



# Modern Coach Factory Raebareli

DOC NO.: MCF/RBL/QMF 8002/PC

REV NO: 00

DATE: 10.10.2017

आधुनिक रेल डिब्बा कारखाना, रायबरेली

## ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/ 17-18/454

|           |   |   |   |   |   |   |   |   |                  |   |   |   |   |   |   |   |   |
|-----------|---|---|---|---|---|---|---|---|------------------|---|---|---|---|---|---|---|---|
| Coach No. | 1 | 7 | 8 | 6 | 3 | / | C | - | DATE OF DISPATCH | 0 | 3 | - | 0 | 1 | - | 1 | 8 |
|-----------|---|---|---|---|---|---|---|---|------------------|---|---|---|---|---|---|---|---|

|     |   |   |   |   |      |   |   |   |   |   |   |           |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----|---|---|---|---|------|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RLY | N | W | R | - | Type | L | W | L | R | R | M | Shell No. | 7 | 8 | 0 | 0 | 7 | - | 2 | 0 | 1 | 7 | - | 1 | 8 |
|-----|---|---|---|---|------|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|

1. Railway Board's Order No. : 2017/M(C)/142/2 Date-28.07.2017
2. Tare Weight of Coach : 53.2 Tonnes
3. Carrying Capacity : (a) Seating: NIL (b) Sleeping: NIL (c) Luggage: 3.9 tones

### 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/-10 | 1) 1104 (NPPE) 2) 1105 (PPE) |

### 5. TRACEABILITY OF SHELL ITEMS:

| S NO | ITEM                  | MAKE/SUPPLIER                                 | SERIAL NO                  |
|------|-----------------------|---|----------------------------|
| 1.   | Under frame           | Front Part M/S E.c.blades & tool pvt. Ltd CDG | PP END 10 NPP END 06       |
|      |                       | Complete M/s MCF/RBL                          |                            |
| 2.   | Side wall             | M/s MCF/RBL                                   | RH 78007 LH 78007          |
| 3.   | End wall              | M/s Amit engg                                 | PP END 78007 NPP END 78007 |
|      |                       | M/S Rail tech pvt.ltd. KXH                    |                            |
| 4.   | Roof                  | M/s MCF/RBL                                   |                            |
| 5.   | Centre Buffer Coupler | M/S Escorts ltd railway equipment FBD         | PP END 1078 NPP END 1335   |
| 6.   | Buffers               | M/S Raneka ind.ltd.                           | N.A NPP END 78007          |

### 6. AIR BRAKE TEST REPORT:

| S NO | ITEM                                      | DESCRIPTION  | SPEC. VALUE  | OBSERVED VALUE                       |
|------|---|--|--|--------------------------------------|
| 1.   | Full brake application                    | Reduce pressure of BP from 5.0 to 3.4 kg/cm <sup>2</sup> .<br>Max. pressure in BC<br>All Brake are applied | 6 – 10 sec.<br>3.0 ± 0.15 kg/cm <sup>2</sup> .<br>OK                       | 06 sec.<br>3.0 kg/cm <sup>2</sup> OK |
| 2.   | Insensitivity                             | Exhaust BP @ 0.3 kg/cm <sup>2</sup> /min.  | No brake application   | OK                                   |
| 3.   | Sensitivity                               | Exhaust BP @ 0.1kg/cm <sup>2</sup> /Sec, after 06 Sec.   | Brake must apply   | OK                                   |
| 4.   | Handbrake(Parking brake)for generator car | 1.Apply hand brake<br>2.Release hand brake   | 1.Hand Bk. indicator should be red<br>2.Hand Bk. indicator should be green | OK<br>OK                             |

### 7. FIRE TESTING:

| S NO | ITEM          | DESCRIPTION     | SPEC. VALUE   | OBSERVED VALUE |
|------|---------------|-----------------|---|----------------|
| 1    | generator car | Smoke detection | 1.controller should display smoke in zone 1,2<br>2.strobe light & hooter should activate      | OK             |
|      |               | Heat detection  | 1.controller should display smoke/heat in zone 1,2<br>2 strobe light & hooter should activate | OK             |

