



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/2019-20/514

RLY	E	Co	R	Coach No.	1	9	5	9	0	0	/	C	DATE OF DISPATCH	2	7	-	0	7	-	1	9
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DISPATCH TO	Sr.CDO/VSKP	Type	L	W	S	C	N	1	Shell No.	9	7	2	1	3	FUR.NO.	LSCNG-246
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1. Railway Board's Order No. : 2019/M(C)/142/2, Dated-03-06-2019
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-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) 1102 (NPPE) 2) 1097 (PPE)

6. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Under frame Front Part	PP END M/S- DTL	13
		NPP END M/S- DTL	13
		Complete M/S- DTL	13
2.	Lav. side wall	M/S- COMPETANT ENG. JUC	LAV.1 - LAV.2 -
		M/S- COMPETANT ENG. JUC	LAV.3 - LAV.4 -
3.	Side wall	MCF/RBL (CONTRACTOR V4U)	54/01
		MCF/RBL (CONTRACTOR V4U)	54/02
4.	End wall	PP END M/s- RAIL TECH KXH	--
		NPP END M/s- RAIL TECH KXH	--
5.	Roof	MCF/CONT.	27
6.	Centre Buffer Coupler	M/S- SANROK, FARIDABAD	PP END 12971 NPP END 13055

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	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 -NEROLAC	M/S-KANSAI NEROLAC	90/89	01.07.19
2.	Insulation			Satisfactory		

वरिष्ठ अभियंता
SSE/QC/MCF/RBL

७० डि० का०, 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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DISPATCH	SR.CDO/VSKP	Type	L	W	S	C	N	1	Shell No.	9	7	2	1	3	FUR.NO	LSCN-G-246
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9. DETAIL OF BOGIES:

ITEMS	NPP Side				PP Side			
Bogie No	193030				193029			
Bogie Type	FIAT				FIAT			
Frame no.	SCI-2640				SCI-2639			
Bolster no.	SCI-116				SCI-85			
Axle No	19 P- 1717 RWF		19 P- 6693 RWF		19 P- 7322 RWF		19 P- 1554 RWF	
Wheel Dia	917.629	917.626	917.648	917.612	917.573	917.648	917.636	917.667
Wheel Disc No	TZ 05-19 41136-9PE2	TZ 05-19 49999-9PG1	TZ 05-19 50899-9PG3	TZ 05-19 49998-9PG1	TZ 05-19 45637-9PG1	TZ 05-19 49945-9PH4	TZ 05-19 41133-9PE2	TZ 05-19 50897-9PE6
R.B. Nos.	03-19 36187	03-19 36233	02-19 05141	03-19 36128	03-19 36173	02-19 03575	03-19 36105	02-19 04036
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.	TAYAL & CO. Sr.NO.19-06 1920	TAYAL & CO. Sr.NO.19-06 1915	TAYAL & CO. Sr.NO.19-06 1913	TAYAL & CO. Sr.NO.19-06 1928

11. TRACEABILITY OF BOGIE ITEMS :-

S. NO	ITEM	MAKE/SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KBI	13234,13225	13224,13230
2.	Primary outer Spring	CMSTL	07-19 07A(78,98,15,197)	07-19 07A(44,129,20,21)
3.	Primary Inner Spring	CMGBD	06-17 F06-937(141,248,204,200)	07-19 F06-937(242,556,508,20)
4.	Primary Damper	KONI	03-19 (02988,01604,02764,03038)	03-19 (00845,00784,01494,01496)
5.	Secondary Damper	KONI	03-19 (00294,00246)	03-19 (00276,00263)
6.	Lateral Damper	GABRIEL	11-18 1393	11-18 604
7.	Brake Cylinder	FAV	(D19-851,E19-004,D19-670,D19-774)	D19(551,142,804,780)
8.	Brake Caliper	FAV	E19(796,704,573,575)	E19(576,574,614,616)
9.	Brake Disc	KBI	24178936 0050-11/19,24173128 0059-08/19 24178935 0054-11/19,24173128 0048-08/19	24173458 0044-09/19,24173499 0036-09/19 24178935 0055-11/19,24178936 0051-11/19
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	06-19 A 10086,06-19 A 10090	06-19 A 10292,06-19 A 10557
17.	Check Valve	KNORR	03-19 17577	03-19 16494
18.	Anti roll bar Make	EMSON		
19.	Roll Link make	EMSON/GMT,		
20.	Fork make	EMSON		
21.	Control Arm Upper	RVE	150119-2,220119-2,150119-2,150119-2	150119-2,240119-2,220119-3,190119-2
22.	Control Arm Lower	RVE	250119-2,210119-2,150119-2,250119-2	051218-2,250119-2,150119-2,010119-2
23.	Phonic Wheel	KNORR	K-03-19	K-03-19

