

**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. : 82-191-3(B)  
In case of any difficulty, reference should  
be made to the French original issue.

AEROSPATIALE AS 332C/AS 332L SUPER PUMA HELICOPTERS

MAIN ROTOR HEAD FITTED WITH SPINDLES P/N 330A.31.1122.09 AND .10

## SPINDLE MONITORING AND LIMITATIONS

Subsequently to a recent incident which evidenced fretting corrosion at inner faces of spindle yoke lugs that can involve fatigue failure, the following actions are made mandatory :

### A - SPINDLE MONITORING

#### 1. - Flap hinge pin nut torque load check

- 1.1 - Within 25 flying hours following the date at which this Airworthiness Directives comes into force, retorque the flap hinge pin nut to a preload of 25 m daN (sinking of the assembly) then to a load of 16.3 to 19.5 m daN.

*NOTE : This torque must be readjusted within the first 3 to 5 flying hours following application of the torque load.*

- 1.2 - After torquing as per § 1.1 above, check the torque load to 14 m daN every 25 flying hours.

Detailed instructions relative to operations mentioned here above and possible actions to be taken form the subject of § 1.C.1 of AEROSPATIALE AS 332 Service Bulletin n° 05.02.

#### 2. - CRACK DETECTION

- 2.1 - Upon each inspection after the last flight of the day following the date at which this Airworthiness Directive comes into force

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Material : AEROSPATIALE AS 332C/AS 332L  
SUPER PUMA HELICOPTERS

Reference :82-191-3(B)

and without exceeding 5 flying hours between two checks, carry out a visual check for cracks into the spindle lug area.

- 2.2 - Every 100 flying hours, carry out a detailed inspection of spindle lugs with disassembly and dye penetrant crack detection.

The first inspection shall be carried out :

- . within 10 flying hours for spindles having a total of more than 90 flying hours at the date at which this Airworthiness Directive comes into force,
- . before reaching 100 flying hours for spindles having a total of less than 90 flying hours at the date at which this Airworthiness Directive comes into force.

Detailed instructions relative to operations mentioned here above and possible actions to be taken form the subject of § 1.C.2 of AEROSPATIALE AS 332 Service Bulletin n° 05-02.

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Work card No 62.35.00.405 in maintenance manual will be up dated (provisional revision 1d dated 82.32) to incorporate instructions detailed in AEROSPATIALE AS 332 Service Bulletin No 05.02.

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#### B - LIMITATIONS

In addition to monotoring actions defined here above, the following limitations, as stated in AEROSPATIALE AS 332 Service Bulletin 01.01, are applicable :

##### 1. - Spindle service life limit :

Service life limit of spindles P/N 330A.31.1122.09 and .10 is reduced from 1500 to 300 operating hours.

- . Spindles having a total of more than 275 flying hours at the date at which this Airworthiness Directive comes into force have to be removed within the next 25 flying hours,
- . Spindles having a total of less than 275 flying hours at the date at which this Airworthiness Directive comes into force have to be removed before they reach 300 flying hours.

*NOTE* : This action forms the subject of a revision of the relevant manufacturer's publications, master servicing recommendations (MSR/PRE) and airworthiness limitations.

##### 2. - Collective pitch limitation in level flight

The collective pitch limit stated in the flight manual, section 2.1 § 15 is reduced from 16.5 degrees to 16 degrees or less in order not to exceed IAS equal 135 knots (250 km/h).

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The following placard shall be affixed close to airspeed indicators within pilots sight :

"	EXCEPT IN CASE OF EMERGENCY	"
"	COLLECTIVE PITCH IS LIMITED TO 16 DEGREES"	"
"	OR LESS IN ORDER NOT TO EXCEED	"
"	IAS EQUAL 135 kts (250 km/h)	"

*NOTE* : This action forms the subject of a rush revision of the flight manual (section 2-1)

- . No 4E dated 82-50 for AS 332 C
- . No 2E dated 82-50 for AS 332 L

3. - Retirement from service of spindles ref. 330A.31.1122.09 and .10

The spindles ref. 330A.31.1122.09 and .10 shall be retired from service on March 31st 1983 at the latest.

*NOTE* : This action forms the subject of a revision of the relevant publications :

- Master servicing recommendations (MSR/PRE), Chapter 5.15, revision No 4 (dated 82-50) for AS 332 C and revision No 2 (dated 82-50) for AS 332 L.
- Airworthiness limitations (chapter 5.99) revision No 4A (dated 82-49) for AS 332 C and revision No 2A (dated 82-49) for AS 332 L.

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Cf : AEROSPATIALE AS 332 SERVICE BULLETINS No 05.02 AND 01.01 and subsequent approved revisions.

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*NOTE* : New spindles ref. 332A.31.1390.02 are available for installation. They are included in the manufacturer's publications : Master Servicing Recommendations (MSR/PRE) and airworthiness limitations (Chap. 5-99).

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DATE OF ENTRY INTO FORCE :

The present Airworthiness Directive cancels and replaces Airworthiness Directive 82-106-2 (B) and gives final measures for spindles ref. 330A.31.1122.09 and .10 with addition of a retirement date (March 31st 1983 at the latest) for these spindles. Consequently the date of entry into force of the present directive stays as indicated in Airworthiness Directive 81-101-2 (B) - August 18, 1982 - for spindles monitoring and limitations until retirement from service.