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FAA APPROVED

**ROTORCRAFT FLIGHT MANUAL
SUPPLEMENT**

**Bell Helicopter Models
206A & 206B**

R/N _____ S/N _____

FAA Approved: Shawn Rippe
for Manager, Seattle Aircraft Certification Office
Date: 30 Nov 2011
Revised:



Rotorcraft Flight
Manual Supplement
Cargo Hook Kit

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INTRODUCTION

This supplement must be attached to the appropriate Bell FAA approved Rotorcraft Flight Manual when an Onboard Systems 200-268-01 or 200-269-03 cargo hook suspension kit is installed in accordance with Supplemental Type Certificate (STC) NO. SR00895SE. The information contained herein supplements or supersedes the basic manual only in those areas listed herein. For limitations, procedures and performance information not contained in this supplement, consult the basic Rotorcraft Flight Manual and Rotorcraft Flight Manual Supplement – Cargo Hook issued by Bell Helicopter.


The Onboard Systems cargo hook suspension kits include the cargo hook, the horseshoe shaped welded support frame, and the external manual release cable and electrical harness. The 200-269-03 kit includes a load weigh system which includes the load cell, a load indicator in the cockpit, and the interconnecting wire harness. These kits utilize the rotorcraft's existing cargo hook fixed provisions including the manual release lever in the cockpit, internal manual release cable, the electrical release switch in the cockpit, and internal cargo hook electrical wiring.

1. LIMITATIONS

The basic Flight Manual and Rotorcraft Flight Manual Supplement – Cargo Hook issued by Bell Helicopter remain applicable.

With a load attached to the cargo hook, operation shall be conducted in accordance with the respective national operational requirements. For US operators FAR Part 133 is applicable.

These cargo hook kits are approved for non-human cargo, class B rotorcraft load combinations.

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1. LIMITATIONS continued

The following placards are included with the cargo hook suspension kits.

- Mounted on suspension frame:



The following placards pertain to the load weigh system and are included with kit part number 200-269-03 only.

- Mounted adjacent to the Onboard Systems digital/analog indicator in full view of the pilot and co-pilot.

TURN THE WEIGHING SYSTEM OFF WHEN NAVIGATION EQUIPMENT IS IN USE. NO AIRCRAFT OPERATION SHOULD BE PREDICATED ON THE READING OF THE ONBOARD WEIGHING SYSTEM
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- Mounted adjacent to both the power switch and the circuit breaker in full view of the pilot and co-pilot:

ELECTRONIC WEIGHING SYSTEM



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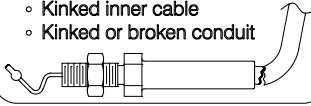
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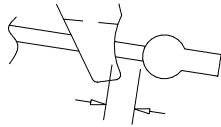
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1. LIMITATIONS continued

- Located on the manual release cable near the cargo hook:

<p>WARNING</p> <ul style="list-style-type: none">◦ Route to avoid strain◦ Rig with proper free play◦ Replace as condition requires (See reverse)◦ See manual for complete instructions	<p>WARNING</p> <p>Causes for replacement:</p> <ul style="list-style-type: none">◦ Kinked inner cable◦ Kinked or broken conduit 
One Side	Opposite Side

- Located on the bottom of the cargo hook:

<p>WARNING</p> <p>Inadvertent loss of load can result from improper cable adjustment. See manual for complete instructions.</p>	 <p>.13 in / 3.2 mm min</p>
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2. NORMAL PROCEDURES

Pre-flight Check

Before a flight involving external load operations perform the following procedures. If the procedures are not successful, do not use the equipment until the problem has been corrected.

1. Visually check all mounting fasteners to ensure that they are tight.
2. Visually check the electrical connector for damage and security.
3. Visually check the cargo hook case and covers for cracks and damage.
4. Visually check the cargo hook load beam for gouges and cracks.
5. Move the cargo hook and load cell (if installed) throughout their full ranges of motion and verify that the electrical harnesses and manual release cable do not become pulled tight in any location.



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2. **NORMAL PROCEDURES** continued

Pre-flight Check continued

6. Cycle the cargo hook's electrical release mechanism to ensure proper operation. Pressing the CARGO RELEASE switch on cyclic should cause the cargo hook load beam to open. The cargo hook may be returned to the locked position by manually pushing up on the load beam. The load beam should snap shut. Verify that the hook lock indicator on the side of the hook returns to the fully locked position (see Figure 1).

NOTICE

The cargo hook interfaces with the rotorcraft's electrical release system as supplied by Bell Helicopter. Consult the Flight Manual Supplement – Cargo Hook for operation of electrical release system.

