

		<b>Modern Coach Factory Raebareli</b> <b>आधुनिक रेल डिब्बा कारखाना, रायबरेली</b>			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/2019-20/1277					
RLY	SWR	COACH NO	197782/C	DATE OF DISPATCH		18/12/2019	
Type	LWS	Shell No.	96117	DISPATCH TO	Sr.DME/MYS	FUR.NO.	DDG-244
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							
<b>4. Special feature:</b>							
S NO	DESCRIPTION					MAKE/SUPPLIER	
A	Cushion transverse side luggage rack which can serve as seat during rush					M/S- H.F.GLASS VADODARA	
B	Honey comb partition frame.					M/S- H.F.GLASS VADODARA	
C	DGFRP/GFRE paneling.					M/S- H.F.GLASS VADODARA	
D	Lavatory with DGFRP/GFRE paneling.					M/S- H.F.GLASS VADODARA	
E	Additional Hand hold.					M/S- H.F.GLASS VADODARA	
F	Counter top wash basin.					M/S- H.F.GLASS VADODARA	
G	Gel coating & Anti Graffiti measures.					M/S-KANSAL NEROLAC	
H	Air spring in secondary suspension (capacity-140KN).					M/s-AVADHRAIL	
I	Fire Extinguishers					M/s-A ONE SHAN INDS MUMBAI	
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							
<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	1104, 1105
<b>6. TRACEABILITY OF SHELL ITEMS:</b>							
S NO	ITEM	MAKE	SUPPLIER	SERIAL NO			
1	Under frame	Front	PP END	M/S-RAIL TECH	1		
		Part	NPP END	M/S-RAIL TECH	1		
		Complete		M/S-RAIL TECH	1		
2	Lav. side wall		M/S-RAIL TECH KXH	LAV.1	LAV.2		
			M/S-RAIL TECH KXH	LAV.3	LAV.4		
3	Side wall	LH SIDE		MCF/RBL(CONT V4U)	14/01		
		RH SIDE		MCF/RBL(CONT V4U)	14/02		
4	End wall	PP END		M/s-DTL PUNE			
		NPP END		M/s-DTL PUNE			
5	Roof		M/S-TI	49			
6	Centre Buffer Coupler		M/S- FRONTIER LTD	PP END	169 P1	NPP END	170 P2
<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		76/89	15/11/2019
2	Insulation			Satisfactory			

SSE/QC/MCF/RBL

वरि०अनु० अभियंता  
गुणवत्ता विभाग  
रेलवे कारखाना, 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/2019-20/1277

RLY	S	W	R	Coach No.	1	9	7	7	8	2	/	C	-	DATE OF DISPATCH	1	8	1	2	2	0	1	9
-----	---	---	---	-----------	---	---	---	---	---	---	---	---	---	------------------	---	---	---	---	---	---	---	---

DISPATCH	Sr.DME/MYS	Type	L	W	S	-	Shell No.	9	6	1	1	7	FUR .NO	DDG-244
----------	------------	------	---	---	---	---	-----------	---	---	---	---	---	---------	---------

## 9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	192391				192392			
Bogie Type	FIAT				FIAT			
Frame no.	RBL-1124				MCF/RBL-LS5-1319			
Bolster no.	SCI-384				SCI-394			
Axle No	19 P - 3110 RWF		19 L - 1963 RWF		19 L - 5273 RWF		19 L - 5907 RWF	
Wheel Dia	917.52	917.519	917.469	917.529	917.47	917.498	917.472	917.499
Wheel Disc No	TZ 08-19 74503-9SK8	TZ 08-19 72912-9SK2	TZ 08-19 75028-9RL1	TZ 08-19 72192-9RS8	TZ 08-19 72911-9SJ6	TZ 08-19 72761-9SK0	TZ 08-19 74515-9RP2	TZ 08-19 72760-9SK0
R.B. Nos.	08-19-37404	08-19-37453	08-19-27830	09-19-36879	09-19-36967	08-19-26116	09-19-36735	09-19-38673
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 07-19 4155	AVADH RAIL INFRA 07-19 4122	AVADH RAIL INFRA 07-19 4350	AVADH RAIL INFRA 07-19 4358

## 11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	18446,16107	16907,18448
2.	Primary outer Spring	CMFSK	10-19-1100-114(1102,1184,0987,1092)	10-19-1100-114(40,211,47,27)
3.	Primary Inner Spring	CMFSK	10-19 1101-101(1855,387,1890,1396)	10-19 1101-101(331,371,327,312)
4.	Primary Damper	KONIC	03-19 (02171,04724,06983,02181)	03-19 (04469,02009,06190,02291)
5.	Secondary Damper	IAI	09-19 (272937,272766)	09-19 (272943,272783)
6.	Lateral Damper	KONIC	04-19 01375	04-19 01323
7.	Brake Cylinder	ESCORT	49999,49081,49082,47998	47290,48975,48977,49292
B19-	Brake Caliper	ESCORT	27662,28421,28422,27661	28478,28323,2832,528480
9.	Brake Disc	KBI	24203751 0041-42/19,24203751 0040-42/19 24203752 0036-42/19,24203752 0035-42/19	24203752 0034-42/19,24203754 0076-42/19 24203754 0064-42/19,24203754 0077-42/19
10.	Ball Joint Control Arm	ARYAN		
11.	Lateral Bump Stop	ARYAN		
12.	Traction Centre make	SARITA		
13.	Traction lever make	TAJ/JI		
14.	Ball joint traction lever	ARYAN		
15.	Ball joint traction centre	ARYAN		
16.	Leveling Valve	ESCORT	1906,1906	1906,1906
17.	Check Valve	ESCORT	1904	1904
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	EMSON /ARYAN		
20.	Fork make	RNG		
21.	Control Arm Upper	PACL	247,245,246,346	PACL,248,256,348
22.	Control Arm Lower	PACL	247,PACL,142,246	247,PACL,144,250
23.	Phonic Wheel	KBI	03-19	03-19

