

## ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

|       |   |             |  |  |                                |                     |            |
|-------|---|-------------|--|--|--------------------------------|---------------------|------------|
| 1.    | SHELL No.   | 5044        | DISPATCH DATE  |  |                                |                     | 18.12.2015 |
| 2.    | Railway   | ECR         | Type   | LWLRRM   | Coach No.                      | 15859               |            |
| 3.    | Booked to   | SSE/C&W/SPJ |  |  |                                |                     |            |
| 4.    | Tare Weight of Coach  | 53.4 T      |  |  |                                |                     |            |
| 5.    | Carrying Capacity   | Seating     | NIL  | Sleeping   | NIL                            | Luggage             | 3.9 T      |
| 6.    | Shell Details: (LW90023 alt 'a', LE90009 alt 'nil', LD9009 alt 'b') |             |  |  |                                |                     |            |
| 6.1   | Leading Dimensions:   |             |  |  |                                |                     |            |
| i)    | Maximum length over Body  |             |  | 23700+10/-0 mm   |                                |                     |            |
| ii)   | Maximum width over Body   |             |  | 3240-8/+0 mm, 3050 mm (LWSCZDAC)                         |                                |                     |            |
| iii)  | Max. Height From Rail Level   |             |  | 4250 (LWACCN), 4039 (LWACCW, LS, LWSCN), 4366 (LWSCZDAC) |                                |                     |            |
| iv)   | Buffer/CBC Height   |             | Specified : 1105 +0 /-15 mm                                |  | 1100                           | 1102                |            |
| v)    | Buffer/CBC (Make )  |             | ESCORTS  |  | Fiba Device                    | NA                  |            |
| 7.    | Air Brake Testing:  |             | Description  |  | Specified                      |                     | Observed   |
| 7.1   | Full Brake Application  |             | Reduce pressure of BP from 5.0 to 3.4 kg/cm <sup>2</sup>   |  | 6 -10 sec                      |                     | 6 Sec      |
|       |   |             | Max Pressure in BC   |  | 3.00 ± 0.15 Kg/cm <sup>2</sup> |                     | 3.00       |
|       |   |             | All Brake are applied                                      |  | OK                             |                     | OK         |
| 7.2   | Insensitivity   |             | Exhaust BP @ 0.3 kg/cm <sup>2</sup> /min                   |  | No brake application           |                     | OK         |
| 7.3   | Sensitivity   |             | Exhaust BP @ 0.1 kg/cm <sup>2</sup> /Sec,<br>After 02 Sec. |  | Brake must apply               |                     | OK         |
| 8.    | PAINTING DEATAILS:  |             | TYPE OF PAINT  |  | MAKE                           | AVERAGE GLOSS VALUE |            |
| 8.1   | PAINT   |             | PU PAINT   |  | ADVANCE                        | 87                  |            |
| 8.2   | APPLICATION OF PCN-123  |             | SATISFACTORY   |  |                                |                     |            |
| 8.3   | INSUALTION  |             | SATISFACTORY   |  |                                |                     |            |
| 9.    | Traceability of Furnishing Items:                                   |             |  |  |                                | Make                |            |
| i.    | BRAKE EQUIPMENT   |             |  |  | FAIVELEY                       |                     |            |
| iii.  | CDTS  |             |  |  | AIR FLOW                       |                     |            |
| iv.   | SEATS/S&B   |             |  |  | GANDHI                         |                     |            |
| v.    | BODY SIDE DOOR  |             |  |  | JBM                            |                     |            |
| vi.   | VESTIBULE SLIDING DOOR  |             |  |  | KALSI                          |                     |            |
| vii.  | CREW-GEN & GUARD ROOM DOOR  |             |  |  | CONCEPT/JBM                    |                     |            |
| viii. | WATER TANKS   |             |  |  | KUTEER, MANOJ & SHIVALIK       |                     |            |
| ix    | FUEL TANK   |             |  |  | OMAX                           |                     |            |
| x     | UIC VESTIBULE   |             |  |  | ESCORTS                        |                     |            |
| XI    | FLOOR BOARD   |             |  |  | NARBADA                        |                     |            |
| XII   | PVC   |             |  |  | RESPONSIVE                     |                     |            |
| 10.   |   |             |  |  |                                |                     |            |
| 10.1  | Modification / Trail (if any):                                      |             |  |  | NIL                            |                     |            |
| 10.2  | Deviations if any:  |             |  |  | NIL                            |                     |            |



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Rail Coach Factory , Kapurthala

|                    |   |                                       |                                    |                    |  |                    |              |  |                  |             |                      |             |
|--------------------|---|---------------------------------------|------------------------------------|--------------------|--|--------------------|--------------|--|------------------|-------------|----------------------|-------------|
