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Talon LC Keeperless Cargo Hook Kit For the Bell 206 A & B

System Part Number 200-267-01

## Owner's Manual

Owner's Manual Number 120-098-01 Revision 3 10/17/14



13915 NW 3<sup>rd</sup> Court Vancouver Washington 98685 USA Phone: 360-546-3072 Fax: 360-546-3073 Toll Free: 800-275-0883 www.OnboardSystems.com



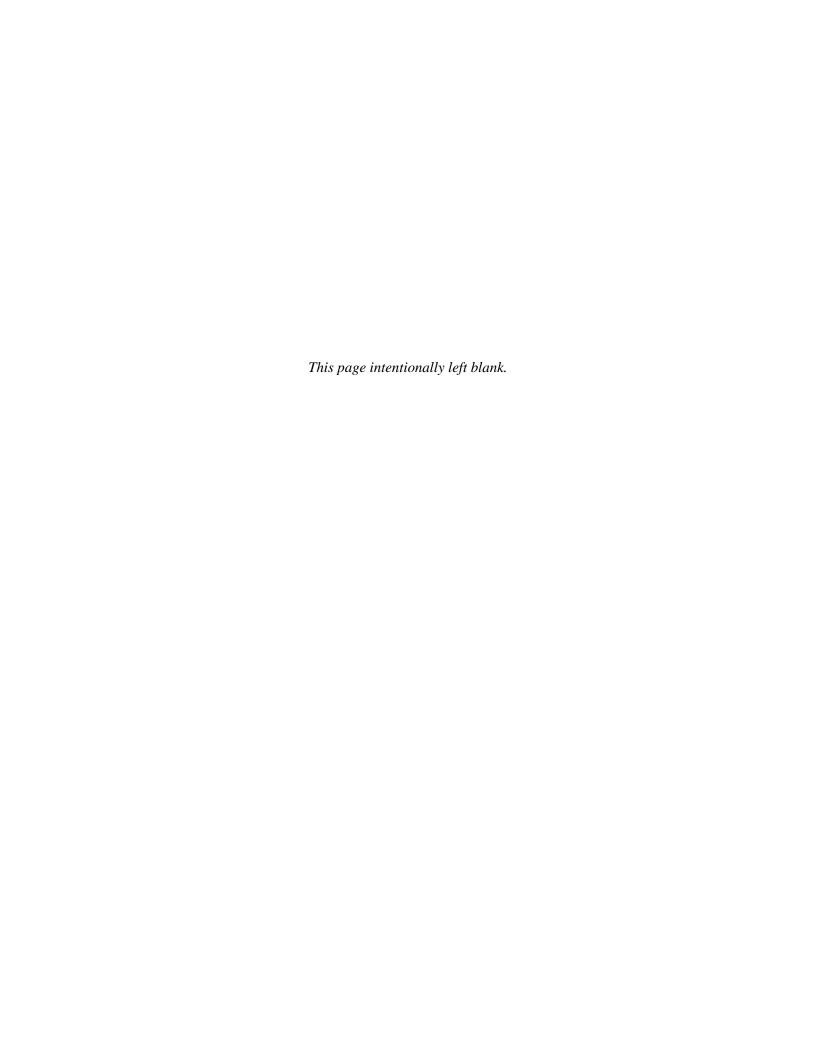
## **Record of Revisions**

Date	Page(s)	Reason for Revision
09/29/09	All	Initial Release
06/16/10	TOC & Sections 1- 4	Added Manual Release Cable (P/N 268-015-00) to parts list. Added installation instructions for manual release cable. Replaced warnings cautions and notes section with safety labels section. Updated safety labels throughout document.
09/13/10	4-4	Added Figure 4.4, added Link Assembly bushing installation instructions.
10/17/14	1-2, Section 2, 3-3, 3-4, 4- 1, 4-3	Updated manual release cable P/N to 268-015-01 and manual release adapter P/N to 290-744-00. Updated definition of "hours of external load operations" and load rigging instructions.
	09/29/09 06/16/10 09/13/10	09/29/09 All 06/16/10 TOC & Sections 1- 4  09/13/10 4-4  10/17/14 1-2, Section 2, 3-3, 3-4, 4-

