

GIBELQ

2024-07-01

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PRASA PROJECT

SELF INSPECTION SHEET

CONFIDENTIAL INFORMATION



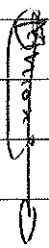
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APPLICATION REFERENCE



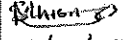








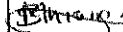

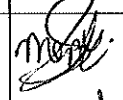


MOUNTING	DESCRIPTION	STATION	CAR TYPE						WORK INSTRUCTION	SAFETY ? 
			TC1	M4	M1	M2	M3	TC2		
<input type="checkbox"/>	DTR3-PROCE-14	LEVELLING, WEIGHTING AND BALANCING M CAR	FT1140	1	1	1	1		PRA.FT1140.04	YES
<input type="checkbox"/>	DTR3-PROCE-14	LEVELLING, WEIGHTING AND BALANCING TC CAR	FT1140	✓		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




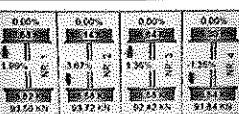
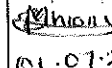
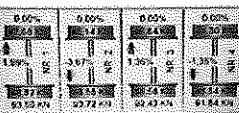
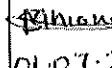






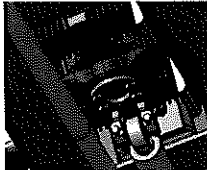
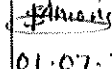

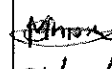
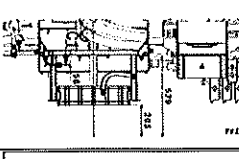

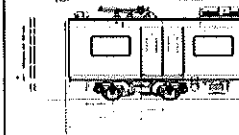
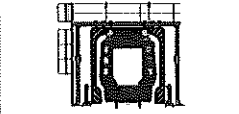
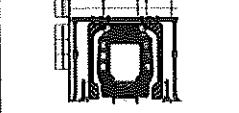
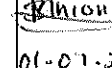
TUE	CAR	OPERATOR NAME	DATE	SELF INSPECTION NUMBER	PAGES
TS233	TC1	Sandle	01/07/24	SI.FT1140.52	01/08


	<h1 style="margin: 0;">SELF INSPECTION INDUSTRIAL QUALITY</h1>						Rev:09	Projet: PRASA	SI.FT1140.52	
							Date: 5/31/2022			
Car:	MCR:						Work Station FT1140			
 Safety Related										
1 - Document and Instrument Control										
1.1 - Documents control										
Document	T01	M1	M2	M3	M4	T03	Revision	Remark	OK	Signature/Date
PRA.FT1140.04	✓								✓	01-01-24
PRA.FT1140.05										
PRA.FT1140.05										
1.2 - 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	GIBELQ 0276					26-10-23/26-11-24		✓	01-07-24 	
Venier Caliper	GIBELQ 0050					06-05-23/06-05-24		✓		
Torque wrench 530 N.m	A7650053					19-12-23/19-12-24		✓		
Torque wrench 320 N.m	A7690019					19-12-23/19-12-24		✓		
Torque wrench 150 N.m	B7217566					21-12-23/21-12-24		✓		
Torque wrench 35 N.m	D2511023					21-12-23/21-12-24		✓		
Torque wrench 17 N.m	D2861617					19-12-23/19-12-24		✓		