CAUTION

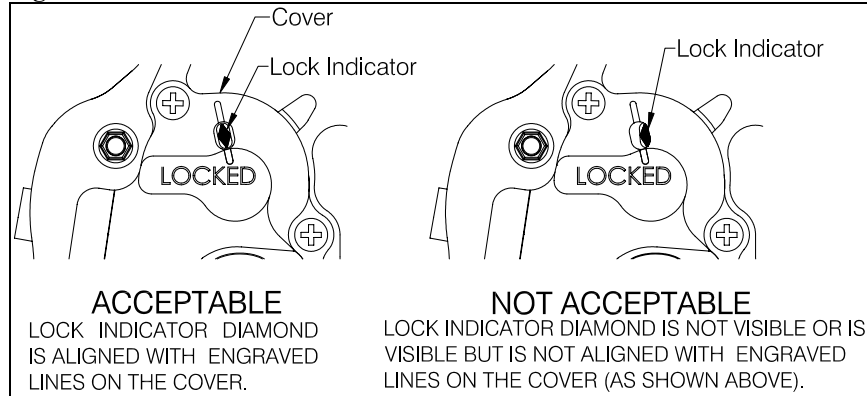
In the closed and fully locked position the hook lock indicator must align with the lines on the manual release cover (see Figure 1).

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2. NORMAL PROCEDURES continued

Pre-flight Check continued

Figure 1 Hook Lock Indicator



7. Cycle the manual release mechanism to ensure proper operation. Pull the manual release lever in the cockpit. The cargo hook load beam must open. Return the cargo hook load beam to the locked position by manually pushing up on it. The load beam should snap shut. Verify that the hook lock indicator on the side of the hook returns to the fully locked position. The cargo hook may be flown in the open position to facilitate loading by a ground crew.

NOTICE

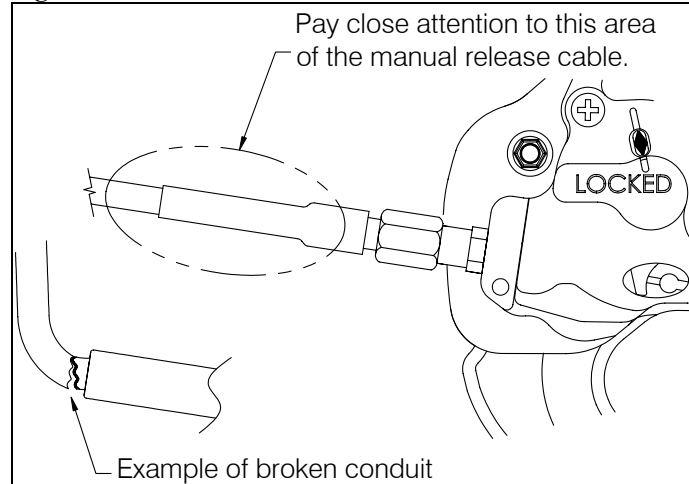
The cargo hook interfaces with the rotorcraft's manual release system as supplied by Bell Helicopter. Consult the Flight Manual Supplement – Cargo Hook for operation of the manual release system.

2. NORMAL PROCEDURES continued

Pre-flight Check continued

8. Visually check 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 2). Check for kinked, broken, or splitting of the outer black conduit in this area and separation of the conduit from the steel end fitting.

Figure 2 Manual Release Cable Check



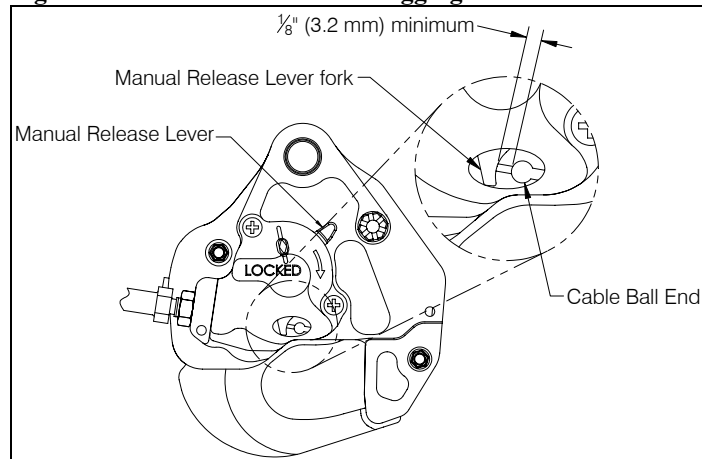
Manual release cables are wearable items and must be replaced as condition requires. Broken or kinked conduit, inner cable kinks, frays, or sticky operation are each cause for immediate replacement.

