

CONFIDENTIAL INFORMATION



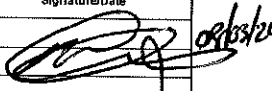
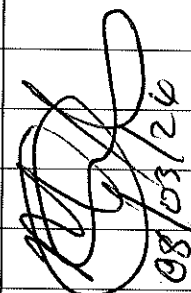
This document and the information contemplated therein have to be considered as Confidential Information pursuant to the provisions of Clause 25 of the MSA, and treated as such.

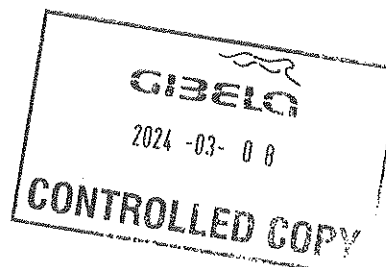
APPLICATION REFERENCE



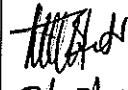










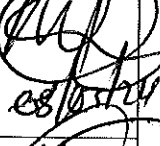

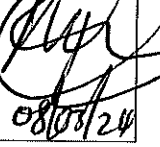
MOUNTING	DESCRIPTION	STATION	CAR TYPE						WORK INSTRUCTION	SAFETY ?
			TC1	M4	M1	M2	M3	TC2		
<input type="checkbox"/>	DTR3-PROCE-14	LEVELLING, WEIGHTING AND BALANCING M CAR	FT1140	1	1	1	✓		PRA.FT1140.04	YES
<input type="checkbox"/>	DTR3-PROCE-14	LEVELLING, WEIGHTING AND BALANCING TC CAR	FT1140	1				1	PRA.FT1140.05	YES
<input type="checkbox"/>	DTR3-PROCE-17	LEVELLING, WEIGHTING AND BALANCING TC CAR	FT1140	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	PRA.FT1140.05	YES
<input type="checkbox"/>										
<input type="checkbox"/>										
<input type="checkbox"/>										

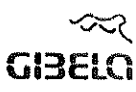

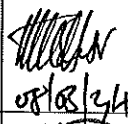
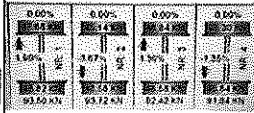

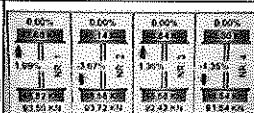
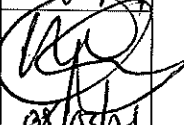

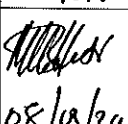


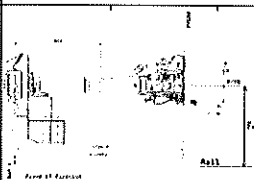
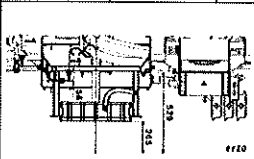
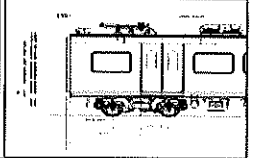
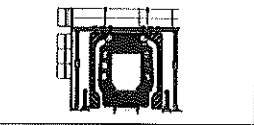
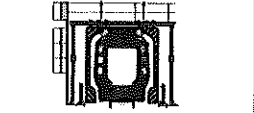
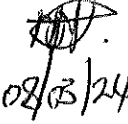
REV	DATE	MODIFICATION CONTENT	RESPONSIBLE	NAME	DATE
7	2/11/2020	UPDATE OF AIR TIGHTNESS TEST TIME FROM 4 MIN TO 5 MIN. ADD PANTOGRAPH AIR TIGHTNESS.	APPROVER	GIVEN SILOWA	2/11/2020
			CHECKER	SIMON MOKOENA	2/11/2020
			COMPILER	COMFORT MALATI	2/11/2020
8	9/13/2021	ADDING GAUGE MEASUREMENT CHECK ON THE 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

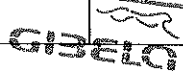
TUE	CAR	OPERATOR NAME	DATE	SELF INSPECTION NUMBER	PAGES
TS 212	M3	P. Sela	08/03/24	SI.FT1140.52	01/08

