



Modern Coach Factory Raebareli
आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QMF 8002

REV NO: 02

DATE: 28-05-2021

ROLLING STOCK CERTIFICATE(NON AC COACH)

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2021-2022 /8

RLY	WR	COACH NO	216073/C	DATE OF DISPATCH		1-Apr-21
Type	LWSCN1	Shell No.	20G360	DISPATCH TO	Sr.DME/C&W/MMCT	FUR.NO. LSCNG-519
1	Railway Board's Order No. : 2020/M (C)/142/2,Dt- 27.01.2021					
2	Tare Weight & Carrying Capacity of Coach :					
S.N	COACH TYPE	LWSCN1	LWS	LWSCZ	LDSL	LSLRD
i	Tare Weight	41.24	40.66	40.5	38.19	38.19
ii	Seating	80	100	102	36	37
iii	Sleeping	80	NIL	NIL	2	4
iv	Luggage	NIL	NIL	NIL	4	4
3	Special feature:					
S.N	DESCRIPTION				MAKE/SUPPLIER	
i	Epoxy flooring in lavatory				M/S-ACME INDIA NDLS	
ii	Anti slip friendly Grab Bar				M/S-ACME INDIA NDLS	
iii	Provision of Health Faucet in lavatories				M/S-ACME INDIA NDLS	
iv	Washbasin counter Top (Corian of Duport or Montelli)				M/S-ACME INDIA NDLS	
vi	GFRE ceiling instead of NFTC				M/S-ACME INDIA NDLS	
v	DGFRP panels instead of LP panels				M/S-ACME INDIA NDLS	
vii	Honey Comb partition frame with DGFRP sheet instead of FRP sheet				M/S-ACME INDIA NDLS	
viii	Venturi arrangement in lavatory				M/S-ACME INDIA NDLS	
ix	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					
4	Smart feature:NIL					
5	SHELL LEADING DIMENSIONS:					
S.N	DESCRIPTION				DIMENSION (MM)	
i	Maximum Length over body				23700	
ii	Maximum Width over body				3240	
iii	Maximum height from Rail Level				4039	
iv	CBC height/Buffer Height from Rail level 1105 +0/-10				NPP/PP	1102/1103
6	TRACEABILITY OF SHELL ITEMS:					
S.N	ITEM		MAKE/SUPPLIER	SERIAL NO		
i	Under frame	Front	PP END	M/S-BEEKEY ENGG	8	
		Part	NPP END	M/S-BEEKEY ENGG	8	
		Complete		M/S-BEEKEY ENGG	8	
ii	Lav. side wall		M/S-ATHANCY ALD	LAV.1	LAV.2	
			M/S-ATHANCY ALD	LAV.3	LAV.4	
iii	Side wall	LH SIDE	MCF/RBL-V4U LKO	92		
		RH SIDE	MCF/RBL-V4U LKO	92		
iv	End wall	PP END	M/S-SIPL			
		NPP END	M/S-SIPL			
v	Roof		MCF/RBL-CONT.	218		
vi	Centre Buffer Coupler		M/S-SANROCK	NPP/PP	16748/16732	
vii	Buffer		N/A	NPP/PP	N/A	
7	AIR BRAKE TEST REPORT:					
S.N	ITEM	DESCRIPTION		SPEC. VALUE		OBSERVED
i	Full brake application	Reduce pressure of BP from 5.0 to 3.4 kg/cm ² .		6 – 10 sec.		8 Sec
		Max. pressure in BC		3.0 ±0.15 kg/cm ² .		3.0 kg/cm ²
		All Brake are applied		OK		OK
ii	Insensitivity	Exhaust BP @ 0.3 kg/cm ² /min.		No brake application		OK
iii	Sensitivity	Exhaust BP @ 0.1 kg/cm ² /Sec, after 06 Sec.		Brake must apply		OK
iv	Handbrake(Parking brake)for generator car	1.Apply hand brake		1.Hand Bk. Indicator should be red		OK
		2.Release hand brake		2. Hand Bk. indicators should be green		OK
8	PAINTING DETAILS:					
S.N	DESCRIPTION	TYPE OF PAINT	MAKE	APPLICATION BY MCF/ CONTRACTOR (SUPPLY & APPLY)	AVERAGE GLOSS VALUE	DATE OF COMPLETION
i	Paint	P.U	GSI	M/S-GS	89/86	4-Feb-21
ii	Insulation	Satisfactory				
9	COACH FURNISH DETAILS :					
S.N	ACTIVITIES	FIRM		TURNKEY/WORK CONTRACT/SUPPLY&APPLY		
i	Coach Furnishing	M/S-ACME INDIA NDLS		TURNKEY		
ii	Air Brake	M/S-SR ENT		WORK CONTRACT		
iii	Bio toilet & flushing	M/S-ACME INDIA NDLS		TURNKEY		
vi	Epoxy in lav.	M/S-ACME INDIA NDLS		TURNKEY		

