

Test Report

ANSI Z359.14-2021

Self-Retracting Devices for Personal Fall Arrest and Rescue System

Report no: 2.23.10.01A

Customer: Jinhua Jech Tools Co., Ltd.
No. 1448 Tongxi Road, Linjiang Industrial Park
Wucheng District
Jinhua City 321025
Zhejiang
P.R. China

Manufacturer: Jinhua Jech Tools Co., Ltd.
as advised by the Customer

Customer order: T/1203

Order received: 1 August 2023

Model: SRL-D33

Dates of tests: 10 Aug. 2023 to 3 Oct. 2023

Signed:



Steven Sum, Laboratory Manager

Issued: 29 May 2025

Page 1 of 23

This report is a revision to report number 2.23.10.01 and replaces the original report, which is hereby withdrawn.

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

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

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Summary of assessment *

Clause	Requirement	Assessment (See Key)
1.4	Self-Retracting Device Classes	Pass
3.1.1	Integral connectors	Ltd
3.1.2	Locking function	Ltd
3.1.3	Energy absorption	Pass
3.1.4	Visual indicator	Pass
3.1.5	Corrosion protection	Pass
	Retraction tension (after salt spray test)	Pass
3.1.6	Line Constituent of Self-Retracting Devices	Ltd
3.1.7	Class 2 Energy absorber	
3.2.1	Static strength of Self-Retracting Devices (SRDs)	Pass
3.2.2	Static strength of Self-Retracting Lanyard, Personal Connector	
3.2.3	Locking strength	
3.3.1	Dynamic performance of SRD (ambient) + Retraction tension	Pass
	Dynamic performance of SRD (hot) + Retraction tension	Pass
	Dynamic performance of SRD (cold) + Retraction tension	Pass
	Dynamic performance of SRD (wet) + Retraction tension	Pass
3.3.2	Additional Dynamic performance of SRL-Ps	
3.3.3	Dynamic performance for SRDs – Class 2	
3.3.4.1	Function (SRL-R)	
3.3.4.2	Powered Operation (SRL-R)	
3.3.4.3	Rescue, Post Fall Arrest (ambient)	
	Rescue, Post Fall Arrest (hot)	
	Rescue, Post Fall Arrest (cold)	
	Rescue, Post Fall Arrest (wet)	
3.3.4.4	Static strength (SRL-R)	
3.3.4.5	Controlled Descent Functionality	
3.4	Energy capacity	Pass
3.5	Retraction tension	Pass

Clause	Requirement	Assessment (See Key)
3.6.1	Static test, for Dual SRL-Ps	
3.6.2	SRL-P Dual Connection	
3.6.3	Wrap-around strength, for SRL-Ps	
3.7	Hybrid Self-Retracting Devices	
5.1	Marking Requirements	Ltd
5.2	Instruction Requirements	Ltd

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.

Submissions details**Submission 01**

Product	Quantity	Date received	INSPEC specimen no. (2L238+)
Self-Retracting Devices, model SRL-D33	18	7 Aug. 2023	2L23801 to 2L23818
Self-Retracting Devices, model SRL-D33 (shorten length)	03		2L23819 to 2L23121
Self-Retracting Devices, model SRL-D33 (42-inch length)	03		2L23822 to 2L23124

Submission 02

Product	Quantity	Date received	INSPEC specimen no. (2L238+)
Self-Retracting Devices, model SRL-D33 (shorten length)	03	5 Sept. 2023	2L23825 to 2L23127

Procedures

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

Testing was performed in accordance with ANSI Z359.14-2021 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.

Result details**1.3 Self-Retracting Device Types**

The Self-Retracting Devices were claimed by the manufacturer as Self-Retracting Lanyards (SRLs)

1.4 Self-Retracting Device Classes

The specimens were claimed by the manufacturer as Class 1 devices.

It was specified in the User Instructions that the devices shall be used only on overhead anchorages and subject to a maximum free-fall of 2 feet (610 mm) or less, in practical applications.

Pass**3. Requirements****3.1 General Requirements****3.1.1 Integral Connectors**

Specimen 2L23804 was assessed.

The specimen incorporated one integral snaphook. Testing of the integral snaphook was not requested.

NAs

The specimen incorporated an integral ring at the top of the device intended to accept a connector. The ring was designed to minimize the possibility of rollout of a mating snaphook or carabiner.

Pass**3.1.2 Locking Function**

Specimen 2L23804 was assessed.

The specimen was automatic in its locking (fall stopping) function.

Pass

It was not possible to over-ride the self-locking feature of the specimen when in use.

Pass

The design of working parts, their location and the protection afforded to them such as to prevent the possibility of performance being impaired by casual interference was not assessed.

NAs**3.1.3 Energy Absorption**

Specimen 2L23804 was assessed.

The specimen incorporated energy absorption function. The energy absorbing function was available throughout the usable working range of the device.

Pass

3.1.4 Visual Indicator

Specimen 2L23804 was assessed.

The specimen did include a visual indicator. The visual indicator was incorporated in the integral snaphook. **Pass**

The visual indicator did activate during the dynamic performance test described in section 3.3.1. **Pass**

3.1.5 Corrosion Protection

Specimens 2L23801, 2L23802 and 2L23803 were assessed.

Corrosion protection was afforded to all elements (parts) of the specimens. **Pass**

After the salt spray test, all specimens operated as intended. **Pass**

The specimens did not show signs of corrosion. **Pass**

After the salt spray test, the line constituent of all specimens could pay out, retract and locked. **Pass**

After the salt spray test, the retraction tension was as specified in 3.5. See below for detailed test results. **Pass**

3.5 Retraction Tension - after corrosion test

Specimens 2L23801, 2L23802 and 2L23803 were assessed.

3.5.1 The retraction tension of the self-retracting device line, in addition to that required to retract the weight of the line constituent 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**

3.5.2 When fully retracted after each of the specified extractions, the line constituent remained extended from the SRL body by the amounts reported in the tables below. These are less than the 24 inches maximum permitted for Class 1 device. **Pass**

Specimen 2L23801 was assessed.

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	2.43	12.60	Pass
50%	6.50	12.60	Pass
100%	10.58	12.60	Pass

Specimen 2L23802 was assessed.

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	2.20	12.60	Pass
50%	5.73	12.60	Pass
100%	9.37	12.60	Pass

Specimen 2L23803 was assessed.

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	1.76	12.60	Pass
50%	6.50	12.60	Pass
100%	10.58	12.60	Pass

3.1.6 Line constituent of Self-Retracting Devices

3.1.6.1 Webbing and Synthetic Rope

This clause was not applicable to the type of product tested.

NAP

3.1.6.2 Wire rope.

Specimens 2L23804 and 2L23825 were assessed.

The material and characteristics of the wire rope used were not assessed. Manufacturer to certify.

NAs

[The specimens met the requirements of 3.2.1 and 3.3.](#)

Pass

3.1.6.3 Terminations

Specimen 2L23825 was assessed.

The terminations of the constituent line met the requirements of 3.2.1

Pass

3.2 Static Strength

3.2.1 Static Strength of Self-Retracting Devices (SRDs)

Specimens 2L23825, 2L23826 and 2L23827 were assessed.

The specimens withstood, without breaking, the tensile load of 3,600 pounds (16kN) when statically applied.

Pass

3.3 Dynamic Performance

3.3.1 Dynamic Performance – ambient condition

Specimens 2L23804, 2L23805 and 2L23806 were assessed.

3.3.1.1 During the dynamic performance tests, the specimens locked and remained locked until released. **Pass**

3.3.1.2 After the dynamic performance tests, the specimens satisfied the retraction tension requirements of 3.5. See table below for detailed test results. **Pass**

3.3.1.3 Following the dynamic performance tests, the visual indicators activated to provide clear evidence that the device has been impact loaded. **Pass**

3.3.1.4 The maximum arrest forces of the specimens were recorded as follows:

Specimen 2L23804 was 909 pounds.	Pass
Specimen 2L23805 was 830 pounds.	Pass
Specimen 2L23806 was 914 pounds.	Pass

These values were less than the maximum 1,800 pounds (8kN) permitted. See Annex 1 for the plots of force versus time.

The average arrest forces of the specimens were recorded as follows:

Specimen 2L23804 was 742 pounds.	Pass
Specimen 2L23805 was 562 pounds.	Pass
Specimen 2L23806 was 795 pounds.	Pass

These values were less than the maximum 1,350 pounds (6kN) permitted. See Annex 1 for the plots of force versus time.

The arrest distances of the specimens were recorded as follow:

Specimen 2L23804 was 20.9 inches.	Pass
Specimen 2L23805 was 27.8 inches.	Pass
Specimen 2L23806 was 15.7 inches.	Pass

These values were less than the maximum 42 inches (1,067mm) permitted.

3.5 Retraction Tension test - after dynamic performance test (ambient condition)

Specimens 2L23804, 2L23805 and 2L23806 were assessed.

3.5.1 The retraction tension of the self-retracting device line, in addition to that required to retract the weight of the line constituent 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**

3.5.2 When fully retracted after each of the specified extractions, the line constituent remained extended from the SRL body by the amounts reported in the tables below. These are less than the 24 inches maximum permitted for class 1 device. **Pass**

Specimen 2L23804 was assessed.

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	1.98	12.60	Pass
50%	5.51	12.60	Pass
100%	10.14	12.60	Pass

Specimen 2L23805 was assessed.

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	2.20	12.60	Pass
50%	5.84	12.60	Pass
100%	9.75	12.60	Pass

Specimen 2L23806 was assessed.

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	1.98	12.60	Pass
50%	5.51	12.60	Pass
100%	10.25	12.60	Pass

3.3.1 Dynamic Performance – hot condition

Specimens 2L23807, 2L23808 and 2L23809 were assessed.

3.3.1.1 During the dynamic performance tests, the specimens locked and remained locked until released. **Pass**

3.3.1.2 After the dynamic performance tests, the specimens satisfied the retraction tension requirements of 3.5. See table below for detailed test results. **Pass**

3.3.1.3 Following the dynamic performance tests, the visual indicators activated to provide clear evidence that the device has been impact loaded. **Pass**

3.3.1.4 The maximum arrest forces of the specimens were recorded as follows:

Specimen 2L23807 was 1013 pounds.	Pass
Specimen 2L23808 was 916 pounds.	Pass
Specimen 2L23809 was 918 pounds.	Pass

These values were less than the maximum 1,800 pounds (8kN) permitted. See Annex 1 for the plots of force versus time.

The average arrest forces of the specimens were recorded as follows:

Specimen 2L23807 was 877 pounds.	Pass
Specimen 2L23808 was 771 pounds.	Pass
Specimen 2L23809 was 630 pounds.	Pass

These values were less than the maximum 1,575 pounds (7kN) permitted. See Annex 1 for the plots of force versus time.

The arrest distances of the specimens were recorded as follow:

Specimen 2L23807 was 17.4 inches.	Pass
Specimen 2L23808 was 17.4 inches.	Pass
Specimen 2L23809 was 38.3 inches.	Pass

These values were less than the maximum 42 inches (1,067mm) permitted.

