

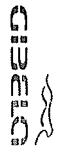
CONFIDENTIAL INFORMATION
This document and the information contemplated therein have to be considered as Confidential Information pursuant to the provisions of Clause 25 of the MSA, and treated as such.

APPLICATION REFERENCE

| MOUNTING | DRAWING | DESCRIPTION | STATION | CAR TYPE | | | | | | WORK INSTRUCTION | SAFETY ? |
|--------------------------|----------------|----------------|----------------------|----------|----|----|----|----|-----|----------------------------------|-------------------------------------|
| | | | | TCL | M4 | M1 | M2 | M3 | TCL | | |
| <input type="checkbox"/> | DIR3022331/9/3 | ADD0001.241033 | Carshell Assembly TC | CB210 | X | | | | | PRA.CB2210.DIR3022331 9/3.V25 | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | | | | | | | | | | | |

| REV | DATE | MODIFICATION CONTENT | RESPONSIBLE | NAME | DATE | |
|-----------|------------|--|-----------------------------|-------------------|------------------------|-------|
| 0 | 09/04/2018 | GIBELA NEW CREATION | APPROVER | Itumeleng Modiba | 09/04/2018 | |
| 1 | 2018/05/18 | Team leader and Quality Technician to sign final signature from PME Manager to Quality manager | CHECKER | Nosizo Pindela | 09/04/2018 | |
| | | | COMPLIER | Thanyani Mathagu | 06/04/2018 | |
| | | | APPROVER | Itumeleng Modiba | 2018/05/18 | |
| | | | CHECKER | Nosizo Pindela | 2018/05/18 | |
| | | | REVISD BY | Ramokone Motama | 2018/05/18 | |
| 2 | 2018/06/18 | MODIFICATION CONTENT | APPROVER | Itumeleng Modiba | 2018/06/18 | |
| 3 | 2018/12/12 | Additional checkpoints | CHECKER | Nosizo Pindela | 2018/06/18 | |
| | | | REVISD BY | Itumeleng Modiba | 2018/12/12 | |
| | | | CHECKER | Nosizo Pindela | 2018/12/12 | |
| | | | REVISD BY | Ramokone Motama | 2018/12/12 | |
| | | | APPROVER | Itumeleng Modiba | 2018/12/12 | |
| 5 | 22/01/2019 | As per Baseline 10.2 | CHECKER | Nosizo Pindela | 22/01/2019 | |
| 6 | 2019/11/03 | Record D1 and D2 on Self - Inspection | REVISD BY | Vangesa Ntuli | 22/01/2019 | |
| | | | APPROVER | Itumeleng Modiba | 2019/11/03 | |
| | | | CHECKER | Nosizo Pindela | 2019/11/03 | |
| | | | REVISD BY | Nosizo Pindela | 2019/11/03 | |
| | | | APPROVER | Itumeleng Modiba | 2019/11/03 | |
| 10 | 21/08/2019 | New Baseline 10.2.5 | CHECKER | Nosizo Pindela | 21/08/2019 | |
| 15 | 06/08/2020 | New Baseline 10.2.6 | REVISD BY | Timothy Maimela | 21/08/2019 | |
| | | | APPROVER | Bongane Masina | 06/08/2020 | |
| | | | CHECKER | Bongane Masina | 06/08/2020 | |
| | | | REVISD BY | Bongane Masina | 06/08/2020 | |
| | | | APPROVER | Timothy Maimela | 06/08/2020 | |
| 20 | 19/04/2020 | New Baseline change 10.3 | CHECKER | Bongane Masina | 19/04/2021 | |
| 21 | 17/08/2021 | ADDED DIMENSIONS BEFORE WELDING | REVISD BY | Mbhombi Collins | 17/08/2021 | |
| | | | APPROVER | Mpho Mulaudzi | 17/08/2021 | |
| | | | CHECKER | Mpho Mulaudzi | 17/08/2021 | |
| | | | REVISD BY | Mpho Mulaudzi | 17/08/2021 | |
| | | | APPROVER | Mpho Mulaudzi | 17/08/2021 | |
| 25 | 21/02/2022 | New Baseline change 10.3.1 | CHECKER | Andani Muthelo | 21/02/2022 | |
| 26 | 14/04/2023 | Addition of welding consumable traceability | REVISD BY | Ntuli Vanessa | 21/02/2022 | |
| | | | APPROVER | Mohlame Amogelang | 14/04/2023 | |
| | | | CHECKER | Mohlame Amogelang | 14/04/2023 | |
| | | | REVISD BY | Mohlame Amogelang | 14/04/2023 | |
| | | | APPROVER | Ngqweni Tyson | 14/04/2023 | |
| 27 | 27/07/2023 | Added verification of loaded parts | CHECKER | Mathapo Keketone | 27/07/2023 | |
| 28 | 07/11/2023 | Addition of welding traceability | REVISD BY | Ngqweni Tyson | 27/07/2023 | |
| | | | APPROVER | Ngqweni Tyson | 27/07/2023 | |
| | | | CHECKER | Mathapo Keketone | 27/07/2023 | |
| | | | REVISD BY | Mathapo Keketone | 27/07/2023 | |
| | | | APPROVER | Ngqweni Tyson | 27/07/2023 | |
| TRAINSET | | CAR | OPERATOR NAME & ALPS NUMBER | DATE | SELF INSPECTION NUMBER | PAGES |
| 15200 Tc2 | | PAPER 40044 | 03/03/2021 | SI.CB2210.322.V28 | 16 | |

QUALITY
17



DTR30223319/3 Carshell Assembly TC

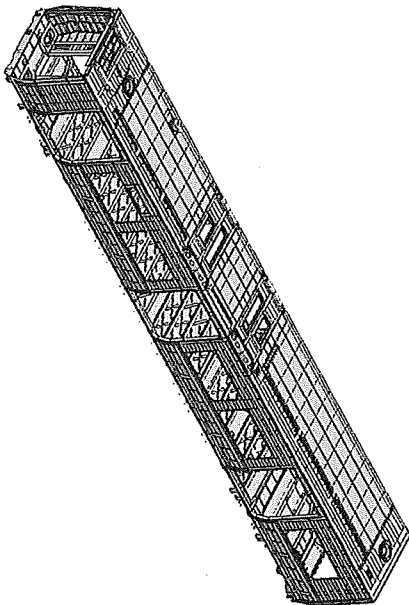
Rev. Project: PRASA
V28
Date- 07/11/2023
SI.CB2210.322.V28

Car: TC1 & TC2

NCR:

Work station:

CB2210



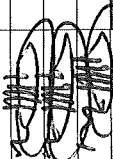
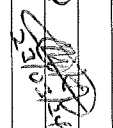
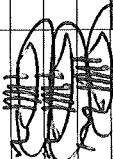
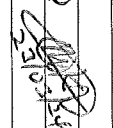
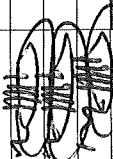
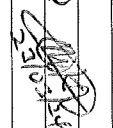
I - Documentation and Instruments

1.1 - Documentation Control

| Document | Type of car | | | | | Revision | Observation | OK | NOK | Remarks | Signature/Date (Manufacturing) | Signature/Date (Quality) |
|---------------|-------------|----|----|----|----|----------|-------------|-------------------------------------|--------------------------|---------|---|---|
| | TC1 | M1 | M2 | M3 | M4 | | | | | | | |
| DTR30223319/3 | | | | | | X | V28 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | N/A |  23/03/24 |  |

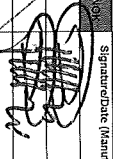
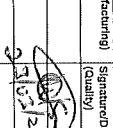
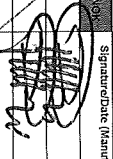
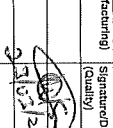
1.2 - Instruments Control

Monitoring and Measuring Instrument Control - Used for Special Process

| Instruments | Validation | Calibration or Verification Validation Date | OK | NOK | Signature/Date (Manufacturing) | Signature/Date (Quality) |
|-------------|------------|--|-------------------------------------|--------------------------|--|--|
| WELDER | 39853-2 | 15/03/25 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |  23/03/24 |  |
| WHEEL TAPE | 125235924 | 08/01/25 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |  23/03/24 |  |
| 3CM TAPE | G167P6102 | 18/11/24 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |  23/03/24 |  |

1.3 Consumables

Welding Consumable Control - Used for Special Process

| Filler Material | Heat Number | Welding Process | OK | NOK | Signature/Date (Manufacturing) | Signature/Date (Quality) |
|-----------------|--------------|-----------------|-------------------------------------|--------------------------|---|---|
| ER 308 LS1 | 31408-74097 | MIG | <input checked="" type="checkbox"/> | <input type="checkbox"/> |  23/03/24 |  |
| ER 308 L | 299654-70522 | TIG | <input checked="" type="checkbox"/> | <input type="checkbox"/> |  23/03/24 |  |
| | | | | | | |
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DTR30223319/3 Carshell Assembly TC

Rev.
V28

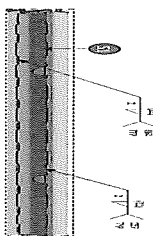
Project: PRASA

Date- 07/11/2023

SI.CB2210.322.V28

EUJ Reinforcement Plates

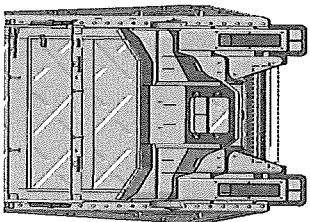
END 2



END 2

Boiler maker (Name & Sign):

Welder (Name & Sign):

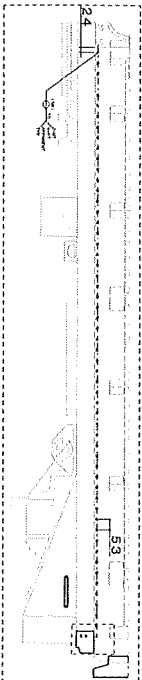


Underneath the CAR

FEDOLI

Operator:

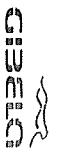
Laurence Meyer



1. THE UNITED STATES GOVERNMENT (FBI) DID
NOT CONDUCT ANY INVESTIGATION
OF THE "MURDER OF MARTIN LUTHER KING, JR."
ON APRIL 4, 1968.

2024-02-25

100

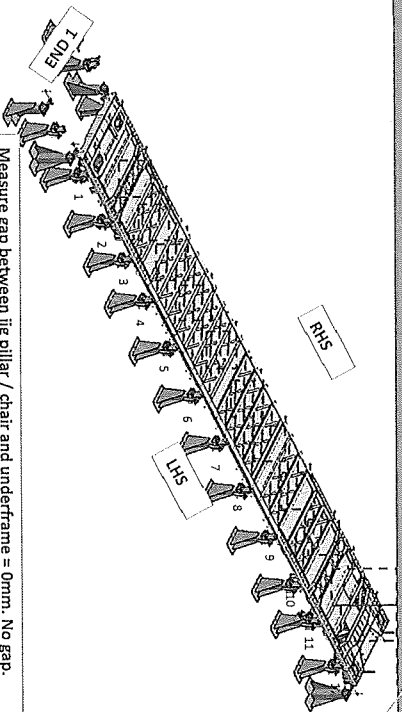


DTR302233193 Carshell Assembly TC

Rev.
V28
Date-
07/11/2023

Project: PRASA
SI.CB2210.322.V28

Specifications of Details for GTS measurement



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

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

After Loading Underframe and Clamping.

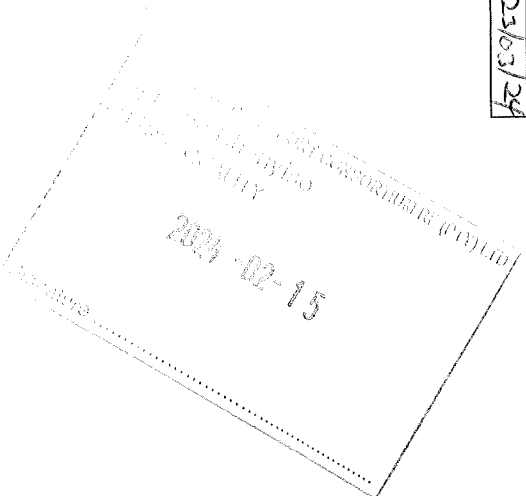
| | | | | | | | | | | | | |
|-----------------|---|---|---|----|---|---|---|---|---|----|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Left Hand Side | | | | NA | | | | | | | | |
| Right Hand Side | | | | | | | | | | | | |

Signature Operator:  Date: 23/05/24

After Welding.

| | | | | | | | | | | | | |
|-----------------|---|---|---|----|---|---|---|---|---|----|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Left Hand Side | | | | NA | | | | | | | | |
| Right Hand Side | | | | | | | | | | | | |

Signature Industrial Quality:  Date: 23/05/24

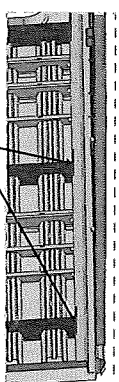
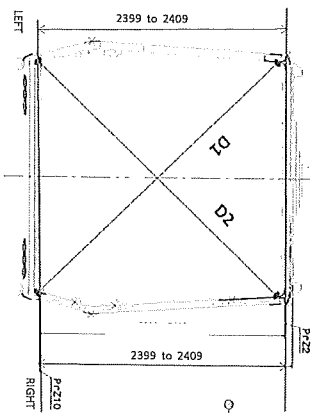
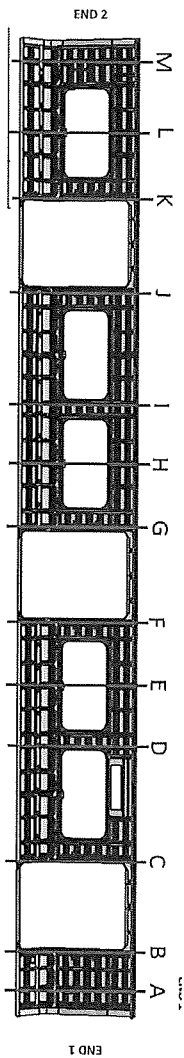




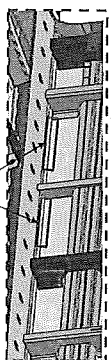
DTR30223319/3 Carshell Assembly TC

| Rev. | Project: PRASA |
|------------|---------------------|
| V28 | |
| Date- | |
| 07/11/2023 | SI, CB2210.322, V28 |

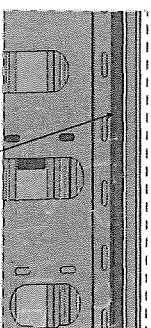
Specifications of Details for GBS measurement



Measurement positions on roof fall and sidewall omega corner.



Measurement positions on sidewall and side sill corner.



Reinforcement area measurement positions on roof reinforcement area.

