

GIBELA

PRASA PROJECT

APPLICABLE FROM TRAINSET 190+ AS PER BASELINE 10.4

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	M0	M1	M2	M3	TC2		
<input type="checkbox"/>	DTR30225487/3	AAD0001278566	CARBODY SHELL M3, M4 ASSEMBLY	CB2210		X			X	PRA.CB2210.DTR30225487/3.V30	YES

REV	DATE	MODIFICATION CONTENT	RESPONSIBLE	NAME	DATE
0	10/01/2018	GIBELA NEW CREATION	APPROVER	Itumeleng Modiba	10/01/2018
			CHECKER	Nosizo Pindela	10/01/2018
			COMPILER	Thanyani Mathegu	10/01/2018
1	2018/05/18	Team leader and Quality Technician to sign Change final signature from PME Manager to Quality manager	APPROVER	Itumeleng Modiba	2018/05/18
			CHECKER	Nosizo Pindela	2018/05/18
			REVISED BY	Ramokone Motama	2018/05/18
2	2018/07/04	Certain dimensional checks moved to CB1220 and CB1230	APPROVER	Itumeleng Modiba	2018/07/04
			CHECKER	Nosizo Pindela	2018/07/04
			REVISED BY	Ramokone Motama	2018/07/04
3	2018/12/12	Added dimensional check points to CB2210	APPROVER	Itumeleng Modiba	2018/12/12
			CHECKER	Nosizo Pindela	2018/12/12
			REVISED BY	Ramokone Motama	2018/12/12
5	22/01/2019	As per Baseline 10.2	APPROVER	Itumeleng Modiba	22/01/2019
			CHECKER	Nosizo Pindela	22/01/2019
			REVISED BY	Vanessa Ntuli	22/01/2019
6	13/03/2019	Added D1 and D2 on Self - Inspection	APPROVER	Itumeleng Modiba	13/03/2019
			CHECKER	Nosizo Pindela	13/03/2019
			REVISED BY	Nosizo Pindela	13/03/2019
10	21/08/2019	New Baseline 10.2.5	APPROVER	Itumeleng Modiba	21/08/2019
			CHECKER	Nosizo Pindela	21/08/2019
			REVISED BY	Nosizo Pindela	21/08/2019
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 change 10.3	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	Mbhombi collins	17/08/2021
			CHECKER	Mpho Mulaudzi	17/08/2021
			REVISED BY	Mpho Mulaudzi	17/08/2021
25	19/02/2022	New Baseline change 10.3.1	APPROVER	Mbhombi collins	19/02/2022
			CHECKER	Andani Muthelo	19/02/2022
			REVISED BY	Andani Muthelo	19/02/2022
26	14/04/2023	Addition of welding consumable traceability	APPROVER	Ntuli Vanessa	14/04/2023
			CHECKER	Mohlampe Amogelang	14/04/2023
			REVISED BY	Mohlampe Amogelang	14/04/2023
30	20/07/2023	New Baseline change 10.4	APPROVER	Ngobeni Tyson	28/07/2023
			CHECKER	Mohlampe Amogelang	28/07/2023
			REVISED BY	Mohlampe Amogelang	28/07/2023
31	07/11/2023	Added traceability for welding sections	APPROVER	Ngobeni Tyson	07/11/2023
			CHECKER	Mohlampe Amogelang	07/11/2023
			REVISED BY	Nlokozo Zwane	07/11/2023

TRAINSET	CAR	OPERATOR NAME& ALPS NO	DATE	SELF INSPECTION NUMBER	PAGES
225	M4	GCPALD/426957	25/4/2024	SI.CB2210.254.V30	17

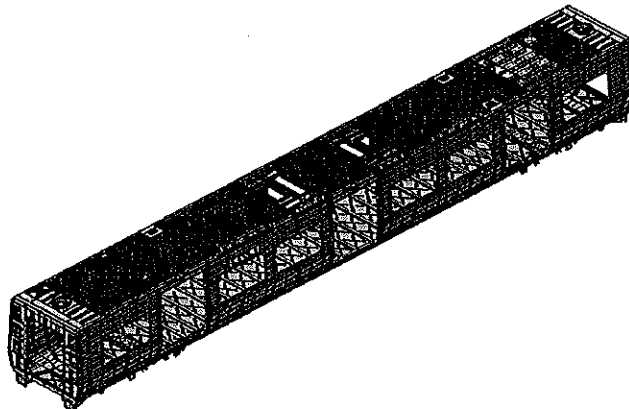
2024-04-24
GIBELA
TRIAL QUALITY
WARNING

	CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3	Rev. 31	Project: PRASA SI.CB2210.254.V30
		Date 07/11/2023	

Car: M3 & M4	NCR:	Work station: CB2210
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Safety Related



I - Documentation and Instruments Control

I.1 - Documentation Control

Document	Type of car						Revision	Observation	OK		Signature/Date (Manufacturing)	Signature/Date (Quality)
	D	M	C	S	M	P						
DTR30225487/3									✓		28/04/24	28/04/24

I.2 - Instruments Control

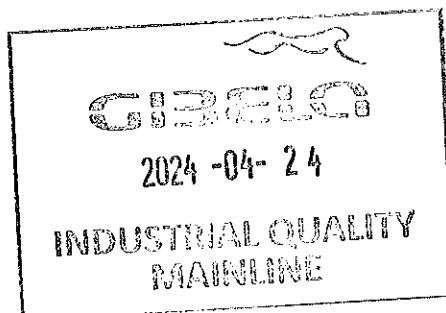
Monitoring and Measuring Instrument Control - Used for Special Process











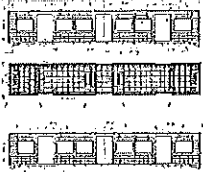




Instruments	Serial number	Calibration or Verification Validation Date	OK		Signature/Date (Manufacturing)	Signature/Date (Quality)
Tubular	32823-2	15/03/25	✓		28/04/24	28/04/24
LAEP	125425926	08/01/25	✓		28/04/24	28/04/24
30m tape	GIBTP0102	18/11/24	✓		28/04/24	28/04/24

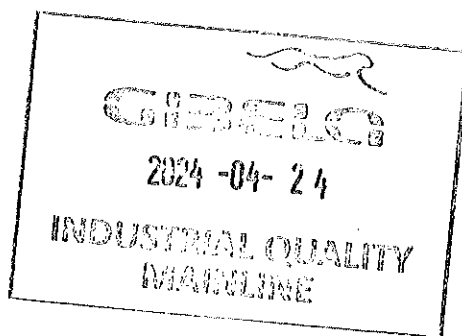
I.3 Consumables


Welding Consumable Control - Used for Special Process

Filler Material	Heat Number	Welding Process	OK		Signature/Date (Manufacturing)	Signature/Date (Quality)
MIG ER 308 LS	314018-74097	MIG	✓		28/04/24	28/04/24
MIG ER 308 LS	314018-74097	MIG	✓		28/04/24	28/04/24
TIG ER 308	299687-70322	TIG	✓		28/04/24	28/04/24



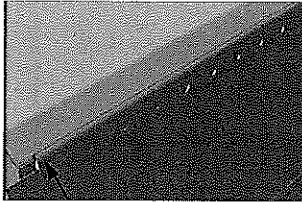
		CARBODYSHELL M3,M4 ASSEMBLY DTR30226487/3	Rev. 31 Date 07/11/2023	Project: PRASA SI.CB2210.254.V30				
II - Self Inspection - Items to Check								
II.1 - Items to check								
Item	Picture/Drawing	Description	Acceptance criteria / Record	OK			Signature/Date (Manufacturing)	Signature/Date (Quality)
01	N/A	Carshell free of significant flaws which compromise the appearance or functionality	DTD0000210675	✓			 28/4/24	 24/4/24
02	REFER TO ANNEXURE A	Spot welding inspected and approved according to procedure	IND-SAL-WMS-016 e DTD0000210675	✓			 28/4/24	 24/4/24
03	REFER TO ANNEXURE B	Arc welding inspected and approved according to procedure	IND-SAL-WMS-016 REFER TO GIB - TYPDEF - ARC - 0000	✓			 28/4/24	 25/4/24
04		Cleaning of all Stainless Steel Surface	According TO GIB-WEL - PROC-0002	✓			 25/4/24	 25/4/24
05		Functionals dimensions approved according drawing or complementary document approved by Alstom engineering and registered in this document	Approved according specified on pages below.	✓			 28/4/24	 25/4/24
06	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.	✓			 28/4/24	 25/4/24



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Welding Traceability

Roof ring welds



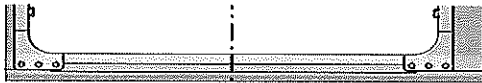
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<div style="text-align: center; margin-bottom: 5px;">RHS</div> Boiler maker (Name & Sign): <u>Maatji [Signature]</u>	<div style="text-align: center; margin-bottom: 5px;">Welder</div> Welder (Name & Sign): <u>Keita K. Maw</u>

END 1

<div style="text-align: center; margin-bottom: 5px;">LHS</div> Boiler maker (Name & Sign): <u>Justice [Signature]</u>	<div style="text-align: center; margin-bottom: 5px;">Welder</div> Welder (Name & Sign): <u>Thabang [Signature]</u>
<div style="text-align: center; margin-bottom: 5px;">RHS</div> Boiler maker (Name & Sign): <u>Maatji [Signature]</u>	<div style="text-align: center; margin-bottom: 5px;">Welder</div> Welder (Name & Sign): <u>Keita K. Maw</u>

END 2

Door ring welds



LHS

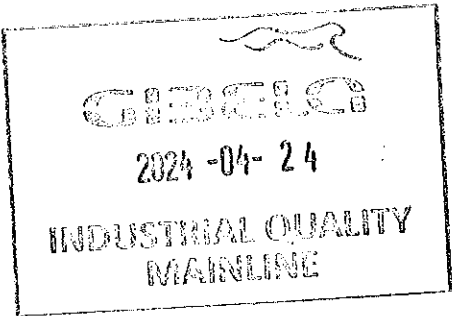
Boiler maker (Name & Sign): Justice [Signature]

Welder (Name & Sign): Keita K. Maw

RHS

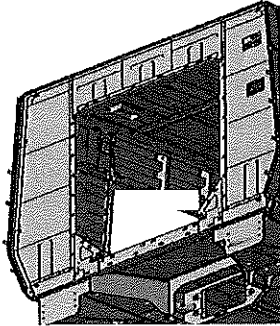
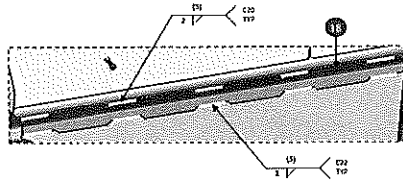
Boiler maker (Name & Sign): Maatji [Signature]

Welder (Name & Sign): Thabang [Signature]

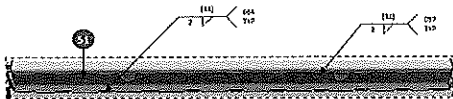
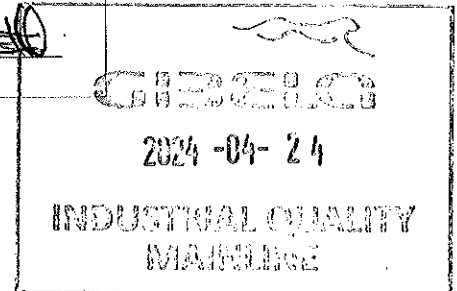


	CARBODYSHELL M3,M4 ASSEMBLY DTR30226487/3	Rev. 31	Project: PRASA SI.CB2210.254.V30
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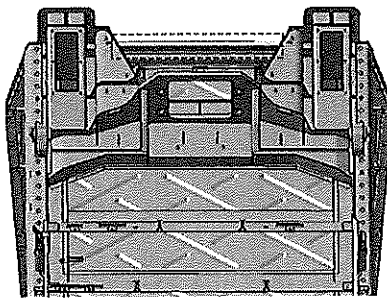
EUF Reinforcement Plates



END 1
Boiler maker (Name & Sign): SEN B
Welder (Name & Sign): Thabang

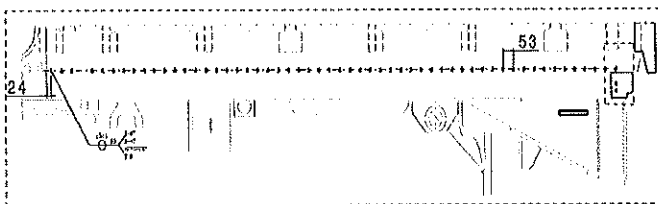


END 2




Underneath the CAR

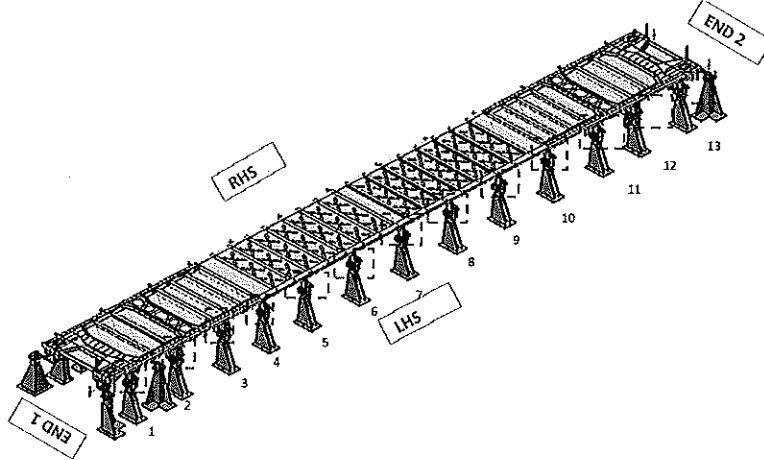
END 2
Boiler maker (Name & Sign): Emment
Welder (Name & Sign): Heitu K. Mendi



FEDOLI
Operator: LAURENCE Chifera

	CARBODYSHELL M3,M4 ASSEMBLY DTR30226487/3	Rev. 31	Project: PRA5A SI.CB2210.254.V30
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Specifications of Details for CBS measurement



Measure gap between jig pillar / chair and underframe = 0mm. No gap.

