

LAA/AWA/21/04
26th January 2021

Jabiru Aircraft (All Marks) Jabiru Service Bulletin JSB 044-1 Control Surface Hinge Inspection

Jabiru Aircraft have recently issued a Service Bulletin (JSB 044-1) asking owners of Jabiru aircraft to check the control surface piano hinges on their aircraft. The publication of this Bulletin follows the report of a failure of an aileron hinge on a 20 year old Jabiru SP4 aircraft.

Jabiru Aircraft limit the applicability of the Bulletin to aircraft that are over 5 years old, though its publication reminds us that detailed and regular checking of all flight control surface hinges, for security and freedom of movement, should be a priority for all aircraft operators.

Evidence seen in the fracture face of the failed hinge shows that corrosion has played a major part in this hinge failure, primarily because corrosion products cause stiffness in the hinge which, in turn, leads to fatigue in the hinge's leaf.

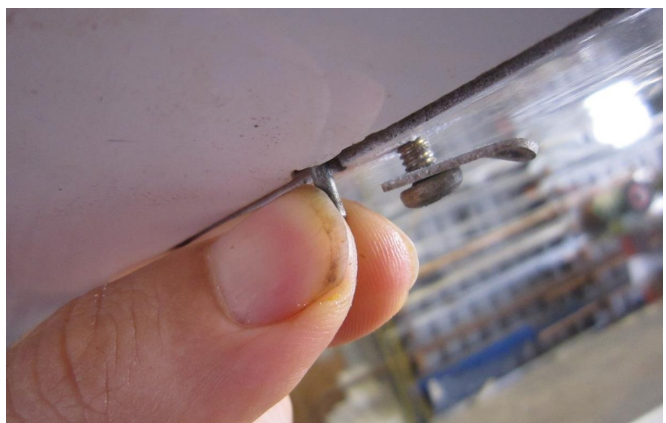
Another common cause of hinge stiffness is lack of lubrication. Naturally, because of the harsh environment in which piano hinges are required to operate, regular inspection and lubrication is essential for continued safety.

JSB 044-1 asks owners to carry out a visual check of the piano hinges on their aircraft; as part of this check, they should ensure that the hinge pin is able to move within each of the knuckles freely.

This failure event is discussed in the February 2021 Safety Spot. JSB 044-1 may be downloaded [HERE](#).



This picture shows one half of the failed aileron piano hinge from a Jabiru SP4 aircraft. This hinge was found broken by the pilot during the pre-flight check, but it is likely that the hinge had been failing for some time.



The hinge pin on a short length of piano hinge should be able to move freely when tested; if it's not free, the pin should be removed, the pin, and each leaf, thoroughly cleaned and lubricated, and the hinge reassembled.