




CONFIDENTIAL INFORMATION
 This document and the information contemplated therein have to be considered as Confidential Information pursuant to the provisions of Clause 25 of the MSA, and treated as such.

APPLICATION REFERENCE

| MOUNTING | DESCRIPTION | STATION | CAR TYPE | | | | | | WORK INSTRUCTION | SAFETY?  | |
|--------------------------|---------------|---|----------|----|----|----|----|-----|------------------|--|-----|
| | | | TC2 | M4 | M1 | M2 | M3 | TC2 | | | |
| <input type="checkbox"/> | DTR3-PROCE-14 | LEVELLING, WEIGHTING AND BALANCING M CAR | FT1140 | | 1 | 1 | 1 | 1 | | PRA.FT1140.04 | YES |
| <input type="checkbox"/> | DTR3-PROCE-14 | LEVELLING, WEIGHTING AND BALANCING TC CAR | FT1140 | X | | | | | 1 | PRA.FT1140.05 | YES |
| <input type="checkbox"/> | DTR3-PROCE-17 | LEVELLING, WEIGHTING AND BALANCING TC CAR | FT1140 | 1 | 1 | 1 | 1 | 1 | 1 | PRA.FT1140.05 | YES |
| <input type="checkbox"/> | DTR3-PROCE-17 | LEVELLING, WEIGHTING AND BALANCING TC CAR | FT1140 | 1 | 1 | 1 | 1 | 1 | 1 | PRA.FT1140.05 | YES |
| <input type="checkbox"/> | | | | | | | | | | | |
| <input type="checkbox"/> | | | | | | | | | | | |
| <input type="checkbox"/> | | | | | | | | | | | |

| REV | DATE | MODIFICATION CONTENT | RESPONSIBLE | NAME | DATE |
|-----|-----------|---|-------------|----------------------|-----------|
| 7 | 2/11/2020 | UPDATE OF AIR TIGHTNESS TEST TIME FROM 4 MIN TO 5 MIN. ADD PANTOGRAPH AIR TIGHTNESS. | APPROVER | GIVEN SILOWA | 2/11/2020 |
| | | | CHECKER | SIMON MOKOENA | 2/11/2020 |
| | | | COMPILER | COMFORT MALATJI | 2/11/2020 |
| 8 | 9/13/2021 | ADDING GAUGE MEASUREMENT CHECK ON THE SI. | APPROVER | MAKOFANE LUCY | 9/13/2021 |
| | | | CHECKER | RATAU EDISON | 9/13/2021 |
| | | | COMPILER | TSAKANI KHOSA | 9/13/2021 |
| 9 | 5/31/2022 | pressure valve (APV) Isolation | APPROVER | MAKHURUPETJI THABANG | 5/31/2022 |
| | | | CHECKER | HAZEL MGIBA | 5/31/2022 |
| | | | COMPILER | RATAU EDISON | 5/31/2021 |

| TUE | CAR | OPERATOR NAME | DATE | SELF INSPECTION NUMBER | PAGES |
|--------|-----|---------------|----------|------------------------|-------|
| TS 237 | TC1 | GOODNESS | 22/07/24 | SI.FT1140.52 | 01/08 |



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5/31/2022

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Car:

NCR:

Work Station

FT1140



Safety Related

I - Document and Instrument Control

I.1 - Documents control

| Document | TC1 | SI | IS | IG | IM | TC2 | Revision | Remark | OK | Signature/Date |
|---------------|-----|----|----|----|----|-----|----------|--------|----|-----------------------------|
| PRA.FT1140.04 | X | | | | | | | | | |
| PRA.FT1140.05 | | | | | | | | | ✓ | <i>[Signature]</i> 22/07/24 |
| PRA.FT1140.05 | | | | | | | | | | |