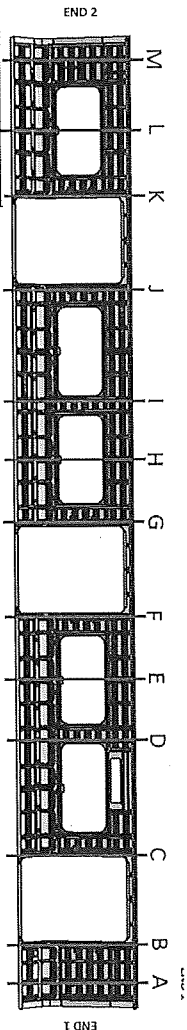
QUALITY

2024-02-15

Signature

Specifications of Details for GBS measurement

BEFORE WELDING



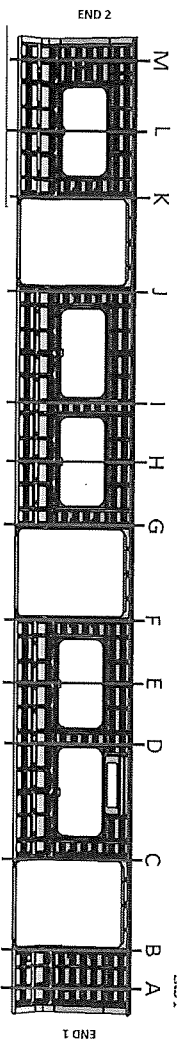
PME: The difference in Height values measured on the LHS and RHS should be $\leq 2\text{MM}$ on each point.

| | Record D1 values | Record D2 values | D1-D2 $\leq 5\text{mm}$ | 2399 to 2409 | 2399 to 2409 (RHS) | LHS-RHS ≤ 2 |
|---|------------------|------------------|-------------------------|--------------|--------------------|------------------|
| A | 3369 | 3368 | 1 | 2404 | 2404 | 0 |
| B | 3368 | 3368 | 0 | 2406 | 2405 | 1 |
| C | 3370 | 3369 | 1 | 2404 | 2404 | 0 |
| D | 3369 | 3391 | 2 | 2406 | 2404 | 2 |
| E | 3368 | 3369 | 1 | 2405 | 2406 | 1 |
| F | 3369 | 3368 | 1 | 2404 | 2404 | 0 |
| G | 3370 | 3371 | 1 | 2404 | 2405 | 1 |
| H | 3371 | 3371 | 0 | 2403 | 2405 | 2 |
| I | 3370 | 3369 | 1 | 2404 | 2406 | 2 |
| J | 3366 | 3368 | 2 | 2404 | 2404 | 0 |
| K | 3366 | 3365 | 1 | 2403 | 2404 | 1 |
| L | 3368 | 3369 | 1 | 2405 | 2404 | 1 |
| M | 3369 | 3369 | 0 | 2404 | 2405 | 1 |

Signature
23/07/2023
23/07/2023

Specifications of Details for CBS measurement

AFTER WELDING



PME: The difference in Height values measured on the
LHS and RHS should be $\leq 2\text{MM}$ on each point.

| | Record D1 values | Record D2 values | D1-D2 $\leq 5\text{mm}$ | 2399 to 2409 | 2399 to 2409 (RHS) | LHS-RHS ≤ 2 |
|---|------------------|------------------|-------------------------|--------------|--------------------|------------------|
| A | 3269 | 3268 | 1 | 2402 | 2404 | 0 |
| B | 3297 | 3298 | 1 | 2405 | 2406 | 1 |
| C | 3299 | 3299 | 0 | 2406 | 2404 | 2 |
| D | 3267 | 3268 | 1 | 2404 | 2404 | 0 |
| E | 3271 | 3270 | 1 | 2405 | 2404 | 1 |
| F | 3296 | 3298 | 2 | 2404 | 2406 | 2 |
| G | 3297 | 3297 | 0 | 2405 | 2404 | 1 |
| H | 3269 | 3268 | 1 | 2404 | 2404 | 0 |
| I | 3270 | 3270 | 2 | 2405 | 2404 | 1 |
| J | 3296 | 3298 | 2 | 2406 | 2404 | 2 |
| K | 3297 | 3297 | 0 | 2404 | 2405 | 1 |
| L | 3270 | 3271 | 1 | 2404 | 2406 | 2 |
| M | 3296 | 3296 | 0 | 2404 | 2403 | 1 |

Signature

240964
239964
240564



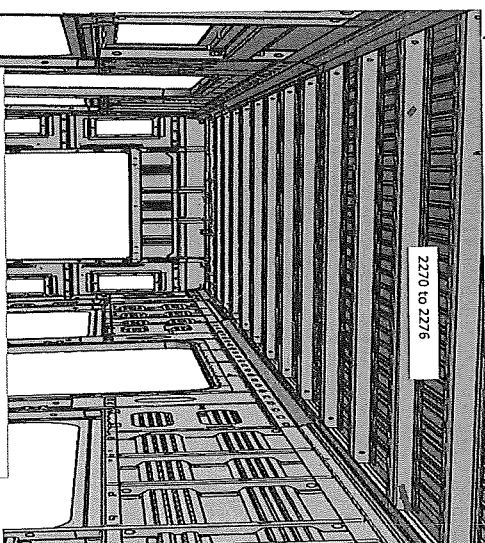
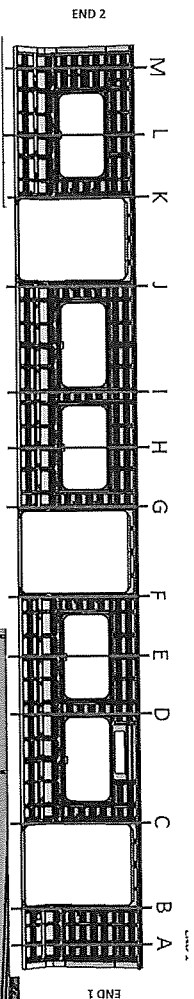
DTR30233193 Carshell Assembly TC

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Project: PRASA

SI.CB2210.322.V28

GBS measurement

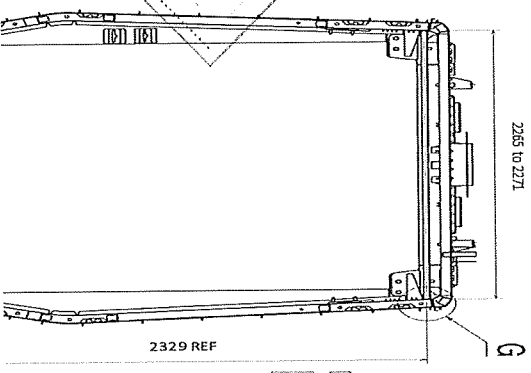
BEFORE WELDING



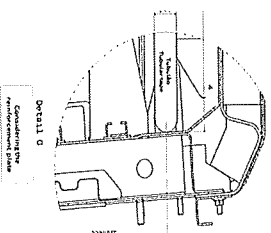
Do not consider reinforcement / Take measurements top area of zee profile

| | |
|--------------|------|
| 2270 to 2276 | |
| 2268 & 2274 | |
| A | 2274 |
| B | 2273 |
| C | 2276 |
| D | 2276 |
| E | 2274 |
| F | 2273 |
| G | 2274 |
| H | 2276 |
| I | 2276 |
| J | 2271 |
| K | 2273 |
| L | 2274 |
| M | 2274 |


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2021-02-15
Signature



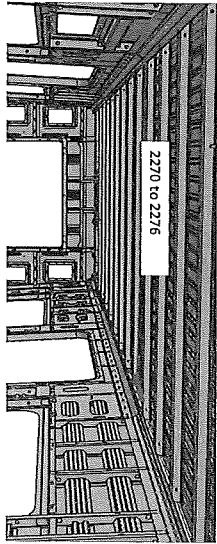
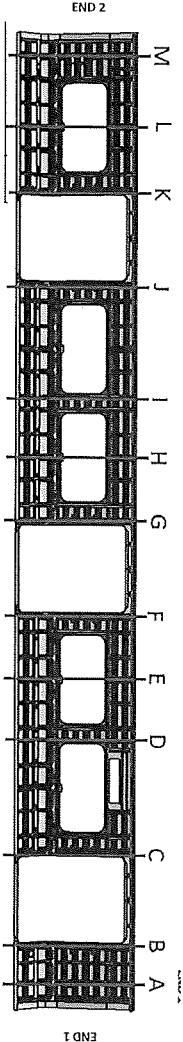
2265 to 2271



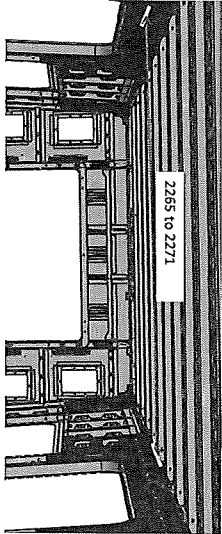
4009964
23103124

| | | | |
|--|-----------------------------------|---------------------|-------------------------------------|
|  GIBELD | DTR3023319/3 Carshell Assembly TC | Rev. V28 | Project: PRASA SI.CB2210.322.V28 |
| | | Date- 07/11/2023 | |
| Specifications of Details for GBS measurement | | | |

AFTER WELDING



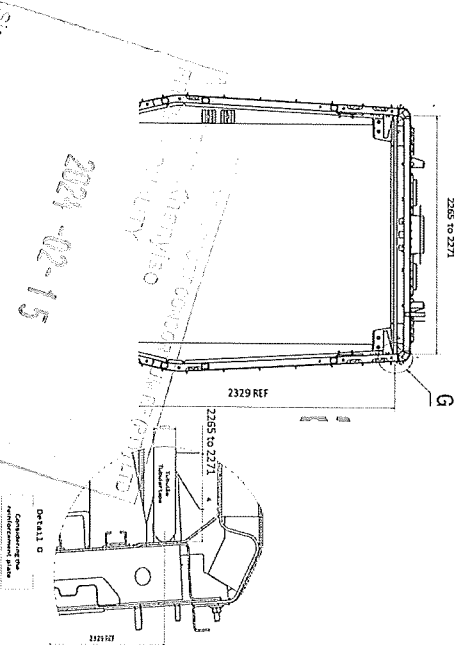
Do not consider reinforcement (Take measurements top area of zee profile



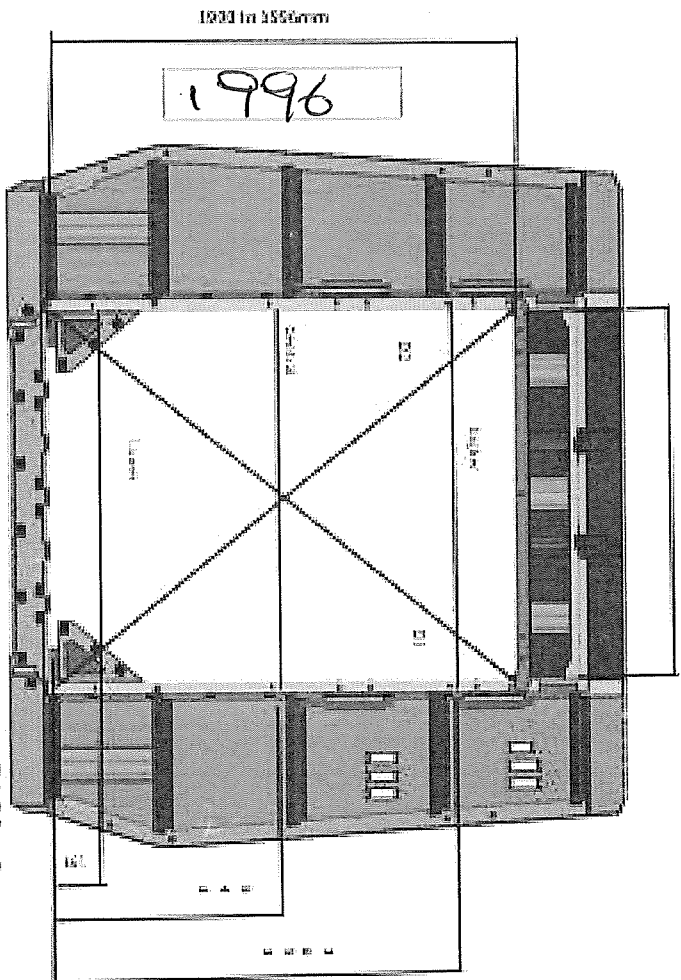
Take measurement close to radius (considering reinforcement)

| | 2265 to 2271 | 2270 to 2276 |
|---|-------------------------------------|-------------------------------------|
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| B | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| C | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| D | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| E | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| F | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| G | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| H | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| I | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| J | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| K | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| L | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| M | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

Handwritten signature and date: 2024-02-15



Endframe 2



THE UNIVERSITY OF CHICAGO

2416

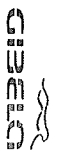
01/16

01-02

1-800-772-7777 • 1-800-633-0333 • 1-800-633-0333

2012-12-15

23/03/2009



DTR30223319/3 Carshell Assembly TC

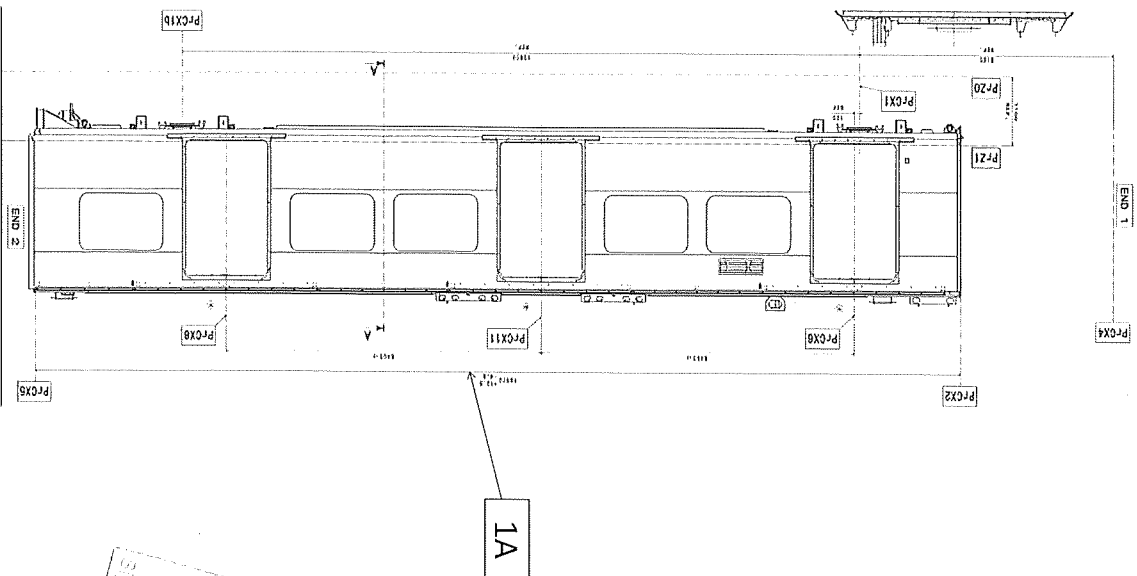
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|-------------|----------------|
| Rev. V28 | Project: PRASA |
|-------------|----------------|

| | |
|---------------------|-------------------|
| Date- 07/11/2023 | SI.CB2210.322.V28 |
|---------------------|-------------------|

Specifications of Details for CBS measurement

| LEFT SIDE | |
|--------------------|---------------|
| SPECIFICATION SIZE | ACTUAL SIZE |
| 1A | 1A |
| 18870 | 18870 |
| +10.5 -4.5 | +10.5 -4.5 |

| RIGHT SIDE | |
|--------------------|---------------|
| SPECIFICATION SIZE | ACTUAL SIZE |
| 1A | 1A |
| 18870 | 18870 |
| +10.5 -4.5 | +10.5 -4.5 |



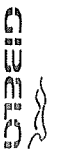
25/03/2024

2024-10-15

Dye penetrant test

Dye-penetration test to be performed by quality personnel





DTR30223319/3 Carshell Assembly TC

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07/11/2023

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Self Inspection - Final Result

Is the car good to advance to the next workstation/process?
(Approval of Operations and Industrial Quality)

DATE

NAME

SIGNATURE

23/05/24

Pons

23/05/24

Richard

HOLD POINT

GO

If activities are not complete, the missing activities must not impact the next stage!

Every auto inspection performed conforms to specification or in case of discrepancy the same is approved by the competent party.)

There are activities pending that impact the activities of the next process (To describe problems below)

NO GO

There are non-conformities impact the quality of the product and there is no corrective action defined yet!

