

Declaration of Conformity

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

Declaration #: DOC-UFH10700P

Declaration Date: 01/18/2023

Item #: UFH10700P

Description: KStrong® Kapture™ Element Arc Flash Rated 5-Point Full Body Harness, Dorsal D-ring, Mating Buckle Legs and Chest (ANSI)

Brand Name: KStrong

Manufacturer: KStrong

Address: 150 N. Radnor Chester Road, Suite F200, Radnor, PA 19087

Additional Items Conforming Under this Declaration (If Applicable):

UFH10700P(S-L)

UFH10700P(L-XL)

KStrong declares that the product(s) listed above is in conformity with the requirements of the following performance standard(s):

ANSI Z359.11-2021, ASTM F887-20

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



Level 1:

KStrong Lab Outside the Scope of ISO/IEC Standard 17025:2017



Level 2:

KStrong Lab Within the Scope of ISO/IEC Standard 17025:2017



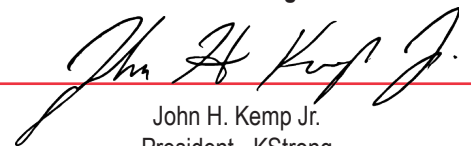
Level 3:

Independent 3rd Party Lab accredited to ISO/IEC Standard 17025:2017

Supporting Documentation: KS-Test-UFH10700P.pdf

This Certificate is a guarantee that the above standard(s) was met by the requirements of such standard. Testing was performed under normal operation mode. The results of testing apply only to the particular sample tested and the specific test carried out. This Certificate is only issued for products which have passed the testing requirements of listed standard(s).

Authorized Signature:



John H. Kemp Jr.
President - KStrong

ISO 17025 Accredited Test Laboratory

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Intertek Testing Services NA, Inc.
3933 US Rt. 11
Cortland, NY 13045
Tel: 1 607-753-6711
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Accrediting Agency



A2LA
5202 Presidents Court, Ste 220
Frederick, MD 21703
Tel: 301.644.3248
info@A2LA.org

Test Verification of Conformity

Verification Number: 105306728CRT-002

On the basis of the referenced test report(s), sample(s) of the below product have been found to comply with the harmonized standards and Directives listed on this verification at the time the tests were carried out. Other standards and Directives may be relevant to the product. This verification is part of the full test report(s) and should be read in conjunction with it(them).

Applicant Name & Address: KStrong INC
150 N. Radnor Chester Rd.
Suite F200
Radnor, PA 19087
USA

Product Description: Full Body Harness After Arc Exposure

Models/Type References: UFH10731P
UFH10700P, UFH10701P, UFH10732P UFH107110P & UFH10711P

Brand Name: KStrong INC

Relevant Standards: ASTM F887 – 2020 Ed.

Verification Issuing Office Name & Address: Intertek Testing Services NA, Inc.
3933 US Rt-11
Cortland, NY 13045
USA

Date of Tests: 10/28/2021

Test Report Number(s): 104685049CRT-001

Signature:



Name:

Matthew Stevens

Position:

Team Leader

Date:

1/18/23



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Test Verification of Conformity

Verification Number: 105306728CRT-004

On the basis of the referenced test report(s), sample(s) of the below product have been found to comply with the harmonized standards and Directives listed on this verification at the time the tests were carried out. Other standards and Directives may be relevant to the product. This verification is part of the full test report(s) and should be read in conjunction with it(them).

Applicant Name & Address: KStrong INC
150 N. Radnor Chester Rd.
Suite F200
Radnor, PA 19087
USA

Product Description: Full Body Harness

Models/Type References: UFH10731P
UFH10700P, UFH10701P, UFH10732P, UFH10710P & UFH10711P

Brand Name: KStrong INC

Relevant Standards: ANSI/ASSP Z359.11-2021

Verification Issuing Office Name & Address: Intertek Testing Services NA, Inc.
3933 US Rt-11
Cortland, NY 13045
USA

Date of Tests: 11/20/18

Test Report Number(s): 104867080CRT-002

Signature:



Name:

Matthew Stevens

Position:

Team Leader

Date:

1/18/23



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KSTRONG INC.

TEST REPORT

SCOPE OF WORKS

ASTM F887-20 Full Body Harness After Arc Exposer

REPORT NUMBER

105306728CRT-001

ORIGINAL REPORT NUMBER

104685049CRT-001

ISSUE DATE

January 18th 2022

PAGES

5

DOCUMENT CONTROL NUMBER

GFT-OP-10a (6-March-2017)

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3933 US Route 11
Cortland, New York ,USA
13045

TEST REPORT FOR: KSTRONG INC

Report No.: 105306728CRT-001

Date: January 18th 2022

Telephone: 607-758-6246

Facsimile: None

www.intertek.com

KStrong Inc
150 N. Radnor Chester Rd
Suite F200, Radnor PA 19087
USA

Report Number..... : 105127347CRT-001

Signed Quote Number..... : Qu-01283439-0

PO Number : None

Name of Testing Laboratory
Preparing the Report : Intertek Testing Services NA Inc.

Test Specification:

Standard..... : ASTM F887-20

Date(s) of Testing..... : 10/28/21

Product Description:

Product Type: : Arc Exposed FBH

Brand Name: : KStrong Inc.

Model Number(s): : UFH10731P

Additional Model Number(s):..... : UFH10700P, UFH10701P, UFH10732P, UFH10710P &
UFH 10711P

Date(s) Samples Received : 9/16/21

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Date: January 18th 2023



SECTION 1

SUMMARY OF TESTING

TESTS COMPLETED	ASTM F887 - 2020	STATUS
Dynamic Performance Post Arc Flash	25.6	PASS

SECTION 2

This test report concludes the work anticipated in the testing phase of your project. If there are any questions regarding this report please contact the undersigned at 607-753-6711.

COMPLETED BY:	Steven Morey	REVIEWED BY:	Matthew Stevens
TITLE:	Technician	TITLE:	Team Leader
SIGNATURE:		SIGNATURE:	
DATE:	7/11/22	DATE:	1/18/23

Please see attached test data for details.

