


PRASA PROJECT
APPLICABLE FROM TRAINSET 190+ AS PER BASELINE 10.4

SELF INSPECTION SHEET

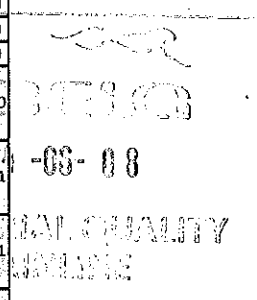
CONFIDENTIAL INFORMATION


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	M4	M1	M2	M3	TC2		
<input checked="" type="checkbox"/> DTR3000152644	AAD0001270566	CARBODYSHELL H3, M4 ASSEMBLY	CB1210		X			X		PRA.CB1210.DTR30225 487/3.V30	YES
<input type="checkbox"/>											

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 CB1210	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
28	07/11/2023	Added traceability for welding sections	APPROVER	Ngobeni Tyson	07/11/2023
			CHECKER	Mohlampe Amogelang	07/11/2023
			REVISED BY	Ntokozo Zwane	07/11/2023
TRAINSET	CAR	OPERATOR NAME & ALPS NO	DATE	SELF INSPECTION NUMBER	PAGES
T2B2	M13	Timothy Maimela 470088/11	11.06.24	SI.CB1210.254.V30	17

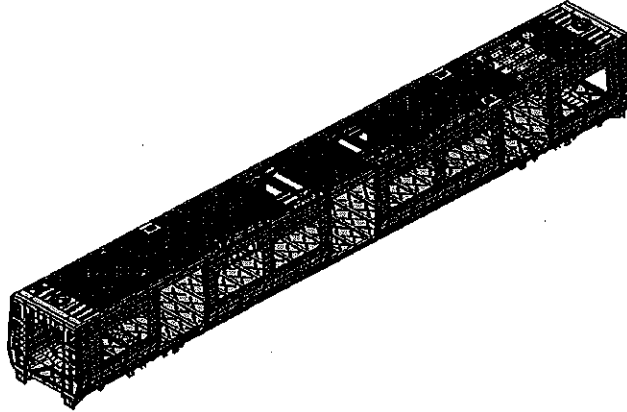


	CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3	Rev. 31	Project: PRASA SI.CB1210.254.V30
		Date 07/11/2023	

Car: M3 & M4	NCR:	Work station: CB1210
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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	E	M	P	S	U						
DTR30225487/3							31		ok		11.06.24	11/06/2024

I.2 - Instruments Control

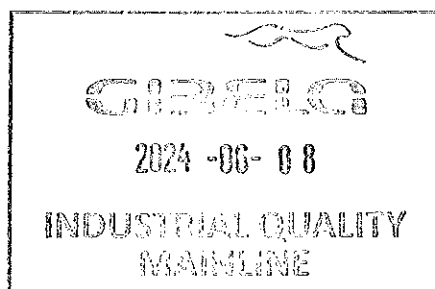
Monitoring and Measuring Instrument Control - Used for Special Process











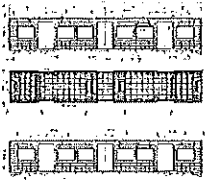




Instruments	Serial number	Calibration or Verification Validation Date	OK		Signature/Date (Manufacturing)	Signature/Date (Quality)
INSTRUMENT	32823-2	15/03/25	ok		11.06.24	11/06/24
Lower TIME	125425924	08/01/25	ok		11.06.24	11/06/24
(30in) MPE	9187P0102	18/11/24	ok		11.06.24	11/06/24

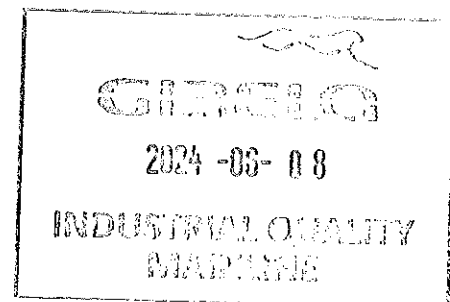
1.3 Consumables


Welding Consumable Control - Used for Special Process

Filler Material	Heat Number	Welding Process	OK		Signature/Date (Manufacturing)	Signature/Date (Quality)
ER 308 LSJ	314018-74092	MIG	ok		11.06.24	11/06/24
	299687-70822	11G	ok		11.06.24	11/06/24



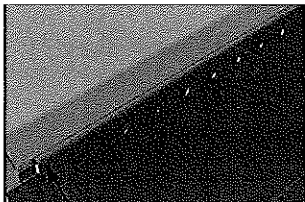
		CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3	Rev. 31 Date 07/11/2023	Project: PRASA SI.CB1210.254.V30				
II - Self Inspection - Items to Check								
II.1 - Items to check								
Item	Picture/Drawing	Description	Acceptance criteria / Record	OK			Signature/Date (Manufacturing)	Signature/Date (Quality)
01	N/A	Carshell free of significant flaws which compromise the appearance or functionality	DTD0000210675	/			 11.06.24	 11/06/24
02	REFER TO ANNEXURE A	Spot welding inspected and approved according to procedure	IND-SAL-WMS-016 e DTD0000210675	/			 11.06.24	 11/06/24
03	REFER TO ANNEXURE B	Arc welding inspected and approved according to procedure	IND-SAL-WMS-016 REFER TO GIB - TYPDEF - ARC - 0000	/			 11.06.24	 11/06/24
04		Cleaning of all Stainless Steel Surface	According TO GIB-WEL - PROC-0002	/			 11.06.24	 11/06/24
05		Functionals dimensions approved according drawing or complementary document approved by Alstom engineering and registered in this document	Approved according specified on pages below.	/			 11.06.24	 11/06/24
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.	/			 11.06.24	 11/06/24



	CARBODYSHELL M3,M4 ASSEMBLY DTR30226487/3	Rev. 31	Project: PRASA SI.CB1210.254.V30
		Date 07/11/2023	

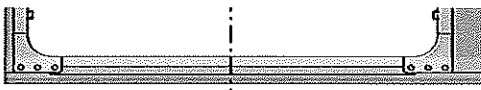
Welding Traceability

Roof ring welds



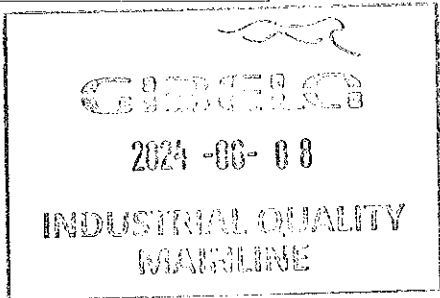
<u>LHS</u>	
Boiler maker (Name & Sign): <u>Wunga [Signature]</u>	Welder (Name & Sign): <u>Siphokazi [Signature]</u>
<u>RHS</u>	
Boiler maker (Name & Sign): <u>Wunga [Signature]</u>	Welder (Name & Sign): <u>Keiru K. [Signature]</u>


Door ring welds

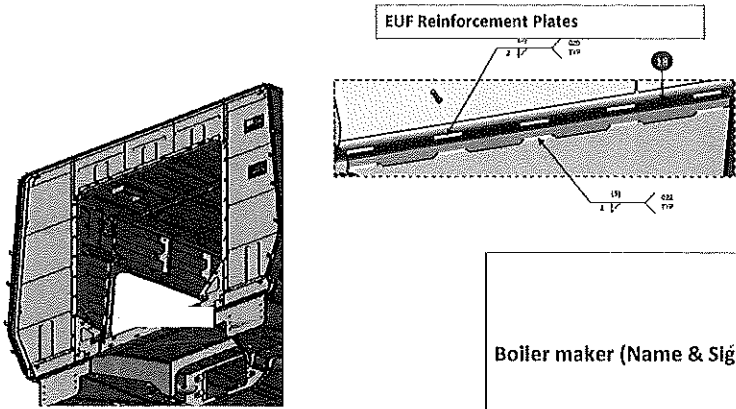


<u>LHS</u>	
Boiler maker (Name & Sign): <u>Tim [Signature]</u>	
Welder (Name & Sign): <u>Gipb [Signature]</u>	

<u>RHS</u>	
Boiler maker (Name & Sign): <u>Tim [Signature]</u>	
Welder (Name & Sign): <u>Gipb [Signature]</u>	



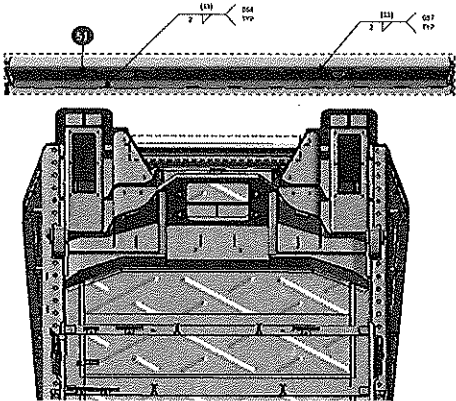
	CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3	Rev. 31	Project: PRASA SI.CB1210.254.V30
		Date 07/11/2023	



END 1

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

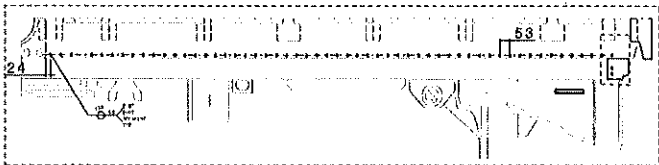
Welder (Name & Sign): Thabang [Signature]



END 2

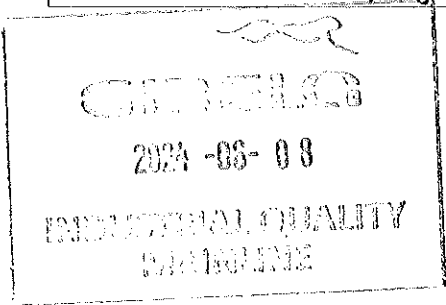
Boiler maker (Name & Sign): Justice [Signature]


Welder (Name & Sign): Sipho [Signature]



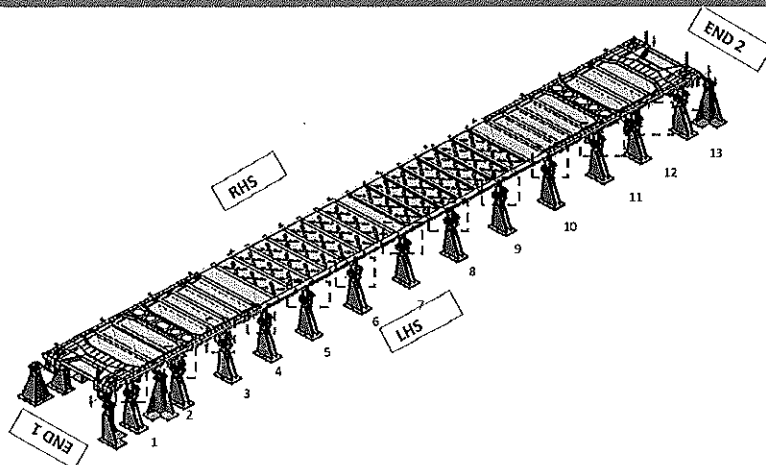
FEDOLI

Operator: Laurence [Signature]



	CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3	Rev. 31	Project: PRASA SI.CB1210.254.V30
		Date 07/11/2023	

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	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Hand Side	0	0	0	0	0	0	0	0	0	0	0	0	0

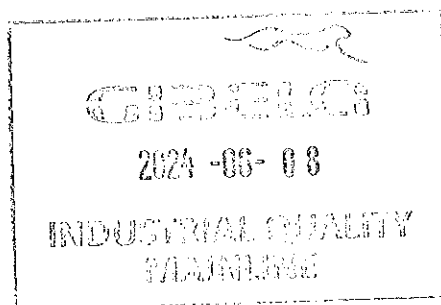
Signature Operations:  Date: 11.06.24

After Welding.