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	3076 15/19
2.	Distribution valve	M/S- KBI, FARIDABAD	2019 F 8063
3.	Pull box	M/S- KBI, FARIDABAD	
4.	Fiba	M/S- KBI, FARIDABAD	PP-7067/29 NPP-7206/29
5.	Foot Step	M/s- SUPER SPARK PVT. LTD. FARIDABAD	
6.	Decoupling arrangement	M/S-ELASTOMER LINING WORKS, MUMBAI	
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-SUNCREST IND.KOLKATA	
11.	UIC Vestibule (NPPE)	M/S-SUNCREST IND.KOLKATA	
12.	Gangway bridge mounting (PPE)	M/S- HARE KRISHNA COACH PRODUCT KXH	
13.	Gangway bridge mounting (NPPE)	M/S- HARE KRISHNA COACH PRODUCT KXH	
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- SARITA HITECH UMB.	
21.	Partition pillar	M/s- ACME INDIA NDLS	
22.	Body Side Doors	M/S- JBM INDUSTRIES, FARIDABAD	
23.	Vestibule Door(PPE)	M/S- JBM INDUSTRIES, FARIDABAD	
24.	Vestibule Door(NPPE)	M/S- JBM INDUSTRIES, FARIDABAD	
25.	Bio Tank	M/s- FLASH FORGE (P)LTD. VIZAG	
26.	Auxiliary Water Tank	M/s- AMIT ENG. MOHALI	
27.	Under Slung Water Tank(2X685L)	M/s- RAIL FAB KXH	
28.	Under Slung Water Tank (1X685L)	M/s- SHIVALIK FAST. MOHALI	
29.	Health 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- KALSI LUDHINA	
33.	Seat & Berth	M/s- ACME INDIA NDLS (DURABLE POLYMER)	
34.	Snack Table	N/A	

विकास अभियंता
रेलवे कारखाना रायबरेली
SSE/QC/MCF/RBL
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DISPATCH TO	Sr.CDO/VSKP	Type	L	W	S	C	N	1	Shell No.	9	7	2	1	3	FUR.NO.	LSCNG-246
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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/QC/MCF/RBL गुणवत्ता विभाग ३० डि० ०८००, रायबरेली (लालमंज)	 SME/QC/MCF/RBL Senior Mechanical Engineer/Quality आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory Raebareli	 Dy. Chief Quality Manager आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory, Raebareli
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Modern Coach Factory Raebareli
आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QEF/8001

REV NO: 00

DATE: 18.01.2017

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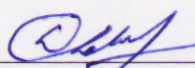
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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG NON AC COACHES

TYPE COACH	LWSCN	SHELL/COACH NO	195900/C
RAILWAY	ECOR	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
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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

01.	Switch board cabinet Make : MV ELECTRO SYSTEMS On Board Sr no : 059/L/19-20 HT Panel Sr no : 065/H/19-20	EDTS 333, Rev`01'Am-1	01
02.	Pump equipment with PLC controller & pump box Make : DR AUTO Sr no PA: 2019/06/0198 Sr no.1 : 19060688 Sr no.2 : 19060644 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: IMT CABLES	IS 6680/92,First Rev, RCF Amdt 4, Col I, Ty XI, RCF Cor I.	30
08.	Cabin,Corridor,doorway and Gangway Lights. Make: ENSAVE	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 : DR AUTO	CC76289 & CC76443	09

(Signature)
Senior Section Engineer
Quality control / Electrical
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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

11.	Battery fuse box +ve Make : AECO	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: W4K5F 19029	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	01
14.	9KVA transformer Make : VIMAL Sr no : VTC 3089 LHB-1975	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 : DARSHAN INTERPRISES	EDTS101,REV-C,AM-1	02 sets
18.	Wheel Slide Protection System (WSP) Make : KNORR Sr no : 0119091283	M/s : KNORR	01 set
19.	110V,120AH,VRLA SMF BATTERY SET WITH 19 MONOBLOCK (6V EACH) PRECHARGED,WIH MODIFIED TRAY TOSKED-644 Make : HBL Lug date : 06/19	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

रा० कार्य प्रबन्धक / विद्युत
आ०रे०डि०का० / रायबरेली
A.W.M./Electrical/MCF/RBL

