

Declaration of Conformity

In Accordance with ANSI/ISEA 125-2014 and ANSI/ASSP Z359.7-2019



Alexander Andrew, Inc. 1306 S. Alameda St Compton, CA 90221 (800) 719-4619

Declaration #

C1116072b

Declaration Date

12/22/2020

Tested Item #

8242YAF

Additional Items Conforming Under this Declaration:

8242Y3AF

8242YL

8242Y3L

8242Y

8242Y3

82424YCAF

Alexander Andrew, Inc. declares that the product(s) listed above is in conformity with the requirements of the following product standard(s):

ANSI Z359.13-2013 & ASTM F887

Conformity Assessment Method in accordance with ANSI/ISEA 125-2014

Level 1

Level 2

Level 3

Level 1: FallTech Lab
Outside the Scope of
ISO/IEC Standard 17025:2005

Level 2: FallTech Lab
Within the Scope of
ISO/IEC Standard 17025:2005

Level 3: Independent 3rd Party Lab
accredited to
ISO/IEC Standard 17025:2005

Supporting
Documentation

PC-2035

K-656009-2009H09-R00

Authorized Signature

Name

Zachary Winters

Title

Engineering Manager

Date

12/22/2020



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FallTech Lab - TL-594
ISO/IEC 17025:2017
Alexander Andrew Inc dba FallTech

FallTech Test Report

Test Report No.	PC-2035	Rpt. Date	10/7/2020	Rpt. Rev		Rev Date	
Report Prepared For	FallTech						
Initiated By	Dan Redden	Test Specification(s)	ANSI Z359.13-2013 4.7, 4.8, 4.9, 4.13.1, 4.13.2, 4.13.3				
Part No.	8242YAF	Part No. Revision	A				
Part Description	6' SAL Y-Legs; Arc Flash w/Snaphooks						
Test Request No.	PC-2035	Date Complete	10/5/2020				
Test Operator(s)	Yesbet Sierra / Jay Sponholz						

Material/Sample Identification

Sample ID	Description
S1*	6' SAL Y-Legs; Arc Flash w/Snaphooks
S2	6' SAL Y-Legs; Arc Flash w/Snaphooks
S3	6' SAL Y-Legs; Arc Flash w/Snaphooks
D1	6' SAL Y-Legs; Arc Flash w/Snaphooks
D2	6' SAL Y-Legs; Arc Flash w/Snaphooks
D3	6' SAL Y-Legs; Arc Flash w/Snaphooks
S1*	6' SAL Y-Legs; Arc Flash w/Snaphooks
S2	6' SAL Y-Legs; Arc Flash w/Snaphooks
S3	6' SAL Y-Legs; Arc Flash w/Snaphooks
D1	6' SAL Y-Legs; Arc Flash w/Snaphooks
D2	6' SAL Y-Legs; Arc Flash w/Snaphooks
D3	6' SAL Y-Legs; Arc Flash w/Snaphooks
W1*	6' SAL Y-Legs; Arc Flash w/Snaphooks
W2	6' SAL Y-Legs; Arc Flash w/Snaphooks
W3	6' SAL Y-Legs; Arc Flash w/Snaphooks
C1	6' SAL Y-Legs; Arc Flash w/Snaphooks
C2	6' SAL Y-Legs; Arc Flash w/Snaphooks
C3	6' SAL Y-Legs; Arc Flash w/Snaphooks
H1	6' SAL Y-Legs; Arc Flash w/Snaphooks
H2	6' SAL Y-Legs; Arc Flash w/Snaphooks
H3*	6' SAL Y-Legs; Arc Flash w/Snaphooks



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Test Request No.	PC-2035			Date Complete	10/5/2020		

