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FAA APPROVED

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT

Bell Helicopter Models
206L, 206L-1, 206L-3, 206L-4, 407

R/N _____ S/N _____

FAA Approved: _____
Manager, Seattle Aircraft Certification Office

Date: 9 Aug 2007

Revised:

INTRODUCTION

This supplement must be attached to the appropriate Bell FAA approved Rotorcraft Flight Manual when an Onboard Systems 200-249-00 or 200-250-00 Cargo Hook Suspension Kit is installed in accordance with Supplemental Type Certificate (STC) NO. SR00724SE. 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 200-249-00 and 200-250-00 Cargo Hook Suspension Kits include the cargo hook, suspension beam assembly, and pillow blocks. The suspension beam assembly supports the cargo hook and allows it to align itself with a load. The pillow blocks support each end of the suspension beam assembly and attach to the rotorcraft's hard points. In addition the kits include the external manual release cable and external electrical harness. These items interface with the fixed cargo hook provisions on the rotorcraft.

The 200-250-00 kit includes a load weigh system. The load weigh system consists of a cockpit-mounted indicator, a load cell above the cargo hook, and the interconnecting wiring harness.

1. LIMITATIONS

1-3. Types of Operation

The basic Rotorcraft 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. This cargo hook is approved for non-human cargo, class B rotorcraft load combinations only.

The load weigh indicator (included with kit P/N 200-250-00) shall be operated in accordance with Section 4 of Owner's Manual 120-085-00.

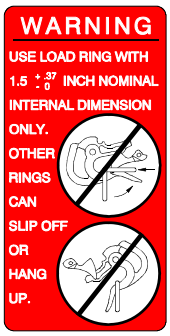
1-20 Placards

When an Onboard Systems kit P/N 200-249-00 or 200-250-00 is installed the following placards apply.

Mounted on suspension beam assembly:

EXTERNAL LOAD LIMIT 407 2650 LBS
206L 2000 LBS

Mounted on the bottom of the cargo hook:



1-20 Placards continued

When an Onboard Systems kit P/N 200-250-00 is installed the following placards apply.

Mounted adjacent to the Onboard Systems load weigh indicator in full view of pilot or 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.

Mounted adjacent to the power switch and the circuit breaker in full view of the pilot and co-pilot.

> ELECTRONIC WEIGHING SYSTEM

2. NORMAL PROCEDURES

2-3 Pre-flight Check

Consult the Rotorcraft Flight Manual Supplement – Cargo Hook issued by Bell Helicopters for additional procedures.

Before each Cargo Hook use perform the following procedures. If the procedures are not successful do not use the equipment until the problem has been corrected.

1. Inspect all cargo hook fasteners to ensure that they are tight.
2. Visually inspect the electrical connector for damage and security.
3. Operate the cargo hook keeper manually and check that it snaps back to its normal position on the load beam.

2. NORMAL PROCEDURES continued

2-3 Pre-flight Check continued

4. Inspect the cargo hook case and covers for cracks and damage.
5. Inspect the cargo hook load beam for gouges and cracks.
6. Cycle the cargo hook manual release system to ensure proper operation.

NOTE

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

7. Cycle the cargo hook electrical release system to ensure proper operation.

NOTE

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

2. NORMAL PROCEDURES continued

2-3 Pre-flight Check continued

8. Move the cargo hook and the suspension system throughout their full ranges of motion to ensure the manual release cable and electrical harnesses have enough slack. The cable or electrical harnesses must not be the stops that prevent the cargo hook or suspension from moving freely in all directions.

9. Move the cargo hook back and forth on the suspension beam to ensure that it rolls freely and that there are no obstructions within the beam.

When an Onboard Systems 200-250-00 Cargo Hook Suspension System with Load Weigh is installed, perform the following additional procedure:

1. Zero the load weigh system or tare the weight on the cargo hook that is not wanted, such as the weight of a cargo net or long line, by depressing the zero button on the indicator.

