



Modern Coach Factory Raebareilly 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/2019-20/1266						
RLY	SWR	COACH NO	197781/C	DATE OF DISPATCH	17/12/2019	
Type	LWS	Shell No.	96119	DISPATCH TO	Sr.DME/MYS	
				FUR.NO.	DDG-241	
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- 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-TAYAL & CO	
I	Fire Extinguishers				M/s-SHAN INDUSTRIES	
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 1105, 1101	
6. TRACEABILITY OF SHELL ITEMS:						
S NO	ITEM	MAKE/SUPPLIER	SERIAL NO			
1	Under frame	Front PP END	M/S RAIL TECH KXH	2		
		Part NPP END	M/S RAIL TECH KXH	2		
		Complete	M/S RAIL TECH KXH	2		
2	Lav. side wall	M/S- ATHANACY RBL	LAV.1	LAV.2		
		M/S- ATHANACY RBL	LAV.3	LAV.4		
3	LH SIDE	MCF/RBL(CONTRACTOR V4U)	12/01			
	RH SIDE	MCF/RBL(CONTRACTOR V4U)	12/02			
4	PP END	M/s-P.D.STEEL PANCHKULA				
	NPP END	M/s-P.D.STEEL PANCHKULA				
5	Roof	M/S-TI	47			
6	Centre Buffer Coupler	M/S- SANROK ENT	PP END	14605	NPP END 14583	
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	K.NEROLAC	M/S-KANSAL NEROLAC	79/89	11/11/2019
2	Insulation			Satisfactory		

Paresh Kumar  
SSE/QC/MCF/RBL

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गुणवत्ता विभाग  
रे०डि०का०, 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/2019-20/1266

RLY	S	W	R	Coach No.	1	9	7	7	8	1	/	C	-	DATE OF DISPATCH	1	7	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	1	9	FUR .NO	DDG-241
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## 9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	192380				192379			
Bogie Type	FIAT				FIAT			
Frame no.	AML-165				MCF/RBL-747			
Bolster no.	SCI-395				SCI-380			
Axle No	19 N - 5128 RWF		19 L - 5408 RWF		19 S - 3671 RWF		19 P - 2803 RWF	
Wheel Dia	917.465	917.507	917.509	917.42	917.44	917.521	917.444	917.455
Wheel Disc No	TZ 08-19 73359-9RR6	TZ 07-19 70577-9RN6	TZ 08-19 74761-9RR6	TZ 07-19 66058-9RR0	TZ 08-19 74162-9SL6	TZ 08-19 74238-9SJ6	TZ 07-19 70524-9RN6	TZ 08-19 75216-9SK6
R.B. Nos.	09-19 38072	08-19 26227	09-19 38934	09-19 38983	09-19 19376	09-19 38744	09-19 38265	09-19 26525
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.	TAYAL & CO. 19-07 2459	TAYAL & CO. 19-07-2384	TAYAL & CO. 19-07 2408	TAYAL & CO. 19-07-2407

## 11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	16099,16113	16096,16108
2.	Primary outer Spring	CMFSK	10-19-1100-114(408,346,461,356)	10-19-1100-114(403,398,350,279)
3.	Primary Inner Spring	CMFSK	10-19 1101-101(252,232,79,274)	10-19 1101-101(13,262,33,249)
4.	Primary Damper	KONIC	03-19 (06512,07922,05952,06387)	03-19 (07921,06693,06452,06704)
5.	Secondary Damper	GB/IAI	07-19 (01332,01377)	09-19 (272780,272785)
6.	Lateral Damper	KONIC	04-19 02006	04-19 02083
7.	Brake Cylinder	FAV	K(510,448,452,486)	K(053,0132,152,052)
B19-	Brake Caliper	FAV	L(745,447,742,744)-B	L(553,551,550,552)-B
9.	Brake Disc	KBI	24203749 0040-41/19,24203749 0052-41/19 24203755 0001-42/19,24203751 0030-42/19	24203749 0049-41/19,24203749 0048-41/19 24203751 0031-42/19,24203749 0048-41/19
10.	Ball Joint Control Arm	ARYAN		
11.	Lateral Bump Stop	ARYAN		
12.	Traction Centre make	SARITA		
13.	Traction lever make	TAJ		
14.	Ball joint traction lever	ARYAN		
15.	Ball joint traction centre	ARYAN		
16.	Leveling Valve	KNORR	19B-6561,19B-6120	16-19 B-6515,16-19 B-6319
17.	Check Valve	KNORR	20146	20269
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA/ARYAN		
20.	Fork make	RNG/ SARITA		
21.	Control Arm Upper	RVE	270819-2,280819-3,280819-2,270819-3	290819-3,240819-2,240819-3,270819-2
22.	Control Arm Lower	RVE	280819-2,230819-3,230819-2,240819-3	270819-*2,290819-3,240819-3,270819-3
23.	Phonic Wheel	KBI	05-19	09-19

