



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/2019-20/1124

RLY	N	F	R	Coach No.	1	9	7	6	5	9	/	C	DATE OF DISPATCH	2	7	-	1	1	-	1	9
DISPATCH TO	Sr.DME/DBRG				Type	L	W	S	C	N	1	Shell No.	9	7	4	5	6	FUR.NO.	LSCN-1340		

- Railway Board's Order No.** : 2019/M(C)/142/2, Dated: 21-11-2019
- Tare Weight of Coach** : 41.24 Tones
- Carrying Capacity** : (a) Seating: 80 (b) Sleeping: 80 (c) Luggage: NIL

4. **Special feature: -1.-** 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

2.- 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) 1105 (NPPE) 2) 1105 (PPE)

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Under frame	Front Part	PP END M/S-M.T.F
		NPP END	M/S-SFPL
	Complete	MCF/RBL(CONTRACTOR V4U)	
2.	Lav. side wall	M/S- RAIL TECH PVT.LTD. KXH	LAV.1 - LAV.2 -
		M/S- RAIL TECH PVT.LTD. KXH	LAV.3 - LAV.4 -
		MCF/RBL(CONTRACTOR V4U)	
3.	Side wall	LH SIDE	MCF/RBL(CONTRACTOR V4U)
		RH SIDE	MCF/RBL(CONTRACTOR V4U)
4.	End wall	PP END	M/s-AMIT ENG MOHALI
		NPP END	M/s-AMIT ENG MOHALI
		M/S-ECBT	
5.	Roof	M/S-ESCORT LTD	
6.	Centre Buffer Coupler	PP END	1994 NPP END 2015

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/cm². - Max. pressure in BC - All Brake are applied	6 – 10 sec. 3.0 ±0.15 kg/cm ² . OK	07 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-KANSAL NEROLAC	(SUPPLY & APPLY)	91/88	02.11.19
2.	Insulation	Satisfactory				

SSB/QC/MCF/RBL
 गुणवत्ता विभाग
 २० डि० २०, रायबरेली (लालगंज)



MODERN COACH FACTORY, RAEBARELI

आधुनिक रेल डिब्बा कारखाना, रायबरेली

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DISPATCH	Sr.DME/DBRG	Type	L	W	S	C	N	1	Shell No.	9	7	4	5	6	FUR .NO	LSCN-1340
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9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	192227				192228			
Bogie Type	FIAT				FIAT			
Frame no.	APEX- 04				MCF/RBL-2036			
Bolster no.	MCF/RBL-2767				AMIT-772			
Axle No	19 L- 5443 RWF		19 P - 2422 RWF		19 L - 5623 RWF		19 L- 5543 RWF	
Wheel Dia	917.521	917.491	917.48	917.526	917.398	917.566	917.489	917.544
Wheel Disc No	TZ 08-19 75901-9RS8	TZ 07-19 62643-9RL5	TZ 08-19 72847-9SK7	TZ 09-18 57128-9QL0	TZ 07-19 65226-9RS6	TZ 07-19 62642-9RL5	TZ 07-19 69072-9RL7	TZ 07-19 62548-9RN0
R.B. Nos.	09-19-36940	08-19-27715	09-19-38703	09-18-23362	09-18-38558	09-18-23008	09-19-38709	09-18-21765
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.	CMAFJ06-19-5101-115	CMFSK05-19-5100-027-535	CMAFJ06-19-5101-102	CMFSK05-19-5100-027-532	CMAFJ06-19-5101-164	CMFSK05-19-5100-027-582	CMAFJ06-19-5101-162	CMFSK05-19-5100-027-502
Compressed Ht. at Tested Load	516	472	516	472	516	470.5	516	469
10Alignment deviation (mm)	15	12	15	13	10	13	10	9

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	14665,13745	14674,14656
2.	Primary outer Spring	CMFSK	10-19 1100-114 (2110,158,756,2124)	10-19 1100-114 (2155,2111,2194,2104)
3.	Primary Inner Spring	CMFSK	10-19 1101-101 (420,437,218,595)	10-19 1101-101 (828,95,493,283)
4.	Primary Damper	KONIC	07-19 (05658,04257,5409,06742)	07-19 (06408,06703,06667,07801)
5.	Secondary Damper	IAI	07-19 (272969,272882)	07-19 (272703,272935)
6.	Lateral Damper	IAI	07-19 251277	05-19 250841
7.	Brake Cylinder	ESCORT	(95919,45863,45865,45920)	(47730,47484,47499,49682)
8.	Brake Caliper	ESCORT	(25739,25668,25670,25740)	(27332,27086,27081,27284)
9.	Brake Disc	KBI	24203751 0059-42/19,242037510 0060-42/19 24200057 0075-38/19,24200059 0020-38/19	24200052 0063-37/19,24200052 0064-37/19 24203750 0052-42/19,24203750 0044-42/19
10.	Ball Joint Control Arm	ARYAN		
11.	Lateral Bump Stop	ARYAN		
12.	Traction Centre make	SARITA		
13.	Traction lever make	TAJ		
14.	Ball joint traction lever	ARYAN		
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	SARITA/GMT		
20.	Fork make	RNG		
21.	Control Arm Upper	RVE	290819-3,210819-2,280819-2,280819-2	260819-2,2708192,210819-2,270819-2
22.	Control Arm Lower	RVE	RVE,290819-3,290819-3,290819-3	240819-3,RVE,RVE,RVE
23.	Phonic Wheel	KBI	K-05-19	K-05-19