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## Section 1

## **General Information**

## Introduction

The 200-267-01 Cargo Hook kit is approved for installation on the Bell 206A and 206B. The kit replaces the Breeze-Eastern cargo hooks SP4232-4, -5 and -5L or the Onboard Systems cargo hooks 528-010-04 or 528-023-01 on the Bell 206-072-900-1, 101, and -103 cargo suspension assemblies.

## **Safety Labels**

The following definitions apply to the symbols used throughout this manual to draw the reader's attention to safety instructions as well as other important messages.



Indicates a hazardous situation which, if not avoided, will result in death or serious injury.



Indicates a hazardous situation which, if not avoided, <u>could</u> result in death or serious injury.



Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



Draws the reader's attention to important or unusual information not directly related to safety.



Used to address practices not related to personal injury.

General Information 1-1

## **Bill of Materials**

The following items are included with the Cargo Hook Kit P/N 200-267-01, if shortages are found contact the company from whom the system was purchased.

**Table 1.1 Bill of Materials** 

Item	Description	Quantity
120-098-01	Owner's Manual	1
121-008-01	RFM Supplement	1
122-017-00	Cargo Hook Service Manual	1
210-164-00	Adapter Link Assembly	1
268-015-01*	Manual Release Cable Assembly	1
290-332-00	Attach Bolt	1
290-744-00**	Release Fitting	1
510-042-00	Washer	2
510-170-00	Nut	1
510-174-00	Washer	1
510-178-00	Cotter Pin	1
510-183-00	Washer	2
510-252-00	Jam Nut	1
510-257-00	Bolt	2
512-010-00	Adel Clamp	2
528-029-00	Cargo Hook	1

<sup>\*</sup>Supersedes 268-015-00.

## **Inspection**

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.

## **Specifications**

**Table 1.2 Cargo Hook 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

1-2 General Information

<sup>\*\*</sup> Alternatively P/N 290-426-00 can be used in place of P/N 290-744-00 if additional adjustment is needed. Contact Onboard Systems to obtain P/N 290-426-00.

## **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, an external manual release cable, and a manual release lever 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.

General Information 1-3



## 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 and Manual Release Cable Removal

Disconnect the manual and electrical release cables from the Cargo Hook. Remove the Cargo Hook from the universal assembly leaving the universal assembly attached to the cargo suspension assembly. Disconnect and remove the manual release cable from the cargo suspension assembly

## **Cargo Hook Kit Installation**

Inspect the cargo frame assembly to insure that all components are in serviceable condition.

Attach the Link Adapter Assembly to the Cargo Hook using the hardware supplied, as illustrated below.

Figure 2.1 Link Adapter Assembly Installation Washer P/N 510-183-00 Link Adapter Assembly P/N 210-164-00 Washer P/N 510-174-00 Cotter Pin P/N 510-178-00 Attach Bolt P/N 290-332-00 Nut Washer P/N 510-170-00 P/N 510-183-00 Cargo Hook P/N 528-029-00 Manual Release Lever side of Cargo Hook.

Tighten nut P/N 510-170-00 on attach bolt P/N 290-332-00 to finger tight until seated, then rotate nut to previous castellation if necessary to insert cotter pin. Install and secure cotter pin P/N 510-178-00.

Installation Instructions 2-1

## Cargo Hook Kit Installation, continued

Attach the Cargo Hook assembly to the cargo frame assembly using the Bell supplied hardware that was previously used to attach the universal assembly to the Cargo Hook (see Figure 2.2). The cargo hook load beam should point to the right. See the appropriate Bell service instructions for the correct installation torque values.

