PLEASE CHECK WEB SITE AT WWW.ONBOARDSYSTEMS.COM FOR THE LATEST REVISION OF THIS MANUAL

E-69 Load Weigh System

For The

Airbus Helicopters AS350 Series

Owner's Manual

Owner's Manual Number 120-114-00
Revision 7
January 10, 2020

ONBOARD SYSTEMS™
INTERNATIONAL

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RECORD OF REVISIONS

Revision	*Date*	*Page(s)*	*Reason for Revision*
0	6/15/04	42	First Release
1	09/06/07	TOC Section 1, 2-3, 2-6, 3-8, 3-9, 3-12, 4-1 & 4-2	Added Warnings, Cautions and Notes explanation to section 1. Updated warnings, cautions and notes to current format. Changed daily inspection to daily check.
2	05/27/09	TOC, Section 4	Revised inspection and Overhaul criteria.
3	03/2/10	TOC, Section 2 & Section 4	Updated manual to reflect new load weigh harness configuration. Changed overhaul frequency criteria.
4	01/20/11	TOC, 1-1, 1-2, 2-1, 2-3, 2-8, 3-8, 3-9, 3-12,4-3, 4-4 & 4-6	Replaced warnings, cautions and notes section with safety labels section. Updated format of safety labels throughout document. Replaced Load Cell P/N 210-046-01 with P/N 210-046-02.
5	09/15/14	Section 4	Updated definition of external load operations.
6	03/05/18	Section 4, 4-1, 4-3	Revised instructions for returning load cell to the factory for inspection and calibration. Removed daily check from inspection. Removed instruction to verify calibration by lifting known weight.
7	01/09/20	All	Added C-40 indicator, moved maintenance information to an ICA (manual no. 123-050-00).

Register Your Products for Automatic Notifications

Onboard Systems offers a free notification service via fax or email for product alerts and documentation updates. By registering your Onboard Systems products at our website, we will be able to contact you if a service bulletin is issued, or if the documentation is updated.

You can choose to receive notices on an immediate, weekly, or monthly schedule via fax, email or both methods. There is no charge for this service. Please visit our website at www.onboardsystems.com/notify.php to get started.

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CONTENTS

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Section 1
General Information

Introduction

The Load Weigh System is a compliment to the helicopter lifting system. Its purpose is to display the weight of the load carried on the cargo hook. The Load Weigh System consists of three components, the cockpit mounted Indicator, the Internal Harness and the Load Cell. The system is designed specifically for each helicopter and is intended to be a permanent installation.

The E-69 Load Weigh System is approved for use on the following Airbus Helicopters AS350 configurations.

- All AS350 Sling Systems
- AS350 B2 or earlier swing suspension systems. Airbus Helicopters part numbers 350A86-1030-00 and 350A86-1030-01

Safety Labels

The following definitions apply to safety labels used in this manual.

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

Draws the reader's attention to important or unusual information not directly related to safety.

Used to address practices not related to personal injury.

Bill Of Materials

The following items are included with each system, if shortages are found contact the distributor from whom the system was purchased.

Part No.	Description	Qty
120-114-00	Owner's Manual	1
210-293-00**	C-40 Indicator	1
210-046-02*	E-69 Load Cell Assembly	1
270-283-03	Load Weigh Internal Harness	1
400-048-00***	Power Switch	-
215-010-00	Placard	2
215-012-00***	Placard	-
512-001-00	Ty-Wrap	10
510-028-00	Screw	6
510-029-00	Nut	6
510-062-00	Washer	10
511-211-00	Screw	4
235-035-00	QD Bracket	1

** Optional P/N is 210-046-01. P/N 210-046-02 supersedes P/N 210-046-01, these P/Ns are interchangeable*

*** The C-40 Indicator (P/N 210-293-00) supersedes the C-39 Indicator (P/N 210-095-00) and is supplied with Load Weigh Internal Harness P/N 270-283-03 which replaces P/N 270-048-03 used with the C-39.*

****Previously included with kits with C-39 Indicator. Not included with kits with C-40 Indicator.*

NOTICE

*The C-40 Indicator is a direct replacement for the C-39 Indicator if optional items of Figure 2.2.1 (analog meter, C-30 data recorder, etc.) are **not** connected to the C-39 (see Section 2.2). The C-40 Indicator is not compatible with these optional items.*