| 11.                | <b>Bogie Details:</b>                               |                                       | <b>Shell No.</b>                   |                    | <b>Railway</b>                                 |                    | <b>Type</b>  |  | <b>Coach No.</b> |             | <b>Dispatch Date</b> |             |
|                    |   |                                       | 5044                               |                    | EC   |                    | LWLRRM       |  | 15859/C          |             | 24-11-2015           |             |
| 11.1               | <b>Wheel &amp; Axle Details:</b>                    |                                       | <b>LPC-1 PP Side(Guard )</b>       |                    |  |                    |              | <b>LPC-II NPP Side (Non guard )</b>            |                  |             |                      |             |
|                    | i.  | <b>Bogie No.</b>                      | 156905                             |                    |  |                    |              | 156904   |                  |             |                      |             |
|                    | ii.   | <b>Frame No.</b>                      | FIAT-4267                          |                    |  |                    |              | BEC-037  |                  |             |                      |             |
|                    | iii.  | <b>Bolster No.</b>                    | 5214-P                             |                    |  |                    |              | 5256-P   |                  |             |                      |             |
|                    | iv.   | <b>Axle No.</b>                       | 126991/476                         |                    | 126217/471                                     |                    |              | A-2970   |                  | A-3034      |                      |             |
|                    | v.  | <b>Wheel Dia.</b>                     | 917.00                             | 917.00             | 917.00   | 917.00             | 918.00       | 918.00   | 918.00           | 918.00      | 918.00               | 918.00      |
|                    | vi.   | <b>Wheel Disc No.</b>                 | 6207-00001                         | 06228-00078        | 06228-00043                                    | 6202-00208         | 7172-00093   | 6228-00208                                     | 6228-00015       | 07172-00071 | 6228-00015           | 07172-00071 |
|                    | vii.  | <b>R.B. Nos.</b>                      | 04951                              | 05122              | 01290  | 04940              | 02155        | 01558  | 01256            | 04424       | 01256                | 04424       |
|                    | viii.   | <b>R.B. Make</b>                      | TIMKEN                             |                    | TIMKEN   |                    |              | TIMKEN   |                  | TIMKEN      |                      |             |
|                    | ix.   | <b>RB Type</b>                        | UIC CARTRIDGE TAPER ROLLER BEARING |                    |  |                    |              |  |                  |             |                      |             |
| 11.2               | <b>Secondary suspension load deflection Values:</b> |                                       |                                    |                    |  |                    |              |  |                  |             |                      |             |
| <b>Description</b> |   | <b>Secondary 1</b>                    |                                    | <b>Secondary 2</b> |  | <b>Secondary 1</b> |              | <b>Secondary 2</b>                             |                  |             |                      |             |
|                    |   | <b>Outer</b>                          | <b>Inner</b>                       | <b>Outer</b>       | <b>Inner</b>                                   | <b>Outer</b>       | <b>Inner</b> | <b>Outer</b>                                   | <b>Inner</b>     |             |                      |             |
| i.                 | <b>Make &amp; nos.</b>                              | AFJ-15-5-10                           | GBD-15-3-01                        | AFJ-15-5-709       | GBD-15-3-23                                    | GBD-15-3-6         | GBD-15-3-11  | GBD-15-3-25                                    | GBD-15-3-30      |             |                      |             |
| ii.                | <b>Ht. at test load</b>                             | 512.50                                | 468.50                             | 511                | 467  | 515                | 468          | 515  | 468              |             |                      |             |
| iii.               | <b>Align .deviation</b>                             | 17                                    | 27                                 | 16                 | 27   | 10                 | 28           | 7  | 21               |             |                      |             |
| 11.3               | <b>Items traceability:</b>                          |                                       |                                    |                    |  |                    |              |  |                  |             |                      |             |
|                    | <b>Sno.</b>   | <b>Item</b>                           |                                    |                    | <b>PP Side Bogie</b>                           |                    |              | <b>NPP side Bogie</b>                          |                  |             | <b>Make</b>          |             |
