Declaration of Conformity

In Accordance with ANSI/ISEA 125-2014

FALLTECH®
Fall Protection. Precision Engineered.

Alexander Andrew, Inc. 1306 S. Alameda St Compton, CA 90221

Declaration #	S0917005a	**Declaration Date**	9.15.17

Tested Item #	**620060**	**SteelGrip® 60' Temporary Cable HLL Assembly**

Additional Items Conforming Under this Declaration:

620020 ~ 620050 **620070 ~ 620330**

Alexander Andrew, Inc. declares that the product(s) listed above is in conformity with the requirements of the following performance standard(s):

OSHA 1926.502

Conformity Assessment Method in accordance with ANSI/ISEA 125-2014

Level 1		**Level 2**	**X**	**Level 3**	

Level 1: FallTech Lab Outside the Scope of ISO/IEC Standard 17025:2005	**Level 2**: FallTech Lab Within the Scope of ISO/IEC Standard 17025:2005	**Level 3**: Independent 3rd Party Lab accredited to ISO/IEC Standard 17025:2005

Supporting Documentation	**DPT-000047**

Authorized Signature _____

Name Martin Barila **Title** VP of Operations **Date** 11.7.17

FallTech Testing Laboratory
1306 S. Alameda Street,
Compton, CA 90221-4803
Tel: (323) 752-0060
www.falltech.com

FallTech Test Report

Test Report No.	DTP-000047	**Rpt. Date**	9/15/2017	**Rpt. Rev**		**Rev Date**	
Report Prepared For	FallTech						
Initiated By	Mark Sasaki	**Test Specification(s)**		OSHA 1926, No Applicable ANSI Standard			
Part No.	620030/620060/620100			**Part No. Revision**	A		
Part Description	30'/60'/100' SteelGrip Temporary Cable HLL System						
Test Request No.	DTP-000047			**Date Complete**	8/2/2017		
Test Operator(s)	Zack Winters, Tyler Wilson, Mark Sasaki						

Material/Sample Identification

Sample ID	Description
620030	30' SteelGrip Cable HLL Kit; See attached DTP-000047 Protocol for Details
620060	60' SteelGrip Cable HLL Kit; See attached DTP-000047 Protocol for Details
620100	100' SteelGrip Cable HLL Kit; See attached DTP-000047 Protocol for Details

Test Summary

Test Specification	Test Criteria	Test Result	Pass/Fail
See attached DTP-000047 Protocol	See attached DTP-000047 Protocol	See attached DTP-000047 Results	See attached DTP-000047 Results

Conclusion

FallTech P/N 620030/620060/620100 SteelGrip Temporary Cable HLL System meets the requirements of OSHA 1926, OSHA 1910, and FallTech's General Manufacturing Requirements.

Report Signatories and Approval

Lab Quality Manager		Date	9/15/2017
Director of Engineering		Date	9/15/2017
Witnessed by	Not Required	Date	N/A

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Part No.	620030/620060/620100			**Part No. Revision**	A		
Part Description	30'/60'/100' SteelGrip Temporary Cable HLL System						
Test Request No.	DTP-000047			**Date Complete**	8/2/2017		

Test Information

Description of Test	SteelGrip Temporary Cable HLL Full System Testing		
Test Method	See attached DTP-000047 Protocol		
Acceptance Criteria	See attached DTP-000047 Protocol		
Test Procedure	See attached DTP-000047 Protocol		
Conditioning Requirements	N/A	**Actual Conditions**	Ambient
Time Removed from Conditioning	N/A	**Time Tested**	N/A
Test Environment	Ambient Conditions, Outdoors		
Test By	Zack Winters	**Test Date**	7/28/17 - 8/2/17

Equipment Used

Equipment Used	Size/Type	Control Number	Calibration Date
10k Load Cell	10,000 Lbf Load Cell (+/- 0.5%)	342183	4/25/2018

Test Results

Sample ID	Characteristic	Criteria	Test Data	Pass/Fail
See attached DTP-000047 Protocol	See attached DTP-000047 Protocol	See attached DTP-000047 Protocol	See attached DTP-000047 Test Results	See attached DTP-000047 Test Results

