

Test Report

CSA Z259.10-2012 Full body harnesses

Report no: 2.18.05.24

Client: Jinhua Jech Tools Co., Ltd.
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Wucheng District
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Zhejiang 321025
China

Manufacturer: Jinhua Jech Tools Co., Ltd.

Client order: T/0463

Date received: 6 January 2018

Model: JE135005B

Dates of tests: 2 February 2018 to 30 May 2018

Signed:



Steven Sum, Laboratory Manager

Issued: 31 May 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.

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

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Summary of assessment*

Clause	Requirement	Assessment (See Key)
4.1	Fibre webbing ①	Ltd
4.2	Connecting components	Pass
4.3	Keeper	Pass
4.4	Tongue type buckles	Pass
4.5	Fall arrest indicator	Pass
4.6	Avoidance of the genital area	Pass
4.7	Classification	Pass
4.8	Class A – Fall arrest	Pass
4.9	Class D – Suspension and controlled descent	
4.10	Class E – Limited access	
4.11	Class L – Ladder climbing	
4.12	Class P – Work positioning	Pass
4.13	Alternative applications	
4.14	Alternative materials & construction	
5.2.1	Drop test - class A, feet first	Pass
5.2.2	Drop test - class A, head first	Pass
5.2.3	Drop test – class P	Pass
5.3	Fall arrest indicator static test ①	
	Fall arrest indicator dynamic test ①	Pass
7.1	Markings	Ltd
7.2	Information	Pass

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	Dates received	INSPEC specimen no. (2F027+)
Webbing, yellow colour, part # 202	10m	23 January 2018	01A to 01E
Webbing, black colour, part # 95	10m		02A to 02E
Full body harness, model JE135005B	04	27 March 2018	03 to 06

Procedures

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

Testing was performed in accordance with CSA Z259.10-2012 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**4.1.1 Fibre webbing**

Not assessed. Manufacturer to certify.

NAs

4.1.2 Stitching and cut ends

Specimen 2F02703 was assessed.

- a) All machine stitching was not assessed. Manufacturer to certify.
 b) The ends of all threads were not assessed. Manufacturer to certify.
 c) All webbings were hot-cut finished to prevent fraying.

NAs
 NAs
 Pass

4.1.3 Width and strength

Specimen 2F02703 was assessed.

The minimum width of straps were as follows:

Shoulder straps	45 mm
Thigh straps	45 mm
Sub-pelvic straps	45 mm

Pass
 Pass
 Pass

These were not less than the minimum 41 mm specified.

When tested as specified with the 22.0 kN load, the straps 2F02701A to 2F02701E and 2F02702A to 2F02702E performed as follows:

Shoulder straps	withstood the test without breaking
Thigh straps	withstood the test without breaking
Pelvic straps	withstood the test without breaking

Pass
 Pass
 Pass

4.2 Connecting components**4.2.1 Full body harness component connections and terminations**

Specimen 2F02703 was assessed.

Connection of all full body harness components to each other and terminations of all full body harness components were by means of Class I or Class II connectors.

Pass

A dorsal D-ring was used to connect to fall protection system.

Buckles were used for connecting straps together.

4.2.2 Connection to systems or elements external to the full body harness

4.2.2.1 There were no external systems or non-integral elements.

NAs

4.2.2.2 The full body harness was not integrally connected to a fall arrest systems or elements.

NAs

4.3 Keeper

Specimen 2F02703 was assessed.

All webbing straps with a free end had a keeper loop of the required size to reduce the possibility of accidental disengagement of the strap from its functioning position. Pass

4.4 Tongue type buckles

Specimen 2F02703 was assessed.

Tongue buckles incorporated in the full body harness had a single tongue. Pass

4.5 Fall arrest indicators

Specimen 2F02706 was assessed.

The full body harness included a built-in fall arrest indicator. Pass

When tested as required by 5.3 and as specified in 6.2.6, the fall arrest indicator activated to give a permanent, readily visible warning. Pass

4.6 Avoidance of the genital area

Specimen 2F02703 was assessed.

Load bearing components of the full body harness, when worn correctly and properly adjusted did not pass over the genitals of the test subject. Pass

4.7 Classification

All specimens were assessed.

They satisfied the requirements of a Class A full body harness. Pass

The full body harness was classified as follows:

- 1) Class A: Fall arrest Pass
- 2) Class P: Work positioning Pass

4.8 Class A, Fall arrest

Specimen 2F02703 was assessed.

- a) One Class 1 dorsal connector (D-ring) was affixed to both shoulder straps. Pass
- b) The full body harness was not integrally attached to a certified subsystem or element with a dorsal Class I / Class II connector affixed directly to both shoulder straps. NAp

A sub-pelvic strap was fitted.

The dorsal connector was a sliding D-ring.

A back strap was sewn across both shoulder straps at the dorsal area to limit the downward creep of the D-ring towards the waist. Pass

4.12 Class P, Work positioning

Specimen 2F02705 was assessed.

A connector (D-ring) required for Class A was incorporated.

Pass

Two Class I connectors (D-rings) were fitted at the waist level.

Pass

5.2 Drop test**5.2.1 Class A, Feet first**

Specimen 2F02703 was assessed.

- a) The test mass was arrested. Pass
- b) The test mass remained suspended for 10 minutes after the drop. Pass
- c) All connectors remained connected. Pass
- d) The angle of the test mass at rest after the drop was 11°. This is less than the maximum 30° permitted. Pass
- e) The fall arrest indicator activated to give a permanent, readily visible warning. Pass
- f) The harness stretch "xh" was 8.7 inches. This is not more than the value "18 inches" stated in the manufacturer's instructions. Pass

5.2.2 Class A, Head first

Specimen 2F02704 was assessed.

- a) The test mass was arrested. Pass
- b) The test mass remained suspended for 10 minutes after the drop. Pass
- c) All connectors remained connected. Pass
- d) The fall arrest indicator activated to give a permanent, readily visible warning. Pass

5.2.3 Class P

Specimen 2F02705 was assessed.

- a) The test mass was arrested. Pass
- b) The test mass remained suspended for 10 minutes after the drop. Pass
- c) All connectors remained connected. Pass

5.3 Fall arrest indicator - Dynamic test

Specimen 2F02706 was assessed.

- a) The fall arrest indicator activated. Pass
- b) There was a permanent readily visible warning after the test. Pass

Estimates of the uncertainty of measurement

Clause	Test	Uncertainty
4.1	Fibre webbing – strap width	0.2mm
	Fibre webbing – strap loading	See Note 1
4.2	Connecting components	See Note 1
4.3	Keeper	See Note 1
4.4	Tongue type buckles	See Note 1
4.5	Fall arrest indicator	See Note 1
4.6	Protection of the genital area	See Note 1
4.7	Classification	See Note 1
4.8	Class A – Fall arrest	See Note 1
4.9	Class D – Suspension and controlled descent	See Note 1
4.10	Class E – Limited access	See Note 1
4.11	Class L – Ladder climbing	See Note 1
4.12	Class P – Work positioning	See Note 1
4.13	Alternative applications	NAs
4.14	Alternative materials & construction	NAs
5.2	Drop test – angle at rest	$\pm 0.2^\circ$
5.2	Drop test – stretch	$\pm 1.4\%$
5.3	Fall arrest indicator static test	See Note 1
5.3	Fall arrest indicator dynamic test	See Note 1
7.1	Markings	NAs
7.2	Information	NAs

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 assessments against 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 –
Full body harness, model JE135005B**



INSPEC Testing Services' specimen 2F02701

28 March 2018