

## CAA and EASA Airworthiness Directives (ADs)

- |   |                                    |                         |
|---|------------------------------------|-------------------------|
| <p><b>1 HPH Glasflugel 304 Elevator pushrod corrosion</b><br/> <a href="https://ad.easa.europa.eu/ad/2021-0223-E">https://ad.easa.europa.eu/ad/2021-0223-E</a><br/>         Glasflügel 304 S sailplanes, Glasflügel 304 eS and Glasflügel 304 MS powered sailplanes, all serial numbers (s/n). It appears that over the years. That this type of elevator pushrod AD has been applied to nearly all sailplanes with fixed tailplane T tails and metal pushrods.</p>   | <p><b>EASA AD 2021-0223-E</b></p>  | <p><b>Mandatory</b></p> |
| <p><b>2 ASK2,4,6,7,8,13,16 and 18 elevator inspection</b><br/> <a href="https://ad.easa.europa.eu/ad/2021-0230">https://ad.easa.europa.eu/ad/2021-0230</a><br/>         The K2 and K4 are not EASA types and so were not included in this AD. But it applies equally to all fixed tailplane Schleicher wooden types.</p>  | <p><b>EASA AD 2021-0230</b></p>    | <p><b>Mandatory</b></p> |
| <p><b>3 Jonkers JS-MD Single Tailwheel cable</b><br/> <a href="https://ad.easa.europa.eu/ad/2021-0243">https://ad.easa.europa.eu/ad/2021-0243</a><br/>         Retractable tailwheels are now becoming commonplace on most new single seaters from most manufacturers. However, compared to the original Slingsby Vega design, they are now far more complex (steerable). I strongly suspect that in the next few years there will be teething problems with them. Keeping them totally clean with no mud, stones and loose grass are all essential to making them work reliably. Please advise owners.</p> | <p><b>EASA AD 2021-0243</b></p>    | <p><b>Mandatory</b></p> |
| <p><b>4 CEAPR Robin DR400</b><br/> <a href="https://ad.easa.europa.eu/ad/2022-0041">https://ad.easa.europa.eu/ad/2022-0041</a><br/>         Control Cable inspection. You must sign up to CEAPRA to download the service bulletin.</p>  | <p><b>EASA AD 2022-0041</b></p>    | <p><b>Mandatory</b></p> |
| <p><b>5 Scheibe SF25c Control Sticks</b><br/> <a href="https://ad.easa.europa.eu/ad/2022-0043R1">https://ad.easa.europa.eu/ad/2022-0043R1</a><br/>         Superseded by EASA AD 2022-0066-E</p>  | <p><b>EASA AD 2022-0043 r1</b></p> | <p><b>Mandatory</b></p> |
| <p><b>6 Scheibe SF25c Sticks</b><br/> <a href="https://ad.easa.europa.eu/ad/2022-0066-E">https://ad.easa.europa.eu/ad/2022-0066-E</a><br/>         This is all about internal corrosion of the sticks. While not applying to other variants, it would not hurt to inspect other variants. If in doubt talk to Scheibe.</p>  | <p><b>EASA AD 2022-0066-E</b></p>  | <p><b>Mandatory</b></p> |
| <p><b>7 SAZ Allstar Junior spars</b><br/> <a href="https://ad.easa.europa.eu/ad/2022-0095">https://ad.easa.europa.eu/ad/2022-0095</a><br/>         Every annual and incident inspection must include a thorough look at the spar. The latest revision of the SB Service Bulletin No. BE-014/51-1/2022 (26<sup>th</sup> April 2022) makes the inspection easier. (Thank you Alan Garside).</p>   | <p><b>EASA AD 2022-0095</b></p>    | <p><b>Mandatory</b></p> |



The latest revision of the SB Service Bulletin No. BE-014/51-1/2022 (26<sup>th</sup> April 2022) makes the inspection easier. (Thank you Alan Garside).

**8 Arcus, Arcus M and VentusM 3 rudder inspection** EASA AD 2022-0076 **Mandatory**  
<https://ad.easa.europa.eu/ad/2022-0076>

This requires manual amendments that then mandate daily rudder inspections.

