
AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/GBK 117/32 and issues the following AD under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Kawasaki BK 117 Series Helicopters

AD/GBK 117/32
Amdt 1

Tail Rotor Gearbox Bevel Gear

10/2009
DM

Applicability: Kawasaki BK117 C-2 helicopters.

- Requirement:
1. Determine the serial number (S/N) of the bevel gear part number (P/N) 4639 310 065 installed in the Intermediate Gear Box (IGB) in accordance with Kawasaki Service Bulletin No. KSB-117-307A (hereinafter referred to as the SB).
 2. If, as a result of the inspection detailed in Requirement 1 of this AD, no bevel gear with one of the S/Ns listed in Table 1 of the SB is installed, no further action is required by this AD.
 3. If, as a result of the inspection detailed in Requirement 1 of this AD, a bevel gear with one of the S/Ns listed in Table 1 of the SB is installed, the associated reduced life limit must be entered into the list of life-limited parts and in the log card of the IGB in accordance with the instructions of the SB.
 4. If, as a result of the inspection detailed in Requirement 1 of this AD, a bevel gear which has already exceeded its reduced life limit is found, the bevel gear must be replaced with a serviceable one in accordance with the instructions of the SB.

The use of later JCAB approved revisions of the referenced SB is acceptable for compliance with the requirements of this AD.

Note: JCAB AD TCD 7494-1-2009 refers.

Compliance: For Requirements 1 and 4 - Before further flight after the effective date of this AD, unless previously accomplished.

For Requirement 3 - From the effective date of this AD.

This Amendment becomes effective on 27 August 2009.

Background: During a recent review of the production documents for the bevel gears of the IGB for the ECD MBB BK117 C-2 helicopter, it was discovered that certain production batch numbers have tooth foot fillets below the required minimum values that would ensure the approved life limits for this part.

Kawasaki BK 117 Series Helicopters

AD/GBK 117/32 Amdt 1 (continued)

The Kawasaki BK117 C-2 helicopter uses the same gear P/N from the same S/N batch as the MBB BK 117 C-2 helicopter.

This condition, if not corrected, could lead to a significant reduction of the lifetime of IGB bevel gears, potentially resulting in failure of the IGB and consequent loss of control of the helicopter. This AD requires a one-time inspection to determine if one of the affected bevel gears is installed. If an affected bevel gear is installed, this AD also requires the revision of the life limit in the aircraft maintenance program, in accordance with Kawasaki Service Bulletin No. KSB-117-307A.

This amendment mandates Rev A of the referenced SB. The revision adds additional serial numbers to the list of affected bevel gears.

The original issue of this AD becomes effective on 27 August 2009.



James Coyne
Delegate of the Civil Aviation Safety Authority

30 July 2009