DG Flugzeugbau GmbH
D 76646 Bruchsal

Technical Note
No. 413/2

Subject : Landing gear, ballast box in the fin, manual revision

Effectivity : Instruction 1, 3, 4: DG-1000S ser.no.‘s 10-1 up to 10-31
Instruction 2, 6: DG-1000S ser.no.‘s 10-1 up to 10-33
Instruction 5: DG-1000S ser.no.‘s 10-1 up to 10-20
Instruction 1-6 are not applicable for DG-1000S ser.no. 10-23 (retractable main wheel with nose wheel)
Instruction 7: DG-1000S ser.no. 10-1 up to 10-31
Instruction 8, 9: DG-1000S all ser.no.‘s

Accomplishment : December 31. 2003

Reason : **DG-1000S with retractable main wheel without nose wheel:**
The landing gear retracted inadvertently during landing or when ground towing the glider backwards. Due to the loads the shaft 10FW15/3 failed. Instructions 1 up to 3. will solve the problem.
The landing gear could come out of it’s overcentre locking in retracted position due to negative g-loads. This is prevented by instruction 4.
With the short locking plate it was possible that the locking notch touched the rear end of the plate and the pilot didn’t notice that the landing gear was not fully extended. Instruction 5 solves this problem.
All DG-1000S:
It happened that someone didn’t lock the cover plate of the ballast box in the fin correctly. In such case the cover may open and ballast may fall out. To reduce this possibility a placard and markings must be glued onto the cover plate.
Manual revision

Instructions : Execute instructions 1 up to 7 according to working instruction No. 1 for TN 413/2.

1. Check if the landing gear struts are aligned for a correct over centre lock in the extended position, correct if necessary.
2. Exchange the shaft 10FW15/3.
3. Install stops for the extended position.
4. Install the stop 10RU163 for the retracted position.
5. Exchange the locking plate 10FW35/1 against a longer part 10FW35 (d) according to MM diagram 12.
6. Readjust the landing gear control circuit lock (extended position).
7. Apply placard and marking to the cover of the fin ballast box.
8. Tape the cover of the fin ballast box with tape min. 19mm (3/4 in.) wide prior to each flight.
9. Exchange the following manual pages against new issues September 2003 marked with TN 413/2 .
   Flight manual: 0.1, 0.3-0.5, 2.1, 2.9, 2.11, 4.5, 5.4, 6.3, 6.5, 6.10, 7.10
   Maintenance manual: pages 0.2, 0.5, 0.6, 4.14-4.16,
   diagrams 7, 11, 12

DG Flugzeugbau GmbH
Postfach 4120 76625 Bruchsal
Tel. 07257/890

Technical Note
No. 413/2

Material : **parts:**
shaft 10FW15/3
locking plate 10FW35/1(d)
2 pre-manufactured GFRP plates
stop block 10RU163
2 selflocking nuts M8DIN985-8zn
8 selflocking nuts M6LN9348
placard for cover plate of fin ballast box
marking stickers for the cover plate of fin ballast box (3M tape 5x40 mm red)
sticker white diameter 33mm
manual pages see above

small amount of material:
resin/hardener L285/H285
cotton-flocks
glue film
release agent

only if necessary:
fork 10FW13/1
bellcrank 10FW15/1

Weight and balance : influence negligible

Remarks : Instructions No. 1-7 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.

Bruchsal, date:
September 5. 2003

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:
Utz Schicke