



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

Rolling Stock Certificate No. MCF/RBL/QC/RSC/2019-20/343

RLY	N	F	R	Coach No.	1	9	4	6	7	9	/	C	DATE OF DISPATCH	2	4	-	0	6	-	1	9
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DISPATCH TO	Sr.DME/GHY	Type	L	W	S	C	N	1	Shell No.	9	7	1	1	2	FUR.NO.	LSCNG-211
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- Railway Board's Order No. : 2019/M(C)/142/2, Dated-03-06-2019
- Tare Weight of Coach : 41.24 Tones
- Carrying Capacity : (a) Seating : 80 (b) Sleeping : 80 (c) Luggage : NIL
- Special features :

S NO	DESCRIPTION	MAKE/SUPPLIER
A.	Epoxy flooring in lavatory	M/S-ACME INDIA NDLS
B.	Anti slip friendly Grab Bar	M/S-ACME INDIA NDLS
C.	Provision of Health Faucet in lavatories	M/S-ACME INDIA NDLS
D.	Washbasin counter Top (Corian of Duport or Montelli)	M/S-ACME INDIA NDLS
E.	GFRE ceiling instead of NFTC	M/S-ACME INDIA NDLS
F.	DGFRP panels instead of LP panels	M/S-ACME INDIA NDLS
G.	Honey Comb partition frame with DGFRP sheet instead of FRP sheet	M/S-ACME INDIA NDLS
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	

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) 1099 (NPPE) 2) 1102 (PPE)

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Under frame	PP END M/S-DTL	07
		NPP END M/S-DTL	07
	Complete	M/S-DTL	07
2.	Lav. side wall	M/S- COMPETENT ENG. JUC	LAV.1 - LAV.2 -
		M/S- COMPETENT ENG. JUC	LAV.3 - LAV.4 -
3.	Side wall	LH SIDE MCF/RBL (CONTRACTOR V4U)	472/01
		RH SIDE MCF/RBL (CONTRACTOR V4U)	472/02
4.	End wall	PP END M/s- RSM, MOHALI	--
		NPP END M/s- RSM, MOHALI	--
5.	Roof	M/S- ECBT	135
6.	Centre Buffer Coupler	M/S- ESCORTS LTD RAILWAY EQUIPMENT, FBD.	PP END 9529 NPP END 8489

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 -VIBGYOR	Supply & apply	90/90	11.05.19
2.	Insulation			Satisfactory		

वरिष्ठ अभियंता
SSE/QC/MCF/RBL
रेडिको, रायबरेली (लालमंज)





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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DISPATCH	Sr.DME/GHY	Type	L	W	S	C	N	1	Shell No.	9	7	1	1	2	FUR .NO	LSCN-G-211
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9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	190722				190721			
Bogie Type	FIAT				FIAT			
Frame no.	AML-135				AML-115			
Bolster no.	MCF/RBL-LS5-1019				MCF/RBL-LS5-538			
Axle No	19 L - 8748 RWF		19 M - 9809 RWF		19 M - 3162 RWF		19 L - 8827 RWF	
Wheel Dia	917.624	917.79	917.598	917.728	917.602	917.707	917.589	917.692
Wheel Disc No	TZ 04-19 35337-90H9	TZ 04-19 39773-90G4	TZ 03-19 33396-90G2	TZ 03-19 33397-90G2	TZ 03-19 33400-90G2	TZ 04-19 39774-90G4	TZ 04-19 39768-90G4	TZ 04-19 39759-90G4
R.B. Nos.	02-19 01852	02-19 00508	02-19 02402	02-19 02065	02-19 02915	02-19 01248	02-19 01669	02-19 00240
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.	RESISTO FLEX DYNAMIC PVT.LTD Sr.18-11 1761	RESISTO FLEX DYNAMIC PVT.LTD Sr.19-01 5541	RESISTO FLEX DYNAMIC PVT.LTD Sr.19-01 5499	RESISTO FLEX DYNAMIC PVT.LTD Sr.19-01 5511

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	IAI	239352,239380	238820,239376
2.	Primary outer Spring	CMAFI/CMFSK	04-19 1100 (113,302,115,114)	04-19 1035-555(20,2,71,498)
3.	Primary Inner Spring	CMRSK	11-18 06A(1932,1108,1184,2000)	11-18 06A(963,1190,1188,2018)
4.	Primary Damper	KNORR	02-19 (54327,54757,54320,54311)	02-19 (54355,54334,54336,54348)
5.	Secondary Damper	IAI	03-19 (243501,243221)	03-19 (243401,243513)
6.	Lateral Damper	GABRIEL	11-18 1407	11-18 1492
7.	Brake Cylinder	FAV	D19(553,667,651,602)	D19(818,849,669,555)
8.	Brake Caliper	FAV	E19(591,589,582,584)B	E19(764,761,599,592)B
9.	Brake Disc	FAV	04-19(3562,3567)01-19(961,967)133561-300-1	04-19(3563)01-19(965,968,966)133561-300-1
10.	Ball Joint Control Arm	GMT		
11.	Lateral Bump Stop	GMT		
12.	Traction Centre make	SARITA		
13.	Traction lever make	JI		
14.	Ball joint traction lever	AR		
15.	Ball joint traction centre	GMT		
16.	Leveling Valve	KNORR	12-19 B 1589,12-19 B 1479	12-19 B 1265,12-19 B 1305
17.	Check Valve	KNORR	03-19 17344	03-19 17439
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	SARITA/GMT		
20.	Fork make	EMSON		
21.	Control Arm Upper	RVE	261218-5,251218-3,261218-1,251218-5	261218-2,271218-3,161218-5,241218-4
22.	Control Arm Lower	RVE	221218-3,211218-1,171218-1,211218-2	211218-1,190219-3,221218-3,221218-2
23.	Phonic Wheel	KNORR	K-02-19	K-02-19

