PLEASE CHECK WEB SITE AT WWW.ONBOARDSYSTEMS.COM FOR THE LATEST REVISION OF THIS MANUAL

3,600 Pound Keeperless Cargo Hook Kit

> for the Bell 206L & 407 Series Helicopters

Kit Part Number 200-260-01

Owner's Manual

Owner's Manual Number 120-093-01 Revision 0 September 30, 2009



RECORD OF REVISIONS

Revision	Date	Page(s)	Reason for Revision
0	09/30/09	All	Initial Release

Register Your Products for Automatic Notifications

Onboard Systems offers a free notification service via fax or email for product alerts and documentation updates. By registering your Onboard Systems products at our website, we will be able to contact you if a service bulletin is issued, or if the documentation is updated.

You can choose to receive notices on an immediate, weekly, or monthly schedule via fax, email or both methods. There is no charge for this service. Please visit our website at <u>www.onboardsystems.com/notify.php</u> to get started.

CONTENTS

Section 1 General Information

Introduction, 1-1 Warnings, Cautions and Notes, 1-2 Bill of Materials, 1-2 Inspection, 1-3 Specifications, 1-3 Theory of Operation, 1-3

Section 2 Installation Instructions

Cargo Hook Removal, 2-1 Cargo Hook Installation, 2-1 Manual Release Cable Installation, 2-2 Electrical Connection, 2-5 Cargo Hook Installation, Warning, 2-6 Installation Check-Out, 2-7 Component Weights, 2-7 Cargo Hook Location, 2-7 Paper Work, 2-7

Section 3 Operation Instructions

Operating Procedures, 3-1 Cargo Hook Loading, 3-2 Cargo Hook Rigging, 3-2

Section 4 Maintenance

Instructions for Returning a System to the Factory, 4-1

Section 5 Certification

STC, 5-1 STA, 5-2 EASA STC, 5-3 ANAC CST, 5-5

Section 1 General Information

Introduction

The 200-260-01 Cargo Hook Kit is approved for installation on the following Bell helicopters:

Model	Serial Numbers
206L	45001-45153
206L-1	45154 and on
206L-3	51001 and on
206L-4	52001 and on
407	all

Equipped with one of the following Bell Helicopter Cargo Hook Suspension Systems:

206-706-341-109 206-706-341-5 206-706-341-101

The 528-029-00 Cargo Hook included in the 200-260-01 kit is suitable as a replacement for the following cargo hooks when used on one of the applicable Bell Helicopter Cargo Hook Suspension Systems listed above.

Breeze-Eastern P/Ns	Onboard Systems P/Ns
17149-6	528-010-04
17149-2	528-023-01

Warnings, Cautions and Notes

The following definitions apply to Warnings, Cautions and Notes used in this manual.



Means that if this information is not observed, serious injury, death or immediate loss of flight safety could occur.



Means that there is a risk of injury or degradation in performance of equipment if this information is not observed.



Draws the reader's attention to information which may not be directly related to safety, but which is important or unusual.

Bill of Materials

The following items are included with the Cargo Hook, if shortages are found contact the company from whom the system was purchased.

Part Number	Description	Quantity
528-029-00	3.6K Keeperless Hook	1
290-331-00	Release Fitting	1
268-004-01	Release Cable Assembly	1
290-332-00	Attach Bolt	1
510-174-00	Washer	1
510-183-00	Washer	2
510-170-00	Nut	1
510-178-00	Cotter Pin	1
120-093-01	Owner's Manual	1
121-002-01	RFMS	1
122-017-00	Cargo Hook Service Manual	1
123-001-01	ICA	1

Inspection

Inspect the cargo hook for evidence of damage, corrosion and security of lock wire and fasteners. If damage is evident, do not use the unit until it has been repaired.

Specifications

Table 1-1 Cargo Hook P/N 528-029-00 Specifications				
Design load	3,600 lb. (1,633 kg.)			
Design ultimate strength	13,500 lb. (6,123 kg.)			
Electrical release capacity	9,000 lb. (4,082 kg.)			
Mechanical release capacity	9,000 lb. (4,082 kg.)			
Force required for mechanical	8 lb. Max.(.600" travel)			
release at 3,500 lb.				
Electrical requirements	22-32 VDC 6.9 - 10 amps			
Minimum release load	0 pounds			
Unit weight	3.0 pounds (1.35 kg.)			
Mating electrical connector	PC06A8-2S SR			

Table 1-1 Cargo Hook P/N 528-029-00 Specifications

Theory of Operation

The primary elements of the Cargo Hook are the load beam, the internal mechanism, and a DC solenoid. The load beam supports the load and is latched through the internal mechanism. The DC solenoid and an external manual release cable provide the means for unlatching the load beam.

The load is attached to the load beam by passing the cargo sling ring into the throat of the load beam and pushing the ring against the upper portion of the load beam throat, which will initiate the hook to close. In the closed position, a latch engages the load beam and latches it in this position.