### 8. PAINTING DAETAILS:

| S NO | DESCRIPTION | TYPE OF PAINT | MAKE        | APPLICATION BY MCF/ CONTRACTOR(SUPPLY & APPLY) | AVERAGE GLOSS VALUE |
|------|-------------|---------------|-------------|--|---------------------|
| 1.   | Paint       | P.U           | M/S-VIBGYOR | SUPPLY & APPLY                                 | 90/93               |
| 2.   | Insulation  |               |             | Satisfactory                                   |                     |

SSE/QC/MCF/RBL





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/2017-18/454

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

**9. DETAIL OF BOGIES :**

| ITEMS       | NPP Side    |             |             |             | PP Side     |             |             |             |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Bogie No    | 170412      |             |             |             | 170411      |             |             |             |
| Bogie Type  | FIAT        |             |             |             | FIAT        |             |             |             |
| Frame no.   | ECBT-457    |             |             |             | AML-11      |             |             |             |
| Bolster no. | RBL-1193    |             |             |             | VS-33       |             |             |             |
| Axle No     | 17W-8351    |             | 17W-3219    |             | 17B-8731    |             | 17Y-1694    |             |
| Wheel Dia   | 917.481     | 917.549     | 917.408     | 917.502     | 917.449     | 917.494     | 917.385     | 917.460     |
| Wheel Disc  | TZ05-17     | TZ05-17     | TZ06-17     | TZ06-17     | TZ06-17     | TZ06-17     | TZ06-17     | TZ06-17     |
| No          | 15442-70P5  | 14853-7PK2  | 22826-7RH6  | 22479-7QL2  | 26529-7RG9  | 20870-7QL1  | 21448-7QK5  | 21446-7QJ7  |
| R.B. Nos.   | 06-17 77088 | 06-17 82326 | 06-17 82706 | 06-17 82308 | 06-17 81125 | 05-17 58060 | 06-17 81578 | 06-17 77057 |
| CT R B Make | SKF         |             | SKF         |             | SKF         |             | SKF         |             |

**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.                   | CMFSK-04-17-F16-169-110-110 | CVFSK-08-16-8837-175-7 | CMFSK-04-17-F16-169-139-31 | CVFSK-11-16-8837-270-4 | CMGBD-11-16-146-138-5 | CVFSK-02-17-F15-193-15 | CMGBD-11-16-146-138-4 | CVFSK-02-17-F15-193-14 |
| Compressed Ht. at Tested Load | 510.5                       | 465                    | 512                        | 467.5                  | 511                   | 467.5                  | 512.5                 | 648                    |
| Alignment deviation (mm)      | 10                          | 09                     | 09                         | 08                     | 10                    | 15                     | 09                    | 13                     |

**11. TRACEABILITY OF BOGIE ITEMS:**

| S. NO | ITEM                       | MAKE/SUPPLIER | SERIAL NO.  |   |
|-------|----------------------------|---------------|---|---|
|       |                            |               | NPP SIDE  | PP SIDE   |
| 1.    | Yaw Damper                 | GEREP         | 90,272  | 167,290   |
| 2.    | Primary outer Spring       | RSK           | 05X(478,545,260,536)  | 05X(345,550,497,495)  |
| 3.    | Primary Inner Spring       | RSK           | 04X(3457,3423,1934,3434)  | 04X(3845,3609,3179,3495)  |
| 4.    | Primary Damper             | KNORR         | 08-17(10564,10608,10720,11103)  | 08-17(10596,10590,10591,10584)  |
| 5.    | Secondary Damper           | KNORR         | 05-17 (1113,1094)   | 05-17(1077,1095)  |
| 6.    | Lateral Damper             | GABRIEL       | 09-17 1588  | 09-17 1584  |
| 7.    | Brake Cylinder             | FAV           | K17-016, K17-015, K17-014, K17-028,   | K17-018, K17-007, L17-009, K17-017,   |
| 8.    | Brake Caliper              | FAV           | K17136B, K17134B, K17150B, K17135B,   | K17143B, K17145B, K17141B, K17144B,   |
| 9.    | Brake Disc                 | FAV           | D133561-300-09-17-5307, D133561-300-09-17-5354, D133561-300-09-17-5399, D133561-300-09-17-5398, | D133561-300-09-17-5142, D133561-300-09-17-5143, D133561-300-09-17-5286, D133561-300-09-17-5285, |
| 10.   | Ball Joint Control Arm     | S-BLOC        |   |   |
| 11.   | Lateral Bump Stop          | GMT           |   |   |
| 12.   | Traction Centre make       | SARITA        |   |   |
| 13.   | Traction lever make        | JI/SARITA     |   |   |
| 14.   | Ball joint traction lever  | S-BLOC        |   |   |
| 15.   | Ball joint traction centre | S-BLOC        |   |   |
| 16.   | Secondary Rubber Pad       | TECSPAK       |   |   |
| 17.   | Rubber Spring              | MTC/GMT       |   |   |
| 18.   | Anti roll bar make         | SARITA        |   |   |
| 19.   | Roll Link make             | SARITA/S-BLOC |   |   |
| 20.   | Fork make                  | SARITA        |   |   |

