INTERTEK TEST REPORT

Thomas Beach
Lifesaving Systems Corp.
Apollo Beach, Florida
USA

Intertek Test Report Number:	G102714233CRT-001
Product Model Number(s):	497-HL Triton, LG
Product Type:	Class III Harness
Product Brand Name:	Lifesaving Systems Corp.
Product Description:	Fire & Rescue Harness
Type of Testing Entity:	Third Party Testing Laboratory
Test Standard:	NFPA 1983-2012
Manufacturer's Name and Address:	(see above)
Evaluation/Testing Location(s):	Intertek, 3933 US Rte 11, Cortland, NY13045
Date(s) of Testing:	8/29/16 – 9/1/16

Dear Mr. Beach,

Intertek has completed the evaluation of your class III harness model 497-HL Triton, LG, to the test sections listed below of, NFPA 1983-2012 Edition, Standard on Life Safety Rope and Equipment for Emergency Services. The test samples were received in pristine condition. The evaluation was performed at Intertek in Cortland, NY on 8/29/16 – 8/31/16. The results of these tests are as indicated below.

Tests Completed:	Test Date	NFPA 1983-2012 Clause
Labeling & User Information	8/29/16	5.1.3 & 5.2.3
Design & Construction Requirements	8/29/16	6.3
Drop Test	8/30/16	7.4.2.2 & 8.4
Static Strength (Class III)	8/29/16	7.4.2.1 & 8.3
Victim Extrication Device (Class III)	9/1/16	7.7.2.1 & 8.3
Product Label and Durability	8/29/16	8.10
Thread Melt	8/29/16	7.4.5 & ASTM E794
Heat Resistance	8/29/16	7.4.6.2 & 8.17
Corrosion Resistance	8/29/16 – 8/31/16	8.8 & ASTM B117

Please see attached test data for details.

Tested by,

Matthew Stevens
Technician
Performance Group

Reviewed by,

Andrew Rulison
Team Leader
Performance Group

An independent organization testing for safety, performance, and certification.
****** "Intertek Laboratory is ISO/IEC 17025:2005 (CAN-P-4E) accredited by Standards Council of Canada (SCC) with the scope available for review at the following location: http://www.scc.ca/en/palcan/38

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Intertek, Inc.
3933 US Route 11, Cortland, NY 13045 USA
Telephone: +1 607-753-6711 Fax: +1 607-756-9891 Web: www.intertek.com

Client:	Lifesaving Systems Corp.	Engineer:	Andrew Rulison		
Job No.:	G102714233	Tested By:	Matthew Stevens	Date:	9/1/16
Product:	Class III Harness	Reviewed By:	Andrew Rulison	Date:	9/1/16
Model No.:	497-HL Triton, LG	Standard:	NFPA 1983-2012		
Description:	Life Safety Harness	Control No.	CRT1608151121		

TEST EQUIPMENT					
Used for Test	**Description**	**Manufacturer**	**Control No.**	**Cal. Date**	**Cal. Due**
X	Drop Test Structure	Intertek	T1223	NA	NA
X	Test Torso	Intertek	J152	VBU	VBU
X	Stop Watch	FS	N1179	10/19/15	10/19/16
X	Tape Measure	Kobalt	R215	1/14/16	1/14/17
X	Load Cell	Interface	M1397	9/18/15	9/18/16

Section	Requirement	Results	
5.1.3	Chapter 5, “Life Safety Harness” - Labeling and Information		
5.1.3.1	Have product label		YES
5.1.3.2	Manufactured systems be individually labeled		YES
5.1.3.3	Labels permanently attached		YES
5.1.3.4	Shall be conspicuously located		YES
5.1.3.5	All letters 2 mm (5/64-inches) high		YES
5.1.3.6	Multiple labels adjacent to each other		YES
5.1.3.7	Shall be in English		YES
5.1.3.8	Symbols shall be permitted		YES
5.1.3.9	Certification labels shall be 2.5 mm (3/32-inches)high		YES
5.1.3.10	Shall have Compliance statement (as described in Test Standard)		YES
5.1.3.11	Additional Compliance statement (as described in Test Standard)		YES
5.1.3.12	Size designation (as described in Test Standard)		YES
5.1.3.13	Class designation		YES
5.1.3.14	Additional label information & 2 mm (5/64-inches) high		YES
5.1.3.15	Detachable components label & 2.5 mm (3/32-inches) high		YES
5.2.3	“Life Safety Harness” - User Information		
5.2.3.1	Shall furnish use criteria, inspection procedures, maintenance procedures, and retirement criteria		YES
5.2.3.2 (1)	Inspection		YES
5.2.3.2 (2)	Remove from service		YES
5.2.3.2 (3)	Non-optional exposure to flame or high temperature		YES
5.2.3.2 (4)	Repairing the harness		YES
5.2.3.2 (5)	Keeping and retaining in a permanent record		YES
5.2.3.2 (6)	Referring to the user instructions		YES
5.2.3.2 (7)	Cautions		YES
5.2.3.3	Reference to NFPA 1500		YES
5.2.3.4	Furnish sample of suggested records		YES
5.2.3.5	Tie-off required for webbing ends during testing. Instructions shall include locations, methods, & text.		YES

