



# 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/2019-20/1365

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2019-20/1365							
RLY	SWR	COACH NO	199541/C				
Type	LWS	Shell No.	96163	DISPATCH TO	Sr.DME/MYS	DATE OF DISPATCH	31-12-2019
1.	Railway Board's Order No.			:	2019/M(C)/142/2,DATED-21.11.2019	FUR.NO.	DDG-278
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-BERGER
I	Fire Extinguishers	M/s-TAYAL & CO
J	Vestibule ends for inter-coach movement of passenger and the service staff (LWSCN type End wall)	M/s-SHAN IND MUMBAI
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-RAIL TECH KXH
		Part NPP END	M/S-RAIL TECH KXH
		Complete	M/S-RAIL TECH KXH
2	Lav. side wall	M/S-ATHANCY RBL	LAV.1
3	Side wall	M/S-ATHANCY RBL	LAV.2
		LH SIDE	LAV.3
		RH SIDE	LAV.4
4	End wall	MCFRBL-CONT.V4U	82
5	Roof	M/s-SIPL PALWAL	82
6	Centre Buffer Coupler	M/s-TI	81
		M/S- ESCORTS	PP END 2434 NPP END 2436

## 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>
2	Insensitivity	All Brake are applied	OK	OK
3	Sensitivity	Exhaust BP @ 0.3 kg/cm <sup>2</sup> /min.	No brake application	OK
		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	BERGER	M/S-BERGER	90/90	06-12-2019
2	Insulation					

Satisfactory

SSE/QC/MCF/RBL

परि ०८/०४/२०२० अभियंता  
गुणवत्ता विभाग  
रेल डिब्बा 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/2019-20/1365

RLY	S	W	R	Coach No.	1	9	9	5	4	1	/	C	-	DATE OF DISPATCH	3	1	1	2	2	0	1	9
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DISPATCH	Sr.DME/MYS	Type	L	W	S	C	Z	-	Shell No.	9	6	1	6	3	FUR.NO	DDG-278
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## 9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	192452				192451			
Bogie Type	FIAT				FIAT			
Frame no.	AML-199				AML-193			
Bolster no.	RBL/LS5-1183				RBL/LS5-922			
Axle No	19 S - 8750 RWF		19 S - 4603 RWF		19 S - 7773 RWF		19 S - 3829 RWF	
Wheel Dia	917.484	917.47	917.563	917.478	917.565	917.489	917.567	917.479
Wheel Disc No	TZ 08-19 75188-9sk0	TZ 08-19 74011-9SJ6	TZ 07-19 65570-9RN1	TZ 08-19 74903-9RL1	TZ 07-19 67244-9RP1	TZ 08-19 74190-9SR0	TZ 07-19 65569-9RN1	TZ 07-19 71576-9RR5
R.B. Nos.	08-19 29471	08-19 29511	08-19 29483	08-19 29001	08-19 29474	08-19 29486	08-19 28650	09-19 29455
CTRB 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.	TAYAL & CO. 19-10 4909	TAYAL & CO. 19-10 5010	TAYAL & CO. 19-10 4964	TAYAL & CO. 19-10 4889

## 11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	16657,16668	16647,16650
2.	Primary outer Spring	CMFSK	10-19-1100-078(398,236,231,234)	10-19-1100-078(390,384,326,324)
3.	Primary Inner Spring	CMSTL	05-19 F06-N91-06A(4002,3842,4122,4390)	05-19 F06-N91-06A(4120,1303,1227,3984)
4.	Primary Damper	KONIC	03-19 (05787,05047,05065,05355)	03-19 (05399,5366,5379,5881)
5.	Secondary Damper	IAI	09-19 (272993,272885)	09-19 (272955,272890)
6.	Lateral Damper	KONIC	04-19 01531	04-19 01615
7.	Brake Cylinder	ESCORT	48225,48390,48016,48282	48283,48017,50674,50142
B19-	Brake Caliper	ESCORT	27738,27841,27809,27867	27868,27810,29471,29038
9.	Brake Disc	FAV/KBI	10-19(3955,3954,3951,3950)	24200054 0073-37/19,2420054 0075-37/19 24200054 0076-37/19,24200054 0077-37/19
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	ARYAN		
15.	Ball joint traction centre	GMT		
16.	Leveling Valve	ESCORT	1906,1906	1906,1906
17.	Check Valve	ESCORT	1906	1906
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	EMSON /GMT		
20.	Fork make	RNG		
21.	Control Arm Upper	RVE	240919-2,280819-2,230919-1,230919-1	160919-2,230919-1,160919-1,240919-2
22.	Control Arm Lower	RVE	280919-2,270819-2,160819-2,160819-2	160819-2,160819-2,180819-2,230919-1
23.	Phonic Wheel	ESCORT	ESCORT	ESCORT