After loading and clamping

Fill in the gap foundon each jig pillars / chair and underframe should be 0mm.

	1	2	3	4	5	6	7	8	9	10	11	12	13
Left Hand Side				N/A									
Right Hand Side													

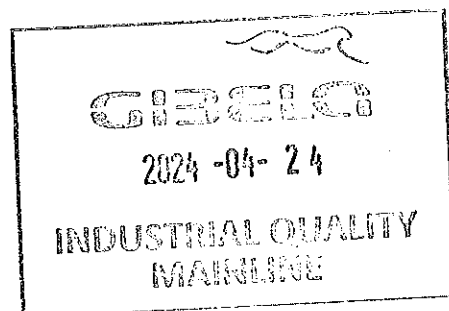
Signature Operations: *[Signature]* Date: 25/4/2024

After Welding.

Fill in the gap found each jig pillars / chair and underframe should be 0mm.

	1	2	3	4	5	6	7	8	9	10	11	12	13
Left Hand Side				N/A									
Right Hand Side													

Signature Industrial Quality: *[Signature]* Date: 25/4/2024



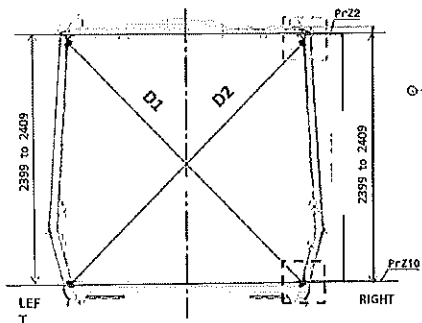
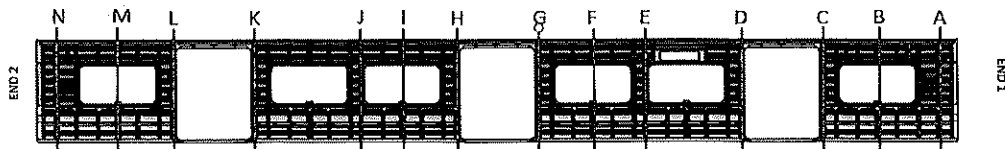


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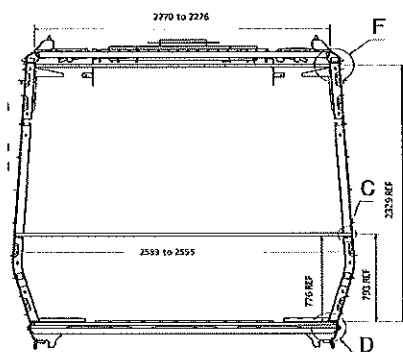
Specifications of Details for CBS measurement



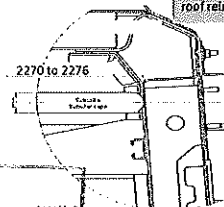
Measurement positions on roof rail and sidewall omega corner.



Measurement positions on sidewall and side sill corner.




Reinforcement area measurement positions on roof reinforcement area.



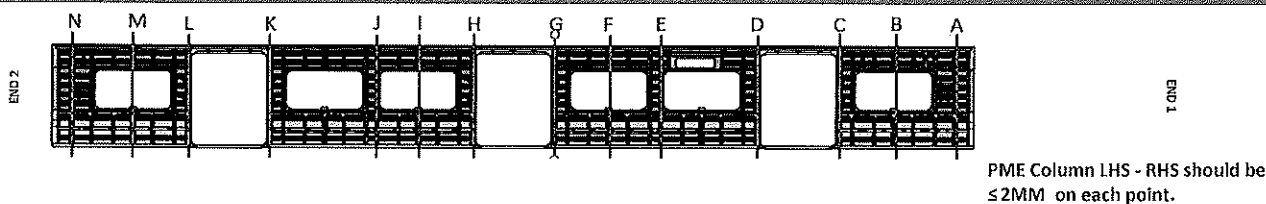
GIBELQ

2024-04-24

INDUSTRIAL QUALITY
MAINLINE

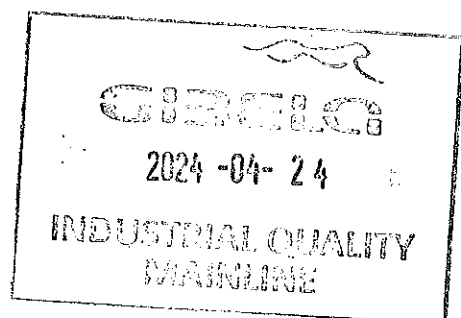
	CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3	Rev. 31	Project: PRASA SI.CB2210.254.V30
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		07/11/2023	

Specifications of Details for CBS measurement



BEFORE WELDING

	Record D1 values	Record D2 values	D1-D2 ≤ 5mm	2399 to 2409	2399 to 2409 (RHS)	LHS-RHS ≤ 2
A	3265	3265	0	2406	2406	0
B	3266	3267	1	2406	2405	1
C	3268	3267	1	2405	2405	0
D	3266	3266	0	2404	2404	0
E	3266	3265	1	2406	2405	1
F	3267	3266	1	2406	2406	0
G	3266	3266	0	2406	2405	1
H	3267	3267	0	2406	2406	0
I	3266	3265	1	2407	2407	0
J	3266	3266	0	2406	2406	0
K	3267	3266	1	2405	2405	0
L	3265	3265	0	2406	2406	0
M	3266	3266	0	2406	2405	1
N	3267	3267	0	2406	2406	0





CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3

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31

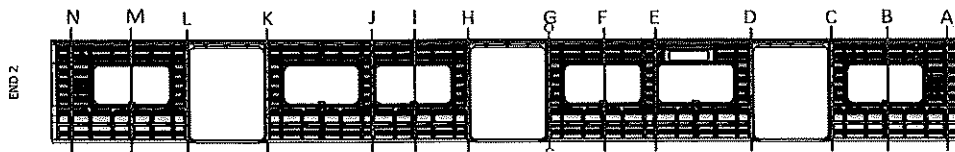
Date

07/11/2023

Project: PRA5A

SI.CB2210.254.V30

Specifications of Details for CBS measurement

PME Column LHS - RHS should be $\leq 2\text{MM}$ on each point.


AFTER WELDING

	Record D1 values	Record D2 values	D1-D2 $\leq 5\text{mm}$	2399 to 2409	2399 to 2409 (RHS)	LHS-RHS ≤ 2
A	3296	3296	0	2405	2405	0
B	3265	3266	01	2406	2406	0
C	3297	3297	0	2405	2405	0
D	3297	3296	1	2406	2407	1
E	3266	3266	0	2405	2405	0
F	3265	3265	0	2405	2405	0
G	3297	3297	0	2406	2405	1
H	3296	3296	0	2406	2406	0
I	3265	3265	0	2407	2407	0
J	3266	3266	0	2405	2405	0
K	3298	3298	0	2406	2406	0
L	3297	3297	0	2406	2405	1
M	3266	3266	0	2405	2405	0
N	3297	3297	0	2406	2407	1

GIBELCO

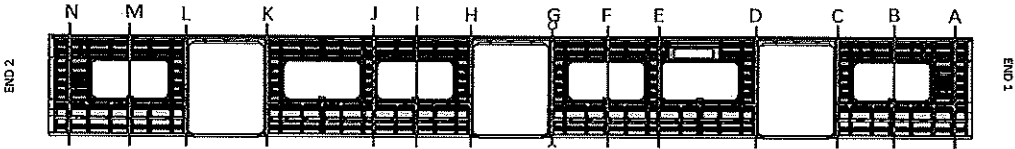
2024-04-24

INDUSTRIAL QUALITY
MACHINE

	CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3	Rev. 31	Project: PRASA SI.CB2210.254.V30
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CBS measurement

BEFORE WELDING



2270 to 2276

A 2274

B 2272

C 2276

D 2273

E 2275

F 2272

G 2273

H 2275

I 2276

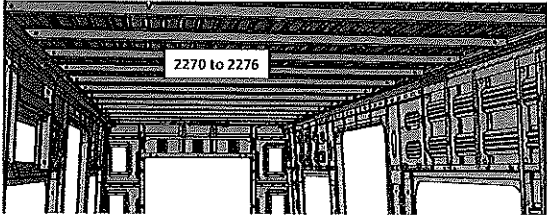
J 2274

K 2273

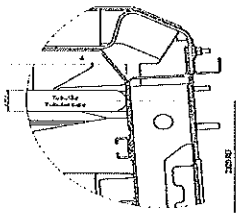
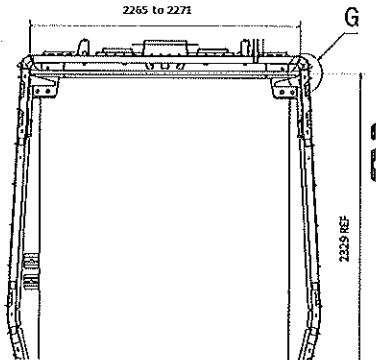
L 2276

M 2274

N 2275

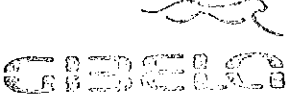


Do not consider reinforcement (Take measurements top area of zee profile



2265 to 2271

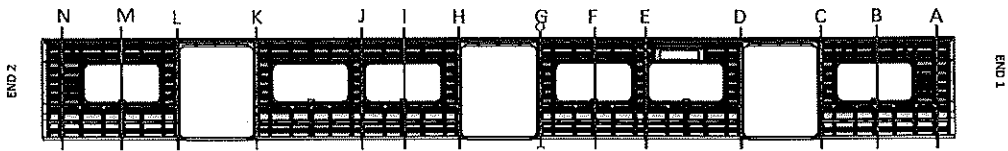
Detail G
Consider in the
relative to the plane



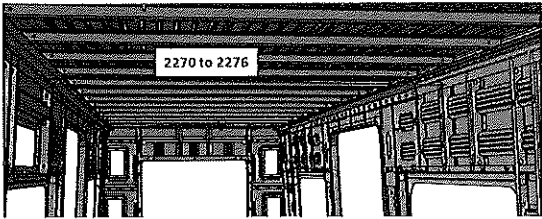
2024-04-24

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MAINLINE

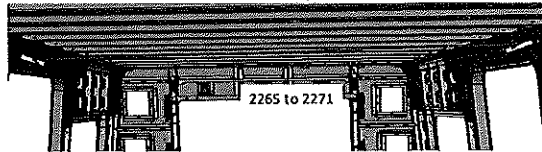
AFTER WELDING



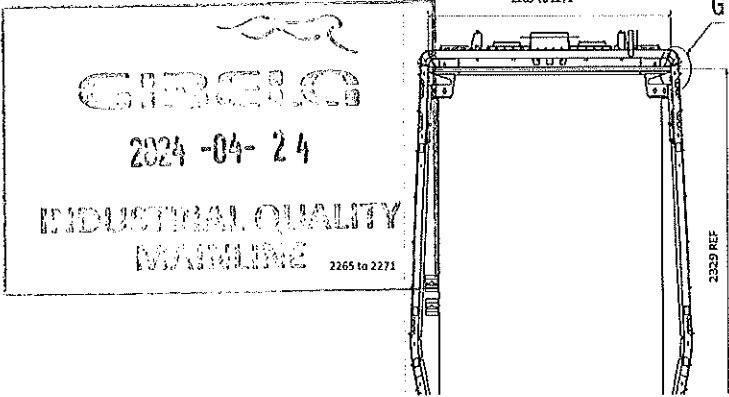
	2265 to 2271	2270 to 2276
A	2269	
B		2274
C	2270	
D	2271	
E		2275
F		2276
G	2270	
H	2271	
I		2275
J		2274
K	2270	
L	2270	
M		2275
N	2270	



