



**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/2019-20/1285

RLY	CR	COACH NO	199449/C			DATE OF DISPATCH	21/12/2019	
Type	LWSCN1	Shell No.	97600	DISPATCH TO	SSE/STOCK/CR/PUNE	FUR.NO.	LSCNG-353	
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								
<b>4. Special feature:</b>								
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							
<b>5. SHELL LEADING DIMENSIONS:</b>								
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	1102, 1100
<b>6. TRACEABILITY OF SHELL ITEMS:</b>								
S NO	ITEM	MAKE/SUPPLIER	SERIAL NO					
1	Under frame	Front	PP END	M/S-NE CHD				
		Part	NPP END	M/S-SFPL				
		Complete	MCF/RBL/AIRCON					97600
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					36	
		RH SIDE					36	
4	End wall	PP END	M/S-SIPL PALWAL					
		NPP END	M/S-SIPL PALWAL					
5	Roof	MCF/CONT					176	
6	Centre Buffer Coupler	M/s-FRONTIER LTD	PP END	07P2	NPP END	09P2		
<b>7. AIR BRAKE TEST REPORT:</b>								
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				
<b>8. PAINTING DETAILS:</b>								
S NO	DESCRIPTION	TYPE OF PAINT	MAKE	APPLICATION BY MCF/ CONTRACTOR (SUPPLY & APPLY)	AVERAGE GLOSS VALUE	DATE OF COMPLETION		
1	Paint	P.U	K.NEROLAC	M/S-KANSAL NEROLAC	87/87	27/11/2019		
2	Insulation	Satisfactory						

*Rema*  
SSE/QC/MCF/RBL

वरि०अनु० अभियंता  
गुणवत्ता विभाग  
रे०डि०का०, रायबरेली (कालाज)



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	4	9	/	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	0	0	FUR.NO	LSCN-G-353
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## 9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	192625				192626			
Bogie Type	FIAT				FIAT			
Frame no.	MCF/RBL-1783				WIL-005			
Bolster no.	APEX-84				RBL-3326			
Axle No	19 N - 4598 RWF	19 N - 4685 RWF	19 N - 4561 RWF	19 N - 8780 RWF				
Wheel Dia	917.514	917.553	917.511	917.583	917.541	917.607	917.538	917.514598
Wheel Disc No	TZ 07-19 71341-9RN3	TZ 07-19 64127-9RN3	TZ 08-19 71688-9RN1	TZ 07-19 66478-9RN8	TZ 07-19 67592-9RL3	TZ 08-19 74468-9SK8	TZ 03-19 45297-9PO2	TZ 03-19 61177-9QJ4
R.B. Nos.	08-19 28874	08-19 29368	08-19 28776	08-19 29306	08-19 28743	08-19 29389	08-19 29898	08-19 29325
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.	CMFSK09-19-5101-081-79	CMFSK09-19-5100-007-220	CMFSK09-19-5101-081-85	CMFSK09-19-5100-027-226	CMFSK09-19-5101-114	CMFSK06-19-5100-027-312	CMFSK09-19-5101-033-136	CMFSK06-19-5100-017-0213
Compressed Ht. at Tested Load	515	470	513	471	516	470	515.5	471.5
10Alignment deviation (mm)	7	10	7	10	9	8	10	8

## 11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	GREREP	36,184	85,59
2.	Primary outer Spring	CMFSK	10-19-1100-114 (1518,1181,1197,1474)	10-19-1100-114 (1473,1478,1508,1587)
3.	Primary Inner Spring	CMFSK	10-19-1101-101 (746,730,1003,749)	10-19-1101-101 (966,729,779,806)
4.	Primary Damper	KONIC	03-19 (01833,01746,02413,01730)	03-19 (05332,02200,01762,02348)
5.	Secondary Damper	IAI	10-19 (277080,276908)	10-19 (277040,276895)
6.	Lateral Damper	IAI	05-19 251299	05-19 251338
7.	Brake Cylinder	ESCORT	(48236,50746,50767,50377)	(50240,50662,50664,50242)
8.	Brake Caliper	ESCORT	(27739,29617,29632,29244)	(29159,29459,29461,29161)
9.	Brake Disc	KBI	24106703 0014-46/19,24206703 0012-46/19 24200712 0031-47/19,24206712 0098-47/19	24206709 0064-47/19,24206703 0038-46/19 24206702 0064-46/19,24206703 0043-46/19
10.	Ball Joint Control Arm	GMT		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	SF(SARITA)		
13.	Traction lever make	AEW		
14.	Ball joint traction lever	GMT/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		
20.	Fork make	RNG		
21.	Control Arm Upper	SF/PACL	235, (PACL-355-16,355-18),829	900,720,206,715
22.	Control Arm Lower	SF/PACL	118,(PACL355-11,355-11,)578	818,612,197,518
23.	Phonic Wheel	ESCORT	ESCORT	ESCORT

