



GFA AIRWORTHINESS DIRECTIVE

- TYPE AFFECTED:** ASH 26 E up to Serial Number 26134.
- SUBJECT:** Inspection and possible replacement of the rotor cooling fan.
- BACKGROUND:** Service experience has shown that cracking of the cooling impeller is possible.
- DOCUMENTATION:** Alexander Schleicher ASH 26 E Technical Note No. 5 and ASH 26 E working instruction 'Checking the fan of the rotor cooling system' both of which form part of this AD.
- ACTION REQUIRED:**
1. Before next engine operation the diameter of the rotor cooling fan pulley must be measured. If the pulley has a diameter of 44 mm then the engine may re-enter service with no further action.
If the pulley diameter is 32 mm then the impeller must be inspected for cracks in accordance with ASH 26 E work instruction 'Checking the fan of the rotor cooling air system'. If no cracks are found the engine may return to service for a maximum of 4 engine hours. This process may be repeated, provided no cracks are found, until a total of 16 hours engine operating time from the first inspection under this AD has been completed.
If cracks are found or after 16 hours of engine operation with no cracks the cooling fan assembly must be replaced before next engine operation.
If an engine with a 32 mm pulley and no cracks in the impeller remains in service then the maximum engine speed is limited to 6900 RPM. This must be placarded next to the ILEC engine control unit.
 2. Sailplanes which have the 44 mm pulley must have their Maintenance Manuals amended at the next Annual Inspection.
Other sailplanes must have their Maintenance Manual amended when the cooling fan is replaced.

SIGNED:

Jonathan Sharp
CHIEF TECHNICAL OFFICER AIRWORTHINESS

For and on behalf of:

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OF AUSTRALIA

Amendment of the manual must be done by replacing pages 7.1 and 7.11 with new pages available from Alexander Schleicher or their Australian Agent.

WEIGHT AND BALANCE: Not affected.

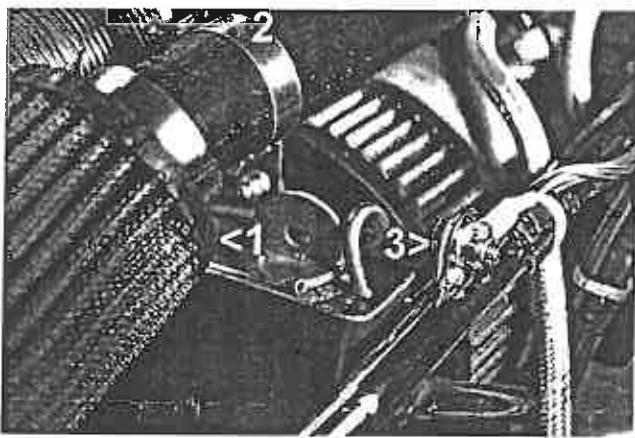
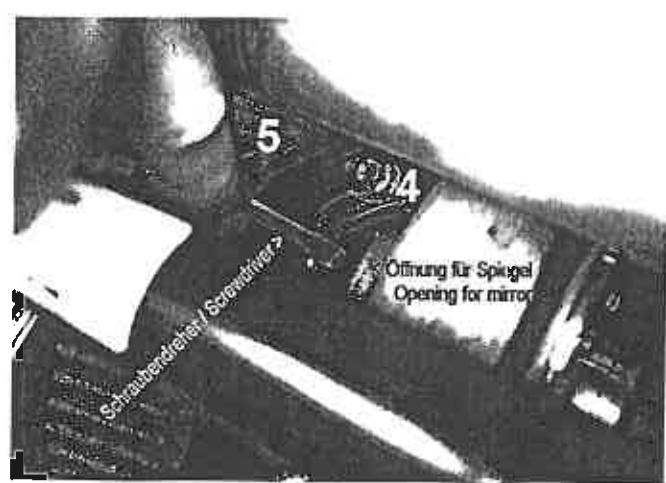
IMPLEMENTATION: Measuring of pulleys, inspection of impellers, installation of placards and replacement of the cooling fan assembly must be performed by persons rated for Annual Inspections on the ASH 26 E.

Manual amendments may be performed by the Certificate Holder.

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.

