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**FAA APPROVED  
ROTORCRAFT FLIGHT MANUAL  
SUPPLEMENT**

***Onboard Systems International, LLC  
Single Cargo Hook Kit  
on the***

***Airbus Helicopters Deutschland GmbH  
EC135P1, EC135P2, EC135P2+, EC135T1,  
EC135T2, EC135T2+, EC135P3, EC135T3***

**STC SR02217SE**

R/N \_\_\_\_\_ S/N \_\_\_\_\_

FAA Approved: \_\_\_\_\_  
For \_\_\_\_\_  
Manager, Northwest Flight Test Section, AIR-715  
Federal Aviation Administration  
Seattle, WA


Digitally signed by  
ROBERT Y SCHLEIN  
Date: 2022.04.20  
15:24:58 -0700

Date: 20 Apr 2022



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### Record of Revisions

Rev.	Page(s)	Reason for Revision	Date
0	All	Initial Release.	27 Feb. 2012
1	All	Added kit P/N 200-375-01 with cargo hook P/N 528-049-01. Updated wording in Limitations section including Type of Operation. Added Placards section. Updated Cargo Hook Rigging section. Added sections 6.0 and 7.0.	 Digitally signed by ROBERT Y SCHLEIN Date: 2022.04.20 15:24:41 -0700'

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# 1. General

Attach this supplement to the appropriate Airbus Helicopters Deutschland GmbH FAA approved Rotorcraft Flight Manual when an Onboard Systems International, LLC P/N 200-375-00 or P/N 200-375-01 cargo hook kit is installed in accordance with Supplemental Type Certificate (STC) NO. SR02217SE. 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 the cargo hook system issued by Airbus Helicopters.

P/N 200-375-00 and P/N 200-375-01 are replacement single cargo hook kits for carrying of non-human external cargo (NHEC). These kits utilize the helicopters existing cargo hook beam and cargo hook fixed provisions including the cargo hook's electrical and manual release systems internal to the helicopter. This kit includes only the cargo hook, the external manual release cable to interface with the Airbus Helicopters supplied internal manual release cable, and an electrical release harness to interface with the Airbus Helicopters supplied internal electrical release system.

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## 2. Limitations

The limitations specified in the basic Flight Manual and the Airbus Helicopters flight manual supplement for single cargo hook installation remain applicable and are complemented by the information contained in this section. The cargo hook of kit P/Ns 200-375-00 and 200-375-01 are direct replacements for the type certificate cargo hook and have no effect on the limitations of mass and load, center of gravity, altitude, airspeed, etc. contained in the Airbus Helicopters supplement.

### 2.2 Type of Operation

HEC operations with cargo hook kit P/Ns 200-375-00 and 200-375-01 are prohibited.

# 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.*

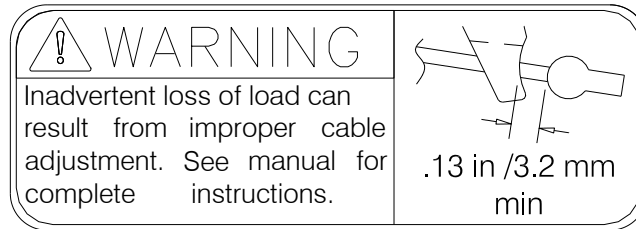
All lines attached to the dual cargo hooks that extend below the aircraft landing gear, must have a minimum of 25 lbs. of weight attached to the lower end of the line.

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## 2.14 Placards

The following placards are included with the Dual Cargo Hook Kits. Refer to the Airbus Supplement for Dual External Cargo Hook for additional placards.

- Located on the bottom of each Cargo Hook.



- Located on each manual release cable.



## 3. Emergency Procedures

The basic flight manual and flight manual supplement for the single cargo hook installation issued by Airbus Helicopters remain applicable with the following exception.

- The HOOK UNLD advisory light is not functional with the Onboard Systems Cargo Hook Kit installed.

#### 4. Normal Procedures

The basic flight manual and flight manual supplement for the single cargo hook issued by Airbus Helicopters remain applicable and are complemented or modified by the following.

