

SERVICE INFORMATION

NO. SI 42NG-116

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 42 NG and DA 42 M-NG airplanes

1.2 Subject:

Austro Engine Mandatory Service Bulletin No. MSB-E4-035
ATA-Code: 73-00

1.3 Reason:

Austro Engine has issued Mandatory Service Bulletin MSB-E4-035 prescribing the inspection of the High Pressure Fuel Pump driving gear wheel, which are installed on a certain cylinder head part number.

1.4 Information:

For detailed technical information refer to Austro Engine Mandatory Service Bulletin No. MSB-E4-035 which is applicable without any further additions or restrictions.

II. OTHERS

Austro Engine Mandatory Service Bulletin No. MSB-E4-035 is attached to this Service Information.

In case of doubt contact Austro Engine GmbH.



Mandatory Service Bulletin
No. MSB-E4-035

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

MANDATORY SERVICE BULLETIN

No. MSB-E4-035

1. BASIC INFORMATION

1.1. SUBJECT


High Pressure Pump driving gear inspection

1.2. DEFINITIONS AND ACRONYMS

For the purpose of this Service Bulletin, the following definitions and acronyms apply:

Affected part: High Pressure Pump driving gear
Fh: flight hours
HPP: High Pressure pump
p/n or p/ns: Part number or Part Numbers
SB: Service Bulletin
s/n or s/ns: Serial Number or Serial Numbers

First Issue Date			Rev. No.	Revision Date				Page
10	Sep	2021	---	---	---	---	1-8	

	Mandatory Service Bulletin No. MSB-E4-035	Austro Engine GmbH Rudolf-Diesel-Strasse 11 A-2700 Wiener Neustadt Tel: +43 2622 23000 FAX: +43 2622 23000-2711
---	--	---

1.3. ENGINES AFFECTED

Engine affected:	E4 Series
Serial numbers affected ⁽²⁾ :	All E4/E4P engine s/ns having a Cylinder Head part number E4A-12-500-000 installed ⁽¹⁾
Part Affected:	High Pressure Pump driving gear

■ **(1) Note:** To identify the cylinder head installed, refer to the maintenance manual E4.08.04 chapter 85. Additional Cylinder Head identification methods are provided in the Service Instruction no. SI-E4-016

■ **(2) Note:** Replacement of a High-Pressure Pump driving gear accomplished in accordance with the instruction of the Mandatory Service Bulletin no. MSB-E4-034 at revision 1 (or subsequent approved revision), is acceptable to comply with the requirements of paragraph 2.1 of this Service Bulletin for that engine.

1.4. REASON

Stack up of tolerances between the Cylinder Head (CH), CH cover, Camshaft Gear and High-Pressure Pump (HPP) gear is found for those engines having a Cylinder Head part number E4A-12-500-000 installed. This condition, if not detected, could result in premature failure of the HPP drive gear resulting in rail pressure loss and engine shutdown.

1.5. TIME OF COMPLIANCE

Before the next flight

1.6. CONCURRENT DOCUMENTS / REFERENCES

If not specified, the latest revision of the concurrent/referenced documents applies

- Maintenance Manual E4.08.04
- Service Instruction SI-E4-016
- Mandatory Service Bulletin MSB-E4-034 rev. 1 or subsequent approved revisions

1.7. OTHER PUBLICATIONS AFFECTED

None

First Issue Date			Rev. No.	Revision Date				Page
10	Sep	2021	---	---	---	---	2-8	



2. TECHNICAL DETAILS

2.1. ACCOMPLISHMENT / INSTRUCTIONS

1. Remove the HPP in accordance with the instruction provided in the Maintenance Manual, chapter 73-10-03 paragraph A
2. Clean the driving gear with Non-chlorinated brake cleaner (recommended product Manufacturer: Förch, Product ID.: R510)
3. Visually inspect the driving gear against colour criteria provided in the table 1. If acceptable criteria are not met, remove the camshafts according to the Engine Maintenance Manual chapter 85-30-00 subchapter 4A (a) - 4A (h), inspect the bushing of the inlet and outlet camshaft, take pictures and provide them to the Austro Engine support team. If the gear is in acceptable conditions, then proceed to step 5

■ **Note:** In case of doubt, contact Austro Engine providing pictures of the driving gear

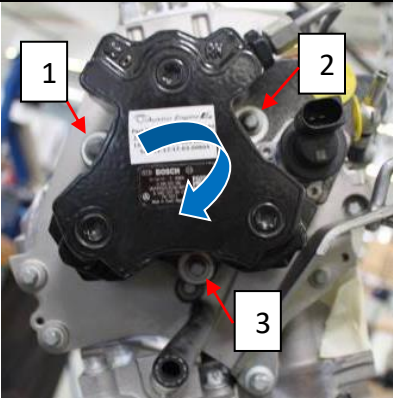
4. Reinstall the HPP in accordance with the instruction provided in the Maintenance Manual, chapter 73-10-03 paragraph B referring to the table 2 for the tightening sequence of the screws
5. Fill the execution report and send it back to service@austroengine.at

First Issue Date			Rev. No.	Revision Date				Page
10	Sep	2021	---	---	---	---	3-8	

