

Subject : Inspection and exchange of the "rotor cooling air fan according to TN 1", fitted at the engine AE 50 R made by Mid-West Engines LTD.

Serial number applicability:

Ad 1) Rotor cooling air fan:

Powered sailplanes ASH 26 E (Data Sheet No.04.883) which were modified according to TN 1 to a cooling air fan with white impeller **prior** to November 1997.

Where TN 1 was accomplished after November 1997 the upgraded cooling air fan with black impeller was used in accordance with Mid-West *Service Bulletin 002* (SB 002). As of Serial No. 26134 the cooling air fan with black impeller was fitted then as production standard.

Ad 2) Manual pages:

For all powered sailplanes ASH 26 E.

Compliance:

1. On all aircraft with serial numbers earlier than s/n 26134 prior to the next take off: the diameter of the pulley wheel of the cooling air fan must be measured. If the pulley wheel fitted has already a diameter of 44 mm, no further action is required.

If the diameter of the pulley wheel is 32 mm, the impeller must be inspected according to the instructions „Checking the fan of the rotor cooling air system“.

If this inspection reveals a defective white impeller, the cooling air fan assembly must be replaced prior to the next engine operation.

If the white impeller is found intact, a further engine operation of 4 hours is possible on the condition that maximum take-off RPM of 6900 are not exceeded. This inspection on the impeller can be done altogether 4 times until a maximum additional operation time of the impeller of 16 hours is reached starting with the first inspection under this TN.

2. On those aircraft where the new cooling air fan (pulley wheel diameter 44 mm) has already been fitted, the manual pages may be exchanged for the amended pages during the next mandatory annual C. of A. inspection.

On those aircraft which still need to be modified, the manual pages must be exchanged at the latest after the installation of the new cooling air fan assembly.

Reason:

Contrary to the results of a 50 h test, it is possible that the white impellers according to TN 1 (Service Bulletin 001 issued by Mid-West) using a pulley wheel diameter of 32 mm can fail in operation due to cracks and breaking of the impeller blades. The failure can be favored by engine operation with RPM above 6900.

The manufacturer of the ASH 26 E engine offers an upgraded fan impeller by issue of their *Service Bulletin 002*. As the efficiency of the new impeller has also been improved distinctly, the drive belt transmission could be reduced. This provides the positive effect that the 10-hours inspection of the drive belt can now be canceled.

Action:

If it is found that the cooling air fan assembly must be replaced, the customer must obtain either from Schleicher GmbH or from Mid-West Engines Ltd. a „Replacement parts kit SB 002“ and install the kit in accordance with the instructions included with the parts.

If an impeller with broken blades is found, then the engine inside must be cleaned by Mid-West.

The following manual pages must be exchanged for new pages with the respective revision entry "TN 5 date July 23, 1998". The exchange of the pages in the Manual must be documented on the respective page "Record of Revisions".

Maintenance Manual: Page 7.7 & 7.11 (must be exchanged for **all** ASH 26 E)

**Material &
Drawings:**

„Replacement parts kit SB 002“ by Mid-West, incl. accomplishment instructions.

Mass & C.G.:

The change in mass is low and, therefore, the influence on empty mass and C.G. is negligible.

Notes:

The inspection of the fan impeller must be accomplished by a technical aviation service station or by a skilled person; if the cooling air fan need not be replaced at once, the accomplishment of the inspection must be entered in the glider logbook under the block Maintenance Works. Only after the actual exchange of the cooling air fan assembly, this action must be certified in the glider inspection certificates.

All above actions, even if a cooling air fan with pulley wheel diameter 44 mm was already fitted, to be checked and entered in the sailplane's log by a licensed aviation inspector who must also certify the accomplishment in the glider's inspection documents and in the Maintenance Manual.

The installation must be done only by the manufacturer Alexander Schleicher or by a technical aviation service station holding an appropriate license.

The exchange of the pages in the Manual can be done by the operator of the glider himself. In the Index of Effective Pages (p.0.6) the date of the amended pages must be changed by hand to "23.07.98".

Poppenhausen, July 23, 1998

Alexander Schleicher
GmbH & Co.

By order

(Martin Heide)

The German original of this Technical Note has been approved by the LBA under the date of Sept. 11, 1998 (signature: WALTER)

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