



CIVIL AVIATION AUTHORITY  
CZECH REPUBLIC

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## AIRWORTHINESS DIRECTIVE

**Number: CAA-AD-023/2002R2**

Supersedes CAA-AD-023/2002R1

Date of issue: January 20, 2003

**ATR**

ATR 72

### AIRCRAFT - PROPELLERS - PITCH CHANGE SYSTEM COMPONENT (ATA 61) - REPLACEMENT

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**Applicability:** ATR 72-101, -102, -201, -202, -211, and -212 model aircraft.

**Effective date:** March 20, 2003

**Compliance:** Required as indicated in DGAC AD 2002-073-063(B) R2.

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*Remarks: The compliance of this AD must be recorded in Aircraft Logbook, where applicable the requirements of this AD must be integrated into Aircraft Technical Documentation. Address inquiries concerning this AD to: Civil Aviation Authority, Airworthiness Division, Ruzyně Airport, 160 08 Prague 6, Czech Republic, tel.: 420 2 33320922, fax: 420 2 20562270.*

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**CAA CZ**

**DGAC AD No.: 2002-073-063(B) R2**  
**ATR**  
**ATR 72 aircraft**

Propellers - Pitch change system component (ATA 61)

**1. APPLICABILITY:**

ATR 72-101, -102, -201, -202, -211, and -212 model aircraft.

**2. REASONS:**

During years 1999 and 2000, three cases of propeller pitch lock during final approach, have been experienced on ATR fleet. During two of these events the asymmetric power resulting from the propeller pitch lock was not recognized by the crew during landing and the aircraft veered off the runway after selection of reverse power while the "Low Pitch" condition was not effective for both engines.

On one case the investigation led on the suspected components of the propeller pitch control system showed significant anomalies on a Pitch Control Unit (PCU) servo ball screw. The hang up and the loss of efficiency noticed on the test bench are due to ball screw contamination. On aging PCU fitted on 14SF11/14SFL11/247F-1 Hamilton Sundstrand propellers, these anomalies could contribute to a pitch lock condition especially when they combine with another propeller component failure of the pitch control system.

The actions rendered mandatory by this Airworthiness Directive (AD) are intended to clean the ball screw in order to avoid a propeller pitch lock situation and reduced controllability of the aircraft during landing.

Revision 1 of this AD aims at clarifying the paragraph 3.

Revision 2 of this AD aims at specifying the TR number of the PCU Component Maintenance Manual (CMM) for 247F-1 propellers.

**3. COMPLIANCE:**

The following measures are rendered mandatory from the effective date of this AD at original issue:

- Before reaching 10,500 FH since new or since last Critical Parts Inspection (CPI),
- or in case of contamination,
- or in case of anomalies noted during Production Acceptance Tests (PAT),

perform, according to the temporary revision No. 61-6 of the PCU CMM 61-21-07, the ultrasonic cleaning of PCU servo ball screw installed on HAMILTON SUNDSTRAND 14SF11nor 14SFL11.

perform, according to the temporary revision No. 61-2 of the PCU CMM 61-21-15, the ultrasonic cleaning of PCU servo ball screw installed on HAMILTON SUNDSTRAND 247F-1 propellers.

**Note:** The actions mandated by this AD complete the prescriptions of the AD 2002-072-064(B).

**REF.:**

HAMILTON SUNDSTRAND CMM 61-21-07  
HAMILTON SUNDSTRAND CMM 61-21-15

This Revision 2 replaces AD 2002-073-063(B) R1 issued on MAY 15, 2002.

**EFFECTIVE DATES:**

Original AD and Revision 1: FEBRUARY 02, 2002  
Revision 2: JANUARY 18, 2003