



APPLICABLE FOR TRAINSET 100+ ONLY AS PER BASELINE 10.3.1

SELF INSPECTION SHEET


CONFIDENTIAL INFORMATION

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

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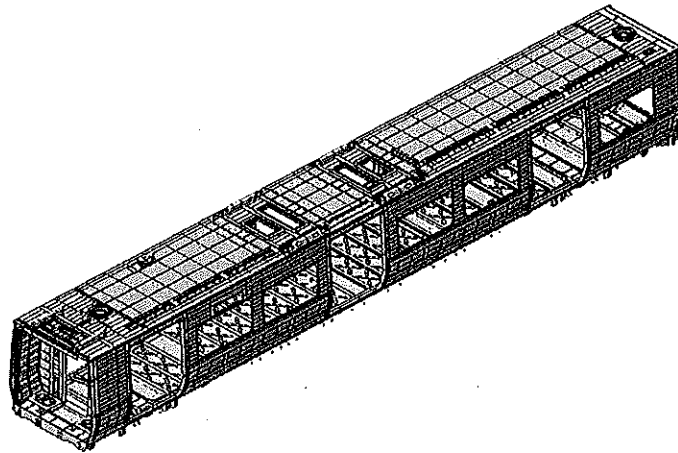
REV	DATE	MODIFICATION CONTENT	RESPONSIBLE	NAME	PAGES
0	09/04/2018	GIBELA NEW CREATION	APPROVER	Izumeleng Modiba	09/04/2018
			CHECKER	Nosiso Pindela	09/04/2018
			COMPILER	Thanyani Mathhego	06/04/2018
1	23/05/2018	Team leader and Quality Technician to sign final signature from PME Manager to Quality manager	APPROVER	Izumeleng Modiba	23/05/2018
			CHECKER	Nosiso Pindela	23/05/2018
			REVISED BY	Ramokone Motama	23/05/2018
2	05/07/2018	Certain dimensional checks added and others moved to CB1230 and CB1230	APPROVER	Izumeleng Modiba	05/07/2018
			CHECKER	Nosiso Pindela	05/07/2018
			COMPILER	Ramokone Motama	05/07/2018
3	2018/06/12	Certain dimensional checks added and others moved to CB1230 and CB1230	APPROVER	Izumeleng Modiba	2018/06/12
			CHECKER	Nosiso Pindela	2018/06/12
			COMPILER	Ramokone Motama	2018/06/12
5	24/01/2019	As per Baseline 10.2	APPROVER	Izumeleng Modiba	24/01/2019
			CHECKER	Nosiso Pindela	24/01/2019
			COMPILER	Vanessa Ntuli	24/01/2019
6	13/03/2019	Added D1 and D2 on Self - Inspection length measurements	APPROVER	Izumeleng Modiba	13/03/2019
			CHECKER	Nosiso Pindela	13/03/2019
			COMPILER	Nosiso Pindela	13/03/2019
7	20/05/2019	Removed roof width	APPROVER	Izumeleng Modiba	20/05/2019
			CHECKER	Nosiso Pindela	20/05/2019
			REVISED BY	Nosiso Pindela	20/05/2019
10	22/08/2019	New Baseline 10.2.5	APPROVER	Izumeleng Modiba	22/08/2019
			CHECKER	Nosiso Pindela	22/08/2019
			REVISED BY	Nosiso Pindela	22/08/2019
15	06/08/2020	New Baseline 10.2.6	APPROVER	Timothy Maimela	06/08/2020
			CHECKER	Bongane Masina	06/08/2020
			REVISED BY	Bongane Masina	06/08/2020
20	19/04/2021	New Baseline 10.2.6	APPROVER	Timothy Maimela	19/04/2021
			CHECKER	Bongane Masina	19/04/2021
			REVISED BY	Bongane Masina	19/04/2021
21	17/08/2021	ADDED DIMENSIONS BEFORE WELDING	APPROVER	Mkhombi Collins	17/08/2021
			CHECKER	Mulaudi Mpho	17/08/2021
			REVISED BY	Mulaudi Mpho	17/08/2021
25	20/02/2022	New Baseline 10.2.6	APPROVER	Mkhombi Collins	20/02/2022
			CHECKER	Andani Muthelo	20/02/2022
			REVISED BY	Andani Muthelo	20/02/2022
26	14/06/2022	Update minimum temperature requirement for sealant application	APPROVER	Mkhombi Collins	14/06/2022
			CHECKER	Andani Muthelo	14/06/2022
			REVISED BY	Andani Muthelo	14/06/2022
27	19/10/2022	Addition of traceability for sealant application and welding	APPROVER	Mkhombi Collins	19/10/2022
			CHECKER	Ntokozo Zwane	19/10/2022
			REVISED BY	Amogelang Mohlampe	19/10/2022
28	14/04/2023	Added sealant batch number & welding consumables traceability	APPROVER	Vanessa Ntuli	14/04/2023
			CHECKER	Ntokozo Zwane	14/04/2023
			REVISED BY	Amogelang Mohlampe	14/04/2023
TRAINSET	CAR	OPERATOR NAME & ALPS NUMBER	DATE	SELF INSPECTION NUMBER	PAGES
233	Tc1	heni 4830028	18/06/24	SI, CB2220.323.V28	17

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		28/10/2023	

Carro Car:	TC1, TC2	NCR:	Work station:	CB2220
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Safety Related



I - Documentation and Instruments

I.1 - Documentation Control

Document	Type of car					Revision	Observation	OK		Signature/Date (Manufacturing)	Signature/Date (Quality)
	TC1	M1	M2	M3	M4						
DTR30223319/2						29	28/10/2023	X		N/A	18/06/2024

I.2 - Instruments Control


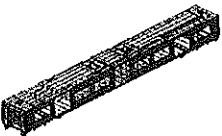

Monitoring and Measuring Instrument Control - Used for Special Process




Instruments	Validation	Calibration or Verification Validation Date	OK		Signature/Date (Manufacturing)	Signature/Date (Quality)
Welding 308 LSI	1	N/A	X		18/06/24	18/06/24
Tubular	22823-3	15/03/2024-15/03/2025	X		18/06/24	18/06/24
Measuring Tape	GIBTA	17/04/2024-17/04/2025	X		18/06/24	18/06/24

1.3 Consumables


Welding Consumable Control - Used for Special Process

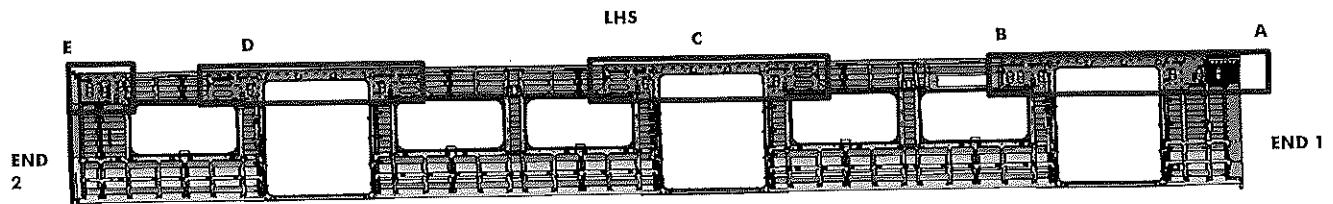
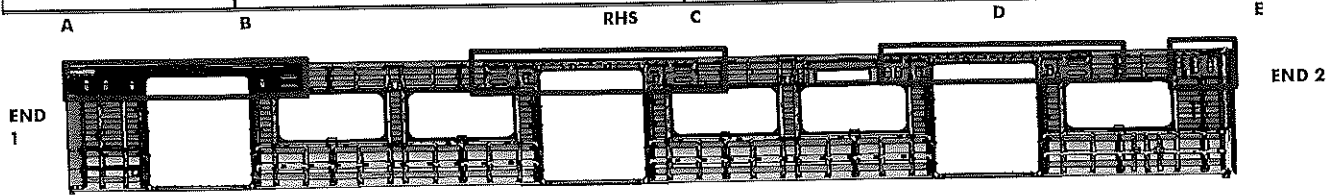
Filler Material	Heat Number	Welding Process	OK		Signature/Date (Manufacturing)	Signature/Date (Quality)
Welding 308 LSI	E221880	Mig	X		18/06/24	18/06/24

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DTR30223319/2 Carshell Assembly TC						
II - Control Activities of Production						
II.1 - Items to check						
Item	Picture/Drawing	Description	Acceptance criteria / Record	OK	Signature/Date (Manufacturing)	Signature/Date (Quality)
01	N/A	Assembly according to Instruction Engineering n° PRA.CB2220.DTR30225487/2 Verification of fitment for all reinforcement brackets.	DTR30223319/2	/	18/06/2024 L. B. B.	18/06/24
02	N/A	Carshell free of significant flaws which compromise the appearance or functionality.	DTD0000210675	/	18/06/2024 L. B. B.	18/06/24
03	REFER TO ANNEXURE A	Spot Welding inspected and approved according procedure	IND-SAL-WMS-016 e DTD0000210675	/	18/06/2024 L. B. B.	18/06/24
04	REFER TO ANNEXURE B	Arc Welding inspected and approved according procedure.	IND-SAL-WMS-016 REFER TO GIB - TYPDEF - ARC - 0000	/	18/06/2024 L. B. B.	18/06/24
05		Cleaning of oil Stainless Steel Surface	According TO GIB-WEL - PROC-0002	/	18/06/2024 L. B. B.	18/06/24
06	N/A	Functionals dimensions approved according drawing or complementary document approved by Alstom engineering and registered in this document.	Approved according specified on pages below.	/	18/06/2024 L. B. B.	18/06/24
07		Perform visual inspection of welds in 100% of the project. Run by penetrant testing in electric arc welding (weld ring) as IND-SAL-WMS-018. Run by penetrant testing welds (weld ring) and fillet sampling as described in DTD0000210658.	As the welding procedure IND-SAL-WMS-018 and DTD0000210658	/	18/06/2024 L. B. B.	18/06/24
08	N/A	Before application of sealant record the expiry date and make sure that the room temperature and humidity are within specified values as per Works Instructions Specified: Temperature Min - Max (°C) Min - Max 10°C - 35°C Relative humidity Min - Max (%) Min - Max 25% - 60%	Sealant Batch No: P1329 Exp Date: 04/09/24 Actuals Temperature: 16 Humidity: 28	/	18/06/24	18/06/24

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09	NA	Verification of sealant application in certain regions in the drawing.	AAD0001241033	✓		18/06/24	 18/06/24
10	NA	Verification of sealant application on the roof and sidewall finishers	Sealant must be: -Applied straight and even (1.5mm) -Free of gaps, cracks, damage and debris (flashes, dirt, dust) Refer to Annexure B	✓		18/06/24	 18/06/24