Signature of SSE/Bogie/QC





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DATE: 10.10.2017

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|           |   |   |   |   |   |   |   |   |                  |   |   |   |   |   |   |   |   |
|-----------|---|---|---|---|---|---|---|---|------------------|---|---|---|---|---|---|---|---|
| Coach No. | 1 | 7 | 8 | 6 | 3 | / | C | - | DATE OF DISPATCH | 0 | 3 | - | 0 | 1 | - | 1 | 8 |
|-----------|---|---|---|---|---|---|---|---|------------------|---|---|---|---|---|---|---|---|

|     |   |   |   |   |      |   |   |   |   |   |   |           |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----|---|---|---|---|------|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RLY | N | W | R | - | Type | L | W | L | R | R | M | Shell No. | 7 | 8 | 0 | 0 | 7 | - | 2 | 0 | 1 | 7 | - | 1 | 8 |
|-----|---|---|---|---|------|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|

### 12. TRACEABILITY OF FURNISHING ITEMS:

| S NO | ITEM  | MAKE/SUPPLIER                                  | SERIAL NO |
|------|---|--|-----------|
| 1.   | Air Brake Module                              | M/s Faively transport tech.india ltd baddi(HP) | L17004B   |
| 2.   | Distribution valve                            | M/s Faively transport tech.india ltd baddi(HP) | 17085504B |
| 3.   | Hand brake equipment                          | M/s Vanni precision ind.Punchkula              |           |
| 4.   | Foot Step                                     | M/s Super spark pvt.ltd. Faridabad             |           |
| 5.   | Floor board                                   | M/s Narbada forest bhopal                      |           |
| 6.   | PVC   | M/s Responsive ind.mumbai                      |           |
| 7.   | UIC Vestibule (NPPE)                          | M/s Cemcon ind.DLI                             |           |
| 8.   | Gangway bridge mounting (NPPE)                | M/s Mahaveer metal KXH                         |           |
| 9.   | AL. Chequer plate/sheet                       | M/s Hanspal coach products KXH                 |           |
| 10.  | Automatic fire detection & suppression system | M/S Sanrok faridabad                           |           |
| 11.  | Body Side Window                              | M/S Rail tech pvt.ltd. KXH                     |           |
| 12.  | Lavatory/hopper Window                        | M/s Hindustan fibre ltd vadodara               |           |
| 13.  | Roof Ceiling                                  | M/s Gandhi safe & allied Jalandhar             |           |
| 14.  | Generator room ceiling                        | M/s Amirchand engg.works Jalandhar             |           |
| 15.  | RMPU  | M/s Amit engg.baddi                            |           |
| 16.  | AC Trough                                     | M/s Geepee guargaon                            |           |
| 17.  | Luggage sliding door                          | M/s G.N.Ind.. Pvt.ltd. Patiala                 |           |
| 18.  | Hatch door                                    | M/s Happy ind. CDG                             |           |
| 19.  | Body Side Doors                               | M/s Sukata CDG                                 |           |
| 20.  | Vestibule Door(NPPE)                          | M/s Kalsi LDH                                  |           |
| 21.  | Crew/gen. room door                           | M/s JBM Faridabad                              |           |
| 22.  | Crew/guard room door                          | M/s Concept kolkata                            |           |
| 23.  | Bio Tank (01 No LAV.)                         | M/S Rail tech pvt.ltd. KXH                     |           |
| 24.  | Auxiliary Water Tank(1x30L)                   | M/s MANOJ engg.mohali                          |           |
| 25.  | Under Slung Water Tank (1x450 L)              | M/s Amit engg.mohali                           |           |
| 26.  | Fuel tank (2x1500 L)                          | M/s Omax auto ltd.                             |           |
| 27.  | Flexible Faucet                               | M/s Kapco valves ltd. jalandhar                |           |
| 28.  | Lotah Filler Tap                              | M/s Kapco valves ltd. jalandhar                |           |
| 29.  | Bib cock                                      | M/s Agmeco pvt.ltd. U.K                        |           |
| 30.  | Composite modular toilet                      | M/s Hindustan fibre ltd vadodara               |           |
| 31.  | Lavatory window                               | M/s Hindustan fibre ltd vadodara               |           |
| 32.  | Lavatory Doors                                | M/s Hindustan fibre ltd vadodara               |           |
| 33.  | Seat & Berth                                  | M/s AAR KAY foam CDG                           |           |
| 34.  | Luggage Rack                                  | M/S Rail tech pvt.ltd. KXH                     |           |
| 35.  | Folding Table                                 | M/S Techo ind. ALD                             |           |