SECTION 3

SUPPLEMENTAL TEST DATA

25.5 Dynamic Performance (Ref. 25.5) SAMPLE 1, "FEET FIRST" * Post Arc Flash			
Sample	Requirements	Notes	Pass/Fail
#1	1. Shall not release from the torso.	YES	PASS
	2. No load bearing element shall break or separate.	YES	PASS
	3. Angle at rest shall not exceed 30 degrees.	2.9°	PASS
	4. Where was the sample Arc Exposed?	Front	PASS
25.5 Dynamic Performance (Ref. 25.5) SAMPLE 2, "HEAD FIRST" * Post Arc Flash			
Sample	Requirements	Notes	Pass/Fail
#2	1. Shall not release from the torso.	YES	PASS
	2. No load bearing element shall break or separate.	YES	PASS
	3. Angle at rest shall not exceed 30 degrees.	3.1°	PASS
	4. Where was the sample Arc Exposed?	Front	PASS
25.5 Dynamic Performance (Ref. 25.5) SAMPLE 3, "FEET FIRST" * Post Arc Flash			
Sample	Requirements	Notes	Pass/Fail
#3	1. Shall not release from the torso.	YES	PASS
	2. No load bearing element shall break or separate.	YES	PASS
	3. Angle at rest shall not exceed 30 degrees.	2.8°	PASS
	4. Where was the sample Arc Exposed?	Back	PASS
25.5 Dynamic Performance (Ref. 25.5) SAMPLE 4, "HEAD FIRST" * Post Arc Flash			
Sample	Requirements	Notes	Pass/Fail
#4	1. Shall not release from the torso.	YES	PASS
	2. No load bearing element shall break or separate.	YES	PASS
	3. Angle at rest shall not exceed 30 degrees.	2.5°	PASS
	4. Where was the sample Arc Exposed?	Back	PASS

SECTION 3

SUPPLEMENTAL TEST DATA (CONTINUED)

25.5 Dynamic Performance (Ref. 25.5) SAMPLE 5, "FEET FIRST" * Post Arc Flash			
Sample	Requirements	Notes	Pass/Fail
#5	1. Shall not release from the torso.	YES	PASS
	2. No load bearing element shall break or separate.	YES	PASS
	3. Angle at rest shall not exceed 30 degrees.	2.1°	PASS
	4. Where was the sample Arc Exposed?	Front	PASS
25.5 Dynamic Performance (Ref. 25.5) SAMPLE 6, "HEAD FIRST" * Post Arc Flash			
Sample	Requirements	Notes	Pass/Fail
#6	1. Shall not release from the torso.	YES	PASS
	2. No load bearing element shall break or separate.	YES	PASS
	3. Angle at rest shall not exceed 30 degrees.	2.9°	PASS
	4. Where was the sample Arc Exposed?	Front	PASS
25.5 Dynamic Performance (Ref. 25.5) SAMPLE 7, "FEET FIRST" * Post Arc Flash			
Sample	Requirements	Notes	Pass/Fail
#7	1. Shall not release from the torso.	YES	PASS
	2. No load bearing element shall break or separate.	YES	PASS
	3. Angle at rest shall not exceed 30 degrees.	2.1°	PASS
	4. Where was the sample Arc Exposed?	Back	PASS
25.5 Dynamic Performance (Ref. 25.5) SAMPLE 8, "HEAD FIRST" *Post Arc Flash			
Sample	Requirements	Notes	Pass/Fail
#8	1. Shall not release from the torso.	YES	PASS
	2. No load bearing element shall break or separate.	YES	PASS
	3. Angle at rest shall not exceed 30 degrees.	2.6°	PASS
	4. Where was the sample Arc Exposed?	Back	PASS

SECTION 4

REVISION HISTORY

REPORT NUMBER	DATE OF REVISION	DESCRIPTION OF CHANGE:	PROJECT OWNER	REVIEWED BY
105127347CRT-001	7/11/22	Report Extension	Steve Morey	Matthew Stevens
105306728CRT-001	1/18/23	Added Model #'s	Steve Morey	Matthew Stevens

KSTRONG INC. TEST REPORT

SCOPE OF WORK

Standard Evaluation to ANSI/ASSP Z359.11-2021 Safety Requirements for Full Body Harnesses

REPORT NUMBER

105306728CRT-003

ORIGINAL REPORT NUMBER

104867080CRT-002

ISSUE DATE

January 18th 2023

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Cortland, NY 13045

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TEST REPORT FOR: KSTRONG INC

Report No.: 105306728CRT-003

Date: January 18th 2023

KStrong INC.
150 N. Radnor Chester Rd.
Suite F200 Radnor, PA 19087
USA

Report Number..... : 105306728CRT-003

Signed Quote Number..... : Qu-01283439-0

PO Number : None

Name of Testing Laboratory
Preparing the Report : Intertek Testing Services NA Inc.

Test Specification:

Standard..... : ANSI/ASSP Z359.11-2021

Date(s) of Testing..... : 11/27/18 – 11/29/18

Product Description..... : Full Body Harness

Product Type: : FBH

Brand Name: : KStrong INC
UFH10731P

Model Number(s): : UFH10700P, UFH10701P, UFH10732P, UFH10710P &
UFH10711P

Date(s) Samples Received : 11/20/18

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Date: January 18th 2023

SECTION 1

SUMMARY OF TESTING

TESTS COMPLETED	ANSI/ASSP Z359.11-2021 CLAUSE	STATUS
Design - 103739898CRT-001	3	PASS
Dynamic Feet First Drop (Dorsal) - 103739898CRT-001	4.3.3	PASS
Dynamic Head First Drop (Dorsal) - 103739898CRT-001	4.3.4	PASS
Dynamic Feet First Drop (Chest D-Ring) - 103739898CRT-001	4.3.3	PASS
Fall Arrest Indicator (Dorsal) - 103739898CRT-001	4.3.6	PASS
Fall Arrest Indicator (Chest D-Ring) - 103739898CRT-001	4.3.6	PASS
Static Feet First - 103739898CRT-001	4.3.5	PASS
Static Feet First (Hip Attachment) - 103739898CRT-001	4.3.5	PASS
Static Feet First (Chest D-Ring) - 103739898CRT-001	4.3.5	PASS
Static Feet First (Lanyard Parking Attachment) - 103739898CRT-001	4.3.7	PASS
Load Bearing Straps - 103739898CRT-001	7.1.1 & 7.1.2	PASS
Markings and Instructions - 103739898CRT-001	5	PASS

SECTION 2

This test report concludes the work anticipated in the testing phase of your project. Original Testing performed to 2014 Edition. Data evaluated to 2021 version as no differences in test procedures. If there are any questions regarding this report, please contact the undersigned at 607-753-6711.

