

**SCOPE OF WORK** ANSI  
Z359.11-2014 Safety  
Requirements for Full  
Body Harnesses

**REPORT NUMBER**  
103964877CRT-001

**ISSUE DATE**

November 20<sup>th</sup>, 2019

**PAGES**  
13

**DOCUMENT CONTROL**  
**NUMBER** GFT-OP-10a (6-  
March-2017)  
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## SECTION 1 SUMMARY OF TESTING

**TEST REPORT FOR LONDON FALL PROTECTION** Date:  
December 22/ 2019

Report No.: 103964877CRT-001

Formatted for reader simplification

TESTS COMPLETED	ANSI/ASSP Z359.13-2013 CLAUSE	STATUS
Design	3	PASS
Activation Force	4.2	PASS
Dynamic Performance – Ambient Wet	4.13.1	PASS
Dynamic Performance – Cold Dry	4.13.2	PASS
Dynamic Performance – Hot Dry	4.13.3	PASS
Static Strength	4.7	PASS
Dynamic Performance – Ambient	4.5	PASS
Markings and Instructions	5	PASS

## SECTION 2

This test report concludes the work anticipated in the testing phase of your project. If there are any questions regarding this report please contact the undersigned at 607-753-6711.

**COMPLETED  
BY:**

Theodore Brown

**TITLE:**

Technician

**SIGNATURE:**

**DATE**

11/27/19

**REVIEWED  
BY:**

Matthew Stevens

**TITLE:**

Reviewer

**SIGNATURE**

**DATE:**

11/27/19

SEE COMPLETED DATA BELOW



Total Quality. Assured.

3933 US Route 11  
Cortland, New York ,USA  
13045

## TEST REPORT FOR LONDON FALL PROTECTION

Report No.: 104167245CRT-001a

Date: November 27<sup>th</sup> 2019

Telephone: 607-758-6246  
Facsimile: None  
www.intertek.com

**Doug Corum**  
**London Fall Protection**  
**1731 Price Grange Road, Stoneville NC**  
**27048, USA**  
***Doug@londongarmentmfg.com***

**Report Number.....** 104167245CRT-001a

**Signed Quote Number.....** Qu-01032997

**PO Number.....:** 112519L

**Name of Testing Laboratory**  
**Preparing the Report .....** Intertek Testing Services NA Inc.

### Test Specification:

**Standard.....** ANSI/ASSP Z359.13-2013

**Date(s) of Testing.....** 11/25/19 – 11/26/19

### Product Description:

**Product Type: .....** 6' EAL

**Brand Name: .....** LFP

**Model Number(s): .....** Strong Arm

**Date(s) Samples Received .....** 11/22/19

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**TEST REPORT FOR LONDON FALL PROTECTION**

Report No.: 104167245CRT-001a

Date: November 27<sup>th</sup> 2019**SECTION 1****SUMMARY OF TESTING**

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<b>TITLE:</b>	Technician	<b>TITLE:</b>	Reviewer
<b>SIGNATURE:</b>		<b>SIGNATURE:</b>	
<b>DATE</b>	11/27/19	<b>DATE:</b>	11/27/19

Please see attached test data for details.

# TEST REPORT FOR LONDON FALL PROTECTION

Report No.: 104167245CRT-001a

Date: November 27<sup>th</sup> 2019

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3.2	Energy Absorbing Lanyard (EAL) component		PASS																																																																																																												
3.2.1	Material		PASS																																																																																																												
3.2.2	Terminations		PASS																																																																																																												
3.2.2.1	Spliced		PASS																																																																																																												
3.2.2.2	Stitched		PASS																																																																																																												
3.2.2.3	Wire rope		PASS																																																																																																												
3.2.2.4	Terminations (other)		PASS																																																																																																												
3.2.3	EAL Connectors		PASS																																																																																																												
4.2	<b>Activation Force Testing of PEA's</b> Apply 10 lb load and measure bearing pt to bearing pt, apply static force of 450 lbs minimum, hold for no less than 1 minute, examine for activation, release load, allow sample to recover un-tensioned for 1 hour , then re-measure with 10-lb load, shall not activate or elongate > 2-inches. <table><tr><td>6 ft FF:</td><td>X</td><td>Sample: 1</td><td>Sample: 2</td><td>Sample: 3</td><td></td></tr><tr><td>12 ft FF:</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Signs of Activation:</td><td></td><td>NO</td><td>NO</td><td>NO</td><td></td></tr><tr><td>Length, initial:</td><td></td><td>75 ¾"</td><td>76"</td><td>75 ½"</td><td>Inches</td></tr><tr><td>Length, final:</td><td></td><td>77 ¼"</td><td>77 ½"</td><td>77 ¼"</td><td>Inches</td></tr><tr><td>Elongation (Lf-Li):</td><td></td><td>1 ½"</td><td>1 ½"</td><td>1 ¾"</td><td>Inches</td></tr></table>		6 ft FF:	X	Sample: 1	Sample: 2	Sample: 3		12 ft FF:						Signs of Activation:		NO	NO	NO		Length, initial:		75 ¾"	76"	75 ½"	Inches	Length, final:		77 ¼"	77 ½"	77 ¼"	Inches	Elongation (Lf-Li):		1 ½"	1 ½"	1 ¾"	Inches	PASS																																																																								
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# TEST REPORT FOR LONDON FALL PROTECTION