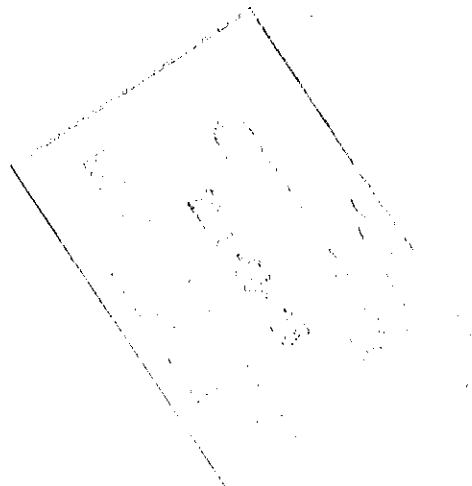
2024-03-17
 2024-03-17
 2024-03-17

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REINFORCEMENT WELDING

AREA	LHS	RHS
A	Operator (Name&sign): <u>S. Madiro</u>	<u>S. Madiro</u>
B	Operator (Name&sign): <u>S. Madiro</u>	<u>S. Madiro</u>
C	Operator (Name&sign): <u>Sibiga</u>	<u>Sibiga</u>
D	Operator (Name&sign): <u>Thakani</u>	<u>Thakani</u>
E	Operator (Name&sign): <u>Thakani</u>	<u>Thakani</u>

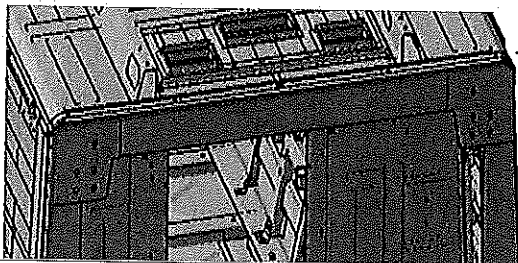




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END 1
SEALANT

OPERATOR
(Name & sign):


Mthokozis:

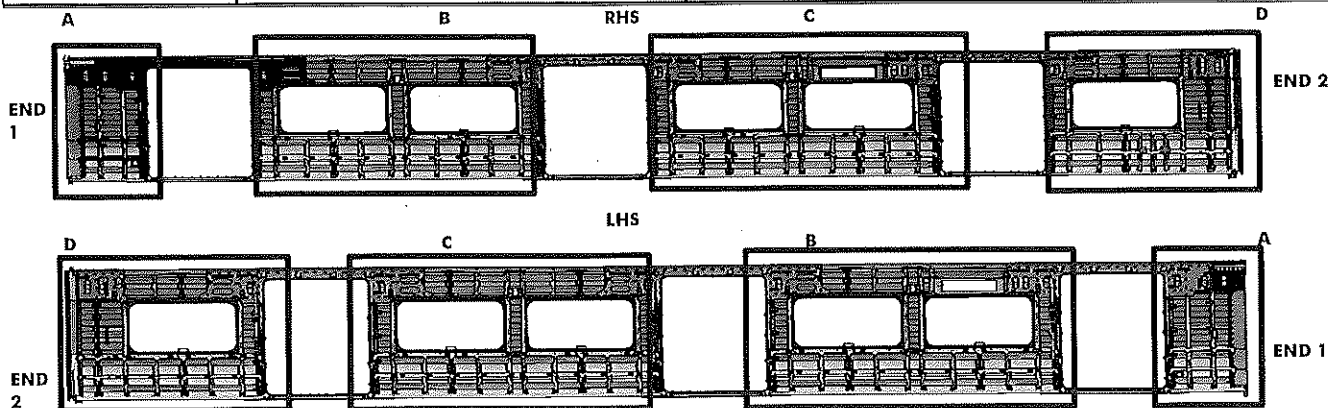
OPERATOR
(Name & sign):

Mthokozis:




10/11/2023
10/11/2023
10/11/2023
10/11/2023

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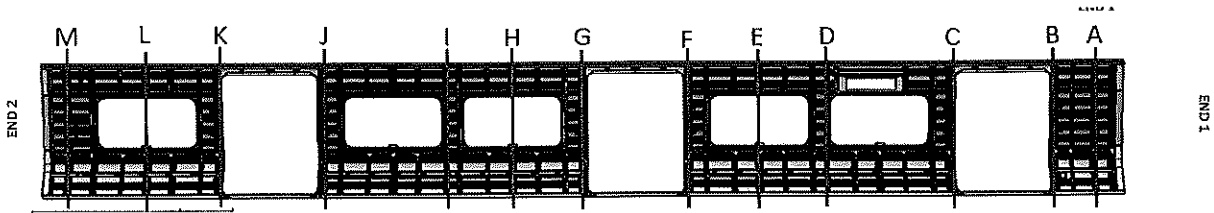
BRACKETING

C-RAILS:		Operator: <u>INSTALLATION</u> <u>Mtholozi</u>	
		Operator: _____	
DOOR MECHANISMS:		Operator: <u>Mtholozi</u>	
		Operator: _____	
TAPPING PADS		Operator: <u>hew</u>	
		Operator: _____	
INSTALLATION & VERIFICATION			
SEAT & LUGGAGE BRACKETS:		Operator: <u>Tebelo</u>	
		Operator: _____	
SEAT BRACKETS VERIFICATION:		Operator: <u>Tebelo</u>	
		Operator: _____	
WELDING			
AREA	LHS	RHS	
A (C-rails, Luggage and earth bushes) :	Operator (Name&sign): <u>S. Maseko</u>	Operator (Name&sign): <u>S. Maseko</u>	
B (Seat brackets)	: Operator (Name&sign): <u>S. Maseko</u>	: Operator (Name&sign): <u>S. Maseko</u>	
(C-rails, Luggage and earth bushes) :	Operator (Name&sign): <u>S. Maseko</u>	Operator (Name&sign): <u>S. Maseko</u>	
C (Seat brackets)	: Operator (Name&sign): <u>S. Maseko</u>	: Operator (Name&sign): <u>S. Maseko</u>	
(C-rails, Luggage and earth bushes) :	Operator (Name&sign): <u>S. Maseko</u>	Operator (Name&sign): <u>S. Maseko</u>	
D (Seat brackets)	Operator (Name&sign): <u>S. Maseko</u>	Operator (Name&sign): <u>S. Maseko</u>	
(C-rails, Luggage and earth bushes) :	Operator (Name&sign): <u>S. Maseko</u>	Operator (Name&sign): <u>S. Maseko</u>	
ENDS			

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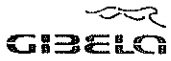
END 2 TAPPING PADS WELDING: Operator (Name&sign): Sijy A

28/10/2023
14:50:46
41.07
95.1



BEFORE WELDING

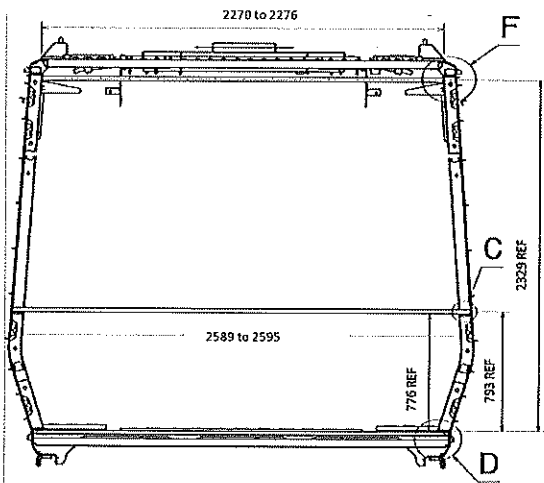
	Record D1 values	Record D2 values	D1-D2 ≤ 5mm	2589 to 2595
A	3262	3266	4	-
B	3289	3285	4	-
C	3292	3294	2	-
D	3260	3261	1	-
E	3260	3263	3	-
F	3292	3291	1	-
G	3292	3294	2	-
H	3260	3264	4	-
I	3260	3265	5	-
J	3291	3296	5	-
K	3292	3295	3	-
L	3264	3265	1	-
M	3298	3294	4	-



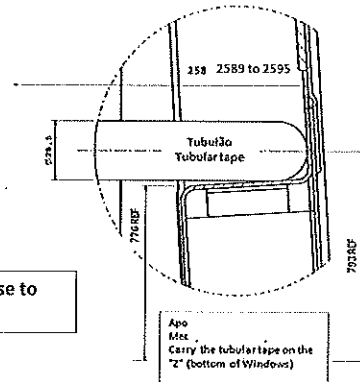
DTR30223319/2 Carshell Assembly TC

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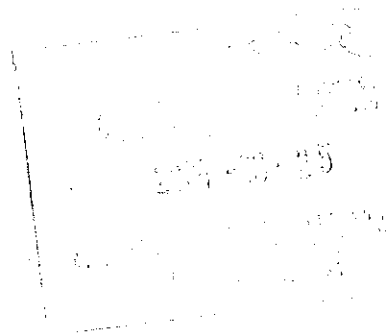
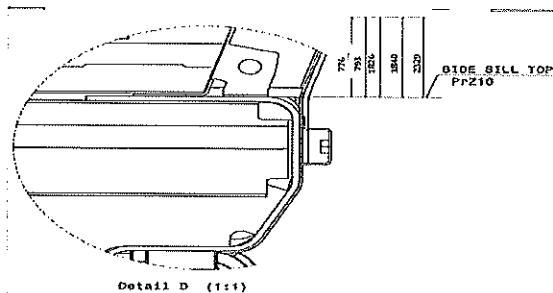
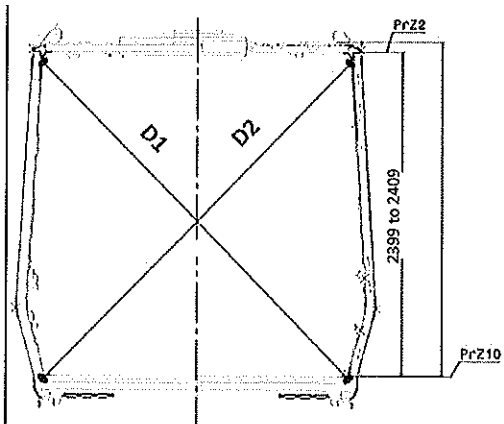
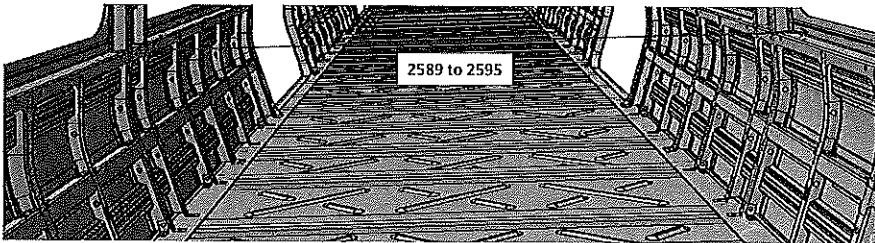
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Take measurement close to
radius



