

# GC20 Tee welds in type A or type B independent tanks

(Apr 2019)

**Regulation 4.20.1.1 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), states:**

*“All welded joints of the shells of independent tanks shall be of the in-plane butt weld full penetration type. For dome-to-shell connections only, tee welds of the full penetration type may be used depending on the results of the tests carried out at the approval of the welding procedure. Except for small penetrations on domes, nozzle welds shall also be designed with full penetration.”*

## Interpretation

The regulation 4.20.1.1 is applicable to independent tanks of type A or type B, primarily constructed of plane surfaces. This includes the tank corners which are constructed using bent plating which is aligned with the tank surfaces and connected with in-plane welds.

The applicability of the expression “For dome-to-shell connections only” is clarified as follows:

- Welded corners (i.e. corners made of weld metal) shall not be used in the main tank shell construction, i.e. corners between shell side (sloped plane surfaces parallel to hopper or top side inclusive if any) and bottom or top of the tank, and between tank end transverse bulkheads and bottom, top or shell sides (sloped plane surfaces inclusive if any) of the tank. Instead, tank corners which are constructed using bent plating aligned with the tank surfaces and connected with in-plane welds are to be used.
- Tee welds can be accepted for other localised constructions of the shell such as suction well, sump, dome, etc. where tee welds of full penetration type shall also be used.

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## 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 A or type B independent tanks 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 A or type B independent tanks 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.

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