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FAA APPROVED ROTORCRAFT FLIGHT MANUAL SUPPLEMENT

STC SR01812SE

Cargo Hook Kit
with Talon LC Hydraulic Cargo Hook
for
Airbus Helicopters Models
AS350B, AS350B1, AS350B2
AS350BA, AS350D

R/N _____ S/N _____

FAA Approved: _____
for Manager, Seattle Aircraft Certification Office
Federal Aviation Administration
Renton, Washington

Date: 13 Jul 17

Record of Revisions

Rev.	Date	Page(s)	Reason for Revision
0	Jan. 24, 2008	All	Initial Release.
1	July 13, 2017	All	Added cargo hook P/N 528-028-02 with Surefire release and associated instructions, updated Limitations section and updated format throughout.

1. GENERAL

This supplement must be attached to the appropriate FAA approved Airbus Helicopters' Rotorcraft Flight Manual when an Onboard Systems P/N 200-297-00, 200-297-10, 200-298-00, or 200-298-10 Cargo Hook Kit is installed in accordance with Supplemental Type Certificate (STC) NO. SR01812SE. 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 – External Load Transport issued by Airbus Helicopters.

These cargo hook kits are upgrade kits for use on an AS350B2 type swing suspension system. These kits interface with the rotorcraft's cargo hook support structure (the swing suspension) and the existing electrical release system which provides the primary means of releasing a cargo hook load.

The second means of releasing a cargo hook load is provided by a hydraulic release system, which is supplied with these kits. This system replaces the TC manual release cable system. The hydraulic release system includes a lever mounted to the collective, which when pulled, extends a piston integrated into the cargo hook and actuates the internal mechanism causing the load beam to open.

A third means of releasing a load is provided in the form of a release lever on the cargo hook that enables ground personnel to open the cargo hook.

1. GENERAL continued

The 200-298-00 and 200-298-10 kit include a load weigh system, which replaces the Airbus Helicopters' system. It is comprised of an indicator mounted within the cockpit connected by a wiring harness to a load cell between the cargo hook and swing suspension frame.

Kit P/Ns 200-297-10 and 200-298-10 are the same as 200-297-00 and 200-298-00 respectively except they include a cargo hook (P/N 528-028-02) with a delay circuit to help protect against inadvertent load release as a result of accidental contact with the Cargo Release switch or inadvertently pressing this switch. This delay circuit requires that the release switch be held for approximately ½ second in order to release the cargo hook load. This feature is referred to as Surefire Release.

2. LIMITATIONS

The limitations specified in the basic Flight Manual and "External Load Transport" Flight Manual Supplement issued by Airbus Helicopters remain applicable and are complemented by the following.

Operating Limitation

With a load attached to the cargo hook, operation shall be conducted in accordance with the respective national operational requirements.

The cargo hook kit configurations (as installed per this STC SR01812SE) do not meet the 14 CFR part 27 certification requirements for Human External Cargo (HEC).

NOTICE

The cargo hook kit equipment certification approval does not constitute operational approval; operational approval for external load operations must be granted by the local Aviation Authority.

⚠ WARNING

Take precautions to prevent external load angles which exceed the limits of rotation provided by the suspension as the load may not be releasable in this position.

The load weigh indicator (included with kit P/Ns 200-298-00 and 200-298-10), whose purpose is to display the weight of the load carried on the cargo hook, shall be operated in accordance with Owner's Manual 120-039-00.

3. EMERGENCY PROCEDURES

Consult the Airbus Helicopters' Flight Manual Supplement for your particular AS350 model 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 manual release lever on the collective to release the external load.

4. NORMAL PROCEDURES

The normal procedures specified in the basic Flight Manual and "External Load Transport" Flight Manual Supplement issued by Airbus Helicopters remain applicable and are complemented by the following.

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. Check all cargo hook mounting fasteners to ensure that they are tight.
2. Check the electrical harnesses and connectors for damage and security.
3. Check the cargo hook for cracks and damage.
4. Swing the cargo hook and the suspension assembly to their full extremes to verify that they do not reach the limit of the range of motion of the electrical harnesses and hydraulic hose.

Pre-Flight Check continued

5. Cycle the electrical release system to ensure proper operation. The following instructions are applicable to cargo hook P/N 528-028-00.

NOTICE

If Cargo Hook with Surefire Release (P/N 528-028-02) is installed, the electrical release includes a ½ second time delay. See specific procedures in this step for this cargo hook model.

- Press the Cargo Release switch on the cyclic, the load beam should fall to the open position.
- Push up on the load beam and verify that it latches and the hook lock indicator is aligned with the engraved line on the manual release cover (see Figure 4.2).

NOTICE

The cargo hook kits use the TC electrical release switch located on the cyclic. Refer to the Airbus Helicopters RFMS for operational information for the rotorcraft's cargo hook electrical release system.

The following instructions are applicable to the optional cargo hook P/N 528-028-02. In addition to the P/N, this cargo hook can also be identified by its gold color solenoid cover (see Figure 4.1).

