



適航指令發布單

Airworthiness Directive Issuance Form

民航局 AD 編號 AD number	CAA-2021-08-006 緊急	發布日期 Date issued	2021/8/20
適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable)	Model E4 and E4P engines, all serial numbers (s/n). These engines are known to be installed on, but not limited to, Diamond Aircraft Industries DA 40 NG, DA 42 NG, DA 42 M-NG and DA 62 aeroplanes.		
主旨摘要	Engine - Oil Pump - Replacement		
民航局 CAA <input type="checkbox"/> 本國產品 Native products <input type="checkbox"/> 其他個案 Other	設計國民航主管機構 Original Authorities <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> FAA <input checked="" type="checkbox"/> EASA <input type="checkbox"/> Brazil <input type="checkbox"/> Transport Canada Civil Aviation <input type="checkbox"/> DGAC </div> <div> <input type="checkbox"/> Germany LBA <input type="checkbox"/> CAA-NL <input type="checkbox"/> UK CAA <input type="checkbox"/> Japan CAB <input type="checkbox"/> CAA of Israel <input type="checkbox"/> Other _____ </div> </div>		
	設計國 AD 編號 Original AD number	2021-0191-E	
	1. 直接採用原 AD 之內容?(Is the original AD directly adopted?) <input checked="" type="checkbox"/> 是(Yes) <input type="checkbox"/> 否(No) _ a. 生效日期另訂為(Re-specify the effective date as) : _____ b. 執行時限另訂為(Re-specify the compliance time or period as) : _____ <input type="checkbox"/>		
	2. 使用人是否需要將 AD 執行結果向民航局提出報告?(Do <input type="checkbox"/> Users need to report the status of compliance to the CAA?) <input type="checkbox"/> 是(Yes) <input checked="" type="checkbox"/> 否(No)		
備註 Note	This AD supersedes EASA Emergency AD 2021-0143-E(CAA-2021-06-008 緊急) dated 16 June 2021.		
註： 1. AD 內容後附。 2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。 3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail： adcaa@mail.caa.gov.tw Note： 1. The AD text is enclosed. 2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval. 3. For further information, please contact Civil Aeronautics Administration on Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail： adcaa@mail.caa.gov.tw			



Emergency Airworthiness Directive

AD No.: 2021-0191-E

Issued: 18 August 2021

Note: This Emergency Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:

AUSTRO ENGINE GmbH

Type/Model designation(s):

E4 and E4P engines

Effective Date: 20 August 2021

TCDS Number(s): EASA.E.200

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA Emergency AD 2021-0143-E dated 16 June 2021.

ATA 72 – Engine – Oil Pump – Replacement

Manufacturer(s):

Austro Engine GmbH

Applicability:

Model E4 and E4P engines, all serial numbers (s/n).

These engines are known to be installed on, but not limited to, Diamond Aircraft Industries DA 40 NG, DA 42 NG, DA 42 M-NG and DA 62 aeroplanes.

Definitions:

For the purpose of this AD, the following definitions apply:

The SB: Austro Engine Service Bulletin (SB) MSB-E4-031 Revision 2.

Affected part: Oil pumps having Part Number E4A-50-000-BHY and having a s/n as listed in Table 2 and Table 3 of the SB, as defined in this AD. The additional s/n pumps – compared to those affected by EASA AD 2021-0143-E – are identified in Appendix 1 of this AD.

Serviceable part: Any oil pump, eligible for installation, which is not an affected part.



Groups: Group 1 are Model E4 engines in configuration “-A”, installed on single engine aeroplanes, which have an affected part installed.

Group 2 are Model E4 engines in configuration “-B” or “-C” and Model E4P engines, installed on twin-engine aeroplanes, which have an affected part installed.

Group 3 engines are those that do not have an affected part installed (any Model/configuration)

Reason:

An occurrence was reported of oil pressure loss on an E4 engine. Subsequent investigation determined that a certain batch of oil pumps was produced with a dimensional deviation on the inner gear/shaft. The inner gear/shaft of those pumps may come into contact with the pump housing, which might create debris and cause jamming of the oil pump.

This condition, if not corrected, could lead to engine in-flight shut-down with consequent forced landing, possibly resulting in damage to the aeroplane and injury to occupants.

To address this potential unsafe condition, Austro Engine published the SB at original issue to provide instructions to replace the affected oil pumps, and EASA issued Emergency AD 2021-0143-E to require replacement of affected parts with serviceable parts. That AD also prohibited (re)installation of affected parts on all engines.

Since that AD was issued, it was determined that additional s/n oil pumps are affected, and Austro Engine published the SB, as defined in this AD, to expand the list of affected oil pumps.

For the reason described above, this retains the requirements of EASA Emergency AD 2021-0143-E, which is superseded, and expands the batch of affected parts.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

Replacement:

- (1) For Group 1 and Group 2 engines: Within the compliance time specified in Table 1 of this AD, replace each affected part with a serviceable part in accordance with the instructions of the SB.

Table 1 – Fuel Pump Replacement

Fuel Pumps	Compliance Time
Those identified by s/n in Austro Engine SB MSB-E4-031 at original issue	Before next flight after 18 June 2021 [the effective date of EASA AD 2021-0143-E]
Those identified by s/n in Appendix 1 of this AD	Before next flight after the effective date of this AD

Ferry Flight:

- (2) For a twin-engine aeroplane that has one or two Group 2 engine(s) installed, a single ferry flight is allowed to position that aeroplane to a location where the actions required by this AD can be accomplished on the affected engine(s).



Credit:

- (3) Replacement of an affected part on an engine, accomplished before the effective date of this AD in accordance with the instructions of Austro Engine SB MSB-E4-031 at original issue or Revision 1, is an acceptable method to comply with the requirements of paragraph (1) of this AD for that engine, provided it is determined that no additional affected part (s/n as listed in Appendix 1 of this AD) is installed on that engine.

Part(s) Installation:

- (4) For Group 1, Group 2 and Group 3 engines: From the effective date of this AD, do not install an affected part on any engine.

Ref. Publications:

Austro Engine SB MSB-E4-031 original issue dated 14 June 2021, or Revision 1 dated 01 July 2021, or Revision 2 dated 21 July 2021.

The use of later approved revisions of the above-mentioned document is acceptable for compliance with the requirements of this AD.

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. The results of the safety assessment have indicated the need for immediate publication and notification, without the full consultation process.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the [EU aviation safety reporting system](#). This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.
5. For any question concerning the technical content of the requirements in this AD, please contact: Austro Engine GmbH, Rudolf-Diesel-Str. 11, 2700 Wiener Neustadt, Austria, Telephone +43-2622-23000-2525, E-mail service@austroengine.at.



Appendix 1 – Additional Affected Parts

00003
00017
00032
00035
00099
00142
00144
00151 to 00154 inclusive
00156
00159
00161
00164