**9 Solo Engines 2350C and D variants** EASA AD 2022-0044R1 **Mandatory**  
<https://ad.easa.europa.eu/ad/2022-0044R1>

This has led to a significant wait for some customers to acquire spare parts for the effected engines.

**10 Stem S12 outer wing inspection** EASA AD 2022-0101-E **Mandatory**  
<https://ad.easa.europa.eu/ad/2022-0101-E>

Outer wing inspection. Currently we are not aware of any S12 in the BGA fleet.

**11 ASW15B wing rib inspection** EASA AD 2022-0146 **Mandatory**  
<https://ad.easa.europa.eu/ad/2022-0146>

The original AD only applied to the ASW15A. We are not aware of any passing the inspection. Please let me know if they have. But wooden ribs have now also been found in the ASW15B, so the AD now applies to them (to establish if they do not have wooden ribs). The cost of the rib replacement (mostly very skilled labour with LOTS of jiggng) can exceed the value of the aircraft. So far Schleicher agent Zulu Glasstek (Pete Wells) and North Notts Sailplanes (Tim Sharpe) have carried out the rib replacements.



**12 ASK21 and other Schleicher Automatic elevator couplings**

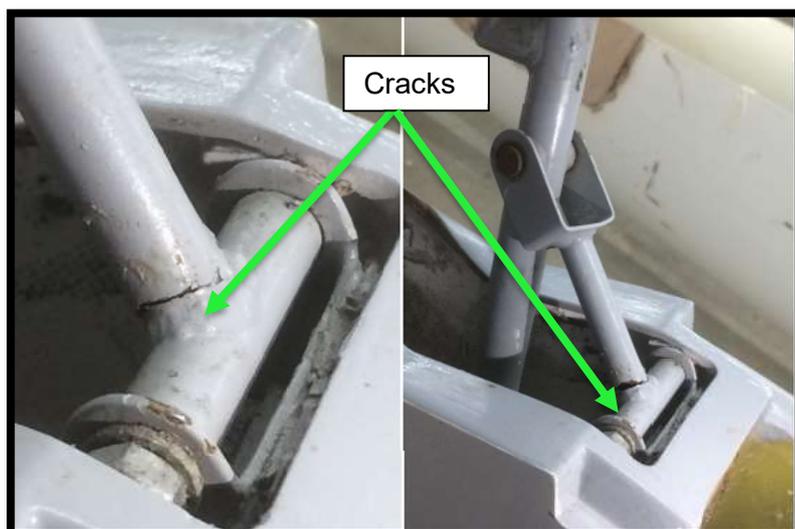
LBA AD 90-350

**Mandatory**

[https://www.alexander-schleicher.de/wp-content/uploads/2015/03/210\\_TM22\\_E.pdf](https://www.alexander-schleicher.de/wp-content/uploads/2015/03/210_TM22_E.pdf)

This is a legacy AD from 1990, that in another country was found not to have been accomplished.

Check here for cracks every annual. Trailer fittings can cause these to crack. Applies to many Schleicher types with auto connect elevators.



**13 Lycoming Engines Magnetos**

USA 2022- 16-03

**Mandatory**<https://ad.easa.europa.eu/ad/US-2022-16-03>

This is a state of design AD from the USA FAA (it is mandatory) and applies to nearly all engines made by Lycoming and Continental. In our case the Lycoming 320/360 and 540 series. It most likely only affects a very few engines. But do check serial numbers very carefully.

