

SERVICE LETTER

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JFE/HL/AW

Service Letter No. 3113/23/ARS2

Subject: ARRIUS 2
Blanking and storage of equipment during maintenance operations – Reminder of instructions.

Dear Sir or Madam,

The purpose of this Service Letter is to remind you of the instructions in the maintenance manuals regarding the blanking and storage of equipment during maintenance operations.

This reminder is the result of the conclusion of an investigation related to an uncommanded in-flight shutdown of an Arrius 2F engine.

1) Event

In flight, the pilot noticed the loss of the First Limit Indicator (FLI) immediately followed by the illumination of the “ENG CHIP” indication light. He proceeded with an autorotation and, during the pre-landing flare, the engine shut down. The helicopter landed without further incident.

2) Investigation and Analysis

The engine was returned to Safran Helicopter Engines for investigation. Safran Helicopter Engines found that the rupture of the Power Turbine (PT) bearing caused the displacement of the PT shaft. This PT shaft displacement generated a disturbance in the measurement of the torque and then the loss of the “FLI” indication.

The PT bearing rupture resulted from complete clogging of its lubrication jet. The jet was clogged by an agglomerate of coked oil. However, the engine lubrication system showed no signs of oil coking.

According to the in-service experience of Safran Helicopter Engines, this type of localized agglomerate forms around a particle.

The investigation concluded that, during the replacement of the M01 module 119 hours before the event, an exogenous particle was most likely introduced into the oil circuit which supplies the PT bearing lubrication jet.

3) Recommendations

In the specific cases of removal/installation of modules, as per Maintenance Manual Tasks 72-00-11-900-801 and 72-00-42-900-801, Safran Helicopter Engines reminds you:

- To properly blank any free duct in compliance with the Standard Practices Task 70-01-00-940-801;
- To use the storage tools specified in the Maintenance Manual Task 71-05-01-551-806 if a module is not immediately installed after a modular replacement..

Please contact us if you require further information or assistance.

Yours sincerely,

Technical Support Department



J.F. ESCURET