Claims

1. A method for installing at least one drive assembly (51) for a pump (5) for a tank (2) of a floating structure (1) intended to contain a liquefied gas (4), the tank (2) comprising a tower (3) for offloading the liquefied gas (4) equipped with at least one mast (32), the drive assembly (51) being arranged outside the tank (2), at a first end (33) of the mast (32), by means of an adjusting device (6) which comprises at least one sleeve (61) and a platform (62), the pump (5) comprising a suction element (53) arranged in the tank (2) at a second end (34) of the mast (32), opposite the first end (33), the installation method comprising:

- a first step of positioning the sleeve (61) on the first end (33) of the mast (32),

- a second step of adjusting the position of the adjusting device (6) to a determined height relative to a bottom wall (23) of the tank (2),

- a third step of securing the adjusting device (6) to the first end (33) of the mast (32),

- and a fourth step of mounting the drive assembly (51) for the pump (5) on the platform (62) of the adjusting device (6).

2. The installation method as claimed in claim 1, during which the second step allows adjustment of the attitude of the adjusting device (6) relative to the bottom wall (23) of the tank (2).

3. The installation method as claimed in claim 1 or 2, during which the adjustment of the position of the adjusting device (6) in the second step is effected by sliding of the sleeve (61) relative to the first end (33) of the mast (32).

4. The installation method as claimed in any one of claims 1 to 3, during which the third step is carried out by welding the sleeve (61) to at least an outer face (331) and/or an upper portion (332) of the first end (33) of the mast (32).

5. The installation method as claimed in any one of claims 1 to 4, during which, prior to the first step, the sleeve (61), the platform (62) and at least one primary reinforcement (63) are secured together.

6. The installation method as claimed in any one of claims 1 to 5, comprising, between the third step and the fourth step, a step of reinforcing the adjusting device (6) by securing at least one secondary reinforcement (37) which connects the mast (32) to the adjusting device (6).

7. The installation method as claimed in claim 6, comprising, prior to the reinforcing step, a step of adjusting the position of at least the secondary reinforcement relative to the adjusting device.

8. The installation method as claimed in claim 5, during which, prior to the first step, at least one secondary reinforcement (37) is secured to the first end (33) of the mast (32), the method comprising at least one additional step during which the at least one primary reinforcement (63) is secured to the at least one secondary reinforcement (37).

9. A device (6) for adjusting the position of at least one drive assembly (51) for a pump (5) of an offloading tower (3) arranged in a tank (2) of a floating structure (1) intended to contain a liquefied gas (4), the adjusting device (6) extending outside the tank (2), characterized in that the adjusting device (6) comprises at least one sleeve (61) and a platform (62), the sleeve (61) being configured to cooperate with a first end (33) of a mast (32) of the offloading tower (3) and the platform (62) being configured to carry the drive assembly (51).

10. The adjusting device (6) as claimed in claim 9, wherein the sleeve (61) has a height of at least 100 mm.

11. The adjusting device (6) as claimed in claim 9 or 10, comprising at least one primary reinforcement (63) bearing on an outer wall (611) of the sleeve (61) and/or a second surface (622) of the platform (62) of the adjusting device (6).

12. The adjusting device (6) as claimed in the preceding claim, wherein the sleeve (61), the platform (62) and at least the primary reinforcement (63) are secured to one another.

13. Assembly of a mast (32) and of an ~~The~~ adjusting device (6) as claimed in any one of claims 11 or 12, the at least one sleeve (61) of the adjusting device (6) cooperating with a first end (33) of the mast (32), wherein at least one weld bead (66) is formed between an internal wall (612) of the sleeve (61) and the first end (33) of the mast (32), and wherein the assembly comprises at least one secondary reinforcement (37) connecting the mast (32) to the adjusting device (6), the primary reinforcement (63) being secured to the at least one secondary reinforcement (37) ~~connecting the mast (32) to the adjusting device (6)~~.

14. ~~The~~ Assembly of a mast (32) and of an adjusting device (6) as claimed in any one of claims 9 to 12, the at least one sleeve (61) of the adjusting device (6) cooperating with a first end (33) of the mast (32), wherein the sleeve (61) and the first end (33) of the mast (32) comprise, respectively, a guide member, the guide member of the sleeve (61) and the guide member of the first end (33) of the mast (32) being complementary to each other in order to cause the sleeve (61) to move along the first end (33) of the mast (32).

15. An offloading tower (3) for a tank (2) of a floating structure (1) intended to contain a liquefied gas (4), the offloading tower (3) comprising at least ~~the~~ a mast (32), intended to extend into the tank (2), and at least ~~the~~ a pump (5) which comprises at least ~~the~~ a drive assembly (51) and ~~the~~ a suction element (53), the offloading tower (3) being configured so that the drive assembly (51) is arranged outside the tank, at ~~the~~ a first end (33) of the mast (32), and so that the suction element (53) is arranged in the tank (2), at a second end (34) of the mast (32), opposite the first end (33), the drive assembly (51) being mechanically connected to the suction element (53) by means of a drive shaft (52) extending at least into the mast (32), the offloading tower (3) comprising at least the adjusting device (6) as claimed in any one of the claims 9 to ~~14~~12, interposed between the drive assembly (51) and the first end (33) of the mast (32).

16. The offloading tower (3) as claimed in the preceding claim, comprising at least one secondary reinforcement (37) configured to bear on the adjusting device (6).

17. The offloading tower (3) as claimed in the preceding claim, wherein at least the secondary reinforcement (37) is configured to cooperate with at least one ring (38), secured to the mast (32) of the offloading tower (3).

18. A tank (2) for a floating structure (1), this tank being intended to contain a liquefied gas (4) and comprising an offloading tower (3) as claimed in any one of claims 15 to 17.

19. A system for loading or offloading a liquefied gas, which combines at least one means on land and at least one floating structure (1) for transporting liquefied gas comprising at least one tank (2) as claimed in the preceding claim.

20. A method of loading or offloading a liquefied gas from a tank (2), as claimed in claim 18, of a floating structure (1) for transporting liquefied gas.