# Airworthiness Directive

**AD No.: 2018-0127**

**Issued: 11 June 2018**

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, 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 Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 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 [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EC) 216/2008, Article 14(4) exemption].

| Design Approval Holder's Name: | Type/Model designation(s): |
|---|---|
| DG FLUGZEUGBAU GmbH | DG-808C, DG-1000T, LS8-t, LS9 and LS10-st powered sailplanes |

| | |
|---|---|
| Effective Date: | 25 June 2018 |
| TCDS Number(s): | EASA.A067, EASA.A.072, EASA.A.047, EASA.A.138 and EASA.A.157 |
| Foreign AD: | Not applicable |
| Supersedure: | None |

## ATA 28 – Fuel Hoses – Inspection / Replacement / Life Limit

**Manufacturer(s):**

DG-Flugzeugbau GmbH, Rolladen-Schneider – Flugzeugbau GmbH

**Applicability:**

DG-808C, DG-1000T, LS8-t, LS9 and LS10-st powered sailplanes, all manufacturer serial numbers.

**Definitions:**

For the purpose of this AD, the following definitions apply:

**The applicable TN**: DG-Flugzeugbau GmbH Technical Note (TN) TN 800/46, TN 1000/38, TN 8026, TN LS10-04 and TN9002, as applicable.

**Affected part**: Polyurethane (PU) fuel hoses installed in the airframe fuel system and engine compartment.

**Serviceable part**: Fuel hoses corresponding to industrial standard DIN 73379-2A, eligible for installation in the airframe fuel system, and fire resistant fuel hoses corresponding to industrial standard ISO 7840-A1 without metal shielding, eligible for installation in the engine compartment.

**Groups**: Group 1 powered sailplanes are those that have an affected part installed. Group 2 powered sailplanes are those that have only serviceable parts installed.

**Reason:**

An occurrence was reported where, during accomplishment of a 10 years inspection on a DG-808C powered sailplane, a damaged (broken) PU fuel hose was found. The result of subsequent investigation indicated that the damage mode has features of environmental and fatigue deterioration. Additionally, it was determined that similar PU fuel hoses are also installed on other powered sailplane types of the same manufacturer.

This condition, if not detected and corrected, could lead to reduced or interrupted fuel supply to the engine, consequent loss of the available power or fire, possibly resulting in reduced control of the powered sailplane.

To address this potential unsafe condition, DG-Flugzeugbau GmbH issued the applicable TN, providing instructions to inspect the affected parts and replace these with serviceable parts. Additionally, service life limits were established for those serviceable parts.

For the reasons described above, this AD requires repetitive inspections of the affected parts. This AD also requires replacement of the affected parts with serviceable parts and introduces life limits for serviceable parts.

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

Required as indicated, unless accomplished previously:

**Repetitive Inspection(s)**:

(1) For Group 1 powered sailplanes: Within 30 days after the effective date of this AD, or during the next annual inspection, whichever occurs first, and, thereafter, at intervals not to exceed 12 months, or during each annual inspection, whichever occurs first, inspect each affected part in accordance the instructions of the applicable TN.

(2) For Group 2 powered sailplanes: Before exceeding 6 years accumulated by a fuel hose since new (first installation on a powered sailplane) and, thereafter, at intervals not to exceed 12 months, or during each annual inspection, whichever occurs first, inspect that fuel hose in accordance with the instructions of the applicable TN.

**Corrective Action(s)**:

(3) For Group 1 powered sailplanes: If, during any inspection as required by paragraph (1) of this AD, any damaged fuel hose is detected, before next engine operation, replace all affected parts with serviceable parts in accordance with the instructions of the applicable TN.

(4) For Group 2 powered sailplanes: If, during any inspection, as required by paragraph (2) of this AD, any damaged fuel hose is detected, before next engine operation, replace each damaged fuel hose with a serviceable part in accordance with the instructions of the applicable TN.

**Replacement:**

(5) For Group 1 powered sailplanes: Within the compliance time defined in Table 1 of this AD, as applicable, replace each affected part with a serviceable part in accordance with the instructions of the applicable TN.

Table 1 – Affected Part(s) Replacement (see Note 1 of this AD)

| Service time accumulated | Threshold |
|---|---|
| Less than 5,5 years | Before exceeding 6 years |
| 5,5 years or more | Within 6 months after the effective date of this AD |

Note 1: Unless specified otherwise, the time periods indicated in Table 1 of this AD are those accumulated, on the effective date of this AD, by an affected part since new (first installation on a powered sailplane).

**Serviceable Part Life Limit:**

(6) For Group 2 powered sailplanes: Before exceeding 10 years accumulated by a fuel hose since new (first installation on a powered sailplane), replace that fuel hose with a serviceable part in accordance with the instructions of the applicable TN.

**Terminating Action**:

(7) For Group 1 powered sailplanes: Modification of a powered sailplane by replacement of all affected parts with serviceable parts, as required by paragraph (3) or (5) of this AD, as applicable, constitutes terminating action for repetitive inspections required by paragraph (1) of this AD for that powered sailplane.

(8) For Group 2 powered sailplanes: None.

**Parts Installation**:

(9) Do not install an affected part on a powered sailplane, as required by paragraph (9.1) or (9.2) of this AD, as applicable.

(9.1) For Group 1 powered sailplanes: After modification of a powered sailplane as required by paragraph (5) of this AD.

(9.2) For Group 2 powered sailplanes: From the effective date of this AD.

**Ref. Publications:**

DG-Flugzeugbau GmbH TN 800/46, original issue dated 07 March 2018.

DG-Flugzeugbau GmbH TN 1000/38, original issue dated 07 March 2018.

DG-Flugzeugbau GmbH TN 8026, original issue dated 07 March 2018.

DG-Flugzeugbau GmbH TN LS10-04, original issue dated 07 March 2018.

DG-Flugzeugbau GmbH TN 9002, original issue dated 07 March 2018.

The use of later approved revisions of the above-mentioned documents is acceptable for compliance with the requirements of this AD.

**Remarks:**

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.

2. This AD was posted on 10 May 2018 as PAD 18-070 for consultation until 07 June 2018. No comments were received during the consultation period.

3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.

4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the EU aviation safety reporting system.

5. For any question concerning the technical content of the requirements in this AD, please contact: DG-Flugzeugbau GmbH, Otto-Lilienthal Weg 2, D-76646 Bruchsal, Germany, Telephone: +49 (0)7251 302 00, E-mail: info@dg-flugzeugbau.de.