LSC N.876

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|---|---|---|
| | **Modern Coach Factory Raebareli**<br>**आधुनिक रेल डिब्बा कारख़ाना, रायबरेली** | DOC NO.: MCF/RBL/QMF 8002<br>REV NO: 01<br>DATE: 17.04.2018 |

# ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2018-19/1118

| RLY | C | R | | Coach No. | 1 | 9 | 1 | 2 | 3 | 9 | / | C | DATE OF DISPATCH | 2 | 9 | - | 0 | 1 | - | 1 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| DISPATCH TO | SSE/STOCK/ CSTM | Type | L | W | S | C | N | 1 | Shell No. | 8 | 7 | 4 | 0 | 8 | - | 2 | 0 | 1 | 8 | - | 1 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

1. **Railway Board's Order No.** : **2018/M(C)/142/2, Dated-07-12-2018**
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/-10 | 1) 1105 (NPPE) 2)1103(PPE) |

5. **TRACEABILITY OF SHELL ITEMS:**

| S NO | ITEM | | MAKE/SUPPLIER | | SERIAL NO | | | |
|---|---|---|---|---|---|---|---|---|
| 1. | Under frame | Front Part | PP END | M/S CHENNAI RADHA ENG | 37 | | | |
| | | | NPP END | M/S CHENNAI RADHA ENG | 37 | | | |
| | | Complete | M/S CHENNAI RADHA ENG | | 37 | | | |
| 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 | --- |
| 3. | Side wall | LH SIDE | MCF/RBL( CONTRACTOR V4U) | | 292 | | | |
| | | RH SIDE | MCF/RBL( CONTRACTOR V4U) | | 292 | | | |
| 4. | End wall | PP END | M/S Neera chandigarh | | --- | | | |
| | | NPP END | M/S Shivalic fastners pvt.ltd.mohali | | --- | | | |
| 5. | Roof | | M/S Pennar ind. Ltd. Thiruvallur Cheenai | | 251 | | | |
| 6. | Centre Buffer Coupler | | M/S Sanrok faridabad | | PP END | 10790 | NPP END | 10697 |

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/cm². ➢ Max. pressure in BC ➢ All Brake are applied | 6 – 10 sec. 3.0 ±0.15 kg/cm². OK | 07 Sec. 3.0 kg/cm² OK |
| 2. | Insensitivity | ➢ Exhaust BP @ 0.3 kg/cm²/min. | No brake application | OK |
| 3. | Sensitivity | ➢ Exhaust BP @ 0.1 kg/cm²/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 | 89/89 |
| 2. | Insulation | | | Satisfactory | |

SSE/QC/MCF/RBL

वरि० खण्ड० अभियंता
गुणवत्ता विभाग
रे०डि०का०, रायबरेली (लालगंज)

| | | |
|---|---|---|
| | MODERN COACH FACTORY, RAEBARELI<br>आधुनिक रेल डिब्बा कारख़ाना, रायबरेली | DOC NO.: MCF/RBL/QMF 8002<br>REV NO.: 01<br>DATE: 16.05.2016 |

# ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/**1118**

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coach No. | 1 | 9 | 1 | 2 | 3 | 9 | / | C | - | DATE OF DISPATCH | 2 | 9 | . | 0 | 1 | . | 1 | 9 | | | | | | |
| RLY | C | R | - | - | Type | L | W | S | C | N | 1 | Shell No. | 8 | 7 | 4 | 0 | 8 | - | - | - | - | - | - | - |

## 8. DETAIL OF BOGIES:

| ITEMS | NPP Side | | | | PP Side | | | |
|---|---|---|---|---|---|---|---|---|
| Bogie No | 182426 | | | | 182425 | | | |
| Bogie Type | FIAT | | | | FIAT | | | |
| Frame no. | ECBT-1411 | | | | ECBT-1417 | | | |
| Bolster no. | VS-341 | | | | VS-337 | | | |
| Axle No | 18 F – 9436 RWF | | 18G- 2883 RWF | | 18 F – 9004 RWF | | 18 F - 9285 RWF | |
| Wheel Dia | 917.379 | 917.672 | 917.371 | 917.687 | 917.388 | 917.557 | 917.411 | 917.606 |
| Wheel Disc No | TZ08-18 45550-8RQ3 | TZ07-18 39812-8RQ6 | TZ08-18 45226-8RN4 | TZ07-18 40936-8RR9 | TZ07-18 45134-8RN2 | TZ08-18 45531-8RM5 | TZ08-18 44590-RG7 | TZ07-18 42308-8SG1 |
| R.B. Nos. | 05-18 40764 | 04-18 24041 | 05-18 40739 | 01-18 29985 | 05-18 39682 | 02-18 15406 | 05-18 39684 | 01-18 10187 |
| 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. | CMFSK09-17-5101-320-143 | CMGBD05-18-5100-70 | CMFSK09-17-5101-320-22 | CMGBD05-18-5100-66 | CMFSK03-17-5101-320-103 | CMGBD08-18-5100-66-523 | CMFSK09-18-5101-320-149 | CMGBD08-18-5100-70-204 |
| Compressed Ht. at Tested Load | 514 | 472 | 515.5 | 471 | 514 | 472 | 516 | 472 |
| Alignment deviation (mm) | 13 | 6 | 12 | 5 | 9 | 11 | 10 | 12 |

