



A Textron Company

OPERATION SAFETY NOTICE

222-12-24
222U-12-20
12 April 2012

TO: All owners and operators of Models 222, 222B and 222U helicopters.

**SUBJECT: EMERGENCY PROCEDURES IN THE EVENT OF AN LTS101 SERIES
ENGINE POWER TURBINE GOVERNOR (PTG) FAILURE**

The following operation safety notice is issued to inform all model 222, 222B and 222U helicopter owners and operators of the following operational information letter, by Honeywell. OI LT101-04, provides a list of symptoms that may be associated with an engine power turbine governor malfunction. Furthermore, Bell Helicopter wishes to remind operators that the emergency procedures outlined in section III of the applicable 222 series flight manual still apply and must be followed in the event of an in-flight engine malfunction.

For any questions regarding this letter, please contact:

Bell Helicopter Product Support Engineering - Intermediate Helicopters
Tel: 450-437-2077 / 1-800-463-3036 / pseinter@bellhelicopter.textron.com



Honeywell Aerospace
111 S. 34th Street
P.O. Box 52181
Phoenix, AZ 85072-2181

OPERATIONAL INFORMATION LETTER

PLEASE DISTRIBUTE TO ALL AFFECTED
FLIGHT CREW MEMBERS & MAINTENANCE PERSONNEL

OI LT101-04
February 8, 2012

TO: All Owners/Operators, Airframe Manufacturers, Distributors, Sales and Service Organizations, and Field Service Representatives

APPLICATIONS: All LTS101 Engine Applications

PURPOSE: To provide (1) program information about power turbine governor (PTG) malfunctions that have been caused by spool bearing failures and (2) information by which operators can identify a malfunction during engine operation.

DISCUSSION: Several operators have reported a loss of engine power control that has been found to be due to spool bearing failures in the PTG. The spool bearing failures are attributed to contamination that was introduced during the bearing manufacturing process by Honeywell's supplier. Honeywell's ongoing investigation has determined that the recent increase in bearing failures probably involves bearings produced during a specific time period. Bearings manufactured during this time period have been removed from our inventories.

While final corrective action measures for the fleet are being developed, Honeywell has issued different service bulletins for single-engine and twin-engine applications. They require repetitive replacements of the spool bearings based on a prescribed drawdown schedule.

A Service Bulletin LTS101-73-20-0261, dated June 21, 2010, was issued for single engine applications. Honeywell Aerospace has continued to monitor PTG service reliability and fleet statistics to modify the drawdown schedules as appropriate. As a result, the drawdown schedule for single engine applications was reduced on August 23, 2011 through a Service Bulletin, LTS101-73-20-A0268, which was made mandatory through an Airworthiness Directive, AD 2011-23-13.

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Service Bulletin LTS101-73-20-0262, dated August 23, 2010, was issued for twin engine applications. Fleet statistics indicate that the risk for twin engine applications is at an acceptable level, and revision to the drawdown schedule for twin engine applications has been deferred. We anticipate that the twin engine service bulletin drawdown schedule may be revised in May 2012, based on reliability and fleet statistics.

RECOMMENDATIONS: While Honeywell addresses corrective actions, it is important that operators and pilots review the Flight Manual (FM) emergency procedures for their rotorcraft to refresh their training and understanding of engine governor malfunction.

The recommendations in this document are general in nature, and are intended only to supplement approved FM procedures. In cases of conflicting requirements, the FM should be the controlling document.

INDICATIONS: Operators should refer to the Flight Manual (FM) to address engine governor malfunctions that cause partial or complete engine power loss or uncommanded engine torque and speed increases. Operators should also be familiar with symptoms associated with deteriorating engine fuel control and power turbine governor performance as addressed in this document.

Symptoms of a PTG spool bearing malfunction or incipient failure may include:

- Uncommanded acceleration, overspeed or power loss
- Excessive N2 (Nr) fluctuations, instability or droop
- Inability to obtain maximum power or N1 (Ng) limiting
- Inability to adjust/set idle speed (N1)
- Abnormally high flight idle speed (N1)

Operators who observe such symptoms should suspect a power turbine governor malfunction and refer to the FM. Maintenance personnel should investigate and perform corrective action in accordance with applicable maintenance manuals.