



IW 8056 M0

Maintenance Instruction

Combustion chamber



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1 Scope

This Inspection- and Maintenance Instruction (IW) applies to the following Jenbacher Gas Engines:

- Type 2 engines
- Type 3 engines
- Type 4 engines
- Type 6 engines
- Type 9 engines

2 Purpose

This Inspection and Maintenance Instruction (IW) specifies the maintenance interval.

3 Maintenance interval

Maintenance work	Maintenance interval	Carried out by ¹⁾
⇒ Inspecting and cleaning the combustion chamber	Condition-dependent ¹⁾	INNIO
⇒ Checking the fuel gas quality, in particular the silicon content for landfill gas engines	6 months	K
⇒ Checking the oil consumption	6 months	K
⇒ Check for oil ingress into the engine due to a faulty blow-by filter and inspect the intake line for "Oil wetness"	6 months	INNIO

¹⁾ With loss of efficiency; if the local emission values to be observed are exceeded (HC, CO, NO_x, CH₂O, etc.); with exhaust gas temperature spread; with misfiring due to deposits; with condition-based cylinder head maintenance; with restricted power output (power reduction due to knock control) and/or reduced stability in operation (knock control trip); with reduced power due to the turbocharger reserve being too small (not reaching target power)

Valid for:

- Type 2: Maintenance plan A Maintenance plan B Maintenance schedule C
- Type 3: Maintenance plan A Maintenance plan B Maintenance schedule C Maintenance plan D
- Type 6: Maintenance plan A Maintenance plan B Maintenance plan D
- Type 9: Maintenance schedule V
- Type 4 engines: Maintenance schedule A, Maintenance schedule B, Maintenance schedule D, Maintenance schedule P

Maintenance work	Maintenance interval	Carried out by ¹⁾
⇒ Optimising the engine	10,000 Oh	INNIO
⇒ Cleaning the combustion chamber	15,000 Oh	INNIO
⇒ Checking the fuel gas quality, in particular the silicon content for landfill gas engines	6 months	K
⇒ Checking the oil consumption	6 months	K
⇒ Check for oil ingress into the engine due to a faulty blow-by filter and inspect the intake line for "Oil wetness"	6 months	INNIO

Valid for:

- Type 4 engines with steel pistons: Maintenance schedule A, Maintenance schedule B

Maintenance work	Maintenance interval	Carried out by ¹⁾
⇒ Optimising the engine	10,000 Oh	INNIO
⇒ Cleaning the combustion chamber	15,000 Oh	INNIO
⇒ Checking the fuel gas quality, in particular the silicon content for landfill gas engines	6 months	K
⇒ Checking the oil consumption	6 months	K
⇒ Check for oil ingress into the engine due to a faulty blow-by filter and inspect the intake line for "Oil wetness"	6 months	INNIO




Valid for:

- Type 4 engines with steel pistons: Maintenance schedule C

*) Carried out by	This column defines who carries out the maintenance work.
K	This activity is to be carried out by the customer, INNIO or a company selected and authorised by INNIO to carry out this work.
INNIO	This activity is to be carried out by INNIO or a company selected by INNIO authorised to carry out this work.

4 Safety information

⚠ WARNING






Danger from unauthorised start-up

Serious injuries such as cutting, crushing or severing or shearing off body parts due to unintentional contact with rotating or moving machine parts.

- Shut down the engine as described in TA 1100-0105.
- Secure the engine against unauthorised restarting as per TA 2300-0010.

⚠ WARNING



Personal injury

Failure to use personal protective equipment and comply with safety instructions or employee protection information may lead to personal injury.

- Wear the relevant personal protective equipment (PPE).
- Observe the safety instructions as per TA 2300-0005.
- Observe the employee protection information as per TA 2300-0001.

5 Additional information



Oil with a high oil ash content, oil consumption and fuel gas composition have an effect on the combustion chamber deposits during engine operation.

Relevant documents:

IW 0309 M0 – Spark plugs

TA 1000-0300 – Fuel gas and combustion air requirements

TA 1100-0105 – Engine shut-down

TA 1400-0200 – Engine optimisation - Type 4 engines

TA 1503-0050 – Oil consumption meter, online oil consumption measurement

TA 2300-0001 – Employee protection
TA 2300-0005 – Safety instruction
TA 2300-0010 – Guidelines for using the LOTO kit
W 8053 M0 – Cylinder head replacement
W 8053 M4 – Cylinder head replacement
W 8053 M6 – Cylinder head
W 8053 M9 – Cylinder head

6 Work steps

6.1 Checking the fuel gas quality, in particular the silicon content for landfill gas engines

See TA 1000-0300.

6.2 Checking the oil consumption

Check for increased oil consumption due to damaged or broken piston rings, for example, see also TA 1503-0050.

6.3 Check for oil ingress into the engine due to a faulty blow-by filter and inspect the intake line for "Oil wetness"

Check for increased oil ingress into the engine due to a faulty blow-by filter. Inspect the intake line for "Oil wetness" as well.

This activity is to be carried out by INNIO or a company selected by INNIO authorised to carry out this work.

6.4 Inspecting and cleaning the combustion chamber

This activity is to be carried out by INNIO or a company selected by INNIO authorised to carry out this work.

6.5 Cleaning the combustion chamber

This activity is to be carried out by INNIO or a company selected by INNIO authorised to carry out this work.

6.6 Optimising the engine

See TA 1400-0200.

This activity is to be carried out by INNIO or a company selected by INNIO authorised to carry out this work.

7 Revision code

Revision history

Index	Date	Description / Revision summary	Expert Auditor
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Revision history

5	14.01.2020	Strukturelle Anpassungen / Structural adaption	Kecht S. <i>Pichler R.</i>
4	30.04.2019	GE durch INNIO ersetzt / GE replaced by INNIO	Fallzberger F. <i>Pichler R.</i>
3	28.09.2018	Grundlegende Überarbeitung / Fundamental revision	Steinbjörn J. <i>Waldron P.</i>
2	10.06.2010	Anpassung Schutzvermerk / Adjustment Classification	Provin <i>Provin</i>
1	26.05.2010	Umstellung auf CMS / Change to C ontent M anagement S ystem ersetzt / replaced Index: -	Provin <i>Licht</i>

