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FAA APPROVED
ROTORCRAFT FLIGHT MANUAL SUPPLEMENT

Cargo Hook Sling Suspension System Retrofit Kit

STC SR01394SE

Airbus Helicopters AS350 Series

R/N _____ S/N _____

FAA Approved: _____ ROBERT B STONEY Digitally signed by ROBERT B STONEY Date: 2018.09.12 19:29:10 -07'00'

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Date: 12 September 2018

Record of Revisions

Rev.	Date	Page(s)	Reason for Revision
0	April 9, 2004	All	Initial Release
1	March 7, 2008	All	Clarified section II.1 and deleted the reference to Part 133 in section I.1. Added bold CAUTION flags, re-worded section I.4 for clarity, added a check of the mechanical release cable into section II.1.1, and made a few other minor re-wording and clarification changes.
2	September 12, 2018	All	Complete re-format and re-write.

1 GENERAL

This supplement must be attached to the appropriate FAA approved Rotorcraft Flight Manual when an Onboard Systems P/N 200-287-00 Cargo Hook Sling Suspension System is installed in accordance with Supplemental Type Certificate (STC) NO. SR01394SE. In addition, it is necessary to refer to Airbus Helicopter's EXTERNAL LOAD TRANSPORT "CARGO SLING" Flight Manual Supplement for your particular AS350 model 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 Airbus Helicopter's Flight Manual Supplement.

The P/N 200-287-00 Cargo Hook Sling Suspension System is a retrofit kit that is designed to replace the type certificated cargo hook and is comprised of:

- A gimbaled suspension with load cell that supports the cargo hook.
- An electrical release system that provides means for release by pilot actuation of a switch on the cyclic (the switch is installed under the Airbus Helicopters' type certificate).
- An external manual release cable that interfaces with the existing type certificated internal manual release cable and lever. The lever mounted to the collective actuates it. This system provides the backup means of releasing a cargo hook load.
- A load weigh system, which is comprised of an indicator mounted to the RH door pillar within the cockpit and a load cell at the cargo hook.

2 LIMITATIONS

The limitations specified in the basic flight manual and the Airbus Helicopters' "Cargo Sling" flight manual supplement remain applicable and are completed or modified by the following.

Operating Limitations

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 SR01394SE) do not meet the 14 CFR part 27 certification requirements for Human External Cargo (HEC).

NOTICE

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

Airspeed Limitation

Consult the Airbus Helicopters' "Cargo Sling" flight manual supplement for maximum airspeed with external load. The operator must establish the maximum airspeed for each specific external load configuration.

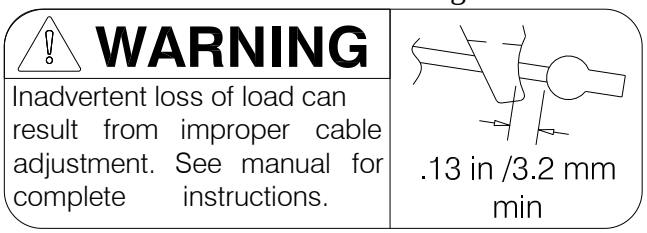
Cargo hook maximum load

The maximum load to be carried on the cargo sling is the lesser of that specified by the Airbus Helicopters' "Cargo Sling" Flight Manual Supplement or 1660 lbs (750 kg).

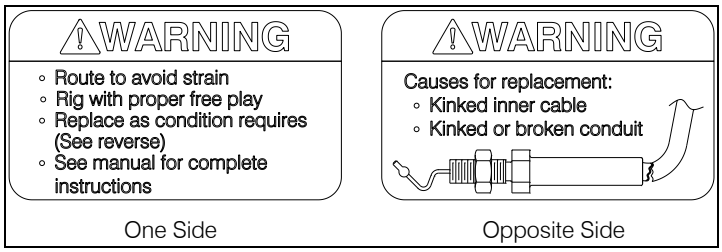
Placards

The following placards are included with the 200-287-00 Cargo Hook Sling Suspension System.

Adhered on the underside of the cargo hook electrical housing:



Attached around the manual release cable:



3 EMERGENCY PROCEDURES

The emergency procedures specified in the basic flight manual and the Airbus Helicopters' "Cargo Sling" flight manual supplement for the AS350 remain applicable.

4 NORMAL PROCEDURES

The normal procedures specified in the basic flight manual remain applicable and are complemented by the following.

Pre-Flight Check

Before a flight involving external load operations perform the following procedures.

1. Check all mounting fasteners to ensure that they are tight.
2. Check the electrical connectors for damage and security.
3. Check the cargo hook and suspension components for cracks and damage.
4. Swing the hook and the suspension assembly to their full extremes to verify that they do not reach the limit of the manual release cable and electrical harness range of motion.
5. Visually check the manual release cable for damage and security. Pay close attention to the flexible conduit at the area of transition to the cargo hook end fitting. Check for kinked, broken, or splitting of the heat shrink and outer black conduit in this area and separation of the conduit from the steel end fitting.
6. Cycle the manual release mechanism to ensure proper operation. Pull the manual release lever on the collective and the cargo hook load beam should 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.