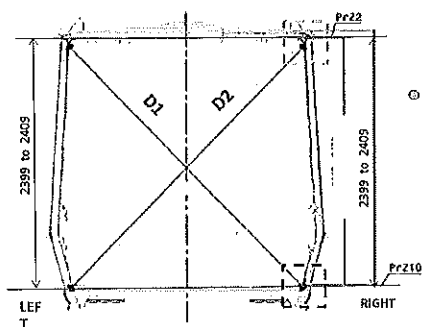
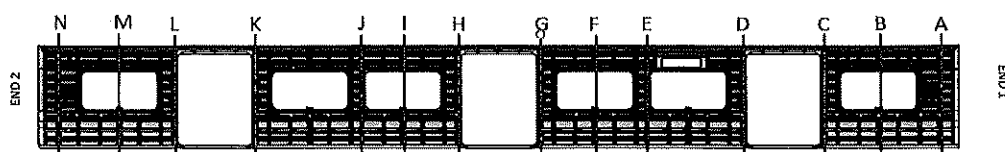
Fill in the gap found each jig pillars / chair and underframe should be 0mm.

	1	2	3	4	5	6	7	8	9	10	11	12	13
Left Hand Side	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Hand Side	0	0	0	0	0	0	0	0	0	0	0	0	0

Signature Industrial Quality:  Date: 11/06/24



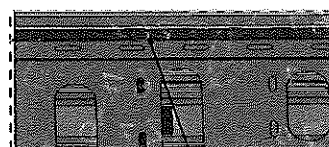
Specifications of Details for CBS measurement



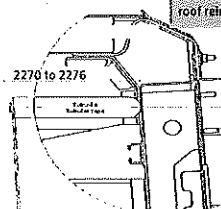
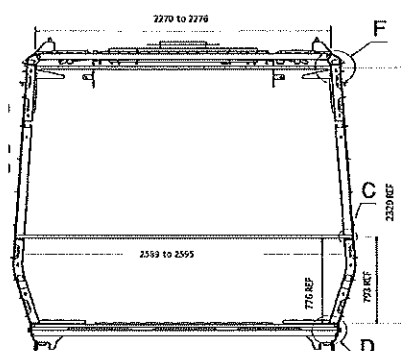
Measurement positions on roof rail and sidewall
omega corner.



Measurement positions on sidewall and side sill corner.



Reinforcement area measurement positions on roof reinforcement area.



Detail F

Don't consider the uniform

2024-06-08
INDUSTRIAL QUALITY
MARLBOROUGH



CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3

Rev.

31

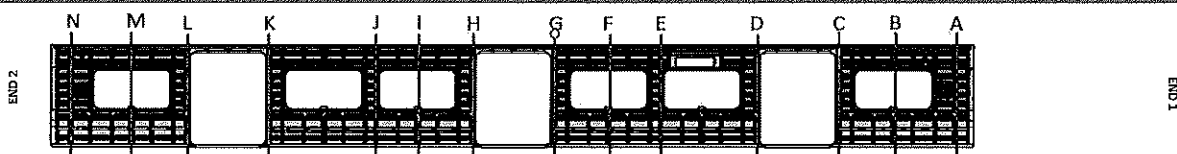
Date

07/11/2023

Project: PRASA

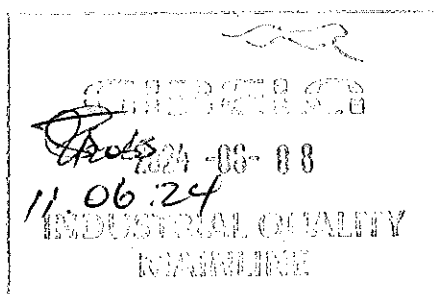
SI.CB1210.254.V30

Specifications of Details for CBS measurement

PME Column LHS - RHS should be
≤2MM on each point.

BEFORE WELDING

	Record D1 values	Record D2 values	D1-D2 ≤ 5mm	2399 to 2409	2399 to 2409 (RHS)	LHS-RHS ≤ 2
A	3268	3268	0	2406	2406	0
B	3270	3271	1	2405	2405	1
C	3267	3267	0	2406	2405	1
D	3268	3268	0	2405	2406	1
E	3271	3271	0	2407	2406	1
F	3270	3268	2	2406	2404	2
G	3269	3268	1	2405	2406	1
H	3267	3267	0	2406	2406	0
I	3270	3270	0	2405	2405	0
J	3272	3271	1	2406	2407	1
K	3268	3268	0	2407	2406	1
L	3267	3267	0	2406	2406	0
M	3271	3269	2	2406	2404	2
N	3269	3269	0	2406	2406	0





CARBODYSHELL M3,M4 ASSEMBLY DTR30226487/3

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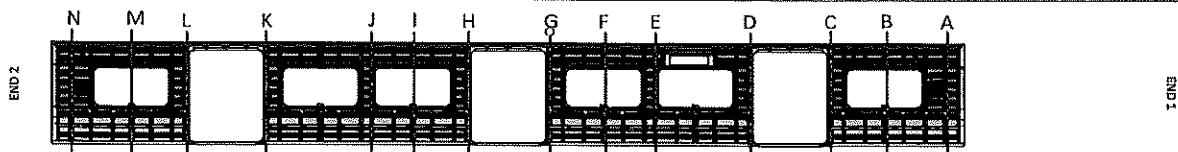
Date

07/11/2023

Project: PRASA

SI.CB1210.254.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	2406	2406	0
B	3267	3265	2	2405	2406	1
C	3297	3297	0	2407	2406	1
D	3298	3298	0	2406	2406	0
E	3271	3271	0	2406	2407	1
F	3268	3265	3	2406	2406	0
G	3298	3298	0	2405	2407	2
H	3297	3297	0	2406	2406	0
I	3267	3267	0	2407	2406	1
J	3272	3270	2	2406	2406	0
K	3298	3298	0	2407	2406	1
L	3297	3297	0	2406	2406	0
M	3269	3267	2	2405	2406	1
N	3296	3297	1	2408	2406	1

GIBELQ

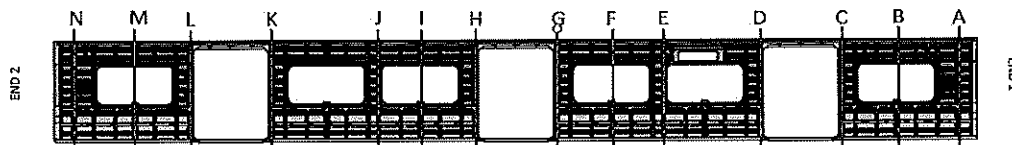
2023/08/08

INDUSTRIAL QUALITY
WATERLINE

	CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3	Rev. 31 Date 07/11/2023	Project: PRASA SI.CB1210.254.V30
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CBS measurement

BEFORE WELDING



2270 to 2276

A 2270

B 2272

C 2271

D 2270

E 2275

F 2274

G 2271

H 2270

I 2273

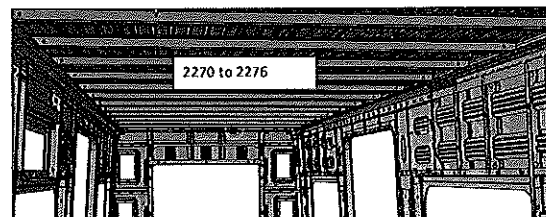
J 2276

K 2270

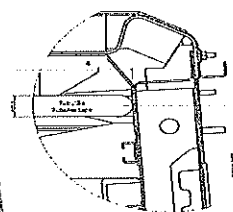
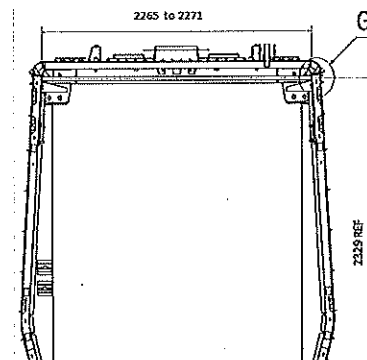
L 2271

M 2272

N 2270

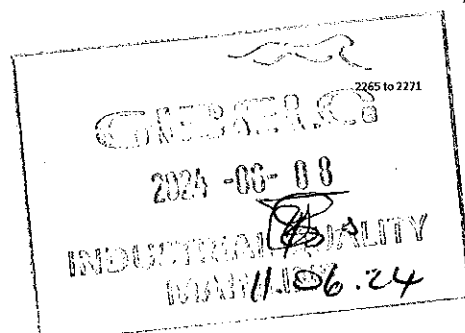


Do not consider reinforcement (Take measurements top area of zee profile

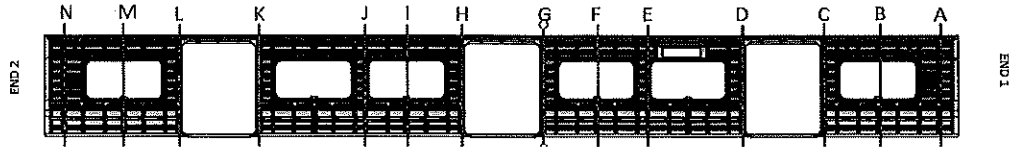


Detail G

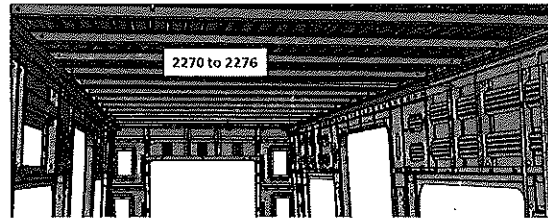
Consider the reinforcement plate



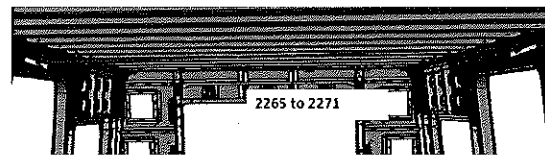
AFTER WELDING



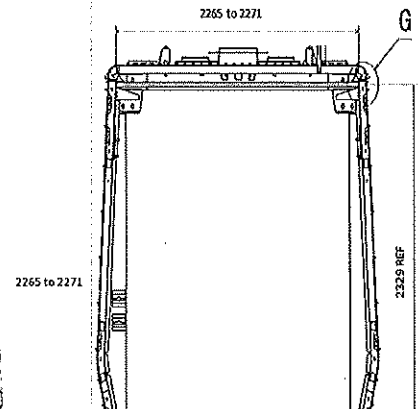
	2265 to 2271	2270 to 2276
A	2268	
B		2273
C	2267	
D	2270	
E		2274
F		2275
G	2268	
H	2267	
I		2274
J		2273
K	2268	
L	2266	
M		2275
N	2269	



