
Section 1. Swedish Manufactured Aeronautical Products

AIRWORTHINESS

DIRECTIVE NO: 1-120

AIRCRAFT TYPE: SAAB 2000 and SAAB 340B

SERIAL No:s SAAB 2000 -002 through -050 and -052
AFFECTED: SAAB 340B -240 through -430

SUBJECT: Ice & Rain Protection - Airfoil De-Icing - Introduction of New Improved Check Valve

BACKGROUND: It has been found during test on SAAB 340 A/C with single engine operation that check valves in the airfoil de-ice system have failed. The same valves are used in Saab 2000. Failed check valves may result in loss of airfoil de-ice system operation during single engine operation.

For the SAAB 2000 the loss of airfoil de-ice system is indicated to flight crew through EICAS caution WING BOOT DEFLATED and STAB BOOT DEFLATED only when one engine is inoperative and after initiating a de-ice cycle.

For the SAAB 340 the loss of airfoil de-ice system is indicated to flight crew TIMER caution light on.

The failure of the check valves was isolated to the check-valve flap-hinges that were found broken. A design improvement of the check-valve flap-hinges was made and introduced by the Service Bulletins No. Saab 2000-30-010 and 340-30-069.

A low number of flight hours after incorporation of the Service Bulletin No. Saab 340-30-069 on Saab 340 A/C, operators experienced the same fault indication as before the modification when testing the airfoil de-ice system. The fault was isolated to the check valves and it was found that the check valves had broken flap valve springs.

A design improvement to eliminate this problem has been made. This improvement is introduced through this SAD.

LFS 1997:55

The actions contained in this directive and reference document(s) have been classified as mandatory for aircraft on Swedish register

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REFERENCE Saab AB Service Bulletin SAAB 2000-30-012
DOCUMENTS: Saab AB Service Bulletin SAAB 340-30-080
 Both dated 21 November 1997

ACTIONS: Perform actions described in Saab AB Service Bulletin SAAB 2000-30-012
 and Saab AB Service Bulletin SAAB 340-30-080 both dated 21 November,
 1997 or later revisions.

COMPLIANCE The new improved check valves shall be installed no later than April 30,
TIME: 1998

EFFECTIVE November 24, 1997
DATE:

LUFTFARTSVERKET
Aviation Safety Department