Test Summary

Test Specification	Test Criteria		Test Result	Pass/Fail
ANSI Z359.13-2013 4.7.1, 4.7.2	Static Strength	≥ 5000 Lbf	5067.9 Lbf	Pass
	Hold	≥ 1 Minute	1 Minute	Pass
	Static Strength	≥ 5000 Lbf	5030.9 Lbf	Pass
	Hold	≥ 1 Minute	1 Minute	Pass
ANSI Z359.13-2013 4.7.1, 4.7.2	Static Strength	≥ 5000 Lbf	5039.6 Lbf	Pass
	Hold	≥ 1 Minute	1 Minute	Pass
	Static Strength	≥ 5000 Lbf	5027.2 Lbf	Pass
	Hold	≥ 1 Minute	1 Minute	Pass
ANSI Z359.13-2013 4.7.1, 4.7.2	Static Strength	≥ 5000 Lbf	5037.2 Lbf	Pass
	Hold	≥ 1 Minute	1 Minute	Pass
	Static Strength	≥ 5000 Lbf	5031.0 Lbf	Pass
	Hold	≥ 1 Minute	1 Minute	Pass
ANSI Z359.13-2013 4.7.3	Static Strength	≥ 5000 Lbf	5033.3 Lbf	Pass
	Hold	≥ 1 Minute	1 Minute	Pass
ANSI Z359.13-2013 4.7.3	Static Strength	≥ 5000 Lbf	5031.4 Lbf	Pass
	Hold	≥ 1 Minute	1 Minute	Pass
ANSI Z359.13-2013 4.7.3	Static Strength	≥ 5000 Lbf	5037.7 Lbf	Pass
	Hold	≥ 1 Minute	1 Minute	Pass
ANSI Z359.13-2013 4.8	Arrest Distance	≤ 48"	40.2"	Pass
	Max Arrest Force	≤ 1800 Lbf	1237.5 Lbf	Pass
	Avg Arrest Force	≤ 900 Lbf	807.1 Lbf	Pass
ANSI Z359.13-2013 4.8	Arrest Distance	≤ 48"	41.9"	Pass
	Max Arrest Force	≤ 1800 Lbf	1087.4 Lbf	Pass
	Avg Arrest Force	≤ 900 Lbf	774.4 Lbf	Pass
ANSI Z359.13-2013 4.8	Arrest Distance	≤ 48"	42.8"	Pass
	Max Arrest Force	≤ 1800 Lbf	1039.1 Lbf	Pass
	Avg Arrest Force	≤ 900 Lbf	780.3 Lbf	Pass



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Part No.	8242YAF			Part No. Revision	A		
Part Description	6' SAL Y-Legs; Arc Flash w/Snaphooks						
Test Request No.	PC-2035			Date Complete	10/5/2020		

Test Summary (Continued)

Test Specification	Test Criteria		Test Result	Pass/Fail
ANSI Z359.13-2013 4.9	Max Arrest Force	≤ 1800 Lbf	1156.2 Lbf	Pass
ANSI Z359.13-2013 4.9	Max Arrest Force	≤ 1800 Lbf	989.1 Lbf	Pass
ANSI Z359.13-2013 4.9	Max Arrest Force	≤ 1800 Lbf	1070.7 Lbf	Pass
ANSI Z359.13-2013 4.13.1	Arrest Distance	≤ 48"	42.4"	Pass
	Max Arrest Force	≤ 1800 Lbf	984.6 Lbf	Pass
	Avg Arrest Force	≤ 1125 Lbf	778.1 Lbf	Pass
ANSI Z359.13-2013 4.13.1	Arrest Distance	≤ 48"	42.7"	Pass
	Max Arrest Force	≤ 1800 Lbf	954.8 Lbf	Pass
	Avg Arrest Force	≤ 1125 Lbf	777.2 Lbf	Pass
ANSI Z359.13-2013 4.13.1	Arrest Distance	≤ 48"	40.5"	Pass
	Max Arrest Force	≤ 1800 Lbf	986.6 Lbf	Pass
	Avg Arrest Force	≤ 1125 Lbf	770.1 Lbf	Pass
ANSI Z359.13-2013 4.13.2	Arrest Distance	≤ 48"	33.2"	Pass
	Max Arrest Force	≤ 1800 Lbf	1194.9 Lbf	Pass
	Avg Arrest Force	≤ 1125 Lbf	881.9 Lbf	Pass
ANSI Z359.13-2013 4.13.2	Arrest Distance	≤ 48"	34.4"	Pass
	Max Arrest Force	≤ 1800 Lbf	1204.8 Lbf	Pass
	Avg Arrest Force	≤ 1125 Lbf	879.3 Lbf	Pass
ANSI Z359.13-2013 4.13.2	Arrest Distance	≤ 48"	32.2"	Pass
	Max Arrest Force	≤ 1800 Lbf	1203.3 Lbf	Pass
	Avg Arrest Force	≤ 1125 Lbf	889.4 Lbf	Pass