To release the load, the latch is disengaged from the load beam. With the latch disengaged, the weight of the load causes the load beam to swing to its open position, and the cargo sling slides off the load beam. The load beam then remains in the open position awaiting the next load.

A load release can be initiated by three different methods. Normal release is achieved by pilot actuation of the push-button switch in the cockpit. When the push-button switch is pressed, it energizes the DC solenoid in the Cargo Hook, and the solenoid opens the latch in the internal mechanism. In an emergency, release can be achieved by operating a mechanical release cable. The release cable operates the internal mechanism of the Cargo Hook to unlatch the load beam. The load can also be released by the actuation of a lever located on the side of the Cargo Hook.

Section 2 Installation Instructions

These procedures are provided for the benefit of experienced aircraft maintenance facilities capable of carrying out the procedures. They must not be attempted by those lacking the necessary expertise.

Cargo Hook Removal

Verify that the part number of the cargo hook to be removed matches one of the numbers on the list in the Applicability section of this manual. If it does not, do not attempt to use the new cargo hook, contact the factory for clarification.

To remove the existing cargo hook from the suspension system, disconnect the electrical and manual release cables from the cargo hook. Remove the cargo hook retaining bolt and separate the cargo hook from the suspension system.

Cargo Hook Installation

Inspect the kit items for evidence of damage, corrosion and security of lock wire and fasteners. If damage is evident, do not use the items until they are repaired.

Inspect the suspension system to ensure that all components are in serviceable condition before installing the new cargo hook to the suspension system.

Attach the Cargo Hook (P/N 528-029-00) to the suspension system as illustrated in Figure 2.1. The Cargo Hook load beam must point to the right side of the helicopter when looking from the rear.

Tighten nut P/N 510-170-00 on bolt P/N 290-332-00 to finger tight, then rotate nut to next castellation to install and secure cotter pin P/N 510-178-00.

Cargo Hook Installation continued

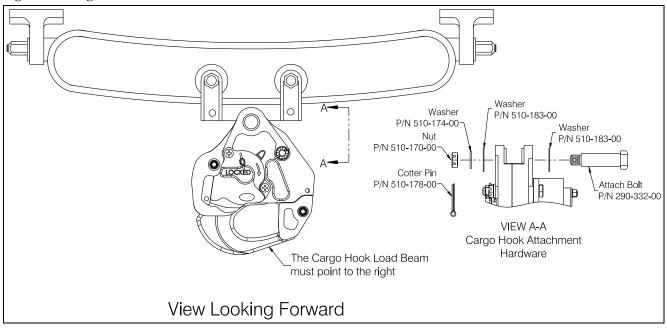
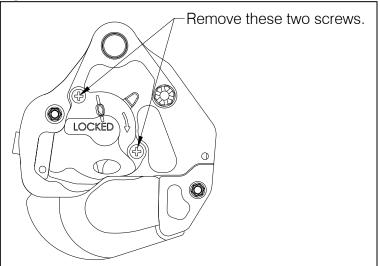


Figure 2.1 Cargo Hook Installation

Manual Release Cable Installation

Remove the manual release cover from the cargo hook by removing two screws.





Manual Release Cable Installation continued

• Thread the manual release cable adapter, P/N 290-331-00 into the cargo hook side plate and tighten until firmly against the side plate.

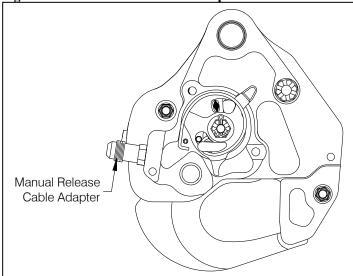


Figure 2.3 Manual Release Cable Adapter

- Connect the manual release cable, P/N 268-004-01, to the adapter.
- At the cargo hook, place the cable ball end fitting into the manual release lever fork as illustrated in Figure 2.4.



Manual release cable rigging must be done with the cargo hook in the closed and locked position.

• Rotate the release lever in the clockwise direction to remove free play (the free play is taken up when the hook lock indicator begins to move, this is also readily felt as the lever rotates relatively easily for several degrees as the free play is taken up) and measure the gap between the release lever fork and cable ball end with the manual release lever in the cockpit in the non-release position. Adjust the manual release cable system to obtain a minimum gap of .125 inches (3.2mm) at the release lever fork as shown in Figure 2.4.

Manual Release Cable Installation continued

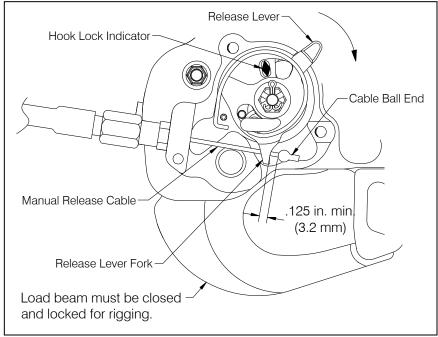


Figure 2.4 Manual Release Cable Rigging

• Re-install the manual release cover with the two screws.