Signature of SSE/Bogie/QC

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Type	LWS	Shell No.	96119	DISPATCH TO	Sr.DME/MYS
				FUR.NO.	DDG-241
<b>12. TRACEABILITY OF FURNISHING ITEMS:</b>					
S NO	ITEM		MAKE/SUPPLIER		SERIAL NO(NPP/PP)
1	Air Brake Module		M/S-FAIVELEY		L19096B
2	Distribution valve		M/S-FAIVELEY		19105619B
3	Pull box		M/S- KBI, FARIDABAD		
4	FIBA		M/S- KBI, FARIDABAD		10306/29,10437/29
5	Foot Step		M/S SSPL FARIDABAD		
6	Decoupling arrangement		M/S- KOHINOOR MUMBAI		
7	Floor board		M/S-TWPL 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-ELASTOMER LINING WORKS, MUMBAI		
11	UIC Vestibule (NPPE)		M/S-ELASTOMER LINING WORKS, MUMBAI		
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- SUKATA CHANDIGARH		
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(3NO)AMIT ENG.MOHALI (1NO)		
25	Bib cock/controlled discharge tap		M/s- JAQUAR PVT.LTD.ALWAR		
26	Lavatory Doors (DGFRP)		M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA		
27	Fire Extinguisher		M/s-SHAN INDUSTRIES		636,646
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		M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA		
32	RFID		N/A		

*Paimal Kumar*  
SSE/QC/MCF/RBL

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सूचना विभाग  
रेलवे, रायबरेली (लालगंज)







**Modern Coach Factory Raebareilly**  
**आधुनिक रेल डिब्बा कारखाना, रायबरेली**

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Type	LWS	Shell No.	96119	DISPATCH TO	Sr.DME/MYS
				FUR.NO.	DDG-241

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.

<i>Paival Kumar</i>	<i>[Signature]</i>	<i>[Signature]</i>
SSE/QC/MCF/RBL	SME/AME/QC/MCF/RBL	Dy.CQM/MCF/RBL

**वरिष्ठ अनु अभियंता**  
**गुणवत्ता विभाग**  
**मोडर्न रेल डिब्बा कारखाना, रायबरेली**


Modern Coach Factory Raebareilly

Modern Coach Factory, Raebareilly







	Modern Coach Factory Raebareli	DOC NO.: MCF/RBL/QEF/8001
	आधुनिक रेल डिब्बा कारखाना, रायबरेली	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		197781/C		TYPE COACH	
RAILWAY		SWR	ELECT.FIT DATE	16-12-2019	FUR.NO
				LWS/DDG	
				DDG-241	
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  
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 2 OF 3

01.	Switch board cabinet Make : <b>HIND RECTIFIERS</b> On Board Sr no : <b>H.355.19.H.365</b> HT Panel Sr no : <b>H.355.19.H.339</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>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>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>ENSAVE</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 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>ISGPL</b>	LW 71002,Alt-F	<b>01</b>
11.	Regulated battery charger Make : <b>WAVES</b> Sr no: <b>W4K5G 19276</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-2631</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>AECO</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>FAIVELEY</b> Sr no : <b>I 0673</b>	M/s : <b>FAIVELEY</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> 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
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