

Diamond Aircraft Industries GmbH N.A. Otto-Straße 5 A-2700 Wiener Neustadt Austria DAI SI 40NG-044 Page 1 of 1 03-Jul-2014 FT

SERVICE INFORMATION NO. SI 40NG-044

NOTE: SI'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 sent along with a new SI.

I. TECHNICAL DETAILS

1.1 Airplanes affected:

All DA 40 NG airplanes

1.2 Subject:

Austro Engine Mandatory Service Bulletin No. MSB-E4-017 ATA-Code: 72-00

1.3 Reason:

Austro Engine has issued the Mandatory Service Bulletin MSB-E4-017 prescribing a check and if necessary the replacement of the Timing Chain on E4 engines.

1.4 Information:

For detailed technical information refer to Austro Engine Mandatory Service Bulletin No. MSB-E4-017 which is applicable without any further additions or restrictions.

II. OTHERS

Austro Engine Mandatory Service Bulletin No. MSB-E4-017 is attached to this Service Information.

In case of doubt contact Austro Engine GmbH

Austro Engine



SERVICE BULLETIN

No. MSB-E4-017

1. BASIC INFORMATION

1.1. SUBJECT

Check/Exchange of timing chain.

1.2. ENGINES AFFECTED

Type:E4 EngineSerial numbers:All

1.3. REASON

On few engines considerable wear of the timing chain has been detected, which could lead to a fraction of the timing chain and a subsequent loss of power. A check of the condition of the timing chain has been defined including instructions for exchanging the timing chain and the chain wheel if applicable. Refer to the maintenance manual of the E4 engine for details.

1.4. TIME OF COMPLIANCE

Ensure that Temporary Revision MM-TR-MDC-E4-325 is incorporated into the maintenance manual E4.08.04. Refer to section 05-20-00 "Schedule Maintenance Inspections and Checks" of the maintenance manual of the E4 engine for details.

CAUTION:

Engines with more than 1000 hours operation time have to conduct a check of the timing chain according to section 85-40-40 of the maintenance manual within the next 100 hours.

| Fii | First Issue Date | | Rev. No. | Revision Date | | | Page |
|-----|------------------|------|----------|---------------|--|--|------|
| 30 | Jun | 2014 | | | | | 1-7 |



No. MSB-E4-017

Austro Engine GmbH Rudolf-Diesel-Strasse 11 A-2700 Wiener Neustadt Tel: +43 2622 23000 FAX: +43 2622 23000-2711

1.5. CONCURRENT DOCUMENTS / REFERENCES

Maintenance Manual – Doc. No.:

E4.08.04, latest effective issue with Temporary Revision MM-TR-MDC-E4-325 incorporated.

1.6. OTHER PUBLICATIONS AFFECTED

None.

| | First Issue | Date | Rev. No. | R | evision Da | te | Page | |
|----|-------------|------|----------|---|------------|----|------|--|
| 30 | Jun | 2014 | | | | | 2-7 | |



No. MSB-E4-017

Austro Engine GmbH Rudolf-Diesel-Strasse 11 A-2700 Wiener Neustadt Tel: +43 2622 23000 FAX: +43 2622 23000-2711

2. TECHNICAL DETAILS

Ensure that Temporary Revision MM-TR-MDC-E4-325 is incorporated into the maintenance manual E4.08.04. Refer to instructions given in the maintenance manual section 85-40-40 "Check of timing chain".

2.1. ILLUSTRATIONS

None.

2.2. MASS (WEIGHT)

Not affected.

