



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/2019-20/1668

RLY	SWR	COACH NO	201641/C	DISPATCH TO	Sr.DME/MYS	DATE OF DISPATCH	20-Feb-20
Type	LWS	Shell No.	96210			FUR.NO.	DDG-331

1. Railway Board's Order No. : 2019/M(C)/142/2, DATED-03-06-2019
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 WORKS VADODRA
B	Honey comb partition frame.	M/S-H.F GLASS WORKS VADODRA
C	DGFRP/GFRE paneling.	M/S-H.F GLASS WORKS VADODRA
D	Lavatory with DGFRP/GFRE paneling.	M/S-H.F GLASS WORKS VADODRA
E	Additional Hand hold.	M/S-H.F GLASS WORKS VADODRA
F	Counter top wash basin.	M/S-H.F GLASS WORKS VADODRA
G	Gel coating & Anti Graffiti measures.	M/S-VIBGYOR
H	Air spring in secondary suspension (capacity-140KN).	M/S-AVADH RAIL INFRA
I	Fire Extinguishers	M/s-DEVIKA SAFTEY 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 1105/1098

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1	Under frame	Front PP END	M/S-RAIL TECH 29
		Part NPP END	M/S-RAIL TECH 29
		Complete	M/S-RAIL TECH 29
2	Lav. side wall	M/S-MIDAS GUJRAT	LAV.1 LAV.2
		M/S-MIDAS GUJRAT	LAV.3 LAV.4
3	Side wall	LH SIDE	M/S-KIPL HYDRABAD 01
		RH SIDE	M/S-KIPL HYDRABAD 01
4	End wall	PP END	M/S-OMAX REWARI
		NPP END	M/S-OMAX REWARI
5	Roof	MCF/CONT	36
6	Centre Buffer Coupler	M/S-ESCORT LTD	PP END 9172 NPP END 3065

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	VIBGYOR	M/S-VIBGYOR	75/88	23-01-2020
2	Insulation			Satisfactory		

Deema
SSE/QC/MCF/RBL
वरिष्ठ जंजु अभियंता

गुणवत्ता विभाग
रेडिओका, 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/2019-20/1668

RLY	S	W	R	Coach No.	2	0	1	6	4	1	/	C	-	DATE OF DISPATCH	2	0	0	2	2	0	2	0
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DISPATCH	Sr.DME/MYS	Type	L	W	S	-	Shell No.	9	6	2	1	0	FUR .NO	DDG-331
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9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	193306				193305			
Bogie Type	FIAT				FIAT			
Frame no.	MIPL-282				MIPL-297			
Bolster no.	MCF/RBL-1269				MCF/RBL-2004			
Axle No	19 T - 7073 RWF		19 T- 6981 RWF		19 T-6963 RWF		19 T- 6948 RWF	
Wheel Dia	917.264	917.262	917.234	917.354	917.353	917.36	917.305	917.317
Wheel Disc No	TZ 06-19 53431-9QI5	TZ 06-19 53429-9QI5	TZ 06-19 53432-9QI5	TZ 05-19 49705-9RI1	TZ 05-19 44194-9PH2	TZ 07-19 67665-9RP7	TZ 03-19 32519-9OF2	TZ 07-19 67671-9RM6
R.B. Nos.	11-19 40626	11-19 42712	11-19 42810	11-19 43434	11-19 42703	11-19 43227	11-19 40634	11-19 43298
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.	AWADH RAIL INDRA LTD SR.NO- 12-19 6488	AWADH RAIL INDRA LTD SR.NO- 12-19 6467	AWADH RAIL INDRA LTD SR.NO- 12-19 6457	AWADH RAIL INDRA LTD SR.NO- 12-19 6485

11. TRACEABILITY 9OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	IAI	279740,279604	280257,279742
2.	Primary outer Spring	CMFSK	11-19 1100-115(1331,1833,1756,1857)	11-19 1100-115(1775,1812,1737,1791)
3.	Primary Inner Spring	CMFSK	11-19 1101-103(1994,1947,1983,1992)	11-19 1101-103(1918,1913,1975,1987)
4.	Primary Damper	IAI	10-19 (277352,277251,277327,277368)	09-19 (273856,274101,274217,274106)
5.	Secondary Damper	IAI	09-19(274618,274484))	09-19 (274607,274635)
6.	Lateral Damper	IAI	09-19-274727	09-19-274755
7.	Brake Cylinder	KBI	(C1131,B9880,B9969,C1109)K-29	(B0927,B9744,B9798,C0932)K-29
8.	Brake Caliper	KBI	(B7839,B7914,B7806,B7886)29	(B7616,B7696,B7694,B7614)29
9.	Brake Disc	KBI	24206705-0043-48-19,24206715-0054-48-19,24206718-0026-48-19,24206715-0075-48-19	24206715(0078,0068)48-19,24206695(0043,0042)45-19
10.	Ball Joint Control Arm	GMT		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	SARITA		
13.	Traction lever make	TAJ		
14.	Ball joint traction lever	GMT		
15.	Ball joint traction centre	GMT		
16.	Leveling Valve	KNORR	16-19-B 7545,16-19 B730	16-19-B 7501,16-19 B7679
17.	Check Valve	KNORR	07-2019 20319	07-2019 20307
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	EMSON /GMT		
20.	Fork make	EMSON		
21.	Control Arm Upper	RVE	121019-1,170119-3,151019-2,171019-3	121013-1,161019-1,121019-1,121019-1
22.	Control Arm Lower	RVE	171019-3,171019-3,091019-1,091019-1	091019-1,091019-1,171019-1,101019-1
23.	Phonic Wheel	KNORR	K-10-19	K-10-19