End of Report

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Testing Protocol

Project/Product:	**00058 (3DH-040914B - Temporary Cable HLL System)**
Part #:	**620030/620060/620100**
Maker/Vendor:	**FallTech**
Protocol Code	**DTP-000047**
Requested By	**Tyler Wilson**
Date	**5/2/2017**
# of Samples Required	**20 Total**

Section 1: Product Description

The FallTech SteelGrip® Temporary Cable HLL is a 2-person temporary horizontal lifeline with turnbuckle tensioner and coil energy absorber. The system also requires the use of personal energy absorbers connected between the user and the horizontal lifeline. The tension indicator may be used with this system to ensure proper horizontal lifeline pretension. The system will be offered in lengths from 20' to 300' and also full kits with anchors/stanchions. User instruction manual will include all information relating to single vs. multiple span configurations and span maximum length. The system can be attached directly to existing anchor points using the provided carabiners or used with web anchor slings or stanchions (concrete columns, I-beams, etc.).

Section 2: Attachment Method

The SteelGrip HLL will be connected to 7414 Weld-On anchors, attached directly to the test structure. The personal energy absorbers (PEAs) will be attached directly to the lifeline cable using the leg end snaphook connector and oriented with the shock pack closest to the test mass. The test mass will be dropped from the middle of the span.

Section 3: Testing Instructions

Special Instructions/Notes: **For the multi-person dynamic drop tests, the lumped sum test mass methodology will be followed, using a single test mass with multiple PEAs attached to the HLL. The test mass will weigh 493.5lbs for the 2-person tests. The tolerance on the test mass is +/- 2lbs.**

Testing Taw Data to be Collected:

1) Maximum & Average Forces to the Anchor Point (Load cell in-line with HLL system)
2) Forces to the "Body" [Load cell between test mass and personal energy absorber (PEA)]
3) Initial, Dynamic, and Final Sag distances of lifeline
4) Pretension force of lifeline after installation
5) Total fall clearance
6) HLL Energy Absorber deployment distance
7) Personal Energy Absorber deployment distance

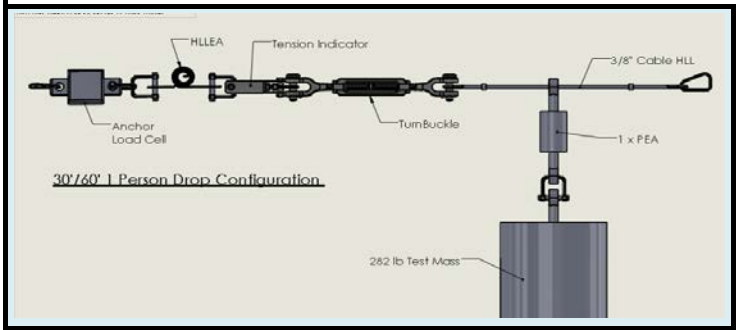


Figure 1: 1-Person Drop Test Configuration 30'/60'

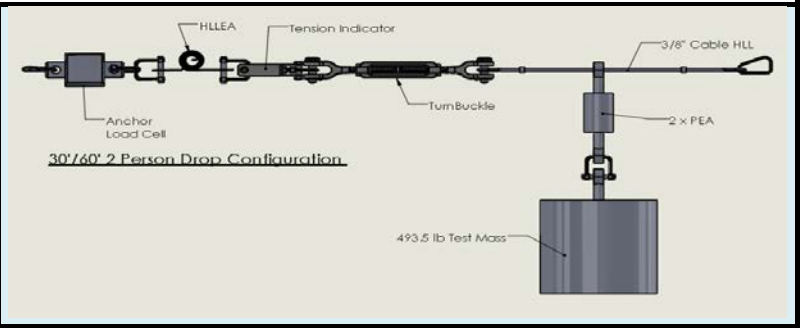
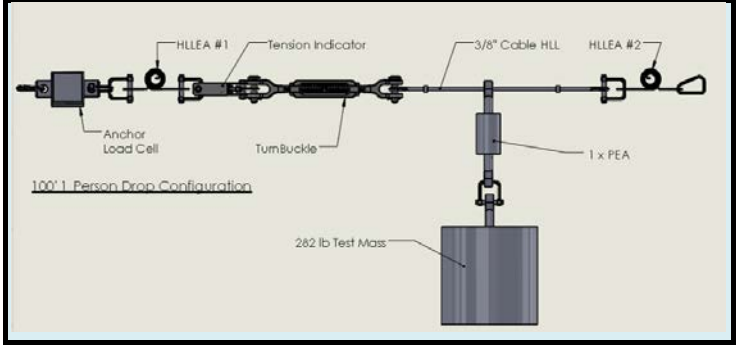