In case of "NO GO", describe blocking problems


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

| Item | Description | Action | Responsible | Due date | Status |
|------|-------------|--------|-------------|----------|--------|
| | | | | | |
| | | | | | |
| | | | | | |

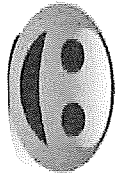
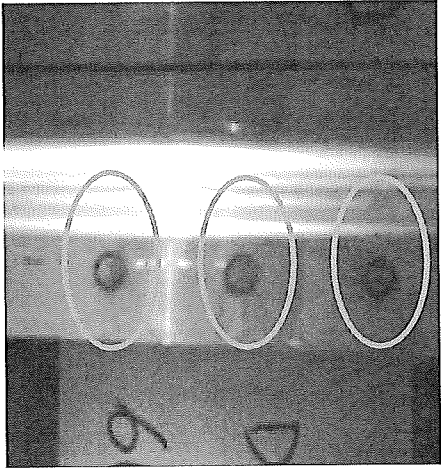
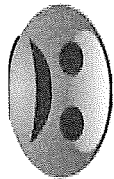
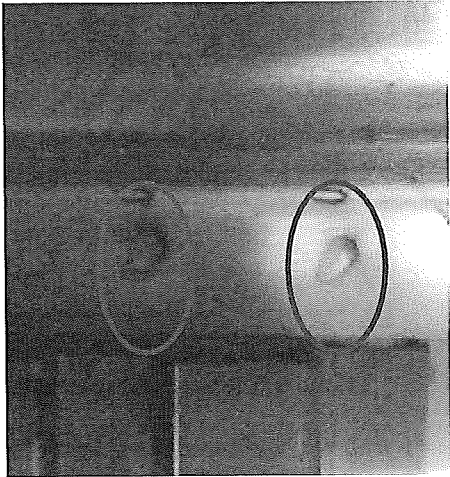
Operations


Quality

Signature
2024-02-15

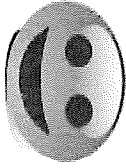
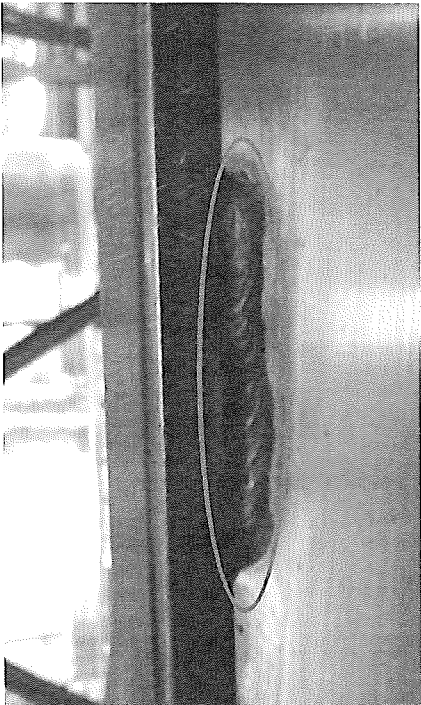
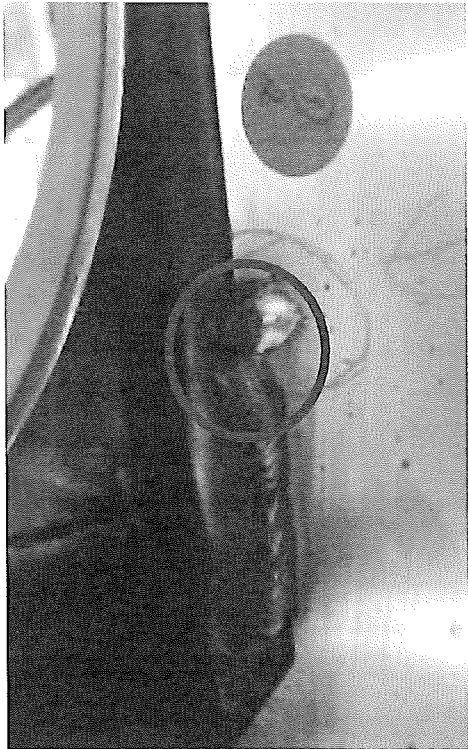
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|  | | DTR3022319/3 Carshell Assembly TC | Rev. V28 | Project: PRASA |
| | | | Date- 07/11/2023 | SI.CB2210.322.V28 |

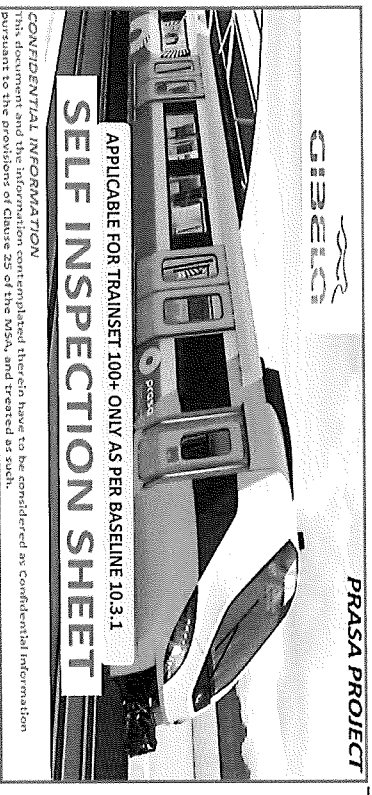
ANNEXURE A: Spot Welding Quality Acceptance Standard




| | | | | |
|---|------------------------------------|--|------------------------------------|-------------------------------------|
|  | DTR30223319/3 Carshell Assembly TC | | Rev. V28 Date- 07/11/2023 | Project: PRASA SI.CB2210.322.V28 |
|---|------------------------------------|--|------------------------------------|-------------------------------------|

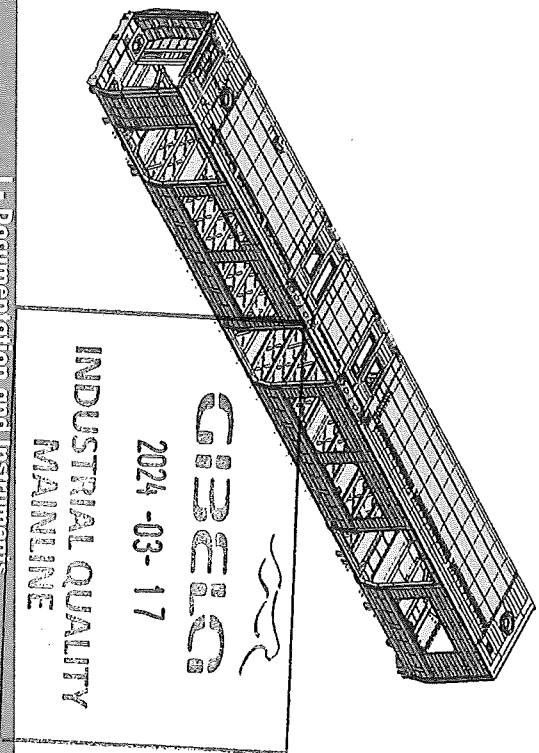
ANNEXURE B: Arc Welding Quality Acceptance Standard



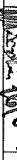



| APPLICATION REFERENCE | | | | | | | | | |
|-----------------------|-------------------|--|-------------|------------------------|-----|-----|---------------------------------|------------|--|
| DRAWING | DESCRIPTION | STATION | CAR TYPE | | | | WORK INSTRUCTION | SAFETY? | |
| | | | TC1 | ML | ML1 | ML2 | | | |
| DTB22220.2 | Coast Assembly TC | CB230 | X | | | | PL/CB2220.DT16022 3319/2.V20 | YES | |
| | | | | | | | | | |
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| | | | | | | | | | |
| REV | DATE | MODIFICATION CONTENT | RESPONSIBLE | | | | NAME | DATE | |
| 0 | 09/04/2018 | GIBELG NEW CREATION | APPROVER | | | | huning Medha | 09/04/2018 | |
| | | | CHECKER | | | | Nizzo Pindla | 08/04/2018 | |
| | | | COMPLIER | | | | Thanyal Mxyng | 08/04/2018 | |
| 1 | 23/05/2018 | Team leader and Quality Technician to sign final signature from PVE Manager to Quality Manager | APPROVER | | | | huning Medha | 23/05/2018 | |
| | | | CHECKER | | | | Nizzo Pindla | 23/05/2018 | |
| | | | REVISOR | | | | Ramkone Meana | 23/05/2018 | |
| 2 | 05/07/2018 | Certain dimensional checks added and others removed to CB1210 and CB1230 | COMPLIER | | | | Ramkone Meana | 05/07/2018 | |
| | | | APPROVER | | | | huning Medha | 05/07/2018 | |
| | | | CHECKER | | | | Nizzo Pindla | 05/07/2018 | |
| 3 | 2018/06/12 | Certain dimensional checks added and others removed to CB1210 and CB1230 | COMPLIER | | | | Ramkone Meana | 2018/06/12 | |
| | | | CHECKER | | | | huning Medha | 2018/06/12 | |
| 5 | 24/01/2019 | As per Baseline 10.2 | COMPLIER | | | | huning Medha | 24/01/2019 | |
| | | | CHECKER | | | | Nizzo Pindla | 24/01/2019 | |
| 6 | 13/03/2018 | Added D1 and D2 on Self - Inspection length measurement | APPROVER | | | | huning Medha | 13/03/2018 | |
| | | | CHECKER | | | | Nizzo Pindla | 13/03/2018 | |
| | | | COMPLIER | | | | huning Medha | 13/03/2018 | |
| 7 | 20/05/2019 | Removed roof width | APPROVER | | | | huning Medha | 20/05/2019 | |
| | | | CHECKER | | | | Nizzo Pindla | 20/05/2019 | |
| | | | REVISOR | | | | Nizzo Pindla | 20/05/2019 | |
| 10 | 22/08/2019 | New Baseline 10.2.5 | APPROVER | | | | huning Medha | 22/08/2019 | |
| | | | CHECKER | | | | Nizzo Pindla | 22/08/2019 | |
| | | | REVISOR | | | | Nizzo Pindla | 22/08/2019 | |
| 15 | 06/08/2020 | New Baseline 10.2.6 | APPROVER | | | | Timothy Ramela | 06/08/2020 | |
| | | | CHECKER | | | | Borgane Nazara | 06/08/2020 | |
| | | | REVISOR | | | | Borgane Nazara | 06/08/2020 | |
| 20 | 19/04/2021 | New Baseline 10.2.6 | APPROVER | | | | Timothy Ramela | 19/04/2021 | |
| | | | CHECKER | | | | Borgane Nazara | 19/04/2021 | |
| | | | REVISOR | | | | Borgane Nazara | 19/04/2021 | |
| 21 | 17/08/2021 | ADDED DIMENSIONS BEFORE WELDING | APPROVER | | | | Mahenth Collins | 17/08/2021 | |
| | | | CHECKER | | | | Mahuthi Mpho | 17/08/2021 | |
| | | | REVISOR | | | | Mahuthi Mpho | 17/08/2021 | |
| 25 | 20/02/2022 | New Baseline 10.2.6 | APPROVER | | | | Mahuthi Collins | 20/02/2022 | |
| | | | CHECKER | | | | Aradan Mureto | 20/02/2022 | |
| | | | REVISOR | | | | Aradan Mureto | 20/02/2022 | |
| 26 | 14/06/2022 | Update minimum temperature requirement for sealant application | APPROVER | | | | Mahuthi Collins | 14/06/2022 | |
| | | | CHECKER | | | | Aradan Mureto | 14/06/2022 | |
| | | | REVISOR | | | | Aradan Mureto | 14/06/2022 | |
| 27 | 19/10/2022 | Addition of traceability for sealant application and welding | APPROVER | | | | Mahuthi Collins | 19/10/2022 | |
| | | | CHECKER | | | | Nukoozwane | 19/10/2022 | |
| | | | REVISOR | | | | Nukoozwane | 19/10/2022 | |
| 28 | 14/04/2023 | Added sealant batch number & welding consumables traceability | APPROVER | | | | Vinessa Ntuli | 14/04/2023 | |
| | | | CHECKER | | | | Nukoozwane | 14/04/2023 | |
| | | | REVISOR | | | | Nukoozwane | 14/04/2023 | |
| TRAINSET | CAR | OPERATOR NAME & ALPS NUMBER | DATE | SELF INSPECTION NUMBER | | | | PAGES | |
| 220 | TC2 | Mogana 40041 | 26/03/24 | SI/CB2220.323.V28 | | | | 17 | |



| | | | |
|---|------------------------------------|---------------------|-------------------------------------|
|  | DTR30223319/2 Carshell Assembly TC | Rev. 29 | Project: PRASA SI,CB2220.323.V29 |
| | | Date- 28/10/2023 | |
| Carro Car: | TC1, TC2 | NCR: | Work station: CB2220 |




I - Documentation and Instruments



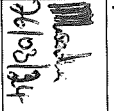
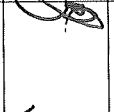




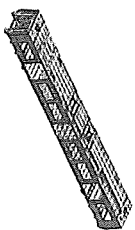

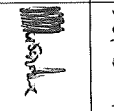
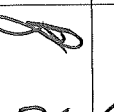
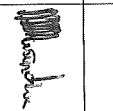
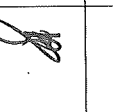
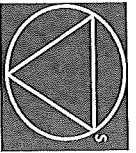


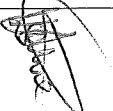
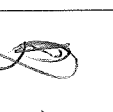
| | | | | | | | | | | | | | | |
|-----------------------------|-----|-------------|----|----|----|-----|----------|-------------|----|-----|--------|--|--|--|
| I.1 - Documentation Control | | | | | | | | | | | | | | |
| | | Type of car | | | | | | | | | | | | |
| Document | TC1 | M1 | M2 | M3 | M4 | TC2 | Revision | Observation | OK | NOK | REWORK | Signature/Date (Manufacturing) | | Signature/Date (Quality) |
| DTR30223319/2 | | | | | | ✓ | | | ✓ | | N/A |  16/03/24 | |  29/03/24 |


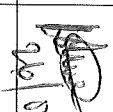



| Monitoring and Measuring Instrument Control - Used for Special Process | | | | | | | | | |
|--|------------|--|----|-----|--------------------------------|--------------------------|--|--|--|
| Instruments | Validation | Calibration or Verification Validation Date | OK | NOK | Signature/Date (Manufacturing) | Signature/Date (Quality) | | | |
| Tubular | 31823-3 | 15/03/2025 | ✓ | | Mosselle 21/03/24 | [Signature] 19/03/24 | | | |
| Measuring tape | GIBPA057 | 05/04/2024 | ✓ | | Mosselle | | | | |
| | | | | | | | | | |

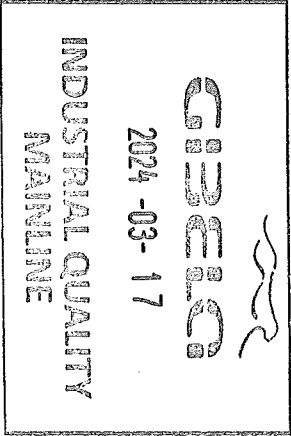
| 1.3 Consumables | | | | | | | | | | | |
|---|-------------|-----------------|----|-----|--|--|--|--|--|--|--|
| Welding Consumable Control - Used for Special Process | | | | | | | | | | | |
| Filler Material | Heat Number | Welding Process | OK | NOK | Signature/Date (Manufacturing) | Signature/Date (Quality) | | | | | |
| 308 L.O mm | E231061 | MIG | ✓ | |  16/03/24 |  29/03/24 | | | | | |
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|---|------------------------------------|---------------------|-------------------------------------|
|  | DTR30223319/2 Carshell Assembly TC | Rev. 29 | Project: PRASA SI CB2220.323.V29 |
| | | Date- 26/10/2023 | |

