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# *Instructions for Continued Airworthiness*

***Cargo Hook Sling Suspension System Retrofit Kit***
***for the***
***Eurocopter AS350 Series Helicopter***

***Part Number 200-287-00***

***STC SR01394SE***

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# Record of Revisions

| *Revision* | *Date* | *Page(s)* | *Reason for Revision* |
|---|---|---|---|
| 0 | 2/24/03 | All | First Issue |
| 1 | 10/10/03 | 00-00-00 Page 1<br>25-00-00 Page 14 | 528-023-01 cargo hook configuration change Reference Service Bulletin 159-011-00 |
| 2 | 03/02/04 | 25-00-00 Page 11<br>25-00-00 Page 15 | Changed manual release cable part number from 268-024-00 to 268-024-01. |
| 3 | 03/26/07 | Section 0,<br><br>Section 5<br><br>25-00-00 page 1, page 14, page 19. | Added section 0.12 and added warnings, cautions, and notes to this section.<br>Updated inspection criteria to include annual inspection and current overhaul criteria. Changed daily inspection to daily check.<br>Revised Cautions and Notes to new format. |
| 4 | 09/04/07 | 25-00-00 page 7 | Revised electrical schematic (Figure 25-5) to incorporate Eurocopter mod #07-3274. |
| 5 | 10/29/07 | 25-00-00 page 7 thru 9,<br><br>25-00-00 page 14 | Revised electrical schematic (Figure 25-5) to incorporate data line and additional Eurocopter configuration. Added paragraph explaining electrical schematic.<br>Corrected hardware p/n's and updated torque instructions. |
| 6 | 10/28/09 | 25-00-00 page 17 | Added caution note and revised figure 25-16. |
| 7 | 03/17/10 | 05-00-00 page 3-4<br>25-00-00 page 7 | Updated electrical schematic to reflect new load weigh harness configuration. Changed overhaul frequency criteria. |

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# *ATA 0*
# Introduction

## 0.4 Scope

The following information is necessary to carry out the service, maintenance, and inspection of the Cargo Hook Sling Suspension System Retrofit Kit P/N 200-287-00.

## 0.5 Purpose

The purpose of this Instructions for Continued Airworthiness (ICA) manual is to provide the information necessary to inspect, service, and maintain in an airworthy condition the P/N 200-287-00 Cargo Hook Sling Suspension System Retrofit Kit.

## 0.6 Arrangement

This manual contains instructions for the service, maintenance, inspection and operation of the Cargo Hook Sling Suspension System Retrofit Kit P/N 200-287-00 on Eurocopter Model AS350 series helicopters. The manual is arranged in the general order that maintenance personnel would use to maintain and operate the Cargo Hook Sling Suspension System in service.

The arrangement is:

ATA 0 Introduction.
ATA 4 Airworthiness limitations (None apply to this System.)
ATA 5 Inspection and overhaul schedule
ATA 11 Placards and Markings
ATA 25 Equipment and Furnishings

## 0.7 Applicability

These Instructions for Continued Airworthiness are applicable to Cargo Hook Sling Suspension System Retrofit Kit P/N 200-287-00 (with Cargo Hook P/N 528-023-01) for the Eurocopter AS350 Series Helicopters. Refer to the appropriate Eurocopter ICA for instructions regarding parts of the aircraft that interface with these kits.

## 0.9 Abbreviations

FAA Federal Aviation Administration
FAR Federal Aviation Regulation
ICA Instructions for Continued Airworthiness

## 0.12 Precautions

The following definitions apply to Warnings, Cautions and Notes used in this manual.


*Means that if this information is not observed, serious injury, death or immediate loss of flight safety could occur.*


*Means that there is a risk of injury or degradation in performance of equipment if this information is not observed.*


*Draws the reader's attention to information which may not be directly related to safety, but which is important or unusual.*

## 0.19 Distribution of Instructions for Continued Airworthiness

Before performing maintenance ensure that the Instructions for Continued Airworthiness (ICA) in your possession is the most recent revision. Current revision levels of all manuals are posted on Onboard Systems Int'l web site at www.onboardsystems.com. Current revision levels of all manuals are available from the factory.

# *ATA 4*
# Airworthiness Limitations

## 4.2 No Airworthiness Limitations

No airworthiness limitations are associated with this type design change.

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# *ATA 5*
# Inspection and Overhaul Schedule

## 5.1 Cargo Hook Sling Suspension System Daily Check

Prior to each cargo hook use perform the following:

1. Activate the electrical system and press the Cargo Release button to ensure the cargo hook electrical release system is operating correctly. The cargo hook mechanism must release the load beam. Reset the hook by hand after release. If the hook does not release or re-latch, do not use the unit until the problem is fixed.


*Energizing the electrical release solenoid continuously in excess of 20 seconds will cause the release solenoid to overheat, possibly causing permanent damage.*

2. Activate the manual release system by pulling the release lever on the collective in the cockpit. The system should operate smoothly and the cargo hook must release. Reset the hook by hand after release. If the hook does not release or re-latch, do not use the unit until the problem is resolved.
3. Swing the cargo hook and the suspension system throughout their full ranges of motion to ensure the manual and electrical release cables have enough slack. The cables must not be the stops that prevent the cargo hook or suspension from swinging freely in all directions.
4. Visually check for presence and security of fasteners and electrical connections and condition of electrical and manual release cables.
5. Visually check all items for cracks, damage and corrosion.

# 5.2 Cargo Hook Sling Suspension System Inspection Schedule

The scheduled inspection intervals noted below are maximums and are not to be exceeded. If the cargo hook is subjected to unusual circumstances, extreme environmental conditions, etc., it is the responsibility of the operator to perform the inspections more frequently to ensure proper operation.

**Annually or 100 hours of cargo hook use, whichever comes first, inspect the cargo hook and other kit components per the following.**

1. Visually inspect for corrosion on the exterior of cargo hook, load cell and gimbal assembly components. Corrosion on the cargo hook side plates is cause for immediate overhaul. Additionally, any exfoliation corrosion in the upper attach lug area of the cargo hook is cause for immediate replacement of the side plate. Contact Onboard Systems for the latest revision of the cargo hook service manual.
2. Visually inspect for damage on the exterior of the cargo hook, load cell, and link assembly components.
3. Move the cargo hook and load cell throughout their full ranges of motion and observe the manual release cable and electrical harnesses to ensure that they have enough slack. The release cable and harnesses must not be the stops that prevent the cargo hook or suspension from moving freely in all directions.
4. Visually inspect for presence and security of fasteners and electrical connections.
5. Visually inspect the external electrical wire harnesses for damage and security.
6. Visually inspect the external manual release cable for damage and security.
7. Verify calibration of the load cell by lifting a load of known weight (see applicable Owner's Manual for instructions).

## 5.3 Cargo Hook Sling Suspension System Overhaul Schedule

The overhaul of the cargo hook shall be in accordance with the guidelines below. These guidelines apply to the cargo hook only. Contact Onboard Systems for the latest revision of overhaul instructions for the cargo hook and guidance to locate authorized overhaul facilities. The remainder of the system (includes the fixed provisions, gimbal, and the load cell) does not have a fixed overhaul schedule. It is checked visually at the daily check and annual inspection and is to be repaired on a conditional basis. It is recommended that, at the hook overhaul intervals, the rest of the system be disassembled to check for bushing wear at pivoting joints and damage or cracks in any of the structural components.