|                    | i.  | Primary Outer Spring                  |                                    |                    | FSK-15-9                                       |                    |              | FSK-15-9                                       |                  |             | FSK                  |             |
|                    | ii.   | Primary inner Spring                  |                                    |                    | GBD-15-3                                       |                    |              | GBD-15-3                                       |                  |             | GBD                  |             |
|                    | iii.  | Primary Damper                        |                                    |                    | 0121,0177,0187,0134                            |                    |              | 0112,0331,0122,0181                            |                  |             | KNORR                |             |
|                    | iv.   | Secondary damper                      |                                    |                    | 0100,0103                                      |                    |              | 0122,0042                                      |                  |             | KNORR                |             |
|                    | v.  | Lateral Damper                        |                                    |                    | 00063  |                    |              | 00093  |                  |             | KNORR                |             |
|                    | vi.   | Yaw Damper                            |                                    |                    |  |                    |              |  |                  |             | NIL                  |             |
|                    | vii.  | Brake cylinder & Caliper              |                                    |                    | 15009/2000,15002/2000<br>15003/2000,15001/2000 |                    |              | 15004/2000,15007/2000<br>15008/2000,15002/2000 |                  |             | FTI                  |             |
|                    | viii.   | Brake Disc                            |                                    |                    |  |                    |              |  |                  |             | KBI                  |             |
|                    | ix.   | Ball joint Control arm                |                                    |                    |  |                    |              |  |                  |             | MGN                  |             |
|                    | x.  | Lateral Bump stop                     |                                    |                    |  |                    |              |  |                  |             | MGN                  |             |
|                    | xi.   | Traction center make                  |                                    |                    |  |                    |              |  |                  |             | SARITA               |             |
|                    | xii.  | Traction lever make                   |                                    |                    |  |                    |              |  |                  |             | SARITA               |             |
|                    | xiii.   | Ball joint traction lever             |                                    |                    |  |                    |              |  |                  |             | MGN                  |             |
|                    | xiv.  | Traction centre elastic               |                                    |                    |  |                    |              |  |                  |             | SGA                  |             |
|                    | xv.   | Secondary rubber pad                  |                                    |                    |  |                    |              |  |                  |             | TESPAK               |             |
|                    | xvi.  | Rubber spring                         |                                    |                    |  |                    |              |  |                  |             | GMT                  |             |
|                    | xvii.   | Anti roll bar make                    |                                    |                    |  |                    |              |  |                  |             | EMSON                |             |
|                    | xviii.  | Ball joint roll link                  |                                    |                    |  |                    |              |  |                  |             | SARITA               |             |
|                    | xix.  | Fork make                             |                                    |                    |  |                    |              |  |                  |             | EMSON                |             |
| 11.4               | i.  | <b>Modification / Trial (if any):</b> |                                    |                    |  |                    | NIL          |  |                  |             |                      |             |
|                    | ii.   | <b>Deviations (if any):</b>           |                                    |                    |  |                    | NIL          |  |                  |             |                      |             |



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|     |   |                                |                             |  |                                |                     |            |
|-----|---|--------------------------------|-----------------------------|--|--------------------------------|---------------------|------------|
| 1.  | SHELL No.   | 5029                           | DISPATCH DATE               |  |                                |                     | 19.12.2015 |