Figure 2: 2-Person Drop Test Configuration 30'/60'



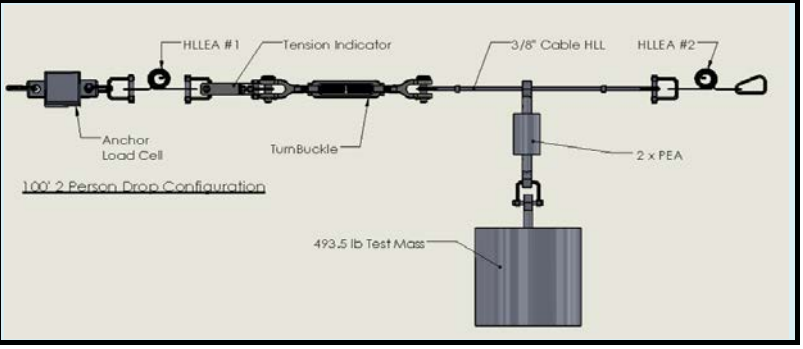


Figure 3: 1-Person Drop Test Configuration 100'

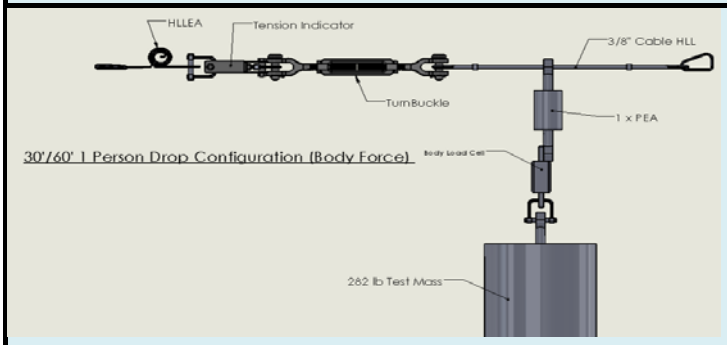


Figure 4: 2-Person Drop Test Configuration 100'

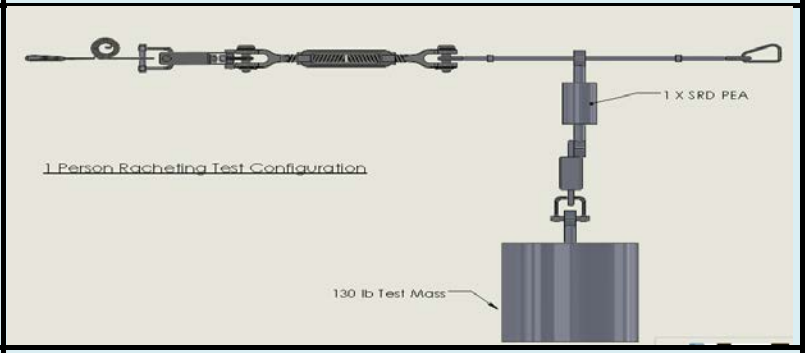


Figure 5: 1-Person Drop Test Configuration 30' (Body Force)

Figure 6: 1 Person Drop Rachet Test Configuration 30'

