Technical News Sheet

Issue 1-2016

BRITISH GLIDING

ASSOCIATION

Date: 09/08/2016

Airworthiness Information.

Aircraft

1 <u>http://</u> ;	DG1000T lifting of restrictions ad.easa.europa.eu/ad/2015-0052R1	EASA AD	2015-0052R1	Mandatory
2 http:/// Perish	Heinrich Mertens parachutes ad.easa.europa.eu/ad/2016-0026. hing rubber bands delay or stop opening	EASA AD	2016-0026	Mandatory
3 http://a Resto	L13 and L13a Blanik ad.easa.europa.eu/ad/2011-0135R1 ration of airworthiness options. All BGA	EASA AD 2	2011-0135R1	Mandatory
4 <u>http://a</u> RE-5L	Speckon RE-5L Serie 5+ Parachutes ad.easa.europa.eu/ad/2016-0062 Serie 5+ emergency parachutes defects	EASA AD	2016-0062 al number	Mandatory
5 <u>http://a</u> Flight	All Discus 2 & Ventus 2 ad.easa.europa.eu/ad/2016-0027R1 Controls – Airbrake Panels – Inspection.	EASA AD All BGA CAI	2016-0027R1 MO gliders previously noti	Mandatory fied.
6 <u>http:///</u> Instru	All CEPR Robin DR400 ad.easa.europa.eu/ad/2016-0072 ments & Control Panel – Electrical Wiring	EASA AD Harness – N	2016-0072 <i>N</i> odification	Mandatory
7 <u>http://</u> Flight	All MDM Fox gliders ad.easa.europa.eu/ad/2016-0121 Controls – Control Stick – Inspection / Re	EASA AD	2016-0121 BGA owners previously n	Mandatory otified
8 <u>http://a</u> Prohik Limita	All L13 and L13a Blaniks ad.easa.europa.eu/ad/2011-0135R2 bition of all flights / Restoration of Airworth tion / Operational Records Check	EASA AD	2011-0135R2 - Wing Main Spar – Insp	Mandatory
<u>Engir</u>	es and Propellers			
9	Rotax 912 engines	EASA AD	2015-0240	Mandatory

General Information

10 DG200/202 (and possibly others)

Advisory

DG 200/202 Undercarriage control rod hits airbrake control rod. Located on port side of wheel box. Previously reported ref TNS 6-2011. Reported by Andrew Brind



11 All Schempp-Hirth, Glasflugel and Slingsby Kestrel with Fixed Tailplanes Advisory

This damage is being consistently missed by owners and inspectors. It only shows when the tailplane skin is gently flexed away from the hinge. This is can become a structural problem if not spotted and fixed early.

This sort of damage can be found during a DI rather than annual maintenance. The damage can be caused by bad ground handling (no dolly when towing out or turning); lifting the tail at the inboard end of the tailplane; heavy landings; poor trailer fittings; ground loops; and flexing the elevator against the tailplane skins when the tailplane is not attached to the glider.



12 All Schempp-Hirth, Glasflugel and Slingsby Kestrel with Fixed Tailplanes Advisory

Cracked U bracket on Janus elevator. We have seen this damage a few times on this type of design usually after a heavy landing or ground loop with associated damage to the hinges. In this case there was only minor hinge damage to indicate a cracked U bracket.



13 Glasflugel Libelle

These hemp Cables were found in a Libelle 201 - not a glider we normally associate with hemp cables.

The only fix is to replace them.

Reported by Jo Hoy

Advisory



14 ASW19/20 Pegase (and possibly others with hinged instrument panels)

Advisory

This is a fairly common problem with older gliders and should be checked at every annual. Fixing it in situ is virtually impossible.

Reported by Stu Hoy



15 Astir/Twin Astir Brake Caps - Severe Corrosion

Corrosion in the top of the aluminium brake cap is easily spotted when the blisters appear and the gelcoat starts to separate from the cap.

However, it is easy to miss corrosion on the underside of the cap.