| 2.  | Railway   | ECR                            | Type                        | LWLRRM   | Coach No.                      |                     | 15860      |
| 3.  | Booked to   |                                |                             | SSE/C&W/SPJ  |                                |                     |            |
| 4.  | Tare Weight of Coach  |                                |                             | 53.4 T   |                                |                     |            |
| 5.  | Carrying Capacity   | Seating                        | NIL                         | Sleeping   | NIL                            | Luggage             | 3.9 T      |
| 6.  | Shell Details: (LW90023 alt 'a', LE90009 alt 'nil', LD9009 alt 'b') |                                |                             |  |                                |                     |            |
|     | 6.1   | Leading Dimensions:            |                             |  |                                |                     |            |
|     | i)  | Maximum length over Body       |                             | 23700+10/-0 mm   |                                |                     |            |
|     | ii)   | Maximum width over Body        |                             | 3240-8/+0 mm, 3050 mm (LWSCZDAC)                         |                                |                     |            |
|     | iii)  | Max. Height From Rail Level    |                             | 4250 (LWACCN), 4039 (LWACCW, LS, LWSCN), 4366 (LWSCZDAC) |                                |                     |            |
|     | iv)   | Buffer/CBC Height              | Specified : 1105 +0 /-15 mm |  | 1100                           | 1100                |            |
|     | v)  | Buffer/CBC (Make )             | ESCORTS                     |  | Fiba Device                    | NA                  |            |
| 7.  | Air Brake Testing:  |                                | Description                 |  | Specified                      |                     | Observed   |
|     | 7.1   | Full Brake Application         |                             | Reduce pressure of BP from 5.0 to 3.4 kg/cm <sup>2</sup> | 6 –10 sec                      |                     | 6 Sec      |
|     |   |                                |                             | Max Pressure in BC                                       | 3.00 ± 0.15 Kg/cm <sup>2</sup> |                     | 3.00       |
|     |   |                                |                             | All Brake are applied                                    | OK                             |                     | OK         |
|     | 7.2   | Insensitivity                  |                             | Exhaust BP @ 0.3 kg/cm <sup>2</sup> /min                 | No brake application           |                     | OK         |
|     | 7.3   | Sensitivity                    |                             | Exhaust BP @ 0.1 kg/cm <sup>2</sup> /Sec, After 02 Sec.  | Brake must apply               |                     | OK         |
| 8.  | PAINTING DEATAILS:  |                                | TYPE OF PAINT               |  | MAKE                           | AVERAGE GLOSS VALUE |            |
|     | 8.1   | PAINT                          |                             | PU PAINT   | ADVANCE                        | 87                  |            |
|     | 8.2   | APPLICATION OF PCN-123         |                             | SATISFACTORY   |                                |                     |            |
|     | 8.3   | INSUALTION                     |                             | SATISFACTORY   |                                |                     |            |
| 9.  | Traceability of Furnishing Items:                                   |                                |                             |  |                                | Make                |            |
|     | i.  | BRAKE EQUIPMENT                |                             |  | KBI                            |                     |            |
|     | iii.  | CDTS                           |                             |  | AIR FLOW                       |                     |            |
|     | iv.   | SEATS/S&B                      |                             |  | GANDHI                         |                     |            |
|     | v.  | BODY SIDE DOOR                 |                             |  | JBM                            |                     |            |
|     | vi.   | VESTIBULE SLIDING DOOR         |                             |  | KALSI                          |                     |            |
|     | vii.  | CREW-GEN & GUARD ROOM DOOR     |                             |  | CONCEPT/JBM                    |                     |            |
|     | viii.   | WATER TANKS                    |                             |  | KUTEER, MANOJ & SHIVALIK       |                     |            |
|     | ix  | FUEL TANK                      |                             |  | OMAX                           |                     |            |
|     | x   | UIC VESTIBULE                  |                             |  | ESCORTS                        |                     |            |
|     | XI  | FLOOR BOARD                    |                             |  | TAYAL                          |                     |            |
|     | XII   | PVC                            |                             |  | RESPONSIVE                     |                     |            |
| 10. |   |                                |                             |  |                                |                     |            |
