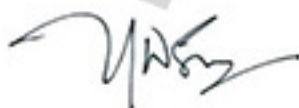


## Test Report

### PPE against fall from a height EN 355 : 2002 Energy absorbers

<b>Report no:</b>	2.19.10.10
<b>Client:</b>	CCQS UK Ltd, 5 Harbour Exchange Square, London E14 9GE United Kingdom
<b>Manufacturer:</b>	Jinhua Jech Tools Co., Ltd. No.1448 Tongxi Road, Linjiang Industrial Park Wucheng District Jinhua City Zhejiang China
<b>Client orders and Date received:</b>	T/0627 (4 July 2019) T/0687B (28 October 2019)
<b>Model:</b>	SKHC-Box-1
<b>Dates of tests:</b>	13 August 2019, and 28 October 2019

Signed:



Steven Sum, Laboratory Manager

Issued: 28 October 2019

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)
4.1	Design & ergonomics	NAp
4.2	Materials and construction	NAp
4.3	Static preloading ①	Pass
4.4	Dynamic performance ①	
4.5	Static strength ①	Pass
4.6	Marking and information	
6	Marking	
7	Information	
8	Packaging	

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. (2G108+)
Energy absorber, model SKHC-Box-1	02	5 August 2019	07 - 08

**Procedures**

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

Testing was performed in accordance with EN 355:2002 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.

The energy absorber was an integral part of a Self-Retractable Lifeline, model SRL-3



**Result details****4.1 Design and ergonomics**

Specimen 2G10808 was assessed against the general requirements specified in clause 4.1 of EN 363:2002. The detailed results of the assessment are given on page 6 of this report.

**4.2 Materials and construction**

Specimen 2G10808 was assessed.

The specimen did not incorporate a lanyard.

NAp

There were no connectors incorporated into the specimen

NAp

**4.3 Static preloading**

Specimen 2G10808 was assessed.

The permanent extension of the specimen caused by activation resulting from a preload of 2 kN was 15 mm. This is less than the 50 mm maximum permitted.

Pass

**4.5 Static strength**

Specimen 2G10807 was assessed.

The fully developed energy absorber withstood the 15 kN force applied for 3 minutes without tearing or rupturing.

Pass

## EN 363:2002, Clause 4.1, Design and ergonomics

A fall arrest system shall be so designed and manufactured:	
- that, in the foreseeable conditions of use for which it is intended, the user can perform the risk-related activity normally while enjoying appropriate protection of the highest possible level;	NAs
- as to preclude risks and other nuisance factors under foreseeable conditions of use;	NAs
- as to facilitate correct positioning on the user and to remain in place for the foreseeable period of use, bearing in mind ambient factors, movements to be made and postures to be adopted. For this purpose, it shall be possible to optimize the adoption of a full body harness to user morphology by all appropriate means, such as adequate adjustment elements or the provision of an adequate size range;	NAP
- that it is as light as possible without prejudicing design strength and efficiency;	NAs
- as to become not incorrectly adjusted without the user's knowledge under the foreseeable conditions of use;	NAP
- that, under the foreseeable conditions of use, the vertical drop of the user is minimized to prevent collision with obstacles and the braking force does not, however, attain the threshold value at which physical injury or the tearing or rupture of any component or element which might cause the user to fall can be expected to occur;	NAs
- that, after arresting, the user is maintained in a correct position in which he may await help if necessary.	NAP

Only the characteristics given in indents 3, 5 and 7 lend themselves to objective assessment. Compliance or otherwise with the relevant European standard, against which the specimen has been tested, support the assessments made against those characteristics.

The characteristics given in the other indents, whilst being desirable attributes, cannot be objectively assessed by a testing laboratory, because they involve parameters about which the technician may have only an opinion, not factual knowledge.

**Estimates of the uncertainty of measurement**

Clause	Test	Uncertainty	
4.1	Design & ergonomics	See Note 1	
4.2	Materials and construction	See INSPEC Reports	
	Connectors		
	Length	±5.8mm	
4.3	Static preloading	±0.4%	
4.4	Dynamic performance	Maximum breaking force	±4.4%
		Maximum arrest distance	±20mm
4.5	Static strength	See Note 1	
4.6	Marking and information	See 6 and 7	
6	Marking	See Note 1	
7	Information	See Note 1	
8	Packaging	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. Photograph of the product tested. (1 page)

END OF REPORT



**Jinhua Jech Tools Co., Ltd. –  
Energy absorber, model SKHC-Box-1**