	<h1 style="text-align: center;">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		✓		 01/07/24										
02		Check underframe pipe system Air tightness Test performance according to VIL PRA FT1130.15.	The test was performed and no leak was observed. Initial pressure (IP) 16.2 bar Final pressure (FP) 15.0 bar FP - IP = 0.2 bar APPROVAL CRITERIA: After 5 minutes the pressure cannot drops more than 0.2 bar	✓		 01-07-24										
03		Movement performed at least 50m to shudder the car. And position on the leveled load cell, with wheels on the center.		✓		 01-07-24										
04		Measurement inspection was done with car on condition AWD and the rail leveled (The load cells system must be leveled and calibrated)	Calibration Validation Date 14/12/23	✓		 01-07-24										
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" style="width: 100%;"> <tr> <th>EQUIPMENT DESCRIPTION</th> <th>WEIGHT (kg)</th> </tr> <tr> <td>Driver's Seat</td> <td>60kg</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	EQUIPMENT DESCRIPTION	WEIGHT (kg)	Driver's Seat	60kg							✓		 01/07-24
EQUIPMENT DESCRIPTION	WEIGHT (kg)															
Driver's Seat	60kg															
06		The pressure difference between air spring on each bogie when raise the pressure was maintained < 0.3 bar.		✓		 01/07-24										
07		Measuremet recorded with empty suspension and loaded are on conformity with tolerances of the project		✓		 01/01/24										
08		All leveling measurements are according to the reference. (Values out of reference must be recorded on "Description of defects")		✓		 01/07/24										



		<h1>SELF INSPECTION INDUSTRIAL QUALITY</h1>		Rev:09		Projet: PRASA	SI.FT1140.52
				Date: 5/31/2022			
Item	Picture/Sketch	Description	Criteria/Record	OK	Not OK	Pass/Fail	Signature/Date
09		Check that the leveling rods are torqued and have torque marker.		✓			 01/07/24
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).		✓			 01-07-24
11		Remove the car, move back onto the load cells and repeat the step 09. Confirm if both are in the tolerance of $\leq 4\%$.		✓			 01-07-24
12		1 - Record shims thickness used on rod 2 - All screws were torqued and have torque marker.	THICKNESS (mm) I  II  III  IV 	✓			 01/01/24
13		Pivot fixation	1- M20 x 90 screws with application of torque according to PRA.FT1140.04 / 05	✓			 01-07-24
14		FOR TC CARS F= Height of the center of Automatic coupler F = 895mm (+5 / -10mm) (Using levelled rail)	TC CAB #1= <u>880</u> mm	✓			 01/01/24
15		FOR TC CARS Height of Eurobase Antenna = 205mm (+/-10mm) (Using levelled rail)	TC CAB #1= <u>199</u> mm	✓			 01/07/24
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)				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	✓			 01-07-24


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SELF INSPECTION INDUSTRIAL QUALITY

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

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'I
AIR SPRING HEIGHT (FULL)	min 254 max 261	AII				256	252	252	255				AI
FLOOR COVERING HEIGHT	min 1096 max 1116	EII											EI
AIR SPRING PRESSURE	≤ 0.3 (Ci - C)	CII				2.61	2.44	2.61	2.58				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 (AII - AI)	JII											JI
QTY OF TURNS OF LEVELLING ROD	N/A	XII					11	11					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				258	257	253	255				AIV
FLOOR COVERING HEIGHT	min 1096 max 1116	EIII											EIV
AIR SPRING PRESSURE	≤ 0.3 (Civ - Ci)	CIII				2.83	2.75	2.72	2.84				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 (AIV - AI)	JIII											JIV
QTY OF TURNS OF LEVELLING ROD	N/A	XIII					11	11					XIV
SHIMS OF ANTI-ROLL BAR	N/A	YIII											YIV

