## **BUREAU VERITAS**

## **AIRWORTHINESS DIRECTIVE**

released by Direction Générale de l'Aviation Civile

Inspections and/or modifications described below are mandatory. No person may operate a product to which this Airworthiness Directive applies except in accordance with the requirements of this Airworthiness Directive.

Translation of "Consigne de Navigabilité" Réf. : 80-184-015(B) R1

In case of any difficulty, reference should be made to the French original issue.

## AEROSPATIALE helicopters AS 350 all types (ASTAR and ECUREUIL)

Monitoring in service of bolts P/N 350A.37.1202.20 and 350A.37.1224.20 for attachment of the STARFLEX hub to the main rotor shaft

Following the discovery of several cases of fretting corrosion on the aircraft in service, likely to cause cracks in the above referenced bolts, the following measures have been decided on a mandatory basis:

- A Check the torque value applicable to the nuts on the subject bolts in accordance with the following instructions:
  - . for the aicraft which have accumulated more than 590 hours of operation: within the 10 hours of operation following the date of which the present directive has become applicable, then at intervals not exceeding 400 hours;
  - for the aircraft which have accumulated less than 590 hours of operation: before accumulating 600 hours of operation, then at intervals not exceeding 400 hours.
- B The check for correct torque value on nuts, which should be between 7 and 9 MDAN must be performed in accordance with the instructions given in AEROSPATIALE S.B. AS 350 n° 05.04 Rev. 1.
- C In the torque value found is not within the values indicated at "B" above, the bolts concerned must be removed.

If more than 4 nuts are found to be out of tolerance limits on a same hub, the 12 bolts for main rotor shaft/hub attachment must be removed.

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Dec. 23, 1987 AEROSPATIALE helicopters AS 350 all types

Ref.: 80-184-015(B) R1

All the bolts removed in compliance with this paragraph should be labelled as unfit for flight until found fit for flight if applicable as indicated in § "D" hereunder.

- D The bolts removed following the instructions given in § "B" and "C" above must be replaced with:
  - . either new bolts of even part number,
  - or with bolts found to be fit for flight in accordance with the instructions of AEROSPATIALE S.B. AS 350 n° 05.04 Rev. 1.
  - Note: The magnetic crack detection normally scheduled may be replaced at the operator's initiative with a check for crack with a magnifying glass and by dye penetrant method. The bolts inspected and found to be free from cracks in accordance with the said method must be identified (bolt heads painted red). They are limited to 50 hours of operation after inspection and must be scrapped after use.
- E AEROSPATIALE S.B. AS 350 n° 05.04 Rev. 1 describes the precautions to be taken during the installation of bolts. When tightening the bolts, the torque value should be 9 MDAN and is to be checked and corrected after 2 to 5 hours of flight.

Cf.: AEROSPATIALE S.B. AS 350 n° 05.04 Rev. 1.

This revision supersedes and replaces original A.D. 80-184-015(B) dated OCTOBER 1st, 1980

EFFECTIVE DATE: OCTOBER 8th, 1980

(Same as original A.D.)