FAA APPROVED

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT

Bell Helicopter Models
204B, 205A, 205A-1, 210, 212, 412, 412EP,
Agusta Helicopter Models
AB412, AB412EP
Garlick Helicopter Model
UH-1H

R/N _____S/N _____

FAA Approved: Donald B. Wilson
for Manager, Seattle Aircraft Certification Office

Date:

Revised: 25 Sept 07

INTRODUCTION

This supplement must be attached to the appropriate FAA approved Bell Rotorcraft Flight Manual when an Onboard Systems 200-088-01, 200-089-01, 200-088-02, 200-089-02, 200-088-03, 200-089-03, 200-088-04, 200-089-04, 200-089-05 or 200-089-06 Cargo Hook Suspension System is installed in accordance with Supplemental Type Certificate (STC) NO. SH5707NM. 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 for External Cargo Operation issued by the OEM.

1. LIMITATIONS

The basic Flight Manual and Rotorcraft Flight Manual Supplement for External Cargo Operation issued by the OEM remain applicable. This Suspension System is approved for external cargo hook loads up to 5,000 pounds (2267 kgs), not to exceed those published in the basic Rotorcraft Flight Manual and Rotorcraft Flight Manual Supplement for External Cargo Operation for the specified helicopter.

When a 200-089-01, 200-089-02, 200-089-03, 200-089-04, 200-089-05 or 200-089-06 Suspension System with Load Weigh is installed, the following placards apply:

- Mount the following placard adjacent to the Onboard Systems digital/analog indicator in full view of the pilot and co-pilot:

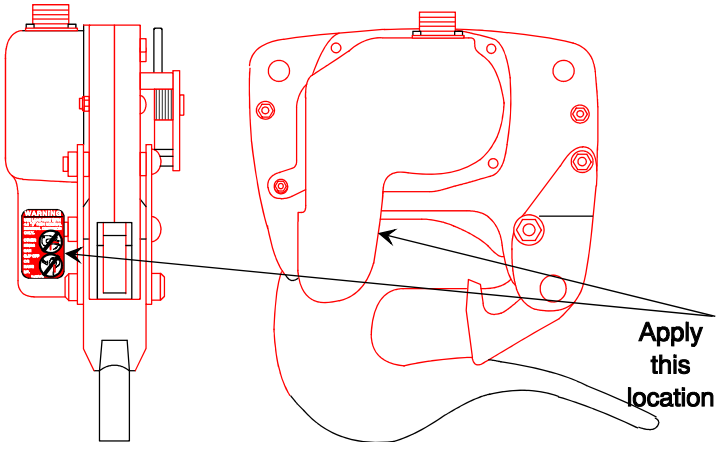
TURN THE LOAD WEIGH SYSTEM OFF WHEN NAVIGATION EQUIPMENT IN USE NO AIRCRAFT OPERATION SHOULD BE PREDICATED ON THE READING OF THE LOAD WEIGH SYSTEM.

- Mount the following placard adjacent to both the power switch and the circuit breaker in full view of the pilot and co-pilot:

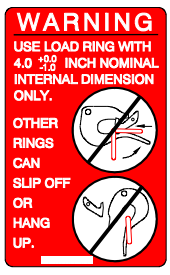
ELECTRONIC WEIGHING SYSTEM

- Ensure that the following placard is mounted in the location shown in full view of the cargo hook operator.

WARNING. USE LOAD RING WITH 4.0 +0.0/-1.0 INCH NOMINAL INTERNAL DIMENSION ONLY. OTHER RINGS CAN SLIP OFF OR HANG UP.



Placard actual size



2. NORMAL 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.

Visually inspect all mounting fasteners to ensure that they are tight.

Visually inspect the electrical connectors for loose or damaged pins and sockets.

Operate the keeper manually and check that it snaps back to its normal position on the load beam.

Visually inspect the case and covers for cracks and damage.

Visually inspect the cargo hook load beam for gouges and cracks.

Cycle the manual release mechanism to ensure proper operation.

Cycle the electrical release mechanism to ensure proper operation.

Swing the suspension system and cargo hook to the full extremes to verify that they do not strain the manual and electrical release cables and the cargo hook does not self-trip. Consult the latest revision of the owner's manual for daily and 100-hour inspection procedures.

