

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. : 2002-072-064(B) R1
In case of any difficulty, reference should be made to the French original issue.

ATR

ATR 72 aircraft

Engines - High pressure oil pump -
Pressure Regulating Valve (PRV) (ATA 79)

1. APPLICABILITY:

ATR 72-101, -102, -201, -202, -211, and -212 model aircraft except aircraft on which one of the ATR modifications 4371 or 3973 or 4437 has been embodied.

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.

A first measure has been to provide operators with enhanced operational procedures associated with reverse application. This has led ATR to revise the Airplane Flight Manual to add instructions that prohibit the crew from selecting the reverse position on the engines in the event of propeller asymmetric power. This AFM revision was mandated by AD 2000-437-052(B).

Extensive investigations were performed on the suspected components of the propeller pitch control system to isolate the root cause of the pitch lock issue. Performance anomalies were evidenced on two HP Oil Pump.

Based on the test results, these HP Oil Pump anomalies, when independently considered, would not lead to a propeller pitch lock. Nevertheless, the analysis of how the HP Oil Pump pressure regulating valves (PRV) fitted on the PW124B/127 is interacting with the propeller control systems shows that this equipment could be a contributing factor to a propeller pitch lock condition especially when associated with oil contamination.

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

Revision 1 of this AD aims at correcting the reference of one of the modifications which exempts from the applicability of this AD. Instead of modification 4473 it should have been red 4437.

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3. COMPLIANCE:

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

At the first opportunity and at the latest before June 30, 2004, replace all PRATT & WHITNEY CANADA PW124B and PW127 HP Oil Pump PRV's by PRV modified in accordance with PRATT & WHITNEY CANADA Service Bulletin 21570.

REF.: PRATT & WHITNEY CANADA Service Bulletin 21570.

| This Revision 1 replaces AD 2002-072-064(B) issued on January 23, 2002.

EFFECTIVE DATES :

| **Original AD : FEBRUARY 02, 2002**

Revision 1 : Upon receipt from MARCH 20, 2002