



रेल डिब्बा कारखाना, कपूरथला
Rail Coach Factory , Kapurthala

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ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

| | | | | | | |
|-----|---|--------------------------------|--|--------------------------------|---------------------|------------|
| 1. | SHELL No. | 4018 | DISPATCH DATE | | | 11.12.2014 |
| 2. | Railway | SR | Type | LWSCZAC | Coach No. | 14151 |
| 3. | Booked to | SSE/C&W/PER | | | | |
| 4. | Tare Weight of Coach | 40.28 T | | | | |
| 5. | Carrying Capacity | Seating | 78 | Sleeping | NIL | Luggage |
| | | | | | | NIL |
| 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 | 1105 | |
| | 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 ² | 6 –10 sec | 6 Sec | |
| | | | Max Pressure in BC | 3.00 ± 0.15 Kg/cm ² | 3.00 | |
| | | | All Brake are applied | OK | OK | |
| | 7.2 | Insensitivity | Exhaust BP @ 0.3 kg/cm ² /min | No brake application | OK | |
| | 7.3 | Sensitivity | Exhaust BP @ 0.1 kg/cm ² /Sec, After 02 Sec. | Brake must apply | OK | |
| 8. | PAINTING DEATAILS: | | TYPE OF PAINT | MAKE | AVERAGE GLOSS VALUE | |
| | 8.1 | PAINT | PU PAINT | VIBGYOR | 88/88 | |
| | 8.2 | APPLICATION OF PCN-123 | SATISFACTORY | | | |
| | 8.3 | INSUALTION | SATISFACTORY | | | |
| 9. | Traceability of Furnishing Items: | | | Make | | |
| | i. | BRAKE EQUIPMENT | | | FAIVELEY | |
| | iii. | CDTS | | | S.I.L. | |
| | iv. | SEAT & BERTH | | | SUTLEJ | |
| | v. | BODY SIDE DOORS | | | JBM | |
| | vi. | SALOON COMPTT DOORS | | | CP | |
| | vii. | VESTIBULE SLIDING DOOR | | | KALSI | |
| | viii. | WATER TANKS | | | SHIVALIK, AMIT | |
| | ix | UIC VESTIBULE | | | CEMCON | |
| | x | LUGGAGE RACK | | | HANSPAL | |
| | 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

