



**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/2019-20/1371

RLY	SWR	COACH NO	199538/C	DISPATCH TO	Sr.DME/MYS	DATE OF DISPATCH	31-12-2019
Type	LWS	Shell No.	96160			FUR.NO.	DDG-275

1. Railway Board's Order No. : 2019/M(C)/142/2, DATED-21.11.2019
2. Tare Weight of Coach : 40.66 Tonnes
3. Carrying Capacity : (a) Seating: 100 (c) Luggage: NIL

**4. Special feature:**

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

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 1105/1105

**6. TRACEABILITY OF SHELL ITEMS:**

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1	Under frame	Front PP END	M/S-KANSAL ENGG. 19
		Part NPP END	M/S-KANSAL ENGG. 19
		Complete	M/S-KANSAL ENGG. 19
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-MCFRBL-CONT.V4U 20
		RH SIDE	M/S-MCFRBL-CONT.V4U 20
4	End wall	PP END	M/s-SIPL PALWAL
		NPP END	M/s-SIPL PALWAL
5	Roof	M/s-TI	
6	Centre Buffer Coupler	M/S- FRONTIER	PP END 100P1 NPP END 206P1
			78

**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.	08 sec
		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	K.NEROLAC	M/S-K.NEROLAC	74/87	03-12-2019
2	Insulation			Satisfactory		

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वरिष्ठ जूनियर अभियंता  
गुणवत्ता विभाग  
रेडिओ का 0, रायबरेली (लालगंज)





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/2019-20/1371

RLY	S	W	R	Coach No.	1	9	9	5	3	8	/	C	-	DATE OF DISPATCH	3	1	1	2	2	0	1	9
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DISPATCH	Sr.DME/MYS	Type	L	W	S	-	Shell No.	9	6	1	6	0	FUR NO	DDG-275
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## 9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	192703				192704			
Bogie Type	FIAT				FIAT			
Frame no.	ECBT-193				ECBT-291			
Bolster no.	AMIT-32				AMIT-33			
Axle No	19 N- 4686 RWF		19 S - 9208 RWF		19 N - 4413 RWF		19 N - 9044 RWF	
Wheel Dia	917.473	917.496	917.523	917.445	917.502	917.473	917.502	917.473
Wheel Disc No	TZ 07-19 61663-9RP9	TZ 07-19 70749-9RM4	TZ 07-19 63406-9RP6	TZ 08-19 75177-9RR3	TZ 07-19 61658-9RR4	TZ 07-19 62592-9RN0	TZ 07-19 67199-9RP1	TZ 08-19 75175-9SL3
R.B. Nos.	09-19 31883	11-19 41005	08-19 29286	08-19 30164	08-19 29789	08-19 28447	09-19 31677	11-19 41235
CT R B Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	

## 10. SECONDARY SUSPENSION LOAD DEFLECTION VALUES :-

DESCRIPTION	Bogie NPP side		Bogie PP side	
Make & Nos.	Secondary 1 AVADH RAIL INDRA LTD. 09-19 5862	Secondary 2 AVADH RAIL INDRA LTD. 11-19 5839	Secondary 1 AVADH RAIL INDRA LTD. 09-19 5175	Secondary 2 AVADH RAIL INDRA LTD. 09-19 5192

## 11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	GEREP	250,76	74,105
2.	Primary outer Spring	CMFSK	10-19-1100 114(1206,1337,1252,1278)	10-19-1100-114(1458,1460,1449,1446)
3.	Primary Inner Spring	CMFSK	10-18 1101-101(1043,1046,2068,1074)	10-18 1101-101(971,776,763,992)
4.	Primary Damper	KONIC	03-19 (07936,06464,06691,06672)	03-19 (06448,07926,06662,06524)
5.	Secondary Damper	IAI	09-19 (276952,277027)	10-19 (277143,276902)
6.	Lateral Damper	KONIC	04-19 00675	04-19 00347
7.	Brake Cylinder	ESCORT	50403,48384,49682,50420	50630,49658,49683,50419
B19-	Brake Caliper	ESCORT	29268,27935,28809,29258	29527,28777,28810,29284
9.	Brake Disc	KBI	24206713 0012-47/19,24206713 0013-47/19 24206705 0057-46/19,24206706 0037-46/19	24206703 0010-46/19,24206703 0009-46/19 24206703 0005-46/19,24206712 0073-47/19
10.	Ball Joint Control Arm	GMT		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	SARITA		
13.	Traction lever make	AEW		
14.	Ball joint traction lever	GMT		
15.	Ball joint traction centre	ARYAN/GMT		
16.	Leveling Valve	ESCORT	1906,1906	
17.	Check Valve	ESCORT	1906	1906,1906
18.	Anti roll bar Make	EMSON		1906
19.	Roll Link make	SARITA /GMT SARITA/ARYAN		
20.	Fork make	RNG		
21.	Control Arm Upper	RVE	230919-1,230919-1,230919-2,210919-3	220919-2,160919-2,SF-1179,664
22.	Control Arm Lower	RVE	170919-2,210919-2,210919-2,230919-2	160919-2,210919-2,SF-896,704
23.	Phonic Wheel	ESCORT		ESCORT

