



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

Rolling Stock Certificate No. MCF/RBL/QC/RSC/2019-20/1142

RLY	N	F	R	Coach No.	1	9	7	6	8	4	/	C	DATE OF DISPATCH	2	9	-	1	1	-	1	9
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DISPATCH TO	Sr.DME/GHY	Type	L	W	S	C	N	1	Shell No.	9	7	5	5	4	FUR.NO.	LSCNG-290
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1. Railway Board's Order No. : 2019/M(C)/142/2, Dated-21-11-2019
2. Tare Weight of Coach : 41.24 Tones
3. Carrying Capacity : (a) Seating : 80 (b) Sleeping : 80 (c) Luggage : NIL
4. Special features :

S NO	DESCRIPTION	MAKE/SUPPLIER
A.	Epoxy flooring in lavatory	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA
B.	Anti slip friendly Grab Bar	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA
C.	Provision of Health Faucet in lavatories	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA
D.	Washbasin counter Top (Corian of Duport or Montelli)	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA
E.	GFRE ceiling instead of NPTC	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA
F.	DGFRP panels instead of LP panels	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA
G.	Honey Comb partition frame with DGFRP sheet instead of FRP sheet	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA
H.	Choke of 5/6 mm in DV side replace with 9 mm in both type (KBI & Faiveley) letter no. MC/LHB/Brake, Dated 27.09.2018	
I.	RFID(Radio frequency identification) fitted for traceability of coach	

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	1) 1100 (NPPE) 2) 1102 (PPE)

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Under frame	PP END M/S- SFPL NPP END M/S-NECHD	10/19
	Complete	MCF/RBL	97554
2.	Lav. side wall	M/S-ECBT CDG M/S-ECBT CDG	LAV.1 - LAV.2 - LAV.3 - LAV.4 -
3.	Side wall	LH SIDE M/S-ECBT CDG RH SIDE M/S-ECBT CDG	28/ECBT 28/ECBT
4.	End wall	PP END M/S-DTL PUNE NPP END M/S-DTL PUNE	-- --
5.	Roof	MCF/CONT.	159
6.	Centre Buffer Coupler	M/s- FRONTIER	PP END 10P1 NPP END 140P1

7. AIRBRAKE 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 . ➤ Max. pressure in BC ➤ All Brake are applied	6 – 10 sec. 3.0 ±0.15 kg/cm ² . OK	08 Sec. 3.0 kg/cm ² 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	M/s – AXALTA	EMPRISE WOW	95/94	13.11.19
2.	Insulation			Satisfactory		

SSE/QC/MCF/RBL
 वरिष्ठ अनुष्ठानिक अधिकारी
 गुणवत्ता विभाग
 रेलवे कारखाना, रायबरेली (लालगंज)



MODERN COACH FACTORY, RAEBARELI

आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QMF 8002

REV NO.: 01

DATE: 16.05.2016

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9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	191634				191633			
Bogie Type	FIAT				FIAT			
Frame no.	ECBT-1627				RBL-2043			
Bolster no.	TACPL/KNP-06				TACPL/KNP-14			
Axle No	19 S - 2826 RWF		19 L - 5268 RWF		19 L - 5142 RWF		19 L - 5601 RWF	
Wheel Dia	917.533	917.524	917.413	917.51	917.529	917.505	917.543	917.322
Wheel Disc No	TZ 07-19 70426-9RL8	TZ 07-19 68832-9RQ0	TZ 08-19 74751-9RR6	TZ 08-19 73697-9RL2	TZ 07-19 70323-9RN9	TZ 08-19 72464-9RR3	TZ 08-19 75252-9RR3	TZ 08-19 75240-9RL2
R.B. Nos.	09-19 38079	09-19 38932	09-19 36745	09-19 38069	09-19 38547	10-19 38940	08-19 28128	09-19 37508
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	
	Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner
Make & Nos.	CMGBD09-19 F09-1355-43	CMFSK05-19-5100- 027-470	CMGBD10-19- F09-750-73	CMFSK05-19- 5100-027-599	CMGBD09-19- F09-757-10	CMFSK05-19- 5100-927-552	CMGBD09-19-F09- 757-88	CMFSK05-19-5100- 027-551
Compressed Ht. at Tested Load	516	470.5	516	469.5	515	472	515	471
10Alignment deviation (mm)	27	10	27	10	18	10	18	10