3.5 Retraction Tension test - after dynamic performance test (hot condition)

Specimens 2L23807, 2L23808 and 2L23809 were assessed.

3.5.1 The retraction tension of the self-retracting device line, in addition to that required to retract the weight of the line constituent 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**

3.5.2 When fully retracted after each of the specified extractions, the line constituent remained extended from the SRL body by the amounts reported in the tables below. These are less than the 24 inches maximum permitted for class 1 device. **Pass**

Specimen 2L23807 was assessed.

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	2.20	12.60	Pass
50%	5.51	12.60	Pass
100%	9.59	12.60	Pass

Specimen 2L23808 was assessed.

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	1.98	12.60	Pass
50%	5.51	12.60	Pass
100%	10.25	12.60	Pass

Specimen 2L23809 was assessed.

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	2.43	12.60	Pass
50%	4.52	12.60	Pass
100%	10.80	12.60	Pass

3.3.1 Dynamic Performance – cold condition

Specimens 2L23813 to 2L23815 were assessed.

3.3.1.1 During the dynamic performance tests, the specimens locked and remained locked until released. **Pass**

3.3.1.2 After the dynamic performance tests, the specimens satisfied the retraction tension requirements of 3.5. See table below for detailed test results. **Pass**

3.3.1.3 Following the dynamic performance tests, the visual indicators activated to provide clear evidence that the device has been impact loaded. **Pass**

3.3.1.4 The maximum arrest forces of the specimens were recorded as follows:

Specimen 2L23813 was 556 pounds.	Pass
Specimen 2L23814 was 887 pounds.	Pass
Specimen 2L23815 was 826 pounds.	Pass

These values were less than the maximum 1,800 pounds (8kN) permitted. See Annex 1 for the plots of force versus time.

The average arrest forces of the specimens were recorded as follows:

Specimen 2L23813 was 521 pounds.	Pass
Specimen 2L23814 was 750 pounds.	Pass
Specimen 2L23815 was 621 pounds.	Pass

These values were less than the maximum 1,575 pounds (7kN) permitted. See Annex 1 for the plots of force versus time.

The arrest distances of the specimens were recorded as follow:

Specimen 2L23813 was 32.7 inches.	Pass
Specimen 2L23814 was 15.0 inches.	Pass
Specimen 2L23815 was 23.9 inches.	Pass

These values were less than the maximum 42 inches (1,067mm) permitted.

3.5 Retraction Tension test - after dynamic performance test (cold condition)

Specimens 2L23813, 2L23814 and 2L23815 were assessed.

3.5.1 The retraction tension of the self-retracting device line, in addition to that required to retract the weight of the line constituent 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**

3.5.2 When fully retracted after each of the specified extractions, the line constituent remained extended from the SRL body by the amounts reported in the tables below. These are less than the 24 inches maximum permitted for class 1 device. **Pass**

Specimen 2L23813 was assessed.

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	1.98	12.60	Pass
50%	4.85	12.60	Pass
100%	10.03	12.60	Pass

Specimen 2L23814 was assessed.

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	1.98	12.60	Pass
50%	4.85	12.60	Pass
100%	10.03	12.60	Pass

Specimen 2L23815 was assessed.

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	2.20	12.60	Pass
50%	6.50	12.60	Pass
100%	10.25	12.60	Pass

3.3.1 Dynamic Performance – wet condition

Specimens 2L23810, 2L23811 and 2L23812 were assessed.

3.3.1.1 During the dynamic performance tests, the specimens locked and remained locked until released. **Pass**

3.3.1.2 After the dynamic performance tests, the specimens satisfied the retraction tension requirements of 3.5. See table below for detailed test results. **Pass**

3.3.1.3 Following the dynamic performance tests, the visual indicators activated to provide clear evidence that the device has been impact loaded. **Pass**

3.3.1.4 The maximum arrest forces of the specimens were recorded as follows:

Specimen 2L23810 was 1120 pounds.	Pass
Specimen 2L23811 was 1144 pounds.	Pass
Specimen 2L23812 was 872 pounds.	Pass

These values were less than the maximum 1,800 pounds (8kN) permitted. See Annex 1 for the plots of force versus time.

The average arrest forces of the specimens were recorded as follows:

Specimen 2L23810 was 757 pounds.	Pass
Specimen 2L23811 was 920 pounds.	Pass
Specimen 2L23812 was 736 pounds.	Pass

These values were less than the maximum 1,575 pounds (7kN) permitted. See Annex 1 for the plots of force versus time.

The arrest distances of the specimens were recorded as follow:

Specimen 2L23810 was 20.7 inches.	Pass
Specimen 2L23811 was 20.3 inches.	Pass
Specimen 2L23812 was 16.3 inches.	Pass

These values were less than the maximum 42 inches (1,067mm) permitted.

3.5 Retraction Tension test - after dynamic performance test (wet condition)

Specimens 2L23810, 2L23811 and 2L23812 were assessed.

3.5.1 The retraction tension of the self-retracting device line, in addition to that required to retract the weight of the line constituent 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**

3.5.2 When fully retracted after each of the specified extractions, the line constituent remained extended from the SRL body by the amounts reported in the tables below. These are less than the 24 inches maximum permitted for class 1 device. **Pass**

Specimen 2L23810 was assessed.

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	1.21	12.80	Pass
50%	5.07	12.80	Pass
100%	10.03	12.80	Pass

Specimen 2L23811 was assessed.

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	1.32	12.60	Pass
50%	4.85	12.60	Pass
100%	10.47	12.60	Pass

Specimen 2L23812 was assessed.

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	1.98	12.60	Pass
50%	5.07	12.60	Pass
100%	10.14	12.60	Pass

3.4 Energy Capacity

Specimens 2L23822, 2L23823 and 2L23824 were assessed.

When tested in accordance with 4.4, the maximum arrest force of the specimens were recorded as follows:

Specimen 2L23822 was 1505 pounds.

Pass

Specimen 2L23823 was 1278 pounds.

Pass

Specimen 2L23824 was 997 pounds.

Pass

These values were less than the maximum 1800 pounds (8kN) permitted. See Annex 1 for the plots of force versus time.

3.5 Retraction Tension

Specimens 2L23816, 2L23817 and 2L23818 were assessed.

3.5.1 The retraction tension of the self-retracting device line, in addition to that required to retract the weight of the line constituent 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**

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

Specimen 2L23816 was assessed.

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	2.20	12.60	Pass
50%	5.62	12.60	Pass
100%	10.36	12.60	Pass

Specimen 2L23817 was assessed.

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	2.31	12.60	Pass
50%	3.63	12.60	Pass
100%	9.70	12.60	Pass

Specimen 2L23818 was assessed.

Length of line extracted	Tension (lbf)	Length of line remaining extended (inches)	
12 inches	1.98	12.60	Pass
50%	6.50	12.60	Pass
100%	10.91	12.60	Pass

5 Markings and Instructions

5.1 Marking Requirements

Specimen 2L23801 was assessed.

5.1.1	Warnings shall be in English	Pass
a	Shall meet the formatting requirements of the reference in Section 7.7. Manufacturer to certify.	NAs
b	Non-warning markings shall be in English or pictorial format.	Pass
5.1.2	The legibility and attachment of required markings shall endure for the life of the component, subsystem or system been marked. Manufacturer to certify.	NAs
	<i>Markings were legible and attached after testing completed.</i>	
	When pressure-sensitive labels are used, they shall comply with the applicable provision of the reference in Section 7.6. Manufacturer to certify.	NAs
5.1.3	Self-retracting devices shall be marked to identify:	
a	part number and model designation; [SRLD33]	Pass
b	year of manufacture;	Pass
c	manufacturer's name or logo; [JECH]	Pass
d	capacity range, including clothing, tools and equipment (130-310 lbs);	Pass
e	maximum allowable free fall distance; [No free fall allowed]	Pass
f	unique ID number;	Pass
g	standard no. (Z359.14-2021); [ANSI Z359.14-2021]	Pass
h	how to inspect visual indicator;	Pass
i	warning to follow the manufacturer's instructions included with the equipment at time of shipment from the manufacturer;	Pass
j	warning of the need for inspection in accordance with the manufacturer's instructions;	Pass
k	the fiber or other materials used in the lanyard construction and any limitation of such materials; [Stainless steel cable]	Pass
l	the lanyard working length; [33 feet]	Pass
m	maximum arresting force; [1800 lbs]	Pass
n	average arresting force; [1350 lbs]	Pass
o	arrest distance; [42 inches]	Pass
p	guidance with respect to clearance requirements;	Pass
q	proper installation means;	Pass
r	warning of the need for testing of the device for locking and retraction before each use;	Pass
s	warning of the need to avoid lanyard contact with sharp edges and abrasive surface (not required for Class 2 SRDs);	Pass
t	suitability for use with horizontal lifelines; [Not suitable]	Pass

u suitability for horizontal use. [Not suitable] **Pass**

5.1.4 Class Designation Icon

a class designation icon as defined in figure 14. [only the text was assessed] **Pass**

b icon in a conspicuous location on the device; **Pass**

c appropriate color-coded icon designating the class of the device; **Pass**

d for SRLs and SRL-Rs, the icon shall be a minimum of 1-inch square (25 mm); **Pass**

e for SRL-PS, the icon shall be a minimum of 0.5-inch square (12.5 mm). See Fig 14; **NAp**

5.2 Instruction Requirements

The instructions to users have been assessed as detail below, with reference only to the relevant requirements of the Standard.

INSPEC Technical Services has not assessed these instructions with respect to claims made by the manufacturer outside of these requirements and therefore accepts no responsibility for the legitimacy of any such claims.

User instructions in English were provided electronically by the manufacturer and used for assessment.