Section 4: **Dynamic Testing**

Test	Standard	Section	Name	Requirement	Direction/ Loading	Equipment	Gauge	# of Samples	Comments
1	N/A	N/A	100' Span, 2-Person Drop [493.5 lbs]	Test mass does not hit ground, system remains intact, forces to anchor point must be below 5000 lbs.	Test mass should start drop from 3' above HLL system line	See Special Instructions Above, Figure 4	Load Cell (In Line)	1	8253 [3' Lan]
2	N/A	N/A	100' Span, 2-Person Drop [493.5 lbs]	Test mass does not hit ground, system remains intact, forces to anchor point must be below 5000 lbs.	Test mass should start drop from 3' above HLL system line	See Special Instructions Above, Figure 4	Load Cell (In Line)	1	8253 [3' Lan]
3	N/A	N/A	100' Span, 2-Person Drop [493.5 lbs]	Test mass does not hit ground, system remains intact, forces to anchor point must be below 5000 lbs.	Test mass should start drop from 3' above HLL system line	See Special Instructions Above, Figure 4	Load Cell (In Line)	1	8253 [3' Lan]
4	N/A	N/A	100' Span, 1-Person Drop [282 lbs]	Test mass does not hit ground, system remains intact, forces to anchor point must be below 5000 lbs.	Test mass should start drop from 3' above HLL system line	See Special Instructions Above, Figure 3	Load Cell (In Line)	1	8253 [3' Lan]
5	N/A	N/A	100' Span, 1-Person Drop [282 lbs]	Test mass does not hit ground, system remains intact, forces to anchor point must be below 5000 lbs.	Test mass should start drop from 3' above HLL system line	See Special Instructions Above, Figure 3	Load Cell (In Line)	1	8253 [3' Lan]
6	N/A	N/A	100' Span, 1-Person Drop [282 lbs]	Test mass does not hit ground, system remains intact, forces to anchor point must be below 5000 lbs.	Test mass should start drop from 3' above HLL system line	See Special Instructions Above, Figure 3	Load Cell (In Line)	1	8253 [3' Lan]
7	N/A	N/A	60' Span, 1-Person Drop [282 lbs]	Test mass does not hit ground, system remains intact, forces to anchor point must be below 5000 lbs.	Test mass should start drop from 1' above HLL system line	See Special Instructions Above, Figure 1	Load Cell (In Line)	1	8256 [6' Lan]
8	N/A	N/A	60' Span, 2-Person Drop [493.5 lbs]	Test mass does not hit ground, system remains intact, forces to anchor point must be below 5000 lbs.	Test mass should start drop from 1' above HLL system line	See Special Instructions Above, Figure 2	Load Cell (In Line)	1	8256 [6' Lan]

9	N/A	N/A	30' Span, 1-Person Drop [282 lbs]	Test mass does not hit ground, system remains intact, forces to anchor point must be below 5000 lbs.	Test mass should start drop from 1' above HLL system line	See Special Instructions Above, Figure 1	Load Cell (In Line)	1	8256 [6' Lan]
10	N/A	N/A	30' Span, 1-Person Drop [282 lbs]	Test mass does not hit ground, system remains intact, forces to anchor point must be below 5000 lbs.	Test mass should start drop from 1' above HLL system line	See Special Instructions Above, Figure 1	Load Cell (In Line)	1	8256 [6' Lan]
11	N/A	N/A	30' Span, 1-Person Drop [282 lbs]	Test mass does not hit ground, system remains intact, forces to anchor point must be below 5000 lbs.	Test mass should start drop from 1' above HLL system line	See Special Instructions Above, Figure 1	Load Cell (In Line)	1	8256 [6' Lan]
12	N/A	N/A	30' Span, 2-Person Drop [493.5 lbs]	Test mass does not hit ground, system remains intact, forces to anchor point must be below 5000 lbs.	Test mass should start drop from 1' above HLL system line	See Special Instructions Above, Figure 2	Load Cell (In Line)	1	8256 [6' Lan]
13	N/A	N/A	30' Span, 2-Person Drop [493.5 lbs]	Test mass does not hit ground, system remains intact, forces to anchor point must be below 5000 lbs.	Test mass should start drop from 1' above HLL system line	See Special Instructions Above, Figure 2	Load Cell (In Line)	1	8256 [6' Lan]
14	N/A	N/A	30' Span, 2-Person Drop [493.5 lbs]	Test mass does not hit ground, system remains intact, forces to anchor point must be below 5000 lbs.	Test mass should start drop from 1' above HLL system line	See Special Instructions Above, Figure 2	Load Cell (In Line)	1	8256 [6' Lan]
15	**N/A**	**N/A**	**30' Span, 1-Person Drop [282 lbs]**	**Test mass does not hit ground, system remains intact, forces to anchor point must be below 5000 lbs.**	**Test mass should start drop from 1' above HLL system line**	**See Special Instructions Above, Figure 5**	**Load Cell (Body)**	**1**	**8256 [6' Lan]**
16	N/A	N/A	30' Span, Rachet Drop [130 lbs]	Test mass does not hit ground, system remains intact, forces to anchor point must be below 5000 lbs.	Test mass should start drop from 1' above HLL system line	See Special Instructions Above, Figure 6	Load Cell (In Line)	1	727630 [30' Con]
17	N/A	N/A	30' Span, Rachet Drop [130 lbs]	Test mass does not hit ground, system remains intact, forces to anchor point must be below 5000 lbs.	Test mass should start drop from 1' above HLL system line	See Special Instructions Above, Figure 6	Load Cell (In Line)	1	727326 [30' Dur]
18	N/A	N/A	30' Span, Rachet Drop [130 lbs]	Test mass does not hit ground, system remains intact, forces to anchor point must be below 5000 lbs.	Test mass should start drop from 1' above HLL system line	See Special Instructions Above, Figure 6	Load Cell (In Line)	1	82706SB1 [6' Dur Web]
19	N/A	N/A	30' Span, Rachet Drop [130 lbs]	Test mass does not hit ground, system remains intact, forces to anchor point must be below 5000 lbs.	Test mass should start drop from 1' above HLL system line	See Special Instructions Above, Figure 6	Load Cell (In Line)	1	72706SB1 [6' Mini Web]