Cargo Frame Assembly

Washer
(AN960-616)

Cotter Pin
(MS24665-283)

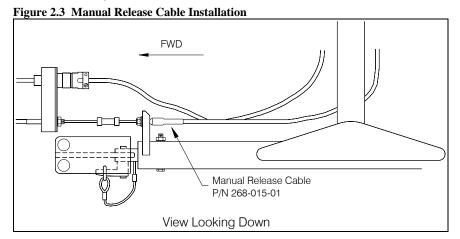
Nut
(MS17825-6)

Universal Assembly

Manual Release Side

Figure 2.2 Hook to Frame Assembly Installation

Attach the manual release cable to the cargo suspension assembly bracket, as illustrated below by removing the nut pre-installed on the end fitting of the manual release cable and inserting the end fitting through and re-installing the nut over it.



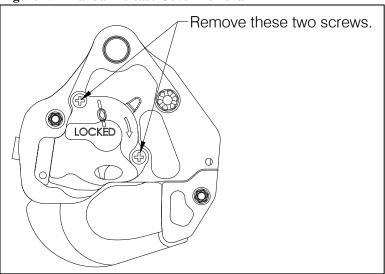
2-2 Installation Instructions

## **Manual Release Cable Rigging**

Connect the manual release cable (P/N 268-015-01) to the cargo hook per the following instructions:

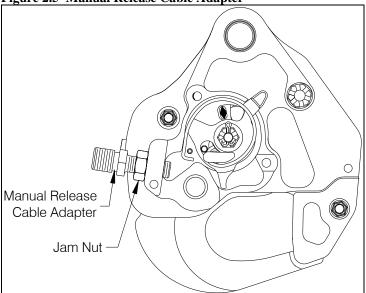
Remove the manual release cover from the cargo hook by removing two screws (see below).

Figure 2.4 Manual Release Cover Removal



Thread the jam nut (P/N 510-252-00) onto the Manual Release Cable Adapter (P/N 290-744-00) and thread the Manual Release Cable Adapter into the Cargo Hook side plate (see below). The Manual Release Adapter must be threaded into the cargo hook at least until it is visible on the inside (as shown below). The extra threads allow for some adjustment.

Figure 2.5 Manual Release Cable Adapter



o Connect the manual release cable to the Manual Release Cable Adapter.

Installation Instructions 2-3

## Manual Release Cable Rigging continued

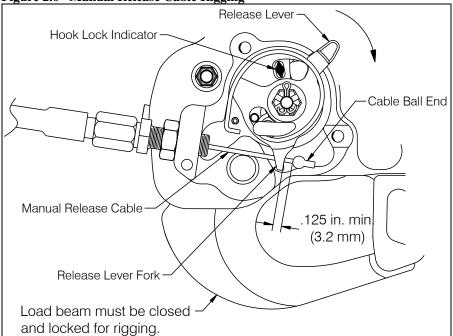
 Place the manual release cable between the two prongs of the release lever fork as illustrated in Figure 2.6.



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

• With the cargo hook closed and locked, 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 felt as the lever rotates relatively easily for several degrees as the free play is taken up) and measure the gap between the cable ball end and the release lever fork with the manual release lever in the cockpit in the non-release position. This gap should be a minimum of .125 inches (3.2 mm) as shown in Figure 2.6.

Figure 2.6 Manual Release Cable Rigging



- o If necessary adjust the manual release cable system to obtain the minimum gap of .125 inches at the release lever fork as shown in Figure 2.6 (the maximum gap is limited by the manual release cover, i.e.- the release cable must fit within the cover when it is installed). The system can be adjusted at the cargo hook by loosening the jam nut and turning the manual release cable adapter in the required direction. Be sure to maintain full thread engagement between the manual release cable adapter and cargo hook.
- Re-install the manual release cover with the two screws and ensure the manual release cable jam nut is tightened securely against the cargo hook.

2-4 Installation Instructions

## **Adel Clamps and Shock Cords**

Attach the supplied adel clamps, P/N 512-010-00, through the end loops of the cargo hook restraining shock cord.