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

GOOD LOWER HIGHER

WEIGHT
COMPENSATION

EQUIPMENT

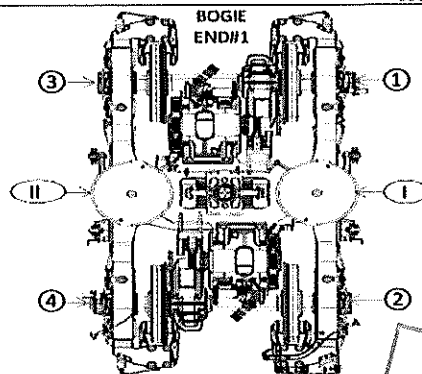
WEIGHT

EQUIPMENT

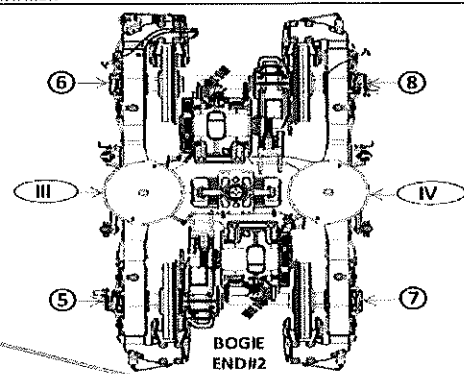
WEIGHT

SECONDARY MEASUREMENTS
(ONLY TO CARS)AUTOMATIC COUPLER
HEIGHT

ANTENNA HEIGHT



BOGIE ORIENTATION



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SI.FT1140.52

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

DESCRIPTION	TOLERANCE	END#1												END#2					
		LEFT SIDE						RIGHT SIDE						LEFT SIDE					
		6	5	4	3	2	1	1	2	3	4	5	6	6	5	4	3	2	1
AIR SPRING HEIGHT (EMPTY)	N/A	A'II												A'IV					
AIR SPRING HEIGHT (FULL)	min 254 max 261	AII												AIV					
FLOOR COVERING HEIGHT	min 1096 max 1116	EII												EIV					
AIR SPRING PRESSURE	≤ 0.3 (CI - C)	CII												CIV					
PRIMARY SUSPENSION	SEE TABLE (ONLY REF)	D3												D7					
PRIMARY SUSPENSION	SEE TABLE (ONLY REF)	D4												D8					
PIVOT VERTICAL GAP	min 25 max 32	KII												KIV					
PIVOT LATERAL STOP GAPS DIFFERENCE	≤ 4 (AI - A)	JII												JIV					
QTY OF TURNS OF LEVELLING ROD	N/A	XII												XIV					
SHIMS OF ANTI-ROLL BAR	N/A	YII												YIV					
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 (CIV - CA)	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 (AV - AX)	JIII												JIV					
QTY OF TURNS OF LEVELLING ROD	N/A	XIII												XIV					
SHIMS OF ANTI-ROLL BAR	N/A	YIII												YIV					

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

EQUIPMENT

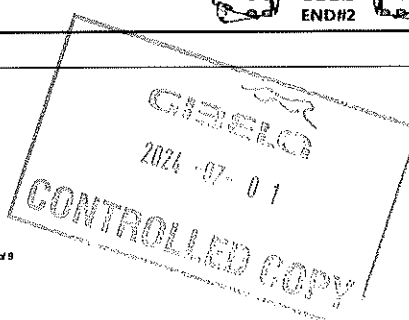
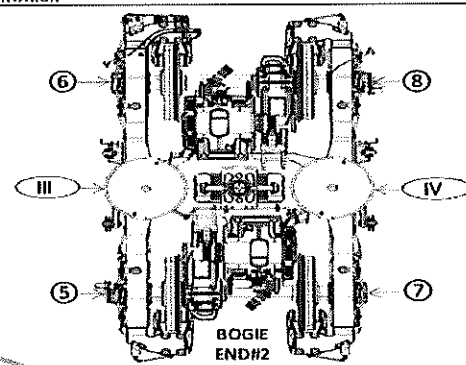
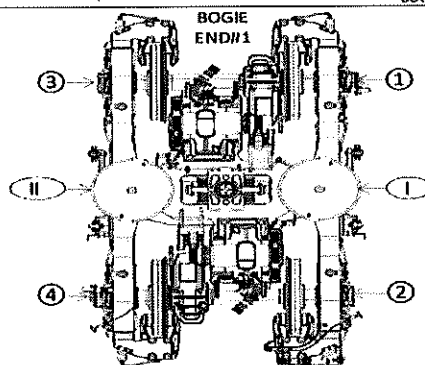
WEIGHT

EQUIPMENT

WEIGHT

SECONDARY MEASUREMENTS
(ONLY TC CARS)AUTOMATIC COUPLER
HEIGHT

ANTENNA HEIGHT





SELF INSPECTION INDUSTRIAL QUALITY

Rev:09

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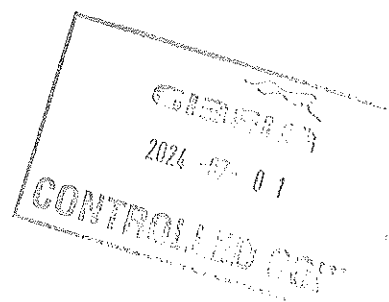
5/31/2022