Table 1 - Driving gear colour check chart

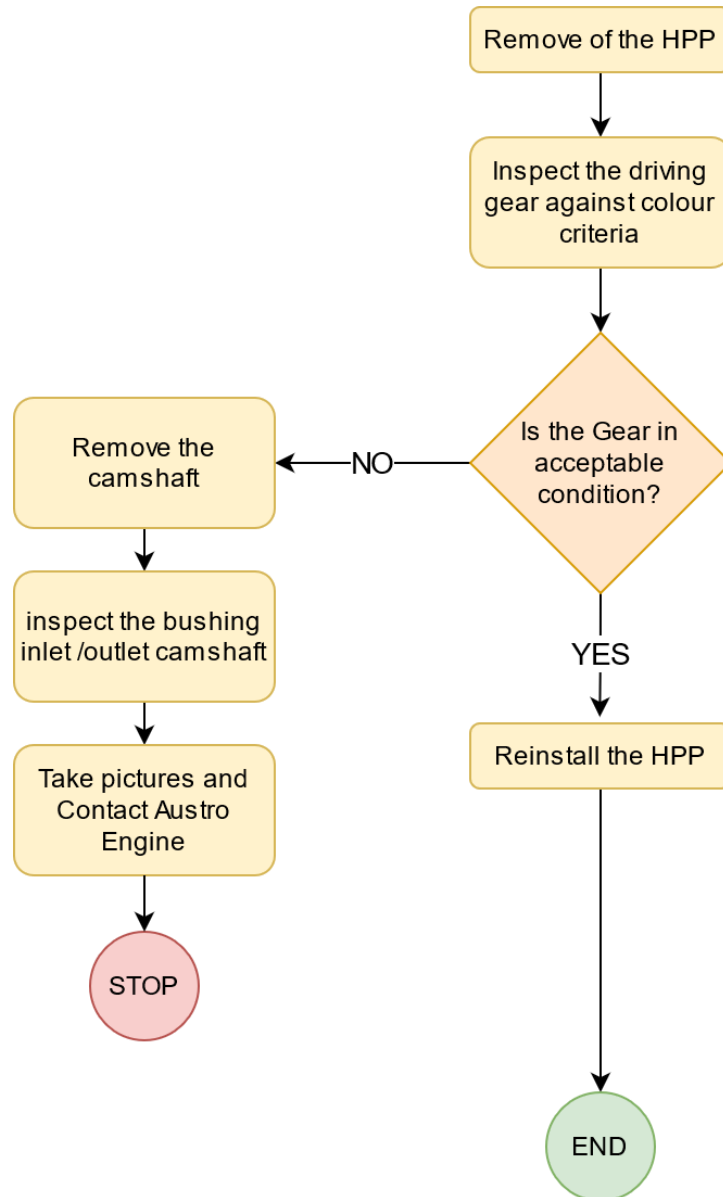


Table 2 – High Pressure Pump Tightening Sequence

 <p style="text-align: center;">Figure 3</p>	<p>Install the HPP tightening the screws according to the figure 3 sequence with 12 Nm.</p>
--	---

First Issue Date	Rev. No.	Revision Date	Page
10 Sep 2021	---	---	4-8

Process summarised



2.2. CREDIT/COMPLIANCE

Replacement of a High-Pressure Pump driving gear accomplished in accordance with the instruction of the Mandatory Service Bulletin no. MSB-E4-034 at revision 1 (or subsequent approved revision), is acceptable to comply with the requirements of paragraph 2.1 of this Service Bulletin for that engine.

First Issue Date			Rev. No.	Revision Date				Page
10	Sep	2021	---	---	---	---	5-8	



Mandatory Service Bulletin
No. MSB-E4-035

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

2.3. ILLUSTRATIONS

None.

2.4. MASS (WEIGHT)

Not affected.

2.5. APPROVAL STATEMENT

The technical content of this document is approved under the authority of the DOA ref. EASA.21J.399.

First Issue Date			Rev. No.	Revision Date				Page
10	Sep	2021	---	---	---	---	6-8	



3. PLANNING INFORMATION

3.1. MATERIAL & AVAILABILITY

None

3.2. SPECIAL TOOLS

None

3.3. LABOR EFFORT

0.5 Hours

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 2.1 must be confirmed in the respective engine log book.
- The accomplishment of the instructions must be carried out within the time of compliance according chapter 1.
- In case of doubt please contact the Austro Engine GmbH – After Sales Support (e-mail: service@austroengine.at; Tel: +43 2622 23000 2525).
- For credit information contact Austro Engine GmbH – After Sales Support (e-mail: service@austroengine.at; Tel: +43 2622 23000 2525)

5. EXPLANATORY NOTES


5.1. SYMBOL EXPLANATION



CAUTION: 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

First Issue Date			Rev. No.	Revision Date				Page
10	Sep	2021	---	---	---	---	7-8	

	<p align="center">Mandatory Service Bulletin No. MSB-E4-035</p>	<p>Austro Engine GmbH Rudolf-Diesel-Strasse 11 A-2700 Wiener Neustadt Tel: +43 2622 23000 FAX: +43 2622 23000-2711</p>
---	--	--


	<p align="center">Service Bulletin Execution Report</p>	<p align="center">Note:</p>
Aircraft owner:		
Aircraft Operator:		<i>If different from the owner</i>
Aircraft:		
Aircraft Serial Number:		
Aircraft Marks:		
Engine (RH) s/n:		<i>For single engine a/c, fill only one row</i>
Engine (LH) s/n:		
Flight Hours:		
Service center:		<i>Company Name or reference of the person(s) performing the oil pump replacement</i>
Inspected HPP s/n:		<i>Refer to the figure 4 below to identify the serial number</i>
<p>NOTE: A scanned version of this form must be provided to service@austroengine.at</p>		
<p>NOTE: The original filled version of this form, must be packed with the removed gear, and provided to Austro Engine</p>		



Figure 4 – HPP p/n and s/n location

First Issue Date			Rev. No.		Revision Date				Page	
10	Sep	2021	---	---	---	---	---	---	8-8	