**14 Stemme S10 Prohibition of Flights**

EASA AD 2021-0278R1

**Mandatory**<https://ad.easa.europa.eu/ad/2021-0278R1>

This is a revision to previous AD

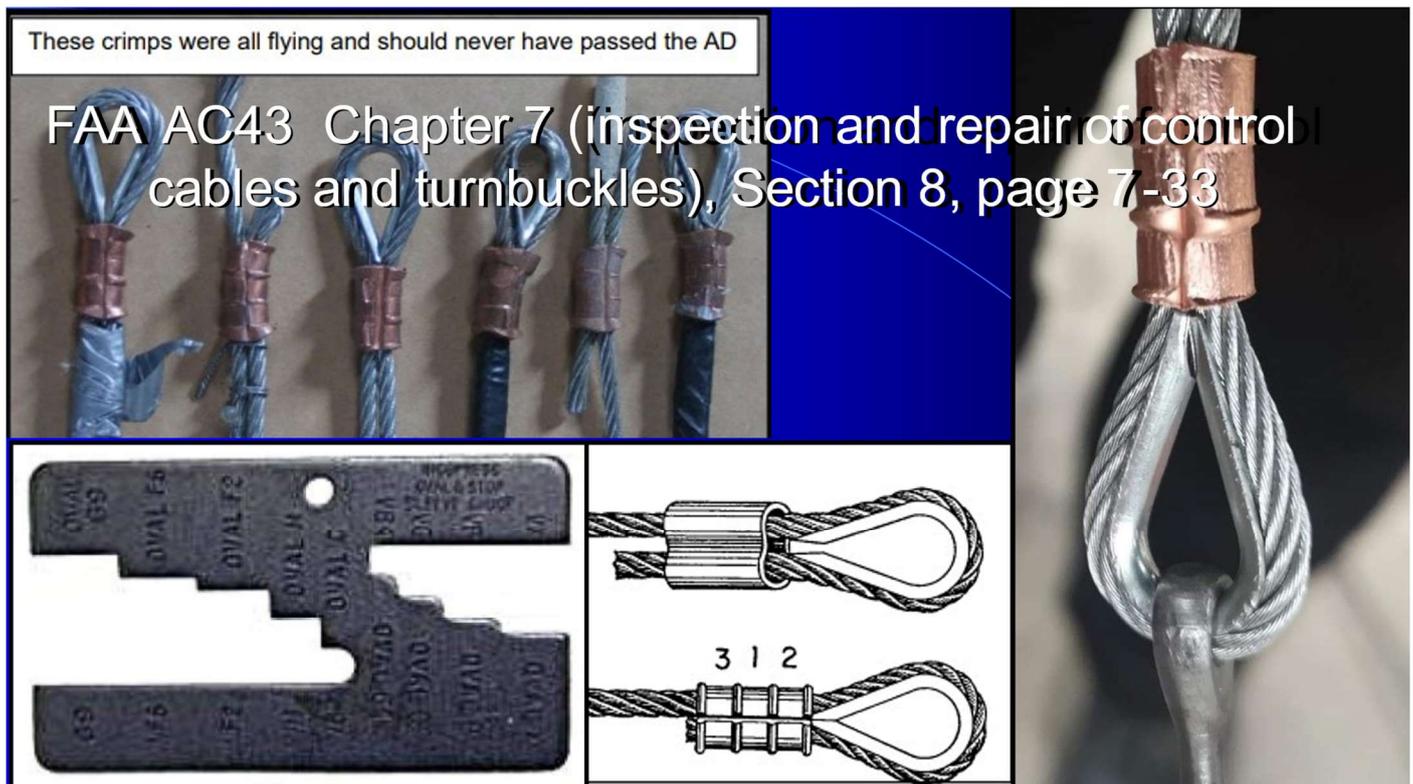
**15 Poor quality Crimping (again)**

LBA 82-216 (originally issued in 1982)

**Mandatory**[https://www.alexander-schleicher.de/wp-content/uploads/2015/02/Pressklemmen\\_LTA\\_82-216\\_E.pdf](https://www.alexander-schleicher.de/wp-content/uploads/2015/02/Pressklemmen_LTA_82-216_E.pdf)

This is a legacy AD. On the face of it, it is very simple to follow, **BUT some inspectors are still not following it.** On audits we are still occasionally find incorrectly crimped cable ends, some with only 2 squeezes. These should not pass a DI, let alone an annual inspection. If found, they must be changed to compliant crimps. It is not optional.

Remember use only galvanised cables. If you see a cable with only 2 squeezes, then it must be corrected. Do not forget you also need the gauge (see photo below) to check it is correctly squeezed to the correct thickness. Light Aircraft Spares LAS) [https://www.lasaero.com/parts/?search\\_part=nicopress](https://www.lasaero.com/parts/?search_part=nicopress) or Aircraft Spruce <https://www.aircraftspruce.com/search/search.php?s=nicopress%20swaging%20tool> are good sources for these tools, cables and sleeves.

