

## Test Report

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

**Report no:** 2.18.09.22

**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:** JE512011

**Dates of tests:** 5 September 2018 to 28 September 2018

**Signed:**



Steven Sum, Laboratory Manager

**Issued:** 30 September 2018

Page 1 of 8

**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)
3.1.1.1	Surface finish of hardware	Pass
3.1.1.2	New and Unused	Pass
3.1.1.3	Carabiners & snaphooks	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. (2F132+)
Snaphook, model JE512011	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 2F132113 to 2F13215 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 2F13201 to 2F13203 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 2F13201 to 2F13203 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 2F13204 to 2F13206 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 2F13207 to 2F13209 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.   | N/A  |

**3.1.1.7 Dynamic drop test**

When tested to the dynamic drop test, following abrasion and cold conditioning, specimens 2F13210 to 2F13212 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	$\pm 1.4\%$
		Gate resistance	$\pm 1.4\%$
3.1.1.4	D-rings, O-rings and Oval rings	$\pm 0.5\%$	
3.1.1.5	Buckles and Adjusters	$\pm 0.5\%$	
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 JE512011

