

**Engineering Report 49994-1** 

# **Free-Fall Drop Test**

for

**SEAHORSE** 

Prepared by

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## **Revision history**

Revision	Total number of pages	Date	Description
	71	June 3, 2014	Original

Prepared for:	Test dates		
SEAHORSE	Start:	4/25/2014	
SEATIONSE	Completion:	5/9/2014	
Attention: Mr. Flavio Valencia	Environ test number:	49994-1	
	Purchase order number:	17133	
	Purchase date:	1/29/2014	

## **Free-Fall Drop Test**

#### 1.0 **Abstract**

## 1.1 Object

Subject eleven Cases to a Free-Fall Drop Test as specified in Test Method Standard *MIL-STD-3010C*, dated August 1, 2013, Section 5.5.2, Test Method 5007-Free Fall Drop Test, as requested in SEAHORSE purchase order 17133, dated January 29, 2014.

#### 1.2 Conclusions

All cases were subjected to the required 26 drops, on flat sides, corners, and edges. Post-test visual inspection of the test units revealed no evidence of significant test unit damage. Test details and photographs are included in Section 4.3 of this report.

## 2.0 Unit(s) tested

Table 2-1: Units tested

Manufacturer SEAHORSE Protective Equipment Cases	
Device	Eleven (11) Cases
Model/part number	SE120, SE300, SE430, SE520, SE540, SE630, SE710, SE720, SE920, SE1220, SE1530
Serial number	N/A

The results of this test apply only to the units identified in this Engineering Report by device identifier and model / part number, or serial number.

#### 3.0 Test requested

Subject eleven Cases to a Free-Fall Drop Test as specified in Test Method Standard *MIL-STD-3010C*, dated August 1, 2013, Section 5.5.2, Test Method 5007-Free Fall Drop Test.

## Test Method 5007 - Free Fall Drop Test

## Scope.

This method determines the ability of containers to withstand free fall drop impacts while evaluating the ability of the preservation methods and applicable pack levels as specified *MiL-STD-2073-I I* used to protect the containers weighing up to 150 pounds, except those with skids or those having any edge or diameter over 60 inches.

#### Apparatus.

Any apparatus that conforms to the following requirements shall be used:

- a. Permits the container to be placed in a position prior to release that shall ensure free unobstructed fall that impacts the container at the orientation and in the direction required.
- b. Permits accurate and convenient control of the height of the drop.
- c. Utilizes lifting devices that do not damage the containers.
- d. Provides an instantaneous release mechanism that does not impart rotational or sidewise forces to the test container.
- e. Provides an impact surface, horizontal and flat, massive enough to be immoveable and rigid enough to be non-deformable under the test condition.

## Test specimens.

One container and its contents shall constitute a single specimen. The container shall be loaded for the test with the interior packing and the actual contents for which it was designed. If use of the actual contents in not practical, a dummy load shall be substituted to simulate the contents with weight, rigidity, shape, and CG position in the container. The contents, or dummy load, shall be blocked, braced, and cushioned in place, as for shipment. The test specimen shall require no special conditioning prior to test.

#### Test conditions.

All tests shall be conducted at ambient temperature.

#### Rectangular containers.

Rectangular containers shall be subjected to the following procedure, but dropped not more than once on any flat face, edge, or corner. For edgewise drops, the striking edge of the container shall be parallel with the dropping surface at the instant of release. For edgewise and cornerwise drops, the package CG shall be directly above the striking edge or corner of the package at the instant of release.

Procedure A, Level A: One drop on each flat face, edge, and corner (26 drops).

## 4.0 Instrumentation, procedure, and results

#### 4.1 Instrumentation

All instrumentation is calibrated regularly by instruments directly traceable to the National Institute of Standards and Technology, and in accordance with MIL-I-45208A, ANSI/NCSL Z540.3-2006, and ISO/IEC 17025: 2005.

**Table 4-1: Instrumentation list** 

Equipment Number	Description	Manufacturer	Model Number	Last Calibration	Due Calibration	Range
503-213	Precision Drop Tester	Lansmont	PDT-56ED	N/A	N/A	0 to 48 inches
770-029	Steel Rule	L.S. Starrett	404R	2/25/2014	2/25/2019	0 to 48 inches

#### 4.2 Procedure

Each equipment case was provided with a dead weight, selected in accordance with Seahorse instructions. Each case was lined with foam, and the dead weights were installed. The specific weights and drop heights are recorded on Figures 4-1 through 4-11, the data sheets included in this report. The cases were subjected to the specified 26 drops, on the flat sides, edges, and corners. All testing was conducted at room ambient temperature. Visual inspection was performed on the interior and exterior of each test item.

