



**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 (DEEN DAYALU)  
Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2019-20/1664

RLY	SWR	COACH NO	201638/C	DATE OF DISPATCH	20-Feb-20
Type	LWS	Shell No.	96224	DISPATCH TO	Sr.DME/MYS
				FUR.NO.	DDG-340

- Railway Board's Order No. : 2019/M(C)/142/2, DATED-03-06-2019
- TARE WEIGHT OF COACH : 40.66 Tonnes
- Carrying Capacity : (a) Seating: 100 (c) Luggage: NIL
- Special feature:

S NO	DESCRIPTION	MAKE/SUPPLIER
A	Cushion transverse side luggage rack which can serve as seat during rush	M/S-H.F GLASS WORKS VADODRA
B	Honey comb partition frame.	M/S-H.F GLASS WORKS VADODRA
C	DGFRP/GFRE paneling.	M/S-H.F GLASS WORKS VADODRA
D	Lavatory with DGFRP/GFRE paneling.	M/S-H.F GLASS WORKS VADODRA
E	Additional Hand hold.	M/S-H.F GLASS WORKS VADODRA
F	Counter top wash basin.	M/S-H.F GLASS WORKS VADODRA
G	Gel coating & Anti Graffiti measures.	M/S-VIBGYOR
H	Air spring in secondary suspension (capacity-140KN).	M/s-AVADH RAIL INFRA
I	Fire Extinguishers	M/s-DEVIKA SAFTEY NDLS
J	Vestibule ends for inter-coach movement of passenger and the service staff (LWSCN type End wall)	
K	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 1097/1105

**6. TRACEABILITY OF SHELL ITEMS:**

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1	Under frame	Front PP END	M/S-AMIT ENGG 67
		Part NPP END	M/S-AMIT ENGG 68
		Complete	MCF/RBL/AIRCON 96224
2	Lav. side wall	M/S-ATHANACY ALD	LAV.1
		M/S-ATHANACY ALD	LAV.2
3	Side wall	M/S-KARTIKYE HYD	LAV.3
		M/S-KARTIKYE HYD	LAV.4
		M/S-KARTIKYE HYD	02
4	End wall	M/S-RAIL TECH KXH	02
		M/S-RAIL TECH KXH	
5	Roof	MCF/CONT	46
6	Centre Buffer Coupler	M/S-ESCORT	PP END 3089 NPP END 3024

**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	VIBGYOR	M/S-VIBGYOR	74/89	30-01-2020
2	Insulation					

Satisfactory

*Deen Dayalu*

SSE/QC/MCF/RBL

वरिष्ठ अनुष्ठानिक अभियंता

गुणवत्ता विभाग

रेलवे डिपार्टमेंट, रायबरेली (सालगंज)







MODERN COACH FACTORY, RAEBARELI

आधुनिक रेल डिब्बा कारखाना, 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/2019-20/1664

RLY	S	W	R	-	Coach No.	2	0	1	6	3	8	/	C	-	DATE OF DISPATCH	2	0	0	2	2	0	2	0
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DISPATCH	Sr.DME/MYS	Type	L	W	S	-	Shell No.	9	6	2	2	4	FUR.NO	DDG-340
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**9. DETAIL OF BOGIES:**

ITEMS	NPP Side				PP Side			
Bogie No	193299				193300			
Bogie Type	FIAT				FIAT			
Frame no.	WIL-77				WIL-065			
Bolster no.	AMIT-226				AMIT-215			
Axle No	19 T - 4242 RWF		20 T- 8578 RWF		20 V-0661 RWF		20 V-0660 RWF	
Wheel Dia	917.482	917.486	917.469	917.529	917.545	917.605	917.533	917.573
Wheel Disc No	DP-17 32392-345	DP-17 32303-345	DP-17 32322-345	DP-17 32350-345	DP-17 32305-345	DP-17 32297-345	DP-17 32325-345	DP-17 32289-345
R.B. Nos.	11-19 44162	11-19 41783	11-19 44257	11-19 41782	11-19 44179	11-19 42848	11-19 42454	11-19 31963
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
Make & Nos.	AWADH RAIL INFRA LTD. SR.NO-12-19- 6613	AWADH RAIL INFRA LTD. SR.NO-12-19- 6612	AWADH RAIL INFRA LTD. ARL 12-12 6610	AWADH RAIL INFRA LTD. ARL 12-19- 6608