Section 2
Installation Instructions

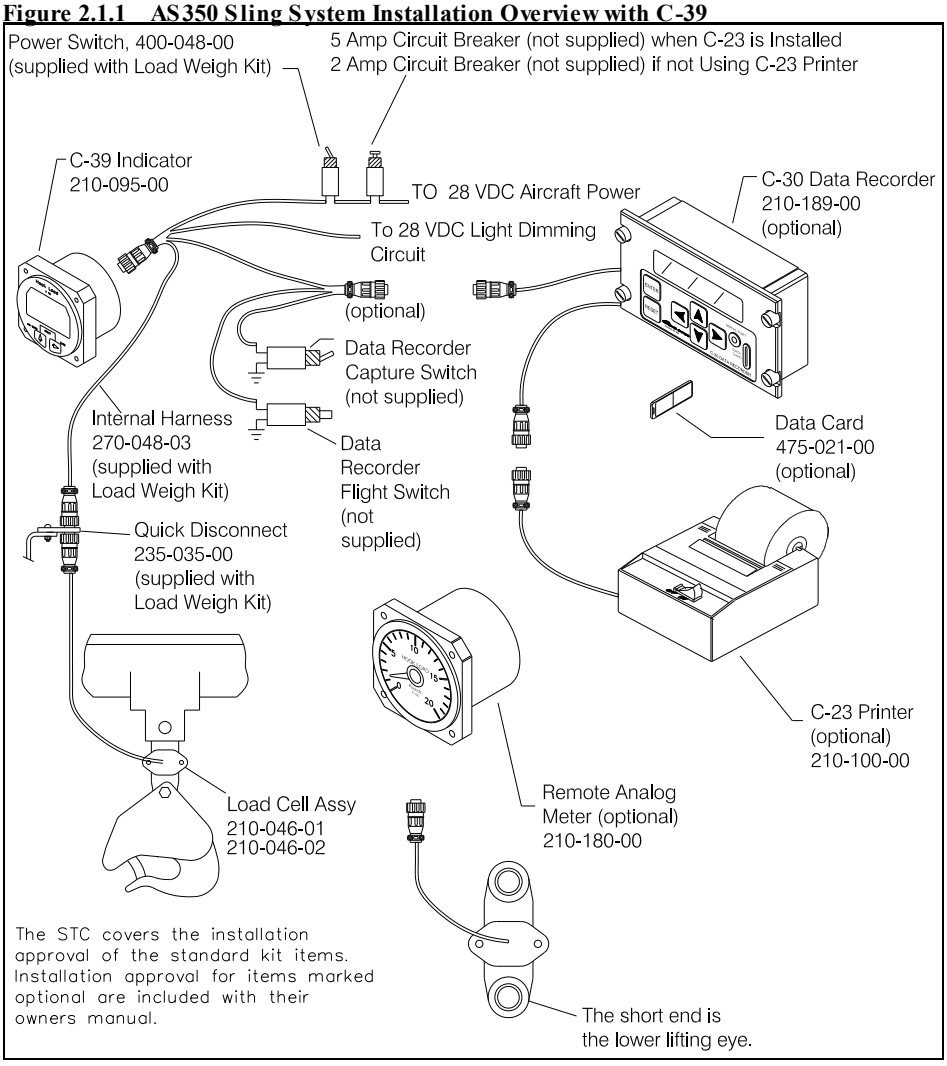
This section describes how to install the components of the Load Weigh System. These procedures are provided for the benefit of experienced aircraft maintenance facilities capable of carrying out the procedures. They must not be attempted by those lacking the necessary expertise.

2.1 C-39 Load Weigh System Installation

This section describes how to install the components of the C-39 Load Weigh System, the C-39 load weigh indicator is identified by P/N 210-095-00. If installing the next generation C-40 indicator (P/N 210-293-00) load weigh system skip to section 2.2.

Figure 2.1.1 is an overview of the Load Weigh System installation with the C-39 Indicator. The optional items shown are not compatible with the C-40 indicator.

Figure 2.1.1 AS350 Sling System Installation Overview with C-39



2.1 C-39 Load Weigh System Installation continued

2.1.1 Internal Harness Installation

The Internal Harness (P/N 270-048-03) is made up of four cables terminated to a connector. This connector is plugged into the back of the Indicator. One of the cables is marked "LOAD CELL" and is fitted with a connector. This cable is connected to the load cell. Another cable is marked "POWER" and is connected to aircraft power. Another cable is marked "LIGHT", refer to section 2.1.3. The last cable is marked "DATA" and can be connected to the optional Data Recorder or Analog Slave Meter. These optional items are not included under this STC.

NOTICE

The data cable may or may not be terminated with a connector depending on manufacture date.

The load cell cable can be routed with the cargo hook electrical release wire to the cargo hook area. The load cell cable connector can be attached to the cargo hook electrical disconnect bracket using the furnished 235-035-00 bracket and hardware. The bracket location should be close enough to the load cell to ensure the load cell cable is not stressed when the cargo hook is moved to its furthermost point, but far enough away to minimize excess cable which may be snagged.

