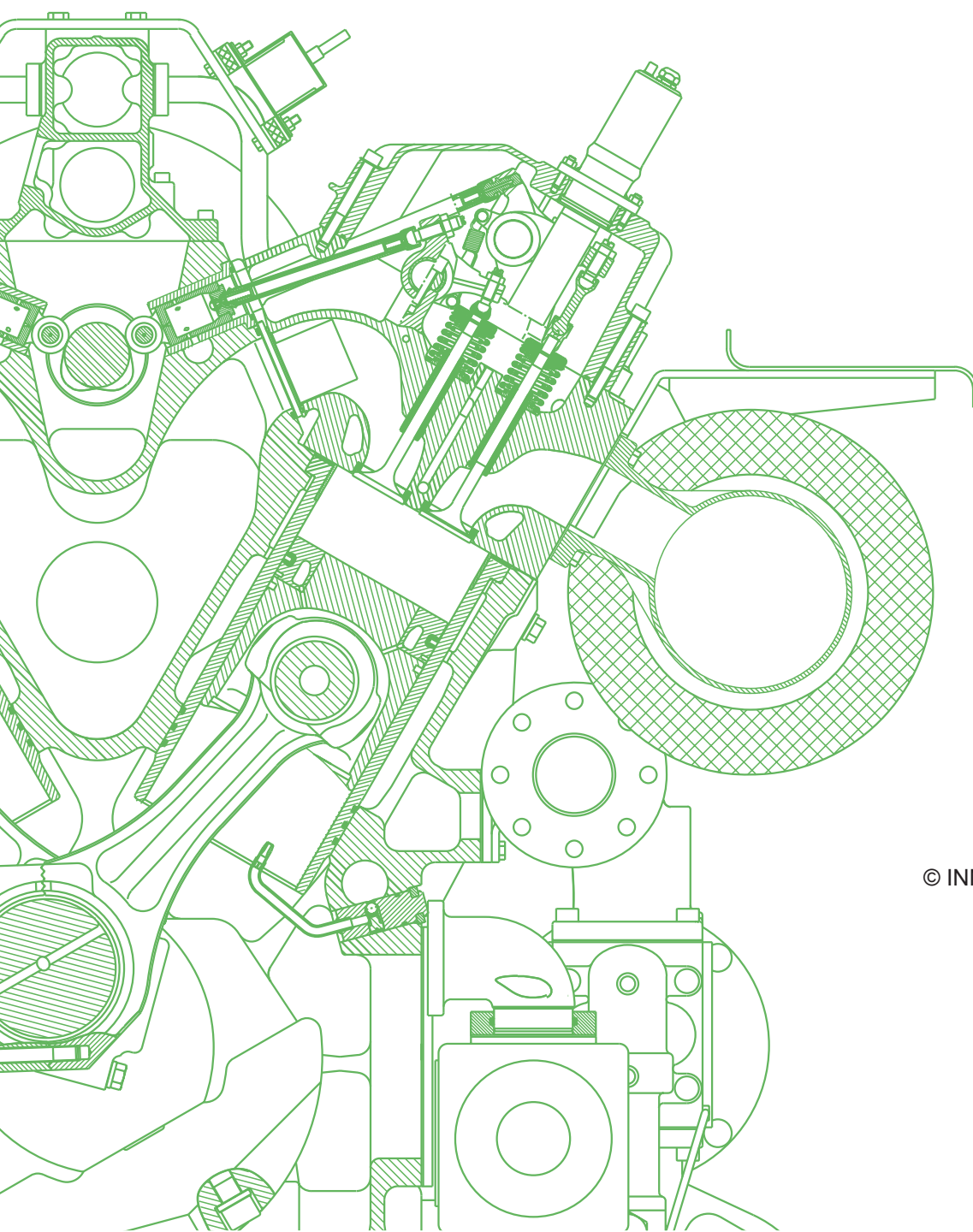




# IW 8083 A6

Maintenance Instruction

## Scavenging air fans



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## 1 Scope

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

- Type 6 engines

## 2 Purpose

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

- ⇒ Draining off the condensate manually
- ⇒ Inspecting the impeller blades
- ⇒ Inspecting the motor cooling ribs

## 3 Maintenance interval

Maintenance work	Maintenance interval	Carried out by <sup>1)</sup>
⇒ Inspecting the motor cooling ribs	4,000 Oh / 6 months	K
⇒ Inspecting the impeller blades	8,000 Oh / 1 year	K
⇒ Draining off the condensate manually	Condition-dependent <sup>1)</sup>	K

<sup>1)</sup> When required

**Valid for:**

- 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](http://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.

**⚠ ATTENTION****Danger of crushing!**

Danger of hand injuries!

- Proceed carefully and with caution when performing the next steps.

**NOTE****Contamination by brake cleaner**

Applying brake cleaner directly can cause particles of dirt to be washed into the clean oil circuit.

- When cleaning, pour some brake cleaner on to a lint-free cleaning cloth.