## 10. TRACEABILITY 9OF BOGIE ITEMS :-

| S. NO | ITEM | MAKE/ SUPPLIER | SERIAL NO. | |
|---|---|---|---|---|
| | | | NPP SIDE | PP SIDE |
| 1. | Yaw Damper | KBI | 14220,14206 | 14282,14198 |
| 2. | Primary outer Spring | CMGBD | 10-18 1100-110(147,146,98,268) | 10-18 1100-123(250,251,214,65) |
| 3. | Primary Inner Spring | CMGBD | 03-18 1101- (30-2815,31-2686,31-2341,31-2829) | 03-18 1101-30 (-2734,2792,2735,2690) |
| 4. | Primary Damper | ESCORT/KNORR | 08-18(6762,6772,6805,6800) | 12-18(47843,48134,48139,48132) |
| 5. | Secondary Damper | GEREP | KW16-2018 301550739 | KW16-2018 301550739 |
| 6. | Lateral Damper | IAI | 12-18 237245 | 01-19 237261 |
| 7. | Brake Cylinder | KBI | A(9581,8910,8903,9565)K29 | A(8520,8987,8977,8526)K29 |
| 8. | Brake Caliper | KBI | A(7712,7722,7723,7711)-29 | A(7659,7779,7778,7658)-29 |
| 9. | Brake Disc | KBI | 24162278 0056-40/18,24162322 0022-40/18<br>24162322 0051-41/18,24162322 0028-41/18 | 24162278 0057-40/18,24162321 0059-40/18<br>24161698 0049-38/18,24161691 0053-38/18 |
| 10. | Ball Joint Control Arm | AR | | |
| 11. | Lateral Bump Stop | AR | | |
| 12. | Traction Centre make | SARITA | | |
| 13. | Traction lever make | JI | | |
| 14. | Ball joint traction lever | PPI | | |
| 15. | Ball joint traction centre | GMT | | |
| 16. | Secondary Rubber Pad | PRAG/DUREIL | | |
| 17. | Rubber Spring | PPI | | |
| 18. | Anti roll bar Make | EMSON | | |
| 19. | Roll Link make | RKFL/GMT | | |
| 20. | Fork make | EMSON | | |
| 21. | Control Arm Upper | RVE | 261118-1,011218-2,011218-2,301118-4 | 011218-2,011218-2,011218-2,011218-2 |
| 22. | Control Arm Lower | RVE | 281118-2,RVE,281118-3,271118-3 | 081118-3,081118-3,081118-3,081118-3 |

Signature of SSE/Bogie/QC

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|---|---|---|
| | **Modern Coach Factory Raebareli**<br>**आधुनिक रेल डिब्बा कारख़ाना, रायबरेली** | DOC NO.: MCF/RBL/QMF 8002<br>REV NO: 01<br>DATE: 17.04.2018 |

## ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2018-19/1118

| RLY | C | R | | Coach No. | 1 | 9 | 1 | 2 | 3 | 9 | / | C | DATE OF DISPATCH | 2 | 9 | - | 0 | 1 | - | 1 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| DISPATCH TO | SSE/STOCK/ CSTM | Type | L | W | S | C | N | 1 | Shell No. | 8 | 7 | 4 | 0 | 8 | - | 2 | 0 | 1 | 8 | - | 1 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

