



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/2020-21/492

RLY	WR	COACH NO	204829/C	DATE OF DISPATCH	18-Sep-20
Type	LWS	Shell No.	20F026	DISPATCH TO	SSE/C&W/INDB/WD
				FUR.NO.	DDG-520

- Railway Board's Order No. : 2020/M(C)/142/2, DATED-11.06.2020
- TARE WEIGHT OF COACH : 40.66 Tonnes
- Carrying Capacity : (a) Seating: 100 (c) Luggage: NIL
- Special feature:

S NO	DESCRIPTION	MAKE/SUPPLIER
A	Cushion transverse side luggage rack which can serve as seat during rush	M/S-H.F.G.W VADODARA
B	Honey comb partition frame.	M/S-H.F.G.W VADODARA
C	DGFRP/GFRE paneling.	M/S-H.F.G.W VADODARA
D	Lavatory with DGFRP/GFRE paneling.	M/S-H.F.G.W VADODARA
E	Additional Hand hold.	M/S-H.F.G.W VADODARA
F	Counter top wash basin.	M/S-H.F.G.W VADODARA
G	Gel coating & Anti Graffiti measures.	M/S-GSI
H	Air spring in secondary suspension (capacity-140KN).	M/S-RESISTOFLEX LTD
I	Fire Extinguishers	M/S-SHAAN MUMBAI/DEVIKA FIRE
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 1105/1105

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1	Under frame	Front PP END	M/S-OMAX AUTO 75
		Part NPP END	M/S-OMAX AUTO 75
		Complete	M/S-OMAX AUTO 75
2	Lav. side wall	M/S-ATHANCY ALD	LAV.1
		M/S-ATHANCY ALD	LAV.2
3	Side wall	LH SIDE	M/S-INDIRA CHENNAI 50
		RH SIDE	M/S-INDIRA CHENNAI 50
4	End wall	PP END	M/S-P.D.STEEL
		NPP END	M/S-P.D.STEEL
5	Roof	MCFRBL-CONT.	22
6	Centre Buffer Coupler	M/S-ESCORTS	PP END 4063 NPP END 4037

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	GSI	M/S-GSI WOW (S&A)	97/95	13-Aug-20
2	Insulation			Satisfactory		

Rama
SSE/QC/MCF/RBL

वरिष्ठ निरीक्षक
गुणवत्ता विभाग
रेलवे कारखाना, रायबरेली (नालगंज)



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/2020-21/492

RLY	W	R	-	-	Coach No.	2	0	4	8	2	9	/	C	-	DATE OF DISPATCH	1	8	0	9	2	0	2	0
DISPATCH	SSE/C&W/INDB/WD				Type	L	W	S					Shell No.	2	0	F	0	2	6	FUR .NO	DDG-520		

9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	200895				200896			
Bogie Type	FIAT				FIAT			
Frame no.	Mcf/rbl- 2051				ECBT-811			
Bolster no.	AMIT ENGG.-459				AMIT ENGG.-456			
Axle No	20 Y - 7916 RWF		20 Y- 5841 RWF		20 Y- 8297 RWF		20 W- 0267 RWF	
Wheel Dia	917.60	917.55	917.56	917.51	917.51	917.48	917.50	917.45
Wheel Disc No	TZ 12-19 91393-9WG3	TZ 11-19 84823-9VC7	TZ 06-19 57322-9QV6	TZ 11-19 77123-9VE6	TZ 11-19 84370-9WH6	TZ 07-19 52586-9RN0	TZ 06-19 59323-9QK8	TZ 11-19 85817-9WH0
R.B. Nos.	12-19 40637	12-19 45209	12-19 40633	12-19 45102	12-19 39665	12-19 36577	12-19 39183	12-19 36554
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.	RESISTRO FLEX DYNAMICS PVT.LTD 03-20 13920	RESISTRO FLEX DYNAMICS PVT.LTD 03-20 13962	RESISTRO FLEX DYNAMICS PVT.LTD 03-20 13961	RESISTRO FLEX DYNAMICS PVT.LTD 03-20 13913