Visually check bumper ring for damage.

Visually check the slip-ring assembly for visual damage. Cycle all accessories attached to the suspension slip-ring assembly to ensure proper operation.

When a 200-089-01, 200-089-02, 200-089-03, 200-089-04, 200-089-05 or 200-089-06 Suspension System with Load Weigh is installed, perform the following additional procedure:

1. Power on the 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 until the symbol "0 in" is displayed, then press the Right button. Remove any weight that is not to be zeroed out and press either button to complete the procedure.

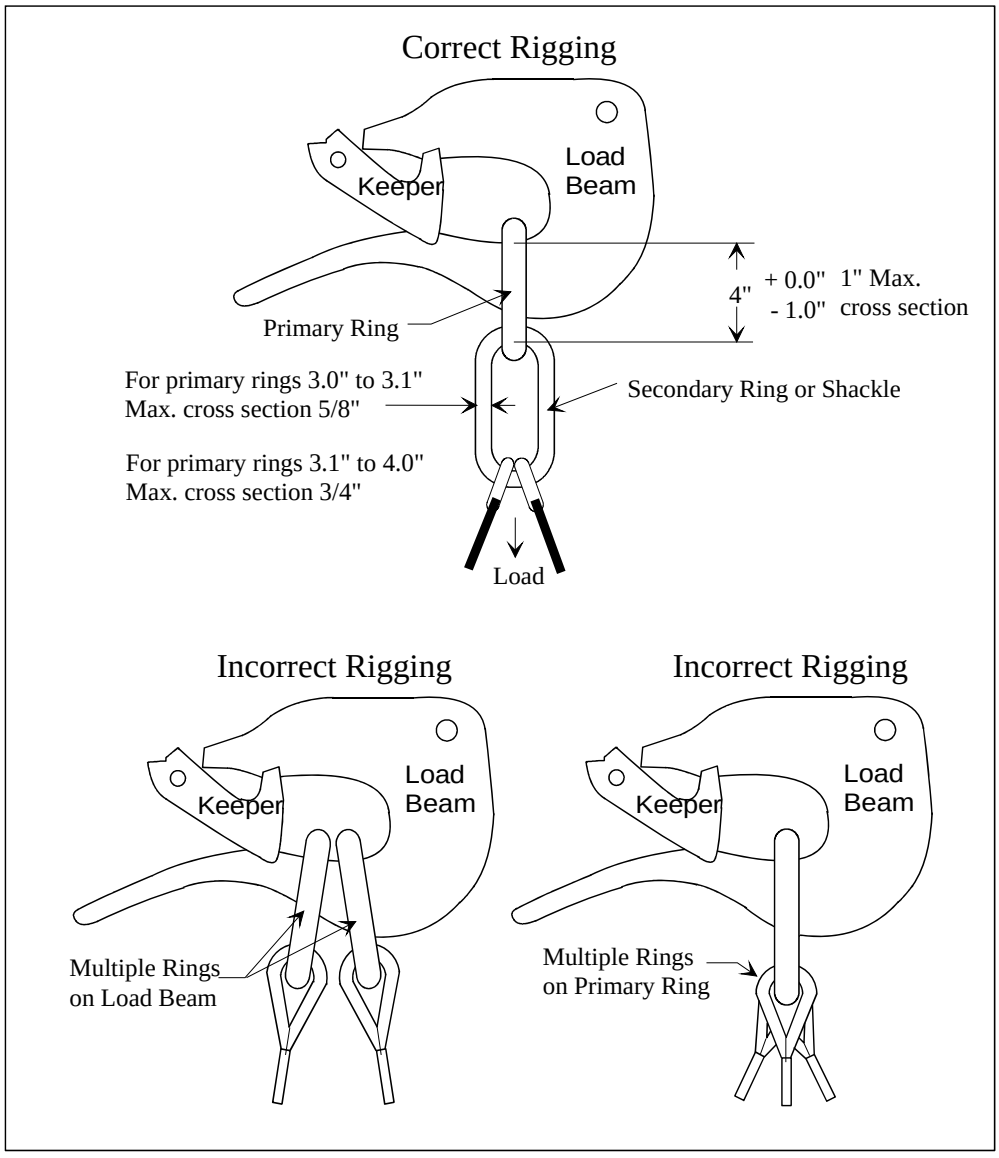
2. NORMAL PROCEDURES, continued

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 configurations and potential difficulties that must be avoided.