## 4.3 Results

All cases were subjected to the required 26 drops, on flat sides, corners, and edges. Post-test visual inspection of the test units revealed no evidence of significant test unit damage.

The test items were retained at Environ Laboratories LLC until the end of the test program.

Test details and photographs are included in the following pages.

environ <sup>®</sup>	ata Chast	Job number	49994 - 1
LABORATORIES D	ata Sheet	Test date(s)	4-24-14
Company Seahorse		DCAS	-
Device Case	-	Witness	
	-	Explain in	Interruption
		results	
Serial number			Specification deviation
Test description Free Fall Drop		Specification app	proved by client (initial)
Specification MIL-STD-3010C			
Section 5.5.2			
Equipment list			
770-029			
503-213	,		
Test conditions and summary			
Weight added to test unit 13.5 165			/
Drop height 36 "			34730
Drop #1 Bottom	Drop #15 Edge 9	ν	/
Drop #2 Top	Drop #16 Edge 10	ν	/
Drop #3 Front	Drop #17 Edge 11	ν	
Drop #4 Back 🗸	Drop #18 Edge 12	V	<i>'</i> .
Drop #5 Right	Drop #19 Corner 1	V	
Drop #6 Left	Drop #20 Corner 2	V	/
Drop #7 Edge 1	Drop #21 Corner 3	V	
Drop #8 Edge 2	Drop #22 Corner 4	V	/
Drop #9 Edge 3	Drop #23 Corner 5	V	
Drop #10 Edge 4	Drop #24 Corner 6	V	
Drop #11 Edge 5	Drop #25 Corner 7	V	,
Drop #12 Edge 6	Drop #26 Corner 8	V	
Drop #13 Edge 7			
Drop #14 Edge 8	<u>.</u>		
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Disposition ☐ Retained at Environ	☐ Returned to client ☐ Other	Page <sub>-</sub>	of(
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Figure 4-1: Free-Fall Drop Test data sheet (1 of 11)



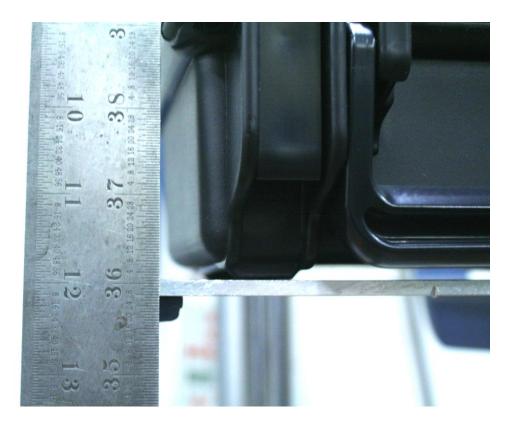
Photograph 4-1: Test unit identification markings



Photograph 4-2: Dead weight checked before placement into the test unit



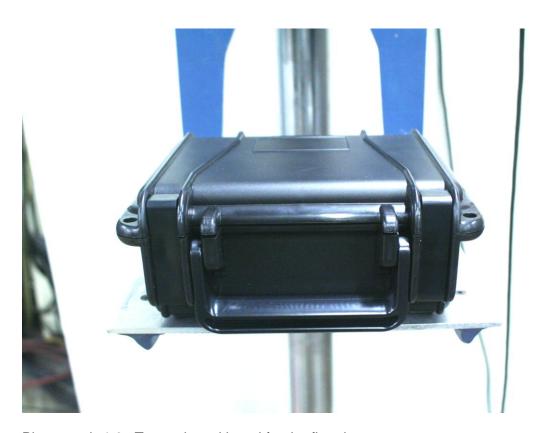
Photograph 4-3: Dead weight placed into test unit



