



TA 1100-0113

Technical Instruction

Cleanliness During Service Work Involving Clean Oil Parts



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NOTE

Observance of the conditions of this Technical Instruction and performance of the activities described therein is the basis of safe and efficient plant operation.

Non-observance of the conditions of this Technical Instruction and/or non-performance of the prescribed activities or any departure from the prescribed activities may result in the loss of guarantee rights.

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1 Scope

This Technical Instruction applies to INNIO Jenbacher GmbH & Co OG modules.

2 Purpose

This Technical Instruction tells you what to do during service work involving clean oil parts and work that could have an effect on the clean oil circuit.

3 Note

NOTE

Failure to observe this Technical Instruction could result in contamination which could subsequently cause massive damage to the engine!

The Technical Instructions listed below must also be observed:

- General conditions – Operation and maintenance, TA 1100-0111 → Dealing with cleanliness.
- Checklist for engine repair and overhaul, TA 2102-0020 → Ensuring faultless work when carrying out deep interventions - especially those relating to the clean oil circuit - on engines.
- Storage and handling of fresh oil for Jenbacher gas engines, TA 1000-0099L → handling engine oil.

4 Definition of clean oil circuit

The following areas/parts are in direct contact with clean oil:

- Cylinder head
- Camshaft including camshaft bearings
- Crankcase bores
- Oil-carrying bores and ducts in various cover plates
- Oil bores and ducts in the crankcase
- Main bearings
- Big-end bearings
- Connecting rod
- Crankshaft
- Valve gear - tappets, push rods, rocker arms, etc.
- Oil supply lines
- Turbocharger assembly and console
- Oil filter and oil filter assembly
- Piston cooling nozzles

5 Handling newly supplied spare parts that affect the clean oil circuit

Parts that have a direct or indirect effect on the clean oil circuit must be handled with extreme care. Before starting work on the engine, you should first check that the parts are in a good and usable condition and then repack them properly to protect them until they are actually used. Before installing the parts, give them a visual inspection (if necessary, using an endoscope) and where appropriate check them by feel.

Dirt, burrs and other possible contaminants could cause a malfunction. In such cases, you should always check whether it is possible to rectify the situation. Otherwise, you should consult the "Helpdesk Department". You should also always report defective shipments so that they can be improved in future.

6 Four-eyes principle

All work involving clean oil must be subject to the four-eyes principle in order to prevent defects or contaminants from being overlooked.

7 Covers and protecting the clean oil circuit

All areas of the engine in which clean oil parts or clean oil zones are opened must be covered immediately. Suitable plastic or rubber covers and residue-free adhesive tape can be used as coverings.

The crank pins on the crankshaft must be handled in a particularly sensitive way. They must be covered as soon as they are removed from the connecting rod. You are recommended to use the official INNIO Jenbacher GmbH & Co OG Jenbacher plastic covers for this. If they are not available, use an alternative, fibre-free material.

Irrespective of the type of cover used, you must ensure that it has been cleaned to remove all residues.

Generally, rotating metal brushes should not be used in the engine room.

Other rotary cleaning methods are not permitted in the engine room as cleanliness cannot be guaranteed, due to particles flying around. Where it is not possible to remove the component to be cleaned and taken to a separate room and, at the same time, a different cleaning method is not possible, the utmost care must be taken to cover it exactly to prevent dirt and foreign bodies from getting into the clean oil system. This rule does not apply to rotating metal brushes.

8 Handling main and connecting rod bearing shells

Do not wear safety gloves when handling main and connecting rod bearings. You are exceptionally allowed to take off your gloves, but only for the direct handling of these bearing shells. This includes inspecting, lubricating and inserting the bearing shells.

You must put on the safety gloves again for all other work.

9 Cleaning material to be used

It is important to use the correct cleaning material. "Cleaning material" means direct cleaning material such as cleaning cloths but also includes indirect cleaning material such as cup brushes, rotating metal brushes and emery paper. Chemicals are not counted as cleaning material and are dealt with separately.

These materials must be available on site for work on the engine at 10,000 hour service intervals and for repairs. Where these materials are not obtainable on site, you can order them from INNIO Jenbacher GmbH & Co OG under part number 1210145. They can be precisely those listed below or equivalent materials.

Quantity	Unit	Description	Manufacturer	Manufacturer code
1	Roll	Cleaning paper 380 x 380 mm	ALBW	11338-01
1	Roll	Oil-absorbent roll 400 x 460 mm	ALBW	80006-00
1	Box	ZETPUTZ fleece cloth 33x35cm	ALBW	10111-01
1	Quantity	Back-up pad 75 mm - M14 ROLOC 3M	3M	784999
5	Quantity	Buffing wheel 3M, 75 mm, 120 grain	3M	707529
5	Quantity	Buffing wheel 3M, 75 mm, 80 grain	3M	707527
5	Quantity	Surface grinder, 60 x 40 x 6 mm, 80 grain	Bibielle	RG0386
5	Quantity	Surface grinder, 60 x 40 x 6 mm, 120 grain	Pferd	44510126
5	Quantity	Surface grinder, 30 x 20 x 6 mm, 80 grain	Pferd	44412086
2	Quantity	Cup brush, 125 mm	Rial	487117
10	Quantity	152 x 229 mm fine abrasive fleece pad, red	3M	762147

Quantity	Unit	Description	Manufacturer	Manufacturer code
1	Quantity	Abrasive cloth roll, 80	SIA	341584170080
1	Quantity	Abrasive cloth roll, 120	SIA	341584170120
1	Quantity	Abrasive cloth roll, 400	SIA	341584170400
1	Quantity	End brushes for power drill, 23 mm	Lessmann	453,161

10 Revision code

Revision history			
Index	Date	Description / Revision summary	Expert Auditor
4	30.04.2019	GE durch INNIO ersetzt / GE replaced by INNIO	Opoku <i>Pichler R.</i>
3	29.05.2015	Ergänzung „Klassifizierung – Potenzieller Kunde“ / Additional „Classification - Prospective Customers“	Bilek <i>Kelly</i>
2	06.11.2014	Hinweis zur Einhaltung der Bedingungen / Information on observing the conditions	Bilek <i>Lippert</i>
1	21.02.2014	Erstausgabe / First release	Bilek <i>Winterle Hannes</i>