



GFA AIRWORTHINESS DIRECTIVE

- TYPE AFFECTED:** DG-400 Serial Numbers 4-1 to 4-228.
- SUBJECT:** a: Revised pilot arm. b: Checking of the plugged hose on the pneumatic fuel pump. c: Exchanged locking pin on the wing tip extensions.
- BACKGROUND:** a: When modern thin parachutes are used the pilot arm is less than originally allowed for.
- b: The plugged hose on the pneumatic fuel pump may fall off.
- c: On some DG-400's the head of the wing tip locking pins failed due to vibrations while taxiing.

Note: The manual amendments required by Technical Note 826/20 have been incorporated in the manuals reissued under GFA AD 401.

Because Technical Note 826/20 was issued a long time ago it is possible these modifications have already been incorporated. In that case all that is required is a log book entry confirming that the requirements of this AD have been complied with.

DOCUMENTATION: Glaser-Dirks Technical Note 826/20 which forms part of this AD.

- ACTION REQUIRED:**
1. Before next flight the minimum pilot weight must be increased by 5 kg and the placards changed accordingly.
 2. At the next annual inspection after 1 May, 1996 the correct pilot weight limits must be determined. If the powered sailplane has been reweighed since 1 May, 1992 and that weighing is still valid then the results of that weighing may be used and new limits calculated. Otherwise the powered sailplane must be reweighed and the new limits calculated from the latest weighing. The revised pilot arm is in the new Maintenance Manual and on the latest issue of the GFA Data Sheet.
 3. Before next flight the plugged piece of hose on the pneumatic fuel pump must be checked for tightness.
 4. At the next annual inspection after 1 May, 1996 the locking pins in the wing tips (both 15 m and 17 m variants) must be exchanged in accordance with item 4 of Technical Note 826/20.

WEIGHT AND BALANCE: As per items 1 and 2 above.

SIGNED:

CHIEF TECHNICAL OFFICER AIRWORTHINESS

For and on behalf of:

THE GLIDING FEDERATION
OF AUSTRALIA

IMPLEMENTATION:

Change of the placard for minimum pilot weight in accordance with 1 must be done by persons rated for Daily Inspections on the DG-400.

Determination of the pilot weight limits and reweighing, if necessary, must be performed by persons rated for Weight and Balance.

Checking of the plugged hose may be performed by persons rated for Daily Inspections on the DG-400.

Replacement of the wing tip locking pins must be performed by persons rated for Annual Inspections on the DG-400.

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.

Glaser-Dirks Flugzeugbau GmbH
im Schölergarten 19-20, 7520 Bruchsal 4
Telefon 07257/89-0, Telex 7022410 GLDG
LBA anerkannter Herstellungsbetrieb 10 25
LBA anerkannter Luftfahrzeugtechnischer Betrieb BA 279

Technical Note

Page 1 from 3

TN 826/20

Subject:

1. Empty weight C.G. range
2. Plugged piece of hose at the pneumatic fuel pump
3. Manual revisions
4. Locking pins on wing tips

Effectivity:

Motorglider DG-400
Serial No. 4 - 1 up to 4-228

Accomplishment: Latest date June 30 1988

Reason:

1. When using thin parachutes, there is the possibility, that the pilots position is behind the position used for calculating the present empty weight C.G. range diagram.
2. The plugged piece of hose at the pneumatic fuel pump which closes the extra outlet came off on 1 DG-400.
3. Manual revisions
4. On some DG-400's the head of the locking pins failed by shear due to vibrations when taxiing.