Photograph 4-4: Drop height is adjusted



Photograph 4-5: Overall view of the test setup



Photograph 4-6: Test unit positioned for the first drop



Photograph 4-7: Post-test view of the test unit



Photograph 4-8: Post-test view of the test unit

envi LABORA	iron° Atories Datas	Sheet	Job number 49994 - 1		
			Test date(s) 4-24-14		
Company Seahors	e		DCAS  Certified witness		
Device Case			Witness   Customer present		
Model number 5E	300		Explain in Interruption ☐ results section Specification deviation ☐		
Serial numberN/A					
Test description Free Fall	Drop		Specification approved by client (initial)		
Specification MIL-STD	9-3010C				
Section 5.5.2					
Equipment list					
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Drop #2 Top	V	Drop #16 Edge 10	V		
Drop #3 Front	V	Drop #17 Edge_11	V		
Drop #4 Back	V	Drop #18 Edge 12	/		
Drop #5 Right	V	Drop #19 Corner 1	V		
Drop #6 Left	V	Drop #20 Corner 2	V		
Drop #7 Edge 1	V	Drop #21 Corner 3	V		
Drop #8 Edge 2	V	Drop #22 Corner 4	V		
Drop #9 Edge 3	V	Drop #23 Corner 5	V		
Drop #10 Edge 4	V	Drop #24 Corner 6	V,		
Drop #11 Edge 5	V	Drop #25 Corner 7	<i>V</i> ,		
Drop #12 Edge 6	V	Drop #26 Corner 8	V		
Drop #13 Edge 7	V				
Drop #14 Edge 8	V				
Findings					
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Figure 4-2: Free-Fall Drop Test data sheet (2 of 11)



Photograph 4-9: Test unit identification markings



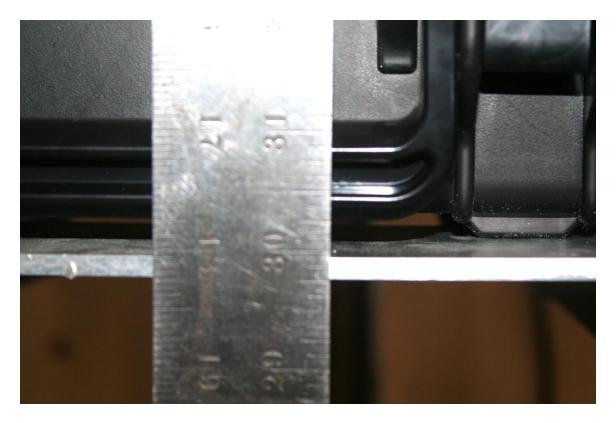
Photograph 4-10: Pretest view of the test unit



Photograph 4-11: Dead weight checked before placement into the test unit



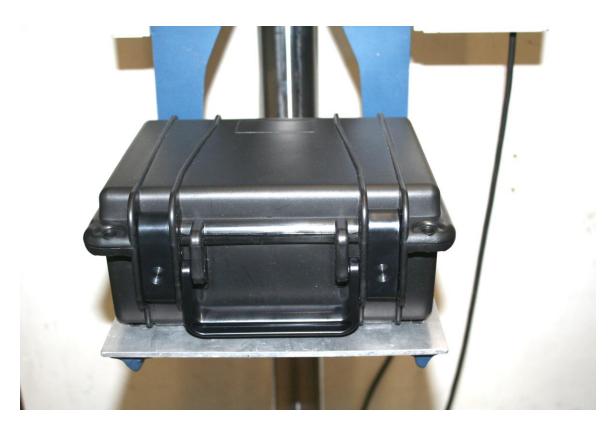
Photograph 4-12: Dead weight placed into the test unit



Photograph 4-13: Drop height is adjusted



Photograph 4-14: Overall view of the test setup



Photograph 4-15: Test unit set up for the first drop



Photograph 4-16: Test unit interior checked after 14 drops



Photograph 4-17: Post-test view of the test unit



Photograph 4-18: Post-test view of the test unit



Photograph 4-19: Post-test view of the test unit



Photograph 4-20: Post-test view of the test unit



Photograph 4-21: Post-test view of the test unit



Photograph 4-22: Post-test view of the test unit



Photograph 4-23: Post-test view of the test unit interior



Photograph 4-24: Post-test view of the test unit interior

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LABORATORIES Data Sheet			Test date(s)	Test date(s) 4-24+14		
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Section 5.5.2						
Equipment list						
	770-029					
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Test conditions and sumr						
Weight added to test unit	21.1 165					
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Drop #2 Top	V	Drop #16 Edge 10	V			
Drop #3 Front	V	Drop #17 Edge 11	V.			
Drop #4 Back	<b>V</b>	Drop #18 Edge 12				
Drop #5 Right	V	Drop #19 Corner 1	/			
Drop #6 Left	V	Drop #20 Corner 2	/	-		
Drop #7 Edge 1	V	Drop #21 Corner 3				
Drop #8 Edge 2	J	Drop #22 Corner 4	/			
Drop #9 Edge 3	V .	Drop #23 Corner 5	V,			
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Drop #11 Edge 5	J,	Drop #25 Corner 7	<i>V</i> ,			
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			Test performed by	wh		