Signature of SSE/Bogie/QC

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**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	4101 42/19
3	Pull box	M/S- FAIVELY	2019K9324
4	FIBA	M/S- ESCORT	
5	Foot Step	M/S SSPL MUMBAI	18120342,18110315
6	Decoupling arrangement	M/S- KOHINOOR MUMBAI	
7	Floor board	M/S-TWPL MUMBAI	
8	PVC	M/S- HF GLASS WORKS VADODARA	
9	Lavatory inlay	M/S- HF GLASS WORKS VADODARA	
10	UIC Vestibule (PPE)	M/S-SUNCREAST KOLKATA	
11	UIC Vestibule (NPPE)	M/S-SUNCREAST KOLKATA	
12	Gangway bridge mounting (PPE)	M/S- MMW. KXH	
13	Gangway bridge mounting (NPPE)	M/S- MMW. KXH	
14	Body Side Window	M/S- HF GLASS WORKS VADODARA	
15	Emergency Window	M/S- HF GLASS WORKS VADODARA	
16	Lavatory/hopper Window	M/S- HF GLASS WORKS VADODARA	
17	Roof Ceiling	M/S- HF GLASS WORKS VADODARA	
18	Door way /gang way ceiling	M/S- HF GLASS WORKS VADODARA	
19	Body Side Doors 1,2,4,5,6	M/S- GOLD PLUS CDG	
	Body Side Doors 3	M/S- JVR LDH	
20	Vestibule Door(PPE)	M/S-JBM FARIDABAD	
21	Vestibule Door(NPPE)	M/S-JBM FARIDABAD	
22	Bio Tank	M/S- JSL LIFE STYLE	
23	Pressurized flushing(ele.pneu.)	N/A	
24	Over head water tank (4x390L)	M/S- AMIT MOHALI 01 NO,AMIT BADDI 03 NOS	
25	Bib cock/controlled discharge tap	M/s- JAQUAR PVT LTD ALWAR	
26	Lavatory Doors	M/S- HF GLASS WORKS VADODARA	
27	Fire Extinguisher	M/s-CHIRAG IND	
28	Water purified	N/A	5268/5375
29	Seat & Berth	M/S- HF GLASS WORKS VADODARA	
30	Luggage Rack	M/S- HF GLASS WORKS VADODARA	
31	Light Luggage Rack	M/S- HF GLASS WORKS VADODARA	
32	RFID	N/A	

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Type	LWS	Shell No.	96160			FUR.NO.	DDG-275

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:**

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

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रेडिओका, रायबरेली (लालगंज)

Modern Coach Factory, Raebareli

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Modern Coach Factory, Raebareli





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आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QEF/8001

REV NO: 00

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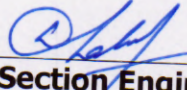
**FOR ELECTRICAL ITEMS**

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

PAGE 1 OF 3

PAGE 1 OF 3

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG/HOG NON AC GS COACHES						
SHELL/COACH NO		199538/C		TYPE COACH		LWS/DDG
RAILWAY	SWR	ELECT.FIT DATE	31-12-2019	FUR.NO	DDG-275	
Sr no	Description of test					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

  
Senior Section Engineer  
Quality control / Electrical  
Modern Coach Factory Raebareli





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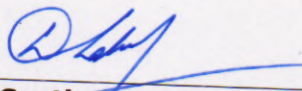
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**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF LHB/EOG/HOG NONAC DD COACHES**  
PAGE 2 OF 3

01.	Switch board cabinet Make : <b>MV ELECTRO SYSTEMS</b> On Board Sr no : <b>19070104</b> HT Panel Sr no : <b>19070098</b>	EDTS 333, Rev`01`Am-1	<b>01</b>
02.	Emergency light system for EOG type coaches (AEL), Make : <b>A PAUL</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>VENTWELL</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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**FOR ELECTRICAL ITEMS**

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

PAGE 3 OF 3

09.	Battery fuse box +ve Make : <b>SSK</b>	LW 71001,Alt-F	<b>01</b>
10	Battery fuse box -ve Make : <b>SSK</b>	LW 71002,Alt-F	<b>01</b>
11.	Regulated battery charger Make : <b>WAVES</b> Sr no: <b>W4K5G 19116</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-2677</b>	As per RDSO/PE/SPEC/TL 0158,2010, Rev`0', TypeI.	<b>01</b>
13.	ZS coupling 400A/750V/03Ph/50hz. Make : <b>S.INTERNATIONALS</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>DARSHAN ENTERPRISES</b>	EDTS101,REV-C,AM-1	<b>02 sets</b>
16.	Wheel Slide Protection System (WSP) Make : <b>KNORR</b> Sr no : <b>0119071081</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>AMARA RAJA</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>HITECH</b>	CC 91205	<b>01</b>

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

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

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