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Technical Note
No. 843/13

Subject : Powerplant , drive belt tension, manual revision

Effectivity : DG-500MB with engine SOLO 2625 02

Accomplishment : With the next 25 h service, at latest by Dec. 31. 1999

Reason :

a) Service experience with the engine SOLO 2 625 02 showed that a modification of the front crank shaft bearing was necessary. To accomplish this the engine must be modified by the manufacturer SOLO.

b) The SOLO company has issued the technical note 4600-1 which gives max. values for the drive belt tension. As it is not possible to measure the tension directly at the powerplant, we have developed a simple method to determine the tension. This measurement must be repeated whenever the drive belt is installed or refitted.

c) In the circuit of the DEI several power consuming devices are installed. Their power consumption differs from unit to unit due to tolerances in the manufacturing process. To avoid any unintended release of the circuit breaker a slightly stronger circuit breaker will be installed.

d) Manual revision: The description of the circuit breaker functions and of the wheel brake have been corrected.

Instructions :

1. Exchange the following manual pages:
   flight manual: 0.1, 0.5, 7.8
   maintenance manual: 1, 2, 3, 4, 34, 57, 63, 64, 93 and file drawing W57 to the manual enclosures
2. Remove the engine from the propellermount according to the procedure given in the maintenance manual in section 4.16. Ship the engine to the engine manufacturer SOLO for modification according to the SOLO TN 4600-1.
3. Install additional access holes in the propellermount according to drawing 5M102.
4. Reinstall the engine to the propellermount according to the procedures given in the maintenance manual in section 4.16. Adjust the drive belt tension according to section 4.11a), measure the drive belt tension according to the newly edited section 4.11g). Regard section 4.8 concerning the securing with Loctite. Check if the position of the propeller in relation to the engine compression point is within the limits given in section 4.11f).
5. After the reinstallation of the propeller mount to the fuselage a ground test run must be done. Check especially if the position of the propeller in relation to the engine compression point has changed (see section 4.11f)). If this has happened, the drive belt has slipped due to too a low tension. If the tolerances for the tension are not sufficient to prevent a slipping belt, contact the manufacturer.
6. Exchange of the DEI-circuit breaker: Turn the master switch “off”. Loosen the four fixing bolts from the fuse plate and remove the plate. Pull off the plugs from the DEI-circuit breaker. Loosen the counternut on the front face and remove the circuit breaker. Install the new 5A circuit breaker in the reverse order, taking care that the connectors are tightly pushed on. Reinstall the fuse plate and secure the bolts with Loctite 238.

Material :

- Manual pages see instruction 1, issued October 1999, TN 843/13
- Drawing 5M102
- Tool W57 (may be produced according to the drawing)
- Spring scale min. 100N (10kg, 22lbs)
- 5A circuit breaker Klixon 7277-2-5A
- Loctite 238

Weight and balance : No influence

Remarks : Instructions No. 2 - 6 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: 22.10.99

Author:
Dipl. Ing. Swen Lehner

LBA – approved:

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

Type certification inspector:
Dipl. Ing. Wilhelm Dirks