

 適航指令發布單 Airworthiness Directive Issuance Form			
民航局 AD 編號 AD number	CAA-2017-12-006	發布日期 Date issued	2017/12/21
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. 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 - Turbocharger Waste Gate Controller and Control Rod Circlip - Life Limit		
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 <input type="checkbox"/> FAA <input type="checkbox"/> Germany LBA <input checked="" type="checkbox"/> EASA <input type="checkbox"/> CAA-NL <input type="checkbox"/> Brazil <input type="checkbox"/> UK CAA <input type="checkbox"/> Transport Canada Civil Aviation <input type="checkbox"/> Japan CAB <input type="checkbox"/> DGAC <input type="checkbox"/> CAA of Israel <input type="checkbox"/> Other _____		
	設計國 AD 編號 Original AD number	2017-0250	
	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) : _____ 2. 使用人是否需要將 AD 執行結果向民航局提出報告?(Do 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	ATA 72. Ref. Publications: Austro Engine MSB MSB-E4-022 revision 2 dated 27 November 2017.		
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			



Airworthiness Directive

AD No.: 2017-0250

Issued: 18 December 2017

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 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 (EC) 216/2008, Article 14(4) exemption].

Design Approval Holder's Name:

AUSTRO ENGINE GmbH

Type/Model designation(s):

E4 engines

Effective Date: 01 January 2018

TCDS Number(s): EASA.E.200

Foreign AD: Not applicable

Supersedure: None

ATA 72 – Engine – Turbocharger Waste Gate Controller and Control Rod Circlip – Life Limit

Manufacturer(s):

Austro Engine GmbH

Applicability:

Model E4 and E4P engines, all serial numbers.

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.

Reason:

Occurrences have been reported where, on some engines, turbocharger waste gate control rods were found broken and/or disconnected. Investigation results indicate that these failures were due to insufficient fatigue life or improper handling of the waste gate control rod and improper installation of the non spring loaded waste gate control rod circlip.

These conditions, if not corrected, could lead to improper operation of the waste gate with consequent engine power loss, possibly resulting in reduced control of the aeroplane.

To address these potential unsafe conditions, Austro Engine designed a new spring loaded waste gate control rod circlip and published Mandatory Service Bulletin (MSB) MSB-E4-022, later revised,



introducing a life limit for the affected waste gate controllers and waste gate control rod circlips (hereafter referred to as “circlip” in this AD).

For the reason described above, this AD requires implementation of those life limits, and prohibits reinstallation of non spring loaded circlips.

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

Required as indicated, unless accomplished previously:

Note 1: For the purpose of this AD, a Group 1 engine has configuration “-B” or “-C”, and is installed on DA 42 M-NG aeroplane with external containers; or has configuration “-A”. A Group 2 engine is an engine that is not a Group 1 engine.

Replacement:

- (1) Within the compliance time as identified in Table 1 of this AD, as applicable, and, thereafter, at intervals not to exceed 250 flight hours (FH), replace the waste gate controller and the circlip in accordance with the instructions of Austro Engine MSB-E4-022/2.

Table 1 – Initial replacement compliance time

Engine Group	Compliance Time (A or B, whichever occurs later)	
1	A	Within 50 FH or 2 months, whichever occurs first after the effective date of this AD
	B	Within 250 FH since first installation on an engine
2	A	Within 100 FH or 5 months, whichever occurs first after the effective date of this AD
	B	Within 250 FH since first installation on an engine

Parts Installation:

- (2) From the effective date of this AD, do not install on any engine a non spring loaded circlip Part Number DIN6799-5.

Ref. Publications:

Austro Engine MSB MSB-E4-022 revision 2 dated 27 November 2017.

The use of later approved revisions of this 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. For any question concerning the technical content of the requirements in this AD, please contact: Austro Engine GmbH, Rudolf-Diesel-Str. 11, A-2700 Wiener Neustadt, Austria Telephone +43-2622-23000-2525, E-mail service@austroengine.at.

The referenced publication can be downloaded directly from the Austro Engine GmbH [Service Bulletin](#) webpage.

