
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	M1	M2	M3	TC2				
<input checked="" type="checkbox"/>	DTR3000152644	AAD0001278566	CARBODYSHELL M3,M4 ASSEMBLY	CB1210		X		X			PRA.CB1210.DTR30225 487/3.V30	YES
<input type="checkbox"/>												

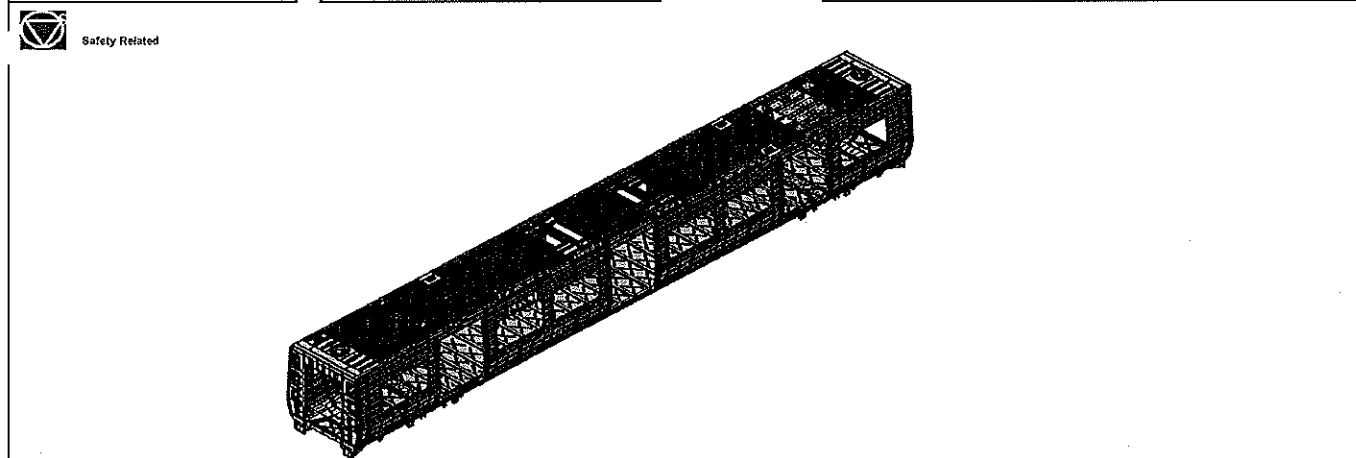
REV	DATE	MODIFICATION CONTENT	RESPONSIBLE	NAME	DATE
0	10/01/2018	GIBELA NEW CREATION	APPROVER	Itumeleng Modiba	10/01/2018
			CHECKER	Nosizo Pindela	10/01/2018
			COMPILER	Thanyani Mathegu	10/01/2018
1	2018/05/18	Team leader and Quality Technician to sign Change final signature from PME Manager to Quality 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	
			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	
21	17/08/2021	ADDED DIMENSIONS BEFORE WELDING	APPROVER	Mbhombi collins	17/08/2021
			CHECKER	Mpho Mulaudzi	
			REVISED BY	Mpho Mulaudzi	
25	19/02/2022	New Baseline change 10.3.1	APPROVER	Mbhombi collins	19/02/2022
			CHECKER	Andani Muthelo	
			REVISED BY	Andani Muthelo	
26	14/04/2023	Addition of welding consumable traceability	APPROVER	Ntuli Vanessa	14/04/2023
			CHECKER	Mohlampe Amogelang	
			REVISED BY	Mohlampe Amogelang	
28	07/11/2023	Added traceability for welding sections	APPROVER	Ngobeni Tyson	07/11/2023
			CHECKER	Mohlampe Amogelang	
			REVISED BY	Ntokozo Zwane	

TRAINSET	CAR	OPERATOR NAME & ALPS NO	DATE	SELF INSPECTION NUMBER	PAGES
B231	M3	P. MALATJI	06/05/24	SI.CB1210.254.V30	17

407960

	CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3	Rev. 28	Project: PRA5A SI.CB1210.254.V30
		Date 07/11/2023	

Car: M3 & M4	NCR:	Work station: CB1210
--------------	------	----------------------

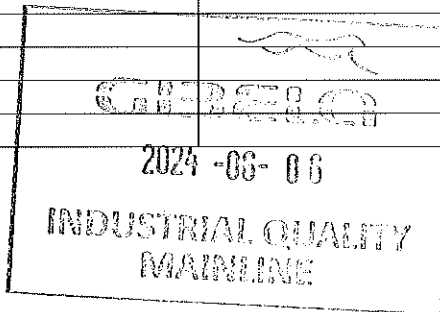



I - Documentation and Instruments Control

I.1 - Documentation Control											
Document	Type of car						Revision	Observation	OK	Signature/Date (Manufacturing)	Signature/Date (Quality)
	TC	MI	NZ	SE	SE	TI					
DTR30225487/3				X			V28		✓		06/06/24

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	30803-2	15/03/25	✓			06/06/24
LASER TAPE	105425924	08/01/25	✓			
SON TAPE	GIBIPO108	18/11/24	✓			


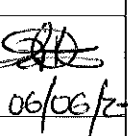
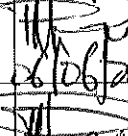
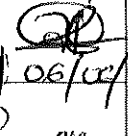

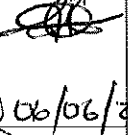
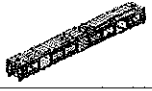
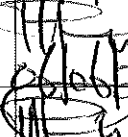
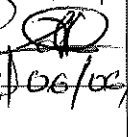
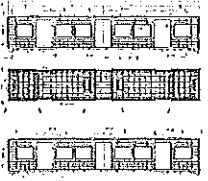
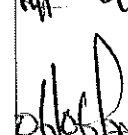



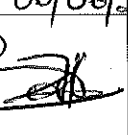
1.3 Consumables						
Welding Consumable Control - Used for Special Process						
Filler Material	Heat Number	Welding Process	OK	Signature/Date (Manufacturing)	Signature/Date (Quality)	
ER 308 LSI	344R-74297	MIG	✓			06/06/24
ER 308 L	297687-70520	TIG	✓			

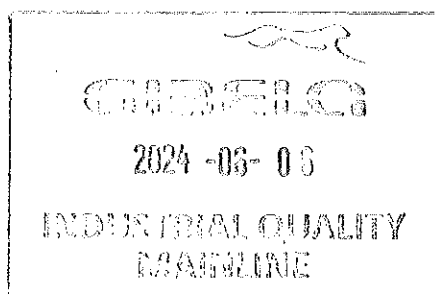



	CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3	Rev. 28	Project: PRA5A SI.CB1210.254.V30
		Date 07/11/2023	

II - Self Inspection - Items to Check

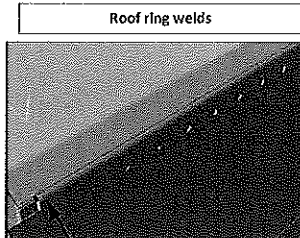
II.1 - Items to check

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	✓	 06/06/24	 06/06/24
02	REFER TO ANNEXURE A	Spot welding inspected and approved according to procedure	IND-SAL-WMS-016 e DTD0000210675	✓	 06/06/24	 06/06/24
03	REFER TO ANNEXURE B	Arc welding inspected and approved according to procedure	IND-SAL-WMS-016 REFER TO GIB - TYPDEF - ARC - 0000	✓	 06/06/24	 06/06/24
04		Cleaning of all Stainless Steel Surface	According TO GIB-WEL - PROC-0002	✓	 06/06/24	 06/06/24
05		Functionals dimensions approved according drawing or complementary document approved by Alstom engineering and registered in this document	Approved according specified on pages below.	✓	 06/06/24	 06/06/24
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.	✓	 06/06/24	 06/06/24

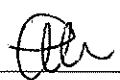



	CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3	Rev. 28	Project: PRA5A SI.CB1210.254.V30
		Date 07/11/2023	

Welding Traceability





LHS

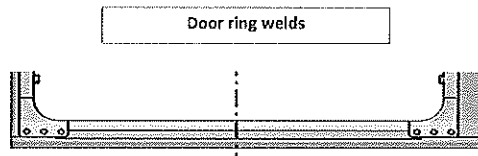
Boiler maker (Name & Sign): JUSTICE 

Welder (Name & Sign): SIPHO KAZI 


RHS

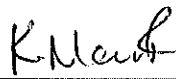
Boiler maker (Name & Sign): JUSTICE 

Welder (Name & Sign): SIPHO KAZI 




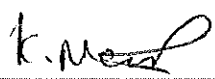
LHS

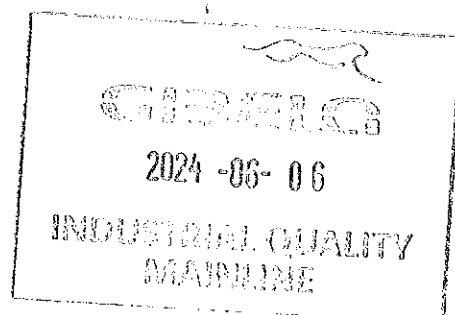
Boiler maker (Name & Sign): WUNGA 


Welder (Name & Sign): K. Mear 

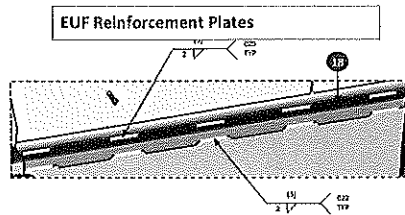
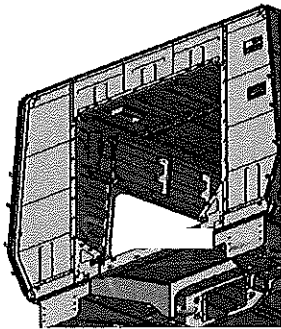
RHS

Boiler maker (Name & Sign): WUNGA 

Welder (Name & Sign): K. Mear 



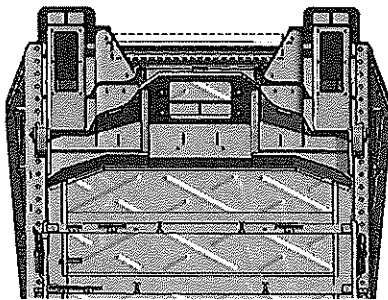
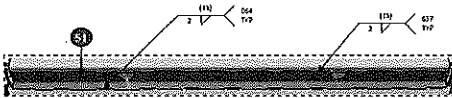
	CARBODYSHELL M3,M4 ASSEMBLY DTR30226487/3	Rev. 28	Project: PRA5A SI.CB1210.254.V30
		Date 07/11/2023	



END 1

Boiler maker (Name & Sign): Lawrence J. J. J.

Welder (Name & Sign): Chris R.



END 2

Boiler maker (Name & Sign): Lawrence J. J. J.

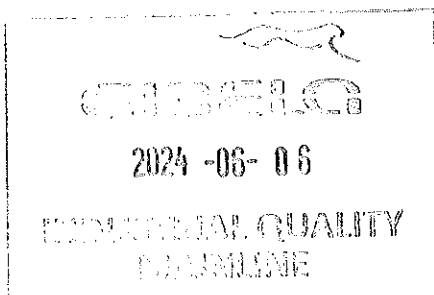
Welder (Name & Sign): Keith K. M.




FEDOLI

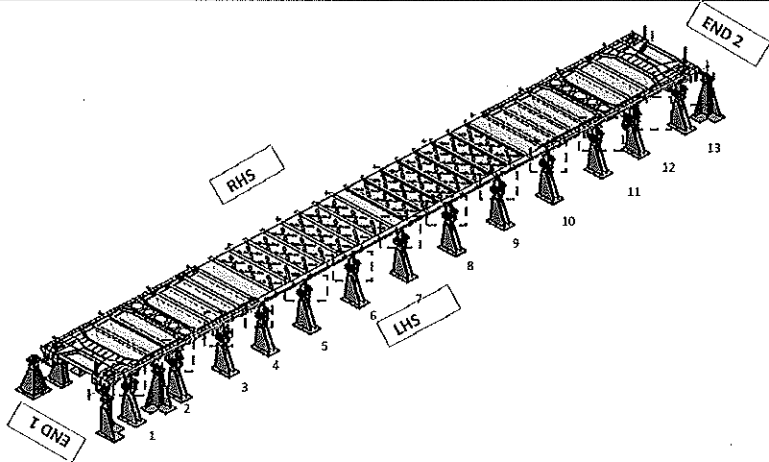
Operator:

Luca M.



	CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3	Rev.	Project: PRASA
		28	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 found on 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	2	0	0	0	0	0	0	1	0	0
Right Hand Side	0	0	0	0	0	0	0	1.4	0	0	0	0	0

Signature Operations:

Date:

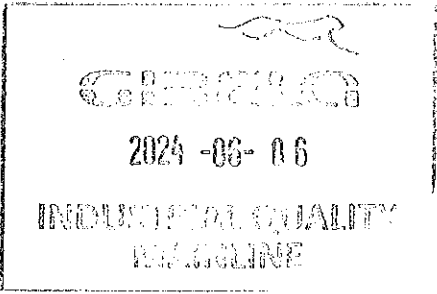
After Welding.

