

Certification Memorandum

Post Certification Actions to Verify the Continued Integrity of Rotorcraft Critical Parts

EASA CM No.: CM-S-007 Issue 02 issued 01 APR 2026

Regulatory requirement(s): CS 27./29.602

EASA Certification Memoranda clarify the European Union Aviation Safety Agency's general position on specific initial airworthiness, validation, continuing airworthiness or organisational items. They are intended to provide guidance on a particular subject and may provide complementary information for compliance demonstration, similar to AMC/GM even if not formally adopted through an ED Decision. Certification Memoranda are not intended to introduce new certification requirements or to modify existing certification requirements.



Log of issues

Issue	Issue date	Change description
01	19.08.2015	First issue.
02	01.04.2026	<p>The guidance material was modified to improve clarity, and in particular:</p> <ul style="list-style-type: none"> • The scope of applicability is clarified • Examples of certification assumptions are provided <p>An example of a CIVP plan for examples of certification assumptions is provided</p>

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1. Identification of Issue

1.1. Purpose and scope

The purpose of this Certification Memorandum is to supplement the existing guidance for compliance with CS 27/29.602 – Critical Parts, detailing the need for post certification actions to verify the continued integrity of critical parts. These actions should ensure that critical parts are controlled throughout their service life in order to maintain the critical characteristics on which certification is based. In addition, the effectiveness of any associated design, maintenance and monitoring provisions, which either help ensure the continued integrity or provide advance indication of impending failure of critical parts, should be assessed. The CM-S-007 issue 2 has limited the applicability of CIVP to critical parts (compared to issue 1). This is an interim action prior to the publication of the policy related to CIVP that will be defined as part of RMT.0752 where the applicability will be also assessed through an impact assessment.

1.2. Background

Service experience has shown that assumptions made during certification regarding the influence of environmental and operational threats upon critical parts may not always be valid or remain valid throughout the operational life of the product. In addition, the effectiveness of maintenance actions at both component and aircraft level can also be reduced when compared to that expected at the time of certification. To accumulate significant operational experience without verifying the continued integrity of these components could result in extended exposure to unforeseen degraded safety margins. Accordingly, this CM is intended to propose a process for review of certification assumptions relating to critical parts, including the effectiveness of design, maintenance and monitoring provisions, periodically throughout the life of the helicopter type.

2. Applicability

This Certification Memorandum is applicable to Small Rotorcraft (CS-27) and Large Rotorcraft (CS-29). The following listing outlines requirements to be considered for CIVP.

Requirement	Title
CS 27/29.602	Critical parts

3. EASA Certification Policy

(a) Introduction: As part of the process of compliance with CS 27/29.602 the applicant should develop and perform a “Continued Integrity Verification Programme” (CIVP).

(b) Objectives:

AC 27-1B (AC 27.602 § 27.602 CRITICAL PARTS) and AC 29-2C (AC 29.602 § 29.602 CRITICAL PARTS) state that: *“The objective of identifying critical parts is to ensure that **critical parts are controlled during design, manufacture, and throughout their service life** so that **the risk of failure in service is minimized** by ensuring that the critical parts **maintain the critical characteristics on which certification is based.**”* and that *“[...] the term ‘critical characteristic’ means any dimension, tolerance, finish, material, or any manufacturing or inspection process, or other feature which cannot tolerate variation from type design requirements and, if nonconforming, would cause failure of the critical part.”*

In this context, the CIVP supports the continued validity of assumptions made during certification that could affect the integrity of critical parts.

It should address the effectiveness of design, ICA and monitoring provisions developed to comply with CS-27/29 requirements.

Important note: The CIVP should not be considered as a means to replace CS-27/29 compliance demonstration. Therefore, the applicant should demonstrate compliance to all applicable certification specifications and take a conservative approach whenever assumptions are necessary.

(c) Procedures:

(1) For compliance demonstration at the time of certification, the applicant should:

- (i) Identify the critical parts for which verification of certification assumptions should be carried out in-service.
 - (A) Particular attention should be paid to the critical parts of the rotors, rotor drive systems, rotor control mechanisms and primary flight controls, and parts with novelties (e.g novel design features, technologies or applications).
 - (B) Should the applicant justify that sufficient experience already exists for some parts such that an assessment within the CIVP would be of limited benefit, these need not be included in the CIVP.
 - (C) The CIVP could also be used on a voluntary basis for parts other than critical parts. In such a case, the selected parts should be separated from the others in the CIVP documentation.
 - (D) Examples of certification assumption to be verified in service through a CIVP could include:
 - Failure modes, degradation mechanisms, fatigue and damage tolerance aspects:
 - Location, occurrence, severity, extent, growth rate, and type of damages (e.g. scratch, impact, corrosion, wear, fretting, tightening torque, spalling, crack, disbonding).
 - Effectiveness of monitoring means and ICAs:
 - Such as chip detection systems, HUMS, lubrication system monitoring means and/or continuing airworthiness tasks, when these help ensuring the continued integrity of the involved critical parts.
 - Operations
 - Type of operations.
 - Usage spectra.
 - Environmental conditions.
- (ii) Develop a plan to verify the identified certification assumptions (CIVP Plan). This plan should include the activities to be performed, the participants (e.g. operators) and the schedule. (See example in Appendix A)
- (iii) On a case by case basis, regular reporting to the certification authority and/or validation authority on the CIVP results should be agreed.

