Declaration of Conformity

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

Declaration #: DOC-UFC404450
Declaration Date: 09/05/2020

Item #: UFC404450

Description: KStrong® Small Aluminum Swivel Load Indicator Carabiner (ANSI)

Brand Name: KStrong

Manufacturer: KStrong

Address: 18505 Intercontinental Crossing, Houston, TX 77073

Additional Items Conforming Under this Declaration (If Applicable):

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

ANSI Z359.12-2009

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-UFC404450.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

INSPEC Technical Services (Kunshan) Co Ltd
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Accrediting Agency

ANSI National Accreditation Board
1899 L Street NW,
Suite 1100-A
Washington, DC 20036
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Test Report

Personal Fall Arrest Equipment
ANSI Z359.12-2009 : Hardware

Report no: 2.19.08.33

Client: KSTRONG LLC
17330 Preston Road
#200 D Dallas
TX 7525
U.S.A

Manufacturer: KSTRONG LLC

Client orders: T/0316 (25 January 2017)
T/0394 (16 May 2017)
T/0609 (22 July 2019)

Model: UFC404450

Dates of tests: 13 February 2017 to 31 May 2017, and 5 September 2019

Signed: 

Issued: 5 September 2019

Steven Sum, Laboratory Manager

Conditions

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

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

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

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

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

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

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

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

Summary of assessment*

Clause	Requirement	Assessment (See Key)	
		Submission 1	**Submission 2**
3.1.1.1	Surface finish	Pass	
3.1.1.2	New and unused	Pass	
3.1.1.3	Carabiners & snaphooks (excluding gate side test)	Pass	
	Carabiners & snaphooks (gate side test)		Pass
3.1.1.4	D, O and oval rings		
3.1.1.5	Buckles and adjusters		
3.1.1.6	Proof load testing		
3.1.1.7	Drop test	Pass	
5.1 / 5.2	Marking	Ltd	
5.3	Instructions	NAp	

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 01 details

Product	**Quantity**	**Date received**	**INSPEC specimen no.** (2E010+)
Aluminium Swivel Quarter Turn Locking Hook with Fall Indicator, model UFC404450	17	10 February 2017	01 to 17

Submission 02 details

Product	**Quantity**	**Date received**	**INSPEC specimen no.** (2E088+)
Aluminium Swivel Quarter Turn Locking Hook with Fall Indicator, model UFC404450	04	16 May 2017	01 to 04

Procedures

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

Testing was performed in accordance with ANSI Z359.12-2009 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.

5 Labels were provided electronically and used for marking assessment

Result details – submission 01

3.1 Component and Element Requirements

3.1.1 Connector (Hardware) Components and Elements

3.1.1.1 Surface Finish of Hardware

Specimens 2E01001 to 2E01003 were assessed.

a)	The finish of the specimens was clean and free of scale, rust and deposits of foreign matter.	Pass
b)	Following the salt spray test, there was no evidence of either, red rust visible to the unaided eye, or corrosion of the base metal of the specimens.	Pass
c)	All surfaces of the specimens, which may come in contact with tearable materials, were free of burrs, pits, sharp edges and rough surfaces.	Pass

3.1.1.2 Condition of Hardware

All specimens were assessed as new and unused when received. Pass

3.1.1.3 Snaphooks and Carabiners

Specimen 2E01004 was assessed.

a)	The connector incorporated a self-closing gate.	Pass
	The gate locked automatically when the gate closed.	Pass
	The connector was capable of being opened only by at least two consecutive, deliberate actions.	Pass
b)	When tested along the major axis, specimens 2E01004, 2E01005 and 2E01006 withstood the 5,000 pounds force for 1 minute without breaking and without distortion sufficient to release the gate.	Pass
c)	During the gate face test, specimens 2E01007, 2E01008 and 2E01009 withstood the 3,600 pounds force for 1 minute and the gate did not separate from the nose.	Pass
e)	All specimens were captive eye carabiners. Therefore, this clause was not applicable.	NAp

3.1.1.7 Dynamic drop test

When tested to the dynamic drop tests, following abrasion and cold conditioning, specimens 2E01013, 2E01014 and 2E01015 withstood the drop without breaking and without permanent deformation sufficient to release the gate. Pass

5.1 General Marking Requirements

5.1.1 Markings shall be in English.

5.1.2 No assessment was made as to whether or not the legibility and attachment of required markings shall endure for the life of the component being marked. NAs

Labels were provided electronically and use for marking assessment

5.1.3 Any restrictions on the use of such connectors (hardware) shall be marked on the connectors (hardware) or components, subsystems and systems of which they are an integral part. NAp

No restrictions were listed.

5.2 Specific Marking Requirements

5.2.1 Connectors. Connectors shall be marked to identify the following:

· year of manufacture; Pass

· manufacturer's identification; [model] Pass

· markings for connectors shall be sufficient to provide traceability; [PT] Pass

· load rating for the major axis of the connector stamped or otherwise permanently marked on the device; "5000 lbf" Pass

· load rating for gate stamped or otherwise permanently marked on the gate mechanism; "3600 lbf" Pass

· for connectors that are non-integral, include the standard number, "Z359.12". NAp

5.3 Instructions

The specimen is an integral part of a product. NAp

Result details – submission 02

3.1 Component and Element Requirements

3.1.1 Connector (Hardware) Components and Elements

3.1.1.3 Snaphooks and Carabiners

Specimens 2E08802 to 2E08804 were assessed.

d)	During the gate side tests, specimens 2E08802 to 2E08804 withstood the 3,600 pounds force for 1 minute and the gate did not separate from the nose.	Pass

Estimates of the uncertainty of measurement

Clause	Test	Uncertainty
3.1.1.1	Surface finish	*
3.1.1.2	New and unused	-
3.1.1.3	Carabiners & snaphooks	Tensile test ±1.4%
		Gate resistance ±1.4%
3.1.1.4	D, O and oval rings	±0.4%
3.1.1.5	Buckles and adjusters	±0.4%
3.1.1.6	Proof load testing	NAs
3.1.1.7	Drop test	*
5.1 / 5.2	Marking	-
5.3 / 5.4	Information	-

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

Values expressed as a percentage (%) are relative.

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

ANNEX

This Annex comprises one section.

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

KSTRONG LLC –
Aluminum Swivel Quarter Turn Locking Hook with Fall Indicator,
model UFC404450