### 11. TRACEABILITY OF FURNISHING ITEMS:

| S NO | ITEM | MAKE/SUPPLIER | SERIAL NO |
|---|---|---|---|
| 1. | Air Brake Module | M/s KBI Faridabad. New Delhi | 1903 52/18 |
| 2. | Pull box | M/s KBI Faridabad. New Delhi | |
| 3. | Distribution valve | M/s KBI Faridabad. New Delhi | 2018M6462 |
| 4. | Foot Step | M/s- SUPER SPARK PVT. LTD. FARIDABAD | |
| 5. | Decoupling arrangement | M/S- ELASTOMER MUMBAI | |
| 6. | Floor board | M/s- EG WOOD BOARD HYDARABAD | |
| 7. | PVC | M/s Responsive ind.mumbai | |
| 8. | Lavatory Inlay | M/s- SEEMA INDS. BHOPAL | |
| 9. | UIC Vestibule (PPE) | M/S- ELASTOMER MUMBAI | |
| 10. | UIC Vestibule (NPPE) | M/S- ELASTOMER MUMBAI | |
| 11. | Gangway bridge mounting (PPE) | M/s- COMPETENT IND JUC | |
| 12. | Gangway bridge mounting (NPPE) | M/s- COMPETENT IND JUC | |
| 13. | Body Side Window | M/S- AGF INDS, KOLKATA | |
| 14. | Emergency Window | M/S- AGF INDS, KOLKATA | |
| 15. | Hopper Window | M/S- AGF INDS, KOLKATA | |
| 16. | Side panel | M/S-SUNGLOW PUNJAB LAMINATE | |
| 17. | Roof ceiling | M/s SYANTHITIC MODULAR KOLKATA | |
| 18. | Door way ceiling | M/s- RAJA IND. KHANNA | |
| 19. | Body Side Door | M/s- JVR LDH | |
| 20. | Vestibule Door(PPE) | M/s- JBM FARIDABAD | |
| 21. | Vestibule Door(NPPE) | M/s- JBM FARIDABAD | |
| 22. | Bio Tank | M/s- SVARN INFRATEL LTD | |
| 23. | Auxiliary Water Tank | M/s- AMIT ENG. MOHALI | |
| 24. | Under Slung Water Tank( 2X685L) | M/s Shivalic fastners pvt.ltd. mohali | |
| 25. | Under Slung Water Tank (1X685L) | M/s Shivalic fastners pvt.ltd. mohali | |
| 26. | Flexible Faucet | M/s- KAPCO VALVES, JALANDHAR | |
| 27. | Lotah Filler Tap | M/s- KAPCO VALVES, JALANDHAR | |
| 28. | Controlled Discharge Tap | M/s- AGMECO PVT. LTD. UK | |
| 29. | Lavatory Doors | M/s- KALSI, LDH | |
| 30. | Seat & Berth | M/S- OVPL MUMBAI | |
| 31. | Snack Table | N/A | |

SSE/QC/MCF/RBL

वरि०अनु० अभियंता
गुणवत्ता विभाग
रे०डि०का०, रायबरेली (लालगंज)

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|---|---|---|
| | **Modern Coach Factory Raebareli**<br>**आधुनिक रेल डिब्बा कारख़ाना, रायबरेली** | DOC NO.: MCF/RBL/QMF 8002<br>REV NO: 01<br>DATE: 17.04.2018 |

## ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC/2018-19/1118

| RLY | C | R | | Coach No. | 1 | 9 | 1 | 2 | 3 | 9 | / | C | DATE OF DISPATCH | 2 | 9 | - | 0 | 1 | - | 1 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| DISPATCH TO | SSE/STOCK/ CSTM | Type | L | W | S | C | N | 1 | Shell No. | 8 | 7 | 4 | 0 | 8 | - | 2 | 0 | 1 | 8 | - | 1 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**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 Frequency | REFERENCE & PERIOD OF TRIAL |
|---|---|---|---|---|
| | | | | |

**15. 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.

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| SSE/QC/MCF/RBL | AME/QC/MCF/RBL | Dy.CQM/MCF/RBL |

वरि०अनु० अभियंता
गुणवत्ता विभाग
रे०डि०का०, रायबरेली (लालगंज)

Assistant Mechanical Engineer / Quality-1
आधुनिक रेल डिब्बा कारखाना, रायबरेली
Modern Coach Factory, Raebareli

Dy. Chief Quality Manager
आधुनिक रेल डिब्बा कारखाना, रायबरेली
Modern Coach Factory, Raebareli

SCN-876

| | Modern Coach Factory Raebareli<br>आधुनिक रेल डिब्बा कारख़ाना, रायबरेली | DOC NO.: MCF/RBL/QEF/8001<br>REV NO: 00<br>DATE:18.01.2017 |
|---|---|---|



**FOR ELECTRICAL ITEMS**

ROLLING STOCK CERTIFICATE OF LHB/EOG NON AC SCN COACHES

| ELECTRICAL TEST CERTIFICATE FOR LHB/EOG NON AC COACHES | | | |
|---|---|---|---|
| **TYPE COACH** | **LWSCN** | **SHELL/COACH NO** | **191239/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 |