	<h1>SELF INSPECTION INDUSTRIAL QUALITY</h1>		Rev:09	Projet: PRASA	SI.FT1140.52						
			Date:								
			5/31/2022								
Car:	NCR:		Work Station FT1140								
 Safety Related											
I - Document and Instrument Control											
I.1 - Documents control											
Document	TC1	M1	M2	M3	M4	TC2	Revision	Remark	OK	Not OK	Signature/Date
PRA.FT1140.04											 08/03/24
PRA.FT1140.05				X							
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	Not OK	Signature/Date				
Measuring tape	GIBTA 0276		26/10/23 - 26/10/24		✓		 08/03/24				
Venier Calliper	GIBVR 0056		06/06/23 - 06/06/24		✓						
torque Wrench 35 Nm	D2511023		19/12/23 - 19/12/24		✓						
torque Wrench 150 Nm	D28622009		19/12/23 - 19/12/24		✓						
torque Wrench 320 Nm	A9650027		21/12/23 - 21/12/24		✓						



	<h1>SELF INSPECTION INDUSTRIAL QUALITY</h1>		Rev:09	Project: PRASA	SI.FT1140.52									
			Date: 5/31/2022											
II - Self-Inspection - Items to Check														
II.1 - Items to Check														
Item	Picture/Sketch	Description	Criteria/Record	OK	NOT OK	Signature/Date								
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		✓		 07/08/24								
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) <u>9.83</u> bar Final pressure (FP) <u>9.8</u> bar FP - IP = <u>0.03</u> bar APPROVAL CRITERIA: After 5 minutes the pressure cannot drops more than 0.2 bar	✓		 07/08/24								
03		Movement performed at least 50m to shudder the car. And position on the leveled load cell, with wheels on the center.		✓		 08/03/24								
04		Measurement inspection was done with car on condition AWO and the rail leveled. (The load cell's system must be leveled and calibrated)	Calibration Validation Date <u>19/12/2023</u>	✓		 08/03/24								
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><u>SANDWITS</u></td> <td><u>360</u></td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	EQUIPMENT DESCRIPTION	WEIGHT (kg)	<u>SANDWITS</u>	<u>360</u>					✓		 08/03/24
EQUIPMENT DESCRIPTION	WEIGHT (kg)													
<u>SANDWITS</u>	<u>360</u>													
06		The pressure difference between air spring on each bogie when raise the pressure was maintained < 0.3 bar.		✓		 08/03/24								
07		Measurement recorded with empty suspension and loaded are on conformity with tolerances of the project.		✓		 08/03/24								
08		All leveling measurements are according to the reference (Values out of reference must be recorded on "Description of defects")		✓		 08/03/24								

		SELF INSPECTION INDUSTRIAL QUALITY		Rev:09	Projet: PRASA	SI.FT1140.52
				Date: 5/31/2022		
Item	Picture/Status	Description	Criteria/Record	TP	OK	Signature/Date
09		Check that the leveling rods are torqued and have torque marker.		C		 08/03/24
10		The difference of weight between the left and right wheels of each axle, must be $\leq 4\%$. (Verify on the T&C equipment if all arrows are in green)		✓		 08/03/24
11		Remove the car, move back onto the load cells and repeat the step 09. Confirm if both are in the tolerance of $\leq 4\%$.		✓		 08/03/24
12		1 - Record shim thickness used on rod. 2 - All screws were torqued and have torque marker.	THICKNESS (mm) I 0 II 0 III 0 IV 0	✓		 08/03/24
13		Pivot fixation	1- M20 x 90 screws with application of torque according to PRA FT1140.04 F05	✓		 08/03/24
14		FOR TC CARS F= Height of the center of Automatic coupler F = 895mm (+5 / -10mm) (Using leveled rail)	TC CAR #1= _____ mm			N/A
15		FOR TC CARS Height of Eurobalise Antenna = 205mm(+/-10mm) (Using leveled rail)	TC CAR #1= _____ mm			N/A
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. -Roof piping connection fittings(Roof arch and door binning)			N/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			N/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	✓		 08/03/24