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	IAI	294955,294752	294703,294841
2.	Primary outer Spring	CMAFI	06-20 1100-(90,174,52,89)	05-20 1100-(300,28,40,59)
3.	Primary Inner Spring	CMAFI	06-20 1101--(285,279,281,282)	06-20 1101--(227,229,228,226)
4.	Primary Damper	GABRIEL	01-20 (14942,14929,14967,14930)	01-20 (14931,14938,14935,14945)
5.	Secondary Damper	IAI	01-20 (302818,302597)	01-20 (30272,302463)
6.	Lateral Damper	GB EQUIPMENT	05-20 01993	05-20 01925
7.	Brake Cylinder	KNORR	C-(08060,6694,6603,8006)K29	C-(8005,6700,6607,7985)K29
8.	Brake Caliper	KNORR	C-(4027,4086,4088,3950)-29	C-(3948,4087,4085,3949)-29
9.	Brake Disc	KBI	24226791 0077-01/02,24229057 0033-28/20 24229057 0032-28/20,24229058 0049-28/20	24229053 0050-28/20,24229053 0049-28/20 24229053 0057-28/20,24229053 0058-28/20
10.	Ball Joint Control Arm	GMT/AR		
11.	Lateral Bump Stop	ARYAN		
12.	Traction Centre make	SF(SARITA)		
13.	Traction lever make	JI		
14.	Ball joint traction lever	GMT		
15.	Ball joint traction centre	GMT		
16.	Leveling Valve	ESCORT	06-20,06-20	06-20,06-20
17.	Check Valve	ESCORT	06-20	06-20
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA+GMT		
20.	Fork make	RNG		
21.	Control Arm Upper	KUMAR	D2551,D3813,N3831,D3851	N3842,N2805,N5507,N2824
22.	Control Arm Lower	KUMAR	N1595,D3813,N3831,D3851	D3817,D3890,D3900,D3809
23.	Phonic Wheel	KBI	K-07-20	K-07-20

Signature of SSE/Bogie/QC



MCF/RBL



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Type	LWS	Shell No.	20F026	FUR.NO.	DDG-520

12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO(NPP/PP)
1	Air Brake Module	M/S- KBI	5591 23/20
2	Distribution valve	M/S- KBI	2020E11327
3	Pull box	M/S- KBI	
4	FIBA	M/S- KBI	9095/29,9208/29
5	Foot Step	M/S- FABRICON KOLKATA	
6	Decoupling arrangement	M/S-ELASTOMER MUMBAI	
7	Floor board	M/S-GREEN PLY LKO	
8	PVC	M/S-H.F.G.W VADODARA	
9	Lavatory inlay	M/S-H.F.G.W 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-H.F.G.W VADODARA	
15	Emergency Window	M/S-H.F.G.W VADODARA	
16	Lavatory/hopper Window	M/S-H.F.G.W VADODARA	
17	Roof Ceiling	M/S-H.F.G.W VADODARA	
18	Door way /gang way ceiling	M/S-H.F.G.W VADODARA	
19	Body Side Doors 2,3,4,5	M/S-JVR LDH	
	Body Side Doors 1,6	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-OMAX AUTO	
23	Pressurized flushing(ele.pneu.)	M/S-SPAC	
24	Over head water tank (4x390L)	M/S-RAIL FAB KXH	
25	Bib cock/controlled discharge tap	M/s-JAQUAR ALWAR	
26	Lavatory Doors	M/S-H.F.G.W VADODARA	
27	Fire Extinguisher	M/S-SHAAN MUBAI/DEVIKA FIRE	161/4874
28	Water purified (02 nos)	M/S-H.F.G.W VADODARA	
29	Seat & Berth	M/S-H.F.G.W VADODARA	
30	Luggage Rack	M/S-H.F.G.W VADODARA	
31	Light Luggage Rack	NIL	
32	Ventury grill	M/S-H.F.G.W VADODARA	
33	RFID	NIL	

