



Modern Coach Factory Raebareli

आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QMF 8002

REV NO: 00

DATE: 16.05.2016

ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2018-19/448

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2018-19																									
RLY	N	R	-	Coach No.	1	8	1	2	6	1	/	C	DATE OF DISPATCH				2	8	-	0	8	-	1	8	
DISPATCH TO		Sr.DME/DLI		Type	L	W	A	C	C	N	Shell No.		8	3	1	4	7	-	2	0	1	8	-	1	9
Railway Board's Order No. : 2018/M/(C)/142/2 dated -27-08-2018																									

1. Railway Board's Order No. : 2018/M/(C)/142/2 dated -27-08-2018
2. Tare Weight of Coach : 45.6 Tonnes
3. Carrying Capacity : (a) Seating: 72 (b) Sleeping: 72 (c) Luggage: NIL

4. 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	4250
4.	CBC height/Buffer height from Rail level 1105 +0/-10	1) 1098 (NPPE) 2) 1105 (PPE)

5. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Underframe	Front Part	1070
		PP END M/S SICO	1069
		NPP END M/S SICO	83147
	Complete	MCF/RBL	LAV.1 --- LAV.2 ---
2.	Lav.side wall	M/S JSL COMP.	LAV.3 --- LAV.4 ---
		M/S JSL COMP.	92
3.	Side wall	LH SIDE MCF/RBL	92
		RH SIDE MCF/RBL	---
4.	End wall	PP END M/S RSM	---
		NPP END M/S RSM	---
5.	Roof	M/s INDIRA	48
6.	Centre Buffer Coupler	M/S ESCORT	PP END 5545 NPP END 5666

6. AIRBRAKE TEST REPORT:

S NO	ITEM	DESCRIPTION	SPEC. VALUE	OBSERVED
1.	Full application brake	➤ 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

7. PAINTING DETAILS:

S NO	DESCRIPTION	TYPE OF PAINT	MAKE	APPLICATION BY MCF/ CONTRACTOR(SUPPLY & APPLY)	AVERAGE GLOSS VALUE
1.	Paint	P.U	M/S -GS	SUPPLY & APPLY	90/88
2.	Insulation			Satisfactory	

[Signature]
SSE/QC/MCF/RBL

वारं ०३ नु० अभियंता
गुणवत्ता विभाग
रे० डि० का०, रायबरेली (लालगंज)





MODERN COACH FACTORY, RAEBARELI

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RLY	N	R		-	Type	L	W	A	C	C	N	Shell No.		8	3	1	4	7	-	-	-	-	-	-	-

8. DETAIL OF BOGIES :

ITEMS	NPP Side				PP Side			
Bogie No	181204				181203			
Bogie Type	LWACCN				LWACCN			
Frame no.	MCF/RBL-1245				MCF/RBL-990			
Bolster no.	APEX-225				APEX-227			
Axle No	18 F-9271 RWF		18 F- 7556 RWF		18 F - 8327RWF		18 F -8844 RWF	
Wheel Dia	917.491	917.425	917.517	917.382	917.492	917.44	917.486	917.429
Wheel Disc No	TZ-04-18 10683-8MX7	TZ-03-18 09496-8MS7	TZ-04-18 15057-8NG8	TZ-03-18 09592-8MR5	TZ-05-18 17449-8MQ8	TZ-04-18 10686-8MX7	TZ-04-18 10685-8MX7	TZ-04-18 10684-8MX7
R.B. Nos.	06-18 10827	06-18 12542	05-18 10211	05-18 08149	06-18 11598	06-18 11322	06-18 12530	05-18 08235
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	
	Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner
Make & Nos.	CMAFJ07-18- 8836-35	CMFSK07-18- 9513 401-297	CMAFJ07-18- 8836-3	CMFSK07-18-9513- 401-132	CMAFJ07-18- 8836-26	CMFSK05-18-9513- 383-280	CMAFJ07-18- 8836-7	CMFSK07-18-9513- 401-210
Compressed Ht. at Tested Load	514	465	513	468	515	464.5	513	468
Alignment deviation (mm)	5	7	5	7	7	11	6	11

