

Protección contra caídas

Línea de vida retráctil Yoyo de 6 m



nara
safe

Descripción:

Retráctil de 6 m, en reata de poliéster y extremos con un armazón termoplástico resistente, de alta tecnología, para el sistema retráctil y mosquetón giratorio de acero. Estos sistemas son cuerdas de seguridad, diseñadas para la detención de caídas verticales, su sistema retráctil permite el desplazamiento y movimientos hacia adelante de un trabajador, retraerse, cuando el movimiento es hacia atrás y la detención de caída libre, si el operario sufre una caída.

Cumple con los estándares de normativa ANSI de alto impacto. ANSI Z359.1 (2007).

Presentación

Código: NS9200011

Color: Azul

Unidad de Empaque: 1

Presentación: Bolsa

Caja Master: 2 Unidades

Características y usos:

Diseñado para enfrentar los riesgos en ambientes de trabajos complicados y peligrosos. Ideal para la construcción, refinerías, minería, aplicaciones de concreto, actividades en bodegas.





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Test Report

Personal Fall Arrest Equipment ANSI Z359.1-2007 : Self-Retracting Lanyard

Report no: 2.15.10.08

Client: Nara Safe Ltd
Unit A & B, 15/F Neich Tower,
128 Gloucester Road,
Wanchai, Hong Kong

Manufacturer: Nara Safe Ltd
Unit A & B, 15/F Neich Tower,
128 Gloucester Road,
Wanchai, Hong Kong

Client orders and dates received: Emails (7 April 2015 and 22 April 2015)
P.O 151014 (14 October 2015)

Model: RL-6 WEB

Dates of tests: 13 April 2015 to 25 April 2015

Signed:

Steven Sum, Laboratory Manager

Issued: 27 October 2015

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Conditions

This report may be reproduced and distributed to your clients, provided that it is reproduced and distributed in full.

Specimens will be disposed of four weeks from the date of this report, unless otherwise instructed.

Opinions, comments and interpretations expressed in this report are shown in italics.

Copies of INSPEC interpretations referenced in this report are available upon request.

Tests marked ☒ are not included in our ACLASS Scope of Accreditation.

This report has been provided in accordance with our standard Terms of Business, which can be viewed at, and printed from:

<http://inspec-international.com/ToB.pdf>

If you have difficulty accessing the Terms of Business, you may contact us for a copy.

Summary of assessment*

Clause	Requirement	Assessment (See Key)
3.2.1	Hardware, as appropriate	
3.2.8.1	Integral snaphooks and rings	
3.2.8.2	Locking	
3.2.8.3	Energy absorption	
3.2.8.4	Corrosion protection	
3.2.8.5	Line constituent of SRL	
3.2.8.6	Retraction tension	Pass
3.2.8.7	Static strength	Pass
3.2.8.8	Dynamic strength	
3.2.8.9	Dynamic performance	Pass
5.1 / 5.2.8	Marking	
5.3 / 5.4.8	Instructions	

Key

	Shading shows the clauses requested. Any other clauses were not requested.
Pass	Requirement satisfied.
Ltd	Testing requested was insufficient completely to verify compliance with the clause. Refer to the "Result details" section for more information.
Fail	Requirement not satisfied. Refer to the "Result details" section for more information.
NAs	Assessment not carried out.
NAp	Requirement not applicable.
NT	Requested but not tested due to early termination following failure.

* Assessment relates only to those specimens which were tested and are the subject of this report.

Submission details

Product	Quantity	Dates received	INSPEC specimen no.
Self retracting Lifelines, model RL-6 WEB			
Full length 6m	05	18 March 2015	2C03401 to 2C03405
Shortened length	01		2C03406
Full length 6m	01	21 April 2015	2C05501

Procedures

The specimens detailed within the submissions above were used for the tests covered by this report.

Testing was performed in accordance with ANSI Z359.1-2007 unless otherwise specified below. Reference should be made to the standard when reading this report.

Unless stated otherwise, specimens were tested in the condition as received by INSPEC.

Testing was performed at INSPEC's laboratory in Kunshan, China.

The Self-Retracting Lanyard was first tested and reported in Inspec Test Report 2.15.04.03

At the request of the client, this report was issued to include the results of additional testing against clause 3.2.8.9 Dynamic performance following cold conditioning + Retention test after.

Result details**3.2 Component and Element Requirements****3.2.8 Self-Retracting Lanyard Component****3.2.8.6 Retraction tension**

Specimen 2C03401 was assessed.

