

BRITISH TECHNICAL NEWS SHEET

TNS issue 1-2024

23rd September 2024

CAA and EASA Airworthiness Directives (ADs) all owners notified.

1 Aircraft Flight Manual – Amendment

EASA AD 2024-0017

Mandatory

https://ad.easa.europa.eu/ad/2024-0017

MDM-1 "Fox" and MDM-1P "Fox-P" sailplanes, all serial numbers. Accidents of MDM-1 sailplanes have been reported, where the sailplanes crashed during aerobatic flights. The following investigations concluded that pilots did not manage to recover from spin. It has been also determined that, the information about sailplane different response to different ways of entering the spin (it behaves differently in dynamic or "snap" initiation than when a spin is initiated with minimum airspeed), was not provided in the FM. This condition, if not corrected, could lead to pilots' inability to recover from spin, possibly resulting in loss of control of the sailplane. To address this potential unsafe condition, ZLMM revised the FM, including, among others, an improved description of sailplane behaviour in stall and spin, and amended recovery procedures, and issued the SB, as defined in this AD, which provides instructions for implementation of revisions to the applicable FM. For the reasons described above, this AD requires amendment of the FM.

2 Canopy Locking Mechanism – Modification https://ad.easa.europa.eu/ad/2024-0059

EASA AD 2024-0059

Mandatory

Duo Discus, Nimbus-4D sailplanes, Duo Discus T, Nimbus-4DT/DM powered sailplanes. Occurrences were reported of Duo Discus and Nimbus sailplanes canopy opening during aerotow. The investigation concluded that the fuselage could be temporarily deformed due to forces related to acceleration. That deformation could allow the locking mechanism to move into the open position. In another occurrence, investigation could not conclude if the canopy was correctly locked, or remained unlocked, unnoticed by the crew (the handle in locked position but not connected with the fuselage pins). The fatal accident, which occurred in 2023, has again highlighted that the risks associated with inadequate design still exist, and that there is a need for improvement. These conditions, if not detected and corrected, could lead to the canopy opening in flight, potentially resulting in loss of control of the sailplane. In 2004 and 2005 Schempp-Hirth issued the TN (later revised) to provide modification instructions. Those TN have been identified as proper solution in response to the potential unsafe condition described above. For the

3 Reciprocating Engine – Inspection

EASA AD 2024-0111

Mandatory

https://ad.easa.europa.eu/ad/2024-0111

Lycoming Engines and Continental Aerospace Technologies. As far as we are aware in the BGA fleet this could only apply to Lycoming 360 and 540 engines.

reasons described above, this AD requires modification of the canopy locking mechanism

4 DG Elevator inspection/replacement

EASA AD 2024-0126

Mandatory

https://ad.easa.europa.eu/ad/2024-0126

Apart from the early DG100 with the all-flying tailplane, the DG100/200/300/400 all need to have the elevator fittings replaced. All the other later variants require inspection and replacement if required.

5 PA25 wing spar inspection

ANAC (Argentina) AD RA N° 2024- 05-01

Mandatory

https://ad.easa.europa.eu/ad/RA-2024-05-01

EASA position https://ad.easa.europa.eu/blob/EASA Position on RA-2024-05-01.pdf/AD RA-2024-05-01_2 CAA AD extension https://www.caa.co.uk/our-work/publications/documents/content/ors4-no-1609/

EASA have just issued this AD that was originally issued by Argentina ANAC (they are now the state of design) in July. This AD replaces a previous 2023 ANAC AD that mandated a spar corrosion inspection. Because the Service Bulletin mandated by the most recent AD is still only available in Spanish, the Eddy current testing is extremely vague and technically we are not allowed to use non-CAA/EASA/FAA released parts, the AD is currently causing challenges. The CAA have been very engaged and issued a temporary extension on all things associated with the Eddy Current inspection (but not the corrosion check) while we obtain the relevant data.

CAA Safety Directive

6 Piston aircraft with forward mounted piston engine. Safety Directive Number: SD-2024/001V2 Mandatory https://www.caa.co.uk/publication/download/22825

The CAA have mandated that all piston aircraft with a front mounted piston engine on the fuselage must have some form of electronic carbon monoxide alarm. There are some exceptions. Read the document thoroughly.