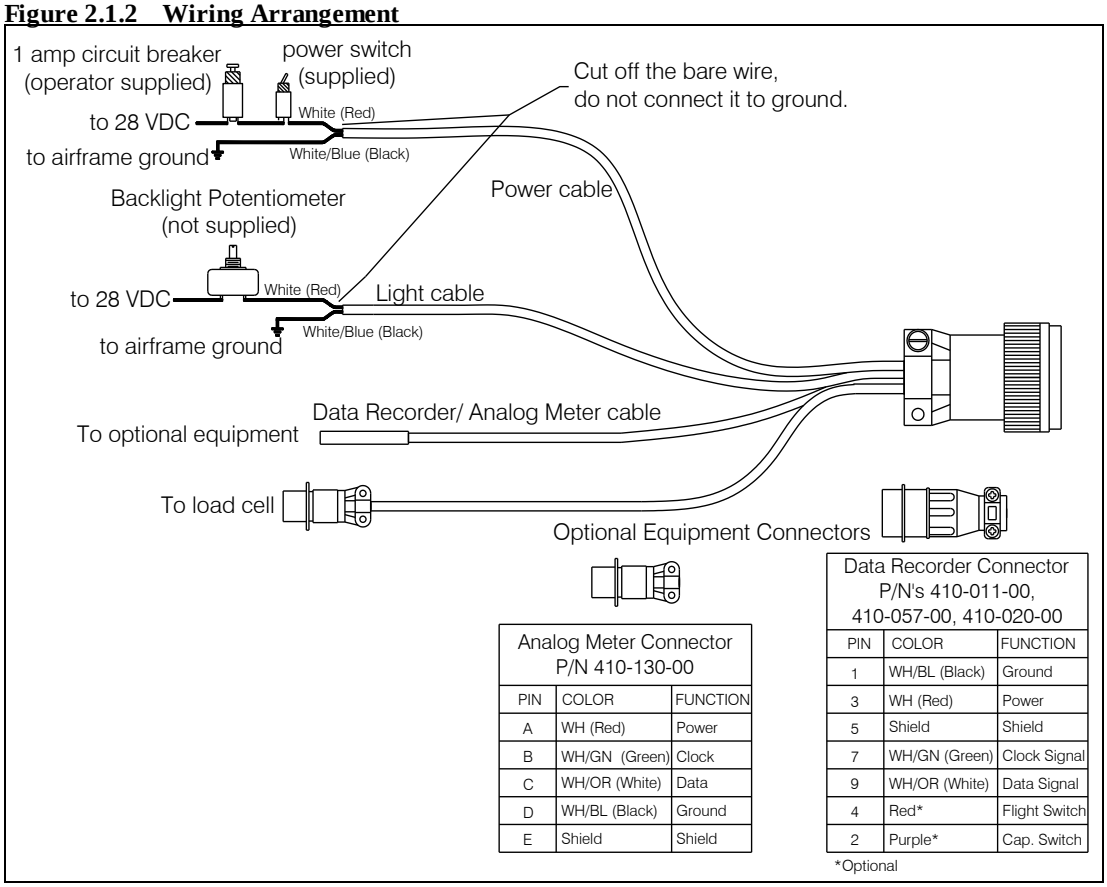
If it is necessary to remove the load cell bulkhead connector to ease cable routing, reconnect using the color code below.

Wire Color	Connector Pin
White	A
WH/GN	B
WH/OR	C
WH/BLU	D
Shield	E

2.1 C-39 Load Weigh System Installation continued

2.1.1 Internal Harness Installation continued

Figure 2.1.2 Wiring Arrangement



Analog Meter Connector P/N 410-130-00		
PIN	COLOR	FUNCTION
A	WH (Red)	Power
B	WH/GN (Green)	Clock
C	WH/OR (White)	Data
D	WH/BL (Black)	Ground
E	Shield	Shield

Data Recorder Connector P/N's 410-011-00, 410-057-00, 410-020-00		
PIN	COLOR	FUNCTION
1	WH/BL (Black)	Ground
3	WH (Red)	Power
5	Shield	Shield
7	WH/GN (Green)	Clock Signal
9	WH/OR (White)	Data Signal
4	Red*	Flight Switch
2	Purple*	Cap. Switch

*Optional

2.1 C-39 Load Weigh System Installation continued

2.1.2 Indicator Installation

The Indicator should be mounted in a position that is convenient, accessible and visible to the pilot. It can be mounted in a standard 2¼" instrument hole. Additionally, part number 290-772-00 is available from Onboard Systems which provides a convenient indicator mount on the inside right front door post of the aircraft. Connect the Indicator to the Internal Harness, refer to *Internal Harness Installation*.

2.1.3 Indicator Internal Back Light

The P/N 210-095-00 Indicator is equipped with an Internal Back Lighting System that can be connected to the aircraft 28 VDC light dimming circuit. Use a 22 gauge, twisted pair, shielded cable to connect the aircraft dimming circuit to the Internal Harness. Connect the cable shield wire to airframe ground at the light dimmer end of the cable **ONLY**.