Projeto:
PRASA

SI.FT1140.52

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

ITEM		THEORETICAL VALUES														T2Z CAR	
		TCL CAR		M4 CAR		M3 CAR		M2 CAR		M3 CAR		T2Z CAR					
		TBext	TBint	MB1	MB2	MB1	MB2	MB1	MB2	MB1	MB2	MB1	MB2	TBint	TBext		
Pivot lateral stop gap difference [mm]	J ₁₆₋₁₇ (120)	Fig. 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4			
	A ₁₆ (120)		Fig. 5	255 ⁺⁴ ₋₁	255 ⁺⁴ ₋₁	255 ⁺⁴ ₋₁	255 ⁺⁴ ₋₁	255 ⁺⁴ ₋₁	255 ⁺⁴ ₋₁	255 ⁺⁴ ₋₁	255 ⁺⁴ ₋₁	255 ⁺⁴ ₋₁	255 ⁺⁴ ₋₁	255 ⁺⁴ ₋₁			
Air Spring height [mm]	C ₁₁₋₁₂ (120)	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.)	2,87 (Ref.)	2,83 (Ref.)	3,76 (Ref.)		
	C ₁₁ - C ₁₂ C ₁₃ - C ₁₄		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.			
Primary Suspension gap [mm]	D ₃₁ -D ₃₂	Fig. 6	35 ⁺¹² ₋₃	35 ⁺¹² ₋₃	35 ⁺¹² ₋₃	35 ⁺¹² ₋₃	35 ⁺¹² ₋₃	35 ⁺¹² ₋₃	35 ⁺¹² ₋₃	35 ⁺¹² ₋₃	35 ⁺¹² ₋₃	35 ⁺¹² ₋₃	35 ⁺¹² ₋₃	35 ⁺¹² ₋₃			
	D ₃₃ -D ₃₄																
	D ₃₅ -D ₃₆																
	D ₃₇ -D ₃₈																
Carbody Floor height [mm]	E ₁₁₋₁₂ (120)	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				
Booster height [mm]	N ₁₁₋₁₂ (120)		Fig. 7	850 ⁺¹⁰ ₋₁₀	850 ⁺¹⁰ ₋₁₀	850 ⁺¹⁰ ₋₁₀	850 ⁺¹⁰ ₋₁₀	850 ⁺¹⁰ ₋₁₀	850 ⁺¹⁰ ₋₁₀	850 ⁺¹⁰ ₋₁₀	850 ⁺¹⁰ ₋₁₀	850 ⁺¹⁰ ₋₁₀	850 ⁺¹⁰ ₋₁₀	850 ⁺¹⁰ ₋₁₀			
Coupling End height [mm]	F ₁	Fig. 8 Fig. 9		895 (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.)				
Pivot Vertical gap [mm]	K ₁	Fig. 10	30 ⁺¹⁰ ₋₅	30 ⁺¹⁰ ₋₅	30 ⁺¹⁰ ₋₅	30 ⁺¹⁰ ₋₅	30 ⁺¹⁰ ₋₅	30 ⁺¹⁰ ₋₅	30 ⁺¹⁰ ₋₅	30 ⁺¹⁰ ₋₅	30 ⁺¹⁰ ₋₅	30 ⁺¹⁰ ₋₅	30 ⁺¹⁰ ₋₅	30 ⁺¹⁰ ₋₅			



	<h1>SELF INSPECTION</h1> <h1>INDUSTRIAL QUALITY</h1>	Rev:09	Projet: PRASA	SI.FT1140.52
		Date:		
		5/31/2022		