Signature of SSE/Bogie/QC





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		ROLLING STOCK CERTIFICATE (DEEN DAYALU) Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2019-20/1365			
RLY	SWR	COACH NO	199541/C	DATE OF DISPATCH	31-12-2019
Type	LWS	Shell No.	96163	DISPATCH TO	Sr.DME/MYS
				FUR.NO.	DDG-278
<b>12. TRACEABILITY OF FURNISHING ITEMS:</b>					
S NO	ITEM	MAKE/SUPPLIER	SERIAL NO(NPP/PP)		
1	Air Brake Module	M/S- KBI	4145 43/19		
2	Distribution valve	M/S- KBI	2019K9374		
3	Pull box	M/S- FAIVELY			
4	FIBA	M/S- KBI	7597/29,7548/29		
5	Foot Step	M/S SSPL MUMBAI			
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	M/S- HF GLASS WORKS VADODARA			
20	Vestibule Door(PPE)	M/S-KALSI LDH			
21	Vestibule Door(NPPE)	M/S-KALSI LDH			
22	Bio Tank 1,3	M/S- CEMCON			
	Bio Tank 2,4	M/S- UNIFAB			
23	Pressurized flushing(ele.pneu.)	N/A			
24	Over head water tank (4x390L)	M/S- AMITBADDI -02,AMIT MOHALI -02			
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-SHAN IND MUMBAI	346/657		
28	Water purified	M/S- HF GLASS WORKS VADODARA			
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			

SSE/QC/MCF/RBL  
 वरिष्ठ अनुष्ठानिक अभियंता  
 गुणवत्ता विभाग  
 रेडिओका, रायबरेली (लालगंज)





		<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/2019-20/1365			
RLY	SWR	COACH NO	199541/C	DATE OF DISPATCH	31-12-2019
Type	LWS	Shell No.	96163	DISPATCH TO	Sr.DME/MYS
				FUR.NO.	DDG-278
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. Chief Quality Manager	

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रेल डिब्बा कारखाना, रायबरेली (लागज)

आधुनिक रेल डिब्बा कारखाना, रायबरेली  
Modern Coach Factory Raebareli

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		199541/C		TYPE COACH	
RAILWAY		SWR		LWS/DDG	
ELECT.FIT DATE		29-12-2019		FUR.NO	
DDG-278					
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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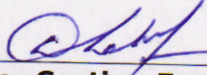
DATE: 18.01.2017

**FOR ELECTRICAL ITEMS**

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

PAGE 2 OF 3

01.	Switch board cabinet Make : <b>SIDWAL</b> On Board Sr no : <b>19M 004</b> HT Panel Sr no : <b>19M 017</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>DR AUTO</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>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>ISGPL</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>SIGNOTRON</b> Sr no: <b>12190814</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-2647</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</b> <b>set</b>
14.	Feeder junction boxes. Make : <b>MV ELECTRO</b>	EDTS-328 REV-C	<b>01</b> <b>set</b>
15.	Wheel set earthling equipment. Make : <b>DARSHAN ENTERPRISES</b>	EDTS101,REV-C,AM-1	<b>02</b> <b>sets</b>
16.	Wheel Slide Protection System (WSP) Make : <b>KNORR</b> Sr no : <b>0119312669</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  
आपरेटिंग/लालगंज/रायबरेली  
SSE/Elect/QC/M.C.F./LJ/RBL

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