CLAIMS

1. A sealed and thermally insulating tank (1) for the transport and/or storage of liquefied natural gas, comprising at least a supporting structure (4) and a storage structure (2) surrounded by the supporting structure (4), the storage structure (2) comprising at least a first portion (46) and a second portion (48) which are sealed relative to one another, the first portion (46) and the second portion (48) extending at least partially in the same plane parallel to the supporting structure (4), the storage structure (2) having a thickness from the outside toward the inside of the tank (1) in a direction perpendicular to the plane of the supporting structure (4), the tank (1) comprising a closure device (58) arranged at least partially in the thickness of the storage structure (2), the closure device (58) comprising at least a first closure member (60) and a second closure member (62) configured to interact with one another in such a way as to separate the first portion (46) from the second portion (48), at least one of the closure members (60, 62) comprising a first part (64) and a second part (66) extending in secant planes, wherein at least one of the parts (64, 66) of one and/or the other of the closure members (60, 62) is connected to at least one of the portions (46, 48) by a securing device (84) arranged in the thickness of the storage structure (2), characterized in that the first closure member (60) and the second closure member (62) have an L-shaped profile when viewed in a sectional plane passing through the closure device (58).

2. The tank (1) as claimed in any one of the preceding claims, wherein at least one of the closure members (60, 62) is secured to the other closure member (60, 62) by at least one weld bead.

3. The tank (1) as claimed in any one of the preceding claims, wherein the first closure member (60) and/or the second closure member (62) of the closure device (58) are elastically deformable.

4. The tank (1) as claimed in any one of the preceding claims, wherein one of the closure members (60, 62) is connected to at least one of the portions (46, 48) by the securing device (84) arranged in the thickness of the storage structure (2), the other closure member (60, 62) being connected to the supporting structure (4).

5. The tank (1) as claimed in claim 4, wherein the first portion (46) comprises a secondary space (28) and a primary space (30), the secondary space (28) comprising,

successively in the thickness direction from the outside toward the inside of the tank (1), a secondary thermally insulating barrier (32) adapted to be in contact with the supporting structure (4) and a secondary sealing membrane (34) resting on the secondary thermally insulating barrier (32), the securing device (84) extending at least partially into the secondary thermally insulating barrier (32), the primary space (30) comprising, successively in the thickness direction from the outside toward the inside of the tank (1), a primary thermally insulating barrier (36) which rests on the secondary sealing membrane (34) and a primary sealing membrane (38) resting on the primary thermally insulating barrier (36) and intended to be in contact with the fluid contained in the tank (1), the second portion (48) comprising a thermally insulating wall (52) adapted to be in contact with the supporting structure (4) and an impermeable membrane (54) resting on the thermally insulating wall (52) and intended to be in contact with the fluid contained in the tank (1).

6. The tank (1) as claimed in claim 5, wherein the secondary space (28) comprises a securing plate (68) arranged between the secondary thermally insulating barrier (32) and the primary space (30), the first part (64) of the first closure member (60) being connected to the securing plate (68) by at least one weld bead, the second part (66) of the first closure member (60) being connected to the secondary thermally insulating barrier (32) by the securing device (84) arranged in the thickness of the storage structure (2).

7. The tank (1) as claimed in claim 5, wherein the supporting structure (4) comprises an insert (88), the first part (64) of the second closure member (62) being connected to the insert (88) by at least one weld bead, the second part (66) of the second closure member (62) being connected to the secondary thermally insulating barrier (32) by the securing device (84) arranged in the thickness of the storage structure (2).

8. The tank (1) as claimed in claim 6, wherein at least the secondary space (28) comprises at least one thermally insulating self-supporting panel (71) having an internal face (76) oriented toward the inside of the tank (1), an external face (72) oriented toward the outside of the tank (1), and a thickness face (78) extending between the internal face (76) and the external face (72) of the self-supporting panel (71), the self-supporting panel (71) of the secondary space (28) adjacent to the first

closure member (60) comprising a chamfer (80) connecting the internal face (76) and the thickness face (78) of the self-supporting panel (71).

9. The tank (1) as claimed in claim 8, wherein the thickness face (78) of the self-supporting panel (71) comprises a plywood panel (81) which receives the securing device (84).

10. The tank (1) as claimed in either of claims 8 or 9, wherein the first closure member (60) comprises a bent part (82) connecting the first part (64) to the second part (66) of the first closure member (60), the first closure member (60) being positioned against the internal face (76) and the thickness face (78) of the self-supporting panel (71) of the secondary space (28) such that the bent part (82) of the first closure member (60) is arranged in line with the chamfer (80) on the self-supporting panel (71).

11. A transport and/or storage unit comprising at least one tank (1) as claimed in any one of claims 1 to 10, the transport and/or storage unit consisting of a ship, a barge, a reliquefaction unit, gasification unit, an onshore structure or a gravity platform.

12. A method for assembling the junction zone (U) between a first portion (46) and a second portion (48) of a tank (1) as claimed in any one of claims 1 to 10 in conjunction with claim 5, the tank (1) comprising a supporting structure (4) surrounding the storage structure (2), the method comprising a first step in which the secondary thermally insulating barrier (32) is fitted against the supporting structure (4).

13. The method for assembling the junction zone (U) as claimed in claim 12, comprising a second step in which the second part (66) of the first closure member (60) or of the second closure member (62) is secured in a thickness of the secondary thermally insulating barrier (32) by the securing device (84).

14. The method for assembling the junction zone (U) as claimed in claim 13, the secondary thermally insulating barrier (32) comprising a securing plate (68), the method comprising a third step, in which the first part (64) of the first closure member (60) is secured to the secondary thermally insulating barrier (32) at this securing plate (68) by a weld bead.

15. The method for assembling the junction zone (U) as claimed in claim 14, the supporting structure (4) comprising an insert (88), the method comprising a fourth step in which the second part (66) of the second closure member (62) is secured to the second part (66) of the first closure member (60) by a weld bead, and the first part (64) of the second closure member (62) is secured to the insert (88) of the supporting structure (4) by another weld bead.

16. The method for assembling the junction zone (U) as claimed in claim 15, comprising a fifth step in which the secondary sealing membrane (34) is fitted against the secondary thermally insulating barrier (32).

17. The method for assembling the junction zone (U) as claimed in claim 16, comprising a sixth step, in which the primary thermally insulating barrier (36) is fitted against the secondary space (28), part of the primary thermally insulating barrier (36) partially covering the first part (64) of the first closure member (60), and the thermally insulating wall (52) is fitted against the supporting structure (4) at least in the main plane of extension of the secondary space (28), part of the thermally insulating wall (52) being arranged in line with the first part (64) of the second closure member (62) along the thickness.

18. The method for assembling the junction zone (U) as claimed in claim 17, comprising a seventh step, in which the primary sealing membrane (38) and the impermeable membrane (54) are fitted against the primary thermally insulating barrier (36) and against the thermally insulating wall (52), respectively, the primary sealing membrane (38) and the impermeable membrane (54) extending in a common plane.

19. A method for loading or unloading liquefied gas contained in a tank (1) as claimed in any one of claims 1 to 10, in which a cold liquid product is conveyed through insulated pipelines from or to a floating or onshore storage facility, to or from a tank (1) as claimed in any one of claims 1 to 9.