



Modern Coach Factory Raebareli आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QMF 8002

REV NO: 00

DATE:

ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2016-17/ 334

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|-----------|---|---|---|------|---|---|---|---|---|------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coach No. | | 1 | 6 | 2 | 8 | 8 | / | C | - | DATE OF DISPATCH | | | | 3 | 0 | 1 | 2 | 2 | 0 | 1 | 6 | | |
| RLY | C | R | - | Type | L | W | S | C | N | Shell No. | 6 | 7 | 1 | 3 | 4 | - | 2 | 0 | 1 | 6 | - | 1 | 7 |

1. Railway Board's Order No. : 2016/M(C)/142/1 Dated- 18.05.2016
2. Tare Weight of Coach : 41.24 Tones
3. Carrying Capacity : (a) Seating: 80 (b) Sleeping: 80 (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 | 4039 |
| 4. | CBC height/Buffer height from Rail level 1105 +0/-15 | 1)1105 (NPPE) 2)1104 (PPE) |

5. TRACEABILITY OF SHELL ITEMS:

| S NO | ITEM | MAKE/SUPPLIER | SERIAL NO |
|------|-----------------------|-------------------------------|----------------------------|
| 1. | Underframe | Front Part | PP END 67134 NPP END 67134 |
| | | Complete | M/s-MCF/RBL |
| 2. | Side wall | M/s-MCF/RBL | RH 67134 LH 67134 |
| 3. | End wall | PP- M/s Rail Tech, KXH | PP END 67134 NPP END 67134 |
| | | NPP- M/s Rail Tech, KXH | |
| 4. | Roof | M/s-DTL Ancillaries Ltd. PUNE | |
| 5. | Centre Buffer Coupler | M/s ESCORTS | PP END 6579 NPP END 6583 |
| 6. | Buffers | N.A. | |

6. 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 | 6 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 DAETAILS:

| S NO | DESCRIPTION | TYPE OF PAINT | MAKE | AVERAGE GLOSS VALUE |
|------|-------------|---------------|--------------|---------------------|
| 1. | Paint | P.U | BERGER | 92/87 |
| 2. | Insulation | | Satisfactory | |

[Signature]
SSE/QC/MCF/RBL

गुणवत्ता विभाग
रेडि0का0, रायबरेली (लालगंज)



MODERN COACH FACTORY, RAEBARELI

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| Coach No. | 1 | 6 | 2 | 8 | 8 | / | C | - | DATE OF DISPATCH | 3 | 0 | / | 1 | 2 | / | 1 | 6 |
|-----------|---|---|---|---|---|---|---|---|------------------|---|---|---|---|---|---|---|---|

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|-----|---|---|------|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RLY | C | R | Type | L | W | S | C | N | Shell No. | 6 | 7 | 1 | 3 | 4 | - | 2 | 0 | 1 | 6 | - | 1 | 7 |
|-----|---|---|------|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|

8. DETAIL OF BOGIES :

| ITEMS | PP Side | | | | NPP Side | | | |
|---------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Bogie No | 160769 | | | | 160770 | | | |
| Bogie Type | FIAT | | | | FIAT | | | |
| Frame no. | VS/RBL-276 | | | | VS/RBL-281 | | | |
| Bolster no. | JUPITER-66 | | | | JUPITER-63 | | | |
| Axle No | S-3398 RWF | | S-2853 RWF | | S-3637 RWF | | S-3318 RWF | |
| Wheel Dia | 917.405 | 917.381 | 917.394 | 917.33 | 917.404 | 917.344 | 917.414 | 917.302 |
| Wheel Disc No | 00172-6071 VR 06-16 | 00115-6047 VR 06-16 | 00024-6129 VR 07-16 | 00152-6104 VR 07-16 | 00128-6129 VR 07-16 | 00042-6104 VR 07-16 | 00117-6108 VR 07-16 | 00175-6043 VR 06-16 |
| R.B. Nos. | 02-16 83347 | 02-16 83163 | 02-16 83351 | 02-16 83190 | 02-16 83193 | 01-16 78054 | 02-16 81429 | 01-16 78228 |
| CT R B Make | SKF | | SKF | | SKF | | SKF | |

