

## Alpi Pioneer Aircraft (All Types) Inspection of Control Surface Hinge Attachment Cap Bolts

LAA/AWA/20/16  
9th June 2020  
Superseding LAA/AWA/19/23

### Extension of Compliance Time Due to the Corona Virus Outbreak

In December 2016, Alpi Aviation, the manufacturer of the Pioneer range of aircraft, issued a Safety Alert ([Notice 2016-03](#)) affecting all Pioneer models.

Though not mandated by LAA Engineering, this manufacturer's Alert was brought into focus following an event, where the owner of an Alpi Pioneer 300 suffered an in-flight elevator control restriction. LAA Engineering wrote to all Alpi Pioneer owners suggesting that they check the security of the cap-bolts securing the hinges to the airframe and the flight control surfaces on their aircraft. A number of owners reported back, explaining that they had suffered similar experiences of attachment bolts becoming loose. Some members had also seen quite serious corrosion in their cap bolts when removed after becoming loose.

Because of this negative feedback, LAA Engineering issued an Airworthiness Information leaflet (AIL), for each Pioneer aircraft model. The AIL required the control surface attachment cap bolts to be removed, inspected and replaced with new cap bolts (if found corroded). When refitted, the cap bolt heads, secured into blind captive nuts, are required to be drilled to accept locking wire and, when refitted, wire-locked. Wire-locking these cap bolts removes the chance that a cap-bolt could become loose in service, wind itself out and, in doing so, potentially reduce control surface travel. We wrote about these events in the May 2019 edition of Safety Spot, a copy of which can be downloaded [HERE](#).

Due to the national 'lockdown', necessary because of the Covid-19 pandemic, some Pioneer owners have not been able to complete this work within the initial time period set (effectively 1<sup>st</sup> June 2020): for this reason, to give owners further time to complete this necessary work, the compliance time has been extended until 1<sup>st</sup> November 2020

LAA Engineering has reissued the AIL to reflect this extended compliance date.

Pioneer 200: LAA/MOD/334/004 issue 3  
can be downloaded [HERE](#).

Pioneer 300: LAA/MOD/330/004 issue 3  
can be downloaded [HERE](#).

Pioneer Hawk: LAA/MOD/330A/004 issue 3  
can be downloaded [HERE](#).

Pioneer 400: LAA/MOD/364/003 issue 3  
can be downloaded [HERE](#).

Alpi Pioneer Safety Alert Notice 2019-04, referred to in the AIL, can be downloaded [HERE](#).

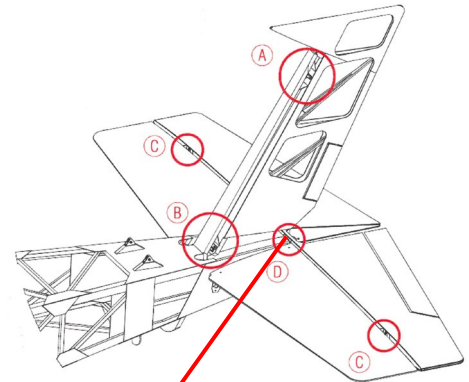


Fig 1. (Top) This sketch shows the inspection points within the empennage of all Pioneer types.

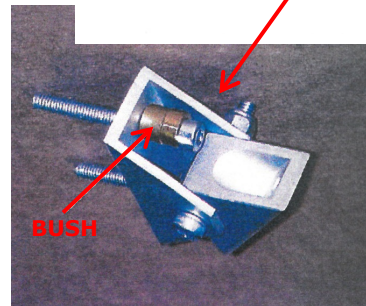


Fig 2. (Left) This Picture shows the centre hinge assembly from a P.300. Note the bushings (arrowed) which act as a primary control stop.

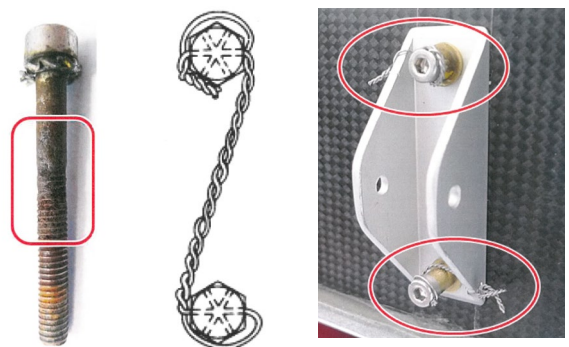


Fig 3 (Left) Shows severe corrosion in a cap-bolt as removed from a Pioneer aircraft operating in an overseas coastal environment.

Fig 4. (Centre) Shows a conventional method of wire-locking pairs of bolts.

Fig 5. (Right) Shows a suitable alternative method of wire-locking a pair of bolts where the wire-locking may interfere with correct hinge operation.