

Airworthiness Directive Schedule

Engines

Safran Helicopter Engines – Arrius 2B1, 2B2 and 2K1

27 October 2022

- Notes:**
1. This AD schedule is applicable to Safran Helicopter Engines (formerly Turbomeca) Arrius 2 series engines manufactured under the following Type Certificate (TC) Number:

| Engine Model: | EASA TC Number: |
|---------------|-----------------|
| Arrius 2B1 | E.029 |
| Arrius 2B2 | E.029 |
| Arrius 2K1 | E.029 |

2. The European Union Aviation Safety Agency (EASA) is the National Airworthiness Authority (NAA) responsible for the issue of State of Design Airworthiness Directives (ADs) for these engines. State of Design ADs can be obtained directly from the EASA website at <http://ad.easa.europa.eu/>
3. The date above indicates the amendment date of this schedule.
4. New or amended ADs are shown with an asterisk *

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| The State of Design ADs listed below are available directly from the National Airworthiness Authority (NAA) websites. Links to NAA websites are available on the CAA website at https://www.aviation.govt.nz/aircraft/airworthiness/airworthiness-directives/links-to-state-of-design-airworthiness-directives/ If additional NZ ADs need to be issued when an unsafe condition is found to exist in an aircraft or aeronautical product in NZ, they will be added to the list below. | | |
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DCA/TUR/23 Engine Operation - Limitation

Applicability: Arrius 2B1, 2B1A, 2B1A_1 and 2K1 series engines.

Requirement: To ensure continued reliable operation of the engine, operation of the engine at the OEI 2.5-minute power setting is limited to 5 minutes cumulative time before the engine must be removed for checks to the Module 2. Engines that have accumulated 5 minutes or more of operation at OEI 2.5 must be inspected per Turbomeca SL 2174/02/ARRIUS 2B1/19 for 2B1, 2B1A, and 2B1A_1 variants or SL 2175/ARRIUS 2K1/3 for the 21B1A-2K1 variants.

(DGAC AD 2003-98 refers)

Compliance: Before further flight

Effective Date: 30 October 2003

DCA/TUR/24 Cancelled – EASA AD 2021-0088 refers

Effective Date: 29 April 2021

DCA/TUR/40 Oil Check-valve Piston O-ring – Inspection

Applicability: Arrius 2B1, 2B1A, 2B1A_1, 2B2, 2K1 and 2K2 engines which do not have modification Tu122 embodied.

These engines may be fitted to, but not limited to, EC135 T1, EC135 T2, A 109 and A 109 LUH aircraft.

Requirement: To prevent uncommanded in-flight engine shutdown, replace the o-rings on the lubrication unit check-valve piston, per paragraph 2 of Turbomeca Mandatory Alert Service Bulletin No A319 79 2832, update No. 1 for Arrius 2 B series engines, or Turbomeca Mandatory Alert Service Bulletin No A319 79 2833, update No. 1 for Arrius 2K series engines.

(EASA AD 2006-0142 refers)

Compliance: For engines operating with STD class-oil since their introduction into service:

Within next 50 hours TIS for engines with more than 450 hours TTIS, unless already accomplished, and thereafter at intervals not to exceed 500 hours TIS.

For engines operating with HTS-class oil and engines for which the history of the oils used is not available or engines which used to operate with HTS-class oil and which no longer do so:

Within next 50 hours TIS for engines with more than 300 hours TTIS, unless already accomplished, and thereafter at intervals not to exceed 300 hours TIS.

Note: Standard (STD) and High Thermal Stability (HTS) oils are listed in the engine maintenance manual section 71-00-03.

Effective Date: 29 June 2006

The State of Design ADs listed below are available directly from the National Airworthiness Authority (NAA) websites. Links to NAA websites are available on the CAA website at <https://www.aviation.govt.nz/aircraft/airworthiness/airworthiness-directives/links-to-state-of-design-airworthiness-directives/>

If additional NZ ADs need to be issued when an unsafe condition is found to exist in an aircraft or aeronautical product in NZ, they will be added to the list below.

2013-0082 Cancelled – EASA AD 2020-0033 refers

Effective Date: 10 March 2020

2016-0003R1 Main Injector Half-manifolds and Preference Injector – Inspection

Applicability: Arrius 2B1 engines, all S/N.

These engines are known to be installed on, but not limited to, Airbus Helicopters Deutschland EC135 helicopters.

Effective Date: 2016-0003 - 19 January 2016
2016-0003R1 - 6 December 2016

2008-0018 Electronic Engine Control (EEC) Unit – Inspection

Applicability: Arrius 2B1, 2B1A, 2B2, 2K1 and 2K2 engines, all S/N.

These engines are known to be installed on, but not limited to, Airbus Helicopters Deutschland EC135 helicopters and Leonardo A109 helicopters.

Compliance: Before the issue of a New Zealand Certificate of Airworthiness, or at the next Review of Airworthiness (RA), whichever is the sooner, unless previously accomplished.

Effective Date: 27 October 2016

2018-0044 Cancelled by EASA – Purpose fulfilled

Effective Date: 25 July 2019

2020-0033R1 Hydro-Mechanical Metering Unit (HMU) – Inspection

Applicability: Arrius 2B1, 2B1A, 2B2, 2G1, 2K1 and 2K2 engines, all S/N.

These engines are known to be installed on, but not limited to, Airbus Helicopters Deutschland EC135, Leonardo A109 helicopters and KAMOV 226T helicopters.

Note: EASA AD 2020-0033R1 retains the requirements in superseded AD 2020-0033. The original issue of this AD required accomplishment of the actions in accordance with the instructions of SAFRAN MSB 319 73 2825 version J. This AD is revised to remove the inspection and cleaning requirements for HMU with an improved design (corresponding to SAFRAN mod TU 139 introduced in 2015). This AD also introduces the installation of an improved HMU as an optional terminating action.

Effective Date: EASA AD 2020-0033 - 10 March 2020
EASA AD 2020-0033R1 - 23 December 2021

2021-0088R1 Digital Engine Control Unit (DECU) – Software Update

Applicability: Arrius 2B1, Arrius 2B1A including those engines embodied with modification TU45C, identified as Arrius 2B1A_1 and Arrius 2B2 engines, all S/N.

These engines are known to be installed on, but not limited to, Airbus Helicopters Deutschland (formerly Eurocopter Deutschland) EC135 helicopters.

Note: EASA AD 2021-0088R1 is revised to provide clarification on affected and serviceable DECU.

Effective Date: 2 August 2021

*** 2022-0203 Airworthiness Limitations – Amendment**

Applicability: Arrius 2B2 engines, all S/N.

Effective Date: 27 October 2022