I.2 - Instruments Control - Monitoring and Measuring Instrument Control (Used for all Instrument with calibration needed)

| Instruments description | Serial number | Calibration or Verification Validation Date | OK | Signature/Date |
|-------------------------|---------------|---|----|--------------------|
| Measuring Tape | G157A 0276 | 26/10/23-26/10/24 | ✓ | 23/07/24 |
| Verific Caliper | G18V 0050 | 27/02/24-27/02/24 | ✓ | <i>[Signature]</i> |
| Torque Wrench 550MM | A9650055 | 21/12/23-21/12/24 | ✓ | |
| Torque Wrench 320MM | A9650027 | 21/12/23-21/12/24 | ✓ | |
| Torque Wrench 35MM | D2811023 | 07/08/23-07/08/24 | ✓ | |
| Torque Wrench 17MM | D28616A | 13/07/23-13/07/24 | ✓ | |
| Torque Wrench 150MM | D2622009 | 19/12/23-19/12/24 | ✓ | |



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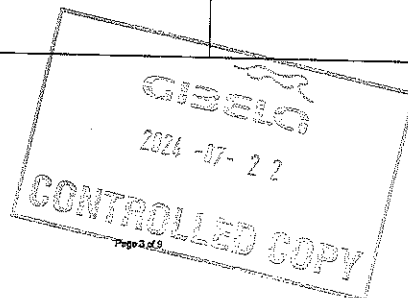
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II - Self Inspection - Items to Check

II.1 - Items to Check

| Item | Picture/Sketch | Description | Criteria/Record | Status | | | Signature/Date | | | | | | | | |
|-----------------------|----------------|--|---|-----------------------|-------------|------------|----------------|--|--|--|--|---|--|--|--------------|
| | | | | OK | Not OK | Reserve | | | | | | | | | |
| 01 | | Ensure that the average pressure valve (APV) is isolated by capping the two input pipes at the fittings installing the blanking fitting on the pipes highlighted | | ✓ | | | 22/07/24 | | | | | | | | |
| 02 | | Check underframe pipe system Air tightness. Test performance according to WI PRA.FT1130.15. | The test was performed and no leak was observed. Initial pressure (IP): 9.91 bar Final pressure (FP): 9.80 bar FP - IP = 0.11 bar APPROVAL CRITERIA: After 5 minutes the pressure cannot drops more than 0,2 bar | ✓ | | | 22/07/24 | | | | | | | | |
| 03 | | Movement performed at least 50m to shudder the car. And position on the leveled load cell, with wheels on the center. | | ✓ | | | 23/07/24 | | | | | | | | |
| 04 | | Measurement inspection was done with car on condition AW0 and the rail levelled. (The load cells system must be levelled and calibrated) | Calibration Validation Date 19/12/24 | ✓ | | | 23/07/24 | | | | | | | | |
| 05 | | In case of the equipments not installed, equivalent weight of the item should be added in the same place to simulate the equipment. (Any simulated weight, add on pending list) | <table border="1"> <thead> <tr> <th>EQUIPMENT DESCRIPTION</th> <th>WEIGHT (kg)</th> </tr> </thead> <tbody> <tr> <td>Drive Seat</td> <td>60</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </tbody> </table> | EQUIPMENT DESCRIPTION | WEIGHT (kg) | Drive Seat | 60 | | | | | ✓ | | | 23/07/24 |
| EQUIPMENT DESCRIPTION | WEIGHT (kg) | | | | | | | | | | | | | | |
| Drive Seat | 60 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| 06 | | The pressure difference between air spring on each bogie when raise the pressure was maintained < 0.3 bar. | | ✓ | | | 23/07/24 | | | | | | | | |
| 07 | | Measurement recorded with empty suspension and loaded are on conformity with tolerances of the project. | | ✓ | | | 23/07/24 | | | | | | | | |
| 08 | | All levelling measurements are according to the reference. (Values out of reference must be recorded on "Description of defects") | | ✓ | | | 23/07/24 | | | | | | | | |