SSE/QC/MCF/RBL
वरिष्ठ निरीक्षक

गुणवत्ता विभाग
रेडिओका, रायबरेली (लालगंज)





Modern Coach Factory Raebareli

आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QMF 8002

REV NO: 02

DATE: 28.05.2021

ROLLING STOCK CERTIFICATE(NON AC COACH)

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2021-2022 /8

RLY	WR	COACH NO	216073/C	DATE OF DISPATCH	1-Apr-21
Type	LWSCN1	Shell No.	20G360	DISPATCH TO	Sr.DME/C&W/MMCT
				FUR.NO.	LSCNG-519

10	MODIFICATION (IF ANY)	: NIL
11	DEVIATION (IF ANY)	: NIL
12	ITEM FITTED ON THE COACH ON TRIAL	: NIL

S.N	ITEM PARTICULARS	PURPOSE	REPORT	REFERENCE &
			Frequency	PERIOD OF TRIAL

i				
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13.A TRACEABILITY OF FURNISHING ITEMS:(common items for all coach)

S.N	ITEM	MAKE/SUPPLIER	SERIAL NO(NPP/PP)
i	Air Brake Module	M/S-KBI	6262 04/21
ii	Distribution valve	M/S-KBI	2021B13117
iii	Pull box	M/S-KBI	
iv	FIBA	M/S-KBI	11976/29,11975/29
vi	Foot Step	M/S-FABRICON INDS KOLKATA	
v	Decoupling arrangement	M/S-PULSAR INDS KOLKATA	
vii	Floor board	M/S-TWPL MUMBAI	
viii	PVC	M/S-ACME INDIA NDLS	
ix	Lavatory inlay	M/S-ACME INDIA NDLS	
x	UIC Vestibule (PPE)	M/S-SUNCREST KOLKATA	
xi	UIC Vestibule (NPPE)	M/S-SUNCREST KOLKATA	
xii	Gangway bridge mounting (PPE)	M/s- MAHAVEER METAL WORKS, KXH	
xiii	Gangway bridge mounting (NPPE)	M/s- MAHAVEER METAL WORKS, KXH	
xiv	Body Side Window	M/S-ACME INDIA NDLS(WIDDER)	
xv	Emergency Window	M/S-ACME INDIA NDLS(WIDDER)	
xvi	Lavatory/hopper Window	M/S-ACME INDIA NDLS	
xvii	Roof Ceiling	M/S-ACME INDIA NDLS(DGFRP)	
xviii	Door way /gang way ceiling	M/S-ACME INDIA NDLS(DGFRE)	
xix	Side panel	M/S-ACME INDIA NDLS(DGFRP)	
xx	Body Side Doors	M/S-ACME INDIA NDLS	
xxi	Vestibule Door(PPE)	M/s-JBM FARIDABAD	
xxii	Vestibule Door(NPPE)	M/s-JBM FARIDABAD	
xxiii	Bio Tank	M/s-RAIL FAB KXH	
xxiv	Pressurized flushing (ele. Pneu.)	M/S-SPAC	
xxv	Auxiliary Water Tank	M/S-SHIVALIK FAST MOHALI	
xxvi	Under Slung Water Tank (2X685L)	M/S-OASIS	
xxvii	Under Slung Water Tank (1X685L)	M/S-SHIVALIK FAST MOHALI	
xxviii	Health Faucet	M/S-KAPCO VALVES JUC	
xxix	Lotah Filler Tap	M/S-KAPCO VALVES JUC	
xxx	Controlled discharge tap	M/S-AGMECO UK	
xxxi	Lavatory Modules	M/S-ACME INDIA NDLS(DGFRP)	
xxxii	Lavatory Doors	M/S-ACME INDIA NDLS	
xxxiii	Fire Extinguisher	M/S-ACME INDIA NDLS	-----
xxxiv	Seat & Berth	M/S-ACME INDIA NDLS	
xxxv	Venturi grill	M/S-ACME INDIA NDLS	
13.B	TRACEABILITY OF FURNISHING ITEMS:(items for variant wise)		
i	Partition panel	M/S-ACME INDIA NDLS	
ii	Partition pillar	M/S-ACME INDIA NDLS	
iii	Water purifier	M/S-ACME INDIA NDLS	