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

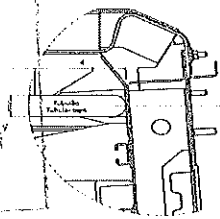
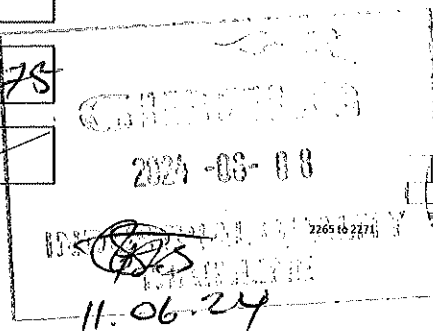


Take measurement close to radius (considering reinforcement)



2265 to 2271

2229 REF



Detail 0

Considering the reinforced cross plate



CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3

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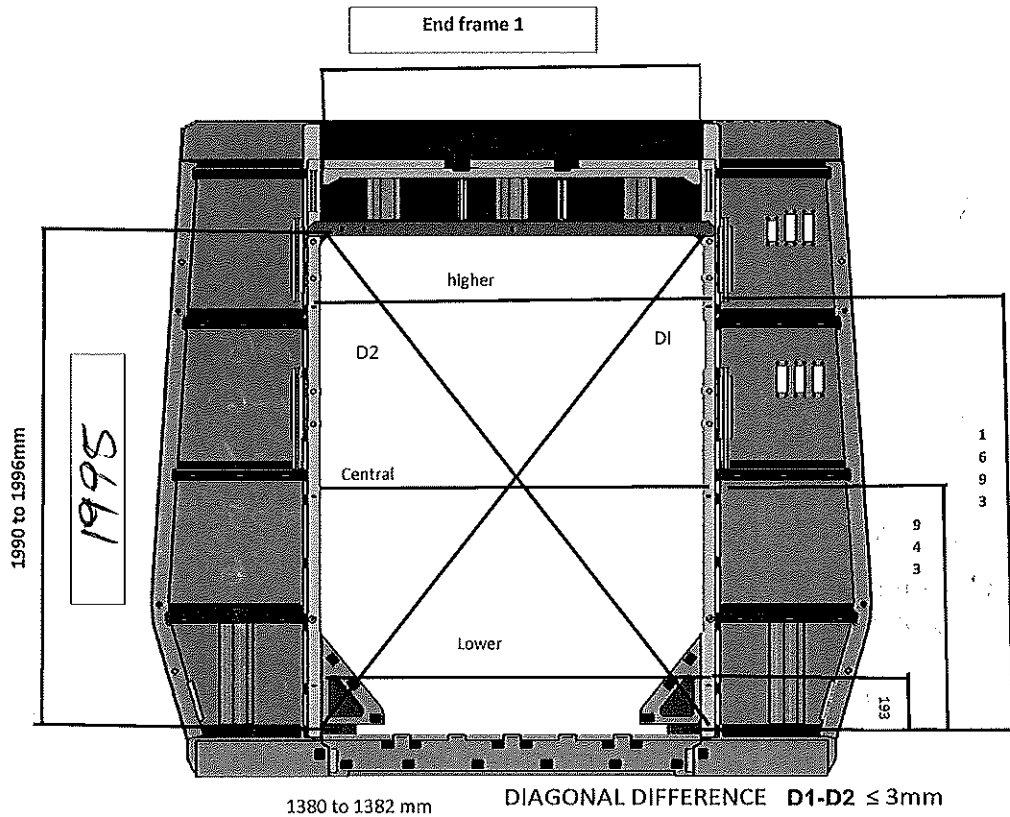
Date

07/11/2023

Project: PRASA

SI.CB1210.254.V30

Specifications of Details for CBS measurement



Higher Dimension

1380

D1

2415

Central Dimension

1881

D2

2417

Lower Dimension

1881

D1-D2

2.22

GIBELQ

03-08

11/06/24 QUALITY
MANAGEMENT



CARBODYSHELL M3,M4 ASSEMBLY DTR30226487/3

Rev.

31

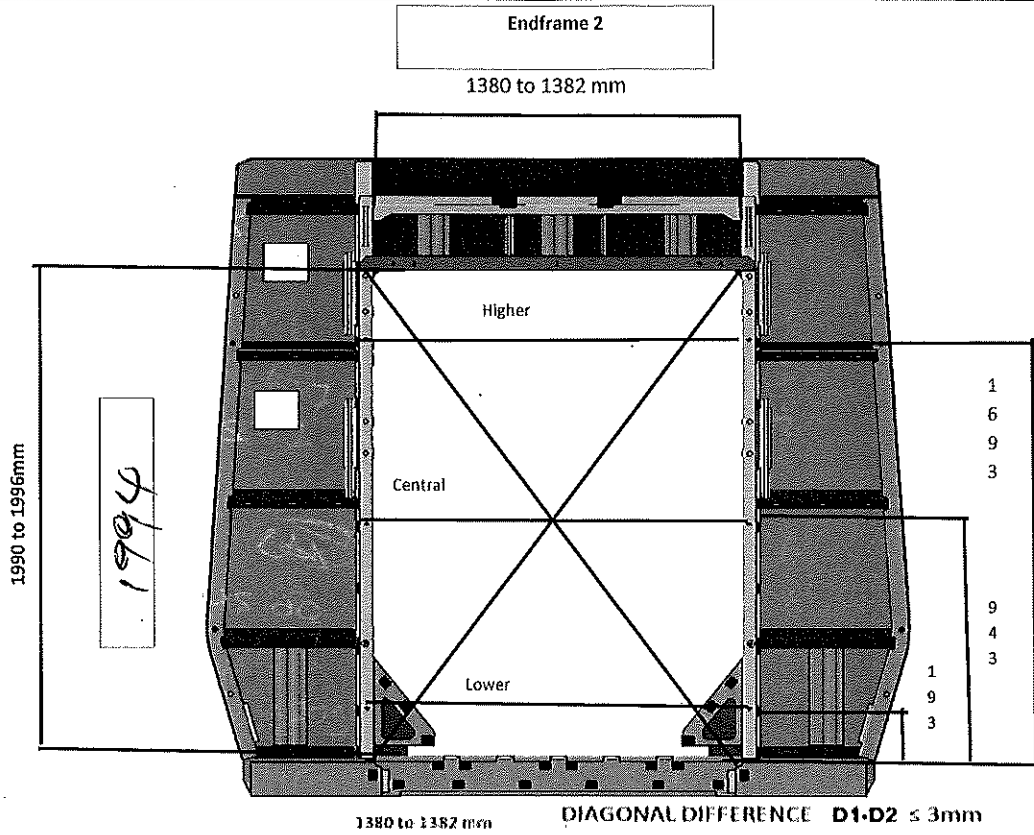
Date

07/11/2023

Project: PRASA

SI.CB1210.254.V30

Specifications of Details for CBS measurement



Higher Dimension

1381

D1

247

Central Dimension

1380

D2

2414

Lower Dimension

1880

D1-D2




3.3

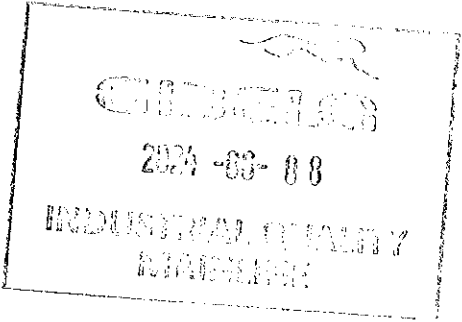
2024-08-08


INDUSTRIAL UTILITY

11.06.24

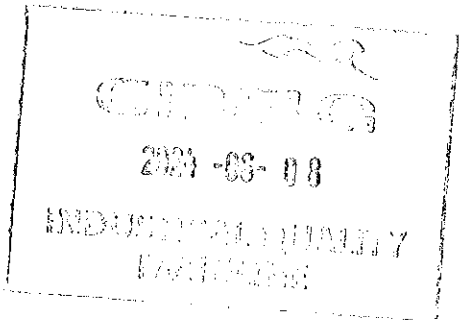
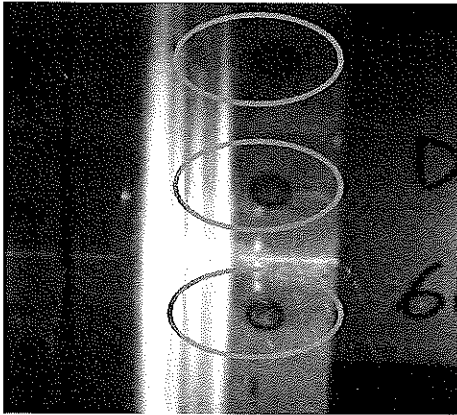



		CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3		Rev. 31 Date 07/11/2023	Project: PRA5A SI.CB1210.254.V30		
Self Inspection - Final Result							
				DATE	NAME	SIGNATURE	
HOLD POINT		GO	(If activities are not complete, the missing activities must not impact the next stage)	11.06.24	TUMELU Operations		
			Every auto inspection performed conforms to specification or in case of discrepancy the same is approved by the competent party.)	11.06.24	AMOGELANG Industrial Quality		
			There are activities pendings 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				



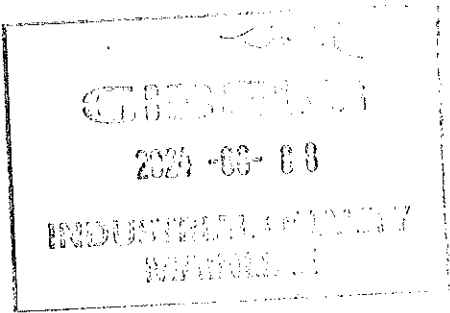
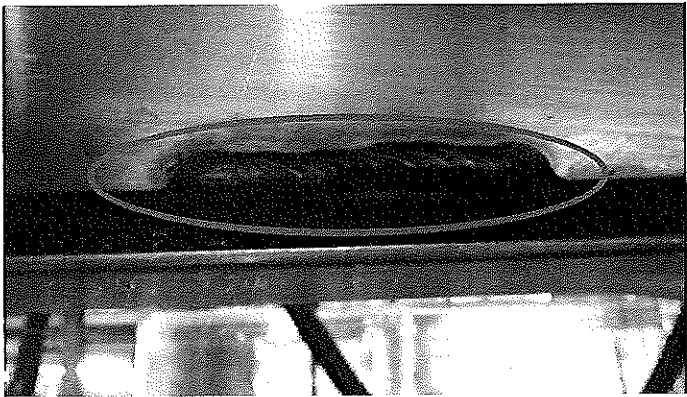
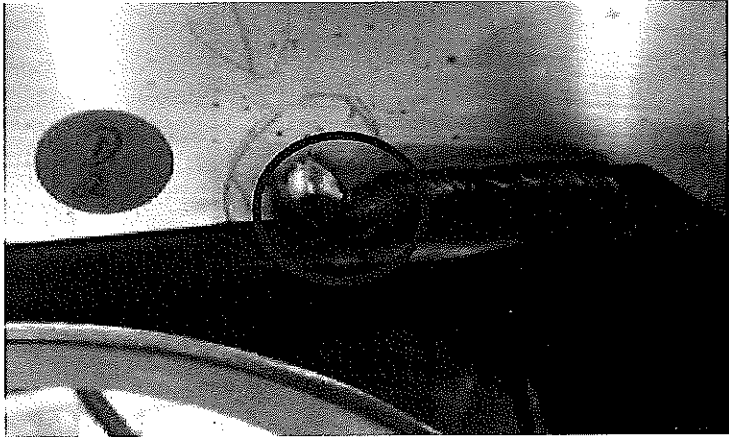
	CARBODYSHELL M3,M4 ASSEMBLY DTR30226487/3	Rev. 31 Date 07/11/2023	Project: PRASA SI.CB1210.254.V30
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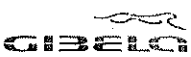
ANNEXURE A: Spot Welding Quality Acceptance Standard




