Damper	IAI	10-19 (276993,276787)	10-19 (276789,276832)
6.	Lateral Damper	IAI	05-19 250995	05-19 250947
7.	Brake Cylinder	ESCORT	50378,50766,50268,50632	50633,50266,50671,50312
8.	Brake Caliper	ESCORT	29245,29631,29187,29529	29530,29185,29468,29132
9.	Brake Disc	KBI	24206703 0011-46/19,24206701 0079-46/19 24206703 0015-46/19,24206703 0008-46/19	24206711 0038-47/19,24206702 0039-46/19 24206710 0071-47/19,24206709 0056-47/19
10.	Ball Joint Control Arm	ARYAN		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	SF(SARITA)		
13.	Traction lever make	AEW		
14.	Ball joint traction lever	ARYAN		
15.	Ball joint traction centre	GMT		
16.	Secondary Rubber Pad	PRAG		
17.	Rubber Spring	GMT		
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA/GMT SARITA/ARYAN		
20.	Fork make	RNG		
21.	Control Arm Upper	RVE/SF/PACL	210919-1,240919-2,210919-2,160919-2	
22.	Control Arm Lower	RVE/SF/PACL	160919-2,160919-2,270919-2,210919-2	PACL-364-22, SF-789,RVE-260919-2,230919-3,
23.	Phonic Wheel	KBI	K 08-19	PACL-364-18,SF- 538,RVE-160919-2, 210919-2 K 08-19

Signature of SSE/Bogie/QC



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Type	LWSCN1	Shell No.	97598	FUR.NO.			LSCNG-354

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	2019050177
3	Pull box	M/S-FAV	1905A177
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 (DGFRP)	M/s-ACME INDIA NDLS	
18	Roof Ceiling (GFRE)	M/s-ACME INDIA NDLS	
19	Door way Ceiling (GFRE)	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-KALSI INDS JALANDHAR	
24	Vestibule Door(NPPE)	M/S-KALSI INDS JALANDHAR	
25	Bio Tank	M/S-UNIFAB,CEMCON CASTING PVT LTD	
26	Pressurised flushing (Elect Pneumatic)	M/S-IMI	
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

वरिष्ठ अनु० अभियंता  
गुणवत्ता विभाग  
रेल डिब्बा कारखाना, रायबरेली (लालगंज)



Modern Coach Factory Raebareli  
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Type	LWSCN1	Shell No.	97598	FUR.NO.			LSCNG-354

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 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:

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 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/OC/MCF/RBL वरिष्ठ अधिकारी गुणवत्ता विभाग रेडिओ रोड, रायबरेली (लालगंज)	SME/AME/QC/MCF/RBL Senior Mechanical Engineer/Quality आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory Raebareli	Dy. QM/MCF/RBL Joginder Singh उप मुख्य गुणवत्ता अधिकारी 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	199450/C
RAILWAY	CR	ELECT.FIT DATE	20-12-2019
		FUR.NO	SCN-G-354
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



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**FOR ELECTRICAL ITEMS**

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

01.	Switch board cabinet Make : <b>PD STEELS</b> On Board Sr no : <b>PDS/1911015</b> HT Panel Sr no : <b>PDS/1911032</b>	EDTS 333, Rev`01'Am-1	<b>01</b>
02.	Pump equipment with PLC controller & pump box Make : <b>DR AUTO</b> Sr no PA: <b>2019/08/0035</b> Sr no.1 : <b>3998</b> Sr no.2 : <b>3714</b> Srno.CPA: <b>NIL-DR AUTO</b>	As per spec EDTS 186,Rev-a, Am- 2	<b>01</b>
03.	Emergency light system for EOG type coaches (AEL), Make : <b>INTEG ELECT.</b>	EDTS 151,Rev -c Am-1 & 2	<b>04</b>
04.	Passenger Alarm Cum Indication Light (PACIL) Make: <b>KAVERI</b>	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-I	<b>02</b>
05.	Fitment of Switch Plate Assly(Cabin Side) Make : <b>SALZER/RECORD</b>	EDML 086,Rev-03, ITEM-01	<b>20</b>
06.	Fitment of Switch Plate Assly Corridor Side),Make : <b>SALZER/RECORD</b>	EDML 086, Rev 03, ITEM-02	<b>20</b>
07.	Railway carriage Fan 400mm Sweep, 110V DC with crash worthy features. Make: <b>ORIENT</b>	IS 6680/92,First Rev, RCF Amdt 4, Col I, Ty XI, RCF Cor I.	<b>30</b>
08.	Cabin,Corridor,doorway and Gangway Lights. Make: <b>RT VISION</b>	As per RDSO/PE/SPEC/TL-0091(REV-1) TYPE B-1	<b>26</b>
09.	Lavatory Light Make: <b>DR AUTO</b>	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-D &	<b>04</b>
10.	Night Light Fitting (LED BASED) Sticker For Berth Number On Night light Fitting For LHBSCN(80-BERTHER)Coaches Make : <b>INTRA</b>	CC76289 & CC76443	<b>09</b>

Senior Section Engineer  
Quality control / Electrical  
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**FOR ELECTRICAL ITEMS**

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

11.	Battery fuse box +ve Make : <b>SSK</b>	LW 71001,Alt-F	<b>01</b>
12.	Battery fuse box -ve Make : <b>ISGPL</b>	LW 71002,Alt-F	<b>01</b>
13.	Regulated battery charger Make : <b>PI ENGG.</b> Sr no: <b>19110203</b>	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	<b>01</b>
14.	9KVA transformer Make : <b>VIMAL</b> Sr no : <b>VTC-3089-LHB-2579</b>	As per RDSO/PE/SPEC/TL 0158, 2010, Rev`0',Ty I.	<b>01</b>
15.	ZS coupling 400A/750V/03Ph/50hz. Make : <b>PRIME ELECT.</b>	As per spec No EDTS 105,Rev`e' Am-3, TYPE-2	<b>01 set</b>
16.	Feeder junction boxes. Make : <b>MV ELECTRO</b>	EDTS-328 REV-C	<b>01 set</b>
17.	Wheel set earthing equipment. Make : <b>DARSHAN ENTERPRISES</b>	EDTS101,REV-C,AM-1	<b>02 sets</b>
18.	Wheel Slide Protection System (WSP) Make : <b>ESCORT</b> Sr no : <b>180641-60147-0121</b>	M/s : <b>ESCORT</b>	<b>01 set</b>
19.	110V,120AH,VRLA SMF BATTERY SET WITH 19 MONOBLOCK (6V EACH) PRECHARGED,WIh MODIFIED TRAY TOSKED-644 Make : <b>AMARA RAJA</b> Lug date : <b>09/19</b>	RDSO/pe/spec/ac-0009 rev-1- 2008 amdt-1	<b>01 set</b>
20.	Battery box for LHB coaches. Make : <b>NIL</b>	CC 91205	<b>01</b>

<b>SSE/EL/QC</b> वरिष्ठ अनुभाग अभियन्ता मुणवत्ता नियंत्रण	<b>AWM(ELECT.)/MCF/RBL</b> <b>SEE(P)/MCF/RBL</b>

आपरेटिंडोका/ लालगंज / रायबरेली  
S.S.E./Elect-QC/M.C.F./LLJ/RBL

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