

(2) During the check after the last flight of the day, when the T4 temperature is below 150°C (302°F), perform a ventilation (5 seconds maximum) during gas generator rundown or check for free rotation of the gas generator and unusual noise by turning the compressor by hand.

(3) If any rubbing noise is heard and the source of the noise cannot be identified, replace module M03.

Initial Borescope Inspection

(d) For Arriel 1 A, 1 A1, 1 A2, 1 C, 1 C1, 1 C2, 1 E2, 1 K, 1 K1, 1 S, and 1 S1 engines with modification TU 197 installed, do the following:

(1) Perform initial borescope inspections for cracks of the second stage nozzle guide vanes (NGV2) in accordance with 2.B.(a) through 2.B.(c)(2) of Turbomeca ASB No. A292 72 0212, Update 5, dated August 8, 2001, and the schedules specified in the following Table 1:

TABLE 1.—INITIAL BORESCOPE INSPECTION

Number of cycles-since-new or overhaul (CSN) on the effective date of this AD.	Initial inspection
(1) Modules M03 with fewer than 1,000 CSN.	Before accumulating 1,100 CSN.
(2) Modules M03 with 1,000 CSN or greater.	Within 100 additional cycles-in-service (CIS) after the effective date of this AD.

(2) If the 2nd stage nozzle guide vanes do not meet the acceptance criteria specified in 2.B.(c)(2) of ASB A292 72 0212, Update 5, dated August 8, 2001, replace module M03.

First Repetitive Borescope Inspection

(e) Thereafter, for Arriel 1 A, 1 A1, 1 A2, 1 C, 1 C1, 1 C2, 1 E2, 1 K, 1 K1, 1 S, and 1 S1 engines with modification TU 197 installed, do the following:

(1) Perform the first repetitive borescope inspection for cracks of the NGV2 in accordance with 2.B.(a) through 2.(c)(2) of Turbomeca ASB No. A292 72 0212, Revision 5, dated August 8, 2001 and the schedules specified in the following Table 2:

TABLE 2.—REPETITIVE BORESCOPE INSPECTIONS

If Module M03 has already been checked	Then repeat inspection
(1) Once, before 900 CSN.	Before 1,100 CSN and then between 1,900 and 2,100 CSN.
(2) Twice, before 900 CSN without propagation of cracks recorded between the first and second check.	Before 1,500 CSN.
(3) Twice, before 900 CSN with propagation of cracks recorded between the first and second check.	Before 1,100 CSN and then between 1,900 and 2,100 CSN.
(4) Once, after 900 CSN.	Between 1,900 and 2,100 CSN.

(2) If the 2nd stage nozzle guide vanes do not meet the acceptance criteria specified in 2.B.(c)(2) of ASB A292 72 0212, Update 5, dated August 8, 2001, replace module M03.

Subsequent Repetitive Borescope Inspection

(f) Thereafter, for Arriel 1 A, 1 A1, 1 A2, 1 C, 1 C1, 1 C2, 1 E2, 1 K, 1 K1, 1 S, and 1 S1 engines with modification TU 197 installed, do the following:

(1) Repeat the borescope inspection of the NGV2 in accordance with 2.B.(a) through 2.B.(c)(2) of Turbomeca ASB No. A292 72 0212, Update 5, dated August 8, 2001 at intervals not to exceed 2,100 cycles-since-last-inspection (CSLI).

(2) If the 2nd stage nozzle guide vanes do not meet the acceptance criteria specified in 2.B.(c)(2) of ASB A292 72 0212, Update 5, dated August 8, 2001, replace module M03.

Replacement of Modification TU 197

(g) For 1 A, 1 A1, 1 A2, 1 C, 1 C1, 1 C2, 1 E2, 1 K, 1 K1, 1 S, and 1 S1 engines that have modification TU 197 installed, install the improved 2nd stage nozzle guide vanes, modification TU 202 at next shop visit after the effective date of this AD, but not later than December 31, 2006, in accordance with 2.B. through 2.C. of Arriel 1 ASB No. A292 72 0150, Update No. 6, dated September 4, 2000.

Terminating Action

(h) Installation of the improved 2nd stage nozzle guide vane, modification TU202, constitutes terminating action to the checks and inspections required by paragraphs (c)(1), (c)(2), and (d)(1) through (d)(3) of this AD.

(i) The checks required by paragraph (c)(1) and (c)(2) of this AD may be performed by the pilot holding at least a private pilot certificate as an exception to the requirements of part 43 of the Federal Aviation Regulations (14 CFR part 43). The checks must be recorded in accordance with §§ 43.9 and 91.417(a)(2)(v) of the Federal Aviation Regulations (14 CFR 43.9 and 14 CFR 91.417(a)(2)(v)), and the records must be maintained as required by the applicable Federal Aviation Regulation.

Alternative Methods of Compliance

(j) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office (ECO). Operators must submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the ECO.

Special Flight Permits

(k) Special flight permits may be issued in accordance with §§ 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be done.

Documents That Have Been Incorporated by Reference

(l) The actions must be done in accordance with the following Turbomeca alert service bulletins:

Document No.	Pages	Revision	Date
A292 72 0150	All	6	September 4, 2000.
Total pages: 9			
A292 72 0212	All	5	August 8, 2001.
Total pages: 12			

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Turbomeca, 40220 Tarnos, France; telephone (33) 05 59 64 40 00, fax (33) 05 59 64 60 80. Copies may be inspected at the FAA, New England Region, Office of the

Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

Note 3: The subject of this AD is addressed in DGAC airworthiness directive DGAC 98–311 (A) R1, dated October 7, 1998.

Effective Date

(m) This amendment becomes effective on September 12, 2003.