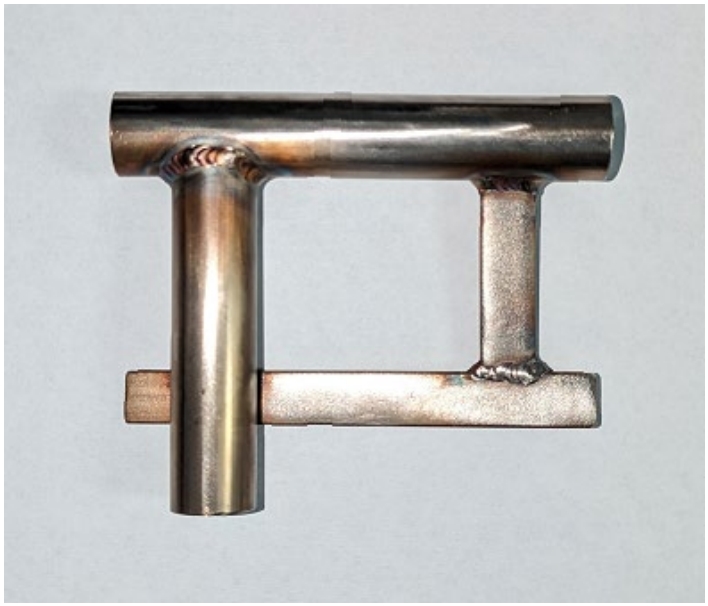
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STATIC LOAD TEST REPORT

406 FRAME SAMPLES



PROPRIETARY & CONFINDENTIAL

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1.0 PURPOSE

The purpose of this report is to test the structural and weld strength of framed subsections for the Medevac IIA Litter Frame. More specifically, testing will be done to emulate the G-force associated with a Medevac II Litter Frame being tied down in a helicopter's cabin by adjustable tie-down straps on two samples (Samples 1 & 2). Additionally, there will be another sample (Sample 3) that will be used to emulate G-force done by the patient restraint strap.

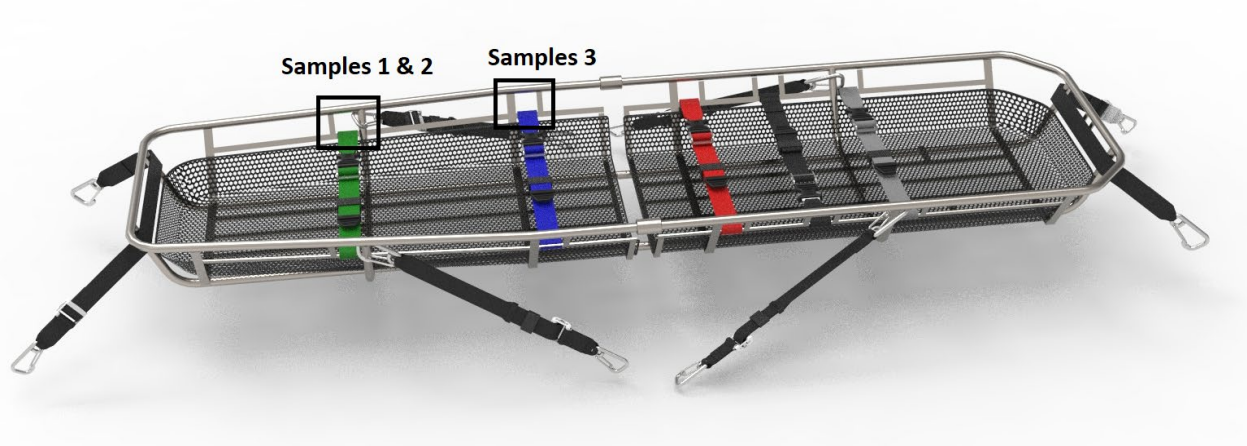


Figure 1. MEDEVAC IIA LITER FRAME HIGHLIGHTING LOCATIONS OF SAMPLE COMPONENTS.

2.0 DESIGN AND MATERIAL

Tube Stock
• Material: 304 Stainless Steel • Stock Size: 3/4” OD X 0.065” WALL

Flat Stock
• Material: 304 Stainless Steel • Stock Size: 1/2” X 1/8” THK.

3.0 TEST REQUIRMENTS

The target load for all samples will be 3800lbs (16.9kN), which is the breaking load for the Adjustable Tie Down Strap part number 617. Achieving a breaking load over 3800lbs (16.9kN) essentially shows that the Adjustable Tie Down Strap will be the weak link component rather than the Medevac Litter. The direction of the loads should be applied in the figures shown below.