WARNING: The examples shown 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.

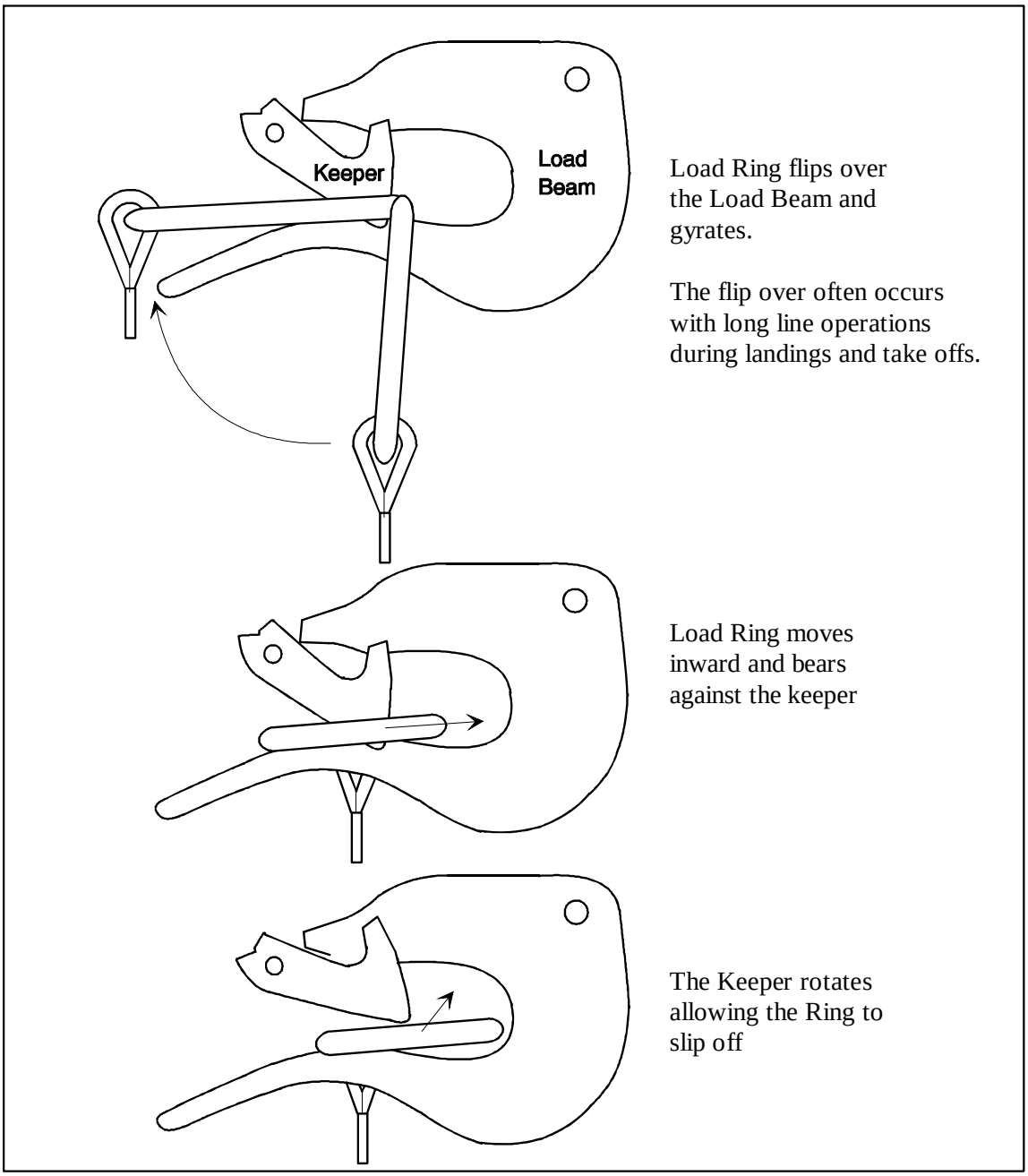
Figure 1 Examples of correct and incorrect cargo hook rigging



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 examples below.