 2024 -03- 08
CONTROLLED COPY



SELF INSPECTION INDUSTRIAL QUALITY

Rev:09

Date:

5/31/2022

Projet:
PRASA

SI.FT1140.52

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

		LEFT SIDE						RIGHT SIDE					
DESCRIPTION	TOLERANCE	6	5	4	3	2	1	1	2	3	4	5	6
AIR SPRING HEIGHT (EMPTY)	N/A	A'II											
AIR SPRING HEIGHT (FULL)	min 254 max 261	AII					256	257					
FLOOR COVERING HEIGHT	min 1096 max 1116	EII					1100	1107					
AIR SPRING PRESSURE	≤ 0.3 (Ci - Ci)	CII					271	272					
PRIMARY SUSPENSION	SEE TABLE (ONLY REF)	D3											
PRIMARY SUSPENSION	SEE TABLE (ONLY REF)	D4											
PIVOT VERTICAL GAP	min 25 max 32	KII											
PIVOT LATERAL STOP GAPS DIFFERENCE	≤ 4 (Ai - Ai)	JII											
QTY OF TURNS OF LEVELLING ROD	N/A	XII											
SHIMS OF ANTI-ROLL BAR	N/A	YII											
DESCRIPTION	TOLERANCE	6	5	4	3	2	1	1	2	3	4	5	6
AIR SPRING HEIGHT (EMPTY)	N/A	A'III											
AIR SPRING HEIGHT (FULL)	min 254 max 261	AIII					255	256					
FLOOR COVERING HEIGHT	min 1096 max 1116	EIII					1105	1108					
AIR SPRING PRESSURE	≤ 0.3 (Cv - Cv)	CIII					275	270					
PRIMARY SUSPENSION	SEE TABLE (ONLY REF)	D5											
PRIMARY SUSPENSION	SEE TABLE (ONLY REF)	D6											
PIVOT VERTICAL GAP	min 25 max 32	KIII											
PIVOT LATERAL STOP GAPS DIFFERENCE	≤ 4 (Av - Av)	JIII											
QTY OF TURNS OF LEVELLING ROD	N/A	XIII											
SHIMS OF ANTI-ROLL BAR	N/A	YIII											

COMPARE EACH TENTATIVE WITH
THE TOLERANCE AND IDENTIFY
EACH MEASURE AS BELOWGOOD LOWER HIGHER
✓ ↓ ↑

WEIGHT

COMPENSATION

EQUIPMENT

WEIGHT

EQUIPMENT

WEIGHT

WEIGHT

WEIGHT

WEIGHT

WEIGHT

WEIGHT

WEIGHT

WEIGHT

WEIGHT

WEIGHT

WEIGHT

WEIGHT

WEIGHT

WEIGHT

WEIGHT

WEIGHT

WEIGHT

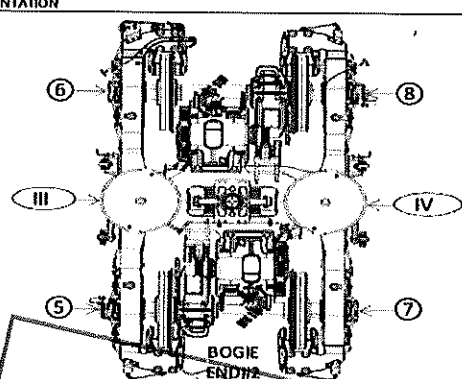
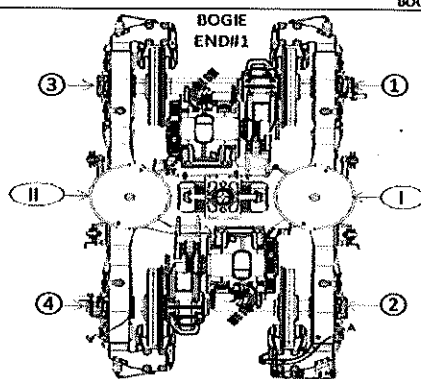
WEIGHT

