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FAA APPROVED

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT

Onboard Systems
Swing Suspension System
With Talon LC Hydraulic Cargo Hook

Eurocopter EC130 B4

R/N _____ S/N _____

FAA Approved: _____
FOR Manager, Seattle Aircraft Certification Office

Date: 19 FEB 2008

Revised:

1. General

This supplement must be attached to the appropriate FAA approved Eurocopter Rotorcraft Flight Manual when an Onboard Systems 200-321-00 Cargo Hook Swing Suspension is installed in accordance with Supplemental Type Certificate (STC) NO. SR01815SE. In addition it is necessary to obtain Eurocopter's EXTERNAL LOAD TRANSPORT "CARGO SWING" Flight Manual Supplement for your EC130B4 helicopter.

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 "Cargo Swing" Flight Manual Supplement.

The 200-321-00 Cargo Hook Swing Suspension System is comprised of:

- A welded frame suspended below the helicopter via four cables that supports the cargo hook and load cell.
- An electrical release system that provides means for release by pilot actuation of a push button switch on the cyclic.
- A hydraulic release system, which provides an additional means of releasing a cargo hook load. A lever mounted to the collective actuates it.
- A load weigh system, which is comprised of an indicator mounted to the forward LH door pillar within the cockpit and the load cell above the cargo hook.

2. Limitations

2.1 Weight Limitations

The limitations specified in the basic flight manual and “Cargo Swing” Flight Manual Supplement issued by Eurocopter remain applicable and are supplemented by the following.

The allowable cargo hook load is the lesser of that specified by the Eurocopter "Cargo Swing" Flight Manual Supplement or 2557 lbs (1160 kgs). A placard visible to the ground operator and located on the lower fairing near the cargo hook indicates the maximum cargo hook load.

2.2 Longitudinal CG

Consult the Eurocopter Flight Manual Supplement for longitudinal cg limits when an external load is attached.

2.3 Airspeed Limitation

Consult the Eurocopter Flight Manual Supplement for airspeed limits when an external load is attached.

Maximum operational air speed with external loads is dependent upon the load configuration and sling length. It is the operator’s responsibility to establish the maximum operational speed for each specific configuration.

2.4 Operating Limitations

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

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

The load weigh indicator, whose purpose is to display the weight of the load carried on the cargo hook, shall be operated in accordance with Section 3 of Owner’s Manual 120-131-00.

3. Emergency Procedures

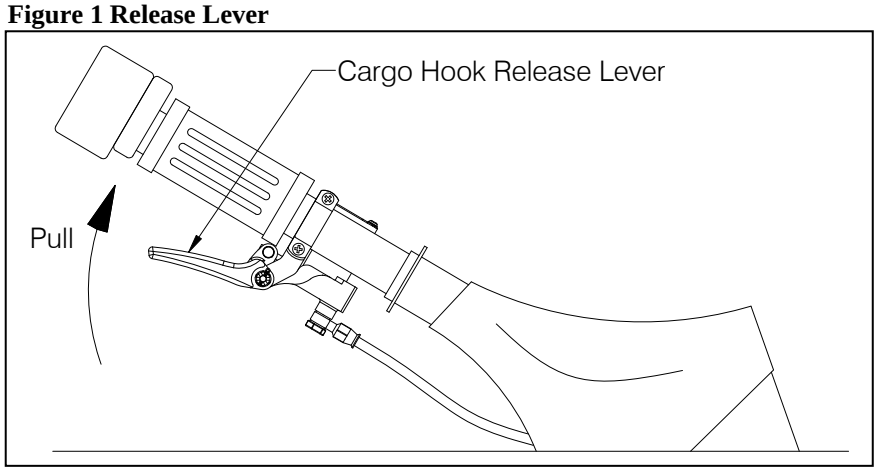
Consult the Eurocopter Flight Manual Supplement for emergency procedures.

3.1 Cargo Hook Fails to Release Electrically

In the event that the Cargo Hook will not release the external load electrically, proceed as follows:

1. Pull the release lever on the collective to release the external load.

Figure 1 Release Lever



4. Normal Procedures

The normal procedures specified in the basic flight manual and "Cargo Swing" Flight Manual Supplement issued by Eurocopter remain applicable and are supplemented by the following.

4.1 Daily or Pre-Flight Check

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.

