



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/2019-20/1793

RLY	SWR	COACH NO	202096/C		DATE OF DISPATCH	12-Mar-20
Type	LWS	Shell No.	96237	DISPATCH TO	Sr.DME/UBL	FUR.NO. DDG-354

1. Railway Board's Order No. : 2019/M(C)/142/2, DATED-18-12-2019
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-H.F.G.W.VADODARA
B	Honey comb partition frame.	M/S- H.F.G.W.VADODARA
C	DGFRP/GFRE paneling.	M/S- H.F.G.W.VADODARA
D	Lavatory with DGFRP/GFRE paneling.	M/S- H.F.G.W.VADODARA
E	Additional Hand hold.	M/S- H.F.G.W.VADODARA
F	Counter top wash basin.	M/S- H.F.G.W.VADODARA
G	Gel coating & Anti Graffiti measures.	M/S-KANSAL NEROLAC
H	Air spring in secondary suspension (capacity-140KN).	M/s-AVADH RAIL INFRA
I	Fire Extinguishers	M/s-DEVIKA FIRE SAFETY 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 1101/1105

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-JBML	57
	Complete	MCF/RBL/AIRCON	96237
2	Lav. side wall	M/S-ATHANACY ALD LAV.1	LAV.2
		M/S-ATHANACY ALD LAV.3	LAV.4
3	Side wall	LH SIDE MCFRBL-CONT.V4U	96/01
		RH SIDE MCFRBL-CONT.V4U	96/02
4	End wall	PP END M/S-RAIL TECH KXH	
		NPP END M/S-RAIL TECH KXH	
5	Roof	MCF/CONT	57
6	Centre Buffer Coupler	M/S-SANROK ENT PP END	15178 NPP END 15197

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.	08 sec
		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	K.NEROLAC	M/S-KANSAL NEROLAC	72/89	07-02-2020
2	Insulation			Satisfactory		

Deen Dayalu

SSE/QC/MCF/RBL

वरिष्ठ अनुष्ठानिक

गुणवत्ता विभाग

रेलवे कारखाना, रायबरेली (सालागंज)



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/2019-20/1793

RLY	S	W	R	-	Coach No.	2	0	2	0	9	6	/	C	-	DATE OF DISPATCH	1	2	0	3	2	0	2	0
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DISPATCH	Sr.DME/UBL	Type	L	W	S	-	Shell No.	9	6	2	3	7	FUR.NO	DDG-354
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9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	193385				193386			
Bogie Type	FIAT				FIAT			
Frame no.	MIPL - 431				MCF/RBL-LS-5 - 0126			
Bolster no.	MCF/RBL/LS-5 - 1206				MCF/RBL/LS-5 - 1120			
Axle No	19 P - 1921 RWF		20 T - 8435 RWF		20 T - 8067 RWF		19 T - 7409 RWF	
Wheel Dia	917.733	917.492	917.621	917.517	917.619	917.619	917.509	917.578
Wheel Disc No	TZ 02-19 23557-9MJ9	TZ 02-19 26224-9MG3	TZ 02-19 68038-9RN4	TZ 02-19 68039-9RN4	TZ 07-19 62965-9RQ2	TZ 05-19 48459-9PE9	TZ 07-19 63608-9RQ4	TZ 07-19 69237-9RL6
R.B. Nos.	12-19 35017	11-19 32182	11-19 35199	11-19 32409	12-19 35245	11-19 32485	11-19 33451	11-19 34895
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.	AVADH RAIL INFRA LTD. SR.NO- 01-20 6897	AVADH RAIL INFRA LTD. SR.NO- 01-20 6908	AVADH RAIL INFRA LTD. SR.NO- 12-19 6600	AVADH RAIL INFRA LTD. SR.NO- 12-19 6619

