

Rudder pedal crank substitution and positioning

Classification

Mandatory.

Applicability

All fuselage kits delivered before issue of this modification.

Compliance

Before next flight

Introduction

Due to potential corrosion occurring between the light alloy CS21 and steel rudder pedals, it is necessary to substitute them with steel CS21s. These are provided by Europa Aviation Ltd.

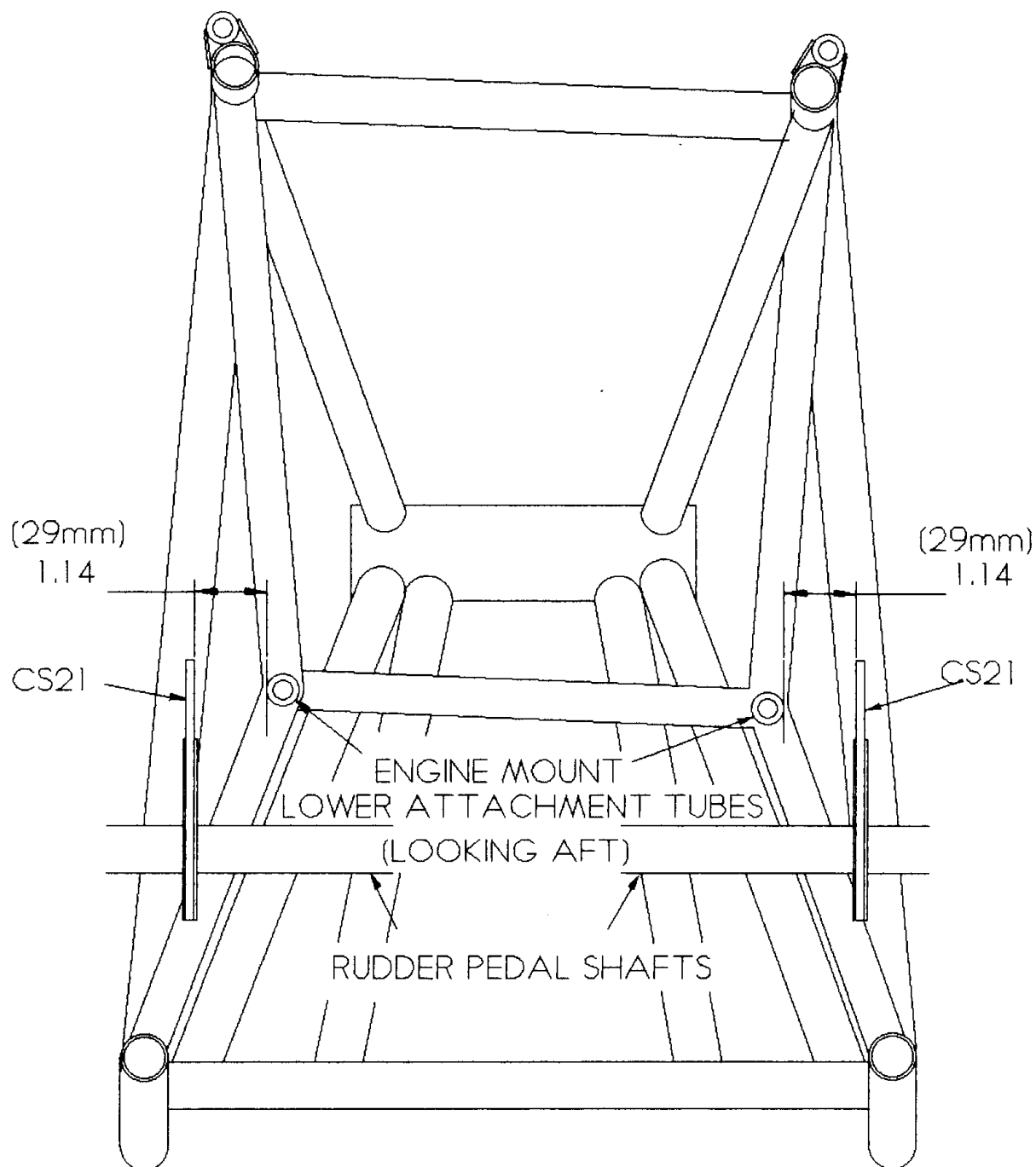
There have been problems reported associated with the positioning of the rudder pedals and therefore the CS21 rudder cable cranks. The problem does not arise until the Rotax engine mounting is fitted where, more often than not, there is interference between CS21 or the bolt holding the cable thimble and the lower shock mount housing of the engine mount. The manual has not supplied precise enough information to avoid this problem and several independent solutions have been found, some of which are not acceptable. There should be no need to bend the CS21 crank. The correct position of CS21 is shown in the figure overleaf.

The resulting position will provide clearance for the CS21 arms and the top bolt/cable thimble with the engine mounting. However, the cable will be very close to the Landing Gear frame and even touch it at some point of rudder pedal travel. This contact is remedied by the addition of the Tufnol rubbing strips as detailed at the end of the rudder pedal installation chapter.

Action

If you have already installed your rudder pedals and the relative positions of LG frame and CS21 are not shown in the figure, unbolt the two halves of the pedals and, having substituted the light alloy CS21 with the new steel CS21, move CS21 as required until it is as shown in the figure.

The inner pedal's position is fixed so you will only be able to move CS21 outboard, pushing the outer pedal outboard with it. If the gap between CS21 and the inner pedal end plate is less than 13mm, then add steel shims or a steel block which is the same shape as the end plate itself. If the gap is greater than this, the inboard pedal mounts will have to be repositioned, necessitating removal of the rudder pedal floor panels to do this.



If required, to further increase clearance between the engine mount and the bolt holding the cable thimble at the top of CS21, it is permissible to substitute the AN525-10R6 bolt and AN970-3 washer with an AN24694-S58 bolt and a Tinnerman type washer.

Do not use a set screw (threaded all the way to the head) as the stresses would pass through the thread and not the plain shank of a bolt.