SSE/QC/MCF/RBL





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

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<br>Frequency | REFERENCE &<br>PERIOD OF TRIAL |
|------|------------------|---------|---------------------|--------------------------------|
|      |                  |         |                     |                                |

### 16. WARRANTY:

| S NO | COMPONENTS  | WARRANTY   |
|------|---|--|
| 1    | Brake Pad, wheels, flushing valves, push gravity cocks, moldings, window glasses, mirrors, 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 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 | AME/QC/MCF/RBL | Dy.CQM/MCF/RBL |

रायबरेली (सहायक यंत्र अभियंता)

सहायक यंत्र अभियंता / गुणवत्ता  
Assistant Mechanical Engineer/Quality  
आधुनिक रेल डिब्बा कारखाना, रायबरेली  
Modern Coach Factory, Raebareli

आधुनिक रेल डिब्बा कारखाना, रायबरेली  
Modern Coach Factory, Raebareli





Modern Coach Factory Raebareli  
आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QEF/8001

REV NO: 00

DATE: 11.09.2017


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**FOR ELECTRICAL ITEMS**

ROLLING STOCK CERTIFICATE OF LHB POWER CAR

ELECTRICAL TEST CERTIFICATE FOR LHB POWER CAR

| ELECTRICAL TEST CERTIFICATE FOR LHB POWER CAR |  |                   |                  |         |
|---|--|-------------------|------------------|---------|
| TYPE COACH                                    |  | LWRRM             | SHELL/COACH NO   | 17863/C |
| RAILWAY                                       |  | NWR               | 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  | 14.51 Cub mtr/min |                  | OK      |
| 3.2   | Return Air   | 34.55 Cub mtr/min |                  | OK      |
| 3.3   | Exhaust Air  | NIL Cub mtr/min   |                  | OK      |
| 3.4   | Conditioned Air  | 51.32 Cub mtr/min |                  | OK      |
| 4.0   | PRE COOLING TEST: Max 01 hr.<br>Time taken to pre cool from 45 deg centigrade to 24/22 deg C during OFF LOAD condition<br><br>Not done due to Ambient temp. below 22°C |                   |                  | OK      |
| 5.0   | PULL DOWN TEST: Max 02 hrs.<br>Time taken to pull down from 45 deg C to 24/22 deg C during FULL LOAD condition.<br><br>Not done due to Ambient temp. below 22°C        |                   |                  | OK      |

  
 Senior Section Engineer  
 Quality control / Electrical  
 Modern Coach Factory Raebareli