2.3. APPROVAL STATEMENT

The technical content of this document has been approved under the authority of DOA No. EASA.21J.399.

| First Issue Date | | Rev. No. | Revision Date | | | Page | |
|------------------|-----|----------|---------------|--|--|------|-----|
| 30 | Jun | 2014 | | | | | 3-7 |



3. PLANNING INFORMATION

3.1. MATERIAL & AVAILABILITY

Required material for checking the tension of the timing chain:

| Amount | Part Name | Part Number | Rev. Number | | |
|--------|------------------------------|----------------|-------------|--|--|
| 1 | Seal Boost Pressure Manifold | E4A-04-000-004 | 000 | | |
| 1 | Seal Drive Train | E4A-75-600-401 | 000 | | |

Required material if the timing chain and the timing chain wheel have to be replaced:

| Amount | Part Name | Part Number | Rev. Number | | |
|--------|--------------------------------|----------------------|-------------|--|--|
| 6 | Toothed Washer | DIN 6797 A6,4-VZ | | | |
| 2 | Ring Seal | DIN 7603-C12x16x2 CU | | | |
| 4 | Ring Seal | E4A-03-000-801 | 000 | | |
| 4 | Screw (Injector Fixing) | E4A-03-000-802 | 000 | | |
| 1 | Seal Boost Pressure Manifold | E4A-04-000-004 | 000 | | |
| 3 | O-Ring Oil Return Line | E4A-05-000-103 | 000 | | |
| 1 | Seal Oil Return Line | E4A-05-000-104 | 000 | | |
| 1 | Chain wheel | E4A-07-000-101 | 000 | | |
| 3 | Screws for chain wheel | E4A-07-000-402 | 000 | | |
| 3 | Screws for assy sensor housing | E4A-22-000-803 | 000 | | |
| 1 | Timing chain, open version | E4A-75-100-000 | 020 | | |

| First Issue Date | | Rev. No. Revision Date | | | | Page | |
|------------------|-----|------------------------|--|--|--|------|-----|
| 30 | Jun | 2014 | | | | | 4-7 |



3.2. SPECIAL TOOLS

Required material for checking the tension of the timing chain:

| Amount | Part Name | Part Number |
|--------|-----------------------------|-------------|
| 1 | Timing chain measuring tool | AEP-00150 |

Required material if the timing chain and the timing chain wheel have to be replaced:

| Amount | Part Name | Part Number | | | |
|--------|-------------------------|-------------|--|--|--|
| 1 | Camshaft adjusting tool | AE300T009 | | | |
| 1 | Sealant Pistol | AE300T027 | | | |
| 1 | Sealant (black) | AE300T028 | | | |
| 1 | Grease for Injectors | AE300T029 | | | |
| 1 | Chain guiding bar | AEP-00139 | | | |
| 1 | Chain opening tool | AEP-00158 | | | |
| 1 | Chain closing tool | AEP-00159 | | | |
| 1 | Chain coupling | AEP-00160 | | | |

3.3. LABOR EFFORT

Not specified; conducted during line maintenance.

3.4. CREDIT

None.

| Fi | First Issue Date | | Rev. No. | R | evision Da | te | Page |
|----|------------------|------|----------|---|------------|----|------|
| 30 | Jun | 2014 | | | | | 5-7 |



4. **REMARKS**

NOTE:

- All measures must be carried out by a certified engine station and certified engine mechanics.
- The accomplishment of the instructions shown under section 2 TECHNICAL DETAILS must be confirmed in the respective engine log book.
- The accomplishment of the instructions must be carried out within the time of compliance according to section 1.4.
- In case of doubt please contact the Austro Engine GmbH After Sales Support (e-mail: <u>service@austroengine.at</u>; Tel: +43 2622 23000 2525).
- For credit information contact Austro Engine GmbH After Sales Support (e-mail: <u>service@austroengine.at</u>; Tel: +43 2622 23000 2525).

| Fin | First Issue Date | | Rev. No. | Revision Date | | | Page |
|-----|------------------|------|----------|---------------|--|--|------|
| 30 | Jun | 2014 | | | | | 6-7 |



5. **EXPLANATORY NOTES**

5.1. SYMBOL EXPLANATION

Marning: Disregarding these safety rules can cause personal injury or even death.

<u>CAUTION</u>: Disregarding these special instructions and safety measures can cause damage to the engine or other components.

NOTE: Additional note or instruction for better understanding of an instruction.

6. APPENDIX

None

| First Issue Date | | ate | Rev. No. | R | evision Da | te | Page | |
|------------------|-----|------|----------|---|------------|----|------|--|
| 30 | Jun | 2014 | | | | | 7-7 | |