Detail C





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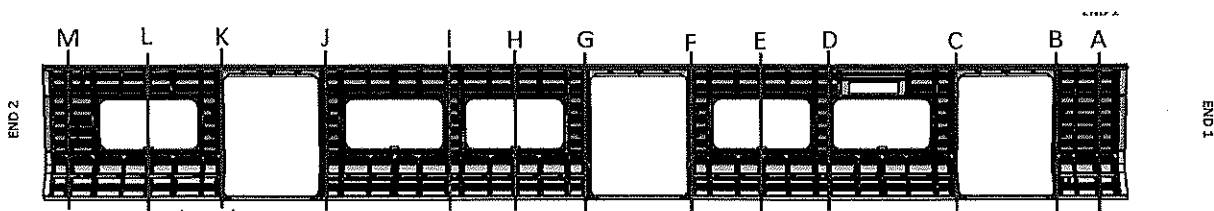
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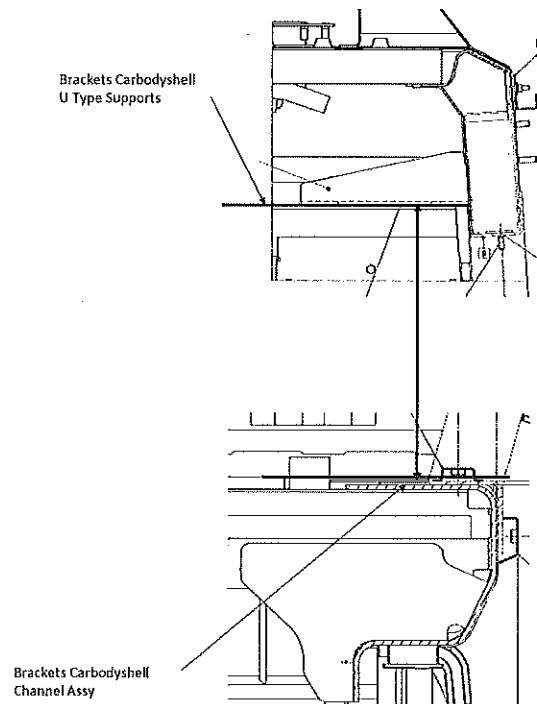
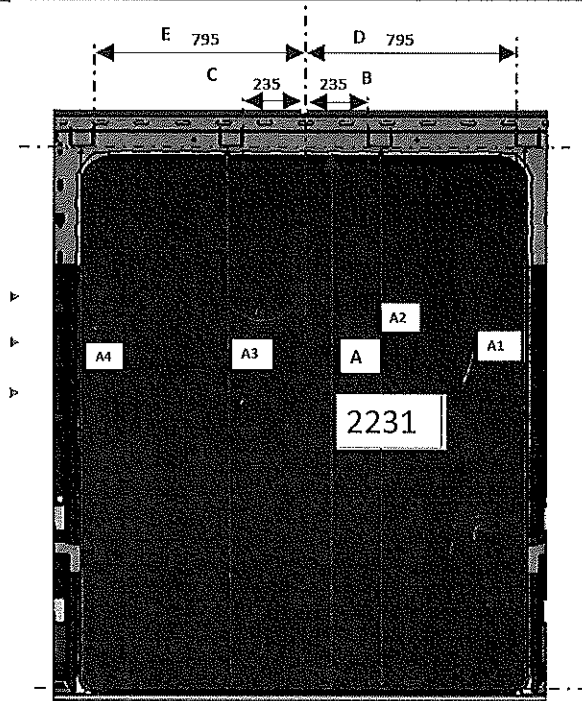
28/10/2023



AFTER WELDING

	Record D1 values	Record D2 values	D1-D2 ≤ 5mm	2589 to 2595
A	3294	3294	0	2591
B	3293	3295	2	2590
C	3294	3293	1	2591
D	3293	3294	1	2590
E	3265	3294	1	2593
F	3293	3294	1	2594
G	3290 ³²⁹⁰	3293	3	2592
H	3266	3266	0	2593
I	3292	3291	1	2595
J	3262	3260	2	2595
K	3293	3296	3	2593
L	3293	3295	2	2590
M	3294	3298	4	2604

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Specifications of Details for CBS measurement			



DOOR 1 - LHS		
	VALUE	ACTUAL
A1	2230 to 2232	2231
A2	2230 to 2232	2230
A3	2230 to 2232	2230
A4	2230 to 2232	2231
B	234 to 236	235
C	234 to 236	235
D	794 to 796	795
E	794 to 796	795

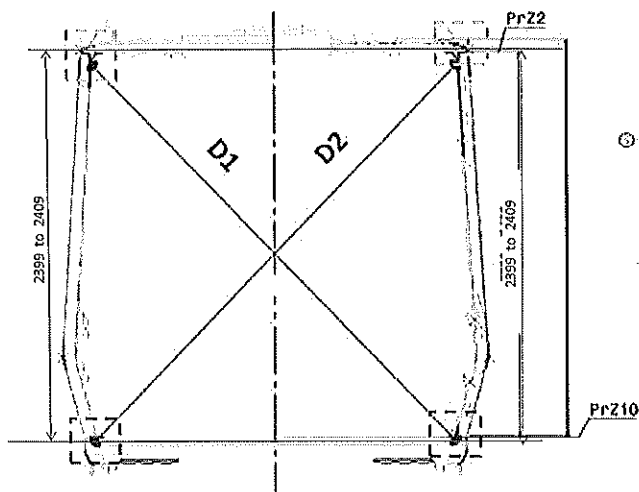
DOOR 2 - LHS		
	VALUE	ACTUAL
A1	2230 to 2232	2232
A2	2230 to 2232	2231
A3	2230 to 2232	2232
A4	2230 to 2232	2231
B	234 to 236	235
C	234 to 236	235
D	794 to 796	795
E	794 to 796	795

DOOR 3 - LHS		
	VALUE	ACTUAL
A1	2230 to 2232	2231
A2	2230 to 2232	2232
A3	2230 to 2232	2232
A4	2230 to 2232	2231
B	234 to 236	235
C	234 to 236	235
D	794 to 796	795
E	794 to 796	795

DOOR 1 - RHS		
	VALUE	ACTUAL
A1	2230 to 2232	2230
A2	2230 to 2232	2231
A3	2230 to 2232	2231
A4	2230 to 2232	2230
B	234 to 236	235
C	234 to 236	235
D	794 to 796	795
E	794 to 796	795

DOOR 2 - RHS		
	VALUE	ACTUAL
A1	2230 to 2232	2231
A2	2230 to 2232	2231
A3	2230 to 2232	2231
A4	2230 to 2232	2231
B	234 to 236	235
C	234 to 236	235
D	794 to 796	795
E	794 to 796	795

DOOR 3 - RHS		
	VALUE	ACTUAL
A1	2230 to 2232	2231
A2	2230 to 2232	223
A3	2230 to 2232	
A4	2230 to 2232	
B	234 to 236	
C	234 to 236	
D	794 to 796	
E	794 to 796	

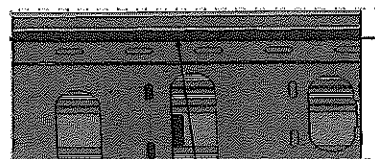


Take measurement close to radius

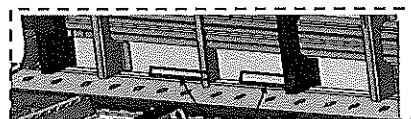
⑤



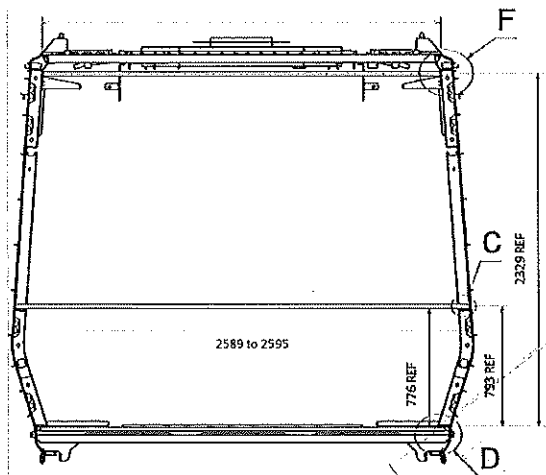
Measurement positions on roof rail and sidewall omega corner.



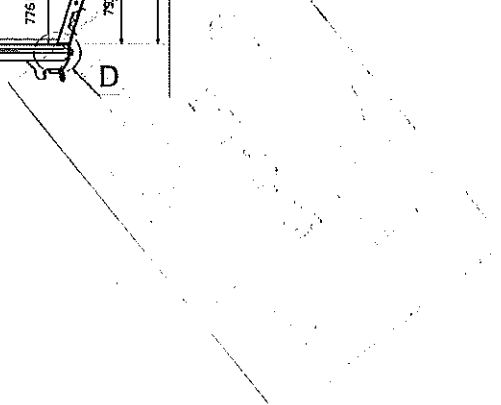
Reinforcement area measurement positions on roof reinforcement area.



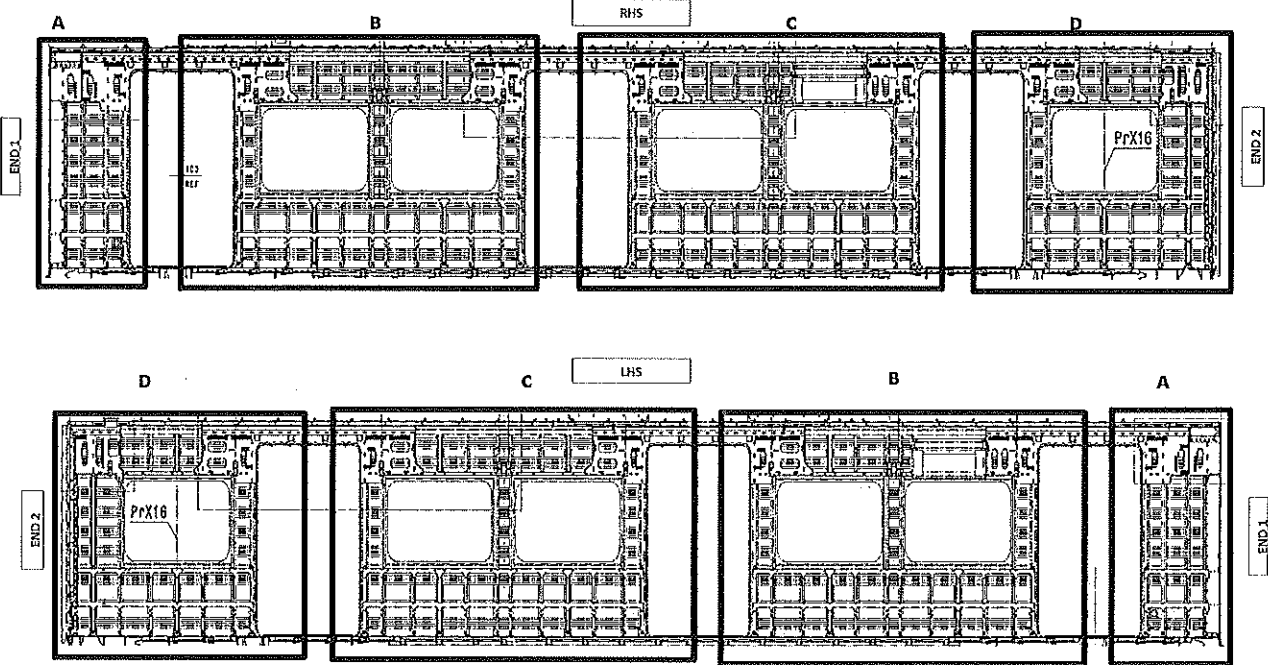
Measurement positions on sidewall and side sill corner.