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	2.5	0	0	0	0	0	0	2	0	0
Right Hand Side	0	0	0	0	0	0	0	1.6	0	0	0	0	0

Signature Industrial Quality:

Date:



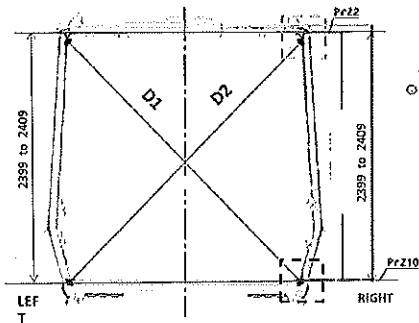
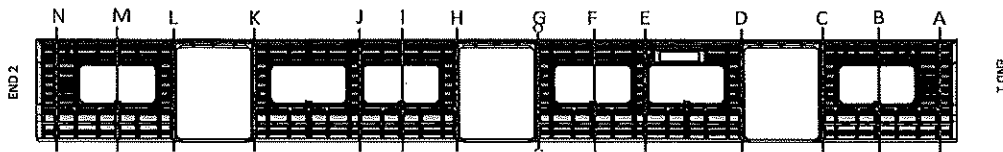


CARBODYSHELL M3,M4 ASSEMBLY DTR30226487/3

Rev.
28
Date
07/11/2023

Project: PRASA
SI.CB1210.254.V30

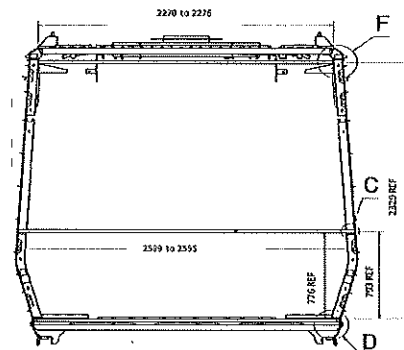
Specifications of Details for CBS measurement



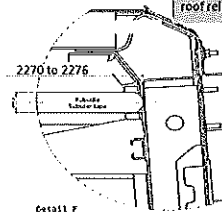
Measurement positions on roof rail and sidewall omega corner.



Measurement positions on sidewall and side sill corner.

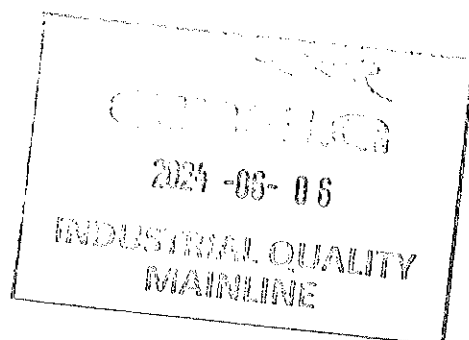


Reinforcement area measurement positions on roof reinforcement area.



Detail F

Don't forgetting this measurement





CARBODYSHELL M3,M4 ASSEMBLY DTR30226487/3

Rev.

28

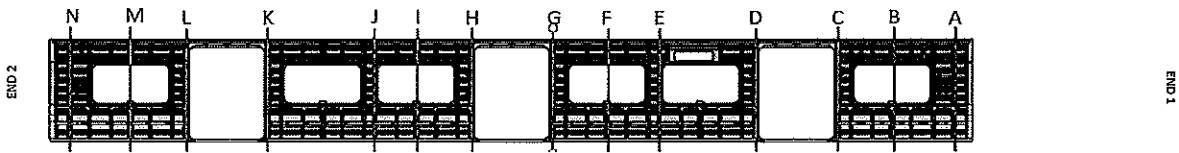
Date

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.

BEFORE WELDING

	Record D1 values	Record D2 values	D1-D2 $\leq 5\text{mm}$	2399 to 2409	2399 to 2409 (RHS)	LHS-RHS ≤ 2
A	3269	3269	0	2404	2406	2
B	3268	3267	1	2405	2404	1
C	3269	3269	0	2404	2405	1
D	3271	3270	1	2406	2405	1
E	3265	3266	1	2404	2404	0
F	3269	3268	1	2406	2406	0
G	3268	3267	1	2404	2405	1
H	3269	3268	1	2404	2406	2
I	3269	3269	0	2404	2405	1
J	3266	3268	2	2406	2404	2
K	3269	3269	0	2405	2404	1
L	3270	3271	1	2404	2404	0
M	3269	3268	1	2406	2405	1
N	3266	3268	2	2404	2404	0

4977964
06/06/24

GIBELQ

2024-06-06

INDUSTRIAL QUALITY
MACHINE



CARBODYSHELL M3,M4 ASSEMBLY DTR30226487/3

Rev.

28

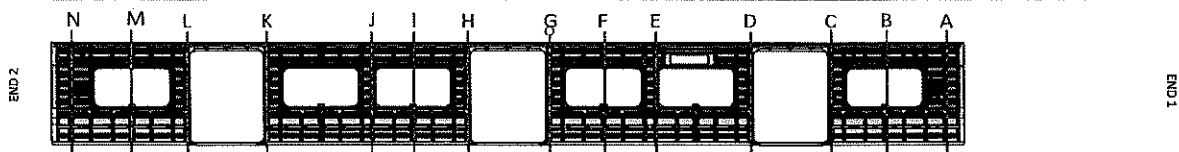
Date

07/11/2023

Project: PRASA

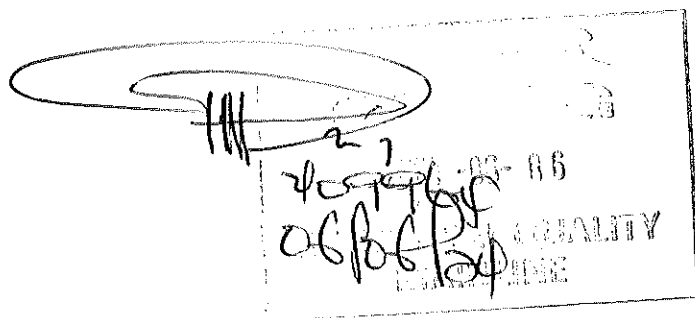
SI.CB1210.254.V30


Specifications of Details for CBS measurement

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

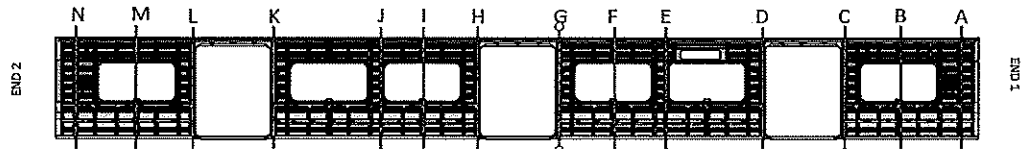
AFTER WELDING

	Record D1 values	Record D2 values	D1-D2 $\leq 5\text{mm}$	2399 to 2409	2399 to 2409 (RHS)	LHS-RHS ≤ 2
A	3096	3098	2	2400	2405	1
B	3067	3069	2	2406	2404	2
C	3098	3098	0	2404	2404	0
D	3096	3097	1	2400	2405	1
E	3067	3068	1	2400	2406	2
F	3068	3068	0	2405	2405	0
G	3098	3096	1	2406	2404	2
H	3096	3097	1	2405	2404	1
I	3069	3071	2	2404	2404	0
J	3070	3070	0	2405	2404	1
K	3096	3098	2	2404	2405	1
L	3096	3096	0	2404	2406	2
M	3070	3071	1	2404	2405	1
N	3098	3096	2	2406	2404	2

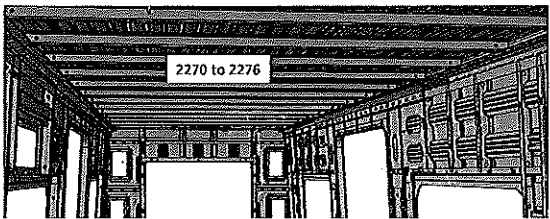


	CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3	Rev. 28 Date 07/11/2023	Project: PRASA SI.CB1210.254.V30
CBS measurement			

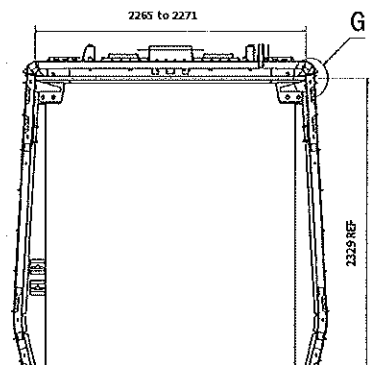
BEFORE WELDING



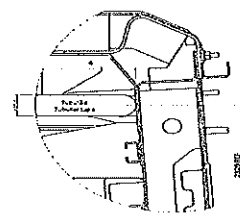
	2270 to 2276
A	2271
B	2274
C	2271
D	2275
E	2276
F	2275
G	2272
H	2275
I	2274
J	2275
K	2272
L	2272
M	2274
N	2272



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

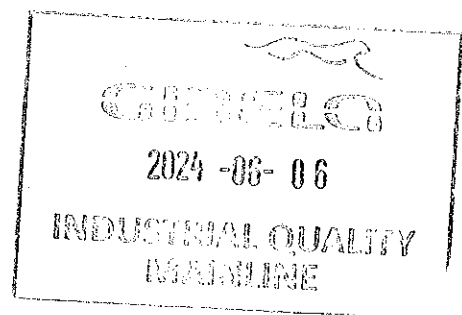


2265 to 2271

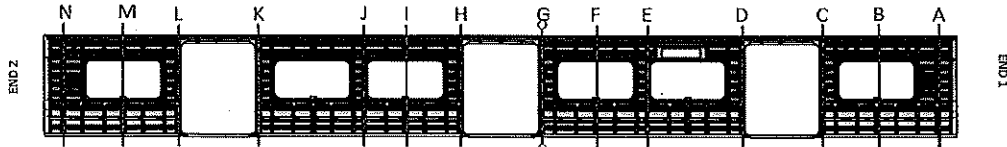


Detail 0
Considering the
re-alignment plan

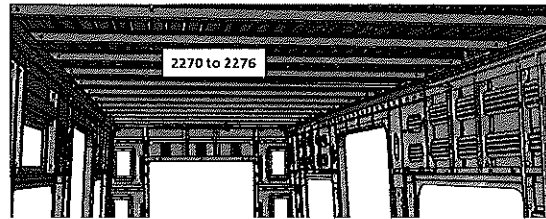
409968
26106124



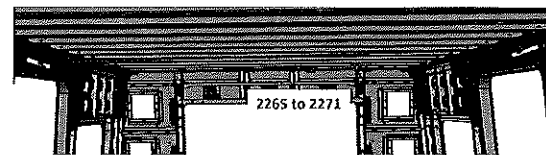
AFTER WELDING



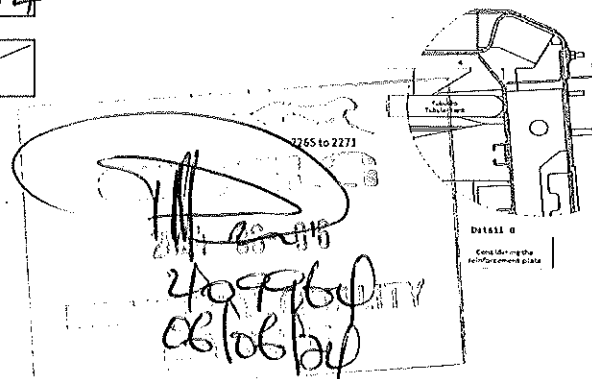
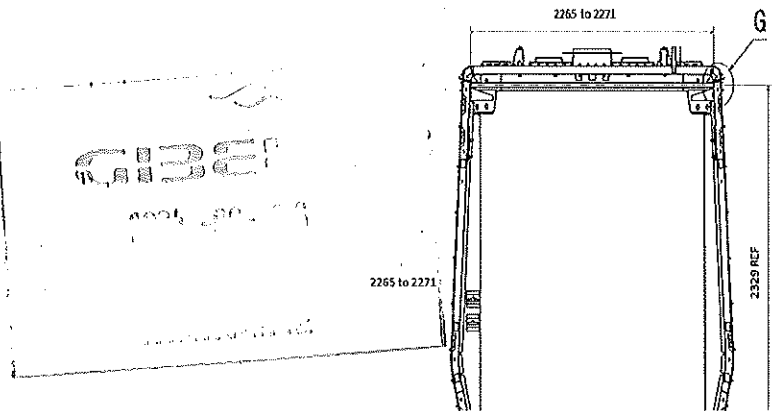
	2265 to 2271	2270 to 2276
A	2268	
B		2274
C	2266	
D	2267	
E		2276
F		2278
G	2267	
H	2268	
I		2275
J		2276
K	2266	
L	2268	
M		2274
N	2267	



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



Take measurement close to radius (considering reinforcement)



