CLAIMS

What is claimed is

1. A shiplift, the shiplift comprising:

a shiplift platform;

a hoist coupled with the shiplift platform;

a jack coupled with the hoist, wherein the jack is actuable to raise the hoist from a first height to a second height;

a jacking column; and

a jacking beam, the jacking beam configured to couple with and between the hoist and the jacking column and to maintain the hoist at the second height.

2. The shiplift of claim 1, wherein the hoist comprises a chainwheel.

3. The shiplift of claim 1, wherein the hoist comprises a winch.

4. The shiplift of claim 1, wherein the shiplift comprises a rotary chain jack, the rotary chain jack including the hoist and the jack, wherein the hoist is a chainwheel of the rotary chain jack, and wherein the jack is a linear actuator of the rotary chain jack.

5. The shiplift of claim 1, wherein the jack comprises an actuator.

6. The shiplift of claim 5, wherein the actuator is a linear actuator.

7. The shiplift of claim 1, wherein the jack is a hydraulically actuated jack, a pneumatically actuated jack, or an electrically actuated jack.

8. A shipyard, the shipyard comprising:

a yard, the yard defining a yard level;

a shiplift platform positioned adjacent the yard;

a lifting system comprising:

a chainwheel or winch capable of coupling with the shiplift platform and raising and lowering the shiplift platform relative to the yard level; and

a jack, the jack comprising an actuator, wherein the actuator is actuable to move the chainwheel or winch between at least two positions, the at least two positions including a first position wherein the chainwheel or winch is positioned at a first height and is coupled with the yard and a second position wherein the chainwheel or winch is positioned at a second height and is decoupled from the yard and is raised above the yard level, wherein the second height is higher than the first height;

a jacking column; and

a jacking beam, the jacking beam configured to couple with and between the chainwheel or winch and the jacking column to maintain the chainwheel or winch at the second height.

9. The shipyard of claim 8, wherein, in the first position, a frame of the chainwheel or winch and a frame of the jack are spaced apart by a first distance, wherein in the second position the frame of the chainwheel or winch and the frame of the jack are spaced apart by a second distance, and wherein the second distance is greater than the first distance.

10. The shipyard of claim 8, wherein the actuator is a linear actuator, wherein the first position is a retracted position of the linear actuator and the second position is an extended position of the linear actuator.

11. The shipyard of claim 10, wherein the linear actuator is a hydraulically actuated jack, pneumatically actuated jack, or electrically actuated jack, the linear actuator comprising a rod movably engaged within a cylinder, wherein the linear actuator is coupled with the chainwheel or winch and with the yard.

12. The shipyard of claim 8, wherein the jacking column is coupled with the yard and extends above the yard; and

wherein a jack frame of the jack is capable of being coupled with the jacking column to maintain a position of the frame relative to the jacking column.

13. The shipyard of claim 12, wherein the jacking beams are capable of coupling the jack frame with the jacking column to maintain the position of the jack frame relative to the jacking column.

14. The shipyard of claim 8, wherein the lifting system is a rotary chain jack, the rotary chain jack comprising the chainwheel, a chain coupled with the chainwheel, wherein the chain is capable of being coupled with the shiplift platform.

15. The shipyard of claim 8, wherein the lifting system comprises the winch.

16. The shipyard of claim 15, wherein the jack is a separate structure from the winch.

17. A shiplift, the shiplift comprising:

a shiplift platform positioned adjacent a yard, the yard defining a yard level;

a chainwheel or winch capable of being coupled with the shiplift platform; and

a linear actuator, wherein a first end of the linear actuator is coupled with the yard and a second end of the linear actuator is coupled with the chainwheel or winch;

wherein the linear actuator is actuable to move the chainwheel or winch between at least two positions, the at least two positions including a first position wherein the chainwheel or winch is positioned a first distance from the yard and a second position wherein the chainwheel or winch is positioned a second distance from the yard and is raised above the yard, wherein the second distance is greater than the first distance;

a jacking column; and

a jacking beam, the jacking beam configured to couple with and between the chainwheel or winch and the jacking column to maintain a position of the chainwheel or winch.