COMPLETED BY:	Steven Morey	REVIEWED BY:	Matthew Stevens
TITLE:	Technician	TITLE:	Team Leader
SIGNATURE:		SIGNATURE:	
DATE:	7/11/22	DATE:	1/18/23

Please see attached test data for details.

Date: January 18th 2023

SECTION 3

TESTING EQUIPMENT CALIBRATION INFORMATION

USED FOR TEST	DESCRIPTION	MANUFACTURER	CONTROL NO.	MODEL NO.	SERIAL NO.	CAL. DATE	CAL. DUE
X	Drop Test Structure	Intertek	NA	CAT. 3	-	N/A	N/A
X	Test Torso	NA	15064	220 lbs	-	VBU	VBU
X	Load Cell	PCB	N1392	-	-	5/23/18	5/23/19
X	Load Cell	PCB	L099	-	-	2/6/18	2/6/19

SECTION 3

SUPPLEMENTAL TEST DATA

Paragraph	Test Description	Results	Compliance
3	Requirements		
3.1	Design Requirements		
3.1.1	Permanently incorporate a dorsal or sternal attachment	YES	PASS
3.1.2	Materials and constructions shall meet requirements	YES	PASS
3.1.3	FBH w/ dorsal attachment shall permanently include a sub-pelvic strap and /or waist belt	YES	PASS
3.1.4	FBH w sternal attachment shall permanently include a waist belt	YES	PASS
3.1.5	All shoulder straps shall come together and be connected at the dorsal location	YES	PASS
3.1.6	All FBH's shall permanently incorporate a waist belt or a back strap for controlling the separation of the shoulder straps	YES	PASS
3.1.7	Modular components shall design requirements	YES	PASS
3.1.7.1	Modular components shall be attached to the harness using connections that meet section 3	YES	PASS
3.1.7.2	Attachment element extender can be no longer than 24-inches	YES	PASS
3.1.8	FBH integrated into a vest shall allow visual inspection or entire FBH	YES	PASS
3.1.9	All FBH shall be equipped with a fall arrest indicator that will deploy during dynamic testing	YES	PASS
3.1.10	FBH/EA/EAL combinations shall meet the requirements of Z359.11 and Z359.13	YES	PASS
3.1.11	FBH shall include keepers for straps	YES	PASS
3.1.12	FBH shall include lanyard parking attachment	YES	PASS
3.1.13	It shall not be possible to remove elements	YES	PASS
3.1.14	All single point attachment elements must be located within 2-inches of the vertical centerline	YES	PASS
3.2	Attachment Element Requirements	YES	PASS
3.2.1	Dorsal- shall be used as the primary fall arrest attachment	YES	PASS
3.2.1.1	May be used in travel restraint or rescue	YES	PASS
3.2.1.2	Dorsal attachment shall direct the load through the shoulder straps and around the thighs	YES	PASS
3.2.1.3	Dorsal Attachment Element requirements	YES	PASS

TEST REPORT FOR KSTRONG INC

Report No.: 105306728CRT-003

Date: January 18th 2023

Paragraph	Test Description	Results	Compliance
3.2.1.3.1	Dynamic Feet First- see section 4.3.3	YES	PASS
3.2.1.3.2	Dynamic Head First – see section 4.3.4	YES	PASS
3.2.1.3.3	Static Feet First- see section 4.3.5	YES	PASS
3.2.1.3.4	Fall Arrest Indicator – see section 4.3.6	YES	PASS
3.2.2	The sternal attachment may be used as an alternative fall arrest attachment	YES	PASS
3.2.2.1	The sternal attachment may be used for travel restraint or rescue	YES	PASS
3.2.2.2	Sternal attachment design shall direct the load through the shoulder straps and thighs	YES	PASS
3.2.2.3	Sternal Attachment Element Requirements	YES	PASS
3.2.2.3.1	Dynamic Feet First – see section 4.3.3	YES	PASS
3.2.2.3.2	Static Feet First – see section 4.3.5	YES	PASS
3.2.2.3.3	Fall Arrest Indicator – see section 4.3.6	YES	PASS
3.2.3	Frontal attachment to be used for ladder guided type FA’s where no chance of fall in a feet first direction (may be used for work positioning)		NA
3.2.3.1	Frontal Attachment Element Requirements	YES	PASS
3.2.3.1.1	Dynamic Feet First – see section 4.3.3	YES	PASS
3.2.3.1.2	Static Feet First – see section 4.3.5	YES	PASS
3.2.4	Shoulder attachments shall be used as a pair, also for rescue and entry/retrieval not for FA.	YES	PASS
3.2.4.1	Shoulder Attachment Elements Requirements	YES	PASS
3.2.4.1.1	Static Feet First – see section 4.3.5	YES	PASS
3.2.5	Waist, rear attachment for travel restraint only	YES	PASS
3.2.5.1	Waist, rear attachment shall be subjected to minimal loading, not used for FA	YES	PASS
3.2.5.2	Waist Attachment Elements Requirements	YES	PASS
3.2.5.2.1	Static Feet First – see section 4.3.5	YES	PASS
3.2.6	Hip attachments shall be used as a pair and solely for work positioning, not used for FA	YES	PASS
3.2.6.1	Hip Attachment Element Performance Requirements	YES	PASS
3.2.6.1.1	Static Feet First – see section 4.3.5	YES	PASS
3.2.7	Suspension seat shall be used as a pair and solely for work positioning, not used for FA		NA
3.2.7.1	Suspension Seat Attachment Element Performance Requirements		NA
3.2.7.1.1	Static Feet First – see section 4.3.5	YES	PASS
3.3	Component Requirements	YES	PASS
3.3.1	Load Bearing Straps	YES	PASS
3.3.1.1	Shall not be less than 1-5/8” (41mm)	YES	PASS
3.3.1.2	Minimum breaking strength of 5,000 lbs per section 7.1.1	YES	PASS
3.3.1.3	Straps shall be pure, non-recycled synthetic material. Any restrictions shall be marked on the FBH	YES	PASS
3.3.1.4	Straps shall be hot cut, sealed, covered, or stitched to prevent fraying	YES	PASS