2.1.4 Indicator Hook-Open Warning

The Indicator (P/N 210-095-00) is equipped with a Hook-Open Warning feature that can be connected to a cargo hook equipped with a hook open switch. Depending on the capabilities of the cargo hook switch, the Indicator will flash "HOOK OPEN" when the cargo hook load beam is open. The cargo hook switch must be normally open when the cargo hook load beam is in the closed position. When the load beam is open, one side of the switch must be grounded and the other side of the switch is to be connected to the Indicator. Use a 22 gauge, shielded wire to connect the cargo hook switch to the Indicator. Disassemble the Indicator mating connector and carefully solder the wire, from the cargo hook switch, to pin H. Connect the cable shield wire to airframe ground as close to the cargo hook as possible, at the cargo hook end of the cable **ONLY**.

2.1.5 Remote Analog Meter

The Indicator is equipped with an Analog drive circuit that can be connected to a remote analog meter. Use a 22 gauge, twisted pair, shielded cable to connect the Remote Analog Meter to the Indicator. Disassemble the Indicator mating connector and carefully solder the positive wire, from the analog meter, to pin G and the common wire to pin F. Connect the cable shield wire to airframe ground as close to the Analog Meter as possible, at the Analog Meter end of the cable **ONLY**.

The Indicator can be connected to Onboard Systems' Analog Slave Meter, P/N 210-180-00, through the "DATA" cable. This meter gives solid weight indications without needle bounce. The Analog Slave Meter may be mounted in any convenient location in a standard 3" instrument hole. Attach connector, P/N 410-130-00, to data line per pin out in Figure 2.1.2 to connect the Analog Slave Meter to the Internal Harness "DATA" cable. If a data connector is present on the data line use cable, P/N 270-059-00, to connect to Analog Slave Meter.

2.1 C-39 Load Weigh System Installation continued

2.1.6 Electrical Connections

Install the supplied power switch, P/N 400-048-00. The "POWER" cable on the Internal Harness is supplied extra long, cut off the excess cable and use as needed to connect the switch and circuit breaker. Connect the "POWER" White (red, if harness 270-045-00 is installed) wire to one side of the power switch, connect another piece of suitable wire to the other side of the switch and then to an available 1 or 2 amp circuit breaker as illustrated in Figure 2.1.2. Connect the circuit breaker to the 24 VDC bus. Connect the White/Blue (black, if harness 270-048-02 is installed) wire to the ground bus. The bare wire should be cut off as it is not needed at this end of the cable. Use a minimum of 22 gauge wire to make all connections. Secure the connections and protect from corrosion.

Install the placard 215-010-00 "ELECTRONIC WEIGHING SYSTEM" next to the power switch and circuit breaker. Install the placard 215-012-00 "TURN THE WEIGHING SYSTEM OFF WHEN NAVIGATION EQUIPMENT IN USE" "NO AIRCRAFT OPERATION SHOULD BE PREDICATED ON THE READING OF THE ONBOARD WEIGHING SYSTEM" next to the Indicator.

NOTICE

If the C-23 Printer is being utilized with the C-30 Data Recorder, a 5 amp circuit breaker should be used.

2.2 C-40 Load Weigh System Installation

The C-40 Indicator is directly interchangeable with the C-39 Indicator (without changing the internal harness) except it does **not** support the optional components (Analog Meter, C-30 Data Recorder) shown in Figure 2.1.1. The functions performed by the C-30 data recorder will be integrated into the C-40 Indicator with a future software update.

The internal harness provided with new C-40 Indicator kits is the same as the C-39 internal harness except it does not include the data line but does include an additional wire for TEDS data which will provide for future capability to automatically recognize the load cell's calibration code.

2.2.1 C-40 Indicator Installation

The C-40 Indicator is designed to be mounted in a standard 2¼" instrument hole and should be located in a position that is convenient, accessible and visible to the pilot. Another consideration for its mounting location is access to the USB port on the back, this USB port is intended for the firmware updates. Secure the C-40 Indicator in its mounting location with the four screws (P/N 511-211-00) provided.

A mount kit (P/N 200-432-00) is available from Onboard Systems which provides a convenient indicator mount on the inside right front door post of the aircraft.

2.2.2 C-40 Internal Harness Installation

Route all wires using the following general guidance.

- Pick up existing wire runs by opening existing cable clamps nylon ties alone may not be used for primary support.
- New wire runs should be supported with MS21919WDG loop clamps.
- The distance between supports should not exceed 21 inches.
- The minimum radius of bends in wire groups or bundles must not be less than 10 times the outside diameter of the largest wire or cable.
- Inspect and verify that the wire harness may not be manually deflected into a structure with a bend radius less than .125".

Connect the larger of the connectors on the load weigh harness (P/N 270-240-00) to the back of the C-40 indicator.

