LIFESAVING SYSTEMS CORPORATION

LSC Test Report Number: F-730-511-01M-C
Revision: A

Static Load Test Report

P/N: #511 Super Talon

(Machined 304 Stainless Steel Hook Body)



PROPRIETARY & CONFINDENTIAL

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Reviewed by: _____ Date: 04/08/2021

Mario Vittone, Management

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PURPOSE:

The purpose of this report is to verify the #511 Super Talon safety hook with a machined 304 stainless steel body can withstand a 5,000lb load without ultimate failure. Successful completion will confirm the machined 304 stainless steel hook body demonstrates the suitability and safety for use on the Super Talon hook assembly.

TEST FACILITY:

Testing and inspection were performed at Lifesaving Systems Corporation's (LSC) manufacturing facility located in Apollo Beach, Florida by LSC personnel.

SUMMARY OF TESTS PERFORMED & RESULTS:

Section	*Test Description*	*Results*
2.2	Static Load Test	The #511 Super Talon with machined 304 stainless steel hook body did not fail when a 5,045lb load was applied.

SECTION 1- TEST CONDITIONS & EQUIPMENT:

1.1 ENVIRONMENTAL CONDITIONS

Load test shall be performed at a temperature of 75 ± 5°F, and a relative humidity of 50 ±15%.

1.2 TOLERANCES

The load cell tolerances shall be maintained within all applicable specified tolerances.

- 2000lbf ± 2lbf
- 4000lbf ± 3lbf
- 6000lbf ± 4lbf

1.3 INSTRUMENTS AND EQUIPMENT

LSC Tool No.	*Test Equipment*	*Description*	*Cal. Date*	*Cal. Due*
88	Cell, Load	Force Measurement: 10,000lb	7/03/2020	7/03/2021

1.4 CALIBRATION

The instruments and equipment are calibrated according to manufacturer's specifications and calibration is traceable to the National Institute of Standards and Technology (NIST). Calibration records are maintained on file at Lifesaving Systems Corp. Photograph of the load cell calibration sticker can be found in Section 3 of this report.

SECTION 2- STATIC LOAD:

2.1 REQUIREMENTS

A force of 3,000lbs shall be applied to the Super Talon hook assembly mounted vertically inside a load tester with the safety latch closed. Once the force is reached the load will be released, and the device shall be inspected for material damage and functional use. The device shall be considered to be damaged to the point of failing this test if the hook body is distorted in a way that would cause the latch to open freely or ultimate failure occurs.

Using the same hook from the previous test, a force of 5,000lbs shall be applied to the device mounted vertically inside a load tester with the safety latch closed. Once the force is reached the load will be released, and the device shall be inspected for material damage. The device shall be considered to be damaged to the point of failing this test if the hook body is distorted in a way that would cause the latch to open freely or ultimate failure occurs.

2.2 ANALYSIS OF RESULTS

Table1.

Pull Test	Target Load (lbf)	Load Cell Reading (lbf)	Pass/Fail	Comments
Static Load	3,000	3,079	PASS	Material distortion starting to occur on hook body however, device is fully functional.
Static Load	5,000	5,045	PASS	Ultimate material failure did not occur. Safety latch is locked in hook body catch and will not open.

SECTION 3: PHOTOGRAPHS



#511 with Machined 304 S.S. Hook Body.
(3,079lbf Load)



#511 with Machined 304 S.S. Hook Body.
(5,045lbf Load)



#511 Pre-Test

Machined 304 S.S Hook Body



#511 Post-Test (5,045lbf)

Machined 304 S.S Hook Body

No Material Failure



Load Cell: Calibration Sticker