Signature of SSE/Bogie/QC

वरि०अनु० अभियंता

मुख्यालय विभाग

रेलवे कारखाना, रायबरेली





**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/2019-20/1277

RLY	SWR	COACH NO	197782/C		DATE OF DISPATCH	18/12/2019
Type	LWS	Shell No.	96117	DISPATCH TO	Sr.DME/MYS	FUR.NO. DDG-244

**12. TRACEABILITY OF FURNISHING ITEMS:**

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO(NPP/PP)
1	Air Brake Module	M/S-ESCORT	2019030088
2	Distribution valve	M/S-ESCORT	1903A088
3	Pull box	M/S-FAIVELEY	
4	FIBA	M/S- ESCORT	18120375/18120378
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- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
9	Lavatory inlay	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
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- MAHAVEER MATEL WORKS, KAPURTHALA	
13	Gangway bridge mounting (NPPE)	M/S- MAHAVEER MATEL WORKS, KAPURTHALA	
14	Body Side Window	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
15	Emergency Window	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
16	Lavatory/hopper Window	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
17	Roof Ceiling	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
18	Door way /gang way ceiling	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
19	Body Side Doors	M/S- JBM INDUSTRIES, FARIDABAD	
20	Vestibule Door(PPE)	M/S- JBM INDUSTRIES, FARIDABAD	
21	Vestibule Door(NPPE)	M/S- JBM INDUSTRIES, FARIDABAD	
22	Bio Tank	M/S- JSL LIFE STYLE LTD. GURGAON	
23	Pressurised flushing (Elect pneumatic)	M/S-IMI	
24	Over head water tank (4x390L)	M/S- AMIT ENG.BADDI	
25	Bib cock/controlled discharge tap	M/s- JAQUAR PVT.LTD.ALWAR	
26	Lavatory Doors	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
27	Fire Extinguisher	M/s- A ONE SHAN IND MUMBAI	530,677
28	Water purified	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
29	Seat & Berth	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
30	Luggage Rack	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
31	Light Luggage Rack	NA	
32	RFID	N/A	

SSE/QC/MCF/RBL

वरि०अनु० अभियंता  
गुणवत्ता विभाग  
रे०डि०का०, रायबरेली (लालगंज)





**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/2019-20/1277

RLY	SWR	COACH NO	197782/C	DATE OF DISPATCH	18/12/2019
Type	LWS	Shell No.	96117	DISPATCH TO	Sr.DME/MYS
				FUR.NO.	DDG-244

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

वरि०अनु० अभियंता  
गुणवत्ता विभाग  
रे०डि०का०, रायबरेली (ललमंडी)

उप मुख्य गुणवत्ता प्रबंधक/रेल  
Senior Mechanical Engineer/Quality  
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						
SHELL/COACH NO		197782/C		TYPE COACH		LWS/DDG
RAILWAY		SWR	ELECT.FIT DATE	17-12-2019	FUR.NO	DDG-244
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

*[Signature]*

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





Modern Coach Factory Raebareilly  
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 2 OF 3

01.	Switch board cabinet Make : <b>HIND RECTIFIERS</b> On Board Sr no : <b>H.355.19.H.404</b> HT Panel Sr no : <b>H.355.19.F.0303</b>	EDTS 333, Rev`01`Am-1	<b>01</b>
02	Emergency light system for EOG type coaches (AEL), Make : <b>INTEG ELECT.</b>	EDTS 151,Rev -c Am-1 & 2	<b>04</b>
03.	Provision & Mounting of PACIL Assly. Make: <b>KAVERI</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>ORIENT</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>RT VISION</b>	As per RDSO/PE/SPEC/TL-0091(REV-1) TYPE B-1	<b>28</b>
08.	Provision & Mounting of Lavatory Light Make: <b>DR AUTO</b>	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-D & Drg no. LW 76092.	<b>04</b>

*(Signature)*

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





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 3 OF 3

09.	Battery fuse box +ve Make : <b>ISGPL</b>	LW 71001,Alt-F	<b>01</b>
10	Battery fuse box -ve Make : <b>ISGPL</b>	LW 71002,Alt-F	<b>01</b>
11.	Regulated battery charger Make : <b>WAVES</b> Sr no: <b>W4K5K 19984</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-2283</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>MAA LAXMI INDUSTRIES</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>ESCORT</b> Sr no : <b>190001-60527-0158</b>	M/s : <b>ESCORT</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>11/19</b>	RDSO/pe/spec/ac-0009 rev-1- 2008 amdt-1	<b>01 set</b>
18.	Battery box for LHB coaches. Make : <b>ANANYA</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  
अधिका/लातगंज/रायबरेली  
S.S.E./Elect-QC/M.C.F./LJ/RBL

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