Signature of SSE/Bogie/QC



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12. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/S- KBI, FARIDABAD	2595 15/19
2.	Distribution valve	M/S- KBI, FARIDABAD	2019 D 7555
3.	Pull box	M/S- KBI, FARIDABAD	
4.	Fiba	M/S- KBI, FARIDABAD	PP-5302/29 NPP-5546/29
5.	Foot Step	M/s- SUPER SPARK PVT. LTD. FARIDABAD	
6.	Decoupling arrangement	M/S- KOHINOOR INDIA JUC.	
7.	Floor board	M/S- SHRI RAM PANEL PUNJAB	
8.	PVC	M/s ACME INDIA, NDLS	
9.	Lavatory Inlay	M/S- SEEMA INDS. BHOPAL	
10.	UIC Vestibule (PPE)	M/S-KRP, MUMBAI	
11.	UIC Vestibule (NPPE)	M/S-KRP, MUMBAI	
12.	Gangway bridge mounting (PPE)	M/S- COMPETANT ENG. JUC	
13.	Gangway bridge mounting (NPPE)	M/S- COMPETANT ENG. JUC	
14.	Body Side Window	M/s- ACME INDIA NDLS	
15.	Emergency Window	M/s- ACME INDIA NDLS	
16.	Hopper Window	M/s- ACME INDIA NDLS	
17.	Side panel	M/s- ACME INDIA NDLS	
18.	Roof ceiling	M/s- ACME INDIA NDLS	
19.	Door way ceiling	M/s- ACME INDIA NDLS	
20.	Partition frame	M/s- ACME INDIA NDLS	
21.	Partition pillar	M/s- ACME INDIA NDLS	
22.	Body Side Doors	M/S- JVR IND LUDHINA	
23.	Vestibule Door(PPE)	M/S- JBM INDUSTRIES, FARIDABAD	
24.	Vestibule Door(NPPE)	M/S- JBM INDUSTRIES, FARIDABAD	
25.	Bio Tank with pressurized flushing	M/s- FLASH FORGE (P)LTD. VIZAG, M/s- IMI	
26.	Auxiliary Water Tank	M/s- AMIT ENG. MOHALI	
27.	Under Slung Water Tank(2X685L)	M/s- AMIT ENG. MOHALI	
28.	Under Slung Water Tank (1X685L)	M/S- SHIVALIK FASTNERS PVT.LTD. MOHALI	
29.	Flexible Faucet	M/s- ACME INDIA NDLS	
30.	Lotah Filler Tap	M/s- ACME INDIA NDLS	
31.	Controlled Discharge Tap	M/s- HINDWARE ,(HSIL LTD) GURGAON	
32.	Lavatory Doors	M/s- ACME INDIA NDLS	
33.	Seat & Berth	M/s- NARAMDA FOREST, BHOPAL	
34.	Snack Table	N/A	

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रेल डिब्बा कारखाना, रायबरेली (लालगंज)





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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/OC/MCF/RBL वरिष्ठ अभियंता गुणवत्ता विभाग रौडिंक, रायबरेली (बालगंज)	 SME/OC/MCF/RBL Senior Mechanical Engineer/Quality आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory Raebareli	 Dy. Chief Quality Manager उप मुख्य अभियंता आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory Raebareli
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MCF/RBL



Modern Coach Factory Raebareli
आधुनिक रेल डिब्बा कारखाना, रायबरेली

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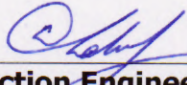
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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG NON AC COACHES

TYPE COACH	LWSCN	SHELL/COACH NO	194679/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



Modern Coach Factory Raebareli
आधुनिक रेल डिब्बा कारखाना, रायबरेली

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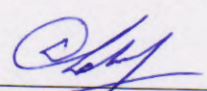
DATE:18.01.2017

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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

01.	Switch board cabinet Make : AMIT ENGG. On Board Sr no : AE/USBC-1195 HT Panel Sr no : AE/USBC-1173	EDTS 333, Rev` 01'Am-1	01
02.	Pump equipment with PLC controller & pump box Make : DR AUTO Sr no PA: 2019/05/20 Sr no.1 : 19040227 Sr no.2 : 19040229 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 : SSK/SALZER	EDML 086,Rev-03, ITEM-01	20
06.	Fitment of Switch Plate Assly Corridor Side),Make : SSK/SALZER	EDML 086, Rev 03, ITEM-02	20
07.	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
08.	Cabin,Corridor,doorway and Gangway Lights. Make: DR AUTO	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 ELECT.	CC76289 & CC76443	09


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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 : INTEG	LW 71002,Alt-F	01
13.	Regulated battery charger Make : WAVES Sr no: W4KSE 19033	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	01
14.	9KVA transformer Make : PANTRONICS Sr no : PAN-18018163	As per RDSO/PE/SPEC/TL 0158, 2010, Rev`0`,Ty I.	01
15.	ZS coupling 400A/750V/03Ph/50hz. Make : S.INTERNATIONALS	As per spec No EDTS 105,Rev`e` Am-3, TYPE-2	01 set
16.	Feeder junction boxes. Make : NEC	EDTS-328 REV-C	01 set
17.	Wheel set earthling equipment. Make : DARSHAN INTERPRISES	EDTS101,REV-C,AM-1	02 sets
18.	Wheel Slide Protection System (WSP) Make : KNORR Sr no : 0118380286	M/s : KNORR	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 : 05/19	RDSO/pe/spec/ac-0009 rev-1- 2008 amdt-1	01 set
20.	Battery box for LHB coaches. Make : HITECH	CC 91205	01

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