

SERVICE BULLETIN

Subject: R66 Pin Load Cell Interference

Helicopters Affected: Robinson R66

Parts Affected: Kits installed under P/Ns & STC listed in Table 1*

Table 1 – Affected Part Numbers

Kit P/N	Description	FAA STC
200-381-00	R66 Cargo Hook Suspension Kit with Load Weigh	SR02447SE
200-381-10	R66 Cargo Hook Suspension Kit with Load Weigh & Surefire	SR02447SE
200-382-00	R66 Onboard Weighing System	SR02447SE

**This Service Bulletin is applicable to R66 cargo hook kits with a load weigh system installed (200-381-00, 200-381-10), OR to a system which will be or has been upgraded to include load weighing using the 200-382-00 kit.*

Compliance: Recommended.

Ownership: Please review this information and determine if the equipment is still in your possession. If the equipment is no longer in your possession, please forward this notice to the current owner, or to your customer, as applicable.

Description: Onboard Systems has been notified of interference between the R66 Pin Load Cell (P/N 210-301-01) and Gimbal Assembly (P/N 232-497-00). This interference prevents full travel of the cargo hook in the aft direction, and may cause wear or damage to the Pin Load Cell's cover.

This interference was inadvertently introduced into the R66 cargo hook kits when the second generation Pin Load Cell series (210-301-XX) was rolled out to several platforms to replace the original first generation Pin Load Cell series (210-226-XX).

Action: To comply with this bulletin, perform the following:

- 1) **Confirm interference.** Confirm interference in the cargo hook suspension system by pivoting the cargo hook to the aft direction as far as possible. If the 210-301-01 Pin Load Cell is installed with Gimbal 232-497-00, interference will be observed as in Figures 1 & 2.

Figure 1 – Unintended travel stop

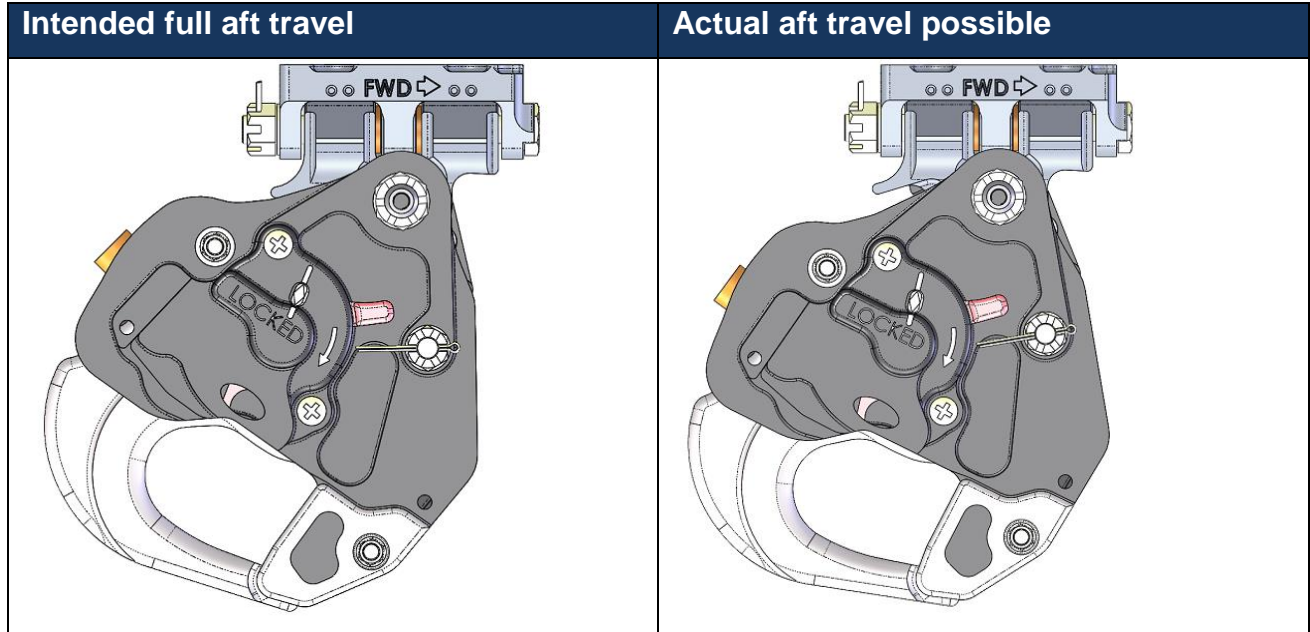
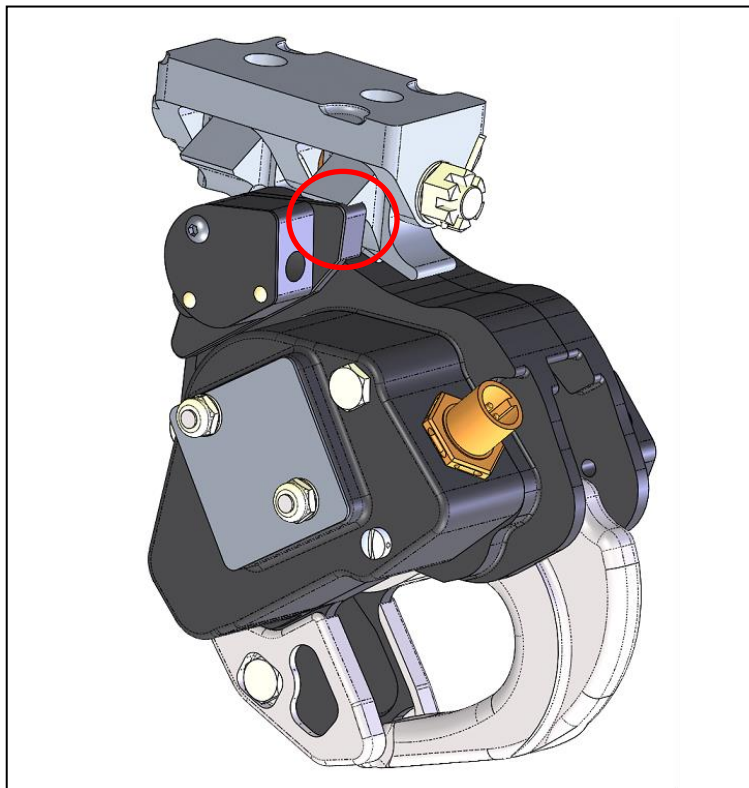


