



**RAIL COACH FACTORY, KAPURTHALA**  
**ROLLING STOCK CERTIFICATE (LHB)**

(FORM NO. QMF 9454 VER:1.00)

|     |                                   |  |  |   |                              |                     |     |
|-----|-----------------------------------|--|--|---|------------------------------|---------------------|-----|
| 1.  | SHELL NO                          | 9081   | BOGIE NO   | 197631 / 197632   | DISPATCH DATE                | 05-FEB-20           |     |
| 2.  | RAILWAY                           | NR   | TYPE OF COACH  | LACCNX  | COACH NO                     | 197442              |     |
| 3.  | BOOKED TO                         | SSE/C&W/   |  |   |                              |                     |     |
| 4.  | Tare Weight of Coach              | 45.6 T   |  |   |                              |                     |     |
| 5.  | Carrying Capacity                 | Seating  | 72   | Sleeping  | 72                           | Luggage             | NIL |
| 6.  | 6.1                               | Leading Dimensions:  |  |   |                              |                     |     |
|     | i)                                | Maximum length over Body   |  | 23700+10/-0   |                              |                     |     |
|     | ii)                               | Maximum width over Body  |  | 3240-8/+0 mm, 3050 mm (for LWSCZDAC)  |                              |                     |     |
|     | iii)                              | Maximum height from Rail Level   |  | 4250 (for LWACCN), 4039 (for LWACCW, LGS, LWSCN, LWSCZAC, LWFAC, LWCBAC, LWLRRM), 4366 (for LWSCZDAC) |                              |                     |     |
|     | iv)                               | CBC Height   | Specified: 1105 +0/-15 mm                                |   | 1105                         | 1102                |     |
|     | v)                                | CBC (Make)   |  |   | DELINER                      | DELINER             |     |
|     | vi)                               | Buffer (Make)  |  |   |                              |                     |     |
| 7.  | Air Brake Testing:                |  | Description  |   | Specified                    |                     |     |
|     | 7.1                               | Full Brake Application   | Reduce pressure of BP from 5.0 to 3.4 kg/cm <sup>2</sup> |   | 06 - 10 Sec                  |                     |     |
|     |                                   |  | Max Pressure in BC                                       |   | 3.80±0.15 Kg/cm <sup>2</sup> |                     |     |
|     |                                   |  | All Brake are applied                                    |   | OK                           |                     |     |
|     | 7.2                               | Insensitivity  | Exhaust BP @ 0.3 Kg/cm <sup>2</sup> /min                 |   | No brake application         |                     |     |
|     | 7.3                               | Sensitivity  | Exhaust BP @ 0.1 Kg/cm <sup>2</sup> /Sec, After 02 Sec   |   | Brake must apply             |                     |     |
| 8.  | Painting Details:                 |  | Type of Paint  |   | Make                         | Average Gloss Value |     |
|     | 8.1                               | Paint  | PU PAINT   |   | GS                           | 86 / 86             |     |
|     | 8.2                               | Application of PCN-123   | SATISFACTORY   |   |                              |                     |     |
|     | 8.3                               | Insulation   | SATISFACTORY   |   |                              |                     |     |
| 9.  | Traceability of Furnishing Items: |  |  |   |                              |                     |     |
|     | 1                                 | FLOOR BOARD  | SRI RAM  |   |                              |                     |     |
|     | 2                                 | PVC  | RESPONSIVE   |   |                              |                     |     |
|     | 3                                 | UIC VESTIBULES   | KRP  |   |                              |                     |     |
|     | 4                                 | BODY SIDE DOOR   | SVARN INFRATEL   |   |                              |                     |     |
|     | 5                                 | VESTIBULE SLIDING DOOR   | KALSI  |   |                              |                     |     |
|     | 6                                 | COMPOSITE MODULAR TOILET   | CMT, SHATABDI  |   |                              |                     |     |
|     | 7                                 | LAVATORY DOORS   | CMT, SHATABDI  |   |                              |                     |     |
|     | 8                                 | WATER TANKS  | RAIL FAB, AMIT, MANOJ                                    |   |                              |                     |     |
|     | 9                                 | SEAT & BEARTH  | ADVANCE SILICON  |   |                              |                     |     |
|     | 10                                | BIO-TOILET   | CEMCON, RASANDIK   |   |                              |                     |     |
|     | 11                                | EP BRAK / BRAKE EQUIPMENT  | KBI  |   |                              |                     |     |
|     | 12                                | BIO DIGESTER/VACUUM EVACUATION SYSTEM  | RASANDIK, CEMCON, RASANDIK, CEMCON                       |   |                              |                     |     |
| 10. | 10.1                              | Modification/ Trial (If any): 1-ASPIRATION FIRE/SMOKE DETECTION WITH ALARM SYSTEM AS PER RDSO SPECIFICATION NO. RDSO/2008/CG-04 REV.04, SUPPLIED AND COMMISSIONED BY M/S- SANROK ENTERPRISES , FARIDABAD, CONTACT NO. 09810566723. 2-VINYL WRAPPING SUPPLIED AND FITTED BY M/S TECHNO EXPERT, JALANDHAR. |  |   |                              |                     |     |
|     | 10.2                              | Deviations (If any): NIL   |  |   |                              |                     |     |



