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

SERVICE BULLETIN

Document No. 159-009-00 Rev 0

December 16, 2002

Model affected: Bell 206L/407

Subject: Stress corrosion of Cargo Hook Suspension System Pillow Blocks.

Helicopters Affected: All aircraft with Onboard Systems part number 200-195-00 and 200-196-00 Cargo Hook Suspension Systems installed under STC SR00418SE, and part number 200-249-00 and 200-250-00 Cargo Hook Suspension Systems installed under STC SR00724SE.

The affected systems were manufactured prior to June of 2000. Aluminum with a more corrosion resistant temper was used after that date. The new improved Pillow Block P/N 290-371-01 can be identified by the number "7" stamped on the edge of the attaching flange near the aircraft skin. If the number 7 is not present it must be assumed that the pillow block is of the older design and is affected by this bulletin. If the number 7 is present, this bulletin does not apply.

Compliance: Mandatory: Part One prior to use of cargo hook; Part Two within 90 days after date of this bulletin.

Description: Under certain combinations of conditions, the subject suspension system can experience stress corrosion cracking at the attach Pillow Blocks P/N 290-371-00. The condition may occur when salt water or other contaminants migrate under the spherical bearings in the attach lugs. The chlorides in the salt water attack the intergranular structure of the aluminum and cause cracks to form. The cracks will start at the bearing hole and propagate outward through the attach lug. One known incidence of this has occurred in the field. The system had been in service for approximately three years in a salt-water environment. A crack completely through the attach lug was visually observed on one of the Pillow Blocks as it was removed for maintenance. Subsequent investigation revealed this was stress corrosion cracking.

Part One of this bulletin is a one-time dye penetrate inspection, and a weekly repetitive application of corrosion preventative compound and visual check until new pillow blocks are installed.

Part Two of this bulletin is replacement of P/N 290-371-00 pillow blocks with P/N 290-371-01 pillow blocks.

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

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

Manpower: Approximately .1 man-hour will be required to determine if your aircraft is affected. Removal and replacement of the Pillow blocks and bearings for pentrant inspection will require 2.0 man-hours. Replacement of the Pillow Blocks 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: The following material is required for accomplishment of this bulletin and may be obtained from Onboard Systems:

Qty 2 P/N 290-371-01 Suspension Pillow Blocks as required.

Special Tools: Penetrant inspection equipment or kit.

Weight and Balance: Not affected

Electrical Load Data: Not affected

References: TBD

Accomplishment Instructions Part One

This step is to be accomplished prior to external load operations.

1. Remove Pillow block assemblies from aircraft and push out spherical bearings. Refer to appropriate maintenance manual instructions.
2. Visually inspect pillow blocks for corrosion. Any exfoliation corrosion in or around the bearing bore is cause for rejection.
3. Penetrant inspect for cracks in or around bearing bore. If cracks are found, immediately replace with 290-371-01 Pillow Blocks. If no cracks are found reinstall bearings with wet zinc cromate primer.
4. Reinstall system on aircraft.
5. On a weekly basis, visually check attach lugs for cracks and apply ACF-50 or similar pentrating corrosion preventative compound to Pillow Blocks until parts are replaced with 290-371-01 pillow blocks.
6. Record compliance with Part One steps 1 through 4 and step 5 in the aircraft logbook as appropriate.

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

Accomplishment Instructions Part Two:

Part Two is to be accomplished if cracks or corrosion are discovered in Part One, within 3 months or at the next scheduled overhaul, whichever comes first.

1. Remove the Pillow Block Assemblies from the suspension system. Refer to appropriate maintenance manual.
2. Replace P/N 290-371-00 Pillow Blocks with 290-371-01 Pillow Blocks. The updated Pillow Blocks are made from a more corrosion resistant aluminum temper and are painted.
3. Reinstall suspension onto aircraft per maintenance manual instructions. Check manual and electrical release rigging.
4. Record compliance with Part Two in the aircraft logbook.