

SUMMARY

During a scheduled flight from Sveg to Stockholm/Arlanda with an aircraft of the model BAe Jetstream 3102 from AS Avies, the pilots detected that the hydraulic pressure was decreasing. According to the instructions in the aircraft's emergency checklist, the fault that had arisen meant that flaps and landing gear had to be emergency extended by means of the manual system, and that certain systems were not functioning.

The crew informed air traffic control of the fault that had arisen and a landing was performed in a state of heightened alert and without further complications.

During the technical investigation that was carried out following the incident, it was established that hydraulic fluid had leaked through a fracture in a check valve for the right hydraulic pump. The conclusion of the investigation was that the valve had ruptured due to high cycle fatigue caused by vibrations.

The damaged clamps for the hydraulic pipe on which the check valve was mounted indicate that these might have had deficiencies. This circumstance has probably entailed that the pipe – and the connected valve – have been subjected to a higher vibration frequency than normal.

The incident was caused by vibration-induced material fatigue in the check valve for the right hydraulic pump, which resulted in loss of hydraulic fluid in the normal system.

Safety recommendations

None.