## NOTICE

*The cargo hook does not include a “load on hook” switch that provides for illumination of the HOOK UNLD in the cockpit as referenced in the Airbus Helicopters flight manual supplement. HOOK UNLD will not illuminate on the display with this kit installed.*

## NOTICE

*The cargo hook included with this kit is designed to release with no load attached to it and does not include a “safety-catch” as referenced in the Airbus Helicopters flight manual supplement.*

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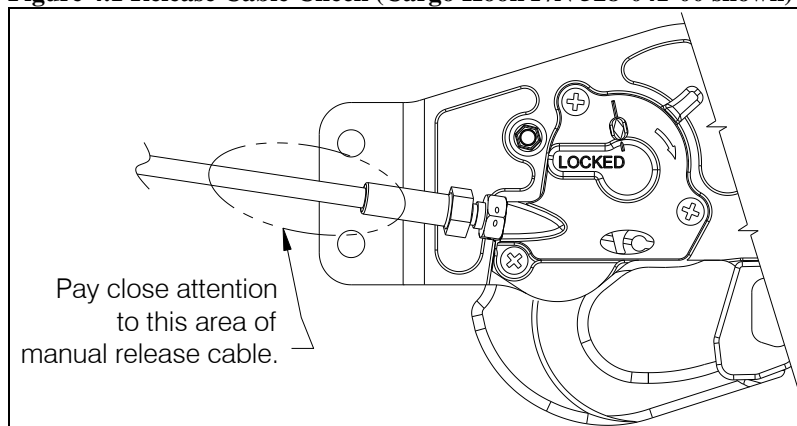
## 4. Normal Procedures *continued*

### 4.1 Preflight Check

Prior to a flight involving external load operations, perform the following procedures.

1. Check all cargo hook fasteners to ensure that they are secure.
2. Check the cargo hook electrical connector at the cargo hook and at the bracket on the belly of the helicopter for damage and security.
3. Check the manual release cable connections at the cargo hook and at the bracket on the belly of the helicopter for damage and security.
4. Check the manual release cable for damage. Pay close attention to the flexible conduit at the area of transition to the cargo hook end fitting (refer to Figure 4.1). Inspect for splitting of the outer black conduit in this area and separation of the conduit from the steel end fitting.

**Figure 4.1 Release Cable Check (Cargo Hook P/N 528-041-00 shown)**



5. Pivot the cargo hook from side to side to ensure that it rotates freely between the stops within the support beam structure and does not pull on the manual release cable or the electrical release harness.

## 4. Normal Procedures continued

### 4.1 Preflight Check continued

6. Pull the manual release lever in the cockpit. The cargo hook load beam should open. Return the load beam to the locked position by manually pushing up on it. The load beam should snap shut. Verify that the hook lock indicator on the side of the hook returns to the fully locked position (see Figure 4.2).

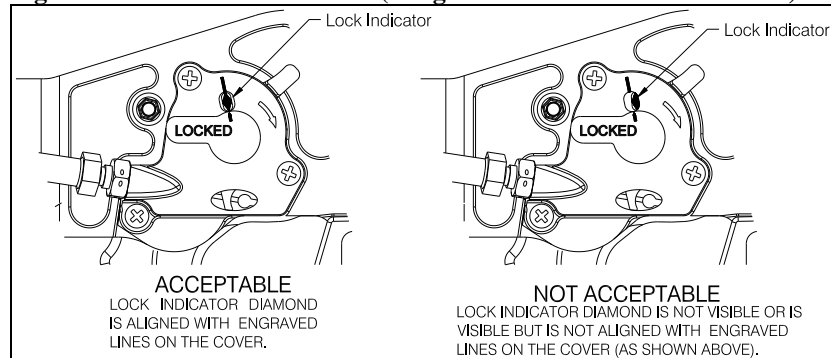
# NOTICE

*The cargo hook kit uses the OEM release lever located on the collective. Refer to the Airbus Helicopters Supplement for operation of the manual release system.*

# CAUTION

*In the closed and fully locked position the hook lock indicator should align with the lines on the manual release cover (see Figure 4.2).*

**Figure 4.2 Hook Lock Indicator (Cargo Hook P/N 528-041-00 shown)**



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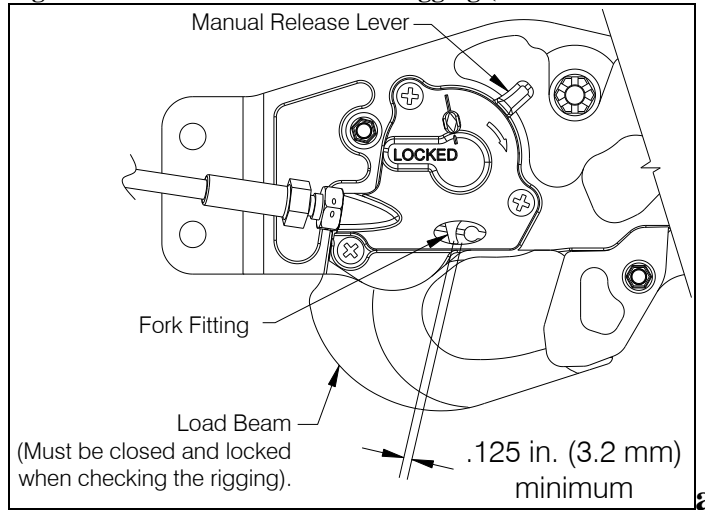
#### 4. Normal Procedures continued