|     | 10.1  | Modification / Trail (if any): |                             |  |                                | NIL                 |            |
|     | 10.2  | Deviations if any:             |                             |  |                                | NIL                 |            |



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|------|---|--------------------------------|---|---------------|---------------|--------------|---|------------|------------------------------|------------|---------------|--|
| 11.  | Bogie Details:                                      |                                | Shell No.                                   |               | Railway       |              | Type  |            | Coach No.                    |            | Dispatch Date |  |
|      |   |                                | 5029  |               | ER            |              | LWLRRM                                      |            | 15860/C                      |            | 24-11-2015    |  |
| 11.1 | Wheel & Axle Details:                               |                                | LPC-1 PP Side(Guard )                       |               |               |              |   |            | LPC-II NPP Side (Non guard ) |            |               |  |
|      | i.  | Bogie No.                      | 156901                                      |               |               |              |   |            | 156900                       |            |               |  |
|      | ii.   | Frame No.                      | FIAT-4412                                   |               |               |              |   |            | FIAT-4408                    |            |               |  |
|      | iii.  | Bolster No.                    | 5257-P                                      |               |               |              |   |            | 4542-GT                      |            |               |  |
|      | iv.   | Axle No.                       | 114148/378                                  |               |               | 126767/468   |   |            | 125805/473                   |            | 130192/469    |  |
|      | v.  | Wheel Dia.                     | 915.50                                      | 915.00        | 916.00        | 916.00       | 915.00                                      | 915.00     | 916.00                       | 916.00     |               |  |
|      | vi.   | Wheel Disc No.                 | 6207-00153                                  | 06228-00075   | 7147-00098    | 6192-00045   | 6198-00202                                  | 6207-00127 | 6207-00003                   | 6207-00163 |               |  |
|      | vii.  | R.B. Nos.                      | 01581                                       | 01428         | 01594         | 01853        | 02297                                       | 01757      | 01316                        | 01848      |               |  |
|      | viii.   | R.B. Make                      | TIMKEN                                      |               |               | TIMKEN       |   |            | TIMKEN                       |            | TIMKEN        |  |
|      | ix.   | RB Type                        | UIC CARTRIDGE TAPER ROLLER BEARING          |               |               |              |   |            |                              |            |               |  |
| 11.2 | <u>Secondary suspension load deflection Values:</u> |                                |   |               |               |              |   |            |                              |            |               |  |
|      | Description   |                                | Secondary 1                                 |               | Secondary 2   |              | Secondary 1                                 |            | Secondary 2                  |            |               |  |
|      |   |                                | Outer                                       | Inner         | Outer         | Inner        | Outer                                       | Inner      | Outer                        | Inner      |               |  |
| i.   | Make & nos.   |                                | CMGBD-15-6-21                               | CMGBD-15-3-19 | CMGBD-15-6-28 | CMGBD-15-6-7 | CMFSK-15-3-16                               | G-12-9-351 | CMFSK-15-3-37                | G-12-9-126 |               |  |
| ii.  | Ht. at test load                                    |                                | 512.50                                      | 464           | 511           | 464.50       | 512   | 469        | 512.50                       | 470        |               |  |
| iii. | Align .deviation                                    |                                | 7   | 21            | 6             | 20           | 8   | 15         | 7                            | 11         |               |  |
| 11.3 | <u>Items traceability:</u>                          |                                |   |               |               |              |   |            |                              |            |               |  |
|      | Sno.  | Item                           | PP Side Bogie                               |               |               |              | NPP side Bogie                              |            |                              |            | Make          |  |
|      | i.  | Primary Outer Spring           | CMGBD-15-6                                  |               |               |              | CMGBD-15-6                                  |            |                              |            | CMGBD         |  |
|      | ii.   | Primary inner Spring           | CMGBD-15-3                                  |               |               |              | CMGBD-15-3                                  |            |                              |            | CMGBD         |  |