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. | DN150-1357 | DN15G-910 | DN150-2211 | DN15G-852 | DN150-1224 | DN15G-907 | DN150-1269 | DN15G-885 |
| Compressed Ht. at Tested Load | 514 | 470 | 514 | 469 | 515 | 467 | 516 | 470 |
| Alignment deviation (mm) | 10 | 9 | 9 | 7 | 12 | 13 | 9 | 9 |

10. TRACEABILITY OF BOGIE ITEMS:

| S. NO | ITEM | MAKE/ SUPPLIER | SERIAL NO. | |
|-------|----------------------------|-------------------|--|---|
| | | | NPP SIDE | PP SIDE |
| 1. | Primary outer Spring | CMGBD | 11-16 1100-133(115,75,73,101) | 11-16-1100-133(85,142,143,117) |
| 2. | Primary Inner Spring | CMGBD | 08-16-1101-64-24, 10-16-1101-124(71,57,30) | 10-16-1101-124(3,53),08-16-1101-64(55,27) |
| 3. | Primary Damper | KONI | 06-2016(33425,33424,33311,33398) | 06-2016(33408,33151,33178,33181) |
| 4. | Secondary Damper | KONI | 18-2016 (8872,8929) | 18-2016(8905,9063) |
| 5. | Lateral Damper | KONI | 22-2016 5355 | 22-2016 5340 |
| 6. | Brake Cylinder | KBI | 4658K29,4631K29,4630K29,4661K29 | 4693K29,4491K29,4494K29,4691K29 |
| 7. | Brake Caliper | KBI | 4224-29,4322-29,4321-29,4227-29 | 4259-29,4192-29,4195-29,4257-29 |
| 8. | Brake Disc | FAV | 10-16(4936,4933,4971,4974)D133561-300 | 10-16(4916,4920,5055,4873)D133561-300 |
| 9. | Ball Joint Control Arm | SGA | | |
| 10. | Lateral Bump Stop | GMT | | |
| 11. | Traction Centre make | SARITA | | |
| 12. | Traction lever make | SARITA/JI 07-16 | | |
| 13. | Ball joint traction lever | GMT | | |
| 14. | Ball joint traction centre | SGA | | |
| 15. | Secondary Rubber Pad | TECSPAK | | |
| 16. | Rubber Spring | MTC | | |
| 17. | Anti roll bar make | SARITA/EMSON | | |
| 18. | Roll Link make | SARITA/MGN | | |
| 19. | Fork make | SARITA | | |

Signature of SSE/Bogie/QC



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|-----|---|---|---|------|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|