The retraction tension on the SRL line was not less than 1.25 pounds, nor more than 25 pounds, at any point in the range of motion of the line constituent. Pass

When fully retracted after each of the specified extractions, the line constituent remained extended from the SRL body by the amounts reported in the table below. These are less than the 24 inches maximum permitted. Pass

3.2.8.6 Retraction tension test results before corrosion test

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	1.625	8.5	Pass
20%	2.000	8.5	Pass
40%	3.125	8.5	Pass
60%	4.375	8.5	Pass
80%	6.000	8.5	Pass
100%	7.750	8.5	Pass

3.2.8.7 Static test

Specimen 2C03406 was assessed.

The specimen withstood the static tensile load of 3,000 pounds applied directly to the point of SRL line connection to the SRL drum. Pass

3.2.8.9 Dynamic performance – ambient condition

Specimen 2C03402 was assessed.

During the dynamic performance test, the specimen locked and remained locked until released. Pass

The arrest distance was 30.9 inches. This value is less than the maximum 54 inches permitted. Pass

The maximum arrest force was 435 pounds. This value is less than the maximum 1,800 pounds permitted. See Annex for the plot of force versus time. Pass

After the drop, the specimen satisfied the retraction tension requirements of 3.2.8.6. See table below for detailed test results. Pass

3.2.8.6 Retraction tension test results after dynamic performance test (ambient condition)

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	1.500	8.3	Pass
20%	2.000	8.3	Pass
40%	3.250	8.3	Pass
60%	4.250	8.3	Pass
80%	6.375	8.3	Pass
100%	7.750	8.3	Pass

3.2.8.9 Dynamic performance – hot condition

Specimen 2C03403 was assessed.

During the dynamic performance test, the specimen locked and remained locked until released. Pass

The arrest distance was 39.9 inches. This value is less than the maximum 54 inches permitted. Pass

The maximum arrest force was 885 pounds. This value is less than the maximum 1,800 pounds permitted. See Annex for the plot of force versus time. Pass

After the drop, the specimen satisfied the retraction tension requirements of 3.2.8.6. See table below for detailed test results. Pass

3.2.8.6 Retraction tension test results after dynamic performance test (hot condition)

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	1.500	8.5	Pass
20%	2.000	8.5	Pass
40%	2.875	8.5	Pass
60%	4.000	8.5	Pass
80%	6.000	8.5	Pass
100%	7.250	8.5	Pass

3.2.8.9 Dynamic performance – wet condition

Specimen 2C03404 was assessed.

During the dynamic performance test, the specimen locked and remained locked until released. Pass

The arrest distance was 37.6 inches. This value is less than the maximum 54 inches permitted. Pass

The maximum arrest force was 512 pounds. This value is less than the maximum 1,800 pounds permitted. See Annex for the plot of force versus time. Pass

After the drop, the specimen satisfied the retraction tension requirements of 3.2.8.6. See table below for detailed test results. Pass

3.2.8.6 Retraction tension test results after dynamic performance test (wet condition)

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	1.625	8.3	Pass
20%	2.125	8.3	Pass
40%	3.125	8.3	Pass
60%	4.250	8.3	Pass
80%	6.000	8.3	Pass
100%	7.875	8.3	Pass

3.2.8.9 Dynamic performance – cold condition

Specimen 2C05501 was assessed.

During the dynamic performance test, the specimen locked and remained locked until released. Pass

The arrest distance was 38.1 inches. This value is less than the maximum 54 inches permitted. Pass

The maximum arrest force was 376 pounds. This value is less than the maximum 1,800 pounds permitted. See Annex for the plot of force versus time. Pass

After the drop, the specimen satisfied the retraction tension requirements of 3.2.8.6. See table below for detailed test results. Pass

3.2.8.6 Retraction tension test results after dynamic performance test (cold condition)

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	1.500	8.9	Pass
20%	2.000	8.9	Pass
40%	2.750	8.9	Pass
60%	3.500	8.9	Pass
80%	6.000	8.9	Pass
100%	7.375	8.9	Pass

Estimates of the uncertainty of measurement

Clause	Test		Uncertainty
3.2.8.1	Integral snaphooks and rings		-
3.2.8.2	Locking		*
3.2.8.3	Energy absorption		±0.5 inches
3.2.8.4	Corrosion protection		*
3.2.8.5	Line constituent of SRL	Static load	*
		Wire diameter	±0.0005 inches
3.2.8.6	Retraction tension		±0.09 pounds
3.2.8.7	Static strength		*
3.2.8.8	Dynamic strength		*
3.2.8.9	Dynamic performance		±2.7%
5.1 / 5.2.8	Marking		-
5.3 / 5.4.8	Instructions		-

* The acceptance criterion for this test is a straightforward “Pass/Fail”, rather than a numerical value. Consequently, as there is no value to be reported, uncertainty has not been reported either.