Figure 4-3: Free-Fall Drop Test data sheet (3 of 11)



Photograph 4-25: Test unit identification markings



Photograph 4-26: Dead weight is checked before placement into test unit



Photograph 4-27: Dead weight is placed into test unit



Photograph 4-28: Test unit set up for the first drop



Photograph 4-29: Test unit interior inspected after 14 drops



Photograph 4-30: Post-test view of the test unit



Photograph 4-31: Post-test view of the test unit



Photograph 4-32: Post-test view of the test unit



Photograph 4-33: Post-test view of the test unit



Photograph 4-34: Post-test view of the test unit



Photograph 4-35: Post-test view of the test unit



Photograph 4-36: Post-test view of the test unit interior



Photograph 4-37: Post-test view of the test unit interior

environ <sup>®</sup>		Job number	49994 - 1	
LABORATORIES Data Sheet		Test date(s)	4-25-14	
Company Seahorse		DCAS		
Device Case		Witness		
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Test conditions and summary				
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Drop height 25 "		13-07-01		
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Drop #3 Front /	Drop #17 Edge 11	V		
Drop #4 Back	Drop #18 Edge 12	V		
Drop #5 Right 🗸	Drop #19 Corner 1	V.		
Drop #6 Left ✓	Drop #20 Corner 2	<b>V</b>		
Drop #7 Edge 1	Drop #21 Corner 3	V		
Drop #8 Edge 2   ✓	Drop #22 Corner 4	V		
Drop #9 Edge 3	Drop #23 Corner 5	/		
Drop #10 Edge 4	Drop #24 Corner 6	/		
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Findings				
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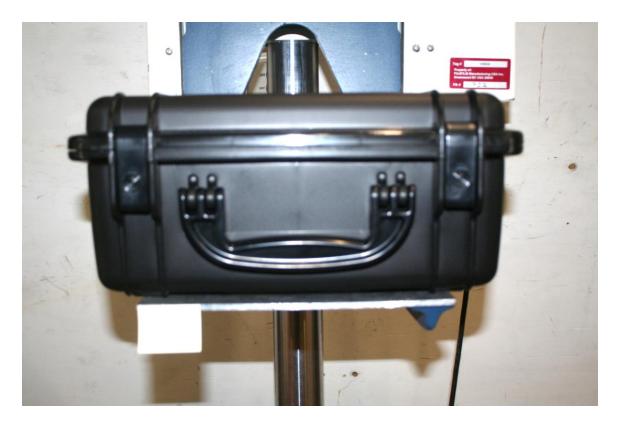
Figure 4-4: Free-Fall Drop Test data sheet (4 of 11)



Photograph 4-38: Test unit identification markings



Photograph 4-39: Dead weight is checked before placement into the test unit



Photograph 4-40: Test unit set up for the first drop



Photograph 4-41: Test unit interior checked after 14 drops



Photograph 4-42: Post-test view of the test unit



Photograph 4-43: Post-test view of the test unit



Photograph 4-44: Post-test view of the test unit



Photograph 4-45: Post-test view of the test unit



Photograph 4-46: Post-test view of the test unit



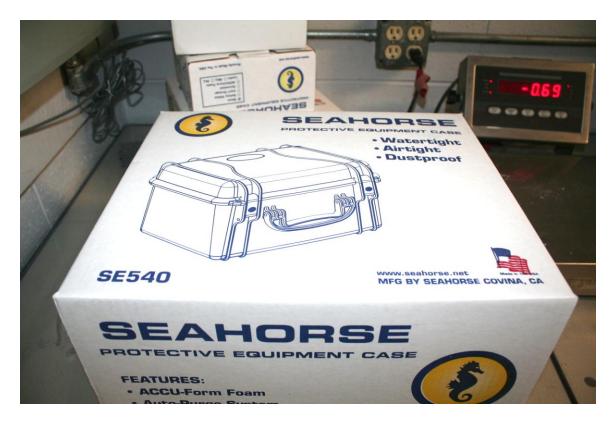
Photograph 4-47: Post-test internal inspection of the test unit