II - Control Activities of Production

| II.1 - Items to check | | | | | | | |
|-----------------------|---|---|---|----|-----|---|---|
| Item | Picture/Drawing | Description | Acceptance criteria / Record | OK | NOK | Signature/Date (Manufacturing) | Signature/Date (Quality) |
| 01 | N/A | Assembly according to Instruction Engineering n° PRA.CB2220.DTR30225487/2 Verification of fitment for all reinforcement brackets. | DTR30223319/2 | ✓ | |  26/03/24 |  26/03/24 |
| 02 | N/A | Carshell free of significant flaws which compromise the appearance or functionality. | DTD0000210675 | ✓ | |  26/03/24 |  26/03/24 |
| 03 | REFER TO ANNEXURE A | Spot Welding inspected and approved according procedure | IND-SAL-WMS-016 e DTD0000210675 | ✓ | |  26/03/24 |  26/03/24 |
| 04 | REFER TO ANNEXURE B | Arc Welding inspected and approved according procedure. | IND-SAL-WMS-016 REFER TO G1B - TTPDEF - ARC - 0000 | ✓ | |  26/03/24 |  26/03/24 |
| 05 |  | Cleaning of all Stainless Steel Surface  2024-03-20 17:00 INDUSTRIAL QUALITY MAINTENANCE | IND-SAL-WMS-016 e 2024-03-20 17:00 INDUSTRIAL QUALITY MAINTENANCE | ✓ | |  26/03/24 |  26/03/24 |
| 06 | N/A | Functionals dimensions approved according drawing or complementary document approved by Alstom engineering and registered in this document. | Approved according specified on pages below. | ✓ | |  26/03/24 |  26/03/24 |
| 07 |  | Perform visual inspection of welds in 100% of the project. Run by penetrant testing in electric arc welding (weld ring) as IND-SAL-WMS-018. Run by penetrant testing welds (weld ring) and filler sampling as described in DTD0000210658. | As the welding procedure IND-SAL-WMS-018 and DTD0000210658 | ✓ | |  26/03/24 |  26/03/24 |
| 08 | N/A | Before application of sealant record the expiry date and make sure that the room temperature and humidity are within specified values as per Works Instructions Specified: Temperature Min - Max (1) 10°C - 35°C Relative humidity Min - Max (1) 25% - 60% Sealant Batch No: <u>158 2403</u> Exp Date: <u>10/09/24</u> Actuals Temperature: <u>19 °C</u> Humidity: <u>43 %</u> | | ✓ | |  26/03/24 |  26/03/24 |

|  | | DTR30223319/2 Carshell Assembly TC | | Rev. | | Project: PRASA SI.CB2220.323.V29 | | | |
|---|----|--|---------------|---|------------|-------------------------------------|--|---|---|
| | | | | 29 | Date- | | | | |
| | | | | | 28/10/2023 | | | | |
| 09 | NA | Verification of sealant application in certain regions in the drawing. | AAD0001241033 | Sealant must be: -Applied straight and even (1.5mm) -Free of gaps, cracks, damage and debris (flashes, dirt, dust) Refer to Annexure B | | ✓ | |  26/05/24 |  26/05/24 |
| 10 | NA | Verification of sealant application on the roof and sidewall finishers | | | | ✓ | |  26/05/24 |  26/05/24 |



| | | | | |
|---|-----------------------------------|--|------------|-------------------|
|  | DTR3023319/2 Carshell Assembly TC | | Rev. | Project: PRASA |
| | | | 29 | |
| | | | Date- | |
| | | | 28/10/2023 | |
| | | | | Sl.CB2220.323.V29 |



END 1
SEALANT

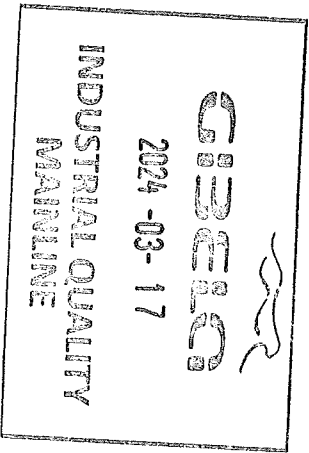
OPERATOR
(Name & sign):


Leary *[Signature]*

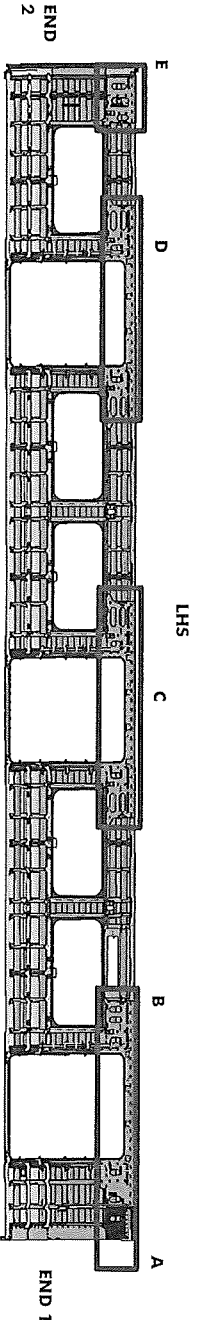
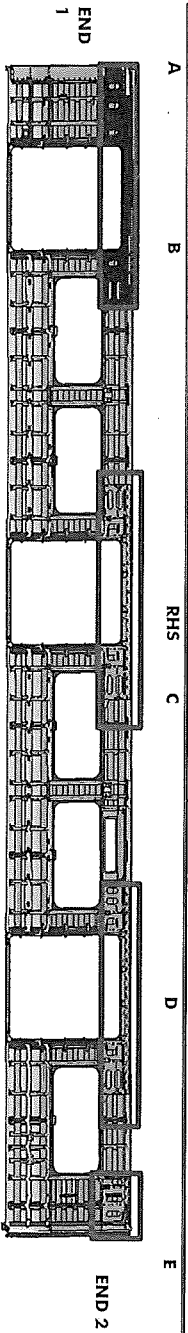
OPERATOR
(Name & sign):






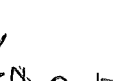






Leary *[Signature]*




| | | | | | |
|---|--|-----------------------------------|--|---------------------|-------------------|
|  | | DTR3022319/2 Carshell Assembly TC | | Rev. 29 | Project: PRASA |
| | | | | Date- 28/10/2023 | SI.CB2220.323.V29 |



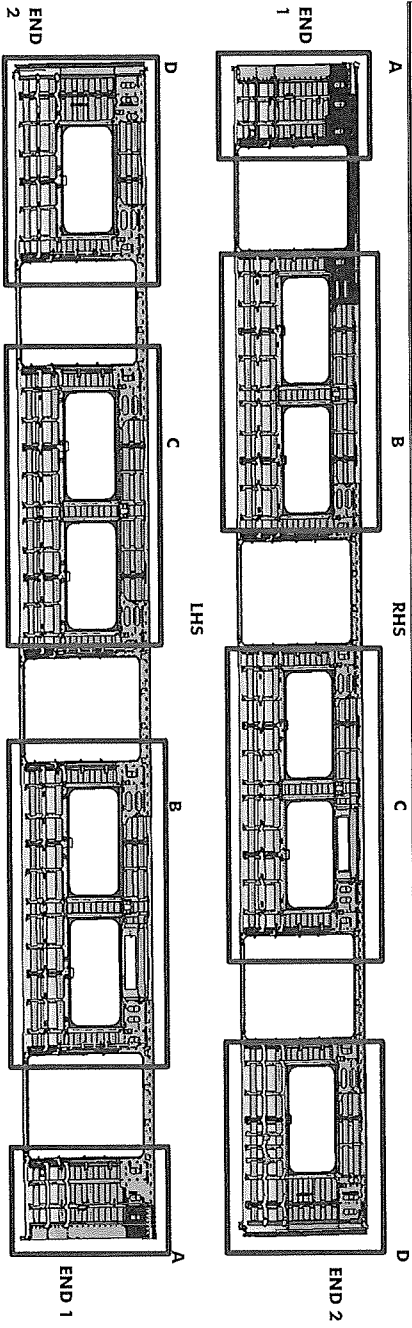
REINFORCEMENT WELDING

| AREA | LHS | RHS |
|------|---|---|
| A | Operator (Name&sign): <u>LINDA</u>  | <u>M. Chingizli</u>  |
| B | Operator (Name&sign): <u>LINDA</u>  | <u>M. Chingizli</u>  |
| C | Operator (Name&sign): <u>M. Chingizli</u>  | <u>M. Chingizli</u>  |
| D | Operator (Name&sign): <u>M. Chingizli</u>  | <u>M. Chingizli</u>  |
| E | Operator (Name&sign): <u>M. Chingizli</u>  | <u>M. Chingizli</u>  |



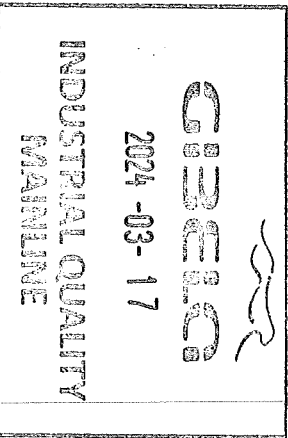
2024-03-17

INDUSTRIAL QUALITY
MAINLINE

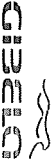


BRACKETING

| | | |
|-----------------------------|-----------|----------------------------------|
| C-RAILS: | Operator: | INSTALLATION <i>Y. Vercos</i> |
| | Operator: | |
| DOOR MECHANISMS: | Operator: | <i>MArtie</i> |
| | Operator: | |
| TAPPING PADS | Operator: | <i>TUMelo</i> |
| | Operator: | |
| | | INSTALLATION & VERIFICATION |
| SEAT & LUGGAGE BRACKETS: | Operator: | <i>Tede</i> |
| | Operator: | <i>THUCAN</i> |
| SEAT BRACKETS VERIFICATION: | Operator: | <i>Te Kto</i> |
| | Operator: | |

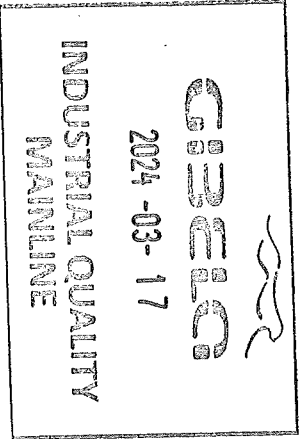


| AREA | LHS | WELDING | RHS |
|---------------------------------------|--|---------|------------------|
| A (Seat brackets) | : Operator (Name&sign): <i>Sidney</i> | | <i>Sidney</i> |
| (C-rails, Luggage and earth bushes) : | Operator (Name&sign): <i>Sidney</i> | | <i>Sidney</i> |
| B (Seat brackets) | : Operator (Name&sign): <i>MITHOKOUS</i> | | <i>MITHOKOUS</i> |
| (C-rails, Luggage and earth bushes) : | Operator (Name&sign): <i>MITHOKOUS</i> | | <i>MITHOKOUS</i> |
| C (Seat brackets) | : Operator (Name&sign): <i>Sidney</i> | | <i>Sidney</i> |
| (C-rails, Luggage and earth bushes) : | Operator (Name&sign): <i>Sidney</i> | | <i>Sidney</i> |
| D (Seat brackets) | Operator (Name&sign): <i>Sidney</i> | | <i>Sidney</i> |
| (C-rails, Luggage and earth bushes) : | Operator (Name&sign): <i>Sidney</i> | | <i>Sidney</i> |

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

ENDS

END 1 TAPPING PADS WELDING: Operator (Name&sign): AK
 END 1 TAPPING PADS WELDING: Operator (Name&sign): Theo Lavi



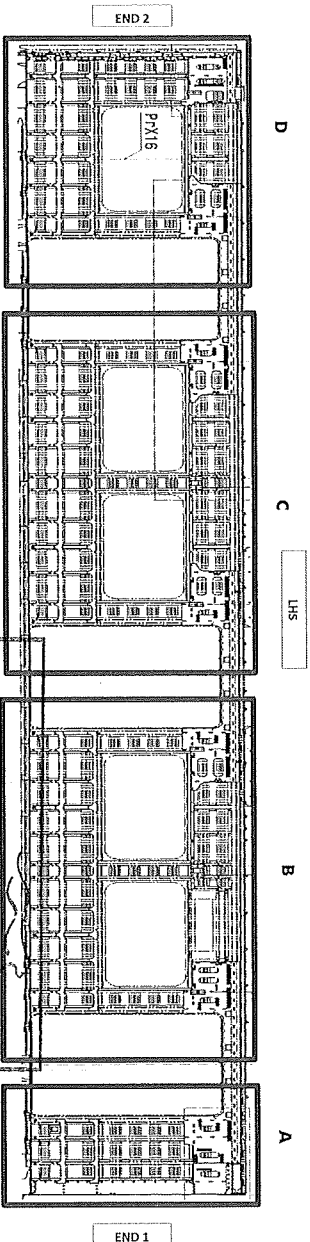
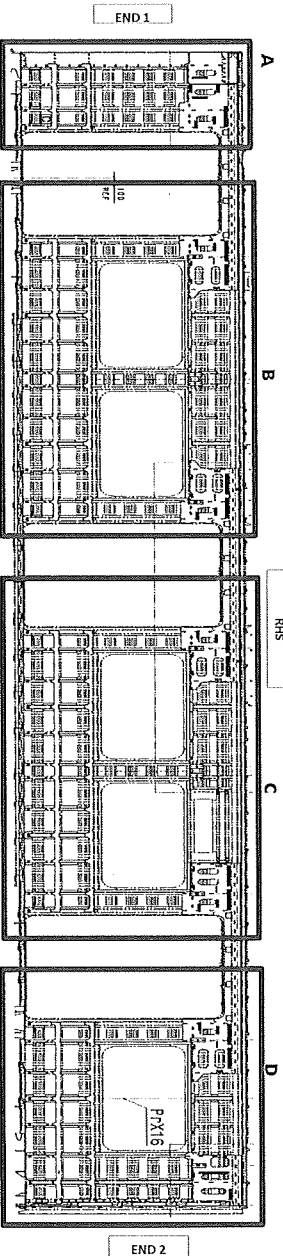


DTR3022331912 Carshell Assembly TC

Rev.
29
Date-
28/10/2023

Project: PRASA
SI/CR2220.323.V29

TC BRACKET INSTALLATION



QUANTITIES (TC)



2024-03-17

RHS

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

ROOF ENDS:

GRAILS 2 OFF END 2
EARTH BUSH 4 OFF END 2

VERIFICATION BY: Mashud

LHS

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

ROOF ENDS:

GRAILS 2 OFF END 2
EARTH BUSH 4 OFF END 2

VERIFICATION BY: Mashud



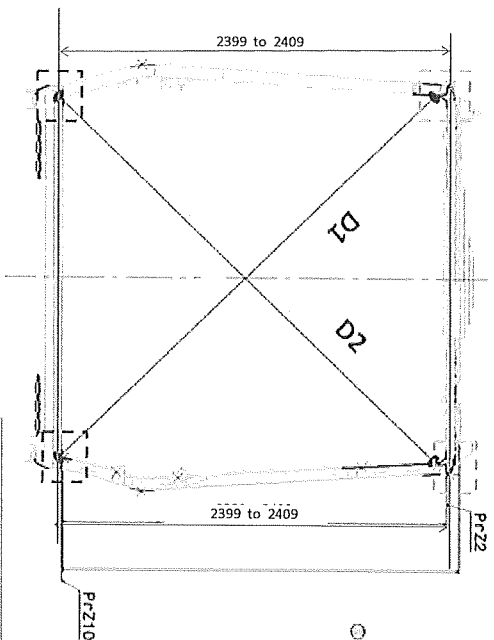
DTR3022331912 Carshell Assembly TC

Rev.
29

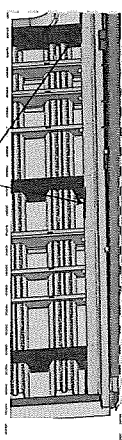
Project: PRASA

Date-
28/10/2023

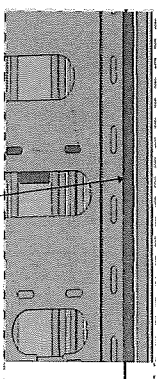
SI.CB2220.323.V29



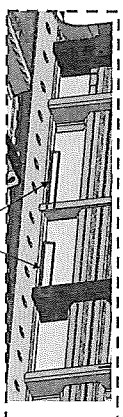
Take measurement close to
radius



Measurement positions on roof rail and
sidewall omega corner.