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	4344-49/19
3	Pull box	M/S- KBI	2019L9626
4	FIBA	M/S- KBI	
5	Foot Step	M/S-SSPL FARIDABAD	7156/29,7180/29
6	Decoupling arrangement	M/S-KOHINOOR MUMBAI	
7	Floor board	M/S-OVPL MUMBAI	
8	PVC	M/S-H.F GLASS WORKS VADODRA	
9	Lavatory inlay	M/S-H.F GLASS WORKS VADODRA	
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-H.F GLASS WORKS VADODRA	
15	Emergency Window	M/S-H.F GLASS WORKS VADODRA	
16	Lavatory/hopper Window	M/S-H.F GLASS WORKS VADODRA	
17	Roof Ceiling	M/S-H.F GLASS WORKS VADODRA	
18	Door way /gang way ceiling	M/S-H.F GLASS WORKS VADODRA	
19	Body Side Doors	M/S-H.F GLASS WORKS VADODRA	
20	Vestibule Door(PPE)	M/S-JBM FARIDABAD	
21	Vestibule Door(NPPE)	M/S-JBM FARIDABAD	
22	Bio Tank	M/S- JSL LIFE STYLE LTD.	
23	Pressurized flushing(ele.pneu.)	M/S-IMI	
24	Over head water tank (4x390L)	M/S-AMIT ENG. MOHALI	
25	Bib cock/controlled discharge tap	M/s-JAQUAR PVT LTD ALWAR	
26	Lavatory Doors	M/S-H.F GLASS WORKS VADODRA	
27	Fire Extinguisher	M/s-DEVIKA SAFTEY NDLS	
28	Water purified	M/S-H.F GLASS WORKS VADODRA	5389/5500
30	Seat & Berth	M/S-H.F GLASS WORKS VADODRA	
31	Luggage Rack	M/S-H.F GLASS WORKS VADODRA	
32	Light Luggage Rack	N/A	
33	RFID	N/A	

Deema
SSE/QC/MCF/RBL
वरि०अनु० अभियंता

गुणवत्ता विभाग
रे०डि०का०, रायबरेली (नालगंज)



Modern Coach Factory Raebareli
आधुनिक रेल डिब्बा कारखाना, रायबरेली

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						FUR.NO.	DDG-331

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:

- This warranty covers free supply of parts which wear out and fails within warranty period of normal service.
- This doesn't covers faults arising out of accident, non standard maintenance practices, abnormal use or mishandling, vandal activity, arson & deficient/pilferage etc.
- 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.
- Whether a defective part is to be replaced or repaired shall be at the discretion of MCF/RBL.
- For any complain/ suggestion please Mail at qualityrcfrbl@gmail.com
- 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 वरिष्ठ अभियंता	SME/AME/QC/MCF/RBL	Dy.CQM/MCF/RBL

गुणवत्ता विभाग
रेडि0का0, रायबरेली (लालगंज)

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

सुधीर कुमार
Sudhir Kumar
वरिष्ठ रसायनज्ञ एवं धातुविद
Dy. Chief Chemist & Metallurgist
आधुनिक रेल डिब्बा कारखाना, रायबरेली
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 1 OF 3

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG/HOG NON AC GS COACHES					
SHELL/COACH NO		201641/C		TYPE COACH	
RAILWAY	SWR	ELECT.FIT DATE	19-02-2020	FUR.NO	LWS/DDG
Sr no	Description of test	DDG-331			
					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 : SSK On Board Sr no : 2019/07/230 HT Panel Sr no : 2019/07/191	EDTS 333, Rev`01`Am-1	01
02	Emergency light system for EOG type coaches (AEL), Make : DR AUTO	EDTS 151,Rev -c Am-1 & 2	04
03.	Provision & Mounting of PACIL Assly. Make: RT VISION	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 : VENTWELL	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: ENSAVE	As per RDSO/PE/SPEC/TL/0091 -2016,REV-01, TYPE-D & Drg no. LW 76092.	04

(Signature)

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 : 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: W4K5A 201361	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	01
12.	9KVA transformer Make : VIMAL Sr no : VTC 3089 LHB-2921	As per RDSO/PE/SPEC/TL 0158,2010, Rev`0', TypeI.	01
13.	ZS coupling 400A/750V/03Ph/50hz. Make : PRIME ELECT.	As per spec No EDTS 105,Rev`e` Am-3 TYPE-2	01 set
14.	Feeder junction boxes. Make : SIDWAL	EDTS-328 REV-C	01 set
15.	Wheel set earthing equipment. Make : PRIME ELECT.	EDTS101,REV-C,AM-1	02 sets
16.	Wheel Slide Protection System (WSP) Make : KNORR Sr no : 0119423035	M/s : KNORR	01 set
17.	110V,120AH,VRLA SMF BATTERY SET WITH 19 MONOBLOCK (6V EACH) PRECHARGED,WIH MODIFIED TRAY TOSKED-644 Make : AMARA RAJA Lug date : 01/20	RDSO/pe/spec/ac-0009 rev-1- 2008 amdt-1	01 set
18.	Battery box for LHB coaches. Make : TECHNO	CC 91205	01

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

गुणवत्ता नियंत्रण
आ0रे0डि0का0 / लालगंज / रायबरेली
S.S.E/Elect-QC/M.C.F./LLJ/RBL

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



MCF/RBL