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<th>Quantity</th>
<th>Description</th>
<th>Engineering No.</th>
<th>Standard or Material</th>
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<td>GAS FUEL SYSTEM</td>
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**PER ENGINE**

- **Model**: W6-12X92DF
- **Product**: GAS FUEL SYSTEM
- **Gas Brennstoffsystem**

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**TOLERANCING PRINCIPLE**: ISO 2768

**GENERAL TOLERANCES ACCORDING TO**: ISO 2768

**A3**

**Drawing E**: DAAD096373

**25.01.2018**: ww2008 Wang

**26.01.2018**: mc0019 Hug

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SPECIFICATION which must be met:

OUTLET - Gas monitoring, petrol underside
- Must not be connected to other venting pipes.
- Gas release to safe area outside of engine room.
- At the end of the vent pipe, safety devices e.g. flame arrestors must be installed according to respective class specification and requirement.

INLET - Inert gas filling flueometer
Pipe connection. Only to be used / connected for maintenance of the flueometer.
"T" be kept close / blinded off during normal operation.

OUTLET - Gas / inert gas release, bleeding
- Must not be connected to other venting pipes.
- No additional valves allowed in the venting pipe.
- Gas release to safe area outside of engine room.
- At the end of the vent pipe, safety devices e.g. flame arrestors must be installed according to respective class specification and requirement.

INLET - Gas supply
INERT GAS PIPE
Gas pressure. Design pressure based on GLS requirement for the selected rating and selected minimum LHV plus system pressure drop (Operating) variation via engine control system possible.
Permissible gas pressure fluctuation ± 5% bar (across all frequencies).
Mass flow. According to GLS.
Gas temperature. 0 - 60°C.
NOTE: regarding gas temperature vs. ventilation air temperature and methods to avoid handling condensation in the annular space, refer to the specification for connection 81 and remarks on page 2.
Pipe connection. Inner pipe connected to the gas supply line from gas storage / handling system via flange connection (please refer to the "Pipe Connection Plan").

INERT GAS SUPPLY. An inert gas supply must be connected upstream to the GPR right after the master gas supply valve to enable purging of the whole system engine piping.
Inert gas pressure. Can be selected between 3 and 15 bars/1. Once set-pressure is selected, deviation of ± 5% is allowed, though not below 3 bar.
Inert gas volume / engine size. Provided in table on page 2.

OUTER PIPE (annular space - ventilation air outlet)
Ventilation air quantity and quality. Refer to the connection 81, "INLET - Ventilation air annular space".
Pipe connection. Outer pipe is connected to the annular space of the supply pipe via flange connection (please refer to the "Pipe Connection Plan").

Gas detection. A gas detector must be installed in the venting line, at a maximum distance of 2 m from the engine inlet, and has to be placed right next to the outer pipe (annular space connection on the side closest to / furthest from the engine inlet). The main gas supply line to each consumer or set of consumer must be equipped with a manually operated stop valve and an automatically operated "inert gas valve" caused in series or executed as a combined manually and automatically operated valve. The valves shall be situated in the part of the piping that is outside the machinery space containing gas.

OUTLET - Gas / inert gas release, engine driving end
- Can be connected to gas / inert gas release, engine free end (connection 80), but must not be connected to other venting pipes.
- No additional valves allowed in the venting pipe.
- Gas release to safe area outside of engine room.
- At the end of the vent pipe, safety devices e.g. flame arrestors must be installed according to respective class specification and requirement.

OUTLET - Gas / inert gas release, engine free end
- Can be connected to gas / inert gas release, engine driving end (connection 79), but must not be connected to other venting pipes.
- No additional valves allowed in the venting pipe.
- Gas release to safe area outside of engine room.
- At the end of the vent pipe, safety devices e.g. flame arrestors must be installed according to respective class specification and requirement.

INLET - Ventilation air annular space
- Location and execution according to "2.5 Dual Fuel Safety Concept" as linked in MM.
- Ventilation air dew point must be lower than the gas temperature but the ambient air is not sufficiently dry, dry air must be supplied. Please refer to the remarks / proposals on page 2.
- Sufficient ventilation air (min. 30 air exchanges per hour) must be sucked by the extraction fan from a safe area into the annular space of ME internal and external piping.
- Volume for ventilation air on engine side refer to table 9 on page 2.

GAS FUEL SYSTEM
GAS PRESSURE REGULATION - GPR
GAS BRENnstoffsystem
**MIDS - WinGD-X92DF - GAS-FUEL-SYSTEM (DG9727)**

**TRACK CHANGES**

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