LIFESAVING SYSTEMS CORPORATION

LSC Test Report Number: F-730-412-01
Revision: A

Static Load Test Report and Acceptance Waiver P/N: #412 from Alpha Casting



PROPRIETARY & CONFINDENTIAL

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PURPOSE:

The purpose of this report is to re-verify the #412-01 hook body as manufactured by Alpha Casting can withstand a static load of 9,000lbs and to determine the part's suitability for use by Lifesaving Systems Corp. despite minor anomalies in relation to SAE-AMS 2175 as reported by Alpha Casting.

The hook body is investment cast stainless steel 17-4PH produced from Alpha Castings Inc. This hook body has not been casted in 2-years. A full FAI has been performed and the static load test will confirm the new sample from Alpha Casting performs as the previously supplied part from Alpha Casting to LSC's standards for the part.

Nine hooks were delivered for testing, measurement and evaluation by LSC.

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 LOAD TEST PERFORMED & RESULTS:

Section	*Test Description*	*Results*
2	Static Load Test	The #412-01 Hook Body can withstand a load of 9,000lb with only slight deformation.

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: ANALYSIS OF RESULTS

Table1.

Pull Test	Target Load (lbf)	Load Cell Reading (lbf)	Pass/Fail	Comments
#412-01	9,000	9,291	PASS	Slight deformation of 0.034”

Dimensional Checks and Visual Inspection:

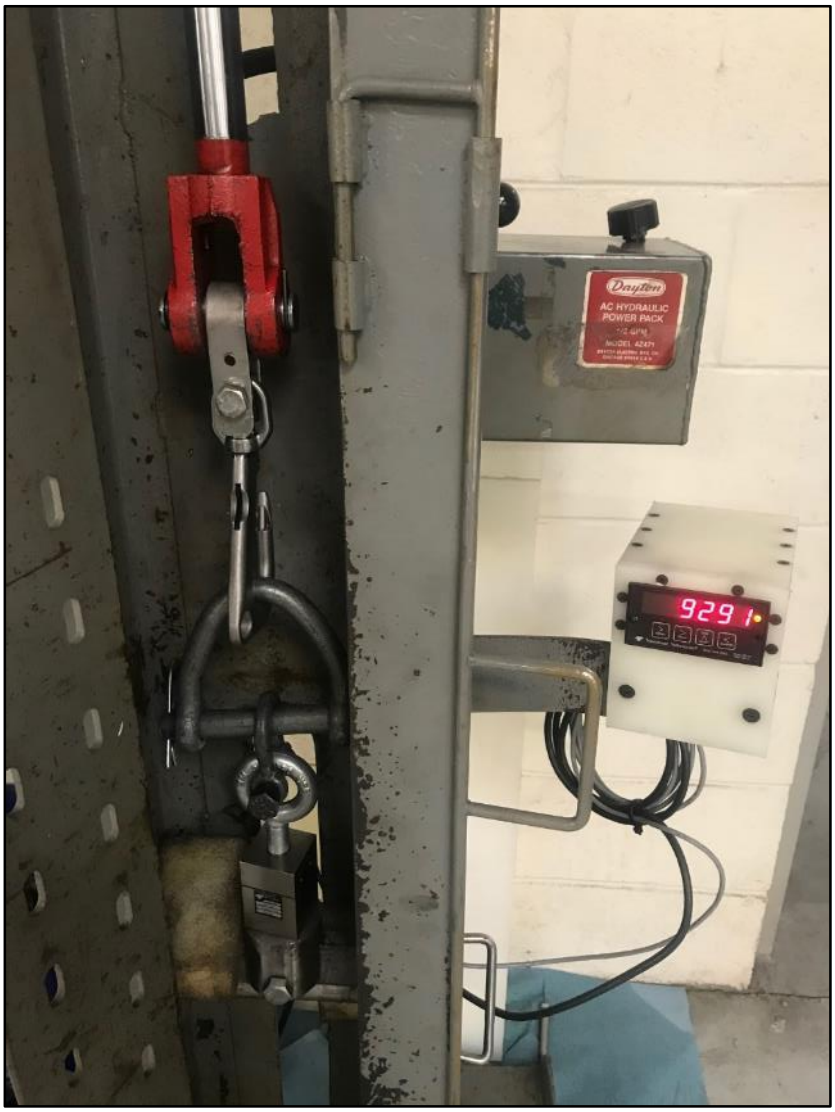
All nine hooks were surfaced, machined and threaded to LSC standard for part # 412-01. The parts worked as expected and in accordance with LSC standards for use on Mil-LOK hooks.

All dimensional Checks of all nine hooks were within tolerance.

SECTION 3: DISPOSITION AND WAIVER

Given the strength performance of the hooks delivered from Alpha Casting and taking into account the minor anomalies found on the NDI in a non-critical area of the hook body, LSC is confident in accepting the lot of hooks produced by Alpha Casting as delivered and will accept the balance of hooks from this lot in total. LSC further accepts future orders from Alpha Casting with these minor anomalies in the NDI so long as there are no significant changes to their size, quantity, or location.

SECTION 4: PHOTOGRAPHS



Pull Test: Vertical

Load: 9,291lbf



Pre-Test Measurement:

Body to Beak = 1.794”



Post-Test Measurement:

Body to Beak = 1.828”



Load Cell: Calibration Sticker