Modern Coach Factory Raebareli  
आधुनिक रेल डिब्बा कारखाना, रायबरेली

DOC NO.: MCF/RBL/QEF/8001

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**FOR ELECTRICAL ITEMS**

ROLLING STOCK CERTIFICATE OF LHB POWER CAR  
ELECTRICAL TEST CERTIFICATE FOR LHB POWER CAR

| Sr no | Description of test                          | Remarks |
|-------|--|---------|
| 6.0   | HUMIDITY CONTROL                             | OK      |
| 7.0   | PUMP EQUIPMENTS                              | OK      |
| 8.0   | WORKING OF EXHAUST FAN OVER                  | OK      |
| 10.0  | LIGHT  | OK      |
| 11.0  | PUBLIC ADDRESSING SYSTEM ( <b>PAS</b> )      | OK      |
| 12.0  | WHEEL SLIDE PROTECTION SYSTEM ( <b>WSP</b> ) | OK      |
| 13.0  | WORKING OF 60KVA TRANSFORMERS                | OK      |
| 15.0  | WORKING OF EMERGENCY BATTERY CHARGERS        | OK      |
| 16.0  | SAFETIES :                                   |         |
| 16.1  | THERMOSTAT :                                 | OK      |
| 16.2  | ROTARY 07 SET POINTS (NORMAL CONDITION)      | OK      |
| 16.3  | HYGROSTAT                                    | OK      |
| 16.4  | CONTROL CIRCUIT                              | OK      |
| 16.5  | POWER CIRCUIT                                | OK      |
| 16.6  | ALTERNATER EARTH LEAKAGE RELAY               | OK      |
| 16.7  | FEEDER EARTH LEAKAGE RELAY                   | OK      |
| 16.8  | UNDER VOLTAGE RELAY                          | OK      |
| 16.9  | OVER VOLTAGE RELAY                           | OK      |
| 16.10 | BUS COUPLAR                                  | OK      |
| 16.11 | FEEDER CONTACTOR                             | OK      |
| 16.12 | SMOKE TEST                                   | OK      |
| 17.0  | REFRIGERANT USED <b>R 407C</b>               | OK      |

  
**Senior Section Engineer**  
**Quality control / Electrical**  
**Modern Coach Factory Raebareli**





Modern Coach Factory Raebareli  
आधुनिक रेल डिब्बा कारखाना, रायबरेली

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ROLLING STOCK CERTIFICATE OF LHB/ POWER CAR

| Sr no | Description  | Drg/Spec no.                    | Quantity per Coach |
|-------|--|---------------------------------|--------------------|
| 01.   | Roof mounted AC package unit for LHB AC coaches Make : <b>AMIT</b><br>Sr no of RMPU (PP side): <b>2130- I</b><br>Sr no of Microprocessor: <b>AE-17.10.219</b>                                | RDSO/pe/spes/ac/0061/rev-1/2005 | <b>02</b>          |
| 02.   | Power and Control Panel for LHB Power car<br>Make: <b>ISG</b>  | EDTS-103 ,REV-c                 | <b>01</b>          |
|       | Sr no : <b>17.04.0003</b>  |                                 |                    |
| 04.   | Switch board cabinet<br>Make : <b>SSK</b><br>Sr no : <b>2017-11-015</b>  | EDTS 104, REV-a                 | <b>01</b>          |
| 05.   | Pump equipment with PLC controller & pump box Make : <b>KIND</b><br>Sr no PA- <b>0088/09/17</b><br>Sr no.1- <b>17090483</b><br>Sr no.2- <b>17090484</b><br>Sr no.CPA- <b>2017/05/0091-DR</b> | EDTS 186,Rev-a, Am- 2           | <b>01</b>          |
| 06.   | Lavatory light fitting assly<br>Make: <b>DR AUTO</b>   | LW 76001,Alt nil                | <b>01</b>          |
| 07.   | Passenger alarm coach indication light<br>Make: <b>DR AUTO</b>   | LW 76005,Alt-e                  | <b>02</b>          |
| 08.   | Razor socket for WC 110/240V<br>Make: <b>SSK</b>   | EDML 047 ,Rev nil               | <b>01</b>          |
| 09.   | Terminal strip Make: <b>WAGO</b>   | EDML 034,Rev-a                  | <b>01</b>          |
| 10.   | Terminal connector Make: <b>WAGO</b>   | EDML 037,Rev`a`                 | <b>01</b>          |
| 11.   | Single switch 06A/250V/AC ONE WAY ,complete with steel plate & cover frame   | EDML 047,Rev- C, Item 1.        | <b>02</b>          |
| 12.   | PA system for LHB coaches<br>Make : <b>AHUJA</b>   | EDTS 173,TYPE -II               | <b>01 set</b>      |
| 13.   | 70AH/110V,54 Cells,02V each ,maintenance free pure lead acid tin monoblock ,battery set with 09 modules 12V each. , factory pre charged.<br>Make : <b>HBL</b> Lug date : <b>04/2017</b>      | EDTS 129,Rev nil                | <b>01 set</b>      |
| 14.   | SET OF BATTERY FOR DA (A & B)<br>(A)Make : <b>MICROTEX</b> Lug date: <b>04/17</b><br>(B) Make: <b>MICROTEX</b> Lug date: <b>04/17</b>  |                                 | <b>02 sets</b>     |