Deena
17/11/2020
SSE/QC/MCF/RBL
मुख्यता विभाग
रेडिओका, रायबरेली (लालगंज)



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Type	LWS	Shell No.	20F026	DISPATCH TO	SSE/C&W/INDB/WD
				FUR.NO.	DDG-520

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:

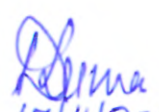


S NO	COMPONENTS	WARRANTY
1	Brake Pad, wheels, flushing valves, push gravity cocks, moldings, window glasses, mirrors, curtain clutch wire etc. (items which are consumable in nature)	NIL
2	Other coach furnishing sub assemblies(bought out items)	24 months from the date of dispatch of coach OR 30months 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.

 17/11/2020	 16/11	
SSE/QC/MCF/RBL	SME/AME/QC/MCF/RBL	Dy.QCM/MCF/RBL

17/11/2020
गुणवत्ता विभाग
आधुनिक रेल डिब्बा कारखाना, रायबरेली

Assistant Mechanical Engineer / Quality-I
आधुनिक रेल डिब्बा कारखाना, रायबरेली
Modern Coach Factory, Raebareli

Dy. QCM/MCF/RBL
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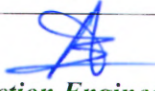
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FOR ELECTRICAL ITEMS


ROLLING STOCK CERTIFICATE OF LHB EOG NON AC GS COACH
(ANTYODAYA & DEENDAYALU).

ELECTRICAL TEST CERTIFICATE FOR LHB EOG NON AC GS COACH.

ELECTRICAL TEST CERTIFICATE FOR LHB EOG NON AC GS COACH.					
TYPE COACH	LWS/DDG	SHELL/COACH NO		204829/C	
RAILWAY	WR	ELECT. FIT DATE	12-09-2020	MCF EUR. NO.	DDG -520
Sr. no.	Description of tests				Remarks
1.	WORKING OF COMPARTMENT LIGHTS.				OK
2.	WORKING OF MOBILE CHARGING SOCKETS				OK
3.	WORKING OF ACCIDENTAL EMERGENCY LIGHTS & PACIL				OK
4.	RAILWAY CARRIAGE FAN				OK
5.	WHEEL SLIDE PROTECTION SYSTEM (WSP)				OK
6.	WORKING OF 9 KVA TRANSFORMER				OK
7.	WORKING OF REGULATED BATTERY CHARGER/EMERGENCY BATTERY CHARGER.				OK
8.	SAFETY :				--
8.1.	FUSES AND THEIR RATING				OK
8.2.	CONTROL CIRCUIT				OK
8.3.	POWER CIRCUIT				OK


Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli

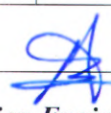


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ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC GS COACHES
(ANTYODAYA & DEENDAYALU).

Sr. no.	Description	Drg./Spec no.	Quantity per Coach
01.	Fitment of Switch board cabinet.(set of panel) Make/Sr.no.: MODERN RAILTECH On Board: MREM355-423 HT Panel: MREM355-411	EDTS 333, Rev'01'.Am-1	01 SET
02.	Provision of 9 KVA 750/415/190V, 03Ø AC. Make: PANTRONICS Sr no.: PAN-20018857	RDSO/PE/SPEC/TL 0158, 2010, Rev'0',Ty I.	01
03.	Mounting of 09KVA TFR.	As per drg no 1.10113.0.76.300.001,Alt -B.	OK
04.	Provision of wire rope assembly for Transformer.	As per EDML-152, Rev.-Nil.	OK
06.	4.5 Kw Under slung type Constant Voltage Regulated Battery charger cum Emergency battery charger Make: ELECTRONIC Sr. no.: 07200091	As per spec no. RDSO/PE/SPEC/AC/0183-2015(REV.-1)	01
07.	Provision of Feeder Junction Box Make : RSI	EDTS-328 REV-C,AM-4,Type-II,COR-2	01 SET
08.	Provision of IVC dummy Socket assembly.	As per Drg. No. LW71302,Alt-nil	01 SET
09.	Battery fuse box +ve Make : RICHMOND	As per LW 71001,Alt- H	01
10.	Battery fuse box -ve Make : RICHMOND	As per LW 71002,Alt-I	01
11.	Provision of Battery boxes/ Cradles. Make: G.E.W.	As per Drg. No. 110113.0.76.700.005 W/O item 5,22,23,26 & 27,Alt-C or Latest.	01
12.	Provision of batteries Type: 110 V, 120 AH VRLA SMF Battery Set. Make: HBL Lug Date: 07/19	As per RDSO/PE/SPEC/AC/0009-2014 (Rev-2) with inner cell connectors or Latest.	01