Reported by Stu Hoy



16 All Turnbuckles

Advisory

Advisory

Always inspect these carefully when doing annuals and routine maintenance. In this case, the turnbuckle has been stressed at some point and the barrel/fork ends have twisted and bent with thread damage to the barrel.



Reported by Jim Hammerton

17 ASW20 Inflight Aileron Restriction.

Advisory

This aileron restriction could only happen in positive flap with the brakes open, so was not found in pre-flight checks. The bolt was turned around while replacing the brake lines after they had been damaged with the wrong hydraulic fluid. An innocent mistake, but could have been deadly on the approach.



Found on ASW20 discussion forum

18 RF5 (and possibly RF4 and others with similar design)

Advisory

Sometime after an undercarriage problem, this damage was found on the aircraft's wing root ribs. When an RF5 does a gear-up landing for whatever reason, there are small skids that protect the fuselage by transferring the impact loads into the wing. However even a slightly heavy load on these skids can break the wing ribs and damage the attachment bolts.

Access to inspect the ribs and bolts with the wing on is very poor, although small modern cameras do help. The best way to inspect this airframe after a gear-up landing is to remove the wing. Having spoken to a few inspectors who look after RF5 airframes, we understand that it is not normal practice to remove the wing at every annual, as this is quite an undertaking. It would be good practice to remove the wing periodically at annuals to ensure there is no damage and that the wing attachments are in good condition.

The message is clear: after any sort of gear-up issue, the only thorough way to inspect the structure and attachments thoroughly is to fully remove the wing. If doing an annual on an RF5 be sure to carefully inspect for any signs of damage.



6

Advisory

A reminder to all Chief Engineers to use the latest 276 form and not to accidently recycle the previous year's form without fully updating it. (all airworthiness forms found <u>here</u>). Always check that the maintenance program (GMP/LAMP or occasionally MIP) is fully customised to the aircraft at every ARC.

19 Post-Curing of GRP Repairs

ARC Discrepancies.

19

Most epoxy resin gliders are cured to least 54°C for 15 hours (some for more). These repairs must have been cured at the same temperature and time as the rest of the airframe. Do not rely totally on the resin datasheet for this data. Always check the TCDS holder data for cure temperatures and times. Ensure you record the cure time and temperature in the workpack.

20 Giving Owners Workpacks

After any maintenance, from changing a tyre to a complex repair, you must compile a workpack that shows what work you have done, where any parts/materials have come from, and details all required duplicate inspections for any primary structure, nuts and bolts etc. You must also have a maintenance work order (unless you own the aircraft yourself).

You **must** give a copy of the workpack to the owner. A lot of owners still do not understand they have a legal responsibility to keep all records of the aircraft for at least 2 years after the aircraft has been withdrawn from service (effectively written off). Most airframes outlive inspectors so going back to inspectors to query a factory-approved exemption to control mass issues is not practical 30 or more years after the job was completed.

Club Maintainers Course at Your Club this Autumn or Winter.

These courses have proved very popular and are free of charge. I ran quite a few of these last winter and inspectors, club helpers/maintainers and owners all found them very informative, especially the 'how to find defects' section.

If you think your club would benefit from a course this coming autumn/winter, please talk to your club technical officer and contact me to arrange a date. For smaller clubs it might be a good idea to team up with other clubs in the area to host a course.

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: Issue 3, amdt 2016/01 State of Design Airworthiness Directives review date: 09/08/16

For reference: FAA Summary of Airworthiness Directives. Bi-weekly listing 2016-16 EASA Airworthiness Directives review date: 09/08/16 EASA Airworthiness Directives Bi-weekly issue: 16 CAA CAP 476 Mandatory Aircraft Modifications and Inspections Summary issue: 287

Maintenance Programme: CAA/LAMS/A/1999. Issue 2, amendment 0 CAA/LAMP/A/2007, Issue 1, amendment 2/2008 BGA GMP, Issue 1, amendment 2

Gordon MacDonald Chief Technical Officer

Advisory

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