11. TRACEABILITY 9OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	IAI	279835,283191	282958,283199
2.	Primary outer Spring	CMSTL	01-19 F07-N78-07A-(1202,1111,9590,1210)	01-19 F07-N78-07A-(1140,846,1020,860)
3.	Primary Inner Spring	CMSTL	07-19 F06-N92-06A-(1049,1718,6510,3946)	07-19 F06-N92-06A-(895,992,1503,1076)
4.	Primary Damper	IAI	08-19 (267672,267890,267803,267787)	08-19 (267770,267834,267666,267790)
5.	Secondary Damper	IAI	08-19 (268126,268265)	08-19 (268121,268289)
6.	Lateral Damper	IAI	08-19 - 268525	08-19 - 268543
7.	Brake Cylinder	KBI	C(2255,1156,1048,2237)-K-29	C(2151,0897,1078,2137)-K-29
8.	Brake Caliper	KBI	B(8824,8920,8790,8807)-29	B(8728,8874,8876,8726)-29
9.	Brake Disc	KBI	24206689-0023-44-19, 24206689-0008-44-19, 24206690-0061-44-19, 24206693-0063-44-19	24206722-0083-49-19, 24206720-0070-49-19, 24206680-0053-49-19, 24206719-0071-49-19
10.	Ball Joint Control Arm	GMT		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	SARITA		
13.	Traction lever make	JL		
14.	Ball joint traction lever	GMT		
15.	Ball joint traction centre	GMT		
16.	Leveling Valve	ESCORT/KNORR	19-10, KNORR 16-19-B 7581	16-19-B-7573, 16-19-B-7676
17.	Check Valve	ESCORT/KNORR	19-10	07-19 20309
18.	Anti roll bar Make	RF		
19.	Roll Link make	SARITA+GMT		
20.	Fork make	RNG		
21.	Control Arm Upper	SG IRPL	1912G62,1908J07,1911G41,1910J07	1901I07,1913G49,1913G53,1909G79
22.	Control Arm Lower	SF	1911G78,1918G75,1918G71,1918G79	1926I18,1919G71,1918G71,1913G50
23.	Phonic Wheel	KBI	K-09-19, K-09-19	K-09-19, K-09-19

Signature of SSE/Bogie/QC



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Type	LWS	Shell No.	96237			FUR.NO.	DDG-354

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO(NPP/PP)
1	Air Brake Module	M/S- KBI	4953-05/20
2	Distribution valve	M/S- KBI	2020A10413
3	Pull box	M/S- KBI	
4	FIBA	M/S- KBI	9803/29,9817/29
5	Foot Step	M/S-SSPL FARIDABAD	
6	Decoupling arrangement	M/S-KOHINOOR MUMBAI	
7	Floor board	M/S-OVPL MUMBAI	
8	PVC	M/S-H.F.G.W.VADODARA	
9	Lavatory inlay	M/S-SEEMA BHOPAL	
10	UIC Vestibule (PPE)	M/S-ELASTOMER LINING WORKS MUMBAI	
11	UIC Vestibule (NPPE)	M/S-ELASTOMER LINING WORKS MUMBAI	
12	Gangway bridge mounting (PPE)	M/s-MAHAVEER METAL WORKS KXH	
13	Gangway bridge mounting (NPPE)	M/s-MAHAVEER METAL WORKS KXH	
14	Body Side Window	M/S- H.F.G.W.VADODARA	
15	Emergency Window	M/S- H.F.G.W.VADODARA	
16	Lavatory/hopper Window	M/S- H.F.G.W.VADODARA	
17	Roof Ceiling	M/S- H.F.G.W.VADODARA	
18	Door way /gang way ceiling	M/S- H.F.G.W.VADODARA	
19	Body Side Doors	M/S- H.F.G.W.VADODARA	
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 ENGG MOHALI	
25	Bib cock/controlled discharge tap	M/s-JAQUAR PVT LTD ALWAR	
26	Lavatory Doors	M/S- H.F.G.W.VADODARA	
27	Fire Extinguisher	M/s-DEVIKA FIRE SAFETY NDLS	5459/5211
28	Water purified	M/S- H.F.G.W.VADODARA	
29	Seat & Berth	M/S- H.F.G.W.VADODARA	
30	Luggage Rack	M/S- H.F.G.W.VADODARA	
31	Light Luggage Rack	NA	
32	Ventury grill	M/S- H.F.G.W.VADODARA	
33	RFID	NA	