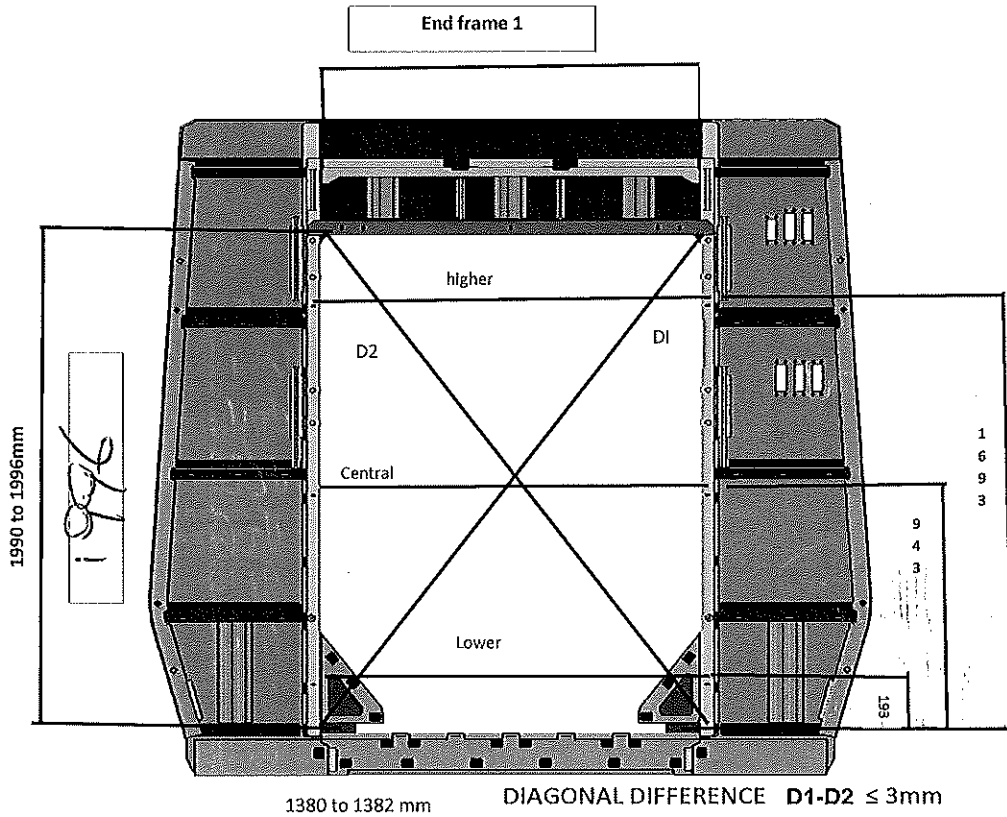


CARBODYSHELL M3,M4 ASSEMBLY DTR30226487/3

Rev.
28
Date
07/11/2023

Project: PRASA
SI.CB1210.254.V30

Specifications of Details for CBS measurement



Higher Dimension

1381

D1

2416

Central Dimension

1380

D2

2415

Lower Dimension

1381

D1-D2

1

409966
06/06/24

GIBELQ

2024-06-06

INDUSTRIAL QUALITY
FAIRCLINE

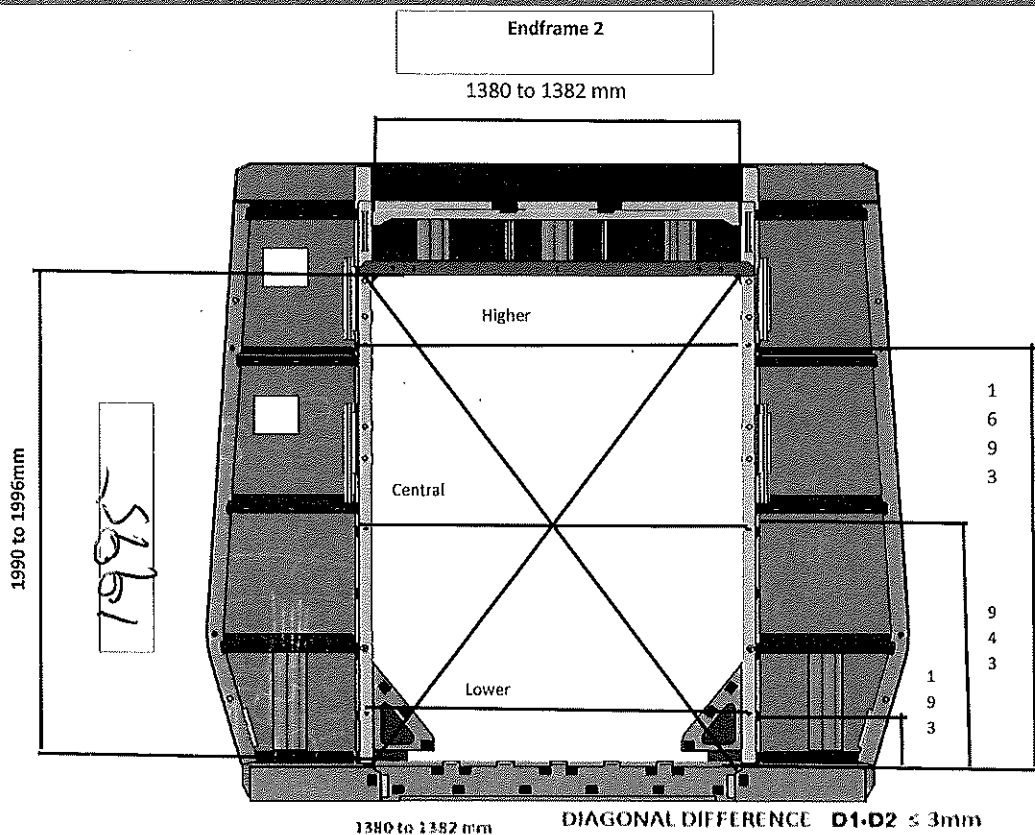


CARBODYSHELL M3,M4 ASSEMBLY DTR30226487/3

Rev.
28
Date
07/11/2023

Project: PRASA
SI.CB1210.254.V30

Specifications of Details for CBS measurement



1380 to 1382 mm

DIAGONAL DIFFERENCE $D1-D2 \leq 3mm$

Higher Dimension

1380

D1

2416

Central Dimension

1880

D2

2416

Lower Dimension

1881

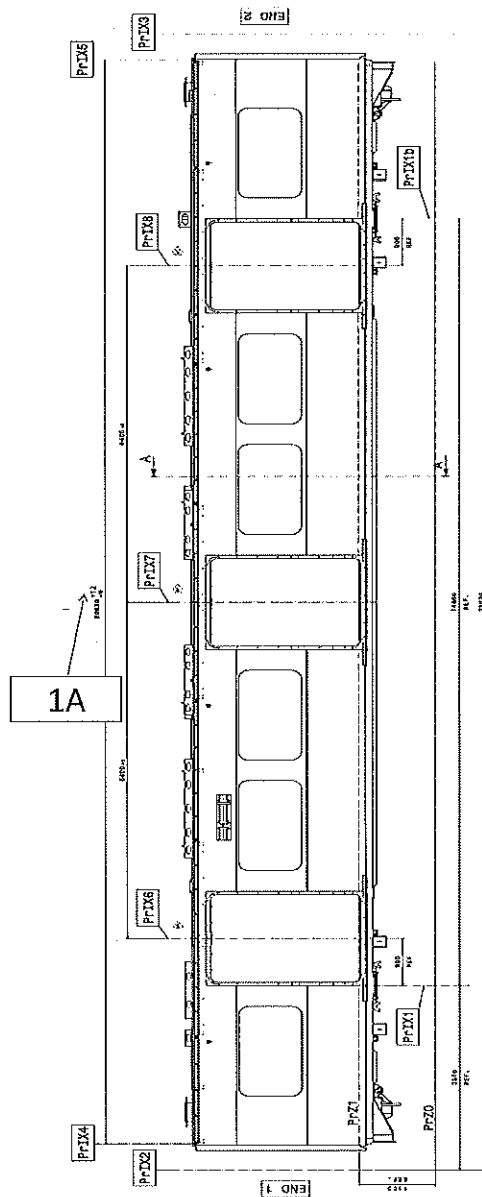
D1-D2

0

409960
06/06/20

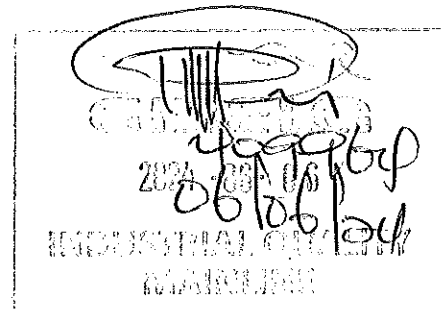
GIBEL
2024-06-06
INDUSTRIAL QUALITY
MANAGEMENT

Specifications of Details for CBS measurement



LEFT SIDE		
	SPECIFICATION SIZE	ACTUAL SIZE
1A	20832 - 20614	20616


	RIGHT SIDE	
	SPECIFICATION SIZE	ACTUAL SIZE
1A	26532 - 20614	20616

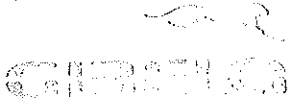



Dye penetrant test

Dye-penetration test to be performed by quality personnel



		CARBODYSHELL M3,M4 ASSEMBLY DTR30226487/3		Rev. 28 Date 07/11/2023	Project: PRA5A SI.CB1210.254.V30		
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		Signature/Date (Manufacturing)	Signature/Date (Quality)
01	N/A	To complete REX	Refer to REX. How defects must be added on the REX				


2024-06-06
INDUSTRIAL QUALITY
MAINTENANCE

	CARBODYSHELL M3,M4 ASSEMBLY DTR30226487/3	Rev. 28	Project: PRA5A SI.CB1210.254.V30
		Date 07/11/2023	

Self Inspection - Final Result

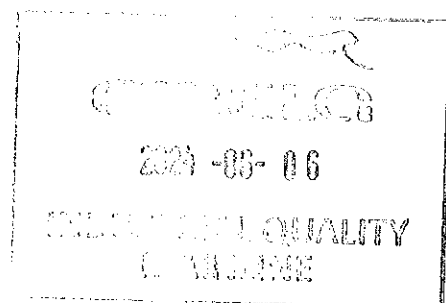
				DATE	NAME	SIGNATURE
HOLD POINT	GO	(if activities are not complete, the missing activities must not impact the next stage)		06/06/24	F. MACARY	
		Every auto inspection performed conforms to specification or in case of discrepancy the same is approved by the competent party.)			Amo	
	NO GO	There are activities 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

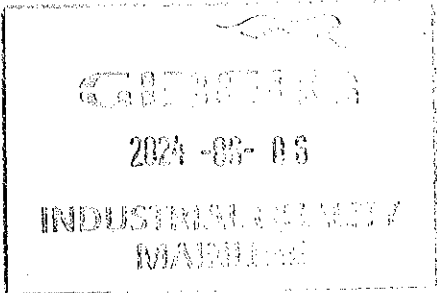
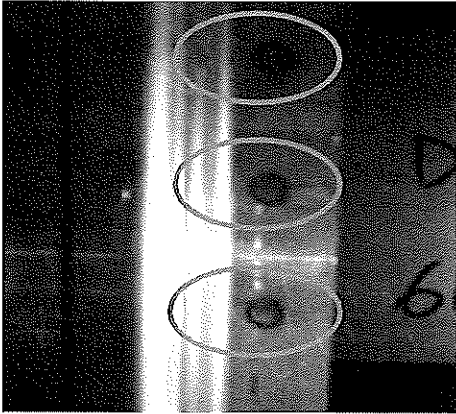
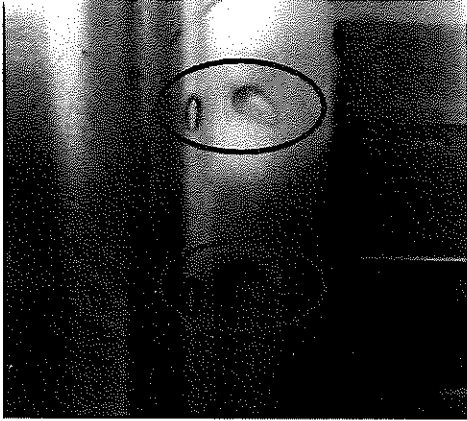
Operations