The load cell cable can be routed with the cargo hook electrical release wire to the cargo hook area. The load cell cable connector can be attached to the cargo hook electrical disconnect bracket using the furnished P/N 235-035-00 bracket and hardware. The bracket location should be close enough to the load cell to ensure the load cell cable is not stressed when the cargo hook is moved to its furthermost point, but far enough away to minimize excess cable which may be snagged.

2.2 C-40 Load Weigh System Installation continued

2.2.2 C-40 Internal Harness Installation continued

If it is necessary to remove the load cell connector to facilitate routing, re-connect the wires referring to the schematic in Figure 2.2.1.

Route wire labeled POWER of the harness to the circuit breaker panel and install a 1 or 2 amp circuit breaker (not supplied) and connect this wire to it. Apply the supplied placard P/N 215-010-00 adjacent to the circuit breaker.

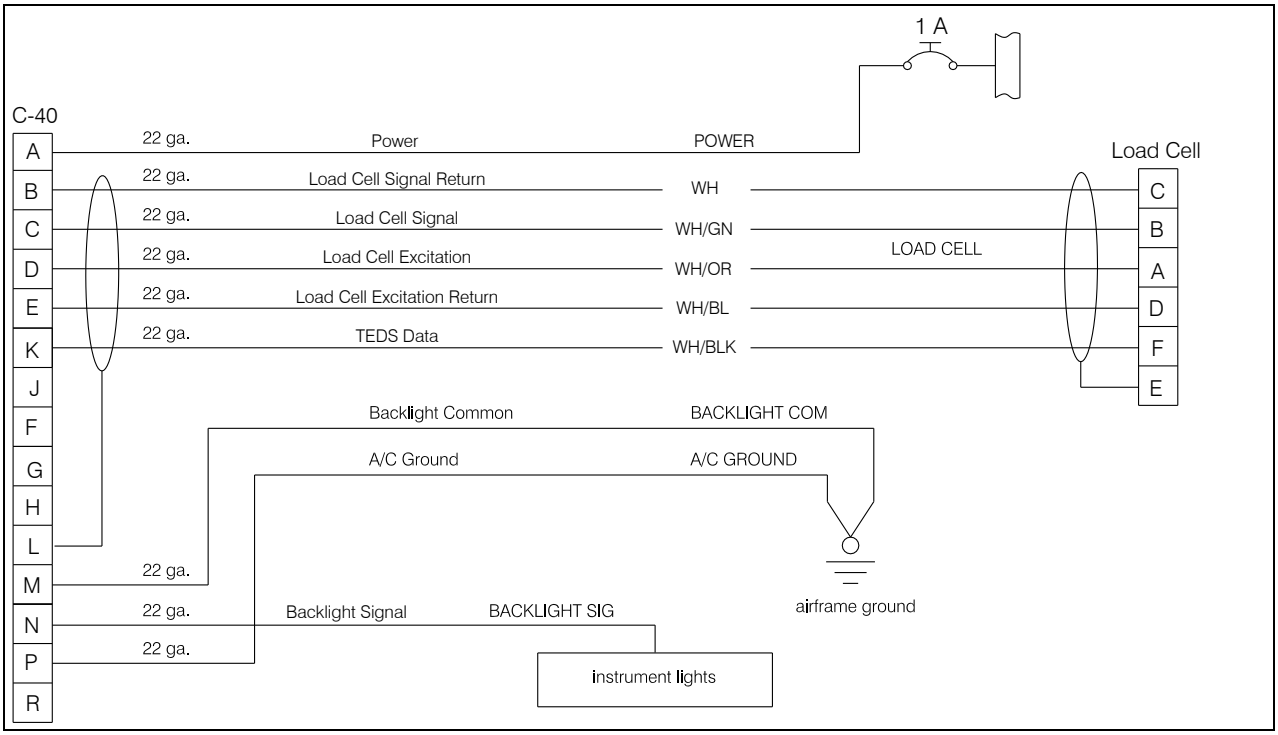
Wires BACKLIGHT SIG and BACKLIGHT COM are for the C-40 Indicator's backlight control voltage. Connect wire BACKLIGHT SIG to the instrument panel lighting circuit and wire BACKLIGHT COM to aircraft ground.

NOTICE

The Indicator does function normally without the Backlight Control Voltage wired, but will just not dim with other instruments. Full brightness of the Indicator is overridden by the aircraft dimming control voltage (if connected).

Wire A/C GROUND is to be connected to a suitable aircraft ground.

Figure 2.2.1 C-40 Internal Harness Schematic



2.3 Load Cell Installation

2.3.1 "Cargo Sling" Load Cell Installation

Separate the cargo hook from the gimbal at the forward fuel tank cradle (if present, remove existing load cell). Attach the load cell lower lifting eye to the cargo hook (reference Figure 2.1.1) using the existing hardware. Note, the load cell cable should point to the left when it is installed.

Attach the load cell upper lifting eye to the gimbal using the existing hardware.

Connect the load cell cable connector to the fixed load weigh connector installed previously.