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|--------------------|---|------------------------------------|------------------|--------------------|----------------------|--------------------|--------------|-----------------------|------------------|-----------|----------------------|--|
| 12. | Bogie Details: | | Shell No. | | Railway | | Type | | Coach No. | | Dispatch Date | |
| | | | 4018 | | SR | | LWSCZAC | | 14151 | | 19-09-2014 | |
| 12.1 | Wheel & Axle Details: | | PP Side | | | | | NPP Side | | | | |
| | i. | Bogie No. | 146794 | | | | | 146798 | | | | |
| | ii. | Frame No. | FIAT-3439 | | | | | FIAT-3455 | | | | |
| | iii. | Bolster No. | 4027-P | | | | | 4152-ECBT | | | | |
| | iv. | Axle No. | 105688/626 | | 106465/628 | | 106079/630 | | 126311/474 | | | |
| | v. | Wheel Dia. | 916.00 | 916.00 | 916.00 | 916.00 | 916.00 | 916.00 | 916.00 | 916.00 | 916.00 | |
| | vi. | Wheel Disc No. | 078-11600 | 077-10583 | 037-11603 | 298-11603 | 264-11603 | 280-11611 | 217-11600 | 359-11607 | | |
| | vii. | R.B. Nos. | 01009 | 00998 | 36550 | 00987 | 01480 | 01200 | 01235 | 36626 | | |
| | viii. | R.B. Make | TIMKEN | | TIMKEN | | TIMKEN | | TIMKEN | | | |
| ix. | RB Type | UIC CARTRIDGE TAPER ROLLER BEARING | | | | | | | | | | |
| 12.2 | Secondary suspension load deflection Values: | | | | | | | | | | | |
| Description | | Secondary 1 | | Secondary 2 | | Secondary 1 | | Secondary 2 | | | | |
| | | Outer | Inner | Outer | Inner | Outer | Inner | Outer | Inner | | | |
| i. | Make & nos. | G-12-4-1119 | G-12-4-1722 | G-12-4-1124 | G-12-4-1683 | G-4A-1009 | G4A-12-2112 | G-4A-12-1136 | G-4-12-1698 | | | |
| ii. | Ht. attest load | 510 | 467 | 508 | 466 | 511 | 467 | 511 | 467 | | | |
| iii. | Align .deviation | 2 | 13 | 6 | 15 | 4 | 19 | 2 | 18 | | | |
| 12.3 | Items traceability: | | | | | | | | | | | |
| | Sno. | Item | | | PP Side Bogie | | | NPP side Bogie | | | Make | |
| | i. | Primary Outer Spring | | | CMFSK-02-F-03R-77 | | | CMFSK-02-13-052 | | | CMFSK | |
| | ii. | Primary inner Spring | | | CMFSK-02-F03R-36 | | | CMFSK-11-11-142 | | | CMFSK | |
| | iii. | Primary Damper | | | | | | | | | SACHS | |
| | iv. | Secondary damper | | | | | | | | | SACHS | |
| | v. | Lateral Damper | | | | | | | | | KONI | |
| | vi. | Yaw Damper | | | | | | | | | NIL | |
| | vii. | Brake cylinder & Caliper | | | | | | | | | FTI | |
| | viii. | Brake Disc | | | | | | | | | KBI | |
| | ix. | Ball joint Control arm | | | | | | | | | GMT | |
| | x. | Lateral Bump stop | | | | | | | | | GMT | |
| | xi. | Traction center make | | | | | | | | | SARITA | |
| | xii. | Traction lever make | | | | | | | | | SARITA | |
| | xiii. | Ball joint traction lever | | | | | | | | | SGA | |
| | 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 | |
| 12.4 | i. | Modification / Trial (if any): | | | | | | NIL | | | | |
| | ii. | Deviations (if any): | | | | | | NIL | | | | |

LWSCZAC-4018



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ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

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|-------|---|--|--|--------------------------------|---------------------|------------|-----|
| 1. | SHELL No. | 4023 | DISPATCH DATE | | | 20.01.2015 | |
| 2. | Railway | SR | Type | LWSCZAC | Coach No. | 14154 | |
| 3. | Booked to | SSE/C&W/PER | | | | | |
| 4. | Tare Weight of Coach | 40.28 T | | | | | |
| 5. | Carrying Capacity | Seating | 78 | Sleeping | NIL | Luggage | NIL |
| 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 ² | 6 –10 sec | 6 Sec | | |
| | | | Max Pressure in BC | 3.00 ± 0.15 Kg/cm ² | 3.00 | | |
| | | | All Brake are applied | OK | OK | | |
| 7.2 | Insensitivity | | Exhaust BP @ 0.3 kg/cm ² /min | No brake application | OK | | |
| 7.3 | Sensitivity | | Exhaust BP @ 0.1 kg/cm ² /Sec, After 02 Sec. | Brake must apply | OK | | |
| 8. | PAINTING DEATAILS: | | TYPE OF PAINT | MAKE | AVERAGE GLOSS VALUE | | |
| 8.1 | PAINT | | PU PAINT | GS | 87,77,89 | | |
| 8.2 | APPLICATION OF PCN-123 | | SATISFACTORY | | | | |
| 8.3 | INSUALTION | | SATISFACTORY | | | | |
| 9. | Traceability of Furnishing Items: | | | Make | | | |
| i. | BRAKE EQUIPMENT | | | FAIVELEY | | | |
| iii. | CDTS | | | VIBHU | | | |
| iv. | SEAT & BERTH | | | SUTLEJ | | | |
| v. | BODY SIDE DOORS | | | JBM, | | | |
| vi. | SALOON COMPTT DOORS | | | CONCEPT | | | |
| vii. | VESTIBULE SLIDING DOOR | | | KALSI | | | |
| viii. | WATER TANKS | | | SHIVALIK, E C BLADES | | | |
| ix | UIC VESTIBULE | | | CEMCON | | | |
| x | LUGGAGE RACK | | | HANSPAL | | | |
| XI | FLOOR BOARD | | | NARBADA | | | |
| XII | PVC | | | RESPONSIVE,POLYFIL | | | |
| 10. | | | | | | | |
| 10.1 | Modification / Trail (if any): | | | | NIL | | |
| 10.2 | Deviations if any: | | | | NIL | | |