10. TRACEABILITY OF BOGIE ITEMS:

S. NO	ITEM	MAKE/ SUPPLIER	SERIAL NO.	
			NPP SIDE	PP SIDE
1.	Yaw Damper	KNORR	9463,9465	9462,9464
2.	Primary outer Spring	CMGBD	06-18 41176-(447,150,282,76)	06-18 41176-(451,150,438,452)
3.	Primary Inner Spring	CMFSK	04-18 7143-404(723,808,779,788)	04-18 7143-404(970,880,975,873)
4.	Primary Damper	KNORR	05-18(21456,21797,21760,21793)	05-18(21765,21809,21461,21758)
5.	Secondary Damper	KNORR	05-18(4797,4803)	05-18(4798,4804)
6.	Lateral Damper	IAI/KNORR	03-18 202214	11-17 1688
7.	Brake Cylinder	KBI	A(6524,6017,6057,6546)K29	A(6549,5907,6058,6497)K29
8.	Brake Caliper	KBI	A(4950,5013,5012,4947)-29	A(4948,5014,5015,4949)-29
9.	Brake Disc	KBI	24147650 0015-25/18,24147646 0045-25/18 24147652 0032-26/18,24147651 0050-26/18	24147651 0058-26/18,24147652 0005-26/18 24144214 0035-23/18,24147652 0004-26/18
10.	Ball Joint Control Arm	AR		
11.	Lateral Bump Stop	AR		
12.	Traction Centre make	SARITA		
13.	Traction lever make	SF		
14.	Ball joint traction lever	AR		
15.	Ball joint traction centre	AR		
16.	Secondary Rubber Pad	TECSPAK		
17.	Rubber Spring	AR		
18.	Anti roll bar make	EMSON		
19.	Roll Link make	SARITA/AR,		
20.	Fork make	EMSON		
21.	Control Arm Upper	RVE	210718-1,180718-2,180718-2,180718-2	160718-2,090718-1,160718-3,180718-2,
22.	Control Arm Lower	RVE	100718-3,RVE,200718-3,030718-2	190718-3,200718-3,190718-3,190718-3