Photograph 4-48: Post-test internal inspection of the test unit

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Section	5.5.2				
Equipment list					
	770-029				
	503-213				
Test condition	ns and summary				
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Drop #1 Bottom	V	Drop #15 Edge 9	V		
Drop #2 Top	V	Drop #16 Edge 10			
Drop #3 Front		Drop #17 Edge 11	/		
Drop #4 Back	V	Drop #18 Edge 12	V		
Drop #5 Right	· /	Drop #19 Corner 1	/		
Drop #6 Left	V	Drop #20 Corner 2	<i>\'</i> ,		
Drop #7 Edge	1 V	Drop #21 Corner 3	V		
Drop #8 Edge		Drop #22 Corner 4	/		
Drop #9 Edge		Drop #23 Corner 5	V		
Drop #10 Edge	4 V	Drop #24 Corner 6	/		
Drop #11 Edge		Drop #25 Corner 7	ν,		
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Drop #13 Edge	7 V				
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Findings					
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			Test performed by	K	

Figure 4-5: Free-Fall Drop Test data sheet (5 of 11)



Photograph 4-49: Test unit identification markings



Photograph 4-50: Dead weight is checked before placement into test unit



Photograph 4-51: Dead weight is placed into test unit



Photograph 4-52: Test unit set up for the first drop



Photograph 4-53: Test unit internal inspection after 14 drops



Photograph 4-54: Post-test view of the test unit



Photograph 4-55: Post-test view of the test unit



Photograph 4-56: Post-test view of the test unit



Photograph 4-57: Post-test view of the test unit



Photograph 4-58: Post-test view of the test unit



Photograph 4-59: Post-test view of the test unit



Photograph 4-60: Post-test view of the test unit interior



Photograph 4-61: Post-test view of the test unit interior

	enviror	Viron° DRATORIES Data Sheet			49994 - 1		
LABORATORIES Data Sheet			Test date(s)	4-29-14			
Company	Seahorse			DCAS			
Device	Case			Witness			
Model number	SE 630			Explain in	Interruption		
	N/A			results section	Specification deviation		
Serial number	Free Fall Drop				proved by client (initial)		
Test description				- Opecinication app	Dioved by cheff (lintary		
Specification	MIL-STD-3010C						
Section	5.5.2						
Equipment list							
Equipment list	<b>\</b> _6						
		-029 3-213					
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Test conditions							
Weight added to t		7.416s					
Drop height	5	5"		XX			
Drop #1 Bottom	V		Drop #15 Edge 9	V			
Drop #2 Top	V		Drop #16 Edge 10	v			
Drop #3 Front	V		Drop #17 Edge 11	V	2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
Drop #4 Back	V		Drop #18 Edge 12		3		
Drop #5 Right	V		Drop #19 Corner 1	V			
Drop #6 Left	V		Drop #20 Corner 2	V			
Drop #7 Edge	1		Drop #21 Corner 3	V			
Drop #8 Edge 2	2		Drop #22 Corner 4	V,			
Drop #9 Edge	3 V		Drop #23 Corner 5	V			
Drop #10 Edge	4 V		Drop #24 Corner 6	<i>\'</i>			
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Drop #12 Edge 6	6 V	****	Drop #26 Corner 8	<i>V</i>			
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Figure 4-6: Free-Fall Drop Test data sheet (6 of 11)



Photograph 4-62: Test unit identification markings



Photograph 4-63: Dead weight checked before placement into test unit



Photograph 4-64: Dead weight placed into test unit



Photograph 4-65: Overall view of the test setup



Photograph 4-66: Test unit set up for first drop



Photograph 4-67: Test unit internal inspection after 14 drops



Photograph 4-68: Post-test view of the test unit



Photograph 4-69: Post-test view of the test unit



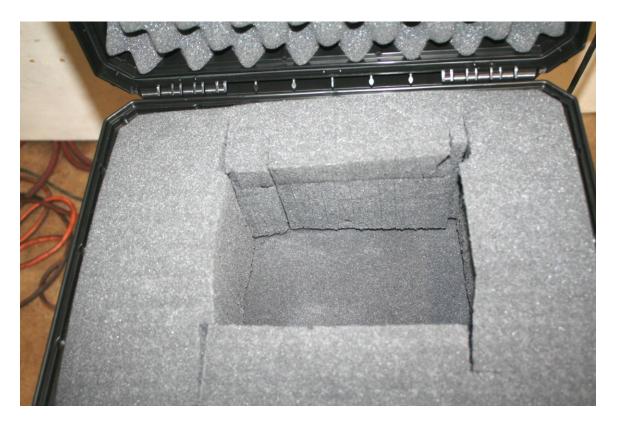
Photograph 4-70: Post-test view of the test unit