SSE/QC/MCF/RBL

वरिष्ठ अनु० अभियंता

गुणवत्ता विभाग

रेलवे कारखाना, रायबरेली (लखनऊ)



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 (NON AC COACH)

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2021-22/08

RLY	-	W	R	Coach No.	2	1	6	0	7	3	/	C	-	DATE OF DISPATCH	0	1	0	4	2	0	2	1
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DISPATCH	SR.DME/C&W/MMCT	Type	L	W	S	C	N	1	Shell No.	2	0	G	3	6	0	FUR.NO	LSCN-G-519
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8. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	201365				201366			
Bogie Type	FIAT				FIAT			
Frame no.	MCF/RBL/LS-5 - 2142				MCF/RBL/LS-5 - 2097			
Bolster no.	MCF/RBL/LS-5 - 2398				MCF/RBL/LS-5 - 2501			
Axle No	21 Z - 9763 RWF		21 Z - 4512 RWF		20 Z - 8737 RWF		20 Z - 9109 RWF	
Wheel Dia	917.52	917.478	917.449	917.549	917.575	917.44	917.551	917.444
Wheel Disc No	TZ 02-19 26452-09MJ1	TZ 12-19 91120-9WG5	TZ 02-19 28054-9MJ4	TZ 01-19 21675-9XH2	TZ 02-19 24749-9MM2	TZ 01-19 22185-8XG9	TZ 02-19 26447-9MJ7	TZ 07-20 65283-9RP5
R.B. Nos.	12-19 36331	12-19 40048	01-20 404301	01-20 400236	01-20 405425	01-20 405557	01-20 404495	01-20 400246
CT R B Make	TIMKEN		TIMKEN		TIMKEN		TIMKEN	

9. SECONDARY SUSPENSION LOAD DEFLECTION VALUES :-

DESCRIPTION	Bogie NPP side		Bogie PP side	
	Secondary 1	Secondary 2	Secondary 1	Secondary 2
Make & Nos.	TAYAL & CO Sr.NO.06-20 0112	TAYAL & CO Sr.NO.06-20 0056	TAYAL & CO Sr.NO.06-20 0681	TAYAL & CO Sr.NO.06-20 0820

10. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	ESCORT	7950,7681	7786,7709
2.	Primary outer Spring	CMAFI/CMFSK	06-20-1100-(154,308,149,153)	10-19 1100-116-(1568,1247,760,1120)
3.	Primary Inner Spring	CMAFI/CMFSK	06-20-1101 (217,65,250,363)	11-19 1101-103-(1158,1146,631,610)
4.	Primary Damper	IAI	02-20-(309027,309668,309398,309513)	06-20-(321757,309026,310168,309170)
5.	Secondary Damper	IAI	06-20-(326892,326772)	06-20-(326384,326889)
6.	Lateral Damper	IAI	03-20 313378	03-20 313484
7.	Brake Cylinder	KBI	C(4134,2784,2937,4073)K29	C(9602,8084,8088,9603)K29
8.	Brake Caliper	KBI	C(0423,0485,0629,0364)-29	C(5171,5258,5255,5157)-29
9.	Brake Disc	FAV	03-20 (582,252,639,641)D133561-300	03-20 (603,642,640,8926)D133561-300
10.	Ball Joint Control Arm	GMT/BONY		
11.	Lateral Bump Stop	BASANT		
12.	Traction Centre make	RF		
13.	Traction lever make	JJ		
14.	Ball joint traction lever	GMT/BONY		
15.	Ball joint traction centre	GMT		
16.	Leveling Valve	ESCORT	1912,1912,	1912,1912,
17.	Check Valve	ESCORT	1912	1912
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	JUR+BASANT RF/BONY		
20.	Fork make	RNG/RF		
21.	Control Arm Upper	IRPL	2008C09,2006C07,2012C24,2017B29	2004B02,2013B22,2002C2,2005C17
22.	Control Arm Lower	IRPL	2004C04,200306,2013B29,2029B38	2004C21,2003C04,2005C18,2012B19
23.	Phonic Wheel	KBI	05-20	05-20

