

Technical report

Date 08 January 2015

To:

**Moravia Zlin Aero Service sro,
Verona, Italy
Att: Pasquale Russo, Societá MZas**

From:

**Accident Investigation Commission of the Microlight Section of the Norwegian
Airsports Federation**

Subject:

**Observation regarding construction feature of the Elevator Control System on Zlin
Aero Savage Classic in connection with investigation of fatal accident with microlight
aircraft LN-YWQ, 31 March 2014, Voss, Norway.**

Aircraft: Zlin Aero Savage Classic, S/N 237, LN-YWQ, manufactured 2012

Observations:

Elevator possibility of locking.

The Elevator Control Surface movement has no primary end stop on the control surface itself. If a sufficiently strong external force downward is applied to the Elevator surface it stops only against the lower cable rigging of the Horizontal Stabilizer.

One could imagine that this could happen in a very violent tailslide manoeuvre.

In this situation the Elevator Control Horn and the Elevator Control Tube goes into a self-locking overcentre position. The Control Stick will then be locked in the extreme forward position. In this situation the more the pilot pulls the Stick, the more he locks and hold the control surface in the overcentre position.

This is accentuated by the Walking Beam for the Elevator then being in the forward position (with the elevator control surface in the extreme down position). The walking Beam is almost overcentre and self-locked. A pulling force from the pilot gives no force further towards the elevator.

Suggested action:

This possibility would be eliminated by introducing a mechanical primary end stop on the control surface movement.

Concluding remarks:

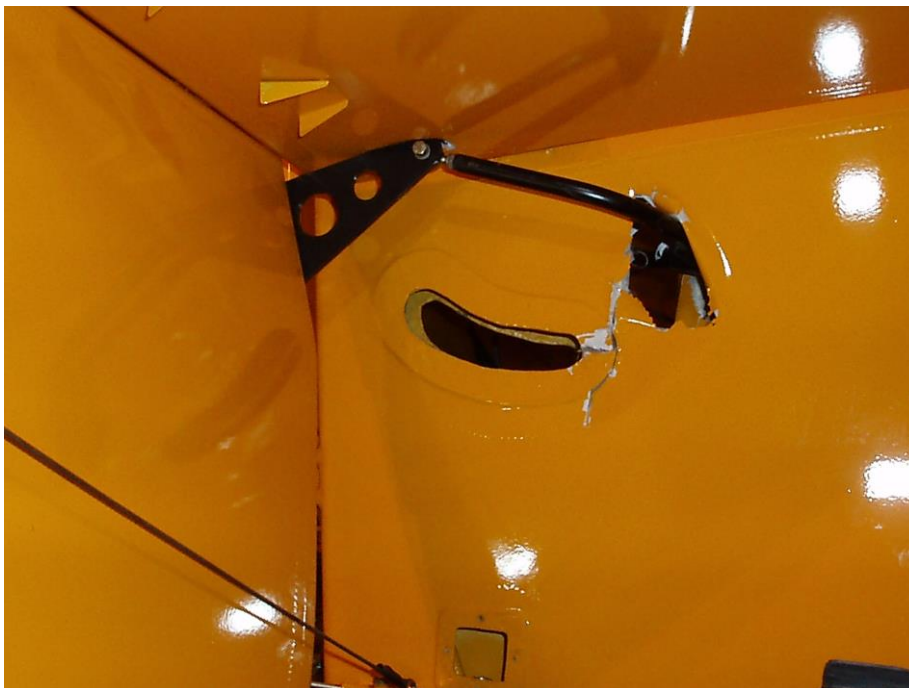
The Accident Investigation Commission do NOT consider that the above described observed possibility was background reason or contribution for this accident.

Subject **Accident Investigation Report 1-2014** regarding Occurrence 15-2014, Microlight Section of the Norwegian Airsports Association (NAA) was issued 22 October 2014. The Accident Report is only available in Norwegian language.

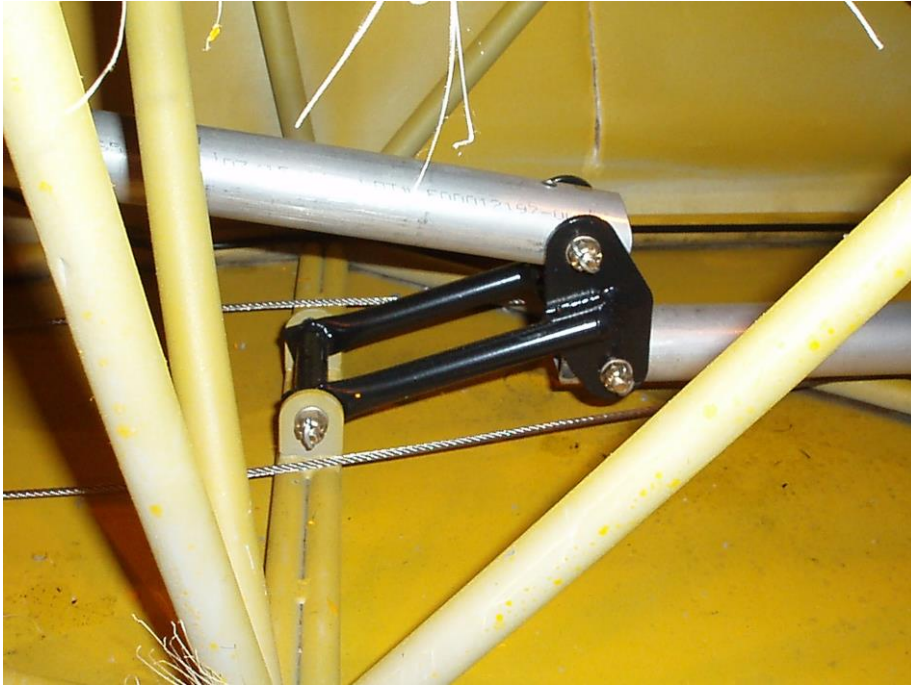
Position of the crashed aircraft nose down in the snow&ice surface



Elevator Control Surface in the extreme down position due to crash impact forces. The elevator is overcentre and in a self-locking position.



Walking Beam for the Elevator. This is in the forward position, that is how it is positioned with the elevator control surface in the extreme down position. The walking Beam is almost overcentre and self-locked. A pulling force from the pilot gives no force further towards the elevator.



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