Time Between Overhaul (TBO): 1000 hours of external load operations (*) or 5 years, whichever comes first.

**NOTE**

*(*) Hours of external load operations is defined as the time in which a helicopter is engaged in external load operations. This includes time between loads on the cargo hook.*

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# *ATA 11*
# Placards and Markings

## 11.1 Placards

The 200-287-00 Cargo Hook Sling Suspension Retrofit Kit utilizes the existing placards from the Eurocopter system it is intended to upgrade. Consult the Eurocopter ICA (or equivalent) for placarding.

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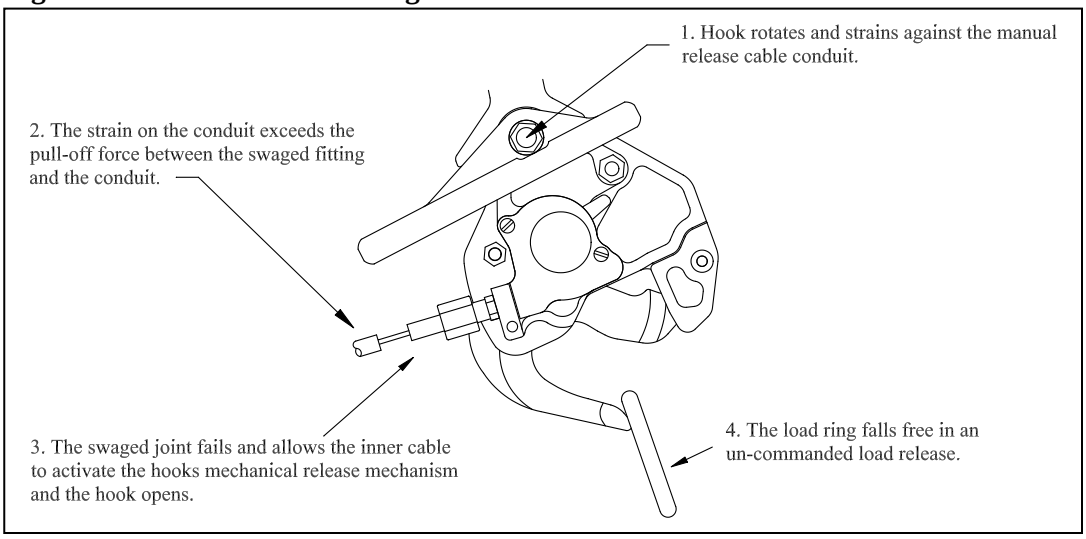
# *ATA 25*
# Equipment and Furnishings

**CAUTION**

*Un-commanded cargo hook release will happen if the manual release cable is improperly restrained. The cable must not be the stop that prevents the Cargo Hook from swinging freely in all directions. If the Cargo Hook loads cause the hook to strain against the manual release cable the swaged end of the cable may separate allowing the inner cable to activate the cargo hook manual release mechanism. The result is an un-commanded release. Ensure that no combination of cyclic stick or Cargo Hook position is restrained by the manual or electrical release cables.*

**Figure 25-1 Un-commanded cargo hook release**




## 25.1 Cargo Hook Connector

Listed below is the pin out for the cargo hook connector.

**Table 25-1 Cargo Hook Connector**

| *Pin* | *Function* |
|---|---|
| A | Ground |
| B | Positive |

# 25.2 Description

The P/N 200-287-00 Cargo Hook Sling Suspension System Retrofit Kit is a conversion kit for AS350 operators with an existing Eurocopter cargo hook fixed provisions kit. This kit utilizes some of the existing systems fixed components that are compatible with it. These components include the fixed manual release cable, miscellaneous supporting brackets and miscellaneous hardware.

The Cargo Hook Sling Suspension System consists of four primary subsystems: Sling Suspension Assembly, Electrical Release System, Manual Release System, and the Load Weigh System.

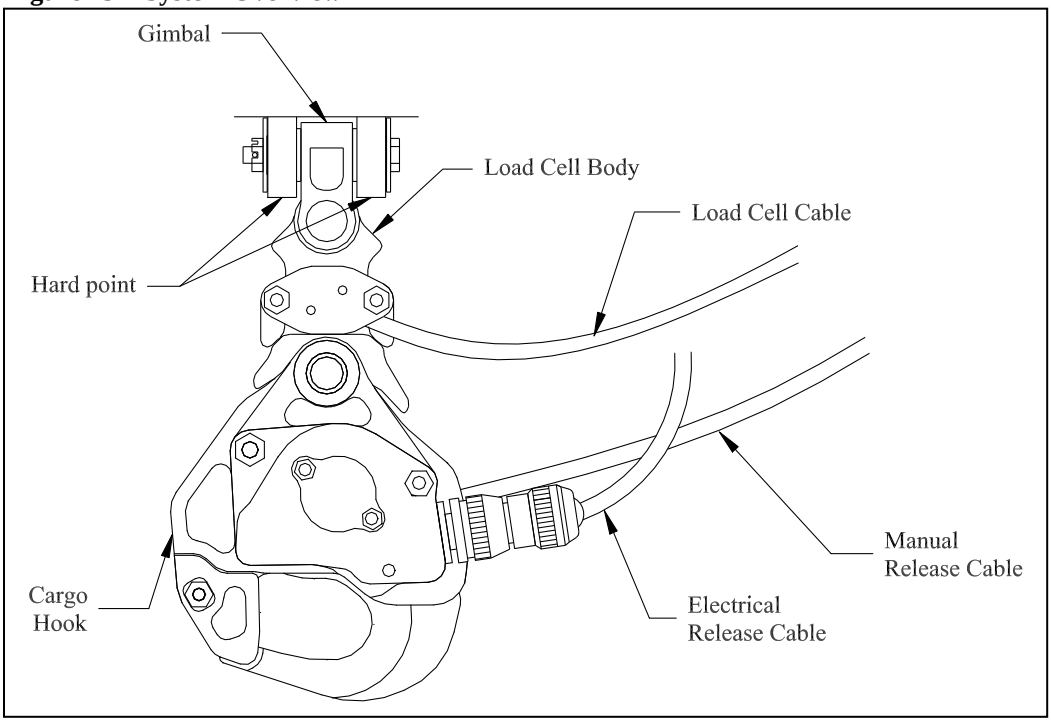
The Sling Suspension Assembly includes the cargo hook, the load cell body, and the gimbal. It is attached to the hard point located on the belly of the helicopter at the forward fuel tank support frame through the gimbal as illustrated below.

The Electrical Release System provides a means to release a cargo hook load by activating an existing switch in the cockpit.

The Manual Release System provides an additional means to release a hook load by actuating a handle mounted to the collective. The Retrofit Kit includes an adapter cable that interfaces with the existing fixed manual release cable and handle as supplied by Eurocopter.

The Load Weigh System consists of the load cell on the suspension, an Indicator within the cockpit, and associated electrical wiring.

**Figure 25-2 System Overview**



## 25.5 Component Weights

The weight of the system is listed in Table 25-2.

