



IW 1063 A0

Maintenance Instruction

HUG SCR/oxidation catalytic converter



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1 Scope

This Inspection and Maintenance Instruction (IW) applies to the exhaust gas treatment system from Hug Engineering AG.

2 Purpose

This Inspection and Maintenance Instruction (IW) describes the maintenance interval and following activities:

- ⇒ Inspect the piping and connecting elements
- ⇒ Reactor: Inspect the housing and piping

3 Maintenance interval

Maintenance work	Maintenance interval	Carried out by ¹⁾
⇒ Compressor unit: Replace the filter (if installed)	4,000 Oh ¹⁾	INNIO
⇒ Compressor unit: Inspect the ribs and replace them, if necessary (if installed)	4,000 Oh	INNIO
⇒ Reactant metering unit: inspect the rotary drive	4,000 Oh / 1 year ²⁾	INNIO
⇒ Reactant metering unit: check the air non-return valve	4,000 Oh / 1 year	INNIO
⇒ Reactant metering unit: inspect gas cleaning system (if installed)	4,000 Oh / 1 year	INNIO
⇒ Reactant metering unit: Inspect the pressure reducer valve (if installed)	4,000 Oh / 1 year	INNIO
⇒ Reactant metering unit: Inspect the solenoid valve (if installed)	4,000 Oh / 1 year	INNIO
⇒ Reactant feed pump: inspect gas cleaning system (if installed)	4,000 Oh / 1 year	INNIO
⇒ Reactant feed pump: clean reactant filter	4,000 Oh / 1 year	INNIO
⇒ Reactant feed pump: replace diaphragms, suction valves and pressure valves	4,000 Oh / 1 year	INNIO
⇒ Low-pressure reactant nozzle: inspect the nozzle head	4,000 Oh / 1 year	INNIO
⇒ Emission measurement	4,000 Oh / 1 year	INNIO
⇒ Replace NOx sensor	6,000 Oh	INNIO
⇒ Reactor: Inspect catalytic converter elements	8,000 Oh / 1,500 starts ³⁾	INNIO
⇒ Low-pressure reactant nozzle: Replace the nozzle insert, nozzle cap, seal & flange gasket and clean the nozzle holder	8,000 Oh / 1 year ⁴⁾	INNIO
⇒ Reactant feed pump: top up pulsation damper	8,000 Oh / 1 year ⁵⁾	INNIO
⇒ Reactant metering unit: Inspect/replace the air non-return valve	8,000 Oh ⁶⁾	INNIO
⇒ Reactant metering unit: top up pulsation damper (if fitted)	8,000 Oh / 1 year ⁷⁾	INNIO
⇒ Reactant metering unit: Clean/replace the filter	8,000 Oh / 1 year ⁸⁾	INNIO
⇒ Reactant metering unit: Replace the pressure reducer valve (if installed)	8,000 Oh	INNIO
⇒ Inspect the piping and connecting elements	Daily	K
⇒ Reactor: Inspect the housing and piping	Daily	K

¹⁾ For DIA.NE warning W3462

²⁾ For DIA.NE warning W3457

³⁾ For DIA.NE warning W3485 or W3469

⁴⁾ For DIA.NE warning W3485/W3453/W2464

⁵⁾ For DIA.NE warning W2448/W2449/W2464 or in the event of pressure fluctuations (pressure gauge on pump delivery side)

⁶⁾ For DIA.NE warning W3462 or if a visual inspection reveals condensate or urea in the air line

⁷⁾ For DIA.NE warning W2464 or W3485

⁸⁾ For DIA.NE warning W2448

Valid for:

- Type 2: Maintenance schedule A Maintenance schedule B
 - Type 3: Maintenance schedule A Maintenance schedule B Maintenance schedule D
 - Type 4: Maintenance schedule A Maintenance schedule B Maintenance schedule D Maintenance schedule E
 - Type 6: Maintenance schedule A Maintenance schedule B Maintenance schedule D
-