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KNORR	16410,16407	16406,16409
2.	Primary outer Spring	CMFSK	10-19 1100-114 (142,162,105,133)	10-19 1100-114 (119,107,160,172)
3.	Primary Inner Spring	CMFSK	10-19 1101-101 (129,181,102,128)	10-19 1101-101 (158,144,117,182)
4.	Primary Damper	KONIC	03-19 (00889,06172,01234,03794)	03-19 (05000,05840,00369,00362)
5.	Secondary Damper	IAI/GB	09-19 (272697,273021)	07-19 (01496,01510)
6.	Lateral Damper	IAI	05-19 250934	05-19 250892
7.	Brake Cylinder	ESCORT	(49319,48983,48983,49318)	(49251,48083,48085,49252)
8.	Brake Caliper	ESCORT	(28514,28331,28333,28513)	(28446,27611,27613,28447)
9.	Brake Disc	KBI	24200058 0026-37/19,24200057 0052-37/19 24203751 0037-41/19,24203750 0045-41/19	24200059 0013-38/19,24200058 0024-37/19 24200060 0003-38/19,24200059 0001-38/19
10.	Ball Joint Control Arm	ARYAN/GMT		
11.	Lateral Bump Stop	ARYAN		
12.	Traction Centre make	SARITA		
13.	Traction lever make	TAJ		
14.	Ball joint traction lever	SGA		
15.	Ball joint traction centre	ARYAN		
16.	Secondary Rubber Pad	PRAG		
17.	Rubber Spring	AR		
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	EMSON/ARYAN		
20.	Fork make	RNG		
21.	Control Arm Upper	SF	468,395,495,SF	245,265,425,335
22.	Control Arm Lower	SF	400,25,28,448	23,321,228,18
23.	Phonic Wheel	ESCORT	ESCORT	ESCORT

Signature of SSE/Bogie/QC

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Modern Coach Factory Raebareli

आधुनिक रेल डिब्बा कारखाना, रायबरेली

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ROLLING STOCK CERTIFICATE

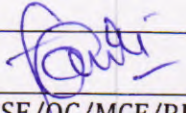
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12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/S-ESCORT	2019030079
2.	Distribution valve	M/S-ESCORT	1903A079
3.	Pull box	M/S-KBI, FARIDABAD	
4.	Foot Step	M/S-SUPER SPARK PVT. LTD. FARIDABAD	
5.	Decoupling arrangement	M/S-ELASTOMER LINING WORKS, MUMBAI	
6.	Floor board	M/S- TWPL MUMBAI	
7.	PVC	M/S- RESPONSIVE POLYFILM GAZIABAD	
8.	Lavatory Inlay	M/S-SEEMA INDS BHOPAL	
9.	UIC Vestibule (PPE)	M/S-SUNCREST KOLKATA	
10.	UIC Vestibule (NPPE)	M/S-SUNCREST KOLKATA	
11.	Gangway bridge mounting (PPE)	M/S-RAKESH IRON &STEEL WORKS KXH	
12.	Gangway bridge mounting (NPPE)	M/S-RAKESH IRON &STEEL WORKS KXH	
13.	Body Side Window	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
14.	Emergency Window	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
15.	Hopper Window	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
16.	Side panel	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
17.	Roof ceiling	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
18.	Door way ceiling	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
19.	Partition frame	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
20.	Partition pillar	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
21.	Body Side Doors	M/S- JBM INDUSTRIES, FARIDABAD	
22.	Vestibule Door(PPE)	M/S- JBM INDUSTRIES, FARIDABAD	
23.	Vestibule Door(NPPE)	M/S- JBM INDUSTRIES, FARIDABAD	
24.	Bio Tanks	M/S-RASANDIK ENG INDS	
25.	Auxiliary Water Tank	M/s- AMIT ENG. MOHALI	
26.	Under Slung Water Tank(2X685L)	M/s- SHIVLIK FAST MOHALI	
27.	Under Slung Water Tank (1X685L)	M/s- SHIVLIK FAST MOHALI	
28.	Health Faucet	M/s- KAPCO VALES JALANDHAR	
29.	Lotah Filler Tap	M/s- KAPCO VALES JALANDHAR	
30.	Controlled Discharge Tap	M/s- EAUSET PVT LTD GURGAON	
31.	Lavatory Doors	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
32.	Seat & Berth	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
33.	Snack Table	N/A	
34.	RFID	M/s-ID TECH SOLUTION GURGAON	Sr.-104685-104687


SSE/QC/MCF/RBL

वरि०अनु० अभियंता
गुणवत्ता विभाग
रे०डि०का०, रायबरेली (लालगंज)



Modern Coach Factory Raebareli

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DISPATCH TO	Sr.DME/GHY			Type	L	W	S	C	N	1	Shell No.	9	7	5	5	4	FUR.NO.	LSCNG-290			