##### 4.1 Preflight Check continued

7. Check the manual release cable rigging through the opening in the manual release cover per the following.

With the cargo hook load beam closed and locked, rotate the manual release lever clockwise to remove the free play (the free play is taken up when the hook lock indicator begins to move, this is also readily felt as the lever rotates relatively easily for several degrees as the free play is taken up) and hold it in this position while checking the gap between the fork fitting and the cable ball end as shown below. Visually check that there is approximately a minimum gap of 1/8" (3.2 mm) as shown in Figure 4.3 or Figure 4.4 depending on cargo hook P/N installed (an inspection mirror will aid in sighting).

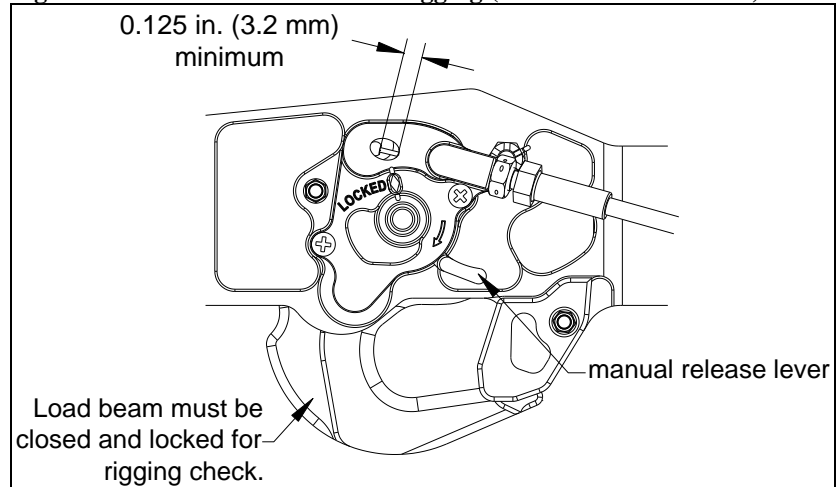
**Figure 4.3 Manual Release Cable Rigging (P/N 528-041-00 shown)**



## 4. Normal Procedures continued

### 4.1 Pre-flight Check continued

Figure 4.4 Manual Release Cable Rigging (P/N 528-049-01 shown)



- Cycle the electrical release mechanism to ensure proper operation. Pressing the CARGO HOOK switch on cyclic should cause the cargo hook's load beam 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. The cargo hook may be flown in the open position to facilitate loading by a ground crew.

## NOTICE

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



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#### 4. Normal Procedures continued