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

**FOR ELECTRICAL ITEMS**

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

| | | | |
|---|---|---|---|
| 01. | Switch board cabinet<br>Make : **HIND RECTIFIRES**<br>On Board Sr no **: H355 18 M 0200**<br>HT Panel Sr no **: H355 18 M 0206** | EDTS 333, Rev`01'Am-1 | **01** |
| 02. | Pump equipment with PLC controller & pump box Make :**DR AUTO**<br>Sr no PA:**2018/09/023**<br>Sr no.1 :**18090029**<br>Sr no.2 :**18090015**<br>Sr no.CPA:**2018/12/148-DR AUTO** | As per spec EDTS 186,Rev-a, Am- 2 | **01** |
| 03. | Emergency light system for EOG type coaches (AEL),<br>Make : **CONCORD** | EDTS 151,Rev –c Am-1 & 2 | **04** |
| 04. | Passenger Alarm Cum Indication Light (PACIL)<br>Make: **DR AUTO** | 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 | **10** |
| 06. | Fitment of Switch Plate Assly Corridor Side),Make : **SSK/SALZER** | EDML 086, Rev 03, ITEM-02 | **10** |
| 07. | Railway carriage Fan 400mm Sweep, 110V DC with crash worthy features.<br>Make :**CG POWER** | IS 6680/92,First Rev, RCF Amdt 4, Col I, Ty XI, RCF Cor I. | **30** |
| 08. | Cabin, Corridor, doorway and Gangway Lights.<br>Make: **DR AUTO** | As per RDSO/PE/SPEC/TL-0091(REV-1) TYPE B-1 | **26** |
| 09. | Lavatory Light<br>Make: **RT VISION** | As per RDSO/PE/SPEC/TL/0091-2016,REV-01, TYPE-D & | **04** |
| 10. | Night Light Fitting (LED BASED)<br>Sticker For Berth Number On Night light Fitting For LHBSCN(80-BERTHER)Coaches<br>Make : **AGASTYA** | CC76289 & CC76443 | **10** |

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

**FOR ELECTRICAL ITEMS**

ROLLING STOCK CERTIFICATE OF LHB/EOG NONAC SCN COACHES

| | | | |
|---|---|---|---|
| 11. | Battery fuse box +ve<br>Make :**INTEG** | LW 71001,Alt-F | **01** |
| 12. | Battery fuse box –ve<br>Make :**NEC** | LW 71002,Alt-F | **01** |
| 13. | Regulated battery charger<br>Make : **SIGNOTRON**<br>Sr no: **01191173** | As per RDSO/pe/spec/ac/0129, Rev.-1 (2009) | **01** |
| 14. | 9KVA transformer<br>Make : **PANTRONICS**<br>Sr no : **PAN-18018055** | As per RDSO/PE/SPEC/TL 0158, 2010, Rev`0',Ty I. | **01** |
| 15. | ZS coupling 400A/750V/03Ph/50hz.<br>Make : **MAA LAXMI INDUSTRIES** | As per spec No EDTS 105,Rev`e' Am-3,<br>TYPE-2 | **01 set** |
| 16. | Feeder junction boxes.<br>Make :**AECO** | EDTS-328 REV-C | **01 set** |
| 17. | Wheel set earthling equipment.<br>Make : **C&C/ROLLING STONE** | EDTS101,REV-C,AM-1 | **02 sets** |
| 18. | Wheel Slide Protection System (WSP)<br>Make :**KNORR** Sr no :**0118380301** | M/s : **KNORR** | **01 set** |
| 19. | 110V,120AH,VRLA SMF BATTERY SET WITH 19 MONOBLOCK (6V EACH) PRECHARGED,WIH MODIFIED TRAY TOSKED-644<br>Make :**SOUTHERN** Lug date :**05/17** | RDSO/pe/spec/ac-0009 rev-1-2008 amdt-1 | **01 set** |
| 20. | Battery box for LHB coaches.<br>Make :**HITECH** | CC 91205 | **01** |

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|---|---|
| **SSE/EL/QC** | **AWM(E)/MCF/RBL**<br>**SEE(P)/MCF/RBL** |

वरिष्ठ अनुभाग अभियन्ता
गुणवत्ता नियंत्रण
आ0रे0डि0का0 / लालगंज / रायबरेली
S.S.E./Elect-QC/M.C.F./LLJ/RBL

स. कार्य प्रबन्धक/ विद्युत
आधुनिक डिब्बा कारखाना/ रा[illegible]
A.W.M./ Electrical/ MCF/ RBL.