Quality



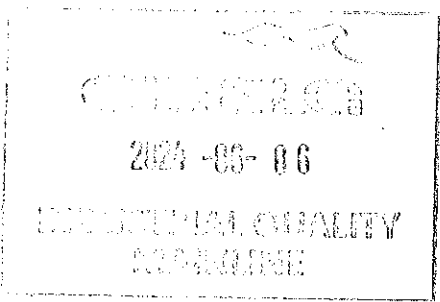
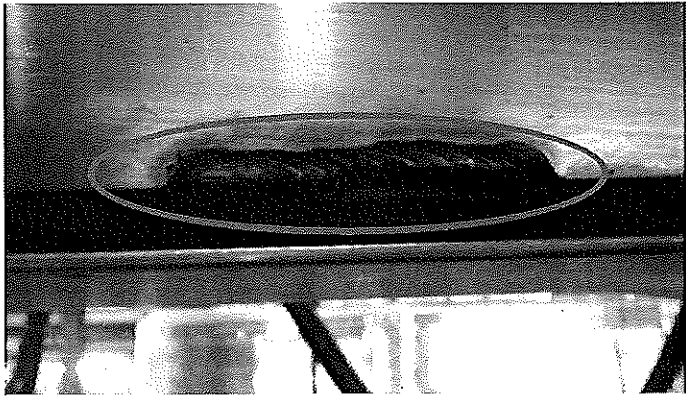
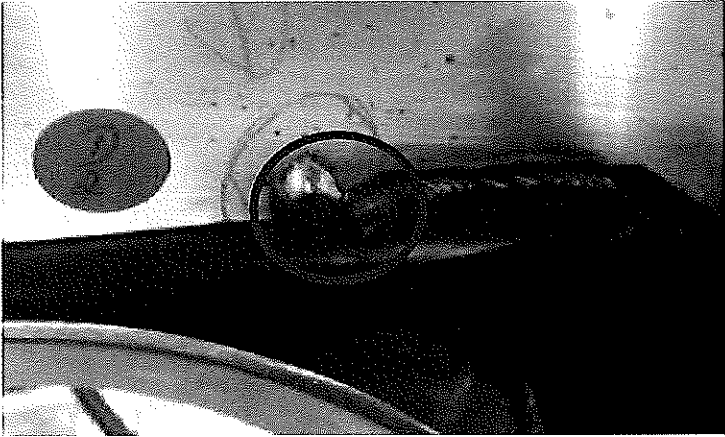
	CARBODYSHELL M3,M4 ASSEMBLY DTR30226487/3	Rev. 28	Project: PRA5A SI.CB1210.254.V30
		Date 07/11/2023	

ANNEXURE A: Spot Welding Quality Acceptance Standard



	CARBODYSHELL M3,M4 ASSEMBLY DTR30225487/3	Rev. 28	Project: PRASA SI.CB1210.254.V30
		Date 07/11/2023	

ANNEXURE B: Arc Welding Quality Acceptance Standard



GIBELA

PRASA PROJECT

APPLICABLE FOR TRAINSET 100+ ONLY AS PER BASELINE 10.3.1


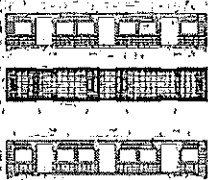
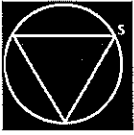

SELF INSPECTION SHEET

CONFIDENTIAL INFORMATION

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

APPLICATION REFERENCE

MOUNTING	DRAWING	DESCRIPTION	STATION	CAR TYPE						WORK INSTRUCTION	SAFETY	
				TC1	MA	M1	M2	M3	TC2			
<input type="checkbox"/>	DTR3000152648	AAD0001278566	CARBODY SHELL M1,M3,M4 ASSEMBLY	CB1220			X				PRA.CB2220.DTR3022548 7/2.V21	YES
<input type="checkbox"/>	DTR3000152649	AAD0001278566	CARBODY SHELL M1,M3,M4 ASSEMBLY	CB1210		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"/>												
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 DT0000356600		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		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						
TS231	MDS	ASHAIDA-409979	07-06-24	SI.CB2220.250.V29		13						

GIBELG		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	DT	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	✓	07-06-24	07/06/24
02	N/A	Carshell free of significant flaws which compromise the appearance or functionality	DTD0000210675	✓	07-06-24	07/06/24
03	REFER TO ANNEXURE A	Arc Welding Inspected and approved according procedure.	IND-SAL-WMS-016 REFER TO GIB - TYPDEF - ARC - 0000	✓	07-06-24	07/06/24
04		Cleaning of all Stainless Steel Surface	According TO GIB-WEL - PROC-0002	✓	07-06-24	07/06/24
05		Functionals dimensions approved according drawing or complementary document approved by Alstom engineering and registered in this document.	Approved according specified on pages below.	✓	07-06-24	07/06/24
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.	✓	07-06-24	07/06/24
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: <div style="display: flex; justify-content: space-between;"> <div> Temperature Min - Max (I) Min-Max Relative humidity Min - 25% - Max (I) Min-Max 80% </div> <div> Sealant Batch No: <u>63497</u> Exp Date: <u>01/06/24</u> Actuals Temperature: <u>10°C</u> Humidity: <u>60%</u> </div> </div>	<div style="display: flex; justify-content: space-between;"> <div> Temperature Min - Max (I) Min-Max Relative humidity Min - 25% - Max (I) Min-Max 80% </div> <div> Sealant Batch No: <u>63497</u> Exp Date: <u>01/06/24</u> Actuals Temperature: <u>10°C</u> Humidity: <u>60%</u> </div> </div>	✓	07-06-24	07/06/24
08	NA	Verification of sealant application in certain regions in the drawing.	AAD0001278566	✓	07-06-24	07/06/24
09		Verification of safety welds	Approved according to DTD000210658 reference and Self inspection	✓	07-06-24	07/06/24



CARBODYSHELL M1,M3,M4 ASSEMBLY
DTR30225487/2

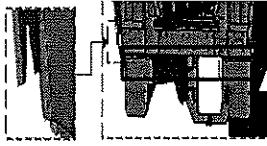
Rev.
29
Date
28/10/2023

Project: PRASA

SI.CB2220.250.V29

II - Self Inspection - Items to Check

SEALANT APPLICATION



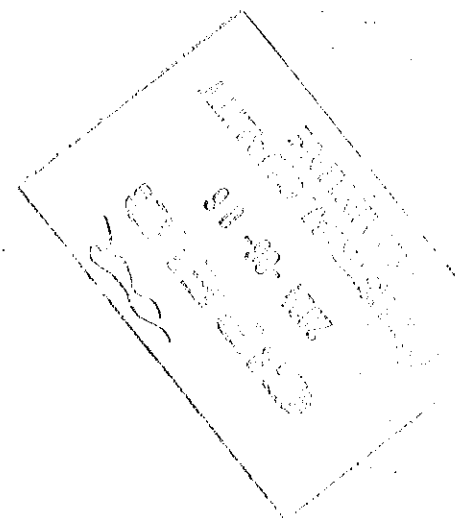
AREA 1 & 2 END 1


Operator (Name & sign):

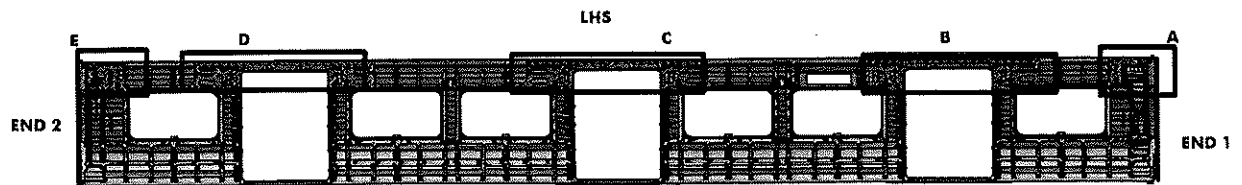
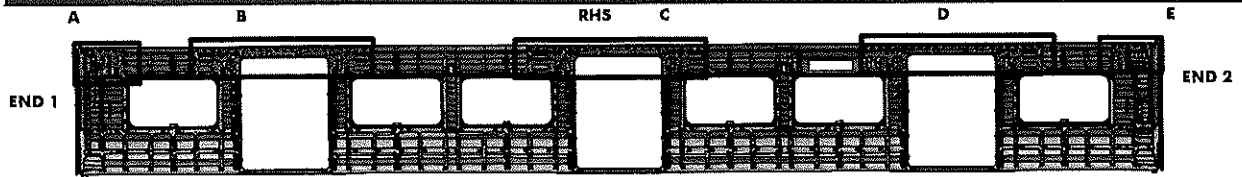
Mthelozis:

Operator (Name & sign):

Mthelozis:

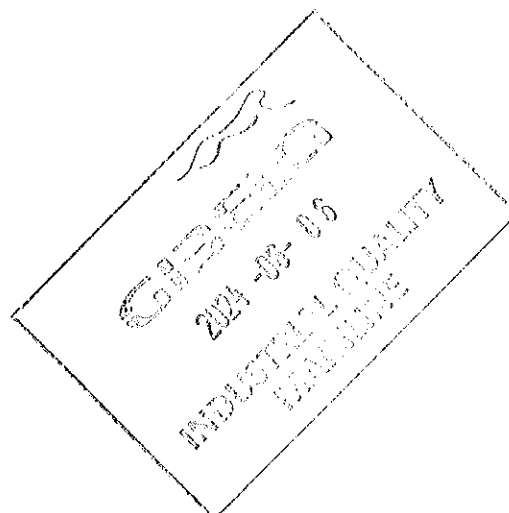


	CARBODYSHELL M1,M3,M4 ASSEMBLY DTR30225487/2	Rev.	Project: PRASA SI.CB2220.250.V29
		29	
		Date	
		28/10/2023	
II - Self Inspection - Items to Check			



REINFORCEMENT WELDING

AREA	LHS	RHS
A	Operator (Name&sign): <u>LINDO</u>	Operator (Name&sign): <u>LINDO</u>
B	Operator (Name&sign): <u>Ndubanga Daka</u>	Operator (Name&sign): <u>S. M. M. M.</u>
C	Operator (Name&sign): <u>Musaka</u>	Operator (Name&sign): <u>V. M. M.</u>
D	Operator (Name&sign): <u>Sibijana</u>	Operator (Name&sign): <u>THULANI</u>
E	Operator (Name&sign): <u>...</u>	Operator (Name&sign): <u>...</u>



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

II - Self Inspection - Items to Check

BRACKETING

INSTALLATION

C-RAILS:

DOOR MECHANISMS:

TAPPING PADS

Operator: Mthelozi

Operator: Mthelozi

Operator: LINDO END1

Operator: END2

INSTALLATION & VERIFICATION

SEAT & LUGGAGE BRACKETS:

SEAT BRACKETS VERIFICATION:

Operator: ASAMBA

Operator: ASAMBA

Operator: ASAMBA

Operator: ASAMBA

WELDING

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

ENDS

END 1 TAPPING PADS WELDING: Operator (Name&sign): LINDO

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



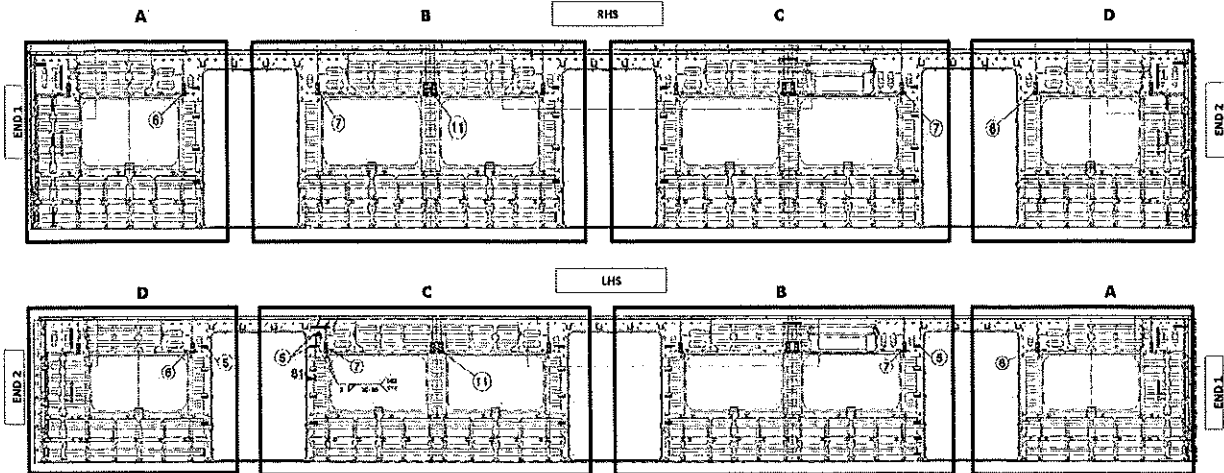
CARBODYSHELL M1,M3,M4 ASSEMBLY
DTR30225487/2

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: *ASA-10A* *[Signature]*

LHS				
	SECTION	QUANTITY	OK	NOK
C-RAILS	A	2		
	B	6		
	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:
CRAILS 2 OFF EACH END
EARTH BUSH 6 OFF EACH END

VERIFICATION BY: *ASA-10A* *[Signature]*

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: _____

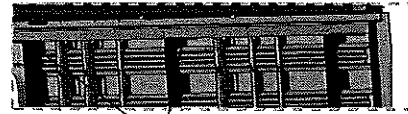
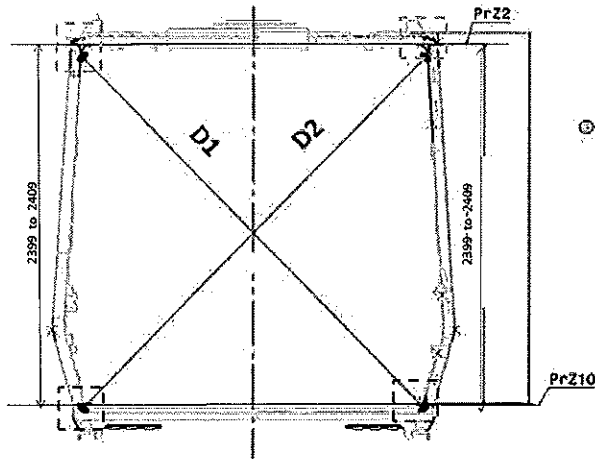
LHS				
	SECTION	QUANTITY	OK	NOK
C-RAILS	A	2		
	B	10		
	C	11		
	D	8		
SEAT BRACKETS	A	13		
	B	21		
	C	21		
	D	13		
EARTH BUSH	A	3		
	B	7		
	C	6		
	D	2		