2. NORMAL PROCEDURES continued

Cargo Hook Rigging

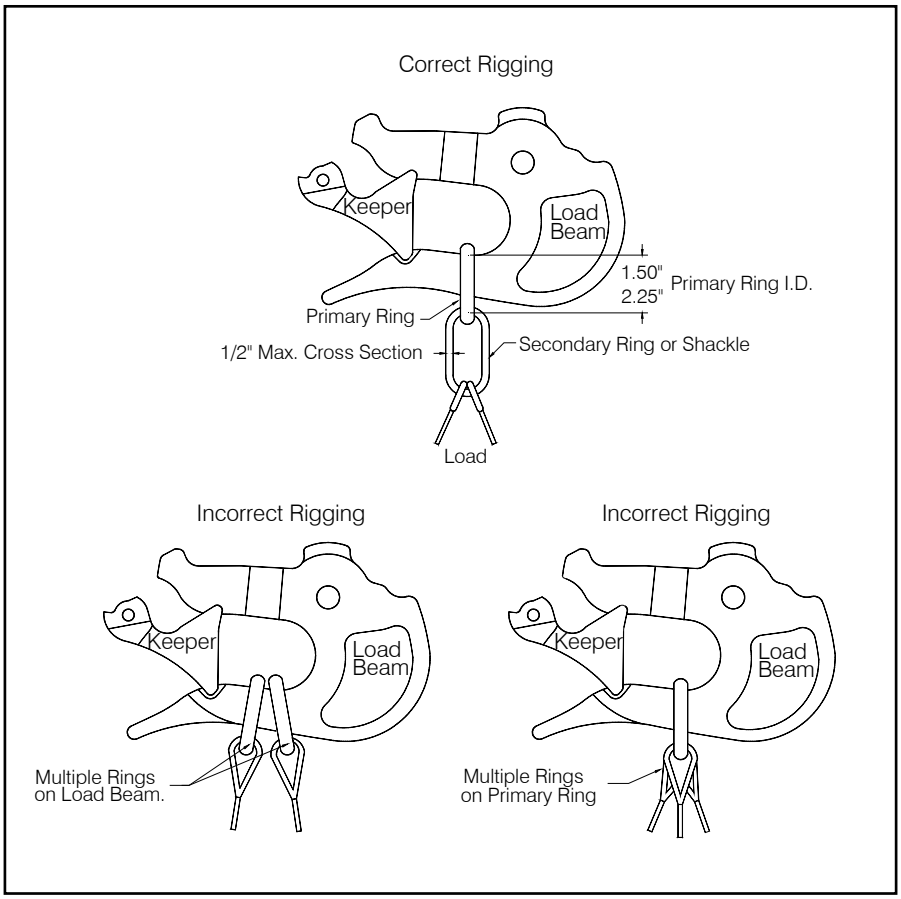
Extreme care must be exercised in rigging a load to the Cargo Hook. If the load ring is too big it may work its way around the end of the load beam and be supported for a time on the keeper and then fall free. If the load ring is too small it may jam itself against the load beam during an attempted release.

The following illustrations show recommended rigging configurations and potential difficulties that must be avoided.

The examples shown on the following pages are not intended to represent all problem possibilities. It is the responsibility of the operator to ensure that the cargo hook will function properly with the rigging.