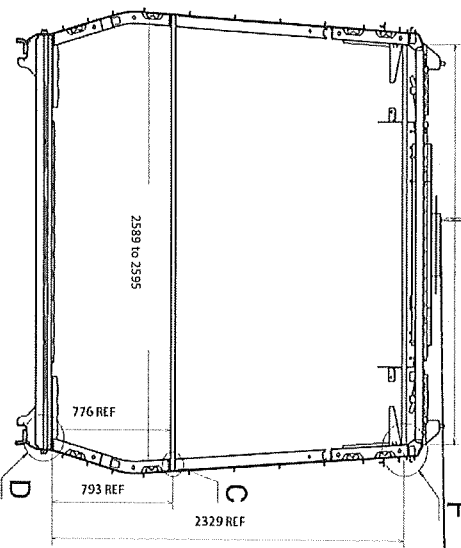
Reinforcement area measurement positions on
roof reinforcement area.



Measurement positions on sidewall and
side sill corner.

INDUSTRIAL QUALITY
MAINLINE

GIBECO
2024-03-17



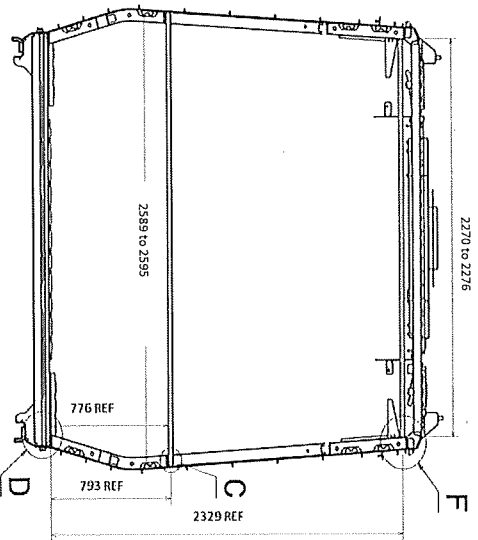
Take measurement close to
radius



DTR30223319/2 Carshell Assembly TC

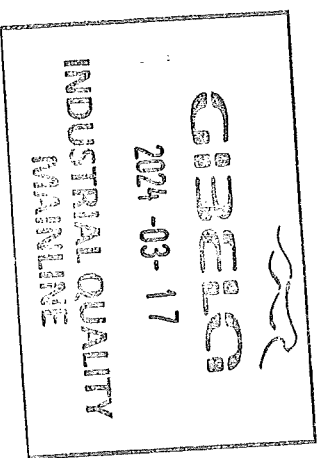
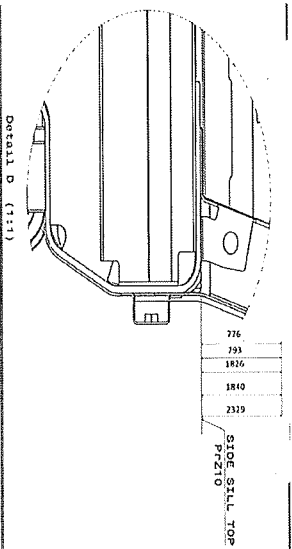
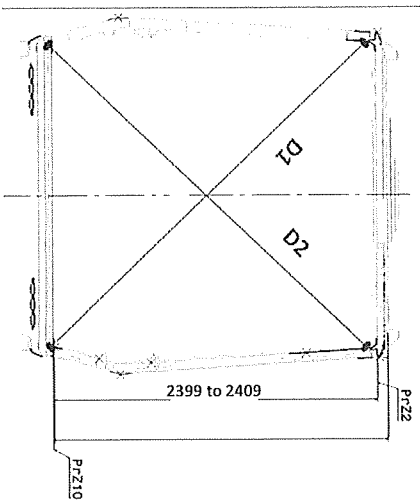
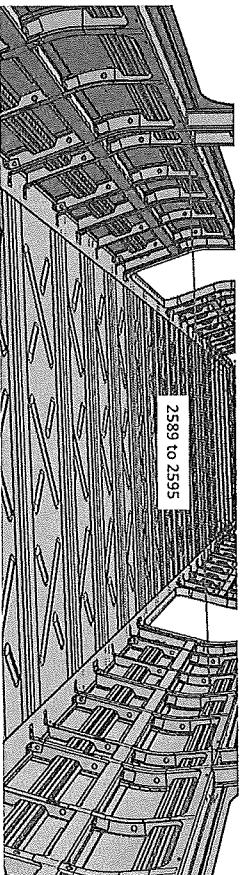
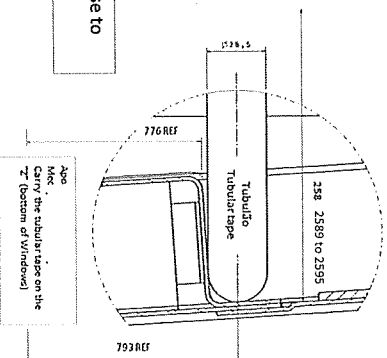
| Rev. |
|------------|
| 29 |
| Date- |
| 28/10/2023 |

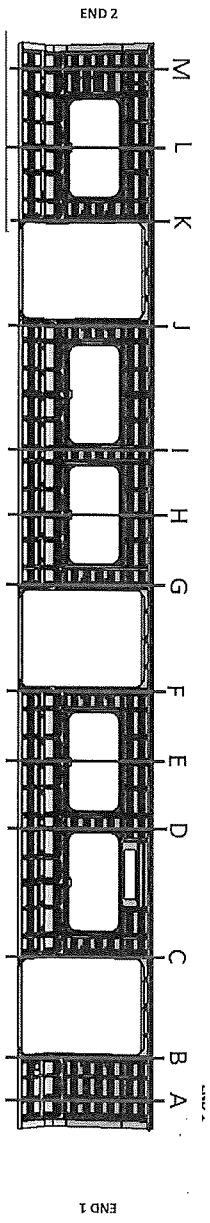
Project: PRASA
SI.CB2220.323.V29



Take measurement close to radius


Detail C





BEFORE WELDING

| | Record D1 values | Record D2 values | D1-D2 ≤ 5mm | 2589 to 2595 |
|---|------------------|------------------|-------------|-------------------------------------|
| A | 32910 | 3294 | 4 | <input checked="" type="checkbox"/> |
| B | 3290 | 3293 | 3 | <input type="checkbox"/> |
| C | 3293 | 3295 | 2 | <input type="checkbox"/> |
| D | 3261 | 3264 | 3 | <input type="checkbox"/> |
| E | 3260 | 3264 | 4 | <input type="checkbox"/> |
| F | 3291 | 3293 | 2 | <input type="checkbox"/> |
| G | 3294 | 3293 | 1 | <input type="checkbox"/> |
| H | 3262 | 3264 | 2 | <input type="checkbox"/> |
| I | 3263 | 3265 | 2 | <input type="checkbox"/> |
| J | 3297 | 3294 | 3 | <input type="checkbox"/> |
| K | 3294 | 3295 | 1 | <input type="checkbox"/> |
| L | 3266 | 3264 | 2 | <input type="checkbox"/> |
| M | 3296 | 3294 | 2 | <input type="checkbox"/> |

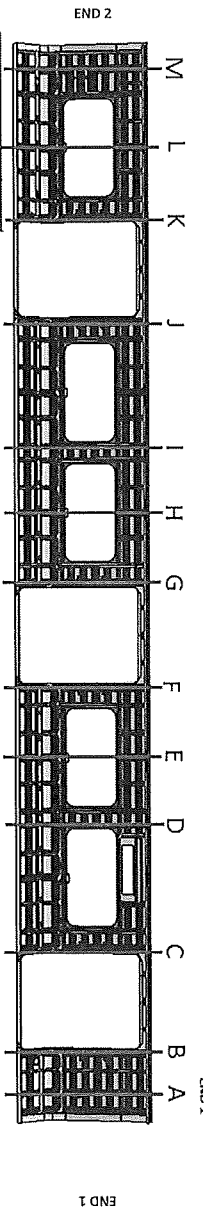

 2024-03-17
 INDUSTRIAL QUALITY
 MAINLINE



DTR30223319/2 Carshell Assembly TC

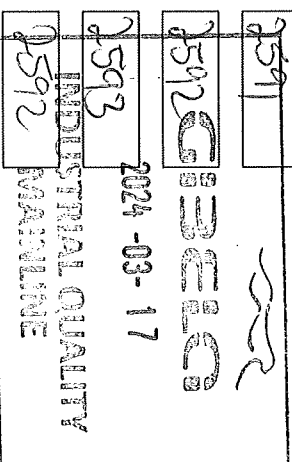
| Rev. | 29 |
|-------|------------|
| Date- | 28/10/2023 |

Project: PRASA
SI:CB2220.323.V29



AFTER WELDING

| | Record D1 values | Record D2 values | D1-D2 ≤ 5mm | 2589 to 2595 |
|---|------------------|------------------|-------------|--------------|
| A | 3293 | 3295 | 2 | 2594 |
| B | 3293 | 3289 | 4 | 2590 |
| C | 3294 | 3295 | 1 | 2591 |
| D | 3264 | 3262 | 2 | 2589 |
| E | 3261 | 3263 | 2 | 2590 |
| F | 3295 | 3292 | 3 | 2589 |
| G | 3291 | 3294 | 3 | 2591 |
| H | 3265 | 3263 | 2 | 2592 |
| I | 3267 | 3263 | 4 | 2593 |
| J | 3293 | 3297 | 4 | 2592 |
| K | 3296 | 3293 | 3 | 2590 |
| L | 3267 | 3264 | 3 | 2590 |
| M | 3295 | 3295 | 0 | 2593 |





DTR3022319/2 Carshell Assembly TC

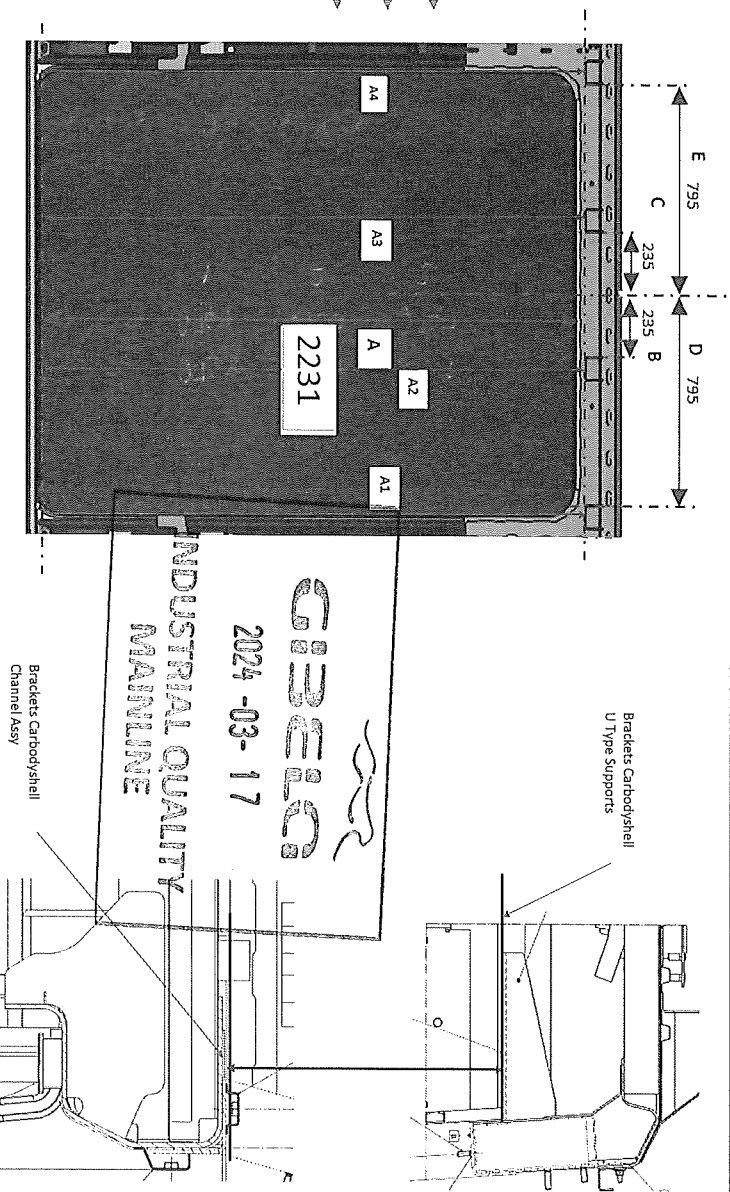
Rev.
29

Project: PRASA

Date-
28/10/2023

SI.CB2220.323.V29

Specifications of Details for GBS measurement



DOOR 1 - LHS

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

DOOR 2 - LHS

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

DOOR 3 - LHS

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

DOOR 1 - RHS

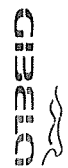
| VALUE | ACTUAL |
|-------|--------------|
| A1 | 2230 to 2232 |
| A2 | 2230 to 2232 |
| A3 | 2230 to 2232 |
| A4 | 2230 to 2232 |
| B | 234 to 236 |
| C | 234 to 236 |
| D | 794 to 796 |
| E | 794 to 796 |

DOOR 2 - RHS

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

DOOR 3 - RHS

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



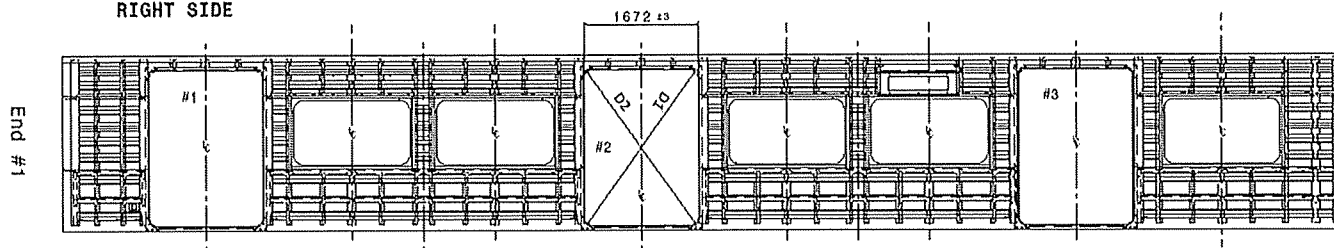
DTR3022331912 Carshell Assembly TC

Rev.
29
Date-
28/10/2023

Project: PRASA
SI.CB2220.323.V29

Specifications of Details for CBS measurement

RIGHT SIDE



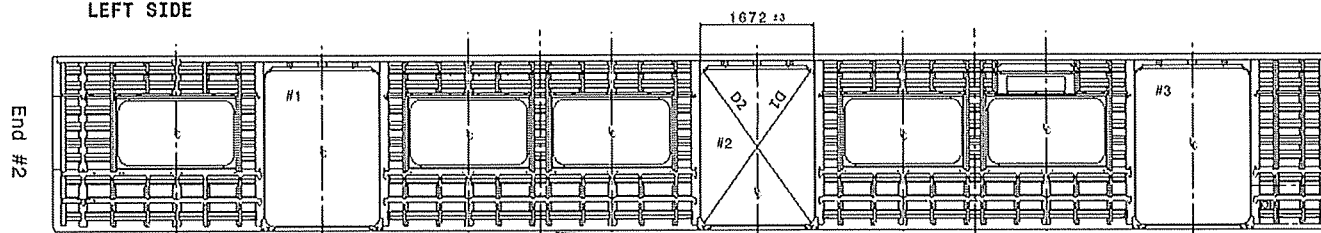
Doors length - 1672 ±3mm

| #1 | #2 | #3 | |
|------|------|------|-------------------|
| 1671 | 1672 | 1672 | HIGHER DIMENSION |
| 1672 | 1672 | 1671 | CENTRAL DIMENSION |
| 1671 | 1673 | 1671 | LOWER DIMENSION |