5.2.1	Instructions shall be provided to the user printed in English at the time of shipment from the manufacturer. Alternate media may be used for the dissemination of instructions, but only addition to, not in lieu of printed instructions.	Ltd
5.2.2	Instructions shall contain the following information:	
a	a statement that the manufacturer's instructions shall be provided to users;	Pass
b	manufacturer's name, address and telephone number;	Pass
c	manufacturer's part number or model designation for the equipment;	Pass
d	intended use and purpose of the equipment;	Pass
e	proper method of use and limitations on use of the equipment;	Pass
f	illustrations showing locations of markings on the equipment;	Pass
g	reproduction of printed information on all markings;	Pass
h	inspection procedures required to assure the equipment is in serviceable condition and operating correctly;	Pass
i	anchorage requirements;	Pass
j	criteria for discarding equipment which fails inspection;	Pass
k	procedures for cleaning, maintenance and storage;	Pass
l	reference to the Z359 standards and applicable regulations governing occupational safety;	Pass
m	proper installation means and limitations on the type of anchorage connectors used, if any;	Pass
n	the diameter of rope or wire rope, and width and thickness of webbing used in the lanyard;	Pass
o	the fiber or other materials used in the lanyard construction;	Pass
p	the lanyard length;	Pass
q	suitability for use with horizontal lifelines, deforming or flexible anchorages;	Pass
r	the maximum and average arresting force when dynamically tested in ambient conditions, in accordance with the requirements of this standard;	Pass
s	the arrest distance when dynamically tested in accordance with the requirements of this standard;	Pass
t	how to determine fall clearance, which shall include a safety margin;	Pass
u	testing of the device for locking before each use.	Pass

5.2.3	Instructions shall require that only the equipment manufacturer, or persons or entities authorized in writing by the manufacturer, shall make repairs to equipment.	Pass
5.2.4	Instructions shall require the user to remove equipment from field service if it has been subjected to the forces of arresting a fall or affecting a rescue.	Pass
5.2.5	Instructions shall require the user to have a written rescue plan and the means at hand to implement it when using the equipment.	Pass
5.2.6	Instructions shall provide warnings regarding:	
a	altering the equipment;	Pass
b	misusing the equipment;	Pass
c	using combinations of components or subsystems, or both, which may affect or interfere with the safe function of each other;	Pass
d	exposing the equipment to chemicals, high heat, severe cold or other harsh environments which may produce a harmful effect and to consult the manufacturer in cases of doubt;	Pass
e	using the equipment around moving machinery and electrical hazards;	Pass
f	using the equipment near sharp edges and abrasive surfaces;	Pass
g	risk of striking an object or obstruction during a swing fall;	Pass
h	avoiding the use of SRDs in applications where engulfment hazards exist;	Pass
i	that the consequences of improperly using the device, not following instructions or marking may cause serious injury or death.	Pass

Estimates of the uncertainty of measurement

Clause	Test		Uncertainty
3.1.1	Integral Connectors		See test report
3.1.2	Locking Function		Not applicable
3.1.3	Energy Absorption		Not applicable
3.1.4	Visual Indicator		Not applicable
3.1.5	Corrosion Protection		Not applicable
3.1.6.1	Webbing and Synthetic Rope	Material	Not applicable
		Static strength	See Note 1
3.1.6.2	Wire rope		Not applicable
3.1.6.3	Termination		Not applicable
3.1.7	Class 2 Energy Absorber		See test report
3.2	Static Strength		See Note 1
3.3.1	Dynamic performance of SRDs (all conditions)	Force	$\pm 3.3\%$
		Arrest distance	$\pm 0.5\%$
3.3.2	Additional Dynamic performance of SRL-Ps		$\pm 3.3\%$
3.3.3	Dynamic performance of SRDs – Class 2		Not assessed
3.3.4.1	Function	Vertical displacement	$\pm 0.6\%$
3.3.4.2	Power Operation		See Note 1
3.3.4.3	Rescue, Post Fall Arrest	Vertical displacement	$\pm 1.7\%$
3.3.4.4	Static Strength (SRL-R)		See Note 1
3.3.4.5	Controlled Descent Functionality		See test report
3.4	Energy Capacity	Force	$\pm 3.3\%$
3.5	Retraction Tension		$\pm 0.5\%$
3.6.1	Static test - Dual SRL-Ps		See Note 1
3.6.2	SRL-P Dual connection		Not applicable
3.6.3	Wrap-around strength for SRL-Ps		See Note 1
5	Marking and Instructions		Not applicable

Note 1 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.

Note 2 The uncertainty value is based on a standard uncertainty multiplied by a coverage factor $k = 2$, which provides for a confidence level of approximately 95%. Values expressed as a percentage (%) are relative.

Note 3 It should be noted that the above values have not been taken into account when making assessment to the pass/fail criteria.

ANNEX

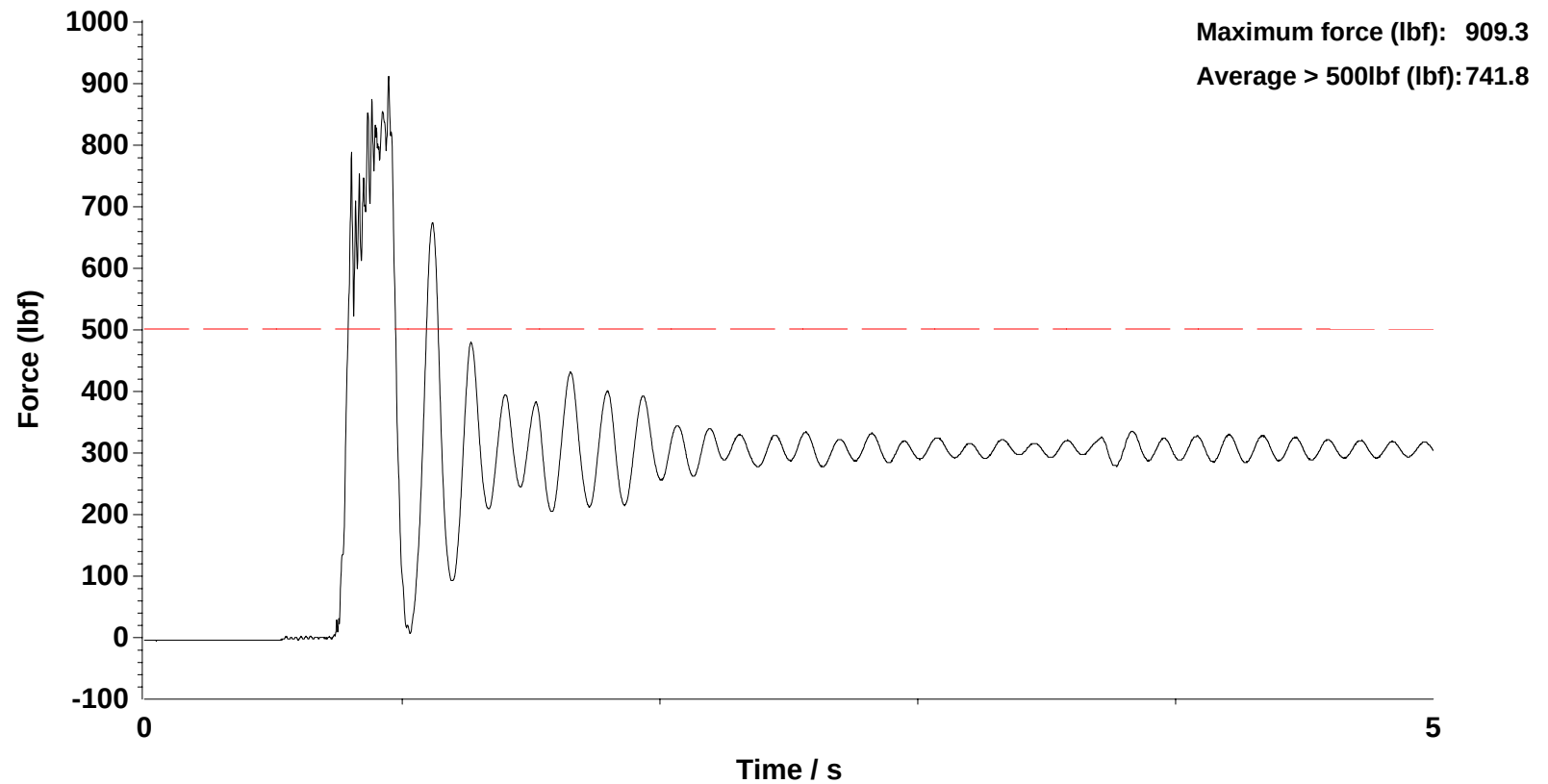
This Annex comprises two sections.

1. Plot of arrest force versus time – ambient (3 pages)
Plot of arrest force versus time – hot (3 pages)
Plot of arrest force versus time – cold (3 pages)
Plot of arrest force versus time – wet (3 pages)
Plot of arrest force versus time – energy capacity (3 pages)
2. Photograph of the product tested. (1 page)

END OF REPORT

INSPEC Technical Services

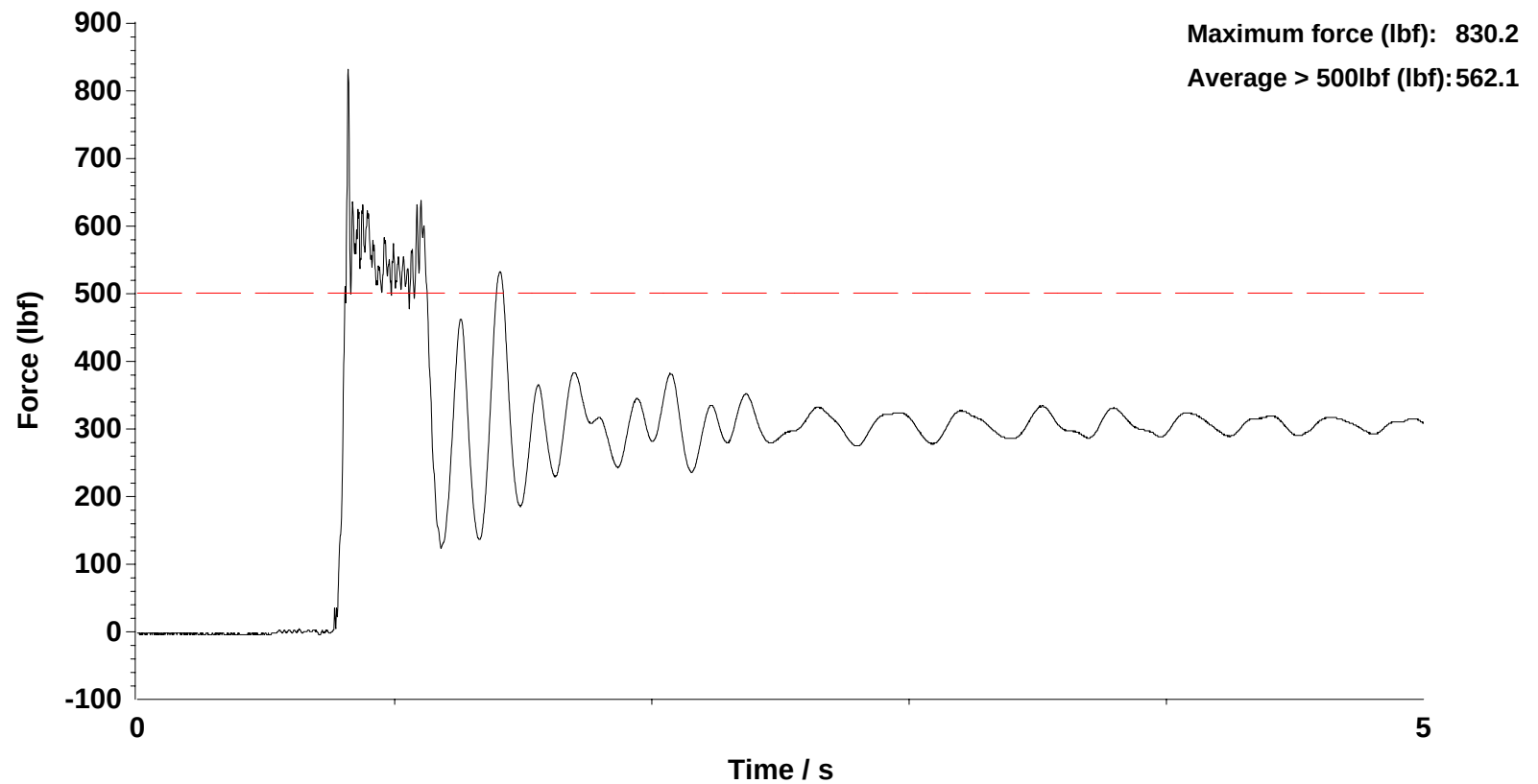
Technician: LJ
Standard: ANSI Z359.14:2021 Self-Retracting lanyard
Sample / File name: 2L23804
Drop item: Test weight, 141 kg
Orientation/Attachment Point: Centre eyebolt
Time and Date of Test: 10:13 25/08/23