Signature of SSE/Bogie/QC



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DISPATCH TO	Sr.DME/DLI	Type	L	W	A	C	C	N	Shell No.	8	3	1	4	7	-	2	0	1	8	-	1	9
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11. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/s KBI Faridabad. New Delhi	1358 29/18
2.	Pull box	M/s KBI Faridabad. New Delhi	2018 G 5652
3.	Distribution valve	M/s KBI Faridabad. New Delhi	
4.	Foot Step	M/s HITECH INER AVENTUROS PVT. LTD. RBL	
5.	Decoupling arrangement	M/s KOHINOOR INDS. MUMBAI	
6.	Floor board	M/s TWPL .mumbai	
7.	PVC	M/s RESPONSIVE INDS. LTD. MUMBAI	
8.	UIC Vestibule (PPE)	M/s SUNCREST INDS. KOLKATA	
9.	UIC Vestibule (NPPE)	M/s SUNCREST INDS. KOLKATA	
10.	Gangway bridge mounting (PPE)	M/s Rakesh iron store KXH	
11.	Gangway bridge mounting (NPPE)	M/s Rakesh iron store KXH	
12.	Body Side Window	M/s SHATABDI SAFETY GLASS,VADODARA	
13.	Emergency Window	M/s SHATABDI SAFETY GLASS,VADODARA	
14.	Lavatory/hopper Window	M/s Birkan engg.pvt.ltd. GAZIABAD	
15.	Roof Ceiling	M/s Hindustan fibre ltd vadodara	
16.	Door way /gang way ceiling	M/s GANDHI SAFE & ALLIED,JALANDHAR	
17.	Supply Air Duct	M/s AMIT ENGG. PANCHKULA	
18.	Partition panel	M/s UNIVERSAL MTAL TEK, NOIDA	
19.	Partition pillar	M/s JR IND., Jalandhar	
20.	Side Wall panel	M/s Hindustan fibre ltd ,vadodara	
21.	AC Trough	M/s AISHANA FIBRE LTD. LKO	
22.	Body Side Door 3	M/s JVR INDUSTRIES	
23.	Body Side Door 1,2,4	M/s Sukata Tractor parts pvt.ltd. CDG	
24.	Compartment Door (PPE)	M/s Hanspal Ttraders, KXH	
25.	Compartment Door (NPPE)	M/s Hanspal Ttraders, KXH	
26.	Vestibule Door(PPE)	M/s JBM, Faridabad	
27.	Vestibule Door(NPPE)	M/s JBM, Faridabad	
28.	Bio Tank	M/s Amit Engg, Baddi	
29.	Auxiliary Water Tank	M/s Shivalic fastners pvt.ltd. mohali	
30.	Under Slung Water Tank (2X685L)	M/s Amit Engg. MOHALI	
31.	Under Slung Water Tank (1x450 L)	M/s Amit Engg. Mohali	
32.	Flexible Faucet	M/s-ARHAM HI-TECH DEG. SOLUTION PVT.LTD. MUMBAI	
33.	Lotah Filler Tap	M/s-ARHAM HI-TECH DEG. SOLUTION PVT.LTD. MUMBAI	
34.	Bib cock	M/s JAQUAR PVT. LTD ALWAR	
35.	Lavatory Modoules	M/s-ARHAM HI-TECH DEG. SOLUTION PVT.LTD. MUMBAI	
36.	Lavatory Doors	M/s-ARHAM HI-TECH DEG. SOLUTION PVT.LTD. MUMBAI	
37.	Fire Extinguisher	M/s SAFE PRO FIRE SERVICE PVT.LTD.. MUMBAI	NPP-3149,PP-3137
38.	Seat & Berth	M/s Oriental veneer products mumbai	
39.	Light Luggage Rack	M/s- Techno ind. ALD	
40.	Snack Table	M/s- MACHINO PLASTIES LTD. GURGAON	

Suman
SSE/QC/MCF/RBL

गुणवत्ता विभाग
रेडिओका, रायबरेली (लालगंज)



<p>If any imperfection is noticed or any defect arises during the work only workmanship, the contractor shall be bounded to set right the defect/ imperfection on free of cost basis at the disposal of the contractor.</p>	<p>जी.एस. पाण्डेय G.S. Pandey Assistant Mechanical Engineer (Qual.) आधुनिक रेल डिजा कारखाना, रायबरेली Modern Coach Factory, Rae Bareilly</p>	<p>जोगिन्दर सिंह Joginder Singh उप मुख्य गुणवत्ता प्रबन्धक Dy. Chief Quality Manager आधुनिक रेल डिजा कारखाना, रायबरेली Modern Coach Factory, Rae Bareilly</p>
<p>हस्ताक्षर SSE/QC/MCF/RBL</p>	<p>हस्ताक्षर AME/QC/MCF/RBL</p>	<p>हस्ताक्षर Dy.CQM/MCF/RBL</p>
<p>विवरण गुणवत्ता विभाग रेडिओका 0, रायबरेली (लालगंज)</p>	<p>विवरण गुणवत्ता विभाग रेडिओका 0, रायबरेली (लालगंज)</p>	<p>विवरण गुणवत्ता विभाग रेडिओका 0, रायबरेली (लालगंज)</p>

37-94)

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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG AC COACHES