Doors diagonal D1-D2 maximum difference ≤ 4 mm

| | #1 | #2 | #3 |
|-------|------|------|------|
| D1 | 2750 | 2748 | 2747 |
| D2 | 2747 | 2749 | 2749 |
| D1-D2 | 3 | 1 | 2 |

LEFT SIDE

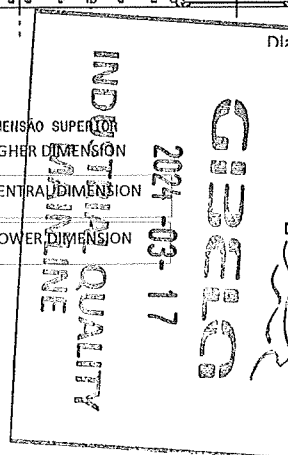



Vão de Portas - 1672 ±3mm
Doors length - 1672 ±3mm

| #1 | #2 | #3 | |
|------|------|------|---------------------------------------|
| 1669 | 1671 | 1672 | DIMENSÃO SUPERIOR HIGHER DIMENSION |
| 1670 | 1671 | 1672 | CENTRAL DIMENSION |
| 1670 | 1670 | 1671 | LOWER DIMENSION |



Diagonal de portas - diferença D1-D2 ≤ 4 mm

| | #1 | #2 | #3 |
|-------|------|------|------|
| D1 | 2748 | 2748 | 2749 |
| D2 | 2749 | 2750 | 2747 |
| D1-D2 | 1 | 2 | 2 |



| | | | |
|---|-----------------------------------|---------------------|----------------|
|  CIBELCO | DTR3022319/2 Carshell Assembly TC | Rev. 29 | Project: PRASA |
| | | Date- 28/10/2023 | |

Self Inspection - Final Result

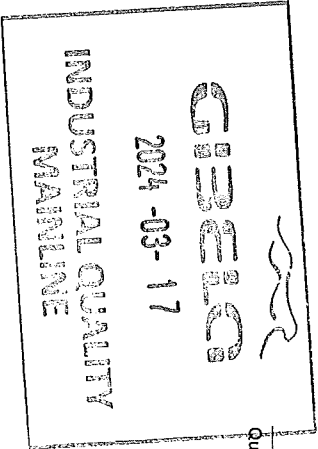
| Is the car good to advance to the next workstation/process? (Approval of Operations and Industrial Quality) | | DATE | NAME | SIGNATURE |
|--|-------|------------|--------------------|---|
| HOLD POINT | GO | 26/03/2024 | Mas huda |  |
| | | | Operations | |
| | | 26/03/24 | Alholero |  |
| | | | Industrial Quality | |
| | NO GO | | Operations | |
| | | | Industrial Quality | |


In case of "NO GO", describe blocking problems

| In case of "NO GO", the operations manager must define below action plan to ensure "GO": | | | | |
|--|-------------|--------|-------------|----------|
| Item | Description | Action | Responsible | Due date |
| | | | | |
| | | | | |
| | | | | |

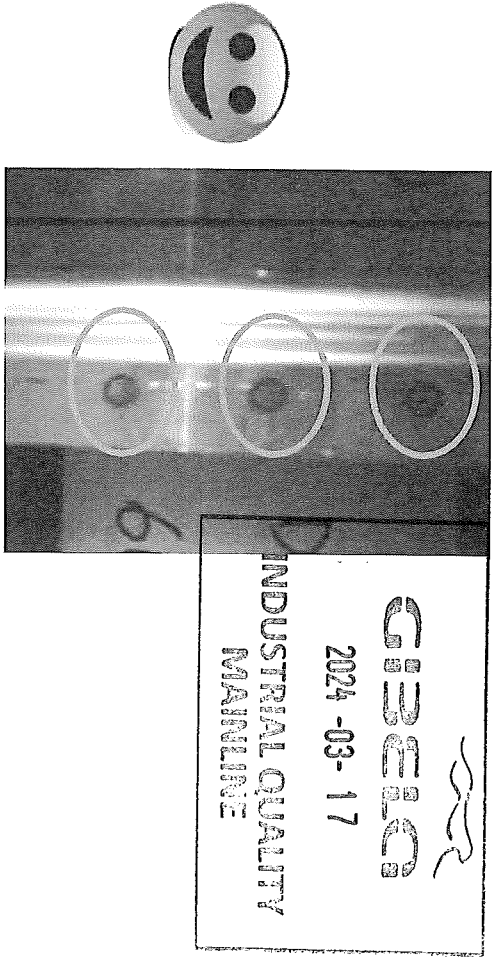
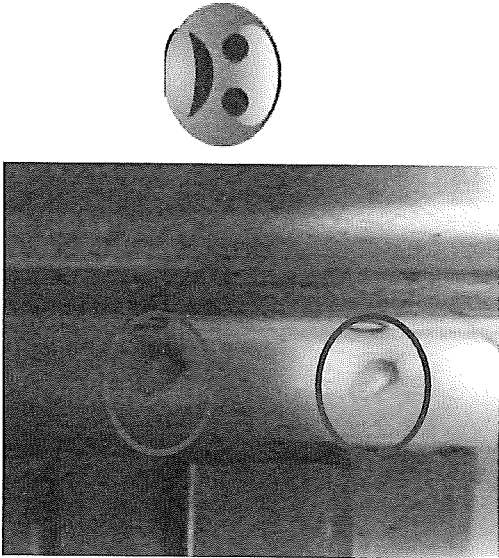
Operations


Quality




| | | | | |
|---|------------------------------------|--|---------------------|----------------|
|  | DTR3022331912 Carshell Assembly TC | | Rev. 29 | Project: PRASA |
| | | | Date- 28/10/2023 | |
| | | | SI.CB2220.323.V29 | |

ANNEXURE A: Spot Welding Quality Acceptance Standard





GIBELCO
2024-03-17
INDUSTRIAL QUALITY
MAINLINE


| | | | | | |
|---|-----------------------------------|------------------|--|----------------|-------|
|  | DTR3022319/2 Carshell Assembly TC | | | Project: PRASA | |
| | | | | | Rev. |
| | | | | | 29 |
| | | | | | Date- |
| | 28/10/2023 | SI.CB220.323.V29 | | | |

ANNEXURE B: Arc Welding Quality Acceptance Standard

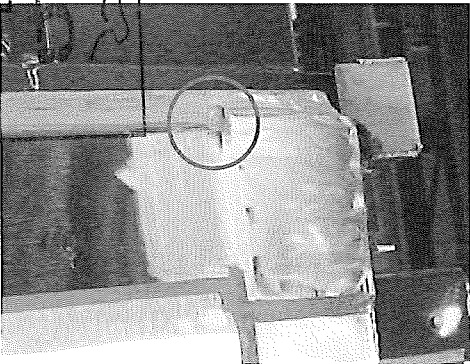
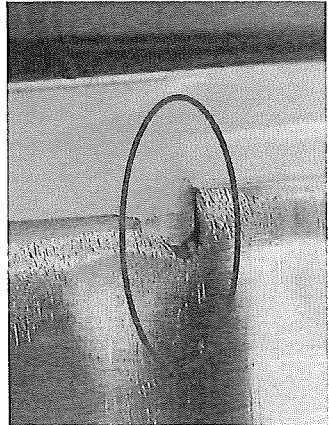
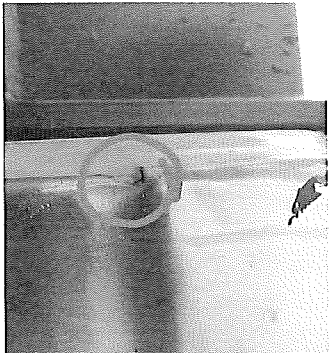





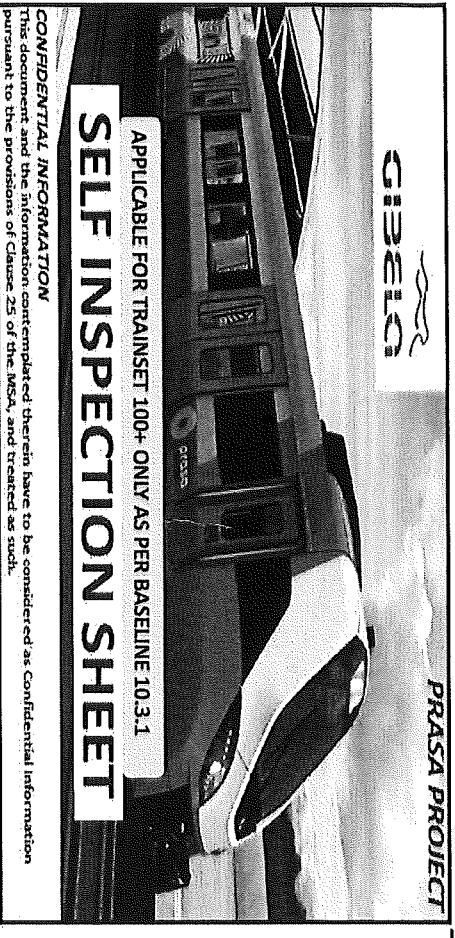
GIBBEC
 2024-03-17
 INDUSTRIAL QUALITY
 MAINLINE

| | | | | |
|---|------------------------------------|--|-------------------|----------------|
|  | DTR3022331912 Carshell Assembly TC | | Rev. 29 | Project: PRASA |
| | Date- 28/10/2023 | | SI.CB2220.323.V29 | |

ANNEXURE B: Sealant




2024-03-17
INDUSTRIAL QUALITY
MAINLINE



APPLICABLE FOR TRAINSET 100+ ONLY AS PER BASELINE 10.3.1

SELF INSPECTION SHEET

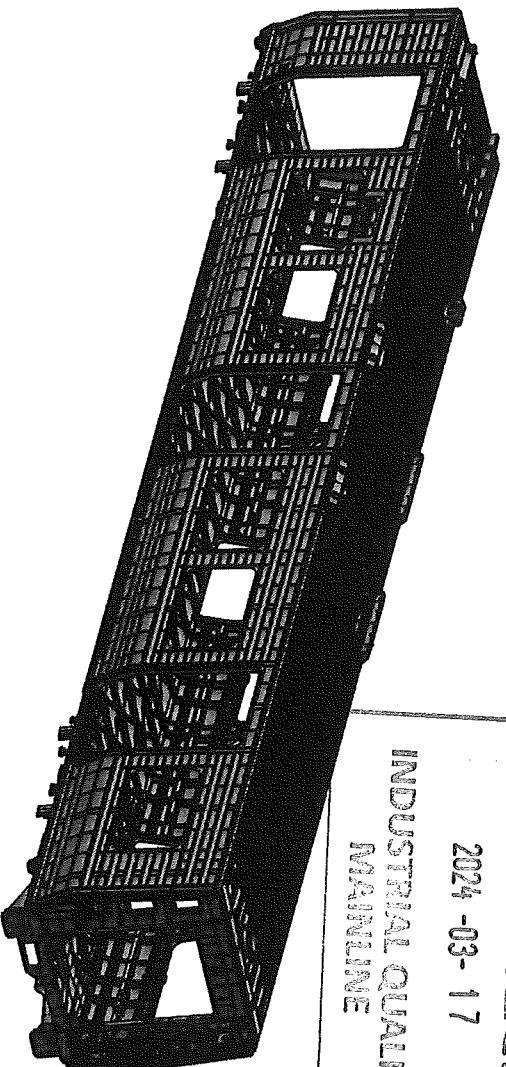
CONFIDENTIAL INFORMATION
This document and the information contemplated therein have to be considered as Confidential Information pursuant to the provisions of Clause 25 of the MSA, and treated as such.

APPLICATION REFERENCE

| MOUNTING | DRAWING | DESCRIPTION | STATION | CAR TYPE | | | | | | WORK INSTRUCTION | SAFETY? |
|--------------------------|-------------|--------------------------------|---------|----------|----|----|----|----|----|-----------------------------------|---------|
| | | | | TC | MC | MC | MC | MR | TC | | |
| <input type="checkbox"/> | AD000129853 | DT000022319 Carpal Assembly TC | CB230 | X | | | | | X | PR4.CB2230.DT0000012 23319.V20 | YES |
| <input type="checkbox"/> | | | | | | | | | | | |

| REV | DATE | MODIFICATION CONTENT | RESPONSIBLE | NAME | DATE |
|-----|------------|---|-------------|--------------------|------------|
| 0 | 06/04/2018 | GIBELA NEW CREATION | APPROVER | Iturneleng Modiba | 09/04/2018 |
| | | | CHECKER | Nosizo Pindela | 09/04/2018 |
| | | | COMPLIER | Thanyani Mathibane | 06/06/2018 |
| 1 | 30/5/2018 | Team leader and Quality Technician to sign Change final signature from PME Manager to Quality Manager | APPROVER | Iturneleng Modiba | 30/5/2018 |
| | | | CHECKER | Nosizo Pindela | 30/5/2018 |
| | | | REVISED BY | Nosizo Pindela | 30/5/2018 |
| 2 | 05/07/2018 | Certain dimensional checks moved to CB1220 | APPROVER | Iturneleng Modiba | 05/07/2018 |
| | | | CHECKER | Nosizo Pindela | 05/07/2018 |
| | | | COMPLIER | Rambhene Mafema | 05/07/2018 |
| 5 | 24/01/2019 | As per Baseline 10.2 | APPROVER | Iturneleng Modiba | 24/01/2019 |
| | | | CHECKER | Nosizo Pindela | 24/01/2019 |
| | | | REVISED BY | Vanessa Nhuti | 24/01/2019 |
| 6 | 13/03/2019 | Added Twist and Door Bracket Measurements Remove Door Measurements | APPROVER | Iturneleng Modiba | 13/03/2019 |
| | | | CHECKER | Nosizo Pindela | 13/03/2019 |
| | | | COMPLIER | Nosizo Pindela | 13/03/2019 |
| 7 | 17/08/2019 | Added Cab Fire Barrier Flatness Measurements | APPROVER | Iturneleng Modiba | 17/09/2019 |
| | | | CHECKER | Nosizo Pindela | 17/09/2019 |
| | | | COMPLIER | Nosizo Pindela | 17/09/2019 |
| 10 | 20/09/2019 | New Baseline 10.2.5 | APPROVER | Iturneleng Modiba | 20/09/2019 |
| | | | CHECKER | Nosizo Pindela | 20/09/2019 |
| | | | COMPLIER | Nosizo Pindela | 20/09/2019 |
| 15 | 28/01/2021 | New Baseline 10.2.6 | APPROVER | Iturneleng Modiba | 28/01/2021 |
| | | | CHECKER | Bongane Masina | 28/01/2021 |
| | | | COMPLIER | Bongane Masina | 28/01/2021 |
| 20 | 19/04/2021 | New Baseline change 10.3 | APPROVER | Iturneleng Modiba | 19/04/2021 |
| | | | CHECKER | Bongane Masina | 19/04/2021 |
| | | | COMPLIER | Bongane Masina | 19/04/2021 |
| 25 | 20/04/2022 | New Baseline change 10.3.1 | APPROVER | Iturneleng Modiba | 20/02/2022 |
| | | | CHECKER | Colinus Mkhombhi | 20/02/2022 |
| | | | COMPLIER | Andani Muthelo | 20/02/2022 |
| 26 | 14/06/2022 | Update minimum temperature requirement for sealant application | APPROVER | Iturneleng Modiba | 14/06/2022 |
| | | | CHECKER | Colinus Mkhombhi | 14/06/2022 |
| | | | COMPLIER | Andani Muthelo | 14/06/2022 |
| 27 | 27/07/2022 | Threshold measurements addition | APPROVER | Iturneleng Modiba | 26/07/2022 |
| | | | CHECKER | Colinus Mkhombhi | 26/07/2022 |
| | | | COMPLIER | Andani Muthelo | 26/07/2022 |
| 28 | 19/10/2022 | Addition of traceability for sealant application | APPROVER | Iturneleng Modiba | 19/10/2022 |
| | | | CHECKER | Colinus Mkhombhi | 19/10/2022 |
| | | | COMPLIER | Nobozo Zwane | 19/10/2022 |
| 29 | 14/04/2023 | Added sealant batch number & welding consumables traceability | APPROVER | Vanessa Nhuti | 14/04/2023 |
| | | | CHECKER | Nobozo Zwane | 14/04/2023 |
| | | | COMPLIER | Amogelang Mofhampe | 14/04/2023 |
| 30 | 06/11/2023 | Added threshold traceability for boiler makers and welders | APPROVER | Tyson Ngobeni | 06/11/2023 |
| | | | CHECKER | Andani Muthelo | 06/11/2023 |
| | | | COMPLIER | Nobozo Zwane | 06/11/2023 |