	CARBODYSHELL M3,M4 ASSEMBLY DTR30226487/3	Rev. 31 Date 07/11/2023	Project: PRA5A SI.CB1210.254.V30
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ANNEXURE B: Arc Welding Quality Acceptance Standard





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												
HOURLING	DRAWING	DESCRIPTION	STATION	CAR TYPE						WORK INSTRUCTION	SAFETY	
				TC1	M4	M1	M2	M3	TC2			
<input type="checkbox"/>	DTR30225487/2	AAD0001278556	CARBODY/SHELL AL/M3/M4 ASSEMBLY	CB2220		X	X		X		PRA.CB2220.DTR30225487/2.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	Ramekone 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	Ramekone Motama		2018/07/05				
3	2018/06/12	Width tolerance as per OT0000336600			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	Mhombi 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 Mhombi		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 Mhombi		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 Mhombi		19/10/2022				
					CHECKER	Ntokozi 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	Ntokozi 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	Ntokozi Zwane		28/10/2023				
					REVISED BY	Amogelang Mohlampe		28/10/2023				
TRAINSET	CAR	OPERATOR NAME & AIPS NO		DATE	SELF INSPECTION NUMBER		PAGES					
232	M03	Tebelo		12/06/24	SI.CB2220.250.V29		13					

471781

	CARBODYSHELL M1,M3,M4 ASSEMBLY DTR30226487/2		Rev. 29 Date 28/10/2023	Project: PRASA SI.CB2220.250.V29	
	Car: M1,M3&M4		NCR:		Work station: CB2220
	Safety Related				

I - Documentation and Instruments Control

1.1 - Documentation Control

Document	Type of car					Revision	Observation	OK	N/A	Signature/Date (Manufacturing)	Signature/Date (Quality)
	TCT	M1	M3	M4	TCT						
DTR30226487/2			✓			29	12/06/24	✓	N/A	<i>[Signature]</i> 12/06/24	<i>[Signature]</i> 12/06/24

1.2 - Instruments Control

Monitoring and Measuring Instrument Control - Used for Special Process						
Instruments	Serial number	Calibration or Verification Validation Date	OK	N/A	Signature/Date (Manufacturing)	Signature/Date (Quality)
Turbular Measuring Tape	32823-2	15/03/25	✓		<i>[Signature]</i> 12/06/24	<i>[Signature]</i> 12/06/24
	GIBELQ	12/04/25	✓			






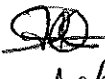
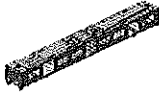


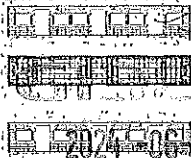






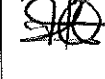

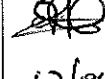



1.3 Consumables




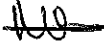

Welding Consumable Control - Used for Special Process						
Filler Material	Heat Number	Welding Process	OK	N/A	Signature/Date (Manufacturing)	Signature/Date (Quality)
Welding Wire	E23106	MIG Welding	✓		<i>[Signature]</i> 12/06/24	<i>[Signature]</i> 12/06/24

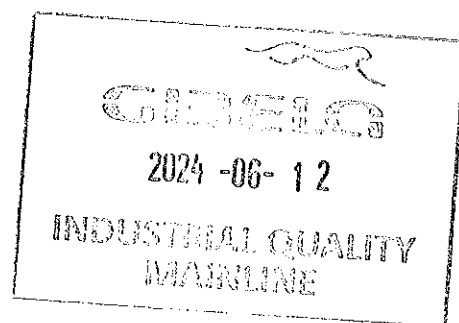
2024-06-12

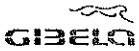
INDUSTRIAL QUALITY

MAINLINE

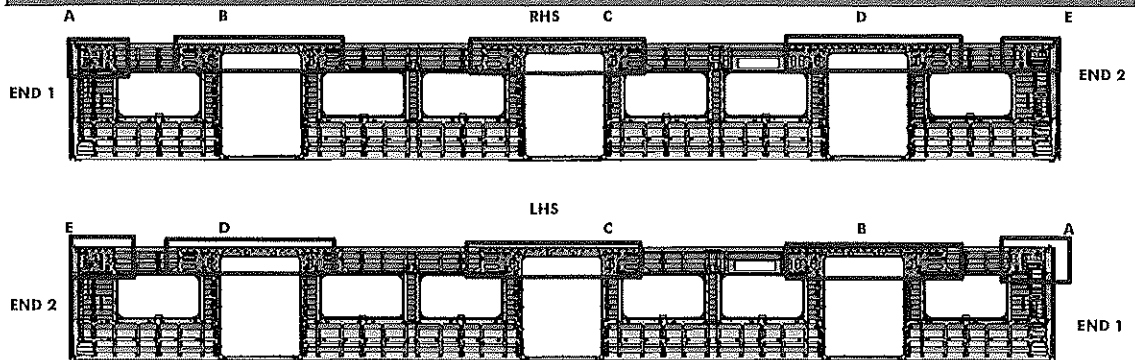
GIBELQ		CARBODYSHELL M1,M3,M4 ASSEMBLY DTR30226487/2		Rev. 29 Date 28/10/2023	Project: PRASA SI.CB2220.250.V29	
II - Self Inspection - Items to Check						
II.1 - Items to check						
Item	Picture/Drawing	Description	Acceptance criteria / Record	OK	Signature/Date (Manufacturing)	Signature/Date (Quality)
01	N/A	Assembly according to Instruction Engineering n° PRA.CB2220.DTR30225487/2 Verification of fitment for all reinforcement brackets.	PRA.CB2220.DTR30225487/2	✓	 12/06/24	 12/06/24
02	N/A	Carshell free of significant flaws which compromise the appearance or functionality	DTD0000210675	✓	 12/06/24	 12/06/24
03	REFER TO ANNEXURE A	Arc Welding inspected and approved according procedure.	IND-SAL-WMS-016 REFER TO GIB - TYPDEF - ARC - 0000	✓	 12/06/24	 12/06/24
04		Cleaning of all Stainless Steel Surface	According TO GIB-WEL - PROC-0002	✓	 12/06/24	 12/06/24
05		Functional dimensions approved according drawing or complementary document approved by Autom engineering and registered in this document.	Approved according specified on pages below.	✓	 12/06/24	 12/06/24
06		Perform visual inspection of welds in 100% of the project. Run by penetrant testing in electric 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.	✓	 12/06/24	 12/06/24
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: Temperature Min - Max (°C) 10°C - 35°C Relative humidity Min - Max (%) 25% - 60%	Sealant Batch No: <u>184037</u> Exp Date: <u>1/12/25</u> Actuals Temperature: <u>20</u> Humidity: <u>60</u>	✓	 12/06/24	 12/06/24
08	NA	Verification of sealant application in certain regions in the drawing.	AAD0003278566	✓	 12/06/24	 12/06/24
09		Verification of safety welds	Approved according to DTD000210658 reference and Self inspection	✓	 12/06/24	 12/06/24

	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			
<div style="text-align: center;">SEALANT APPLICATION</div> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 40%;">   </div> <div style="width: 55%; border: 1px solid black; padding: 5px;"> <div style="text-align: center;">AREA 1 & 2 END 1</div> <div style="margin-top: 10px;"> Operator (Name & sign): Mthokozisi  </div> <div style="margin-top: 10px;"> Operator (Name & sign): Mthokozisi  </div> </div> </div>			



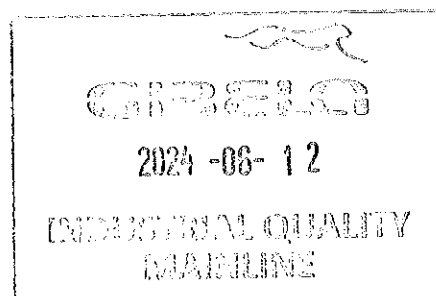
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		29	
		Date	
		28/10/2023	


II - Self Inspection - Items to Check



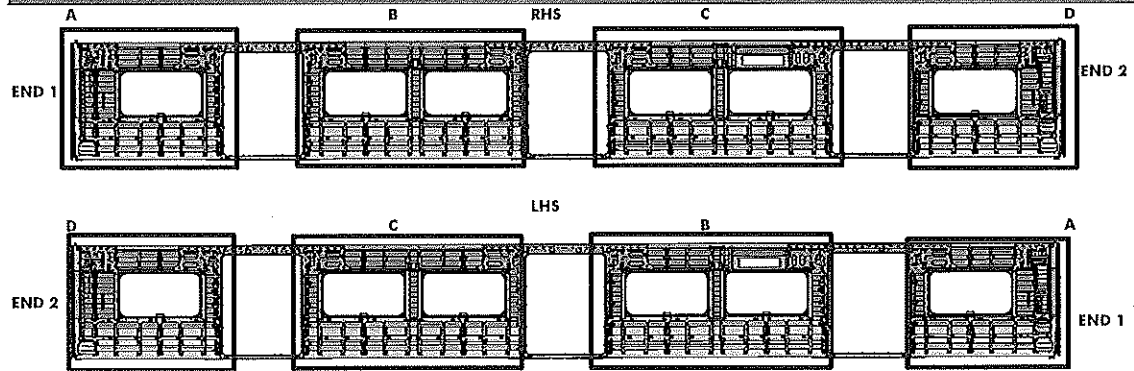
REINFORCEMENT WELDING

AREA	LHS	RHS
A	Operator (Name&sign): <u>Xulu AB</u>	<u>THULANI</u>
B	Operator (Name&sign): <u>Xulu AB</u>	<u>THULANI</u>
C	Operator (Name&sign): <u>Shiga D</u>	<u>THULANI</u>
D	Operator (Name&sign): <u>Shiga D</u>	<u>THULANI</u>
E	Operator (Name&sign): <u>Shiga D</u>	<u>THULANI</u>



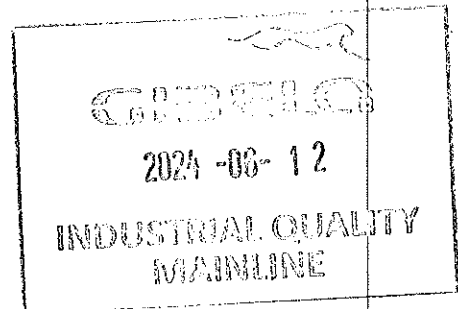
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		28	
		Date	
		28/10/2023	
		SI.CB2220.250.V29	