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| Item | Picture/Check | Description | Criteria/Records | OK | Signature/Date |
|------|---------------|--|---|----|----------------|
| 09 | | Check that the levelling rods are torqued and have torque marker. | | ✓ | 23/07/24 |
| 10 | | The difference of weight between the left and right wheels of each axis, must be $\leq 4\%$. (Verify on the T&C equipment if all arrows are in green). | | ✓ | 23/07/24 |
| 11 | | Remove the car, move back onto the load cells and repeat the step 09. Confirm if both are in the tolerance of $\leq 4\%$. | | ✓ | 23/07/24 |
| 12 | | 1 - Record shims thickness used on rod. 2 - All screws were torqued and have torque marker. | THICKNESS (mm) I 0 II 0 III 0 IV 0 | ✓ | 23/07/24 |
| 13 | | Pivot fixation | 1- M20 x 90 screws with application of torque according to PRA.FT1140.04 / 05 | ✓ | 23/07/24 |
| 14 | | FOR TC CARS F= Height of the center of Automatic coupler F = 895mm (+5 / -10mm) (Using levelled rail) | TC CAB #1= 927 mm | ✓ | 23/07/24 |
| 15 | | FOR TC CARS Height of Eurobalise Antenna = 205mm(+/-10mm) (Using levelled rail) | TC CAB #1= 197 mm | ✓ | 23/07/24 |
| 16 | | Check pantograph piping air tightness. Test performance according to WI PRA.FT1140.17. | The test was performed and no leak was observed. -Roof piping connection fittings. -Room piping connection fittings (Roof arch and door trimming) | | M/A |
| 17 | | Pantograph does not come in contact with the higher height gauge when passing through. | No Contact with Pantograph and Gauge -GO Contact with Pantograph and Gauge - NO GO | | M/A |
| 18 | | Car does not come into contact with the gauge. | No Contact with Car and Gauge -GO Contact with Car and Gauge - NO GO | ✓ | 23/07/24 |

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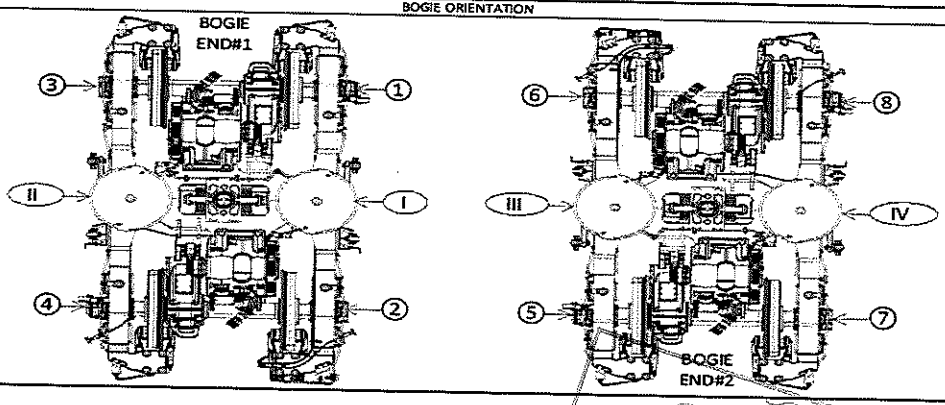
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DRAFT TO MEASUREMENTS DURING LEVELLING (ALL UNITS MUST BE IN mm/bar/kg)