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Part No.	8242YAF	Part No. Revision	A				
Part Description	6' SAL Y-Legs; Arc Flash w/Snaphooks						
Test Request No.	PC-2035	Date Complete	10/5/2020				


Test Summary (Continued)

Test Specification	Test Criteria	Test Result	Pass/Fail	
ANSI Z359.13-2013 4.13.3	Arrest Distance	≤ 48"	45.8"	Pass
	Max Arrest Force	≤ 1800 Lbf	986.4 Lbf	Pass
	Avg Arrest Force	≤ 1125 Lbf	729.6 Lbf	Pass
ANSI Z359.13-2013 4.13.3	Arrest Distance	≤ 48"	46.5"	Pass
	Max Arrest Force	≤ 1800 Lbf	969.1 Lbf	Pass
	Avg Arrest Force	≤ 1125 Lbf	747.5 Lbf	Pass
ANSI Z359.13-2013 4.13.3	Arrest Distance	≤ 48"	46.9"	Pass
	Max Arrest Force	≤ 1800 Lbf	982.4 Lbf	Pass
	Avg Arrest Force	≤ 1125 Lbf	741.3 Lbf	Pass

Conclusion

Based upon the samples provided to the Lab: FallTech P/N 8242YAF Rev. A meets the requirements of ANSI Z359.13-2013 and * ASTM F-887-18.

Report Signatories and Approval

Lab Quality Manager		Date	10/7/2020
Witnessed by	Not Required	Date	N/A



QUALIFICATION TESTING - EXPOSURE TO AN ELECTRIC ARC

Test Specimen:

SHOCK ABSORBING LANYARD, STYLE 8242YAF

Requested by:

FallTech

**1306 S Alameda St
Compton, CA 90221**

Test Standard:

ELECTRIC ARC TESTS: ASTM F887-20

OBSERVATION OF PERSONAL CLIMBING EQUIPMENT EXPOSED TO AN ELECTRIC ARC

Test Report:

K-656009-2009H09-R00

Sample Received 2020-Sep-21	Test Date 2020-Sep-24	Report Date 2020-Oct-29
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Prepared by



Digitally signed
by Robert Ferraz
Date: 2020.10.29
12:33:52 -04'00'

Robert Ferraz
Technologist, HCL
TD Technologies, Kinectrics

Approved by



Claude Maurice
2020.10.29
16:19:27 -04'00'

Claude Maurice
Technical Specialist, HCL
TD Technologies, Kinectrics

For questions about this test report, please contact testing@arcwear.com



Revision History

Rev	Description		
00	Initial report creation		
	Issue Date	Prepared by	Approved by
	2020-Oct-29	Robert Ferraz	Claude Maurice
Rev	Description		
	Issue Date	Prepared by	Verified by

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QUALITY MANAGEMENT

The arc testing performed to the above mentioned Standard is accredited by the Standards Council of Canada (SCC) to conform to the requirements of CAN-P-4E (ISO/IEC 17025:2005). Accreditation by the Standards Council of Canada (SCC) is a mark of competence and reliability

- The test performed does not apply to electrical contact or electrical shock hazard.
- The test result is applicable only to the Test Specimens delivered to Kinectrics, other material, design or color may have a different response.
- It is the clients' responsibility to provide full and accurate information about the items supplied.
- No test is done to validate the fiber content or composition of the test item.
- Photographs of the test specimens and waveforms of the arc current, voltage and calorimeters with the circuit and arc exposure calibration records are available from Kinectrics and provided to the client separately from this report.