Paragraph	Test Description	Results			Compliance																																																				
3.3.1.5	After abrasion conditioning per 7.1.2, straps shall have a breaking strength of at least 3,600 lbs when tested to 7.1.1		YES		PASS																																																				
3.3.1.6	In areas of concentrated wear straps shall be protected		YES		PASS																																																				
3.3.1.7	Spacing between eyelets centers shall be between 1-1/8- 2 inches		YES		PASS																																																				
3.3.2	Thread and Stitching		YES		PASS																																																				
3.3.2.1	Shall have the same material as load bearing straps		YES		PASS																																																				
3.3.2.2	All stitching shall be lock stitched and backstitched		YES		PASS																																																				
3.3.2.3	All stitching used to connect load bearing members shall be contrasting in color at a distance of 12-inches		YES		PASS																																																				
3.3.3	Connecting Components		YES		PASS																																																				
3.3.3.1	Hardware shall conform to Z359.12 (except soft loops)		YES		PASS																																																				
3.3.3.2	Soft loops attachments may be used in place of metal connecting components		YES		PASS																																																				
3.3.3.3	Soft loop attachments shall be constructed of materials that meet section 3.3.1			NA	NA																																																				
3.3.3.4	Soft loops shall include protection from wear			NA	NA																																																				
4	Qualification Testing																																																								
“DORSAL ATTACHMENT”																																																									
4.3.3	<p>Dynamic Feet First Drop Test:</p> <p><u>Test Set-up (Dorsal):</u></p> <ol style="list-style-type: none"> Don the harness on the test torso Position dorsal attachment per the Mfg Instructions. If equipped with chest strap (section 4.3.2), locate strap +/-2 inches on torso from datum E figure 5 and 1b of standard Determine drop height, attach quick release to the torso neck, lower torso to remove slack, measure height (lowest point of torso to floor) Raise torso to predetermined height, release, measure MAF, measure and record final height 	<table border="1"> <thead> <tr> <th colspan="4">Feet First DORSAL Attachment Requirements per Section 3.2.1.3.1</th> </tr> </thead> <tbody> <tr> <td>Sample ID:</td> <td colspan="3">1</td> </tr> <tr> <td>Location of Dorsal Attachment Element</td> <td>8</td> <td colspan="2">inches</td> </tr> <tr> <td>Drop Height</td> <td>4</td> <td colspan="2">ft</td> </tr> <tr> <td>Max Arrest Force</td> <td>5334</td> <td colspan="2">lbs</td> </tr> <tr> <td>Hi- initial height</td> <td>98</td> <td colspan="2">inches</td> </tr> <tr> <td>Hf- final height</td> <td>105</td> <td colspan="2">inches</td> </tr> <tr> <td>He – Harness Effect (Hi-Hf)</td> <td>7</td> <td colspan="2">inches</td> </tr> <tr> <td colspan="4">Harness effect shall not exceed 18-inches or which is stated in the Mfg. Instructions, whichever is less. Stated: -inches</td> </tr> <tr> <td>Release from the torso</td> <td></td> <td colspan="2">no</td> </tr> <tr> <td>Support the torso for a period of 5-minutes post fall</td> <td>yes</td> <td colspan="2"></td> </tr> <tr> <td>Shall support the torso post fall of an angle not greater than 30° to vertical</td> <td>yes</td> <td colspan="2">2.4°</td> </tr> <tr> <td>At least one fall arrest indicator deployed visibly and permanently</td> <td>yes</td> <td colspan="2"></td> </tr> </tbody> </table> <p>103739898CRT-001 Data</p>			Feet First DORSAL Attachment Requirements per Section 3.2.1.3.1				Sample ID:	1			Location of Dorsal Attachment Element	8	inches		Drop Height	4	ft		Max Arrest Force	5334	lbs		Hi- initial height	98	inches		Hf- final height	105	inches		He – Harness Effect (Hi-Hf)	7	inches		Harness effect shall not exceed 18-inches or which is stated in the Mfg. Instructions, whichever is less. Stated: -inches				Release from the torso		no		Support the torso for a period of 5-minutes post fall	yes			Shall support the torso post fall of an angle not greater than 30° to vertical	yes	2.4°		At least one fall arrest indicator deployed visibly and permanently	yes			PASS
Feet First DORSAL Attachment Requirements per Section 3.2.1.3.1																																																									
Sample ID:	1																																																								
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4.3.4	<p>Dynamic Head First Drop Test:</p> <p><u>Test Set-up (Dorsal):</u></p> <ol style="list-style-type: none"> 1. Don the harness on the test torso 2. Position dorsal attachment bearing point 8 +/- 1 inch below the top of the shoulder (or maximum lowest position) 3. If equipped with chest strap (section 4.3.2), locate strap +/-2 inches on torso from datum E figure 5 and 1b of standard 4. Attach quick release to the torso crotch, lower torso to remove slack 5. Raise torso to predetermined height, release, measure MAF 	<table border="1"> <thead> <tr> <th colspan="3">Head First DORSAL Attachment Requirements per Section 3.2.1.3.2</th> </tr> </thead> <tbody> <tr> <td>Sample ID:</td> <td colspan="2">1</td> </tr> <tr> <td>Location of Dorsal Attachment Element</td> <td>8</td> <td>inches</td> </tr> <tr> <td>Drop Height</td> <td>8</td> <td>ft</td> </tr> <tr> <td>Max Arrest Force</td> <td>4942</td> <td>lbs</td> </tr> <tr> <td>Release from the torso</td> <td></td> <td>no</td> </tr> <tr> <td>Support the torso for a period of 5-minutes post fall</td> <td>yes</td> <td></td> </tr> <tr> <td>Shall support the torso post fall of an angle not greater than 30° to vertical</td> <td>yes</td> <td>4.1°</td> </tr> <tr> <td>At least one fall arrest indicator deployed visibly and permanently</td> <td>yes</td> <td></td> </tr> </tbody> </table> <p>103739898CRT-001 Data</p>	Head First DORSAL Attachment Requirements per Section 3.2.1.3.2			Sample ID:	1		Location of Dorsal Attachment Element	8	inches	Drop Height	8	ft	Max Arrest Force	4942	lbs	Release from the torso		no	Support the torso for a period of 5-minutes post fall	yes		Shall support the torso post fall of an angle not greater than 30° to vertical	yes	4.1°	At least one fall arrest indicator deployed visibly and permanently	yes		PASS