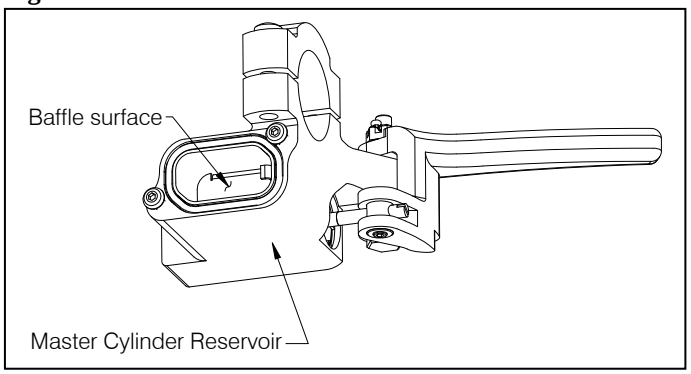
4.1.1 Exterior Check

1. Check all mounting fasteners to ensure that they are tight.
2. Check the electrical connectors for damage and security.
3. Check the slave cylinder on the cargo hook for signs of oil leakage.
4. Check the cargo hook for cracks and damage.
5. Check the suspension cables for damage and fraying.
6. Check for cracks in suspension frame. The frame tubes contain a corrosion preventative compound, which may leak out through a crack and also provide an indication.
7. Swing the hook and the suspension assembly to their full extremes to verify that they do not reach the limit of range of motion of the electrical harnesses and hydraulic hose.

4.1.2 Interior Check

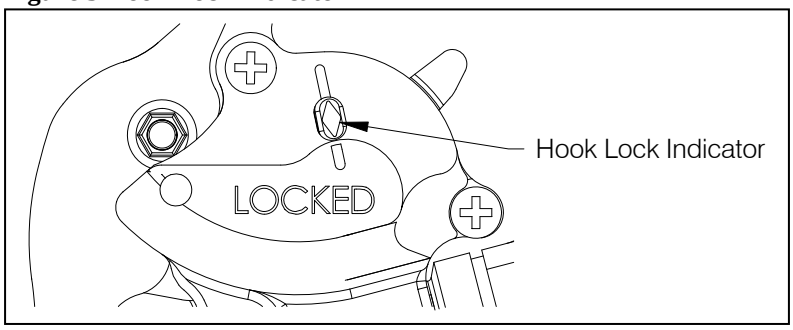
1. Check the fluid level in the master cylinder reservoir on the collective. The master cylinder reservoir features a transparent lid through which the fluid level can be checked. Hydraulic fluid must be visible over the baffle surface.

Figure 2 Fluid Level



2. Cycle the hydraulic release system to ensure proper operation. Pulling the lever on the collective should cause hook 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 locked position. In the fully locked position the hook lock indicator should align with the lines on the cover (see Figure 3).

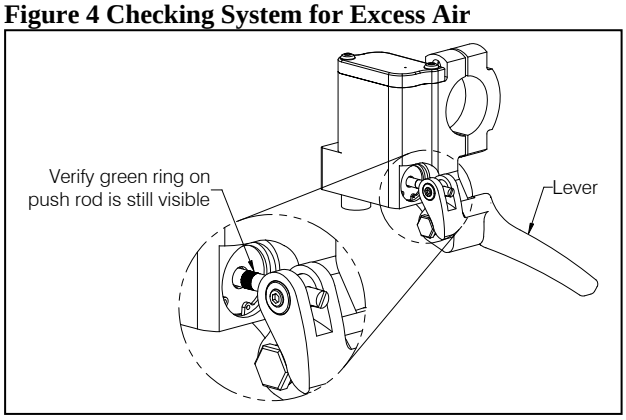
Figure 3 Hook Lock Indicator



4.1.2 Interior Check continued

3. Check the hydraulic release system for excess air in the lines by pulling the release lever firmly until it bottoms out. Check the push rod position (see Figure 4). If some of the green ring on the push rod is visible, the system is ready for use. If none of the green ring is visible, the system needs to be bled. Refer to applicable Owner's Manual or ICA for bleed instructions.

Figure 4 Checking System for Excess Air



4. Cycle the electrical release system to ensure proper operation. Pressing the CARGO RELEASE switch on cyclic should cause hook to open. The cargo hook may be returned to the locked position by manually pushing up on the load beam. The hook should snap shut. The hook may be flown in the open position to facilitate loading by a ground crew.