**RAIL COACH FACTORY, KAPURTHALA**  
**ROLLING STOCK CERTIFICATE (LHB)**

**QMF 9829, VER:1.00**

|            |                       |           |         |        |           |               |
|------------|-----------------------|-----------|---------|--------|-----------|---------------|
| <b>11.</b> | <b>Bogie Details:</b> | Shell No. | Railway | Type   | Coach No. | Dispatch Date |
|            |                       | 9081      | NR      | LACCNX | 197442    | 05-FEB-20     |

  

|                                       |                 |                                    |                   |                   |               |                   |                   |                   |               |
|---------------------------------------|-----------------|------------------------------------|-------------------|-------------------|---------------|-------------------|-------------------|-------------------|---------------|
| <b>11.1 Wheel &amp; Axle Details:</b> |                 |                                    |                   |                   |               |                   |                   |                   |               |
| i.                                    | Bogie No.       | 197631                             |                   |                   |               | 197632            |                   |                   |               |
| ii.                                   | Frame No.       | ECBT-942                           |                   |                   |               | ECBT-914          |                   |                   |               |
| iii.                                  | Bolster No.     | PD-CA-2172                         |                   |                   |               | SECPL-90          |                   |                   |               |
| iv.                                   | Axle No.        | RWF - S5211                        |                   | RWF - S8396       |               | RWF - S3501       |                   | RWF - S3105       |               |
| v.                                    | Items/locations | Earthing end side                  | Phonic wheel side | Phonic wheel side | Plain side    | Earthing end side | Phonic wheel side | Phonic wheel side | Plain side    |
| vi.                                   | Wheel Dia.      | 917.10                             | 917.10            | 917.10            | 917.10        | 917.10            | 917.10            | 916.70            | 916.70        |
| vii.                                  | Wheel Disc No.  | 24849-8PS2-TZ                      | 14631-8MR4-TZ     | 17977-8MT9-TZ     | 24449-8PS8-TZ | 23142-8PN2-TZ     | 17044-8MS5-TZ     | 23443-8PS8-TZ     | 17169-8MV2-TZ |
| viii.                                 | RB Nos.         | 24040                              | 25378             | 25448             | 24338         | 21666             | 22018             | 22428             | 22982         |
| ix.                                   | RB Make         | TIMKEN                             |                   | TIMKEN            |               | TIMKEN            |                   | TIMKEN            |               |
| x.                                    | RB Type         | UIC CARTRIDGE TAPER ROLLER BEARING |                   |                   |               |                   |                   |                   |               |

  

|  |                     |                      |                     |                      |
|--|---------------------|----------------------|---------------------|----------------------|
| <b>11.2 Secondary suspension load deflection Values:</b> |                     |                      |                     |                      |
| Description  | Lateral Damper Side | Non-Lat. Damper Side | Lateral Damper Side | Non-Lat. Damper Side |
| i. Make & Nos.   | TAYAL-18-06-376     | TAYAL-18-06-381      | TAYAL-18-06-406     | TAYAL-18-06-421      |