Route the shock cord through the eyelet and over the threaded rod as illustrated in Figure 2.8. Secure the adel clamps to the cargo hook manual release side as illustrated using the bolts (P/N 510-257-00) and washers (P/N 510-042-00) provided. Torque bolts to 20-25 in-lbs.

Figure 2.7 Adel Clamp Installation

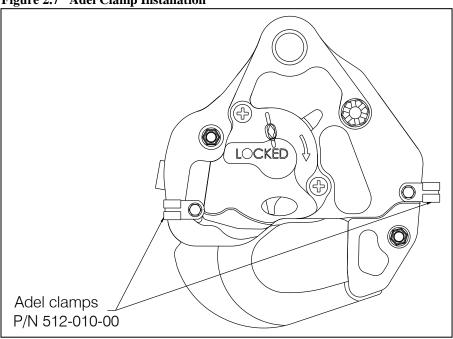
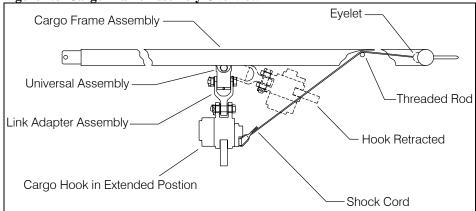


Figure 2.8 Cargo Frame Assembly Overview



Installation Instructions 2-5

## **Cargo Hook Connector**

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

**Table 2.1 Cargo Hook Connector** 

Pin	Function
A	Ground
В	Positive



Early versions of the Cargo Hook were equipped with a suppression diode that will be damaged if the Cargo Hook electrical connections are reversed. Do not attach the electrical connector until the polarity of the aircraft connector is determined to be compatible with the Cargo Hook connector listed in Table 2.1.

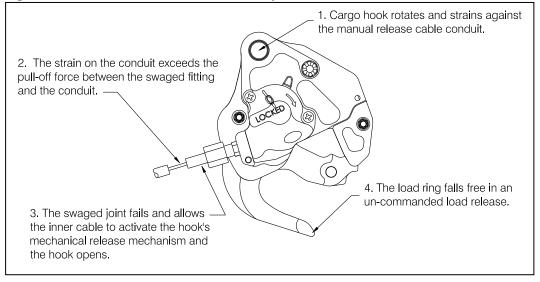
2-6 Installation Instructions

## **Installation Precautions**



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.

Figure 2.9 Un-commanded Release From Incorrectly Secured Cable



Installation Instructions 2-7

## **Installation Check-Out**

After installation of the Cargo Hook Kit, 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 without straining or damaging the cable or harness. The 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** 

Tuble 2.2 Component Weights		
Item	Weight	
Cargo Hook	3.0 lbs (1.36 kgs)	
Link Adapter Assembly	1.0 lbs (.45 kgs)	
Manual Release Cable	.25 lbs(11 kgs)	

## **Cargo Hook Location**

**Table 2.3 Cargo Hook Location** 

Fuselage Station	108.5

## 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 121-008-01 into the Rotorcraft Flight Manual.

2-8 Operation Instructions

## Section 3

## **Operation Instructions**

## **Operating Procedures**

Prior to a flight involving external load operations 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 relatch, do not use the unit until the difficulty is resolved.

## CAUTION

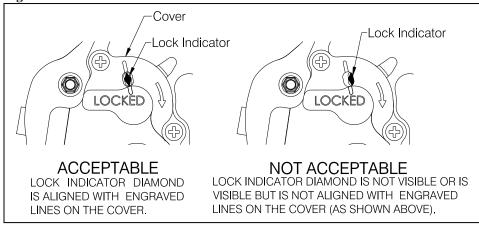
The cargo hook release solenoid is intended to be energized only intermittently. Depressing the electrical release button continuously in excess of 20 seconds will cause the release solenoid to overheat, possibly causing permanent damage.

