

AD Number: **CF-2015-01**
Issue Date: **20 January 2015**

AIRWORTHINESS DIRECTIVE

The following airworthiness directive (AD) may be applicable to an aircraft which our records indicate is registered in your name. ADs are issued pursuant to **Canadian Aviation Regulation (CAR) 521 Division X**. Pursuant to **CAR 605.84** and the further details of **CAR Standard 625, Appendix H**, the continuing airworthiness of a Canadian registered aircraft is contingent upon compliance with all applicable ADs. Failure to comply with the requirements of an AD may invalidate the flight authorization of the aircraft. Alternative means of compliance shall be applied for in accordance with **CAR 605.84** and the above-referenced **Standard**.

This AD has been issued by the Continuing Airworthiness Division (AARDG), National Aircraft Certification Branch, Transport Canada, Ottawa, telephone 613 952-4357.

Number:	CF-2015-01	Effective Date:	3 February 2015
ATA:	72/77	Type Certificate:	E-20
Subject:	Engine Indicating - Incorrect Engine Torque Indication		
Replacement:	Replaces European Aviation Safety Agency (EASA) AD 2014-0175, issued 25 July 2014.		
Applicability:	Pratt & Whitney Canada (P&WC) model PT6B-37A engines with pre-Service Bulletin (SB) 39092 configuration and serial numbers:		

PCE-PU0001, PU0004, PU0006, PU0008, PU0009, PU0010, PU0015, PU0016, PU0023, PU0025, PU0033, PU0034, PU0036 thru PU0055, PU0058 thru PU0063, PU0066, PU0068, PU0069, PU0070, PU0072 thru PU0087, PU0092, PU0096, PU0098, PU0099, PU0100, PU0101, PU0102, PU0105 thru PU0113, PU0121, PU0122, PU0125 thru PU0142, PU0144, PU0147 thru PU0161, PU0163 thru PU0167, PU0169 thru PU0209, PU0212, PU0213, PU0214, PU0216, PU0219 and PU0220.

Compliance: As indicated below, unless already accomplished.

Background: Five incidences of incorrect engine torque indication have been reported for PT6B-37A engine installations on AW119MKII helicopters. A lower than actual engine torque indication due to a faulty indication system, particularly on a helicopter being operated at max allowable torque (90 to 110%) range, may result in undetected over-torque condition.

Repeated over torque conditions that are undetected and consequently are not corrected in accordance with conditional inspection requirements of original equipment manufacturer (OEM) Instructions for Continued Airworthiness (ICAs), may have a negative impact on the operational safety of the aircraft. Investigation by P&WC has determined the root cause of subject torque indication anomaly to be the axial migration of part number (P/N) 3310433-03 bearings at the engine torque sensing gear location.

To address the subject bearing migration problem, P&WC has issued SB 39095, which as an interim mitigating action requires periodic inspection of the #10 bearing, until such time as the subject P/N 3310433-03 bearings are removed from affected in-service engines in accordance with SB 39092. This AD is issued to mandate compliance with SB 39092R4 and SB 39095R3.

Corrective Actions:

Part I – All affected engines

Within 50 hours air time from the effective date of this AD, check affected engines for bearing P/N 3310433-03 installation at #10 bearing location in accordance with P&WC SB 39095R3 accomplishment instructions, dated 29 December 2014, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

If P/N 3310433-03 bearing is installed, before next flight, comply with the applicable Part II or Part III of this AD.

Pursuant to **CAR 202.51** the registered owner of a Canadian aircraft shall, within seven days, notify the Minister in writing of any change of his or her name or address.

For all changes to your mailing address, contact your TC Regional Aircraft Registration office. Press 1 for English, 2 for Aircraft Registration and then select the appropriate region.

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Part II – For affected engines with 500 hours air time or less since new

Inspect bearing P/N 3310433-03 at #10 bearing location for axial migration, and rectify any noted discrepancy. Repeat the subject inspection for axial migration every 100 hours air time and once an engine has accumulated 500 hours air time, re-inspect every 200 hours air time and rectify as required, in accordance with P&WC SB 39095R3 accomplishment instructions, dated 29 December 2014, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Engines inspected in compliance with Required Action (1) of EASA AD 2014-0175, are considered compliant with initial inspection requirements of Part I, II and III of this AD.

Part III – For affected engines with more than 500 hours air time since new

Inspect bearing P/N 3310433-03 at #10 bearing location for axial migration, rectify any noted discrepancy and repeat the subject inspection for axial migration, every 200 hours air time and rectify as required, in accordance with P&WC SB 39095R3 accomplishment instructions, dated 29 December 2014, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Part IV - Replacement of bearing P/N 3310433-03 at #9 and #10 bearing locations

- A. For engine serial numbers: PCE-PU0192, PU0193, PU0201, PU0208, PU0209, PU0212, PU0213, PU0214, PU0216, PU0219 and PU0220 :

Within 450 hours air time or 42 months, whichever occurs first, from the effective date of this AD, verify and replace bearing P/N 3310433-03 at #9 and #10 bearing locations in accordance with P&WC SB 39092R4 accomplishment instructions, dated 29 December 2014, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

- B. For engine serial numbers: PCE-PU0001, PU0004, PU0006, PU0008, PU0009, PU0010, PU0015, PU0016, PU0023, PU0025, PU0033, PU0034, PU0036 thru PU0055, PU0058 thru PU0063, PU0066, PU0068, PU0069, PU0070, PU0072 thru PU0087, PU0092, PU0096, PU0098, PU0099, PU0100, PU0101, PU0102, PU0105 thru PU0113, PU0121, PU0122, PU0125 thru PU0142, PU0144, PU0147 thru PU0161, PU0163 thru PU0167, PU0169 thru PU0191, PU0194 thru PU0200, PU0202 thru PU0207 :

Before 42 months, from the effective date of this AD, verify and replace bearing P/N 3310433-03 at #9 and #10 bearing locations in accordance with P&WC SB 39092R4 accomplishment instructions, dated 29 December 2014, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Compliance with Part IV above constitutes the terminating action for this AD.

Compliance with earlier versions of SB 39092 prior to the effective date of this AD, meets the mandated requirement of Part IV of this AD.

Compliance with Required Actions (2) or (3) of EASA AD 2014-0175, meets the intent of Part IV requirement of this AD.

Authorization: For the Minister of Transport,

ORIGINAL SIGNED BY

Philip Tang
Acting Chief, Continuing Airworthiness

Contact: A. K. Durrani, Continuing Airworthiness, Ottawa, telephone 613-952-4357, facsimile 613-996-9178 or e-mail AD-CN@tc.gc.ca or any Transport Canada Centre.