Electrical Connection

Connect the existing cargo hook electrical release harness connector to the Cargo Hook. Listed below is the pin out for the cargo hook connector.

Table 2-1 Cargo Hook Connector

Pin	Function
А	Ground
В	Power



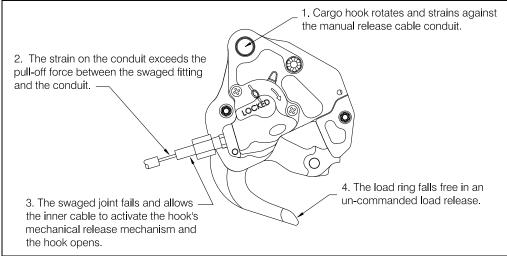
The cargo hook is equipped with a suppression diode that will be damaged if the cargo hook electrical connection is reversed. Do not attach the electrical connector until polarity if the aircraft connector is determined to be compatible with the Cargo Hook connector listed in Table 2-1.

Cargo Hook Installation, Warning



Un-commanded cargo hook release will happen if the manual release cable is improperly restrained. The cable must not be the stops that prevent the Cargo Hook from swinging freely in all directions. If the Cargo Hook loads cause the hook to strain against the manual release cable the swaged end of the cable may separate allowing the inner cable to activate the cargo hook manual release mechanism. The result is an un-commanded release. Ensure that no combination of cyclic stick or Cargo Hook position is restrained by the manual release cable.





Installation Check-Out

After installation of the Cargo Hook, perform the following functional checks.

- 1. Swing the installed Cargo Hook to ensure that the manual release cable and the electrical release harness have enough slack to allow full swing of the cargo hook and suspension assembly without straining or damaging the cable or harness. The release cable or harness must not be the stops that prevent the Cargo Hook from swinging freely in all directions.
- 2. With no load on the cargo hook load beam, pull the handle operated cargo hook mechanical release, the Cargo Hook should release. Reset the cargo hook load beam.
- 3. Close the cargo hook release circuit breaker and position the battery switch to the ON position. With no load on the cargo hook load beam, depress the cargo hook electrical release button, the Cargo Hook should release. Reset the cargo hook load beam
- 4. See the Bell Helicopter service instructions for your specific helicopter model for additional installation instructions.

Component Weights

The weight of the Cargo Hook Kit components are listed below.

Table 2-2 Component Weights

Item	Weight	
Cargo Hook w/ attach hardware & release fitting	3.25 lbs (1.47 kgs)	
Manual Release Cable	0.31 lbs (0.14 kgs)	
Total	3.56 lbs (1.61 kgs)	

Cargo Hook Location

Table 2-3 Cargo Hook Location

Fuselage Station	121.0
Fuselage Station	121.0

Paper Work

In the US, fill in FAA form 337 for the initial installation. This procedure may vary in different countries. Make the appropriate aircraft log book entry. Insert the Rotorcraft Flight Manual Supplement P/N 121-002-01 in the aircraft Flight Manual.

Section 3 Operation Instructions

Operating Procedures

Daily, prior to the first cargo hook use of the day, perform the following:

- 1. Ensure that the manual release cable and electrical release harnesses do not limit the movement of the cargo hook.
- 2. Activate the electrical system and press the Cargo Hook release button to ensure the cargo hook electrical release is operating correctly. The mechanism should operate smoothly and the Cargo Hook must release. Reset the hook by hand after the release. If the hook does not release or re-latch, do not use the unit until the difficulty is resolved.



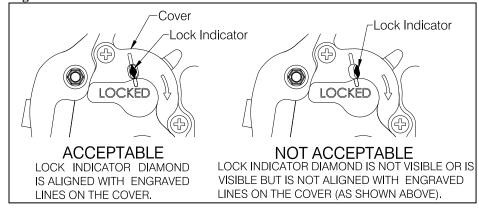
The cargo hook release solenoid is intended to be energized only intermittently. Depressing the electrical release button continuously in excess of 20 seconds will cause the solenoid to overheat, possibly causing permanent damage.

3. Activate the manual release lever to test the cargo hook manual release mechanism. The mechanism should operate smoothly and the Cargo Hook must release. Reset the load beam by hand after release. Verify that the hook lock indicator on the side of the hook returns to the fully locked position. If the hook does not release or re-latch, do not use the unit until the problem is resolved.