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

INSPEC Technical Services

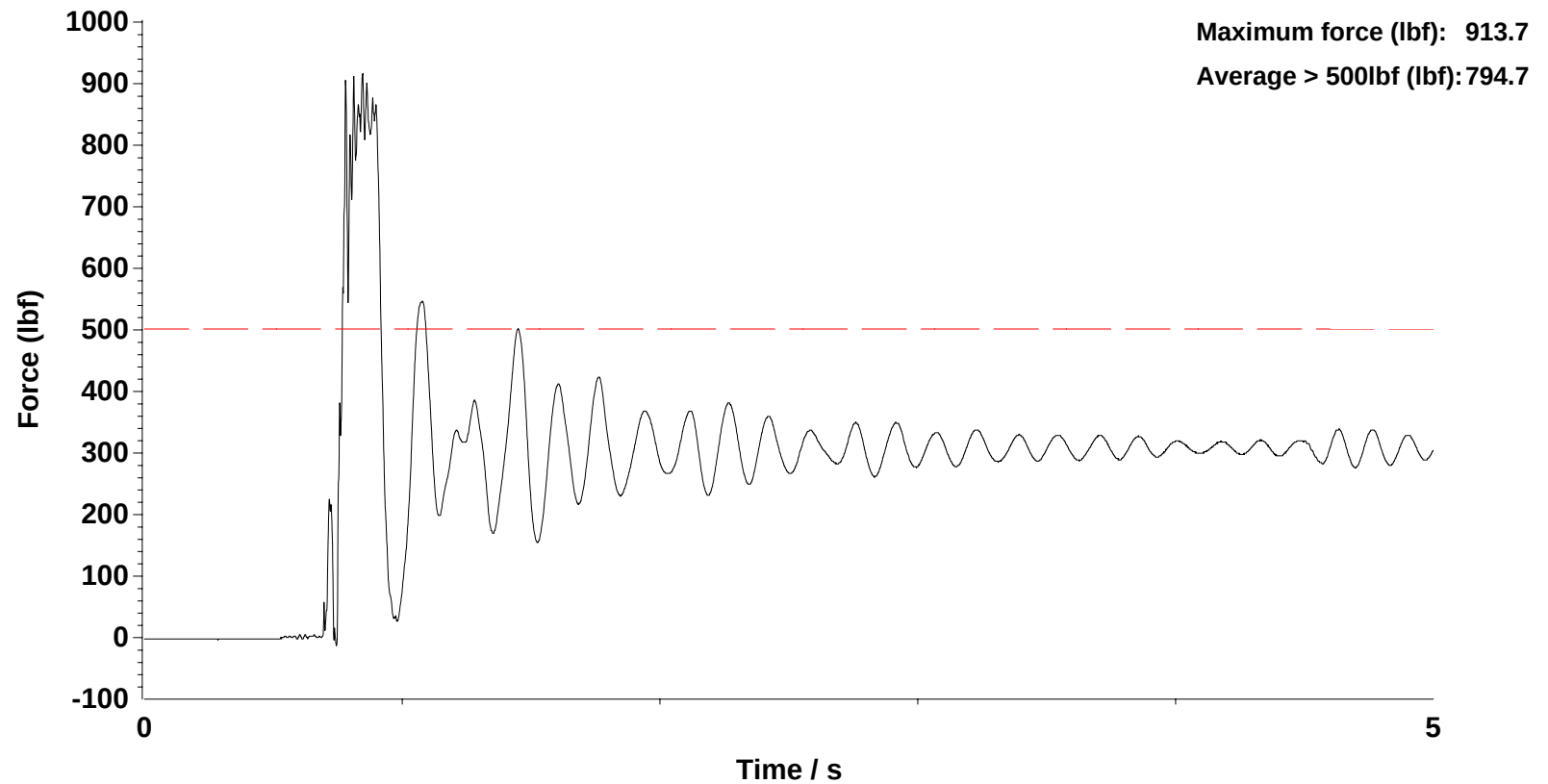
Technician: LJ
Standard ANSI Z359.14:2021 Self-Retracting lanyard
Sample / File name: 2L23805
Drop item Test weight, 141 kg
Orientation/Attachment Point: Centre eyebolt
Time and Date of Test: 10:18 25/08/23



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

INSPEC Technical Services

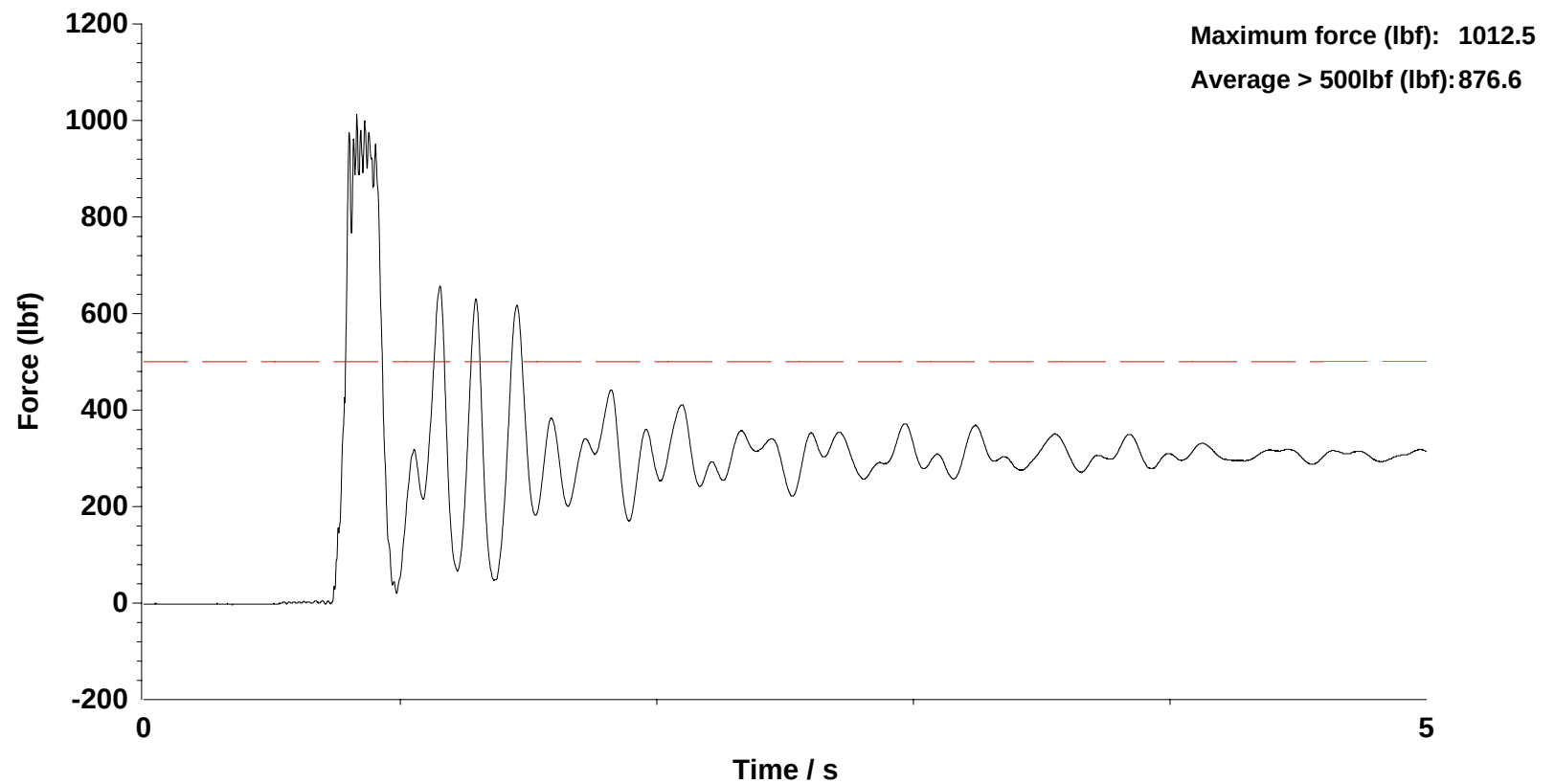
Technician: LJ
Standard ANSI Z359.14:2021 Self-Retracting lanyard
Sample / File name: 2L23806
Drop item Test weight, 141 kg
Orientation/Attachment Point: Centre eyebolt
Time and Date of Test: 10:23 25/08/23