Values expressed as a percentage (%) are relative.

It should be noted that the above values have not been taken into account when making assessment to the pass/fail criteria.

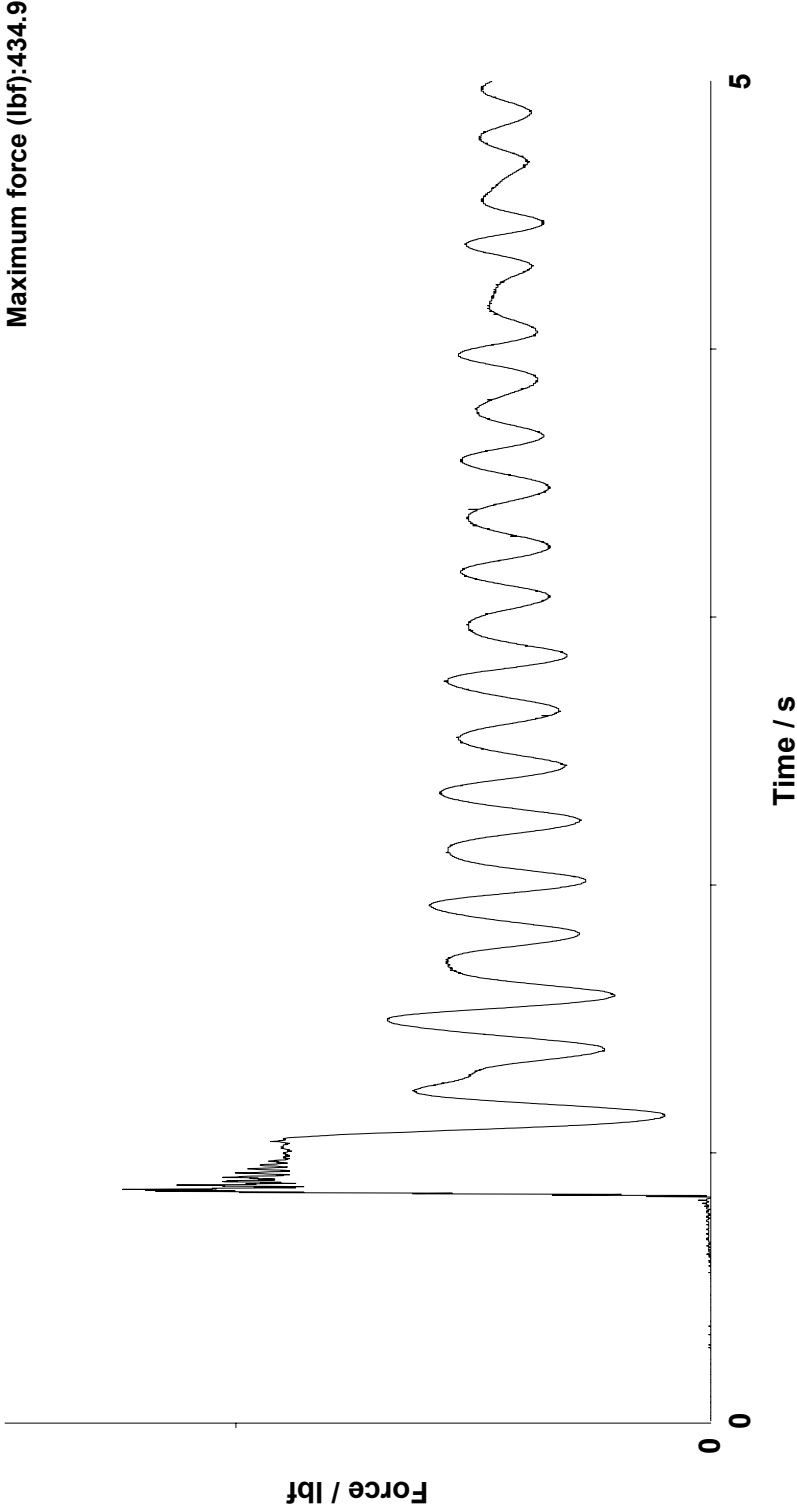
ANNEX

This Annex comprises two sections.