Photograph 4-71: Post-test view of the test unit



Photograph 4-72: Post-test internal inspection of the test unit



Photograph 4-73: Post-test internal inspection of the test unit

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Company	Seahorse					DCAS	A		witness
Device	Case					Witness		Customer	present
Model number	SE 716					Explain in	li li	nterruption	
Serial number	NIA					results section	Specification	n deviation	
Test description	Free Fall Drop					Specification app	proved by cli	ent (initial)	
Specification	MIL-STD-3010C								
Section	5.5.2								
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	770	-029							
		13-2/3							
Test conditions	to the same and th								
Weight added to t		3							
Drop height	25								
Drop #1 Bottom	/			Drop #15 Ed	ge 9	V			
Drop #2 Top	/			Drop #16 Ed	ge 10	V			
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Drop #4 Back	V			Drop #18 Ed	ge 12	V			
Drop #5 Right	V			Drop #19 Co	rner 1	<i>J</i>			
Drop #6 Left	V			Drop #20 Co	rner 2	V			
Drop #7 Edge 1				Drop #21 Co		V			
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Figure 4-7: Free-Fall Drop Test data sheet (7 of 11)



Photograph 4-74: Test unit identification markings



Photograph 4-75: Dead weight checked before placement into test unit



Photograph 4-76: Dead weight placed into test unit



Photograph 4-77: Test unit set up for the first drop



Photograph 4-78: Post-test view of the test unit



Photograph 4-79: Post-test view of the test unit



Photograph 4-80: Post-test view of the test unit



Photograph 4-81: Post-test view of the test unit



Photograph 4-82: Post-test internal inspection of the test unit

environ <sup>®</sup>	Job number 49994 - 1				
LABORATORIES Data Sheet	Test date(s)				
Company Seahorse	DCAS Certified witness				
Company Seahorse  Device Case	Witness □ Customer present □				
33774-981.0-32					
Model number SF 726	Explain in Interruption  results  section Specification deviation  Specification approved by client (initial)				
Serial number					
Test description Free Fall Drop	Specification approved by client (initial)				
Specification MIL-STD-3010C					
Section 5.5.2	***************************************				
Equipment list					
770-039					
503-2/3					
Test conditions and summary					
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Weight added to test unit 36.6  Drop height 35"					
Drop #1 Bottom / Drop #15 Edge 9	· V				
Drop #2 Top	V				
Drop #3 Front	N				
Drop #4 Back U Drop #18 Edge 12	V				
Drop #5 Right V Drop #19 Corner 1	V,				
Drop #6 Left $V$ Drop #20 Corner 2	V				
Drop #7 Edge 1 V Drop #21 Corner 3	V				
Drop #8 Edge 2	V				
Drop #9 Edge 3 V Drop #23 Corner 5	<i>J</i>				
Drop #10 Edge 4	ν,				
Drop #11 Edge 5	<i>V</i> /				
Drop #12 Edge 6	U				
Drop #13 Edge /					
Drop #14 Edge 8					
Findings					
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Figure 4-8: Free-Fall Drop Test data sheet (8 of 11)



