



रेल डिब्बा कारखाना, कपूरथला
Rail Coach Factory , Kapurthala

Page 1 of 3

ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

| | | | | | | | |
|-------|---|--|---------------|--------------------------------|---------------------|------------|-----|
| 1. | SHELL No. | 4004 | DISPATCH DATE | | | 15.12.2014 | |
| 2. | Railway | SR | Type | LWSCZAC | Coach No. | 14152 | |
| 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 | 86.7/88.6 | | |
| 8.2 | APPLICATION OF PCN-123 | | SATISFACTORY | | | | |
| 8.3 | INSUALTION | | SATISFACTORY | | | | |
| 9. | Traceability of Furnishing Items: | | | Make | | | |
| i. | BRAKE EQUIPMENT | | | FAIVELEY | | | |
| iii. | CDTS | | | AMIT | | | |
| iv. | SEAT & BERTH | | | SUTLEJ | | | |
| v. | BODY SIDE DOORS | | | JBM, MOHAN | | | |
| vi. | SALOON COMPTT DOORS | | | KALSI | | | |
| vii. | VESTIBULE SLIDING DOOR | | | JBM | | | |
| viii. | WATER TANKS | | | AMIT, E C BLADES | | | |
| ix | UIC VESTIBULE | | | KRP | | | |
| x | LUGGAGE RACK | | | RAIL TECH | | | |
| XI | FLOOR BOARD | | | TAYAL | | | |
| 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

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|--------------------|---|--------------------------------|------------------------------------|-----------------------|----------------------|----------------------|----------------------|-----------------------|----------------------|-----------|----------------------|--|
| 12. | Bogie Details: | | Shell No. | | Railway | | Type | | Coach No. | | Dispatch Date | |
| | | | 4004 | | SR | | LWSCZAC | | 14152 | | 07-05-14 | |
| 12.1 | Wheel & Axle Details: | | PP Side | | | | | NPP Side | | | | |
| | i. | Bogie No. | 146372 | | | | | 146371 | | | | |
| | ii. | Frame No. | FIAT-3085 | | | | | FIAT-2672 | | | | |
| | iii. | Bolster No. | HEI-090 | | | | | 167-HEI | | | | |
| | iv. | Axle No. | RWF-109816 | | RWF-110344 | | | W-4581 | | W-4459 | | |
| | v. | Wheel Dia. | 918.00 | 918.00 | 918.00 | 917.50 | 916.50 | 917.00 | 918.00 | 918.00 | | |
| | vi. | Wheel Disc No. | 305-51915 | 014-51908 | 241-51916 | 202-51910 | 163-63309 | 036-63309 | 335-51910 | 039-51912 | | |
| | vii. | R.B. Nos. | 77352 | 35379 | 12083 | 12316 | 12274 | 12178 | 03788 | 12304 | | |
| | viii. | R.B. Make | SKF | | SKF | | | SKF | | SKF | | |
| | 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. | CMGBD-10-12-51425-46 | CMGBD-12-5-51338-163 | CMGBD-10-12-51425-206 | CMGBD-12-5-51338-149 | CMGBD-10-12-51425-39 | CMGBD-12-5-51338-137 | CMGBD-10-12-51425-38 | CMGBD-12-5-51338-161 | | | |
| ii. | Ht. attest load | 509 | 463 | 510 | 463 | 511 | 468 | 513 | 468 | | | |
| iii. | Align .deviation | 20 | 24 | 18 | 24 | 29 | 26 | 33 | 28 | | | |
| 12.3 | Items traceability: | | | | | | | | | | | |
| | Sno. | Item | | | PP Side Bogie | | | NPP side Bogie | | | Make | |
| | i. | Primary Outer Spring | | | HZ | | | HZ | | | HZ | |
| | ii. | Primary inner Spring | | | HZ | | | HZ | | | HZ | |
| | iii. | Primary Damper | | | | | | | | | GEREP | |
| | iv. | Secondary damper | | | | | | | | | GEREP | |
| | v. | Lateral Damper | | | | | | | | | SACHS | |
| | vi. | Yaw Damper | | | | | | | | | NIL | |
| | vii. | Brake cylinder & Caliper | | | | | | | | | FTI | |
| | viii. | Brake Disc | | | | | | | | | FTI | |
| | ix. | Ball joint Control arm | | | | | | | | | SGA | |
| | x. | Lateral Bump stop | | | | | | | | | GMT | |
| | xi. | Traction center make | | | | | | | | | SARITA | |
| | xii. | Traction lever make | | | | | | | | | SARITA | |
| | xiii. | Ball joint traction lever | | | | | | | | | GMT | |
| | xiv. | Traction centre elastic | | | | | | | | | GMT | |
| | xv. | Secondary rubber pad | | | | | | | | | TESPAK | |
| | xvi. | Rubber spring | | | | | | | | | GMT | |
| | xvii. | Anti roll bar make | | | | | | | | | SARITA | |
| | xviii. | Ball joint roll link | | | | | | | | | SARITA | |
| | xix. | Fork make | | | | | | | | | EMSON | |
| 12.4 | i. | Modification / Trial (if any): | | | | | | NIL | | | | |
| | ii. | Deviations (if any): | | | | | | NIL | | | | |