**Table 25-2 Component Weights and CGs**

| Item | Weight | Station |
|---|---|---|
| Fixed Provisions | 2.4 lbs (1.1 kg.) | 92 in. (2337 mm) |
| Removable Provisions* | 4.8 lbs (2.2 kg.) | 130.2 in. (3300 mm) |
| Complete Install | 7.2 lbs (3.3 kg.) | 117.5 in. (2984 mm) |

***** The removable provisions include the hook and suspension, manual release cable, and electrical release cable. These items are easily removed if they are not needed on the helicopter's mission. Refer to Suspension System Removal in Section 25.16 for removal instructions.

## 25.12 Storage Instructions

Clean the exterior Cargo Hook components thoroughly of excess dirt and grease with a rag before packaging. Pack the unit in a heat-sealable package. If the unit is to be stored for long periods in a tropical climate it should be packed in a reliable manner to suit local conditions.

Package the unit in a suitable fiberboard box and cushion the unit to prevent shifting. Seal the fiberboard box with tape and mark the box with the contents and date of packaging.

# 25.15 Troubleshooting

Table 25-3 is provided with the intention of isolating the cause of malfunctions within the system. Sections 25.16 and 25.17 include instructions for removing and replacing defective components. Refer to the appropriate Eurocopter ICA for guidance on procedures relating to Eurocopter parts that interface with this suspension system.

**Table 25-3 Troubleshooting**

| MALFUNCTION | PROBABLE CAUSE | CORRECTIVE ACTION |
|---|---|---|
| Cargo hook does not operate electrically or manually. | Defective internal mechanism. | Remove and replace cargo hook (see sections 25.16 and 25.17). |
| Cargo hook does not operate electrically, manual cable release operates normally. | Open electrical circuit, faulty wiring, fuse, switch or solenoid. | Disconnect cable from electrical connector on cargo hook.<br>Using multi-meter, check for 3.0 to 4.0 ohms between pins A and B of electrical connector (see note 1 below). If open indication is obtained, remove and replace cargo hook (see sections 25.16 and 25.17).<br>Check wiring per note 2. |
| Cargo hook operates electrically, but not manually. | Defective manual release cable.<br>Defective manual release system. | Inspect manual release cable and cable connection to Cargo Hook.<br>Remove and replace cargo hook (see Sections 25.16 and 25.17). Refer to Eurocopter ICA for fixed manual release cable. |
| Load beam fails to re-latch after being reset. | Defective latch mechanism. | Remove and replace cargo hook (see sections 25.16 and 25.17). |
| Force required to release hook with lever on collective exceeds 14 lbs. | High cable friction or friction in internal mechanism of hook. | Remove cable from hook and check cable and hook independently (see below) to determine cause. Refer to Eurocopter ICA for fixed section of release cable. |
| With release cable disconnected at hook, the force required to move manual release lever on collective exceeds 6 lbs. | Kinks or wear in cable, frozen water in cable, debris or damage to cable quick disconnect fitting or lever mechanism on cyclic | Inspect individual components to isolate problem. Remove and replace defective parts (see Sections 25.16 and 25.17 for remove and replace instructions for manual release cable). Refer to Eurocopter ICA for fixed section of release cable. |
| Cargo hook manual release cable pull-off force exceeds 8 Lbs. (at the hook). | Friction in internal mechanism. | Remove and replace cargo hook (see Section 25.16 and 25.17) |
| Visibly loose fasteners or missing locking pins on suspension. | Visibly loose fasteners or missing locking pins. | Re-torque and reinstall locking pins per installation instructions. |
| Visibly loose electrical connector. | Visibly loose electrical connector. | Re-tighten connector |
| Visible cracks or corrosion on hook. | Visible cracks or corrosion. | Remove and replace cargo hook (see Sections 25.16 and 25.17). |
| Gouges or wear deeper than .090 on the cargo hook load beam. | Gouges or wear deeper than .090. | Remove and replace cargo hook (see Sections 25.16 and 25.17). |

**Table 25-3 Troubleshooting continued**

| | | |
|---|---|---|
| Cargo hook fails to open or re-lock properly. | Failure to open or re-lock properly. | Remove and replace cargo hook (see Sections 25.16 and 25.17). |
| Fuse opens when cargo hook is energized. | Short in the system, faulty wiring, fuse or solenoid. | Check for shorts to ground along length of wire harness (see note 2). Check solenoid resistance (see note 1), repair or replace defective parts. |
| Load Weigh Indicator does not light up. | Faulty wiring or fuse. | Check the fuse (refer to Eurocopter ICA) and wiring (see Note 2). If this doesn't help, remove and replace indicator per sections 25.16 and 25.17. |
| The displayed load on the Load Weigh Indicator is incorrect. | Incorrect calibration code. | Ensure the correct calibration code has been entered (see Note 3). |
| Indicator displayed load is not stable. | Dampening level is too small. | Adjust the dampening level to a larger number (see Note 4). |
| Indicator displayed load takes too long to change the reading when the load is changed. | Dampening level is too large. | Adjust the dampening level to a smaller number (see Note 4). |
| Indicator does not change with changing hook loads. | Defective load cell, indicator failure or damaged wire harness. | Check for damaged wire harness (see note 2), remove and replace wire harness assembly or load cell (see sections 25.16 and 25.17). |

## Notes:

**1. Checking resistance at pins A and B.**

Check for 3.0 to 4.0 ohms between pins A and B of electrical connector located on the cargo hook (see below).