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4.3.5	<p>Static Feet First Test:</p> <p><u>Test Set-up (Dorsal):</u></p> <ol style="list-style-type: none"> 1. Don the harness on the test torso 2. Secure crotch of test torso to test equipment 3. connect to attachment element 4. mark locations of buckles and adjusters 5. apply 3,600 lb load and maintain for 1-minute 6. Release load and evaluate sample 	<table border="1"> <thead> <tr> <th colspan="3">Feet First DORSAL Attachment Requirements per Section 3.2.1.3.3</th> </tr> </thead> <tbody> <tr> <td>Sample ID:</td> <td colspan="2">1,2,3</td> </tr> <tr> <td>Release from the torso</td> <td></td> <td>no</td> </tr> <tr> <td>Slippage – Crotch Strap Adjuster, Right</td> <td>0</td> <td>inches</td> </tr> <tr> <td>Slippage – Crotch Strap Adjuster, Left</td> <td>0</td> <td>inches</td> </tr> <tr> <td>Slippage – Chest Strap Adjuster, Center</td> <td>0</td> <td>inches</td> </tr> <tr> <td>Slippage – Chest Strap Adjuster, Right</td> <td>0</td> <td>inches</td> </tr> <tr> <td>Slippage – Chest Strap Adjuster, Left</td> <td>0</td> <td>inches</td> </tr> <tr> <td>Slippage – Other</td> <td>na</td> <td>inches</td> </tr> <tr> <td>Slippage – Other</td> <td>na</td> <td>inches</td> </tr> <tr> <td>Strap tear further than adjacent eyelet adjuster</td> <td></td> <td>na</td> </tr> <tr> <td>Straps shall show no signs of tearing</td> <td>yes</td> <td></td> </tr> </tbody> </table> <p>“Slippage through any adjuster shall not exceed 1-inch”</p> <p>103739898CRT-001 Data</p>	Feet First DORSAL Attachment Requirements per Section 3.2.1.3.3			Sample ID:	1,2,3		Release from the torso		no	Slippage – Crotch Strap Adjuster, Right	0	inches	Slippage – Crotch Strap Adjuster, Left	0	inches	Slippage – Chest Strap Adjuster, Center	0	inches	Slippage – Chest Strap Adjuster, Right	0	inches	Slippage – Chest Strap Adjuster, Left	0	inches	Slippage – Other	na	inches	Slippage – Other	na	inches	Strap tear further than adjacent eyelet adjuster		na	Straps shall show no signs of tearing	yes		PASS			
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4.3.6	<p>Fall Arrest Indicator Test:</p> <p><u>Test Set-up (Dorsal):</u></p> <ol style="list-style-type: none"> 1. Don the harness on the test torso 2. Position dorsal attachment per the Mfg Instructions. 3. Attach quick release to the neck of the test torso 4. Attach a Z359.13 compliant 6-foot EAL to the test anchorage 5. lower torso until test shackles are straight but no load 6. raise torso 24-inches 	<table border="1"> <thead> <tr> <th colspan="2">DORSAL Attachment Requirements per Section 3.2.1.3.4</th> </tr> </thead> <tbody> <tr> <td>Sample ID:</td> <td>1,2,3</td> </tr> <tr> <td>At least one fall arrest indicator shall deploy visibly and permanently</td> <td>Yes</td> </tr> </tbody> </table> <p>103739898CRT-001 Data</p>	DORSAL Attachment Requirements per Section 3.2.1.3.4		Sample ID:	1,2,3	At least one fall arrest indicator shall deploy visibly and permanently	Yes	PASS																																	
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4.3.3	<p>Dynamic Feet First Drop Test:</p> <p><u>Test Set-up (Chest):</u></p> <ol style="list-style-type: none"> 1. Don the harness on the test torso 2. Position dorsal attachment per the Mfg Instructions. 3. If equipped with chest strap (section 4.3.2), locate strap +/-2 inches on torso from datum E figure 5 and 1b of standard 4. Determine drop height, attach quick release to the torso neck, lower torso to remove slack, measure height (lowest point of torso to floor) 5. Raise torso to predetermined height, release, measure MAF, measure and record final height 	<table border="1"> <thead> <tr> <th colspan="3">Feet First CHEST D-RING Attachment Requirements per Section 3.2.2.3.1</th> </tr> </thead> <tbody> <tr> <td>Sample ID:</td> <td colspan="2">1</td> </tr> <tr> <td>Location of Sternal Attachment Element</td> <td>8</td> <td>inches</td> </tr> <tr> <td>Drop Height</td> <td>4</td> <td>ft</td> </tr> <tr> <td>Max Arrest Force</td> <td>4643</td> <td>lbs</td> </tr> <tr> <td>Hi- initial height</td> <td>101</td> <td>inches</td> </tr> <tr> <td>Hf- final height</td> <td>115</td> <td>inches</td> </tr> <tr> <td>He – Harness Effect (Hi-Hf)</td> <td>14</td> <td>inches</td> </tr> <tr> <td>Harness effect shall not exceed 18-inches or which is stated in the Mfg. Instructions, whichever is less. Stated: -inches</td> <td>14</td> <td>inches</td> </tr> <tr> <td>Release from the torso</td> <td></td> <td>no</td> </tr> <tr> <td>Support the torso for a period of 5-minutes post fall</td> <td>yes</td> <td></td> </tr> <tr> <td>Shall support the torso post fall of an angle not greater than 50° to vertical</td> <td>yes</td> <td>14.7°</td> </tr> <tr> <td>At least one fall arrest indicator deployed visibly and permanently</td> <td>yes</td> <td></td> </tr> </tbody> </table> <p>103739898CRT-001 Data</p>	Feet First CHEST D-RING Attachment Requirements per Section 3.2.2.3.1			Sample ID:	1		Location of Sternal Attachment Element	8	inches	Drop Height	4	ft	Max Arrest Force	4643	lbs	Hi- initial height	101	inches	Hf- final height	115	inches	He – Harness Effect (Hi-Hf)	14	inches	Harness effect shall not exceed 18-inches or which is stated in the Mfg. Instructions, whichever is less. Stated: -inches	14	inches	Release from the torso		no	Support the torso for a period of 5-minutes post fall	yes		Shall support the torso post fall of an angle not greater than 50° to vertical	yes	14.7°	At least one fall arrest indicator deployed visibly and permanently	yes		PASS
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He – Harness Effect (Hi-Hf)	12	inches																																								
Harness effect shall not exceed 18-inches or which is stated in the Mfg. Instructions, whichever is less. Stated:	12	inches																																								
Release from the torso		no																																								
Support the torso for a period of 5-minutes post fall	yes																																									
Shall support the torso post fall of an angle not greater than 50° to vertical	yes	18.4°																																								
At least one fall arrest indicator deployed visibly and permanently	yes																																									