2. NORMAL PROCEDURES continued

Figure 1



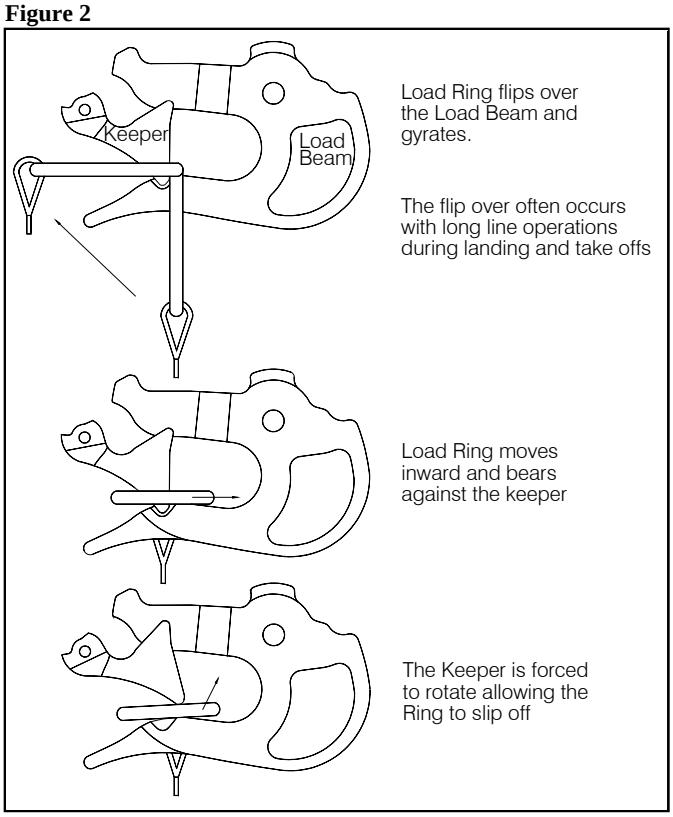
2. NORMAL PROCEDURES continued

Un-Commanded Release Due to Too Large of a Load Ring

WARNING

Load rings that are too large will cause an un-commanded release. The ring will flip over the end of the load beam and flip the keeper up and then fall free. Only correctly sized load rings must be used. See example below.

Figure 2



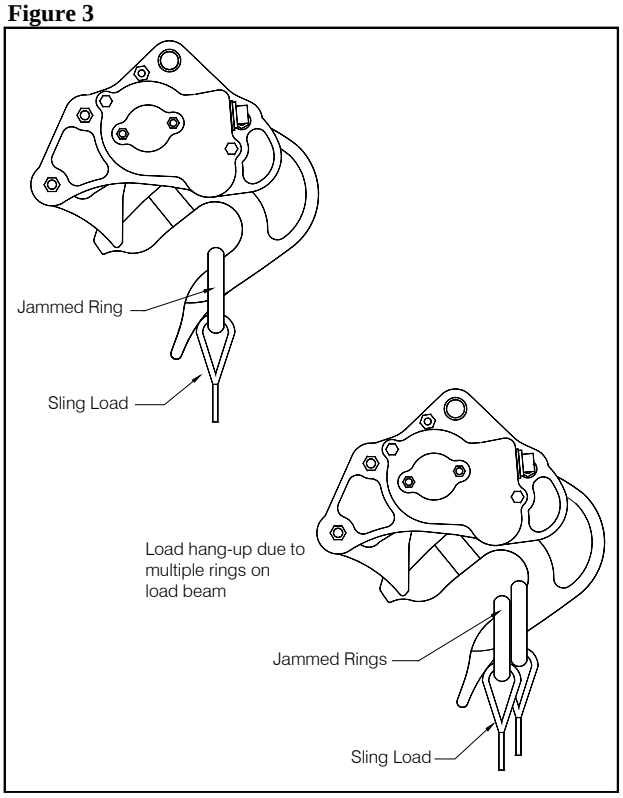
2. NORMAL PROCEDURES, continued

Load Hang-Up due to Too Small of a Load Ring or Multiple Load Rings

WARNING

Load rings that are too small or multiple load rings will hang on the load beam when the load is released. Only correctly sized load rings must be used. See example below.

