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Airworthiness Alert 2016-4 **Schempp-Hirth types - Seat back locating** **pin assembly**

Overview

The GFA has received a Service Difficulty Report regarding the failure of one seat adjusting mechanism and a further report of one being loose. The mechanism was reassembled using loctite and the manufacturer was notified through the SDR process.

There is also potential flight risk if the seat back latching mechanism fails on Schempp-Hirth types utilising these latch assemblies.

The Investigation

During an annual inspection on a Ventus-2cT, a small part was found loose in the cockpit. On further cockpit disassembly, it was found that the seat back latch mechanism had failed, the loose object now identified as the handle in the seat position locating pin assembly. The seat pan was difficult to remove in this condition.

The mechanism is spring loaded; the handle retains the spring assembly. If the handle separates from the latch assembly, the spring then forces the locating pin further into the hole and lodge in the cavity between the seat and skin. If this assembly fails, there is a risk of foreign object damage (FOD). Further and depending on the sailplane type and seat position selection, it has now been identified there is a potential risk of fouling the aileron flight control resulting in limited control.

It was discovered on a Quintus M that if this locating assembly failed, and the seat was in the rear most seat position, the aileron control would be severely restricted.

It is also possible the seat back could move rearwards under the pilots weight in flight and depending on the seat position, the pilot could lose full control of the sailplane.

Recommendation

Before next flight and at each annual inspection, inspect the seat back latching mechanism and ensure the actuating handle is tight and the unit is serviceable. Check using a 10mm drill or equivalent if there is any flight control restriction when the 10mm drill is inserted in any seat position.

If there is in any doubt regarding the seat locating assembly, remove, dismantle, clean and reassemble using a suitable loctite.

Dennis Stacey GFA CTO
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