Swing the hook assembly to the full extremes to verify that it does not stress the cables or self-trip.

NOTICE

If the aircraft is equipped with a French electronic load cell, it will be necessary to purchase several items from Airbus Helicopters to complete the installation.

Description	Part Number	Quantity
Gimbal	350A86-1026-00	1
Bolt	350A86-1027-21	1
Nut	22453BC100L	1

2.3.2 "Cargo Swing" Load Cell Installation

Separate the cargo hook from the swing frame assembly (if present, remove existing load cell). Attach the load cell lower lifting eye to the cargo hook using the existing hardware. Note, the load cell cable should point to the left when installed.

NOTICE

The load cell is "turned upside down" from the "Cargo Sling" installation shown in Figure 2.1.1.

Attach the load cell upper lifting eye to the swing frame gimbal using the existing hardware.

Secure the load cell cable with ty-wraps, such that it will not chafe on the cargo swing and connect the connector to the fixed load weigh connector installed previously.

Swing the cargo hook to its full extremes to verify that it does not stress the cables or self-trip.

2.4 Installation Check-Out

Ensure that the cargo hook is free to move to its full extremes.

Ensure that all electrical cables are secured clear of flight control rods and hydraulic lines.

For the C-39 Indicator:

- Power on the 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 until the symbol "0 in" is displayed, then press the right button. Remove any weight that is not to be zeroed out and press either button to complete the procedure.

NOTICE

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

For the C-40 Indicator:

- Power on the Load Weigh System. On startup the C-40 Indicator will display an information screen while performing a brief self-diagnostic routine and then display the load screen. Set the Installation Zero for the installation per the instructions contained in C-40 Indicator's Owner's Manual 120-152-00.

- In the Settings menu adjust units (lb or kg), brightness of the display, maximum load, and other settings as preferred (refer to the C-40 Indicator Owner's Manual 120-152-00 for detailed instructions). With the C-40 Indicator one setting that must be set properly to function is the backlight voltage. If the wire for the backlight was connected the backlight voltage must be set to the aircraft circuit voltage (5 VDC or 28 VDC).

Perform an EMI ground test per AC 43.13-lb section 11-107. For equipment that can only be checked in flight an EMI flight test may be required.

NOTICE

The load weigh system is of a class of equipment not known to have a high potential for interference. This class of equipment does not require special EMI installation testing (i.e. FADEC) as required in paragraphs 7 and 8 of FAA policy memorandum ASW-2001-01.

2.5 Weights

The weights of the load weigh system components are listed below. Remember to subtract the weights of the components removed.

ITEM	WEIGHT
Internal Harness	0.8 lbs
Indicator	0.5 lbs
Load Cell	0.7 lbs
Total	**2.0 lbs**

2.6 Paper Work

Insert the Flight Manual Supplement into the basic flight manual. In the US fill in FAA form 337 for the initial installation. This procedure may vary in different countries. Make the appropriate aircraft log book entry.

Section 3
Operation Instructions

Refer to Owner's Manual 120-039-00 for setting up and operating the C-39 model indicator. Refer to Owner's Manual 120-152-00 for setting up and operating the C-40 model indicator.

Section 4
Maintenance

Refer to the Instructions for Continued Airworthiness (ICA) 123-050-00 for maintenance of the load weigh system.

Instructions for Returning Equipment to the Factory

If an Onboard Systems product must be returned to the factory for any reason (including returns, service, repairs, overhaul, etc.) obtain an RMA number before shipping your return.

NOTICE

An RMA number is required for all equipment returns.

To obtain an RMA, please use one of the listed methods.

- Contact Technical Support by phone or e-mail (Techhelp@OnboardSystems.com).
- Generate an RMA number at our website: http://www.onboardsystems.com/rma.php

After you have obtained the RMA number, please be sure to:

- Package the component carefully to ensure safe transit.
- Write the RMA number on the outside of the box or on the mailing label.
- Include the RMA number and reason for the return on your purchase or work order.
- Include your name, address, phone and fax number and email (as applicable).
- Return the components freight, cartage, insurance and customs prepaid to:

Onboard Systems International
13915 NW 3rd Court
Vancouver, Washington 98685
USA
Phone: 360-546-3072

Section 5
Certification

STC

United States of America
Department of Transportation - Federal Aviation Administration

Supplemental Type Certificate

Number **SH1262NW**

This certificate, issued to **Onboard Systems**
13915 NW 3rd Court
Vancouver, WA 98685

*certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part * of *Regulations.*
* FAR 21.29 and FAR 27 effective 2/1/65 plus Amendment 27-1 through 27-10, plus FAA Special Conditions No. 27-79-EU-23, dated 8/13/77.