7 Slingsby T65 Vega all variants. CAA Certificate of Airworthiness replacement Mandatory

The CAA have contacted all T65 Vega owners (using the contact details on Ginfo) inviting them to get a new restricted CAA C of A to replace the old full C of A. You do not need a current annual\ARC to do this. This is CAA process and not a BGA process. The form is unusually simple and costs £59 (to the CAA). The deadline for the application is 25th January 2025.

In 2007/8 when they were transitioned into EASA, the plan was that they would be supported by Hunting who had bought Slingsby previously. However, this did not last long, and it soon become unsupported. The aircraft was declared an Orphan by EASA/CAA and given Special Airworthiness Specification. (SAS).

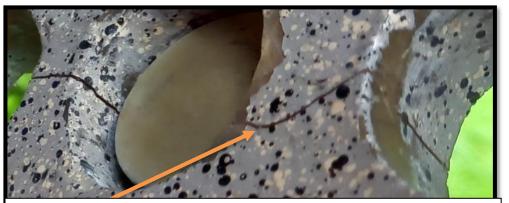
When this happened the original Full C of A should have been replaced by a restricted C of A. The CAA are now updating the C of A documents to make them compliant. The other issue is that the T65 Vega TCDS (BG3) made no mention of 17m, C and D variants. A lot of work has been done behind the scenes and its likely the TCDS will be updated in the future (the BGA will inform you when this happens)

Safety Information

8 Allstar SZD 50 Puchacz rear seatback support cracks This will become an EASA AD Mandatory

https://www.youtube.com/watch?v=IO08vZqNkuY

All owners were notified of this and the repair scheme. We found many broken seat-back supports (port side of fuselage). Do not make your own repair scheme. Allstar are working on an AD and have supplied a repair scheme



These cracks open up when the metal bar is inserted and lightly flexed.

that should comply with the AD when published. Contact me for the official repair scheme if required. The repair should look something like the image below.

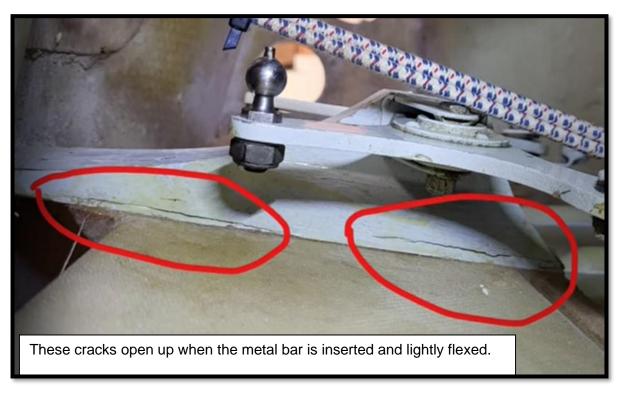


9 ASW15 airbrake wooden support bracket in the fuselage

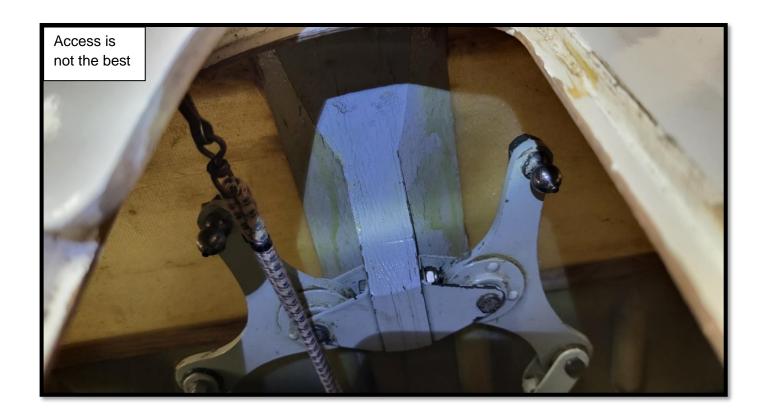
Advisory

https://www.youtube.com/watch/QmkBx2pZifU

The video and images show the problem. We have had 2 reports of a lose or broken wooden block. Access to repair



it properly is not great!
Please
report any problems to the BGA so we can monitor this possible trend.