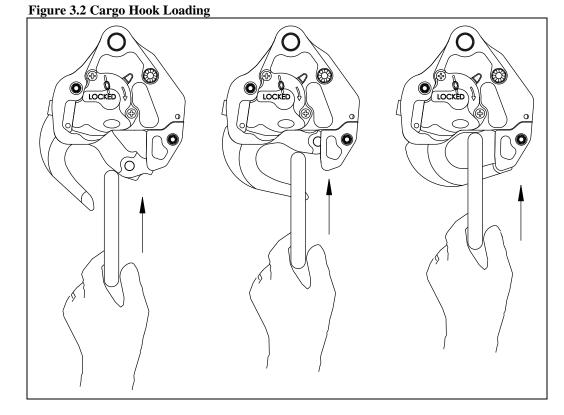
In the fully locked position the hook lock indicator must align with the lines on the manual release cover (see Figure 3.1).

Figure 3.1 Hook Lock Indicator



Cargo Hook Loading

The cargo hook can easily be loaded with one hand. A load is attached to the hook by pushing the ring upward against the upper portion of the load beam throat, as illustrated in Figure 3.2, until an internal latch engages the load beam and latches it in the closed position.



Cargo Hook Rigging

Extreme care must be exercised when rigging a load to the Cargo Hook. Steel load rings are recommended to provide consistent release performance and resistance to fouling. Figure 3.3 shows the recommended rigging, but is not intended to represent all rigging possibilities.



Some combinations of small primary rings and large secondary rings could cause fouling during release.

It is the responsibility of the operator to assure the cargo hook will function properly with each rigging.

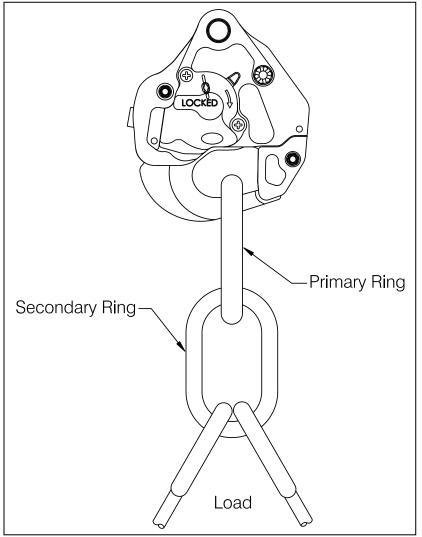
Cargo Hook Rigging, continued

Nylon Type Straps and Rope



Nylon type straps (or similar material) or rope must not be used directly on the cargo hook load beam. If nylon straps or rope must be used they should be first attached to a steel primary ring. Verify that the ring will freely slide off the load beam when it is opened. Only the primary ring should be in contact with the cargo hook load beam.





Section 4 Maintenance

Refer to the Instructions for Continued Airworthiness (ICA) manual 123-001-01 and Cargo Hook Service Manual 122-017-00 for maintenance.

Instructions for Returning Equipment to the Factory

If an Onboard Systems product must be returned to the factory for any reason (including returns, service, repairs, overhaul, etc) obtain an RMA number before shipping your return.



- To obtain an RMA, please use one of the listed methods.
 - Contact Technical Support by phone or e-mail (<u>Techhelp@OnboardSystems.com</u>).
 - Generate an RMA number at our website: <u>http://www.onboardsystems.com/rma.php</u>
- After you have obtained the RMA number, please be sure to:
 - Package the component carefully to ensure safe transit.
 - Write the RMA number on the outside of the box or on the mailing label.
 - Include the RMA number and reason for the return on your purchase or work order.
 - Include your name, address, phone and fax number and email (as applicable).
 - Return the components freight, cartage, insurance and customs prepaid to:

Onboard Systems 13915 NW 3rd Court Vancouver, Washington 98685 USA Phone: 360-546-3072

Section 5 Certification

FAA STC United States of America Department of Transportation Federal Aviation Administration Supplemental Type Certificate Number SR00850SE **Onboard Systems International** This certificate, issued to: 13915 NW 3rd Court Vancouver, WA 98685 certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part 6 of the Federal Aviation Regulations. Original Product—Type Certificate Number: H2SW Bell Model 206L, 206L-1, 206L-3, 206L-4, and 407 Description of the Type Design Change: Fabrication of Onboard Systems Model 200-260-00 Cargo Hook Kit and Model 200-260-01 Cargo Hook Kit in accordance with FAA-approved Onboard Systems Master Drawing List No. 155-057-00, Revision 19, dated October 30, 2009, or later FAA-approved revision. Installation of the 200-260-00 Cargo Hook Kit in accordance with FAA-approved Onboard Systems Owner's Manual 120-093-00, Revision 8, dated September 15, 2009, or later FAA-approved revision. This modification must be inspected and maintained in accordance with Section ATA 5 of the FAA-approved Onboard Systems Instructions for Continued Airworthiness, Document No. 123-001-00, Revision 4, dated August 11, 2009, or later FAA-approved revision and Onboard Systems Cargo Hook Service Manual, Document No. 122-005-00, Revision 15, dated April 23, 2009, or later (See Continuation Sheet on Page 3) FAA-approved revision. Limitations and Conditions: Approval of this change in type design applies to only those Bell model rotorcraft listed above, which were previously equipped with an FAA-approved installation of Bell cargo hook suspension systems 206-706-341-5, 206-706-341-101, or 206-706-341-109; and either Breeze-Eastern cargo hooks 17149-2, 17149-6, or Onboard Systems Cargo Hooks, part number 528-010-04 or 528-023-01. This approval should not be extended to rotorcraft of these models on which other previously approved modifications are incorporated unless it is determined by the installer that the relationship between this change and any of those other previously approved modifications, including changes in type design, will introduce no adverse effect upon the airworthiness of that rotorcraft. Rotorcraft modified in accordance with this STC must be operated in accordance with a copy of an FAA-approved Onboard Systems Rotorcraft Flight Manual Supplement (RFMS) No. 121-002-00, Revision 1, dated September 10, 2004, or later FAA-approved revision, for the 200-260-00 cargo hook kit, and Onboard Systems Rotorcraft Flight Manual Supplement No. 121-002-01, Revision 0, dated March 4, 2010, or later FAA-approved (See Continuation Sheet on Page 3) revision, for the 200-260-01 cargo hook kit. This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration. Date reissued: Date of application: July 11, 2000 Date amended: January 13, 2003; December 16, 2003; Date of issuance: December 15, 2000 March 29, 2010 By direction of the Administrator (Signature) Acting Manager, Seattle Aircraft Certification Office

 Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

 This certificate may be transferred in accordance with FAR 21.47.

 FAA Form 8110-2 (10-68)
 PAGE 1 of 3 PAGES

FAA	STC	continued
-----	-----	-----------

Department of Transportation—Federal Aviation Administration Supplemental Dype Certificate (Continuation Sheet) Number SR00850SE nboard Systems International Sued: December 15, 2000 mended: January 13, 2003; December 16, 2003; March 29, 2010 Stallation of the Type Design Change continued: stallation of the Type Design Change continued: stallation of the Systems Internation 0, dated September 30, 2009, or later FAA-approved Onboard Systems Owner's March December 1, 2000; December 16, 2003; March 29, 2010 Description of the Systems Octanee with Section ATA 5 of the FAA-approved Onboard Systems Owner's March December 1, 2000; December 30, 2009, or later FAA-approved Onboard Systems Instruction ontinued Airworthiness, Document No. 123-001-01, Revision 0, dated October 8, 2009, or later FAA-approved vision, and Onboard Systems Cargo Hook Service Manual No. 122-017-00, Revision 5, dated July 27, 2009, or ter FAA-approved revision.
(Continuation Sheet) Number SR00850SE nboard Systems International Sued: December 15, 2000 mended: January 13, 2003; December 16, 2003; March 29, 2010 escription of the Type Design Change continued: stallation of the 200-260-01 Cargo Hook Kit in accordance with FAA-approved Onboard Systems Owner's Mar to 120-093-01, Revision 0, dated September 30, 2009, or later FAA-approved revision. This modification must spected and maintained in accordance with Section ATA 5 of the FAA-approved Onboard Systems Instruction ontinued Airworthiness, Document No. 123-001-01, Revision 0, dated October 8, 2009, or later FAA-approved vision, and Onboard Systems Cargo Hook Service Manual No. 122-017-00, Revision 5, dated July 27, 2009, of ter FAA-approved revision. <i>Comitations and Conditions continued:</i> copy of this certificate, FAA-approved RFMS, Owner's Manual, and Service Manual, must be maintained as po the permanent records of the modified rotorcraft.
nboard Systems International Sued: December 15, 2000 mended: January 13, 2003; December 16, 2003; March 29, 2010 escription of the Type Design Change continued: stallation of the 200-260-01 Cargo Hook Kit in accordance with FAA-approved Onboard Systems Owner's Marco to 120-093-01, Revision 0, dated September 30, 2009, or later FAA-approved revision. This modification music spected and maintained in accordance with Section ATA 5 of the FAA-approved Onboard Systems Instruction ontinued Airworthiness, Document No. 123-001-01, Revision 0, dated October 8, 2009, or later FAA-approved vision, and Onboard Systems Cargo Hook Service Manual No. 122-017-00, Revision 5, dated July 27, 2009, of ter FAA-approved revision. Similations and Conditions continued: copy of this certificate, FAA-approved RFMS, Owner's Manual, and Service Manual, must be maintained as p if the permanent records of the modified rotorcraft.
 December 15, 2000 mended: January 13, 2003; December 16, 2003; March 29, 2010 escription of the Type Design Change continued: stallation of the 200-260-01 Cargo Hook Kit in accordance with FAA-approved Onboard Systems Owner's Marco 120-093-01, Revision 0, dated September 30, 2009, or later FAA-approved revision. This modification must spected and maintained in accordance with Section ATA 5 of the FAA-approved Onboard Systems Instruction ontinued Airworthiness, Document No. 123-001-01, Revision 0, dated October 8, 2009, or later FAA-approved vision, and Onboard Systems Cargo Hook Service Manual No. 122-017-00, Revision 5, dated July 27, 2009, of ter FAA-approved revision. <i>Computations and Conditions continued:</i> Copy of this certificate, FAA-approved RFMS, Owner's Manual, and Service Manual, must be maintained as particulate permanent records of the modified rotorcraft.
 December 15, 2000 mended: January 13, 2003; December 16, 2003; March 29, 2010 escription of the Type Design Change continued: stallation of the 200-260-01 Cargo Hook Kit in accordance with FAA-approved Onboard Systems Owner's Marco 120-093-01, Revision 0, dated September 30, 2009, or later FAA-approved revision. This modification must spected and maintained in accordance with Section ATA 5 of the FAA-approved Onboard Systems Instruction ontinued Airworthiness, Document No. 123-001-01, Revision 0, dated October 8, 2009, or later FAA-approved vision, and Onboard Systems Cargo Hook Service Manual No. 122-017-00, Revision 5, dated July 27, 2009, of ter FAA-approved revision. <i>Computations and Conditions continued:</i> Copy of this certificate, FAA-approved RFMS, Owner's Manual, and Service Manual, must be maintained as particulate permanent records of the modified rotorcraft.
escription of the Type Design Change continued: <u>stallation</u> of the 200-260-01 Cargo Hook Kit in accordance with FAA-approved Onboard Systems Owner's Margon 120-093-01, Revision 0, dated September 30, 2009, or later FAA-approved revision. This modification must spected and <u>maintained</u> in accordance with Section ATA 5 of the FAA-approved Onboard Systems Instruction ontinued Airworthiness, Document No. 123-001-01, Revision 0, dated October 8, 2009, or later FAA-approved vision, and Onboard Systems Cargo Hook Service Manual No. 122-017-00, Revision 5, dated July 27, 2009, or ter FAA-approved revision.
stallation of the 200-260-01 Cargo Hook Kit in accordance with FAA-approved Onboard Systems Owner's Mai o. 120-093-01, Revision 0, dated September 30, 2009, or later FAA-approved revision. This modification musi spected and maintained in accordance with Section ATA 5 of the FAA-approved Onboard Systems Instruction ontinued Airworthiness, Document No. 123-001-01, Revision 0, dated October 8, 2009, or later FAA-approved vision, and Onboard Systems Cargo Hook Service Manual No. 122-017-00, Revision 5, dated July 27, 2009, of ter FAA-approved revision.
copy of this certificate, FAA-approved RFMS, Owner's Manual, and Service Manual, must be maintained as p i the permanent records of the modified rotorcraft.
the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the erson written evidence of that permission.
- END -
y alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or be This certificate may be transferred in accordance with FAR 2