Photograph 4-83: Test unit identification markings



Photograph 4-84: Dead weight checked before placement into test unit



Photograph 4-85: Dead weight placed into test unit



Photograph 4-86: Test unit set up for the first drop

e	environ <sup>®</sup>	Data Obsert	Job number	49994 - 1		
LABORATORIES Data Sheet			Test date(s)	5-9-14		
Company	Seahorse		DCA	Total Action Control of the Control		
Device	Case		Witnes			
_	SE 920		Explain in	Interruption		
Model number _	NA		results			
Serial number _		- Water Committee Committe	section	Specification deviation		
Test description _	Free Fall Drop		Specification ap	oproved by client (initial)		
Specification _	MIL-STD-3010C					
Section _	5.5.2					
Equipment list						
	770-07	G				
	503-2					
Toot conditions						
Test conditions Weight added to te	THE SHARE THE PARTY OF THE PART					
Drop height	20 "	5		-		
Diop neight	70					
Drop #1 Bottom	V	Drop #15 Ec	lge 9			
Drop #2 Top	$\sim$	Drop #16 Ed	ge 10 🗸			
Drop #3 Front		Drop #17 Ed	ge 11 J			
Drop #4 Back	V	Drop #18 Ed	ge 12 <i>V</i>			
Drop #5 Right	V	Drop #19 Co				
Drop #6 Left	V	Drop #20 Co	rner 2 V			
Drop #7 Edge 1	<i>V</i> ,	Drop #21 Co	orner 3			
Drop #8 Edge 2	V	Drop #22 Co	orner 4 V			
Drop #9 Edge 3		Drop #23 Co	orner 5			
Drop #10 Edge 4	V	Drop #24 Co	orner 6			
Drop #11 Edge 5		Drop #25 Co	rner 7			
Drop #12 Edge 6		Drop #26 Co	mer 8			
Drop #13 Edge 7	V					
Drop #14 Edge 8	V					
Findings						
No 514	1's of damage	e to exterior not	- 1			
Disposition	☐ Retained at Fr	viron ☐ Returned to client ☑Other	Page	9 of //		
		The Land of the Control of the Contr	i age			
QAF 5.3.1 REV C: 4-15	5-2010			Λ		
			Test performed	by the		

Figure 4-9: Free-Fall Drop Test data sheet (9 of 11)



Photograph 4-87: Test unit identification markings



Photograph 4-88: Dead weight checked before placement into test unit



Photograph 4-89: Dead weight placed into test unit



Photograph 4-90: Test unit set up for the first drop



Photograph 4-91: Post-test internal inspection of the test unit



Photograph 4-92: Post-test internal inspection of the test unit



Photograph 4-93: Post-test internal inspection of the test unit



Photograph 4-94: Post-test external inspection of the test unit



Photograph 4-95: Post-test external inspection of the test unit

	environ <sup>®</sup>	IVITON° ORATORIES Data Sheet			49994 - 1		
EABORATORIES Data Sileet				Test date(s)	5-9-14		
Company	Seahorse			DCAS		ss 🗆	
Device	Case			Witness	Customer prese	nt 🗆	
Model number	SE 1220			Explain in results	Interruption		
Serial number	NA				Specification deviation		
Test description	Free Fall Drop			Specification app	proved by client (initial)		
Specification	MIL-STD-3010C						
Section	5.5.2						
Equipment list							
	20.05	G					
	503-2					_	
Test conditions							
Weight added to t	INSERTIMENTAL BUILDINGS ASSOCIATION AND ASSOCIATION AS						
Drop height	18"		*				
	10						
Drop #1 Bottom	V		Drop #15 Edge 9	V			
Drop #2 Top	V		Drop #16 Edge 10	1		_	
Drop #3 Front		97	Drop #17 Edge.11	V	-		
Drop #4 Back	V		Drop #18 Edge 12	V			
Drop #5 Right	V		Drop #19 Corner 1	J			
Drop #6 Left	V		Drop #20 Corner 2	V			
Drop #7 Edge 1	V		Drop #21 Corner 3	V			
Drop #8 Edge 2	2 /	28	Drop #22 Corner 4				
Drop #9 Edge 3	B V		Drop #23 Corner 5	V			
Drop #10 Edge 4			Drop #24 Corner 6	V			
Drop #11 Edge 5			Drop #25 Corner 7	V			
Drop #12 Edge 6			Drop #26 Corner 8	$\mathcal{U}$			
Drop #13 Edge 7							
Drop #14 Edge 8	V						
Findings					=======================================		
			4 * .		31-31		
100 31	gn's of dange	r no god to ex	terion of tes	st unit			
						_	
Disposition	☐ Retained at Fr	viron ☐ Returned to clien	t PKOther	Page	16 of 4	1/	
Paramota de la companya del companya del companya de la companya d	NESCHIONAL CONTRACTOR			99 _	· · · · · · · · · · · · · · · · · · ·	//	
QAF 5.3.1 REV C: 4-1	5-2010				0	_	
				Test performed I	by the		

Figure 4-10: Free-Fall Drop Test data sheet (10 of 11)



