

### Diamond Aircraft Industries G.m.b.H N.A. Otto-Straße 5 A-2700 Wiener Neustadt

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24-Mar-2006

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# **SERVICE INFORMATION NO. SI 40-031**

**NOTE:** Sl's are used **only**:

1) To distribute information from DAI to our customers.

2) To distribute applicable information / documents from our suppliers to our customers with additional information

Typically there is no revision service for Si´s. Each new information or change of that will be send along with a new SI.

## I. TECHNICAL DETAILS

## 1.1 Airplanes affected:

All DA 40 and DA 40 F aircraft

# 1.2 Subject:

EASA AD 2005-0023R2, Lycoming SB and SI for Exhaust valve and guide - Inspection ATA-Code: 72-00

### 1.3 Reason:

EASA has issued a revision of an Airworthiness Directive requiring the inspection of the exhaust valve and guide of the Lycoming engine.

## 1.4 Information:

For detailed technical information see EASA Airworthiness Directive which is applicable without any further additions or restrictions.

## II. OTHERS

The EASA Airworthiness Directive No.: 2005-0023R2 is attached to this SI.

In case of doubt contact Diamond Aircraft Industries.

# EASA

# **AIRWORTHINESS DIRECTIVE**

AD No.: 2005-0023R2

Date: 20 February 2006

No person may operate a product to which an Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive unless otherwise agreed with the Authority of the State of Registry.

### Type Approval Holder's Name:

Type/Model designation(s):

Lycoming Engines

All Lycoming Piston Engines

TCDS Number: FAA 1E1, 1E4, 1E7, 1E10, 1E11, E10EA, E11EA, 1E12, 1E13, 1E14, E14EA,, 1E15, E16EA, E19EA, E26EA, E00004NY, E-223, E-228, E-229, E-256, E-274, E-275, E-276, E-277, E-279, E-284, E-285, E-286, E-295, E-304, TC 199, TC 210, TC 227

Foreign AD: None

Supersedure: This AD supersedes AD's in several EU Member States including France 1999-088(A) R3, and Netherlands NL 1994-046/3

ATA 72	Exhaust valve and guide – Inspection
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Manufacturer:	Lycoming Engines (Formerly Textron Lycoming)
Applicability:	All Lycoming piston engine models identified by the above FAA TCDS's, installed in aeroplanes and rotorcraft.
Reason:	To prevent exhaust valve sticking and power loss.  This problem was formerly addressed by national Airworthiness Directive or other mandatory maintenance requirement in several European Union Member States.  AD 2005-0023R1 is issued to increase the 50 hour period before the initial inspection, due to allow more time to obtain the required tooling, and to increase the inspection interval to be consistent with scheduled maintenance activities.  AD 2005-0023R2 is issued to remove the requirement for inspection of engines installed on fixed wing aeroplanes and fitted with "Hi-Chrome" Exhaust Valves and Guides. This is in response to evidence submitted since the original issue of this AD, which details the service experience of these engines, and indicates that an unsafe condition does not exist.
Effective Date:	1 November 2005
Compliance:	a) Carry out inspection of exhaust valves and guides in accordance with Lycoming Service Bulletin No. 388C dated November 22, 2004 at the intervals indicated in Paragraphs 1 and 2 below. The inspections must be carried out in accordance with

the procedures defined in Part 1 or Part 2-A.

- b) If the results of the inspection are outside the recommended limits, carry out the rectification actions defined in the Service Bulletin.
- c) Record inspection valve guide clearance measurements, and incorporation status of SI 1485A if applicable, in the engine logbook.

### 1. Rotorcraft Engines

- i) Exhaust Valves and Guides not previously inspected in accordance with Lycoming SB 388 :
  - a. Inspect before completing 100 operating hours from the effective date of this AD, or 330 hours operating time since new/overhaul, whichever occurs later.
  - b. Thereafter, repeat at an interval not to exceed 330 operating hours.
- ii) Exhaust Valves and Guides previously inspected in accordance with Lycoming SB 388:
  - a. Inspect within 330 operating hours of the previous inspection.
  - b. Thereafter, repeat at an interval not to exceed 330 operating hours.

#### 2. Aeroplane Engines

- A. Within 120 days of the effective date of this AD, establish whether the engine is fitted with the "Hi-Chrome" Exhaust Valve Guide, by referring to Lycoming Service Instruction 1485A.
- B. Aeroplane Engines not fitted with "Hi-Chrome" exhaust valve guide.
- i) Exhaust Valves and Guides not previously inspected in accordance with Lycoming SB 388:
  - a. Inspect before completing 100 operating hours from the effective date of this AD, or 440 hours operating time since new/overhaul, whichever occurs later.
  - b. Thereafter, repeat at an interval not to exceed 440 operating hours.
- ii) Exhaust Valves and Guides previously inspected in accordance with Lycoming SB 388 :
  - a. Inspect within 440 operating hours of the previous inspection.
  - b. Thereafter, repeat at an interval not to exceed 440 operating hours.

### Ref. Publications:

Lycoming Service Bulletin No. 388C dated 22 November 2004; Lycoming Service Instruction 1485A dated July 2, 2003; or later approved revisions.

Lycoming Engines, 652 Oliver Street, Williamsport, PA 17701, USA <u>www.lycoming.textron.com</u>

### Remarks:

- 1. If requested and appropriately substantiated the responsible EASA manager for the related product has the authority to accept Alternative Methods
- 2. This AD was posted as PAD 05-002 for consultation on 21 February 2005 with a comment period until 31 March 2005. The Comment Response Document can be found at <a href="http://www.easa.eu.int/home/aw">http://www.easa.eu.int/home/aw</a> dir en.html
- Enquiries regarding this Airworthiness Directive should be referred to: Mr M. Capaccio, AD Focal Point, Certification Directorate EASA. E-mail ADs@easa.eu.int
- 4. For any questions concerning the technical content of the requirements in this AD, please contact Lycoming Engines, (Ph.: 001-570-323-6181; Fax: 001-570-327-7101)