| DESCRIPTION | TOLERANCE | END#1 | | | | | | | | | | | | | |
|------------------------------------|--|--------------------|---|---|---|---|---|------------|---|-------|-------|---|---|---|-------------------|
| | | LEFT SIDE | | | | | | RIGHT SIDE | | | | | | | |
| AIR SPRING HEIGHT (EMPTY) | N/A | A ¹ ii | / | / | / | / | / | / | / | / | / | / | / | / | A ¹ i |
| AIR SPRING HEIGHT (FULL) | min 254 max 261 | A ¹ ii | / | / | / | / | / | / | / | 258 | 257 | / | / | / | A ¹ i |
| FLOOR COVERING HEIGHT | min 1096 max 1116 | E ¹ ii | / | / | / | / | / | / | / | / | / | / | / | / | E ¹ i |
| AIR SPRING PRESSURE | ≤ 0.3 (O ¹ i - O ¹ i) | C ¹ ii | / | / | / | / | / | / | / | 3,164 | 3,162 | / | / | / | C ¹ i |
| PRIMARY SUSPENSION | SEE TABLE (ONLY REF) | D ¹ 3 | / | / | / | / | / | / | / | / | / | / | / | / | D ¹ 1 |
| PRIMARY SUSPENSION | SEE TABLE (ONLY REF) | D ¹ 4 | / | / | / | / | / | / | / | / | / | / | / | / | D ¹ 2 |
| PIVOT VERTICAL GAP | min 25 max 32 | K ¹ ii | / | / | / | / | / | / | / | / | / | / | / | / | K ¹ i |
| PIVOT LATERAL STOP GAPS DIFFERENCE | ≤ 4 (J ¹ i - J ¹ i) | J ¹ ii | / | / | / | / | / | / | / | / | / | / | / | / | J ¹ i |
| QTY OF TURNS OF LEVELLING ROD | N/A | X ¹ ii | / | / | / | / | / | / | / | / | / | / | / | / | X ¹ i |
| SHIMS OF ANTI-ROLL BAR | N/A | Y ¹ ii | / | / | / | / | / | / | / | / | / | / | / | / | Y ¹ i |
| DESCRIPTION | TOLERANCE | END#2 | | | | | | | | | | | | | |
| AIR SPRING HEIGHT (EMPTY) | N/A | A ² iii | / | / | / | / | / | / | / | / | / | / | / | / | A ² iv |
| AIR SPRING HEIGHT (FULL) | min 254 max 261 | A ² iii | / | / | / | / | / | / | / | 257 | 256 | / | / | / | A ² iv |
| FLOOR COVERING HEIGHT | min 1096 max 1116 | E ² iii | / | / | / | / | / | / | / | / | / | / | / | / | E ² iv |
| AIR SPRING PRESSURE | ≤ 0.3 (O ² v - O ² v) | C ² ii | / | / | / | / | / | / | / | 2,87 | 2,86 | / | / | / | C ² v |
| PRIMARY SUSPENSION | SEE TABLE (ONLY REF) | D ² 5 | / | / | / | / | / | / | / | / | / | / | / | / | D ² 7 |
| PRIMARY SUSPENSION | SEE TABLE (ONLY REF) | D ² 6 | / | / | / | / | / | / | / | / | / | / | / | / | D ² 8 |
| PIVOT VERTICAL GAP | min 25 max 32 | K ² iii | / | / | / | / | / | / | / | / | / | / | / | / | K ² iv |
| PIVOT LATERAL STOP GAPS DIFFERENCE | ≤ 4 (J ² v - J ² v) | J ² iii | / | / | / | / | / | / | / | / | / | / | / | / | J ² iv |
| QTY OF TURNS OF LEVELLING ROD | N/A | X ² iii | / | / | / | / | / | / | / | / | / | / | / | / | X ² iv |
| SHIMS OF ANTI-ROLL BAR | N/A | Y ² iii | / | / | / | / | / | / | / | / | / | / | / | / | Y ² iv |

| COMPARE EACH TENTATIVE WITH THE TOLERANCE AND IDENTIFY EACH MEASURE AS BELOW | | |
|--|-------|--------|
| GOOD | LOWER | HIGHER |
| ✓ | ↓ | ↑ |
| WEIGHT COMPENSATION | | |
| EQUIPMENT | | |
| WEIGHT | | |
| EQUIPMENT | | |
| WEIGHT | | |
| SECONDARY MEASUREMENTS (ONLY TC CARS) | | |
| AUTOMATIC COUPLER HEIGHT | | |
| ANTENNA HEIGHT | | |