TYPE COACH		LWACCN	SHELL/COACH NO	181261/C
RAILWAY		NR	DATE OF DESPATCH	
Sr no	Description of tests			Remarks
1.0	REFERENCE SPECIFICATION : L 446			
1.1	AIR CONDITIONING TEST : ELPS/TP/AC 01.			
1.2	CODE OF PRACTICE OF WIRING : ELPS/SPEC/EOG/AC-01			
2.0	INSULATION RESISTANCE : Setting of insulation monitoring relay at 30K ohms as per TD 111 of M/s LHB.			
	Observed status : HEALTHY			
3.0	AIR DELIVERY MEASUREMENT	OBSERVED VALUE		OK
3.1	Fresh Air	29.00 Cub mtr/min		OK
3.2	Return Air	50.49 Cub mtr/min		OK
3.3	Exhaust Air	9.57 Cub mtr/min		OK
3.4	Conditioned Air	186.27 Cub mtr/min		OK
4.0	PRE COOLING TEST: Max 01 hr. Time taken to pre cool from 45 deg centigrade to 24/22 deg C during OFF LOAD condition PP Side :21.2 °C NPP Side :22.4 °C			OK
5.0	PULL DOWN TEST: Max 02 hrs. Time taken to pull down from 45 deg C to 24/22 deg C during FULL LOAD condition. Not done			OK

Senior Section Engineer
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ELECTRICAL TEST CERTIFICATE FOR LHB EOG AC COACHES

Sr no	Description of test	Remarks
6.0	HUMIDITY CONTROL	OK
7.0	PUMP EQUIPMENTS	OK
8.0	WORKING OF EXHAUST FANS OVER LAVATORIES	OK
9.0	WORKING OF COMPOSITE PANTRY	OK
10.0	COMPARTMENT LIGHT	OK
11.0	PUBLIC ADDRESSING SYSTEM (PAS)	OK
12.0	WHEEL SLIDE PROTECTION SYSTEM (WSP)	OK
13.0	WORKING OF 60KVA TRANSFORMER	OK
14.0	WORKING OF REGULATED BATTERY CHARGER	OK
15.0	WORKING OF EMERGENCY BATTERY CHARGER	OK
16.0	SAFETIES :	
16.1	THERMOSTAT :	OK
16.2	ROTARY 07 SET POINTS (NORMAL CONDITION)	OK
16.3	MID SET POINTS (SENSORS FAILED CONDITIONS)	OK
16.4	HYGROSTAT	OK
16.5	CONTROL CIRCUIT	OK
16.6	POWER CIRCUIT	OK
17.0	REFRIGERANT USED R 407C	OK

(Signature)

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ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
01.	Roof mounted AC package unit for LHB AC coaches. Make : AMIT ENGG. Sr no of RMPU (NPP side): 2649-E Sr no of RMPU (PP side) : 2656-E Sr no of Microprocessor: AE-17.05.001	As per rdso/pe/spes/ac/0061/rev-1/2005	02
02.	Switch board cabinet Make : TRINITRON Sr no : 18/04/TCS/RBL/3407/0184/014	RDSO/PE/SPEC/AC/0184-2015 REV-0	01
03.	Pump equipment with PLC controller & pump box Make : KALSI Sr no PA : 6966/03/2018 Sr no.1 : 289085 Sr no.2 : 289086 Sr no.CPA : 7057/04/2018	As per spec EDTS 186,Rev-a, Am- 2	01
04.	Double inlet centrifugal blower 415V/03Ph /50Hz /120W/450 cum mtr/hr discharge for exhausting air from lavatory & switch board cabinet Make : INTEG	EDTS331, TYPE-1 CORR.-1&2	02
05.	Door way/Gangway Light Make : DR AUTO	RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-N	07
06.	Provision of Passenger area light(Cabin) Make: DR AUTO	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-L	09
07.	Corridor Light with Night light Make: DR AUTO	RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-M	09
08.	Emergency light system for EOG type coaches (AEL) Make : MAAVE ELECT.& INTRA ELECT.	EDTS 151,Rev -c Am-1 & 2	04
09.	Lavatory light fitting assly Make : NIL	LW 76001,Alt nil	04
10.	Toilet indication (WC) light, Make: AGASTYA	As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-H1	04
11.	Passenger alarm coach indication light Make : DR AUTO	LW 76005,Alt-e	02