Take measurement close to radius



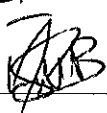
TC BRACKET INSTALLATION



QUANTITIES (TC)

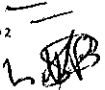
RHS				
	SECTION	QUANTITY	OK	NOK
C-RAILS	A	4	✓	
	B	4	✓	
	C	8	✓	
	D	12	✓	
SEAT BRACKETS	A	0	✓	
	B	21	✓	
	C	21	✓	
	D	13	✓	
EARTH BUSH	A	1	✓	
	B	4	✓	
	C	5	✓	
	D	4	✓	


ROOF ENDS:
CRAILS 2 OFF END 2
EARTH BUSH 4 OFF END 2

VERIFICATION BY: 

LHS				
	SECTION	QUANTITY	OK	NOK
C-RAILS	A	4	✓	
	B	8	✓	
	C	4	✓	
	D	6	✓	
SEAT BRACKETS	A	0	✓	
	B	21	✓	
	C	21	✓	
	D	13	✓	
EARTH BUSH	A	1	✓	
	B	4	✓	
	C	4	✓	
	D	2	✓	

ROOF ENDS:
CRAILS 2 OFF END 2
EARTH BUSH 4 OFF END 2

VERIFICATION BY: 


21
1007



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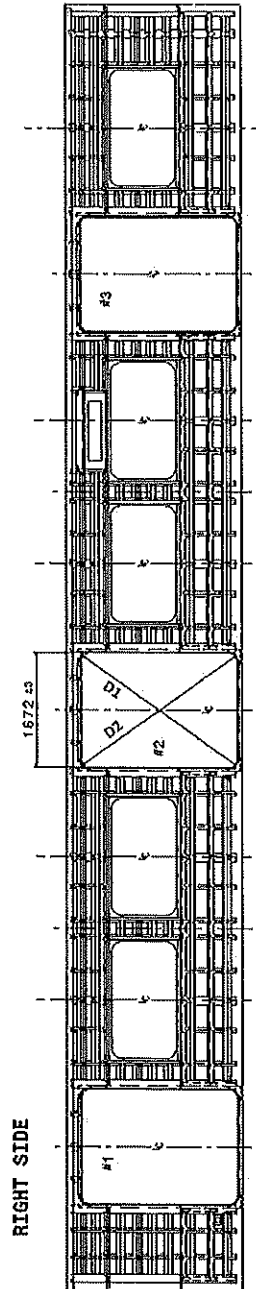
Date-

SI.CB2220.323.V29

28/10/2023

Specifications of Details for CBS measurement

End #2



End #1

Doors diagonal D1-D2 maximum difference ≤4 mm

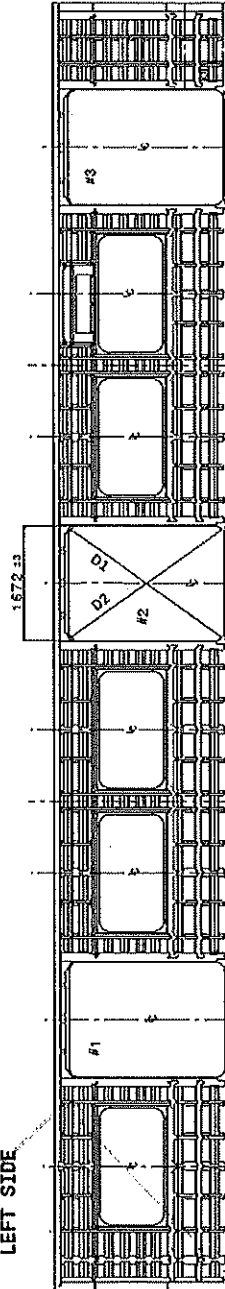
Doors length - 1672 ±3mm

#1	#2	#3	HIGHER DIMENSION	CENTRAL DIMENSION	LOWER DIMENSION
1671	1672	1671	1671	1672	1671
1672	1671	1672	1672	1671	1672
1671	1672	1671	1671	1672	1671

D1	D2	D1-D2
2548	2546	2
2547	2549	2
2546	2547	1

LEFT SIDE

End #1



End #2


Diagonal de portas - diferença D1-D2 ≤4 mm

Vão de Portas - 1672 ±3mm

Doors length - 1672 ±3mm

#1	#2	#3	DIENSÃO SUPERIOR	HIGHER DIMENSION	CENTRAL DIMENSION	LOWER DIMENSION
1671	1672	1671	1671	1672	1671	1671
1672	1671	1672	1672	1671	1672	1672
1671	1672	1671	1671	1672	1671	1671

D1	D2	D1-D2
2549	2547	2
2549	2548	1
2547	2548	1

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SI,CB2220.323,V29

Specifications of Details for CBS measurement

Dye penetrant test

Dye-penetration test to be performed by quality personnel




Item	Description of the Issue	OK	Signature/Date (Manufacturing)	Signature/Date (Quality)

II.2 - Check List REX



Check List Items

Item	Picture/Drawing	Description	Criteria /Record	OK	Not OK	Signature/Date (Manufacturing)	Signature/Date (Quality)
01	N/A	To complete REX	Refer to REX. New defects must be added on the REX				



	DTR30223319/2 Carshell Assembly TC	Rev. 29	Project: PRASA	
		Date-		SI.CB2220.323.V29
		28/10/2023		

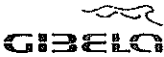
Self Inspection - Final Result

Is the car good to advance to the next workstation/process? (Approval of Operations and Industrial Quality)				DATE	NAME	SIGNATURE
HOLD POINT	GO	If activities are not complete, the missing activities must not impact the next stage!		18/06/2024	Lem Operations	
		Every auto inspection performed conforms to specification or In case of discrepancy the same is approved by the competent party.)		18/06/24	Ntobeko Industrial Quality	
	NO GO	There are activities pending that impact/stop the activities of the next process Obs: (To describe problems below)			Operations	
		There are non-conformities impact the quality of the product and there is no corrective action defined yet)			Industrial Quality	
In case of "NO GO", describe blocking problems						
In case of "NO GO", the operations manager must define below action plan to ensure "GO":						
Item	Description	Action	Responsible	Due date	Status	

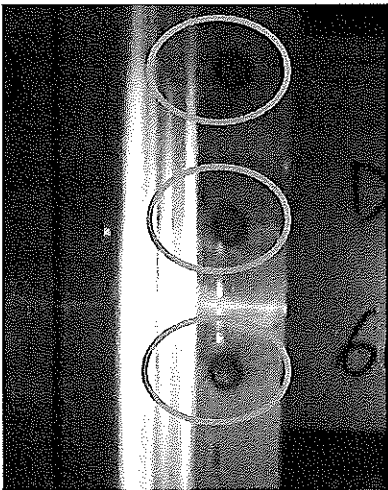
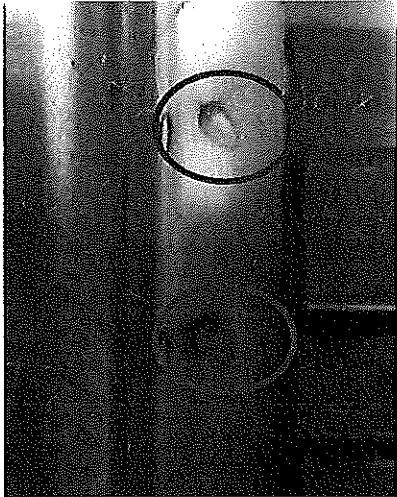
Operations


Quality

18/06/2024

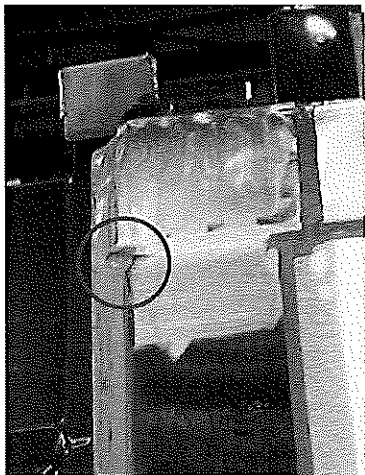
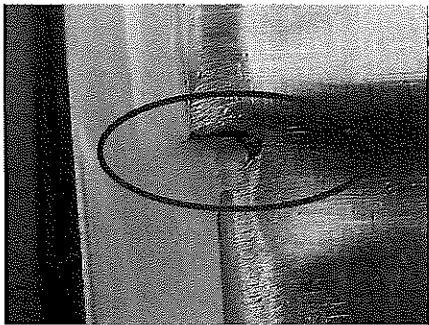
	DTR30223319/2 Carshell Assembly TC	Rev. 29	Project: PRASA SI.CB2220.323.V29
		Date-	
		28/10/2023	

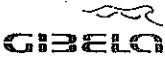
ANNEXURE A: Spot Welding Quality Acceptance Standard



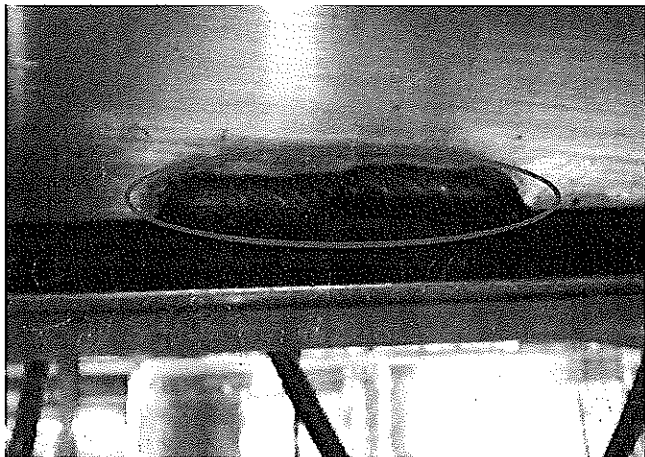
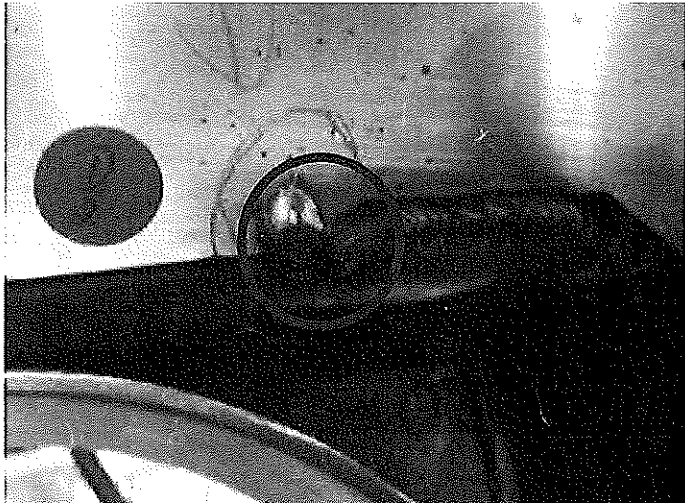
	DTR30223319/2 Carshell Assembly TC	Rev. 29	Project: PRASA SI,CB2220.323.V29
		Date-	
		28/10/2023	

ANNEXURE B: Sealant



	DTR30223319/2 Carshell Assembly TC	Rev. 29	Project: PRASA SI.CB2220.323.V29
		Date-	
		28/10/2023	

ANNEXURE B: Arc Welding Quality Acceptance Standard



GIBELA

PRASA PROJECT


APPLICABLE FOR TRAINSET 100+ ONLY AS PER BASELINE 10.3.1

SELF INSPECTION SHEET

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		DRAWING	DESCRIPTION	STATION	CAR TYPE						WORK INSTRUCTION	SAFETY ? 
					TC1	M1	M2	M3	TC2			
<input type="checkbox"/>	DT00000223319	AAD00001236963	DT00000223319 Carshell Assembly TC	CB1230	X					X	PRA.CB1230.DT0000012 23319.V20	YES
<input type="checkbox"/>												