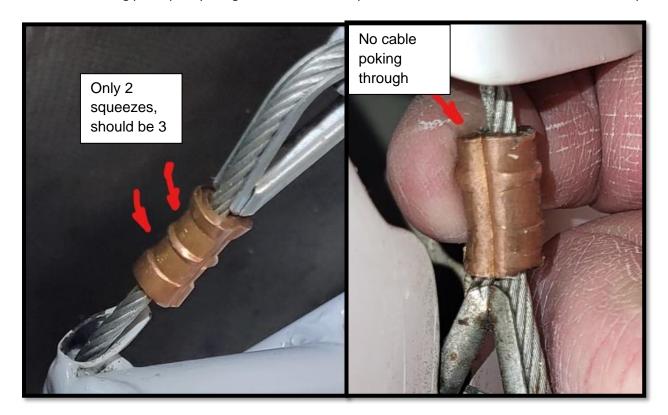


10 Nico press cables swages not fitted in accordance with the AD

Mandatory

https://youtu.be/WYol506eHew?si=XLlkKE9pUAM7mghl

We are still finding poor quality swages that should be replaced. All of these cables should have been replaced.

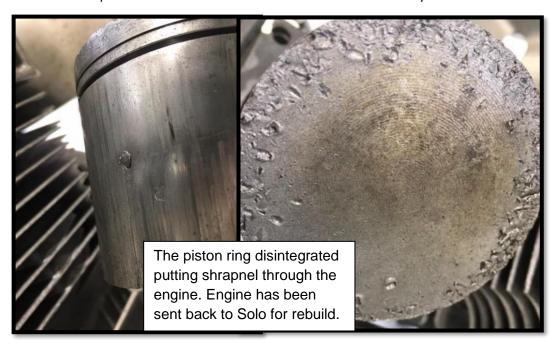




11 Solo 2350D 2 stroke engine failure (Applies to all 2 stroke engines)

Advisory

Generically 2 stroke engines are not as reliable as 4 strokes. In this case a 2-stroke solo 2350D engine progressively failed over 1 minute. It started at 6000 rpm and eventually slowed down to 4000rpm, where it was shut down. It has all been maintained as per the manual and had a total of 22 hours. It was 14 years old and had had 187 cycles.



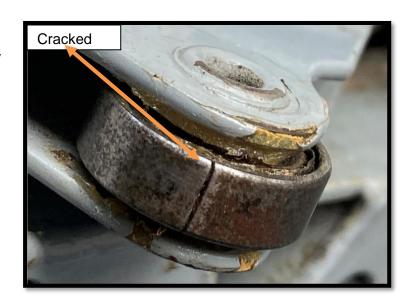


12 ASH26 airbrake fuselage bell crank (But also applies to many other types)

Advisory

Reported by Eric Munk

This has been seen on many bearings of many aircraft. Please check them **every** annual – particularly the elevator bearings.

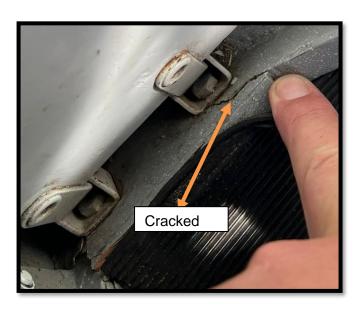


13 Glue failure of K6 rudder pedal mount

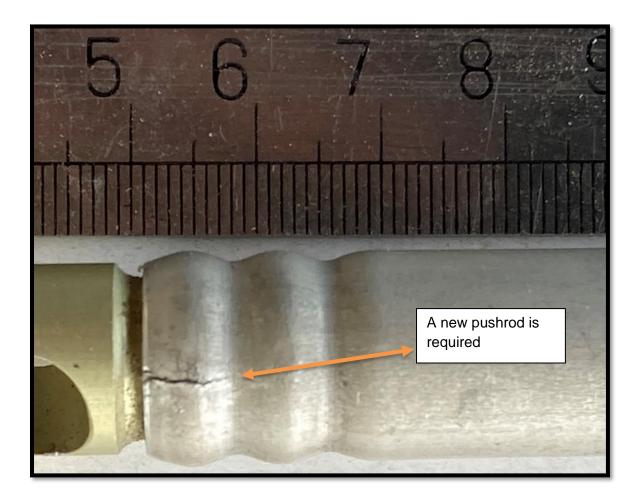
Reported by Eric Munk

Advisory

It would be very easy to miss this during the annual inspection/glue inspection.



Have a careful look at the next annual. It would be very easy to miss this.