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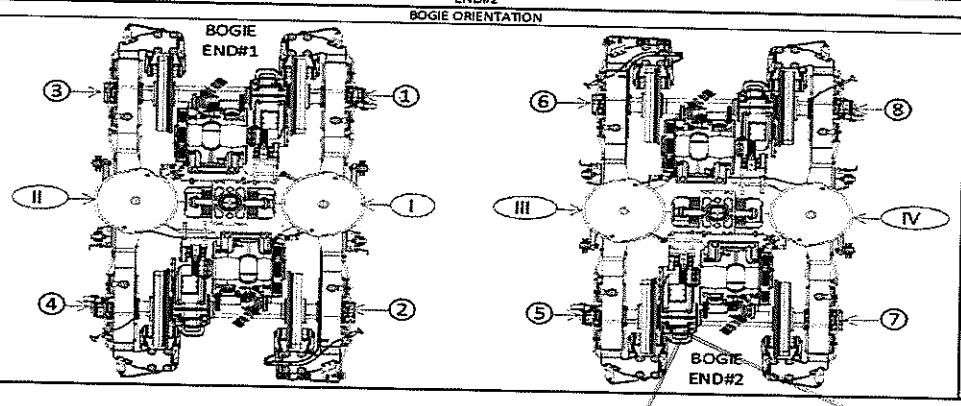
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DRAFT TO MEASUREMENTS DURING LEVELLING (ALL UNITS MUST BE IN mm/bar/kg)

| DESCRIPTION | TOLERANCE | END#1 | | | | | | | | | | | | |
|------------------------------------|---|-------------------|--|--|--|--|--|------------|--|--|--|--|--|-------------------|
| | | LEFT SIDE | | | | | | RIGHT SIDE | | | | | | |
| AIR SPRING HEIGHT (EMPTY) | N/A | A ¹ | | | | | | | | | | | | A ¹ |
| AIR SPRING HEIGHT (FULL) | min 254 max 261 | A ¹¹ | | | | | | | | | | | | A ¹¹ |
| FLOOR COVERING HEIGHT | min 1096 max 1116 | E ¹ | | | | | | | | | | | | E ¹ |
| AIR SPRING PRESSURE | ≤ 0.3 (C ¹ - C ¹) | C ¹ | | | | | | | | | | | | C ¹ |
| PRIMARY SUSPENSION | SEE TABLE (ONLY REF) | D ³ | | | | | | | | | | | | D ³ |
| PRIMARY SUSPENSION | SEE TABLE (ONLY REF) | D ⁴ | | | | | | | | | | | | D ⁴ |
| PIVOT VERTICAL GAP | min 25 max 32 | K ¹¹ | | | | | | | | | | | | K ¹¹ |
| PIVOT LATERAL STOP GAPS DIFFERENCE | ≤ 4 (J ¹ - J ¹) | J ¹¹ | | | | | | | | | | | | J ¹¹ |
| QTY OF TURNS OF LEVELLING ROD | N/A | X ¹¹ | | | | | | | | | | | | X ¹¹ |
| SHIMS OF ANTI-ROLL BAR | N/A | Y ¹¹ | | | | | | | | | | | | Y ¹¹ |
| DESCRIPTION | TOLERANCE | LEFT SIDE | | | | | | RIGHT SIDE | | | | | | |
| AIR SPRING HEIGHT (EMPTY) | N/A | A ¹¹¹ | | | | | | | | | | | | A ¹¹¹ |
| AIR SPRING HEIGHT (FULL) | min 254 max 261 | A ¹¹¹¹ | | | | | | | | | | | | A ¹¹¹¹ |
| FLOOR COVERING HEIGHT | min 1096 max 1116 | E ¹¹¹ | | | | | | | | | | | | E ¹¹¹ |
| AIR SPRING PRESSURE | ≤ 0.3 (C ¹¹¹ - C ¹¹¹) | C ¹¹¹ | | | | | | | | | | | | C ¹¹¹ |
| PRIMARY SUSPENSION | SEE TABLE (ONLY REF) | D ⁵ | | | | | | | | | | | | D ⁵ |
| PRIMARY SUSPENSION | SEE TABLE (ONLY REF) | D ⁶ | | | | | | | | | | | | D ⁶ |
| PIVOT VERTICAL GAP | min 25 max 32 | K ¹¹¹ | | | | | | | | | | | | K ¹¹¹ |
| PIVOT LATERAL STOP GAPS DIFFERENCE | ≤ 4 (J ¹¹¹ - J ¹¹¹) | J ¹¹¹ | | | | | | | | | | | | J ¹¹¹ |
| QTY OF TURNS OF LEVELLING ROD | N/A | X ¹¹¹ | | | | | | | | | | | | X ¹¹¹ |
| SHIMS OF ANTI-ROLL BAR | N/A | Y ¹¹¹ | | | | | | | | | | | | Y ¹¹¹ |