20	N/A	N/A	30' Span, 2-Person Drop [493.5 lbs]	Test mass does not hit ground, system remains intact, forces to anchor point must be below 5000 lbs.	Test mass should start drop from 1' above HLL system line	See Special Instructions Above, Figure 2	Load Cell (In Line)	1	8247 [12' Lan]

Sign-Off Section

Electronic Signoff on Arena PLM	Electronic Signoff on Arena PLM	Electronic Signoff on Arena PLM
Director of Engineering Mark Sasaki	Production Manager Dan Redden	Sr. PLM Cory Schurian

FTE-08 Rev B	4/12/2017

FALLTECH®
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Testing Results Form

Project/Product:	**00058 (3DH-040914B) Cable HLL System**
Part #:	**620030, 620060, & 620100**
Maker/Vendor:	**FallTech**
Protocol Code:	**DTP-000047**
Date:	**5/15/2017**

Description: 100' Span - 2 Person Drop - 8253 SALs

Standard: **N/A**

TEST	RESULTS	COMMENTS
Test # 1	**PASS**	Max Force: 2385.8 lbs Avg Force: 1768.5 lbs Fall Clearance: 34.7 ft
Test #2	**PASS**	Max Force: 2353.1 lbs Avg Force: 1796.6 lbs Fall Clearance: 33.0 ft
Test #3	**PASS**	Max Force: 2416 lbs Avg Force: 1791.6 lbs Fall Clearance: 34.0 ft

Description: 100' Span - 1 Person Drop - 8253 SAL

Standard: **N/A**

TEST	RESULTS	COMMENTS
Test #4	**PASS**	Max Force: 2260.2 lbs Avg Force: 1690.1 lbs Fall Clearance: 26.9 ft
Test #5	**PASS**	Max Force: 2259.3 lbs Avg Force: 1715.1 lbs Fall Clearance: 27.5 ft
Test #6	**PASS**	Max Force: 2249.4 lbs Avg Force: 1680.7 lbs Fall Clearance: 27.3 ft

Description: 60' Span - 1 Person Drop - 8256 SAL

Standard: **N/A**

TEST	RESULTS	COMMENTS
Test #7	**PASS**	Max Force: 2263.4 lbs Avg Force: 1600.03 lbs Fall Clearance: 25.0 ft