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

S. NO	ITEM	MAKE/SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	IAI	280012,280031	279708,279507
2.	Primary outer Spring	CMGBD	10-19-F07-873-(748,730,843,701)	10-19-F07-873-(727,694,617,780)
3.	Primary Inner Spring	CMGBD	10-19-F06-842-(435,173,482,200)	10-19-F06-872-(203,188,132,813)
4.	Primary Damper	IAI	08-19 (267192,267824,267716,267913)	08-19 (267698,267894,267635,267742)
5.	Secondary Damper	IAI	09-19(274451,274402)	08-19(268270,283277)
6.	Lateral Damper	IAI	02-19 - 401113	08-19 - 268486
7.	Brake Cylinder	KBI	C-(2299,0830,1101,2293)-K29	C-(2296,0886,0825,2294)-K-29
8.	Brake Caliper	KBI	B-(8847,8871,8870,8845)-29	B-(8848,8872,8873,8846)-29
9.	Brake Disc	FAV	01-20-(1071,1072,1073,1074)-D133561-300	01-20-(1049,1047,182,181)-D133561-300
10.	Ball Joint Control Arm	GMT		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	(SF)SARITA		
13.	Traction lever make	JI		
14.	Ball joint traction lever	GMT		
15.	Ball joint traction centre	GMT		
16.	Leveling Valve	ESCORT	1908,1908	1908,1908
17.	Check Valve	ESCORT	1908	1908
18.	Anti roll bar Make	SARITA/RK		
19.	Roll Link make	EMSON+GMT/ SARITA+GMT		
20.	Fork make	RNG		
21.	Control Arm Upper	SG/IRPL	1212L47,1926L82,1901J05,1901J03	1901J02,1914L11,1912L10,1901J02
22.	Control Arm Lower	SG/IRPL	1909L06,1926L78,1926G95,1919G77	1919G78,1919L78,1913L16,1883L17
23.	Phonic Wheel	KBI	K-11-19	K-09-19

Signature of SSE/Bogie/QC







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Type	LWS	Shell No.	96224			FUR.NO.	DDG-340

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO(NPP/PP)
1	Air Brake Module	M/S- KBI	
2	Distribution valve	M/S- KBI	4576-52/19
3	Pull box	M/S- KBI	2019M9971
4	FIBA	M/S- KBI	
5	Foot Step	M/S-SSPL FARIDABAD	7466/29,7172/29
6	Decoupling arrangement	M/S-KOHINOOR MUMBAI	
7	Floor board	M/S-OVPL MUMBAI	
8	PVC	M/S-H.F GLASS WORKS VADODRA	
9	Lavatory inlay	M/S-H.F GLASS WORKS VADODRA	
10	UIC Vestibule (PPE)	M/S-KIRAN RUBBER PRODUCT PUNE	
11	UIC Vestibule (NPPE)	M/S-KIRAN RUBBER PRODUCT PUNE	
12	Gangway bridge mounting (PPE)	M/s-RAKESH IRON STORE KXH	
13	Gangway bridge mounting (NPPE)	M/s-RAKESH IRON STORE KXH	
14	Body Side Window	M/S-H.F GLASS WORKS VADODRA	
15	Emergency Window	M/S-H.F GLASS WORKS VADODRA	
16	Lavatory/hopper Window	M/S-H.F GLASS WORKS VADODRA	
17	Roof Ceiling	M/S-H.F GLASS WORKS VADODRA	
18	Door way /gang way ceiling	M/S-H.F GLASS WORKS VADODRA	
19	Body Side Doors	M/S-H.F GLASS WORKS VADODRA	
20	Vestibule Door(PPE)	M/S-JBM FARIDABAD	
21	Vestibule Door(NPPE)	M/S-JBM FARIDABAD	
22	Bio Tank	M/S-OMAX AUTOS LTD	
23	Pressurized flushing(ele.pneu.)	M/S-IMI	
24	Over head water tank (4x390L)	M/S-AMIT ENG. MOHALI	
25	Bib cock/controlled discharge tap	M/s-JAQUAR PVT LTD ALWAR	
26	Lavatory Doors	M/S-H.F GLASS WORKS VADODRA	
27	Fire Extinguisher	M/s-DEVIKA SAFTEY NDLS	
28	Water purified	M/S-H.F GLASS WORKS VADODRA	5279/5348
29	Seat & Berth	M/S-H.F GLASS WORKS VADODRA	
30	Luggage Rack	M/S-H.F GLASS WORKS VADODRA	
31	Light Luggage Rack	N/A	
32	Ventury grill	M/S-H.F GLASS WORKS VADODRA	
33	RFID	N/A	

*Deen Dayalu*  
SSE/QC/MCF/RBL

गुणवत्ता विभाग  
रेडिओका, रायबरेली (लालगंज)







Modern Coach Factory Raebareli  
आधुनिक रेल डिब्बा कारखाना, रायबरेली

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Type	LWS	Shell No.	96224			FUR.NO.	DDG-340

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

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	SME/AME/QC/MCF/RBL	Dy. QM/MCF/RBL

वरिष्ठ गुणवत्ता अभियंता  
गुणवत्ता विभाग  
रेलवे कारखाना, रायबरेली (लालगंज)

वरिष्ठ यंत्रिक अभियंता/गुणवत्ता  
Senior Mechanical Engineer/Quality  
आधुनिक रेल डिब्बा कारखाना, रायबरेली  
Modern Coach Factory Raebareli