<p>Sheet 1 of 2</p> <p>ASH 26 E Technical Note No. 5</p> <p>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.</p> <p>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 Q02 (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.</p>	<p>Alexander Schleicher GmbH & Co. Segelflugzeugbau D - 36163 Poppenhausen</p> <p>Sheet 2 of 2</p> <p>ASH 26 E Technical Note No. 5</p> <p>Maintenance Manual: Page 7.7 & 7.11 (must be exchanged for all ASH 26 E)</p>	<p>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".</p> <p>Material & Drawings: .Replacement parts kit SB 002" by Mid-West, incl. accomplishment instructions.</p>	<p>Notes:</p> <p>1. On all aircraft with serial numbers earlier than 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.</p> <p>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.</p>	<p>Compliance:</p> <p>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.</p> <p>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.</p>	<p>Reason:</p> <p>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.</p> <p>Action:</p> <p>If an impeller with broken blades is found, then the engine inside must be cleaned by Mid-West.</p>
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Gegenstand: Kontrolle des Lüfterrades der Innenluftkühlung auf Beschädigungen Subject: <i>Inspection of the rotor cooling air fan for damage.</i>			
Betroffen: ASH 26 E entsprechend den Angaben in TM 5 Serial number applicability: ASH 26 E corresponding to TN 5			
Maßnahmen: 1. Hintere Befestigungsschraube (1) des Triebwerkes lösen. Diese Schraube führt durch den Öltank und kann nicht herausgezogen werden. 2. Schelle (2) des Ansaugrohres lösen. 3. Öltank an der seitlichen Verschraubung (3) rechts lösen. Action: 1. <i>Undo the rear mounting bolt (1) of the engine system. This bolt is running through the oil reservoir and can not be removed.</i> 2. <i>Undo the clamp around the ram pipe.</i> 3. <i>Undo oil tank reservoir at the screw(3) on the right side.</i>			
 <p style="text-align: center;">Fig. 1</p>			
<p>4. Schelle (4) des Kühlluftfilters (5) lösen. 5. Öltank vorsichtig nach hinten schieben. 6. Kühlluftfilter (5) ebenfalls so weit wie möglich nach hinten schieben und mit einem Schraubendreher den Gummiflansch am Filter wegdrücken, damit mit einem Spiegel, wie in Fig. 3 dargestellt, das Lüfterrad im Inneren des Lüftergehäuses kontrolliert werden kann.</p> <p>4. <i>Undo the clamp (4) at the rotor cooling air filter.</i> 5. <i>Move oil reservoir carefully to the back.</i> 6. <i>Move rotor cooling air filter (5) backwards, as far as possible and press the rubber flange of the filter to the back by means of a screwdriver, as shown in fig. 3, so that the fan inside the cooling air fan assembly can be inspected.</i></p>  <p style="text-align: center;">Fig. 2</p>			

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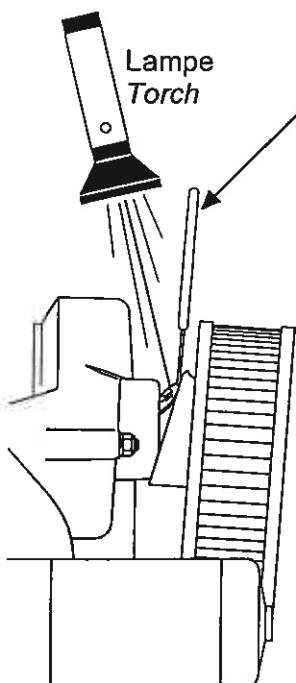
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2 of 2**ASH 26 E**
Prüfung des Lüfterrads der Luftinnenkühlung
Checking the fan of the rotor cooling air systemAlexander Schleicher
GmbH & Co.
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Fig. 3

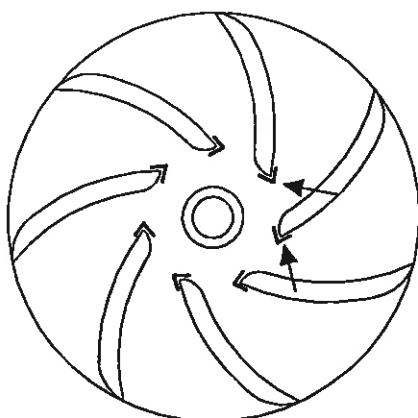


Fig. 4

7. Lüfterrad an den in Fig. 4 gekennzeichneten Stellen kontrollieren, ob an den Lüfterradflügeln Risse vorhanden sind. Kurze, weiße Verfärbungen in diesen Kanten sind noch tolerierbar.
7. Check fan blades at the position marked in fig. 4 for cracks. Short, white discoloration at these edges is tolerable.

Poppenhausen, den 21.07.98

Alexander Schleicher
GmbH & Co.

i.A.

(M. Münch)