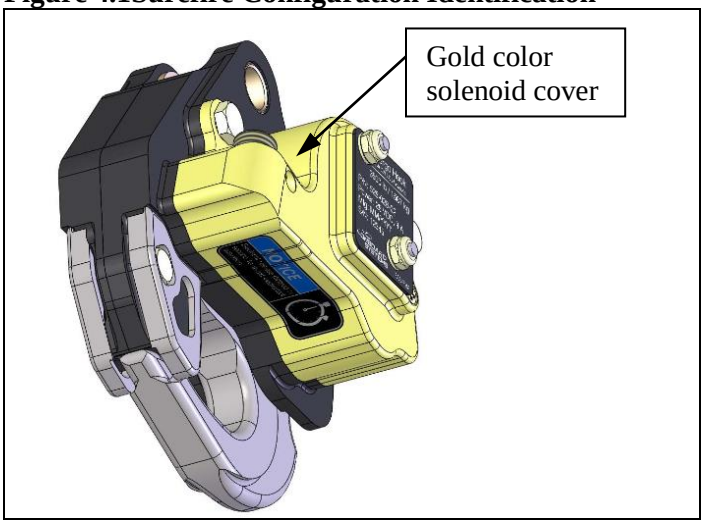
Pre-Flight Check continued

- *Very* briefly press the Cargo Release switch, the cargo hook should not actuate and the load beam should remain closed.
- Press and hold the Cargo Release switch for several seconds, the load beam should fall to the open position and the cargo hook solenoid should continue to cycle repeatedly.
- Push up on the load beam and verify that it latches and the hook lock indicator is aligned with the engraved line on the manual release cover (see Figure 4.2)

NOTICE

By design (to help protect against inadvertent load release) cargo hook P/N 528-028-02 requires that the Cargo Release switch on the cyclic be held for at least ½ second to release the load.

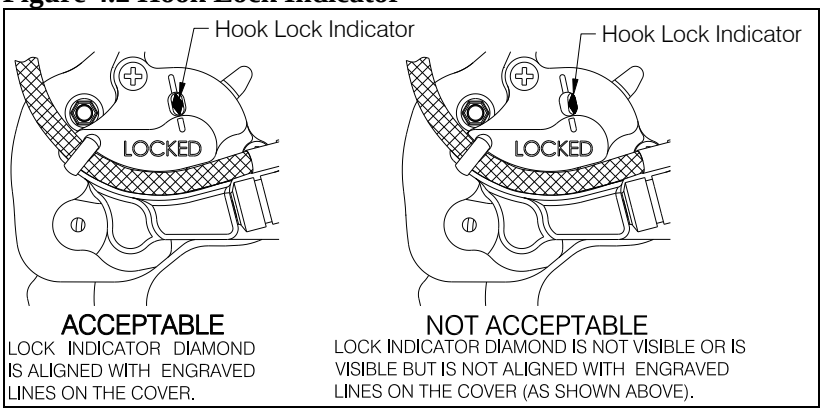
Figure 4.1Surefire Configuration Identification



Pre-Flight Check continued

6. Cycle the hydraulic release system to ensure proper operation. Pull the manual release lever on the collective and the cargo hook should open. The cargo hook may be returned to the closed and 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. In the fully locked position the hook lock indicator should align with the lines on the cover (see Figure 4.2). The cargo hook may be flown in the open position to facilitate loading by a ground crew.

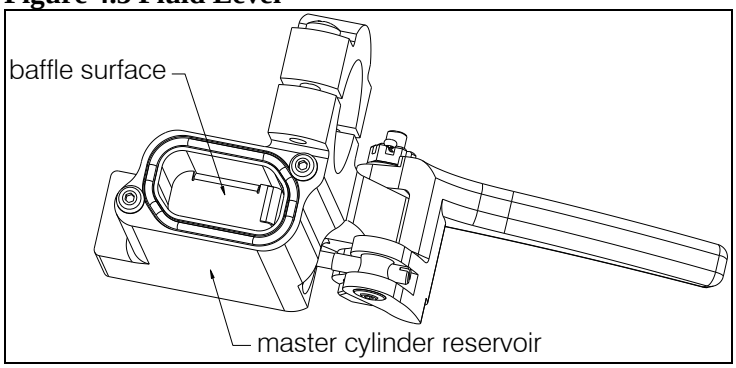
Figure 4.2 Hook Lock Indicator



Pre-Flight Check continued

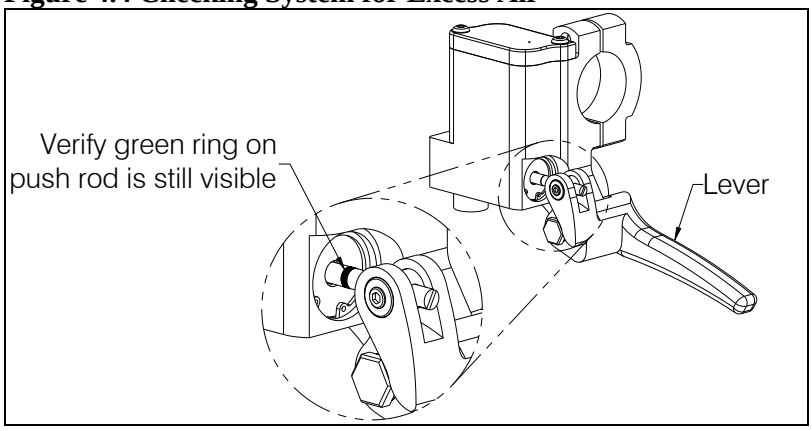
7. Check the fluid level in the master cylinder reservoir. The reservoir features a transparent lid through which the fluid level can be checked. Hydraulic fluid must be visible over the baffle surface (see Figure 4.3).