LWSCZAC-4004

रेल डिब्बा कारखाना, कपूरथला
Rail Coach Factory , Kapurthala



ROLLING STOCK CERTIFICATE

Form No. : QMF 9454; Version: 1

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|-----|---|--------------------------------|--|--------------------------------|---------------------|-------------------|
| 1. | SHELL No. | 4006 | DISPATCH DATE | | | 19.01.2015 |
| 2. | Railway | SR | Type | LWSCZAC | Coach No. | 14153 |
| 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 | 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 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 | NEROLAC | 86.7/87.1 | |
| | 8.2 | APPLICATION OF PCN-123 | SATISFACTORY | | | |
| | 8.3 | INSUALTION | SATISFACTORY | | | |
| 9. | Traceability of Furnishing Items: | | | Make | | |
| | i. | BRAKE EQUIPMENT | FAIVELEY | | | |
| | iii. | CDTS | AMIT | | | |
| | iv. | SEAT & BERTH | SUTLEJ | | | |
| | v. | BODY SIDE DOORS | JBM, MOHAN | | | |
| | vi. | SALOON COMPTT DOORS | KALSI | | | |
| | vii. | VESTIBULE SLIDING DOOR | JBM | | | |
| | viii. | WATER TANKS | AMIT, E C BLADES | | | |
| | ix | UIC VESTIBULE | KRP | | | |
| | x | LUGGAGE RACK | HANSPAL | | | |
| | XI | FLOOR BOARD | TAYAL | | | |
| | XII | PVC | RESPONSIVE | | | |
| 10. | | | | | | |
| | 10.1 | Modification / Trail (if any): | | | | NIL |
| | 10.2 | Deviations if any: | | | | NIL |



| | | | | | | | | | | | | |
|--------------------|---|---------------------------------------|-------------------|--------------------|----------------------|--------------------|-------------------|-----------------------|-------------------|-------------------|----------------------|--|
| 12. | Bogie Details: | | Shell No. | | Railway | | Type | | Coach No. | | Dispatch Date | |
| | | | 4006 | | SR | | LWSCZAC | | 14153 | | 12-05-14 | |
| 12.1 | Wheel & Axle Details: | | PP Side | | | | | | NPP Side | | | |
| | i. | Bogie No. | 146430 | | | | | | 146431 | | | |
| | ii. | Frame No. | FIAT-3061 | | | | | | FIAT-3128 | | | |
| | iii. | Bolster No. | 3796-GT | | | | | | 3729-P | | | |
| | iv. | Axle No. | W-4536 | | | RWF-110638 | | | W-4629 | | RWF-110098 | |
| | v. | Wheel Dia. | 916.00 | 916.50 | 916.50 | 916.00 | 916.00 | 916.00 | 916.00 | 916.00 | 916.50 | |
| | vi. | Wheel Disc No. | 228-51915 | 163-63307 | 277-30857 | 046-50852 | 171-63302 | 067-63307 | 371-63305 | 198-63309 | | |
| | vii. | R.B. Nos. | 12043 | 12044 | 08258 | 08357 | 12068 | 12051 | 11779 | 03668 | | |
| | viii. | R.B. Make | SKF | | | SKF | | | SKF | | SKF | |
| 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. | CMGBD-10-12-51425 | CMGBD-11-12-51338 | CMGBD-10-12-51425 | CMGBD-11-12-51338 | CMGBD-10-12-51425 | CMGBD-11-12-51338 | CMGBD-10-12-51425 | CMGBD-11-12-51338 | CMGBD-10-12-51425 | CMGBD-11-12-51338 | |
| ii. | Ht. attest load | 512 | 460 | 512 | 464 | 511 | 464 | 512 | 463 | | | |
| iii. | Align .deviation | 18 | 28 | 20 | 27 | 20 | 34 | 18 | 35 | | | |
| 12.3 | Items traceability: | | | | | | | | | | | |
| | Sno. | Item | | | PP Side Bogie | | | NPP side Bogie | | | Make | |
| | i. | Primary Outer Spring | | | HZ-12 | | | HZ-12 | | | HZ | |
| | ii. | Primary inner Spring | | | HZ-12 | | | HZ-12 | | | HZ | |
| | iii. | Primary Damper | | | | | | | | | SACHS | |
| | iv. | Secondary damper | | | | | | | | | GEREP | |
| | v. | Lateral Damper | | | | | | | | | SACHS | |
| | vi. | Yaw Damper | | | | | | | | | NIL | |
| | vii. | Brake cylinder & Caliper | | | | | | | | | FTI | |
| | viii. | Brake Disc | | | | | | | | | FTI | |
| | ix. | Ball joint Control arm | | | | | | | | | SGA | |
| | x. | Lateral Bump stop | | | | | | | | | GMT | |
| | xi. | Traction center make | | | | | | | | | SARITA | |
| | xii. | Traction lever make | | | | | | | | | SARITA | |
| | xiii. | Ball joint traction lever | | | | | | | | | GMT | |
| | 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-4006