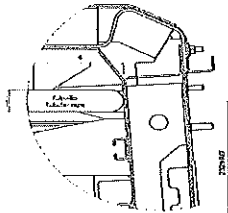
Do not consider reinforcement (Take measurements top area of zee profile



Take measurement close to radius (considering reinforcement)



2265 to 2271



Detail B

Consider the reinforcement state

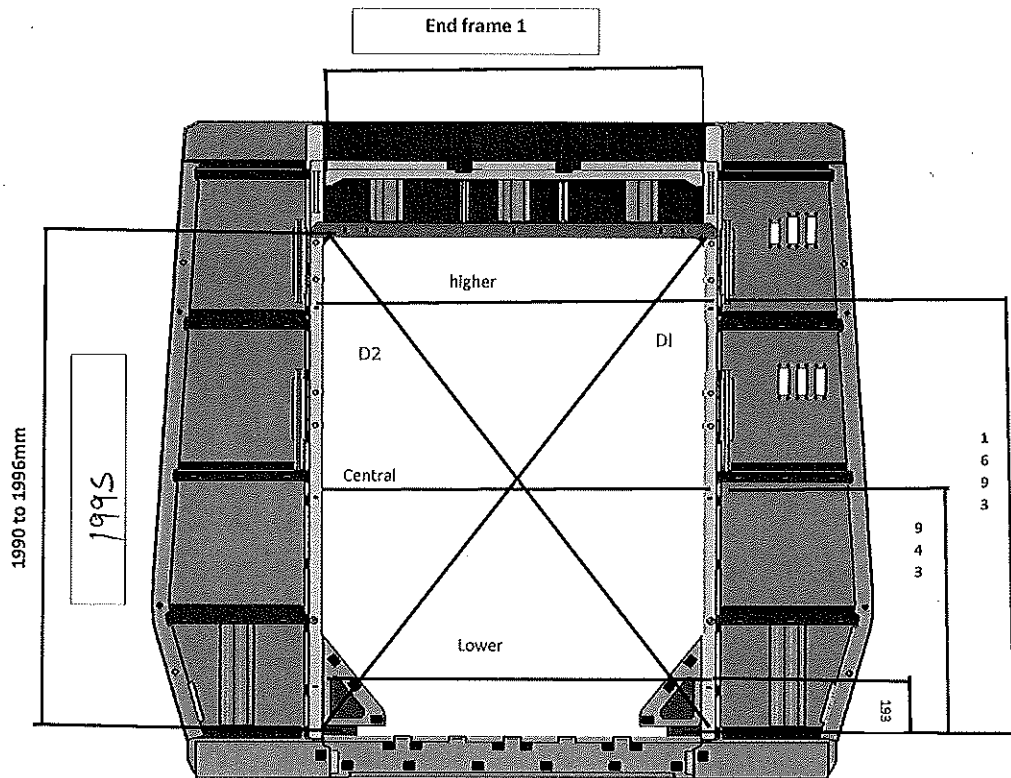


CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3

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Project: PRASA
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Specifications of Details for CBS measurement



1380 to 1382 mm

DIAGONAL DIFFERENCE $D1-D2 \leq 3mm$

Higher Dimension

1382

D1

2414

Central Dimension

1386

D2

2413

Lower Dimension

1382

D1-D2

1

GIBEL

2024-04-24

INDUSTRIAL QUALITY
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CARBODYSHELL M3,M4 ASSEMBLY DTR30226487/3

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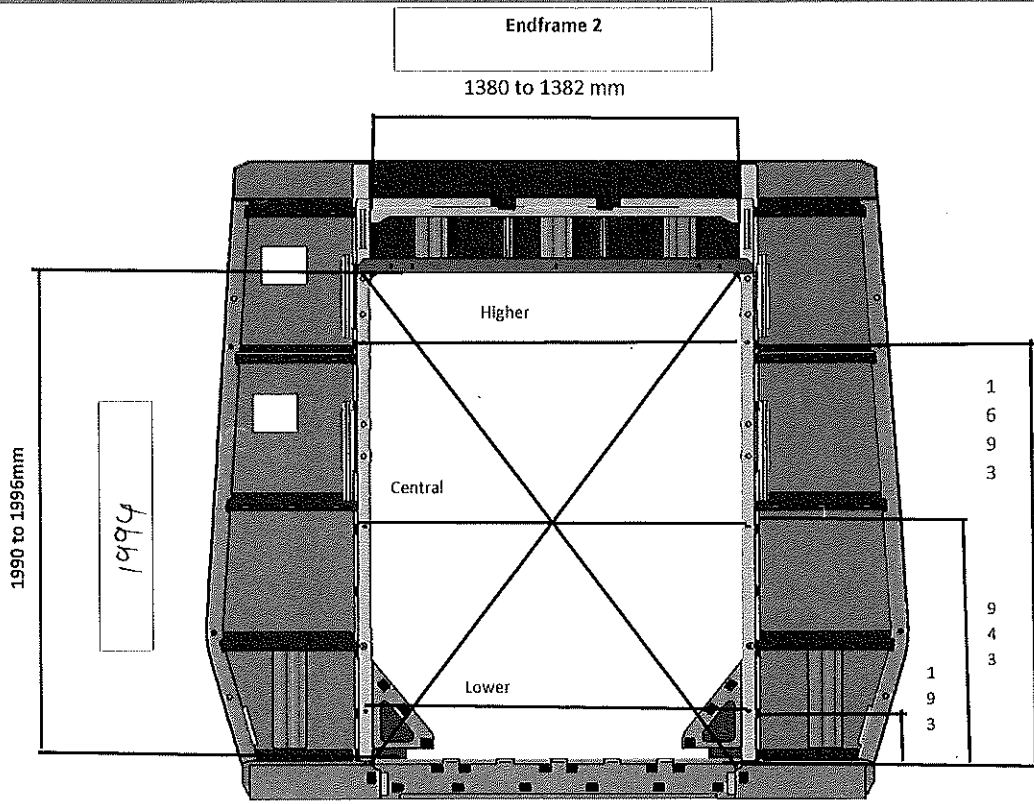
Project: PRASA

SI.CB2210.254.V30

Date

07/11/2023

Specifications of Details for CBS measurement



1380 to 1382 mm

DIAGONAL DIFFERENCE $D1-D2 \leq 3mm$

Higher Dimension

1380

D1

2414

Central Dimension

1380

D2

2414

Lower Dimension

1380

D1-D2

0

GIBELQ

2024-04-24

INDUSTRIAL QUALITY
MAINLINE

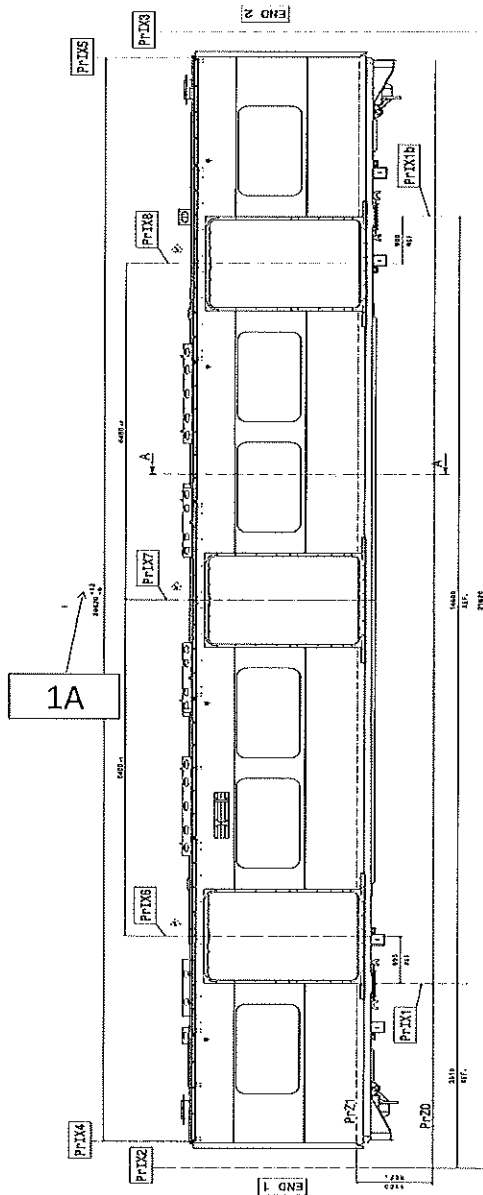


CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3

Rev.
31
Date
07/11/2023

Project: PRASA
SI.CB2210.254.V30

Specifications of Details for CBS measurement



LEFT SIDE		
	SPECIFICATION SIZE	ACTUAL SIZE
1A	20632 - 20614	20616

RIGHT SIDE		
	SPECIFICATION SIZE	ACTUAL SIZE
1A	20632 - 20614	20614

Dye penetrant test


Dye-penetration test to be performed by quality personnel



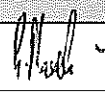

GIBELCO

2024-04-24

INDUSTRIAL QUALITY
MAINLINE

	CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3	Rev. 31	Project: PRASA SI.CB2210.254.V30
		Date 07/11/2023	

Self Inspection - Final Result

				DATE	NAME	SIGNATURE
HOLD POINT		GO	(If activities are not complete, the missing activities must not impact the next stage)	25/4/24	GERALD Operations	
			Every auto inspection performed conforms to specification or in case of discrepancy the same is approved by the competent party.)	25/4/24	Andrini 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	

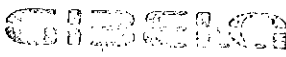
In case of "NO GO", describe blocking problems

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

Item	Description		Responsible	Due date	Status

Operations

Quality



2024-04-24

INDUSTRIAL QUALITY
MAINLINE

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 1	
				TC	MA	MA	MA	MA	TC			
<input type="checkbox"/>	DTR3000152648	AAD0001278566	CARBODYSHELL M1,M3,M4 ASSEMBLY	CB2220			X				PRA.CB2220.DTR3022548 7/2.V21	YES
<input type="checkbox"/>	DTR3000152649	AAD0001278566	CARBODYSHELL M1,M3,M4 ASSEMBLY	CB2220		X	X		X		PRA.CB2220.DTR3022548 7/2.V21	YES
<input type="checkbox"/>												
<input type="checkbox"/>												
<input type="checkbox"/>												
<input type="checkbox"/>												
<input type="checkbox"/>												
<input type="checkbox"/>												
<input type="checkbox"/>												
REV	DATE	MODIFICATION CONTENT		RESPONSIBLE	NAME	DATE						
0	01/02/2018	GIBELA NEW CREATION		APPROVER	Itumeleng Modiba	01/02/2018						
				CHECKER	Nosizo Pindela	01/02/2018						
				COMPILER	Thanyani Mathegu	01/02/2018						
1	18/05/2018	Team leader and Quality Technician to sign Change final signature from PME Manager to Quality manager		APPROVER	Itumeleng Modiba	18/05/2018						
				CHECKER	Nosizo Pindela	18/05/2018						
				REVISED BY	Ramokone Motama	18/05/2018						
2	2018/07/05	Certain dimensional checks added and others moved to CB1210		APPROVER	Itumeleng Modiba	2018/07/05						
				CHECKER	Nosizo Pindela	2018/07/05						
				REVISED BY	Ramokone Motama	2018/07/05						
3	2018/06/12	Width tolerance as per DT0000338600		APPROVER	Itumeleng Modiba	2018/06/12						
				CHECKER	Nosizo Pindela	2018/06/12						
				REVISED BY	Nosizo Pindela	2018/06/12						
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 D1 and D2 on Self - Inspection length measurements	Remove	APPROVER	Itumeleng Modiba	13/03/2019						
				CHECKER	Nosizo Pindela	13/03/2019						
				REVISED BY	Nosizo Pindela	13/03/2019						
10	22/08/2019	New Baseline 10.2.5		APPROVER	Itumeleng Modiba	22/08/2019						
				CHECKER	Nosizo Pindela	22/08/2019						
				REVISED BY	Nosizo 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 change 10.3		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	Mbhombi Collins	17/08/2021						
				CHECKER	Mpho Mulaudzi	17/08/2021						
				REVISED BY	Mpho Mulaudzi	17/08/2021						
25	20/02/2022	New Baseline change 10.3.1		APPROVER	Collins Mbombhi	19/02/2022						
				CHECKER	Andani Muthelo	19/02/2022						
				REVISED BY	Andani Muthelo	19/02/2022						
26	14/06/2022	Update minimum temperature requirement for sealant application		APPROVER	Collins Mbombhi	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 & welding		APPROVER	Collins Mbombhi	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						
29	28/10/2023	Addition of bracket quantity		APPROVER	Ngobeni Tyson	28/10/2023						
				CHECKER	Ntokozo Zwane	28/10/2023						
				REVISED BY	Amogelang Mohlampe	28/10/2023						
TRAINSET	CAR	OPERATOR NAME	ALPS NO	DATE	SELF INSPECTION NUMBER	PAGES						
225	M4	Mtholelo	4626954	26/04/24	SI.CB2220.250.V29	13						