4.3.3	<p>Dynamic Feet First Drop Test:</p> <p><u>Test Set-up (Sternal):</u></p> <ol style="list-style-type: none"> Don the harness on the test torso Position dorsal attachment per the Mfg Instructions. If equipped with chest strap (section 4.3.2), locate strap +/-2 inches on torso from datum E figure 5 and 1b of standard Determine drop height, attach quick release to the torso neck, lower torso to remove slack, measure height (lowest point of torso to floor) Raise torso to predetermined height, release, measure MAF, measure and record final height 	<table border="1"> <thead> <tr> <th colspan="3">Feet First CHEST D-RING Attachment Requirements per Section 3.2.2.3.1</th> </tr> </thead> <tbody> <tr> <td>Sample ID:</td> <td colspan="2">3</td> </tr> <tr> <td>Location of Sternal Attachment Element</td> <td>8</td> <td>inches</td> </tr> <tr> <td>Drop Height</td> <td>4</td> <td>ft</td> </tr> <tr> <td>Max Arrest Force</td> <td>4518</td> <td>lbs</td> </tr> <tr> <td>Hi- initial height</td> <td>101</td> <td>inches</td> </tr> <tr> <td>Hf- final height</td> <td>116</td> <td>inches</td> </tr> <tr> <td>He – Harness Effect (Hi-Hf)</td> <td>15</td> <td>inches</td> </tr> <tr> <td>Harness effect shall not exceed 18-inches or which is stated in the Mfg. Instructions, whichever is less. Stated:</td> <td>15</td> <td>inches</td> </tr> <tr> <td>Release from the torso</td> <td></td> <td>no</td> </tr> <tr> <td>Support the torso for a period of 5-minutes post fall</td> <td>yes</td> <td></td> </tr> <tr> <td>Shall support the torso post fall of an angle not greater than 50° to vertical</td> <td>yes</td> <td>12.7°</td> </tr> <tr> <td>At least one fall arrest indicator deployed visibly and permanently</td> <td>yes</td> <td></td> </tr> </tbody> </table> <p>103739898CRT-001 Data</p>	Feet First CHEST D-RING Attachment Requirements per Section 3.2.2.3.1			Sample ID:	3		Location of Sternal Attachment Element	8	inches	Drop Height	4	ft	Max Arrest Force	4518	lbs	Hi- initial height	101	inches	Hf- final height	116	inches	He – Harness Effect (Hi-Hf)	15	inches	Harness effect shall not exceed 18-inches or which is stated in the Mfg. Instructions, whichever is less. Stated:	15	inches	Release from the torso		no	Support the torso for a period of 5-minutes post fall	yes		Shall support the torso post fall of an angle not greater than 50° to vertical	yes	12.7°	At least one fall arrest indicator deployed visibly and permanently	yes		PASS
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4.3.5	<p>Static Feet First Test:</p> <p><u>Test Set-up (Sternal):</u></p> <ol style="list-style-type: none"> Don the harness on the test torso Secure crotch of test torso to test equipment connect to attachment element mark locations of buckles and adjusters apply 3,600 lb load and maintain for 1-minute Release load and evaluate sample 	<table border="1"> <thead> <tr> <th colspan="3">Feet First CHEST D-RING Attachment Requirements per Section 3.2.2.3.2</th> </tr> </thead> <tbody> <tr> <td>Sample ID:</td> <td colspan="2"></td> </tr> <tr> <td>Release from the torso</td> <td></td> <td>no</td> </tr> <tr> <td>Slippage – Crotch Strap Adjuster, Right</td> <td>0</td> <td>inches</td> </tr> <tr> <td>Slippage – Crotch Strap Adjuster, Left</td> <td>0</td> <td>inches</td> </tr> <tr> <td>Slippage – Chest Strap Adjuster, Center</td> <td>0</td> <td>inches</td> </tr> <tr> <td>Slippage – Chest Strap Adjuster, Right</td> <td>0</td> <td>inches</td> </tr> <tr> <td>Slippage – Chest Strap Adjuster, Left</td> <td>0</td> <td>inches</td> </tr> <tr> <td>Slippage – Other</td> <td>na</td> <td>inches</td> </tr> <tr> <td>Slippage – Other</td> <td>na</td> <td>inches</td> </tr> <tr> <td>Strap tear further than adjacent eyelet adjuster</td> <td></td> <td>na</td> </tr> <tr> <td>Straps shall show no signs of tearing</td> <td>yes</td> <td>no</td> </tr> </tbody> </table>	Feet First CHEST D-RING Attachment Requirements per Section 3.2.2.3.2			Sample ID:			Release from the torso		no	Slippage – Crotch Strap Adjuster, Right	0	inches	Slippage – Crotch Strap Adjuster, Left	0	inches	Slippage – Chest Strap Adjuster, Center	0	inches	Slippage – Chest Strap Adjuster, Right	0	inches	Slippage – Chest Strap Adjuster, Left	0	inches	Slippage – Other	na	inches	Slippage – Other	na	inches	Strap tear further than adjacent eyelet adjuster		na	Straps shall show no signs of tearing	yes	no	PASS			
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Paragraph	Test Description	Results	Compliance																																				
4.3.6	<p>Fall Arrest Indicator Test:</p> <p><u>Test Set-up (Chest):</u></p> <ol style="list-style-type: none"> 1. Don the harness on the test torso 2. Position dorsal attachment per the Mfg Instructions. 3. Attach quick release to the neck of the test torso 4. Attach a Z359.13 compliant 6-foot EAL to the test anchorage 5. lower torso until test shackles are straight but no load 6. raise torso 24-inches 7. release and evaluate sample 	<table border="1"> <tr> <td colspan="3">CHEST D-RING Attachment Requirements per Section 3.2.1.3.4</td> </tr> <tr> <td>Sample ID:</td> <td colspan="2">1,2,3</td> </tr> <tr> <td>At least one fall arrest indicator shall deploy visibly and permanently</td> <td colspan="2">Yes</td> </tr> </table> <p>103739898CRT-001 Data</p>	CHEST D-RING Attachment Requirements per Section 3.2.1.3.4			Sample ID:	1,2,3		At least one fall arrest indicator shall deploy visibly and permanently	Yes		PASS																											
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At least one fall arrest indicator shall deploy visibly and permanently	Yes																																						
“HIP ATTACHMENT”																																							
4.3.5	<p>Static Feet First Test:</p> <p><u>Test Set-up (Hip):</u></p> <ol style="list-style-type: none"> 1. Don the harness on the test torso 2. Secure crotch of test torso to test equipment 3. connect to attachment element 4. mark locations of buckles and adjusters 5. apply 3,600 lb load and maintain for 1-minute 6. Release load and evaluate sample 	<table border="1"> <tr> <td colspan="3">Feet First HIP Attachment Requirements per Section 3.2.6.1.1</td> </tr> <tr> <td>Sample ID:</td> <td colspan="2">1,2,3</td> </tr> <tr> <td>Release from the torso</td> <td></td> <td>no</td> </tr> <tr> <td>Slippage – Crotch Strap Adjuster, Right</td> <td>0</td> <td>inches</td> </tr> <tr> <td>Slippage – Crotch Strap Adjuster, Left</td> <td>0</td> <td>inches</td> </tr> <tr> <td>Slippage – Chest Strap Adjuster, Center</td> <td>0</td> <td>inches</td> </tr> <tr> <td>Slippage – Chest Strap Adjuster, Right</td> <td>0</td> <td>inches</td> </tr> <tr> <td>Slippage – Chest Strap Adjuster, Left</td> <td>0</td> <td>inches</td> </tr> <tr> <td>Slippage – Other</td> <td>na</td> <td>inches</td> </tr> <tr> <td>Slippage – Other</td> <td>na</td> <td>inches</td> </tr> <tr> <td>Strap tear further than adjacent eyelet adjuster</td> <td></td> <td>na</td> </tr> <tr> <td>Straps shall show no signs of tearing</td> <td>yes</td> <td></td> </tr> </table> <p>“Slippage through any adjuster shall not exceed 1-inch”</p> <p>103739898CRT-001 Data</p>	Feet First HIP Attachment Requirements per Section 3.2.6.1.1			Sample ID:	1,2,3		Release from the torso		no	Slippage – Crotch Strap Adjuster, Right	0	inches	Slippage – Crotch Strap Adjuster, Left	0	inches	Slippage – Chest Strap Adjuster, Center	0	inches	Slippage – Chest Strap Adjuster, Right	0	inches	Slippage – Chest Strap Adjuster, Left	0	inches	Slippage – Other	na	inches	Slippage – Other	na	inches	Strap tear further than adjacent eyelet adjuster		na	Straps shall show no signs of tearing	yes		PASS