18. A method of lifting a shiplift platform above a yard level of a shipyard, the method comprising:

decoupling a hoist from a shiplift platform;

jacking-up the hoist, wherein the hoist is positioned adjacent the shiplift platform at the shipyard, wherein, during the jacking-up of the hoist, the hoist is decoupled from the shiplift platform, and wherein the jacking-up of the hoist comprises raising the hoist, relative to the yard level, from a first hoist height to a second hoist height;

securing the hoist at the second hoist height;

coupling the hoist, at the second hoist height, with the shiplift platform;

with the hoist at the second hoist height and coupled with the shiplift platform, wherein the jack comprises a lift cylinder having a rod movably engaged within a cylinder, jacking-up the shiplift platform by stroking the lift cylinder to raise the shiplift platform toward the hoist, from a first platform height to a second platform height; and

securing the shiplift platform at the second platform height.

19. The method of claim 18, wherein the jacking-up of the hoist and the jacking-up of the shiplift platform are performed until the shiplift platform is raised above the yard level.

20. The method of claim 18, wherein the jacking-up is performed using a jack comprising an actuator coupled with a jack frame and coupled with a hoist frame of the hoist, wherein the actuator is actuable into at least two positions including a first position and a second position, wherein in the first position the hoist frame and the jack frame are spaced apart by a first distance, wherein in the second position the hoist frame and the jack frame are spaced apart by a second distance, and wherein the second distance is greater than the first distance.

21. The method of claim 20, wherein the actuator is a linear actuator, wherein the first position is a retracted position of the linear actuator and the second position is an extended position of the linear actuator, the jack comprising a rod movably engaged within a cylinder, wherein one of the rod or the cylinder is coupled with the hoist frame, and wherein the other of the rod and the cylinder is coupled with the jack frame, wherein jacking-up the hoist comprises extending the rod to push the hoists upwards relative to the yard level, and wherein the jacking-up of the shiplift platform comprises retracting the rod to pull the shiplift upwards towards the hoist.

22. The method of claim 20, wherein the jack comprises a jacking column, and wherein the jacking-up comprises coupling the jacking column with the shipyard adjacent the hoist; wherein securing the hoist at the second hoist height comprises coupling the hoist frame with the jacking column to maintain a position of the hoist frame relative to the jacking column; and wherein securing the shiplift platform at the second platform height comprises coupling the jack frame with the jacking column to maintain a position of the jack frame relative to the jacking column.

23. The method of claim 18, wherein, prior to jacking-up the hoist, the hoist is de-coupled from the shipyard.

24. The method of claim 18, wherein the shipyard comprises a plurality of hoists positioned adjacent the shiplift platform at the shipyard, and wherein each hoist comprises a hoist frame and a jack comprising an actuator coupled with a jack frame and coupled with a hoist frame of that hoist, the method comprising jacking-up the plurality of hoists relative to the yard level and jacking-up the shiplift platform by raising the shiplift platform toward the plurality of hoists.

25. The method of claim 24, wherein the plurality of hoists are jacked-up synchronously.

26. The method of claim 18, further comprising performing maintenance on the shiplift platform while the shiplift platform is raised above the yard level.

27. A shipyard, the shipyard comprising:

a yard, the yard defining a yard level;

a shiplift platform positioned adjacent the yard;

a chainwheel or winch; and

a jack, the jack comprising an actuator;

wherein the chainwheel or winch is decoupled from the shiplift platform, and wherein the actuator is actuable to raise the decoupled chainwheel or winch, from a first height to a second height, relative to the yard level;

a jacking column; and

a jacking beam, the jacking beam configured to couple with and between the chainwheel or winch and the jacking column and configured to maintain the chainwheel or winch at the second height.

28. A shipyard, the shipyard comprising:

a yard, the yard defining a yard level;

a shiplift platform positioned adjacent the yard;

a lifting system coupled with the yard, the lifting system comprising:

a hoist coupled with a hoist frame, wherein the hoist is capable of coupling with the shiplift platform and raising and lowering the shiplift platform relative to the yard level; and

a jack, the jack comprising an actuator coupled with a jack frame and engaged with the hoist frame, wherein the actuator is actuable to raise the hoist above the yard level and is actuable to raise the shiplift platform above the yard level;

wherein the jack comprises a jacking column capable of being coupled with the yard; wherein, with the jacking column coupled with the yard, the hoist frame is capable of being coupled with the jacking column to maintain a position of the hoist frame relative to the jacking column; and wherein, with the jacking column coupled with the yard, the jack frame is capable of being coupled with the jacking column to maintain a position of the jack frame relative to the jacking column; and

wherein the jack comprises jacking beams capable of coupling the hoist frame with the jacking column to maintain the position of the hoist relative to the jacking column and capable of coupling the jack frame with the jacking column to maintain the position of the jack frame relative to the jacking column.