WEIGHT

WEIGHT

WEIGHT

WEIGHT



GIBELQ

2024-03-08

CONTROLLED COPY



SELF INSPECTION INDUSTRIAL QUALITY

Rev:09

Date:

5/31/2022

Projet:
PRASA

SI.FT1140.52

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

		END#1												
DESCRIPTION	TOLERANCE	LEFT SIDE						RIGHT SIDE						
		6	5	4	3	2	1	1	2	3	4	5	6	
AIR SPRING HEIGHT (EMPTY)	N/A	A'II												A'V
AIR SPRING HEIGHT (FULL)	min 254 max 261	AII												AV
FLOOR COVERING HEIGHT	min 1096 max 1116	EII												EI
AIR SPRING PRESSURE	≤ 0.3 (QI - Q)	CII												CI
PRIMARY SUSPENSION	SEE TABLE (ONLY REF)	D3												D1
PRIMARY SUSPENSION	SEE TABLE (ONLY REF)	D4												D2
PIVOT VERTICAL GAP	min 25 max 32	KII												KI
PIVOT LATERAL STOP GAPS DIFFERENCE	≤ 4 (Ji - Ji)	JII												Ji
QTY OF TURNS OF LEVELLING ROD	N/A	XII												Xi
SHIMS OF ANTI-ROLL BAR	N/A	YII												Yi
DESCRIPTION	TOLERANCE	6	5	4	3	2	1	1	2	3	4	5	6	
AIR SPRING HEIGHT (EMPTY)	N/A	A'III												A'IV
AIR SPRING HEIGHT (FULL)	min 254 max 261	AIII												AIV
FLOOR COVERING HEIGHT	min 1096 max 1116	EIII												EIV
AIR SPRING PRESSURE	≤ 0.3 (QIV - QIV)	CIII												CIV
PRIMARY SUSPENSION	SEE TABLE (ONLY REF)	D5												D7
PRIMARY SUSPENSION	SEE TABLE (ONLY REF)	D6												D8
PIVOT VERTICAL GAP	min 25 max 32	KIII												KIV
PIVOT LATERAL STOP GAPS DIFFERENCE	≤ 4 (JIV - JIV)	JIII												JIV
QTY OF TURNS OF LEVELLING ROD	N/A	XIII												XIV
SHIMS OF ANTI-ROLL BAR	N/A	YIII												YIV
		LEFT SIDE						RIGHT SIDE						

COMPARE EACH TENTATIVE WITH THE TOLERANCE AND IDENTIFY EACH MEASURE AS BELOW

GOOD LOWER HIGHER
✓ ↓ ↑

WEIGHT COMPENSATION

EQUIPMENT

WEIGHT

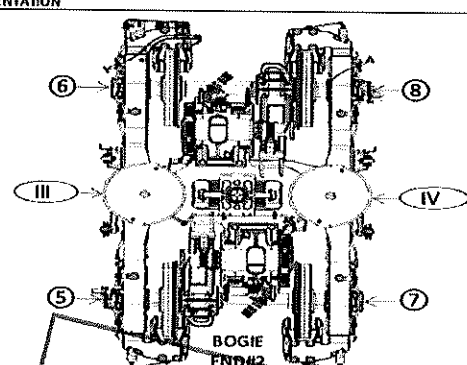
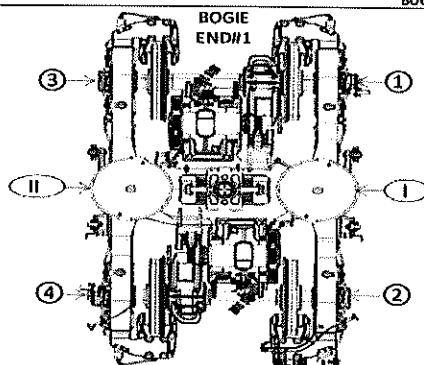
EQUIPMENT

WEIGHT

SECONDARY MEASUREMENTS (ONLY T.C.C.A.S)