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ROLLING STOCK CERTIFICATE OF LHB/POWER CAR

| Sr no | Description  | Drg/Spec no.  | Quantity per Coach |
|-------|--|---|--------------------|
| 15.   | Battery box for LHB coaches.<br><b>MAKE-HITECH</b>   | 1 10113.0.76.700.005 w/o item 5,22 ,23 ,26 & 27.ALT C                       | <b>01</b>          |
| 16.   | Battery fuse box +ve<br>Make : <b>ABROL</b>  | LW 71001,Alt-F  | <b>01</b>          |
| 17.   | Battery fuse box -ve<br>Make : <b>SSK</b>  | LW 71002,Alt-F  | <b>01</b>          |
| 18.   | 60KVA TFR<br>Make- <b>VIMAL</b><br>Sr no:1. <b>VTC-3089-LHB-4260</b><br>Make- <b>AUTOMATIC</b><br>Sr no:2. <b>8/17/T509927/114</b><br>Make- <b>AUTOMATIC</b><br>Sr no:3. <b>8/17/T509927/107</b> | EDTS 076, Rev-0.<br>1.for panel<br>2.for Rad. Motor A<br>3.for Rad. Motor B | <b>03</b>          |
| 19.   | Capacitor Bank<br>Make: <b>STANDERD-17A464</b>   | EDML-130 Rev-1,Corr-1   | <b>01</b>          |
| 20.   | Emergency Battery Charger<br>Make: <b>BHASIN</b><br><b>1.09174260 2.09174283</b>   | EDTS-163 REV-C, corg-2&3  | <b>02</b>          |
| 21.   | Wheel set earthing equipment.<br>Make : <b>MAA LAXMI</b>   | EDTS101,REV-C,AM-1  | <b>02</b>          |
| 22.   | Wheel Slide Protection System (WSP)<br>Make- <b>FAIVELEY</b><br>Sr no : <b>24/17/760</b>   | MDTS 077 REV-2  | <b>01 set</b>      |
| 23.   | 500KVA/750V/03Ph DIESEL ALTERNATOR set, complete with Power & Control panel.   | EDTS 102, Rev`c'  | <b>02</b>          |
| 23.a1 | Sr no of Alternator "A"<br>Make- <b>GREAVES</b><br>Sr No- <b>3309121710907</b>   | EDTS 102, Rev`c'  | <b>01</b>          |
| 23.a2 | Sr no of Diesel Engine "A"<br>Make- <b>GREAVES</b><br>Sr no- <b>1309121710907</b>  | EDTS 102, Rev`c'  | <b>01</b>          |
| 23.b1 | Sr no of Alternator "B"<br>Make- <b>GREAVES</b><br>Sr No- <b>3309121710908</b>   | EDTS 102, Rev`c'  | <b>01</b>          |

  
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
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ROLLING STOCK CERTIFICATE OF LHB/POWER CAR