  

|                            |                           |  |  |         |
|----------------------------|---------------------------|--|--|---------|
| <b>Items traceability:</b> |                           |  |  |         |
| Sno.                       | Item                      |  |  | Make    |
| i.                         | Primary Outer Spring      | CMSTL-19-02                              | CMSTL-19-02                              | CMSTL   |
| ii.                        | Primary inner Spring      | CMSTL-19-08                              | CMSTL-19-08                              | CMSTL   |
| iii.                       | Primary Damper            | 248258, 248994, 249407, 248983           | 248173, 249595, 248797, 249436           | IAI     |
| iv.                        | Secondary Damper          | 249941, 250083                           | 250044, 250031                           | IAI     |
| v.                         | Lateral Damper            | 2228                                     | 2308                                     | GABRIEL |
| vi.                        | Brake cylinder & Caliper  | B8626-691,B7689-691, B8627-691,B7679-691 | B5816-691,B4938-691, B5852-691,B4953-691 | KBI     |
| vii.                       | Brake Disc                |  |  | KBI     |
| viii.                      | Contral arm top           |  |  | HAPL    |
| ix.                        | Control arm bottom        |  |  | HAPL    |
| x.                         | Top rubber Pad            |  |  | AVADH   |
| xi.                        | Vertical Bump Stop        |  |  | AVADH   |
| xii.                       | Ball Joint Control arm    |  |  | AVADH   |
| xiii.                      | Lateral Bump stop         |  |  | GMT     |
| xiv.                       | Traction center make      |  |  | SARITA  |
| xv.                        | Traction lever make       |  |  | JI      |
| xvi.                       | Ball joint traction lever |  |  | AVADH   |
| xvii.                      | Traction center elastic   |  |  | GMT     |
| xviii.                     | Secondary rubber pad      |  |  | NA      |
| xix.                       | Rubber spring             |  |  | NA      |
| xx.                        | Anti roll bar make        |  |  | SARITA  |
| xxi.                       | Ball joint roll link      |  |  | SARITA  |
| xxii.                      | Fork make                 |  |  | SARITA  |

  

|             |                                |                          |
|-------------|--------------------------------|--------------------------|
| <b>11.4</b> | i. Modification/Trail(if any): | NIL                      |
|             | ii. Deviations (if any):       | Deviations (If any): NIL |

**LACCNX - 9081**



**RAIL COACH FACTORY, KAPURTHALA**  
**ROLLING STOCK CERTIFICATE (LHB)**

**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF**

**LHB AC 3 TIER AIR SPRING COACH**

**TYPE OF COACH : LACCNX**      **Shell No : 9081**      **COACH\_NO : 197442**

**RAILWAY : NR**      **COUPLING TYPE : CBC**      **DATE OF FITMENT: 05-FEB-20**

| S.No PL No & Item Description | Drawing No | Make | Item Sr.No.(if any) |
|-------------------------------|------------|------|---------------------|
|-------------------------------|------------|------|---------------------|

**Group Name PP-SIDE**

|   |   |                           |                                     |                       |
|---|---|---------------------------|-------------------------------------|-----------------------|
| 0 | 33501427-0, AXLE MOUNTED DISC BRAKE SYSTEM FOR ALSTOM-LHB DESIGN-AC & NAC COACHES | MDTS077 REV. 02           | KNOOR-BREMSE INDIA PVT.LTD          | 0118390438            |
| 1 | 33635080-1, PUMP  | EDTS186                   | KAPSON IND. (KIND) PUMP             | 19050606/<br>19050607 |
| 2 | 33635080-2, PUMP CONTROLLER   | EDTS186                   | KAPSON IND. (KIND) PUMP             | 19030026              |
| 1 | 33635237-1, RMPU  | SPECIFICATION NO. EDTS075 | INTEC CORPORATION                   | 19-H-1380             |
| 1 | 33640932-1, GPS BASED P I SYSTEM PP SIDE  | EDTS270 TYPE-II           | NOT PROVIDED                        | NIL                   |
| 1 | 33640993-1, PA SYSTEM WITH VOLUME CONTROLLER                                      | EDTS173,TYPE-III          | AHUJA BY PUNJAB RADIOS              | 4339257               |
| 2 | 33640993-2, SPEAKERS  | EDTS173,TYPE-III          | AHUJA BY PUNJAB RADIOS              | NIL                   |
| 0 | 33641419-0, REGULATED BATTERY CHARGER   | EDTS109                   | ELECTRO WAVES ELECTRONICS PVT. LTD. | W4K5-..               |

**Group Name NON-PP SIDE**

|   |  |                           |  |           |
|---|--|---------------------------|--|-----------|
| 1 | 33635237-1, RMPU                           | SPECIFICATION NO. EDTS075 | INTEC CORPORATION                        | 19-H-1346 |
| 2 | 33635237-2, MICRO PROCESSOR CONTROLLER     | SPECIFICATION NO. EDTS075 | SIDWAL REFRIGERATION INDUSTRIES PVT. LTD | 19011947  |
| 1 | 33635330-1, HOT CASE                       | EDTS139                   | NOT PROVIDED                             | NIL       |
| 2 | 33635330-2, BOTTLE COOLER CUM DEEP FREEZER | EDTS139                   | NOT PROVIDED                             | NIL       |
| 2 | 33640932-2, GPS BASED P I SYSTEM NPP SIDE  | EDTS270 TYPE-II           | NOT PROVIDED                             | NIL       |

