



## Airworthiness Directive

**AD No.:** 2016-0013

**Issued:** 14 January 2016

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:**

SAAB AB, AERONAUTICS

**Type/Model designation(s):**

2000 aeroplanes

**Effective Date:** 28 January 2016

**TCDS Number(s):** EASA A.069

**Foreign AD:** Not applicable

**Supersedure:** None

### ATA 38 – Water/Waste – Potable water system – Installation of Shrinkable Tubes as Spray Shields

**Manufacturer(s):**

Saab AB, Aeronautics (formerly Saab Aerosystems)

**Applicability:**

Model 2000 aeroplanes, serial numbers (s/n) 017, s/n 019 through 021 inclusive, s/n 027 through 028 inclusive, s/n 030, 034, 040, 050 and 052.

**Reason:**

An occurrence was reported of rudder pedal restriction on a SAAB 2000 aeroplane with the Large Potable Water System (LPWS) installed, equipped with in-line heaters (options 38:201 and 38:201-1). Subsequent investigation showed that this event was the result of a ruptured in-line heater attachment, causing water leakage at the inlet tubing for the in-line heater in the lower part of the forward fuselage (Zone 116). In flight, the water froze on the rudder control mechanism, causing the rudder pedal restriction. Analysis after the reported event indicates that the pitch control mechanism (including pitch disconnect/spring unit) may also be frozen, which would prevent disconnection and normal pitch control.

This condition, if not corrected, could result in further occurrences of water spray, possibly resulting in reduced control of the aeroplane.



To address this potential unsafe condition, EASA issued Emergency AD 2013-0172-E, to require deactivation of the LPWS. Following that, EASA AD 2013-0172R1 introduced a temporary alternative procedure for filling, reactivation and operation of the LPWS.

Finally, EASA AD 2014-0255 was issued, superseding EASA AD 2013-0172R1, to require a modification allowing reactivating of the system and the use of regular filling procedures.

Although the Basic Potable Water System (BPWS) does not contain an in-line heater, which was the major risk contributor and the actual cause of the previous leakage events in the LPWS, a Zonal Safety Analysis performed by SAAB concluded that the implementation of spray shield (tube/hose) for the water piping is necessary for the BPWS as well, to protect the flight controls and electrical equipment from water spray in case of a failed pipe or coupling during water filling on ground.

Consequently SAAB developed a modification and issued Service Bulletin (SB) 2000-38-012 to provide modification instructions to install shrinkable tubes as spray shields.

For reasons described above, this AD requires installation of shrinkable tubes on the water piping of the BPWS.

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

Required as indicated, unless accomplished previously:

Within 24 months after the effective date of this AD, install shrinkable tubes on the water piping of the BPWS in accordance with the instructions of SAAB SB 2000-38-012.

#### **Ref. Publications:**

SAAB SB 2000-38-012 original issue dated 20 August 2015.

The use of later approved revisions of this document 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 26 November 2015 as PAD 15-145 for consultation until 24 December 2015. 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](mailto:ADs@easa.europa.eu).
4. For any question concerning the technical content of the requirements in this AD, please contact:  
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