



I 8030 0

Maintenance Instruction

Inspection plan by grid code events



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The target recipients of this document are:

Customers, distribution partners, service partners, commissioning partners, subsidiaries/branches, Jenbach location

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1 Scope

This Inspection Instruction (I) applies to the following Jenbacher Gas Engines:

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

2 Purpose

This Maintenance Instruction (I) lays down the maintenance interval and describes the following activity:

- ⇒ Inspecting the generator, engine and building

3 Maintenance interval

Maintenance work	Maintenance interval	Carried out by ¹⁾
⇒ Inspecting the generator, engine and building	Condition-dependent ¹⁾	K
⇒ Checking the coupling and voltage regulator	Condition-dependent ²⁾	INNIO

¹⁾ if operational message B2831 occurs

²⁾ if DIA.NE warning W3586 occurs

Valid for:

- Type 2: Maintenance schedule A Maintenance schedule B Maintenance schedule C

- Type 3: Maintenance schedule A Maintenance schedule B Maintenance schedule C Maintenance schedule D
- Type 4: Maintenance schedule A Maintenance schedule B Maintenance schedule D Maintenance schedule E Maintenance plan P
- Type 6: Maintenance schedule A Maintenance schedule B Maintenance schedule D

***) 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 restarting

Serious injuries such as cutting, crushing, severing or shearing of 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 in accordance with 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.

⚠ WARNING**Activities entailing potential risks!**

The safety of persons is put at risk if activities involving potential risk are not subjected to a risk analysis

- The **risk analysis** specially prepared for these maintenance activities must be followed for all the activities here in order to remove the general risks. Risk analyses can be found under information.jenbacher.com - Unsere Abteilungen - Service - Service Rubrik - EHS - Risikoanalysen (Our departments - Service - Service heading - EHS - Risk analyses).
- To avoid risks associated with the activity, the **Short Duration Safety Checklist**, which must be carried by every service staff member engaged in work in the field, must be filled in.

5 Additional information

Relevant documents:

TA 1100-0105 – Engine shut-down

TA 2300-0001 – Employee protection

TA 2300-0005 – Safety instruction

TA 2300-0010 – Guidelines for using the LOTO kit

6 Work steps

6.1 Inspecting the generator, engine and building

Reason for the operational message:

Occurrence of a mains failure that causes a defined change in voltage, current or frequency at the generator.

Visual inspection:

- Inspect the entire generator set for leaks or deformation.
- In particular, inspect brackets, flange connections and compensators
- Check the engine and generator base frames for permanent misalignment
- Check the building and foundations for cracking or concrete spalling



Before re-commissioning the generator set, ensure that it has been restored to its normal operational condition.

6.2 Checking the coupling and voltage regulator

Reason for the operational message:

After 5 severe mains failures that caused a change in the generator load angle of more than 150°.

Visual coupling inspection:

- Remove the cover on the coupling housing.
- Inspect the coupling for deformation and cracks.
- Check the interior of the coupling housing for abrasion products and splinters from the elastomer.
- Remove the cover on the coupling housing.

Checking the generator:

- Check the varistors and / or snubber resistors.
- Check the diodes.
- Run up to the reference point (full load with a defined cos phi).
- Measure the excitation voltage and compare it with the value in the initial commissioning data sheet.
- Check the stator, rotor and exciter.
- Electrical check - insulation measurement.



Before re-commissioning the generator set, ensure that it has been restored to its normal operational condition.

Re-commissioning after mains failure maintenance requirement (W3586):

- Check the entire plant for leaks, especially hoses, lines, valves and fittings, and compensators (visual inspection).
- Listen for unusual noises during operation
- Pay particular attention to the turbocharger and the intake and exhaust systems (air mixture, throttle valve).
- Check the flame trap if a flashback occurred.

7 Revision code

Revision history

Index	Date	Description / Revision summary	Expert Auditor
2	30.04.2019	Strukturelle Anpassungen / Structural Adaptions GE druch INNIO ersetzt / GE replaced by INNIO	Fallzberger F. <i>Pichler R.</i>
1	19.10.2012	Erstausgabe / First release	Bilek <i>Kruckenhauser</i> <i>Hirzinger</i>