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| Test Performance Form QD | | Test Report : TR2015100 |
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|------------------|----------------------|---|-----------------------------|
| Date: 25/06/2015 | | Test Report : TR2015100 | Page 1 of 6 |
| Department | Height Safety | Test: 15kN fixed anchor point (Dynamic Drop Test) | Ref: QSI 20150625-01 |

Client: Collins Corporation Ltd
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Napier

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Test specification: Compliance test to 6.3.2 dynamic testing procedures of AS/NZS 5532:2013, manufacturing requirements for single-point anchor device used for harness based work at height.


Test items: Safetor fixed Freezer Panel Anchor
One (1) - White permanent anchors attached to polystyrene freezer panel with steel outsides.

Date of test: 22/05/2015

Checked by: Craig McLaren
IANZ Signatory
Date: 25/06/2016

Prepared & approved by: Jason Myburgh
Quality Laboratory Manager
Date: 25/06/2016

IANZ Accredited Signatory:



Jason Myburgh

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Aim

This test was done in order to determine the compliance of the fixed anchor point of the Safetor product range, with the dynamic test requirements of AS/NZS 5532:2013

The following table covers the test program conducted;

| Designation / Attachment Points | Test | Description |
|--|--|--|
| Fixed anchor attached to 2.9m x 1.2m x 95mm freezer panel with 1.0mm steel sheets on either side of polystyrene. (See Appendix 4 for pictures of panel and mounting) | 6.3.2.2 fixed anchor devices as per table 1 dynamic testing criteria | TEST 1 Dynamic drop test:- 15kN anchor rating with a 100kg rigid mass. Free fall distance 2000mm on 12mm three strand polyester hawser-laid rope. |

Conclusion

The Safetor roof anchor when attached to a polystyrene freezer panel as per the Safetor installation instructions was able to demonstrate compliance with dynamic tests requirements table 1 of 6.3.2.2 of AS/NZS 5532:2013 for the 15kN drop test criteria.

No visible damage was noted and the anchor was still fixed into the panel.

(Manufacturer supplied panel and anchor pre attached- installation guidelines to be provided by manufacturer)

Assessment

Test number DT2015-99 (15kN Dynamic Drop Test)

The length of the rope measured 2005mm, mass of 100kg

Post examination of the anchor point the anchor had bent to absorb some of the energy. Anchor retained the weight after the drop for 3 minutes.

Refer to Appendix 3 for test graph and Appendix 5 for pictures

Assessment: **Pass**

Comments:

This dynamic test program covers Clause 6.3.2 (i),(ii)(a)(b) and (d) of AS/NZS 5532:2013^o,

^o The Clause numbers indicated throughout this report refer to the respective Clauses of AS/NZS 5532:2013. Where a clause is followed by brackets '()', the contents of the brackets refers to part of the clause. i.e. paragraph number or subclause.

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Appendix 1

TEST SPECIMEN DETAILS

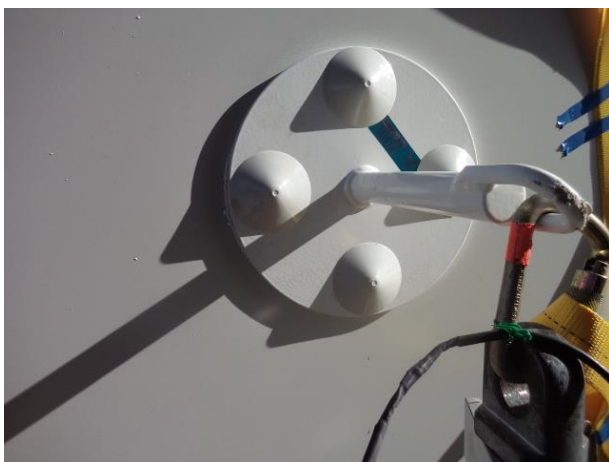
| Specimen Number | Description | Model | Serial No: | Date of manufacture |
|-----------------|--|---------|------------|---------------------|
| QSI20150522-01 | Safetor Roof Anchor | Unknown | 5840 | - |
| QSI20150522-02 | Freezer Panel (2.9m x 1.2m x 95mm) 1mm steel plate on both front and back | Unknown | - | - |
| QSI20150522-03 | 12mm three strand polyester hawser- laid rope | SPR12 | 130943 | 03-2015 |