**Figure 25-3 Cargo Hook Electrical Connector**

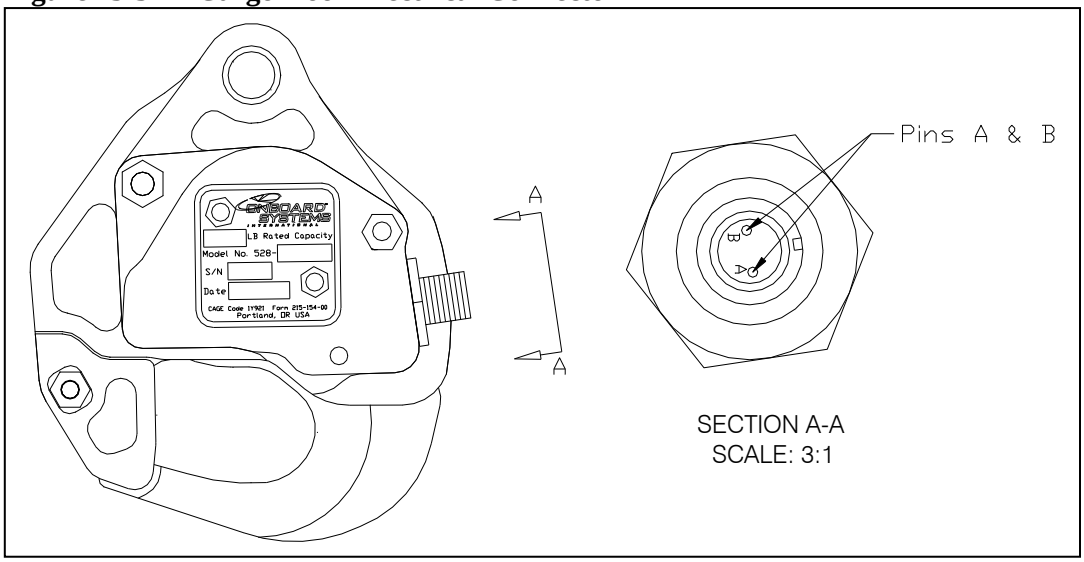
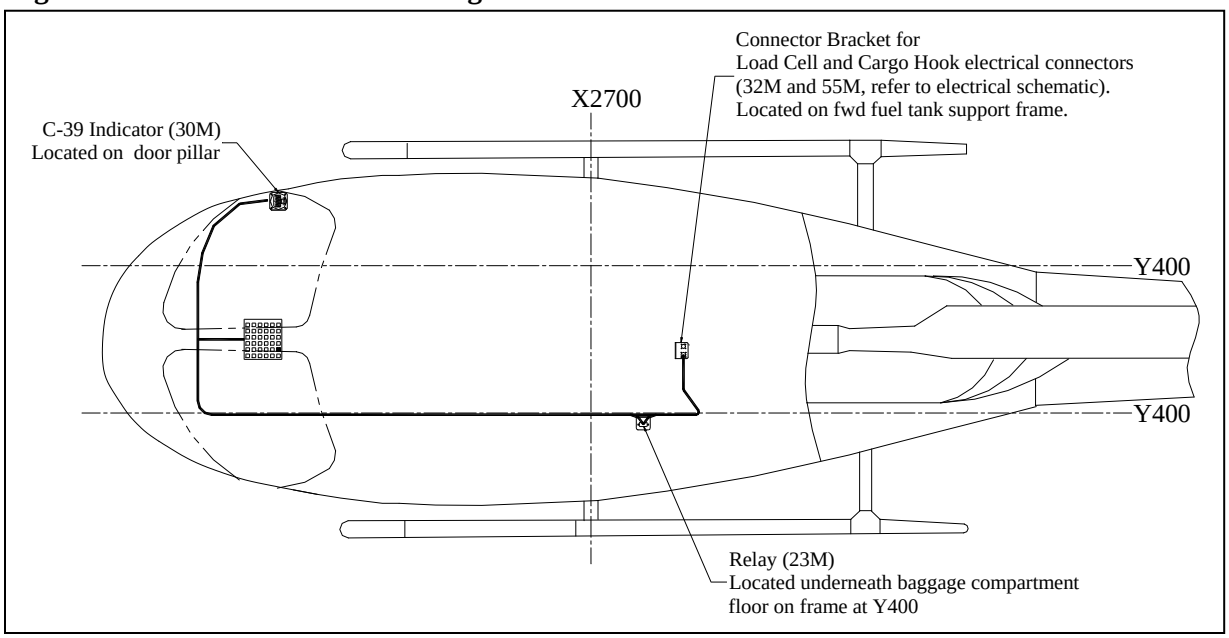


**Table 25-3 Notes continued:**

**2. Checking Wire Harnesses.**

The wire harnesses are routed with existing wire bundles and are located approximately as shown below. Remove lower fairings to inspect wiring underneath the cabin floor. Inspect for general condition and chafing along length of wire runs. See Figure 25-5 for electrical schematic.

**Figure 25-4 Wire Harness Routing**



## Table 25-3 Notes continued:

The electrical schematic for the electrical release system and the load weigh system is shown in Figure 25.5. Eurocopter modification #'s 07-3273 and 07-3274, which, among other changes, involved conversion of the fuse-type switch panel to that of circuit breaker design, are reflected below. Earlier Eurocopter configurations which affected how and where wires ME1E, ME2E and ME10E of the electrical release harness and load weigh harness interface with the helicopter are shown on the following page. Refer to the applicable Eurocopter Wiring Diagrams Manual for additional information.

**Figure 25.5 Electrical Schematic**

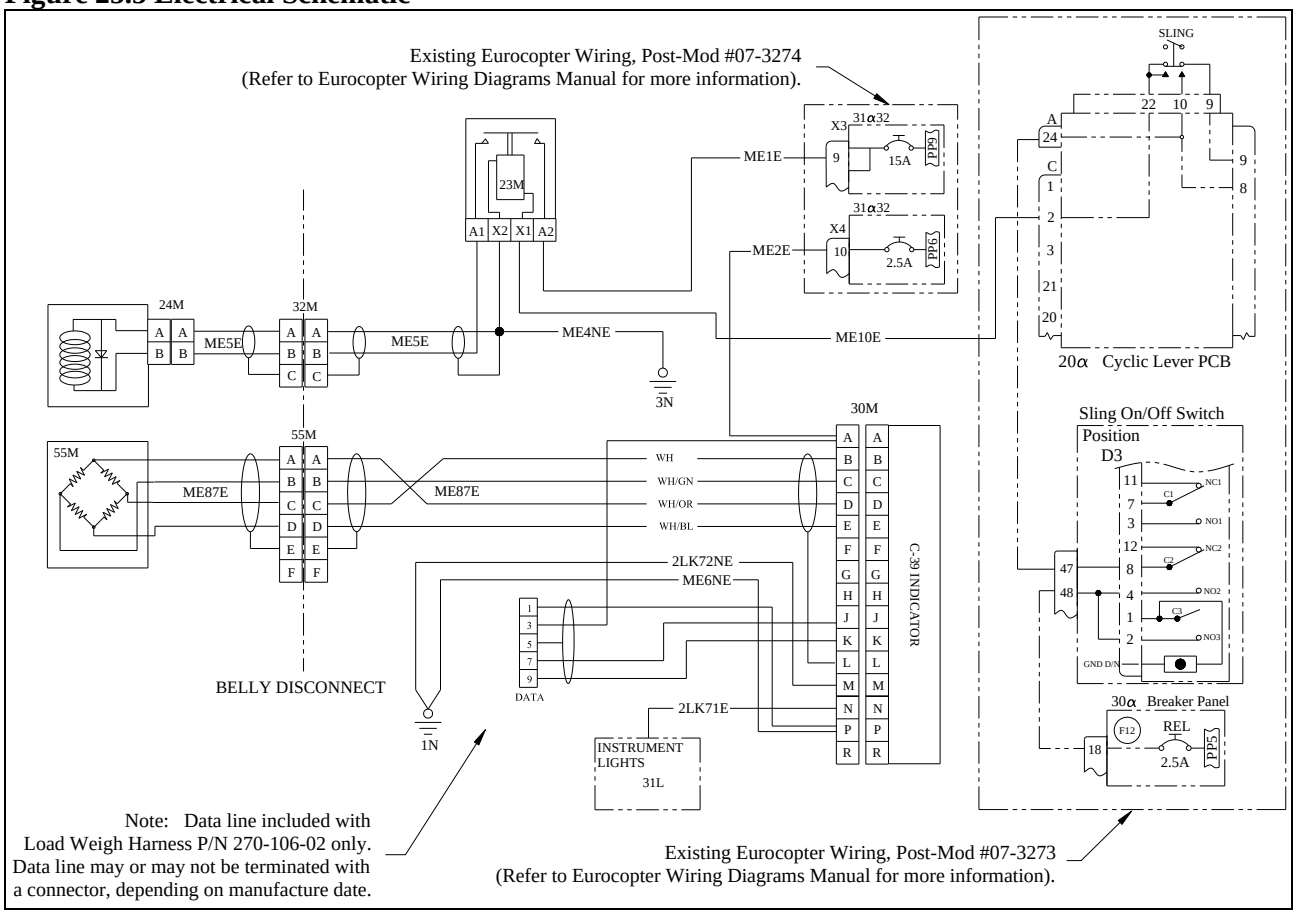
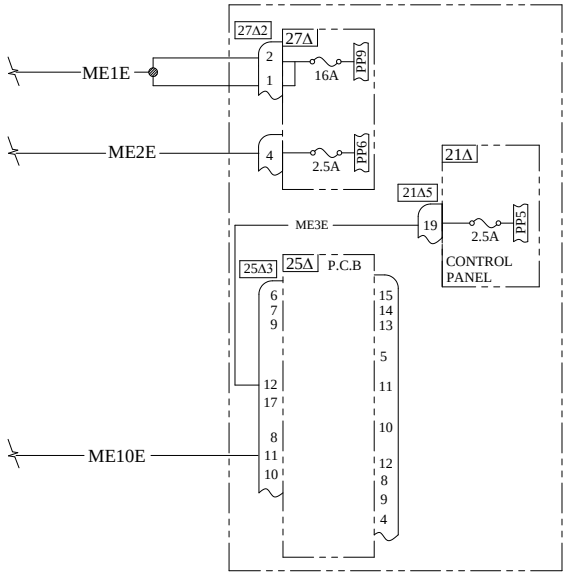
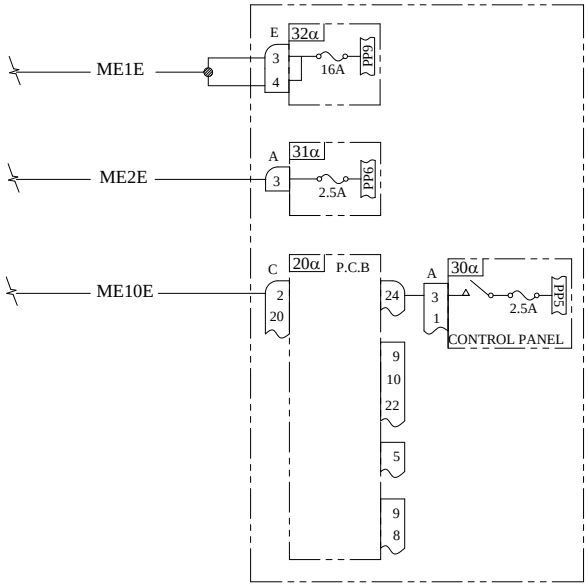


