
GC21 Welds of type C independent bi-lobe tank with centreline bulkhead

(Apr 2019)

Regulation 4.20.1.2 of the International Code for the Construction and Equipment of Ships Carrying Liquid Gases in Bulk (IGC Code) as amended by Res. MSC. 370(93), reads:

“Welding joint details for type C independent tanks, and for the liquid-tight primary barriers of type B independent tanks primarily constructed of curved surfaces, shall be as follows:

- 1. all longitudinal and circumferential joints shall be of butt welded, full penetration, double vee or single vee type. Full penetration butt welds shall be obtained by double welding or by the use of backing rings. If used, backing rings shall be removed except from very small process pressure vessels. Other edge preparations may be permitted, depending on the results of the tests carried out at the approval of the welding procedure; and*
- 2. the bevel preparation of the joints between the tank body and domes and between domes and relevant fittings shall be designed according to a standard acceptable to the Administration or recognised organisation acting on its behalf. All welds connecting nozzles, domes or other penetrations of the vessel and all welds connecting flanges to the vessel or nozzles shall be full penetration welds.”*

Note:

1. This Unified Interpretation is to be uniformly implemented by IACS Societies on ships contracted for construction on or after 1 July 2020 when encountering design difficulties during the approval of type C independent bi-lobe tank with centreline bulkhead of Gas Carriers covered by IGC Code (MSC.370(93)). The provisions of this Unified Interpretation will also be applied when design difficulties are encountered during the approval of type C independent bi-lobe tank with centreline bulkhead of Gas Carriers covered by IGC Code (MSC.370(93)) on ships contracted for construction earlier than 1 July 2020 unless they are instructed otherwise in writing by the Administration on whose behalf they are authorised to act as a Recognised Organisation.
2. The “contracted for construction” date means the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. For further details regarding the date of “contract for construction”, refer to IACS Procedural Requirement (PR) No. 29.

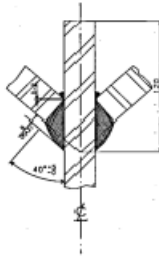
GC21 Interpretation

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The regulation 4.20.1.2 is applicable to type C independent tanks including bi-lobe tanks, primarily constructed of curved surfaces fitted with a centreline bulkhead.

The applicability of the expression "Other edge preparations" is clarified as follows:

- Cruciform full penetration welded joints in a bi-lobe tank with centreline bulkhead can be accepted for the tank structure construction at tank centreline welds with bevel preparation subject to the approval of the Administration or recognised organisation acting on its behalf, based on the results of the tests carried out at the approval of the welding procedure. (See below example)



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