2024-03-17
CENTRAL QUALITY
MANLINE


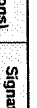

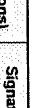

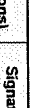


I - Documentation and Instruments

1.1 - Documentation Control


| Document | Type of car | | | | | Revision | Observation | OK | Signature/Date (Inspector) | Signature/Date (Quality) |
|---------------|-------------|----|----|----|----|----------|-------------|----|-------------------------------|-----------------------------|
| | TC1 | M1 | M2 | M3 | M4 | | | | | |
| DT00000223319 | | | | | X | 30 | | X | 26/03/29 | 26/03/29 |

1.2 - Instruments Control

| Monitoring and Measuring Instrument Control - Used for Special Process | | | | | |
|--|------------|--|----|--|--|
| Instruments | Validation | Calibration or Verification Validation Date | OK | Signature/Date (Operations) | Signature/Date (Quality) |
| Measuring Tape | C1B0794 | 25/04/201 | ✓ |  25/04/201 |  25/04/201 |
| Conductivity probe | C1B00720 | 27/07/24 | ✓ |  27/07/24 |  27/07/24 |
| Substance | 22713 | 26/06/24 | ✓ |  26/06/24 |  26/06/24 |

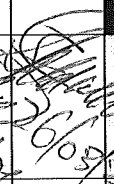




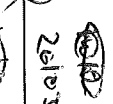

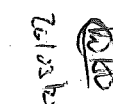
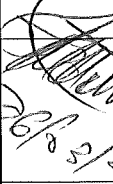

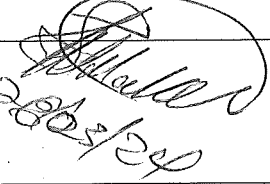

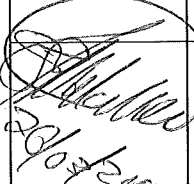
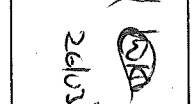
1.3 Consumables


[illegible]

| | | | | |
|--|------------------------------------|--|------------|----------------|
|  | DT00000223319 Carshell Assembly TC | | Rev. 30 | Project: PRASA |
| | | | Date- | |
| | | | 06/11/2023 | |
| SI.CB2230.324.V29 | | | | |

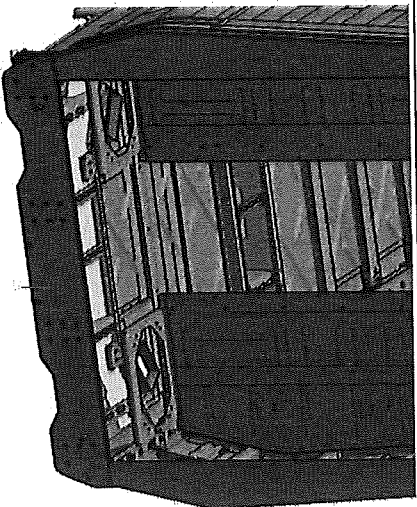
II - Control Activities of Production

II.1 - Items to check

| Item | Picture/Drawing | Description | Acceptance criteria / Record | OK | Signature/Date (Operational) | Signature/Date (Quality) |
|------|---------------------|---|---|----|---|---|
| 01 | N/A | Assembly according to Instruction Engineering n° DT00000223319 | DT00000223319 | ✓ |  26/03/24 |  26/03/24 |
| 02 | N/A | Carshell free of significant flaws which compromise the appearance or functionality. | DTD0000210675 | ✓ |  26/03/24 |  26/03/24 |
| 03 | REFER TO ANNEXURE A | Arc Welding inspected and approved according procedure. | IND-SAL-WMS-016 DTD0000210675 | ✓ |  26/03/24 |  26/03/24 |
| 04 | N/A | Functional dimensions approved according drawing or complementary document approved by Alstom engineering and registered in this document. | Approved according specified on pages below. | ✓ |  26/03/24 |  26/03/24 |
| 05 | N/A | Perform visual inspection of welds in 100% of the project. Run by penetrant testing in electric arc welding (weld ring) as IND-SAL-WMS-018. Run by penetrant testing welds (weld ring) and fillet sampling as described in DTD0000210658. | As the welding procedure IND-SAL-WMS-018 and DTD0000210658 | ✓ |  26/03/24 |  26/03/24 |
| 06 | N/A | Before application of sealant record the expiry date and make sure that the room temperature and humidity are within specified values as per Works Instructions Specified. | Sealant Batch No: <u>108-10-03</u> Exp Date: <u>1/05/24</u> Actuals Temperature: <u>19°C</u> Humidity: <u>43%</u> | ✓ |  26/03/24 |  26/03/24 |
| 07 | N/A | Verification of sealant application in regions of roof and sideframe finishers. | Sealant must be: -Applied straight and even (1.5mm) -Free of gaps, cracks, damage and debris (flashes, dirt, dust) Refer to Annexure B | ✓ |  26/03/24 |  26/03/24 |


 2024-03-17
 INDUSTRIAL QUALITY
 MAINLINE

VIEW A



END 1 SEALANT

OPERATOR
(Name & sign):

Burke *[Signature]*

OPERATOR
(Name & sign):

Trean *[Signature]*

END 2 SEALANT (VIEW C)

OPERATOR
(Name & sign):

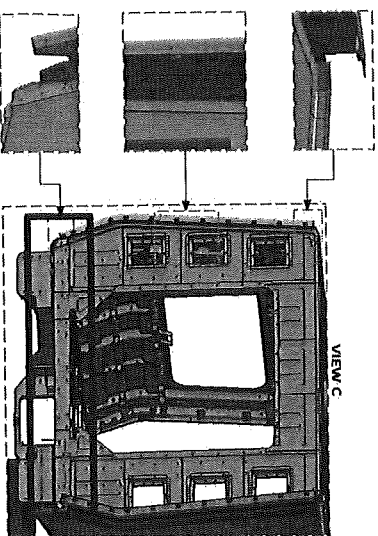
[Signature]

OPERATOR
(Name & sign):

[Signature]

OPERATOR
(Name & sign):

[Signature]



G

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

Operator (Name & sign):

LHS
D.E.F.G.H.I

RHS
D.E.F.G.H.I

Operator (Name & sign):

Burke *[Signature]* Burke *[Signature]*

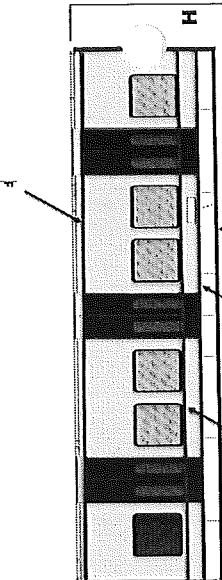
Operator (Name & sign):

Trean *[Signature]* Trean *[Signature]*

Operator (Name & sign):

Operator (Name & sign):

Operator (Name & sign):



H

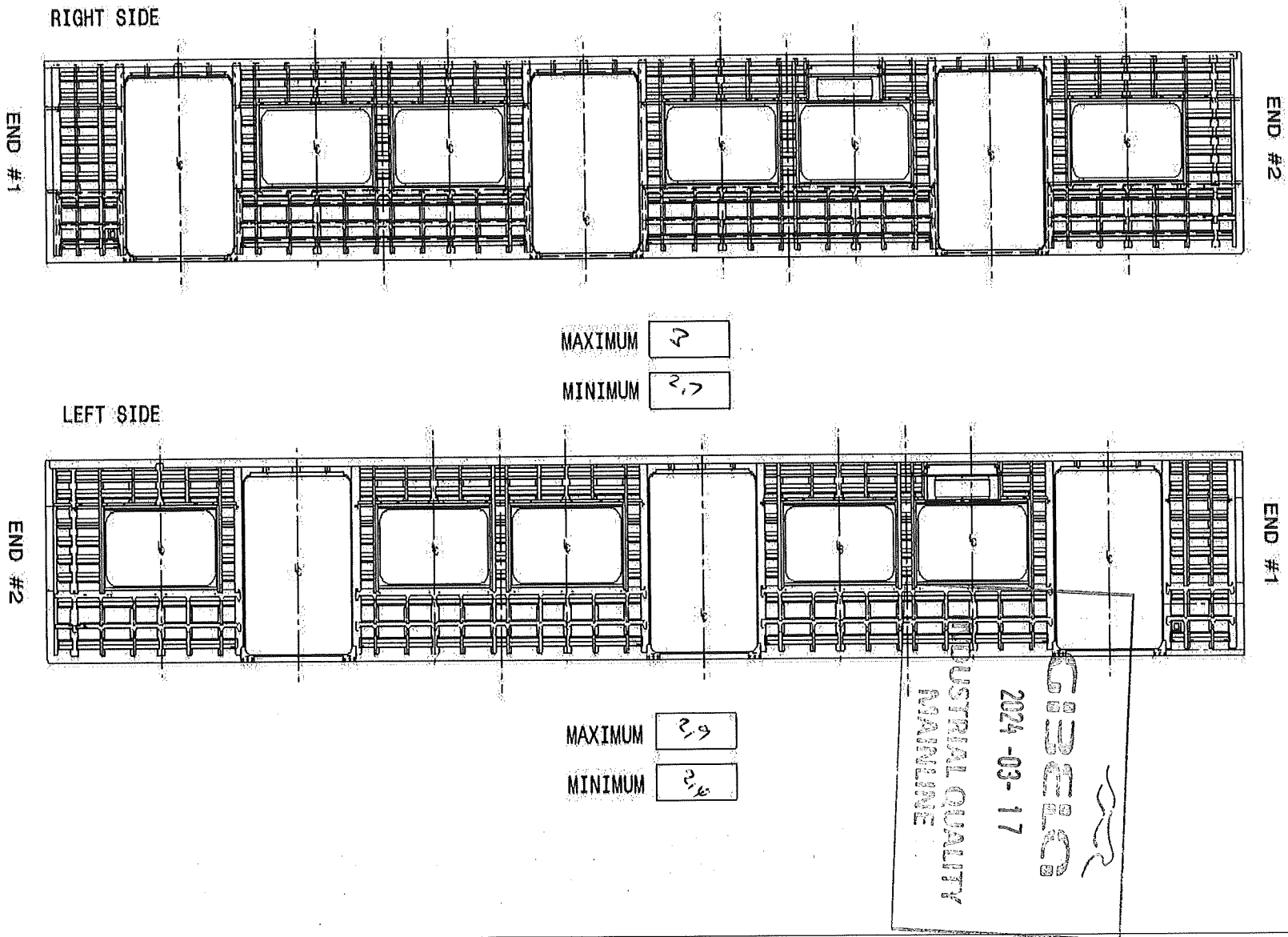
F

D

E

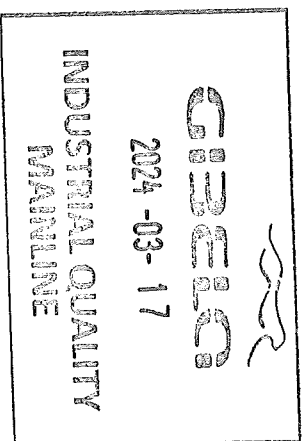
Specifications of Details for CBS measurement CB2230

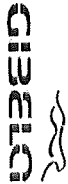
Flatness side left and right maximum of 2mm in the valley to peak measured in 900mm.
Record the maximum and minimum value found and indicate the corresponding region.



Specifications of Details for CBS measurement CB2230

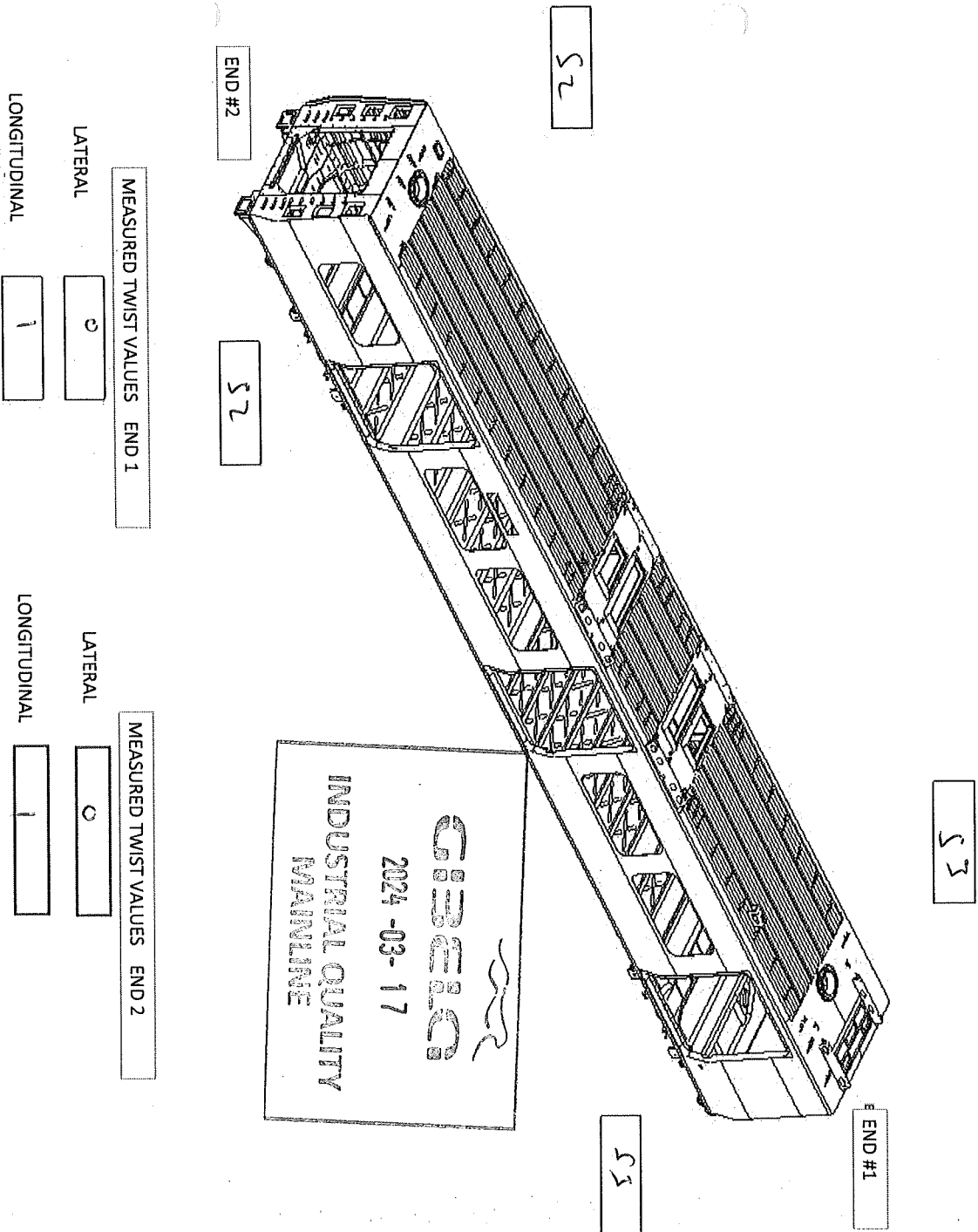
Specified Camber for car out of jig is 16mm (-0mm + 2mm)



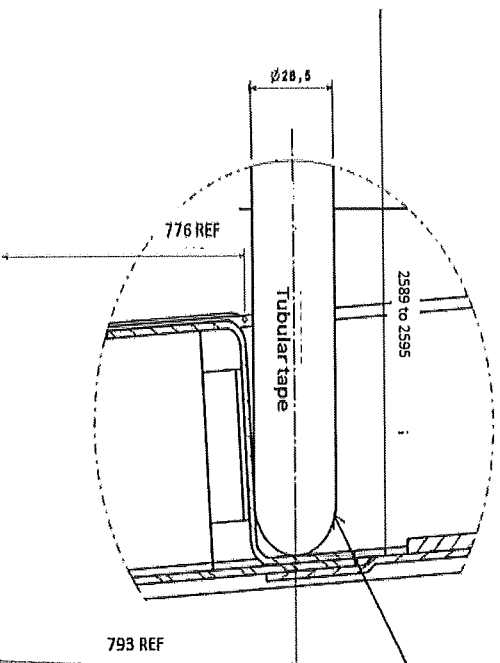
| | | | |
|---|------------------------------------|---------------------|-------------------|
|  | DT00000223319 Carshell Assembly TC | Rev. 30 | Project: PRASA |
| | | Date- 06/11/2023 | SI.CB2230.324.V29 |

Specifications of Details for CBS measurement
CB2230

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.