Signature of SSE/Bogie/QC



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Type	LWSCN1	Shell No.	97600	DISPATCH TO	SSE/STOCK/CR/PUNE	FUR.NO.	LSCNG-353

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO(NPPP/PP)
1	Air Brake Module	M/S- ESCORTS	2019050178
2	Distribution valve	M/S- ESCORTS	1905A178
3	Pull box	M/S-FAV	
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-KRP PUNE	
11	UIC Vestibule (NPPE)	M/S-KRP PUNE	
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-JBM INDS FARIDABAD	
24	Vestibule Door(NPPE)	M/s-JBM INDS FARIDABAD	
25	Bio Tank	M/S-RAIL FAB KPURTHALA	
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 BADDI+SFPL MOHALI	
29	Under Slung Water Tank (1x650 L)	M/S-SHIVALIK FAST 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	N/A	

SSE/QC/MCF/RBL

वॉर ०३नु० अभियंता

गुणवत्ता विभाग

रे०डि०का०, रायबरेली (लालमंज)



Modern Coach Factory Raebareli  
आधुनिक रेल डिब्बा कारखाना, रायबरेली

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RLY	CR	COACH NO	199449/C	DATE OF DISPATCH	21/12/2019
Type	LWSCN1	Shell No.	97600	DISPATCH TO	SSE/STOCK/CR/PUNE
				FUR.NO.	LSCNG-353

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:

SNO	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 qualityrcfbl@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.

*[Signatures]*

SSE/QC/MCF/RBL  
वरिष्ठ अनुसंधान अभियंता  
गुणवत्ता विभाग  
रेडिंक: 0, रायबरेली (लालगंज)

SME/AME/QC/MCF/RBL  
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

DOC NO.: MCF/RBL/QEF/8001

REV NO: 00

DATE:18.01.2017

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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	199449/C		
RAILWAY	CR	ELECT.FIT DATE	19-12-2019	FUR.NO	SCN-G-353
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



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

01.	Switch board cabinet Make : <b>PD STEELS</b> On Board Sr no : <b>PDS/1911014</b> HT Panel Sr no : <b>PDS/1911002</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>2019/08/0124</b> Sr no.1 : <b>3454</b> Sr no.2 : <b>3330</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>CG POWER</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**  
**Modern Coach Factory Raebareli**



Modern Coach Factory Raebareli  
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**FOR ELECTRICAL ITEMS**

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

11.	Battery fuse box +ve Make : <b>ISGPL</b>	LW 71001,Alt-F	<b>01</b>
12.	Battery fuse box -ve Make : <b>SSK</b>	LW 71002,Alt-F	<b>01</b>
13.	Regulated battery charger Make : <b>WAVES</b> Sr no: <b>W4K5J 19788</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-2578</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</b> <b>set</b>
16.	Feeder junction boxes. Make : <b>MV ELECTRO</b>	EDTS-328 REV-C	<b>01</b> <b>set</b>
17.	Wheel set earthling equipment. Make : <b>DARSHAN ENTERPRISES</b>	EDTS101,REV-C,AM-1	<b>02</b> <b>sets</b>
18.	Wheel Slide Protection System (WSP) Make : <b>ESCORTS</b> Sr no : <b>190001-60527-0004</b>	M/s : <b>ESCORTS</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>HBL</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>HITECH</b>	CC 91205	<b>01</b>

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

गुणवत्ता नियंत्रण  
आपरेटिंग/लालगंज/रायबरेली  
S.S.E./Elect-QC/M.C.F./LLJ/RBL

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