Maintenance work	Maintenance interval	Carried out by ¹⁾
⇒ Compressor unit: Replace the filter (if installed)	4,000 Oh ¹⁾	INNIO
⇒ Compressor unit: Inspect the ribs and replace them, if necessary (if installed)	4,000 Oh	INNIO
⇒ Reactant metering unit: inspect the rotary drive	4,000 Oh / 1 year ²⁾	INNIO
⇒ Reactant metering unit: check the air non-return valve	4,000 Oh / 1 year	INNIO
⇒ Reactant metering unit: inspect gas cleaning system (if installed)	4,000 Oh / 1 year	INNIO
⇒ Reactant metering unit: Inspect the pressure reducer valve (if installed)	4,000 Oh / 1 year	INNIO
⇒ Reactant metering unit: Inspect the solenoid valve (if installed)	4,000 Oh / 1 year	INNIO
⇒ Reactant feed pump: inspect gas cleaning system (if installed)	4,000 Oh / 1 year	INNIO
⇒ Reactant feed pump: clean reactant filter	4,000 Oh / 1 year	INNIO
⇒ Reactant feed pump: replace diaphragms, suction valves and pressure valves	4,000 Oh / 1 year	INNIO
⇒ Low-pressure reactant nozzle: inspect the nozzle head	4,000 Oh / 1 year	INNIO
⇒ Emission measurement	4,000 Oh / 1 year	INNIO
⇒ Replace NOx sensor	6,000 Oh	INNIO
⇒ Reactor: Inspect catalytic converter elements	8,000 Oh / 1,500 starts ³⁾	INNIO
⇒ Low-pressure reactant nozzle: Replace the nozzle insert, nozzle cap, seal & flange gasket and clean the nozzle holder	8,000 Oh / 1 year ⁴⁾	INNIO
⇒ Reactant feed pump: top up pulsation damper	8,000 Oh / 1 year ⁵⁾	INNIO
⇒ Reactant metering unit: Inspect/replace the air non-return valve	8,000 Oh ⁶⁾	INNIO
⇒ Reactant metering unit: top up pulsation damper (if fitted)	8,000 Oh / 1 year ⁷⁾	INNIO
⇒ Reactant metering unit: Clean/replace the filter	8,000 Oh / 1 year ⁸⁾	INNIO
⇒ Reactant metering unit: Replace the pressure reducer valve (if installed)	8,000 Oh	INNIO
⇒ Inspect the piping and connecting elements	Daily	K
⇒ Reactor: Inspect the housing and piping	Daily	K

¹⁾ For DIA.NE warning W3462

²⁾ For DIA.NE warning W3457

³⁾ For DIA.NE warning W3485 or W3469

⁴⁾ For DIA.NE warning W3485/W3453/W2464

⁵⁾ For DIA.NE warning W2448/W2449/W2464 or in the event of pressure fluctuations (pressure gauge on pump delivery side)

⁶⁾ For DIA.NE warning W3462 or if a visual inspection reveals condensate or urea in the air line

⁷⁾ For DIA.NE warning W2464 or W3485


⁸⁾ For DIA.NE warning W2448

Valid for:

- Type 2: Maintenance schedule C
- Type 3: Maintenance schedule C
- Type 9: Maintenance schedule V
- J416 with version C206, C209, C211 and C212

*) 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	
	<p>Personal injury</p> <p>Failure to use personal protective equipment and comply with safety instructions or employee protection information may lead to personal injury.</p> <ul style="list-style-type: none">➤ 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

Relevant documents:

TA 2300-0001 – Employee protection

TA 2300-0005 – Safety instruction

6 Work steps

6.1 Inspect the piping and connecting elements

Check the condition of the piping, connections and components, in particular for:

- leaks
- loose connections
- blockages

Clean or replace the piping, connections and components depending on their condition.

Clean piping, connections and components with warm water and retighten any loose connections.

6.2 Reactor: Inspect the housing and piping

Check the condition of the housing and piping, in particular for:

- leakages (become apparent if discolouration of the insulation occurs in places, for example)
- loose connections

- blockages

6.3 Compressor unit: Replace the filter (if installed)

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

6.4 Compressor unit: Inspect the ribs and replace them, if necessary (if installed)

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

6.5 Reactant metering unit: inspect the rotary drive

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

6.6 Reactant metering unit: check the air non-return valve

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

6.7 Reactant metering unit: inspect gas cleaning system (if installed)

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

6.8 Reactant metering unit: Inspect the pressure reducer valve (if installed)

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

6.9 Reactant metering unit: Inspect the solenoid valve (if installed)

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

6.10 Reactant feed pump: inspect gas cleaning system (if installed)

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

6.11 Reactant feed pump: clean reactant filter

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

6.12 Reactant feed pump: replace diaphragms, suction valves and pressure valves

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

6.13 Low-pressure reactant nozzle: inspect the nozzle head

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

6.14 Emission measurement

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

6.15 Replace NOx sensor

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

6.16 Reactor: Inspect catalytic converter elements

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

6.17 Low-pressure reactant nozzle: Replace the nozzle insert, nozzle cap, seal & flange gasket and clean the nozzle holder

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

6.18 Reactant feed pump: top up pulsation damper

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

6.19 Reactant metering unit: Inspect/replace the air non-return valve

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

6.20 Reactant metering unit: top up pulsation damper (if fitted)

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

6.21 Reactant metering unit: Clean/replace the filter

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

6.22 Reactant metering unit: Replace the pressure reducer valve (if installed)

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
3	30.07.2019	Metadaten angepasst / Metadata adapted 1500 Start-Intervall für Arbeitsschritt „Reaktor: Katalysatorelemente inspizieren“ hinzugefügt / 1500 Start-Intervall at work step „Reactor: Inspect the catalytic converter elements“ added	Uri M. Hillen F.
2	03.10.2018	Korrektur der Wartungstabelle / Correction of maintenance table	Uri M. Hillen F.
1	28.02.2018	Erstausgabe / First issue	Uri M. Hillen F.

