

## Title (en)

Fluid-tight and heat-insulating tank integrated in a ship's hull structure.

## Title (de)

Flüssigkeitsdichter und thermisch isolierende, in der tragenden Schiffsstruktur integrierter Tank.

## Title (fr)

Cuve étanche et thermiquement isolante intégrée à la structure porteuse d'un navire.

## Publication

**EP 0064886 A1 19821117 (FR)**

## Application

**EP 82400340 A 19820226**

## Priority

FR 8108763 A 19810430

## Abstract (en)

1. A sealing tight and insulating tank, integrated in to the support structure of a vessel, the said tank comprising two successive sealing barriers, the primary one in contact with the product contained in the tank and the secondary disposed between the primary barrier and the support structure of the vessel, the two sealing barriers being alternated with two thermal insulating barriers, the secondary insulating barrier (3) comprising a series of substantially parallelepiped heat insulating components mounted against the support structure of the vessel by retaining devices rigid with the support structure (1), which cooperate with the mountings disposed on the edge of the components of the secondary insulating barrier, the said components being separated from one another by substantially rectilinear joining zones where the said retaining devices are disposed, the primary insulating barrier also comprising a series of heat insulating components held resting on the secondary sealing barrier, the secondary sealing barrier comprising metal strakes with edges (4) raised towards the interior of the tank, the said strakes comprising thin sheet metal with low dilatation coefficient and being welded edge to edge, by their raised edges, onto the two faces of one welding flange, which is held mechanically on the components of the secondary insulating barrier, characterised by the fact that, on the one hand the primary insulating barrier is held resting on the secondary sealing barrier by means of anchoring devices (7, 10, 11, 16) fixed on the support structure (1) of the vessel, the said anchoring devices passing through the secondary sealing barrier, the sealing of the secondary sealing barrier being held by means of welds, which connect the anchoring devices to the strakes (4) of the secondary sealing barrier, and that, on the other hand, the primary sealing barrier comprises, in a manner itself known, an assembly of metal sheets (33), the edges of which are lap welded, one sheet (33) having a part of its edge in direct contact with the inside of the tank, whilst the other part is in contact with the primary insulating barrier and is mounted on to it, the joins of the corners of a plurality of adjacent metal sheets (33) being carried out by welding.

## Abstract (fr)

L'invention concerne une cuve étanche et isolante intégrée à la structure porteuse (1) d'un navire comportant deux barrières d'étanchéité successives alternées avec deux barrières thermiquement isolantes. La barrière d'étanchéité secondaire est constituée d'un assemblage de virures d'invar (4) soudées à bords relevés. La barrière d'étanchéité primaire est constituée d'un assemblage de tôles (33), dont les bords sont soudés à recouvrement et accrochés sur les éléments (19) de la barrière d'isolation primaire par soudure sur des inserts métalliques (28) de cette barrière d'isolation primaire.

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## IPC 8 full level

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## Citation (search report)

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