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- ESCORTS LTD RAILWAY EQUIPMENT, FBD.	2019040129
2.	Pull box	M/S- KBI, FARIDABAD	
3.	Distribution valve	M/S- ESCORTS LTD RAILWAY EQUIPMENT, FBD.	1904A129
4.	FIBA	NA	NA
5.	Foot Step	M/s- SUPER SPAR K PVT. LTD. FARIDABAD	NA
6.	Decoupling arrangement	M/S-ELASTOMER LINING WORKS, MUMBAI	
7.	Floor board	M/s- SHRI RAM PANELS, GOVINDGARH	
8.	PVC	M/S RESPONSIVE IND.MUMBAI	
9.	Lavatory Inlay	M/s- SEEMA IND. BHOPAL	
10.	UIC Vestibule (PPE)	M/S-SUNCREST IND.KOLKATA	
11.	UIC Vestibule (NPPE)	M/S-SUNCREST IND.KOLKATA	
12.	Gangway bridge mounting (PPE)	M/S- MAHAVEER MATEL WORKS, KAPURTHALA	
13.	Gangway bridge mounting (NPPE)	M/S- MAHAVEER MATEL WORKS, KAPURTHALA	
14.	Body Side Window	M/s-EXCEL+FP KOLKATA	
15.	Emergency Window	M/s-AGF KOLKATA	
16.	Hopper Window	M/S- SHATABDHI SAFETY GLASS, VADODARA	
17.	Side panel	M/S-WONDER LAMINATION KOLKATA	
18.	Roof ceiling	M/s-ACME INDIA NEW DELHI	
19.	Door way ceiling	M/S-JAMM TOOLS RBL	
20.	Body Side Doors 1,2,3	M/S- JBM INDUSTRIES, FARIDABAD	
21.	Body Side Door 4	M/s- JVR INDS, LUDHIYANA	
22.	Vestibule Door(PPE)	M/S- JBM INDUSTRIES, FARIDABAD	
23.	Vestibule Door(NPPE)	M/S- JBM INDUSTRIES, FARIDABAD	
24.	Bio Tanks with electro pneu. flushing	M/s- RASANDIK ENG. INDUSTRIES, GURUGRAM & IMI	
25.	Auxiliary Water Tank	M/S- AMIT ENG. MOHALI	
26.	Under Slung Water Tank(2X685L)	M/S- AMIT ENG. MOHALI	
27.	Under Slung Water Tank (1X685L)	M/S- RAILTECH KAPURTHALA	
28.	Flexible 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- JR INDUSTRIES JALANDHAR	
32.	Seat & Berth	M/S- HINDUSTAN FIBRE GLASS WORKS,VADODARA	
33.	RFID	M/s-ID TECH SOLUTION GURGAON	Sr.103719,103720

SSE/QC/MCF/RBL
गुणवत्ता विभाग

रायबरेली, रायबरेली (लालगंज)



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DISPATCH TO	Sr.DME/DBRG			Type	L	W	S	C	N	1	Shell No.	9	7	4	5	6	FUR.NO.	LSCN-1340			
13. MODIFICATION (IF ANY)					:					NIL											

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, 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:

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 case extend 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 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 गुणवत्ता विभाग रेडि०का०, रायबरेली (लालमंज)	SME/QC/MCF/RBL वरिष्ठ यांत्रिक अभियन्ता/गुणवत्ता Senior Mechanical Engineer/Quality आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory Raebareli	Dy.CQM/MCF/RBL जोगिन्दर सिंह उप मुख्य गुणवत्ता प्रबन्धक Dy. Chief Quality Manager आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory, Raebareli



Modern Coach Factory Raebareli
आधुनिक रेल डिब्बा कारखाना, रायबरेली

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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG/HOG NON AC SCN COACHES
ELECTRICAL TEST CERTIFICATE FOR LHB/EOG/HOG NON AC COACHES

TYPE COACH	LWSCN	SHELL/COACH NO	197659/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	

[Signature]
Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli



Modern Coach Factory Raebareli
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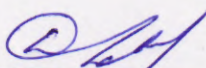
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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG/HOG NON AC SCN COACHES

01.	Switch board cabinet Make : HIND RECTIFIERS On Board Sr no : H.355.19.H.383 HT Panel Sr no : H.355.19.G.333	EDTS 333, Rev` 01'Am-1	01
02.	Pump equipment with PLC controller & pump box Make : DR AUTO Sr no PA: 2019/11/0025 Sr no.1 : 19100071 Sr no.2 : 19100014 Srno.CPA: sr no - 2019/11/041-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: KAVERI	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-I	02
05.	Fitment of Switch Plate Assly(Cabin Side) Make : RECORD/SALZER	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: 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	CC76289 & CC76443	09


Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli



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ROLLING STOCK CERTIFICATE OF LHB/EOG/HOG NON AC SCN COACHES

11.	Battery fuse box +ve Make : SSK	LW 71001,Alt-F	01
12.	Battery fuse box -ve Make : SSK	LW 71002,Alt-F	01
13.	Regulated battery charger Make : WAVES Sr no: W4K5G 19272	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	01
14.	9KVA transformer Make : VIMAL Sr no : VTC-3089-LHB-2526	As per RDSO/PE/SPEC/TL 0158, 2010, Rev` 0',Ty I.	01
15.	ZS coupling 400A/750V/03Ph/50hz. Make : PRIME ELECT.	As per spec No EDTS 105,Rev` e' Am-3, TYPE-2	01 set
16.	Feeder junction boxes. Make : AECO	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 : 180055-59399-0145	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

SSE/EL/QC वरिष्ठ अनुभाग अभियन्ता गुणवत्ता नियंत्रण अपरेटिंग/लालगंज/रायबरेली S.E./Elect-QC/M.C.F./LLJ/RBL	AWM(ELECT.)/MCF/RBL SEE(P)/MCF/RBL वरिष्ठ विद्युत अभियन्ता रेल कोच फैक्टरी, रायबरेली, Sr. Electrical Engineer / RCF / RBL