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

## **Technical Note** No. 873/13

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Subject : Powerplant, manual revision

Effectivity : DG-800B with SOLO engine

Accomplishment : Instructions 1, 3 and 5 prior to next flight

Instructions 2 and 4 with the next 25 hour inspection

Instruction 7 latest Dec. 31. 1999

Reason : 1. The fuel line may kink near the fuel filter even with the spring installed (according to TN 873/12 instruction 3) if layed in an unfavourable way.

- 2. Instead of the straight fuel filter a filter with 90° elbow may be used.
- 3. The screw nipple at the connection of the throttle cable to the carburettor may wear in a short time, especially with the new Mikuni carburettor. Nipples made from a much harder material are available now.
- 4. Securing the removable caps to the spark plugs with Loctite may result in reduced sparking power, if too much Loctite is used. To improve the sparking power plugs with the caps fastened by crimping with a special tool can be supplied now.
- 5. The rod end of the gas-strut of the engine extension-retraction mechanism may turn loose if not tightened and secured properly with Loctite.
- 6. With TN873/15 other types of batteries have been approved for the use in the DG-800.
- 1. Only applicable if the fuel filter is installed at the front mounting point of the spindle drive: Modify the laying of the fuel lines near the fuel filter according to diagram 11c. Pull the filter out of the holder clamp. Remove any ty-raps near the filter. Turn the spring so far that it will contact the hose clamp on the filter (the spring will move on the hose similar to turning a nut on a bolt). Push the new ty-rap through the spring and tighten it for a hose loop of 40mm according to diagram 11c. By this measure it is ensured, that the bending of the hose is only inside the spring and kinking at the ends of the spring is prevented.
- 2. When installing a new fuel filter a filter with 90° elbow instead of the straight filter may be used. Especially if an ELT or a similar part is installed close to the filter, this filter is recommended. Installation is also according to diagram 11c. The spring on the fuel line is no more necessary but may remain on the hose. The length of the hoses doesn't change. Type of filter see MM page 91.
- 3. Check the screw nipple at the connection of the throttle cable to the carburettor for wear. If damaged replace by a nipple S35/1, use the screw of the existing nipple. The nipple S35/1 is made from tempered steel whereas the common nipples are made from brass and nickle plated.
- 4. It is recommended to use spark plugs with the removable caps secured by crimping, type see MM page 91.
- 5. A) The Loctite securing of the rod end to the piston rod of the gas strut can be identified by a dot of red paint on piston rod and rod end. Check prior to next take off, if the marking paint is there and that the piston rod didn't rotate against the rod end. Execute this visual inspection with every pre-flight inspection.,
  - B) If there is no marking or if the marking does not prove that the piston rod didn't rotate, remove the gas strut from the engine mount and secure the rod end according to the instructions in MM sect. 4.13 and 4.8 (securing with Loctite).
- 6. The installation of other battery types approved by DG is acceptable, see MM page 93.
- 7. Exchange the following pages of the maintenance manual issued June 1999 marked with TN873/13: 1, 3, 4, 43, 61, 91, 93 and add diagram 11c.

Instructions

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Material : Manual pages see instruction 7

Ty-rap 4.8x160

If necessary:

Loctite 638,7063 and 18896

Nipple S35/1

Fuel filter and spark plugs see MM page 91

Weight and balance : influence negligible

Remarks : Instruction No. 5b is to be executed by the manufacturer or by a licensed workshop.

The other instructions may be executed by the owner himself.

Accomplishment of all necessary instructions is to be inspected and entered in the

aircraft logs by a licensed inspector at the next annual inspection.

Bruchsal, date June 30. 1999 LBA – approved:

Author:

Dipl. Ing. Wilhelm Dirks

The German original of this TN has been approved by the LBA under the date of 13.Juli 1999 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