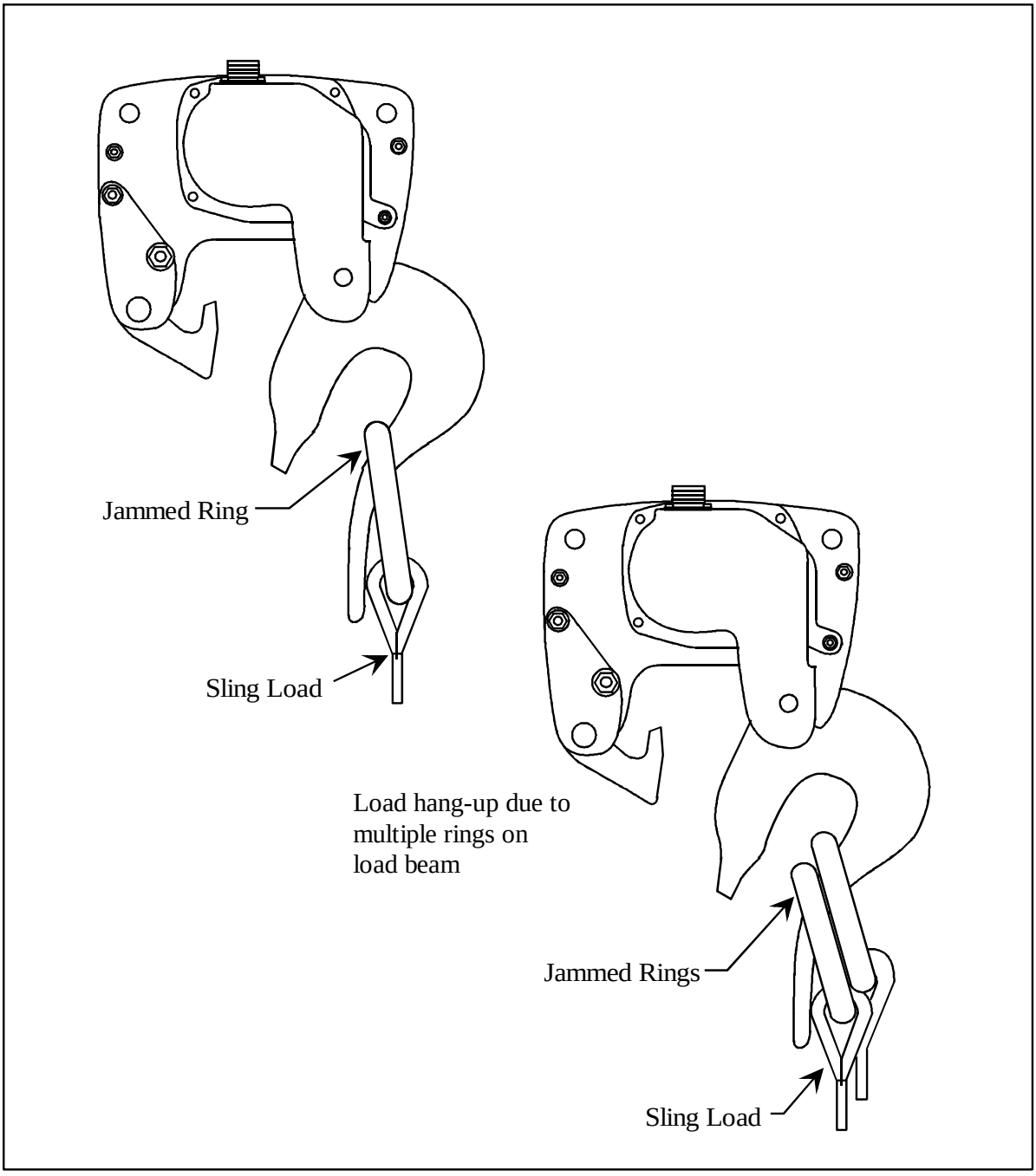
Figure 2 Un-commanded release due to load rings that are too large



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 examples below.