	CARBODYSHELL M1,M3,M4 ASSEMBLY DTR30225487/2	Rev.	Project: PRASA SI.CB2220.250.V29	
		29		
		Date		
		28/10/2023		
Car: M1,M3&M4	NCR:	Work station: CB2220		

Safety Related

I - Documentation and Instruments Control

I.1 - Documentation Control

Document	Type of car						Revision	Observation	OK		Signature/Date (Manufacturing)	Signature/Date (Quality)
	TC1	M1	M2	M3	M4	TC2						
DTR30225487/2					*		29	26/04/24	✓		N/A	 26/04/24

I.2 - Instruments Control

Monitoring and Measuring Instrument Control - Used for Special Process						
Instruments	Serial number	Calibration or Verification Validation Date	OK		Signature/Date (Manufacturing)	Signature/Date (Quality)
Tubular	32823-2	2024/03/15	✓		 26/04/24	 26/04/24
Tape measure	GIBTA428	2025/04/17	✓			

1.3 Consumables

Welding Consumable Control - Used for Special Process						
Fiber Material	Heat Number	Welding Process	OK		Signature/Date (Manufacturing)	Signature/Date (Quality)
308	373779	308 MIG	✓		 26/04/24	 26/04/24

GIBEL		CARBODYSHELL M1,M3,M4 ASSEMBLY DTR30225487/2		Rev. 29 Date 28/10/2023		Project: PRASA SI.CB2220.250.V29	
II - Self Inspection - Items to Check							
II.1 - Items to check							
Item	Picture/Drawing	Description	Acceptance criteria / Record	✓		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.	PRA.CB2220.DTR30225487/2	✓		 26/04/24	 26/04/24
02	N/A	Carshell free of significant flaws which compromise the appearance or functionality	DTD0000210675	✓		 26/04/24	 26/04/24
03	REFER TO ANNEXURE A	Arc Welding inspected and approved according procedure.	IND-SAL-WMS-016 REFER TO GIB - TYPDEF - ARC - 0000	✓		 26/04/24	 26/04/24
04		Cleaning of all Stainless Steel Surface	According TO GIB-WEL - PROC-0002	✓		 26/04/24	 26/04/24
05		Functional dimensions approved according drawing or complementary document approved by Alstom engineering and registered in this document.	Approved according specified on pages below.	✓		 26/04/24	 26/04/24
06		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.	✓		 26/04/24	 26/04/24
07	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: <div style="display: flex; justify-content: space-between;"> <div> Temperature Min - Max (1) Min-Max Relative humidity Min - Max (1) </div> <div> 10°C - 35°C 25% - 60% </div> </div>	Sealant Batch No: <u>200434P</u> Exp Date: <u>05/24</u> Actuals Temperature: <u>21</u> Humidity: <u>60</u>	✓		 26/04/24	 26/04/24
08	NA	Verification of sealant application in certain regions in the drawing.	AAD0001278566	✓		 26/04/24	 26/04/24
09		Verification of safety welds	Approved according to DTD000210658 reference and Self inspection	✓		 26/04/24	 26/04/24



CARBODYSHELL M1,M3,M4 ASSEMBLY
DTR30225487/2

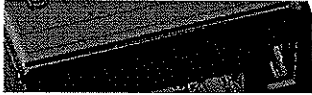
Rev.
29
Date
28/10/2023

Project: PRASA

SI.CB2220.250.V29

II - Self Inspection - Items to Check

SEALANT APPLICATION





AREA 1 & 2 END 1

Operator (Name & sign):

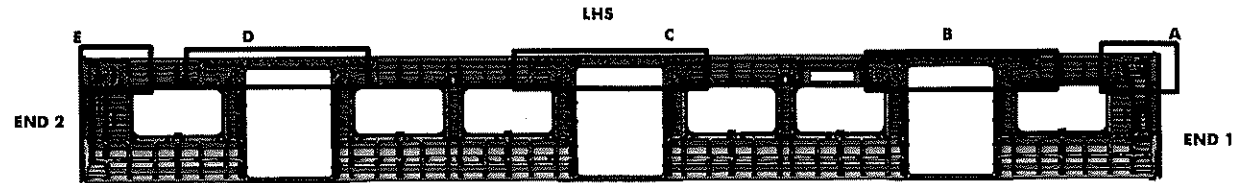
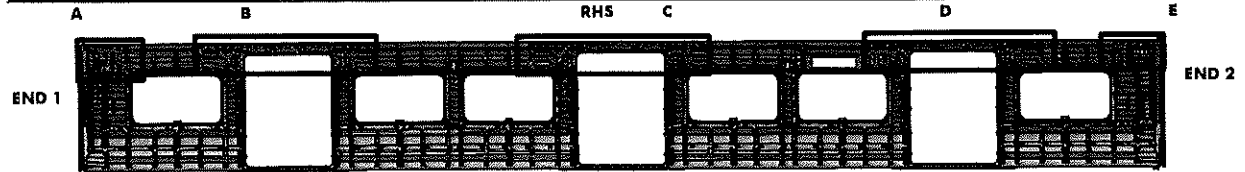
Mthchozis: 

Operator (Name & sign):

Mthchozis: 


	CARBODYSHELL M1,M3,M4 ASSEMBLY DTR30226487/2	Rev.	Project: PRASA SI.CB2220.250.V29
		29	
		Date	
		28/10/2023	

II - Self Inspection - Items to Check

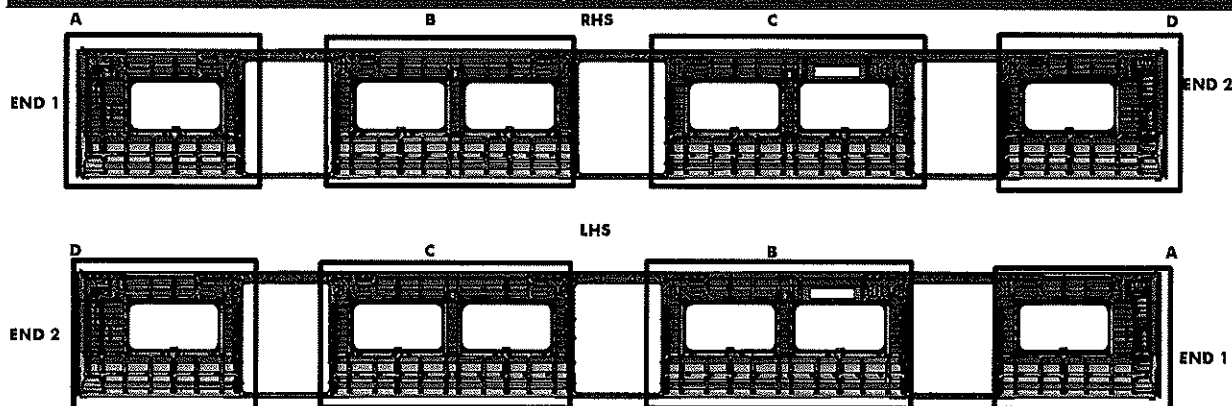


REINFORCEMENT WELDING

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

	CARBODYSHELL M1,M3,M4 ASSEMBLY DTR30225487/2	Rev.	Project: PRASA
		29	
		Date	SI.CB2220.250.V29
		28/10/2023	

II - Self Inspection - Items to Check



BRACKETING

INSTALLATION

C-RAILS: Operator: M. Heliozi

Operator: _____

DOOR MECHANISMS: Operator: Pri

Operator: _____

TAPPING PADS Operator: S. M. A. S. END 1

Operator: S. M. A. S. END 2

INSTALLATION & VERIFICATION

SEAT & LUGGAGE BRACKETS: Operator: Leni TT

Operator: _____

SEAT BRACKETS VERIFICATION: Operator: TT

Operator: _____

WELDING

AREA	LHS	RHS
A (Seat brackets)	: Operator (Name&sign): <u>M. Heliozi</u>	<u>LINDO</u> <u>MD</u>
(C-rails, Luggage and earth bushes)	: Operator (Name&sign): <u>M. Heliozi</u>	<u>LINDO</u> <u>MD</u>
B (Seat brackets)	: Operator (Name&sign): <u>M. Heliozi</u>	<u>LINDO</u> <u>MD</u>
(C-rails, Luggage and earth bushes)	: Operator (Name&sign): <u>M. Heliozi</u>	<u>LINDO</u> <u>MD</u>
C (Seat brackets)	: Operator (Name&sign): <u>M. Heliozi</u>	<u>M. Heliozi</u>
(C-rails, Luggage and earth bushes)	: Operator (Name&sign): <u>M. Heliozi</u>	<u>M. Heliozi</u>
D (Seat brackets)	Operator (Name&sign): <u>M. Heliozi</u>	<u>S. M. A. S.</u>
(C-rails, Luggage and earth bushes)	Operator (Name&sign): <u>M. Heliozi</u>	<u>S. M. A. S.</u>

ENDS

END 1 TAPPING PADS WELDING: Operator (Name&sign): S. M. A. S.

END 2 TAPPING PADS WELDING: Operator (Name&sign): S. M. A. S.



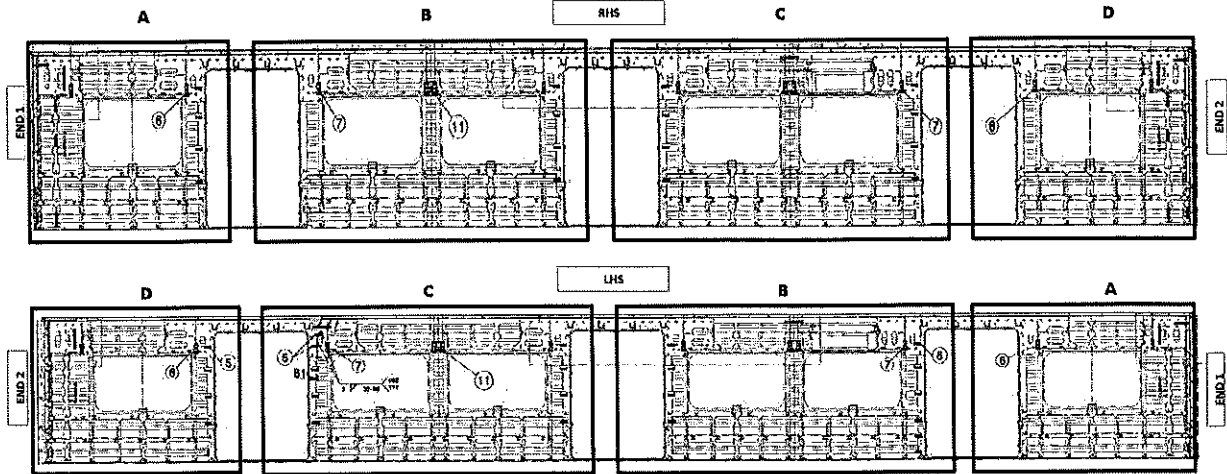
CARBODYSHELL M1,M3,M4 ASSEMBLY
DTR30225487/2

Rev.
29
Date
28/10/2023

Project: PRASA
SI.CB2220.250.V29

II - Self Inspection - Items to Check

M1/M3/M4 BRACKET INSTALLATION



QUANTITIES (M3/M4)

RHS				
	SECTION	QUANTITY	OK	NOK
C-RAILS	A	7		
	B	4		
	C	8		
	D	8		
SEAT BRACKETS	A	13		
	B	21		
	C	21		
	D	13		
EARTH BUSH	A	3		
	B	5		
	C	4		
	D	3		

ROOF ENDS:
CRAILS 2 OFF EACH END
EARTH BUSH 6 OFF EACH END

VERIFICATION BY: ALL

LHS				
	SECTION	QUANTITY	OK	NOK
C-RAILS	A	2		
	B	8		
	C	11		
	D	8		
SEAT BRACKETS	A	13		
	B	21		
	C	21		
	D	13		
EARTH BUSH	A	3		
	B	5		
	C	8		
	D	2		

ROOF ENDS:
CRAILS 2 OFF EACH END
EARTH BUSH 6 OFF EACH END

VERIFICATION BY: ALL

QUANTITIES (M1)

RHS				
	SECTION	QUANTITY	OK	NOK
C-RAILS	A	7		
	B	8		
	C	8		
	D	8		
SEAT BRACKETS	A	13		
	B	21		
	C	21		
	D	13		
EARTH BUSH	A	2		
	B	4		
	C	5		
	D	3		