1. Plot of arrest force versus time – ambient condition (1 page)
Plot of arrest force versus time – hot condition (1 page)
Plot of arrest force versus time – wet condition (1 page)
Plot of arrest force versus time – cold condition (1 page)
2. Photograph of the product tested. (1 page)

INSPEC Technical Services

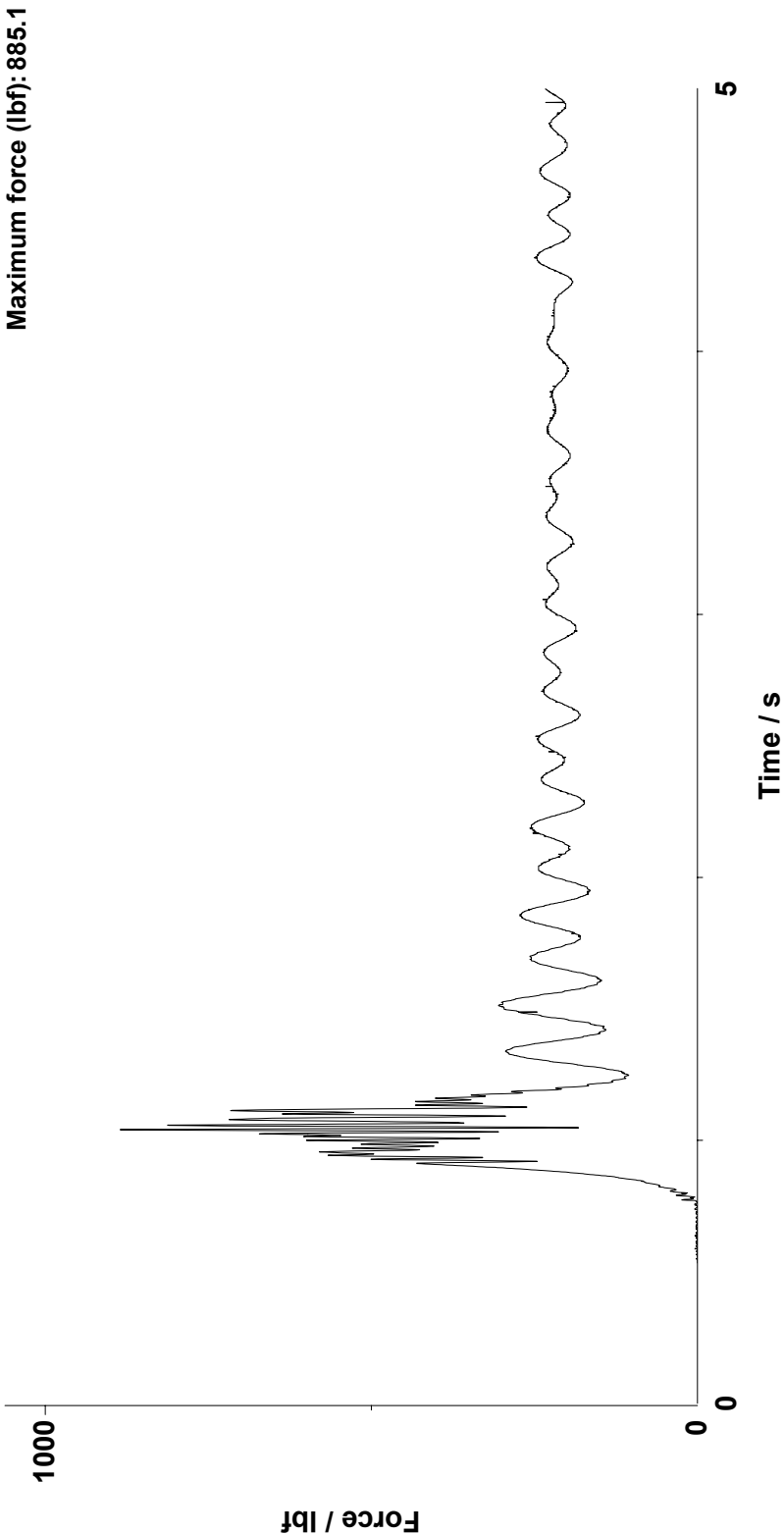
Technician: TAN
Standard: ANSI Z359.1 Self-retracting lanyard
Sample / File name: 2C03402
Drop item: ANSI drop weight, 100kg
Orientation/Attachment Point: Centre eyebolt
Time and Date of Test: 12:56 13/04/15



Results do not achieve full ACLASS status until a formal test report has been issued.