REV	DATE	MODIFICATION CONTENT	RESPONSIBLE	NAME	DATE
0	06/04/2018	GIBELA NEW CREATION	APPROVER	Itumeleng Modiba	09/04/2018
			CHECKER	Nosizo Pindela	09/04/2018
			COMPILER	Thanyani Mathegu	06/04/2018
1	30/5/2018	Team leader and Quality Technician to sign Change final signature from PME Manager to Quality manager	APPROVER	Itumeleng Modiba	30/5/2018
			CHECKER	Nosizo Pindela	30/5/2018
			REVISED BY	Nosizo Pindela	30/5/2018
2	05/07/2018	Certain dimensional checks moved to CB1220	APPROVER	Itumeleng Modiba	05/07/2018
			CHECKER	Nosizo Pindela	05/07/2018
			COMPILER	Ramekone Motama	05/07/2018
5	24/01/2019	As per Baseline 10.2	APPROVER	Itumeleng Modiba	24/01/2019
			CHECKER	Nosizo Pindela	24/01/2019
			REVISED BY	Vanessa Ntuli	24/01/2019
6	13/03/2019	Added Twist and Door Bracket Measurements Remove Door Measurements	APPROVER	Itumeleng Modiba	13/03/2019
			CHECKER	Nosizo Pindela	13/03/2019
			COMPILER	Nosizo Pindela	13/03/2019
7	17/09/2019	Added Cab Fire Barrier Flatness Measurements	APPROVER	Itumeleng Modiba	17/09/2019
			CHECKER	Nosizo Pindela	17/09/2019
			COMPILER	Nosizo Pindela	17/09/2019
10	20/09/2019	New Baseline 10.2.5	APPROVER	Itumeleng Modiba	20/09/2019
			CHECKER	Nosizo Pindela	20/09/2019
			COMPILER	Nosizo Pindela	20/09/2019
15	28/01/2021	New Baseline 10.2.6	APPROVER	Timothy Maimela	28/01/2021
			CHECKER	Bongane Masina	28/01/2021
			COMPILER	Bongane Masina	28/01/2021
20	19/04/2021	New Baseline change 10.3	APPROVER	Timothy Maimela	19/04/2021
			CHECKER	Bongane Masina	19/04/2021
			COMPILER	Bongane Masina	19/04/2021
25	20/04/2022	New Baseline change 10.3.1	APPROVER	Collins Mhombhisi	20/02/2022
			CHECKER	Andani Muthelo	20/02/2022
			COMPILER	Andani Muthelo	20/02/2022
26	14/06/2022	Update minimum temperature requirement for sealant application	APPROVER	Collins Mhombhisi	14/06/2022
			CHECKER	Andani Muthelo	14/06/2022
			COMPILER	Andani Muthelo	14/06/2022
27	26/07/2022	Threshold measurements addition	APPROVER	Collins Mhombhisi	26/07/2022
			CHECKER	Andani Muthelo	26/07/2022
			COMPILER	Andani Muthelo	26/07/2022
28	17/10/2022	Addition of traceability for sealant application	APPROVER	Collins Mhombhisi	17/10/2022
			CHECKER	Ntokozo Zwane	17/10/2022
			COMPILER	Amogelang Mohlampe	17/10/2022
29	14/04/2023	Added sealant batch number & welding consumables traceability	APPROVER	Vanessa Ntuli	14/04/2023
			CHECKER	Ntokozo Zwane	14/04/2023
			COMPILER	Amogelang Mohlampe	14/04/2023
30	06/11/2023	Added traceability for thresholds for boiler makers and welders	APPROVER	Tyson Ngobeni	06/11/2023
			CHECKER	Andani Muthelo	06/11/2023
			COMPILER	Ntokozo Zwane	06/11/2023

TRAINSET	CAR	OPERATOR NAME & ALPS NUMBER	DATE	SELF INSPECTION NUMBER	PAGES
233	TC2	Zandele 482774	14/10/24	SI.CB1230.324.V28	14



DT00000223319 Carshell Assembly TC

Rev.
30

Project: PRASA

Date-

06/11/2023

SI.CB1230.324.V29

Carro
Car:

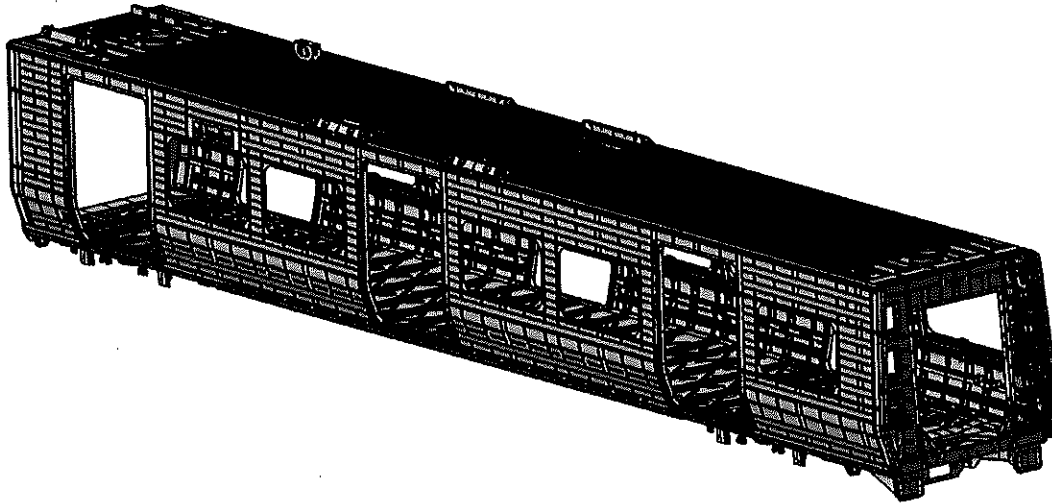
NCR:

Work station:

CB1230



Safety Related



I - Documentation and Instruments

1.1 - Documentation Control

Document	Type of car						Revision	Observation	OK	NOK	Rework	Signature/Date (Operations)	Signature/Date (Quality)
	TC1	M1	M2	M3	M4	TC2							
DT00000223319							30		X		N/A	14/06/24	26/06/24

1.2 - Instruments Control

Monitoring and Measuring Instrument Control - Used for Special Process

Instruments	Validation	Calibration or Verification Validation Date	OK	NOK	Signature/Date (Operations)	Signature/Date (Quality)
Tubular	22713	26/06/24	X		14/06/24	26/06/24
Combinations Square	918074	26/06/24	X		14/06/24	26/06/24
Tape Measurement	918072	27/07/24	X		14/06/24	26/06/24

1.3 Consumables

Welding Consumable Control - Used for Special Process

Filler Material	Heat Number	Welding Process	OK	NOK	Signature/Date (Manufacturing)	Signature/Date (Quality)
308 LSi	27379	MIG	X		14/06/24	26/06/24
ISR 70-Q3	27173	TIG	X		14/06/24	26/06/24



DT00000223319 Carshell Assembly TC

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Date-

06/11/2023

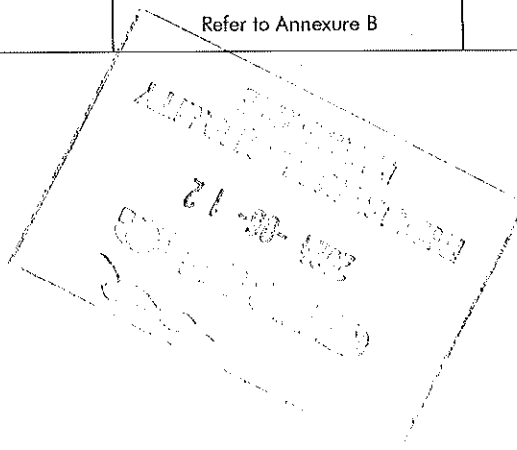
Project: PRASA

SI.CB1230.324.V29

II - Control Activities of Production

II.1 - Items to check

Item	Picture/Drawing	Description	Acceptance criteria / Record	OK	NOK	Work	Signature/Date (Operations)	Signature/Date (Quality)
01	N/A	Assembly according to Instruction Engineering n° DT00000223319	DT00000223319	X			14/06/24	14/06/24
02	N/A	Carshell free of significant flaws which compromise the appearance or functionality.	DTD0000210675	X			14/06/24	14/06/24
03	REFER TO ANNEXURE A	Arc Welding inspected and approved according procedure.	IND-SAL-WMS-016 DTD0000210675	X			14/06/24	14/06/24
04	N/A	Functionals dimensions approved according drawing or complementary document approved by Alstom engineering and registered in this document.	Approved according specified on pages below.	X			14/06/24	14/06/24
05	N/A	Perform visual inspection of welds in 100% of the project. Run by penetrant testing in electric arc welding (weld ring) as IND-SAL-WMS-018. Run by penetrant testing welds (weld ring) and fillet sampling as described in DTD0000210658.	As the welding procedure IND-SAL-WMS-018 and DTD0000210658	X			14/06/24	14/06/24
06	N/A	Before application of sealant record the expiry date and make sure that the room temperature and humidity are within specified values as per Works Instructions Specified: Temperature Min - Max (1) Min-Max 10°C - 35°C Relative humidity Min - Max (1) Min-Max 25% - 60%	Sealant Batch No: 200943SP Exp Date: 1-8/24 Actuals Temperature: 13°C Humidity: 37%	X			14/06/24	14/06/24
07	N/A	Verification of sealant application in regions of roof and sideframe finishers.	Sealant must be: -Applied straight and even (1.5mm) -Free of gaps, cracks, damage and debris (flashes, dirt, dust) Refer to Annexure B	X			14/06/24	14/06/24





DT00000223319 Carshell Assembly TC

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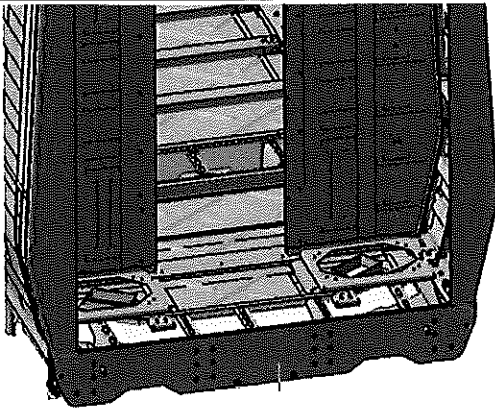
Date-

06/11/2023

Project: PRASA

SI.CB1230.324.V29

VIEW A



**END 1
SEALANT**

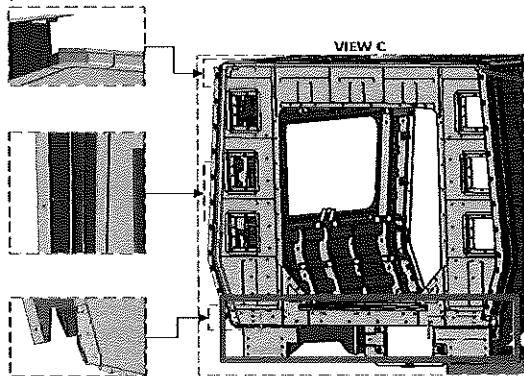
OPERATOR
(Name & sign):

Ishonolo (RHS)

OPERATOR
(Name & sign):

Buhle (LMS)

VIEW C



OPERATOR
(Name&sign):

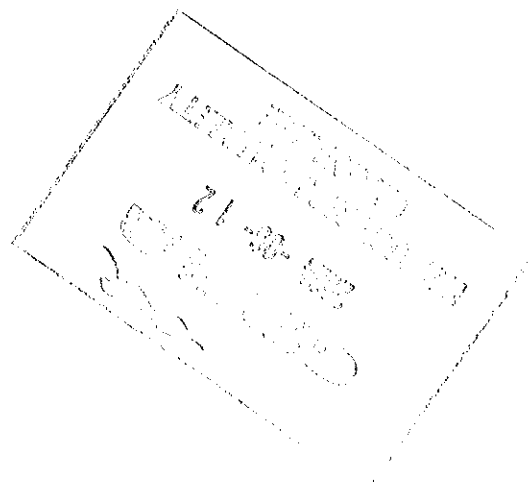
lerato (CM)...