Deen Dayalu

SSE/QC/MCF/RBL

वरि०अनु० अधियंता

गुणवत्ता विभाग

रे०डि०का०, रायबरेली (लालगंज)



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Type	LWS	Shell No.	96237	DISPATCH TO	Sr.DME/UBL
				FUR.NO.	DDG-354

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 qualityrcfbl@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	SMC/AME/QC/MCF/RBL	DyQM/MCF/RBL

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गुणवत्ता विभाग
रेडिओ, रायबरेली (लालगंज)

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

सुधीर कुमार
Sudhir Kumar
DyQM/MCF/RBL
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

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

PAGE 1 OF 3

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG/HOG NON AC GS COACHES							
SHELL/COACH NO		202096/C		TYPE COACH		LWS/DDG	
RAILWAY		SWR	ELECT.FIT DATE	07-03-2020	FUR.NO	DDG-354	
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





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 : ABROL On Board Sr no : 2019/11/427B HT Panel Sr no : 2019/10/357A	EDTS 333, Rev `01'Am-1	01
02	Emergency light system for EOG type coaches (AEL), Make : INTEG	EDTS 151,Rev -c Am-1 & 2	04
03.	Provision & Mounting of PACIL Assly. Make: WAVES	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-I Drg no. LW 76098.	02
04.	Fitment of Switch Plate Assly (Cabin Side) Make : SSK	EDML 127,Rev-1& DRG NO 4248ALT-a	10
05.	Fitment of Switch Plate Assly (Corridor Side) Make : SSK	EDML 127,Rev-1 & DRG NO 4249 ALT-a	10
06.	Fitment of Railway carriage Fan 400mm Sweep, 110V DC with crash worthy features. Make : WAVES/CG POWER	IS 6680/92,First Rev, RCF Amdt 4, Col I, Ty XI, RCF Cor I.	30
07.	Provision of Cabin, Corridor, doorway and Gangway Lights. Make: DR AUTO	As per RDSO/PE/SPEC/TL-0091(REV-1) TYPE B-1	28
08.	Provision & Mounting of Lavatory Light Make: RT VISION	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-D & Drg no. LW 76092.	04

[Signature]

**Senior Section Engineer
Quality control / Electrical
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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 : RICHMOND	LW 71001,Alt-F	01
10	Battery fuse box -ve Make : RICHMOND	LW 71002,Alt-F	01
11.	Regulated battery charger Make : WAVES Sr no: W4K5J-19874	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	01
12.	9KVA transformer Make : VIMAL Sr no : VTC-3089 LHB-2855	As per RDSO/PE/SPEC/TL 0158,2010, Rev`0', TypeI.	01
13.	ZS coupling 400A/750V/03Ph/50hz. Make : MLI	As per spec No EDTS 105,Rev`e' Am-3 TYPE-2	01 set
14.	Feeder junction boxes. Make : MV ELECTRO SYSTEM PVT. LTD.	EDTS-328 REV-C	01 set
15.	Wheel set earthing equipment. Make : NANDRATAN	EDTS101,REV-C,AM-1	02 sets
16.	Wheel Slide Protection System (WSP) Make : KNORR Sr no : 0119463369	M/s : KNORR	01 set
17.	110V,120AH,VRLA SMF BATTERY SET WITH 19 MONOBLOCK (6V EACH) PRECHARGED,WIH MODIFIED TRAY TOSKED-644 Make : HBL Lug date : 11/19	RDSO/pe/spec/ac-0009 rev-1- 2008 amdt-1	01 set
18.	Battery box for LHB coaches. Make : HITECH	GG 91205	01

SSE/EL/QC	AWM(ELECT.)/MCF/RBL SEE(P)/MCF/RBL

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गुणवत्ता नियंत्रण
आरंभ/डि०का०/लालगंज/रायबरेली
S.S.E./Elect-QC/M.C.F./LLJ/RBL

सो कार्य प्रबन्धक/विद्युत
आरंभ/डि०का०/रायबरेली
A.W.M./Electrical/MCF/RBL