

Test Report

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

Report no: 2.18.09.21

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

Manufacturer: Jinhua Jech Tools Co., Ltd

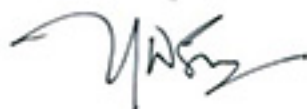
Client order: T/0511

Order received: 27 August 2018

Model: JE513001

Dates of tests: 5 September 2018 to 28 September 2018

Signed:



Steven Sum, Laboratory Manager

Issued: 30 September 2018

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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)
3.1.1.1	Surface finish of hardware	Pass
3.1.1.2	New and Unused	Pass
3.1.1.3	Carabiners & snaphooks ①	Pass
3.1.1.4	D-rings, O-rings 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

① *INSPEC Interpretation applies*

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. (2F131+)
Snaphook, model JE513001	15	26 August 2018	01 to 15

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.

Result details**3.1 Component and Element Requirements****3.1.1 Connector (Hardware) Components and Elements****3.1.1.1 Surface Finish of Hardware**

Specimens 2F13113 to 2F13115 were assessed.

- | | | |
|----|--|------|
| a) | The finish of the specimens were clean and free of scale, rust and deposits of foreign matter. | Pass |
| b) | Following the salt spray test, there were 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

Specimens 2F13101 to 2F13103 were 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 2F13101 to 2F13103 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 2F13104 to 2F13106 withstood the 3,600 pounds force for 1 minute and the gate did not separate from the nose. | Pass |
| d) | During the gate side test, specimens 2F13107 to 2F13109 withstood the 3,600 pounds force for 1 minute and the gate did not separate from the nose. | Pass |
| e) | The specimens were captive eye snaphooks. Therefore testing were not performed along the minor axis. | NAp |

3.1.1.7 Dynamic drop test

When tested to the dynamic drop test, following abrasion and cold conditioning, specimens 2F13110 to 2F13112 withstood the drop without breaking and without permanent deformation sufficient to release the gate.

Pass

5.1 / 5.2 Marking

Markings supplied electronically were used for assessment. The detailed results of the assessment are given below. Ltd

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 being marked was not assessed. NAs

However, the legibility and attachment of required markings endured for the duration of the testing performed.

The marking was in the form of metal stamping.

5.1.3 Any restrictions on the use of such connectors (hardware) shall be marked on the connectors (hardware) or component, subsystem 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; "2018" Pass
- manufacturer's identification; "JECH" Pass
- markings for connectors shall be sufficient to provide traceability; "18D1" Pass
- load rating for the major axis of the connector stamped or otherwise permanently marked on the device; "5000 lbs" Pass
- load rating for gate stamped or otherwise permanently marked on the gate mechanism; "3600 lbs" Pass
- for connectors that are non-integral part (non-captive eye), then "ANSI Z359.12" is required NAp

5.3 Specific Instruction Requirements

5.3.1 Connectors.

The specimens were captive eye snaphooks that will be used as an integral part of a product. NAp

Estimates of the uncertainty of measurement

Clause	Test	Uncertainty	
3.1.1.1	Surface finish of hardware	See Note 1	
3.1.1.2	New and unused	See Note 1	
3.1.1.3	Carabiners & Snaphooks	Tensile test	±1.4%
		Gate resistance	±1.4%
3.1.1.4	D-rings, O-rings and Oval rings	±0.5%	
3.1.1.5	Buckles and Adjusters	±0.5%	
3.1.1.6	Proof load testing	NAs	
3.1.1.7	Drop test	See Note 1	
5.1 / 5.2	Marking	See Note 1	
5.3	Instructions	See Note 1	

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 one section.

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

END OF REPORT

Jinhua Jech Tools Co., Ltd –
Snaphook, model JE513001