Canadian STC

|+|

Transport Canada Transports Canada

Department of Transport

Supplemental Type Certificate

This approval is issued to:

Onboard Systems 13915 North West 3rd Court Vancouver, Washington United States of America 98685 Number: SH01-27 Issue No.: 4

Approval Date: April 19, 2001 Issue Date: July 20, 2010

Responsible Office: Aircraft/Engine Type or Model: Canadian Type Certificate or Equivalent: Description of Type Design Change:

Pacific Bell 206L, 206L-1, 206L-3, 206L-4 and 407 H-92 Installation of Onboard Systems Model 200-260-00 or 200-260-

01 Non-Human External Cargo Hook per FAA STC SR00850SE

Installation/Operating Data, Required Equipment and Limitations:

Installation and Inspection of Onboard Systems Non-Human External Cargo Hook Kit 200-260-00 in accordance with the following FAA approved Onboard Systems documentation:

1) Owner's Manual No. 120-093-00, Revision 5, dated April 28, 2006*;

2) Instruction for Continued Airworthiness No. 123-001-00, Revision 2, dated October 10, 2003*; and

3) Service Manual No. 122-005-00, Revision 9, January 3, 2006*.

Installation and Inspection of Onboard Systems Non-Human External Cargo Hook Kit 200-260-01 in accordance with the following FAA approved Onboard Systems documentation:

1) Owner's Manual No. 120-093-01, Revision 0, dated September 30, 2009*;

2) Instruction for Continued Airworthiness No. 123-001-01, Revision 0, dated October 8, 2009*; and

3) Service Manual No. 122-017-00, Revision 5, July 27, 2009*.

These Non-Human External Cargo Hook Kits Model 200-260-00 and 200-260-01 are to be fabricated in accordance with FAA approved Onboard Systems Master Drawing List No. 155-057-00, Revision 19, dated October 30, 2009*.

(* or later FAA approved revisions)

- see Continuation Sheet for Required Equipment -



Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the modified product.

Henry Wong For Minister of Transport

Canadä



Transport Canada Transports Canada

(Continuation Sheet)

Number: SH07-21 Issue 4

NOTE: THIS ADDENDUM SHALL REMAIN PART OF THE CERTIFICATE REFERRED TO THEREIN.