INSPEC Technical Services

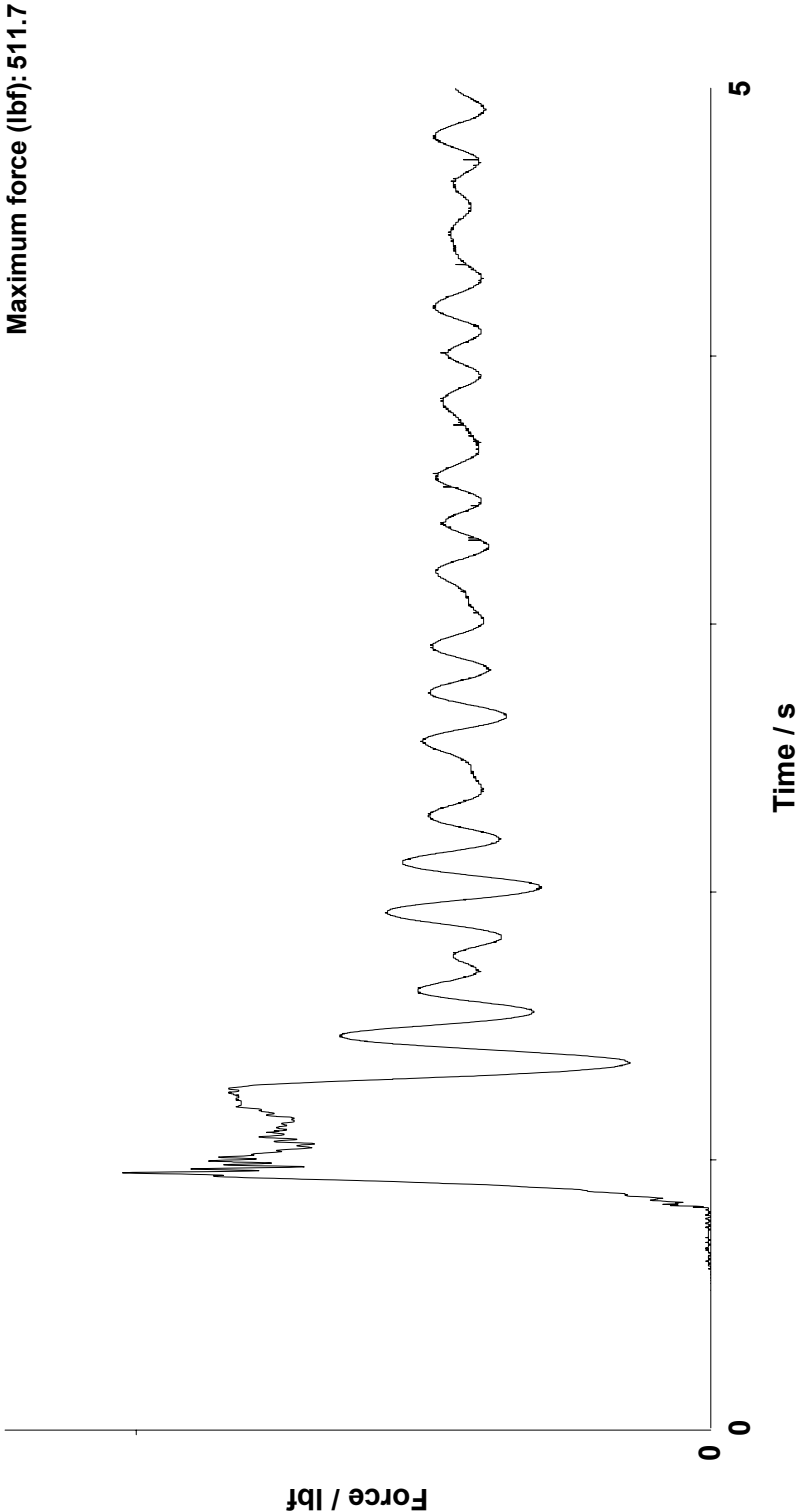
Technician: TAN
Standard: ANSI Z359.1 Self-retracting lanyard
Sample / File name: 2C03403
Drop item: ANSI drop weight, 100kg
Orientation/Attachment Point: Centre eyebolt
Time and Date of Test: 13:30 13/04/15



Results do not achieve full ACLASS status until a formal test report has been issued.