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

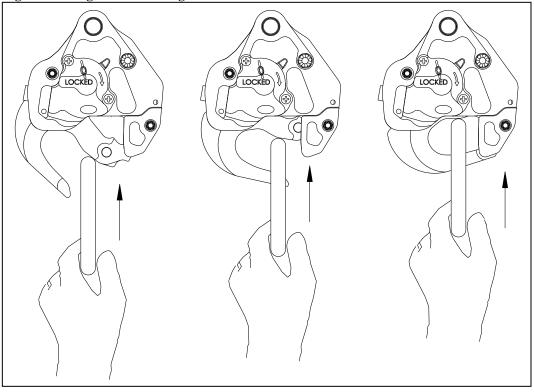


Operation Instructions 3-1

## **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.

Figure 3.2 Cargo Hook Loading



3-2 *Operation Instructions* 

## **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. The following illustration shows the recommended rigging and rigging to avoid, but is not intended to represent all rigging possibilities.



Some combinations of small primary rings and large long line thimbles or rings could cause fouling during release.

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

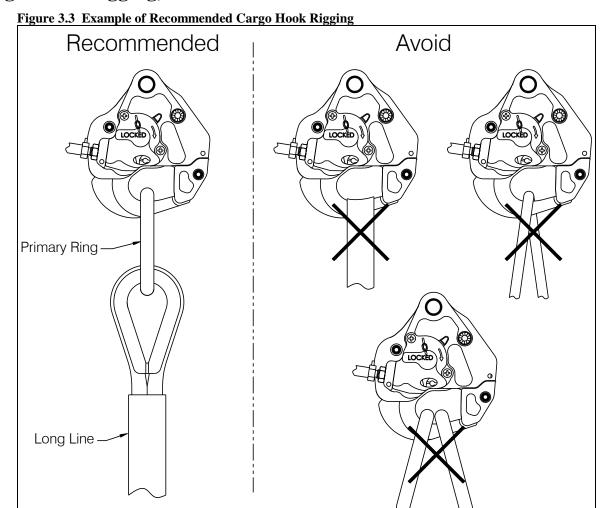
## Nylon Type Straps and Rope



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.

Operation Instructions 3-3

## Cargo Hook Rigging, continued



3-4 Operation Instructions

## Section 4 Maintenance

Refer to Component Maintenance Manual 122-017-00 for detailed maintenance information for the Cargo Hook.

## **Inspection**

Annually or 100 hours of external load operations\*, whichever comes first, inspect the cargo hook kit per the following.

## NOTICE

Hours of external load operations should be interpreted to be (1) anything is attached to the primary cargo hook (whether or not a useful load is being transported) and (2) the aircraft is flying. If these conditions are **NOT** met, time does **NOT** need to be tracked.

1. Activate the helicopter's electrical system and press the Cargo Release button to ensure the cargo hook electrical release is operating correctly. The cargo hook must release. Reset the cargo hook by hand after release. If the cargo hook does not release or re-latch, do not use the unit until the problem is resolved.



Actuating the electrical release switch continuously in excess of 20 seconds will cause the cargo hook release solenoid to overheat, possibly causing permanent damage.

2. Check the manual release system by pulling the release lever in the cockpit. The cargo hook must release. Reset the cargo hook 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 relatch, do not use the unit until the problem is resolved.

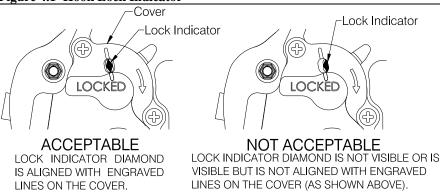


In the fully locked position the hook lock indicator must align with the lines on the manual release cover (see Figure 4.1).

Maintenance 4-1

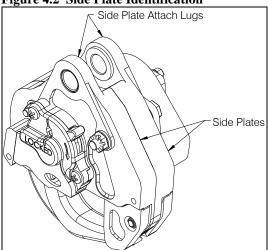
## Inspection continued

Figure 4.1 Hook Lock Indicator



3. Visually inspect for corrosion on the exterior of cargo hook. Corrosion on the cargo hook side plates is cause for immediate overhaul. Additionally, any exfoliation corrosion in the upper attach lug area of the side plates is cause for immediate replacement of the side plate.