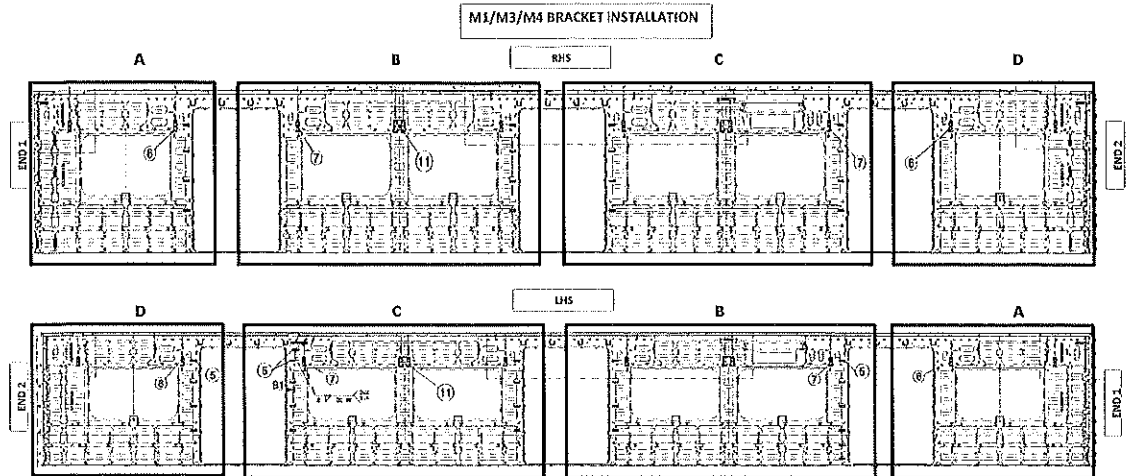
II - Self Inspection - Items to Check



BRACKETING

		INSTALLATION	
C-RAILS:	Operator:	Telelo	
	Operator:		
DOOR MECHANISMS:	Operator:	Mashudu	
	Operator:		
TAPPING PADS	Operator:	Mkhize	
	Operator:	Lindo	
		INSTALLATION & VERIFICATION	
SEAT & LUGGAGE BRACKETS:	Operator:	Asanda	
	Operator:		
SEAT BRACKETS VERIFICATION:	Operator:	Asanda	
	Operator:		
		WELDING	
AREA	LHS	RHS	
A (Seat brackets)	: Operator (Name&sign):	Lindo	
(C-rails, Luggage and earth bushes)	: Operator (Name&sign):	Lindo	
B (Seat brackets)	: Operator (Name&sign):	Lindo	
(C-rails, Luggage and earth bushes)	: Operator (Name&sign):	Lindo	
C (Seat brackets)	: Operator (Name&sign):	Mashudu	
(C-rails, Luggage and earth bushes)	: Operator (Name&sign):	Mashudu	
D (Seat brackets)	: Operator (Name&sign):	Mashudu	
(C-rails, Luggage and earth bushes)	: Operator (Name&sign):	Mashudu	
ENDS			
END 1 TAPPING PADS WELDING:	Operator (Name&sign):	Lindo	
END 2 TAPPING PADS WELDING:	Operator (Name&sign):	Mkhize	





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:
 C-RAILS 2 OFF EACH END
 EARTH BUSH 6 OFF EACH END

VERIFICATION BY: Tebebo

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	6		
	D	2		

ROOF ENDS:
 C-RAILS 2 OFF EACH END
 EARTH BUSH 6 OFF EACH END

VERIFICATION BY: Tebebo

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:
 C-RAILS 2 OFF EACH END
 EARTH BUSH 6 OFF EACH END

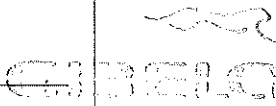
VERIFICATION BY: N/A

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:
 C-RAILS 2 OFF EACH END
 EARTH BUSH 6 OFF EACH END

VERIFICATION BY: N/A



2024-06-12

INDUSTRIAL QUALITY
MANUFA



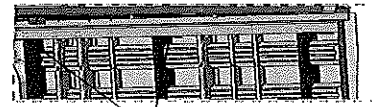
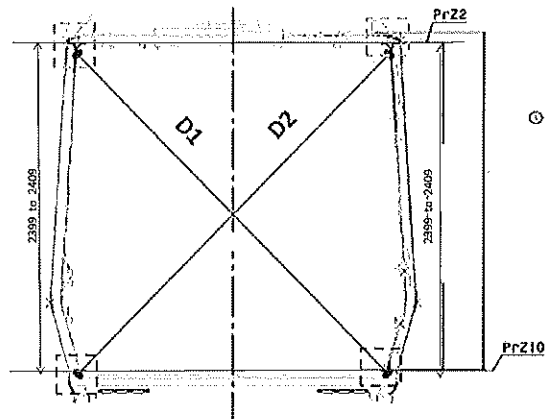
CARBODYSHELL M1,M3,M4 ASSEMBLY
DTR30226487/2

Rev.
29
Date
28/10/2023

Project: PRASA

SI.CB2220.250.V29

Specifications of Details for CBS measurement



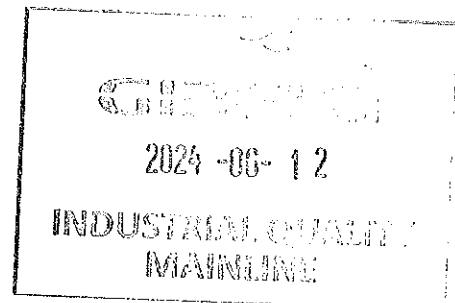
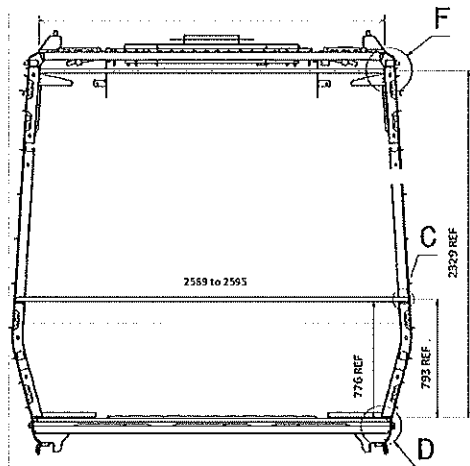
Measurement positions on roof rail and sidewall omega corner.

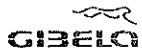


Reinforcement area measurement positions on roof reinforcement area.



Measurement positions on sidewall and side sill corner.





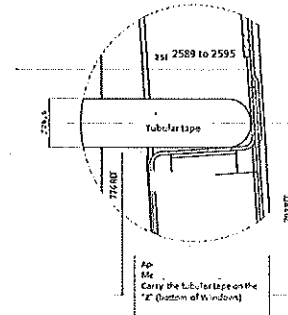
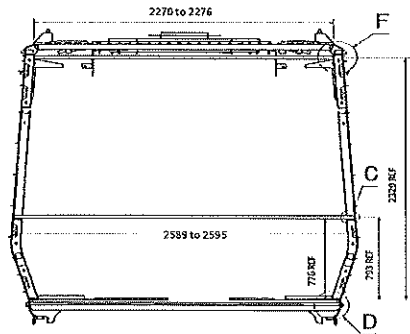
CARBODYSHELL M1,M3,M4 ASSEMBLY
DTR30225487/2

Rev.
29
Date
28/10/2023

Project: PRASA

SI.CB2220.250.V29

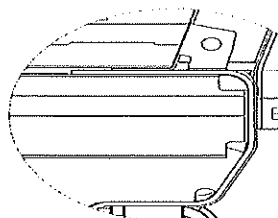
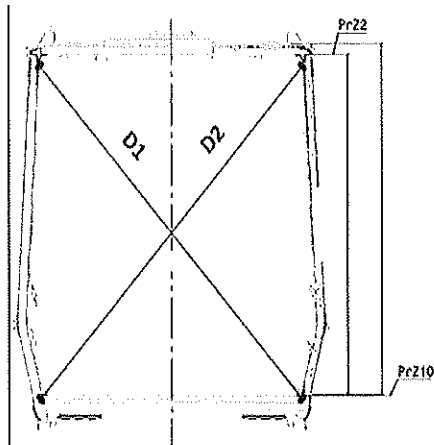
CBS measurement



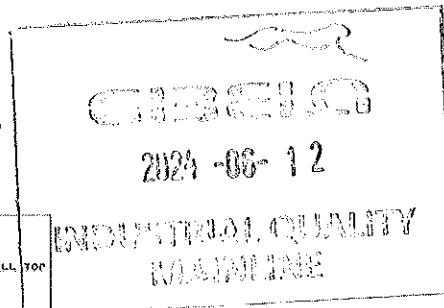
Detail C




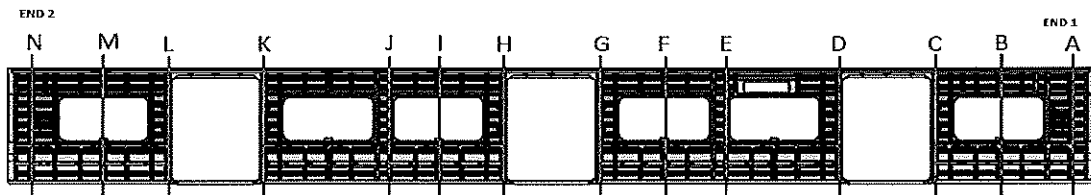
Take measurement close to
radius



Detail D (1:1)

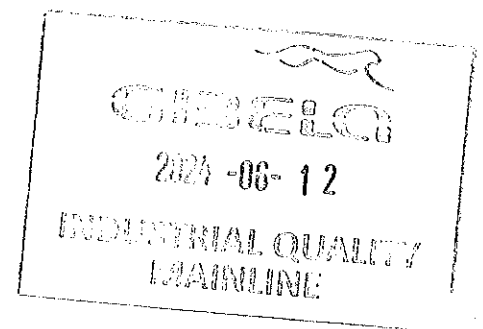


	CARBODYSHELL M1,M3,M4 ASSEMBLY DTR30225487/2	Rev.	Project: PRASA SI.CB2220.250.V29
		29	
		Date	
		28/10/2023	
CBS measurement			

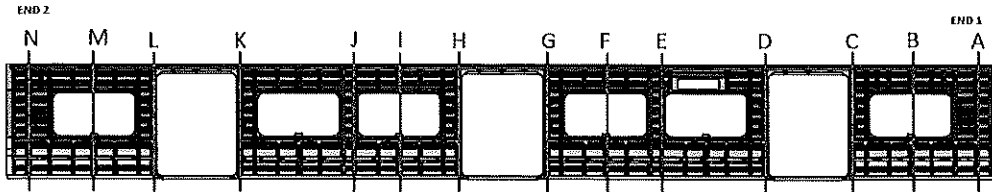


BEFORE WELDING

	Record D1 values	Record D2 values	D1-D2 ≤ 5mm	2589 to 2595
A	3296	3298	2	
B	3267	3269	2	
C	3300	3298	2	
D	3299	3296	3	
E	3267	3268	1	
F	3268	3269	1	
G	3298	3297	1	
H	3300	3297	3	
I	3268	3266	2	
J	3267	3265	2	
K	3300	3298	2	
L	3297	3296	1	
M	3268	3266	2	
N	3299	3297	2	



