Airworthiness Directive

AD No.: 2021-0055R1

Issued: 10 March 2021

Note: This 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:	Revision 1: 10 March 2021 Original issue: 01 March 2021
TCDS Number(s):	EASA.E.200
Foreign AD:	Not applicable
Revision:	This AD revises EASA AD 2021-0055-E dated 25 February 2021.

ATA 72 – Engine – Oil Pump – Replacement

Manufacturer(s):
Austro Engine GmbH

Applicability:
Model E4 and E4P engines, all serial numbers (s/n) as listed in Austro Engine Service Bulletin (SB) MSB-E4-030 Revision 2.

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 SB MSB-E4-030 Revision 2.

Affected part: Oil pumps having Part Number (P/N) E4A-50-000-BHY and having a s/n as listed in the SB, as defined in 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. Group 2 are Model E4 engines in configuration "-B" or "-C" and Model E4P engines, installed on twin-engine aeroplanes.

Reason:

Occurrences were reported of oil pump blockage on E4-A and E4-B engines. Subsequent investigation determined that the blockage was caused by oil contamination with casting sand from the production process of oil pump P/N E4A-50-000-BHY. A blocked oil pump causes failure of the engine lubrication system. Root cause investigation is still on-going.

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 (later revised to add affected part s/n) to provide instructions to replace the affected oil pumps.

For the reason described above, this AD requires replacement of the affected parts, and replacement of the oil and filter.

This AD is revised to refer to the SB at Revision 2, where certain engines have been removed from the applicability. The SB Revision 2 also expands the list of affected part s/n, but without impact on AD compliance, as all added s/n are currently still in stock and will not be delivered to operators anymore.

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

Required as indicated, unless accomplished previously:

Replacement:

(1) Within the compliance time as specified in Table 1 of this AD, as applicable, replace each affected part with a serviceable part, and replace the oil and the oil filter in accordance with the instructions of the SB.

Table 1 – Replacement of Oil Pump, Oil and Filter (see Note 1 of this AD)

Group / Flight Hours (FH)	Compliance Time
Group 1 and Group 2 / 10 FH or less	Before next flight after 01 March 2021 [the effective date of the original issue of this AD]
Group 1 / more than 10 FH, but less than 50 FH	Within 3 months after 01 March 2021 [the effective date of the original issue of this AD], or before accumulating 70 FH, or during the next scheduled maintenance, whichever occurs first
Group 1 / 50 FH or more	Within 3 months or 20 FH, or during the next scheduled maintenance, whichever occurs first after 01 March 2021 [the effective date of the original issue of this AD]
Group 2 / more than 10 FH	Within 3 months or 100 FH, or during the next scheduled maintenance, whichever occurs first after 01 March 2021 [the effective date of the original issue of this AD]

Note 1: Unless indicated otherwise, the FH specified in Table 1 of this AD are those accumulated by the engine since new (first installation on an aeroplane).

Ferry Flight:

(2) For an aeroplane that has a Group 1 or Group 2 engine installed that has accumulated 10 FH or less since new, 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 the SB at original issue or at Revision 1, is acceptable to comply with the requirements of paragraph (1) of this AD for that engine.

Ref. Publications:

Austro Engine SB MSB-E4-030 original issue dated 18 February 2021, or Revision 1 dated 23 February 2021, or Revision 2 dated 03 March 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. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.

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.