Client:	Lifesaving Systems Corp.	Engineer:	Andrew Rulison		
Job No.:	G102714233	Tested By:	Matthew Stevens	Date:	9/1/16
Product:	Class III Harness	Reviewed By:	Andrew Rulison	Date:	9/1/16
Model No.:	497-HL Triton, LG	Standard:	NFPA 1983-2012		
Description:	Life Safety Harness	Control No.	CRT1608151121		

Section	Requirement	Results	
6.3	Chapter 6, "Life Safety Harness" - Design and Construction Requirements		
6.3.1	Class II or Class III	Class III	YES
6.3.1.1	Class II (designed for rescue load of 600 lb)		NA
6.3.1.1.1	Class II (consist of one or more parts)		NA
6.3.1.2	Class III		NA
6.3.1.2.1	Class III (designed for rescue load of 600 lb)		NA
6.3.1.2.2	Class III (consist of one or more parts)		YES
6.3.2	Adjustable within a range of sizes		YES
6.3.3	Load bearing textiles made from virgin, synthetic, continuous filament fiber		YES
6.3.4	Webbing ends secured		YES
6.3.5	Thread ease of inspection at 305 mm, stitching breaks backtacked not less than 13 mm		YES
6.3.6	One load bearing attachment point front waist or sternal location		YES
6.3.7	Load bearing hardware made of metal		YES
6.3.7.1	Castings shall meet SAE-STD 2175A		YES

7.4.2.2 (Test 8.4)

DROP TEST (Class III): Both Configurations

Requirements: Shall not contact the ground during any of the test drops.

Ref : Table 8.4.1.2 & section 8.4.9, 300 lb torso, drop height = 1 m (39 inches)

Drop Test- Upright Position

	Sample #: 1	Sample #: 2	Sample #: 3
Load bearing attachment point:	Front V-Ring		
New/unused condition/conform to MFG's specs	YES	YES	YES
Test mass impact the ground:	NO	NO	NO
Methods of tie-off of webbing ends	N/A	N/A	N/A

Drop Test- Head Down Position

	Sample #: 1	Sample #: 2	Sample #: 3
Load bearing attachment point:	Front V-Ring		
New/unused condition/conform to MFG's specs	YES	YES	YES
Test mass impact the ground:	NO	NO	NO
Methods of tie-off of webbing ends	N/A	N/A	N/A

Client:	Lifesaving Systems Corp.	Engineer:	Andrew Rulison		
Job No.:	G102714233	Tested By:	Matthew Stevens	Date:	9/1/16
Product:	Class III Harness	Reviewed By:	Andrew Rulison	Date:	9/1/16
Model No.:	497-HL Triton, LG	Standard:	NFPA 1983-2012		
Description:	Life Safety Harness	Control No.	CRT1608151121		

Section	Requirement	Results
7.4.2	**Class III (Top and Bottom Half)**	
7.4.2.1 (Test 8.3)	STATIC TEST, Class III: Shall not release from torso, buckles and adjusting devices shall not slip more than 25 mm (1-inch) and show no visible signs of damage to affect its function Test 8.3: Static Test, Table 8.3.1.2: Class III, test Upright & Head Down, If Class III (8.3.1.4) go to 8.3.9 Take 2 min to get to required load (8.3.5.5.1), Preload to 181 lbf (8.3.5.3), adjust torso and sample Test upright first (8.3.9.1), Load = 3,597 lbf (8.3.9.2) for 1 min (8.3.5.6),Release, then reapply load for 5 min Test head down next (8.3.9.1), Load = 2,248 lbf (8.3.9.2) for 1 min, Release, then reapply load for 5 min If shoulder attachment pts (8.3.5.5.1),Test upright as a pair to 3,597 lbf for 1 min, Release and reapply load for 5 min	

Static Test- Upright Position Configuration A (3,597 lbf)

	Sample #: 1	Sample #: 2	Sample #: 3
Release from torso	NO	NO	NO
Slippage- leg strap Rt. (inches)	0	0	0
Slippage- leg strap Lt. (inches)	0	0	0
Slippage- Waist/pelvic Rt. (inches)	NA	NA	NA
Slippage- Waist/pelvic Lt. (inches)	0	0	0
Slippage- Chest (inches)	NA	NA	NA
Slippage- Back (inches)	0	0	0
Visible signs of damage that would affect function	NO	NO	NO
Methods of tie-off of webbing ends	NA	NA	NA

