DG Flugzeugbau GmbH
76646 Bruchsal

Service Info
No. 51-03

Subject : Repair of aileron pushrods

Effectivity : DG-100, DG-200, DG-400

Accomplishment : In case of damage

Reason : An aileron pushrod may be bent and kinked when rigging or derigging the glider.

Instructions :

1. Pull out the damaged pushrod so far out of the root rib, that the bent area is outside the root rib and can be cut off. If necessary disconnect the aileron to get a larger displacement of the rod.
2. Cut off the rod directly outboard of the bent area.
3. Drill out the rivets which connect the Hotellier connector to the push rod. Remove the Hotellier connector from the rod. If this is not possible without damaging the connector you have to install a new connector.
4. You need a new piece of pushrod:
   rod 16x1 AlMgSi0,5 for DG-100 and DG-200 and DG-200/17, approx. 450 mm long for DG-100 and 250 mm long for DG-200
   rod 15x0,5 St35bk for DG-200/17C and DG-400: approx. 250 mm long
   rod 14x1 AlMgSi0,5 40mm long as connector for new rod to the remaining rod.
5. Ream one end of the new rod and the end of the remaining rod with a 14mm reamer so far that the 14x1 connector rod can be pushed into both rods.
6. Glue in the 14x1 rod into both rods according to sketch 1 with epoxy resin or Loctite 638. After curing fix both rods with 4 pop rivets each to the connector see sketch 1. Rivets: Fero AlMg5 dia. 3mm for 2mm material width.
7. Assemble the glider, adjust (flap and) aileron control and the aileron to zero. Mark the position of the Hotellier ball (rotule) to the push rod see sketch 2.
8. Derig the glider and cut the push rod 57mm shorter than the mark. Ream the rod with a 14mm reamer so far that the connector can be pushed into the rod.
9. Mark the old holes of the connector so that you can drill new rivet holes between the existing holes see sketch 3. Glue in the connector into the rod with epoxy resin or Loctite 638. After curing fix the connector to the rod with 4 pop rivets Fero AlMg5 dia. 3mm for 2mm material width.
10. Assemble the glider and perform the final aileron adjustment.

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Material :

1. for DG-100: rod 16x1 AlMgSi0,5 approx. 450 mm long
2. or for DG-200 and DG-200/17: rod 16x1 AlMgSi0,5 approx. 250 mm long
3. or for DG-200/17C and DG-400: rod 15x0,5 St35bk approx. 250 mm long
4. rod 14x1 AlMgSi0,5 40mm long as connector for new rod to the remaining rod.
5. 12 pop rivets Fero AlMg5 dia. 3mm for 2mm material width.
6. Loctite 638
7. Hotellier quick connector RM 9.41 if necessary

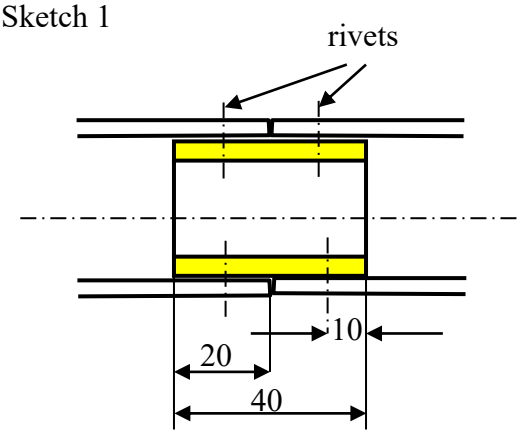
Weight and balance : influence negligible

Remarks : All Instructions are to be executed by the manufacturer or by a licensed workshop and to be inspected and entered in the aircraft logs by a licensed inspector.

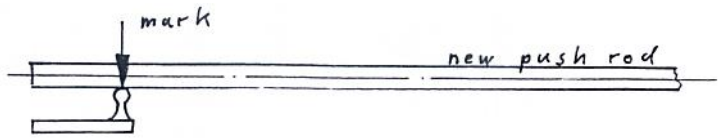
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Sketch 1



Sketch 2



Sketch 3

