A RALLYE

SOCATA - SERVICE

N° 120 CR 27-13

CORRESPONDING TO MODIFICATION N° 123

SUBJECT : Location of the rudder control on the rudder pedals.
Replacement of the rod nut by a guide nut.

VALIDITY : All RALLYE aircraft non equipped with modification n° 123, i.e :

light airframes - MS.880.B - MS.881 - MS.883 - MS.885 - MS.886- MS.887 - 100.S - 100.ST - 150.T - 150.ST -

heavy airframes - MS.890 - MS.892.A.150 - MS.892.E.150 - MS.893.A - MS.893.E - MS.894.A - MS.894.C - MS.894.E.

1°) with "SI" pitch threaded rods (up to n° 2453 for light airframes (up to n°12453 for heavy airframes

2°) with "ISO"pitch threaded rods (from n° 2454 for light airframes (from n° 12454 for heavy airframes.

Carried out in factory :

1°) in production line from n° 2622 for light airframes and n° 12622 for heavy airframes.

2°) in retrofit on all aircraft supplied since 24 March 1975.

OFFICIAL APPROVAL

S.G.A.C. APPROVED

RECOMMENDED

TIME OF COMPLIANCE

At the first opportunity and, in any case, at the next 100 hour inspection.

PURPOSE

To avoid any possibility of control rod bending in the place of its location on the rudder pedals.

MARCH 1975

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SOCATA SERVICE

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DESCRIPTION

In normal utilization, the RH and LH rods of the rudder control support only a small tension stress and offer an important safety margin.

On the other hand, at the time of overhaul or maintenance operations, some unusual manoeuvres can create abnormal buckling stresses on the rods (for example : the manoeuvre which would consist in pulling one rudder pedal while the other is maintained unmoved). This buckling may, in borderline cases, cause the failure of the rod in its threaded area, behind the eye bolt which ensures the attachment with the rudder pedal. A few similar incidents having occur, we have provided a safety device which consists in replacing the nut, item 1, by a guide nut, item 2. (see figure on page 2/3). This guide nut which has an important length and is bored at its ends, forms a bushing which is engaged both on the eye bolt tail (previously undercut) and on the plain length of the rod.
This prevents any bending in this area.

Although the incidents are caused by anomalies and never occur in normal utilization, we recommand the users to replace the existing nut by the above mentioned guide nut. During this operation, it is obligatory to make sure that the rod is not distorded in its threaded area and that the thread is not damaged. (one of these two anomalies involving to reject the rod). This operation must be followed by a checking of the rudder deflexion.

REQUIRED MATERIAL

1°/ For the rods with "SI" pitch - up to n° 2453 (light airframes) and n°12453 (heavy airframes).

Remove the old eye bolt n° 880.27.0.209.0 and the nut item 1.
Install the undercut eye bolt n° 880.27.0.404.0 and the guide nut n° 880.16.0.059.0

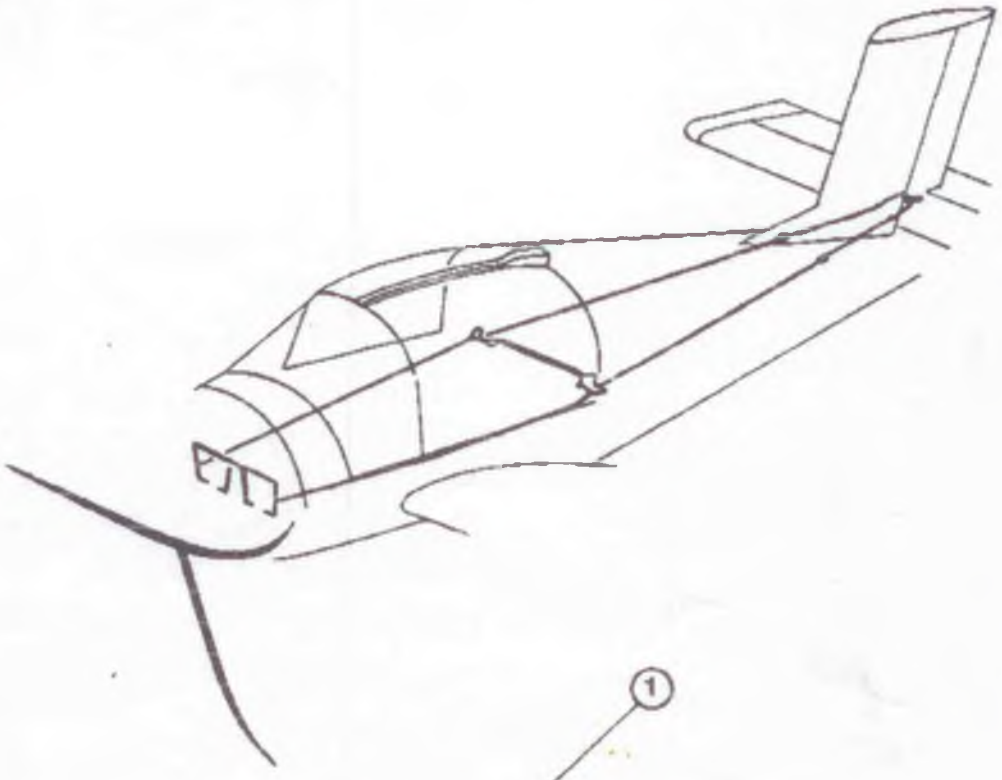
2°/ For the rods with "ISO" pitch - from n° 2454 (light airframes) and n°12454 (heavy airframes).

Remove the old eye bolt n° 880-27.0.363.0 and the nut item 1.
Install the undercut eye bolt n° 880-27.0.402.0 and the guide nut n° 880-16.0.185.0.

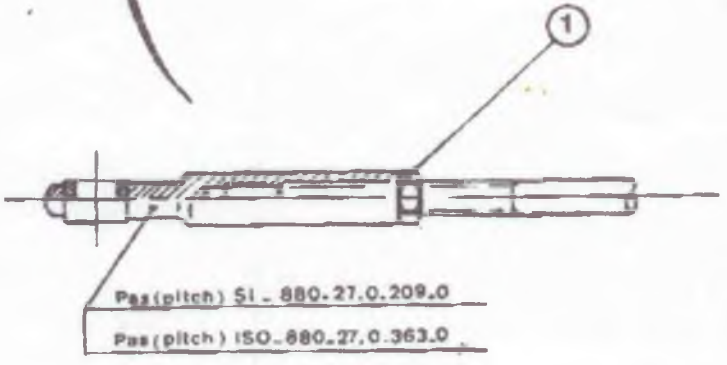
Effects on weight, CG location and performance

NONE.

After embodiment of this modification, record the application of this SOCATA-SERVICE in the aircraft log book.



AVANT
(BEFORE)



APRES
(AFTER)