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

References for secondary suspension empty

A'n Air spring height empty

References for secondary suspension full

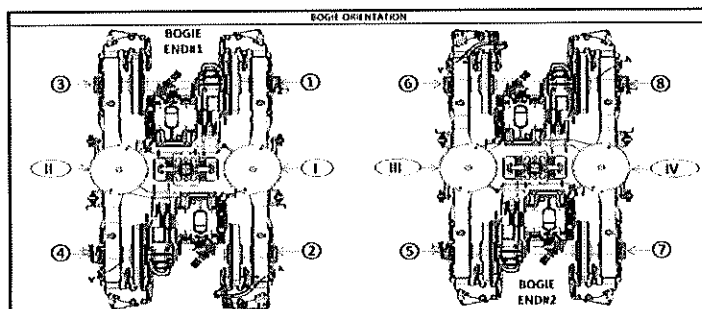
An Air spring height
 Bn Difference between measurement A'n and An
 En Floor covering height
 Cn Air spring pressure
 Dn Primary suspension
 Kn Pivot Vertical gap
 Jn Pivot Lateral stop gaps difference

Item	Reference [mm]	END#1		END#2	
		Right Side	Left Side	Left Side	Right Side
A'n	N/A	A'i 236	A'u 235	A'ii 240	A'iv 239
An	254 to 261	Ai 257	Au 256	Aii 258	Aiv 256
Bn = An - A'n	N/A	Bi 21	Bu 21	Bii 18	Biv 17
En	1106 ±10 mm	Ei 1116	Eu 1107	Eii 1111	Eiv 1111
Item	Reference [bar]	END#1		END#2	
		Right Side	Left Side	Left Side	Right Side
Cn	Table 02 (*)	Ci 3.55	Cu 3.58	Cii 2.86	Civ 2.80
Cn - Cn+1	Difference ≤ 0,3	Ci - Cu 0,03		Cii - Civ 0,06	
Gauge serial number	N/A	91805873	91805873	91805823	91805873
Item	Reference [mm]	END#1		END#2	
		Right Side	Left Side	Left Side	Right Side
Dn	Table 01 (*)	D1 42.49	D3 42.84	D4 43.74	D6 43.97
		D2 42.59	D4 42.11	D5 43.57	D7 44.02
Kn	25 to 45	Ki 31.91		Kii 34.65	
Jn	Difference ≤ 4	Ji 25.24	Ju 24.65	Jii 25.91	Jiv 24.55

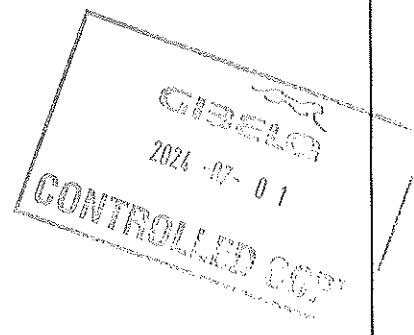
(*) Reference, only include values, isn't approval criteria.


Table 01 D Theoretical Values	TC1		M4		M1		M2		M3		TC2	
	Tbex	Tbin	Mb1	Mb1	Mb1	Mb2	Mb1	Mb1	Mb1	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	
	Tbex	Tbin	Mb1	Mb1	Mb1	Mb2	Mb1	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 fine)





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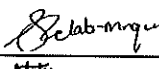

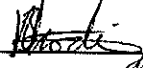
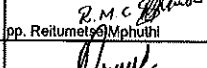

Reception: +27 (0)10 600 0651



PC09 WEIGHING REPORT

[illegible]