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ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
12.	Razor socket for WC 110/240V. Make : SSK	EDML 047,Rev nil	04
13.	Terminal strip Make : WAGO	EDML 034,Rev-a	01
14.	Terminal connector Make : WAGO	EDML 037,Rev`a'	04
15.	Single switch 06A/250V/AC ONE WAY ,complete with steel plate & cover frame Make : SSK	EDML 0,64,Rev-B, Item 04.	09
16.	Single switch 06A/250V/AC ONE WAY complete with steel plate & cover frame Make : SSK	EDML 0,64,Rev-B, Item 05.	09
17.	Provision of switch socket combined 5PIN (06A, 250V AC) along with 1A glass fuse fitted powder coated steel plate & cover frame Make : SSK	EDML 0,64,Rev-B, Item -16.	09
18.	PA system for LHB coaches Make : AHUJA	EDTS 173,Rev- a Am-1,2&3	01 set
19.	70AH/110V,54 Cells,02V each ,maintenance free pure lead acid tin monoblock ,battery set with 09 modules 12V each. , factory pre charged. Make : AMARA RAJA Lug date : 05/18	EDTS 129,Rev nil	01 set
20.	Battery box for LHB coaches. Make : TECHNO INDUSTRIES	1 10113 0 76 700 005 w/o item 5,22 ,23 ,26 & 27.	01
21.	Battery fuse box +ve Make : INTEG	As per LW 71001,Alt-F	01
22.	Battery fuse box -ve Make : SSK	As per LW 71002,Alt-F	01

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ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
23.	Emergency battery charger Make : WAVES Sr no: WEBCF-184375 Make : WAVES Sr no: WEBCF-184450	EDTS 163,Rev `c' corg.-2&3	02
24.	Provision of 5KVA TFR Make : VIMAL SL.no : VTC-3089-LHB-482	As Per EDTS-366,REV-NIL & CC-71510	01
25.	Provision of capacitor Bank Make : STANDARD CAPACITORS SL.no : 18C-437	As per EDML-130 Rev-1,Corr-1	01
26.	60KVA transformer Make : AUTOMATIC Elect Ltd Sr no : 8/17/T509927/82	As per rdso/pe/spec/ac/0080/rev-0 (2007)/Am-1&2/Corr. 1,2&3	01
27.	Inter Vehicle (ZS)coupler Make: PRIME ELECT.	As per RDSO PE SPEC-0177-2013 REV-0	01 set
28.	Feeder junction boxes. Make : MAA LAXMI INDUSTRIES	EDTS-328 REV-C	01 set
29.	Wheel set earthing equipment. Make : CHANDA & CHANDA ENGG.	EDTS101,REV-C,AM-1	02 sets
30.	Wheel Slide Protection System (WSP) Make : KNORR Sr no : 0118175436	M/s : KNORR	01 set
31.	PANTRY EQUIPMENTS : Hot Case & Bottle cooler cum deep freezer Make : SUPER REFRIGERATION	As per EDTS -139, Rev- E ,Sec II.	01

<p>वरिष्ठ अनुष्ठापन अभियन्ता SSE/EL/QC उपनिर्देशक/लातगंज/रायबरेली S.S.E./Elect-QC/M.C.F./RBL</p>	<p>वरिष्ठ विद्युत अभियन्ता रेल कोच फैक्टरी, रायबरेली, लखनऊ वरिष्ठ इंजीनियर/RCF/RBL/Lucknow SEE(P)/MCF/RBL/ DYCEE/P&P/MCF/RBL</p>
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