Pre-Flight Check continued

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

NOTICE

The Cargo Hook Sling Suspension interfaces with the SLING armed push-button switch and the CARGO RELEASE switch and internal manual release cable system as installed per the type certificate. Consult the Airbus Helicopters' FMS for operation of these components.

8. The Load Indicator powers on when the SLING system is armed. After a brief self-diagnostic routine is complete verify the indicator display indicates "0" (with no load on the cargo hook).

NOTICE

For the Indicator 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

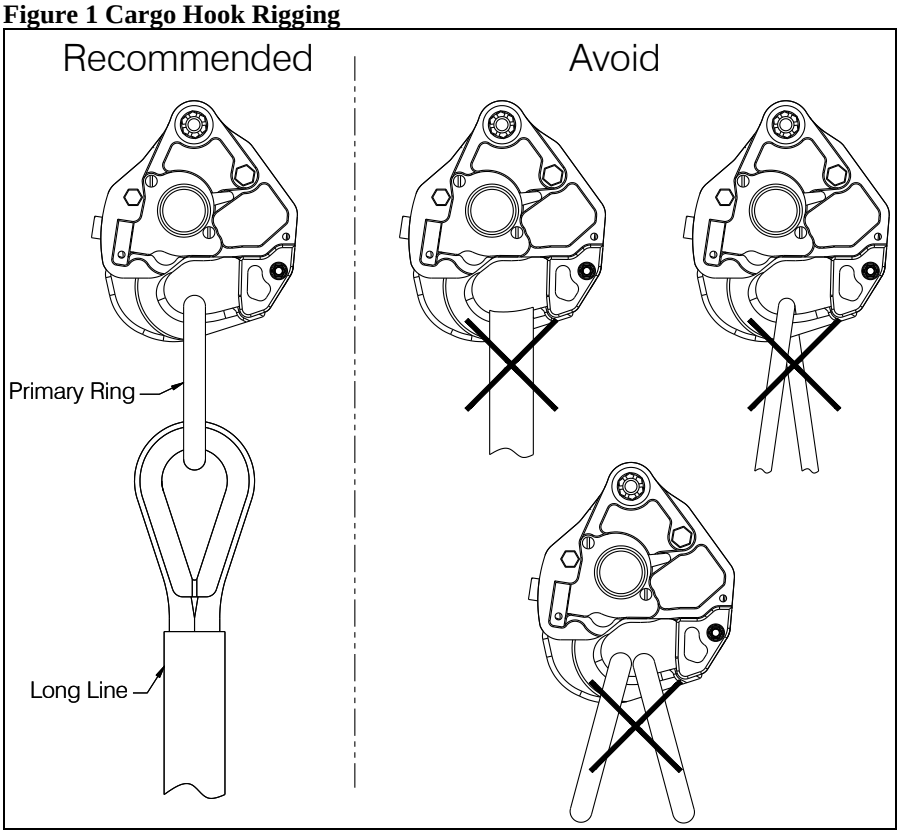
The examples shown are not intended to represent all possibilities. It is the responsibility of the operator to ensure the hook will function properly with the rigging.

WARNING

Nylon straps (or similar material) or rope should not be used directly on the cargo hook load beam. If nylon straps or rope are used they should be attached to the cargo hook through a steel 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 1.

Cargo Hook Rigging continued

Figure 1 Cargo Hook Rigging



Take-off

1. Following attachment of the external load, slowly increase the collective pitch and ascend vertically, maintaining the rotorcraft directly above the load. When the slack in the long line is removed dwell briefly before lifting the load from the surface.
2. Check torque required to hover with the external load.
3. Check for adequate directional control.
4. Take off into the wind, if possible, and ensure clearance of the external load over obstacles.

In-flight

Make all control movements gently with gradual acceleration and deceleration and only slightly banked turns.

⚠ WARNING

The suspension is designed to allow the cargo hook to pivot and align with the external load in all directions with limits to protect the electrical and mechanical release cables from damage. 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.

Maximum airspeed is dependent upon the size, weight, and shape of the external load and sling length. Closely observe the behavior of the load during flight and as airspeed is increased.

⚠ CAUTION

Use caution when flying with an unloaded long line as this is an extreme snag hazard.

Approach and Release of External Load

1. Perform the approach at minimum rate of descent.
2. Execute the approach to hover with sufficient height to prevent the load from hitting obstacles on or being dragged along the ground and then slowly descend vertically to set the load on the ground.
3. Press the CARGO RELEASE switch on the cyclic to release the external load from the cargo hook.
4. The manual release lever on the collective is intended as a backup release in the event of an inability to release the load with the CARGO RELEASE switch but may be used to release the external load in normal circumstances.
5. Visually check to ensure that the external load has been released.

Verify that the external load and long line has dropped free from the rotorcraft before departing the drop-site.

5 PERFORMANCE

The basic Flight Manual remains applicable when there is no external load attached.

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

The Load Weigh System is intended as a means of MONITORING the weight of the load suspended from the Cargo Hook.

Before lifting a load, it is recommended that the load weight be estimated, the shape/size is considered and, upon lifting the load, monitor the load indicator and compare the actual engine torque value vs. the expected value for a given weight to verify sufficient performance.