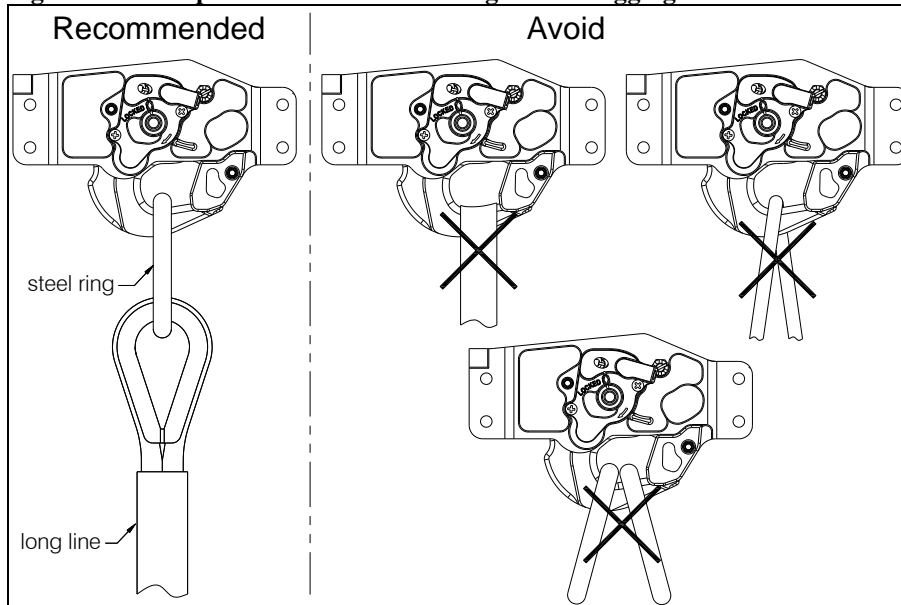
##### Cargo Hook Rigging

Exercise care when rigging a load to the Cargo Hook. Attaching the external load using a steel ring on the Cargo Hook's load beam is the recommended rigging configuration to provide consistent release performance and resistance to fouling. Figure 4.5 shows the recommended rigging and rigging to avoid, but is not intended to represent all rigging possibilities. For each rigging configuration used, verify that the rigging will freely slide off the load beam when it is opened.



*It is the responsibility of the operator to assure the cargo hook will function properly with the rigging.*

**Figure 4.5 Example of Recommended Cargo Hook Rigging**



## 5. Performance

The basic flight manual and flight manual supplement for the single cargo hook installation issued by Airbus Helicopters remain applicable.

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## 6. **Weight and Balance**

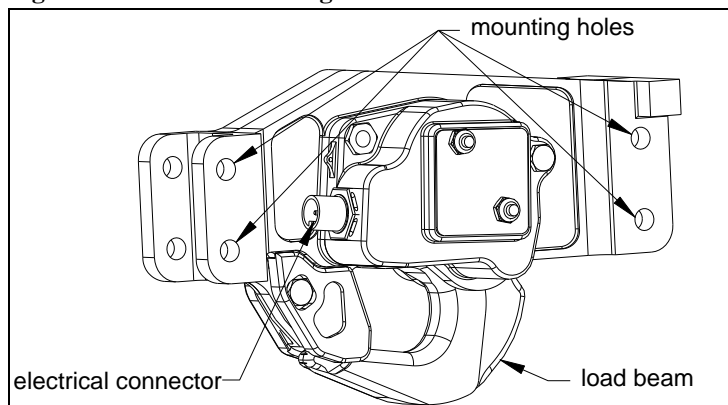
The point of application of the external load in the longitudinal direction is 4200 mm (165.4 in.) and in the lateral direction is 0.

## 7. **System Description**

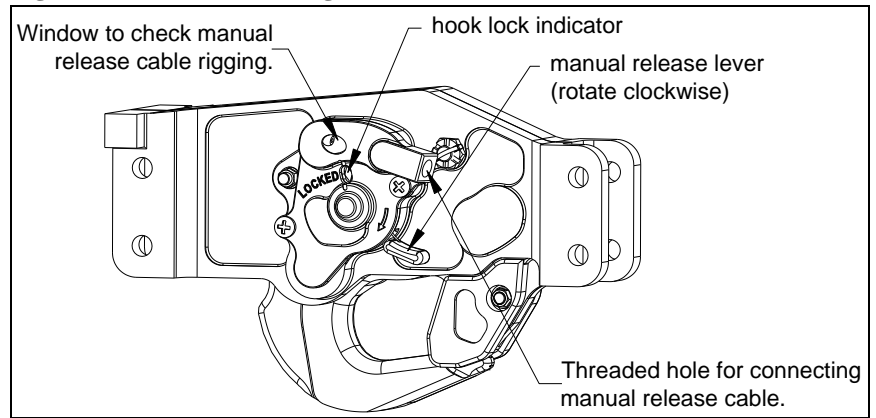
The Single Cargo Hook Kit is a replacement cargo hook kit for carrying of NHEC on EC135 series helicopters that were previously equipped with a TC approved single cargo hook beam with any of the following cargo hook part numbers: AS21-8-B, AS22-52-21, and/or AS21-17.

The cargo hook kit replaces the cargo hook and the external electrical release harness and manual release cable that route to the disconnect panel on the belly. The kit does not include any components internal to the helicopter as the kit components are designed to interface with the existing fixed (internal) provisions as provided under the Airbus type certificate. Figure 7.1 and Figure 7.2 provide an overview of the cargo hook P/N 528-049-01 included with the Cargo Hook Kit P/N 200-375-01. This cargo hook is similar to cargo hook P/N 528-041-00 included with P/N 200-375-00 except is re-oriented so that its load beam opens forward.

**Figure 7.1 Overview of Cargo Hook – Electrical Side**



**Figure 7.2 Overview of Cargo Hook – Mechanical Release Side**



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