Signature of SSE/Bogie/QC	SME/AME/QC/MCF/RBL	Dy.CQM/MCF/RBL
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सहायक यंत्रिक इंजीनियर
Asst. Mechanical Engineer
आ. रे. डि. का. रायबरेली
MCF, RBL

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



GSTIN : 03ACBPK3400D1.
Excise Regn. No. ACBPK3400DXM00.

G. S. INDUSTRIES

APPROVED BY

**N.S.I.C.
R.D.S.O.**

**ISO 9001-2015
ISO 14001-2015**

D-146, FOCAL POINT EXTENSION, JALANDHAR-144004

PHONE : (O) 0181-5081474

(M) 99882-65025, 99884-55459

Website : www.gspaints.com

e-mail : info@gspaints.com

WARRANTY CERTIFICATE

To,
Dy.CME/FP
MODERN COACH FACTORY,
RAEBARELI, LALGANJ-229120

Dated 6/2/2021

Sub:- Performance warranty certificates.

Ref: - P.O.no 31061800101167 DATED 21.08.2019

Name Of Work: - Pu Paint For Lhb Type Rajdhani Coaches.

Dear Sir,

With reference to above, we do here by confirm the warranty for three years from the date of application of the delivered below mention coaches vide your above referred purchase order after application & due inspection at your end.

SR.	SHELL NO.	FURNISHING NO.	COACH NO.	Railway NO.	DATE OF COMPLETION
236	LW5CN 206360	LSCN(6)-519	216073	12A	4-02-21

The warranty is applicable from date of dispatch against the below mention defects as per RDSO specification no. M&C/PCN/100/2018.

- Gloss level value of applied paint-initial 85 unit (on the date of painting) and minimum 80%, 70% and 60% of initial gloss after one year, two years and three years respectively from the date of application
- Decolonization of paint film.
- Cracking of paint film.
- Peeling of paint film.
- Blistering of the paint film.

Thanking you,
For G.S. Industries

Auth. signatory



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FOR ELECTRICAL ITEMS
ROLLING STOCK CERTIFICATE OF LHB EOG NON AC SCN COACH.

ELECTRICAL TEST CERTIFICATE FOR LHB EOG NON AC SCN COACH.						
TYPE COACH		LWSCN		SHELL/COACH NO		206073/C
RAILWAY		WR	ELECT. FIT DATE	31-03-2021	MCF FUR. NO.	SCN-G-519
Sr. no.	Description of tests					Remarks
1.	PUMP EQUIPMENTS					OK
2.	LIGHTS, NL,LAP CHARGING SOCKETS					OK
3.	WORKING OF ACCIDENTAL, EMERGENCY LIGHTS.					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 SCN COACHES

Sr. no.	Description	Drg./Spec no.	Quantity per Coach
01.	Fitment of Switch board cabinet.(set of panel) Make/Sr.no.: SSK On Board: 2019/8/259 HT Panel: 2019/8/258	EDTS 355, Rev`01'.Am-3	01 SET
02.	Provision of 9 KVA 750/415/190V, 03Ø AC. Make: VIMAL Sr no.: VTC 3089 LHB 4616	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 Pump equipment with pump box. Make: HIND Sr no : 20/10/604 Pump 1: 20/10/1247 Pump 2: 20/10/1248	As per spec no. EDTS186,REV-A,AM-2	01 SET
05.	Provision & Mounting of Pump controller. Make: HIND SL.no.: 20/10/536	As per Spec. EDTS186 Rev-a Am-2, & drg no. CC71328 & LW70020	01
06.	4.5 Kw Under slung type Constant Voltage Regulated Battery charger cum Emergency battery charger Make: SIGNOTRON Sr. no.: 08201750	As per spec no. RDSO/PE/SPEC/AC/0183-2015(REV.- 1)	01
07.	Provision of Feeder Junction Box Make : INDORAIL	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 : INDORAIL	As per LW 71001,Alt- H	01
10.	Battery fuse box -ve Make : RSI	As per LW 71002,Alt-I	01
11.	Provision of Battery boxes/ Cradles. Make: HITECH	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: AMARA RAJA Lug Date: 02/21	As per RDSO/PE/SPEC/AC/0009-2014 (Rev-2) with inner cell connectors or Latest.	01 SET