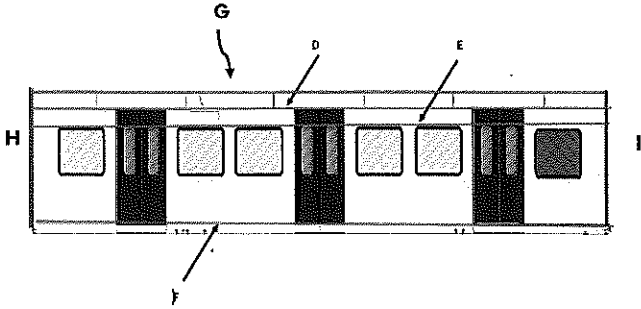
OPERATOR
(Name&sign):

(erab //

OPERATOR
(Name&sign):

~~(erab~~
(CM)...





Area D,E,F,G,H,I

Operator (Name & sign) :

LHS

F.H.I.G.D.C

RHS

F.G.D.E.H.I

Operator (Name & sign) :

Buhle

Ishenolo

Operator (Name & sign) :

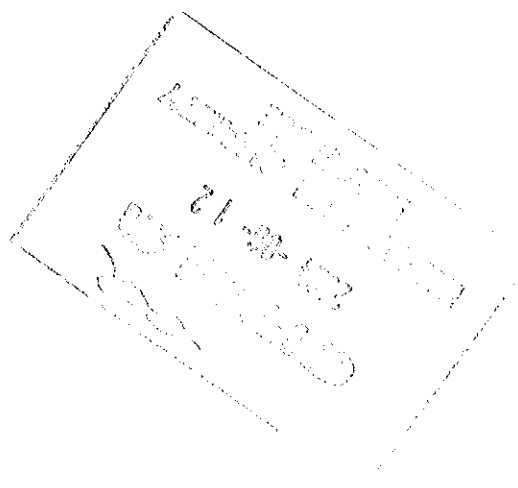
[Signature]

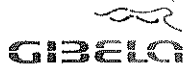
[Signature]

Operator (Name & sign) :

Operator (Name & sign) :

Operator (Name & sign) :





DT00000223319 Carshell Assembly TC

Rev.
30

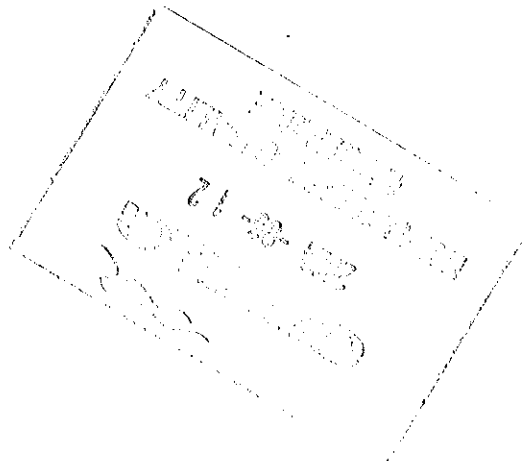
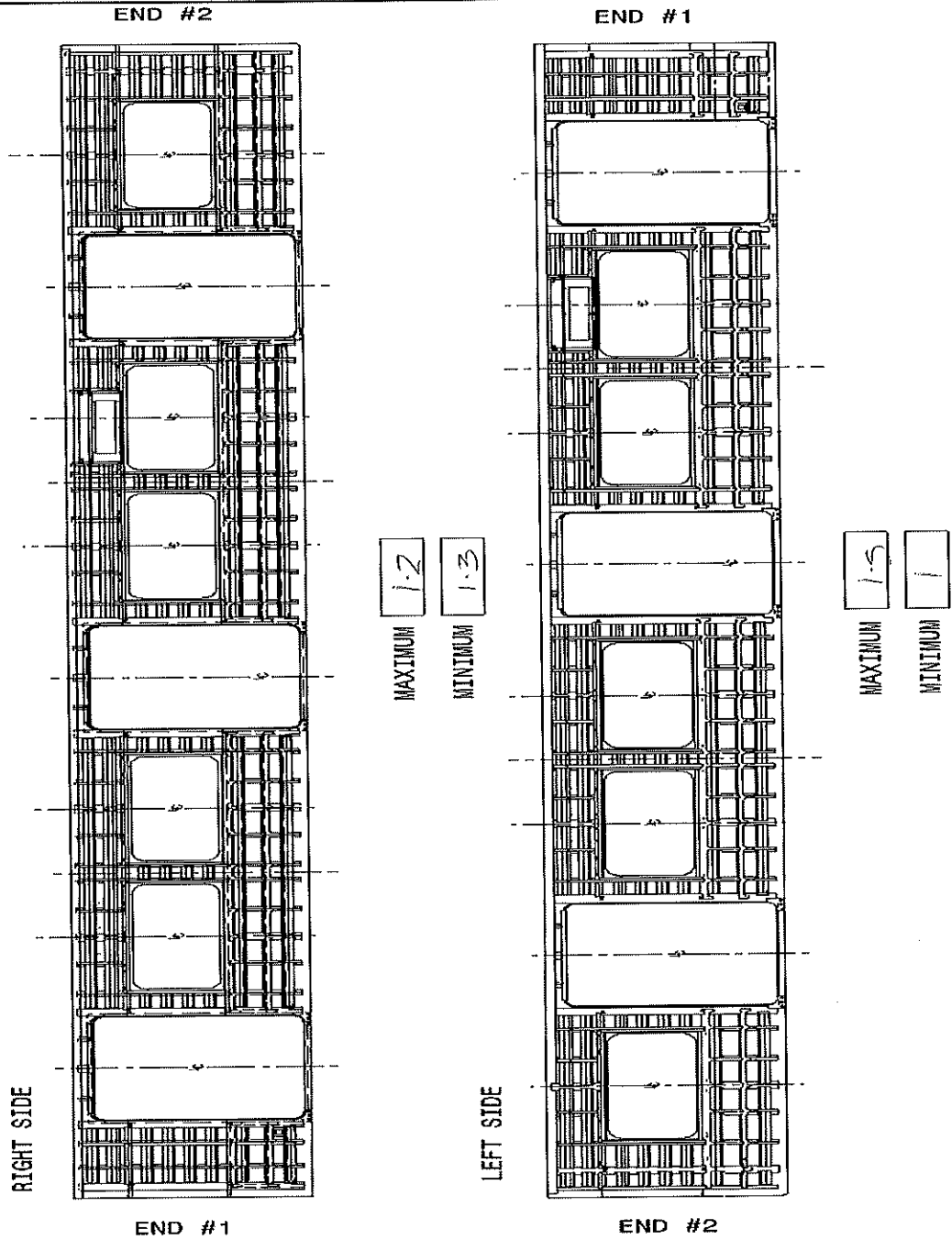
Date-

06/11/2023

Project: PRASA

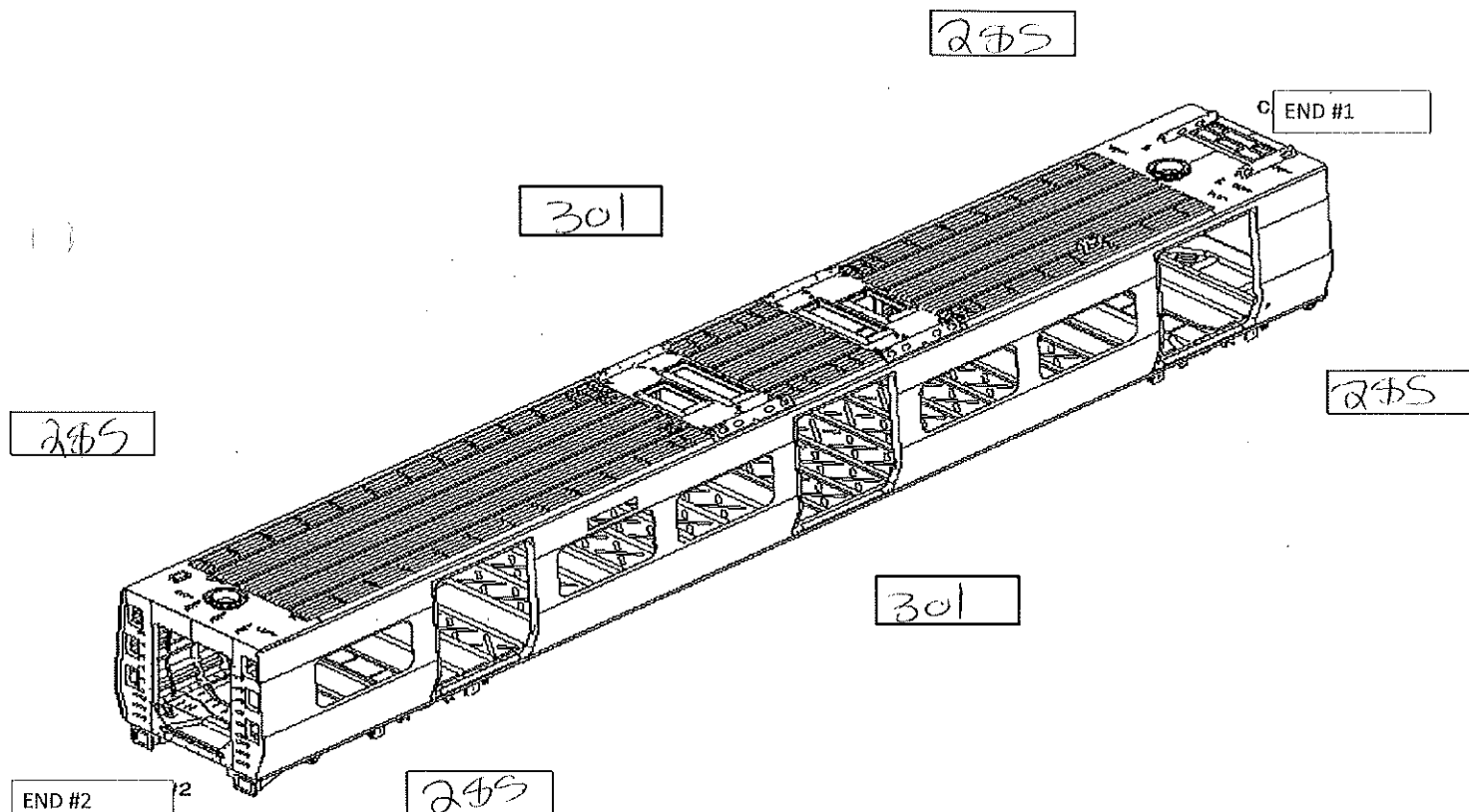
SI.CB1230.324.V29

Flatness side left and right maximum of 2mm in the valley to peak measured in 900mm. Recod the maximum and minimum value found and indicate the corresponding region.