| | | |
|--|-------|--------|
| COMPARE EACH TENTATIVE WITH THE TOLERANCE AND IDENTIFY EACH MEASURE AS BELOW | | |
| GOOD | LOWER | HIGHER |
| ✓ | ↓ | ↑ |
| WEIGHT COMPENSATION | | |
| EQUIPMENT | | |
| WEIGHT | | |
| EQUIPMENT | | |
| WEIGHT | | |
| SECONDARY MEASUREMENTS (ONLY TO CARS) | | |
| AUTOMATIC COUPLER HEIGHT | | |
| ANTENNA HEIGHT | | |



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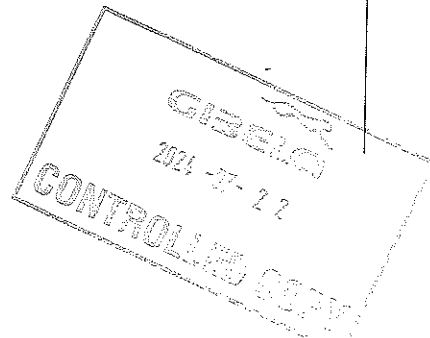
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Table 1 - Reference Values and Measurement Tolerances for the Car Levelling.

| ITEM | THEORETICAL VALUES | | | | | | | | | | | |
|---|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| | TCL CAR | | M4 CAR | | M1 CAR | | M2 CAR | | M3 CAR | | TCL CAR | |
| | TBext | TBint | MB1 | MB2 | MB1 | MB2 | MB1 | MB2 | MB1 | MB2 | TBint | TBext |
| Pivot lateral stop gaps difference [mm] | ≤4 | ≤4 | ≤4 | ≤4 | ≤4 | ≤4 | ≤4 | ≤4 | ≤4 | ≤4 | ≤4 | ≤4 |
| Air Spring height [mm] | 255 ⁺⁸ ₋₁ | 255 ⁺⁸ ₋₁ | 255 ⁺⁸ ₋₁ | 255 ⁺⁸ ₋₁ | 255 ⁺⁸ ₋₁ | 255 ⁺⁸ ₋₁ | 255 ⁺⁸ ₋₁ | 255 ⁺⁸ ₋₁ | 255 ⁺⁸ ₋₁ | 255 ⁺⁸ ₋₁ | 255 ⁺⁸ ₋₁ | 255 ⁺⁸ ₋₁ |
| Air spring pressure at AWD [bar] | 3,76 (Ref.) | 2,82 (Ref.) | 2,87 (Ref.) | 2,83 (Ref.) | 3,02 (Ref.) | 2,91 (Ref.) | 3,07 (Ref.) | 2,85 (Ref.) | 2,83 (Ref.) | 2,87 (Ref.) | 2,83 (Ref.) | 3,76 (Ref.) |
| C ₁ -C ₁ | 0,3 Máx. | 0,3 Máx. | 0,3 Máx. | 0,3 Máx. | 0,3 Máx. | 0,3 Máx. | 0,3 Máx. | 0,3 Máx. | 0,3 Máx. | 0,3 Máx. | 0,3 Máx. | 0,3 Máx. |
| C ₂ -C ₂ | 0,3 Máx. | 0,3 Máx. | 0,3 Máx. | 0,3 Máx. | 0,3 Máx. | 0,3 Máx. | 0,3 Máx. | 0,3 Máx. | 0,3 Máx. | 0,3 Máx. | 0,3 Máx. | 0,3 Máx. |