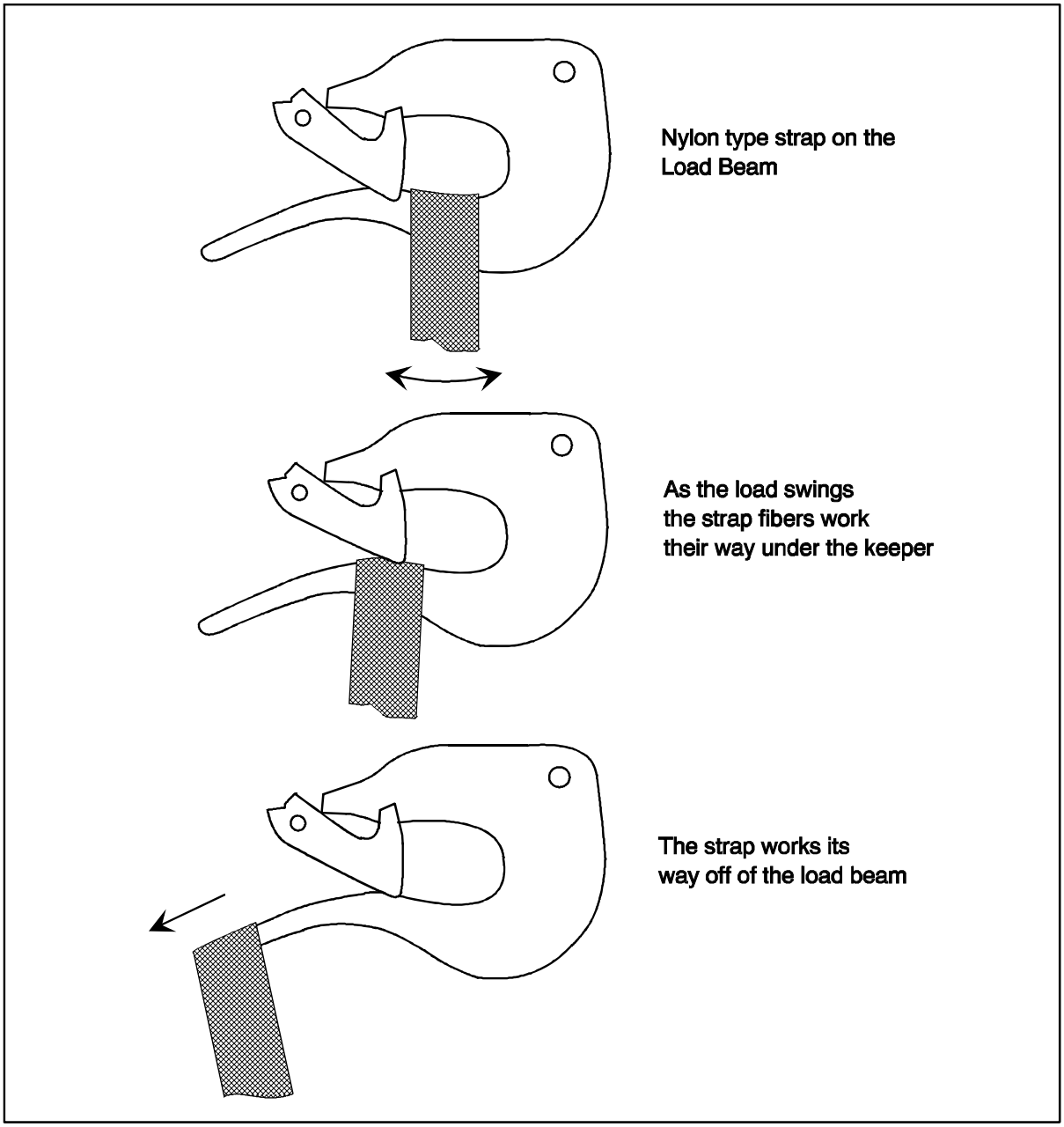
Figure 3 Load hang-up due to load rings that are too small or using multiple load rings



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 cargo hook load beam. See examples below.

