



ONBOARD SYSTEMS  
INTERNATIONAL

13915 NW 3rd Court  
Vancouver, WA 98685  
USA

Phone: 360-546-3072  
Fax: 360-546-3073  
Toll Free: 800-275-0883

[www.OnboardSystems.com](http://www.OnboardSystems.com)

## SERVICE BULLETIN

Document No. 159-013-00, Rev. 0  
May 12, 2004

**Subject:** AS350 Swing Cracking.

**Helicopters Affected:** Eurocopter AS 350 series with Onboard Systems swing type suspension system installed. STC SR01164SE and SR01393SE.

**Compliance:** Alert

### **Description:**

The swing frame referenced above (weldment P/N 235-096-00) has had several incidences of cracks developing around the welds that join the small horizontal tubes with the main tubes. Please see attached photo for an example of typical size and location. These cracks have developed after 300-350 hook hours of logging and siezmic work. The cracks are slow growing and do not present an immediate safety concern, however the frame should be replaced within 8 flight hours after they appear. They will usually be accompanied by oil weeping from the crack as the tubes have a corrosion preventative oil inside.

An improved frame is under development. Until the new frame is approved, Onboard Systems will replace cracked frames at no cost with a new part number 235-096-00. When the new frame becomes available there will be an exchange program to replace the 235-096-00 frames.

This service bulletin contains instructions for inspecting for the cracks.

The actions required by this service bulletin are described below.

**Approval:** The engineering design aspects of this bulletin are FAA/DER approved.

**Manpower:** Inspection for cracks will take 0.1 man hours. Replacement of the frame will require 1.5 man-hours. Man-hours are based on hands-on time and may vary with personnel and facilities available. No machining operations are required. Installation consists of removing and replacing parts.

**Required Material:** None required

**Special Tools:** Not required

**Weight and Balance:** Not affected

**Electrical Load Data:** Not affected

**Publications Affected:** None

**Accomplishment Instructions:**

To be accomplished within 10 days of the release of this service bulletin and repeated every 8 hours of hook time.

1. Visually inspect frame welds for cracks. Pull plastic spiral wrap back as required to expose welds. If cracks are found replace frame within 8 flight hours. If cracks are longer than 20 mm replace frame immediately. Do not attempt to weld repair the cracks as the frames are heat treated and the welding will affect the heat treat. Also fusion of the crack would be nearly impossible due to the oil in the tubes.



Typical crack with corrosion preventative oil leaking out.