

## SUMMARY

The aircraft of model DC-3C with registration SE-CFP, operated by Flygande Veteraner, had undergone an engine change in Groningen and was then flown without remark to Linköping/SAAB Airport. When the aircraft took off again towards Stockholm/Västerås Airport, the fire warning for the left engine was activated.

The crew feathered the engine and activated the fire extinguishing system, but this had limited effect. The crew informed air traffic control of the fire, carried out a visual approach, which was aborted with a go-around, and then landed on the opposite runway. The brakes gave no effect during the landing roll. The running engine was turned off, the aircraft left the runway and stopped on the strip.

The aircraft was evacuated and the airport rescue services extinguished the engine fire. There were no injuries sustained. However, there were substantial damage on the aircraft's left engine nacelle and its accessory compartment.

The investigation of the wreckage revealed that three screws were missing on the exhaust collector. This led to parts of the exhaust system coming loose and to the exhaust flow causing a fire in the left engine, igniting oil residue and melting parts of the engine cowling. Several hydraulic lines melted and subsequently leaked oil, which added combustible to the fire. The control valve of the cowl flaps was not closed according to the emergency checklist.

The engine change in Groningen deviated from the operator service manual, as it was carried out without a work order.

The operator has taken measures to ensure, among other things, that a work order is used in specially planned maintenance.

The incident was caused by the engine change being carried out without following the operator's established procedures for specially planned maintenance.

The following factors contributed to the extent of the fire:

- The design of the existing hydraulic system, which does not allow the hydraulic oil to be isolated from engine zone 2.
- The failure to close the control valve of the cowl flaps (item "trail-off" in the engine fire emergency checklist).

### **Safety recommendations**

In view of the measures that the operator has taken or plans to take, SHK is refraining from issuing any safety recommendations in response to the incident.