Required Equipment:

Approval of this change in type design applies to Bell 206L, 206L-1, 206-L3, 206L-4 and 407 rotorcraft which were previously equipped with an FAA approved installation of the following: Bell Cargo Hook Suspension Systems 206-706-341-5; 206-706-341-101; or 206-706-341-109 and either Breeze Eastern Cargo Hooks 17149-2; 17149-6, or Onboard Systems Cargo Hook 528-010-04 or 528-023-01.

Modified rotorcraft must be operated in accordance with an FAA approved copy of Onboard Rotorcraft Flight Manual Supplement No. 121-002-00, Revision 1, dated September 10, 2004* for the 200-260-00 Cargo Hook Kit; or Rotorcraft Flight Manual Supplement No. 121-002-01, Revision 0, dated March 4, 2010* for the 200-260-01 Cargo Hook Kit.

(* or later FAA approved revisions)

– End –

Page 2 of 2



European Aviation Safety Agency



SUPPLEMENTAL TYPE CERTIFICATE

10032737, REV. 1

This Supplemental Type Certificate is issued by EASA, acting in accordance with Regulation (EC) No. 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation and in accordance with Commission Regulation (EC) No. 1702/2003 to

ONBOARD SYSTEMS INT.

13915 NW 3rd COURT VANCOUVER WA 98685 USA

and certifies that the change in the type design for the product listed below with the limitations and conditions specified meets the applicable Type Certification Basis and environmental protection requirements when operated within the conditions and limitations specified below:

Original Product TC Number : TCCA TCDS H92 TC Holder : BELL HELICOPTER TEXTRON CANADA Model : 206L, 206L-1, 206L-3, 206L-4 Model : 407 Original STC Number : FAA STC SR00850SE

Description of Design Change: Cargo Hook Kit model 200-260-00 and 200-260-01 This change adds an additional cargo hook

EASA Certification Basis:

The Certification Basis for the original product remains applicable to this certificate/ approval. The requirements for environmental protection and the associated certificated noise and/ or emissions levels of the original product are unchanged and remain applicable to this certificate/ approval.

See Continuation Sheet(s)

For the European Aviation Safety Agency,

Date of issue: 26.11.2010

Massimo MAZZOLETTI Certification Manager Rotorcraft, Balloons, Airships

Note:

The following numbers are listed on the certificate: EASA old Project Number: EASA IM.R.S.00592, REV. 1

SUPPLEMENTAL TYPE CERTIFICATE - 10032737, REV. 1 - ONBOARD SYSTEMS INT. EASA Form 91, Issue 4 - 24/09/2010

1/2

European Aviation Safety Agency



Associated Technical Documentation:

155-057-00 revision 19 dated 30 October 2009 - Master Drawing List; 120-093-00 revision 8 dated 15 September 2009 - Owners Manual; 123-001-00 revision 4 dated 11 August 2009 - Instructions for Continued Airworthiness; 122-005-00 revision 15 dated 23 April 2009 - Cargo Hook Service Manual; 121-002-00 revision 1 dated 10 September 2004 - Rotorcraft Flight Manual Supplement. or later revisions of the above listed documents approved by EASA in accordance with EASA ED Decision 2004/04/CF (or subsequent revisions of this decision)

Limitations:

Applies only to those Bell Helicopter models listed above previously equipped with Bell Helicopter Cargo Hook Suspension System 206-706-341-5, 206-706-341-101 or 206-706-341-109 and either Breeze-Eastern cargo hooks 17149-2, 17149-6 or Onboard Systems Cargo hooks 528-010-04 or 528-023-01

Conditions:

Prior to installation of this modification it must be determined that the interrelationship between this modification and any other previously installed modification and/ or repair will introduce no adverse effect upon the airworthiness of the product.

- end -

Note:

The following numbers are listed on the certificate: EASA old Project Number: EASA.IM.R.S.00592, REV. 1

SUPPLEMENTAL TYPE CERTIFICATE - 10032737, REV. 1 - ONBOARD SYSTEMS INT.

EASA Form 91, Issue 4 - 24/09/2010

ANAC CST



CERTIFICADO SUPLEMENTAR DE TIPO

(Supplemental Type Certificate)

NÚMERO 2011S04-13

(Number)

Este certificado, emitido com base na Lei nº 7565 "Código Brasileiro de Aeronáutica", de 19 de dezembro de 1986, (This certificate, issued in the basis of the Law No. 7565 "Código Brasileiro de Aeronáutica", dated 19 December 1986,

é conferido ao (à): Onboard System International is granted to:) 13915 NW 3rd Court Vancouver, WA 98685 USA

por ter a modificação ao projeto de tipo do produto abaixo citado, observadas as limitações e condições (for having the change to the type design of the product mentioned below, with the limitations and conditions therefor as)

especificadas, satisfeito aos requisitos de aeronavegabilidade aplicáveis. (specified hereon, met the applicable airworthiness requirements.)