AUTOMATIC COUPLER HEIGHT

ANTENNA HEIGHT



GIBELCO
2024-03-08
CONTROLLED COPY



SELF INSPECTION INDUSTRIAL QUALITY

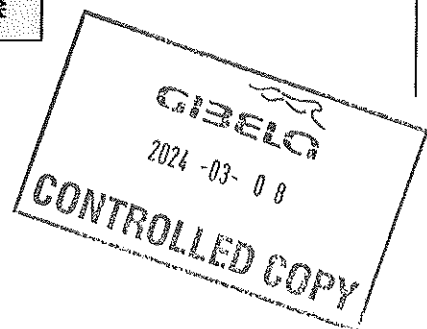
Rev:09
Date:
5/31/2022

Proj:
PRASA

SI.FT1140.52

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

ITEM		THEORETICAL VALUES																T2 CAR	
		T2 CAR		M4 CAR		M1 CAR		M2 CAR		M3 CAR		M5 CAR		M6 CAR		T2 CAR			
		T2ext	T2int	M41	M42	M11	M12	M21	M22	M31	M32	M51	M52	M61	M62	T2int	T2ext		
Pivot lateral stop gap difference [mm]	Fig. 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4		
Air Spring height [mm]	Fig. 5	255 ⁺⁸ ₋₄	255 ⁺⁸ ₋₄	255 ⁺⁸ ₋₄	255 ⁺⁸ ₋₄	255 ⁺⁸ ₋₄	255 ⁺⁸ ₋₄	255 ⁺⁸ ₋₄	255 ⁺⁸ ₋₄	255 ⁺⁸ ₋₄	255 ⁺⁸ ₋₄	255 ⁺⁸ ₋₄	255 ⁺⁸ ₋₄	255 ⁺⁸ ₋₄	255 ⁺⁸ ₋₄	255 ⁺⁸ ₋₄	255 ⁺⁸ ₋₄		
Air spring pressure at 4WD [Bar]	Fig. 5	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.)	2,83 (Ref.)	2,87 (Ref.)	2,83 (Ref.)	2,83 (Ref.)	2,83 (Ref.)	2,83 (Ref.)	3,76 (Ref.)		
Primary Suspension gap [mm]	C ₁ - C ₄ C ₃ - C ₅	0,3 Max.	0,3 Max.	0,3 Max.	0,3 Max.	0,3 Max.	0,3 Max.	0,3 Max.	0,3 Max.	0,3 Max.	0,3 Max.	0,3 Max.	0,3 Max.	0,3 Max.	0,3 Max.	0,3 Max.	0,3 Max.		
	D ₁ - D ₃	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅		
	D ₂ - D ₄	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅		
	D ₃ - D ₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅	35 ⁺²⁵ ₋₅		
Carbody Floor height [mm]	Fig. 7	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	1106 ⁺¹⁰ ₋₁₀	1106 ⁺¹⁰ ₋₁₀	1106 ⁺¹⁰ ₋₁₀	1106 ⁺¹⁰ ₋₁₀		
Booster height [mm]	Fig. 7	850 ⁺³ ₋₃	850 ⁺³ ₋₃	850 ⁺³ ₋₃	850 ⁺³ ₋₃	850 ⁺³ ₋₃	850 ⁺³ ₋₃	850 ⁺³ ₋₃	850 ⁺³ ₋₃	850 ⁺³ ₋₃	850 ⁺³ ₋₃	850 ⁺³ ₋₃	850 ⁺³ ₋₃	850 ⁺³ ₋₃	850 ⁺³ ₋₃	850 ⁺³ ₋₃	850 ⁺³ ₋₃		
Coupling End height [mm]	F ₁	895 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	895 (Ref.)	760 (Ref.)		
	F ₂	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)	760 (Ref.)		
Pivot Vertical gap [mm]	Fig. 10	30 ⁺²⁵ ₋₅	30 ⁺²⁵ ₋₅	30 ⁺²⁵ ₋₅	30 ⁺²⁵ ₋₅	30 ⁺²⁵ ₋₅	30 ⁺²⁵ ₋₅	30 ⁺²⁵ ₋₅	30 ⁺²⁵ ₋₅	30 ⁺²⁵ ₋₅	30 ⁺²⁵ ₋₅	30 ⁺²⁵ ₋₅	30 ⁺²⁵ ₋₅	30 ⁺²⁵ ₋₅	30 ⁺²⁵ ₋₅	30 ⁺²⁵ ₋₅	30 ⁺²⁵ ₋₅		