INSPEC Technical Services

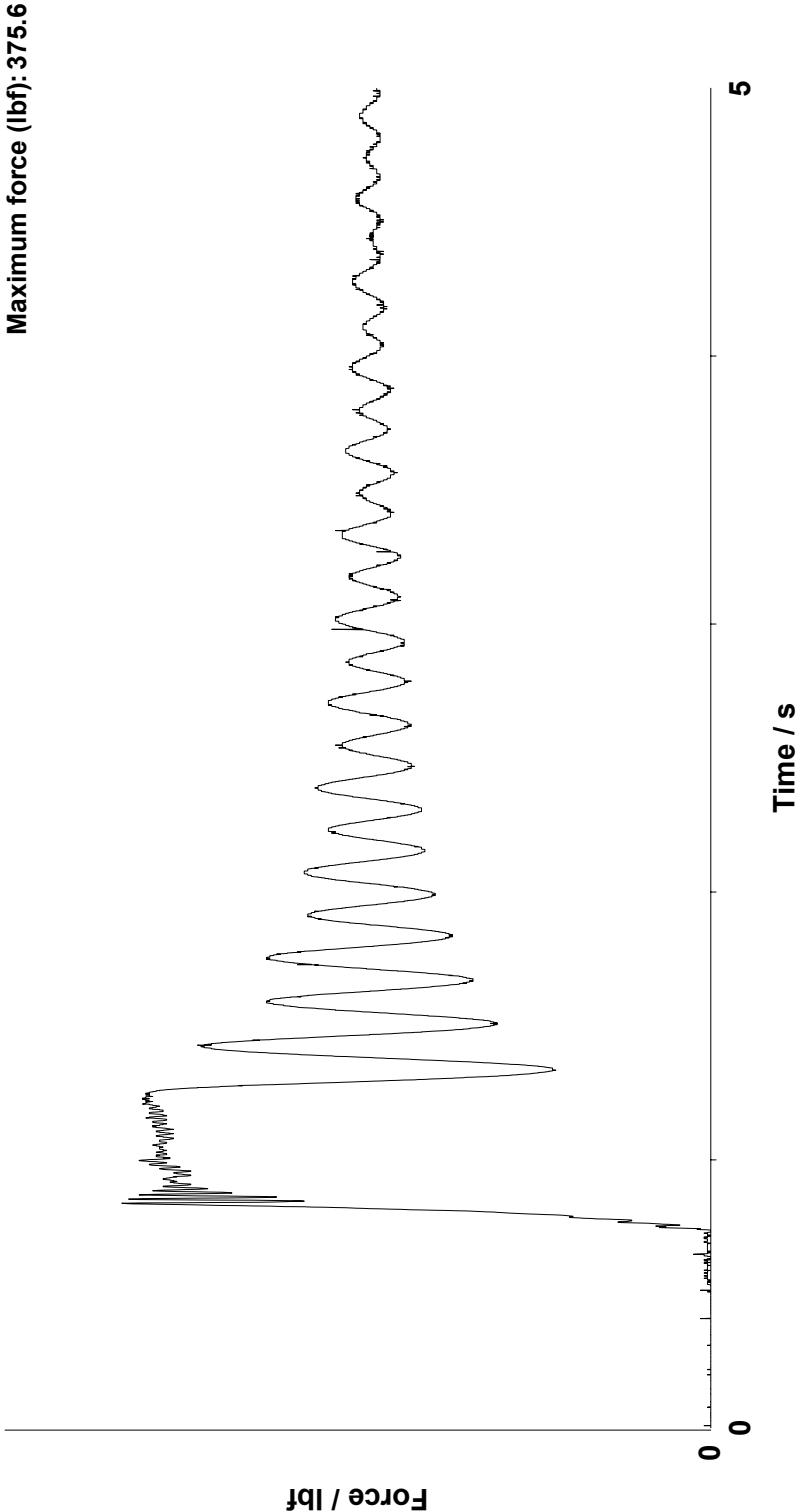
Technician: TAN
Standard: ANSI Z359.1 Self-retracting lanyard
Sample / File name: 2C03404
Drop item: ANSI drop weight, 100kg
Orientation/Attachment Point: Centre eyebolt
Time and Date of Test: 14:43 13/04/15



Results do not achieve full ACLASS status until a formal test report has been issued.

INSPEC Technical Services

Technician: TAN
Standard: ANSI Z359.1 Self retracting lanyard
Sample / File name: 2C05501
Drop item: ANSI drop mass, 100kg
Orientation/Attachment Point: Centre eyebolt
Time and Date of Test: 12:23 25/04/15



Results do not achieve full ACLASS status until a formal test report has been issued.

**Nara Safe Ltd –
Self retracting Lifelines, model RL-6 WEB**