Report No.: 104167245CRT-001a

Date: November 27<sup>th</sup> 2019

SECTION (TEST)	REQUIREMENT	RESULTS	COMPLIANCE																																																																																																						
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Elongation, initial:		101 ½"	101"	101"	Inches																																																																																																			
Elongation, final:		136 ½"	137"	138 ½"	Inches																																																																																																			
Total Elongation (Ef-Ei):		35"	36"	37 ½"	Inches																																																																																																			
AF avg. :		823	842	824	Lbs-f																																																																																																			
AF max. :		1038	1150	1306	Lbs-f																																																																																																			
(4.6)	<p><b>Static Strength Testing</b></p> <p>Subject Lanyard to a force &gt; 5,000 lbs-f for 1 minute. Time to reach load to be 3-minutes minimum.</p>	<table><tr><th colspan="5"><b>Connection – central connector/ EAL leg</b></th></tr><tr><td><b>6 ft</b></td><td><b>X</b></td><td colspan="3">Sample:</td></tr><tr><td><b>12 ft</b></td><td></td><td>1</td><td>2</td><td>3</td></tr><tr><td colspan="2">Break</td><td>YES</td><td>YES</td><td>YES</td></tr><tr><td colspan="2">Broke at (lbs)</td><td>4431</td><td>4672</td><td>4298</td></tr></table>	<b>Connection – central connector/ EAL leg</b>					<b>6 ft</b>	<b>X</b>	Sample:			<b>12 ft</b>		1	2	3	Break		YES	YES	YES	Broke at (lbs)		4431	4672	4298	FAIL																																																																												
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# TEST REPORT FOR LONDON FALL PROTECTION

