

GFA AD 447

(ISSUE 1)

GFA AIRWORTHINESS DIRECTIVE

TYPE AFFECTED:

DG-100 all series

DG-200 all series

DG-300 DG-400

DG-500 all series (including powered sailplanes) DG-600 all series (including powered sailplanes)

SUBJECT:

Failure of a cantilevered bellcrank pivot mount.

BACKGROUND:

A case has been reported where the bellcrank pivot in the elevator drive circuit of a DG-200 failed causing the elevator circuit to jam.

Fortunately this was detected in the pre-flight inspection.

The type of cantilever pivot support which failed is typical of the

pivots used throughout DG gliders.

ACTION REQUIRED:

Before next flight all pivot support brackets which are similar to the one shown in Figure 1 must be tested by applying a torque to the nut. The correct torque will depend on the size of the pivot bolt and is shown in Table 1. It is not known that sizes other than M6 and/or M8 are fitted however if bolt of other sizes are found then the

CTOA should be contacted.

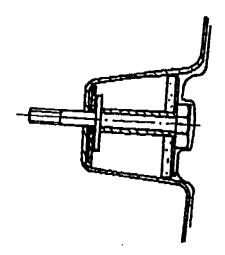


Figure 1. Typical pivot bracket

The torque must be applied using an accurate torque wrench.

SIGNED: For and on behalf of: THE GLIDING FEDERATION CHIEF TECHNICAL OFFICER AIRWORTHINESS OF AUSTRALIA **GFA AD 447 ISSUE: 1** 29 March, 1996 Page 1 of 2 The part will be considered to have failed the test if there is any movement of the bolt, any cracking sounds are heard or there are any other indications of failure.

Inspectors will need to ensure that all similar mounts within the glider have been checked even if a hole has to be cut in the structure to access the nut. Unless specific approval is granted all holes must be repaired once the test is completed.

If any difficulties are found the CTOA must be contacted.

Spanner size	Thread size	Torque (Nm)	Torque (ftlb)
10 mm	M6	2.5	1.8
13 mm	M8	4.5	3.3

Table 1

The figures in Table 1 are to be used for this application only. They are designed to test the fibreglass and not provide maximum allowable bolt torque.

WEIGHT AND BALANCE: Not affected.

IMPLEMENTATION:

Torqueing of the nuts must be performed by persons rated "Inspection for issue of Maintenance Releases any type".

Any FRP repairs must be performed by persons rated for Minor repairs FRP.

COMPLIANCE:

The requirements of this GFA Airworthiness Directive are mandatory. This Directive is issued pursuant to the Rules and Regulations of the Gliding Federation of Australia.