| D ₁ :D ₁ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ |
| D ₂ :D ₂ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ |
| D ₃ :D ₃ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ | 35 ⁺¹² ₋₄ |
| Carbody floor height [mm] | 1106 ⁺¹⁰ ₋₁₀ | 1106 ⁺¹⁰ ₋₁₀ | 1106 ⁺¹⁰ ₋₁₀ | 1106 ⁺¹⁰ ₋₁₀ | 1106 ⁺¹⁰ ₋₁₀ | 1106 ⁺¹⁰ ₋₁₀ | 1106 ⁺¹⁰ ₋₁₀ | 1106 ⁺¹⁰ ₋₁₀ | 1106 ⁺¹⁰ ₋₁₀ | 1106 ⁺¹⁰ ₋₁₀ | 1106 ⁺¹⁰ ₋₁₀ | 1106 ⁺¹⁰ ₋₁₀ |
| Bolster height [mm] | 850 ⁺³ ₋₇ | 850 ⁺³ ₋₇ | 850 ⁺³ ₋₇ | 850 ⁺³ ₋₇ | 850 ⁺³ ₋₇ | 850 ⁺³ ₋₇ | 850 ⁺³ ₋₇ | 850 ⁺³ ₋₇ | 850 ⁺³ ₋₇ | 850 ⁺³ ₋₇ | 850 ⁺³ ₋₇ | 850 ⁺³ ₋₇ |
| Coupling End height [mm] | 895 (Ref.) | 760 (Ref.) | 760 (Ref.) | 760 (Ref.) | 760 (Ref.) | 760 (Ref.) | 760 (Ref.) | 760 (Ref.) | 760 (Ref.) | 760 (Ref.) | 895 (Ref.) | 895 (Ref.) |
| Pivot Vertical gap [mm] | 30 ⁺¹⁵ ₋₃ | 30 ⁺¹⁵ ₋₃ | 30 ⁺¹⁵ ₋₃ | 30 ⁺¹⁵ ₋₃ | 30 ⁺¹⁵ ₋₃ | 30 ⁺¹⁵ ₋₃ | 30 ⁺¹⁵ ₋₃ | 30 ⁺¹⁵ ₋₃ | 30 ⁺¹⁵ ₋₃ | 30 ⁺¹⁵ ₋₃ | 30 ⁺¹⁵ ₋₃ | 30 ⁺¹⁵ ₋₃ |





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Leveling report from Production (Final measurements after Levelling and Weighing fine)

References for secondary suspension empty
A'n Air spring height empty

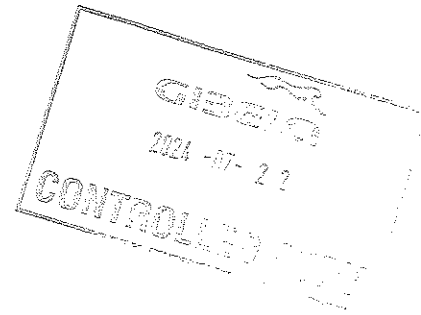
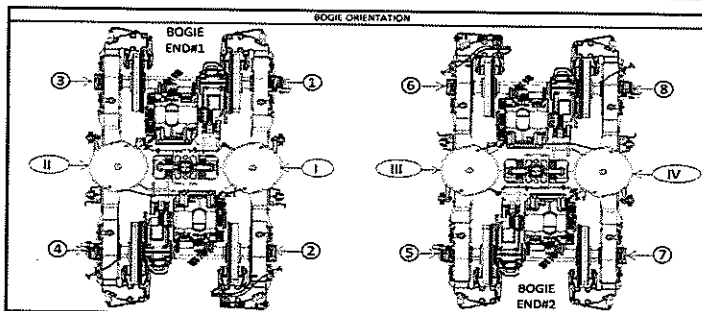
References for secondary suspension full
An Air spring height
Bn Difference between measurement A'n and An
En Floor covering height
Cn Air spring pressure
Dn Primary suspension
Kn Pivot Vertical gap
Jn Pivot Lateral stop gaps difference