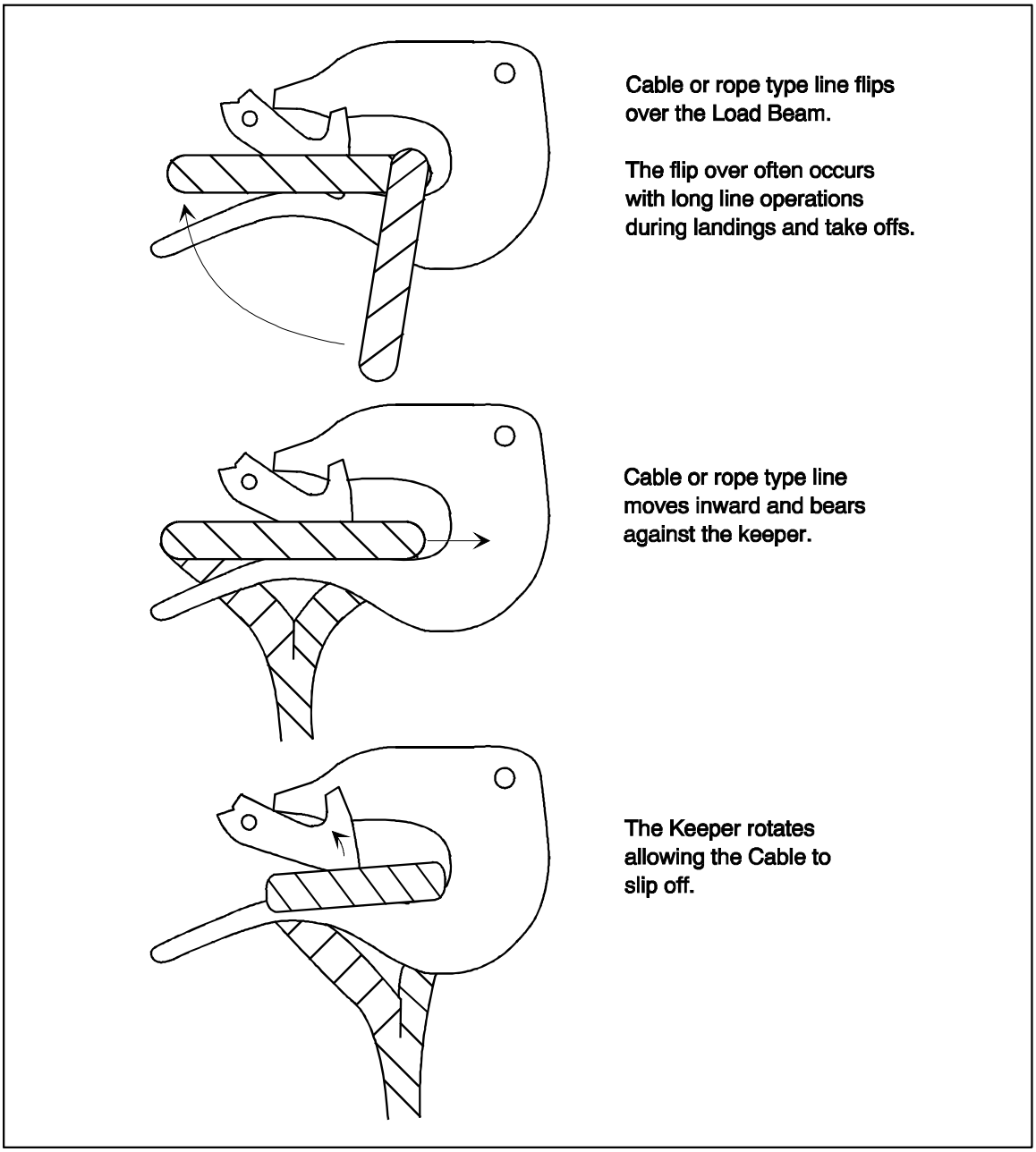
Figure 4 Un-commanded release due to nylon type straps



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 examples below.

Figure 5 Un-commanded release due to cable or rope type straps



3. EMERGENCY PROCEDURES

Consult the Rotorcraft Flight Manual Supplement for External Cargo Operation for your particular rotorcraft model for emergency procedures.

4. PERFORMANCE

The basic Flight Manual and Rotorcraft Flight Manual Supplement for External Cargo Operation issued by the OEM remain applicable.

When a 200-089-01, 200-089-02, 200-089-03, 200-089-04, 200-089-05 or 200-089-06 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.