Figure 2 – Interference Location



- 2) **Remove & Replace Gimbal Assembly.** Remove & replace the Gimbal Assembly (P/N 232-497-00) with a redesigned version (P/N 232-497-01), which eliminates the interferences and restores free aft travel as intended.

Manpower: Approximately 1.5 man-hour(s) will be required.

Required Materials: See Table 2.

Table 2 - Materials

Part No.	Description	Quantity
232-497-01	Gimbal Assembly	1
510-081-00	Cotter Pin (MS24665-134)	1
510-178-00	Cotter Pin (MS24665-302)	1

Special Tools: None

Weight and Balance: Not affected

Electrical Load Data: Not affected

References: None

Publications Affected: The following publications can be downloaded from the company web site by visiting the following link:

<http://www.onboardsystems.com/document>

Owner's Manual: 120-206-00

ICA: 123-038-00

Contact Information: Technical support question regarding this bulletin can be addressed through the following contact methods:

Phone: 360-546-3072

Fax: 360-546-3073

E-mail: techhelp@onboardsystems.com

Web: <https://www.onboardsystems.com/support/technical>

Disposition of Parts Removed: Discard.

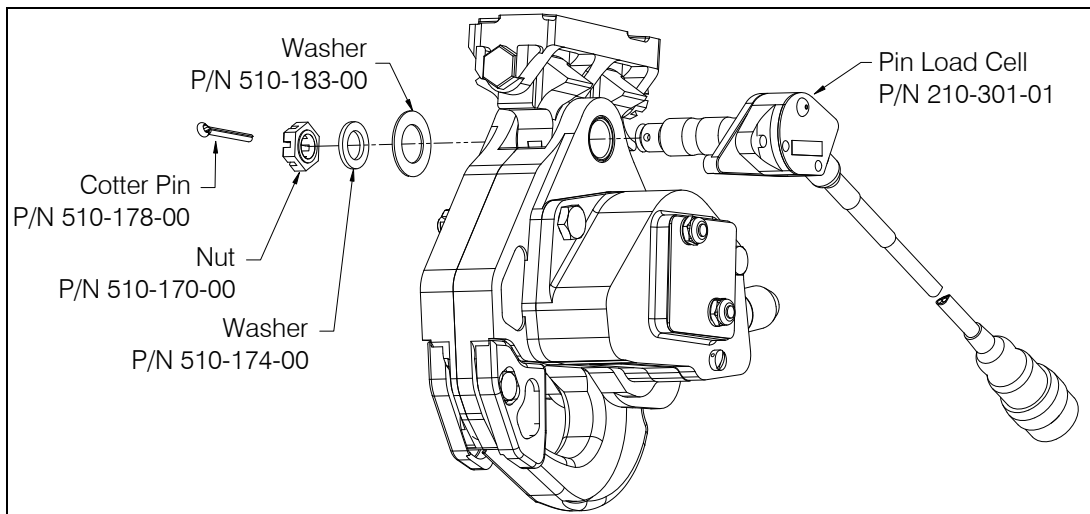
Material/Part availability: Contact Onboard Systems for availability of replacement parts.

