

Test Report

ANSI Z359.3-2019

Lanyards and Positioning Lanyards

Report no: 2.24.08.27

Customer: Frontline Fall protection Inc.
6 Lee Blvd
Malvern
PA 19355
U.S.A

Manufacturer: Frontline Fall protection Inc.
as advised by the Customer

Customer orders: T/0790 and T/1361A

Orders received: 16 Sept. 2020 and 5 July 2024 respectively

Model: LPO61SADJ

Dates of tests: 6 Nov. 2020 to 14 Dec. 2020 and 26 July 2024

Signed:



Steven Sum, Laboratory Manager

Issued: 29 July 2024

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Conditions

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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 ANAB Scope of Accreditation.

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Summary of assessment *

Clause	Requirement	Assessment (See Key)
3.2	Component and Element Requirements	Ltd
3.2.3.1	Hardware elements (ANSI Z359.12)	NAs
3.3	Lanyard and Positioning Lanyard Design Requirements	Ltd
3.4.1	Fixed length lanyards	Breaking strength
3.4.2	Adjustable lanyards	Slippage
		Breaking strength
3.4.3	Lanyards and adjustable lanyards	Dynamic strength
3.5.1	Positioning lanyards	Breaking strength
3.5.2	Adjustable positioning lanyards	Slippage test
		Breaking strength
3.5.3	Positioning lanyards and adjustable positioning lanyards	Dynamic strength
3.5.4	Positioning lanyards	Breaking strength (abraded)
3.5.5	Adjustable positioning lanyard	Breaking strength (abraded)
5.1 / 5.2	Marking Requirements	Ltd
5.3	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.

Submission details

Product	Quantity	Date received	INSPEC specimen no. (2H204+)
Positioning lanyard, model LPO61SADJ	15	10 Sept. 2020	01 to 15

Procedures

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

Testing was performed in accordance with ANSI Z359.3-2019 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**3 Design Requirements****3.2 Component and Element Requirements**

Specimen 2H20401 was assessed.

- | | | |
|---------|---|-------------|
| 3.2.1 | The materials and characteristics of synthetic fibres used in the construction of the positioning lanyard were not assessed. Manufacturer to certify. | NAs |
| 3.2.2 | The specimen was made of webbing. | NAp |
| 3.2.3.1 | Testing of all hardware elements was not requested. | NAs |
| 3.2.3.2 | The positioning lanyard was protected from concentrated wear when in contact with metal connectors. Wear pieces were used. | Pass |

3.3 Lanyard and Positioning Lanyard Design Requirements.

Specimen 2H20401 was assessed.

- | | | |
|---------|---|-------------|
| 3.3.1 | The measured maximum length of the positioning lanyard was 6.0 feet. | |
| 3.3.2 | The specimen was designed in such a manner that the adjustment stopped when the adjuster was released. | Pass |
| 3.3.3 | The end terminations satisfied 3.3.3.2 as appropriate. (See below). | Ltd |
| 3.3.3.1 | This clause is not applicable to the product tested. | NAp |
| 3.3.3.2 | Lock stitching and back stitching used on all stitched terminations were not assessed. Manufacturer to certify. | NAs |
| | The materials and characteristics of threads used were not assessed. Manufacturer to certify. | NAs |
| | Threads used for sewing the positioning lanyard were white colour. This contrasted with the yellow colour of the webbing. | Pass |
| | There were no formed eye terminations, thus no thimbles were used. | NAp |
| | The ends of sewn materials were hot-cut so as to prevent unravelling. | Pass |
| 3.3.3.3 | Swaged terminations - not applicable to the product tested. | NAp |
| 3.3.3.4 | Chain fittings - not applicable to the product tested. | NAp |

3.5 Positioning Lanyard and Adjustable Positioning Lanyard Performance Requirements

Specimens 2H20402, 2H20403 and 2H20404 were assessed.

- 3.5.1 This clause was not applicable to the product tested. **NAp**
- 3.5.2 When tested in accordance with 4.2.3, the specimens maintained their adjusted lengths when loaded to 1,000 pounds force for a period of 1-minute. There were no slippages of the adjusters. **Pass**
- When tested in accordance with 4.2.3, the specimens withstood the tensile tests of 5,000 pounds applied for 1-minute without breaking. **Pass**
- 3.5.3 Specimens 2H20405, 2H20406 and 2H20407 were assessed.
- When tested in accordance with 4.2.4, the specimens withstood the drop tests. The test weight was retained for a period of 1-minute. **Pass**
- 3.5.4 This clause was not applicable to the product tested. **NAp**
- 3.5.5 Specimens 2H20408, 2H20409 and 2H20410 were assessed.
- After abrasion conditioning and tested in accordance with 4.2.3, the specimens withstood the tensile tests of 3,600 pounds applied for 1-minute without breaking. **Pass**

5 Marking and Instructions

5.1 General Marking Requirements

5.1.1 Markings shall be in English. **Pass**

5.1.2 The legibility and attachment of required markings shall endure for the life of the component, subsystem or system being marked, was not assessed. **NAs**

When pressure sensitive labels are used, they shall comply with the applicable provisions of UL 969, *Marking and Labelling Systems*, was not assessed. **NAs**
 Manufacturer to certify.

