Lifesaving Systems Corporation
220 Elsberry Road
Apollo Beach, Florida 33572
www.lifesavingsystems.com

STATIC LOAD TEST REPORT
STAMPED STAND UP V-RING

384-2-S



PROPRIETARY & CONFINDENTIAL

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OWNED BY LIFESAVING SYSTEMS AND MAY NOT BE DUPLICATED, COMMUNICATED TO OTHER PARTIES OR USED FOR ANY PURPOSE WITHOUT THE EXPRESS WRITTEN PERMISSION OF LIFESAVING SYSTEMS CORP.

Prepared by: _____ Date: 2/8/2022
Kyle Curry, **Engineering**

Approved by: _____ Date: 2/9/2022
Taran Fleming, **Quality Manager**

CONTENTS

CONTENTS 2
1.0 PURPOSE 3
2.0 PART DESCRIPTION 3
3.0 DESIGN AND MATERIAL 4
4.0 TEST REQUIRMENTS 5
5.0 TEST EQUIPMENT AND CALIBRATION 6
5.1 EQUIPMENT 6
6.0 RESULTS 7
7.0 SUMMARY 8
8.0 APPENDIX 9
8.1 TEST SAMPLE 1 9
8.2 PMI EXAMINATION REPORT 14

1.0 PURPOSE

The purpose of this report is to prove that P/N 384-2-S Stamped Stand Up V-Ring meets the static load strength requirements stated in the ANSI Z359 4.3.1.3 Tensile Testing of Buckles and Adjusters.

2.0 PART DESCRIPTION

This load bearing V-Ring is stamped from 8 Gauge 304 Stainless Steel and coined on all edges for added strength. Two V-Rings are used in tandem as lifting attachments points on P/N 214 Quick Strop.



Figure 1. 214 QUICK STROP

3.0 DESIGN AND MATERIAL

TECHNICAL SPECIFICATIONS	
Process:	Stamped
Material:	304 Stainless Steel (See Appendix for PMI Examination Report)
Size:	3.220” x 2.561” x 0.160” (8 Ga.)

4.0 TEST REQUIRMENTS

Submit the V-ring frame to an internally applied test load of 4000 lbs. (17.8kN) in the manner shown below in Figure 2. The time to reach the test load shall be greater than one minute to avoid dynamic effects. The test sample will then be taken to failure after achieving the target load of 4000 lbs. (17.8kN).

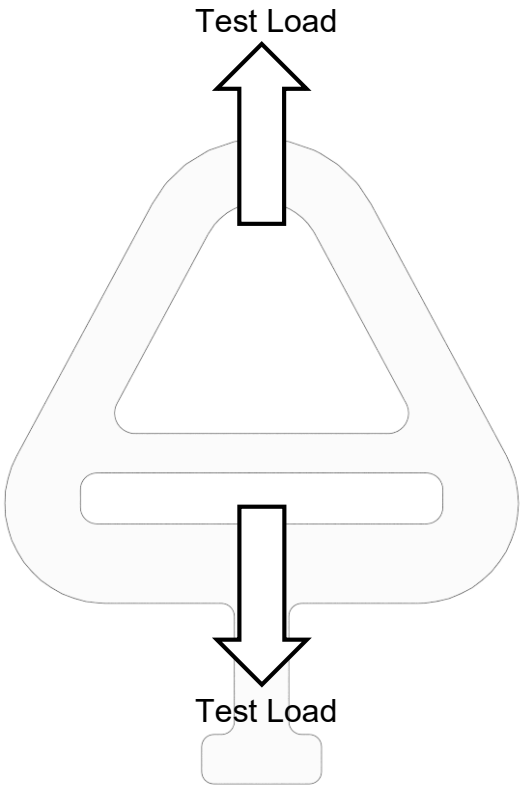


Figure 2. TENSILE TESTING LOAD SETUP

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

384-2-S			
Sample#	**Target Load (lbs)**	**Breaking Load (lbs)**	**Pass/Fail**
1	4000	5119	Pass

7.0 SUMMARY

From the results shown above, P/N 384-2-S Stamped Stand Up V-Ring passed the static load requirements of 4000 lbs. stated in ANSI Z359 4.3.1.3 Tensile Testing of Buckles and Adjusters. The sample part then achieved a breaking strength of 1000+ lbs. passed the target load.