Photograph 4-96: Test unit identification markings



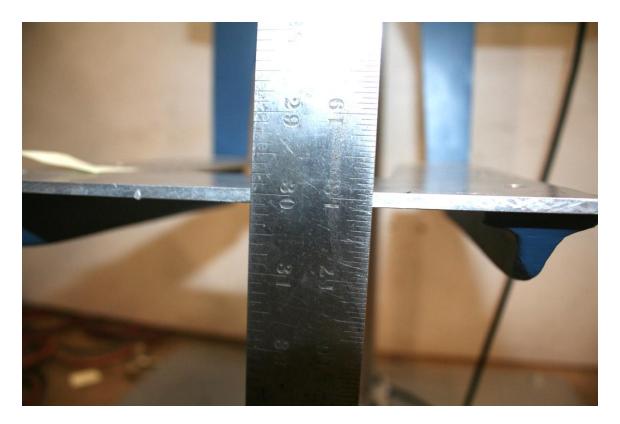
Photograph 4-97: Dead weight checked before placement into test unit



Photograph 4-98: Dead weight placed into test unit



Photograph 4-99: Pretest view of test unit interior



Photograph 4-100: Drop height is adjusted



Photograph 4-101: Test unit is set up for first drop



Photograph 4-102: Post-test view of test unit interior



Photograph 4-103: Post-test view of test unit exterior



Photograph 4-104: Post-test view of test unit exterior

	environ <sup>®</sup>	Data Sheet	ł	Job number 49	994 - 1	
A STATE STAT				Test date(s) 4-28 - /4		
Company	Seahorse			DCAS 🗆	Certified witness	
Device	Case			Witness □	Customer present □	
Model number	SE 1530			Explain in	Interruption	
Serial number	NIA			results section Spe	cification deviation	
Test description	E . E !! D			Specification approve	ed by client (initial)	
Specification	MIL-STD-3010C					
Section	5.5.2					
Equipment list						
Equipment not	770-08	O @				
	563-					
T		V.J.,				
	s and summary	v 1/ -				
Weight added to		4 165				
Drop height	21 "					
Drop #1 Bottom	V		Drop #15 Edge 9	V		
Drop #2 Top	V		Drop #16 Edge 10	V		
Drop #3 Front	V		Drop #17 Edge 11	V		
Drop #4 Back	,		Drop #18 Edge 12	V		
Drop #5 Right	V		Drop #19 Corner 1	1		
Drop #6 Left	V		Drop #20 Corner 2	J		
Drop #7 Edge	1 V		Drop #21 Corner 3			
Drop #8 Edge	2 V		Drop #22 Corner 4			
Drop #9 Edge	3 V		Drop #23 Corner 5	V,		
Drop #10 Edge	4 <i>V</i>		Drop #24 Corner 6	· /,		
Drop #11 Edge	5		Drop #25 Corner 7	0,		
Drop #12 Edge	6		Drop #26 Corner 8	V		
Drop #13 Edge 7	7					
Drop #14 Edge 8	8					
		447				
Findings						
No	signs of cos	e domage	noted			
	,					
	Milesauri					
Disposition	☐ Retained at	Environ   Returne	d to client	Page //	of //	
QAF 5.3.1 REV C: 4-	-15-2010				0	
				Test performed by	m	

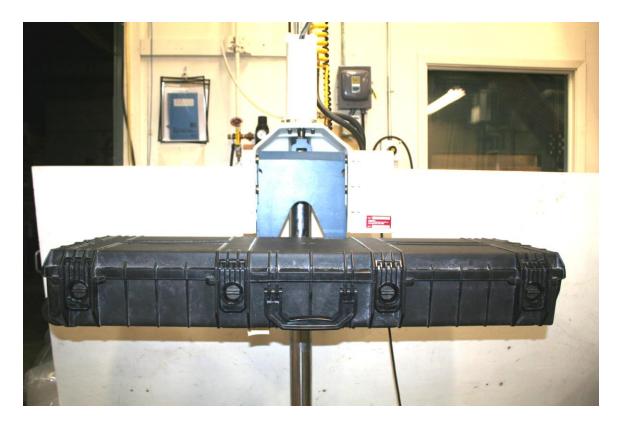
Figure 4-11: Free-Fall Drop Test data sheet (11 of 11)



Photograph 4-105: Dead weight checked before placement into test unit



Photograph 4-106: Dead weight placed into test unit



Photograph 4-107: Test unit set up for first drop



Photograph 4-108: Post-test view of test unit interior