Figure 4.2 Side Plate Identification



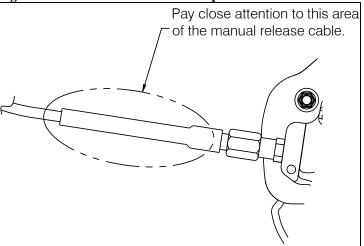
- 4. Move the cargo hook throughout its full range of motion to ensure the manual release cable and electrical harnesses have enough slack. The manual release cable or electrical harnesses must not be the stops that prevent the cargo hook from swinging freely in all directions.
- 5. Visually inspect for presence and security of fasteners and electrical connection.
- 6. Visually inspect the exterior of the cargo hook for damage including cracks, gouges, and nicks.
- 7. Visually inspect the cargo hook load beam for damage including cracks, wear, gouges, and nicks.

4-2 Maintenance

## **Inspection** continued

8. Visually inspect the manual release cable for damage, paying close attention to the flexible conduit at the area of transition to the cargo hook end fitting (refer to Figure 4.3). Inspect for splitting of the outer black conduit in this area and separation of the conduit from the steel end fitting.





## Cargo Hook Overhaul Schedule

Time Between Overhaul (TBO): 1000 hours of external load operations or 5 years, whichever comes first.



Hours of external load operations should be interpreted to be (1) anything is attached to the primary cargo hook (whether or not a useful load is being transported) and (2) the aircraft is flying. If these conditions are **NOT** met, time does **NOT** need to be tracked.

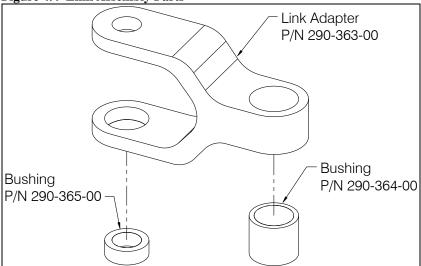
Refer to component maintenance manual 122-017-00 for overhaul instructions.

Maintenance 4-3

## **Link Assembly Overhaul**

Overhaul the Link Assembly at cargo hook overhaul.

Figure 4.4 Link Assembly Parts



Carefully inspect the Link Adapter and Bushings in a clean, well lit room.

Inspect the bushing surfaces for wear and corrosion. Pitting, corrosion or excessive wear is cause for rejection. Maximum permissible bushing clearance is .010" on diameter. If bushing P/N 290-364-00 needs to be replaced, press in new bushing with wet zinc chromate primer.

Visually inspect the Link Adapter for damage. Repair dents, gouges, nicks, scratches and corrosion if less than .020" deep, blend out at a ratio of 20:1, length to depth, replace Link Adapter if otherwise damaged.

Perform Magnetic Particle Inspection on the Link Adapter (P/N 290-363-00) in accordance with ASTM E-1444 and MIL-STD-1907, Grade A. No cracks are permitted.

4-4 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.



An RMA number is required for all equipment returns.

- 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: http://www.onboardsystems.com/rma.php
- 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

Maintenance 4-5



## Section 5 Certification STC

United States of America

Department of Transportation Federal Aviation Administration

## Supplemental Type Certificate

Number SR00896SE

This certificate, issued to:

Onboard Systems International 13915 NW 3<sup>rd</sup> 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 Civil Air Regulations.

