



AIRWORTHINESS DIRECTIVE

This Airworthiness Directive (AD) is issued pursuant to Canadian Aviation Regulation (CAR) 521.427. No person shall conduct a take-off or permit a take-off to be conducted in an aircraft that is in their legal custody and control, unless the requirements of CAR 605.84 pertaining to ADs are met. Standard 625 - Aircraft Equipment and Maintenance Standards Appendix H provides information concerning alternative means of compliance (AMOC) to ADs.

Number:

CF-2015-29

Effective Date:

21 December 2015

ATA:

79, 63

Type Certificate:

H-103, H-107

Subject:

Cracking of Oil Check Valve

Applicability:

Bell Helicopter Textron Canada (BHTC):

Model 427 helicopters, serial numbers (S/N) as noted in the Corrective Action section,
Model 429 helicopters, S/N as noted in the Corrective Action section.

Compliance:

As indicated below, unless already accomplished.

Background:

Check valve with part number (P/N) 209-062-520-001 has been found cracked or leaking on several occasions. The check valve is used in the lubrication systems for the main rotor transmission and engines of the model 429 helicopter. The valve was supplied as a replacement spare part for use in the engine lubrication systems of the model 427 helicopter.

Loss of lubrication may cause catastrophic failure of the transmission or the engine, which could result in loss of control of the helicopter.

Corrective Actions:

- A. For the model 427 helicopter serial numbers 56001 through 56084 and 58001 through 58002:
1. Within 25 hours air time or 30 days, whichever occurs first, from the effective date of this AD, complete a one-time check valve inspection for condition and manufacturer/date code verification in accordance with BHTC Alert Service Bulletin (ASB) 427-15-37, dated 4 September 2015, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada. If a cracked or leaking valve is found, replace the valve prior to next flight.
 2. Within 30 days of completion of corrective action A.1. above, replace any installed oil check valve P/N 209-062-520-001 if the valve was manufactured by Circor Aerospace, is marked "Circle Seal" and has a manufacturing date code 10/11 (October 2011) through 03/15 (March 2015). Replace the valve in accordance with Part II of BHTC ASB 427-15-37, dated 4 September 2015, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
- B. Model 429 helicopters serial numbers 57001 through 57079 require Actions B.1 and B.2 of the following section of this AD. S/N 57080 through 57149, 57151 through 57156, 57159 through 57169, 57171 through 57197, 57199 through 57201, 57203, 57206, 57207, 57209 through 57214, 57219 through 57221, 57223, 57224, 57226, 57230, 57231, 57238, 57239 require Actions B.1, B.2 and B.3 of the following section of this AD:

1. Within 25 hours air time or 30 days, whichever occurs first, from the effective date of this AD complete a one-time check valve inspection for condition in accordance with BHTC ASB 429-15-23 Revision A, dated 10 September 2015, or later revision approved by the Chief, Continuing Airworthiness, Transport Canada. If a cracked or leaking valve is found, replace the valve prior to next flight.
 2. Within 60 days from the effective date of this AD, replace the in-line transmission oil check valve with new check valve P/N 209-062-520-001 identified with letters "TQL" as illustrated in Detail D of BHTC ASB 429-15-23. Replace the valve in accordance with Part II of BHTC ASB 429-15-23 Revision A, dated 10 September 2015, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
 3. Within one year from the effective date of this AD, replace both engine oil check valves with new check valves P/N 209-062-520-001 identified with letters "TQL" as illustrated in Detail D of BHTC ASB 429-15-23. Replace the valves in accordance with Part II of BHTC ASB 429-15-23 Revision A, dated 10 September 2015, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
- C. As of the effective date of this AD, no person shall install oil check valve P/N 209-062-520-001 in any model 427 or 429 helicopter if the valve was manufactured by Circor Aerospace, is marked "Circle Seal" and has a manufacturing date code 10/11 (October 2011) through 03/15 (March 2015).

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Robin Lau
Acting Chief, Continuing Airworthiness
Issued on 7 December 2015

Contact:

Ross McGowan, Continuing Airworthiness, Ottawa, telephone 1-888-663-3639, facsimile 613-996-9178 or e-mail AD-CN@tc.gc.ca or any Transport Canada Centre.