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“STATIC FEET FIRST TEST FOR LANYARD PARKING ATTACHMENT ELEMENT”																																							
4.3.7	<p>Static Feet First Test:</p> <p><u>Test Set-up:</u></p> <ol style="list-style-type: none"> 1. Don the harness on the test torso 2. Secure crotch of test torso to test equipment 3. connect to attachment element 4. apply steady load until connection between lanyard parking attachment and test lanyard separate 6. Record maximum force applied 	<table border="1"> <tr> <td colspan="3">Static Feet First Requirements per Section 3.1.12</td> </tr> <tr> <td>Sample ID:</td> <td colspan="2">1</td> </tr> <tr> <td>Maximum disengagement load</td> <td>81.7</td> <td>lbs</td> </tr> <tr> <td>Load exceed 120 lbs</td> <td colspan="2">no</td> </tr> </table> <table border="1"> <tr> <td colspan="3">Static Feet First Requirements per Section 3.1.12</td> </tr> <tr> <td>Sample ID:</td> <td colspan="2">2</td> </tr> <tr> <td>Maximum disengagement load</td> <td>68.3</td> <td>lbs</td> </tr> <tr> <td>Load exceed 120 lbs</td> <td colspan="2">no</td> </tr> </table> <table border="1"> <tr> <td colspan="3">Static Feet First Requirements per Section 3.1.12</td> </tr> <tr> <td>Sample ID:</td> <td colspan="2">3</td> </tr> <tr> <td>Maximum disengagement load</td> <td>70.9</td> <td>lbs</td> </tr> <tr> <td>Load exceed 120 lbs</td> <td colspan="2">no</td> </tr> </table> <p>103739898CRT-001 Data</p>	Static Feet First Requirements per Section 3.1.12			Sample ID:	1		Maximum disengagement load	81.7	lbs	Load exceed 120 lbs	no		Static Feet First Requirements per Section 3.1.12			Sample ID:	2		Maximum disengagement load	68.3	lbs	Load exceed 120 lbs	no		Static Feet First Requirements per Section 3.1.12			Sample ID:	3		Maximum disengagement load	70.9	lbs	Load exceed 120 lbs	no		PASS
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7.1.1, 7.1.2	<p>Load Bearing Strap Test:</p> <p>Tensile Test: 1. attach straps to drums and test per section 7.1.1 2. shall meet 5,000 lb-f breaking strength</p> <p>Abrasion Test: 1. attach and test straps with the abrasion tester per section 7.1.2 2. Tensile test following abrasion test 3. shall meet 3,600 lb-f breaking strength</p>	<table border="1"> <thead> <tr> <th colspan="3">Requirements per Section 3.3.1.1</th> </tr> </thead> <tbody> <tr> <td>Sample ID:</td> <td colspan="2">1-5</td> </tr> <tr> <td>Straps shall be no less than 1-5/8" (41mm) wide</td> <td>1 7/8"</td> <td>In.</td> </tr> <tr> <th colspan="3">Requirements per Section 3.3.1.2 (Tensile)</th> </tr> <tr> <td>Sample 1 (break load)</td> <td>>5000</td> <td>lbs</td> </tr> <tr> <td>Sample 2 (break load)</td> <td>>5000</td> <td>lbs</td> </tr> <tr> <td>Sample 3 (break load)</td> <td>>5000</td> <td>lbs</td> </tr> <tr> <td>Sample 4 (break load)</td> <td>>5000</td> <td>lbs</td> </tr> <tr> <td>Sample 5 (break load)</td> <td>>5000</td> <td>lbs</td> </tr> <tr> <td>Average</td> <td>>5000</td> <td>lbs</td> </tr> <tr> <th colspan="3">Requirements per Section 3.3.1.5</th> </tr> <tr> <td>Sample 6 (abrasion, then break load)</td> <td>>3600</td> <td>lbs</td> </tr> <tr> <td>Sample 7 (abrasion, then break load)</td> <td>>3600</td> <td>lbs</td> </tr> <tr> <td>Sample 8 (abrasion, then break load)</td> <td>>3600</td> <td>lbs</td> </tr> <tr> <td>Sample 9 (abrasion, then break load)</td> <td>>3600</td> <td>lbs</td> </tr> <tr> <td>Sample 10 (abrasion, then break load)</td> <td>>3600</td> <td>lbs</td> </tr> <tr> <td>Average</td> <td>>3600</td> <td>lbs</td> </tr> </tbody> </table>	Requirements per Section 3.3.1.1			Sample ID:	1-5		Straps shall be no less than 1-5/8" (41mm) wide	1 7/8"	In.	Requirements per Section 3.3.1.2 (Tensile)			Sample 1 (break load)	>5000	lbs	Sample 2 (break load)	>5000	lbs	Sample 3 (break load)	>5000	lbs	Sample 4 (break load)	>5000	lbs	Sample 5 (break load)	>5000	lbs	Average	>5000	lbs	Requirements per Section 3.3.1.5			Sample 6 (abrasion, then break load)	>3600	lbs	Sample 7 (abrasion, then break load)	>3600	lbs	Sample 8 (abrasion, then break load)	>3600	lbs	Sample 9 (abrasion, then break load)	>3600	lbs	Sample 10 (abrasion, then break load)	>3600	lbs	Average	>3600	lbs	PASS
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5	"Marking and Instructions"																																																					
5.1	Marking Requirements																																																					
5.1.1	Shall be in English		PASS																																																			
5.1.2	Required markings shall endure the life of the component, when PSL's are used they shall comply with UL969-2001 (section 7.2.1)		PASS																																																			
5.1.3	<p>Full Body Harnesses shall be marked with the following:</p> <table border="1"> <thead> <tr> <th>Marking</th> <th>Comments</th> <th>YES</th> <th>NO</th> <th>NA</th> </tr> </thead> <tbody> <tr> <td>Materials of Construction</td> <td></td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>Size or range of sizes</td> <td></td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>Part number and model designation</td> <td></td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>Year of manufacture</td> <td></td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>Manufacturer's name or logo</td> <td></td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>Warning to follow the manufacturer's instructions included with the equipment at time of shipment from the manufacturer</td> <td></td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>A label permanently attached to the lanyard parking attachment which states, "Park Lanyard Here", See Instructions</td> <td></td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>A label as defined in figure 10a & 10b of the standard</td> <td></td> <td>X</td> <td></td> <td></td> </tr> </tbody> </table>	Marking	Comments	YES	NO	NA	Materials of Construction		X			Size or range of sizes		X			Part number and model designation		X			Year of manufacture		X			Manufacturer's name or logo		X			Warning to follow the manufacturer's instructions included with the equipment at time of shipment from the manufacturer		X			A label permanently attached to the lanyard parking attachment which states, "Park Lanyard Here", See Instructions		X			A label as defined in figure 10a & 10b of the standard		X				PASS						
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TEST REPORT FOR KSTRONG INC

