

CLAIMS

1. Storage and/or transport tank (1) for a fluid cargo intended for a vessel (70), the tank (1) comprising at least one loading and/or unloading tower (2) for the fluid, at least one sump (30) being formed in a bottom wall (23) of the tank (1), the loading and/or unloading tower (2) comprising at least one base (27) situated at a lower end (201) of this loading and/or unloading tower (2), the loading and/or unloading tower (2) comprising at least three masts (11, 12, 13) secured to the base (27), the loading and/or unloading tower (2) bearing at least one pump (18, 19, 20), the masts (11, 12, 13) delimiting a perimeter (P) by axial projection onto the bottom wall (23) of the tank (1), characterized in that the pump (18, 19, 20) is entirely arranged outside the perimeter (P) and in that it extends, at least partially, into the sump (30).
2. Tank (1) according to the preceding claim, wherein the bottom wall (23) has at least one corrugation (230).
3. Tank (1) according to the preceding claim, comprising at least one side wall (8) that extends substantially perpendicular to the bottom wall (23) of this tank (1), and wherein the bottom wall (23) having at least three corrugation pitches between the side wall (8) of the tank (1) and the sump (30).
4. Tank (1) according to any one of claims 2 or 3, wherein the bottom wall (23) comprises a support foot (31) for the loading and/or unloading tower (2), and wherein the bottom wall (23) has at least three corrugation pitches between the support foot (31) of the loading and/or unloading tower (2) and the sump (30).
5. Tank (1) according to any one of the preceding claims, wherein the pump (18, 19, 20) situated outside the perimeter (P) is an auxiliary pump configured to supply an engine of the vessel (70) with fluid and/or to cool the tank (1) by spraying it with the fluid and/or to completely empty the tank (1).

6. Tank (1) according to any one of claims 1 to 4, wherein the pump (18, 19, 20) situated outside the perimeter (P) is an unloading pump (18, 19, 20) configured to unload at least part of the fluid contained in the tank (1).
7. Tank (1) according to any one of the preceding claims, wherein at least one support (60) is arranged between the base (27) and the pump (18, 19, 20).
8. Tank (1) according to the preceding claim, wherein the at least one support (60) comprises at least a first docking zone (62) on which the base (27) is fixed and at least a second docking zone (63) on which the pump (18, 19, 20) is fixed, the first docking zone (62) and the second docking zone (63) being interconnected by a body (61) of the support (60), the first docking zone (62) extending in a first plane (X1), the second docking zone (63) extending in a second plane (X2), the first plane (X1) and the second plane (X2) being distinct.
9. Tank (1) according to the preceding claim, wherein the first plane (X1) in which the first docking zone (62) of the support (60) extends is parallel to the second plane (X2) in which the second docking zone (63) of the support (60) extends.
10. Tank (1) according to one of claims 8 or 9, wherein the body (61) of the support (60) comprises at least one opening (612).
11. Tank (1) according to one of claims 8 to 10, wherein the base (27) comprises at least one side flange (45, 46) that projects from the loading and/or unloading tower (2), the support (60) being fixed to this side flange (45, 46).
12. Tank (1) according to the preceding claim, wherein the at least one side flange (45, 46) comprises a perforated box (47, 48), the box (47, 48) comprising at least three walls (49, 50, 51) that define a recess (52) through which the support (60) extends, at least partially.
13. Tank (1) according to the preceding claim, wherein the box (47, 48) is welded to the side flange (45, 46) of the base (27).

- 14.** Tank (1) according to claim 12, wherein the box (47, 48) is bolted to the side flange (45, 46) of the base (27).
- 15.** Tank (1) according to one of claims 12 to 14, wherein each wall (49, 50, 51) of the box (47, 48) comprises at least one lower face (490, 500, 510) turned towards the bottom wall (23) of the tank (1) and at least one upper face (491, 501, 511) turned away from the lower face (490, 500, 510), the first docking zone (62) of the support (60) being fixed against the upper face (491, 501, 511) of one of the walls (49, 50, 51) of the box (47, 48).
- 16.** Tank (1) according to one of the preceding claims, wherein at least one fluid discharge tube (150) is in fluid communication with the pump (18, 19, 20) arranged outside the perimeter (P), the tank (1) comprising at least one retaining arm (151) configured to take up the force of the discharge tube (150).
- 17.** Vessel (70) comprising at least one tank (1) according to one of the preceding claims and at least one support structure (3), the tank (1) being anchored in the support structure (3).
- 18.** Method to load or unload the vessel (70) according to the preceding claim, wherein a fluid is conveyed through insulated pipes (79) from or to a floating or onshore storage facility (77) to or from the tank (1) of the vessel (70).
- 19.** Transfer system for a fluid, the system comprising the vessel (70) according to claim 17, pipes (79) arranged so as to connect the tank (1) of the vessel (70) to a floating or onshore storage facility (77) and a pump for driving a fluid through the pipes (79) from or to the floating or onshore storage facility (77) to or from the tank (1) of the vessel (70).