Claims

1. A method of securing a vessel with an offshore jack-up including a hull and a plurality of moveable legs engageable with the seafloor, the offshore jack-up having a stabilizing mechanism mounted thereon, and the offshore jack-up being arranged to move the plurality of moveable legs with respect to the hull to position the hull out of water, wherein the method comprises:

moving at least a portion of the vessel underneath the hull of the offshore jack-up or within a cut-out of the hull when the hull is positioned out of the water and the plurality of moveable legs engage the seafloor;

moving the stabilizing mechanism to contact the vessel;

pushing the stabilizing mechanism down on the vessel to increase a buoyant force acting on the vessel and to prevent the vessel from moving with respect to the hull; and

lifting a cargo from the vessel with a plurality of lifting arms mounted on the offshore jack-up after the stabilizing mechanism pushes down on the vessel.

2. The method according to claim 1, wherein the stabilizing mechanism pushes against a deck of the vessel.

3. The method according to claim 1, wherein the stabilizing mechanism includes a plurality of stabilizing arms.

4. The method according to claim 3, wherein each of the plurality of stabilizing arms comprise a self-seating head for engaging in a reciprocal hole in a deck of the vessel.

5. The method according to claim 3, wherein at least one pair of the plurality of stabilizing arms engage the vessel on opposites sides of the centre of buoyancy of the vessel.

6. The method according to claim 3, wherein the plurality of stabilizing arms engage the vessel at substantially the same time.

7. The method according to claim 1, wherein the vessel is accessible from above when the vessel is within the cut-out.

8. The method according to claim 1, wherein the offshore jack-up comprises a crane with a working area extending over the cut-out of the hull.

9. The method according to claim 1, wherein the hull comprises at least one guide structure for laterally positioning the vessel underneath the hull or within the cut-out.

10. The method according to claim 9, wherein the at least one guide structure includes a first guide structure and a second guide structure, the stabilizing mechanism includes a plurality of stabilizing arms, and the plurality of stabilizing arms are mounted along the first guide structure and the second guide structure.

11. The method according to claim 1, wherein the hull comprises at least one stop structure for limiting an extent the vessel moves forward underneath the hull.

12. The method according to claim 1, wherein the stabilizing mechanism is extendible underneath the hull.

13. The method according to claim 1, wherein the cargo includes one or more of a wind turbine tower, a nacelle, wind turbine blades, a wind turbine generator component, equipment, personnel, supplies, a transition piece, a monopile, a jacket or a component of an offshore wind turbine generator or wind turbine generator farm.

14. The method according to claim 1, further comprising: placing the cargo on a deck of the vessel whilst the stabilizing mechanism pushes down on the vessel.

15. The method according to claim 1, wherein the vessel comprises a plurality of hulls.

16. A method of securing a vessel with an offshore jack-up having a hull and a plurality of moveable legs engageable with the seafloor, the offshore jack-up arranged to move the plurality of moveable legs with respect to the hull to position the hull out of water, wherein the method comprises:

moving at least a portion of the vessel underneath the hull of the offshore jack-up or within a cut-out of the hull when the hull is positioned out of the water and the plurality of moveable legs engage the seafloor;

engaging a bow of the vessel with a moveable coupling mechanism mounted on the hull;

engaging a stabilizing mechanism mounted on the offshore jack-up against the vessel;

pushing the stabilizing mechanism down on the vessel to increase a buoyant force acting on the vessel and to prevent the vessel from moving with respect to the hull; and lifting a cargo from the vessel with a plurality of lifting arms mounted on the offshore jack-up after the stabilizing mechanism pushes down on the vessel.

17. The method according to claim 16, wherein the vessel is pivotable about the moveable coupling mechanism before the stabilizing mechanism engages the vessel.

18. An offshore jack-up comprising:

a hull;

a plurality of moveable legs configured to engage with the seafloor, the offshore jack-up configured to move the plurality of moveable legs with respect to the hull to position the hull out of water when the plurality of moveable legs engage the seafloor;

a stabilizing mechanism mounted on the offshore jack-up, the stabilizing mechanism configured to move to contact a vessel positioned underneath the hull of the offshore jack-up or within a cut-out in the hull when the hull is positioned out of the water, wherein a buoyant force acting on the vessel increases when the stabilizing mechanism pushes down on the vessel, and wherein the vessel is prevented from moving with respect to the hull when the stabilizing mechanism pushes down on the vessel;

and

a plurality of lifting arms mounted on the offshore jack-up, the plurality of lifting arms configured to lift a cargo on the vessel after the stabilizing mechanism pushes down on the vessel.

19. A method of securing a vessel with an offshore installation fixed to the seabed and having an above-water structure, the above-water structure having a stabilizing mechanism mounted thereon, wherein the method comprises:

moving at least a portion of a vessel underneath the above-water structure of the offshore installation or within a cut-out of the above-water structure;

moving the stabilizing mechanism to contact the vessel;

pushing the stabilizing mechanism down on the vessel to increase a buoyant force acting against the vessel and to prevent the vessel from moving with respect to the above-water structure; and

lifting a cargo from the vessel with a plurality of lifting arms mounted on the offshore installation after the stabilizing mechanism pushes down on the vessel.