CBS measurement



AFTER WELDING

	Record D1 values	Record D2 values	D1-D2 ≤ 5mm	2589 to 2595
A	3297	3295	2	2590
B	3265	3268	2	2591
C	3296	3297	1	2590
D	3298	3297	1	2592
E	3269	3268	1	2591
F	3267	3266	1	2590
G	3298	3297	1	2590
H	3269	3300	1	2591
I	3267	3268	1	2592
J	3264	3266	3	2591
K	3297	3296	1	2590
L	3300	3297	3	2591
M	3265	3268	3	2591
N	3300	3297	3	2590

GIBELQ

2024-10-27

INDUSTRIALITY

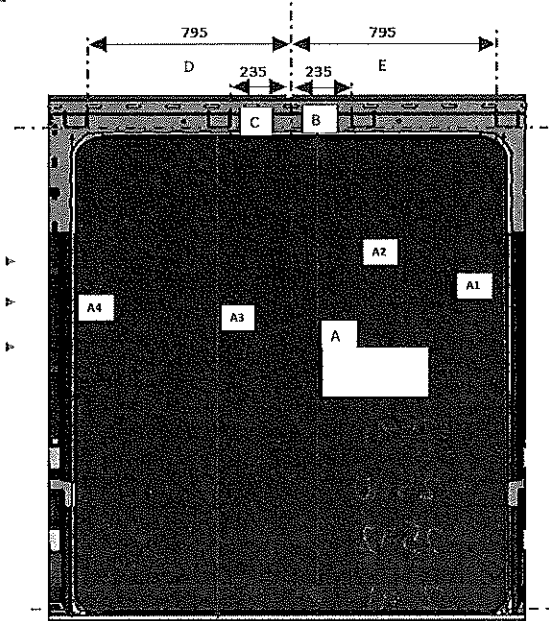


CARBODYSHELL M1,M3,M4 ASSEMBLY
DTR30226487/2

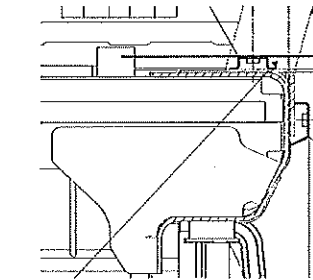
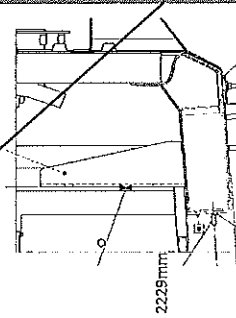
Rev.
29
Date
28/10/2023

Project: PRASA
SI.CB2220.250.V29

Specifications of Details for GBS measurement CB1220



Brackets Carbodyshell
U Type Supports



Brackets Carbodyshell
Channel Assy

DOOR 1 - LHS

	VALUE	ACTUAL
A1	2230 to 2232	2230
A2	2230 to 2232	2231
A3	2230 to 2232	2232
A4	2230 to 2232	2230
B	234 to 236	235
C	234 to 236	235
D	794 to 796	796
E	794 to 796	796

DOOR 2 - LHS

	VALUE	ACTUAL
A1	2230 to 2232	2230
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	794
E	794 to 796	795

DOOR 2 - RHS

	VALUE	ACTUAL
A1	2230 to 2232	2232
A2	2230 to 2232	2230
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 1 - RHS

	VALUE	ACTUAL
A1	2230 to 2232	2231
A2	2230 to 2232	2230
A3	2230 to 2232	2232
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	2230
A2	2230 to 2232	2231
A3	2230 to 2232	2230
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

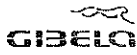
DOOR 3 - RHS

	VALUE	ACTUAL
A1	2230 to 2232	2231
A2	2230 to 2232	2230
A3	2230 to 2232	2231
A4	2230 to 2232	2230
B	234 to 236	235
C	234 to 236	236
D	794 to 796	796
E	794 to 796	796



2024-06-12

INDUSTRIAL QUALITY
MAINLINE



CARBODYSHELL M1,M3,M4 ASSEMBLY
DTR30226487/2

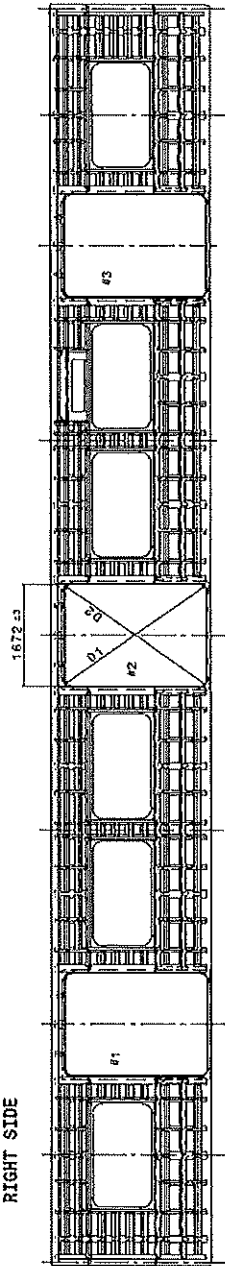
Rev.
29
Date
28/10/2023

Project: PRA5A

SI.CB2220.250.V29

Specifications of Details for CBS measurement CB1220

End #2



RIGHT SIDE

End #1

Doors diagonal D1-D2 maximum difference ≤ 4mm

	#1	#2	#3
D1	2750	2751	2750
D2	2749	2752	2748
D1-D2	1	7	2

HIGHER DIMENSION

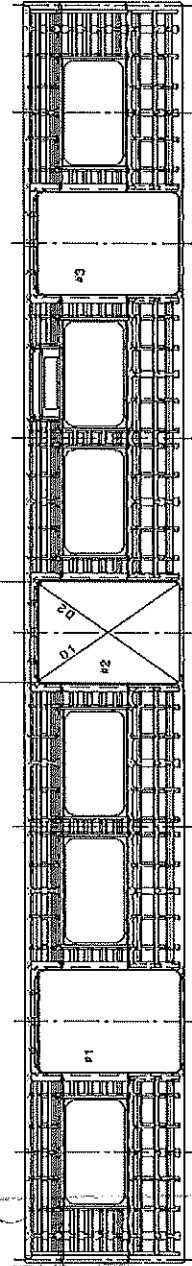
CENTRAL DIMENSION

LOWER DIMENSION

Doors Length = 1672 ±3mm

	#1	#2	#3
1672	1671	1671	1671
1671	1672	1672	1672
1672	1671	1671	1673

End #1



LEFT SIDE

End #2

Doors diagonal D1-D2 maximum difference ≤ 4mm

	#1	#2	#3
D1	2750	2751	2750
D2	2749	2752	2748
D1-D2	1	7	2

HIGHER DIMENSION

CENTRAL DIMENSION



LOWER DIMENSION

Doors Length = 1672 ±3mm

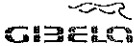



	#1	#2	#3
1671	1671	1671	1672
1672	1671	1671	1672
1671	1671	1671	1673

2024-06-12

INDUSTRIAL QUALITY
MAINLINE

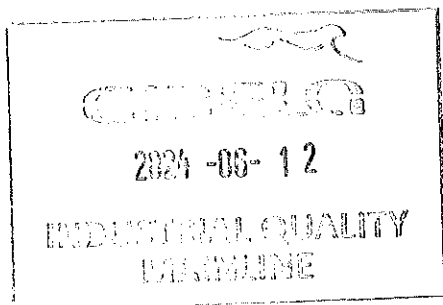
	CARBODYSHELL M1,M3,M4 ASSEMBLY DTR30225487/2	Rev.	Project: PRASA	
		29		
		Date	SI.CB2220.250.V29	
		28/10/2023		
CBS measurement (Manufacturing)				
Dye penetrant test				
Dye-penetration test to be performed by quality personnel				
				


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	Remarks	Signature/Date (Manufacturing)	Signature/Date Quality
01	H/A	To complete REX	Refer to REX. New defects must be added on the REX					

	CARBODYSHELL M1,M3,M4 ASSEMBLY DTR30226487/2		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		GO	(If activities are not complete, the missing activities must not impact the next stage!)	12/06/24	Tebelo Operations	
			Every auto inspection performed conforms to specification or in case of discrepancy the same is approved by the competent party)	12/06/24	Amogelani 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	

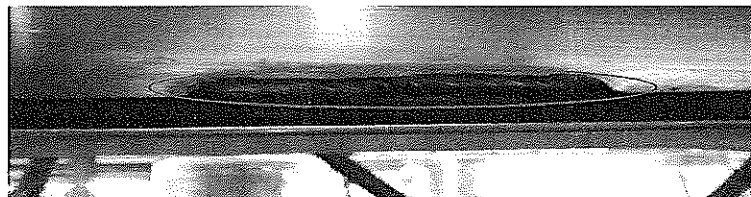
Operations

Quality

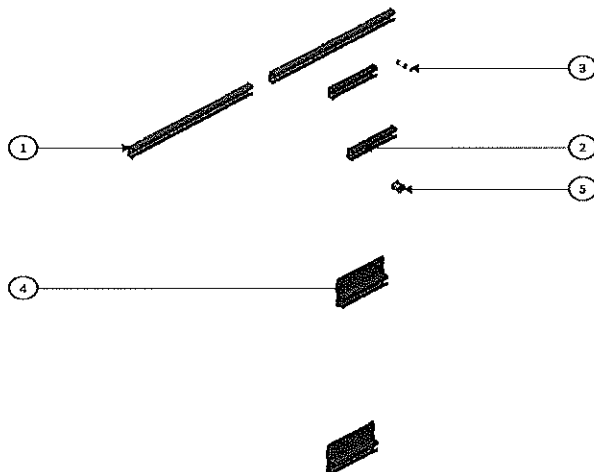


	CARBODYSHELL M1,M3,M4 ASSEMBLY DTR30226487/2	Rev.	Project: PRASA SI.CB2220.250.V29
		29	
		Date	
		28/10/2023	

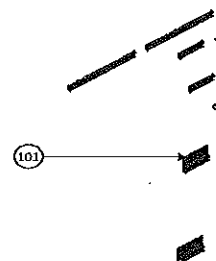
ANNEXURE A: Arc Welding Quality Acceptance Standard



Station: CB1220-004- U108 & U107



PART NO.	ITEM NO.	QTY	DESCRIPTION	MASS [KG]
DTR000007603	5	6	EARTH STUD 6	0.035
A000001201813	4	6	ASSEMBLY SUPPORT	0.271
DTR0000313305	3	32	WELDING STUD ISO13318 PT - R5520-SS7	0.027
A000001100424	2	12	ASSEMBLY SUPPORT	0.193
A000001104418	1	14	ASSEMBLY SUPPORT	0.522
A000001161080	101	6	CARBODYSHELL BRACKETS CARBODYSHELL M1/M3/M4 CAX(SIDE FRAME MODULE END - 019)	12.132



GIBELA

PRASA PROJECT

RESTRICT

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.