Static Test- Head Down Position (3,597 lbf)

	Sample #: 1	Sample #: 2	Sample #: 3
Release from torso	NO	NO	NO
Slippage- leg strap Rt. (inches)	0	0	0
Slippage- leg strap Lt. (inches)	0	0	0
Slippage- Waist/pelvic Rt. (inches)	NA	NA	NA
Slippage- Waist/pelvic Lt. (inches)	0	0	0
Slippage- Chest (inches)	NA	NA	NA
Slippage- Back (inches)	0	0	0
Visible signs of damage that would affect function	NO	NO	NO
Methods of tie-off of webbing ends	NA	NA	NA

Static Test- Head Down Position (3,597 lbf)

	Sample #: 1	Sample #: 2	Sample #: 3
Release from torso	NO	NO	NO
Slippage- leg strap Rt. (inches)	0	0	0
Slippage- leg strap Lt. (inches)	0	0	0
Slippage- Waist/pelvic Rt. (inches)	NA	NA	NA
Slippage- Waist/pelvic Lt. (inches)	0	0	0
Slippage- Chest (inches)	NA	NA	NA
Slippage- Back (inches)	0	0	0
Visible signs of damage that would affect function	NO	NO	NO
Methods of tie-off of webbing ends	NA	NA	NA

Client:	Lifesaving Systems Corp.	Engineer:	Andrew Rulison		
Job No.:	G102714233	Tested By:	Matthew Stevens	Date:	9/1/16
Product:	Class III Harness	Reviewed By:	Andrew Rulison	Date:	9/1/16
Model No.:	497-HL Triton, LG	Standard:	NFPA 1983-2012		
Description:	Life Safety Harness	Control No.	CRT1608151121		

Section	Requirement	Results
7.4.2.2 (Test 8.4)	VICTIM EXTRICATION DEVICE, Class III: Shall not release from torso, buckles and adjusting devices shall not slip more than 25 mm (1-inch) and show no visible signs of damage to affect its function Test 8.4: Static Test, Table 8.3.1.2: Class III, test Upright & Head Down, If Class III (8.3.1.4) go to 8.3.9 Take 2 min to get to required load (8.3.5.5.1), Preload to 181 lbf (8.3.5.3), adjust torso and sample Test upright first (8.3.9.1), Load = 3,597 lbf (8.3.9.2) for 1 min (8.3.5.6),Release, then reapply load for 5 min Test head down next (8.3.9.1), Load = 2,248 lbf (8.3.9.2) for 1 min, Release, then reapply load for 5 min	

Static Test- Upright Position Configuration A (3,597 lbf)

	Sample #: 1	Sample #: 2	Sample #: 3
Release from torso	NO	NO	NO
Slippage- leg strap Rt. (inches)	0	0	0
Slippage- leg strap Lt. (inches)	0	0	0
Slippage- Waist/pelvic Rt. (inches)	NA	NA	NA
Slippage- Waist/pelvic Lt. (inches)	0	0	0
Slippage- Chest (inches)	NA	NA	NA
Slippage- Back (inches)	0	0	0
Visible signs of damage that would affect function	NO	NO	NO
Methods of tie-off of webbing ends	NA	NA	NA

Static Test- Head down Position (3,597 lbf)

	Sample #: 1	Sample #: 2	Sample #: 3
Release from torso	NO	NO	NO
Slippage- leg strap Rt. (inches)	0	0	0
Slippage- leg strap Lt. (inches)	0	0	0
Slippage- Waist/pelvic Rt. (inches)	NA	NA	NA
Slippage- Waist/pelvic Lt. (inches)	0	0	0
Slippage- Chest (inches)	NA	NA	NA
Slippage- Back (inches)	0	0	0
Visible signs of damage that would affect function	NO	NO	NO
Methods of tie-off of webbing ends	NA	NA	NA

Horizontal Position (2,248 lbf)

	Sample #: 1	Sample #: 2	Sample #: 3
Release from torso	NO	NO	NO
Slippage- leg strap Rt. (inches)	0	0	0
Slippage- leg strap Lt. (inches)	0	0	0
Slippage- Waist/pelvic Rt. (inches)	NA	NA	NA
Slippage- Waist/pelvic Lt. (inches)	0	0	0
Slippage- Chest (inches)	NA	NA	NA
Slippage- Back (inches)	0	0	0
Visible signs of damage that would affect function	NO	NO	NO
Methods of tie-off of webbing ends	NA	NA	NA