ROOF ENDS:
CRAILS 2 OFF EACH END
EARTH BUSH 6 OFF EACH END

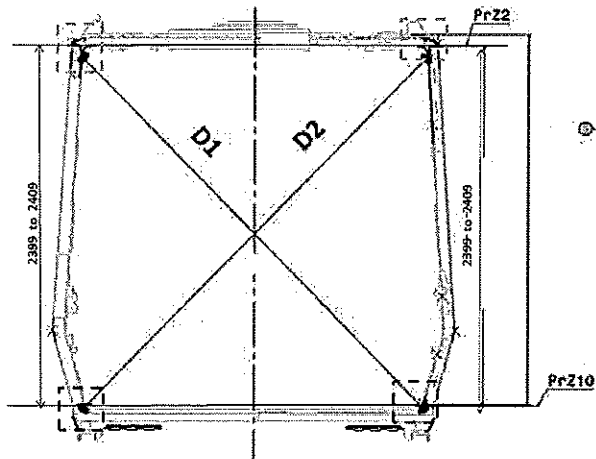
VERIFICATION BY: _____

LHS				
	SECTION	QUANTITY	OK	NOK
C-RAILS	A	2		
	B	10		
	C	11		
	D	8		
SEAT BRACKETS	A	13		
	B	21		
	C	21		
	D	13		
EARTH BUSH	A	3		
	B	7		
	C	6		
	D	2		

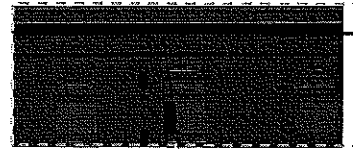
ROOF ENDS:
CRAILS 2 OFF EACH END
EARTH BUSH 6 OFF EACH END

VERIFICATION BY: _____

Specifications of Details for CBS measurement



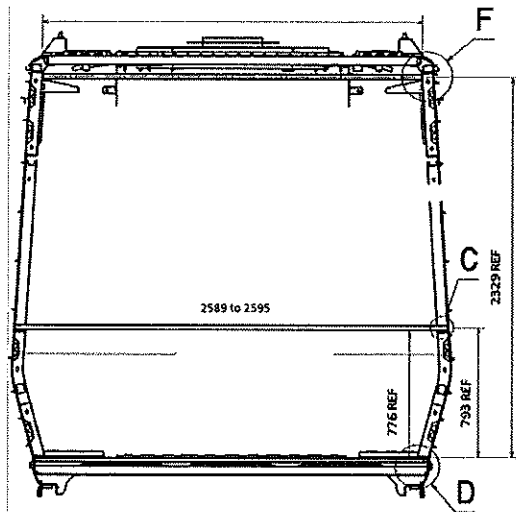
Measurement positions on roof rail and sidewall on the corner.



Reinforcement area measurement positions on roof reinforcement area.



Measurement positions on sidewall and side sill corner.





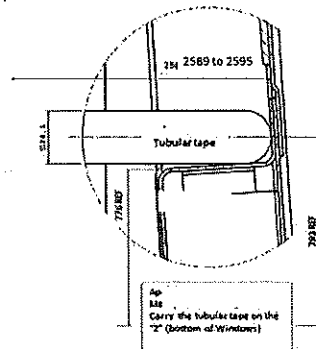
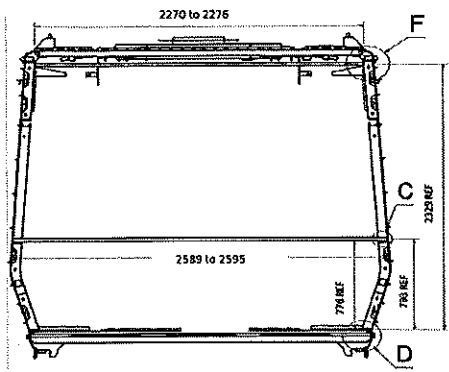
CARBODYSHELL M1,M3,M4 ASSEMBLY
DTR30226487/2

Rev.	29
Date	28/10/2023

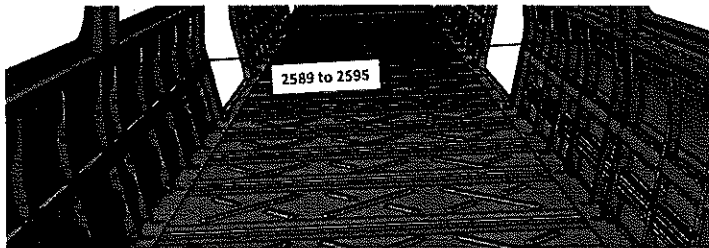
Project: PRASA

SI.CB2220.250.V29

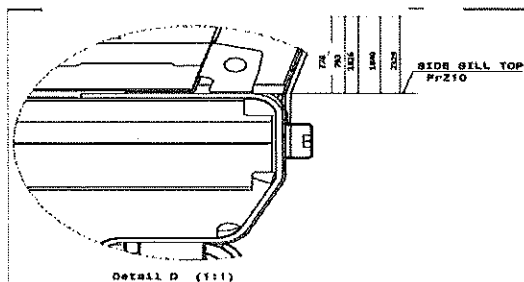
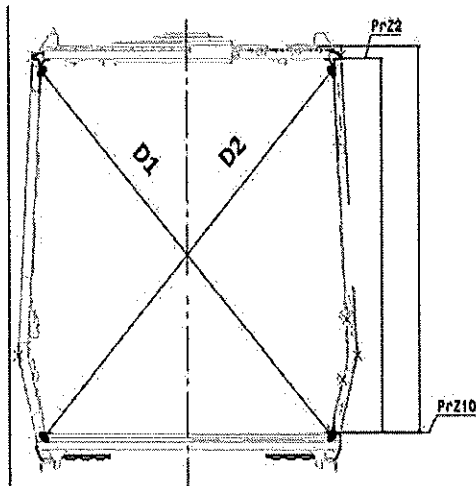
CBS measurement




Detail C

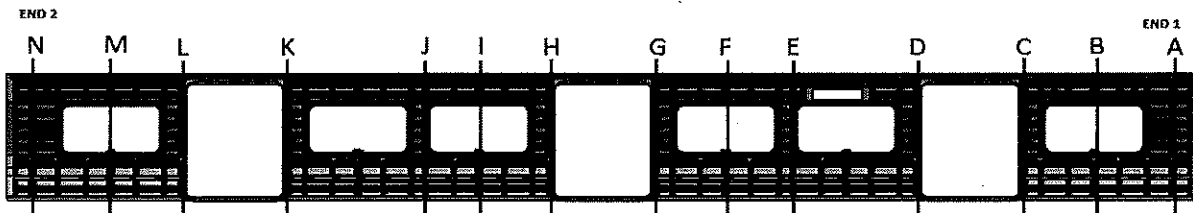


Take measurement close to radius




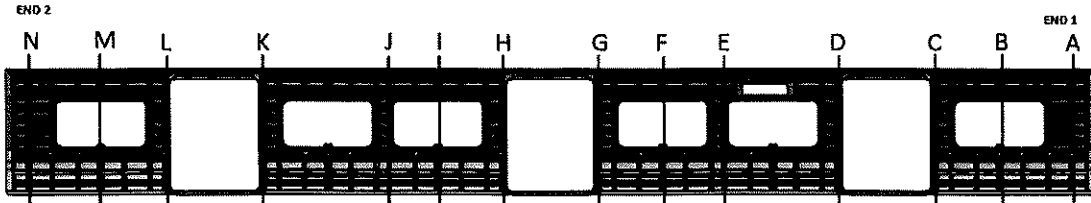
Detail D (1:1)

	CARBODYSHELL M1,M3,M4 ASSEMBLY DTR30225487/2	Rev.	Project: PRASA SI.CB2220.250.V29
		29	
		Date	
		28/10/2023	
CBS measurement			



BEFORE WELDING

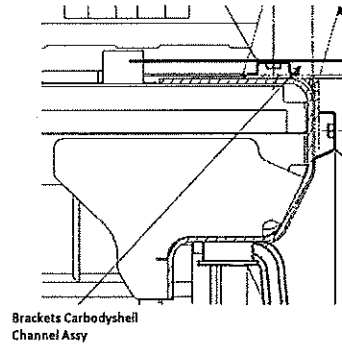
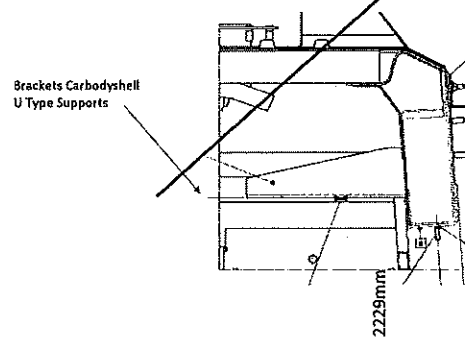
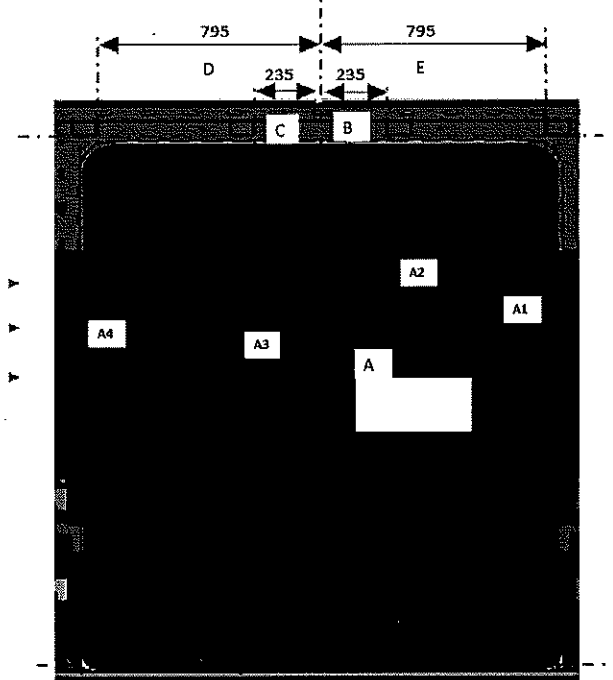
	Record D1 values	Record D2 values	D1-D2 ≤ 5mm	2589 to 2595
A	3295	3298	3	-
B	3264	3265	1	-
C	3295	3296	1	-
D	3295	3295	0	-
E	3267	3265	2	-
F	3264	3264	0	-
G	3298	3294	4	-
H	3295	3292	3	-
I	3267	3265	2	-
J	3267	3263	4	-
K	3297	3294	3	-
L	3294	3294	0	-
M	3295	3265	0	-
N	3295	3298	3	-

	CARBODYSHELL M1,M3,M4 ASSEMBLY DTR30226487/2	Rev.	Project: PRASA SI.CB2220.250.V29
		29	
		Date	
		28/10/2023	
CBS measurement			
			

AFTER WELDING

	Record D1 values	Record D2 values	D1-D2 ≤ 5mm	2589 to 2595
A	3295	3295	0	2595
B	3264	3265	1	2589
C	3295	3295	0	2589
D	3290	3292	2	2593
E	3265	3265	0	2591
F	3264	3265	1	2590
G	3294	3295	1	2590
H	3293	3294	1	2592
I	3263	3264	1	2591
J	3265	3266	1	2591
K	3298	3294	4	2591
L	3292	3294	2	2592
M	3264	3264	0	2589
N	3290	3293	3	2595

Specifications of Details for CBS measurement CB1220



DOOR 1 - LHS

	VALUE	ACTUAL
A1	2230 to 2232	2232
A2	2230 to 2232	2232
A3	2230 to 2232	2232
A4	2230 to 2232	2232
B	234 to 236	234
C	234 to 236	236
D	794 to 796	796
E	794 to 796	794

DOOR 2 - LHS

	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 2 - RHS

	VALUE	ACTUAL
A1	2230 to 2232	2232
A2	2230 to 2232	2232
A3	2230 to 2232	2232
A4	2230 to 2232	2232
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	2230
A3	2230 to 2232	2230
A4	2230 to 2232	2230
B	234 to 236	234
C	234 to 236	234
D	794 to 796	796
E	794 to 796	796

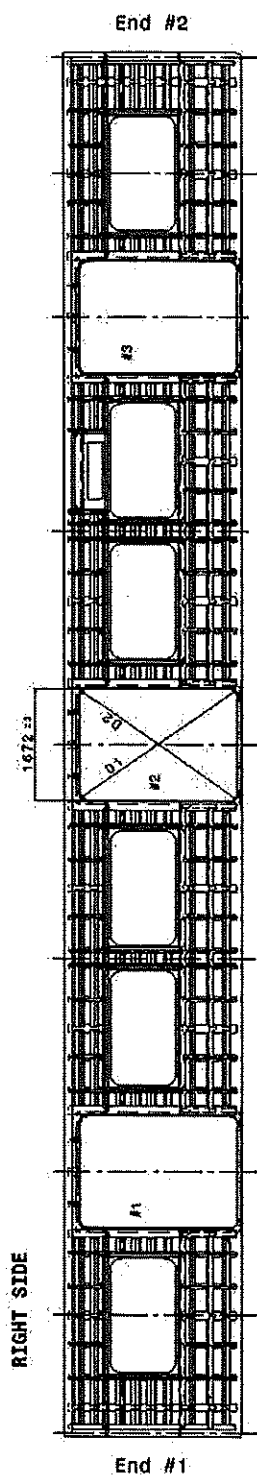
DOOR 2 - RHS

	VALUE	ACTUAL
A1	2230 to 2232	2232
A2	2230 to 2232	2232
A3	2230 to 2232	2232
A4	2230 to 2232	2232
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	2232
A2	2230 to 2232	2232
A3	2230 to 2232	2232
A4	2230 to 2232	2232
B	234 to 236	235
C	234 to 236	235
D	794 to 796	795
E	794 to 796	795