**16 Mosquito Elevator pushrod**

EASA AD 2011-213

**Mandatory**<http://www.streifly.de/tm-mosquito-e.htm>

There has been some recent confusion with some owners on how to interpret this AD that does not have a perfect translation in English. For the avoidance of doubt, Streifly say the pushrod must have been replaced by 31.12.2012

**Safety Information Bulletins****17 Managing Carbon Monoxide risk**

EASA SIB 2020-01R1

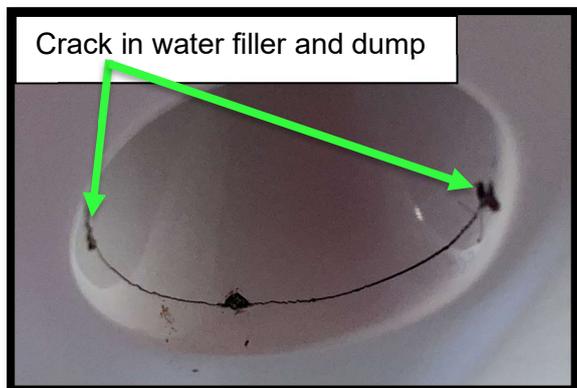
**Advisory**<https://ad.easa.europa.eu/ad/2020-01R1>

This is a CAA document published by EASA. It emphasizes the risk of doing high quality checking of leaks into exhaust heat shrouds as well as the firewall. Also, with so much cheap and user-friendly non-aviation electronic carbon monoxide detectors from homeware stores, there is little excuse not to have one in an aircraft nowadays.

## Reported issues

**18 LS4a water dump hole. But can include many other similar types.** reported by Eric Munk

**Advisory**



See image left. The water filler/dump access hole is bonded into place inside the wing. If it fails, the water when dumped can go into the wing instead. The crack is most likely caused by a high side load applied to the fitting, most likely caused by using badly fitting filling equipment.

**19 ASK21 wheel brake cracks**

reported by Eric Munk

**Advisory**

This can easily be missed during annual maintenance. Possibly caused by a badly adjusted wheel brake that comes on well before maximum airbrake is achieved.

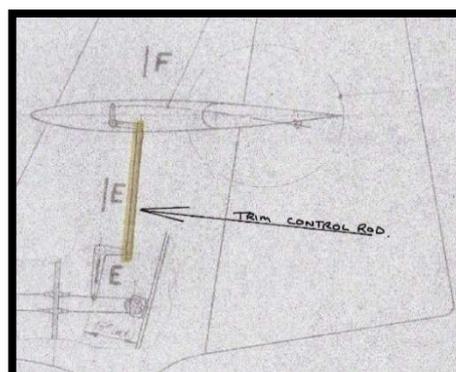


**20 Puchacz Trim Pushrod in fin**

Reported by Andy Brind

**Advisory**

Photos below show crack found in Puchacz vertical trimmer push rod mounted in fin. The ends of the control rod have been formed by pressing together the end of the control tube to form a fork end. This is common on other push rods on Puchacz's. So anywhere this type of rod end is fitted, check carefully.



## 21 Vega U/C collapse Trend (but can apply to many DG and LS types)

Advisory

Watch this 3-minute Video <https://youtu.be/R7YjA9Pujog>

The Vega has been around for 45 years now. We have had 2 reports this year of Vega U/C collapsing. We have 25 retractable Vega U/C types in the BGA fleet currently. Looking back at the records (see below) there is a trend of this happening.

This has previously been mentioned in BGA **TNS 04/87** excessive wear leading to U/C collapse, and of lever failure in **TNS 06/91** and **TNS 12/93**.

**Below are all the Vega accidents on record where the U/C was broken. But it is likely that more happened before a robust recording system was introduced.**

