

1. Applicability

All AS350 Series helicopter hydraulic flight control systems.

2. Purpose

To alert operators and maintainers to consider additional maintenance actions for the hydraulic pump inlet filter.

3. Background

A recent AS350 hydraulic system failure, which resulted in loss of control at a critical phase of flight, has been attributed to a blocked hydraulic pump inlet filter, which caused the pump to cavitate, with subsequent loss of system pressure.

Currently there are no requirements for the periodic inspection and cleaning of this filter, except at pump replacement, which is currently “on-condition”.

4. Recommendations.

CASA strongly recommends that operators consider:

1. Carrying out a one-time inspection of the hydraulic pump inlet filter (or screen) to check for contamination and;
2. Implementing a scheduled hydraulic pump inlet filter inspection/cleaning and or replacement requirement into the maintenance schedule of the AS350.

CAUTION:

Filters and screens should be inspected, cleaned/replaced only in accordance with the manufacturer's instructions. Ultrasonic cleaning units, if used incorrectly, have the capacity to cause hidden fatigue damage to certain types of filter. Such damage may remain undetectable at installation, but the filter may later fail and break-up in service, allowing fragments to enter the system and cause severe damage or even incapacitate the hydraulic flight control system.

5. Enquiries

Enquiries with regard to the content of this Airworthiness Bulletins should be made via the direct link e-mail address:

AirworthinessBulletin@casa.gov.au

Or in writing, to:

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