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STATIC LOAD TEST REPORT

SWIVEL & GATE FOR 513-TI

513-02M & 513-06



PROPRIETARY & CONFINDENTIAL

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1.0 PURPOSE

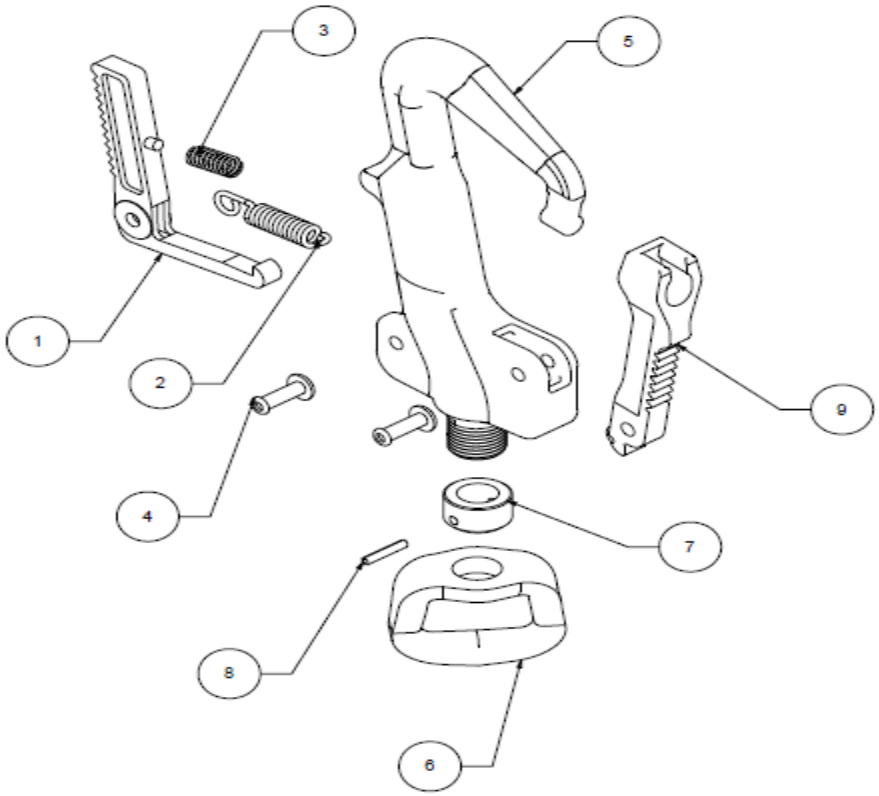
The purpose of this report is to prove that part numbers 513-02M (Swivel, Talon II) and 513-06 (Gate, Talon II) for the 513-TI Talon Hook II meets the static load strength requirements stated in the ANSI Z359 4.3.1.1.1 Tensile testing of Snap hook and Carabiner Bodies.

2.0 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.

3.0 DESIGN AND MATERIAL

3.1 PART LIST

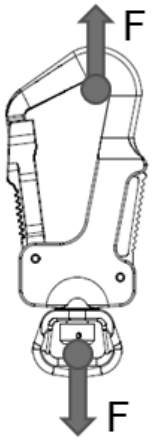


Item No	Part No	Part Description	Material	Qty.
1	511-03	LATCH	17-4 PH SS	1
2	511-04	GATE SPRING	17-7 PH SS	1
3	511-05	LATCH SPRING	302 SS	1
4	511-06	RIVET, SEMI-TUBULAR	430 SS	2
5	513-01TI	HOOK BODY	TITANIUM	1
6	513-02M	SWIVEL	17-4 PH SS	1
7	513-03	NUT, SWIVEL	303 SS	1
8	513-05	3/32” x ½” SLOT PIN	420 SS	1
9	513-06	GATE	17-4 PH SS	1

4.0 TEST REQUIRMENTS

4.1 MAJOR AXIS TESTING

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. The time to reach 5000lbs shall be greater than 1 minute to avoid dynamic effects. The rate of force application will be performed incrementally in steps of 500lbs every 6-10 seconds until the maximum force of 5000lbs is achieved. The parts will then be measured and checked for permanent deformation and/or gate failure.



F = Force

5.0 TEST EQUIPMENT AND CALIBRATION

5.1 EQUIPMENT

The primary testing equipment consists of the following items:

1. Force Measurement: 10,000lb S-Beam load cell with a digital gauge. Calibration sticker valid until 06/24/2022.





2. Load Tester: Hydraulic Cylinder

6.0 RESULTS

TALON II W/SWIVEL (513-TI)				
Sample#	**Load (lbs)**	**Pass/Fail**	**Permanent Deformation**	**Gate Function**
1	5173	PASS	N	Y

SWIVEL (513-02M)			
Sample#	**Load (lbs)**	**Pass/Fail**	**Permanent Deformation**
1	5173	PASS	N

GATE (513-06)			
Sample#	**Load (lbs)**	**Pass/Fail**	**Permanent Deformation**
1	5173	PASS	N

7.0 SUMMARY

From the results shown above, both the Swivel (513-02M) and Gate (513-06) passed the static load test at 5000lbs with no measurable signs of permanent deformation. The spring loaded gate was also functional after 5000lbs.

8.0 APPENDIX

8.1 TEST SAMPLE 1



Figure 1. 513-02M SWIVEL BEFORE LOAD TEST



Figure 2. 513-06 GATE BEFORE LOAD TEST



Figure 3. SETUP OF PROCEDURE BEFORE LOAD TEST



Figure 4. DIGITAL GAUGE AT PEAK LOAD



Figure 5. 513-02M SWIVEL AFTER LOAD TEST



Figure 6. 513-06 GATE AFTER LOAD TEST