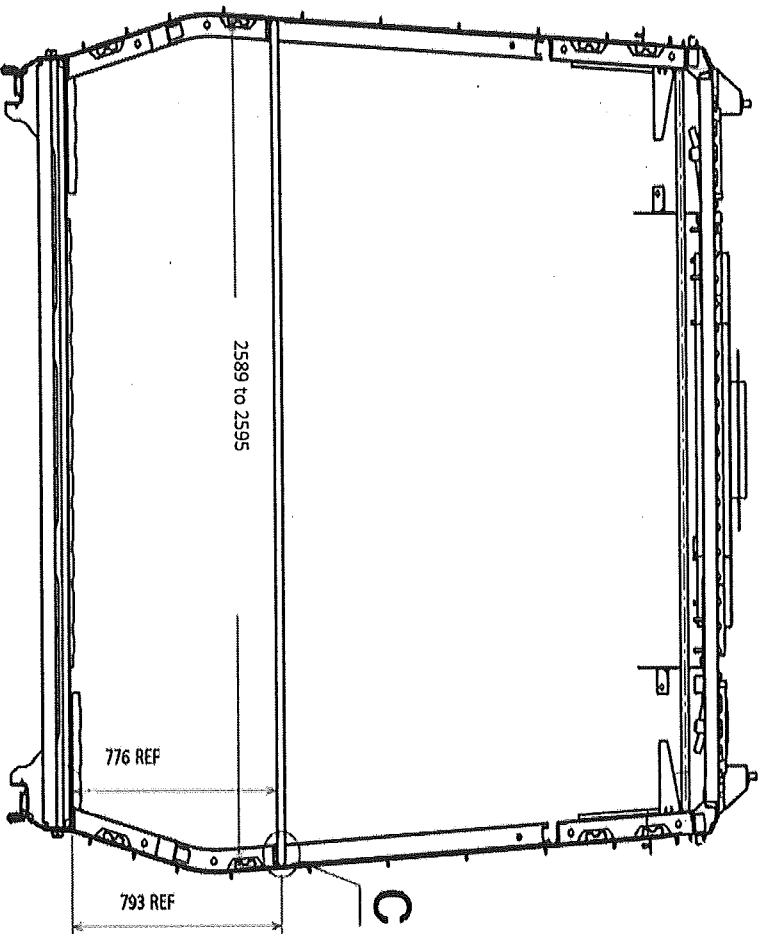
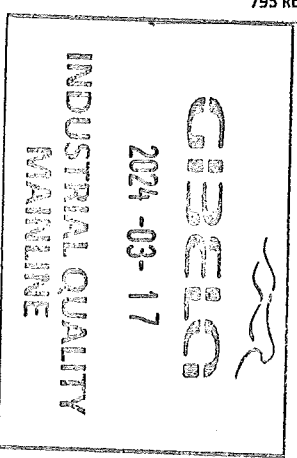


Details for measuring on the CB1230 stage, after completion of activities



Carry the tubular tape on the "Z" bottom of Windows

Detail C



Specifications of Details for CBS measurement



INDUSTRIAL QUALITY
MATERIALS
2024-03-17
GMEHC

Threshold verification

| Threshold verification | | | | Nominal value :38 | |
|------------------------|----|--------|----|-------------------|----|
| Door 1 | | Door 2 | | Door 3 | |
| L | R | L | R | L | R |
| 38 | 38 | 38 | 39 | 37 | 38 |
| Door 4 | | Door 5 | | Door 6 | |
| L | R | L | R | L | R |
| 37 | 37 | 38 | 37 | 37 | 37 |

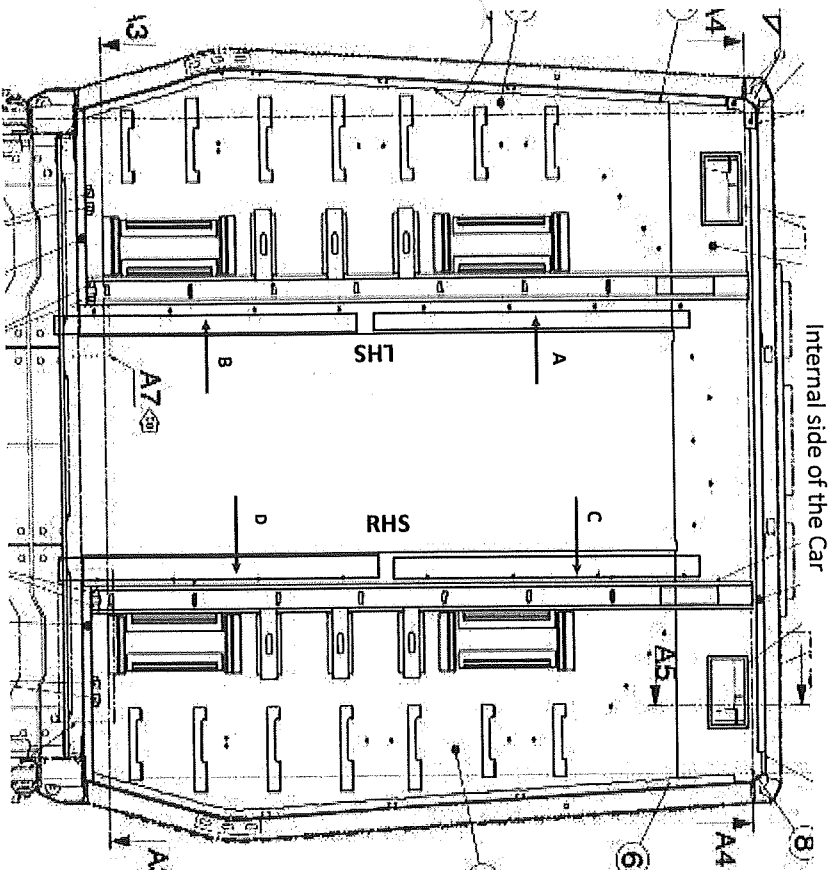
BOILER MAKER:

WELDER:

Specifications of Details for CBS measurement

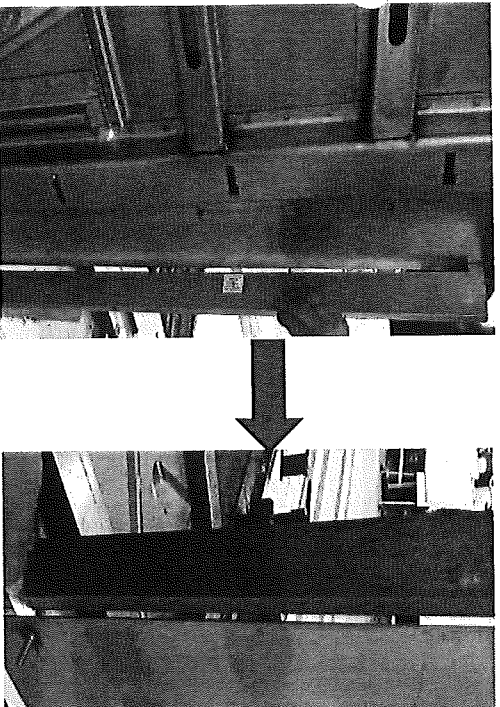
Measure the flatness on the Cab Fire Barrier after installation and welding. Measure positions A, B, C and D using 1000mm flatness ruler and taper gauge.


Specified Maximum Flatness deviation on Cab Fire Barrier = 2mm



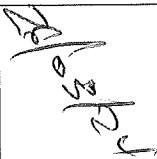
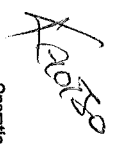
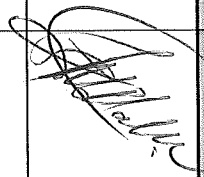


| Measured Values | | | |
|-----------------|---------|---------|-----------|
| | Minimum | Maximum | Deviation |
| A | 8 | 10 | 2 |
| B | 11 | 12.1 | 11.1 |
| C | 10 | 11 | 1 |
| D | 9.1 | 10 | 0.8 |

GIBBEL
2024-03-17
INDUSTRIAL QUALITY
MARINE



| | | | |
|--|-----------------------------------|---------------------|-------------------------------------|
|  | DT0000022319 Carshell Assembly TC | Rev. 30 | Project: PRASA SI.CB2230.324.V29 |
| | | Date- 06/11/2023 | |

Self Inspection - Final Result

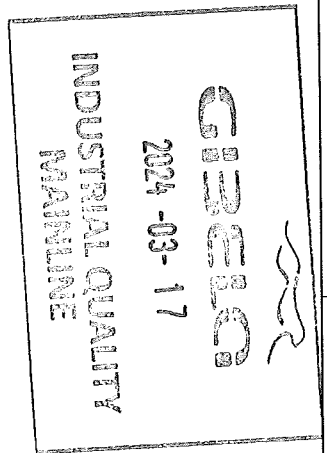
| Is the car good to advance to the next workstation/process? (Approval of Operations Manager and Industrial Quality) | | DATE | NAME | SIGNATURE |
|--|---|---|---|---|
| <div> <div>GO</div> </div> | If activities are not complete, the missing activities must not impact the next stage! |  | Operations  |  |
| | Every auto inspection performed conforms to specification or in case of discrepancy the same is approved by the competent party.) | 26/03/24 | 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 | Action | Responsible | Due date | Status |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

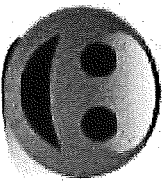
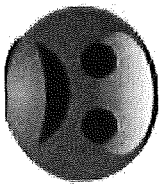
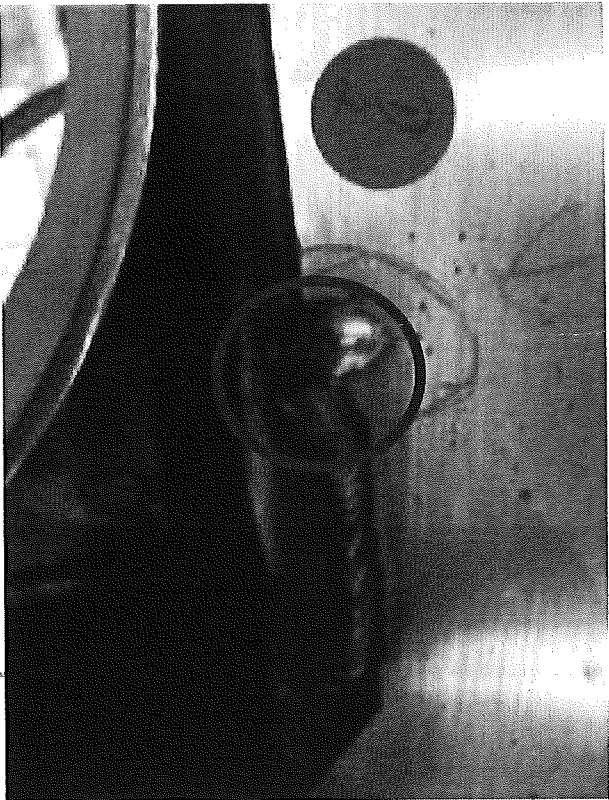
Operations


Quality




| | | | | |
|---|------------------------------------|--|------------|---|
|  GIBELCO | DT00000223319 Carshell Assembly TC | | Rev. 30 | Project: PRASA SI.CB2230.324.V29 |
| | | | Date- | |
| | 06/11/2023 | | | |

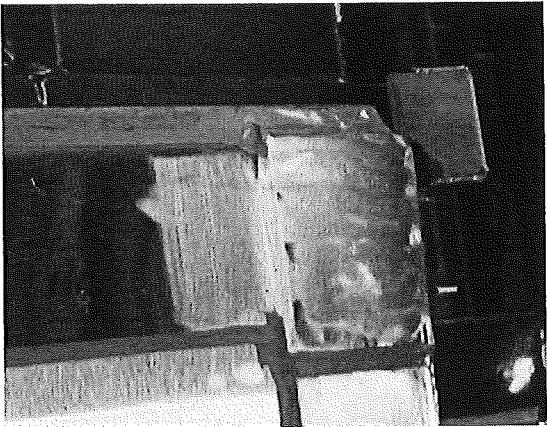
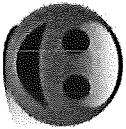
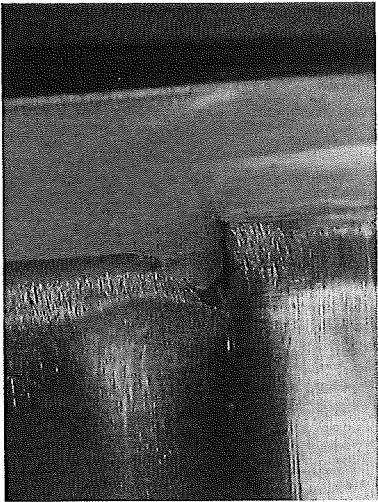
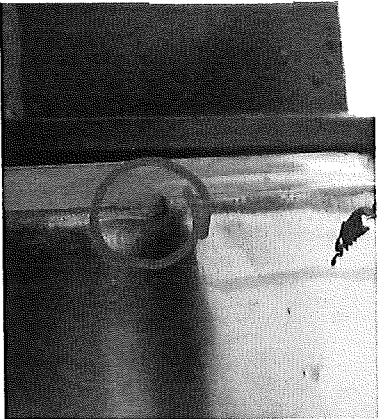
ANNEXURE A: Arc Welding Quality Acceptance Standard




INDUSTRIAL QUALITY
WARRANTY
 2024-03-17

| | | | | |
|--|------------------------------------|--|---------------------|---|
|  GIBBELCO | DT00000223319 Carshell Assembly TC | | Rev. 30 | Project: PRASA SI.CB2230.324.V29 |
| | | | Date- 06/11/2023 | |

ANNEXURE B: Sealant



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2024-03-17
INDUSTRIAL QUALITY
MAINTENANCE