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|--------------------|---|---------------------------------------|------------------------------------|--------------------|----------------------|--------------------|-----------------------|--------------------|------------------|------------|----------------------|--|
| 12. | Bogie Details: | | Shell No. | | Railway | | Type | | Coach No. | | Dispatch Date | |
| | | | 4023 | | SR | | LWSCZAC | | 14154 | | 12-08-2014 | |
| 12.1 | Wheel & Axle Details: | | PP Side | | | | | NPP Side | | | | |
| | i. | Bogie No. | 146480 | | | | | 146481 | | | | |
| | ii. | Frame No. | FIAT-3076 | | | | | FIAT-3126 | | | | |
| | iii. | Bolster No. | 160-HEI | | | | | 083-HEI | | | | |
| | iv. | Axle No. | Z-3882 | | 128451/983 | | | 128949/986 | | 126228/471 | | |
| | v. | Wheel Dia. | 915.00 | 915.00 | 915.00 | 915.00 | 917.00 | 917.00 | 915.00 | 915.00 | | |
| | vi. | Wheel Disc No. | 151-10568 | 198-11600 | 144-11607 | 041-10579 | 135-11600 | 265-11610 | 082-11600 | 187-62314 | | |
| | vii. | R.B. Nos. | 36107 | 35755 | 35851 | 35699 | 00596 | 36421 | 36133 | 36034 | | |
| | viii. | R.B. Make | TIMKEN | | TIMKEN | | | TIMKEN | | TIMKEN | | |
| | ix. | RB Type | UIC CARTRIDGE TAPER ROLLER BEARING | | | | | | | | | |
| 12.2 | Secondary suspension load deflection Values: | | | | | | | | | | | |
| Description | | Secondary 1 | | Secondary 2 | | Secondary 1 | | Secondary 2 | | | | |
| | | Outer | Inner | Outer | Inner | Outer | Inner | Outer | Inner | | | |
| i. | Make & nos. | BPS-2013-81 | BPS-2013-157 | BPS-2013-23 | BPS-2013-23 | BPS-2013-20 | BPS-2013-166 | BPS-2013-97 | BPS-2013-023 | | | |
| ii. | Ht. attest load | 507 | 466 | 507 | 466 | 512 | 468 | 507 | 463 | | | |
| iii. | Align .deviation | 13 | 22 | 13 | 30 | 6 | 21 | 3 | 25 | | | |
| 12.3 | Items traceability: | | | | | | | | | | | |
| | Sno. | Item | | | PP Side Bogie | | NPP side Bogie | | Make | | | |
| | i. | Primary Outer Spring | | | BPS-2013 | | BPS-2013 | | BPS | | | |
| | ii. | Primary inner Spring | | | BPS-2013 | | BPS-2013 | | BPS | | | |
| | iii. | Primary Damper | | | | | | | KONI | | | |
| | iv. | Secondary damper | | | | | | | SACHS | | | |
| | v. | Lateral Damper | | | | | | | SACHS | | | |
| | vi. | Yaw Damper | | | | | | | NIL | | | |
| | vii. | Brake cylinder & Caliper | | | | | | | FTI | | | |
| | viii. | Brake Disc | | | | | | | KBI | | | |
| | ix. | Ball joint Control arm | | | | | | | MGN | | | |
| | x. | Lateral Bump stop | | | | | | | GMT | | | |
| | xi. | Traction center make | | | | | | | SARITA | | | |
| | xii. | Traction lever make | | | | | | | SARITA | | | |
| | xiii. | Ball joint traction lever | | | | | | | SGA | | | |
| | xiv. | Traction centre elastic | | | | | | | GMT | | | |
| | 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 | | | |
| 12.4 | i. | Modification / Trial (if any): | | | | NIL | | | | | | |
| | ii. | Deviations (if any): | | | | NIL | | | | | | |