जो गिन्दर सिंह  
Dy. QM/MCF/RBL  
वरिष्ठ गुणवत्ता प्रबंधक  
आधुनिक रेल डिब्बा कारखाना, रायबरेली  
Modern Coach Factory Raebareli







Modern Coach Factory Raebareli  
आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QEF/8001

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**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF LHB/EOG/HOG NONAC DD COACHES**

PAGE 1 OF 3

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG/HOG NON AC GS COACHES					
SHELL/COACH NO		201638/C		TYPE COACH	
RAILWAY	SWR	ELECT.FIT DATE	17-02-2020	FUR.NO	LWS/DDG
Sr no	Description of test	DDG-340			
					Remarks
2.	LIGHTS, 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			

*[Signature]*

**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 DD COACHES**

PAGE 2 OF 3

01.	Switch board cabinet Make : <b>SSK</b> On Board Sr no : <b>2019/07/176</b> HT Panel Sr no : <b>2019/07/173</b>	EDTS 333, Rev`01`Am-1	<b>01</b>
02.	Emergency light system for EOG type coaches (AEL), Make : <b>DR AUTO</b>	EDTS 151,Rev -c Am-1 & 2	<b>04</b>
03.	Provision & Mounting of PACIL Assly. Make: <b>RT VISION</b>	As per RDSO/PE/SPEC/TL/0091- 2016,REV-01, TYPE-I Drg no. LW 76098.	<b>02</b>
04.	Fitment of Switch Plate Assly (Cabin Side) Make : <b>SSK</b>	EDML 127,Rev-1& DRG NO 4248ALT-a	<b>10</b>
05.	Fitment of Switch Plate Assly (Corridor Side) Make : <b>SSK</b>	EDML 127,Rev-1 & DRG NO 4249 ALT-a	<b>10</b>
06.	Fitment of Railway carriage Fan 400mm Sweep, 110V DC with crash worthy features. Make : <b>LIGHT ENGG.</b>	IS 6680/92,First Rev, RCF Amdt 4, Col I, Ty XI, RCF Cor I.	<b>30</b>
07.	Provision of Cabin, Corridor, doorway and Gangway Lights. Make: <b>DR AUTO</b>	As per RDSO/PE/SPEC/TL- 0091(REV-1) TYPE B-1	<b>28</b>
08.	Provision & Mounting of Lavatory Light Make: <b>RT VISION</b>	As per RDSO/PE/SPEC/TL/0091 -2016,REV-01, TYPE-D & Drg no. LW 76092.	<b>04</b>

**Senior Section Engineer**  
**Quality control / Electrical**  
**Modern Coach Factory Raebareli**





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**ROLLING STOCK CERTIFICATE OF LHB/EOG/HOG NONAC DD COACHES**

PAGE 3 OF 3

09.	Battery fuse box +ve Make : <b>RICHMOND</b>	LW 71001,Alt-F	<b>01</b>
10	Battery fuse box -ve Make : <b>RICHMOND</b>	LW 71002,Alt-F	<b>01</b>
11.	Regulated battery charger Make : <b>ELECT. EQUIPMENT COMPANY</b> Sr no: <b>12190106</b>	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	<b>01</b>
12.	9KVA transformer Make : <b>VIMAL</b> Sr no : <b>VTC 3089 LHB-2957</b>	As per RDSO/PE/SPEC/TL 0158,2010, Rev`0', TypeI.	<b>01</b>
13.	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>
14.	Feeder junction boxes. Make : <b>MV ELECTRO</b>	EDTS-328 REV-C	<b>01 set</b>
15.	Wheel set earthing equipment. Make : <b>PRIME ELECT.</b>	EDTS101,REV-C,AM-1	<b>02 sets</b>
16.	Wheel Slide Protection System (WSP) Make : <b>KNORR</b> Sr no : <b>0119232072</b>	M/s : <b>KNORR</b>	<b>01 set</b>
17.	110V,120AH,VRLA SMF BATTERY SET WITH 19 MONOBLOCK (6V EACH) PRECHARGED,WIH MODIFIED TRAY TOSKED-644 Make : <b>HBL</b> Lug date : <b>12/19</b>	RDSO/pe/spec/ac-0009 rev-1-2008 amdt-1	<b>01 set</b>
18.	Battery box for LHB coaches. Make : <b>M/S MEENAKSHI</b>	CC 91205	<b>01</b>

<b>SSE/EL/QC</b> वरिष्ठ अनुभाग अभियन्ता गुणवत्ता नियंत्रण आपरेटिंग/लालगंज/रायबरेली S.S.E/Elect-QC/M.C.F./LLJ/RBL	<b>AWM(ELECT.)/MCF/RBL</b> <b>SEE(P)/MCF/RBL</b> वरिष्ठ विद्युत अभियन्ता रेल कोच फैक्टरी, रायबरेली, Sr. Electrical Engineer / RCF / RBL



MCF/RBL