Client:	Lifesaving Systems Corp.	Engineer:	Andrew Rulison		
Job No.:	G102714233	Tested By:	Matthew Stevens	Date:	9/1/16
Product:	Class III Harness	Reviewed By:	Andrew Rulison	Date:	9/1/16
Model No.:	497-HL Triton, LG	Standard:	NFPA 1983-2012		
Description:	Life Safety Harness	Control No.	CRT1608151121		

Section	Requirement	Results
7.4.4 (Test 8.8)	Hardware shall show no more than light surface-type corrosion or oxidation. Ferrous metals shall show no corrosion of the base metal, and remain functional. Test 5 samples each type. (Ref: ASTM B 117-2011)	

Model # / Description:	487-13C				
Sample #:	1	2	3	4	5
Corrosion:	NO	NO	NO	NO	NO
Functions:	YES	YES	YES	YES	YES

Model # / Description:	723				
Sample #:	1	2	3	4	5
Corrosion:	NO	NO	NO	NO	NO
Functions:	YES	YES	YES	YES	YES

Model # / Description:	513				
Sample #:	1	2	3	4	5
Corrosion:	NO	NO	NO	NO	NO
Functions:	YES	YES	YES	YES	YES

Model # / Description:	721				
Sample #:	1	2	3	4	5
Corrosion:	NO	NO	NO	NO	NO
Functions:	YES	YES	YES	YES	YES

Model # / Description:	487-12				
Sample #:	1	2	3	4	5
Corrosion:	NO	NO	NO	NO	NO
Functions:	YES	YES	YES	YES	YES

Model # / Description:	451				
Sample #:	1	2	3	4	5
Corrosion:	NO	NO	NO	NO	NO
Functions:	YES	YES	YES	YES	YES

Client:	Lifesaving Systems Corp.	Engineer:	Andrew Rulison		
Job No.:	G102714233	Tested By:	Matthew Stevens	Date:	9/1/16
Product:	Class III Harness	Reviewed By:	Andrew Rulison	Date:	9/1/16
Model No.:	497-HL Triton, LG	Standard:	NFPA 1983-2012		
Description:	Life Safety Harness	Control No.	CRT1608151121		

<table>
<tr><th>Section</th><th>Requirement</th><th>Results</th></tr>
<tr><td>7.4.5</td><td>Fiber and thread used in load bearing materials shall have melting point of not less than 204°C.
(Ref ASTM E 794-2006)</td><td>
<table>
<tr><td>Model # / Description</td><td>Melting Point (℃)</td></tr>
<tr><td>Black 1</td><td>Greater Than 204</td></tr>
<tr><td>Black 2</td><td>Greater Than 204</td></tr>
<tr><td>Black 3</td><td>Greater Than 204</td></tr>
<tr><td>Yellow</td><td>Greater Than 204</td></tr>
<tr><td>White</td><td>Greater Than 204</td></tr>
<tr><td>Grey</td><td>Greater Than 204</td></tr>
</table>
</td></tr>
<tr><td>7.11.6.2
(8.17)</td><td>Heat Resistance Test:
No Melt, drip, separate or ignite.

Expose to 260 C +6/- 0 for 5 mins</td><td>
<table>
<tr><th>Model:</th><th>Melt</th><th>Drip</th><th>Separate</th><th>Ignite</th><th>Functional</th></tr>
<tr><td>723</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>YES</td></tr>
<tr><td>513</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>YES</td></tr>
<tr><td>721</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>YES</td></tr>
<tr><td>451</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>YES</td></tr>
<tr><td>487-13C</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>YES</td></tr>
<tr><td>487-12</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>YES</td></tr>
<tr><td>H001</td><td>YES</td><td>YES</td><td>YES</td><td>NO</td><td>NO</td></tr>
<tr><td>H002</td><td>YES</td><td>YES</td><td>YES</td><td>NO</td><td>NO</td></tr>
<tr><td>Label</td><td>YES</td><td>YES</td><td>YES</td><td>NO</td><td>NO</td></tr>
</table>
</td></tr>
<tr><td>7.4.3
(Test 8.10)</td><td>Product Label Durability Test:
Product labels shall be legible and not be torn or otherwise damaged following test

Ref: 8.10.1.3, 8.10.8, Abrasion Durability only, 8.10.4.1

(Ref: ASTM D 4966-2010)</td><td>
<table>
<tr><td>Sample #</td><td>Acceptable</td><td>Unacceptable</td></tr>
<tr><td>1 (2 dry)</td><td>X</td><td></td></tr>
<tr><td>2 (2 wet)</td><td>X</td><td></td></tr>
<tr><td>3 (dry edge)</td><td>X</td><td></td></tr>
<tr><td>4 (wet edge)</td><td>X</td><td></td></tr>
<tr><td>5 Write-in (dry)</td><td>X</td><td></td></tr>
<tr><td>6 Write-in (wet)</td><td>X</td><td></td></tr>
</table>
</td></tr>
</table>