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Static Load Test

Test Report

Part Number: 513-TI



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PROPRIETARY & CONFINDENTIAL

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CONTENTS

1.0 Purpose: 3
2.0 DeFinitions: 3
3.0 Part Description: 3
4.0 Design and Material: 4
4.1 Part List 4
5.0 Test Requirements: 5
5.1 Static Load Strength: 5
5.1.1 Major Axis: 5
5.1.2 Minor Axis: 5
6.0 Test Equipment and Calibration: 5
7.0 Static Load Test: 6
7.1 Major Axis: 6
7.2 Minor Axis: 6
8.0 Result Summary: 7
9.0 Appendix I: 7

1.0 PURPOSE:

The purpose of this report is to prove that the 513-TI Talon Hook II meets the static load strength requirements stated in the ANSI Z359:12-2009 standard documents for carabiners.

2.0 DEFINITIONS:

2.1 **Connector:** Openable device used to connect components, which enables the user to assemble a system in order to link himself/herself directly or indirectly to an anchor.

2.2 **Self-closing connector:** Connector with a self-closing gate.

2.3 **Gate:** Part of the connector which can be moved to open it.

2.4 **Self-closing gate:** Gate which moves automatically to the closed position when released from any position.

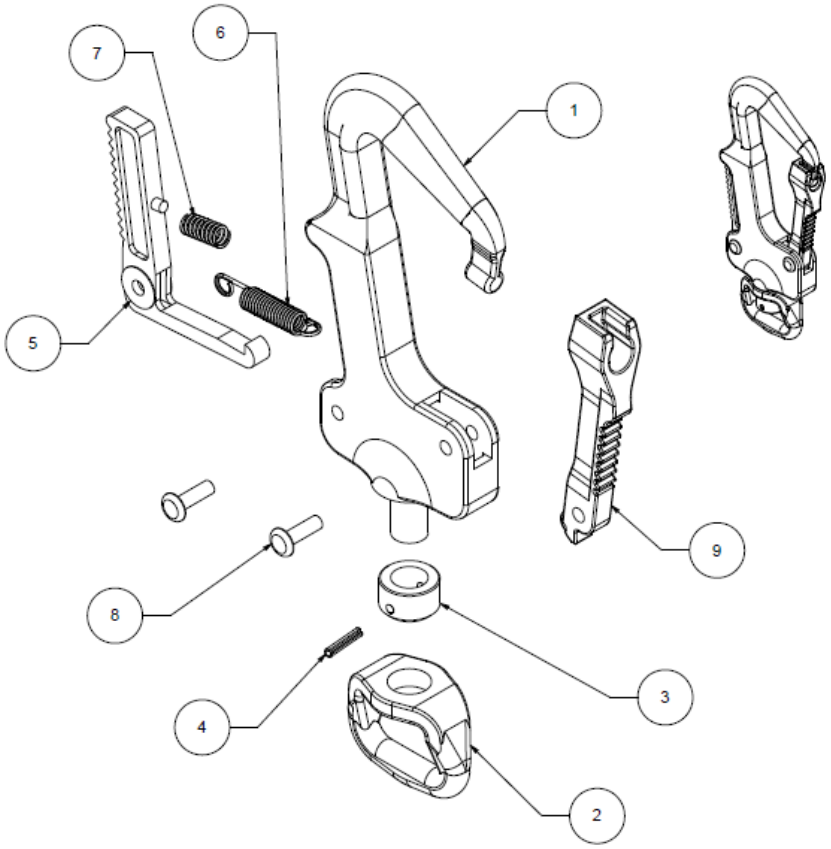
2.5 **Gate opening:** Maximum gap for the passage of an element or a component into the connector and which allows the correct functioning of the gate-locking feature.

3.0 PART DESCRIPTION:

Safety Hook with integrated swivel eye. Features a locking gate to reduce ring roll-out or inadvertent release. To open, simply press the latch on the spine and open the gate. After release, the spring loaded gate and latch return to the locked positions. Ergonomic design allows for easy grip and functioning with a single hand. Available in stainless steel with black oxide finish or titanium alloy for reduced weight.

4.0 DESIGN AND MATERIAL:

4.1 PART LIST



Item No:	Part No:	Part Description:	Material:	QTY:
1	513-01TI	HOOK BODY, TI, TALON II	6AL-4V Titanium	1
2	513-02	SWIVEL	17-4PH S.S.	1
3	513-03	NUT, SWIVEL	303 S.S.	1
4	513-05	3/32” x ½” SLOT PIN	420 S.S.	1
5	511-03	LATCH	17-4PH S.S.	1
6	511-04	GATE SPRING	17-7PH S.S.	1
7	511-05	LATCH SPRING	302 S.S.	1
8	511-06B	RIVET, SEMI-TUBULAR	430 S.S.	2
9	512-02	Gate	17-7PH S.S.	1

5.0 TEST REQUIREMENTS:

5.1 Static Load Strength:

Each test shall be carried out on a new sample. (See Appendix I)

Major Axis Testing: Mount the connector in the tensile testing machine and apply the load which are arranged to be perpendicular to the major axis.

Minor Axis Testing: Mount the connector in the tensile testing machine by clamping or fixing it in such way that the centerline of the gate is perpendicular to the direction of the load lying in the plane of the connector.

5.1.1 Major Axis:

- Gate Closed, Static Load: 22.2kN (5,000lbs)

5.1.2 Minor Axis:

- Gate Closed, Static Load: 16kN (3,600lbs)

6.0 TEST EQUIPMENT AND CALIBRATION:

The primary testing equipment consists of the following items:

1. Force Measurement: 10,000lb S-beam load cell (transducer) with one (I) each 0-10,000lbs digital gauge. Calibration conducted by Micro Precision Calibration, Inc. Sticker dated 05/02/16, valid thru 05/02/17.



2. Load Tester: Hydraulic Pull Strength

7.0 STATIC LOAD TEST:

7.1 Major Axis:









Load 5,000lbs:

- No Damage or elongation to body
- Gate Functions as intended

7.2 Minor Axis:







Load 3,600lbs:

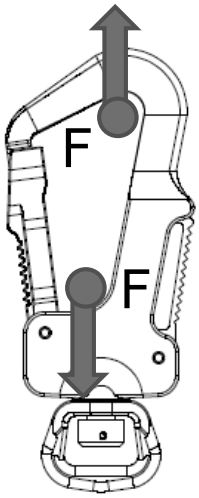
- No Damage or elongation to body
- Gate Functions as intended

8.0 RESULT SUMMARY:

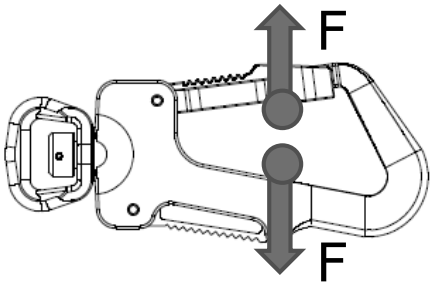
TEST TYPE	LOAD	PASS/FAIL	DAMAGE	GATE FUNCTION
MAJOR AXIS	5,000LBS	PASS	NO	YES
MINOR AXIS	3,600LBS	PASS	NO	YES

9.0 APPENDIX I:

Major Axis:



Minor Axis:



F = Force