Specifications of Details for CBS measurement CB1230

Specified Camber for car out of jig is 16mm (-0mm + 2mm)



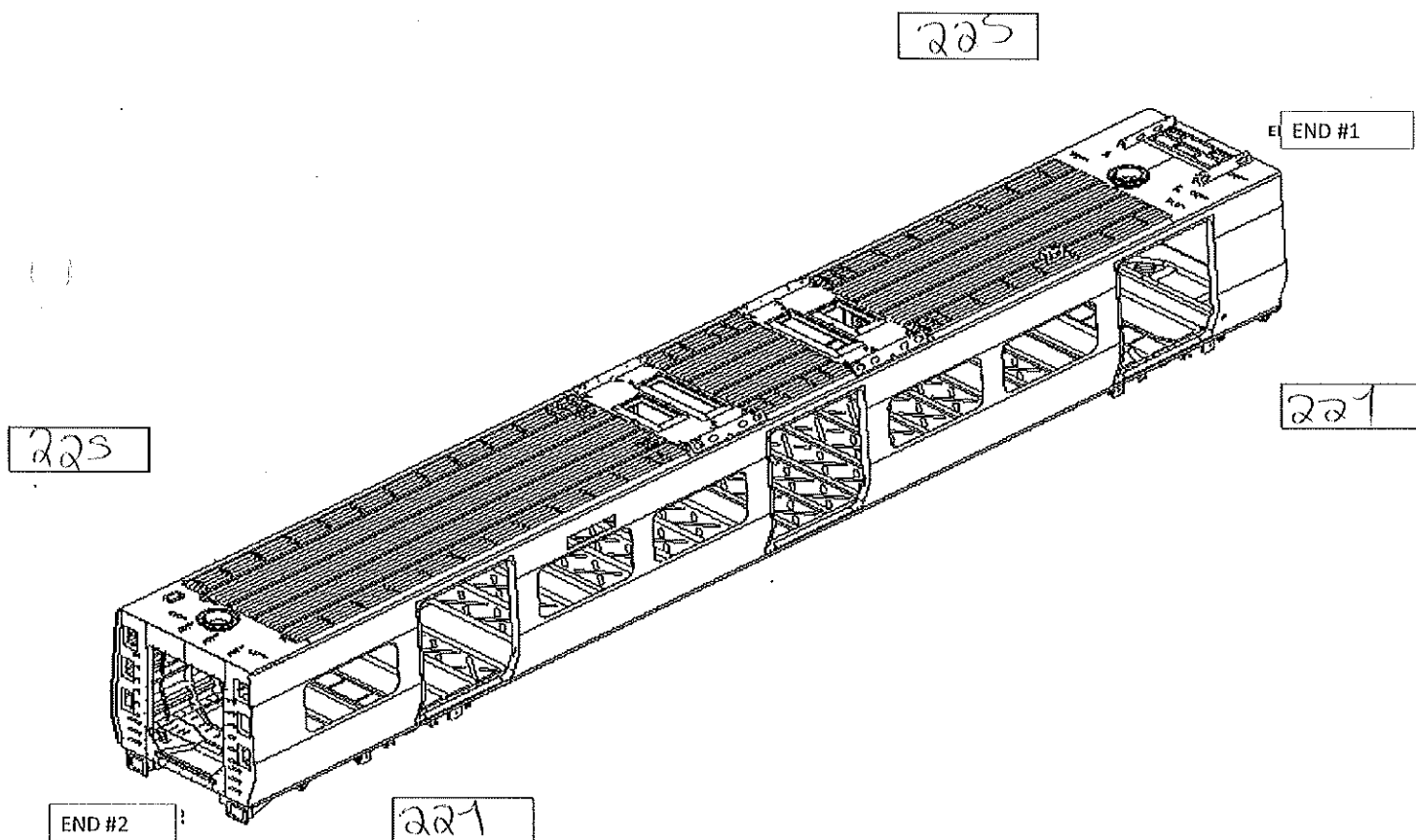
MEASURED CAMBER VALUES

RIGHT	→	<u>305</u>	16
LEFT	←	<u>305</u>	16

APPROVED
21-08-2023
2023

Specifications of Details for CBS measurement CB1230

Twist measured in transversal and longitudinal = Maximum 3mm. Measure twist on air spring plates (LHS and RHS), both End 1 and End 2 following twist measurement document.



MEASURED TWIST VALUES END 1

LATERAL

2

LONGITUDINAL

1

0

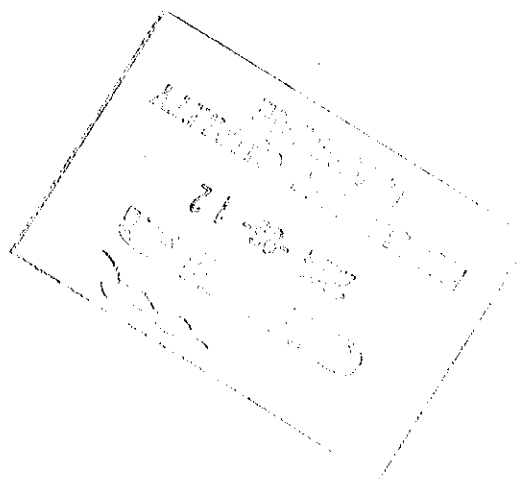
MEASURED TWIST VALUES END 2

LATERAL

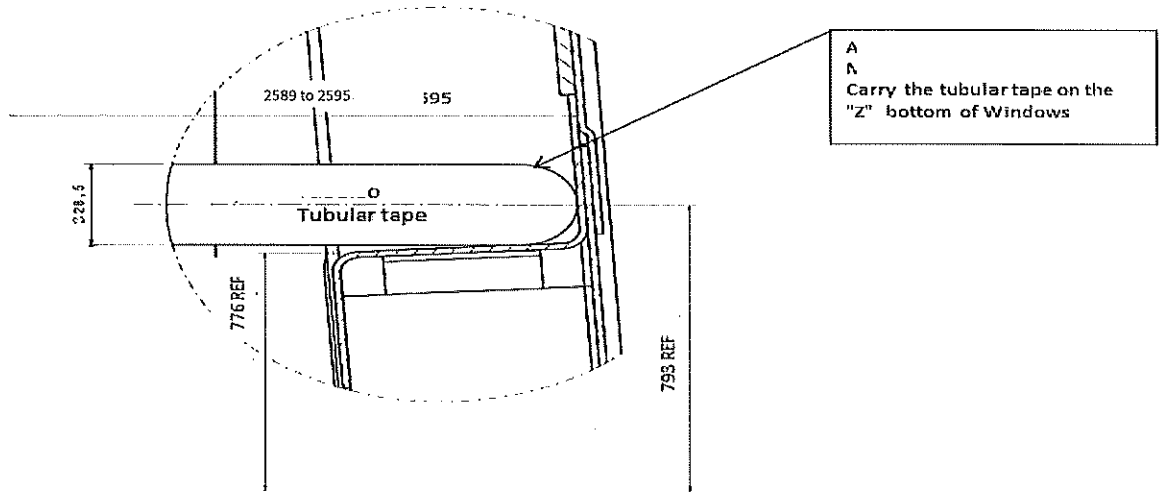
2

LONGITUDINAL

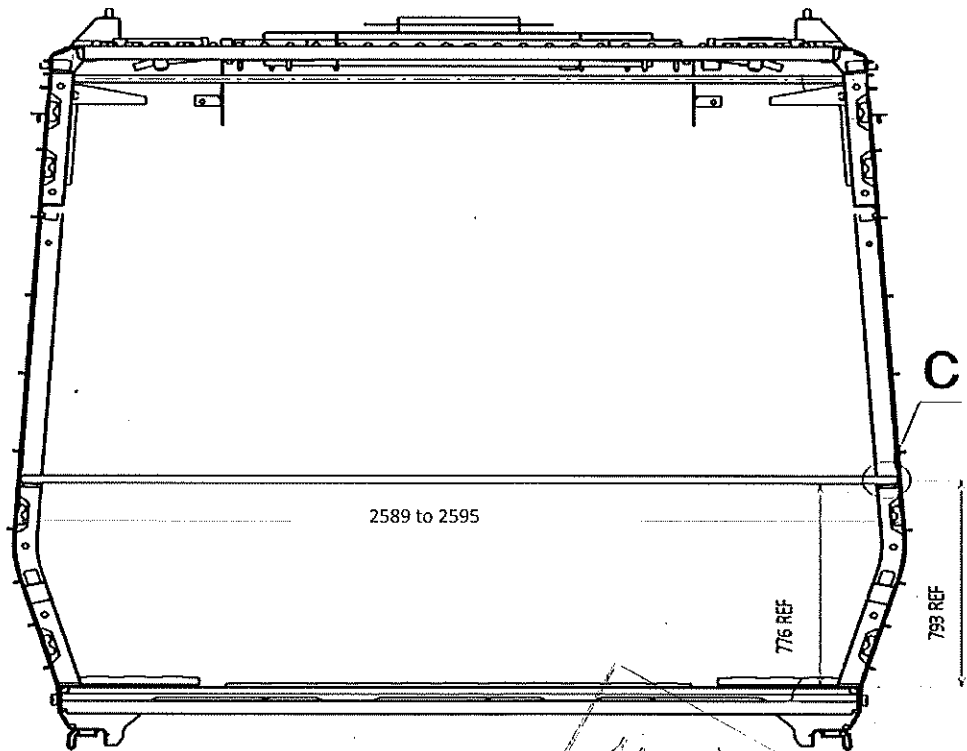
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Details for measuring on the CB1230 stage, after completion of activities