Company Gibela	Name of the requester Joshua Nemanashe	Function PME	Date 7 May 2024	Visa 	Request N° PRASA-DERSU-1096
			Plant Country	Gibela South Africa	
Project	PRASA PROJECT		Customer	PRASA	
Product name Reference	TS161 to TS210 TC1,M4,M1,M2,M3,TC2		Drawing number and Revision	DT00000207673	
Temporary <input checked="" type="checkbox"/> Until : TS161 to TS210	Quantity : 80 Train sets	Serial Numbers / Batch: TS211 to TS290			Permanent <input type="checkbox"/>
Requirement: According to GIB0000001672 prasa weight balance EN . TC1/TC2:The weighing report specification requires the weight difference (weight measured vs predicted weight) tolerance to be 1.62%. M1/M2:The weighing report specification requires the weight difference (weight measured vs predicted weight) tolerance to be 1.37%. M3/M4:The weighing report specification requires the weight difference (weight measured vs predicted weight) tolerance to be 1.36%.				Anteriority: Impact on: Environment..... <input type="checkbox"/> Safety (people)..... <input type="checkbox"/> Contract clauses..... <input type="checkbox"/> Economic..... <input type="checkbox"/> Development.. <input type="checkbox"/> Product Safety..... <input type="checkbox"/> Reliability..... <input type="checkbox"/> Performances..... <input checked="" type="checkbox"/> Delivery..... <input type="checkbox"/> Cost..... <input type="checkbox"/> Documentation..... <input type="checkbox"/> Resources..... <input type="checkbox"/> Others..... <input type="checkbox"/>	
Non-conformity description: The average weights measured from TS120 up to 162 has shown a deviation from the acceptance criteria. However, after discussions with BARRABES-PRADAL Daniel an additional 0,5% deviation from the acceptance criteria will not have an impact. Should we had this to the acceptance tolerance then all the cars will pass. "these trains are equivalent in terms of mass (we have seen a gap around 0,5)" See below min and max weight measured for TS120-162 and the average tolerances (We expect the same deviation for the next 80 train sets):					
	Min	Max			
TC2	33.9	34.6			
M3	35.4	35.9			
M2	36	37.1			
M1	36.6	37			
M4	35.3	36.6			
TC1	33.9	34.4			
TC2	Weight Measured vs Predicted	Weight Measured (Tons)	Weight Predicted (Tons)	Weight Difference (%)	Tolerance (%)
		34.12	34.45	0.95%	1.62%
M3	Weight Measured vs Predicted	Weight Measured (Tons)	Weight Predicted (Tons)	Weight Difference (%)	Tolerance (%)
		35.67	35.90	0.65%	1.36%
M2	Weight Measured vs Predicted	Weight Measured (Tons)	Weight Predicted (Tons)	Weight Difference (%)	Tolerance (%)
		36.53	37.06	1.42%	1.37%
M1	Weight Measured vs Predicted	Weight Measured (Tons)	Weight Predicted (Tons)	Weight Difference (%)	Tolerance (%)
		36.69	36.97	0.90%	1.36%
M4	Weight Measured vs Predicted	Weight Measured (Tons)	Weight Predicted (Tons)	Weight Difference (%)	Tolerance (%)
		35.69	35.95	0.75%	1.36%
TC1	Weight Measured vs Predicted	Weight Measured (Tons)	Weight Predicted (Tons)	Weight Difference (%)	Tolerance (%)
		34.09	34.42	0.96%	1.62%

Cause of the non-conformity / reasons for request: Weight balance document was revised from J to K by engineering and the following was removed from the weight calculations: -Main Reservoir Tank Removal -Brake Reservoir Resizing -CPU bloc is combined with the screen - Closure of Air Extractor Opening						
Attached documents: REF: GIB0000001672_K0 PRASA WEIGHT BALANCE EN report  RE TS Weight is failing .msg						
Containment action: Each train is evaluated by engineering and based on risk it will be approved or declined. A new version of GIB0000001672 will be created to align the sub system actual weight with the theoretical weight which will reduce the error percentage.						
Use or assignment limitations of the non-conforming product:						
Corrective & Preventive action: Engineering to revise car weights per baseline.						
Function	Entity	Name	Date	Visa	Observations / Conditions	Decision
Process Manufacturing Engineering	GIB	Junior MAGADA	14/05/2024			<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK
Train System Engineering	GIB	Mpho LELALA-MNGUNI				<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK
Industrial Quality	GIB	Lucy MAKOFANE	14/05/2024			<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK
Project Engineering Manager	GIB	Tshepo NKODI	15/05/2024			<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK
Project Quality Safety Manager	GIB	Solani MALIBONGWE	16/05/2024	 pp. Reilumetso Mphuthi		<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK
Project Manager	GIB	Devendran GOVENDER	17/05/2024		Engineering to update the test procedure with new targets	<input checked="" type="checkbox"/> OK <input type="checkbox"/> NOK