SELF INSPECTION INDUSTRIAL QUALITY

Rev:09

Date:

5/31/2022

Proj:
PRASA

SI.FT1140.52

Leveling report from Production (Final measurements after Levelling and Weighting line)

References for secondary suspension empty

A'n Air spring height empty

References for secondary suspension full

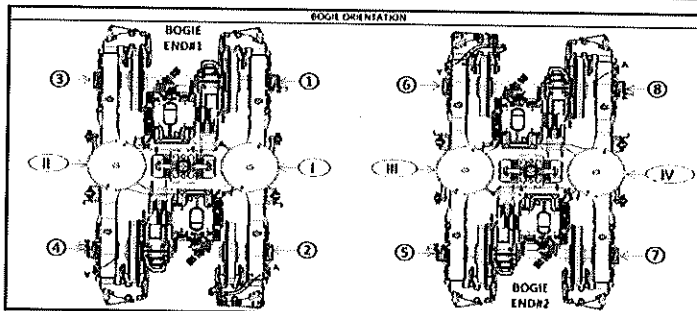
An Air spring height
Bn Difference between measurement A'n and An
En Floor covering height
Cn Air spring pressure
Dn Primary suspension
Kn Pivot Vertical gap
Jn Pivot Lateral stop gaps difference

Item	Reference [mm]	END#1		END#2	
		Right Side	Left Side	Left Side	Right Side
A'n	N/A	A'i 242	A'e 244	A'a 242	A'v 241
An	254 to 261	Ai 256	Av 256	Av 256	Av 255
Bn = An - A'n	N/A	Bi 14	Be 12	Bi 14	Be 14
En	1106 ±10 mm	Ei 1107	Ea 1106	Ei 1105	Ev 1108
Item	Reference [bar]	END#1		END#2	
		Right Side	Left Side	Left Side	Right Side
Cn	Table 02 (*)	Ci 2.71	Ce 2.70	Ci 2.74	Cv 2.70
Cn - Cn+1	Difference ≤ 0,3	Ci - Ce 0,01		Ci - Cv 0,04	
Gauge serial number	N/A	G1B05873	G1B05873	G1B05873	G1B05873
Item	Reference [mm]	END#1		END#2	
		Right Side	Left Side	Left Side	Right Side
Dn	Table 01 (*)	Di 46.66	Ds 47.35	Di 45.78	Ds 47.07
		Ds 47.51	Di 46.53	Ds 46.53	Di 46.54
Kn	25 to 45	Ki 36.44		Kv 37.71	
Jn	Difference ≤ 4	Ji 25.33	Js 25.65	Ji 25.44	Jv 25.77

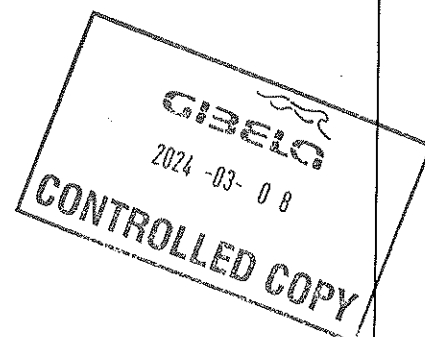
(*) Reference, only include values, Isn't approval criteria.