Instructions:

1. Using the new empty weight C.G. range diagram and the data of the latest weight and balance report and the table on page 21 flight manual the actual min. cockpit load has to be determined.
If this value exceeds 70 kg (154 lbs.) one of the following measures 1a or 1b has to be executed.
 - 1a. Enter the new value for the min. cockpit load in the table on page 21 flight manual and in the cockpit data placard.
 - 1b. Remove (if any) or reduce the amount of lead ballast in the tail of your DG-400. This requires removal of the rudder for access. Or install fixed ballast in the fuselage nose (two 6 mm inserts are installed).
After this action execute a new weight and balance measurement.
Enter the results into the table on page 21 flight manual and add the new weight and balance report to the logs.
Adjust the rudder and secure it properly.
2. Check the plugged piece of hose at the pneumatic fuel pump for tight fit. Therefore check the hose clamp at the plug and at the pump. Check at every 25 h inspection again, see maintenance manual sect. 3.4.1 item 6.

3. Exchange the following manual pages against the new pages issued April 1988.
The changes are marked at the side.

Page	Content and changes
Flight Manual	
0	Manual amendments
1	Content - new issue dates
2	" " "
17 a	RPM Indicator - new type
20	Loading chart
23	Length of the towing cable-changed to 30 - 70 m
28	Daily inspection - split pin for wing tip securing deleted
42	Wing tanks - text supplemented
46	Rigging of the wing tips - split pin for wing tip securing no more necessary
47	Filling the wing water ballast tanks - warning supplemented
50	Service and care - new translation petroleum ether
50 a	Charging the batteries supplemented
Maintenance manual	
0.1	Manual amendments
1	Content - new issue dates
2	" " "
3	Life time - plugged fuel line, flexible fuel bags
11	Tail wheel - supplemented
14	Spark plugs - new type Bosch W 3 CC
15	Gas strut - designation corrected
17 c	Flexible fuel bags - supplemented
18	Regulator - new type Glaser-Dirks 4 E 26
23	Charging the batteries - supplemented
30	General maintenance - corrections
31	Greasing and oiling - corrections
32	Servicing the engine - cylinder head nuts (item 2), plugged fuel line (item 6) plugged fuel line
34	Removal of the spindle-drive - corrected
39	Removal of ext.-retr. motor - corrected
40	Replacement of the gas strut - changed
41	Pilot C.G. corrected
48	Instrumentation, accessories list
49	- corrected
51	List of special tools - special wrenches supplemented
diagr. 2	Landing gear - part no.'s amended
diagr. 5	Waterballast system - part no.'s amended
diagr. 6	Engine - spring washer part no.
diagr. 7	Extension - retraction mechanism gas strut - corrected
diagr. 8	Fuel system - plugged fuel line supplemented
diagr. 10	Empty weight C.G. range - new diagram

File the installation sketch EFVK "landing gear doors" (issued Oct. 1987) and drawing W 33 and W 34 (issued March 1988) at the end of the maintenance manual.

Glaser-Dirks Flugzeugbau GmbH
Im Schönlager 18-20, 7350 Bruchsal 4
Telefon 07251-99-0, Telex 792210 GLDG
LBA anerkannter Herstellungsbetrieb 18 33
LBA anerkannter Luftfahrttechnischer Betrieb 18 33/17

Technical Note
TN 826/20
Page 3 from 3

4. The locking pins of the 15 m wing tip and the 17 m wing tip extensions have to be exchanged against new pins part no. 4 F 31. Therefore the split pin at the locking device has to be removed.
Then the locking pin and spring can be re-moved.
The pins 4 F 31 have no hole for a split pin and no thread as this is unnecessary. Grease the parts when installing (see M.M. sect. 3.3).
Use a new split pin 2 x 20 DIN 94 zn.

Material:

4 locking pins 4 F 31
4 split pins 2 x 20 DIN 94 zn

Remarks:

Instruction 1, 1a, 1b, 2, 4 are to be executed by a licenced work shop and to be inspected and entered in the aircraft logs by a licenced inspector.
Instruction 3 may be executed by the aircraft owner.

Bruchsal 4, April 20 1988

LBA-approved:

Signature:

W. Dirks

Dipl. Ing. W. Dirks

The German original of this TN has been approved by the LBA under the date of April 29, 1988 and is signed by Mr. Skov.

The translation into English has been done by best knowledge and judgement. In any case of doubt the German original is authoritative.