SPECIFICATIONS which must be met

OUTLET - Gas monitoring, port on 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 have to be installed according to respective class specification and requirement.

INLET - Inert gas filling manifold
Fuel connection: Only to be used / connected for maintenance of the manifold.
To 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 pipeline.
- 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
INNER GAS PIPE
Gas pressure: Design pressure based on GTD requirement for the selected rating and selected minimum LHV plus system pressure drop. Operational variation via engine control system possible. Permissible gas pressure fluctuation ± 8.6 bar (across all frequencies).
Mass flow: According to GTD.
Gas temperature: 0 °C - 60 °C
NOTE: Regarding gas temperature vs. ventilation air temperature and methods to avoid / handle condensation in the annular space, refer to the specification for connection B1 and remarks on page 2. Pipe connection: Inner pipe connected to the gas supply line from the 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 fuel supply to enable purging of the whole system-engine piping inert gas quality: According to specification in Marine Installation Manual (MIM).
Inert gas pressure: Can be selected between 5 and 15 bar. Over closed pressure is selected, deviation of ±10% is allowed, though not below 5 bar.
Inert gas volume engine side: Provided in table 1 on page 2.

OUTER PIPE (annular space) - ventilation air outlet
Ventilation air quantity and quality: Refer to the connection B1, "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 max. 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.

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 pipeline.
- 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 free end (connection 79), but must not be connected to other venting pipes.
- No additional valves allowed in the venting pipeline.
- 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-S Dual Fuel Safety Concept" as linked in MIM.
- Ventilation air dew point must be lower than the gas "temperature. If 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 1 on page 2.
MIDS - WinGD-X92DF - GAS-FUEL-SYSTEM (DG9727)

TRACK CHANGES

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