Table 01 D Theoretical Values	TC1		M4		M1		M2		M3		TC2	
	Tbex	TBin	Mb1	Mb1	Mb1	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}	

Table 02 C Theoretical Values	TC1		M4		M1		M2		M3		TC2	
	Tbex	TBin	Mb1	Mb1	Mb1	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 Weighting line)



GIBELG
2024 -03- 08
CONTROLLED COPY



Gibela Rail Transport Consortium RF (Pty)
Ltd
2 Shosholoza Avenue
Dunnotar X7
Ekurhuleni, 1590, South Africa
Reception: +27 (0)10 600 0651

TRAIN SET 212	REF: GIB000001672_J0 PRASA WEIGHT BALANCE EN
	PC08 WEIGHING REPORT

M3	Front Bogie [Tons]		Rear Bogie [Tons]		Longitudinal Imbalance [%]		Criteria Longitudinal Imbalance ≤ 3%	
	Balance across front and rear bogies	17.88		17.97	0.25%		PASS	
	Weight Measured vs Predicted	35.85		35.90	Weight Difference [%]	0.14%	Tolerance [%]	1.36%
							Criteria Min	Diff
							Max	PASS

Test Participants				Date	
Name	Company	Department	Signature		
Danharwa N.N.	GIBELA	EOC		08/02/2024	

DEROGATION REQUEST

Company GIBELA	Name of the requester Joshua NEMANASHE	Function PME	Date 12 February 2024	Visa 	Request N° PRASA-DERSU-1006 extension	
Plant	Dunnottar 0302		Plant Country	South Africa		
Project	PRASA		Customer	PRASA		
Product name Reference			Drawing number and Revision			
Temporary <input checked="" type="checkbox"/> From TS200	Quantity: 30 Trainsets	Serial numbers / Batch: TS201: Bogie end#1 and Bogie end#2 to TS230: Bogie end#1 and Bogie end#2			Permanent <input type="checkbox"/>	
Requirement: The specification for Dn values of primary suspension requires the value for all cars to be Dn=35+/- (12/5)			Anteriority:			
Non-conformity description: Several cars are found to have primary suspension gap which is out of specification. The cars are out of specification on the upper limit with Dn values ranging between 0.1 mm to 2 mm above the maximum Tolerance.			Impact on: Environment..... <input type="checkbox"/> Safety (people)..... <input type="checkbox"/> Contract clauses..... <input type="checkbox"/> Economic Development..... <input type="checkbox"/> Product..... <input type="checkbox"/> Safety..... <input checked="" type="checkbox"/> Reliability..... <input type="checkbox"/> Performances..... <input checked="" type="checkbox"/> Delivery..... <input checked="" type="checkbox"/> Cost..... <input type="checkbox"/> Documentation..... <input type="checkbox"/> Resources..... <input type="checkbox"/> Others..... <input type="checkbox"/>			
Cause of the non-conformity / reasons for request: 1. Reason for request: Primary Suspension gaps are measured after weighing and levelling. The are currently no means of adjusting these gaps at Gibela. 2. Cause of the non-conformity: To be Confirmed - Target date: 30/04/2024						
Attached documents: See self-inspection database from IQ						
Containment action: Evaluate and if no risk approve derogation. Get Wolmerton to do measurement after the primary suspensions. have settled. Allow cars found to be out of tolerance with Dn value of 49 mm and less. to be covered by this derogation.			Use or assignment limitations of the non-conforming product:			
Corrective & Preventive action: TBD						
Function	Entity	Name	Date	Visa	Observations / Conditions	Decision
PME Manager	GIB	Junior MAGADA	22 February 2024			<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK
Train System Engineering	GIB	Mmakwena RAMATSELA	22/02/2024			<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK
Project Engineering Manager	GIB	Tshepo NKODI	22/02/24			<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK
Quality Manager	GIB	Lucy MAKOFANE	22/02/2024			<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK
Project Quality Manager	GIB	Malibongwe SOLANI	23/02/2024	R. M. C. pp. Reitumetse Mphuthi		<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK
Project Warranty Manager	GIB	Noko MABUTLA	13/03/2024			<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK
Project Manager	GIB	Devendran GOVENDER	13/03/2024		50km/h speed restriction when operating with defaulted suspension. Dn settling to be checked at the depot.	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK

long term solution to be defined by Engineering

Property of ALSTOM Transport, cannot be distributed or reproduced without authorization.