**Table 25-3 Notes continued:**

**Figure 25-5 Electrical Schematic, continued**




Existing Eurocopter Wiring, Pre-Mod #07-1737
(Refer to Eurocopter Wiring Diagrams Manual for more information).



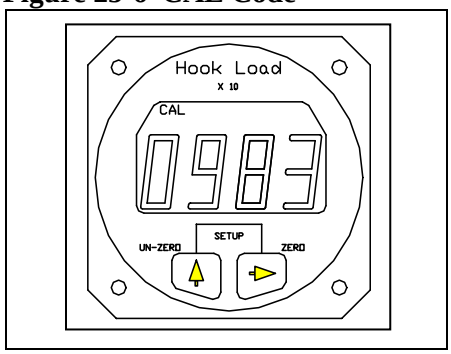

Existing Eurocopter Wiring, Post-Mod #07-1737
(Refer to Eurocopter Wiring Diagrams Manual for more information).

**Table 25-3 Notes continued**:

**3. Checking Load Weigh Indicator calibration code:**

With the Indicator powered up and in the Run Mode, press both buttons at the same time to go to Setup. Scroll through the menu until the word CODE is displayed, then press the Right button. The display should look like this:

**Figure 25-6 CAL Code**

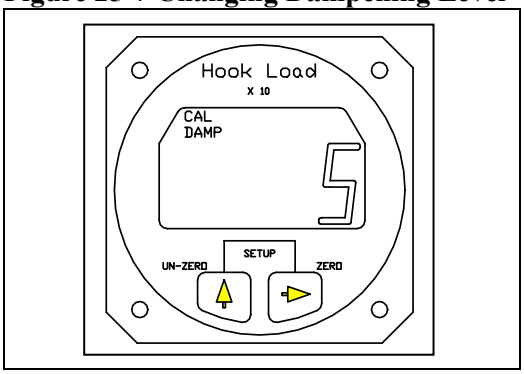



This code should match the code on the tag attached to the load cell cable. If this code does not match, contact Onboard Systems for further guidance.

**4. Adjusting dampening level:**

With the Indicator powered up and in the Run Mode, press both buttons at the same time to go to Setup. Scroll through the menu, using the Left button, until the word DAMP is displayed. To look at or change the Dampening Level press the Right button. The display should look like this:

**Figure 25-7 Changing Dampening Level**




The CAL and the DAMP legend is turned on and the previously set dampening level is displayed. To return to Run without changing the current dampening level press both the Right and Left buttons at the same time. To change the dampening number, use the Left button to scroll the blinking digit to the desired number. Ten dampening levels are available, from 0 through 9. At level 0 the display responds to the slightest change in weight. However, if the load bounced even slightly, the display digits would respond instantly, making the display look unstable. With a dampening level of 9, the display would be stable under the most turbulent conditions, however, it would take several seconds for the display to respond to a change in weight. The ideal dampening level will depend on the flying conditions. A mid range setting of 5 or 6 is usually adequate. After the selection has been made press both the Right and Left buttons at the same time to return to Run.

# 25.16 Component Removal

### Cargo Hook Removal

1. Cut and remove all lockwire.
2. Remove manual release cover by removing two screws.
3. Remove the manual and electrical release cables from the Cargo Hook.
4. Remove the cotter pin (P/N 510-178-00) from the Attach Bolt (P/N 290-332-00).
5. Remove the castellated nut (P/N 510-170-00) from the Attach Bolt.
6. Remove Attach Bolt and all washers.
7. Remove the Cargo Hook from suspension system.

### Suspension System Removal

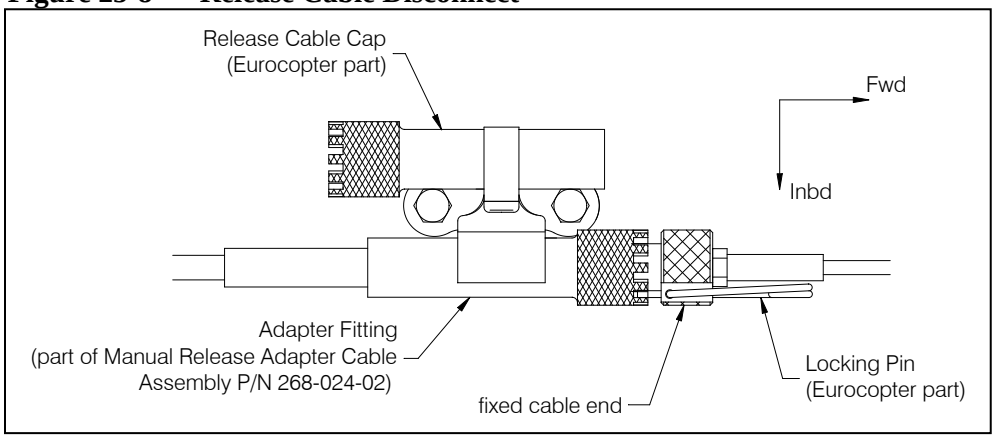
1. Disconnect the load cell cable at the bulkhead connector on the belly of the aircraft.
2. Remove the cotter pin (P/N 510-178-00) from the attach bolt (P/N 510-451-00).
3. Remove the castellated nut (P/N 510-170-00) from the attach bolt.
4. Remove the attach bolt and all washers.
5. Remove Gimbal Pin (P/N 290-766-00) and remove suspension from aircraft.