1 Test Standard:

Electrical arc test according to ASTM F887-20, Section 22

Standard Specifications for Personal Climbing Equipment, After Exposure to an Electric Arc Evaluation..

1.1 Test Description

Harnesses- The test program requires the specimens be placed on mannequins as normally worn. A minimum of eight samples are tested, four samples with the front facing the arc and four samples with the back side toward the arc. The mannequin is positioned as to have the arc centered on the chest for front facing exposure and centered on the fall arrest attachment for the back facing exposure.

Harness accessories, loops etc. - Three specimens of each accessory or loop are required to be exposed to the arc. These may be attached webbing or other suitable means to allow the item to be held against the mannequin or panel at a distance of 30.5 cm (12 inches).

Energy Absorbing Lanyard - Three specimens of each lanyard are required to be exposed to the arc. These are placed over the shoulder and held against the mannequin or panel at a distance of 30.5 cm (12 inches). Several lanyards may be tested at one time on the same mannequin.

Other effects than the thermal effects of an electric arc like noise, light emissions, pressure rise, hot oil, electric shock, the consequences of physical and mental shock or toxic influences are not covered by this standard.

The test standard requires that the finished personal climbing equipment be exposed to a level of 40 cal/cm² ± 5 cal/cm². In the case where the arc exposure is out of range of the standard, extra samples may be performed if available.

1.2 Acceptance criteria for products exposed to electrical arc:

The procedure outlined in ASTM F887 is followed to verify the electric arc performance of the personal climbing equipment. The product is considered as having passed the visual inspection criteria if the parameters defined in Table 1-1 are met. As proof of performance following the arc exposure, the exposed test specimens shall be subjected to a drop test per ANSI Z359.13 as applicable. This shall be done as soon as practically possible. The samples have been returned to the client as directed to perform the drop test.

Table 1-1: Visual inspection Criteria for Electric Arc Performance of ASTM F887-20

Parameter	Criterion
Arc Energy	Electrical arc exposure of 40 cal/cm ² ± 5 cal/cm ²
Ignition	No electric arc ignition.
After-flame Time	Less than 5 seconds on load bearing materials and less than 15 seconds for accessories or non-load bearing components.
Melting/Dripping	No melting and dripping of molten materials to the floor of any load bearing material. Accessories are allowed to exhibit melting and dripping provided they are not ignited while dripping.



4 Test Results:

An arc exposure is performed on the samples as indicated in the test description, Section 1. The observations are performed by a qualified observer with knowledge of behavior of materials in an arc exposure and expert in arc testing specifications and requirements.

While the minimum number of specimens are tested, additional samples may be tested when the incident energy is out of range. If the conditions and evaluation of the samples meet the criteria in Table 1-1, the product has passed the electrical arc exposure and is candidate for the mechanical drop test to fully meet the arc performance requirements of ASTM F887-20.

Photographs of the samples before and after the arc exposure are shown in Section 6.

Table 4-1: Summary of Test Results

Test Identification	20-5872A- 2 Samples	20-5872B – 2 Samples
Item Serial #	N/A	N/A
Incident Energy, cal/cm ²	40.2	40.4
Afterflame time (s)	1.5	0
Ignition	N	N
Melting and dripping	N	N
Acceptance criteria	Meets	Meets

4.1 Observations:

Moderate charring and embrittlement of the outer layer of webbing was observed on all tested samples. Afterflame was observed on the webbing on mannequin A for less than 5 seconds as described in Table 4-1. There was no evidence of ignition, melting or dripping on any of the samples tested.