- 1-U/C collapsed during ground run. Likely that U/C lever had been displaced before flight.
- 2-U/C collapsed during take-off roll due to technical malfunction. U/C lever remained in locked-down position. Tubular steel assembly sheared.
- 3-U/C retracted on take-off. Sheared bell crank.
- 4-U/C collapsed on landing. Pilot had noticed on approach that lever was not locked.
- 5-U/C collapsed on landing. Pilot believes he may not have put handle into locked position after lowering wheel.
- 6-U/C retracted during ground run.
- 7-U/C collapsed 100m into aerotow ground run. Examination showed it was possible to retract the U/C with the operating lever in the locked down position. Possible component failure being investigated.
- 8-Pilot found he could not lock the U/C down. The rod which carries the U/C lever was found to be bent.
- 9-U/C collapsed during heavy landing on concrete.
- 10-Glider hit ground around unseen dip in field, breaking U/C.
- 11-Heavy landing in severe wind gradient cracked fuselage and damaged U/C.
- 12-U/C retracted 30 yards into ground run. The bearing at the cockpit end of the operating system shed its housing and operating lever, caused by poor mechanical security.
- 13-On third flight on type pilot misjudged his height and hit a ridge with excessive airspeed, heavily bouncing 3 times before the U/C collapsed.
- 14-U/C collapsed on take-off ground run while lever locked firmly in U/C down position.

A common trend is corrosion (internal as well as external), small amounts of play in every part that gradually leads to, worn bearings, badly adjusted over centre locks and a design that is intolerant of any of these problems.



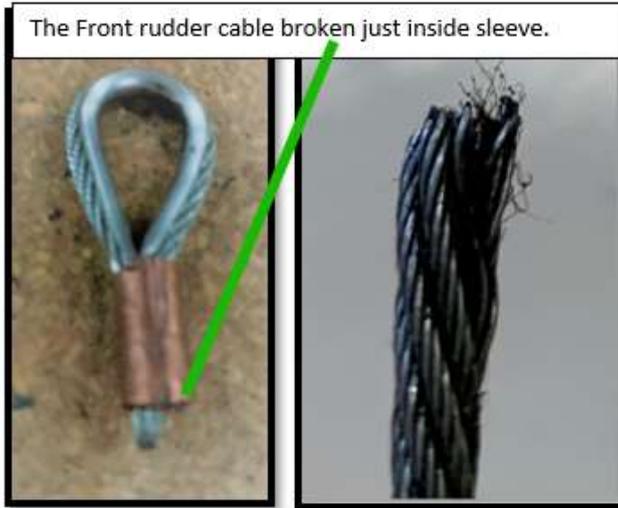
With zero weight on the wheel and the glider in its dolly, put a piece of paper in the U/C knuckle joints (both left and right).

Make sure the knuckle joints grab the paper equally both sides.

**If not, then adjustment is required!**

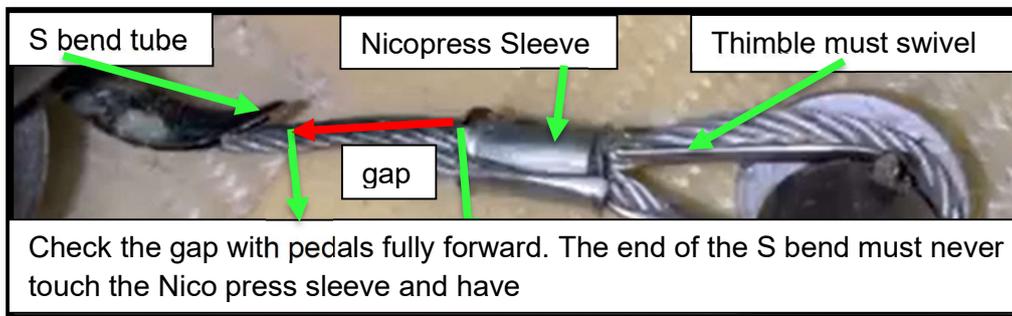
Fully read these TNs from Streifly. <http://www.streifly.de/> The small details make a big difference in this situation.

- <http://www.streifly.de/TN201-26.pdf>
- <http://www.streifly.de/TN201-16e.pdf>
- <http://www.streifly.de/TN201-6.pdf>



Reading the Striefly TNs on Libelle Rudder cable problems (see links above). These problems are not new. There are important, but subtle details of how to ensure the Nico press Thimble must shaped prior to making the cable join.

This cable failed at 258 hours. But its opposite cable was changed at 177 hours due to wear/fatigue. These cables should last 1000 hours plus. So why did these cables have problems after so few hours? It's a combination of multiple factors.