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

INSPEC Technical Services

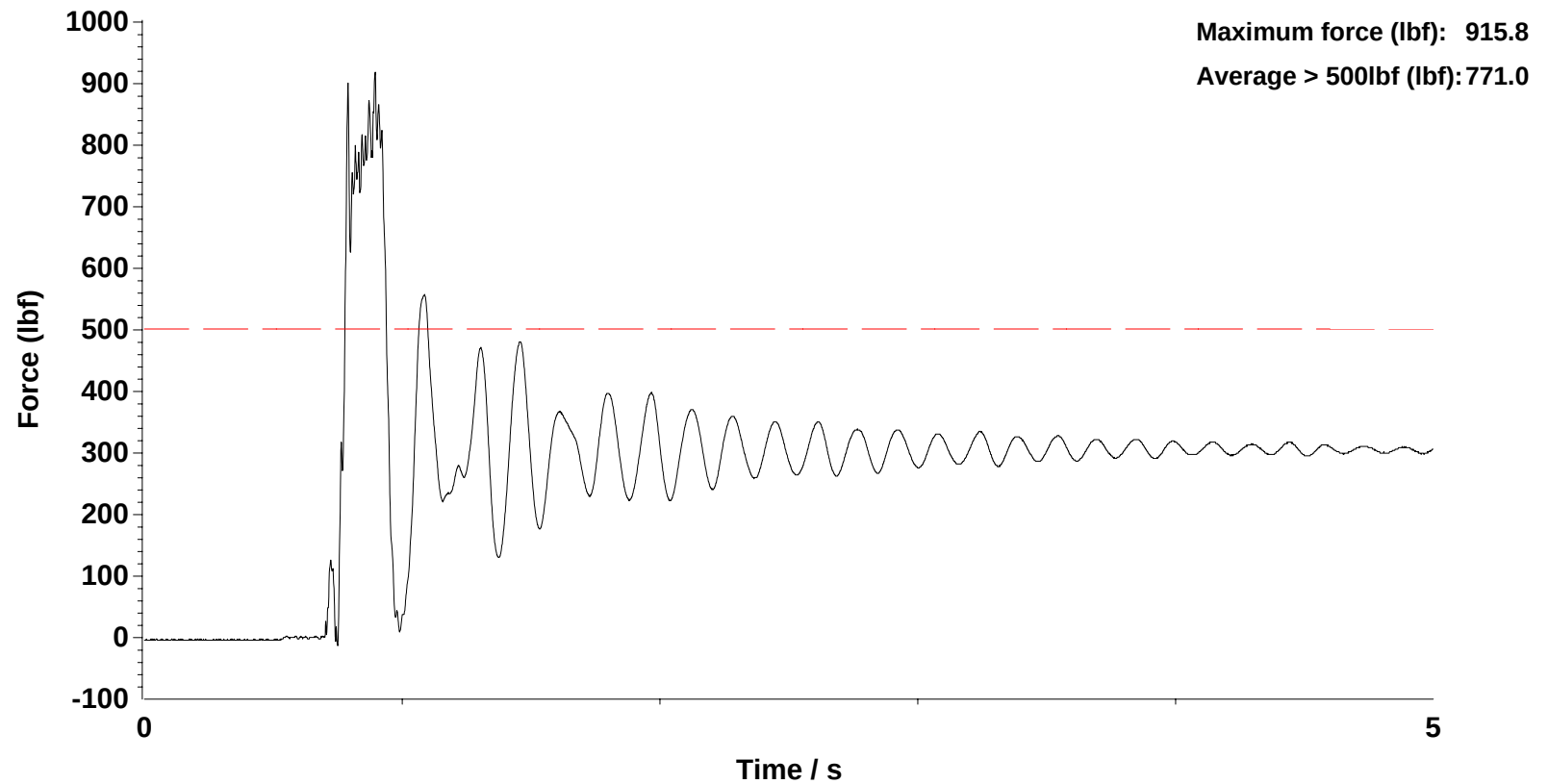
Technician: LJ
Standard: ANSI Z359.14:2021 Self-Retracting lanyard
Sample / File name: 2L23807
Drop item: Test weight, 141 kg
Orientation/Attachment Point: Centre eyebolt
Time and Date of Test: 13:51 25/08/23



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

INSPEC Technical Services

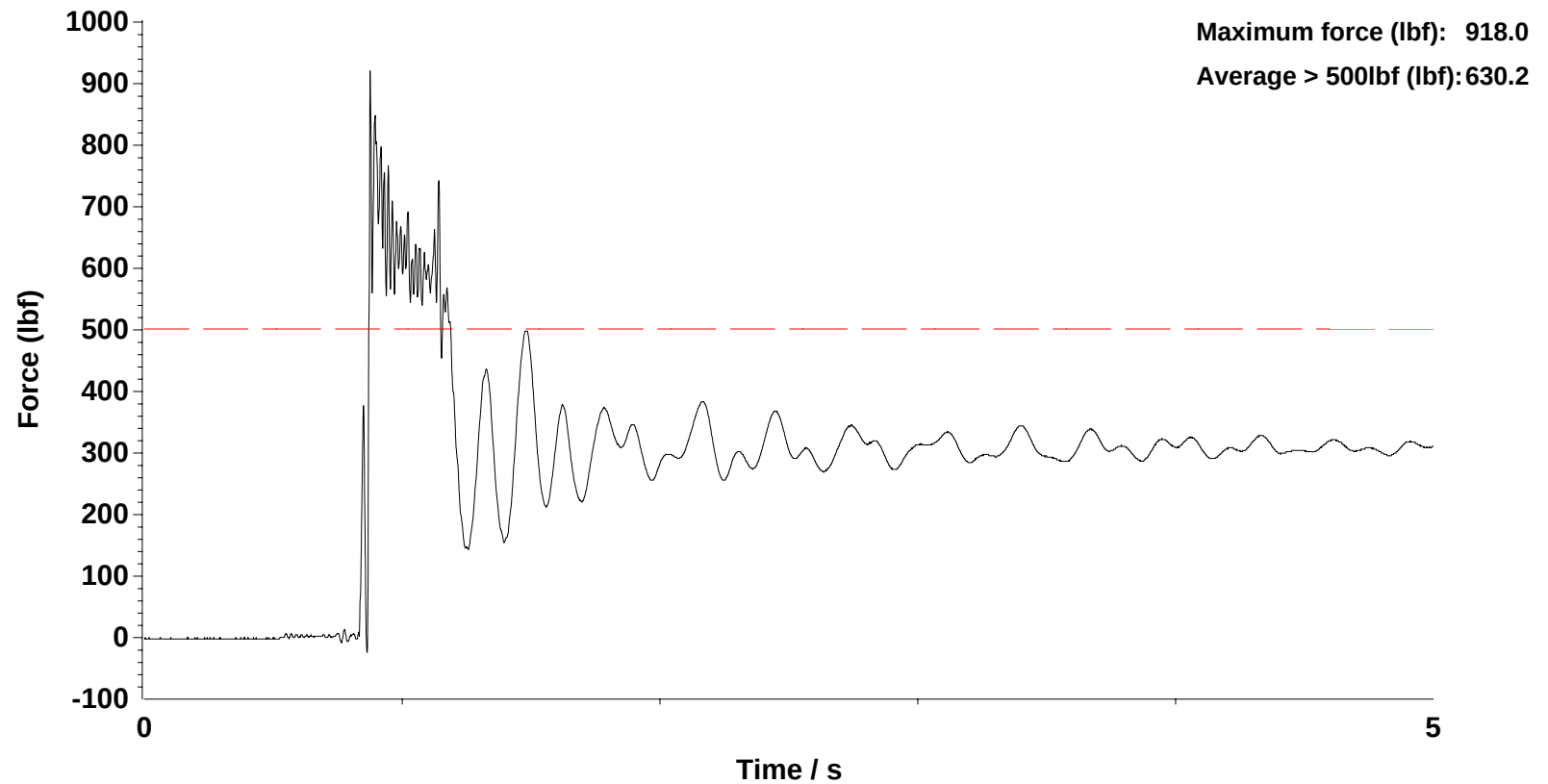
Technician: LJ
Standard ANSI Z359.14:2021 Self-Retracting lanyard
Sample / File name: 2L23808
Drop item Test weight, 141 kg
Orientation/Attachment Point: Centre eyebolt
Time and Date of Test: 13:55 25/08/23



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

INSPEC Technical Services

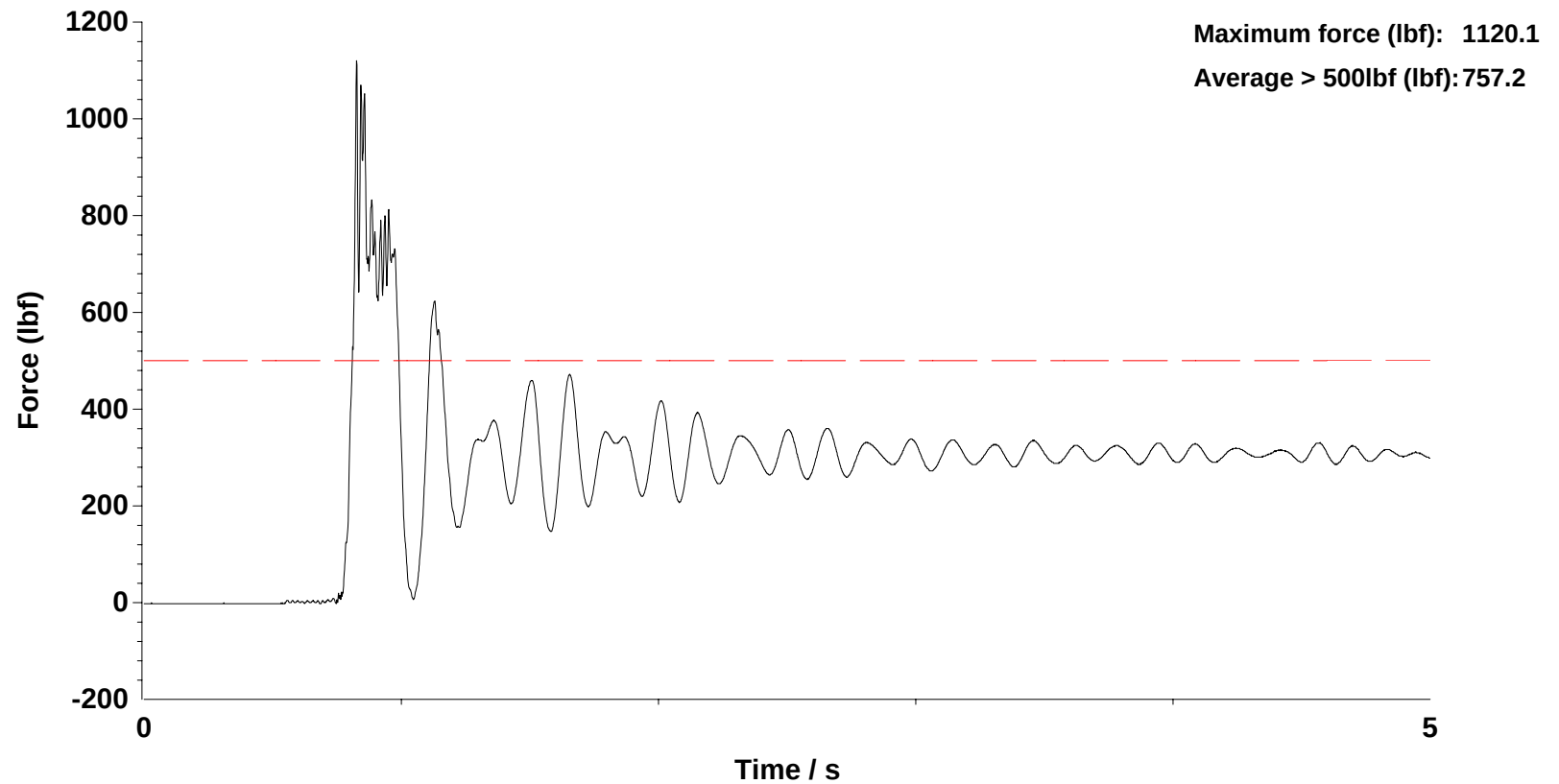
Technician: LJ
Standard: ANSI Z359.14:2021 Self-Retracting lanyard
Sample / File name: 2L23809
Drop item: Test weight, 141 kg
Orientation/Attachment Point: Centre eyebolt
Time and Date of Test: 13:59 25/08/23



