# AIRWORTHINESS DIRECTIVE

**AD No.: 2013-0123**

**Date: 05 June 2013**

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with EU748/2012, Part 21.A.3B. In accordance with EC 2042/2003 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].

<table>
<thead>
<tr>
<th>Design Approval Holder’s Name:</th>
<th>Type/Model designation(s):</th>
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<tr>
<td>ALEXANDER SCHLEICHER GmbH &amp; CO Segelflugzeugbau</td>
<td>ASK 21 sailplanes</td>
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**TCDS Number:** EASA.A.0221

**Foreign AD:** Not applicable

**Supersedure:** None

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<thead>
<tr>
<th>ATA</th>
<th>Aircraft Flight Manual – Amendment</th>
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<td>ATA 11</td>
<td>Placards and Markings – Installation</td>
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**Manufacturer(s):** Alexander Schleicher GmbH & CO Segelflugzeugbau (hereafter referred to as Schleicher).

**Applicability:** ASK 21 and ASK 21 Mi sailplanes, all manufacturer serial numbers

**Reason:** ASK 21 sailplane spin characteristics can be controlled using tail ballast weights, ensuring that pilots of all weights can achieve the same spin results. Although the tail ballast weights were designed to control the centre of gravity of the sailplane, these weights significantly affect the inertia terms that govern the sailplane response to spin manoeuvres. Schleicher issued a Technical Note (TN) Nr. 4 in 1980 (mainly used in Switzerland) to provide instructions for the Aircraft Flight Manual (AFM) for spin training. These instructions did not provide proper protection against accomplishment of single seated flight with forgotten spin ballast installed.

Schleicher issued a TN Nr. 4a in 2004 to provide instructions to the Aircraft Flight Manual (AFM) amendments to address spin ballast installation and facilitate two seated spin training. However, these instructions did not provide proper guidance for the spin entry techniques. The safety margin in respect to
inertia limits was marginal for pilot weights less than 70 kg on the front seat. Furthermore, in one case, it was observed that a control surface gap was not sealed in accordance with design data approved for that aircraft.

Single seated flight with forgotten spin ballast installed, if not corrected, could lead to sailplane operation beyond its centre of gravity limits. Flights with low inertia momentum around Y axis (as a result of the low weight crew) could result in reduced safety margin in respect to inertia limits.

Improperly sealed control surface gap during spin recovery could lead to significant delay of recovery and reduced control of the sailplane.

To address these potential unsafe conditions, Schleicher issued TN Nr. 4b for ASK 21 model sailplanes and TN Nr. 7 for ASK 21 Mi model sailplanes to amend the associated AFM and Aircraft Maintenance Manual (AMM) procedures and installation of a cockpit placard, as applicable to sailplane model.

For the reasons described above, this AD requires amendment of the AFM, AMM and installation of a cockpit placard.

**Effective Date:** 10 June 2013

**Required Action(s) and Compliance Time(s):**

- **Required as indicated, unless accomplished previously:**
  - **Model ASK 21 sailplanes:**
    1. For sailplanes modified in accordance with Schleicher TN Nr. 4, within 30 days after the effective date of this AD, amend the sailplane AFM and AMM and concurrently install a cockpit placard in accordance with the instructions of Action B of Schleicher TN Nr. 4b, and operate the sailplane accordingly.
    2. For sailplanes modified in accordance with Schleicher TN Nr. 4a, within 30 days after the effective date of this AD, amend the sailplane AFM and AMM in accordance with the instructions of Action C of Schleicher TN Nr. 4b, as applicable, and operate the sailplane accordingly.
  - **Model ASK 21 Mi sailplanes:**
    3. For sailplanes with attachment for spin ballast at the vertical tail installed, within 30 days after the effective date of this AD, amend the sailplane AFM and AMM in accordance with Action A of Schleicher TN Nr. 7, and operate the sailplane accordingly.
    4. For sailplanes without attachment for spin ballast at the vertical tail installed, within 12 months after the effective date of this AD, remove the supplement “A Spin Ballast” from the AFM, section 9 and AMM, section 13 without replacement in accordance with Action B of Schleicher TN Nr. 7, or amend the sailplane AFM and AMM in accordance with paragraph (3) of this AD.

ASK 21 sailplanes, both Models:

4. Amendment of the AFM or AMM as required by this AD, may be accomplished by the pilot owner in accordance with paragraph M.A.803 of Commission Regulation (EC) No 2042/2003.

**Ref. Publications:**

- Schleicher TN ASK 21 Nr. 4b, dated 12 December 2012,
- Schleicher TN ASK 21 Mi Nr. 7, dated 12 December 2012.

The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.
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<tr>
<th>Remarks:</th>
<th>1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.</th>
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<tr>
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<td>2. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.</td>
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<td>3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: <a href="mailto:ADs@easa.europa.eu">ADs@easa.europa.eu</a>.</td>
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<td>4. For any question concerning the technical content of the requirements in this AD, please contact: Alexander Schleicher GmbH &amp; Co.; Mr. M. Greiner, Germany Telephone: +49 (0) 06658 89-0 Fax: +49 (0) 06658 89-40. E-mail: <a href="mailto:info@alexander-schleicher.de">info@alexander-schleicher.de</a>.</td>
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