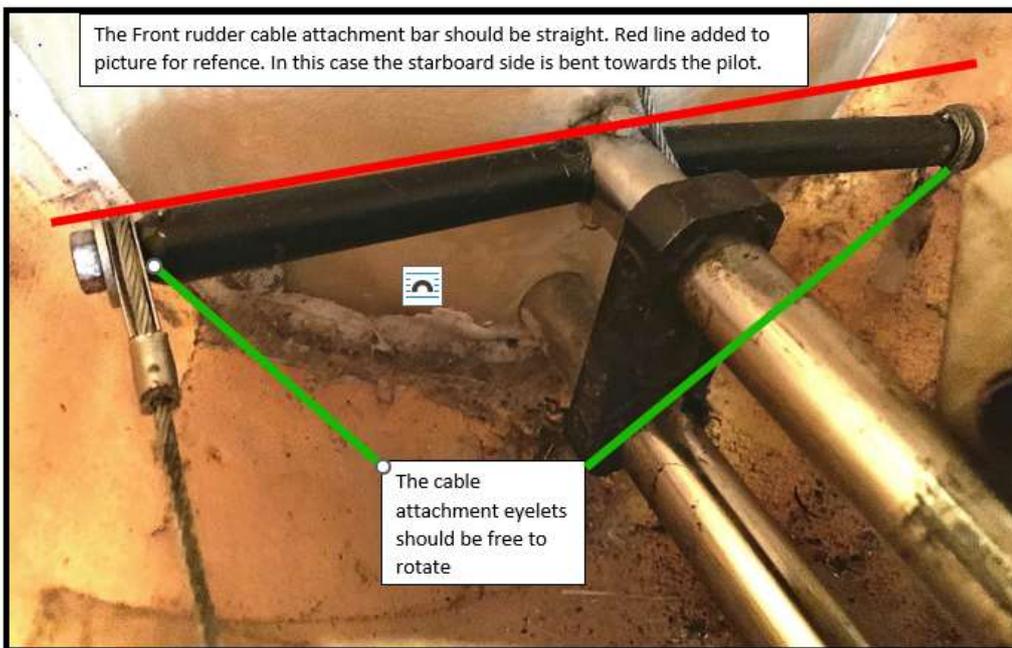


The glider had been flown with the rudder pedals in the fully forward position since the current owner had owned it.

This shortens the distance between the S bend tube and the Nico press cable

sleeve. Every time the pedal is moved, there is only 1cm or so (less perhaps) of cable to take the bending strain. The failure appears to be more of fatigue failure rather than a more conventional friction causing wear on the cable.

The cable must be free to swivel on the attachment shaft with little friction. Without low friction the rudder cables bends (and fatigues) rather than lining itself up with the direction of strain from the S bend.



The front bar that the rudder cables attach to, **must** be straight. If it is bent, that significantly reduces the distance between the Nico press joint and the S bend. This causes more strain on the cable at

The Bar does not look out of place being bent. Streifly can sell you a new bar if required.

## To summarise the things that need to be checked as normal maintenance of Libelles (and other gliders).

- 1 Read the Streifly TNs. The subtle detail is important.
- 2 Check the thimble is correctly shaped prior to fitting.
- 3 Check the end of the S bend is not too close or touching the Nicopress sleeve
- 4 Check the front attachment of the rudder cable and the thimble is free to rotate
- 5 Check the front rudder bar is straight.
- 6 If you must change a cable after a very short life, find out why.
- 7 Change cables as a pair. This is good practice.

## 23 Anybody who maintains (or flies) any powered sailplane, should watch this OSTIV video. **Advisory**

<https://www.youtube.com/watch?v=R--m0NDR0j8>

This video will give you years of experience in 58 minutes. It is a good inspector's (and owner's) 'heads up' to the causes of unreliability of all powered sailplane types. Good to learn from other people's problems.