(2) Following entry into service the applicant should:

- (i) Write a CIVP Report to record the information related to the activities performed as per the CIVP Plan.
- (ii) Perform a detailed evaluation of the potential impact on flight safety in case any findings during the CIVP that may question the validity of the certification assumptions. When a



potential unsafe condition is identified, report to the competent authority for continued airworthiness.

- (iii) Report the CIVP results to the certification authority and/or validation authority as per the agreement reached at the time of certification/validation.

4. Supporting Data

4.1. References

It is intended that the following reference materials be used in conjunction with this Certification Memorandum:

Reference	Title	Code	Issue	Date
[1]	Certification Specifications and Acceptable Means of Compliance for Small Rotorcraft CS-27	CS-27	Initial Issue and all subsequent amendments	14 Nov. 2003
[2]	Certification Specifications and Acceptable Means of Compliance for Large Rotorcraft CS-29	CS-29	Initial Issue and all subsequent amendments	14 Nov. 2003
[3]	Certification of Normal Category Rotorcraft	FAA AC 27-1B	Changes 1 - 7	4 Feb. 2016
[4]	Certification of Transport Category Rotorcraft	FAA AC 29-2C	(Changes 1 - 7 incorporated)	4 Feb. 2016

4.2. Abbreviations

AC	Advisory Circular
CIVP	Continued Integrity Verification Programme
CM	Certification Memorandum
CS	Certification Specification
EASA	European Aviation Safety Agency
FAA	Federal Aviation Administration
FH	Flight Hours
HUMS	Health and Usage Monitoring System
ICA	Instructions for Continued Airworthiness
MGB	Main Gear Box



TBO	Time Between Overhauls
TCH	Type Certificate Holder
TGB	Tail Gear Box

5. Remarks

For any question concerning the technical content of this EASA Certification Memorandum, please contact:

Name, First Name: Mignot; Louis

Function: Transmissions and Structures Expert

E-mail: louis.mignot@easa.europa.eu



Appendix A

Example of a CIVP plan (Note: All numbers are just examples and should not be taken as reference or guidance):

Part identification			Certification assumption addressed in CIVP	Data to be collected and evaluated for the CIVP	
System	Part name (number of parts per system)	Part reference		What	When and How many
MGB	Pinion A (x2)	AAA	No corrosion	Visual check for presence of corrosion	<ul style="list-style-type: none"> - At initial TBO (e.g. 1000 FH): 10 aircrafts from at least 2 different operators including one operating in corrosive environment - At extended TBO (e.g. 2500 FH): 10 aircrafts from at least 2 different operators in corrosive environment - At TBO objective (e.g. 5000 FH): 10 aircrafts from at least 2 different operators in corrosive environment
Main rotor	Bolted connection (x1 bolt)	BBB	Maximum 50% of loss of tightening torque	Tightening torque check	<ul style="list-style-type: none"> - At 15 FH (installation inspection): 10 aircrafts - At 500 FH (dedicated check for CIVP): 10 aircrafts - At 1000 FH (targeted inspection interval): 10 aircrafts
MGB	Planet gear bearings (x6)	CCC	Failure mode by spalling of the inner race or rolling elements detected by chip detection before reaching advanced spalling condition	Bearing detailed inspection including: <ul style="list-style-type: none"> - Identification of degradations - location of the potential degradation (races, rolling elements) 	In case of chip detected by the chip detection system accumulated within the first 100,000 FH of the fleet: <ul style="list-style-type: none"> - At initial TBO (1000 FH): 10 aircrafts from at least 2 different operators - At extended TBO (2500 FH): 10 aircrafts from at least 2 different operators



				<ul style="list-style-type: none"> - characterisation of the degradation (e.g. surface, depth and volume of spalling) - in case of spalling of the outer race, evaluation of the potential presence of sub-surface cracks by destructive evaluations 	<p>At TBO objective (5000 FH): 10 aircrafts from at least 2 different operators</p>
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