Original Product—Type Certificate Number: H9EU
Make: Eurocopter France
Model: AS350C, AS350D, AS350D1, AS350B, AS350B1, AS350B2, AS350BA, and AS350B3

Description of the Type Design Change: Fabrication of either Onboard Systems Hydraulic Model H-69 (Part Number 200-018-00) or Electronic Models E-69 (Part Numbers 200-058-00 and 200-295-00) Cargo Hook Load Weigh Systems in accordance with Federal Aviation Administration (FAA) approved Onboard Systems Master Drawing List No. 155-010-00, Revision 20, dated October 25, 2004, or later FAA-approved revision,

(See Continuation Sheet Page 3 of 3 Pages)

Limitations and Conditions: Approval of this change in type design applies only to the Eurocopter helicopter models identified above. This approval should not be extended to other aircraft of these models on which other previously approved modifications are incorporated unless it is determined by the installer that the relationship between this change and any of those other previously approved modifications, including changes in type design, will introduce no adverse effect upon the airworthiness of that helicopter.

(See Continuation Sheet Page 3 of 3 Pages)

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: May 1, 1981
Date of issuance June 23, 1981
Date reissued: August 2, 1990
Date amended: 3/22/88; 8/2/90; 9/20/90; 12/23/91; 3/17/92; 2/12/93; 8/13/04; 3/15/05; 11/8/13

By direction of the Administrator

(Signature)

Manager, Seattle Aircraft Certification Office
(Title)

Any alteration of this certificate is punishable by a fine of not exceeding $1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.

FAA Form 8110-2(10-68) PAGE 1 OF 3 PAGES

STC continued

United States of America
Department of Transportation - Federal Aviation Administration

Supplemental Type Certificate

(Continuation Sheet)

Number **SH1262NW**

Onboard Systems

Issued: June 23, 1981
Reissued: August 2, 1990
Amended: 3/22/88; 8/2/90; 9/20/90; 12/23/91; 3/17/92; 2/12/93; 8/13/04; 3/15/05; 11/8/13

Description of Type Design Change continued: Installation of either the H-69 system in accordance with FAA approved Onboard Systems Owner's Manual No. 120-009-00, Revision B, dated January 10, 1990, or later FAA approved revision, or the E-69 systems in accordance with FAA-approved Onboard Systems Owner's Manual No. 120-022-00, Revision 8, dated March 2, 2010, or later FAA-approved revision, for the P/N 200-058-00, or FAA approved Onboard System Owner's Manual No. 120-114-00, Revision 4, dated January 20, 2011, or later FAA approved revision for the P/N 200-295-00.

Inspect and maintain the H-69 system in accordance with Section 4.6 of Onboard Systems Owners Manual No. 120-009-00, Revision B, dated January 10, 1990, or later FAA-approved revision; and the E-69 systems in accordance with Section 4 of Onboard Systems Owners Manual No. 120-022-00, Revision 8, dated March 2, 2010, or later FAA-approved revision for the P/N 200-058-00, or in accordance with Section 4 of Onboard Systems Owners Manual No. 120-114-00, Revision 4, dated January 20, 2011, or later FAA-approved revision for the P/N 200-295-00.

Limitations and Conditions continued:
Rotorcraft modified in accordance with this STC must be operated in accordance with an FAA approved copy of Onboard Systems Rotorcraft Flight Manual Supplement (RFMS). For H-69 systems, in Section 8 of Owner's Manual No. 120-009-00, the RFMS dated August 2, 1990; for E-69 system P/N 200-058-00, in Section 5 of Owner's Manual No. 120-022-00, the RFMS dated February 12, 1993; and for E-69 system P/N 200-295-00, the RFMS No. 121-024-00, Revision 2 dated November 6, 2013, or later FAA approved revision. A copy of this Certificate, FAA approved RFMS, and Maintenance Manual must be maintained as part of the permanent records of the modified rotorcraft.

-- END --

Any alteration of this certificate is punishable by a fine of not exceeding $1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.

FAA Form 8110-2-1 (10-69)

PAGE 3 OF 3 PAGES

Canadian Approval

Transport Canada Transports Canada

Department of Transport

Supplemental Type Certificate

This approval is issued to:

Onboard Systems
13915 North West 3rd Court
Vancouver, Washington
United States of America 98685

Number: SH97-29
Issue No.: 2
Approval Date: May 15, 1997
Issue Date: June 25, 2008

Responsible Office: Pacific

Aircraft/Engine Type or Model: AEROSPATIALE AS 350 B1, AS 350 B2, AS 350 BA, AS 350B, AS 350C, AS 350D, AS 350D1

Canadian Type Certificate or Equivalent: H-83

Description of Type Design Change: Installation of Onboard Systems Model H-69 or E-69 Cargo Hook Load Cell System

Installation/Operating Data, Required Equipment and Limitations:

Fabrication of either Onboard Systems Hydraulic Model H-69 (P/N 200-018-00) or Electronic Models E-69 (P/N's 200-058-00 and 200-295-00) Cargo Hook Load Cell Systems iaw FAA Approved Onboard Systems Master Drawing List No. 155-010-00, Revision 10, dated 15/06/2004*.