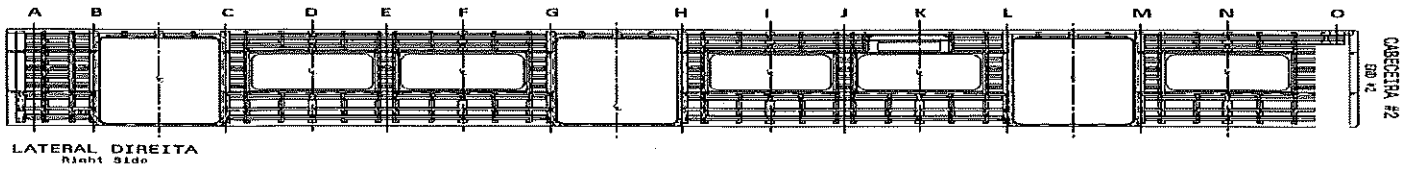


Detail C



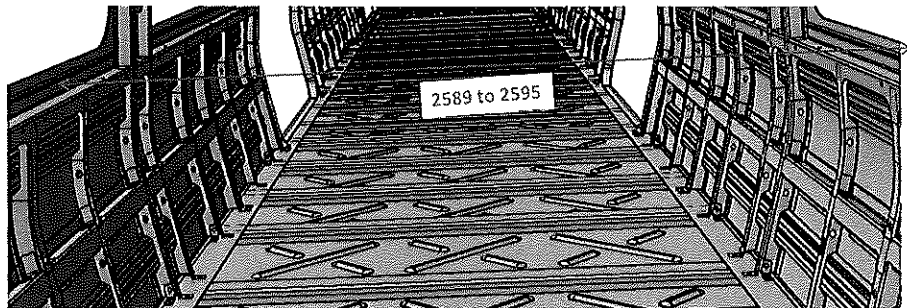
RECEIVED
21-08-2023
RECEIVED
21-08-2023

Specifications of Details for CBS measurement



2589 to 2595mm

A	2591
B	2593
C	2590
D	2592
E	2593
F	2590
G	2592
H	2593
I	2591
J	2592
K	2593
L	2591
M	2592
N	2593
O	2594



Threshold verification

Nominal value :38

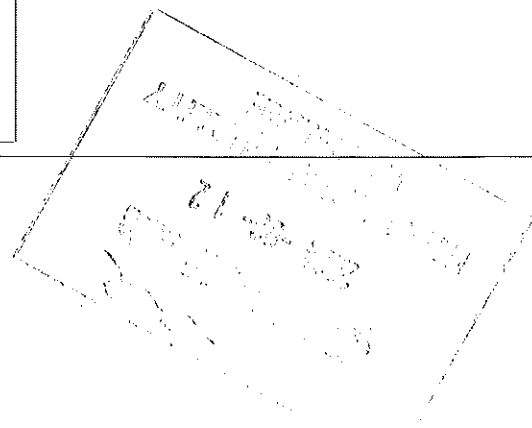
Door 1		Door 2		Door 3	
L	R	L	R	L	R
38	39	39	39	38	37
Door 4		Door 5		Door 6	
L	R	L	R	L	R
38	39	38	38	39	38

BOILER MAKER:

Nonblanbta @n.

WELDER:

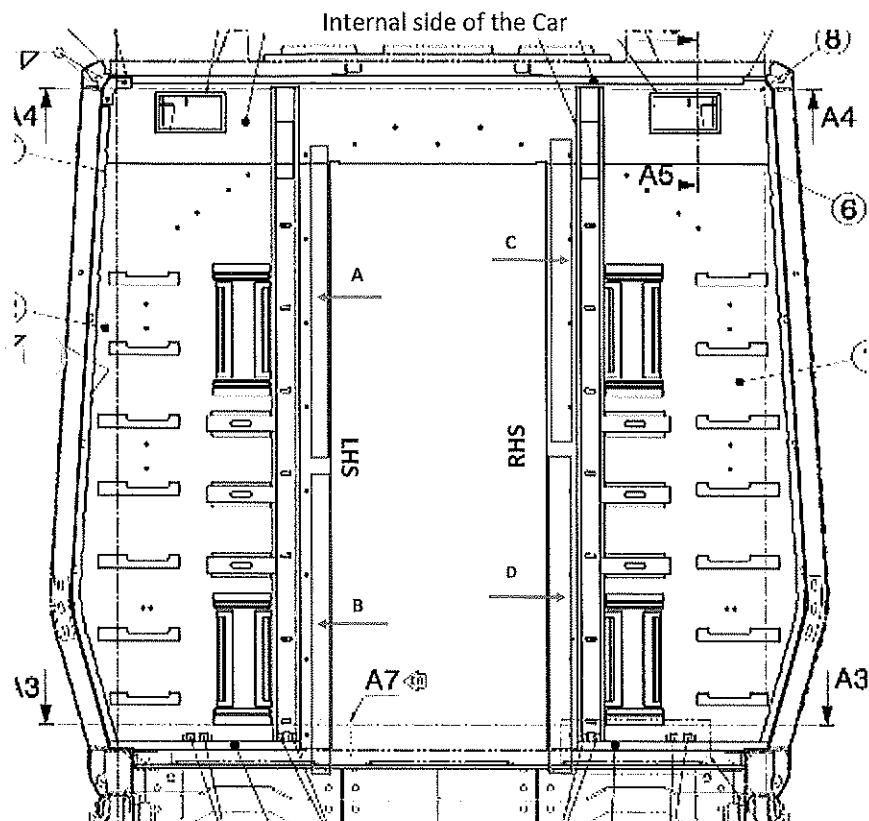
Nonblanbta @n.



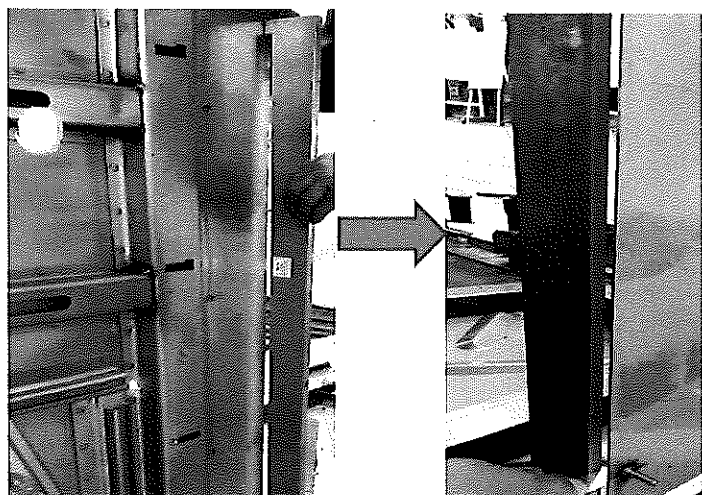
Specifications of Details for CBS measurement

Measure the flatness on the Cab Fire Barrier after installation and welding. Measure positions A, B, C and D using 1000mm flatness ruler and taper gauge.

Specified Maximum Flatness deviation on Cab Fire Barrier = 2mm



Measured Values			
	Minimum	Maximum	Deviation
A	3	10	2
B	9	10	1
C	11	12	1
D	16	17.2	1.2





DT00000223319 Carshell Assembly TC

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Date-

06/11/2023

Project: PRASA

SI.CB1230.324.V29

Dye penetrant test

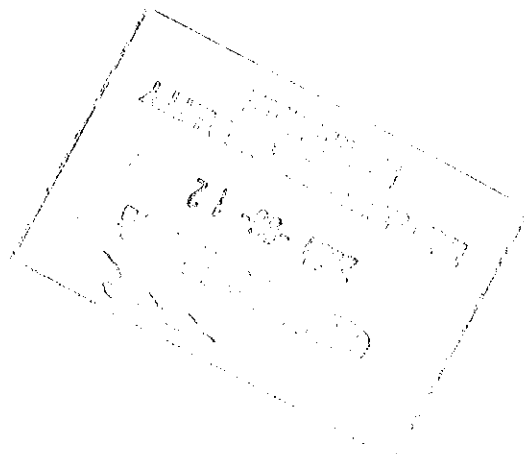
Dye-penetration test to be performed by quality personnel



Item	Description of the Issue	OK	Signature/Date (Operations)	Signature/Date (Quality)

II.2 - Check List REX**Check List Items**

Item	Picture/Drawing	Description	Criteria /Record	OK	NOK	Review	Signature/Date (Operations)	Signature/Date (Quality)
01	N/A	To complete REX	Refer to REX. New defects must be added on the REX					





DT00000223319 Carshell Assembly TC

Rev.
30

Date-

06/11/2023

Project: PRASA

SI.CB1230.324.V29

Self Inspection - Final Result

Is the car good to advance to the next workstation/process? (Approval of Operations and Industrial Quality)				DATE	NAME	SIGNATURE
HOLD POINT	GO	If activities are not complete, the missing activities must not impact the next stage!		14/06/24	Zanele	
		Every auto inspection performed conforms to specification or in case of discrepancy the same is approved by the competent party.)		14/06/24	Andriani	
	NO GO	There are activities pendings that impact/stop the activities of the next process Obs: (To describe problems below)				
		There are non-conformities impact the quality of the product and there is no corrective action defined yet)				

In case of "NO GO", describe blocking problems

In case of "NO GO", the operations manager must define below action plan to ensure "GO":

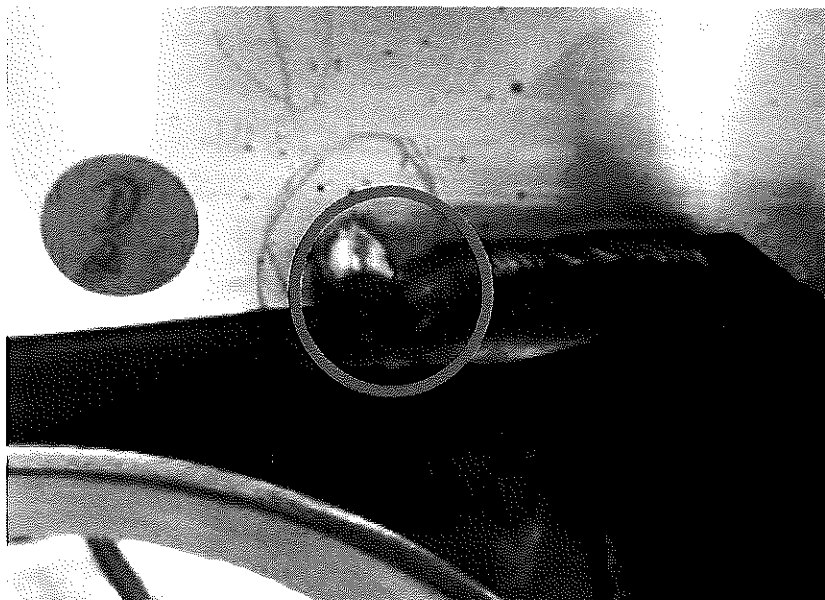
Item	Description	Action	Responsible	Due date	Status

Operations

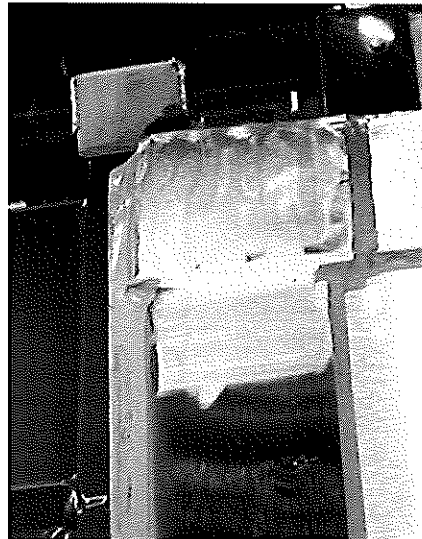
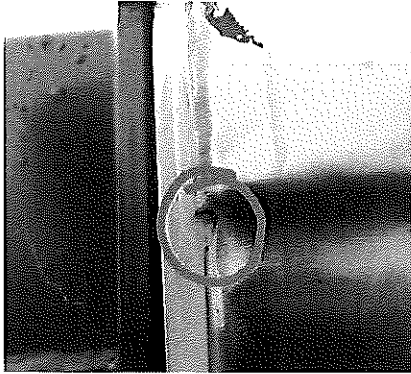
Quality



ANNEXURE A: Arc Welding Quality Acceptance Standard



ANNEXURE B: SEALANT



TB 233 M4