|      | iii.  | Primary Damper                 | 0241,0365,0109,0338                         |               |               |              | 0379,0156,0161,0205                         |            |                              |            | KNORR         |  |
|      | iv.   | Secondary damper               | 0173,0171                                   |               |               |              | 0079,0136                                   |            |                              |            | KNORR         |  |
|      | v.  | Lateral Damper                 | 0035  |               |               |              | 0047  |            |                              |            | KNORR         |  |
|      | vi.   | Yaw Damper                     |   |               |               |              |   |            |                              |            | NIL           |  |
|      | vii.  | Brake cylinder & Caliper       | J5227/261,J5804/260,<br>J5235/261,J5803/260 |               |               |              | H6536/261,H7260/261,<br>H6534/261,H7231/261 |            |                              |            | KBI           |  |
|      | viii.   | Brake Disc                     |   |               |               |              |   |            |                              |            | KBI           |  |
|      | ix.   | Ball joint Control arm         |   |               |               |              |   |            |                              |            | MGN           |  |
|      | x.  | Lateral Bump stop              |   |               |               |              |   |            |                              |            | MGN           |  |
|      | xi.   | Traction center make           |   |               |               |              |   |            |                              |            | SARITA        |  |
|      | xii.  | Traction lever make            |   |               |               |              |   |            |                              |            | SARITA        |  |
|      | xiii.   | Ball joint traction lever      |   |               |               |              |   |            |                              |            | MGN           |  |
|      | xiv.  | Traction centre elastic        |   |               |               |              |   |            |                              |            | SGA           |  |
|      | xv.   | Secondary rubber pad           |   |               |               |              |   |            |                              |            | TESPAK        |  |
|      | xvi.  | Rubber spring                  |   |               |               |              |   |            |                              |            | GMT           |  |
|      | xvii.   | Anti roll bar make             |   |               |               |              |   |            |                              |            | EMSON         |  |
|      | xviii.  | Ball joint roll link           |   |               |               |              |   |            |                              |            | SARITA        |  |
|      | xix.  | Fork make                      |   |               |               |              |   |            |                              |            | SARITA        |  |
| 11.4 | i.  | Modification / Trial (if any): |   | NIL           |               |              |   |            |                              |            |               |  |
|      | ii.   | Deviations (if any):           |   | NIL           |               |              |   |            |                              |            |               |  |

LPC-5029



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|     |   |                                |  |                                |                     |            |
|-----|---|--------------------------------|--|--------------------------------|---------------------|------------|
| 1.  | SHELL No.   | 5046                           | DISPATCH DATE  |                                |                     | 04.12.2015 |
| 2.  | Railway   | ECR                            | Type   | LWLRRM                         | Coach No.           | 15857      |
| 3.  | Booked to   | SSE/C&W/SPJ                    |  |                                |                     |            |
| 4.  | Tare Weight of Coach  | 53.4 T                         |  |                                |                     |            |
| 5.  | Carrying Capacity   | Seating                        | NIL  | Sleeping                       | NIL                 | Luggage    |
| 6.  | Shell Details: (LW90023 alt 'a', LE90009 alt 'nil', LD9009 alt 'b') |                                |  |                                |                     |            |
|     | 6.1   | Leading Dimensions:            |  |                                |                     |            |
|     | i)  | Maximum length over Body       | 23700+10/-0 mm   |                                |                     |            |
|     | ii)   | Maximum width over Body        | 3240-8/+0 mm, 3050 mm (LWSCZDAC)                         |                                |                     |            |
|     | iii)  | Max. Height From Rail Level    | 4250 (LWACCN), 4039 (LWACCW, LS, LWSCN), 4366 (LWSCZDAC) |                                |                     |            |
|     | iv)   | Buffer/CBC Height              | Specified : 1105 +0 /-15 mm                              | 1105                           | 1104                |            |
|     | v)  | Buffer/CBC (Make )             | ESCORTS  | Fiba Device                    | NA                  |            |