Markings labels in English were provided electronically and used for assessment.

5.1.3 Except for connectors, lanyards and positioning lanyards shall be marked to identify:

a) year of manufacturer; **Pass**

b) manufacturer's identification; [FRONTLINE] **Pass**

c) part number; **NAs**

d) model designation [LPO61SADJ] **Pass**

e) Serial number; **Pass**

f) standard number; [ANSI Z359.3] **Pass**

g) capacity; [130-310 lbs.] **Pass**

h) purpose; [positioning lanyard] **Pass**

i) the length; [6 feet] **Pass**

j) the material of construction; [polyester] **Pass**

k) the need to make only compatible connections **Pass**

l) warning to follow the manufacturer's instructions included with the equipment at time of shipment from the manufacturer. **Pass**

5.2 Specific Marking Requirements

In addition to the marking requirements of 5.1, lanyards and adjustable positioning shall be marked according to the requirements of this section.

5.2.1 Adjustable positioning lanyards shall be marked with:

"DO NOT USE FOR FALL ARREST" **Pass**

5.3 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.

The manufacturer shall provide user instructions for lanyard and positioning lanyards according to the requirements of this section.

User Instructions were provided electronically and used for assessment.

5.3.1	Instructions were provided in English.	Pass
5.3.2	Instructions shall be affixed to the lanyard and positioning lanyards before the product is shipped from the manufacturer.	NAs
5.3.3	Instructions shall contain the following information:	
a)	a statement that the manufacturer's instructions shall be provided, and available to authorized persons	Pass
b)	manufacturer's name, address, website address and telephone number	Pass
c)	part number	NAp
d)	model designation	Pass
e)	intended use and purpose of the product	Pass
f)	proper method of use and limitation on use of the product	Pass
g)	illustrations showing locations of markings on the product	Pass
h)	reproduction of printed information on all markings	Pass
i)	inspection procedures required to assure the product is in serviceable condition and operating correctly	Pass
j)	anchorage requirements as set forth in ANSI/ASSP Z359.2	Pass
k)	criteria for removing product from service if it fails inspection	Pass
l)	procedures for cleaning, maintenance and storage	Pass
m)	capacity	Pass
n)	space for recording inspection dates	Pass
o)	who is allowed or how repairs or alterations are made to the product	Pass
p)	require that the authorized person be provided a rescue plan and appropriate training before using the equipment where suspension could occur	Pass

5.3.4	Instructions shall contain warnings regarding:	
a)	not to use the lanyards or positioning lanyards for material handling	Pass
b)	altering the product	Pass
c)	misusing the product	Pass
d)	using combinations of components or subsystems, or both, which may affect or interfere with the safe function of each other	Pass
e)	exposing the product to chemicals which may produce a harmful effect and to consult the manufacturer in cases of doubt	Pass
f)	using the product around moving machinery and electrical hazards	Pass
g)	using the product near sharp edges and abrasive surfaces	Pass
h)	the need to make only compatible connections and limitations of compatibility	Pass
i)	proper method of coupling the connector and checking that it is closed and locked	Pass
j)	reading instructions and labels before use	Pass
k)	not removing or altering labels	Pass

Estimates of the uncertainty of measurement

Clause	Test	Uncertainty	
3.2	Component and Element Requirements	Not applicable	
3.2.3	Hardware elements (ANSI Z359.12)	See test report(s)	
3.3	Lanyard and Positioning Lanyard Design Requirements	Not applicable	
3.4.1	Fixed length lanyard	Breaking strength	See Note 1
3.4.2	Adjustable lanyard	Slippage test	±1.4%
		Breaking strength	See Note 1
3.4.3	Lanyards and adjustable lanyards	Dynamic strength	See Note 1
3.5.1	Positioning lanyards	Breaking strength	See Note 1
3.5.2	Adjustable positioning lanyard	Slippage test	±1.4%
		Breaking strength	See Note 1
3.5.3	Positioning lanyards and adjustable positioning lanyards	Dynamic strength	See Note 1
3.5.4	Positioning lanyards	Breaking strength (abraded)	See Note 1
3.5.5	Adjustable positioning lanyard	Breaking strength (abraded)	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 assessments against the pass/fail criteria.

ANNEX

This Annex comprises one section.

1. Photograph of the product tested. (1 page)

END OF REPORT

Frontline Fall Protection Inc. -
Positioning Lanyard, model LPO61SADJ

