

FRONTLINE FALL PROTECTION INC. TEST REPORT

SCOPE OF WORKS

ANSI/ASSP Z359.14-2021 – SELF RETRACTING DEVICES

REPORT NUMBER

105874305CRT-002

ORIGINAL REPORT NUMBER

105209482CRT-001

ISSUE DATE

July 15, 2024

PAGES

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TEST REPORT FOR FRONTLINE FALL PROTECTION INC.

Report No.: 105874305CRT-002

Date: July 15, 2024

Telephone: 607-758-6246
www.intertek.com

FRONTLINE FALL PROTECTION INC. 6 Lee BLVD Malvern, PA 19355 UNITED STATES info@frontlinefall.com		Phone: 1+ 305-721-4407
Report Number..... :	105874305CRT-002	
Signed Quote Number..... :	Qu-01456258-3	
PO Number.....:	N/A	
Name of Testing Laboratory Preparing the Report..... :	Intertek Testing Services NA Inc.	
Test Specification:		
Standard..... :	ANSI/ASSP Z359.14-2021	
Date(s) of Testing..... :	10/24/2022-10/28/2022	
Product Description:		
Product Type:	Self-Retracting Lanyard	
Brand Name:..... :	Frontline Fall Protection	
Model Number(s):..... :	RPG50LE	
Model Share:.....:	RPG25LE	
Dates Samples Received:	9/26/2022	

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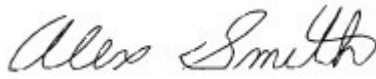

SECTION 1

SUMMARY OF TESTING

TESTS COMPLETED	ANSI/ASSP Z359.14-2021 CLAUSE	STATUS
General Requirements	3.1	PASS
Markings and instructions/User inspection, Maintenance	5.1, 5.2/6	PASS
Static Strength Testing of SRD's	3.2.1/4.2.1	PASS
Dynamic Performance (ambient)	3.3/4.3.1	PASS
Dynamic Performance (LE) (ambient)	3.3.3/4.3.3	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:	Alex Smith	REVIEWED BY:	Matthew Stevens
TITLE:	Technician	TITLE:	Team Leader
SIGNATURE:		SIGNATURE	
DATE	07/15/2024	DATE:	07/15/2024

Please see attached test data for details.

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SECTION 3

TESTING EQUIPMENT CALIBRATION INFORMATION

USED FOR TEST	DESCRIPTION	MANUFACTURER	CONTROL NO.	MODEL NO.	SERIAL NO.	CAL. DATE	CAL. DUE
X	Test Weight	NA	NA	310 lbs	-	VBU	VBU
X	Load Cell	PCB	N1392	-	-	8/30/22	8/23/2023
X	Tape Measure	Kobalt	H422	25'	-	5/13/2022	5/13/2023
X	Load Cell	Interface	L099	-	-	11/11/2021	11/11/2022

SECTION 4

Section (Test)	Requirement	Results	Compliance																																																																																																														
3	"Marking and Instructions"																																																																																																																
5.1.1	Shall be in English		PASS																																																																																																														
5.1.3	Self-Retracting Devices shall be marked with the following:		PASS																																																																																																														
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Section (Test)	Requirement	Results				Compliance
5.2.2	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			
	Criteria for discarding equipment which fails inspection		X			
	Procedures for cleaning, maintenance, and storage		X			
	Reference to Z359 standards		X			
	Proper installation means and limitations on the type of anchorage connectors used		X			
	The fiber or other materials used in the lanyard construction		X			
	The lanyard length		X			
	The average arresting force when dynamically tested in accordance with the requirements of the standard		X			
SRD class and arrest distance when dynamically tested in accordance with the requirements of the standard		X				
How to determine fall clearance		X				
Testing the device for locking before each use		X				
5.2.3	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
5.2.4	Instructions shall require the user to remove equipment from service if it has been subjected to the forces of arresting a fall or affecting a rescue					PASS
5.2.5	Instructions shall require the user to have a written rescue plan and the means at hand to implement it when using the equipment					PASS

