Claims

1. A method of supplying a load between a vessel and 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, the method comprising:

pushing down on the vessel to limit movement of the vessel with respect to the hull of the offshore jack-up when the hull is positioned out of the water and the plurality of moveable legs engage the seafloor;

fixing a cargo carrying platform with respect to a lifting mechanism mounted on the offshore jack-up by engaging the lifting mechanism underneath the cargo carrying platform, wherein the cargo carrying platform is positioned on the vessel;

lifting the cargo carrying platform with the lifting mechanism between a first position on the vessel and a second position clear of the vessel; and

releasing the vessel from the offshore jack-up after the cargo carrying platform has been lifted clear of the vessel.

2. The method according to claim 1, wherein the cargo carrying platform comprises a frame for surrounding the load.

3. The method according to claim 1, wherein the cargo carrying platform is a removeable deck of the vessel.

4. The method according to claim 1, further comprising: positioning the cargo carrying platform within a cut-out in the hull before the fixing.

5. The method according to claim 4, wherein the lifting comprises:
lifting the cargo carrying platform through the cut-out in the hull.

6. The method according to claim 1, wherein the lifting mechanism comprises a plurality of lifting mechanisms.

7. The method according to claim 1, wherein the lifting mechanism comprises a plurality of lifting arms mounted on the hull and engageable with the cargo carrying platform.

8. The method according to claim 7, wherein the plurality of lifting arms are spaced on either side of the cargo carrying platform.

9. The method according to claim 7, wherein the cargo carrying platform comprises a plurality of projections, each engageable with one of the plurality of lifting arms.

10. The method according to claim 7, wherein the plurality of lifting arms are hydraulic.

11. The method according to claim 7, wherein the plurality of lifting arms lift the cargo carrying platform at the same time.

12. The method according to claim 1, further comprising: hoisting, by a crane mounted on the offshore jack-up, the cargo carrying platform after the lifting mechanism has lifted the cargo carrying platform clear of the vessel.

13. The method according to claim 12, further comprising: hoisting, by the crane mounted on the offshore jack-up, another cargo carrying platform from the offshore jack-up to the vessel.

14. The method according to claim 1, further comprising: securing the load to the cargo carrying platform with at least one attachment mechanism.

15. The method according to claim 1, wherein the load comprises one or more of a wind turbine tower, a nacelle, wind turbine blades, a wind turbine 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.

16. The method of claim 1, wherein the lifting mechanism includes a plurality of lifting arms; the cargo carrying platform includes a plurality of lateral projections; and the engaging the lifting mechanism includes engaging the plurality of lifting arms with corresponding ones of the plurality of lateral projections to fix the cargo carrying platform with respect to the lifting mechanism.

17. The method of claim 1, wherein the pushing down comprises: pushing down on the vessel to prevent movement of the vessel with respect to the offshore jack-up.

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 lifting mechanism configured to fix a cargo carrying platform with respect to the lifting mechanism by engaging with the cargo carrying platform underneath the cargo carrying platform, the lifting mechanism further configured to lift the cargo carrying platform between a first position on a vessel and a second position clear of the vessel; and

a securing mechanism configured to push down on the vessel to limit movement of the vessel with respect to the hull of the offshore jack-up, and configured to release the vessel from the offshore jack-up after the cargo carrying platform has been lifted clear of the vessel.

19. The offshore jack-up according to claim 18, wherein the lifting mechanism is configured to lift the cargo carrying platform through a cut-out in the hull.

20. The offshore jack-up according to claim 18, wherein the lifting mechanism comprises a plurality of lifting mechanisms.

21. The offshore jack-up according to claim 18, wherein the lifting mechanism

comprises a plurality of lifting arms mounted on the hull and engageable with the cargo carrying platform.

22. The offshore jack-up according to claim 21, wherein the plurality of lifting arms are spaced on either side of the cargo carrying platform.

23. The offshore jack-up according to claim 21, wherein the cargo carrying platform comprises a plurality of projections, each engageable with one of the plurality of lifting arms.

24. The offshore jack-up according to claim 21, wherein the plurality of lifting arms configured to lift the cargo carrying platform at the same time.

25. The offshore jack-up according to claim 18, further comprising: a crane configured to hoist the cargo carrying platform after the lifting mechanism has lifted the cargo carrying platform clear of the vessel.

26. The offshore jack-up of claim 18, wherein the cargo carrying platform includes a plurality of lateral projections; and the lifting mechanism includes a plurality of lifting arms configured to engage with corresponding ones of the plurality of lateral projections to fix the cargo carrying platform with respect to the lifting mechanism.

27. The offshore jack-up of claim 18, wherein the securing mechanism is configured to push down on the vessel to prevent movement of the vessel with respect to the offshore jack-up.