Civil Aviation Authority

AIRWORTHINESS DIRECTIVE

Number: G-2022-0001

Issue date: 24 January 2022

This Airworthiness Directive (AD) is issued by the UK Civil Aviation Authority (CAA) in accordance with article 39(1) of the Air Navigation Order 2016, as amended, acting as the Competent Authority of the State of Design for the affected product(s), under Article 39 of the Air Navigation Order 2016 (ANO). No person may operate an aircraft to which this AD applies, except in accordance with the requirements of this AD, unless otherwise specified or agreed by the CAA.

Type Approval Holder's Name:	**Type/Model Designation(s):**
AUTOGYRO CERTIFICATION LIMITED (formerly RotorSport UK Limited)	Cavalon Pro gyroplanes

Effective Date:	07 February 2022
TCDS:	BG07
Foreign AD (if applicable):	Not applicable
Superseding AD:	Not applicable

ATA 62 – Main Rotor(s) – Rotor Blade – Inspection / Replacement /Life-Limitation Amendment

Manufacturer(s):

AutoGyro Certification Limited (AGC) (formerly RotorSport UK Limited).

Applicability:

Cavalon Pro gyroplanes all models and all serial numbers.

Definitions:

None.

Reason:

The CAA has been advised of two different crack mechanisms that are occurring on rotor blades on AGC gyroplanes equipped with Rotor System II.

1. Longitudinal (i.e. spanwise) cracks from the root to the second bolt hole have been found on the top surface of rotor blades on a MTOsport equipped with Rotor System II, including the Cavalon Pro.

   Due to similarity of design, this condition may also affect other gyroplanes types from AGC with Rotor System I or Rotor System II.

2. A crack and fretting have been found at the outer attachment bolt hole of a rotor blade of a RotorSystem II installed on an MTOsport gyroplane.

Due to similarity of design, this condition may also affect other gyroplanes types from AGC equipped with Rotor System I or Rotor System II, including the Cavalon Pro.

Cracks in the rotor blades may result in loss of the blade and consequent loss of control of the gyroplane.

This AD has been raised to check the hours of the rotor systems installed on affected gyroplanes, align the inspection programme to the new life limits and inspection intervals, check the rotor blades for evidence of corrosion and/or cracks and replacement as required.

Required Action(s) and Compliance Time(s):

Compliance is required as follows, unless previously accomplished:

1. Before further flight from the effective date of this AD, in accordance with AGC Service Bulletin (SB) SB-144 Issue 1 dated 19 August 2021:
   a. Check accumulated flight hours of the installed Rotor System;
   b. Align maintenance inspections with new life limits, and
   c. Perform required actions, including inspection in accordance with the Aircraft Maintenance Manual (AMM) as identified in SB-144. If, during this inspection, any crack is detected, replace the affected part with a serviceable part before further flight and return the affected part(s) to AGC.

   Additional guidance on rotor blades inspections can be found on AGC Service Information Letter (SIL) SIL-028 Issue 1 dated 17 June 2019.

2. Report any anomalies found during the inspections in paragraph 1 to both AGC and the CAA.

   This can be accomplished by using Appendix 1 (Inspection Results Form) of this AD and the contact information found on that Form.

Reference Publications:

AGC Service Bulletin SB-144 Issue 1 dated 19 August 2021.

AGC Service Information Letter (SIL) Issue 1 dated 17 June 2019 (guidance only).

The use of later approved revisions of the above documents is acceptable for compliance with the requirements of this AD.

Remarks:

1. The safety assessment has warranted immediate publication and notification without implementing the full consultation process.
2. Info about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the CAA aviation safety reporting system Occurrence reporting | UK Civil Aviation Authority (caa.co.uk). This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.
3. Enquiries regarding this AD should be referred to: GA@caa.co.uk.
4. For any question concerning the technical content of the requirements in this AD or the reference publications, please contact: AutoGyro Certification Limited, Poplar Farm, Prolley Moor, Wentnor, Bishops Castle, SY9 5EJ, England. Email: compliance@rotorsport.org.

Appendix 1

Inspection Results Form			
E-mail completed to: compliance@rotorsport.org and GA@caa.co.uk SUBJECT LINE: AD G-2022-0001		Or mail to: AutoGyro Certification Limited Poplar Farm, Prolley Moor, Wentnor Bishops Castle, Shropshire, SY9 5EJ, England and Civil Aviation Authority / General Aviation Unit Aviation House, Gatwick Airport South, West Sussex, RH6 0YR, England	
Include photos, if applicable			
Aircraft Type/Model: (i.e. MTOsport)		Aircraft Serial Number:	
RotorSystem Total Flight Hours:		Registration:	G-
RotorSystem Type: (i.e. RotorSystem II)		Rotor Blades Serial Numbers: Note: include both rotor blades serial numbers.	
Inspection Results		**Inspector's Comments**	
Rotor bolt hole(s) crack(s) found? ☐ Yes ☐ No	If positive, provide more details on location(s), dimensions, etc.		
Rotor bolt hole(s) fretting found? ☐ Yes ☐ No	If positive, provide more details on location(s), dimensions, etc.		
Rotor blade longitudinal crack(s) found? ☐ Yes ☐ No	If positive, provide more details on location(s), dimensions, etc.		
Inspector's Information			
Name (print):		Signature:	
Certificate No.:		Date:	