## 25.16 Component Removal continued

### Manual Release Adapter Cable Removal

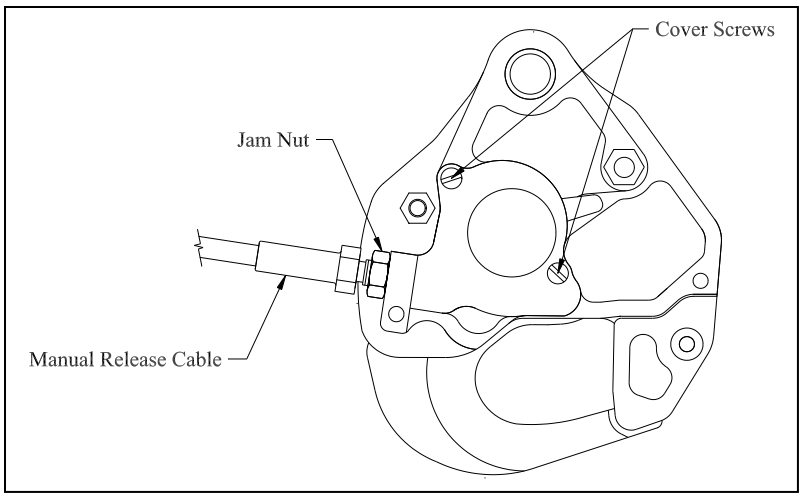
1. Remove the forward end from the bracket on the belly of the helicopter.
2. Retract the locking pin and unthread the Adapter Fitting to expose and disengage the handshake fittings.
3. Unclip the Release Cable Cap (see below) from the bracket and thread it over the open end of the fixed cable and clip it into the inboard spring clip on the bracket.

**Figure 25-8 Release Cable Disconnect**




4. At the other end of the cable (at the cargo hook) remove the two screws that secure the manual release cover to the hook (see below) and unhook the cable ball end from the fork fitting.

**Figure 25-9 Manual Release Cover Removal**




5. Loosen the jam nut and unthread the release cable from the hook.

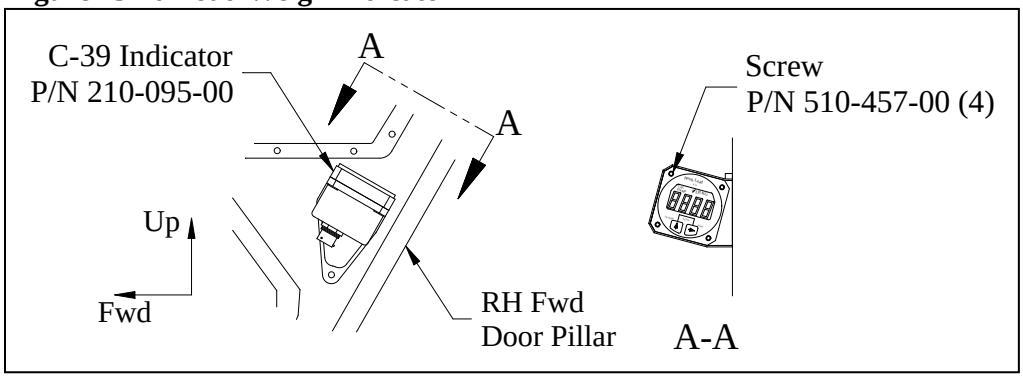
## 25.16 Component Removal continued

### Load Weigh Indicator Removal

The C-39 Load Weigh Indicator is located on the RH forward door pillar.

1. Disconnect electrical connector from the back of indicator.
2. Remove the four screws (P/N 510-457-00) that secure the indicator to the mounting bracket and remove the indicator.

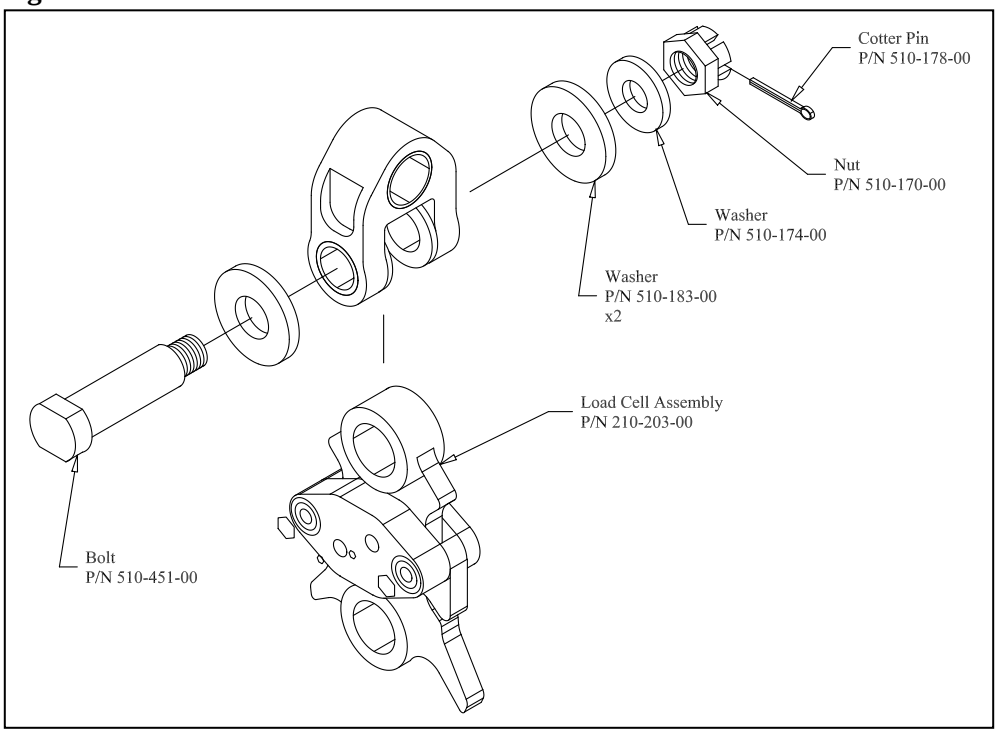
**Figure 25-10 Load Weigh Indicator**




### Load Cell Removal

1. Disconnect the electrical connector on the belly of the helicopter.
2. Remove the Cargo Hook per the above instructions.
3. Remove the Load Cell Assembly from the gimbal on the helicopter hard point (not shown) by removing the hardware as illustrated below.