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

VERIFICATION BY: _____

CREATED BY
2024-08-08
INDUSTRIAL QUALITY
MANAGEMENT

Specifications of Details for CBS measurement



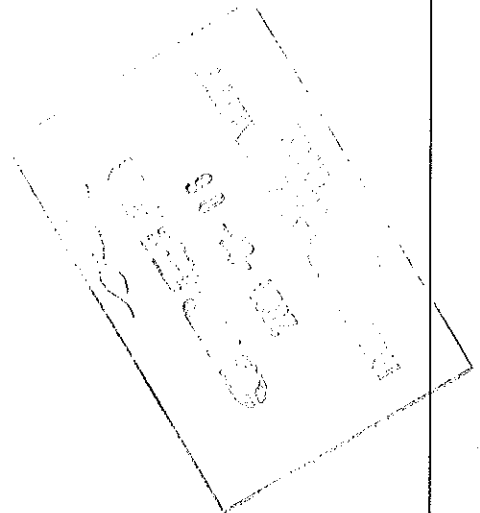
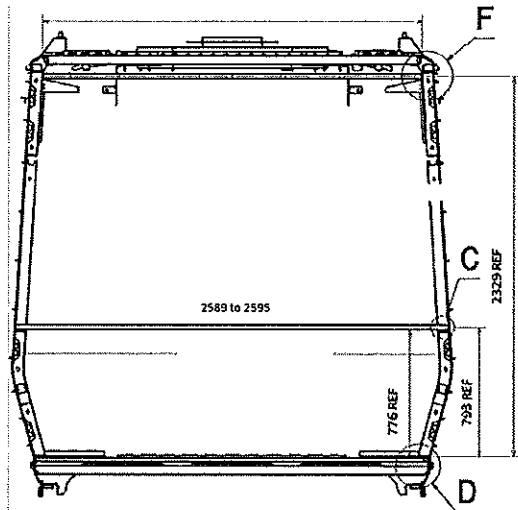
Measurement positions on roof rail and sidewall omega corner.



Reinforcement area measurement positions on roof reinforcement area.



Measurement positions on sidewall and side sill corner.





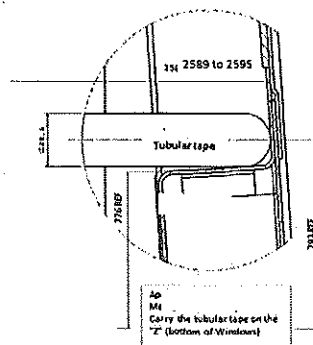
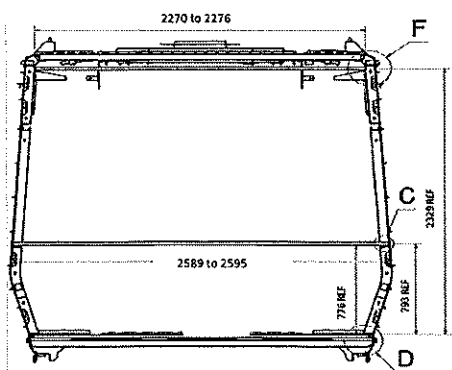
CARBODYSHELL M1,M3,M4 ASSEMBLY
DTR30225487/2

Rev.	29
Date	28/10/2023

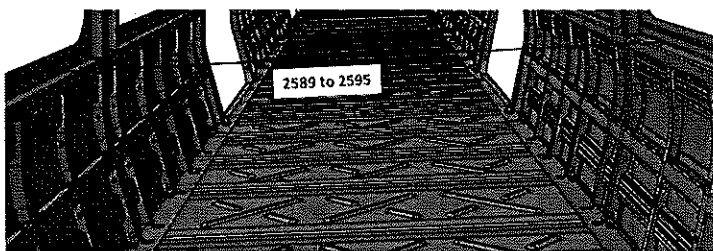
Project: PRASA

SI.CB2220.250.V29

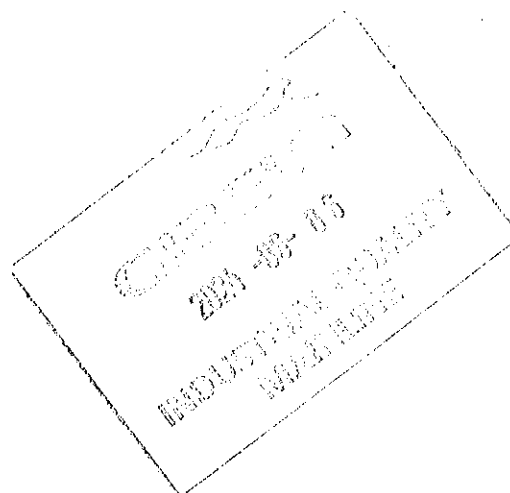
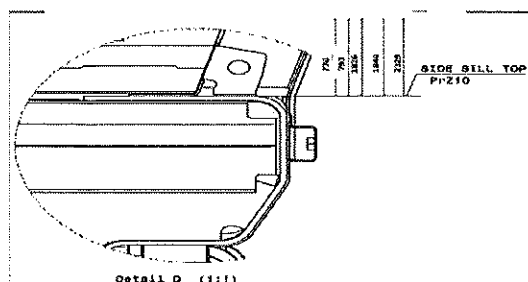
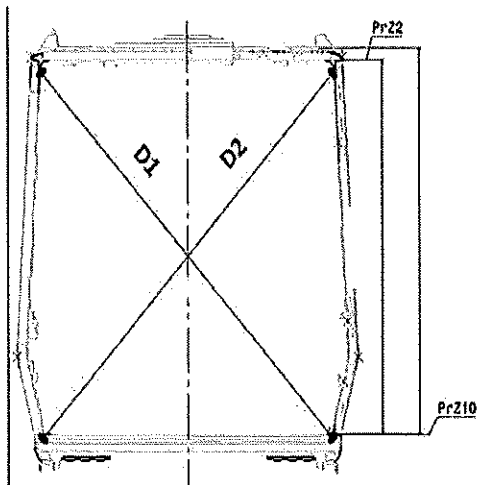
CBS measurement




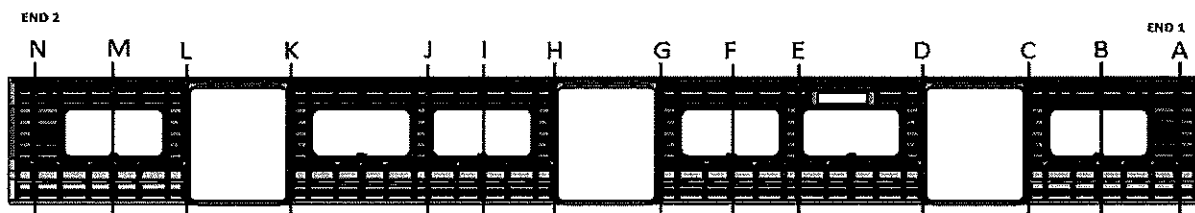
Detail C



Take measurement close to radius



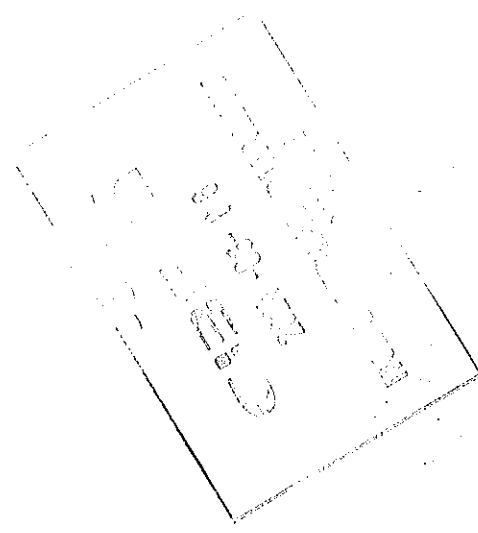
	CARBODYSHELL M1,M3,M4 ASSEMBLY DTR30225487/2	Rev.	Project: PRASA SI.CB2220.250.V29
		29	
		Date	
		28/10/2023	
CBS measurement			



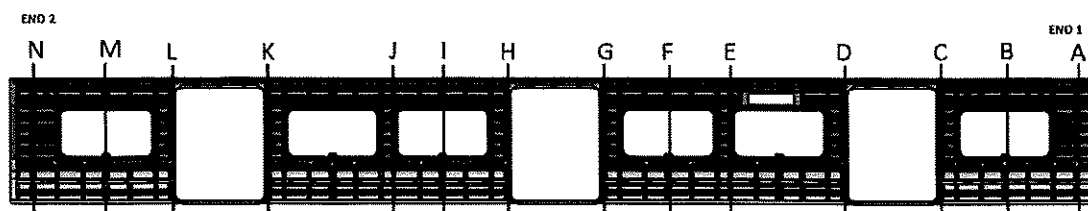
BEFORE WELDING

	Record D1 values	Record D2 values	D1-D2 ≤ 5mm	2589 to 2595
A	3296	3298	1	—
B	3265	3263	2	—
C	3295	3294	1	—
D	3297	3296	1	—
E	3263	3263	0	—
F	3263	3265	2	—
G	3300	3298	2	—
H	3300	3297	3	—
I	3263	3264	1	—
J	3265	3268	3	—
K	3297	3298	1	—
L	3295	3294	1	—
M	3262	3264	2	—
N	3295	3294	1	—

07-06-24

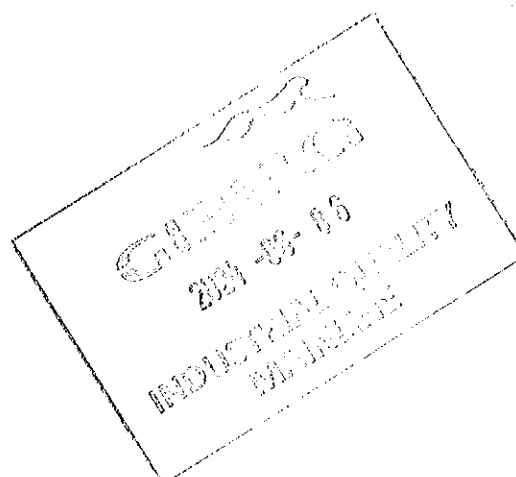


CBS measurement

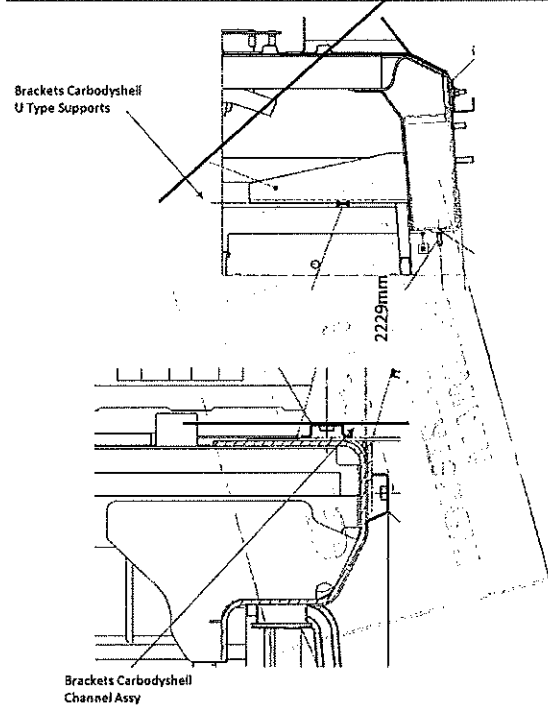
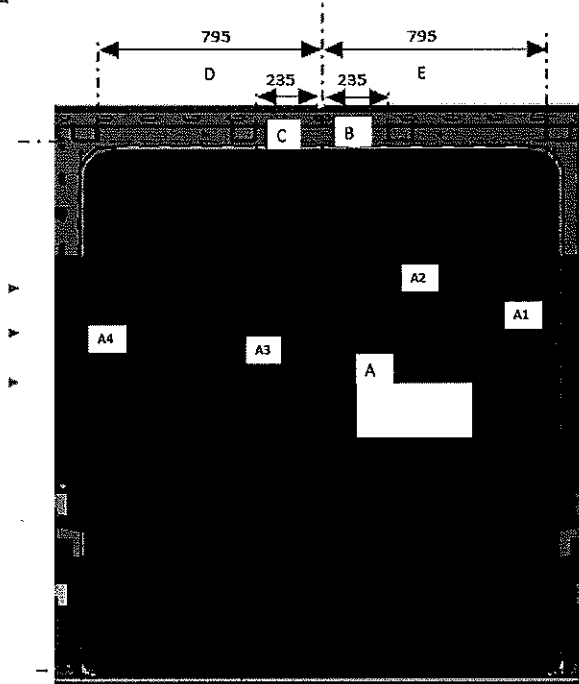


