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Airworthiness Alert 2017-1 Issue 2 **DG-500/505 & DG-1000 to S/N 10-145** **Canopy Locking Pin and Assembly**

Overview

AWA 2017-1 was issued 22/02/2017 applicable to all DG-500/505. AWA 2017-1 Issue 2 is issued to include early production DG-1000 sailplanes to S/N 10-144. For current production DG-1000 starting from S/N 10-145, the system has been changed to a welded attachment so the pin cannot loosen by vibration.

A GFA Service Difficulty Report was submitted regarding the failure of a DG-500 (DG-505) rear canopy locking mechanism. The locking mechanism had failed on the ground prior to flight.

This failure could prevent exit. The manufacturer has been notified of the defect through the SDR process. The manufacturer has replied stating that if this occurs, the canopy can be forced enabling exit by actuating the canopy jettison system. The manufacturer additionally states that using this exit technique, damage will occur.

The Investigation

The rear locking pin on a DG-505 unwound and disconnected, the rear canopy was unable to be opened. The locking pin is threaded at one end, operates through a bush and retained in place by a lock nut and loctite. The bush stops the rear locking rod from being removed when the lock nut is fitted, the canopy locking assembly is not accessible without cutting an access hole.

Both front and rear canopy locking mechanisms have a forward and rear lock pin. The rear lock pin is straight; the front has two bends and cannot unwind, same for the jettison system.

Recommendation

Before next flight and at each annual inspection, open the front and rear canopy and wipe clean each rear locking pin. Apply a right hand tightening force to the locking rod with fingers only. If the rod rotates, the canopy requires repair. Note the rod is locked by nut and loctite, ensure the locking is not broken whilst carrying out the above inspection.

Report

Please email cto@glidingaustralia.org any defects identified as a result of this AWA.

Dennis Stacey GFA CTO
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