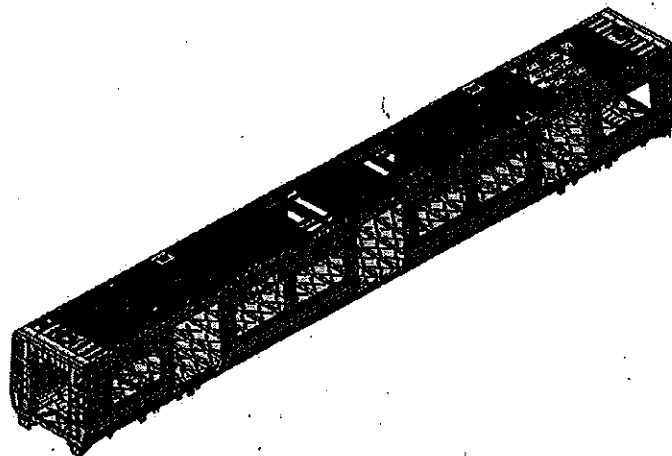
APPLICATION REFERENCE

HOUSING	DRAWING	DESCRIPTION	STATION	CAR TYPE						WORK INSTRUCTION	SAFETY?	
				TC	MC	ML	MR	MX	TC			
<input type="checkbox"/>	DT00000215487	AA00001276548	CARBOOTSHELL PL, Ma, Ma ASSEMBLY	CB2210		X	X		X		PRA.CB2230.DT000002 25487.V20	YES
<input type="checkbox"/>												
<input type="checkbox"/>												
	DATE	MODIFICATION CONTENT		RESPONSIBLE	NAME	DATE						
0	2018/08/02	GIBELA NEW CREATION		APPROVER	Philipa Marques	2018/08/02						
				CHECKER	Nosizo Pindela	2018/08/02						
				COMPILED	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	Ramokone Motama	2018/05/07						
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						
				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						
11	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 Mhombhli	20/02/2022						
				CHECKER	Andani Muthelo							
				REVISED BY	Andani Muthelo							
26	14/06/2022	Update minimum temperature requirement for sealant application		APPROVER	Collins Mhombhli	14/06/2022						
				CHECKER	Andani Muthelo							
				REVISED BY	Andani Muthelo							
27	26/07/2022	Threshold measurements addition		APPROVER	Collins Mhombhli	26/07/2022						
				CHECKER	Andani Muthelo							
				REVISED BY	Andani Muthelo							
28	17/10/2022	Added traceability of sealant application		APPROVER	Collins Mhombhli	17/10/2022						
				CHECKER	Ntokoza Zwane							
				REVISED BY	Amogelang Mohlampe							
29	14/04/2023	Added sealant batch number & welding consumables traceability		APPROVER	Vanessa Ntuli	14/04/2023						
				CHECKER	Ntokoza Zwane							
				REVISED BY	Amogelang Mohlampe							
30	06/11/2023	Added threshold traceability for boiler makers and welders		APPROVER	Hgobeni Tyson	06/11/2023						
				CHECKER	Andani Muthelo							
				REVISED BY	Ntokoza Zwane							
TRAINSET	CAR	OPERATOR NAME & ID NO	DATE	SELF INSPECTION NUMBER	PAGES							
232	M03	Kgoboo 480124	13/06/24	SI.CB2230.256.V29	12							

	CARBODYSHELL M1,M3,M4 ASSEMBLY DT00000225487	Rev. 30	Project: PRASA SI.CB2230.256.V29
		Date 08/11/2023	
Case:	NCR:	Work station: CB2230	



Safety Related




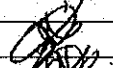
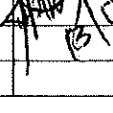
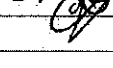
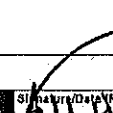
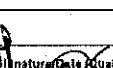
I - Documentation and Instruments Control

I.1 - Documentation Control

Document	Type of use				Revision	Observation	I	RCK	Rework	Signature/Date (Operations)	Signature/Date (Quality)
	1	2	3	4							
PRA.CB2230.DT00000225487				7	30				N/A	 13/06/24	 13/06/24

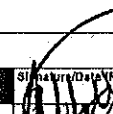
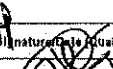
I.2 - Instruments Control


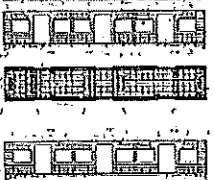
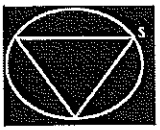
Monitoring and Measuring Instrument Control - Used for Special Process


Instruments	Serial Number	Calibration or Verification Validation Date	I	RCK	Signature/Date (Operations)	Signature/Date (Quality)
Measuring Tape	G1130401	2025-04-22	X		 13/06/24	 13/06/24
Combination Square	G1130572	2025-04-05	X		 13/06/24	 13/06/24
Tubular	22713	2024-06-24	X		 13/06/24	 13/06/24

1.3 Consumables

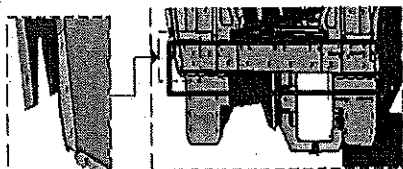

Welding Consumable Control - Used for Special Process

Filler Material	Heat Number	Welding Process	I	RCK	Signature/Date (Operations)	Signature/Date (Quality)
308 CSI	373771	MIG	X		 13/06/24	 13/06/24

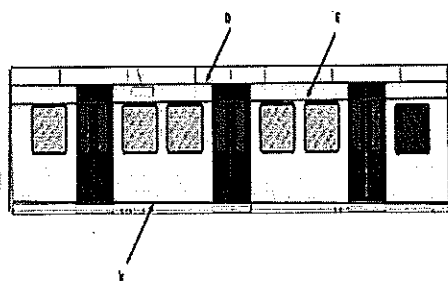
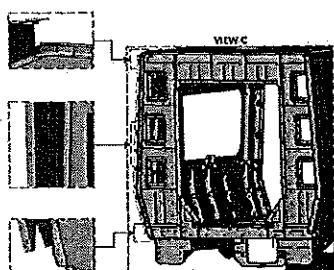
GIBELQ		CARBODYSHELL M1,M3,M4 ASSEMBLY DT00000225487		Rev. 30 Date 08/11/2023	Project: PRASA SI.CB2230.256.V29	
II - Self Inspection - Items to Check						
II.1 - Items to check						
Item	Picture/Drawing	Description	Acceptance criteria/Record		Signature/Date (Operator)	Signature/Date (Quality)
01	N/A	Assembly according to Instruction Engineering nº PRA.CB1230.DT00000225487 Verification of filament for all brackets.	PRA.CB1230.DT00000225487	X		
02	N/A	Carshell free of significant flaws which compromise the appearance or functionality	DTD0000210675	X		
03	REFER TO ANNEXURE A	Arc Welding inspected and approved according procedure.	IND-SAL-WMS-016 REFER TO GIB - TYPDEF - ARC - 0000	X		
04		Cleaning of all Stainless Steel Surface	According TO GIB-WEL - PROC-0002	X		
05		Functional dimensions approved according drawing or complementary document approved by Alstom engineering and registered in this document.	Approved according specified on pages below.	X		
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.	X		
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: Temperature Min - Max (S) Min-Max 10°C - 35°C Relative humidity Min - Max (I) Min-Max 25% - 80%	Sealant Batch No: 18421067 Exp Date: 15/06/24 Actuals Temperature: 30 Humidity: 45%	X		
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	X		
09	N/A	Verification of sealant application in certain regions in the drawing.	AAD0001278566	X		

	CARBODYSHELL M1,M3,M4 ASSEMBLY DT00000225487	Rev. 30	Project: PRASA SI.CB2230.256.V29
		Date	
		08/11/2023	
II - Self Inspection - Items to Check			

AREA 1

**END 2 SEALANT**OPERATOR
(Name & sign):Lerato OPERATOR
(Name & sign):Lerato OPERATOR
(Name & sign):Lerato 

AREA 2 (VIEW C)



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

Operator (Name & sign):

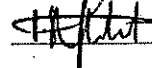
LHS
RRS


Operator (Name & sign):

D,E,F,I

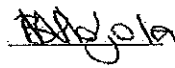
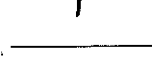
D,E,F,G,H,I

Operator (Name & sign):

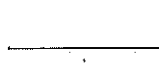
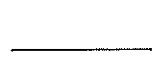


Bunle

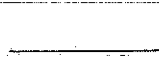
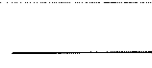
Operator (Name & sign):



Operator (Name & sign):



Operator (Name & sign):