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

INSPEC Technical Services

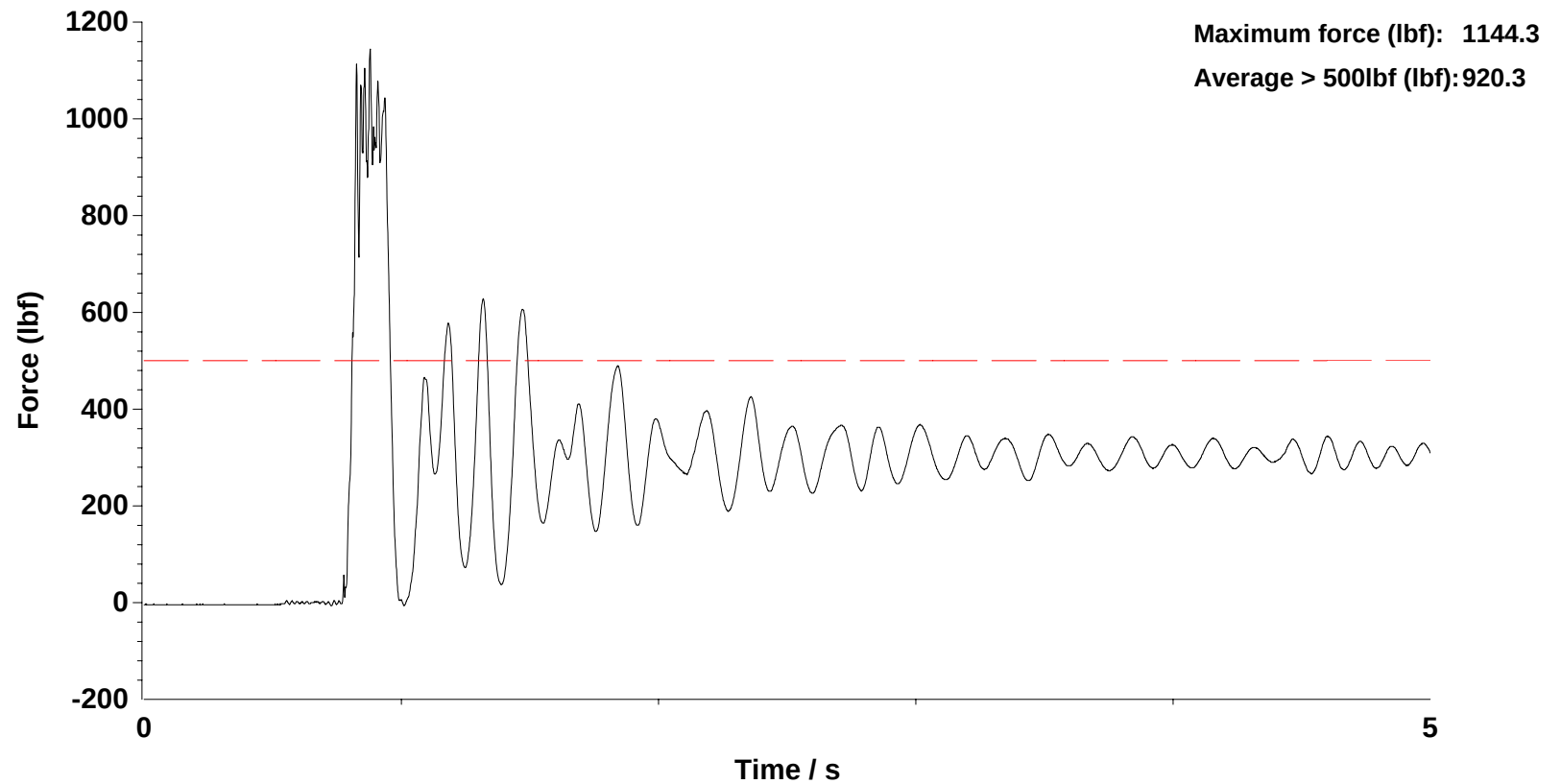
Technician: LJ
Standard: ANSI Z359.14:2021 Self-Retracting lanyard
Sample / File name: 2L23810
Drop item: Test weight, 141 kg
Orientation/Attachment Point: Centre eyebolt
Time and Date of Test: 14:04 25/08/23



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

INSPEC Technical Services

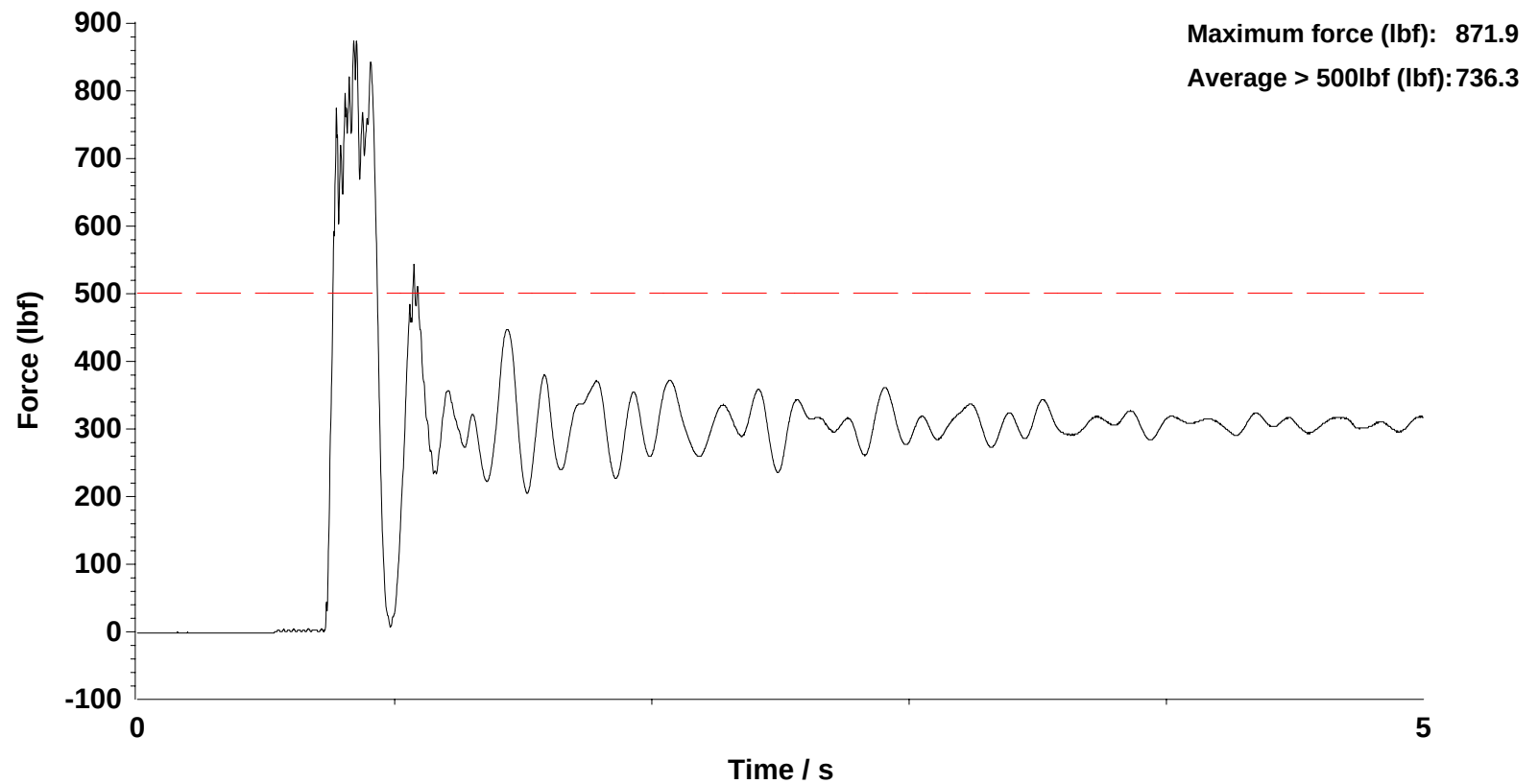
Technician: LJ
Standard: ANSI Z359.14:2021 Self-Retracting lanyard
Sample / File name: 2L23811
Drop item: Test weight, 141 kg
Orientation/Attachment Point: Centre eyebolt
Time and Date of Test: 14:08 25/08/23



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

INSPEC Technical Services

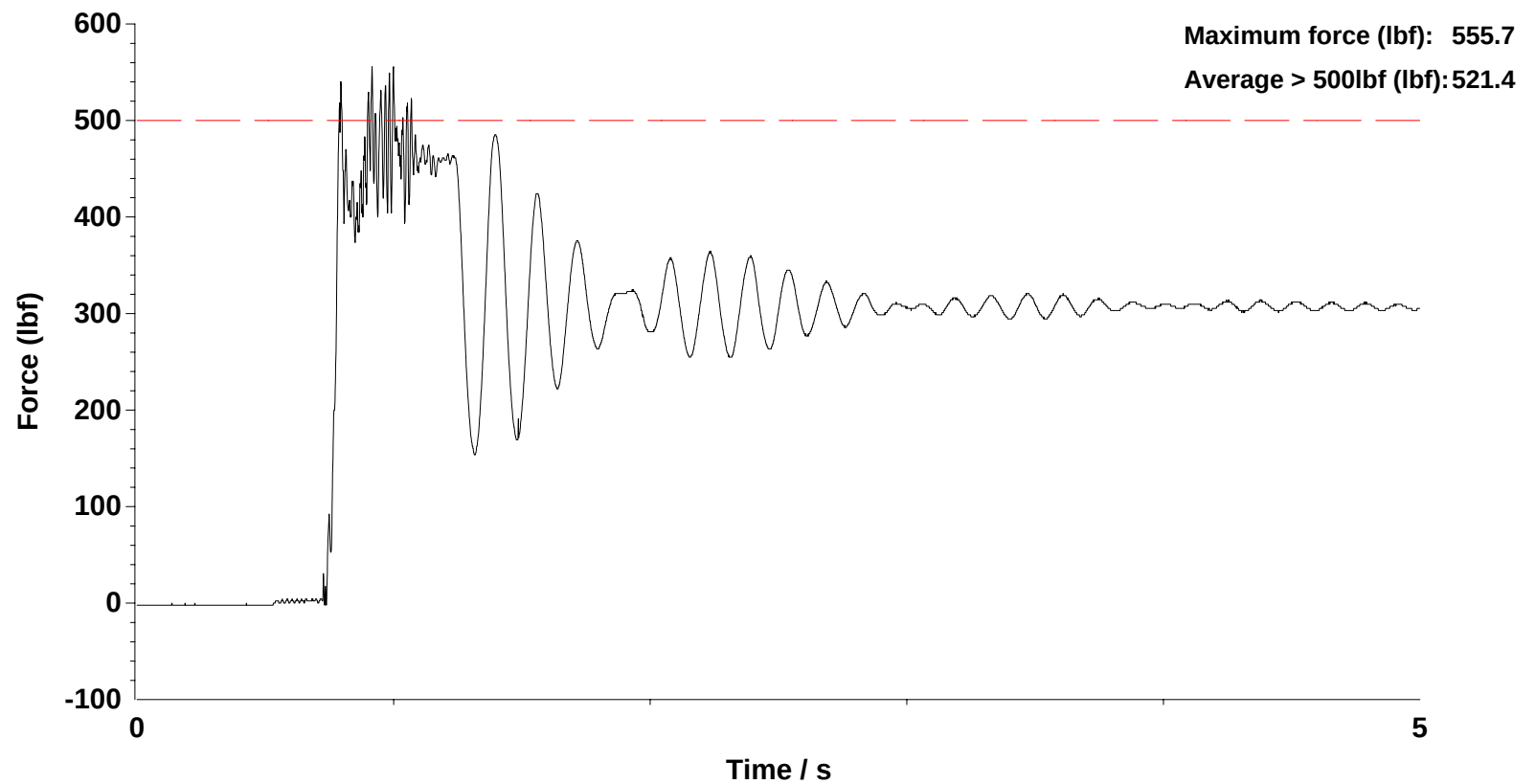
Technician: LJ
Standard: ANSI Z359.14:2021 Self-Retracting lanyard
Sample / File name: 2L23812
Drop item: Test weight, 141 kg
Orientation/Attachment Point: Centre eyebolt
Time and Date of Test: 14:13 25/08/23