| 7.  | Air Brake Testing:  |                                | Description  | Specified                      | Observed            |            |
|     | 7.1   | Full Brake Application         | Reduce pressure of BP from 5.0 to 3.4 kg/cm <sup>2</sup> | 6 –10 sec                      | 6 Sec               |            |
|     |   |                                | Max Pressure in BC                                       | 3.00 ± 0.15 Kg/cm <sup>2</sup> | 3.00                |            |
|     |   |                                | All Brake are applied                                    | OK                             | OK                  |            |
|     | 7.2   | Insensitivity                  | Exhaust BP @ 0.3 kg/cm <sup>2</sup> /min                 | No brake application           | OK                  |            |
|     | 7.3   | Sensitivity                    | Exhaust BP @ 0.1 kg/cm <sup>2</sup> /Sec, After 02 Sec.  | Brake must apply               | OK                  |            |
| 8.  | PAINTING DEATAILS:  |                                | TYPE OF PAINT  | MAKE                           | AVERAGE GLOSS VALUE |            |
|     | 8.1   | PAINT                          | PU PAINT   | GS                             | 87                  |            |
|     | 8.2   | APPLICATION OF PCN-123         | SATISFACTORY   |                                |                     |            |
|     | 8.3   | INSUALTION                     | SATISFACTORY   |                                |                     |            |
| 9.  | Traceability of Furnishing Items:                                   |                                |  | Make                           |                     |            |
|     | i.  | BRAKE EQUIPMENT                |  |                                | FAIVELEY            |            |
|     | iii.  | CDTS                           |  |                                | RAIL FAB            |            |
|     | iv.   | SEATS/S&B                      |  |                                | AMIR CHAND          |            |
|     | v.  | BODY SIDE DOOR                 |  |                                | JBM                 |            |
|     | vi.   | VESTIBULE SLIDING DOOR         |  |                                | SUKATA              |            |
|     | vii.  | CREW-GEN & GUARD ROOM DOOR     |  |                                | CP/JBM              |            |
|     | viii.   | WATER TANKS                    |  |                                | KUTEER, MANOJ       |            |
|     | ix  | FUEL TANK                      |  |                                | GAURAV              |            |
|     | x   | UIC VESTIBULE                  |  |                                | ESCORTS             |            |
|     | XI  | FLOOR BOARD                    |  |                                | NARBADA             |            |
|     | XII   | PVC                            |  |                                | RESPONSIVE          |            |
| 10. |   |                                |  |                                |                     |            |
|     | 10.1  | Modification / Trail (if any): |  |                                |                     | NIL        |
|     | 10.2  | Deviations if any:             |  |                                |                     | NIL        |



रेल डिब्बा कारखाना, कपूरथला

Rail Coach Factory , Kapurthala

|                    |   |                                |  |             |  |             |                              |             |              |            |
|--------------------|---|--------------------------------|--|-------------|--|-------------|------------------------------|-------------|--------------|------------|
| 11.                | <b>Bogie Details:</b>                               |                                | Shell No.  | Railway     | Type   | Coach No.   | Dispatch Date                |             |              |            |
|                    |   |                                | 5046   | ECR         | LWLRRM   | 15857       | 23-11-2015                   |             |              |            |
| 11.1               | <b>Wheel &amp; Axle Details:</b>                    |                                | LPC-1 PP Side(Guard )                              |             |  |             | LPC-II NPP Side (Non guard ) |             |              |            |
|                    | i.  | Bogie No.                      | 156896   |             |  |             | 156897                       |             |              |            |
|                    | ii.   | Frame No.                      | FIAT-4226  |             |  |             | ECBT-970                     |             |              |            |
|                    | iii.  | Bolster No.                    | 3092-GT  |             |  |             | 5251-P                       |             |              |            |
|                    | iv.   | Axle No.                       | 128456/983   | 113428/372  | 129178/992   | 114793/376  |                              |             |              |            |
|                    | v.  | Wheel Dia.                     | 916.00   | 916.00      | 915.00   | 915.00      | 915.00                       | 915.00      | 916.00       | 916.00     |
|                    | vi.   | Wheel Disc No.                 | 06228-00070  | 6207-00207  | 7172-00083   | 7172-00107  | 06228-00155                  | 6202-00219  | 7166-00177   | 7166-00186 |
|                    | vii.  | R.B. Nos.                      | 38891  | 34650       | 39079  | 38903       | 04712                        | 23090       | 38527        | 22873      |
|                    | viii.   | R.B. Make                      | SKF  |             | SKF  |             | SKF                          |             | SKF          |            |
