CLAIMS

1. An installation vessel (10) for an offshore structure (28), comprising;

a hull (12) comprising a loading deck (14), the deck (12) located between two longitudinally extending hull side walls (16a, 16b), each of the side walls (16a, 16b) comprising an upper edge (20);

a plurality of installation legs (22a-d) coupled to the hull (12);

a buoyancy control arrangement configurable to control the buoyancy of the installation vessel (10) between a lesser first draft and a greater second draft; and

a buoyant support platform (30) for mounting at least a part of an offshore structure (28) prior to construction thereof,

wherein in the first draft the loading deck (14) and the upper edge (20) of each of the two longitudinally extending hull side walls (16a, 16b) are configured to be located above the water line, and in the second draft the loading deck (14) and at least a portion of the upper edge (20) of each of the two longitudinally extending hull side walls (16a,b) are configured to be submerged, **characterized in that**

the support platform (30) is arranged on the installation vessel (10) with a longitudinal axis of the support platform (30) in a direction perpendicular to a longitudinal axis of the installation vessel (10) and with sections of the support platform (30) hanging over an edge of the support platform (30).

2. The installation vessel (10) for an offshore structure (28) according to claim 1, wherein in the second draft, a portion of the upper edge (20) at least one of the two longitudinally extending hull side walls (16a,b) is configured to be located above the water line.

3. The installation vessel (10) for an offshore structure (28) according to claim 2, wherein the two horizontally extending side walls (16a,b) extend parallelly from a bow portion (18) towards the aft.

4. The installation vessel (10) for an offshore structure (28) according to any of claims 1 to 3, wherein the upper edge (20) of each of the longitudinally extending side walls (16a, 16b) is located at or below the height of the deck (14).

5. The installation vessel (10) for an offshore structure (28) according to any of claims 1 to 4, comprising four installation legs (22a-d) coupled to the hull (12).

6. The installation vessel (10) for an offshore structure (28) according to any of claims 1 to 5, wherein the hull (12) is vertically movable relative to the plurality of installation legs (22a-d).

7. The installation vessel (10) for an offshore structure (28) according to any of claims 1 to 6, wherein each of the plurality of installation legs (22a-d) are coupled to the hull (12) by a geared mechanism.

8. The installation vessel (10) for an offshore structure (28) according to any of claims 1 to 7, wherein each of the plurality of installation legs (22a-d) comprises a seabed engagement surface for engaging a portion of the seabed.

9. The installation vessel (10) for an offshore structure (28) according to any of claims 1 to 8, wherein each of the plurality of installation legs (22a-d) comprises or is defined by a truss structure.

10. The installation vessel (10) for an offshore structure (28) according to any of claims 1 to 9, comprising a turbine installation apparatus (24) in the form of a crane.

11. The installation vessel (10) for an offshore structure (28) according to any of claims 1 to 10, comprising at least one tether point (34) to which to tether the support platform (30).

12. The installation vessel (10) for an offshore structure (28) according to any of claims 1 to 11, wherein the support platform (30) is positionable on the deck (12) with the vessel (10) in both the first draft and the second draft.

13. The installation vessel (10) for an offshore structure (28) according to any of claims 1 to 12, wherein the support platform (30) is positionable on the hull (12), the weight of the support platform (30) being supported by the deck (14) and optionally the two longitudinally extending hull side walls (16a, 16b).

14. The installation vessel (10) for an offshore structure (28) according to any of claims 1 to 13, wherein the hull (12) is moveable to a raised configuration on the plurality of installation legs (22a-d), and the support platform (30) is positionable on the deck (14) with the hull (14) in the raised configuration.

15. The installation vessel (10) for an offshore structure (28) according to any preceding claim, wherein the entire deck (14) is submerged in the second draft.

16. A method for the installation of an offshore structure (28), comprising:

providing an installation vessel (10) for installation of an offshore structure (28), the installation vessel (10) comprising a hull (12) coupled to a plurality of installation legs (22a-d) and comprising a loading deck (14) located between two longitudinally extending hull side walls (16a,b), each of the side walls (16a, b) comprising an upper edge (20);

transporting at least one part of the offshore structure (28) to an installation site;

securing the installation vessel (10) to the seabed by bringing the installation legs (22a-d) into contact with the seabed;

submerging the deck (14) and the upper edge of at least one of the two longitudinally extending hull side walls (16a,b);

positioning a buoyant support platform (30) above at least one of the submerged deck (14) and at least one of the two longitudinally extending side walls (16a,b) by moving the support platform (30) in a direction transverse to the longitudinal axis of the

installation vessel (10), the support platform (30) holding at least a part of an offshore structure (28a-c);

resurfacing the deck (14) and upper edge of the at least one of the two longitudinally extending hull side walls (16a,b) such that the support platform (30) is mounted on the deck (14) with a longitudinal axis of the support platform (30) in a direction perpendicular to a longitudinal axis of the installation vessel (10) and with sections of the support platform (30) hanging over an edge of the support platform (30); and

installing the at least one part of the offshore structure (28a-c) in an offshore location using the installation apparatus (24).

17. The method of claim 16, comprising reducing the buoyancy of the installation vessel (10) such that it is configured from a lesser first draft to a greater second draft.

18. The method of claim 17, wherein submerging the deck (14) and the upper edge (20) of at least one of the two longitudinally extending hull side walls (16a,b) comprises configuring the vessel (10) to the second draft.

19. The method of any of claims 16 to 18, wherein submerging the deck (14) comprises submerging the entire deck (14).

20. The method of any of claims 16 to 19 comprising vertically raising the hull (12) of the installation vessel (10) relative to the plurality of installation legs (22a-d) to a raised configuration by a geared mechanism coupling the hull (12) to the plurality of installation legs (22a-d).

21. The method of claim 20, wherein vertically raising the hull (12) comprises lifting the entire hull (12) above the water line.

22. The method according to any of claims 16 to 21, comprising transporting a plurality of parts of an offshore structure (28a-c) to an installation site on the support platform (30).

23. The method according to any of claims 16 to 22, comprising lifting the at least one part of an offshore structure (28a-c) from the support platform (30) using an installation apparatus (24) mounted on the installation vessel (10).