Figure 3



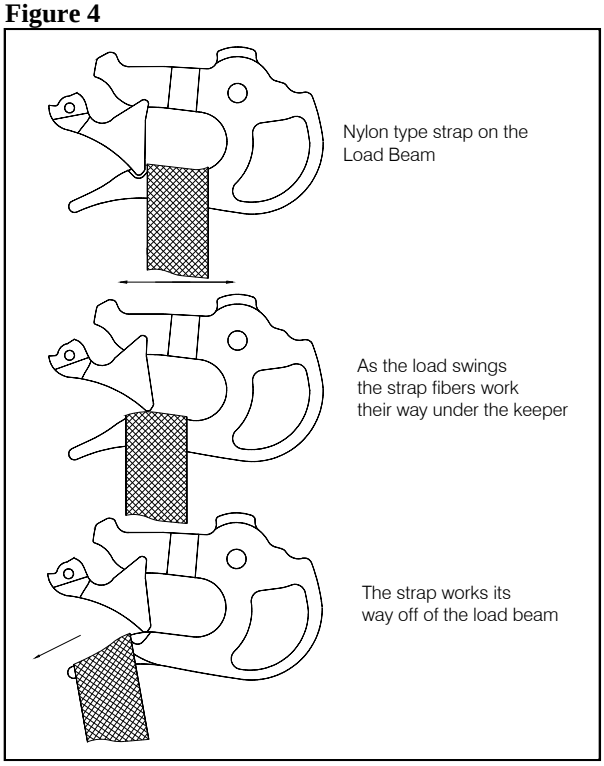
2. NORMAL PROCEDURES, continued

Un-Commanded Release Due to Nylon Type Straps

WARNING

Nylon type straps (or similar material) must not be used directly on the cargo hook load beam as they have a tendency to creep under the keeper and fall free. If nylon straps must be used they should first be attached to a correctly sized primary ring. Only the primary ring should be in contact with the load beam. See example below.

Figure 4



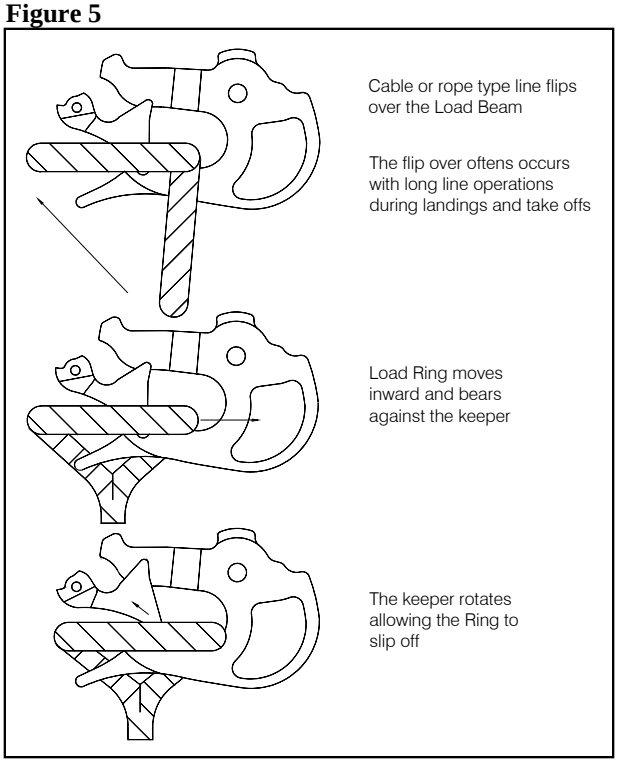
2. NORMAL PROCEDURES, continued

Un-Commanded Release Due to Cable or Rope Type Straps

WARNING

Cable or rope type straps must not be used directly on the cargo hook load beam. Their braided eyes will work around the end of the load beam and fall free. If cable or rope is used they should first be attached to a correctly sized primary ring. Only the primary ring should be in contact with the cargo hook load beam. See example below.

