	Modern Coach Factory Raebareli **आधुनिक रेल डिब्बा कारख़ाना, 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/**1390**

RLY	SWR	**COACH NO**	**201007/C**			**DATE OF DISPATCH**	31-12-2019
Type	LWS	**Shell No.**	96058	**DISPATCH TO**	Sr.DME/MYS	**FUR.NO.**	DDG-180

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- 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-VIBGYOR
H	Air spring in secondary suspension (capacity-140KN).	M/s-TAYAL &CO
I	Fire Extinguishers	M/s-SHAN IND 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	

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	1095/1101

6. TRACEABILITY OF SHELL ITEMS:

S NO		ITEM		MAKE/SUPPLIER	SERIAL NO			
1	Under frame	Front Part	PP END	M/S-SFPL	16			
			NPP END	M/S-SFPL	16			
		Complete		M/S-SFPL	16			
2	Lav. side wall			M/S-ATHANCY RBL	LAV.1		LAV.2	
				M/S-ATHANCY RBL	LAV.3		LAV.4	
3	Side wall	LH SIDE		MCFRBL CONT.V4U	42			
		RH SIDE		MCFRBL CONT.V4U	42			
4	End wall	PP END		M/s-RSM MOHALI				
		NPP END		M/s-RSM MOHALI				
5	Roof			M/s-UNIVERSAL	43			
6	Centre Buffer Coupler			M/S- ESCORTS	PP END	9940	NPP END	9936

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.	08sec
		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	77/88	28-07-2019
2	Insulation	Satisfactory				

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/2019-20/1390

RLY	S	W	R	Coach No.	2	0	1	0	0	7	/	C	-	DATE OF DISPATCH	3	1	1	2	2	0	1	9

DISPATCH	Sr.DME/MYS	Type	L	W	S			-	Shell No.	9	6	0	5	8	FUR .NO	DDG-180

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	192516				192515			
Bogie Type	FIAT				FIAT			
Frame no.	Rbl/ls5-603				RBL/LS5-778			
Bolster no.	SECPL-459				SECPL -442			
Axle No	19 N– 8805 RWF		19 L - 5259 RWF		19 L – 5052 RWF		19 L - 5120 RWF	
Wheel Dia	917.396	917.442	917.427	917.509	917.506	917.482	917.497	917.458
Wheel Disc No	TZ 07-19 62068-9RL0	TZ 06-19 61377-9QL6	TZ 07-19 65820-9RL9	TZ 07-19 65698-9RL9	TZ 06-19 61381-9QL6	TZ 06-19 61380-9QL6	TZ 08-19 74119-9SK6	TZ 08-19 74114-9SL1
R.B. Nos.	08-19 29835	08-19 28917	08-19 28785	08-19 29991	09-19 36766	10-19 39290	9-19 36797	08-19 36623
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. 07-19 2444	TAYAL. & CO. 07-19 2534	TAYAL.&CO. 07-19 -2330	TAYAL. & CO. 07-19 2414

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	18426,18136	18439,18425
2.	Primary outer Spring	CMFSK	10-19-1100 114(2226,1890,2250,2245)	10-19-1100-114(2234,2298,1891,1898)
3.	Primary Inner Spring	CMFSK	10-18 1101-103(1955,2017,1342,1981)	10-18 1101-101(2331,2006,2020,2014)
4.	Primary Damper	KONIC	03-19 (01226,05134,05539,05755)	03-19 (05525,05756,05941,05397,)
5.	Secondary Damper	IAI	10-19 (272896,273087)	10-19 (272730,272846)
6.	Lateral Damper	KONI	05-19 02519	04-19,02557
7.	Brake Cylinder	ESCORT	48228,49049,49047,48230	48937,48297,48296,48940
B19-	Brake Caliper	ESCORT	27681,28387,28385,27683	28285,27568,27569,28288
9.	Brake Disc	KBI	24200033 0001-36/19,24200026 0080-36/19 24198280 0072-36/19,24198280 0071-36/19	24200051 0042-36/19,24200051 0032-36/19 24200031 0054-36/19,24200033 0046-36/19
10.	Ball Joint Control Arm	ARYAN		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	(SF)SARITA		
13.	Traction lever make	TAJ		
14.	Ball joint traction lever	SGA		
15.	Ball joint traction centre	GMT		
16.	Leveling Valve	ESCORT	1903,1906	1906,1906
17.	Check Valve	ESCORT	1906	1906
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA /GMT		
20.	Fork make	RNG		
21.	Control Arm Upper	SF	6,1,SF,9	882,383,2,1
22.	Control Arm Lower	RVE/PACL	240819-3,90819-3,130819-3,PACL-1151	130819-2,130819-3,130819-3,130819-3
23.	Phonic Wheel	ESCORT	ESCORT	ESCORT

Signature of SSE/Bogie/QC

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	Modern Coach Factory Raebareli आधुनिक रेल डिब्बा कारख़ाना, 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/**1390**

