DG Flugzeugbau GmbH
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Technical Note

No. 348/12
843/12

Subject : Elevator control in the vertical fin

Effectivity : DG-500 ELAN all models up to ser. no. 5E203
DG-500M, DG-500MB up to ser. no. 5E203

Accomplishment : Instruction 1 prior to next flight
Instruction 2 latest December 31. 1999

Reason : On one DG-500 the push rod guide of the elevator control rod in mid-point of the vertical fin came loose. If the guide slips up or downwards this may cause hard movement of the elevator control.
The reason that the guide may come loose is that the foam core of it's stand may be compressed by a very high load. To prevent such problems the foam core must be stiffened using resin thickened with cottonflocks.

Instructions :
1. Visual inspection of the push rod guide: Loosen the rubber boot from the rear upper rib of the fin, be careful not to damage the boot. Hold tight the upper end of the pushrod while a second person applies loads as high as possible at the control stick in forward and rearward directions. Move the control system several times between both stops under these loads. If the outer aluminium tube of the guide doesn't move, you may reinstall the rubber boot using Pattex as glue or proceed with instruction 2. If the tube moves a detailed repair is necessary.
2. Stiffen the stand using resin thickened with cottonflocks according to working instruction No. 1 for this TN. If instruction 2 was not executed directly after instruction 1, instruction 1 has to be repeated.

Material : Pattex contact glue
Glassfibre fabric Style 92125 50x70mm
Epoxy resin with hardener: allowable types listed in the repair manual
Cottonflocks
2 split pins 1.5x12 DIN94 zn (zinc plated)
1 split pin 2x20 DIN94 zn
Working instruction no. 1 for TN 348/12
Drawing 5L36

Weight and balance : influence negligible

Remarks : Instruction No. 1 may be executed by the owner and is to be entered in the aircraft logs.
Instruction No. 2 is 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.

Bruchsal, date:
Oct. 6.. 1999

LBA – approved:

Author:
Dipl. Ing. Wilhelm Dirks

The German original of this TN has been approved by the LBA under the date of and is signed by Mr. Fendt. The translation into English has been done by best knowledge and judgement.

Type certification inspector:
Dipl. Ing. Swen Lehner