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

INSPEC Technical Services

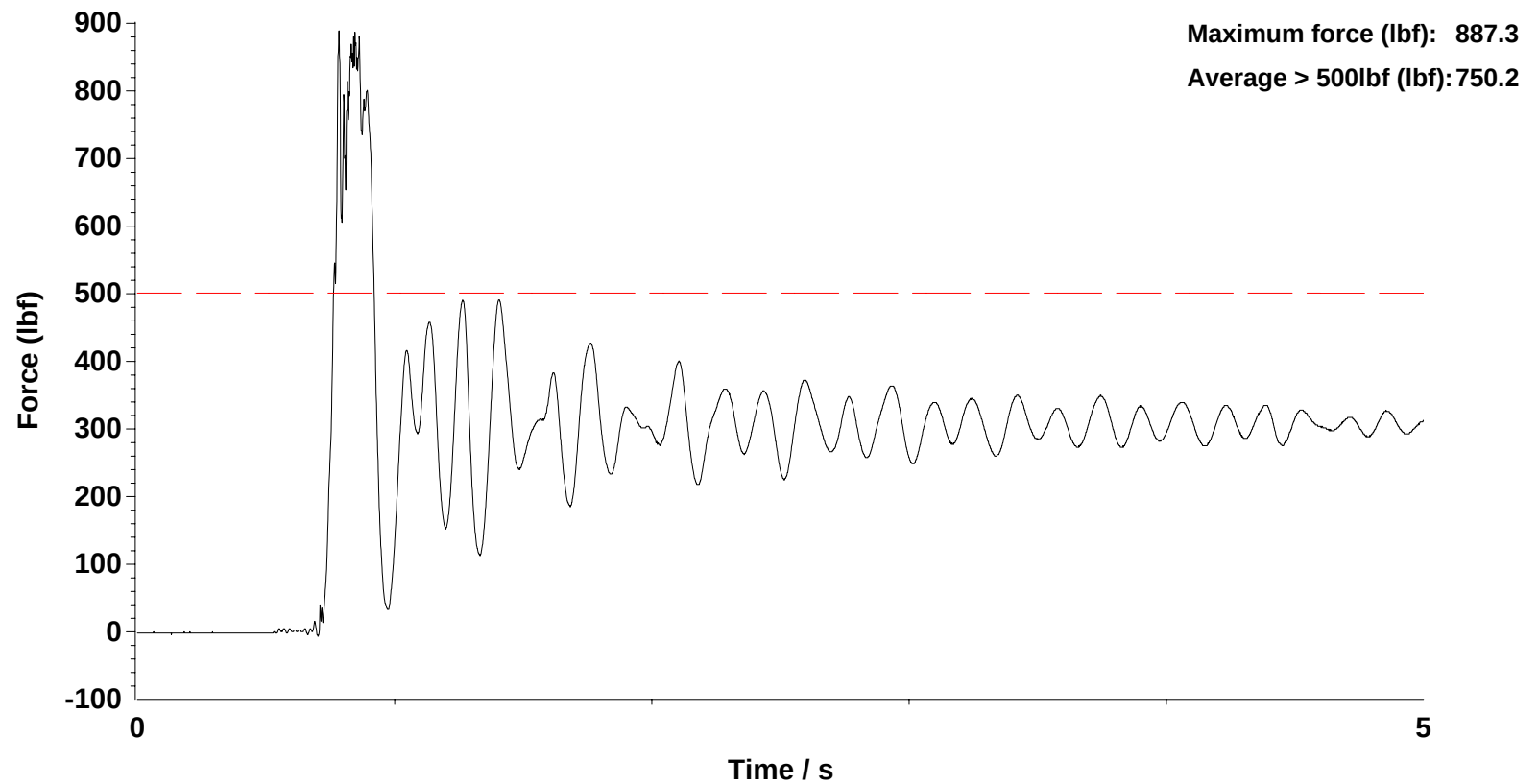
Technician: LJ
Standard: ANSI Z359.14:2021 Self-Retracting lanyard
Sample / File name: 2L23813
Drop item: Test weight, 141 kg
Orientation/Attachment Point: Centre eyebolt
Time and Date of Test: 14:17 25/08/23



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

INSPEC Technical Services

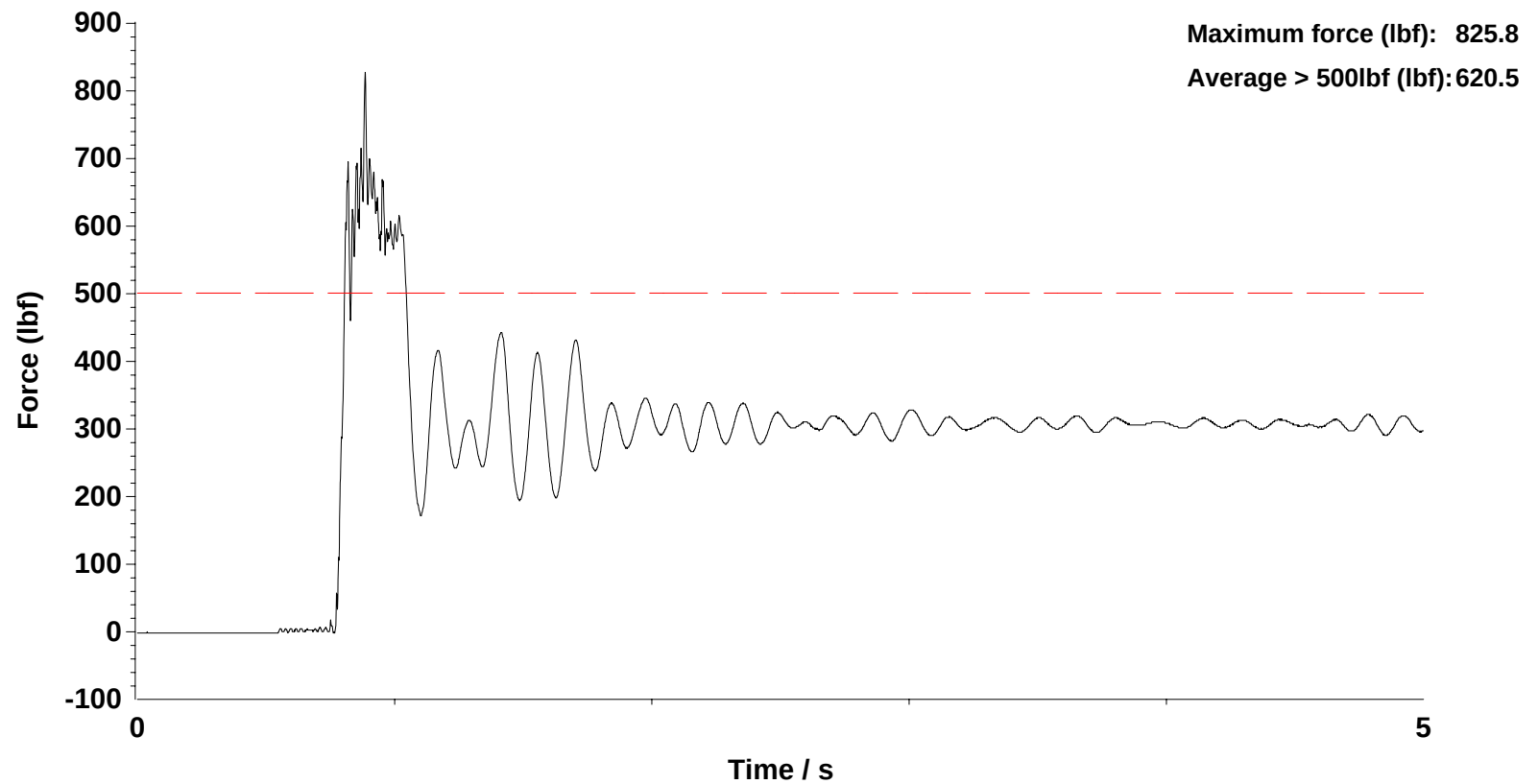
Technician: LJ
Standard: ANSI Z359.14:2021 Self-Retracting lanyard
Sample / File name: 2L23814
Drop item: Test weight, 141 kg
Orientation/Attachment Point: Centre eyebolt
Time and Date of Test: 14:23 25/08/23