CARBODYSHELL M1,M3,M4 ASSEMBLY
DT00000226487

Rev.
30

Date

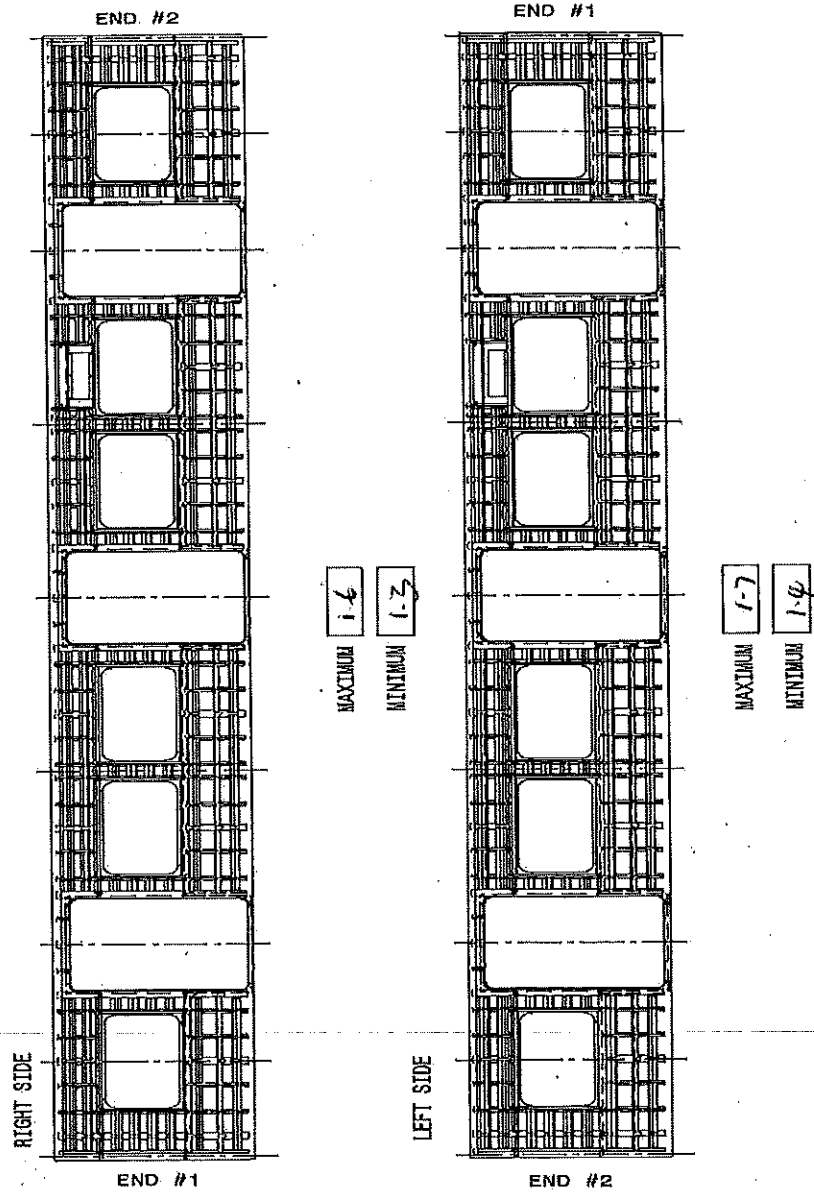
06/11/2023

Project: PRA5A

SI.CB2230.256.V29

Specifications of Details for CBS measurement CB1230

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





CARBODYSHELL M1,M3,M4 ASSEMBLY
DT00000226487

Rev.
30

Date

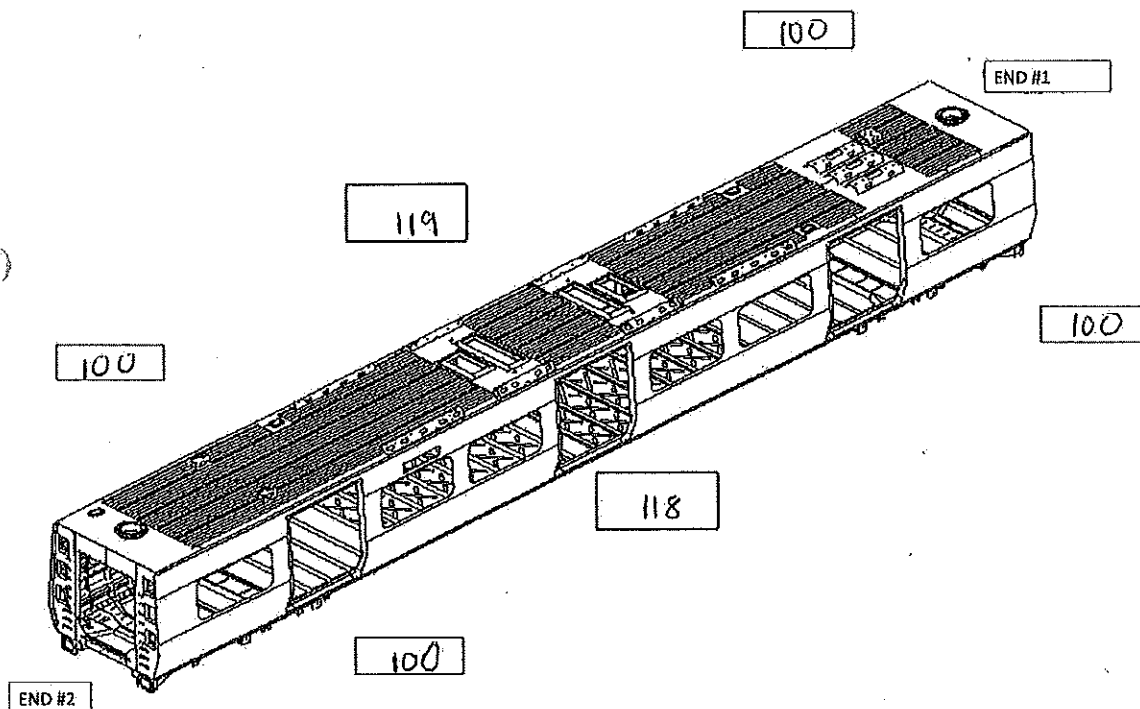
08/11/2023

Project: PRASA

SI.CB2230.256.V29

Specifications of Details for CB5 measurement CB1230

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



MEASURED CAMBER VALUES

RIGHT


11

18

LEFT

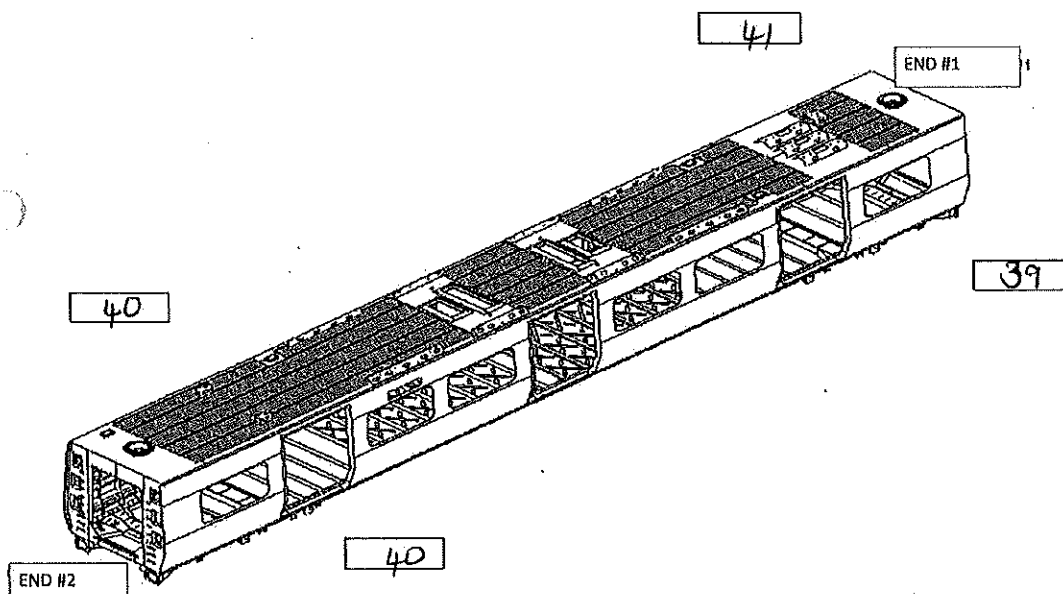
11

19

	CARBODYSHELL M1,M3,M4 ASSEMBLY DT00000226487	Rev. 30	Project: PRASA SI.CB2230.256.V29
		Date 08/11/2023	


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.

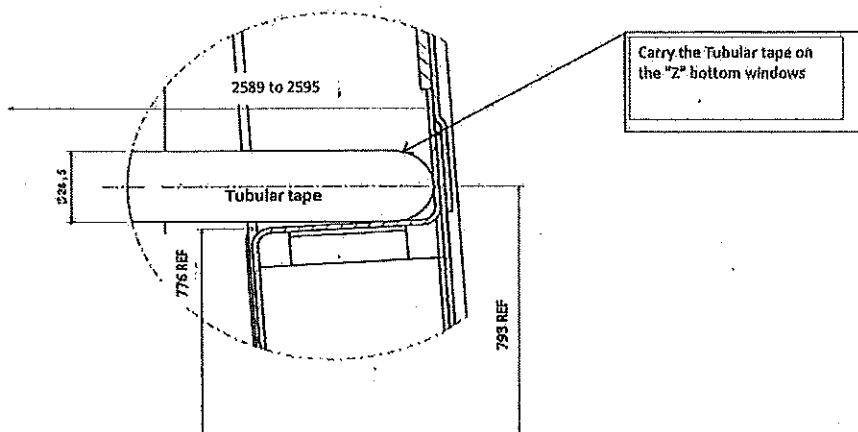


TWIST FOUND ON END 1.	
TRANVERSE	2
LONGITUDINAL	1

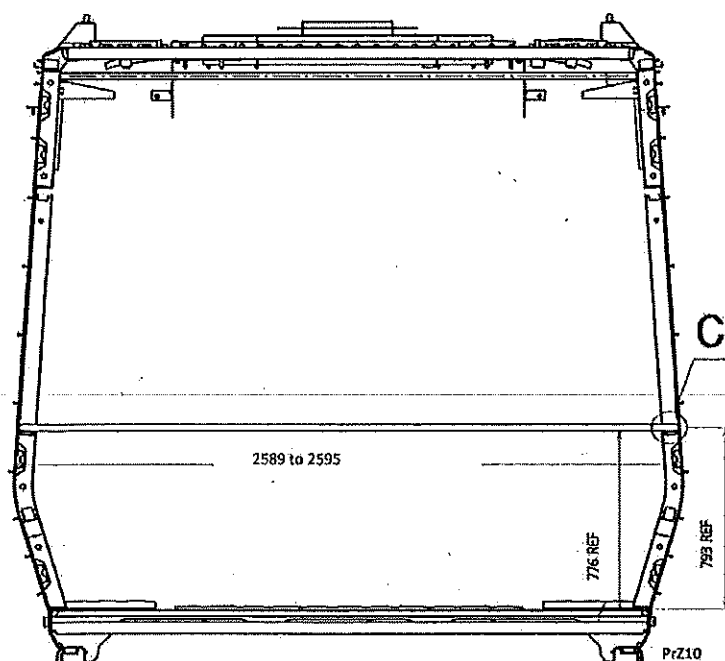
TWIST FOUND ON END 2	
TRANVERSE	0
LONGITUDINAL	1

	CARBODYSHELL M1,M3,M4 ASSEMBLY DT00000226487	Rev. 30	Project: PRASA SI.CB2230.256.V29
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Specifications of Details for CBS measurement CB1230



Detail C



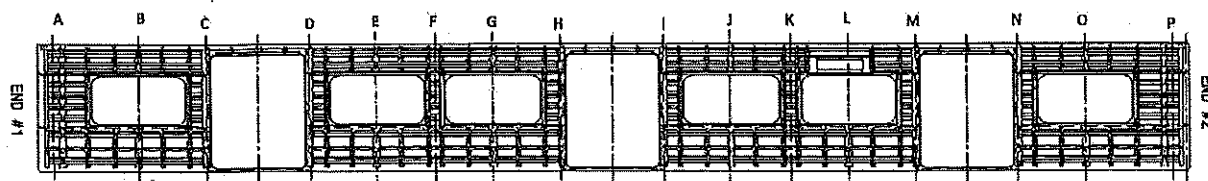


CARBODYSHELL M1,M3,M4 ASSEMBLY
DT00000225487

Rev.
30
Data
08/11/2023

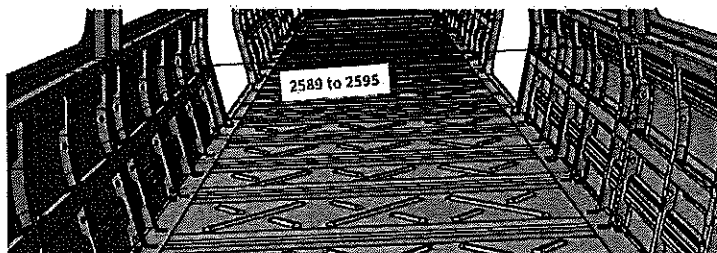
Project: PRASA
SI.CB2230.256.V29

Specifications of Details for CBS measurement CB1230



2589 to 2595mm

A	2595
B	2892
C	2889
D	2890
E	2893
F	2895
G	2895
H	2890
I	2591
J	2894
K	2895
L	2894
M	2892
N	2889
O	2890
P	2592



Threshold verification

Nominal value :38

Door 1		Door 2		Door 3	
L	R	L	R	L	R
36	38	39	38	38	37
Door 4		Door 5		Door 6	
L	R	L	R	L	R
38	38	39	39	37	38

BOILER MAKER


WELDER:

Emmanuel
Nonhlanhla
C. O. O. O.



Dye penetrant test

Dye-penetration test to be performed by quality personnel



	CARBODYSHELL M1,M3,M4 ASSEMBLY DT00000226487	Rev. 30	Project: PRASA SI.CB2230.256.V29
		Date	
		08/11/2023	

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	(If activities are not complete, the missing activities must not impact the next stage)	13/06/24	Koyoto	
	Every auto inspection performed conforms to specification or in case of discrepancy the same is approved by the competent party.	13/06/24	AMO	
	There are activities pending 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