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Section (Test)	Requirement	Results	Compliance																																													
5.2.6	Instructions shall provide warnings regarding:	<table border="1"> <thead> <tr> <th>Warnings</th> <th>Comments</th> <th>YES</th> <th>NO</th> <th>NA</th> </tr> </thead> <tbody> <tr> <td>Altering the equipment</td> <td></td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>Misusing the equipment</td> <td></td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>Using combinations of components or sub-systems, or both, which may affect or interfere with the safe function of each other</td> <td></td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>Exposing the equipment to chemicals, high heat, severe cold, or other harsh environments which may produce a harmful effect and to consult the manufacturer in case of doubt</td> <td></td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>Using the equipment around moving machinery and electrical hazards</td> <td></td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>Using the equipment near sharp edges or abrasive surfaces</td> <td></td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>Risk of striking an object or obstruction during a swing fall</td> <td></td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>That the consequences of improperly using the device, not following instructions or markings may cause serious injury or death</td> <td></td> <td>X</td> <td></td> <td></td> </tr> </tbody> </table>	Warnings	Comments	YES	NO	NA	Altering the equipment		X	X		Misusing the equipment		X			Using combinations of components or sub-systems, or both, which may affect or interfere with the safe function of each other		X			Exposing the equipment to chemicals, high heat, severe cold, or other harsh environments which may produce a harmful effect and to consult the manufacturer in case of doubt		X			Using the equipment around moving machinery and electrical hazards		X			Using the equipment near sharp edges or abrasive surfaces		X			Risk of striking an object or obstruction during a swing fall		X			That the consequences of improperly using the device, not following instructions or markings may cause serious injury or death		X			PASS
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6	User Inspection, Maintenance and Storage of Equipment		PASS																																													