| Item | Reference [mm] | END#1 | | END#2 | |
|---------------------|-----------------|---------------|-----------|-----------------|------------|
| | | Right Side | Left Side | Left Side | Right Side |
| A'n | N/A | A'i 232 | A'ii 232 | A'iii 241 | A'iv 240 |
| An | 254 to 261 | Ai 257 | Aii 257 | Aiii 258 | Aiv 257 |
| Bn = An - A'n | N/A | Bi 25 | Bii 25 | Biii 17 | Biv 17 |
| En | 1106 ±10 mm | Ei 1109 | Eii 1113 | Eiii 1104 | Eiv 1114 |
| Item | Reference [bar] | END#1 | | END#2 | |
| Cn | Table 02 (*) | Ci 3.61 | Cii 3.63 | Ciii 2.87 | Civ 2.85 |
| Cn - Cn+1 | Diference ≤ 0,3 | Ci - Cii 0.02 | | Ciii - Civ 0.02 | |
| Gauge serial number | N/A | G1B05873 | G1B05873 | G1B05873 | G1B05873 |
| Item | Reference [mm] | END#1 | | END#2 | |
| Dn | Table 01 (*) | D1 42.59 | D2 42.57 | D3 43.87 | D4 44.30 |
| | | D5 43.20 | D6 43.61 | D7 43.47 | D8 44.39 |
| Kn | 25 to 45 | Ki 28.78 | | Kii 33.44 | |
| Jn | Diference ≤ 4 | Ji 25.05 | Jii 25.83 | Jiii 25.32 | Jiv 25.63 |

(*) Reference, only include values, isn't approval criteria.

| Table 01 D Theoretical Values | TC1 | | M4 | | M1 | | M2 | | M3 | | TC2 | |
|----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | Tdex | TBin | Mb1 | Mb1 | Mb1 | Mb2 | Mb2 | Mb1 | Mb1 | Mb1 | Tbin | Tbex |
| D= | 35^{+12}_{-5} | 35^{+12}_{-5} | 35^{+12}_{-5} | 35^{+12}_{-5} | 35^{+12}_{-5} | 35^{+12}_{-5} | 35^{+12}_{-5} | 35^{+12}_{-5} | 35^{+12}_{-5} | 35^{+12}_{-5} | 35^{+12}_{-5} | 35^{+12}_{-5} |

| Table 02 C Theoretical Values | TC1 | | M4 | | M1 | | M2 | | M3 | | TC2 | |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| | Tdex | TBin | Mb1 | Mb1 | Mb1 | Mb2 | Mb2 | Mb1 | Mb1 | Mb1 | Tbin | Tbex |
| C= | 3.76 | 2.82 | 2.87 | 2.83 | 3.02 | 2.91 | 3.07 | 2.85 | 2.83 | 2.87 | 2.83 | 3.76 |



Weighting report from Test and Commissioning (Final measurements after Levelling and Weighing fine)

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| | |
|---------------|--|
| TRAIN SET 237 | REF: GIB000001672_J0 PRASA WEIGHT BALANCE EN |
| | PC09 WEIGHING REPORT |

| | | | | | | | | | | |
|-----|--------------------------------------|-------|------------------------|-------|-------------------------|----------------------------|-------|--|-------|-----------------------|
| TCL | Balance across front and rear bogies | 18.48 | Front Bogie [Tons] | 15.54 | Rear Bogie [Tons] | Longitudinal Imbalance [%] | 8.60% | Criteria Longitudinal Imbalance \leq 10% | PASS | |
| | Weight Measured vs Predicted | 34.02 | Weight Measured [Tons] | 34.42 | Weight Predicted [Tons] | Weight Difference [%] | 1.17% | Tolerance [%] | 1.62% | Criteria Min:Diff:Max |

| | | | | |
|-----------------|---------|------------|--------------------|------------|
| Name | Company | Department | Signature | Date |
| <i>E. M. S.</i> | Gibela | EOS | <i>[Signature]</i> | 13/07/2024 |