Original Product — Type Certificate Number:

H2SW

Make:

Bell

Model:

206A and 206B

Description of the Type Design Change: Fabrication of Onboard Model 200-267-00 Cargo Hook Kit and Model 200-267-01 Cargo Hook Kit in accordance with FAA-approved Onboard Master Drawing List No. 155-063-00, Revision 7, dated October 23, 2009, or later FAA-approved revision. Installation and inspection of the 200-267-00 Cargo Hook Kit in accordance with FAA-approved Onboard Systems Cargo Hook Owner's Manual, Document 120-098-00, Revision 6, dated August 14, 2009, and Cargo Hook Service Manual, Document 122-005-00, Revision 9, dated January 03, 2006, or later FAA-approved revisions. Installation and inspection of the 200-267-01 Cargo Hook Kit in accordance with FAA-approved Onboard Systems Owner's Manual, Document 120-098-01, Revision 0, dated September 29, 2009, and Onboard Systems Cargo Hook Service Manual, Document 122-017-00, Revision 5, dated July 27, 2009, or later FAA-approved revisions.

Emitations and Conditions: Approval of this change in type design applies only to those Bell model rotorcraft listed above, which were previously equipped with an FAA approved installation of Bell cargo hook suspension system, P/N 206-072-900-1, -101, or -103; Bell cargo hook provisions kit, P/N 206-706-335-3, -5, or -105; and Breeze-Eastern cargo hook, P/N SP-4232-4, -5, or -5L. This approval should not be extended to other 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 the STC must be operated in accordance with a copy of an FAA-approved Onboard Systems Rotorcraft Flight Manual Supplement (RFMS) No. 121-008-00, Revision 1, dated September 09, 2004, or later FAA-approved revision, for the 200-267-00 cargo hook kit or Onboard Systems RFMS No. 121-008-01, Revision 0, dated March 04, 2010, or later FAA-approved revision, for the 200-267-01 cargo hook kit. (See Continuation Sheet on Page 3)

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 of application:
Date of issuance:

September 22, 2000

March 26, 2001

Date reissued:

Date amended:

May 17, 2001; January 13, 2003;

March 31, 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

Certification 5-1

### United States of America

Department of Transportation—Federal Aviation Administration

## Supplemental Type Certificate

(Continuation Sheet)

Number SR00896SE

## **Onboard Systems International**

Issued:

March 26, 2001

Amended: May 17, 2001; January 13, 2003; March 31, 2010

Limitations and Conditions continued:

A copy of this Certificate and FAA-approved RFMS must be maintained as part of the permanent records for the modified rotorcraft.

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.

- END -

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 8110-2-1 (10-69)

PAGE 3 OF 3 PAGES

## **Transport Canada STC**



Transport Canada

Transports Canada

Department of Transport

## Supplemental Type Certificate

This approval is issued to:

Number: SH01-40

Onboard Systems

Responsible Office:

Issue No.: 2

13915 North West 3rd Court

Approval Date: June 18, 2001

Vancouver, Washington

Issue Date: June 14, 2010

United States of America 98685

Aircraft/Engine Type or Model:

Bell 206A and Bell 206B

Canadian Type Certificate or Equivalent:

H-92

Pacific

Description of Type Design Change:

Installation of Onboard Systems Model 200-267-00 and Model 200-267-01 Cargo Hook System per FAA STC SR00896SE

Installation/Operating Data,

Required Equipment and Limitations:

Installation and Inspection of Onboard Systems Model 200-267-00 Cargo Hook System in accordance with FAA approved Onboard Systems Owner's Manual, Document No. 120-098-00, Revision 6, dated August 14, 2009 \* and Service Manual, Document No. 122-005-00, Revision 9, dated January 3, 2006 \*; or of Onboard Systems Model 200-267-01 Cargo Hook System in accordance with FAA approved Onboard Systems Owner's Manual, Document No. 120-098-01, Revision 0, dated September 29, 2009 \* and Service Manual, Document No. 122-017-00, Revision 5, dated July 27, 2009 \*.

Cargo Hook Model 200-267-00 and 200-267-01 are to be fabricated in accordance with FAA approved Onboard System Master Drawing List No. 155-063-00, Revision 7, dated October 23, 2009 \*.

Approval of this change in type design applies only to Bell 206A and 206B rotorcraft which were previously equipped with an FAA approved installation of the following: Bell Cargo Hook Suspension Assembly, P/N 206-072-900-1, -101, or -103; Bell Cargo Hook Provisions Kit, P/N 206-706-335-3, -5, or -105; and Breeze- Eastern Cargo Hook, P/N SP-4232-4, -5, or -5L.