11. TRACEABILITY OF FURNISHING ITEMS:

| S NO | ITEM | MAKE/SUPPLIER | SERIAL NO |
|------|-----------------------------------|--|-----------|
| 1. | Air Brake Module | M/s KBI ,Palwal Haryana | 16K1858 |
| 2. | Pull box | M/s KBI ,Palwal Haryana | |
| 3. | DV | M/s KBI ,Palwal Haryana | 2016J2657 |
| 4. | PVC | M/s Premier polyfilm, New Delhi | |
| 5. | UIC Vestibule (PPE) | M/s Sun crest Industries West Bengal | |
| 6. | UIC Vestibule (NPPE) | M/s Sun crest Industries West Bengal | |
| 7. | Foot Step | M/s Hi-tech Infra RBL | |
| 8. | Lavatory Inlay | M/s Oasis Fabrication Jagdhari | |
| 9. | Decoupling arrangement | M/s Kohinoor Industries, Faridabad | |
| 10. | Body Side Window | M/s AGF Pvt. Ltd , Kolkata | |
| 11. | Emergency Window | M/s AB Composites, Kolkata | |
| 12. | Hopper Window | M/s Rail Tech, KXH | |
| 13. | Non-AC Area Ceiling | M/s Gandhi Safe & Allied, Jalandhar | |
| 14. | Body Side Doors | M/s JBM ,Faridabad/Sukata CDH | |
| 15. | Vestibule Door(PPE) | M/s Kalsi LDH | |
| 16. | Vestibule Door(NPPE) | M/s Kalsi LDH | |
| 17. | Bio Tank | M/s Amit Engg. Mohali | |
| 18. | Auxiliary Water Tank | M/s Manoj Enterprises Mohali Punjab | |
| 19. | Under Slung Water Tank (2X685L) | M/s Shivalik Fasteners, Mohali Punjab | |
| 20. | Under Slung Water Tank (1X450L) | M/s Shivalik Fasteners, Mohali Punjab | |
| 21. | Bib Cock/Controlled Discharge Tap | M/s KPR Industries, Mohali | |
| 22. | Lavatory Doors | N/A | |
| 23. | Seat & Berth | M/s Savitri Engg. Products Ponta Sahib, HP | |
| 24. | Snack Table | M/s Gandhi Enterprises, Jalandhar | |

[Signature]
 MCF/RBL
 गुणवत्ता विभाग
 रेडिओका, रायबरेली (लालगंज)



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|-----|---|---|---|------|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|

12. MODIFICATION (IF ANY) : NIL

13. DEVIATION (IF ANY) : NIL

14. ITEM FITTED ON THE COACH ON TRIAL: NIL

| S NO | ITEM PARTICULARS | PURPOSE | REPORT | REFERENCE & PERIOD OF TRIAL |
|------|------------------|---------|-----------|-----------------------------|
| | | | Frequency | |
| | | | | |

15. WARRANTY:

| S NO | COMPONENTS | WARRANTY |
|------|---|--|
| 1 | Brake blocks, wheels, push gravity cocks, flushing valves, moldings, window glasses, mirrors, roller blinds, curtain & bulbs etc. (items which are consumable in nature) | NIL |
| 2 | Other coach furnishing sub assemblies(bought out items) | 24 months date of dispatch of coach or 30 months from 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 qualityrcfrbl@gmail.com

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| वरिष्ठ अनुसंधान अभियंता SSE/QC/MCF/RBL गुणवत्ता विभाग रेडिओका, रायबरेली (लालगंज) | असिस्टेंट मेकानिकल इंजीनियर/गुणवत्ता G.S. Pandey आधुनिक रेल डिब्बा कारखाना, रायबरेली Modern Coach Factory, Raebareli | Dy.CME/FUR/MCF/RBL उप मुख्या अभि. / फर्नि. DY CME/FURNISHING रेल कोच फैक्ट्री / रायबरेली / लालगंज. RCF / RBL / LLJ |



Govt. of India- Ministry of Railways
(MODERN COACH FACTORY RAEBARELI)



MCF/RBL/QEFSCN-8001

VER. 01.06.2016

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 | 16288/C |
|------------|---------------------------------------|------------------|---------|
| RAILWAY | CR | 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 | |

P. Kumar
Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli



Govt. of India- Ministry of Railways
(MODERN COACH FACTORY RAEBARELI)



MCF/RBL/QEFSCN- 8001

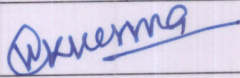
VER. 01.06.2016

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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