Figure 4.3 Fluid Level



8. 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 4.4). 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 ICA for bleed instructions.

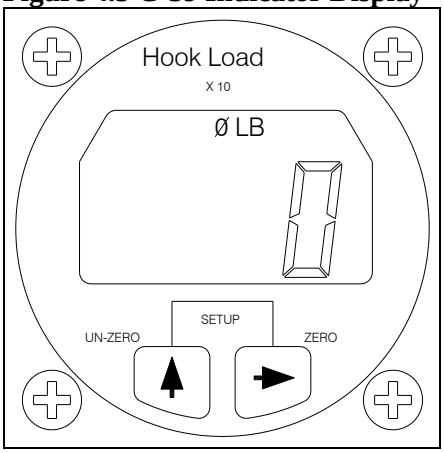
Figure 4.4 Checking System for Excess Air



Pre-Flight Check continued

9. Power on the C-39 Load Indicator. After a brief self-diagnostic routine is complete the indicator display should indicate "0" as shown below (with no load on the cargo hook):

Figure 4.5 C-39 Indicator Display



NOTICE

Refer to Owner's Manual 120-039-00 for setup instructions including changing the units, changing the calibration code, zeroing the display, changing the dampening level, etc.

Cargo Hook Rigging

Prior to attaching an external load, instruct the ground crew to ensure that the helicopter has been electrically grounded to discharge static electricity. If possible, maintain ground contact until hook up is completed.

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

WARNING

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

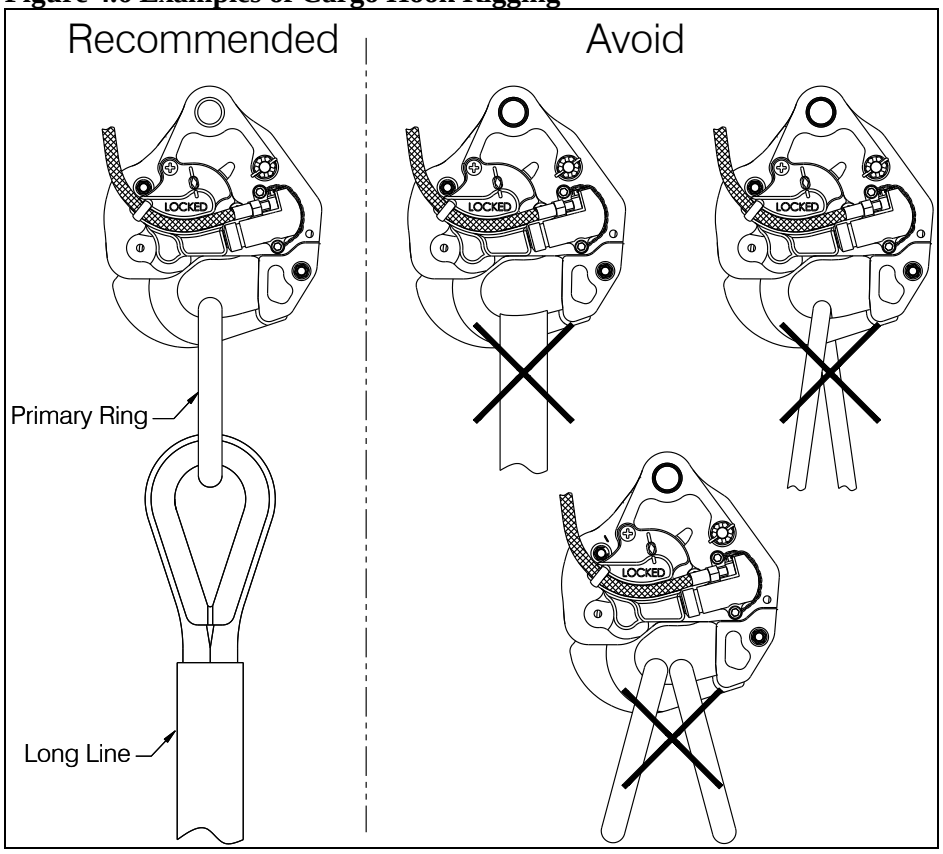
Nylon Type Straps or Rope

WARNING

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 4.6.

Cargo Hook Rigging continued

Figure 4.6 Examples of Cargo Hook Rigging



5. PERFORMANCE

The basic Flight Manual and Rotorcraft Flight Manual Supplement - External Load Transport issued by Airbus Helicopters remain applicable.

The following applies if the load weigh option is installed.

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.