RLY	SWR	**COACH NO**	**201007/C**			**DATE OF DISPATCH**	31-12-2019
Type	LWS	**Shell No.**	96058	**DISPATCH TO**	Sr.DME/MYS	**FUR.NO.**	DDG-180

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO(NPP/PP)
1	Air Brake Module	M/S- ESCORTS	2019050179
2	Distribution valve	M/S- ESCORTS	1905A179
3	Pull box	M/S- KBI	
4	FIBA	M/S- KBI	9277/29,9222/29
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-ELASTOMER MUMBAI	
11	UIC Vestibule (NPPE)	M/S-ELASTOMER MUMBAI	
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-GOLD PLUS CDG	
20	Vestibule Door(PPE)	M/S-JBM FARIDABAD	
21	Vestibule Door(NPPE)	M/S-JBM FARIDABAD	
22	Bio Tank	M/S-JSL LIFESTYLE GURGAON	
23	Pressurized flushing(ele.pneu.)	M/S-SRI PRAYAG AIR CONTROL NOIDA	
24	Over head water tank (4x390L)	M/S- AMIT MOHALI 01,AMIT BADDI -03	
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 INDS MUMBAI	612/540
28	Water purified	N/A	
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

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	Modern Coach Factory Raebareli आधुनिक रेल डिब्बा कारख़ाना, 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/**1390**

RLY	SWR	**COACH NO**	**201007/C**			**DATE OF DISPATCH**	31-12-2019
Type	LWS	**Shell No.**	96058	**DISPATCH TO**	Sr.DME/MYS	**FUR.NO.**	DDG-180

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 caseextend 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 60º)	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**

सहायक यांत्रिक अभियन्ता/गुणवत्ता-1
Assistant Mechanical Engineer / Quality-1
आधुनिक रेल डिब्बा कारखाना, रायबरेली
Modern Coach Factory, Raebareli

उप मुख्य गुणवत्ता प्रबन्धक/शेल
Dy. Chief Quality Manager/Shell
आधुनिक रेल डिब्बा कारखाना, रायबरेली
Modern Coach Factory, Raebareli

वरि०अनु० अभियंता
गुणवत्ता विभाग
रे०डि०का०, रायबरेली (लालगंज)

Modern Coach Factory Raebareli आधुनिक रेल डिब्बा कारख़ाना, 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

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG/HOG NON AC GS COACHES

SHELL/COACH NO	**201007/C**		**TYPE COACH**		**LWS/DDG**
RAILWAY	**SWR**	**ELECT.FIT DATE**	**03-01-2020**	**FUR.NO**	**DDG-180**

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

FOR ELECTRICAL ITEMS

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

01.	Switch board cabinet Make : **TRINITRON** On Board Sr no : **19/12/TCS/MCF/3451/355/0063** HT Panel Sr no : **19/12/TCS/MCF/3451/355/0063**	EDTS 333, Rev`01'Am-1	**01**
02	Emergency light system for EOG type coaches (AEL), Make : **INTEG ELECT.**	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 : **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**

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Quality control / Electrical
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FOR ELECTRICAL ITEMS

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

09.	Battery fuse box +ve Make : **SSK**	LW 71001,Alt-F	**01**
10	Battery fuse box –ve Make : **ISGPL**	LW 71002,Alt-F	**01**
11.	Regulated battery charger Make : **SIGNOTRON** Sr no: **12190820**	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	**01**
12.	9KVA transformer Make :**VIMAL** Sr no :**VTC 3089 LHB-2709**	As per RDSO/PE/SPEC/TL 0158,2010, Rev`0', TypeI.	**01**
13.	ZS coupling 400A/750V/03Ph/50hz. Make : **MAA LAXMI INDUSTRIES**	As per spec No EDTS 105,Rev`e' Am-3 TYPE-2	**01 set**
14.	Feeder junction boxes. Make : **AECO**	EDTS-328 REV-C	**01 set**
15.	Wheel set earthling equipment. Make : **PRIME ELECT.**	EDTS101,REV-C,AM-1	**02 sets**
16.	Wheel Slide Protection System (WSP) Make : **ESCORTS** Sr no : **180370-59826-0058**	M/s : **ESCORTS**	**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 : **12/19**	RDSO/pe/spec/ac-0009 rev-1-2008 amdt-1	**01 set**
18.	Battery box for LHB coaches. Make : **HITECH**	CC 91205	**01**

SSE/EL/QC वरिष्ठ अनुभाग अभियन्ता गुणवत्ता नियंत्रण आ०रे०डि०का० / लालगंज / रायबरेली S.S.E./Elect-QC/M.C.F./LLJ/RBL	**AWM(ELECT.)/MCF/RBL** **SEE(P)/MCF/RBL** स० कार्य प्रबन्धक / विद्युत आ०रे०डि०का० / रायबरेली A.W.M./Electrical/MCF/RBL