|                    | ix.   | RB Type                        | UIC CARTRIDGE TAPER ROLLER BEARING                 |             |  |             |                              |             |              |            |
| 11.2               | <b>Secondary suspension load deflection Values:</b> |                                |  |             |  |             |                              |             |              |            |
| <b>Description</b> |   | Secondary 1                    |  | Secondary 2 |  | Secondary 1 |                              | Secondary 2 |              |            |
|                    |   | Outer                          | Inner  | Outer       | Inner  | Outer       | Inner                        | Outer       | Inner        |            |
| i.                 | Make & nos.   | GBD-15-5-34                    | GBD-15-5-2   | GBD-15-5-33 | GBD-15-5-17  | GBD-15-5-16 | DN-12-11-285                 | GBD-15-5-59 | DN-12-11-292 |            |
| ii.                | Ht. at test load                                    | 508.50                         | 463.50   | 508         | 468  | 510         | 464                          | 511         | 464          |            |
| iii.               | Align .deviation                                    | 10                             | 30   | 11          | 30   | 10          | 8                            | 12          | 11           |            |
| 11.3               | <b>Items traceability:</b>                          |                                |  |             |  |             |                              |             |              |            |
|                    | Sno.  | Item                           | PP Side Bogie                                      |             | NPP side Bogie                                     |             | Make                         |             |              |            |
|                    | i.  | Primary Outer Spring           | GBD-15-6   |             | GBD-15-6   |             | GBD                          |             |              |            |
|                    | ii.   | Primary inner Spring           | G-15-3   |             | G-15-3   |             | GF                           |             |              |            |
|                    | iii.  | Primary Damper                 | 0352,0206,0343,0369                                |             | 0222,0389,0339,0351                                |             | KNORR                        |             |              |            |
|                    | iv.   | Secondary damper               | 0133,0127  |             | 0156,0022  |             | KNORR                        |             |              |            |
|                    | v.  | Lateral Damper                 | 00080  |             | 0014   |             | KNORR                        |             |              |            |
|                    | vi.   | Yaw Damper                     |  |             |  |             | NIL                          |             |              |            |
|                    | vii.  | Brake cylinder & Caliper       | L15015/2000,L15003/2000<br>L15016/2000,L15008/2000 |             | G15344/2000,G15037/2000<br>G15047/2000,G15003/2000 |             | FTI                          |             |              |            |
|                    | viii.   | Brake Disc                     |  |             |  |             | KBI                          |             |              |            |
|                    | ix.   | Ball joint Control arm         |  |             |  |             | MGN                          |             |              |            |
|                    | x.  | Lateral Bump stop              |  |             |  |             | MGN                          |             |              |            |
|                    | xi.   | Traction center make           |  |             |  |             | SARITA                       |             |              |            |
|                    | xii.  | Traction lever make            |  |             |  |             | SARITA                       |             |              |            |
|                    | xiii.   | Ball joint traction lever      |  |             |  |             | MGN                          |             |              |            |
|                    | xiv.  | Traction centre elastic        |  |             |  |             | SGA                          |             |              |            |
|                    | xv.   | Secondary rubber pad           |  |             |  |             | TESPAK                       |             |              |            |
|                    | xvi.  | Rubber spring                  |  |             |  |             | GMT                          |             |              |            |
|                    | xvii.   | Anti roll bar make             |  |             |  |             | EMSON                        |             |              |            |
|                    | xviii.  | Ball joint roll link           |  |             |  |             | SARITA                       |             |              |            |
|                    | xix.  | Fork make                      |  |             |  |             | EMSON                        |             |              |            |
| 11.4               | i.  | Modification / Trial (if any): | NIL  |             |  |             |                              |             |              |            |
|                    | ii.   | Deviations (if any):           | NIL  |             |  |             |                              |             |              |            |

LPC-5046