8.0 APPENDIX

8.1 TEST SAMPLE 1



Figure 3. SAMPLE BEFORE TEST LOAD



Figure 4. TEST SETUP BEFORE LOADING



Figure 5. DIGITAL GAUGE SHOWING PEAK LOAD



Figure 6. TEST SETUP AFTER LOADING TO 5119 LBS.



Figure 7. TEST SAMPLE AFTER ACHIEVING 5119 LBS.

8.2 PMI EXAMINATION REPORT

NDE INCORPORATED
Quality Non-destructive Inspections Since 1984

PMI Examination Report

5218 Cone Road
Tampa, FL 33610
(813) 876-4688
www.non-destructive.com

				Testing Instrument		Procedure		Calibration Standard(s)	
Customer :	LIFESAVING SYSTEMS	Job # :	NDE 5658	Manufacturer :	OLYMPUS DELTA	Procedure # :	110.PMI.2	Standard :	1.25 Cr 0.5 Mo
Contractor :	-	P.O. :	4922	Model :	DP-2000	Exam Standard :	-	Serial # :	IARM 35LN
Date :	2/8/2022	Package :	N/A	Serial # :	511065	Acceptance		Standard :	-
Location :	NDE SHOP TAMPA,FL	Request :	N/A	Cal. Date :	2/8/2022	Criteria :	Information Only	Serial # :	-
Unit :	-	Spool # :	N/A						

Item ID	Size	Part Identification	Alloy Spec.	Reading No.	Heat/ Stamping	Result Data									Verified Alloy		
						C	Cr	Ni	Mo	Mn	Fe	Ti	V	Nb			
1	-	384-2-S-C STAND UP V-RING	304 SS	1	-	-	18.17	8.05	0.34	1.75	70.84	-	0.14	0.01	304 SS		
2	-	[illegible]	17-4 SS	2	-	-	15.29	3.96	0.23	0.44	76.32	-	0.12	0.21	17-4 SS		
3	-	[illegible]	17-4 SS	3	-	-	15.67	3.68	0.28	0.67	76.23	-	0.13	0.21	17-4 SS		
4	-	511-03-C LATCH,TALON LOT 1121	17-4 SS	4	-	-	15.72	4.71	0.31	0.52	74.41	-	0.14	0.18	17-4 SS		
5	-	410-38-C GATE LATCH CAST F/#414 BASE	17-4 SS	5	-	-	14.98	3.49	0.14	0.71	74.23	-	0.11	0.16	17-4 SS		
6	-	511-02-C GATE TALON	304 SS	6	-	-	17.12	8.27	0.24	1.16	72.24	-	0.12	0.04	304 SS		
7	-	513-02-C SWIVEL,TALON CAST	17-4 SS	7	-	-	16.04	4.25	0.11	0.21	74.46	-	0.08	0.16	17-4 SS		
8	-	513-06-C GATE,TALON CAST	17-4 SS	8	-	-	16.21	3.81	0.13	0.26	76.25	-	0.11	0.18	17-4 SS		
9	-	511-01MH-C HOOK BODY	17-4 SS	9	-	-	15.51	3.84	0.08	0.55	76.43	-	0.11	0.21	17-4 SS		

Comments

Inspector : RYAN HITE Signature : [signature] Date : 2/9/2022

Client Rep. : _____ Signature : _____ Date : _____

Details provided in this report are for information only, professional engineer or other qualified personnel should review the details contained herein.
Examination results are not considered a guarantee of any kind by NDE Inc.

FL.PMI.NDEHT REV.0 (08.03.2021)