

## **MANDATORY BULLETIN No. SD-1/009a**

**Concerning:** All amateur built SD-1 airplanes

**Subject:** Flaperons weight and hinge moment check

**Reason:** The weight and hinge moment of flaperons must be kept in the allowed range otherwise it can lead to flutter behaviour of the wing. The weight of a painted flaperon should not exceed 1800 g and the hinge moment must not be higher than 1,35 Nm.

**Latest day of action:** Before next flight

**Action carried out by:** Airplane owner

**Sheets:** 2

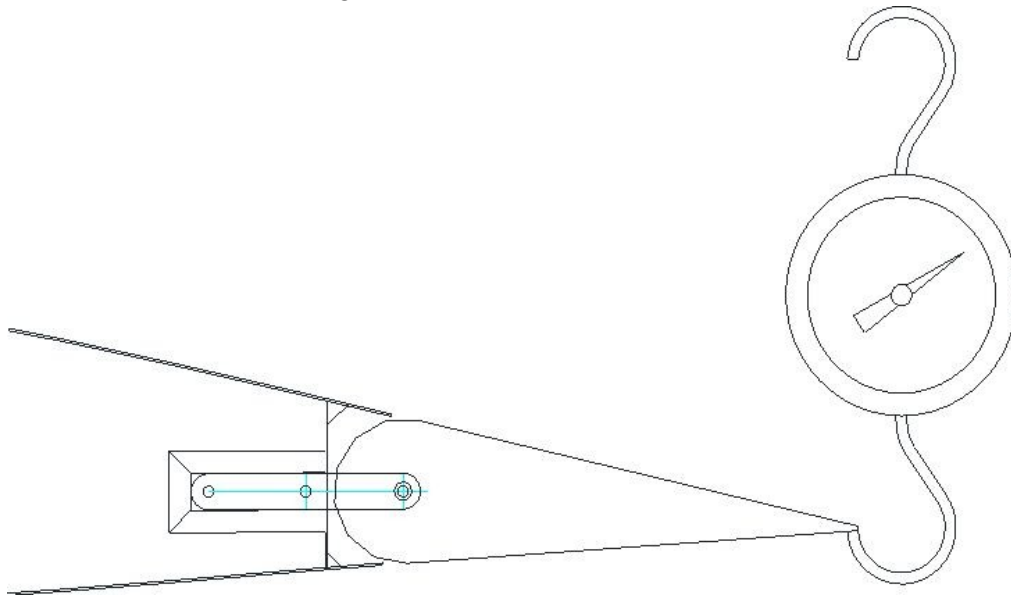
**Necessary tools:** Weight scale (precision 1 g),

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Igor Spacek  
Designer

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### THE FLAPERON HINGE MOMENT CHECK ON FINISHED AIRCRAFT

1. Derig wings from the fuselage.
2. Put wings on the underlays so that flaperons can move freely
3. Weigh the trailing edge of flaperon in the middle span using hanging kitchen scale or in accordance bellow image



4. The resulting moment is  $M_o = W (g)/100 * 0,21 = \dots Nm$ .
5. If the  $M_o$  exceeds value of 1,35 Nm it is necessary either to repaint or build new, lighter flaperons.