

Unified Requirements of Welding in Shipbuilding.

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Abstract:

Welding is very important in the Shipbuilding Industry. So, the International Association of Classification Societies (IACS) has laid down unified requirements for Welding in Shipbuilding, and these often cover aspects like Welding procedures, Welding qualification, Inspection and testing requirements and even Quality Management Systems. These unified requirements help to ensure consistency, safety and quality across different shipbuilding projects worldwide.

The paper will outline the fundamental principles behind IACS requirements, which aim to harmonize welding standards to prevent discrepancies and enhance the reliability of welded structures. It examines the specific requirements for welding procedures, including the necessity for qualified Welding Procedures (WPS) and Welder Qualifications (WPQ).

In the scope of new technologies on welding, the importance of welding and the benefits of new techniques to ship building should be investigated and evaluated. During construction shipbuilders have a choice of adopting different welding processes and need to qualify different welding procedures. In the absence of unified requirements within the industry, shipbuilders may face inconsistencies in the quality of construction. This paper elaborates on the unified requirements which are enforced by International Association of Classification Societies (IACS) to bring in consistency across all shipbuilders in welded fabrication.

The paper further discusses the inspection and testing protocols, such as NDT methods, to verify weld quality and detect defects. Additionally, it will highlight the role of quality management systems and documentation to ensure compliance and traceability.