## 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

**Installation****Mechanical installation**

Before installing the fan check that it has not been damaged during shipping, that the housing is not distorted, that the rotor turns freely and that the fan and motor data on the type plate correspond to the intended use.



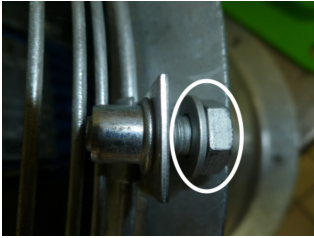

- Lift the fans slowly to avoid damage and twisting.
- Take appropriate precautionary measures and use authorised lifting equipment to ensure that the fan is properly supported and stable before it is lifted into place. Flange holes or holes for the mounting feet can be used for lifting, provided that more than one hole is used in order to spread the load. If specific lifting points are provided, use them.
- Mount the fan so that it is correctly aligned for the required air flow direction. An arrow on the type plate shows the flow direction of the fan.
- Use suitable fastenings to secure the fan in the correct position and tighten them to the correct torque as shown in Figure 1.
- The motors are each fitted with one condensate drain opening in each side cover and at the terminal box. The motor drain opening should be at the lowest point of the motor during installation.

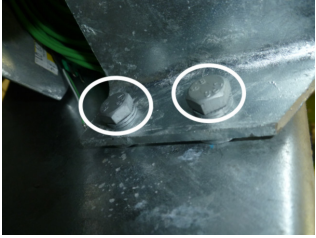
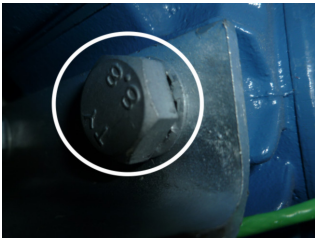
**Electrical installation**

- In the case of fans with a terminal box mounted on the motor, the power supply is also run through an opening in the side of the box. Use a cable gland for the cable and tighten it sufficiently to hold the cable securely and seal off the gland. After starting check that the fan aspirates air. This also ensures that the direction of rotation is correct.
- The mounting of the terminal box bolts is shown in Fig. 2.
- Adjust the phase current limiter as follows:
- Lower the actual limiting value of each phase by 0.1 amps each (e.g. actual value = 0.7, reduce it to 0.6).

- If the fan has been in storage, measure the motor windings resistance to earth (at 500 V DC). If the result of the measurement is less than 10 megohms, dry the motor and repeat the measurement before switching it on.

### Tightening torques for the fastenings

Fan housing cover for the electrical connection of the motor	Hexagon-head bolt	Tightening torque
	M8	15Nm
Motor terminal box	Hexagonal head bolt (plastic)	Tightening torque
	M20	22Nm
Grill mounting plate on the diffuser	Hexagon-head bolt	Tightening torque
	M8	15Nm
Connection between fan wheel and motor shaft	Hexagon-head bolt	Tightening torque
	M8	15Nm

Connection between bracket and housing	Hexagon-head bolt	Tightening torque
	M8	15Nm
Connection between motor and bracket	Hexagon-head bolt	Tightening torque
	M12	25Nm

**Goods inwards inspection/storage**

- Check the delivery as soon as it has been received to see whether it corresponds to the order and has suffered any damage during shipping.
- If the fan is delivered in a crate (or similar), this is purely for protection against shipping damage. No equipment may be placed on the crate, and it must not be stacked on other items. The crate structure must not be used for lifting unless explicitly marked as such.
- If the fan is to be put into storage, use bars, barriers or secured rooms to prevent access to the components by unauthorised persons so that the free-rotating rotors do not present a hazard.
- Store the fan in a safe, clean and dry place free of vibrations or jarring. If no such storage location is available, please contact the Jenbacher Customer Service.
- Spin the rotor by hand once a month. This prevents the grease from solidifying and standstill marks forming on the bearings (brinelling). The rotor should not return to the same angular position after spinning.
- When dismantling the shipping crate and unpacking the fan, pay attention to the danger of injury due to sharp edges, nails, staples, splinters, etc.
- If the fan is to be stored for 12 months or longer, please contact the Jenbacher Customer Service.

**6 Work steps****6.1 Draining off the condensate manually**

Motors are fitted with one condensate drain opening in each side cover and at the terminal box. Condensate formation must be expected due to the high fluctuations in operating temperature.

How often the plugs need to be removed depends on the environmental conditions.

- Remove the plugs in the condensate drain openings.
- Allow any accumulated condensate to run off.
- Close off the condensate drain openings with the plugs again.

## 6.2 Inspecting the motor cooling ribs

- Check the motor cooling ribs for dirt contamination and clean, if necessary.

## 6.3 Inspecting the impeller blades

- Check the impeller blades and fan housing for dirt and clean as necessary.

## 7 Revision code

Revision history

Index	Date	Description / Revision summary	Expert Auditor
2	30.04.2019	Strukurelle Anpassungen / Structural Adaptions GE durch INNIO ersetzt / GE replaced by INNIO	<b>Fallzberger F.</b> <i>Pichler R.</i>
1	22.02.2012	Erstausgabe / First issue	<b>Bilek</b> <i>Tremmel</i>