15 Junior unbonded frame

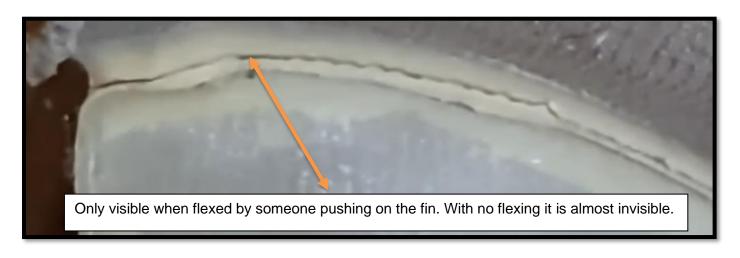
Reported by Rebecca Bryan

Advisory

https://youtu.be/RX97muqaEh4

Watch the video. Found on an annual inspection. This is unreported accident damage.

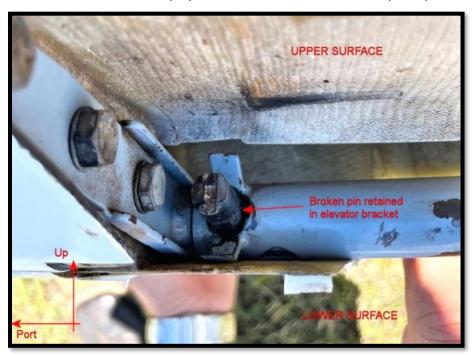
This damage would be very easy to miss on an annual or post incident inspection. This is quite a big repair as holes were required to be cut for access to the broken frame as well as to check the entire fuselage structure. Judging by how much dirt and dust was found under the frames, this was old damage.

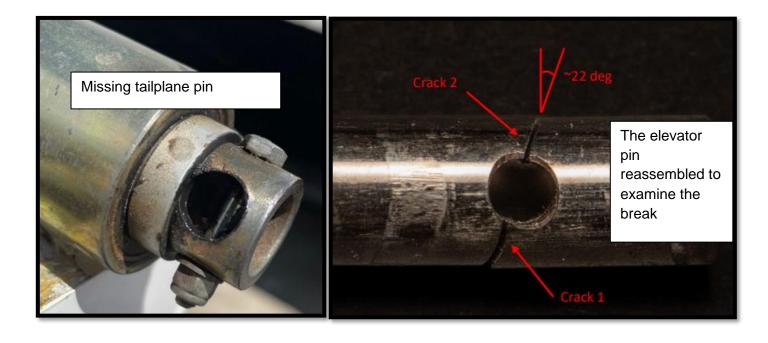


Reported to us by the GFA in Australia

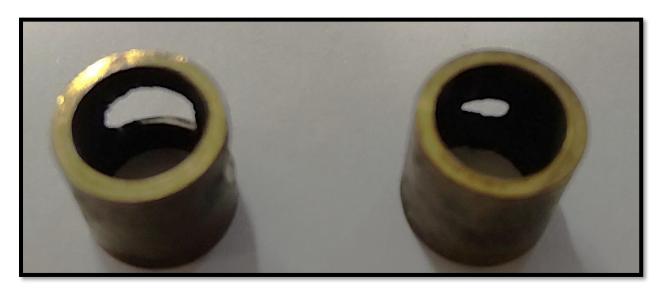
During the Daily Inspection, the pilot noted that the tailplane had an amount of free play but considered it to be within acceptable limits. During the pre-flight walk around the pilot noted that the tailplane free play had increased. The tailplane was removed and the port elevator mounting pin was found to be broken. The pin had cracked through the retaining bolt where the pin is mounted in the fin torque tube. The broken pin was retained in the elevator bracket, whilst the aft stub of the pin was retained in the fin torque tube.

The conclusion was that no play is ever allowed between the tailplane pin and the tailplane fitting it's bolted to.





These bushes with holes worn through them had done 2300 hours from new. The rudder needs to be removed more often than that to inspect bushes, stern post, hinges and various other parts.



18 Common problems found on audits by the quality auditors

Advisory

Flight and maintenance manuals

Inspectors are reminded as part of the annual inspection and ARC review to check that the gliders flight and maintenance manuals are at the correct revision for the glider i.e. have there been any amendments, supplements or appendixes issued since the previous annual or ARC? A technical note or airworthiness directive may have associated manual changes required. BGA audits have highlighted several flight and/or maintenance manuals which have been found not to be at the correct revision level for the glider in question.