SUPPLEMENTAL TEST DATA

Section (Test)	Requirement	Results	Compliance								
3.2.1/4. 2.1	Static Strength: (ambient) shall withstand 3,000 lbs. when tested to: - apply a 3,000 lbs ,(+60/-0 lbs) load and maintain for 1-minute to the point of SRL line connection to the SRL drum (across the device)	<table border="1"> <thead> <tr> <th></th> <th>Sample: 1</th> <th>Sample: 2</th> <th>Sample: 3</th> </tr> </thead> <tbody> <tr> <td>Withstand load?</td> <td>YES</td> <td>YES</td> <td>YES</td> </tr> </tbody> </table>		Sample: 1	Sample: 2	Sample: 3	Withstand load?	YES	YES	YES	PASS
	Sample: 1	Sample: 2	Sample: 3								
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3.3/4.3.1	<p>Dynamic Performance: "AMBIENT"</p> <ol style="list-style-type: none"> 1. connect 310 lb. weight 2. extract enough line for a 36-inch free fall per Fig 5 in Test Standard. 3. release the test weight 4. Max Arrest distance shall not exceed 42 inches. 				PASS																																												
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #FFD700;"></th> <th style="background-color: #FFD700;">Sample: 1</th> <th style="background-color: #FFD700;">Sample: 2</th> <th style="background-color: #FFD700;">Sample: 3</th> </tr> </thead> <tbody> <tr> <td>Conditioning in: (Ambient)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>SN or ID:</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> </tr> <tr> <td>Payout and retract the line per 3.3.1.2 following test</td> <td style="text-align: center;">YES</td> <td style="text-align: center;">YES</td> <td style="text-align: center;">YES</td> </tr> <tr> <td>Lock function shall operate per 3.3.1.1</td> <td style="text-align: center;">YES</td> <td style="text-align: center;">YES</td> <td style="text-align: center;">YES</td> </tr> <tr> <td>Visual indicator shall activate</td> <td style="text-align: center;">YES</td> <td style="text-align: center;">YES</td> <td style="text-align: center;">YES</td> </tr> <tr> <td>Max. Arrest Force: (lbs.) Class 1 & 2 < 1,800 lbs.</td> <td style="text-align: center;">897</td> <td style="text-align: center;">569</td> <td style="text-align: center;">807</td> </tr> <tr> <td>Avg Arrest Force (lbs.): Class 1 & 2 < 1,350 lbs.</td> <td style="text-align: center;">615</td> <td style="text-align: center;">532</td> <td style="text-align: center;">623</td> </tr> <tr> <td>Distance Initial (in): D1</td> <td style="text-align: center;">83 ¼</td> <td style="text-align: center;">83 ¼</td> <td style="text-align: center;">83 ¼</td> </tr> <tr> <td>Distance Final (in): D2</td> <td style="text-align: center;">113 ½</td> <td style="text-align: center;">108 ½</td> <td style="text-align: center;">114</td> </tr> <tr> <td>Arrest Distance (in): D2-D1 Class 1&2 < 42-inches</td> <td style="text-align: center;">30 ¼</td> <td style="text-align: center;">25 ¼</td> <td style="text-align: center;">30 ¾</td> </tr> </tbody> </table>							Sample: 1	Sample: 2	Sample: 3	Conditioning in: (Ambient)				SN or ID:	4	5	6	Payout and retract the line per 3.3.1.2 following test	YES	YES	YES	Lock function shall operate per 3.3.1.1	YES	YES	YES	Visual indicator shall activate	YES	YES	YES	Max. Arrest Force: (lbs.) Class 1 & 2 < 1,800 lbs.	897	569	807	Avg Arrest Force (lbs.): Class 1 & 2 < 1,350 lbs.	615	532	623	Distance Initial (in): D1	83 ¼	83 ¼	83 ¼	Distance Final (in): D2	113 ½	108 ½	114	Arrest Distance (in): D2-D1 Class 1&2 < 42-inches	30 ¼	25 ¼	30 ¾
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<p>Retraction Strength: The weight of the line constituent, shall not be less than 1.25 lbs. (5.55N) or more than 25 lbs. (111.1N) at any point in the of range of motion provided by the line constituent when tested in accordance with 4.5.1.</p>																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #FFD700;">Retraction</th> <th style="background-color: #FFD700;">Sample 1</th> <th style="background-color: #FFD700;">Sample 2</th> <th style="background-color: #FFD700;">Sample 3</th> </tr> </thead> <tbody> <tr> <td>Weight in lbs. at 1 ft</td> <td style="text-align: center;">5.8</td> <td style="text-align: center;">5.9</td> <td style="text-align: center;">6.2</td> </tr> <tr> <td>Weight in lbs at 50%</td> <td style="text-align: center;">10.3</td> <td style="text-align: center;">10</td> <td style="text-align: center;">11.8</td> </tr> <tr> <td>Weight in lbs at 100%</td> <td style="text-align: center;">14.3</td> <td style="text-align: center;">15.6</td> <td style="text-align: center;">15.9</td> </tr> </tbody> </table>					Retraction	Sample 1	Sample 2	Sample 3	Weight in lbs. at 1 ft	5.8	5.9	6.2	Weight in lbs at 50%	10.3	10	11.8	Weight in lbs at 100%	14.3	15.6	15.9																													
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SECTION (TEST)	REQUIREMENT	RESULTS			Compliance	
3.3.3/ 4.3.3	DYNAMIC PERFORMANCE: "AMBIENT"				PASS	
	5. Connect 310 lb. weight 6. Drop test weight from a level 5 feet +/- 1 inch 7. Allow weight to swing unrestrained for a period of not less than 10 seconds 8. Record the maximum and average arresting forces 9. Line must retain 1,000 lb. static load after drops					
	SRL Line Orientation: Perpendicular		SAMPLE: 4	SAMPLE: 5		SAMPLE: 6
	Conditioning in: (4 hrs min)		24 Hr.	24 Hr.		24 Hr.
	Lock function shall operate per 3.1.2		YES	YES		YES
	Visual indicator shall activate		YES	YES		YES
	Max. Arrest Force: (lbs.) Class A & B < 1,800 lbs.		1332	1114		1242
	Avg Arrest Force (lbs.): Class A <1,350 lbs. Class B < 900 lbs.		839	797		918
	Arrest Distance (in):		157 ½	157 ½		157 ½
	Retain a minimum of 1,000 lbs of residual tensile strength following the test		YES	YES		YES
	SRL LINE ORIENTATION: 5' OFFSET		SAMPLE: 7	SAMPLE: 8		SAMPLE: 9
	Conditioning in: (4 hrs min)		24 Hr.	24 Hr.		24 Hr.
	Lock function shall operate per 3.1.2		YES	YES		YES
	Visual indicator shall activate		YES	YES		YES
	Max. Arrest Force: (lbs.) Class A & B < 1,800 lbs.		1131	1202		1108
	Avg Arrest Force (lbs.): Class A <1,350 lbs. Class B < 900 lbs.		849	796		819
	Arrest Distance (in):		157 ½	157 ½		157 ½
	Retain a minimum of 1,000 lbs of residual tensile strength following the test		YES	YES		YES

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SECTION 5

REVISION HISTORY

REPORT NUMBER	DATE OF REVISION	DESCRIPTION OF CHANGE:	PROJECT OWNER	REVIEWED BY
105209482CRT-001	10/28/2022	Original Report	Steve Morey	Matthew Stevens
105874305CRT-002	07/15/2024	Report Extension	Alex Smith	Matthew Stevens