Description: 60' Span - 2 Person Drop - 8256 SALs

Standard: **N/A**

TEST	RESULTS	COMMENTS
Test #8-1	**PASS**	Max Force: 3151.2 lbs Avg Force: 1854.9 lbs Fall Clearance: 27.5 ft
Test #8-2	**PASS**	Max Force: 3242.5 lbs Avg Force: 1970.8 lbs Fall Clearance: 27.8 ft
Test #8-3	**PASS**	Max Force: 3290.1 lbs Avg Force: 1627.2 lbs Fall Clearance: 26.7 ft

Description: 30' Span - 1 Person Drop - 8256 SAL

Standard: **N/A**

TEST	RESULTS	COMMENTS
Test #9	**PASS**	Max Force: 2639.5 lbs Avg Force: 1547.9 lbs Fall Clearance: 22.1 ft
Test #10	**PASS**	Max Force: 2403.3 lbs Avg Force: 1715.1 lbs Fall Clearance: 21.6 ft
Test # 11	**PASS**	Max Force: 2435.1 lbs Avg Force: 1570.4 lbs Fall Clearance: 22.0 ft

Description: 30' Span - 2 Person Drop - 8256 SALs

Standard: **N/A**

TEST	RESULTS	COMMENTS
Test #12	**PASS**	Max Force: 2440.9 lbs Avg Force: 1765.9 lbs Fall Clearance: 24.1 ft
Test #13	**PASS**	Max Force: 2623.2 lbs Avg Force: 1842.6 lbs Fall Clearance: 24.2 ft
Test #14	**PASS**	Max Force: 2489.2 lbs Avg Force: 1820.97 lbs Fall Clearance: 24.0 ft

Description: 30' Span - 1 Person Drop - 8256 SAL - Body Force Load Cell Position

Standard: **N/A**

TEST	RESULTS	COMMENTS
Test #15	**PASS**	Max Force: 1077.2 lbs Avg Force: 781.2 Fall Clearance: 22.2 ft

Description: 30' Span - Lightweight SRD Ratchet Drop - 727630 Contractor SRD

Standard: **N/A**

TEST	RESULTS	COMMENTS
Test #16	**PASS**	Max Force: 2086.7 lbs Avg Force: 1344.7 lbs Fall Clearance: N/A

Description: 30' Span - Lightweight SRD Ratchet Drop - 7232C DuraTech SRD

Standard: **N/A**

TEST	RESULTS	COMMENTS
Test #17	**PASS**	Max Force: 2424.8 lbs Avg Force: 1443.2 lbs Fall Clearance: N/A
Description: 30' Span - Lightweight SRD Ratchet Drop - 82706SB1 DuraTech SRD		
Standard: **N/A**		
TEST	RESULTS	COMMENTS
Test #18	**PASS**	Max Force: 2145 lbs Avg Force: 1347.3 lbs Fall Clearance: N/A
Description: 30' Span - Lightweight SRD Ratchet Drop - 72706SB1 Mini SRD		
Standard: **N/A**		
TEST	RESULTS	COMMENTS
Test #19	**PASS**	Max Force: 2300.9 lbs Avg Force: 1442.7 lbs Fall Clearance: N/A
Description: 30' Span - 2 Person Drop - 8247 12'FF SALs		
Standard: **N/A**		
TEST	RESULTS	COMMENTS
Test #20	**PASS**	Max Force: 3229.5 lbs Avg Force: 1957.4 lbs Fall Clearance: 23.5 ft
Description: 100' Span - Lightweight SRD Ratchet Drop - 727630 Contractor SRD		
Standard: **N/A**		
TEST	RESULTS	COMMENTS
Test #21	**PASS**	Max Force: 2422.6 lbs Avg Force: 1426.4 lbs Fall Clearance: N/A

Special Comments

Summary: This test protocol, test execution, and test results serve as the certification testing for the Cable HLL sytem. Based on these results, I recommend the move to production on this product. These items have passed FallTech's internal testing requirements.

Note: Red colored text of Maximum/Peak Force values denoted that the product used in this configuration will not meet a 2:1 safety factor when used with 5,000 lb. rated anchor points.

Form Completed by FallTech Engineer:	***Date:***
Tyler Wilson	8/2/2017