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

INSPEC Technical Services

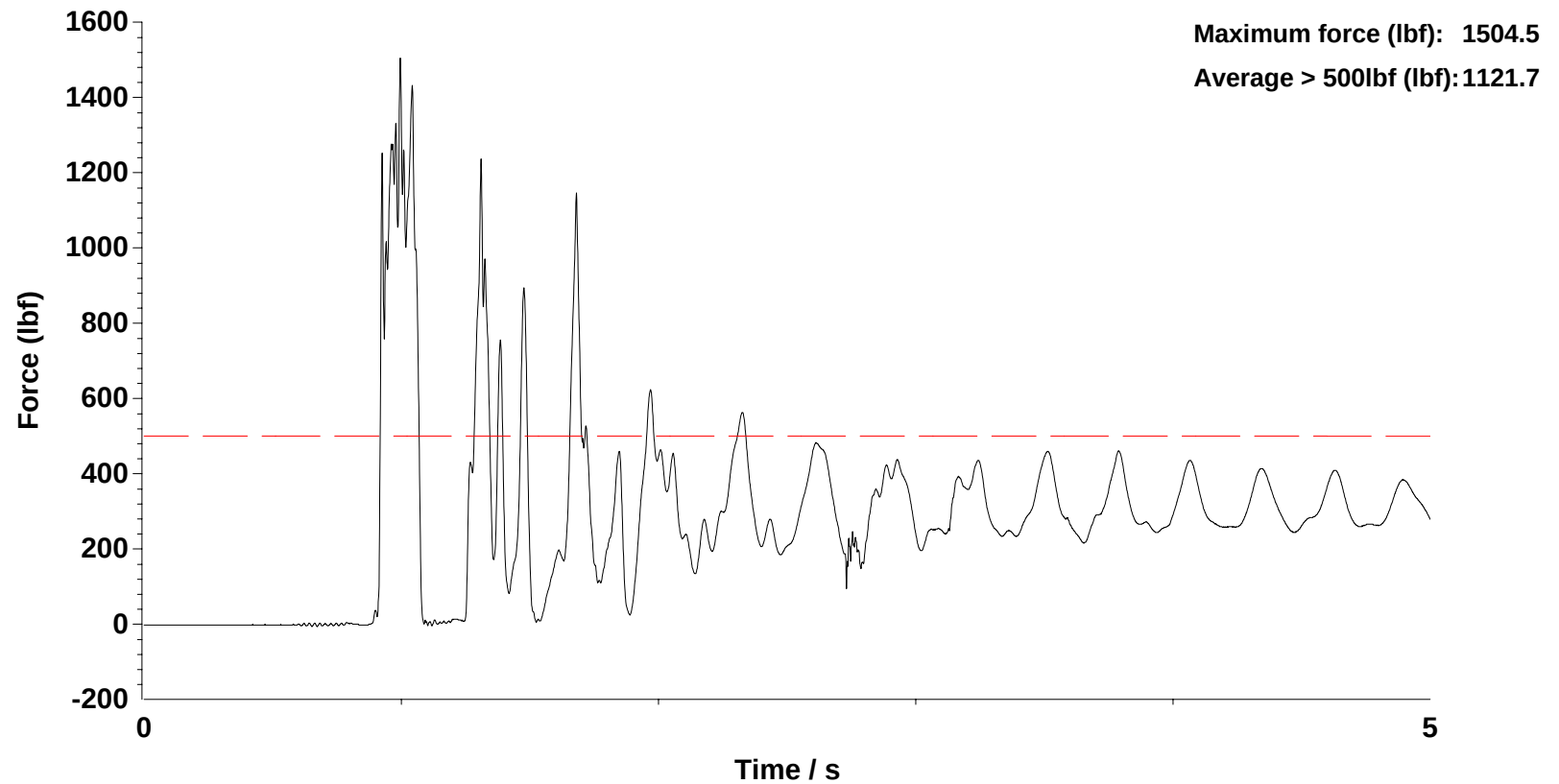
Technician: LJ
Standard: ANSI Z359.14:2021 Self-Retracting lanyard
Sample / File name: 2L23815
Drop item: Test weight, 141 kg
Orientation/Attachment Point: Centre eyebolt
Time and Date of Test: 14:27 25/08/23



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

INSPEC Technical Services

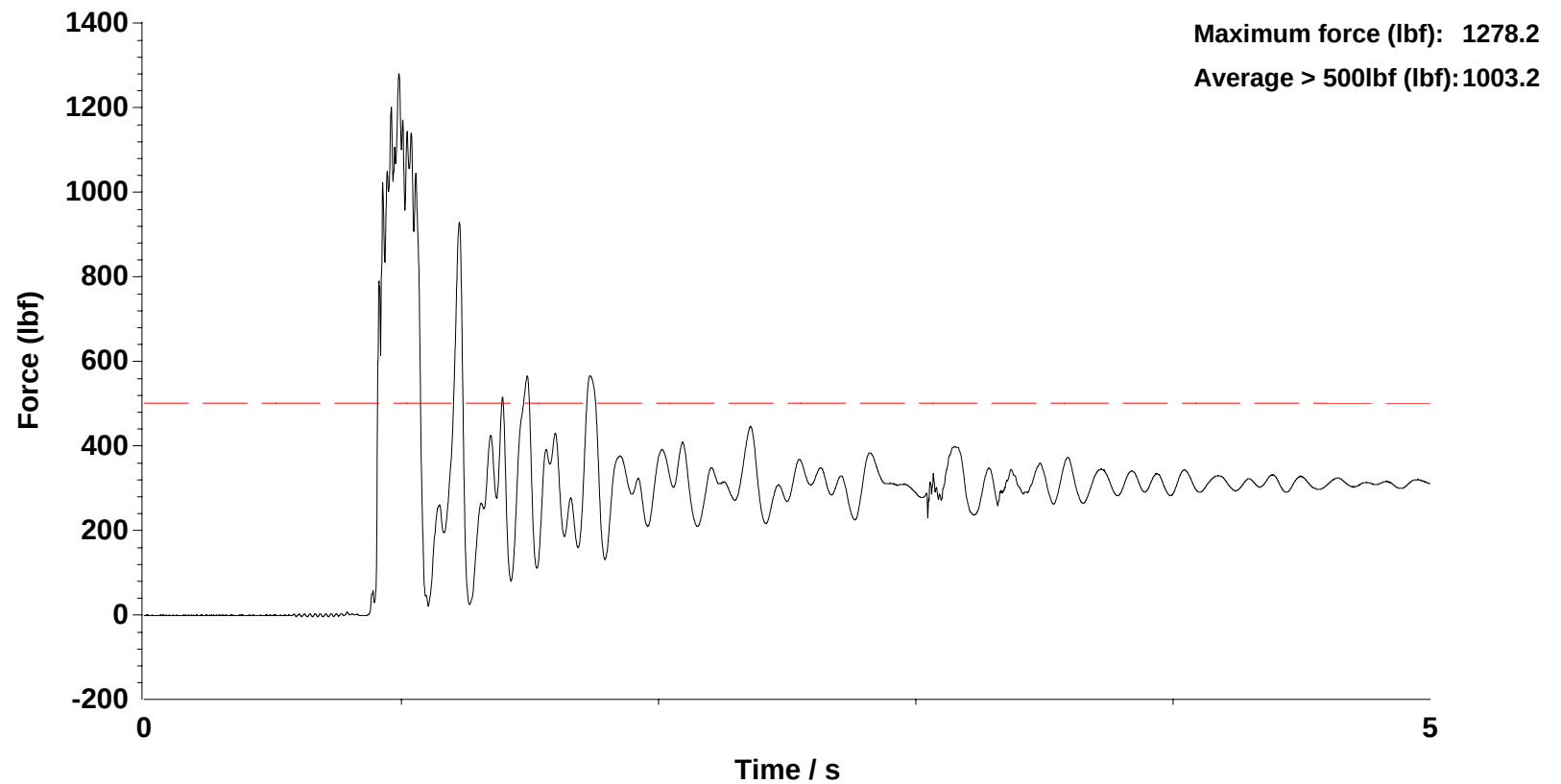
Technician: LJ
Standard ANSI Z359.14:2021 Self-Retracting lanyard
Sample / File name: 2L23822
Drop item Test weight, 141 kg
Orientation/Attachment Point: Centre eyebolt
Time and Date of Test: 11:08 25/08/23



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

INSPEC Technical Services

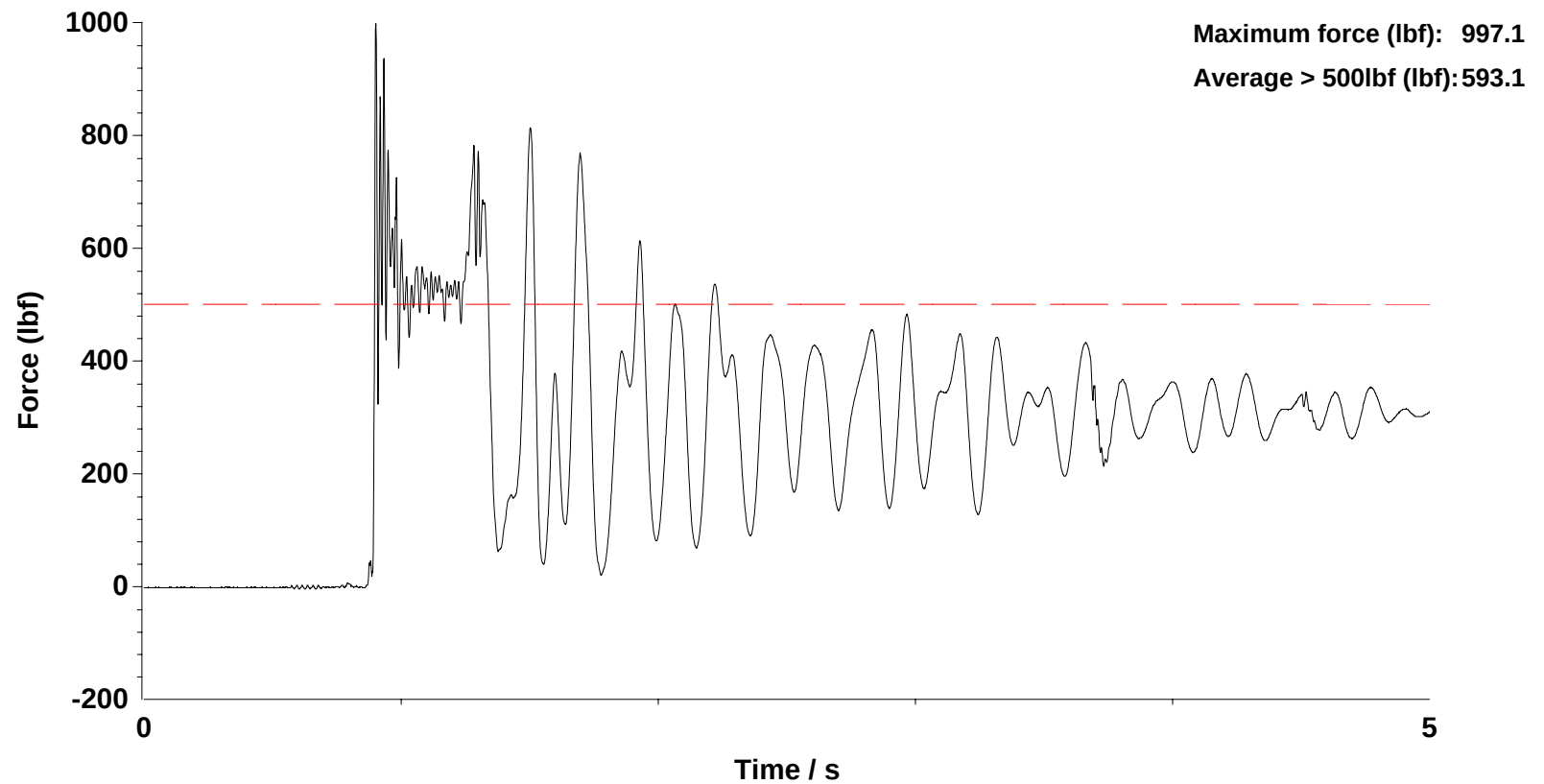
Technician: LJ
Standard: ANSI Z359.14:2021 Self-Retracting lanyard
Sample / File name: 2L23823
Drop item: Test weight, 141 kg
Orientation/Attachment Point: Centre eyebolt
Time and Date of Test: 10:56 25/08/23



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

INSPEC Technical Services

Technician: LJ
Standard ANSI Z359.14:2021 Self-Retracting lanyard
Sample / File name: 2L23824
Drop item Test weight, 141 kg
Orientation/Attachment Point: Centre eyebolt
Time and Date of Test: 10:43 25/08/23



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

Jinhua Jech Tools Co., Ltd. –
Self-Retracting Device, 33 ft, model SRL-D33