Accomplishment Instructions:

Remove & replace Gimbal

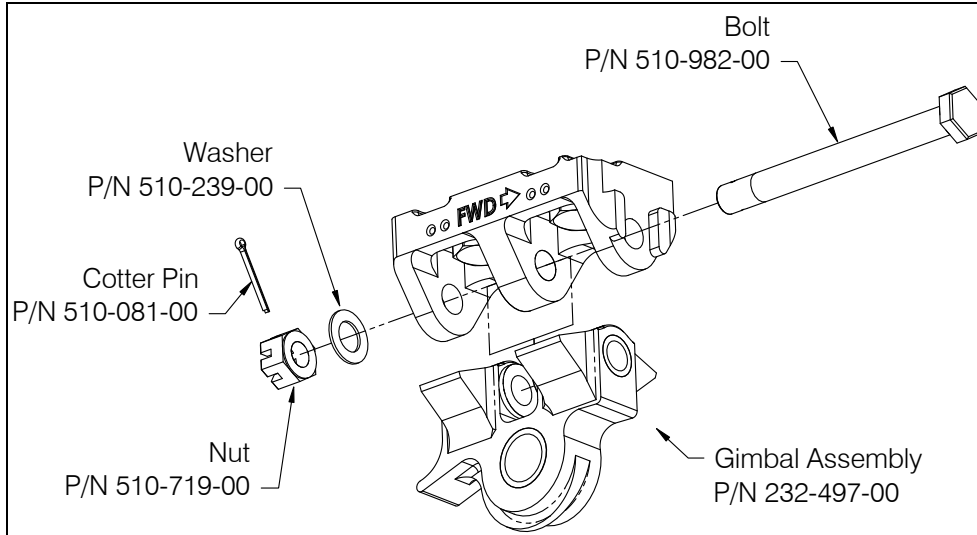
1. Disconnect the Electrical Release Harness (P/N 270-206-00) from the electrical connector at the Cargo Hook (P/N 528-029-00).
2. Disconnect the Cargo Hook from the Suspension Assembly (P/N 232-498-00) by removing the cotter pin (P/N 510-178-00) & Nut (P/N 510-170-00) which retain the Pin Load Cell Assembly (P/N 210-301-01). Separate the Pin Load Cell from the Cargo Hook. See Figure 3.

Figure 3 – Removal of Pin Load Cell



3. The Manual Release Cable (P/N 268-057-01) and Ground Strap (P/N 270-211-00) can be left attached to the Cargo Hook if the Cargo Hook can be temporarily supported to avoid straining them or the Belly Panel (P/N 235-234-00).
4. Remove the Gimbal Assembly (P/N 232-497-00) from the Suspension Assembly by removing Cotter Pin (P/N 510-081-00), Nut (P/N 510-719-00), Washer (P/N 510-239-00), and Bolt (P/N 510-982-00). See Figure 4.

Figure 4 – Removal of Gimbal Assembly



5. Install the replacement Gimbal Assembly (P/N 232-497-01) to the Suspension Assembly. Grease Bolt (P/N 510-982-00) using Mobilgrease 28 (or similar) before installing the Gimbal Assembly. The Bolt and Gimbal Assembly can only install in one orientation with respect to the Pillow Block (P/N 291-638-00). Install Washer (P/N 510-239-00) and Nut (P/N 510-719-00). Tighten nut until Cotter Pin (P/N 510-081-00) can be installed.
6. Re-install the Cargo Hook to the Suspension Assembly by reversing the steps in paragraph §2 (see also Figure 3). The Cargo Hook can only be installed in one orientation with respect to the Gimbal Assembly (which points the Cargo Hook Load Beam forward). Secure the Pin Load Cell with washers (P/N 510-183-00, P/N 510-174-00), Nut (P/N 510-170-00) and Cotter Pin (P/N 510-178-00). Tighten the Nut finger tight only.

CAUTION

Do not tighten nut on pin load cell more than finger tight. Over-tightening could damage load cell.

7. Re-install the Electrical Release Harness (P/N 270-206-00) to the Cargo Hook. Re-install Spiral Wrap (P/N 590-017-00) to the control cables, if removed previously.
8. Follow the Owner's Manual (120-206-00) instructions 'Installation Check-out' to complete the Installation and verify full, proper operation of the cargo hook system.
9. Make a logbook entry referencing compliance with this service bulletin.