Modified rotorcraft must be operated in accordance with FAA approved Onboard Systems Rotorcraft Flight Manual Supplement (RFMS) No. 121-008-00, Revision 1, dated September 9, 2004 \* (for the 200-267-00 Cargo Hook Kit) or Onboard Systems RFMS No. 121-008-01, Revision 0, dated March 4, 2010 \* (for the 200-267-01 Cargo Hook Kit).

\* (or later FAA approved revision)



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 U For Minister of Transport

> > Canada

Certification 5-3

## **EASA STC**



## SUPPLEMENTAL TYPE CERTIFICATE

## 10030532 REV. 2

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 (EU) No. 748/2012 to:

## ONBOARD SYSTEMS INTERNATIONAL

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 Type Certificate Number: EASA.IM.R.512

Type Certificate Holder: BELL HELICOPTER TEXTRON

CANADA LIMITED

Type: BELL 206

Model: 206 A/ 206 B

Original STC Number: FAA STC SR000896SE

## Description of Design Change:

Installation of Onboard Systems International replacement Cargo Hook kit and Load Weight Kit for Bell 206A and 206B in accordance with Onboard Master Drawing List No. 15506300.

With Revision 2, the Kit Part Numbers included in this approval are: 200-267-00, 200-267-01, 200-267-02, 200-389-00, and 200-390-00.

See Continuation Sheet(s)

For the European Aviation Safety Agency

Date of Issue: 28 February 2017

Pier Giorgio COLOMBO Medium Rotorcraft Section Manager

P-EASA.IM.R.S.00593 SUPPLEMENTAL TYPE CERTIFICATE - 10030532 - REV. 2 - ONBOARD SYSTEMS INTERNATIONAL - 302945

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5-4 Certification

## EASA STC continued



### 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.

### Associated Technical Documentation:

For System Part Numbers 200-267-00:

- Rotorcraft Flight Manual Supplement Document Number 121-08-00 Revision 2, dated November 30, 2015.
   For System Part Numbers 200-267-01:
- Rotorcraft Flight Manual Supplement Document Number 121-008-01, Revision-1, dated November 30, 2015.
   For System Part Numbers: 200-267-02, 200-389-00, 200-390-00:
- Rotorcraft Flight Manual Supplement Document Number 121-059-00, Revision 0, dated November 30, 2015

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)" and/ or the Technical Implementation Procedures of EU/ USA Bilateral Agreement.

- Master Drawing List Document Number 155-063-00, Revision 10, dated August 30, 2016.
- · Owner's Manual Document Number 120-144-00, Revision 1, dated January 26, 2016.
- Owner's Manual Document Number 120-098-01, Revision 2, dated September 13, 2010.
- Instructions for Continued Airworthiness, Document Number 123-042-00, Revision 0, dated August 18, 2015.
- Owner's Manual Document Number 120-098-00, Revision 7, dated June 16, 2010.
- Component Maintenance Manual Document Number 122-005-00, Revision 29 dated March 03, 2014.
- Component Maintenance Manual, Cargo Hook Document Number 122-017-00, Revision 22, dated January 26, 2016.

### Limitations/Conditions:

Approval of this change applies only to Bell Helicopter models 206A and 206B previously equipped with Bell cargo suspension systems, Part Number (P/N) 206-072-900-1, 206-072-900-101, or 206-072-900-103; Bell cargo hook provision kit, P/N 206-706-335-3, 206-706-335-5, or 206-706-335-105; and Breeze-Eastern cargo hook, P/N SP-4232-4, SP-4232-5, or SP-4232-5L.

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

- End -

P-EASA.IM.R.S.00593 SUPPLEMENTAL TYPE CERTIFICATE - 10030532 - REV. 2 - ONBOARD SYSTEMS INTERNATIONAL - 302945



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