**Figure 25-11 Load Cell Attachment Hardware**

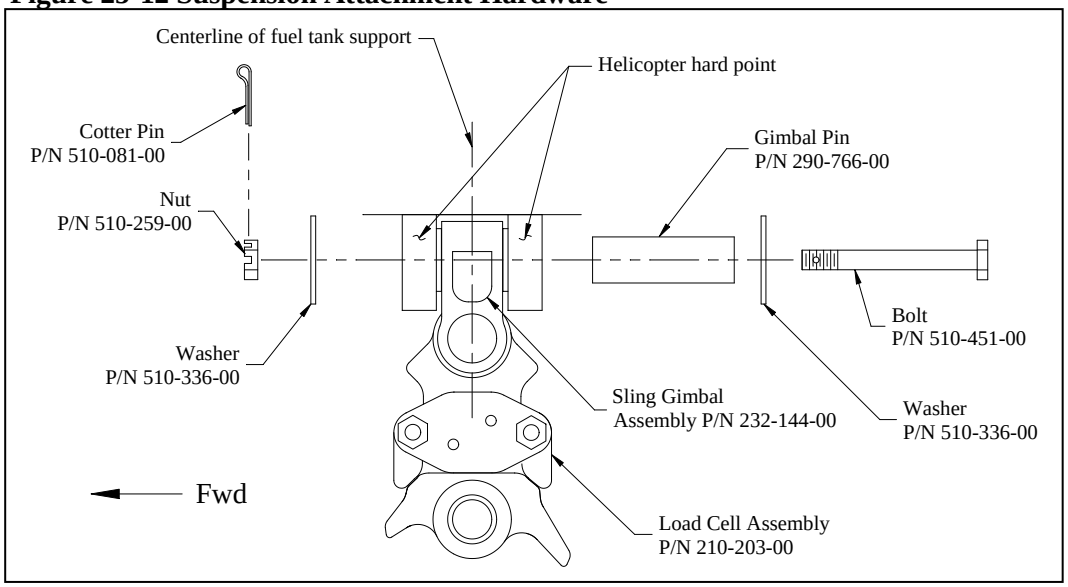


# 25.17 Component Re-installation

### Suspension Re-installation

1. Inspect the Suspension for evidence of damage, corrosion and security of fasteners. If damage is evident, do not use the items until they are repaired.
2. Attach the suspension Gimbal (P/N 290-767-00) to the hard point by installing the Gimbal Pin (P/N 290-766-00), washer (P/N 510-336-00), and bolt P/N 510-451-00.
3. Install washer (P/N 510-336-00) and castellated nut (P/N 510-170-00) over bolt end.
4. Torque nut to 50 in-lb., then rotate nut to next castellation, not to exceed 110 in-lbs. Install and secure cotter pin P/N 510-178-00.
5. Connect the load cell cable connector at the bulkhead connector at the belly of the aircraft.
6. Connect the electrical release cable at the bulkhead connector at the belly of the aircraft.
7. Connect the manual release cable at the quick release fitting and route through quick disconnect clamps on the belly of the aircraft.

**Figure 25-12 Suspension Attachment Hardware**

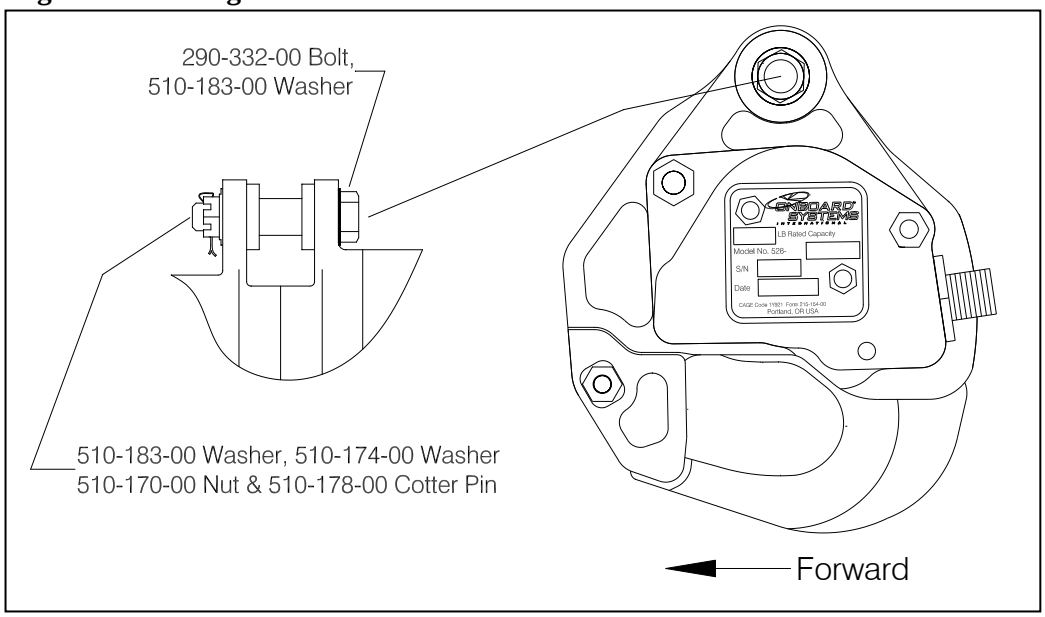


## 25.17 Component Re-installation continued

### Cargo Hook Re-installation

1. Inspect the Cargo Hook for evidence of damage, corrosion and security of lock wire and fasteners. If damage is evident, do not use the items until they are repaired.
2. Verify that the part number of the cargo hook removed matches one of the numbers on the list in the Applicability section of this manual. If it does not, do not attempt to use the cargo hook, contact the factory for clarification.
3. Attach the Cargo Hook, P/N 528-023-01 to the suspension system by installing the bolt P/N 290-332-00 and washer P/N 510-183-00 as illustrated below.
4. Install washer P/N 510-183-00 and washer P/N 510-174-00 over bolt end.
5. Torque nut P/N 510-170-00 on bolt P/N 290-332-00 to finger tight, then rotate to next castellation to install and secure cotter pin P/N 510-178-00.
6. Connect the electrical release cable at the bulkhead connector at the belly of the aircraft.
7. Connect the cargo hook electrical release cable connector to the Cargo Hook.
8. Re-install the manual release cable per this section (see Manual Release Adapter Cable Re-installation).

**Figure 25-13 Cargo Hook Attachment Hardware**




**NOTE**

*The Cargo Hook load beam must point forward when installed.*

## 25.17 Component Re-installation continued

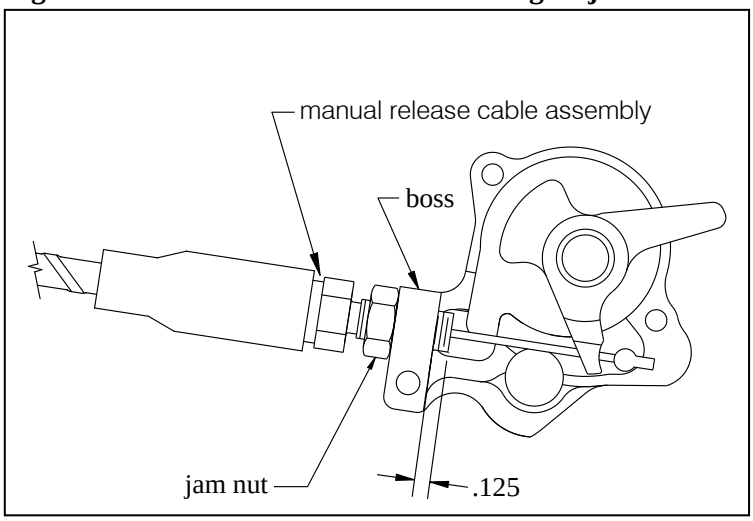
### Manual Release Adapter Cable Re-installation

Connect the Manual Release Adapter Cable (P/N 268-024-02) to the cargo hook first, per the following instructions:

Remove the manual release cover from the cargo hook. Thread the fitting at the end of the manual release cable into the manual release boss on the hook side plate until the threads protrude approximately .125" inch beyond the boss and secure with jam nut (as shown in Figure 25-14).