Produto Original - Número do Certificado de Tipo: (Original Product - Type Certificate No:)	*	See attached ANAC Approved Model List (AML), Rev. IR, dated 29 Apr. 2011, or later approved revision.
Fabricante: (Manufacturer:)	*	
Modelo(s): (Model(s):)	*	

DESCRIÇÃO DA MODIFICAÇÃO AO PROJETO DE TIPO: (Description of Type Design Change:)

Installation of the 200-260-00 Cargo Hook kit in accordance with Onboard System Owner's Manual, documente No. 120-093-00, Rev. 8, dated 15 Sep. 2009, or later approved revision. Installation of the 200-260-01 Cargo Hook kit in accordance with Onboard System Owner's Manual, documente No. 120-093-01, Rev. 0, dated 30 Sep. 2009, or later approved revision.

This CST validates in Brazil the STC No. SR00850SE, issued by FAA (USA).

LIMITAÇÕES E CONDIÇÕES: (Limitations and Conditions:)

See continuation sheet for applicable data.

DATAS: (Dates of:) Do Requerimento: 16 Feb. 2011 Da emissão: 29 Apr. 2011 Da reemissão: (Reissue:) (Application:) lssue:) HÉLIO TARQUÍNIO JÚNIOR DINO ISHIKURA Gerente-Geral, Certificação de Próduto Aeronáutico Superintendente de Aeronavegabilidade (Airworthiness Superintendent) (General Manager, Aeronautical Product Certification) Fl. 01 de 02 (Sheet) {of} H.02-3619-0 F-400-01F (03.11)



Folha de Continuação ao

CERTIFICADO SUPLEMENTAR DE TIPO

(Supplemental Type Certificate)

NÚMERO 2011S04-13

(Number)

LIMITAÇÕES E CONDIÇÕES: (Limitations and Conditions:)

- I. The approval of this type design change should not be extended to other aircraft of these models on which other previously approved modifications are incorporated unless it is determined by the installer that the relationship between this change and any of those other previously approved modifications, including changes in Type Design, will introduce no adverse effect upon the airworthiness of that aircraft.
- II. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.
- III. Operation must be performed in accordance with the applicable FAA approved Airplane Flight Manual Supplement (AFMS) specified below:
 - Document No. 120-002-00, Rev. 1, dated 10 Sep. 2004, or later approved revision for the 200-260-00 Cargo Hook Kit;
 - Document No. 120-002-01, Rev. 0, dated 04 Mar. 2010, or later approved revision for the 200-260-01 Cargo Hook Kit;
- IV. Instructions for Continued Airworthiness (ICA), is required for this installation as specified below:
 - Document 123-001-00, Rev. 5, dated 10 Mar. 2010, or later FAA aprroved revision and Onboard Systems Component Maintenance Manual, document No. 122-005-00, Rev. 20, dated 23 Nov. 2010 or later FAA approved revision for the 200-260-00 Cargo Hook Kit.
 - Document 123-001-01, Rev. 0, dated 02 Mar. 2010, or later FAA aprroved revision and Onboard Systems Cargo Hook Service Manual, document No. 122-017-00, Rev. 12, dated 01 Dec. 2010 or later FAA approved revision for the 200-260-01 Cargo Hook Kit.
- V. Approval of this change in type design applies to only those Bell model rotorcraft listed above, which were previously equipped with an ANAC approved installation of Bell cargo hook suspension system 206-706-341-5, 206-706-341-101, or 206-706-341-109; and either Breeze_eastern cargo hhoks 17149-2, 17149-6 or Onboard System Cargo Hooks, part number 528-010-04 or 528-023-01.
- VI. A copy of this Certificate, the ANAC Approved Model List (AML) for CST No. 2011S04-13 and the Supplement referred on item III above, as applicable, shall be maintained as part of the permanent records of the modified aircraft.

		FND	<u> </u>	
	je.		\mathcal{P}	
F-400-01F (03.11)	F (She	1. 02 de 02 et) :{of}		H.02-3619-0



ANAC APPROVED MODEL LIST FOR CST 2011S04-13

ltem	Aircraft Make	Aircraft Model	Type Certification Number	Certification Basis for Alteration
1	Bell Helicopter Textron,Inc.	206L-1, 206I-3 and 206L-4	H92 (TCCA)	CAR 6
2	Bell Helicopter Textron,Inc.	407	9603 (ANAC)	14 CFR PART 27

Hellin Engrand 1

Helio Tarquinio Junior Gerente-Geral, Certificação de Produto Aeronáutico (General Manager, Aeronautical Product Certification)

ANAC Approved Date: 29 Apr. 2011.

Revision: IR.

ANAC Approved:

Fl. 01 de 01 (Sheet) (of) H.02-3619-0