Roof anchor fixed to Polystyrene 15 kN Test

| Test Number | Specimen Number | Overall Length (2000mm ± 50mm) | Drop Height (M) | Max Load (kN) | Highest Force averaged over 50m/s period | Assessment |
|-------------|--|--------------------------------------|--------------------|------------------|---|--------------------|
| DT2015-99 | QSI20150522-01 QSI20150522-02 QSI20150522-03 | 2005 | 2 | 10.08 kN | 8.75 kN | PASS (15kN) |

The roof anchor bent during the drop to reduce the force on the structure to 10.08 kN.

Appendix 2



Before Drop



After Drop

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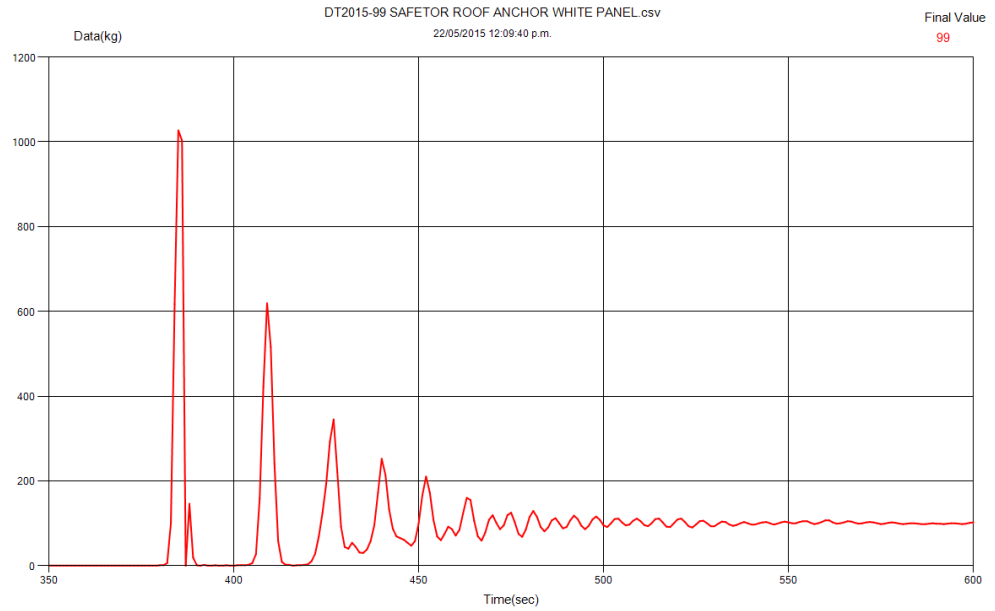
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Appendix 3

Test 1

A&D Company Limited
Repeat/Auto Stop
 Repeat 5 seconds
 Auto Stop 0 minutes
 Command Data
 Q
 Received Data
 Start Command

| No. | Header | Data | Unit |
|-----|--------|----------|------|
| 380 | WT | +0000001 | kg |
| 381 | WT | +0000001 | kg |
| 382 | WT | +0000006 | kg |
| 383 | WT | +0000101 | kg |
| 384 | WT | +0000617 | kg |
| 385 | WT | +0001027 | kg |
| 386 | WT | +0001003 | kg |
| 387 | | +0000557 | kg |
| 388 | WT | +0000146 | kg |
| 389 | WT | +0000019 | kg |
| 390 | WT | +0000001 | kg |
| 391 | WT | +0000000 | kg |
| 392 | WT | +0000002 | kg |
| 393 | WT | +0000000 | kg |
| 394 | WT | +0000000 | kg |
| 395 | WT | +0000001 | kg |
| 396 | WT | +0000000 | kg |
| 397 | WT | +0000000 | kg |
| 398 | WT | +0000001 | kg |
| 399 | WT | +0000000 | kg |
| 400 | WT | +0000000 | kg |



Appendix 4

PICTURES BEFORE DROP



| | | |
|--------------------------|-------------------------------------|---------------|
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PICTURES BEFORE DROP (Continued)



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PICTURES AFTER DROP



Conditions of report

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