Leave the cover off of the cargo hook until the other end of the release cable is connected, in order to verify proper setting.

**Figure 25-14 Manual Release Cable Fitting Adjustment**



## 25.17 Component Reinstallation continued

### Manual Release Adapter Cable Re-installation continued

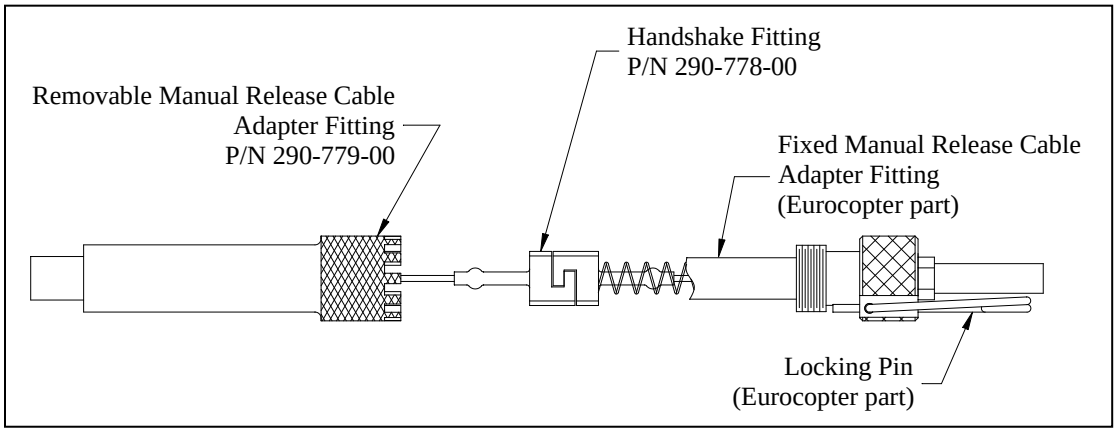
Route the cable through the two fittings on the RH rear lower fairing.

Connect the other end of the adapter cable to the end of the fixed cable by sliding the Adapter Fitting back to expose the Handshake Fitting and connecting this fitting to the Handshake Fitting on the fixed cable as shown below.

Thread the Adapter Fitting on the adapter cable onto the fixed cable adapter fitting and lock in position by engaging a castellation with the Locking Pin.

Snap the adapter cable Adapter Fitting into the inboard spring clip on the bracket on the lower rear RH fairing.

**Figure 25-15 Manual Release Cable Connection**



## 25.17 Component Re-installation continued

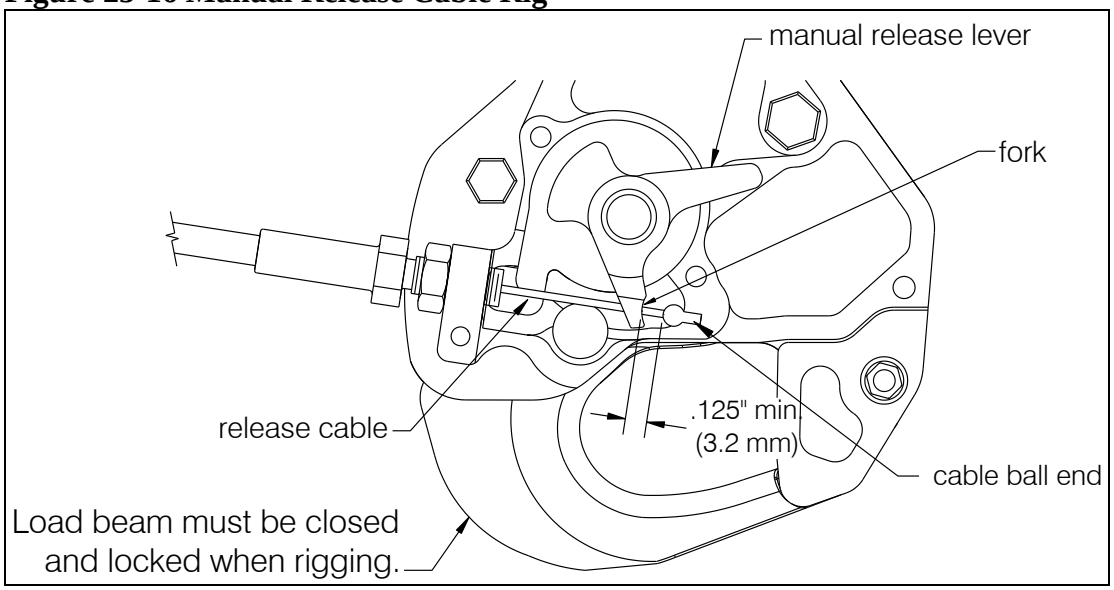
### Manual Release Cable Re-installation continued

**Verify proper setting at the hook:**

Place the cable ball end fitting into the hook manual release fork fitting as illustrated in Figure 25-16. Move the manual release lever in the clockwise direction until it is against the cam stop. Measure the cable ball end free play with the manual release handle in the cockpit in the non-release position. The gap should measure a minimum of .125" (see below).


*Manual release cable rigging must be done with the cargo hook in the closed and locked position.*

**Figure 25-16 Manual Release Cable Rig**




If the gap does not measure .125" minimum, make adjustments at the hook only. This is done by disconnecting the cable at the interface with the fixed manual release cable (Figure 25-16), loosening the jam nut, and rotating the cable in the required direction.

## 25.17 Component Reinstallation continued

### Load Weigh Indicator Re-installation

1. Place the Load Weigh Indicator into the mounting bracket on the RH door pillar and secure with four screws (P/N 510-457-00).
2. Connect the electrical connector on the wiring harness to the connector on the back of the indicator.

### Load Cell Re-installation

1. Attach the load cell assembly (P/N 210-203-00) to the gimbal fitting on the aircraft hard point with hardware as illustrated in Figure 25-11.
2. Connect the load cell electrical cable connector on the load cell cable to the connector on the belly of the helicopter.

## 25.18 General Procedural Instructions-Testing

Daily, prior to each cargo hook use, and after installation, perform the following:

1. Activate the electrical system and press the Cargo Hook release button to ensure the cargo hook electrical release is operating correctly. The mechanism should operate smoothly and the Cargo Hook must release. Reset the hook by hand after the release. If the hook does not release or re-latch, do not use the unit until the difficulty is resolved.


*The cargo hook release solenoid is intended to be energized only intermittently. Depressing the electrical release button continuously in excess of 20 seconds will cause the release solenoid to overheat, possibly causing permanent damage.*

2. Activate the release handle located on the collective to test the cargo hook manual release mechanism. The mechanism should operate smoothly and the Cargo Hook must release. Reset the hook by hand after release. If the hook does not release or re-latch do not use the unit until the difficulty is resolved.

3. Swing the installed Cargo Hook and the suspension to ensure that the manual release cable assembly and the electrical release cable have enough slack to allow full swing of each component without straining or damaging the cables. The cables must not be the stops that prevent the Cargo Hook or the suspension from swinging freely in all directions.

4. Visually check for presence and security of fasteners, and condition of cables. Swing the Cargo Hook and the suspension in fore and aft and side to side directions to check for freedom of rotation at all joints.