Installation of either the H-69 system iaw FAA approved Onboard Systems Owners Manual No. 120-009-00, Revision "B", dated 10/01/1990*, or the E-69 systems iaw FAA approved Onboard Systems Owners Manual No. 120-022-00, Revision 6, dated 28/01/2003* for the P/N 200-058-00, or FAA approved Onboard Systems Owners Manual No. 120-114-00, Revision 0, dated 15/06/2004* for the P/N 200-295-00.

Inspect the H-69 load cell iaw Section 4.6 of Onboard Systems Owners Manual No. 120-009-00, Revision "B", dated 10/01/90*, and the E-69 load cells in accordance with Section 4 of Onboard Systems Owners Manual No. 120-022-00, Revision 6, dated 28/01/2003* for the P/N 200-058-00, or iaw Section 4 of Onboard Systems Owners Manual No. 120-114-00, Revision 0, dated 15/06/2004* for the P/N 200-295-00.

(see Continuation Sheet)

Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated **will not** adversely affect the airworthiness of the modified product.

Michael Chan
For Minister of Transport

Canada

Canadian Approval continued

Transport Canada Safety and Security | Transports Canada Sécurité et sûreté

Supplemental Type Approval

(Continuation Sheet)

Number: SH97-29 Issue 2

NOTE: THIS ADDENDUM SHALL REMAIN PART OF THE SUPPLEMENTAL TYPE APPROVAL REFERRED TO THEREIN.

Required Equipment and Limitations:

Rotorcraft modified iaw this STC must be operated iaw a copy of one of the following FAA approved Rotorcraft Flight Manual Supplements (RFMS): for Model H-69 (P/N 200-018-00) the RFMS, dated 02/08/1990, in Section 8 of Document 120-009-00, for Model E-69 (P/N 200-058-00) the RFMS, dated 12/02/1993, in Section 5 of Document 120-022-00 and for E-69 (P/N 200-295-00) the RFMS Document 121-024-00, Revision 0, dated 13/08/2004*. A copy of this Certificate, Continuation Sheet No. SH1262NW, the appropriate maintenance manual and appropriate FAA approved Rotorcraft Flight Manual Supplement must be maintained as part of the permanent records of the modified helicopter.

(* or later FAA approved revisions)

- End -

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Canada

EASA STC

European Aviation Safety Agency

SUPPLEMENTAL TYPE CERTIFICATE

EASA.IM.R.S.01122

This certificate, established in accordance with Regulations (EC) No 1592/2002 and (EC) No 1702/2003 and issued to:

Onboard Systems
13915 NW 3rd Court
Vancouver
WA 98685
USA

certifies that the change in the type design for the product listed below with the limitations and conditions specified meets the applicable type certification basis and environmental protection requirements when operated within the conditions and limitations specified below:

Original Product Type Certificate number: *EASA.R.008*
Manufacturer: *EUROCOPTER*
Model: *AS 350 B, BA, B1, B2 and D*
Original STC Number: *FAA STC SH1262NW*

Description of Design Change:

Electronic Model E-69 Cargo Hook Load Cell System p/n 200-295-00, in accordance with Onboard Systems Master Drawing List n° 155-010-00, revision 10 dated 15/06/04 approved by FAA, or later FAA approved revision.

EASA STC continued

European Aviation Safety Agency

Associated Technical Documentation:

- Installation Instructions: Onboard Systems Owners Manual n° 120-114-00, revision 0 dated 15/06/04 approved by FAA, or later FAA approved revision ,
- Instructions for Continued Airworthiness: section 4 of Onboard Systems Owners Manual n° 120-114-00, revision 0 dated 15/06/04 approved by FAA, or later FAA approved revision,
- Operation: Flight Manual Supplement reference 121-024-00, revision 1 dated 14/06/2006 approved by FAA, or later FAA approved revision.

Limitations and Conditions:

1. The present STC is the validation of the FAA STC SH1262NW last amended on 15/03/05, limited to Eurocopter AS 350 B, BA, B1, B2, and D models.
2. The system covered by this STC can be installed on AS 350 helicopters equipped with Eurocopter sling systems, or on Eurocopter AS 350 B2 equipped with Eurocopter swing suspension systems p/n 350A86-1030-00 or 350A86-1030-01.
3. This STC is approved only for the product configuration as defined in the approved design data referred to in the paragraphs "Description" and "Associated Technical Documentation". Compatibility with other aircraft/engine configurations shall be determined by the installer.

This certificate shall remain valid unless otherwise surrendered or revoked.

For the European Aviation Safety Agency,
Date of Issue: 10th January 2007

Massimo Mazzoletti
Certification Manager
Rotorcraft, Balloons & Airships

STC- EASA.IM.R.S.01122 - Onboard Systems 2