

AIRWORTHINESS DIRECTIVE

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Inspection and/or modifications described below are mandatory. No person may operate a product to which this Airworthiness Directive applies except in accordance with the requirements of this Airworthiness Directive.

Translation of 'Consigne de Navigabilité' ref. : 2002-070-090(B) R1
In case of any difficulty, reference should be made to the French original issue.

ATR

ATR 42 aircraft

Propellers - Pitch change system component (ATA 61)

1. APPLICABILITY:

ATR 42-200, -300, and -320 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 14SF5 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.

3. COMPLIANCE:

The following measures are rendered mandatory from the effective date of this AD.

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

perform, according to the temporary revision No. 61-6 of the PCU Component Maintenance Manual 61-21-07, the ultrasonic cleaning of PCU servo ball screw installed on HAMILTON SUNDSTRAND 14SF5 propellers.

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Note: The actions mandated by this AD complete the prescriptions of the AD 2002-071-091(B).

REF.: HAMILTON SUNDSTRAND CMM 61-21-07.

| This Revision 1 replaces original AD 2002-070-090(B) dated January 23, 2002.

EFFECTIVE DATES :

| **Original AD and Revision 1 : FEBRUARY 02, 2002**