| | | | |
|-----|--|--|-----------|
| 01. | Switch board cabinet Make : AMIT On board Sr no : 335 HT panel Sr no : 319 | EDTS 333, Rev` 01`Am-1 | 01 |
| 02. | Pump equipment with PLC controller& pump box Make: DR AUTO Sr no PA: 2016/08/051 Sr no.1: 16070265 Sr no.2: 16070361 Srno.CPA: 2016/08/0082 | As per spec EDTS 186,Rev-a, Am- 2 | 01 |
| 03. | Emergency light system for EOG type coaches (AEL) | EDTS 151,Rev -c Am-1 & 2 | 04 |
| 04. | Lavatory light fitting assly | LW 76001,Alt nil | 04 |
| 05. | Fitment of Passenger Alarm cum indication light (PACIL). | As per drg no. LW 76005,Alt -e 02 nos | |
| 06. | Fitment of Switch Plate Assly(Cabin Side) | EDML 086, Rev-03. | 10 |
| 07. | Fitment of Switch Plate Assly Corridor Side) | EDML 086, Rev 03. | 10 |
| 08. | Fitment of Railway carriage Fan 400mm Sweep, 110V DC with crash worthy features. Make : R KANWAR | IS 6680/92,First Rev, RCF Amdt 4, Col I, Ty XI, RCF Cor I. | 30 |
| 09. | Fitment of Fluorescent light fitting for LHB type coaches. | LW 76033,Alt`c, | 04 |
| 10. | Fitment of Fluorescent light fitting, SINGLE with 110V AC/DC ballast. | CC 76213,Alt`d`. | 24 |
| 11. | Night Light Fitting (LED BASED) Sticker For Berth Number On Night light Fitting For LHBSCN(80-BERTHER)Coaches | CC76289 & CC76443 | 10 |


Senior Section Engineer
Quality control / Electrical
Modern Coach Factory Raebareli



**Govt. of India- Ministry of Railways
(MODERN COACH FACTORY RAEBARELI)**



MCF/RBL/QEFSCN- 8001

VER. 01.06.2016

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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

| | | | |
|-----|---|--|----------------|
| 12. | Fitment of Compact Fluorescent Light fitting DOUBLE with 110V AC/DC ballast. | CC 76216, Alt `c'. | 02 |
| 13. | FL Tubes, 02 Feet ,18Watt ,colour temp 6500K | RDSO/PE/SPEC/TL 0011, Sec I, Rev I, 07 2001. | 24 |
| 14. | Battery fuse box +ve Make : NEC | LW 71001,Alt-F | 01 |
| 15. | Battery fuse box -ve Make : INTEG | LW 71002,Alt-F | 01 |
| 16. | Regulated battery charger Make : HIREL Sr no: 16100232 | As per RDSO/pe/spec/ac/0129, Rev.-1 (2009) | 01 |
| 17. | 9KVA transformer Make : PANTRONICS Sr no : PAN-15015654 | As per RDSO/PE/SPEC/TL 0158, 2010, Rev `0',Ty I. | 01 |
| 18. | ZS coupling 400A/750V/03Ph/50hz. Make : S INTERNATIONAL | As per spec No EDTS 105,Rev `e' Am-2 | 02 sets |
| 19. | Feeder junction boxes. Make : NEC | EDTS-328 REV-C | 02 |
| 20. | Wheel set earthling equipment. Make : CHANDA & CHANDA | EDTS101,REV-C,AM-1 | 02 |
| 21. | Wheel Slide Protection System (WSP) Make : KNORR Sr no : 0116212482 | M/s : KNORR | 01 set |
| 22. | 110V,120AH,VRLA SMF BATTERY SET WITH 19 MONOBLOCK (6V EACH) PRECHARGED,WIH MODIFIED TRAY TOSKED-644 Make : AMARA RAJA Lug date : 12/2016 | RDSO/pe/spec/ac-0009 rev-1-2008 amdt-1 | 01 set |
| 23. | Battery box for LHB coaches. | CC 91205 | 01 |

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| SSE/EL/QC | Dy CEE(P)/MCF/RBL |

वरिष्ठ खण्ड अभियन्ता
विद्युत उत्पादन-गुणवत्ता
रेल कोच फैक्टरी / लालगंज / रायबरेली
Section Engineer

उप मुख्य विद्युत अभियन्ता (उत्पादन)
रेल कोच फैक्ट्री-रायबरेली, लालगंज