LIFESAVING SYSTEMS CORPORATION

LSC Test Report Number: F-730-402-7MS
Revision: A

Static Load Test Report

P/N: #402-7MS



PROPRIETARY & CONFINDENTIAL

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PURPOSE:

The purpose of this report is to determine the ultimate strength of the #402-7MS vertical hoisting sling. Successful completion will confirm the device demonstrates the suitability and safety for use on LSC rescue litters.

ACRONYMS AND ABBREVIATIONS:

LSC – Lifesaving Systems Corp.
N/A – Not Applicable
P/N – Part Number
S/N – Serial Number
Lbf – Pound-Force

TEST FACILITY:

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

EQUIPMENT UNDER TEST:

Part No.	Material	Cable Specs	Part Description
402-7MS	316 Stainless Steel	7 x 19 Stranding 3/16” Diameter	Vertical Hoist Sling f/#402

SUMMARY OF TESTS PERFORMED & RESULTS:

Section	Test Description	Results
2.2	Static Load Test	One cable leg will break on the #402-7MS at an ultimate load of 3,651lbf.

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 SINGE LEG ATTACHMENT- VERTICAL

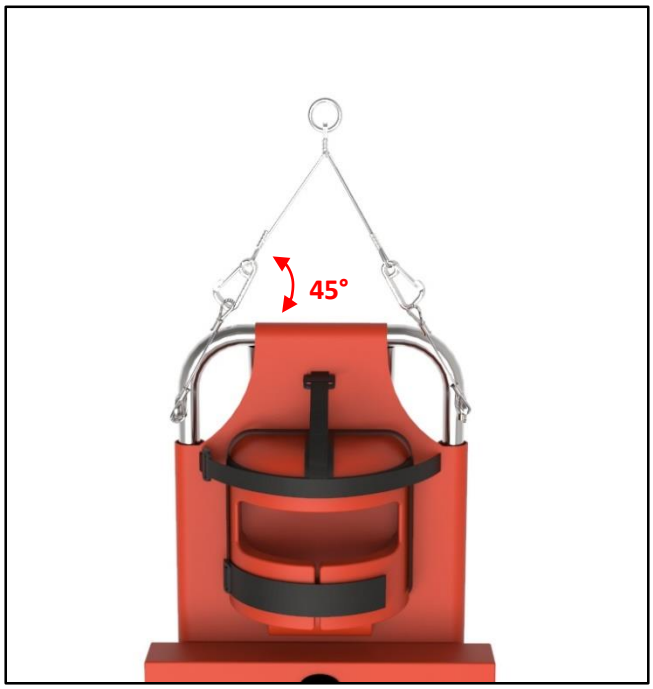
The #402-7MS hoisting sling shall be mounted inside a hydraulic pull tester in the vertical orientation. The O-ring shall be mounted to the top grip and one cable leg with snap hook shall be mounted to the bottom grip. An increasing force shall be applied to the #402-7MS until ultimate failure occurs. Cause of failure shall be reported.

2.2 ANALYSIS OF RESULTS

Table1.

Pull Test	Load Cell Reading (lbf)	Comments
Vertical (Single Leg)	3,651	Cable broke at 3,651lbf. Slight deformation of O-ring and snap hook.

2.3 LOAD CALCULATIONS



Angle 45°

Load Factor = 0.7071

Cable Breaking Strength = 3,651lbf

Two Legs = (Cable BS x LF) + (Cable BS x LF)

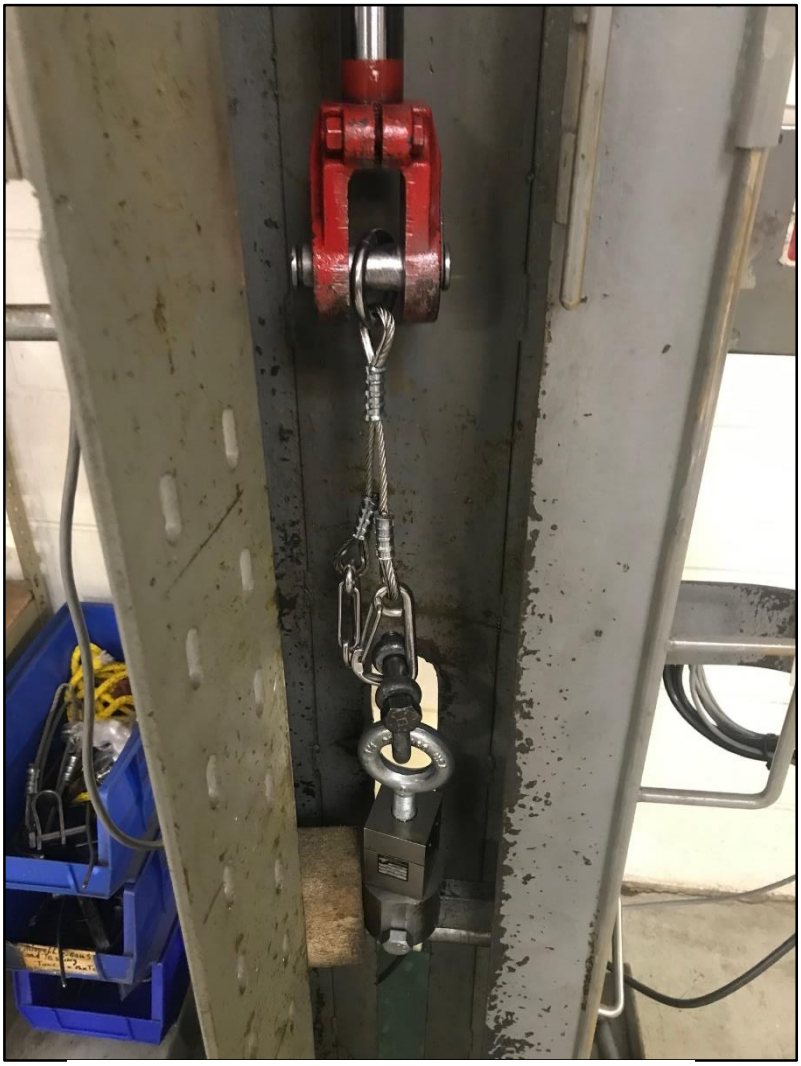
3,651lbf x 0.7071 + 3,651lbf x 0.7071 = 5,163lbf max load

With the maximum working load limit of 600 lbs. for the 402 Medevac Litter, the 402-7MS sling set provides a safety factor of over 8.

SECTION 3- PHOTOGRAPHS



Pre-Test: #402-7MS



Setup in pull tester: One cable leg



Cable failed at 3,651lbf



Cable failed at 3,651lbf

*Note: Slight deformation of O-Ring and Snap Hook



Load Cell: Calibration Sticker