## 24 How are new sailplane designs more crashworthy? **Advisory**

Watch this short video <https://youtu.be/felkajU6IFU>

Then read this article [https://nordicgliding-com.translate.goog/crash-boom-bang-i-videnskabens-navn/?\\_x\\_tr\\_sl=da&\\_x\\_tr\\_tl=en&\\_x\\_tr\\_hl=da&fbclid=IwAR3NVLTUob2Rds1jAl7XPI\\_3BVmEpdAv9T5YB0BLJd0J1SLhww9rpx2\\_l0](https://nordicgliding-com.translate.goog/crash-boom-bang-i-videnskabens-navn/?_x_tr_sl=da&_x_tr_tl=en&_x_tr_hl=da&fbclid=IwAR3NVLTUob2Rds1jAl7XPI_3BVmEpdAv9T5YB0BLJd0J1SLhww9rpx2_l0)

In CS 22 amendment 2 (2009) and beyond (now amendment 3) <https://www.easa.europa.eu/en/certification-specifications/cs-22-sailplanes-and-powered-sailplanes>, new types of gliders design (not just amended older designs) are mandated to have much more crashworthy cockpits. They must pass a 3 second static load test of 9G load at a 45-degree angle for with no cockpit deformation.

A typical new design 600KG glider will have a more crashworthy cockpit than a pre-2009 design (but most old cockpits were never tested to this degree prove how strong they were) For instance a K21 has proven very durable. Some legacy pre latest crashworthy sailplanes are in production. If in doubt, ask your manufacturer.

In this test a new design (Mu32) is dropped rather than just given a static load test and an old Astir cockpit is dropped after it is given some lightweight modifications to improve its crashworthiness. The video is dramatic.

## 25 We must now use the CAA website for the TCDS search

<https://www.caa.co.uk/commercial-industry/aircraft/airworthiness/type-certificate-and-type-approval-data-sheets/part-21/approval-of-part-21-aeroplanes/>

Because we are now under CAA Part 21 rules, we must use the CAA website rather than the EASA one. Go to the link and on the right side of the page. You will see links to 'Part21 Sailplanes' and below that for unsupported types the 'Special Airworthiness Specifications' (orphan aircraft). Use 'Control F' to bring up a search function.

Note that if the EASA TCDS has been recently updated on the EASA website, do not assume that the same update is valid on UK CAA Part21 aircraft. It will only appear on the CAA website when the TC holder has gone to the CAA and processed (and paid) for it. You can only certify aircraft to the CAA TCDS. No, ifs, buts, maybes or common sense apply to any other options.

## 26 CAA List of Emergency Airworthiness Directives search show different AD status to the EASA website

When you click on the link to make it work you need to click all and date order.

<http://publicapps.caa.co.uk/modalapplication.aspx?appid=11&mode=list&type=sercat&id=54>

I recommend you all sign up for CAA and EASA notifications of ADs.

This has (understandably) caused some confusion to some of our inspectors. Every annual/ARC/100 hour check, an Airworthiness Directive search is required. The CAA being our regulator now put the ADs on their website. But most sailplanes only appear on Emergency ADs list (not obvious to find it). And for reasons currently unknown, the CAA then cancel or withdraw the EAD 2 months later. So, if doing a search 2 months after the AD is issued, it merely says that AD has been cancelled or withdrawn.

BUT the AD is still valid. Until we get clarification on why the CAA administratively cancel or withdraw an Emergency AD when the State of design have not done so, continue to use the EASA website. Most/all ADs relevant to sailplanes or towplanes are issued by EASA or the FAA. Because they are usually the State of Design where the aircraft was originally certified, even if the CAA do not issue the AD, the EASA or FAA (for USA made products) are still valid.

Meanwhile the BGA as always will notify all owners of any relevant ADs when published.

## 27 BGA management Conference 20th November 2022

Due to demand, I will be running a session on 'How to manage airworthiness and any other questions' on 20<sup>th</sup> November. Please go to the link below for more details.

<https://members.gliding.co.uk/events/http-www-gliding-co-uk-events-cdc2022/>

## 28 Inspector renewal and refresher, human factors, and ARC courses/seminars

Advisory

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

We try and run all our courses/seminars over the winter. If you need to do a course before Winter 2023 winter to stay current, please do it this Winter contact the BGA office. See link above for course availability. More will be added.

### 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 12/09/22

CAA Airworthiness Directives reviewed 12/09/22

### For reference:

FAA Summary of Airworthiness Directives: Small Aircraft, Biweekly 2022-18, 08/15/2022 - 08/28/2022

EASA Airworthiness Directives: review date 08/09/2022

EASA Airworthiness Directives: bi-weekly issue 18 2022-08-22 2022-09-04

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

### Maintenance Programme:

CAA CAP 411/LAMS/A/1999: Issue 2, amendment 0 (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 M Light

AMC

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