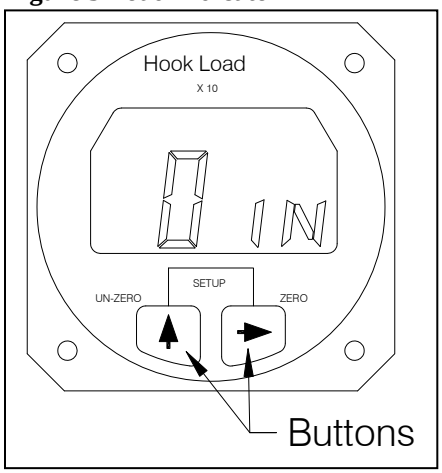
NOTE

The cargo hook kit uses the OEM electrical release switch located on the cyclic. Refer to the Eurocopter Rotorcraft Flight Manual Supplement for operational information for the rotorcraft's cargo hook electrical release system.

4.1.2 Interior Check continued

5. 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" (see Figure 5) 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.

Figure 5 Load Indicator



4.2 Cargo Hook Rigging

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

CAUTION

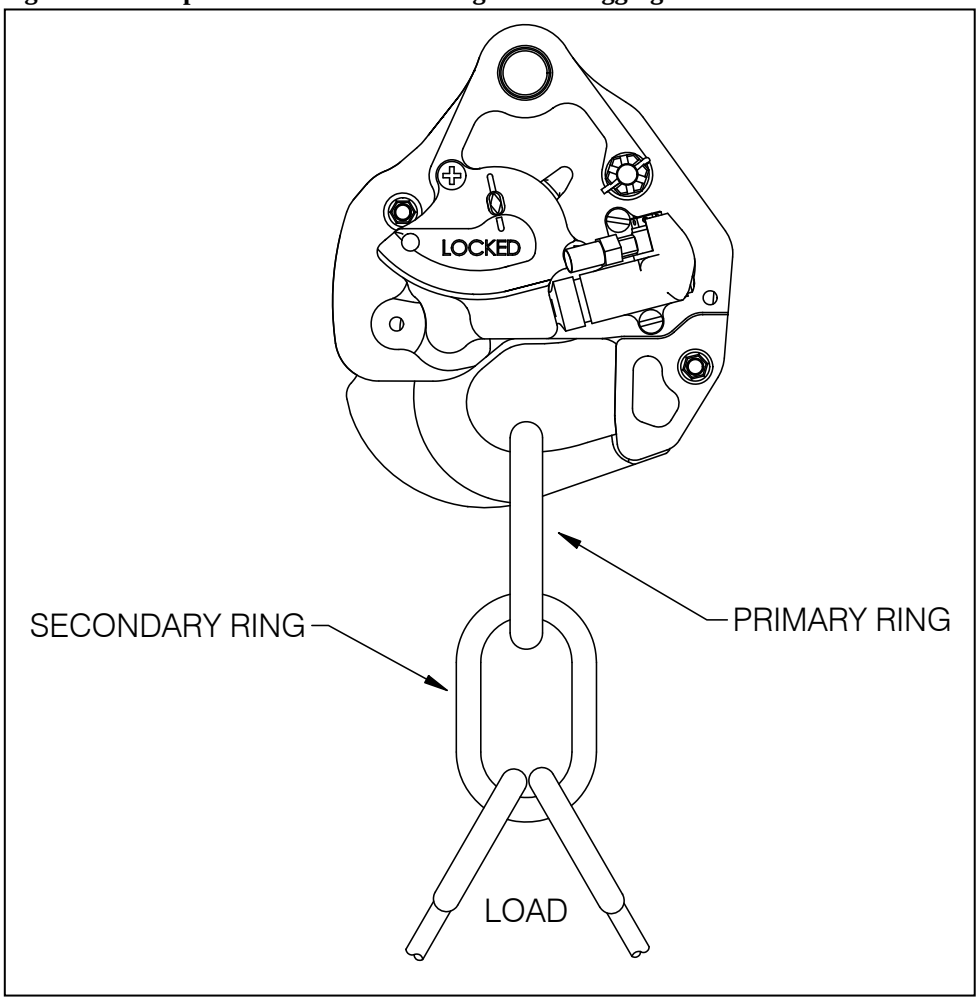
The example shown is not intended to represent all possibilities. It is the responsibility of the operator to assure the hook will function properly with the rigging. Some combinations of small primary rings and large secondary rings could cause fouling during release.

Nylon Type Straps or Rope

CAUTION

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 6.

Figure 6. Example of Recommended Cargo Hook Rigging



5. PERFORMANCE

The basic Flight Manual and "Cargo Swing" Flight Manual Supplement issued by Eurocopter remain applicable.

When there is an external load attached, performance will be reduced depending on its size, weight, and shape.

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 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.