2. NORMAL PROCEDURES continued

Pre-flight Check continued

9. Check the manual release cable rigging through the window in the cargo hook manual release cover. With the cargo hook load beam closed and locked, rotate the manual release lever clockwise to remove the 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 hold it in this position while checking the gap between the release lever fork and the cable ball end as shown below. Visually check that there is approximately a minimum gap of 1/8" (3.2 mm) as shown in Figure 3.

Figure 3 Manual Release Cable Rigging



! WARNING

Mis-rigging of the manual release cable will result in inadvertent release of load.

2. NORMAL PROCEDURES continued

Pre-flight Check continued

Step 10 only applies if the load weigh system is installed.

10. To initialize the Load Indicator, perform the following:
Power on the Load Indicator and allow it to warm up for 5 minutes (with no load on the hook). Press both Indicator buttons at the same time to go to the setup mode. Scroll through the menu, using the left button, until “0 in” is displayed, then press the right button. Remove any weight from the cargo hook that is not to be zeroed out and press either button to complete the procedure.

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2. NORMAL PROCEDURES continued

Cargo Hook Rigging

Extreme care must be exercised in rigging a load to the Cargo Hook. The following illustration shows the recommended rigging configuration.



The example shown is not intended to represent all possibilities. It is the responsibility of the operator to assure the hook will function properly with the rigging. Some combinations of small primary rings and large secondary rings could cause fouling during release.

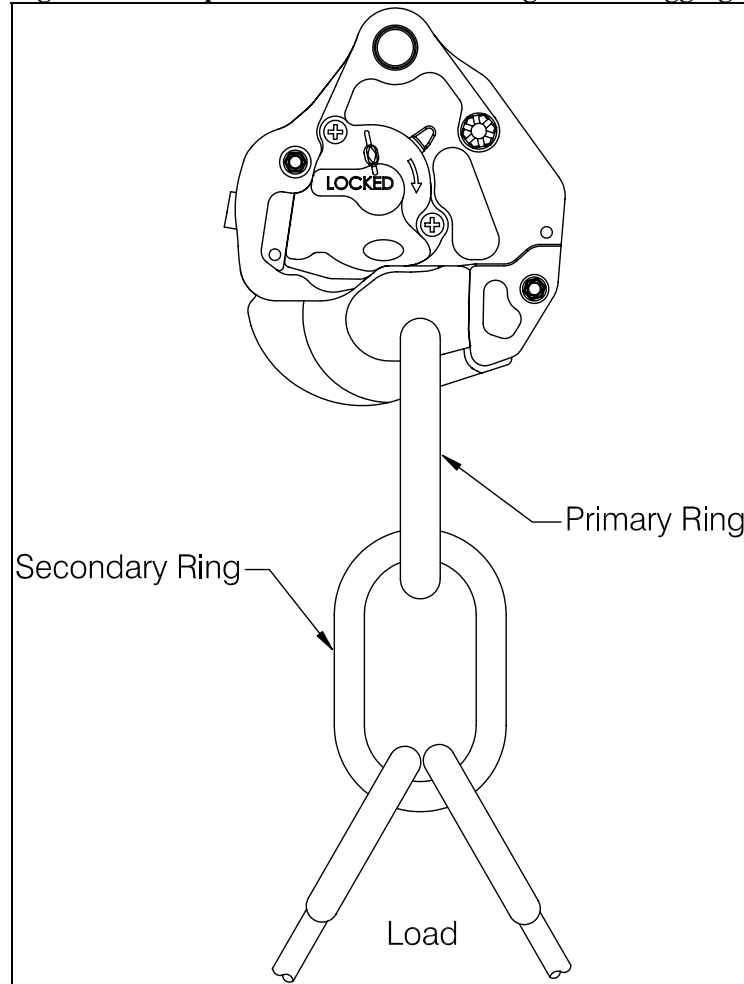
Nylon Type Straps or Rope



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. See Figure 4.

2. **NORMAL PROCEDURES** continued

Figure 4 Example of Recommended Cargo Hook Rigging



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3. EMERGENCY PROCEDURES

The basic Flight Manual and Rotorcraft Flight Manual Supplement-Cargo Hook issued by Bell Helicopters remain applicable.

4. PERFORMANCE

The basic Flight Manual and Rotorcraft Flight Manual Supplement-Cargo Hook issued by Bell Helicopters remain applicable.

When an Onboard Systems 200-268-01 or 200-269-03 Suspension System with Load Weigh is installed the following applies. The Load Weigh System is designed and installed as a means of MONITORING the load (weight) suspended from the cargo hook. Functional and performance characteristics have not been determined on the basis of the load cell indication or display. Therefore, this instrument shall **NOT** be used as a primary indication of performance and flight operation must **NOT** be predicated on its use.



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