19 Common problems found on audits by the quality auditors

Advisory

Tool Calibration Requirements

The BGA Exposition section C3. Components, Equipment, Tools and Material gives full details - see extract below.

Tools and equipment, where appropriate, shall be calibrated or tested in accordance with the manufacturer's recommendations or to industry standard. When establishing the period between calibrations, due account can be made of the level of utilisation and storage conditions. In a club environment where weighing scales could be used infrequently, it is important that they are checked with a known weight before use. For ASIs and altimeters, calibration can only be carried out with an instrument certified by a test house. The use of a manometer is valid for an operational or comparison check only. In all cases of heavy usage, it may be necessary to calibrate tools and equipment at more frequent intervals. In the absence of specific manufacturer instructions, the following intervals shall be used:

Measuring equipment 2 years

Torque tools 2 years

Pitot/static calibration equipment 2 years

Weighing equipment 5 years

Self-calibrating tools before use

20 BGA compendium update. Particularly applies to non-part 21 and unsupported sailplanes Advisory https://members.gliding.co.uk/library/airworthiness/slingsby/

The BGA compendium has had a huge modernisation and update. Before the internet existed, all reportable defects, ADs and TN/SB were published on a BGA Technical News Sheet (TNS) and sent to inspectors in the post. The TNS archive goes back to 1974. Throughout the compendium they are now directly linked to each gliders defect. Huge thank you to Bill Brittain for modernising the compendium.

21 Slingsby Archive technical Instructions (TI) are available in the BGA compendium

Advisory

https://members.gliding.co.uk/wp-content/uploads/sites/3/2024/09/Slingsby.pdf

On the Slingsby section of the compendium, all of the Slingsby Technical Instructions (TI) have been scanned in from the Slingsby Archive and are now linked directly to each type of glider that they apply to. So now all of the mandatory Technical Instructions from the Tutor to the Vega are available for download with no additional searching and at the click of a button (the T61 is still work in progress!). Huge thank you Robin Birch and others for painstakingly sorting out the archive and for the huge amounts of scanning.

22 BGA inspector and human factors refresher course.

Advisory

https://members.gliding.co.uk/courses-seminars-and-events/courses-2/

These are required every 5 years. Please book your refresher course using the link above.

23 Part 66L information

Advisory

https://members.gliding.co.uk/bga-inspectors/part-66l-information/

If you are mentoring or teaching new inspectors it is still possible to become a BGA inspector on non-Part 21 (formerly Annex 2) gliders without a Part 66L licence. However, to sign a CRS on a Part 21 aircraft (other than pilot owner maintenance) you will have to get a Part66L CAA engineering license. We now have a BGA Part66L section on the website. You need to encourage these people to engage with the Part 66L system if they are ever to be allowed to sign a CRS on Part 21 (formerly EASA aircraft). People who have sat these exams (pass or fail) have provided feedback that has been very constructive for feedback to the CAA as well as to other candidates.

Compliance Statement:

All mandatory inspections and modifications have been included up to the following:

CAA CAP 455 Airworthiness Notices, Withdrawn. See CAP 562 and CAP 747.

CAA CAP 747 Mandatory Requirements for Aircraft: issue 4, Amendment 2021/01 date 25 June 2021

State of Design Airworthiness Directives: review date 24/09/24

CAA Airworthiness Directives reviewed 24/09/24

For reference:

FAA Summary of Airworthiness Directives: Small Aircraft, Biweekly 2024-18, 08-26-2024 to 09-08-2024

EASA Airworthiness Directives: review date 24/09/2024

EASA Airworthiness Directives: bi-weekly issue 19. 2024-09-02 to 2024-09-15

CAA CAP 476 Mandatory Aircraft Modifications and Inspections Summary: issue 287

Maintenance Programme:

CAA CAP 411/LAMS/A/1999: Issue 2, amendment 0, edition 5 (for none Part21 motor gliders/tugs only)

BGA GMP: Issue 1, amendment 2 (for non-Part 21 gliders only)

BGA SDMP 267 (for EASA sailplanes and powered sailplanes only) updated 30/07/2021 Part ML AMC

Gordon MacDonald Chief Technical Officer