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Sr. no.	Description	Drg./Spec no.	Quantity per Coach
13.	Fitment of Railway carriage Fan 400mm Sweep, 110V AC with crash worthy features. Make: SARIA IND.	As per Drg. No. ICF/SK-7-6-158,alt-g. RDSO/PE/SPEC/TL/0021-2005 (Rev-3) with RCF annex-1, am-1.	30
14.	Fitment of LED Light fittings for Cabin, Doorway and Gangway area. 9 watt. Make: RT VISION	As per RDSO/PE/SPEC/TL/0091-2016, Rev-1 with RCF Annex-1 .Type- B1. Drg. No. CC76453.	28
15.	Fitment of LED Light fittings for Lavatory Lights. 9 Watt. Make: K-LITE	As per RDSO/PE/SPEC/TL/0091-2016,Rev-1 with RCF Annex-1Type-D. Drg. No. LW76092.	04
16.	Fitment of LED Light fittings for PACIL. Make: KAVERI	As per RDSO/SPEC/TL/0091-2016,Rev-1 with RCF Annex-1Type-I. Drg. No. LW76098.	02
17.	Fitment of Accidental Emergency Light (AEL) Make: INTEG	As per RDSO/SPEC/AC/0180-2016,Rev-0 ,Type-II.	04
18.	Provision of Cable binder	Drg. No. CC76120,Item - 1,2,3.100mm,200mm,300mm respectively.	OK
19.	Provision of Cable Jacket System.	EDTS-138,Cor-2,Item-5,7,8,9,11.	OK
20.	Provision of Switch plate assembly along with mobile charging sockets. Make: SSK	EDML-086, Rev-6, Am-1, Table-1, Item-1.	10

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21.	Provision of Switch plate assembly along with mobile charging sockets. Make:SSK	EDML-086, Rev-6, Am-1, Table-1, Item-2.	10
22.	Provision of High Capacity Inter – Vehicular Coupler Unit (ZS Coupling) (500 A, 750 V, 3 ph, 50 Hz). Make. 1.(NPP): MLI 2.(PP): MLI	As per Spec. no. RDSO/PE/SPEC/AC/0177(Rev.-0)-2013 with annexure-A, B.	1 SET
23.	Mounting of Inter Vehicle coupler	As per drg no.1.10113.0.74.000.001,Alt-B	OK
24.	Provision of Wheel Set Earthing equipment. Make. NPP: PRIME PP: PRIME	EDTS101,REV-C,AM-1	1 SET
25.	Provision of Anti Skid Disk Brake System.(WSP) Make :KNORR Sr no : 0119453213	As per MDTS 077,Rev.-2 M/s"FAIVELEY" or "Knorr Bremse", or "ESCORTS"	01 SET

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

आ०रे०डि०का० / लालगंज / रायबरेली
S.S.E./Elect-QC/M.C.F./LLJ/RBL

स० कार्य प्रबन्धक / विद्युत
आ०रे०डि०का० / रायबरेली
A.W.M./Electrical/MCF/RBL