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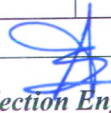


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ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

Sr. no.	Description	Drg./Spec no.	Quantity per Coach
13.	Fitment of Railway carriage Fan 400mm Sweep, 110V AC with crash worthy features. Make: ELECTROWAVES	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: DR AUTO	As per RDSO/PE/SPEC/TL/0091-2016,Rev-1 with RCF Annex-1 .Type-B1. Drg. No. CC76453.	26
15.	Fitment of LED Light fittings for Night Light with berth indication Type-E (1 watt). Make: AGASTYA	As per RDSO/PE/SPEC/TL/0091-2016,Rev-1 with RCF Annex-1, ICF/STB-7-6-053.Type- E. Drg. No. CC76461	10
16.	Fitment of LED Light fittings for Lavatory Lights. 9 Watt. Make: ENSAVE	As per RDSO/PE/SPEC/TL/0091-2016,Rev-1 with RCF Annex-1Type-D. Drg. No. LW76092.	04
17.	Fitment of LED Light fittings for PACIL. Make: ELECTROWAVES	As per RDSO/SPEC/TL/0091-2016,Rev-1 with RCF Annex-1Type-I. Drg. No. LW76098.	02
18.	Fitment of Accidental Emergency Light (AEL) Make: INTEG	As per RDSO/SPEC/AC/0180-2016,Rev-0 ,Type-II.	04
19.	Provision of Cable binder	Drg. No. CC76120,Item - 1,2,3.100mm,200mm,300mm respectively.	OK
20.	Provision of Cable Jacket System.	EDTS-138,Cor-2,Item-5,7,8,9,11.	OK


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ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

Sr. no.	Description	Drg./Spec no.	Quantity per Coach
21.	Provision of Switch plate assembly along with mobile charging sockets. Make: SALZER	EDML-086, Rev-6, Am-1, Table-1, Item-1.	10
22.	Provision of Switch plate assembly along with mobile charging sockets. Make: SALZER	EDML-086, Rev-6, Am-1, Table-1, Item-2.	10
23.	Provision of Switch plate assembly along with mobile charging sockets. Make: RECORD	EDML-086, Rev-5, Am-1, Table-1, Item-3.	20
24.	Provision of High Capacity Inter – Vehicular Coupler Unit (ZS Coupling) (500 A, 750 V, 3 ph, 50 Hz). Make: 1.(NPP): PRIME ELECT. 2.(PP): PRIME ELECT.	As per Spec. no. RDSO/PE/SPEC/AC/0177(Rev.-0)-2013 with annexure-A, B.	01 SET
25.	Mounting of Inter Vehicle coupler	As per drg no.1.10113.0.74.000.001,Alt-B	OK
26.	Provision of Wheel Set Earthing equipment. Make:- NPP: PRIME ELECT. PP: PRIME ELECT.	EDTS101,REV-C,AM-1	01 SET
27.	Provision of Anti Skid Disk Brake System.(WSP) Make : KNORR Sr no : 0120305640	As per MDTS 077,Rev.-2 M/s"FAIVELEY" or "Knorr Bremse", or "ESCORTS"	01 SET

 SSE/EL/QC वरिष्ठ अनुभाग अभियन्ता गुणवत्ता नियंत्रण आपरेटिंगका/लालगंज/रायबरेली S.S.E./Elect-QC/M.C.F./LLJ/RBL	 AWM(ELECT)/MCF/RBL SEE (P)/MCF/RBL आपरेटिंगका/लालगंज/रायबरेली A.W.M./Elect/MCF/RBL
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