Report No.: 105306728CRT-003

Date: January 18th 2023

Paragraph	Test Description	Results	Compliance			
5.2.2	Instructions shall contain the following information:		PASS			
	Instructions	Comments		YES	NO	NA
	Appendix A of the standard in it's entirety			X		
	A statement that the manufacturer's instructions shall be provided to the users			X		
	Manufacturers name, address, and telephone number			X		
	Manufacturer's part number and model designation for the equipment			X		
	Intended use and purpose of the equipment			X		
	Length of Harness Effect			X		
	Proper method of use and limitations on use of the equipment			X		
	Illustrations showing locations of markings on the equipment			X		
	Reproduction of printed information on all markings			X		
	Inspection procedures required to assure the equipment is in serviceable condition and operating correctly			X		
	Criteria for discarding equipment which fails inspection			X		
	Procedures for cleaning, maintenance, and storage			X		
Reference to Z359.11		X				
Acceptable use for all attachment elements (see Appendix A of the standard)		X				
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 the equipment		PASS			
5.2.4	Instructions shall require the user to remove equipment from service if it has been subjected to the forces of arresting a fall and will include information on inspection of load indicators		PASS			
5.2.5	Instructions shall require the user to have a rescue plan and the means at hand to implement it when using the equipment		PASS			
5.2.6	Instructions shall provide warnings regarding:		PASS			
	Warnings	Comments		YES	NO	NA
	Altering the equipment			X		
	Misusing the equipment			X		
	Using combinations of components or sub-systems, or both, which may affect or interfere with the safe function of each other			X		
	Exposing the equipment to chemicals, heat, flames, or other environmental conditions, which may produce a harmful effect and to consult the manufacturer in case of doubt			X		
	Using the equipment around moving machinery and electrical hazards			X		
	Using the equipment near sharp edges or abrasive surfaces			X		
Exposure to light (UV degradation)				X		
6	User Inspection					
7	References					

SECTION 5

REVISION HISTORY

REPORT NUMBER	DATE OF REVISION	DESCRIPTION OF CHANGE:	PROJECT OWNER	REVIEWED BY
105127347CRT-003	7/11/2022	Report Extension	Steven Morey	Matthew Stevens
105306728CRT-003	1/18/23	Added Model Numbers	Steven Morey	Matthew Stevens