| Sr no | Description  | Drg/Spec no.     | Quantity per Coach |
|-------|--|------------------|--------------------|
| 23.b2 | Sr no of Diesel Engine "B"<br>Make- <b>GREAVES</b><br>Sr no- <b>1309121710908</b>  | EDTS 102,        | <b>01</b>          |
| 24.   | Control Panel for ventilator Fan motor for Diesel Engine "A"<br>Make: <b>AECO</b><br>Sr no- <b>2017-09-106</b>   | EDTS 110,REV-NIL | <b>01</b>          |
| 25.   | Ventilator Fan Motor for Diesel Engine "A"<br>1.Make: <b>KIRLOSKAR</b><br>Sl no: <b>DML-263-93</b><br>2.Make: <b>KIRLOSKAR</b><br>Sl no: <b>DML-263-49</b> | EDTS 110,Rev nil | <b>01</b>          |
| 26.   | Radiator Fan Motor for Diesel Engine -"A"<br>Make: <b>ABB</b><br>SL no: <b>3GIJ17380001492223</b>  | EDTS 104, Rev`a' | <b>01</b>          |
| 27.   | Control Panel for Radiator Fan motor for Diesel Engine "A"<br>Make- <b>NEC</b><br>Sr no- <b>2017081836</b>   | EDTS-104,REV-A   | <b>01</b>          |
| 28.   | Ventilator Fan Motor for Diesel Engine "B"<br>1.Make: <b>KIRLOSKAR</b><br>1.Sl no: <b>DML-263-99</b><br>2.Sl no: <b>DML-263-81</b>                         | EDTS 110,Rev nil | <b>01</b>          |
| 29.   | Control Panel for ventilator Fan motor for Diesel Engine "B"<br>Make- <b>AECO</b><br>Sr no- <b>2017-09-104</b>   | EDTS 110,REV-NIL | <b>01</b>          |

  
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ROLLING STOCK CERTIFICATE OF LHB/POWER CAR

| Sr no | Description  | Drg/Spec no.   | Quantity per Coach |
|-------|--|--|--------------------|
| 30.   | Radiator Fan Motor for Diesel Engine -"B"<br>Make: <b>ABB</b><br>SL no: <b>3GIJ17340001482356</b>                                    | EDTS 104, Rev`a'                                     | <b>01</b>          |
| 31.   | Control Panel for Radiator Fan motor for Diesel Engine "B"<br>Make- <b>NEC</b><br>Sr no- <b>2017081869</b>                           | EDTS-104,REV-A                                       | <b>01</b>          |
| 32..  | Starter Battery Charging Control Panel -A & B<br>Make : <b>ISG</b><br>Sr no: <b>16-09-002</b>  | EDTS 116,Rev nil                                     | <b>01</b>          |
| 33.   | Feeder Junction box.<br>Make: <b>AECO</b>  | EDML 020, Rev`a'.                                    | <b>01 set</b>      |
| 34.   | Single Inlet Radial Blower,<br>415V/03Ph/185W/ 1045Cub mtr/hr discharge from S1 & S2 & Lavatory.<br>Make- <b>INTEG</b>               | EDTS-331, TYPE-2                                     | <b>01</b>          |
| 35.   | Lights<br>Make : <b>DR AUTO</b>  | RDSO/PE/SPEC/TL/0091-2016, REV-01, TYPE-N & LW 76099 | <b>20</b>          |
| 36.   | Smoke Detector Unit.<br>Make: <b>AG-RAIL</b><br>Sr no: <b>500399</b>   | EDTS 087,Rev`a',Type II                              | <b>01</b>          |
| 37.   | Provision of Tail light switch2P/16A/ SG16, mounted in ABC plastic enclosure with round padlock, 90DEG, ON/OFF. Make: <b>DR AUTO</b> | As per Cat no. SG 16                                 | <b>02</b>          |
| 38.   | ZS coupling 400A , 750V ,03Ph,50Hz.<br>Make<br>1.(NPP): <b>MAA LAXMI INDUSTRIES</b><br>2.(PP): <b>MAA LAXMI INDUSTRIES</b>           | EDTS 105, Rev`c'.                                    | <b>01 set</b>      |
| 39.   | Connector for External supply socket.<br>Make : <b>MV</b>  | EDML 013, Rev nil.                                   | <b>02</b>          |

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| <b>SSE/EL/QC</b>  | <b>SEE(P)/MCF/RBL/</b>   |
| वरिष्ठ अनुभाग अभियन्ता<br>गुणवत्ता नियंत्रण<br>आपरेटिंग/का/ लालगंज/ रायबरेली<br>S.S.E./Eled-QC/M.C.F./LLJ/RBL | उप मुख्य विद्युत अभियन्ता<br>उत्पादन एवं योजना<br>आपरेटिंग/का/ लालगंज/ रायबरेली<br>Dy.C.E.E./Prod & Plg/M.C.F./LLJ/RBL |