Specifications of Details for CBS measurement CB1220

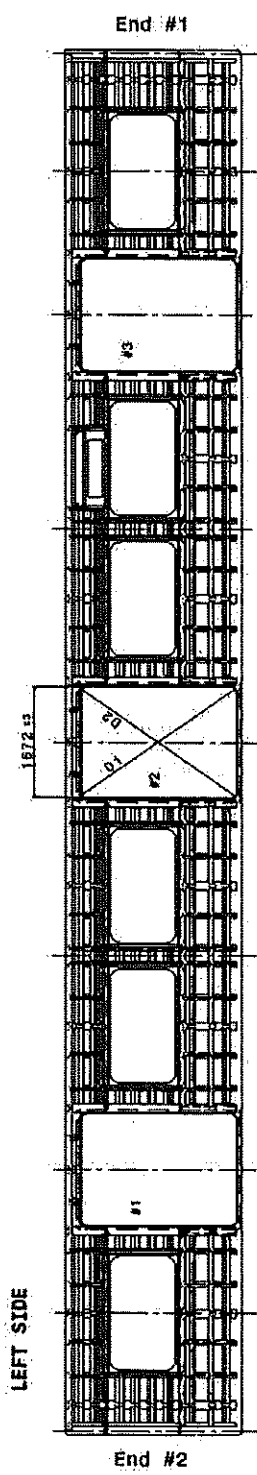


Doors diagonal D1-D2 maximum difference $\leq 4\text{mm}$

	#1	#2	#3
D1	2759	2762	2760
D2	2751	2749	2751
D1-D2	1	3	1

Doors Length - 1672.33mm

	#1	#2	#3
HIGHER DIMENSION	1672	1672	1674
CENTRAL DIMENSION	1671	1673	1675
LOWER DIMENSION	1673	1671	1673





Doors diagonal D1-D2 maximum difference $\leq 4\text{mm}$

	#1	#2	#3
D1	2748	2747	2748
D2	2745	2745	2749
D1-D2	1	2	1




Doors Length - 1672.33mm


	#1	#2	#3
HIGHER DIMENSION	1671	1672	1673
CENTRAL DIMENSION	1673	1674	1674
LOWER DIMENSION	1673	1675	1672

	CARBODYSHELL M1,M3,M4 ASSEMBLY DTR30225467/2	Rev.	Project: PRASA	
		29		
		Date		
		28/10/2023	SI.CB2220.250.V29	
CBS measurement (Manufacturing)				
Dye penetrant test				
<div style="border: 1px solid black; padding: 5px; margin: 10px 0;">Dye-penetration test to be performed by quality personnel</div> 				

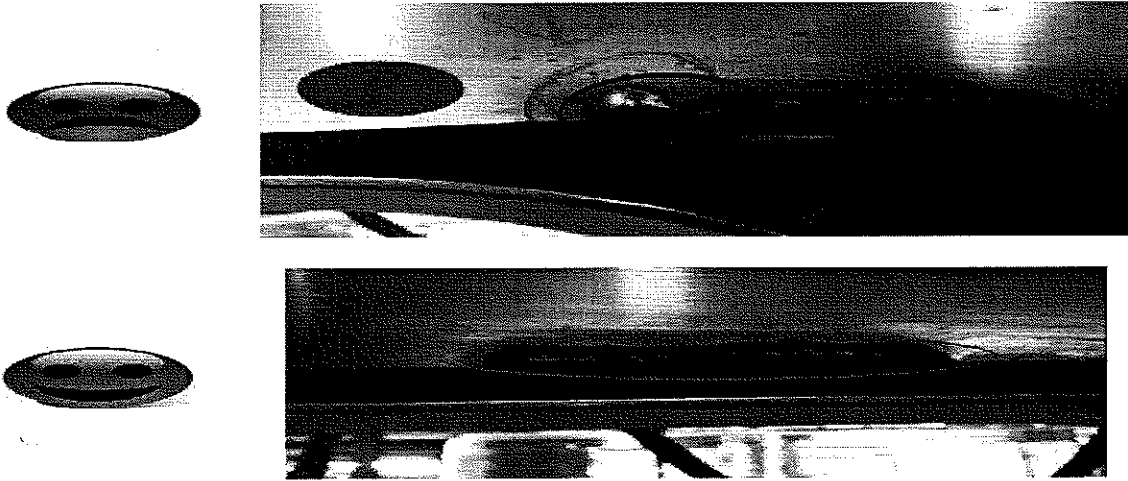
Item	Description of the Issue		Signature/Date (Manufacturing)	Signature/Date (Quality)

II.2 - Check List REX							
Check List Items							
Item	Picture/Drawing	Description	Criteria/Record	OK		Signature/Date (Manufacturing)	Signature/Date Quality
01	N/A	To complete REX	Refer to REX. New defects must be added on the REX				

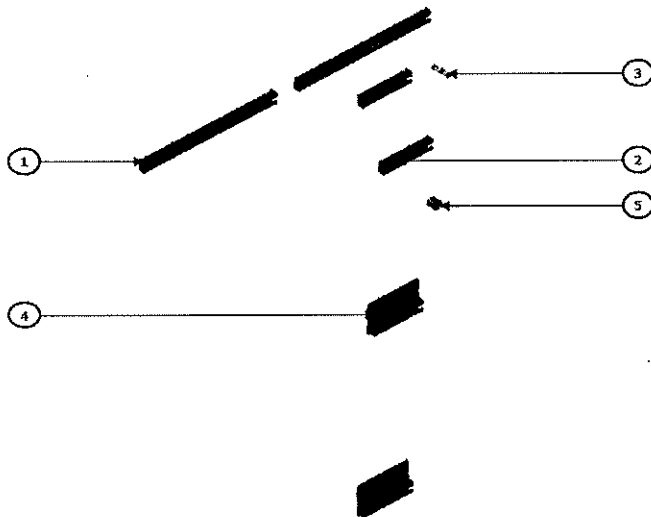
	CARBODYSHELL M1,M3,M4 ASSEMBLY DTR30225487/2	Rev.	Project: PRASA SI.CB2220.250.V29		
		29			
		Date			
		28/10/2023			
Self Inspection - Final Result					
Is the car good to advance to the next workstation/process? (Approval of Operations Manager and Industrial Quality)		DATE	NAME	SIGNATURE	
HOLD POINT	<small>(If activities are not complete, the missing activities must not impact the next stage!)</small>	26/04/24	Utkal Das		
	<small>Every auto inspection performed conforms to specification or in case of discrepancy the same is approved by the competent party.)</small>	26/04/24	Richmond		
	<small>There are activities pending that impact/stop the activities of the next process</small> <small>Obs: (To describe problems below)</small>				
	<small>There are non-conformities impact the quality of the product and there is no corrective action defined yet)</small>				
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		Responsible	Due date	Status
Operations			Quality		

	CARBODYSHELL M1,M3,M4 ASSEMBLY DTR30225487/2	Rev.	Project: PRASA SI.CB2220.250.V29
		29	
		Date	
		28/10/2023	

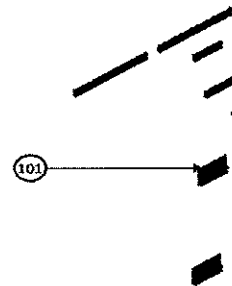
ANNEXURE A: Arc Welding Quality Acceptance Standard



Station: CB1220-004- U108 & U107



PART NO.	ITEM NO.	QTY	DESCRIPTION	MASS [kg]
DTR0020074088	5	6	EARTH STUD 6	0.036
AA00001201848	4	6	ASSEMBLY SUPPORT	0.271
DTR0000348305	3	12	WELDING STUD ISO13918 PT - M8C20 - SST	0.007
AA00001180424	2	12	ASSEMBLY SUPPORT	0.193
AA00001184418	1	14	ASSEMBLY SUPPORT	0.921
AA00001161080	101	6	CARBODYSHELL BRACKETS CARBODYSHELL M1/M3/M4 CARSIDE FRAME MODULE D10 - OPP	12.152



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	M4	M3	M2	M1	TC2			
<input type="checkbox"/>	DTR3000152669	AAD0001278566	CARBODYSHELL M1,M3,M4 ASSEMBLY	CB2230			X				PRA.CB2230.DT000002 25487.V20	YES
<input type="checkbox"/>	DTR3000152673	AAD0001278566	CARBODYSHELL M1,M3,M4 ASSEMBLY	CB2230		X			X		PRA.CB2230.DT000002 25487.V20	YES
<input type="checkbox"/>												
REL	DATE	MODIFICATION CONTENT		RESPONSIBLE	NAME	DATE						
0	2018/08/02	GIBELA NEW CREATION		APPROVER	Philippe Marques	2018/08/02						
				CHECKER	Nosizo Pindela	2018/08/02						
				COMPILER	Nosizo Pindela	2018/08/02						
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	2018/05/07	Certain dimensional checks moved to CB1220		APPROVER	Itumeleng Modiba	2018/05/07						
				CHECKER	Nosizo Pindela	2018/05/07						
				REVISED BY	Ramekone Motama	2018/05/07						
5	24/03/2019	As per Baseline 10.3		APPROVER	Itumeleng Modiba	24/03/2019						
				CHECKER	Nosizo Pindela	24/03/2019						
				REVISED BY	Vanessa Ntuli	24/03/2019						
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						
				REVISED BY	Nosizo Pindela	13/03/2019						
10	23/08/2019	New Baseline 10.2.5		APPROVER	Itumeleng Modiba	23/08/2019						
				CHECKER	Nosizo Pindela	23/08/2019						
				REVISED BY	Nosizo Pindela	23/08/2019						
	06/08/2020	New Baseline 10.2.6		APPROVER	Timothy Maimela	06/08/2020						
				CHECKER	Bongane Masina							
				REVISED BY	Bongane Masina							
20	19/04/2021	New Baseline change 10.3		APPROVER	Timothy Maimela	19/04/2021						
				CHECKER	Bongane Masina							
				REVISED BY	Bongane Masina							
25	20/02/2022	New Baseline change 10.3.1		APPROVER	Collins Mhombhisi	20/02/2022						
				CHECKER	Andani Muthelo							
				REVISED BY	Andani Muthelo							
26	14/06/2022	Update minimum temperature requirement for sealant application		APPROVER	Collins Mhombhisi	14/06/2022						
				CHECKER	Andani Muthelo							
				REVISED BY	Andani Muthelo							
27	26/07/2022	Threshold measurements addition		APPROVER	Collins Mhombhisi	26/07/2022						
				CHECKER	Andani Muthelo							
				REVISED BY	Andani Muthelo							
28	17/10/2022	Added traceability of sealant application		APPROVER	Collins Mhombhisi	17/10/2022						
				CHECKER	Ntokoza Zwane							
				REVISED BY	Amogelang Mhlangeni							
29	14/04/2023	Added sealant batch number & welding consumables traceability		APPROVER	Vanessa Ntuli	14/04/2023						
				CHECKER	Ntokoza Zwane							
				REVISED BY	Amogelang Mhlangeni							
30	06/11/2023	Added threshold traceability for boiler makers and welders		APPROVER	Ngebeni Tysan	06/11/2023						
				CHECKER	Andani Muthelo							
				REVISED BY	Ntokoza Zwane							
TRAINSET	CAR	OPERATOR NAME & ALPS NO		DATE	SELF INSPECTION NUMBER	PAGES						
T52205	M4	KHOSI AHLAHLA		09.04.24	SI.CB2230.256.V29	12						

2024-04-14

Signature



CARBODYSHELL M1,M3,M4 ASSEMBLY
DT00000225487

Rev.
30

Project: PRASA

Date

06/11/2023

SI.CB2230.256.V29

Car:

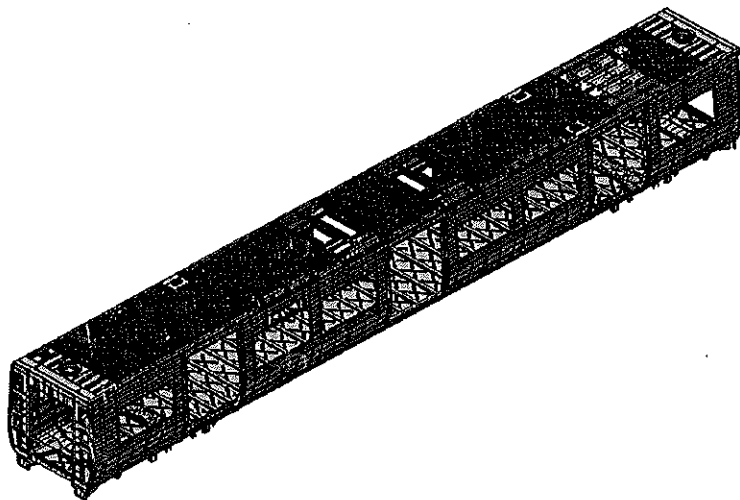
NCR:

Work station:

CB2230



Safety Related



I - Documentation and Instruments Control

I.1 - Documentation Control

Document	Type of car					Revision	Observation	OK	NCR	Signature/Date (Operations)	Signature/Date (Quality)
	M1	M2	M3	M4	TC2						
PRA.CB2230.DT00000225487				X		V 30		OK		N/A	09/04/24 20/04/24

I.2 - Instruments Control








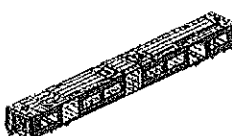


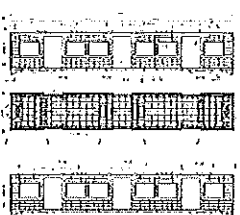


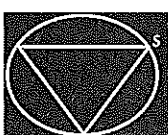








Monitoring and Measuring Instrument Control - Used for Special Process

Instruments	Serial number	Calibration or Verification Validation Date	OK	NCR	Signature/Date (Operations)	Signature/Date (Quality)
TUBULAR	02713	06/06/24	OK		09.04.24	20/04/24
MEASURING TAPE	C118094	25/04/25	OK		09.04.24	20/04/24
COMBINATION SQUARE	GIB0019	07/01/24	OK		09.04.24	20/04/24

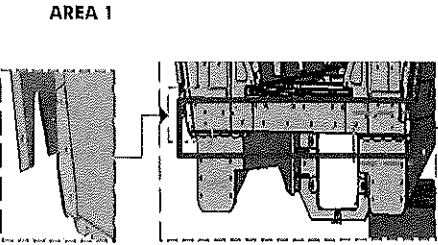
1.3 Consumables

Welding Consumable Control - Used for Special Process

Filler Material	Heat Number	Welding Process	OK	NCR	Signature/Date (Manufacturing)	Signature/Date (Quality)
AUTROD 308LSi	E221580	MIG	OK		09.04.24	20/04/24

	CARBODYSHELL M1,M3,M4 ASSEMBLY DT00000225487	Rev. 30	Project: PRASA SI.CB2230.256.V29											
		Date												
		08/11/2023												
II - Self Inspection - Items to Check														
II.1 - Items to check														
Item	Picture/Drawing	Description	Acceptance criteria / Record	OK	NO	REWORK	Signature/Date (Operations)	Signature/Date (Quality)						
01	N/A	Assembly according to Instruction Engineering n° PRA.CB1230.DT00000225487 Verification of fitment for all brackets.	PRA.CB1230.DT00000225487	OK			 29.04.24	 29/04/24						
02	N/A	Carshell free of significant flaws which compromise the appearance or functionality	DTD0000210675	OK			 29.04.24	 29/04/24						
03	REFER TO ANNEXURE A	Arc Welding inspected and approved according procedure.	IND-SAL-WMS-016 REFER TO GIB - TYPDEF - ARC - 0000	OK			 29.04.24	 29/04/24						
04		Cleaning of all Stainless Steel Surface	According TO GIB-WEL - PROC-0002	OK			 29.04.24	 29/04/24						
05		Functionals dimensions approved according drawing or complementary document approved by Alstom engineering and registered in this document.	Approved according specified on pages below.	OK			 29.04.24	 29/04/24						
06		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.	OK			 29.04.24	 29/04/24						
07	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: <table border="0"> <tr> <td>Temperature Min - Max (1)</td> <td>Min-Max</td> <td>10°C - 35°C</td> </tr> <tr> <td>Relative humidity Min - Max (1)</td> <td>Min-Max</td> <td>25% - 80%</td> </tr> </table>	Temperature Min - Max (1)	Min-Max	10°C - 35°C	Relative humidity Min - Max (1)	Min-Max	25% - 80%	Sealant Batch No: <u>ISC 70-03</u> Exp Date: <u>06/24</u> Actuals Temperature: <u>16°C</u> Humidity: <u>50%</u>	OK			 29.04.24	 29/04/24
Temperature Min - Max (1)	Min-Max	10°C - 35°C												
Relative humidity Min - Max (1)	Min-Max	25% - 80%												
08	N/A	Verification of sealant application on the roof and sidewall finishers.	Sealant must be: -Applied straight and even -Free of gaps,cracks,damage and debris (flashes, dirt, dust) Refer to Annexure B	OK			 29.04.24	 29/04/24						
09	N/A	Verification of sealant application in certain regions in the drawing.	AAD0001278566	OK			 29.04.24	 29/04/24						

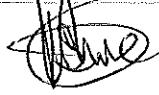
END 2 SEALANT



OPERATOR
(Name & sign):

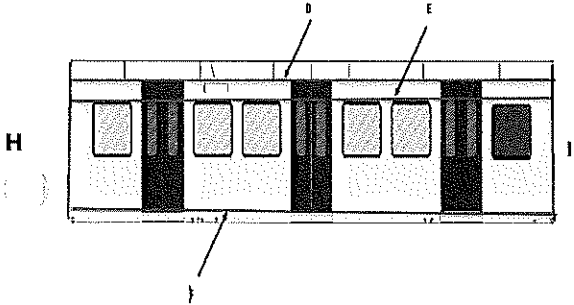
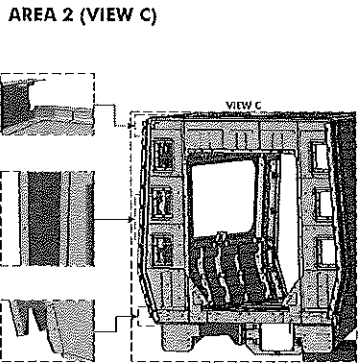
Leroy 

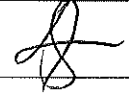
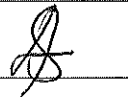
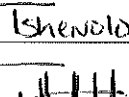
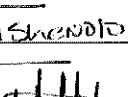
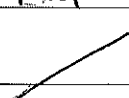
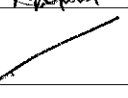
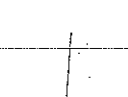
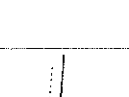
OPERATOR
(Name & sign):

Leroy 

OPERATOR
(Name & sign):

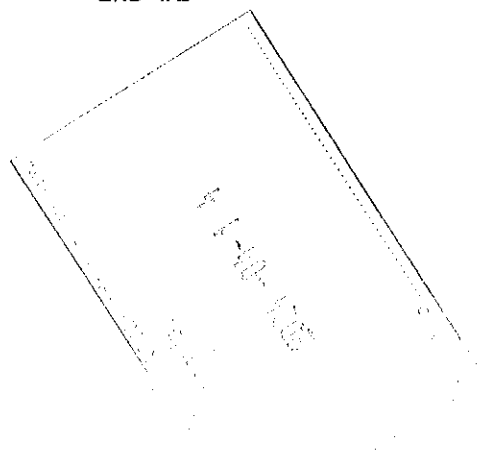
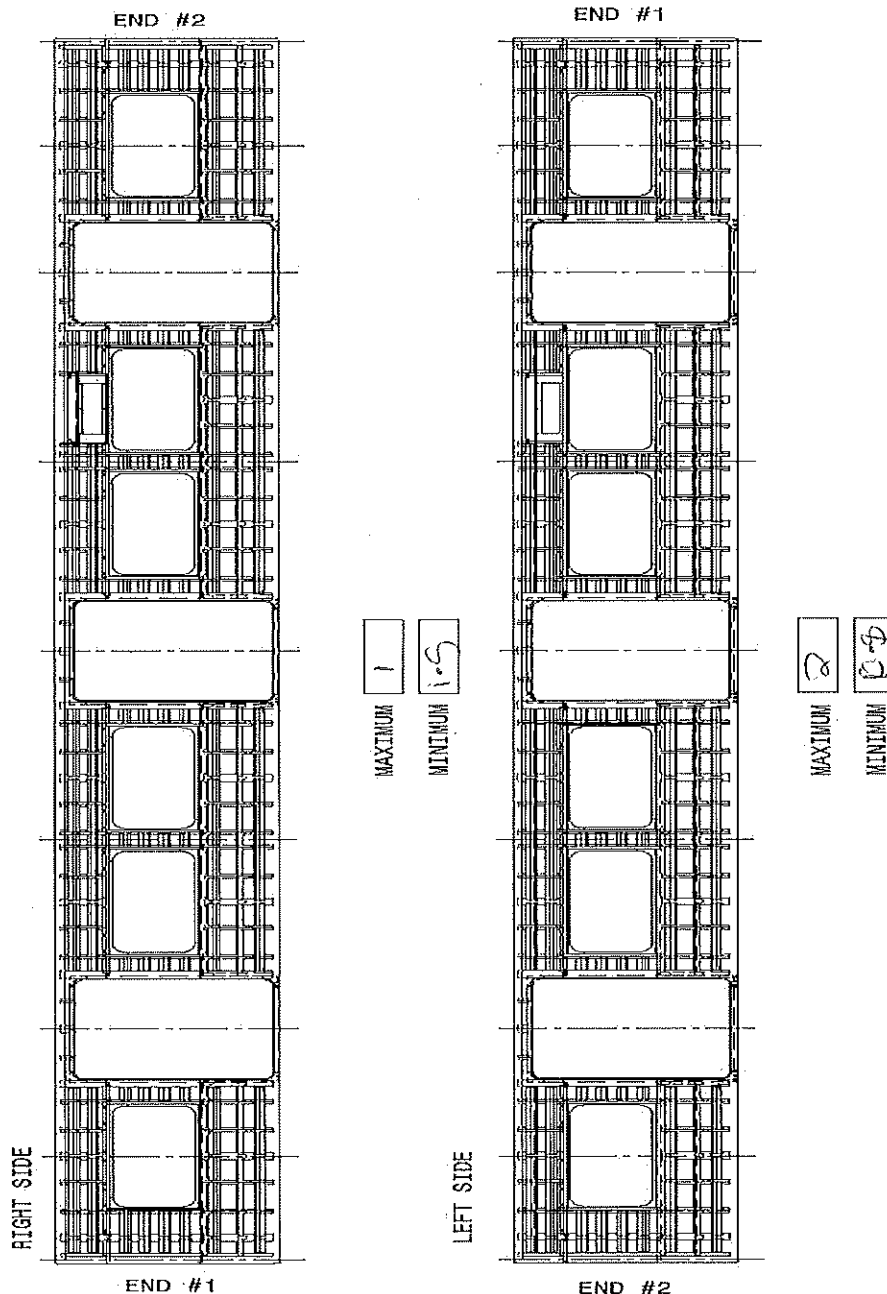
Leroy 



Area D,E,F,G,H,I	LHS	RHS
Operator (Name & sign) :	<u>D.E.F.G.H.I</u>	<u>D.E.F.G.H.I</u>
Operator (Name & sign) :	<u>Simje</u> 	<u>Simje</u> 
Operator (Name & sign) :	<u>Ishenolo</u> 	<u>Ishenolo</u> 
Operator (Name & sign) :	<u></u>	<u></u>
Operator (Name & sign) :	<u></u>	<u></u>