Figure 5



2. NORMAL PROCEDURES, continued

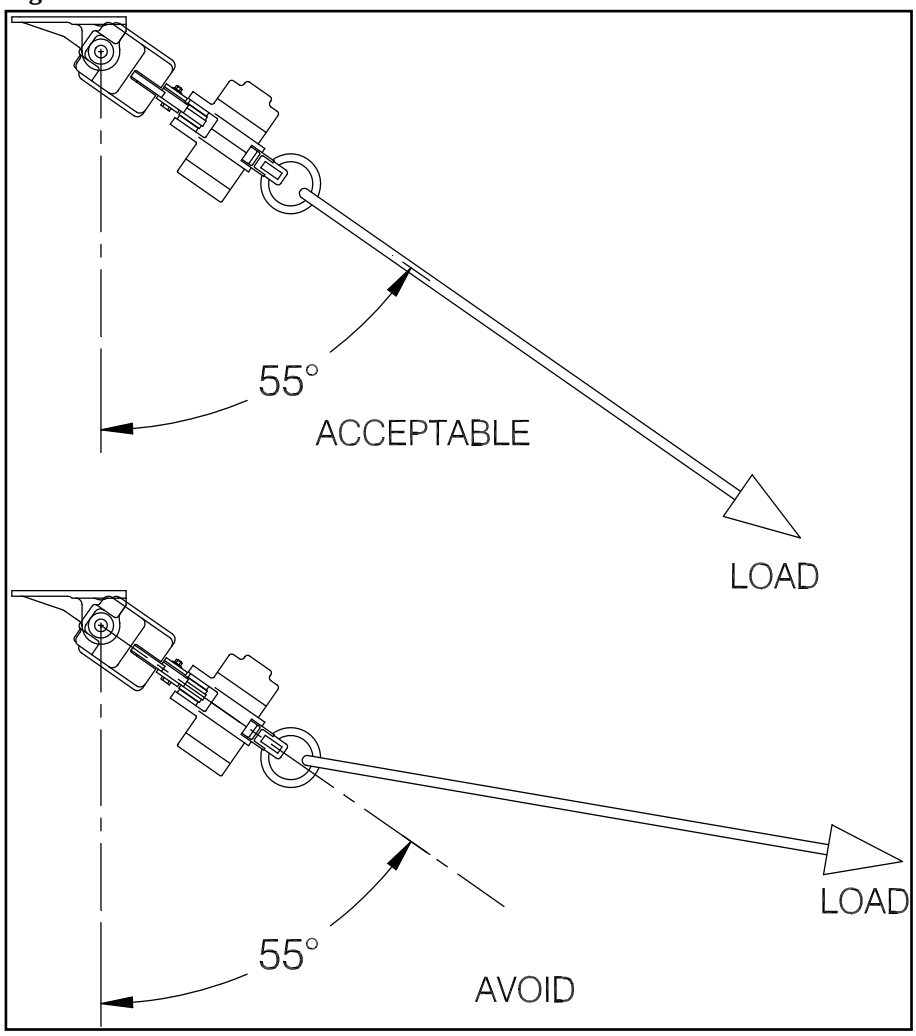
WARNING

The suspension system is designed to accommodate loads through an angle of up to 55° from vertical—both forward and aft. However, when loads exceed 55°, the travel stops on the Pillow Blocks prevent the Suspension Beam from further rotation and cause bending stresses to be carried by the Load Cell. Care should be taken to avoid this flight regime.

The situation is most likely to occur when flying at high speeds with light loads, which have large aerodynamic drag, for example - an empty fire or fertilizer bucket or an empty long line. Figure 6 illustrates the adverse loading situation.

2. NORMAL PROCEDURES, continued

Figure 6



3. EMERGENCY PROCEDURES

Consult the Rotorcraft Flight Manual Supplement – Cargo Hook issued by Bell Helicopter for emergency procedures during external load operations.

4. PERFORMANCE

The Rotorcraft Flight Manual Supplement – Cargo Hook issued by Bell Helicopter remains applicable.

When an Onboard Systems 200-250-00 Cargo Hook 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.