**Group Name UNDER FRAME**

|   |  |                  |                                       |                   |
|---|--|------------------|---------------------------------------|-------------------|
| 0 | 33635183-0, 60 KVA TRANSFORMER                                       | EDTS076          | VIMAL TRANSFORMERS                    | VTC-3089-LHB-1415 |
| 0 | 33635493-0, 5KVA, 415/190V, 3PHASE DRY TYPE DISTRIBUTION TRANSFORMER | EDTS366, Ren-Nil | BHASIN PACKARD ELECTRONICS (PVT) LTD. | 03199770          |



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**FOR ELECTRICAL ITEMS**

**ROLLING STOCK CERTIFICATE OF  
LHB AC 3 TIER AIR SPRING COACH**

| S.No                                   | PL No & Item Description  | Drawing No   | Make                              | Item Sr.No.(if any) |
|--|---|--|-----------------------------------|---------------------|
| <b>Group Name UNDER FRAME</b>          |   |  |                                   |                     |
| 0                                      | 33640178-0, BATTERY FUSE BOX -VE  | LW71002 ALT"a"   | INTERNATIONAL SWITCHGEAR PVT LTD. | 2019-06-080         |
| 0                                      | 33640786-0, BATTERY FUSE BOX +VE  | LW71001 ALT"a"   | INTERNATIONAL SWITCHGEAR PVT LTD  | 2019-06-118         |
| 0                                      | 33641729-0, 70AH,110V, VRLA LEAD ACID MAINTENANCE FREE BATTERY(9 NOSX12V)                                       | RDSO/PE/SPEC/AC/09-2008,REV-1 WITH AM-1                        | AMARA RAJA BATTERIES LTD.         | 01/2019             |
| 0                                      | 33650184-0, BATTERY BOX MOUNTING FOR LHB COACH AND 9 HOLES OF DIA 25 mm AS PER SKED-383 IN DRG.NO. 3 10113.0.76 | 1 10113.0.76.700.005 EXCEPT ITEM NO. 5,22,23,25 TO 27 ALT 'C'. | GOPAL ENGINEERING WORKS           | NIL                 |
| 1                                      | 35982925-1, CAPACITOR BANK FOR LHB EOG TYPE COACHES   | EDML130, TABLE-1   | NEC SWITCHGEAR S & CONTROLS       | 2019-04-7242        |
| <b>Group Name COMPARTMENT</b>          |   |  |                                   |                     |
| 1                                      | 33641936-1, SWITCH BOARD CABINET  | EDTS-073, REV.-A   | AMIT ENGINEERS                    | AE-SB-945           |
| 2                                      | 33641936-2, DISCONNECTING & EARTHING DEVICE   | EDTS-073, REV.-A   | AMIT ENGINEERS                    | L & T               |
| <b>Group Name UNDER FRAME PP SIDE</b>  |   |  |                                   |                     |
| 1                                      | 33635067-1, BOGIE 1   | EDTS101 REV-"A"  | S INTERNATIONAL                   | 197632              |
| 0                                      | 33640580-0, FEEDER JUNCTION BOX   | EDTS328  | M.V.ELECTRO SYSTEM PVT.LTD.       | NIL                 |
| 0                                      | 33641110-0, ZS COUPLING 500A,750V,3-PHASE 50HZ  | EDTS105,,REV-E,AM1&2 WITH ANN. A                               | S INTERNATIONAL                   | NIL                 |
| <b>Group Name UNDER FRAME NPP SIDE</b> |   |  |                                   |                     |
| 2                                      | 33635067-2, BOGIE 2   | EDTS101 REV-"A"  | S INTERNATIONAL                   | 197631              |
| 0                                      | 33640580-0, FEEDER JUNCTION BOX   | EDTS328  | NEERA ENTERPRISES                 | NIL                 |
| 0                                      | 33641110-0, ZS COUPLING 500A,750V,3-PHASE 50HZ  | EDTS105,,REV-E,AM1&2 WITH ANN. A                               | S INTERNATIONAL                   | NIL                 |
| <b>SSE/EL/QC</b>                       |   |  | <b>AME/WM QC/DY CQM I</b>         |                     |