Specifications of Details for CBS measurement CB1230

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





CARBODYSHELL M1,M3,M4 ASSEMBLY
DT00000225487

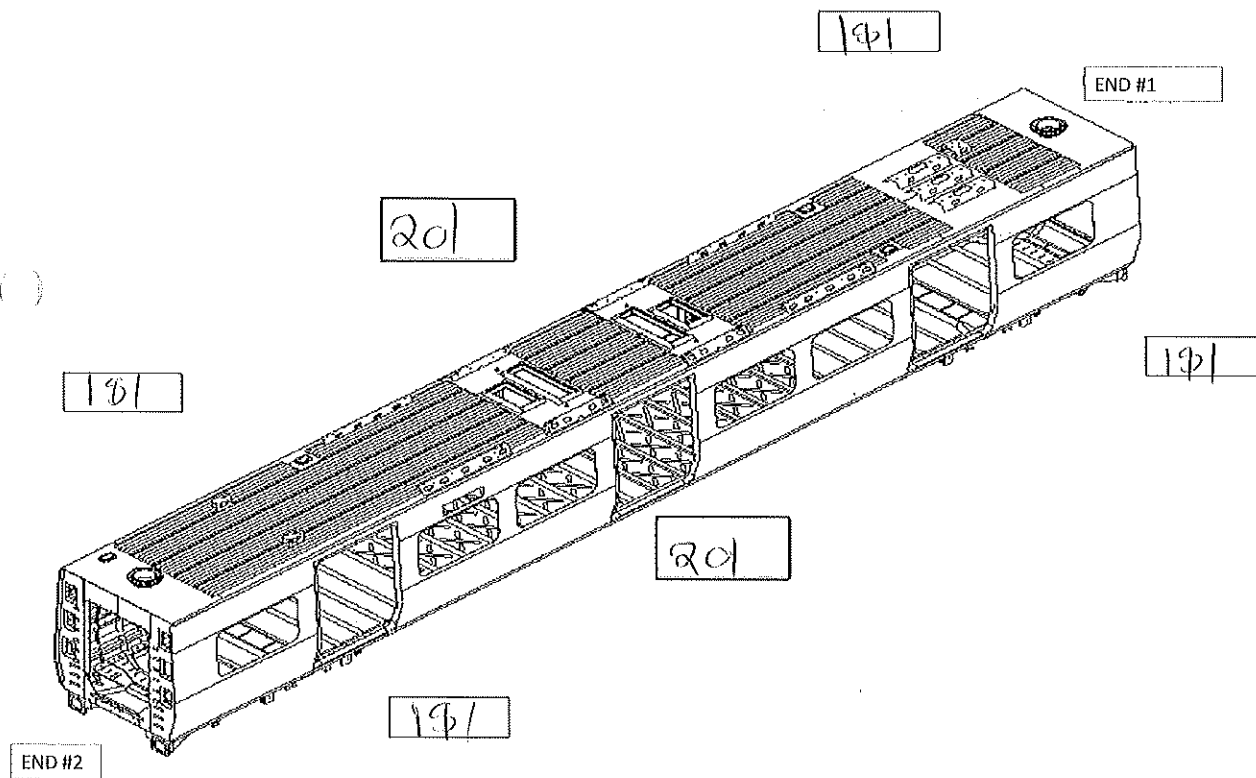
Rev.
30
Date
06/11/2023

Project: PRA5A

SI.CB2230.256.V29

Specifications of Details for GB5 measurement CB1230

Specified Camber for car out of jig is 18mm(-0mm + 2mm)



MEASURED CAMBER VALUES

RIGHT

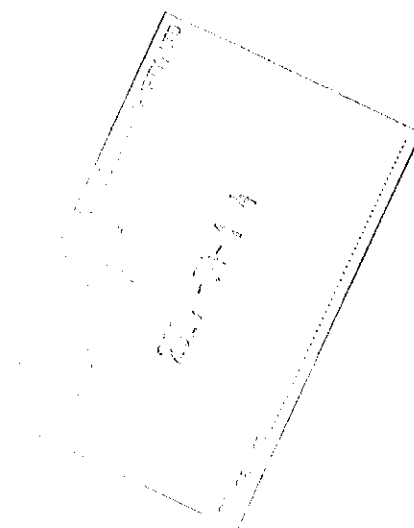
11

20

LEFT

11

20





CARBODYSHELL M1,M3,M4 ASSEMBLY
DT00000225487

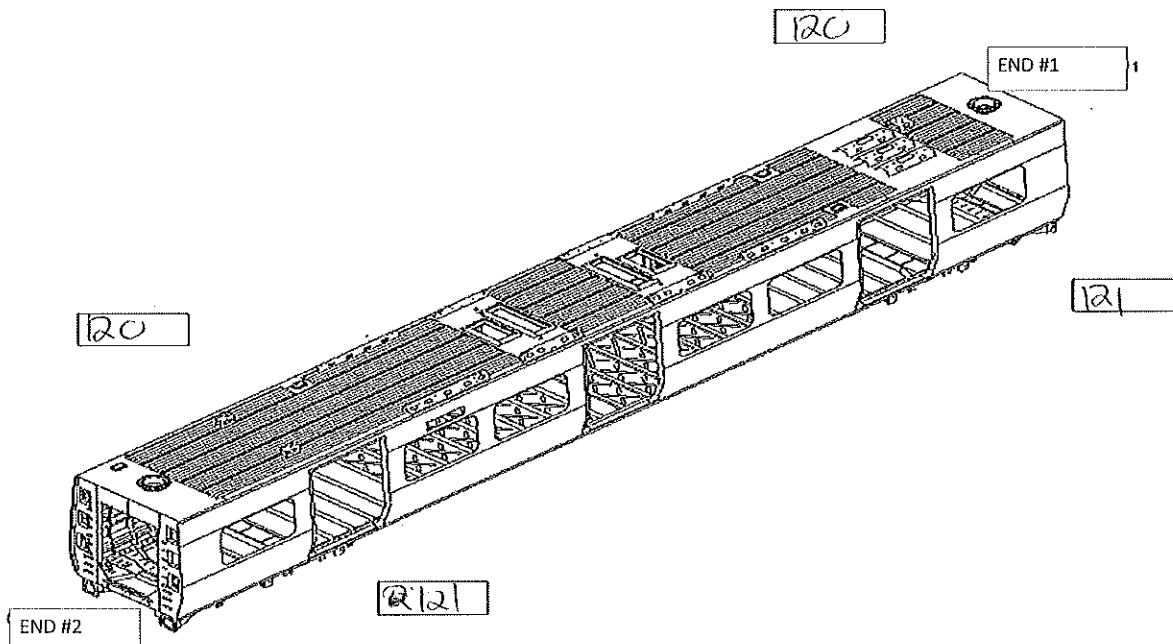
Rev.
30
Date
08/11/2023

Project: PRASA

SI.CB2230.256.V29

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.



TWIST FOUND ON END 1

TRANVERSE

1

LONGITUDINAL

0

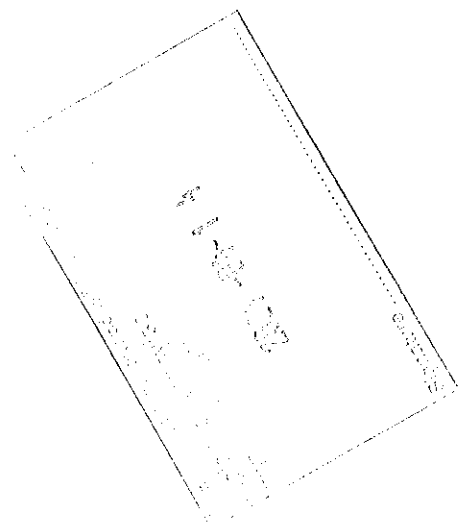
TWIST FOUND ON END 2

TRANVERSE

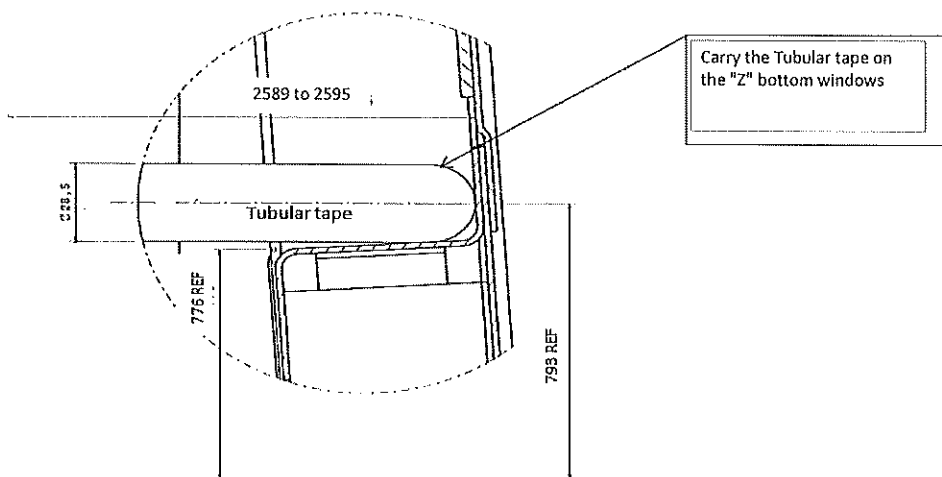
1

LONGITUDINAL

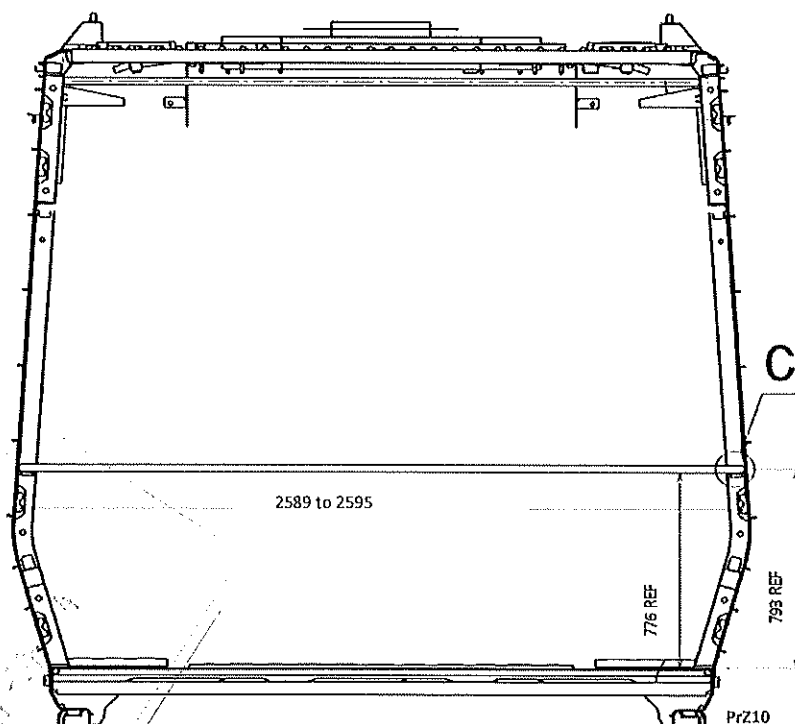
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Specifications of Details for CBS measurement CB1230



Detail C





CARBODYSHELL M1,M3,M4 ASSEMBLY
DT00000225487

Rev.
30

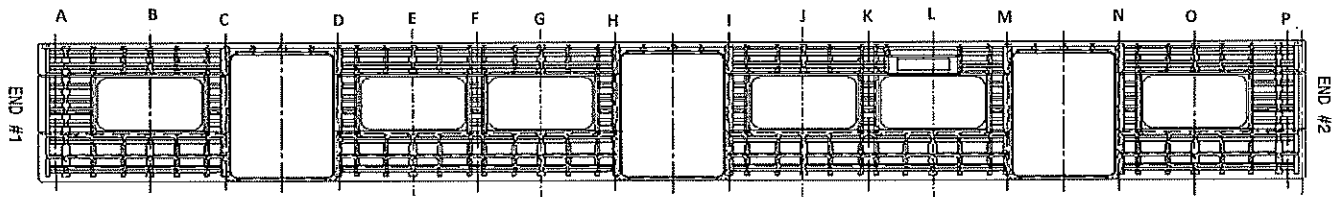
Project: PRASA

Date

SI.CB2230.256.V29

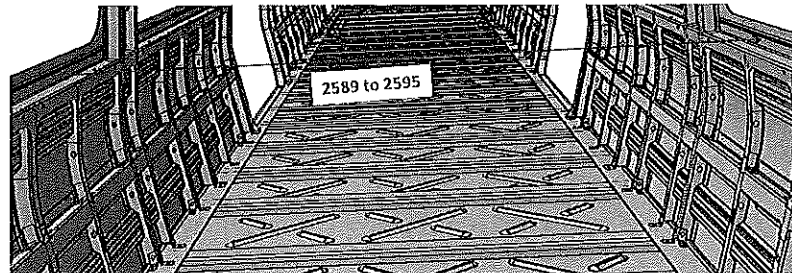
08/11/2023

Specifications of Details for CBS measurement CB1230



2589 to 2595mm

A	2576
B	2587
C	2589
D	2593
E	2593
F	2591
G	2590
H	2590
I	2593
J	2591
K	2591
L	2592
M	2591
N	2592
O	2589
P	2595



Threshold verification

Nominal value :38

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

BOILER MAKER:

TSHGROLO

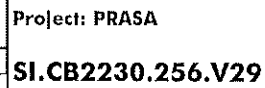
WELDER:

ZARILE

Dye penetrant test


Dye-penetration test to be performed by quality personnel





[illegible]

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



	CARBODYSHELL M1,M3,M4 ASSEMBLY DT00000225487	Rev. 30	Project: PRASA SI.CB2230.256.V29
		Date	
		06/11/2023	

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)	29.04.24	KHOSI Operations	
			Every auto inspection performed conforms to specification or in case of discrepancy the same is approved by the competent party.)	29/4/24	Andani Industrial Quality	
		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		Responsible	Due date	Status

Operations

Quality