Report No.: 104167245CRT-001a

Date: November 27<sup>th</sup> 2019

SECTION (TEST)	REQUIREMENT	RESULTS	COMPLIANCE																																																																											
4.5	<p><b>Dynamic performance testing (Ambient)</b></p> <p>use 20- lb test weight for measurements</p> <table><tr><th colspan="3">Requirements</th></tr><tr><th>Ambient Dry</th><th>Avg. AF lbs-f</th><th>Max. AF lbs-f</th></tr><tr><td>6ft FF</td><td>&lt; 900</td><td>&lt; 1,800</td></tr><tr><td>12 ft FF</td><td>&lt; 1,350</td><td>&lt; 1,800</td></tr><tr><th colspan="3">Max. Deployment Distance</th></tr><tr><td>6ft FF</td><td colspan="2">48- inches</td></tr><tr><td>12 ft FF</td><td colspan="2">60-inches</td></tr></table> <table><tr><th colspan="6">AMBIENT DRY</th></tr><tr><td>6 ft FF:</td><td>X</td><td>Sample: 1</td><td>Sample: 2</td><td>Sample: 3</td><td></td></tr><tr><td>12 ft FF:</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td colspan="2">“Zero” force sensor:</td><td>YES</td><td>YES</td><td>YES</td><td></td></tr><tr><td colspan="2">Elongation, initial:</td><td>98</td><td>96</td><td>95 ½</td><td>Inches</td></tr><tr><td colspan="2">Elongation, final:</td><td>136 ½”</td><td>135 ½ “</td><td>135 ”</td><td>Inches</td></tr><tr><td colspan="2">Total Elongation (Ef-Ei):</td><td>38 ½”</td><td>39 ½ “</td><td>34 ½ “</td><td>Inches</td></tr><tr><td colspan="2">AF avg. :</td><td>831</td><td>820</td><td>760</td><td>Lbs-f</td></tr><tr><td colspan="2">AF max. :</td><td>1326</td><td>1152</td><td>857</td><td>Lbs-f</td></tr></table>	Requirements			Ambient Dry	Avg. AF lbs-f	Max. AF lbs-f	6ft FF	< 900	< 1,800	12 ft FF	< 1,350	< 1,800	Max. Deployment Distance			6ft FF	48- inches		12 ft FF	60-inches		AMBIENT DRY						6 ft FF:	X	Sample: 1	Sample: 2	Sample: 3		12 ft FF:						“Zero” force sensor:		YES	YES	YES		Elongation, initial:		98	96	95 ½	Inches	Elongation, final:		136 ½”	135 ½ “	135 ”	Inches	Total Elongation (Ef-Ei):		38 ½”	39 ½ “	34 ½ “	Inches	AF avg. :		831	820	760	Lbs-f	AF max. :		1326	1152	857	Lbs-f		PASS
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5.1	General Marking Requirements																																																																													
5.1.1	Shall be in English			PASS																																																																										
5.1.2	Required markings shall endure the life of the component, when PSL’s are used they shall comply with UL969-89			PASS																																																																										
5.1.3	Equipment shall be marked with the following:																																																																													
	<table><tr><th>Marking</th><th>Comments</th><th>YES</th><th>NO</th><th>NA</th></tr><tr><td>Part number and model designation</td><td></td><td>X</td><td></td><td></td></tr><tr><td>Year of manufacture</td><td></td><td>X</td><td></td><td></td></tr><tr><td>Manufacturer’s name or logo</td><td></td><td>X</td><td></td><td></td></tr><tr><td>Capacity rating</td><td></td><td>X</td><td></td><td></td></tr><tr><td>Serial number</td><td></td><td>X</td><td></td><td></td></tr><tr><td>Standard number</td><td></td><td>X</td><td></td><td></td></tr><tr><td>Warning to follow the manufacturer’s instructions included with the equipment at time of shipment from the manufacturer</td><td></td><td>X</td><td></td><td></td></tr></table>	Marking	Comments	YES	NO	NA	Part number and model designation		X			Year of manufacture		X			Manufacturer’s name or logo		X			Capacity rating		X			Serial number		X			Standard number		X			Warning to follow the manufacturer’s instructions included with the equipment at time of shipment from the manufacturer		X					PASS																																		
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SECTION (TEST)	REQUIREMENT	RESULTS				COMPLIANCE
5.2	Specific marking requirements					
5.2.1	PEA's and EAL's shall be marked with the following:					PASS
	Marking	Comments	YES	NO	NA	
	The fiber used in the material of construction		X			
	The length		X			
	The need to avoid contact with sharp edges and abrasive surfaces		X			
	The need to make only compatible connections		X			
	The maximum elongation		X			
	Restriction, if, any, on the types of components, with which the PEL is designed to be used		X			
	The Avg AF, Max FF distance , and capacity of the PEA on a separate label identical in size, color, and content as fig 17a and 17b		X			
	6 ft FF PEA's shall be in black print on a contrasting white background, fig 17a		X			
	12 ft FF PEA's shall be in white print on a contrasting black background, fig 17b				X	
5.3	General Instruction Requirements					
5.3.1	Instructions shall be in English, and affixed to the equipment at time of shipment from the manufacturer					PASS
5.3.2	Instructions shall contain the following information:					PASS
	Instructions	Comments	YES	NO	NA	
	A statement that the manufacturer's instructions shall be provided to the users		X			
	Manufacturers name, address, and telephone number		X			
	Manufacturer's part number and model designation for the equipment		X			
	Intended use and purpose of the equipment		X			
	Proper method of use and limitations on use of the equipment		X			
	Illustrations showing locations of markings on the equipment		X			
	Reproduction of printed information on all markings		X			
	Inspection procedures required to assure the equipment is in serviceable condition and operating correctly		X			
	Anchorage requirements		X			
	An illustration of how to calculate free fall distances		X			
	Criteria for discarding equipment which fails inspection		X			
	Procedures for cleaning, maintenance, and storage		X			
	Reference to Z359.13		X			



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SECTION (TEST)	REQUIREMENT	RESULTS	COMPLIANCE
5.3.3	Instructions shall require that only the equipment manufacturer , or persons or entities authorized in writing by the manufacturer, shall make repairs to the equipment		PASS
5.3.4	Instructions shall require the user to remove equipment from field service if it has been subjected to the forces of arresting a fall		PASS

**SECTION 5****REVISION HISTORY**

REPORT NUMBER	DATE OF REVISION	DESCRIPTION OF CHANGE:	PROJECT OWNER	REVIEWED BY
104167245CRT-001a	11/27/19	Original	Theodore Brown	Matthew Stevens