



Germanischer Lloyd

Note on Engineering Details

No: DWM-Dom-extern-001

Title: **The removal of faults by repairing components of wind turbines**

Ref.: GL Wind "Guideline for the Certification of Wind Turbines", Edition 2003 with Supplement 2004. Section 3.3.2.5 (7) and (12)

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In the appendix a flowchart is shown with the general and common way of repairing cast iron components for wind turbines during manufacturing. The certification body Germanischer Lloyd Industrial Services GmbH, Business Segment Wind Energy (GL) shall be involved in a very early stage of the process.

Dross or shrinkage holes cut by mechanical processing are fundamentally inadmissible in highly stressed areas and shall be removed by mechanical means, taking into account the permissible reduction in wall thickness. All other types of flaws shall, if applicable, be assessed separately and possible countermeasures shall be coordinated with GL Wind.

The removal of faults through fabrication welding or repair welding is permissible only with approved welding procedure specifications (WPS) and welding procedure approval record (WPAR). The qualification of the welding workshop and the welder performing the work shall be observed by GL Wind. Prior to the start of welding work of this type, the welding process, the heat treatment and the scope of the tests shall be agreed with GL Wind.

Appended is shown the flowchart of work scope and responsibilities between foundry, wind turbine manufacturer and GL Wind as an example in case of repairing flaws.

Please contact us in case of questions.

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Flowchart regarding relevant flaws