13. MODIFICATION (IF ANY)

: Partition frame & Partition pillar

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, 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 30 months 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 qualityrcfbl@gmail.com
- Painting on supply & apply contract :- supply of material and application shall be warranted for a period of three years from date of 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	SME/QC/MCF/RBL	Dy.CQM/MCF/RBL

वरिष्ठ यंत्रिक अभियंता/गुणवत्ता
गुणवत्ता विभाग
रेडिओका, रायबरेली (लालगंज)

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

जोगिन्दर सिंह
Joginder Singh
उप मुख्य अभियंता
Dy. Chief Engineer
आधुनिक रेल डिब्बा कारखाना, रायबरेली
Modern Coach Factory Raebareli



Modern Coach Factory Raebareli
आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QEF/8001

REV NO: 00

DATE: 18.01.2017

PAGE 1 OF 3

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG NON AC COACHES

TYPE COACH	LWSCN	SHELL/COACH NO	197684/C
RAILWAY	NFR	DATE OF DESPATCH	
Sr no	Description of test		Remarks
1.	PUMP EQUIPMENTS		OK
2.	LIGHTS, NL, LAP 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





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PAGE 2 OF 3

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

01.	Switch board cabinet Make : HIND RECTIFIERS On Board Sr no : NIL HT Panel Sr no : H.355.19.G-341	EDTS 333, Rev `01'Am-1	01
02.	Pump equipment with PLC controller & pump box Make : DR AUTO Sr no PA: 2019/07/034 Sr no.1 : 6160 Sr no.2 : 6218 Srno.CPA: NIL-DR AUTO	As per spec EDTS 186,Rev-a, Am- 2	01
03.	Emergency light system for EOG type coaches (AEL), Make : DR AUTO	EDTS 151,Rev -c Am-1 & 2	04
04.	Passenger Alarm Cum Indication Light (PACIL) Make: RT VISION	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-I	02
05.	Fitment of Switch Plate Assly(Cabin Side) Make : SALZER/RECORD	EDML 086,Rev-03, ITEM-01	20
06.	Fitment of Switch Plate Assly Corridor Side),Make : SALZER	EDML 086, Rev 03, ITEM-02	20
07.	Railway carriage Fan 400mm Sweep, 110V DC with crash worthy features. Make: ORIENT	IS 6680/92,First Rev, RCF Amdt 4, Col I, Ty XI, RCF Cor I.	30
08.	Cabin,Corridor,doorway and Gangway Lights. Make: RT VISION	As per RDSO/PE/SPEC/TL-0091(REV-1) TYPE B-1	26
09.	Lavatory Light Make: DR AUTO	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-D &	04
10.	Night Light Fitting (LED BASED) Sticker For Berth Number On Night light Fitting For LHBSCN(80-BERTHER)Coaches Make : INTRA	CC76289 & CC76443	09

Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli





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PAGE 3 OF 3

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

11.	Battery fuse box +ve Make : INDORAIL	LW 71001,Alt-F	01
12.	Battery fuse box -ve Make : ISGPL	LW 71002,Alt-F	01
13.	Regulated battery charger Make : WAVES Sr no: W4K5G 19263	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	01
14.	9KVA transformer Make : VIMAL Sr no : VTC 3089 LHB-2529	As per RDSO/PE/SPEC/TL 0158, 2010, Rev`0',Ty I.	01
15.	ZS coupling 400A/750V/03Ph/50hz. Make : MAA LAXMI INDUSTRIES	As per spec No EDTS 105,Rev`e' Am-3, TYPE-2	01 set
16.	Feeder junction boxes. Make : AUTO	EDTS-328 REV-C	01 set
17.	Wheel set earthing equipment. Make : PRIME ELECT.	EDTS101,REV-C,AM-1	02 sets
18.	Wheel Slide Protection System (WSP) Make : ESCORT Sr no : 190001-60527-0069	M/s : ESCORT	01 set
19.	110V,120AH,VRLA SMF BATTERY SET WITH 19 MONOBLOCK (6V EACH) PRECHARGED,WIH MODIFIED TRAY TOSKED-644 Make : AMARA RAJA Lug date : 09/19	RDSO/pe/spec/ac-0009 rev-1- 2008 amdt-1	01 set
20.	Battery box for LHB coaches. Make : ANANYA	CC 91205	01

 वरिष्ठ अनुभाग अभियन्ता SSE/EL/QC मुख्य निबंधन आधुनिक डिब्बा कारखाना / लालगंज / रायबरेली S.S.E./Elect-QC/M.C.F./LJ/RBL	 वरिष्ठ विद्युत अभियन्ता रेल कोच फैक्टरी, रायबरेली. Sr. Electrical Engineer / RCF / RBL AWM(ELECT.)/MCF/RBL SEE(P)/MCF/RBL
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