AFTER WELDING

	Record D1 values	Record D2 values	D1-D2 ≤ 5mm	2589 to 2595
A	32016	32916	0	2595
B	3263	3266	3	2590
C	3244	3296	2	2589
D	3299	3300	1	2592
E	3265	3263	2	2595
F	3262	3264	2	2593
G	3300	3294	6	2595
H	3299	3300	1	2595
I	3262	3264	2	2596
J	3266	3269	3	2595
K	3217	3300	3	2595
L	3295	3249	4	2589
M	3265	3264	1	2591
N	3295	3298	3	2594



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	2231
A4	2230 to 2232	2232
B	234 to 236	235
C	234 to 236	235
D	794 to 796	794
E	794 to 796	796

DOOR 2 - LHS

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

DOOR 2 - RHS

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

DOOR 1 - RHS

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

DOOR 2 - RHS

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

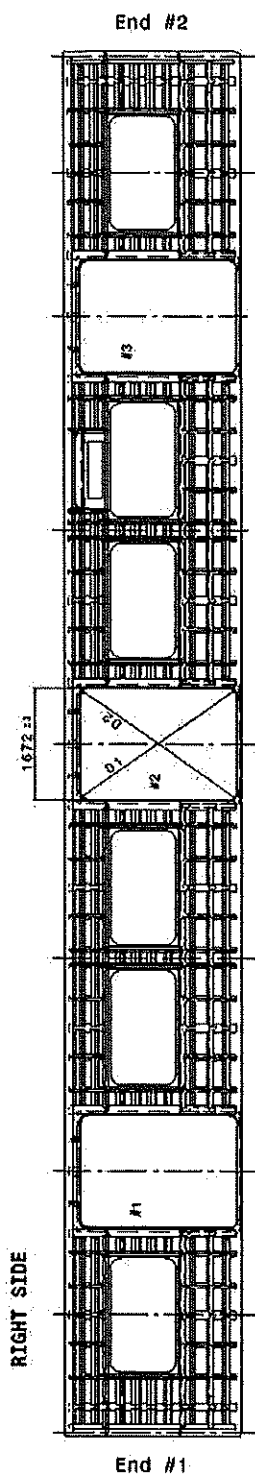
DOOR 3 - RHS

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

(Handwritten signature)

07-06-24

Specifications of Details for CBS measurement CB1220

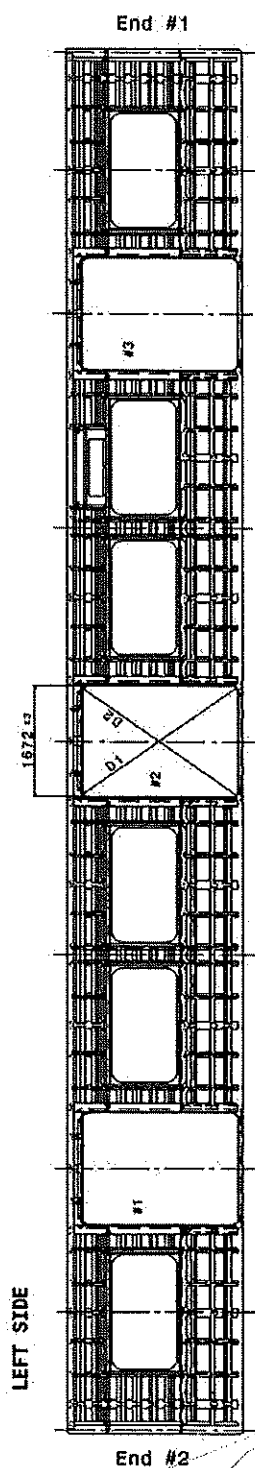


Doors diagonal D1-D2 maximum difference ≤4mm

	#1	#2	#3
D1	2748	2746	2764
D2	2746	2747	2768
D1-D2	2	1	4

Doors length - 1672.33mm

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



Doors diagonal D1-D2 maximum difference ≤4mm


	#1	#2	#3
D1	2746	2745	2747
D2	2747	2747	2748
D1-D2	1	2	1

Doors length - 1672.33mm

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


Handwritten signature and date: 27-06-24

Stamp: GIBEL 2024-03-03 INDUSTRIAL QUALITY MARINE

	CARBODYSHELL M1,M3,M4 ASSEMBLY DTR30225487/2	Rev.	Project: PRA5A	
		29		
		Date	SI.CB2220.250.V29	
		28/10/2023		

CBS measurement (Manufacturing)				
Dye penetrant test				

Dye-penetration test to be performed by quality personnel



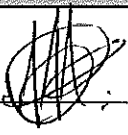



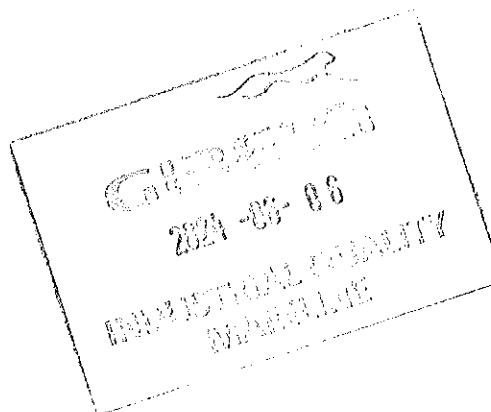
Item	Description of the issue	OK	Signature/Date (Manufacturing)	Signature/Date (Quality)


II.2 - Check List REX

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

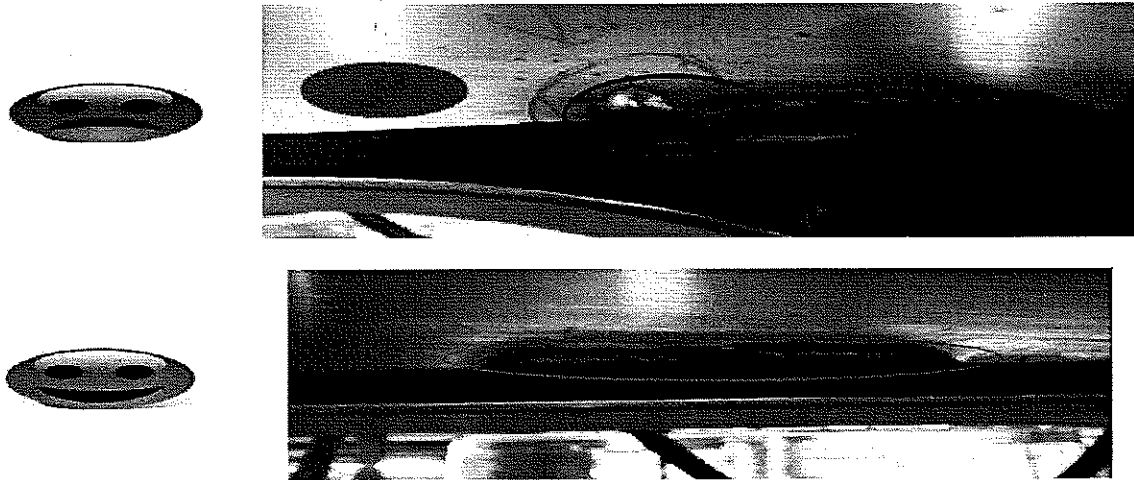
GIBELQ
28/10/2023
20:30
SI.CB2220.250.V29

	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> GO	07-06-24	 Operations	
		Every auto inspection performed conforms to specification or in case of discrepancy the same is approved by the competent party.	21/06/24	Andani Industrial Quality	
		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		

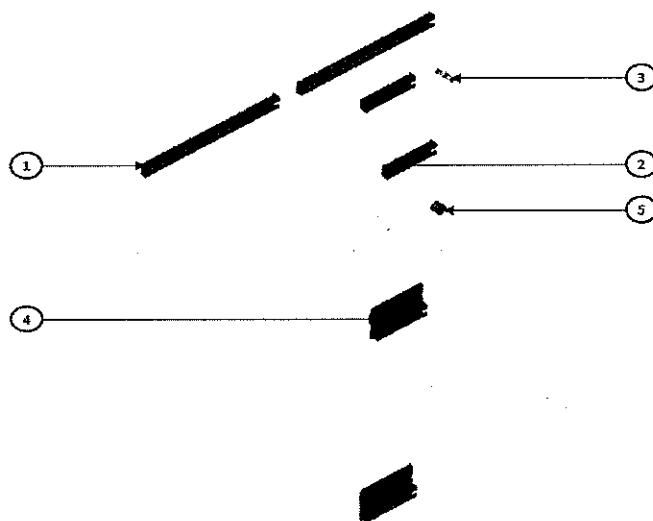


	CARBODYSHELL M1,M3,M4 ASSEMBLY DTR30225487/2	Rev.	Project: PRASA SI.CB2220.250.V29
		29	
		Date	
		28/10/2023	

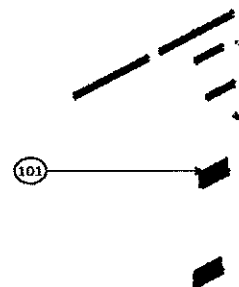
ANNEXURE A: Arc Welding Quality Acceptance Standard



Station: CB1220-004- U108 & U107



PART NO.	ITEM NO.	QTY	DESCRIPTION	MASS [KG]
DTR0020074038	5	6	EARTH STUD 6	0.034
AA00001201848	4	6	ASSEMBLY SUPPORT	0.271
DTR0000348305	3	12	WELDING STUD ISO13918 PT - M8X20 - SST	0.007
AA00001130424	2	12	ASSEMBLY SUPPORT	0.193
AA00001184418	1	14	ASSEMBLY SUPPORT	0.922
AA00001161080	101	6	CARBODYSHELL BRACKETS CARBODYSHELL M1/M3/M4 CARSIDE FRAME MODULE END - OP9	12.132



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 ? 	
				TCL	MA	M1	M2	M3	TCL			
<input type="checkbox"/>	DT00007235467	AAD0001278566	CARBODYSHELL M1,M2,M3 ASSEMBLY	CB2230		X	X		X		PRA.CB2230.DT000002 25487.V20	YES
<input type="checkbox"/>												
<input type="checkbox"/>												
REV	DATE	MODIFICATION CONTENT			RESPONSIBLE		NAME		DATE			
0	2018/08/02	GIBELA NEW CREATION			APPROVER	Philip 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	Rarnokone 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				
15	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 Mbhombhi		20/02/2022				
					CHECKER	Andani Muthelo						
					REVISED BY	Andani Muthelo						
26	14/06/2022	Update minimum temperature requirement for sealant application			APPROVER	Collins Mbhombhi		14/06/2022				
					CHECKER	Andani Muthelo						
					REVISED BY	Andani Muthelo						
27	26/07/2022	Threshold measurements addition			APPROVER	Collins Mbhombhi		26/07/2022				
					CHECKER	Andani Muthelo						
					REVISED BY	Andani Muthelo						
28	17/10/2022	Added traceability of sealant application			APPROVER	Collins Mbhombhi		17/10/2022				
					CHECKER	Ntokozo Zwane						
					REVISED BY	Amogelang Mohlampe						
29	14/04/2023	Added sealant batch number & welding consumables traceability			APPROVER	Vanessa Ntuli		14/04/2023				
					CHECKER	Ntokozo Zwane						
					REVISED BY	Amogelang Mohlampe						
30	06/11/2023	Added threshold traceability for boiler makers and welders			APPROVER	Ngobeni Tyson		06/11/2023				
					CHECKER	Andani Muthelo						
					REVISED BY	Ntokozo Zwane						
TRAINSET	CAR	OPERATOR NAME & ALPS NO		DATE	SELF INSPECTION NUMBER		PAGES					
131	M03	K61055 428952		24/01/24	SI.CB2230.256.V29		12					

GIBELA

2024-06-01

INDUSTRIAL QUALITY
MAINLINE



CARBODYSHELL M1,M3,M4 ASSEMBLY
DT00000225487

Rev.
30

Project: PRASA

Date

06/11/2023

SI.CB2230.256.V29

Car:

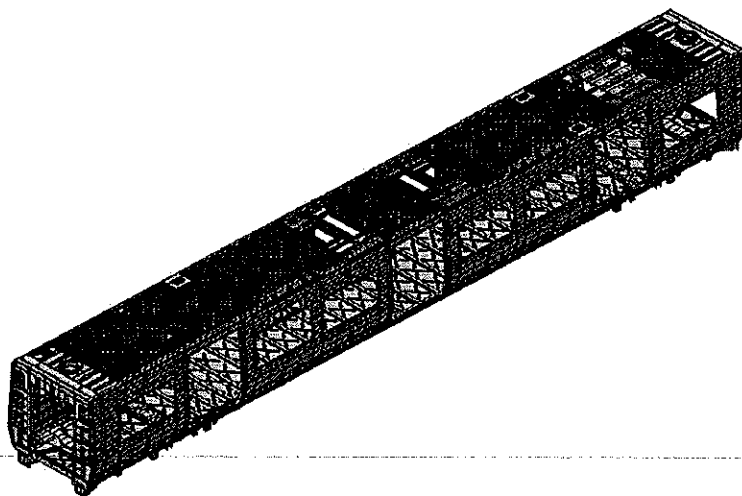
NCR:

Work station:

CB2230



Safety Related



I - Documentation and Instruments Control

I.1 - Documentation Control

Document	Type of car					Revision	Observation	OK	Signature/Date (Operations)	Signature/Date (Quality)
	M1	M2	M3	M4	TC2					
PRA.CB2230.DT00000225487						30			NA	05/06/24

I.2 - Instruments Control

Monitoring and Measuring Instrument Control - Used for Special Process

Instruments	Serial number	Calibration or Verification Validation Date	OK	Signature/Date (Operations)	Signature/Date (Quality)
Measuring type	GIB0724	2025/04/25			
Combination square	GIB0072	27/07/24			
Tubular	22713	20/05/25			

I.3 Consumables

Welding Consumable Control - Used for Special Process

Filler Material	Heat Number	Welding Process	OK	Signature/Date (Manufacturing)	Signature/Date (Quality)
308 LSI	12.21550	MIG	7		

2024-06-08
INDUSTRIAL QUALITY
MAINLINE

GIBELQ		CARBODYSHELL M1,M3,M4 ASSEMBLY DT00000225487		Rev. 30	Project: PRASA							
				Date 06/11/2023	SI.CB2230.256.V29							
II - Self Inspection - Items to Check												
II.1 - Items to check												
Item	Picture/Drawing	Description	Acceptance criteria / Record	OK	Signature/Data (Operations)	Signature/Data (Quality)						
01	N/A	Assembly according to Instruction Engineering n° PRA.CB1230.DT00000225487 Verification of filmet for all brackets.	PRA.CB1230.DT00000225487	✓		08/06/24						
02	N/A	Corshell free of significant flaws which compromise the appearance or functionality	DTD0000210675	✓		08/06/24						
03	REFER TO ANNEXURE A	Arc Welding inspected and approved according procedure.	IND-SAL-WMS-016 REFER TO GIB - TYPDEF - ARC - 0000	✓		08/06/24						
04		Cleaning of all Stainless Steel Surface	According TO GIB-WEL - PROC-0002	✓		08/06/24						
05		Functionals dimensions approved according drawing or complementary document approved by Alstom engineering and registered in this document.	Approved according specified on pages below.	✓		08/06/24						
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.	✓		08/06/24						
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: <table border="1"> <tr> <td>Temperature Min - Max (I)</td> <td>Min-Max</td> <td>10°C - 35°C</td> </tr> <tr> <td>Relative humidity Min - Max (I)</td> <td>Min-Max</td> <td>25% - 80%</td> </tr> </table>	Temperature Min - Max (I)	Min-Max	10°C - 35°C	Relative humidity Min - Max (I)	Min-Max	25% - 80%	Sealant Botch No: 23R 70-03 Exp Date: 07/01/24 Actuals Temperature: 21°C Humidity: 63%	✓		08/06/24
Temperature Min - Max (I)	Min-Max	10°C - 35°C										
Relative humidity Min - Max (I)	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	✓		08/06/24						
09	N/A	Verification of sealant application in certain regions in the drawing.	AAD0001278566	✓		08/06/24						

INDUSTRIAL QUALITY
MAINLINE



CARBODYSHELL M1,M3,M4 ASSEMBLY
DT00000225487

Rev.

30

Date

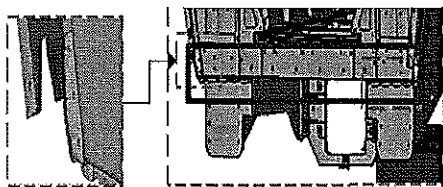
06/11/2023

Project: PRASA

SI.CB2230.256.V29

II - Self Inspection - Items to Check

AREA 1



END 2 SEALANT

OPERATOR
(Name & sign):

Zanele [Signature]

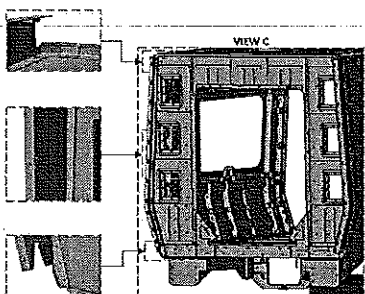
OPERATOR
(Name & sign):

Zanele [Signature]

OPERATOR
(Name & sign):

Zanele [Signature]

AREA 2 (VIEW C)



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

LHS

RHS

Operator (Name & sign) :

Operator (Name & sign) :

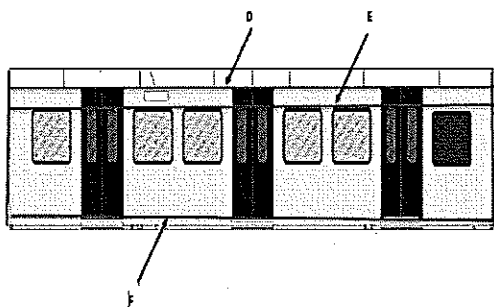
Operator (Name & sign) :

Operator (Name & sign) :

Operator (Name & sign) :

Operator (Name & sign) :

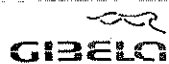
H



GIBELQ

2024 -06- 08

INDUSTRIAL QUALITY
MAINLINE



CARBODYSHELL M1,M3,M4 ASSEMBLY
DT00000225487

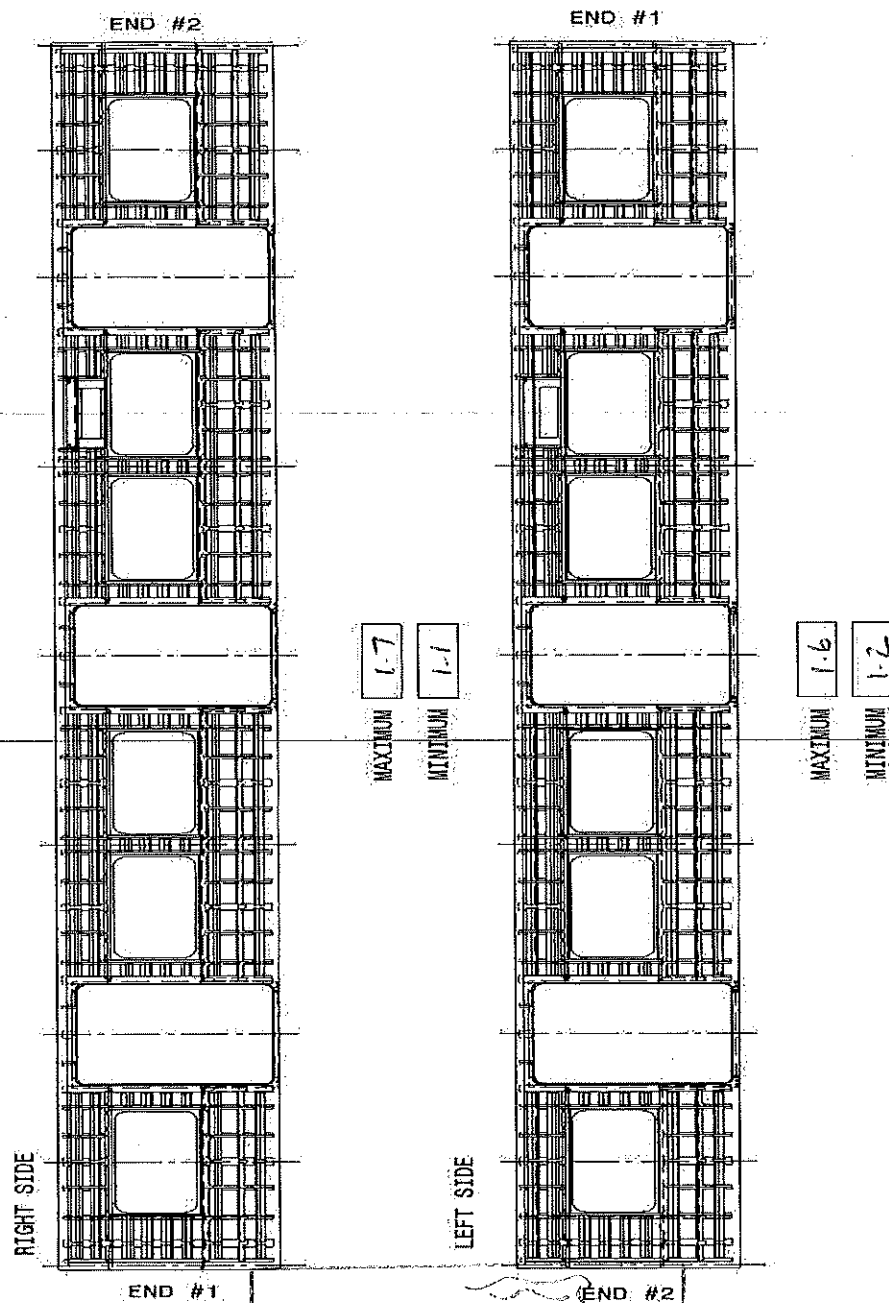
Rev.
30
Date
06/11/2023

Project: PRASA

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.



GIBEL

2024-06-08

INDUSTRIAL QUALITY
MAINLINE



CARBODYSHELL M1,M3,M4 ASSEMBLY
DT00000225487

Rev.

30

Date

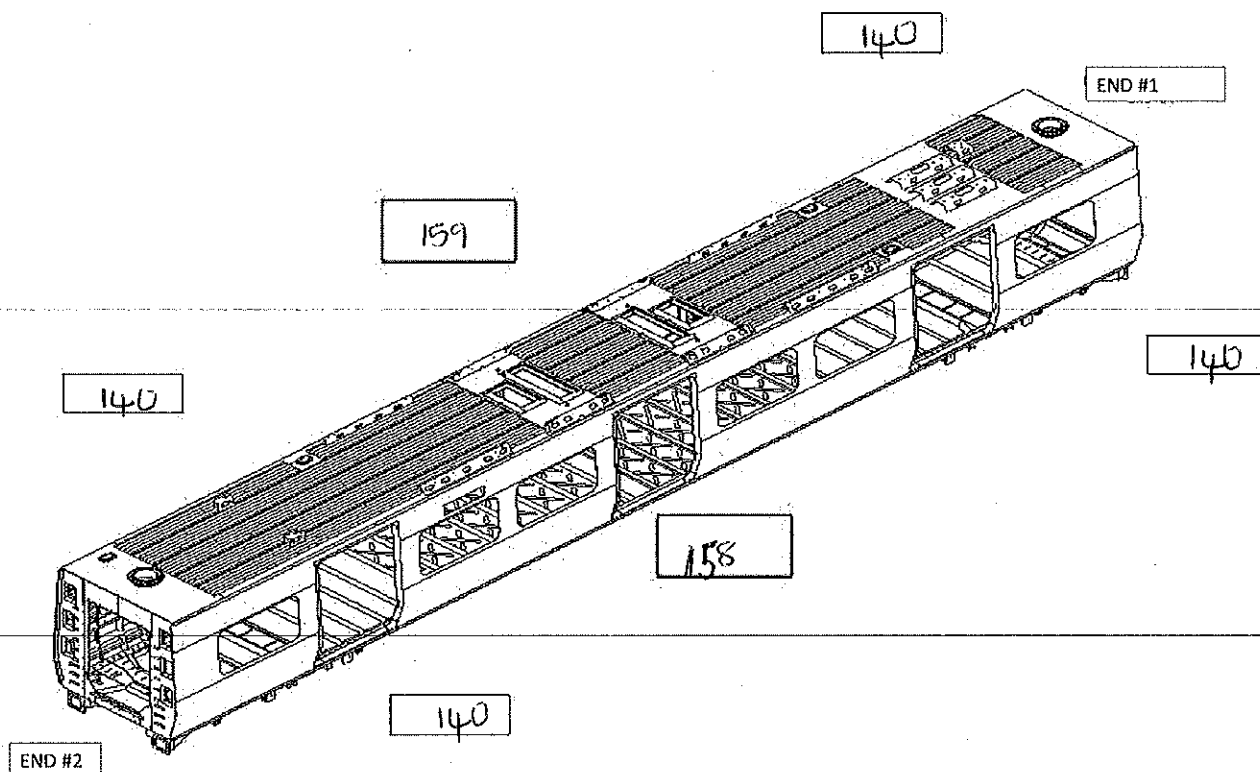
06/11/2023

Project: PRASA

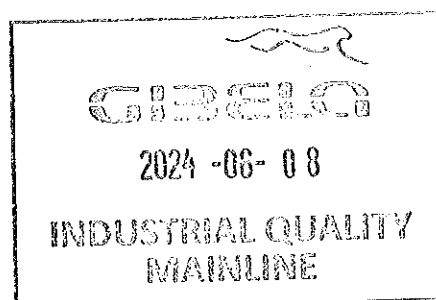
SI.CB2230.256.V29

Specifications of Details for CBS 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
DT00000225487