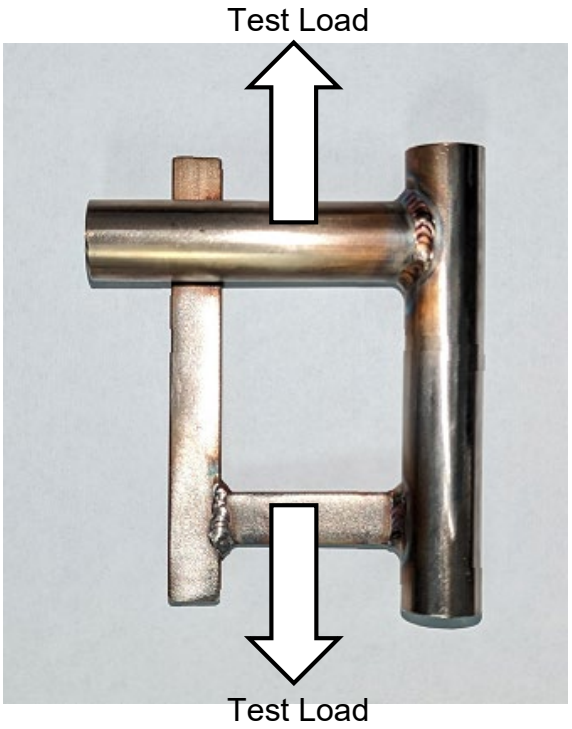


Figure 2. TENSILE TESTING LOAD SETUP OF SAMPLES 1 & 2

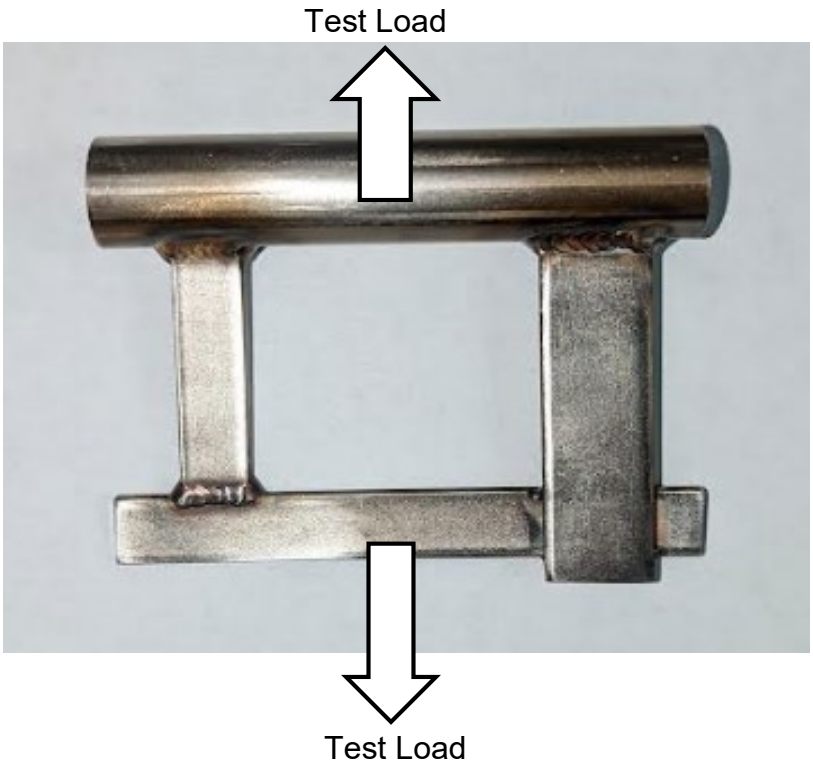


Figure 3. TENSILE TESTING LOAD SETUP OF SAMPLE 3

4.0 TEST EQUIPMENT AND CALIBRATION

4.1 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

5.0 RESULTS

Sample Number	Target Load (lbs)	Load Recorded (lbs)	Pass/Fail
1	3800	4002	PASS
2	3800	3942	PASS
3	3800	4035	PASS

6.0 SUMMARY

From the results above, all test samples were able to surpass the target load of 3800lbs. Although there was visible warping and permanent deformation on all flat bar samples, there was little to none structural damage on the tube stocks. Moreover, there was no damage to none of the welds for all of the samples.

7.0 APPENDIX

7.1 TEST SAMPLE 1

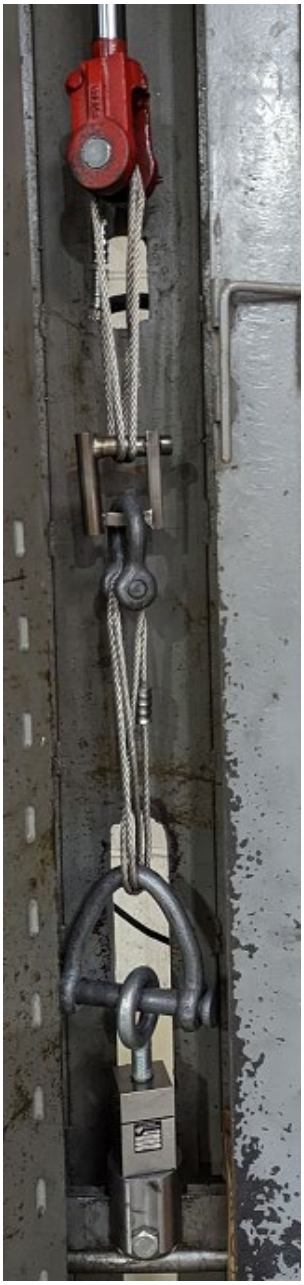


Figure 1. TEST SETUP OF SAMPLE 1 BEFORE LOADING



Figure 2. TEST SETUP OF SAMPLE 1 AFTER LOADING



Figure 3. FRONT VIEW OF SAMPLE 1 AFTER LOADING



Figure 4. REAR VIEW OF SAMPLE 1 AFTER LOADING

7.2 TEST SAMPLE 2



Figure 5. TEST SETUP OF SAMPLE 2 BEFORE LOADING



Figure 6. TEST SETUP OF SAMPLE 2 AFTER LOADING



Figure 7. SAMPLE 1 AFTER LOADING

7.3 TEST SAMPLE 3



Figure 8. TEST SETUP OF SAMPLE 3 BEFORE LOADING



Figure 9. TEST SETUP OF SAMPLE 3 AFTER LOADING



Figure 10. FRONT VIEW OF SAMPLE 3 AFTER LOADING



Figure 11. REAR VIEW OF SAMPLE 3 AFTER LOADING