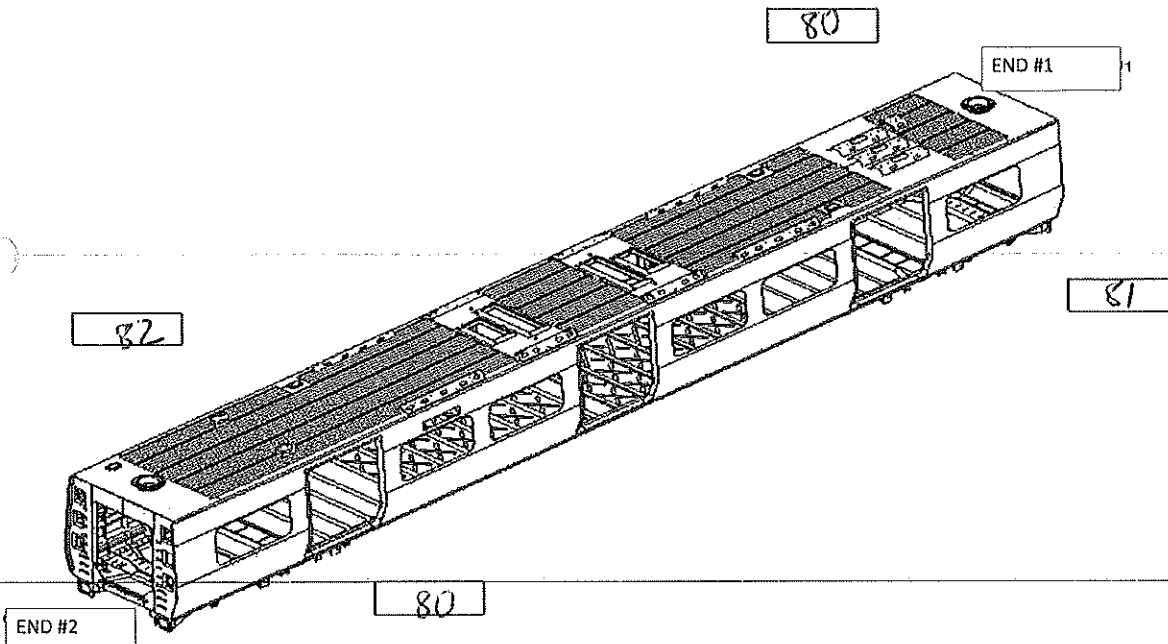
Rev.
30
Date
06/11/2023

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

1

TWIST FOUND ON END 2

TRANVERSE

2

LONGITUDINAL

2

GIBEL

2024-06-08

INDUSTRIAL QUALITY
MAINLINE



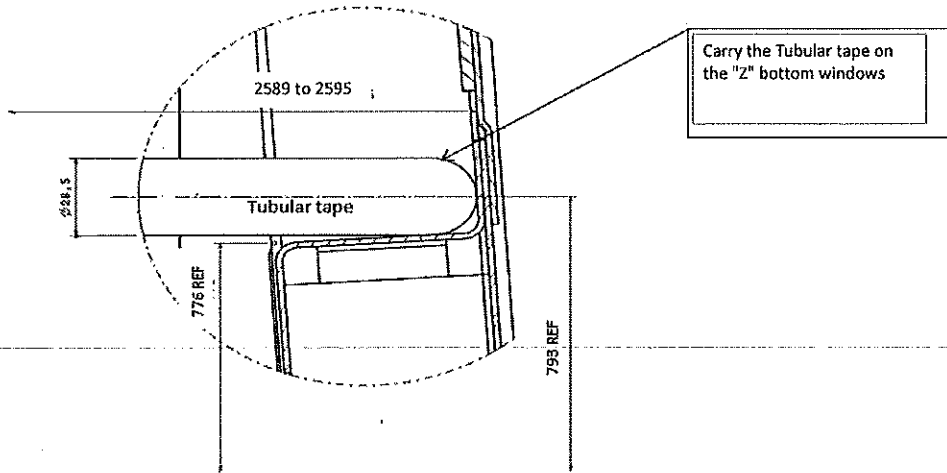
CARBODYSHELL M1,M3,M4 ASSEMBLY
DT00000225487

Rev.
30
Date
06/11/2023

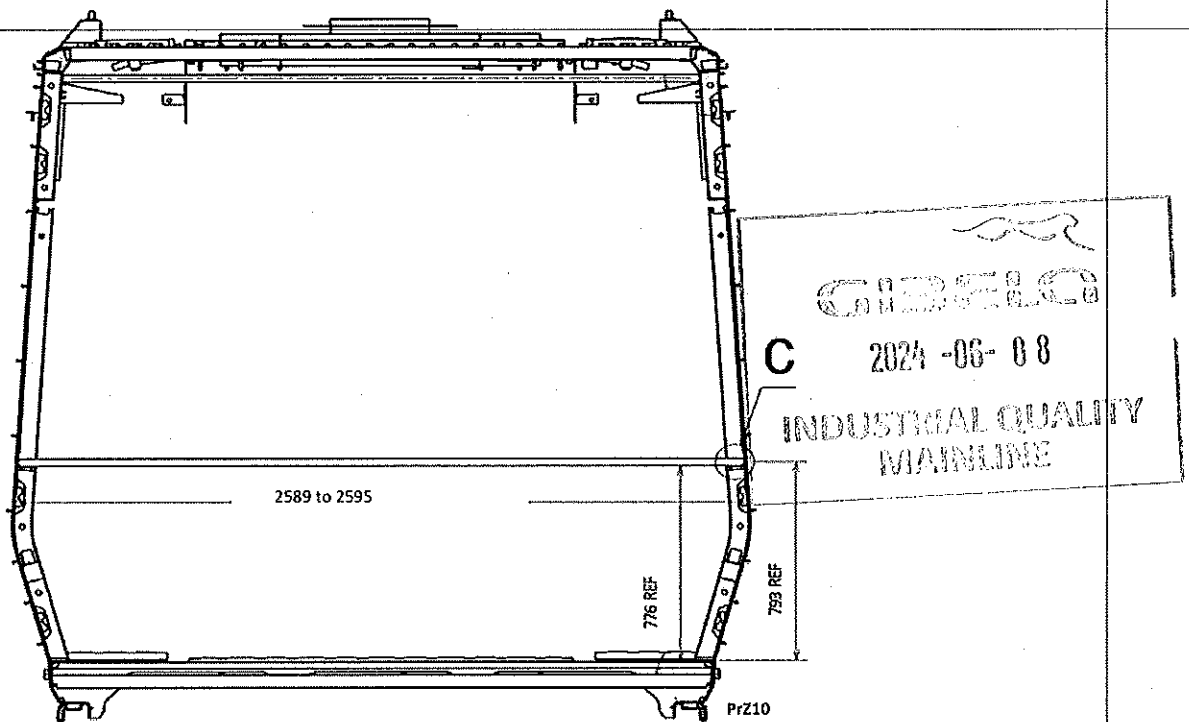
Project: PRASA

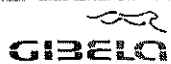
SI.CB2230.256.V29

Specifications of Details for CBS measurement CB1230



Detail C





CARBODYSHELL M1,M3,M4 ASSEMBLY
DT00000225487

Rev.

30

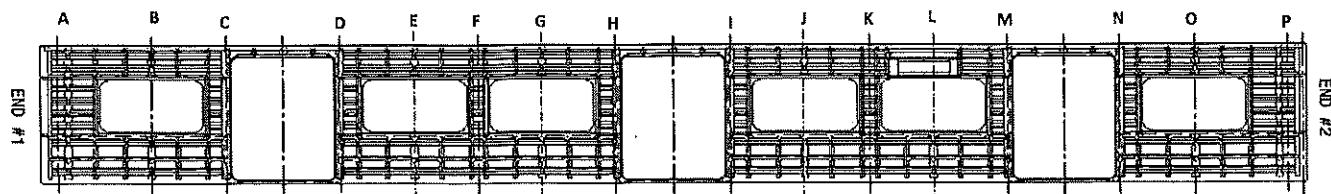
Project: PRASA

Date

06/11/2023

SI.CB2230.256.V29

Specifications of Details for CBS measurement CB1230



2589 to 2595mm

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



GIBEL

2024-06-08

INDUSTRIAL QUALITY
MANLINE

Threshold verification

Nominal value :38

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

BOILER MAKER:

K95950

WELDER:


r.m.achapero

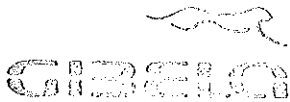
Mado


Dye penetrant test

Dye-penetration test to be performed by quality personnel

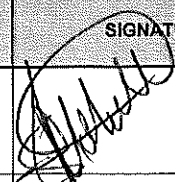



	CARBODYSHELL M1,M3,M4 ASSEMBLY DT00000225487	Rev. 30	Project: PRASA SI.CB2230.256.V29				
		Date 06/11/2023					
		Specifications of Details for CBS measurement					
Item	Description of the Issue	OK	Signature/Date (Operations)		Signature/Date (Quality)		
II.2 - Check List REX							
Check List Items							
Item	Picture/Drawing	Description	Criteria /Record	OK		Signature/Date (Operations)	Signature/Date (Quality)
01	N/A	To complete REX	Refer to REX. New defects must be added on the REX				


2024-06-08
INDUSTRIAL QUALITY
MANLINE

	CARBODYSHELL M1,M3,M4 ASSEMBLY DT00000225487	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	GO	(If activities are not complete, the missing activities must not impact the next stage)	08/06/24	Koptso Operations		
		Every auto inspection performed conforms to specification or in case of discrepancy the same is approved by the competent party.)	08/06/24	Amo 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	

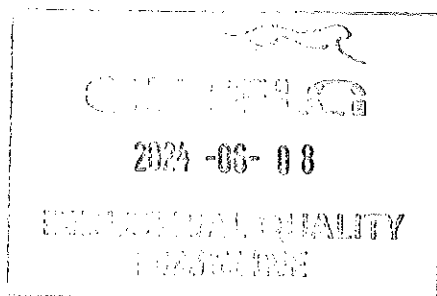
In case of "NO GO", describe blocking problems

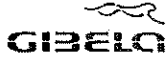
In case of "NO GO", the operations manager must define below action plan to ensure "GO":

Item	Description	Responsible	Due date	Status

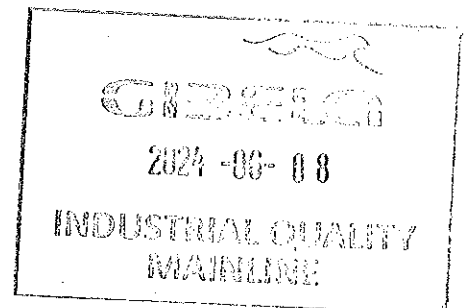
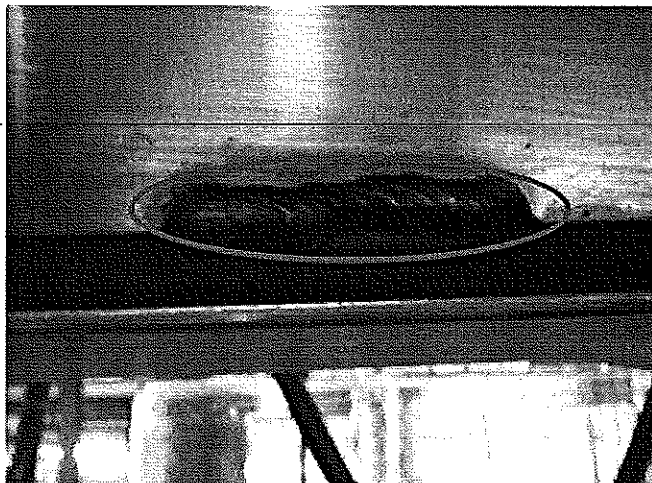
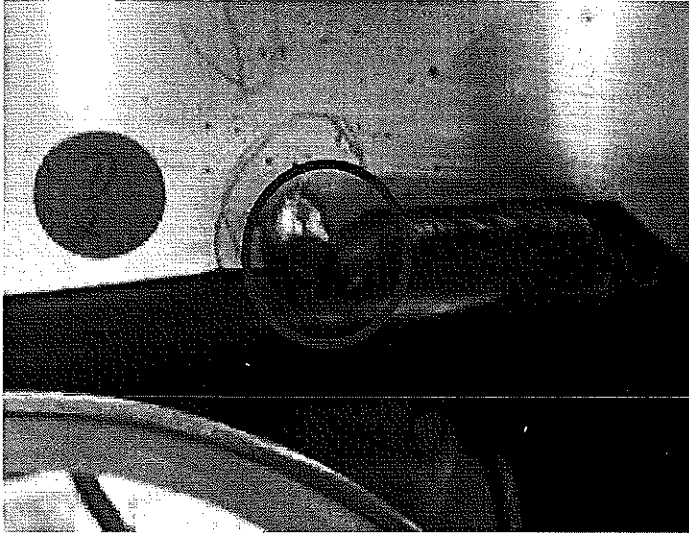
Operations

Quality



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

ANNEXURE A: Arc Welding Quality Acceptance Standard





CARBODYSHELL M1,M3,M4 ASSEMBLY
DT00000225487

Rev.
30
Date
06/11/2023

Project: PRASA

SI.CB2230.256.V29

ANNEXURE B: Sealant

