CLAIMS

1. A method of removing an abandoned marine platform that extends above and below a water surface and into a seabed, comprising the steps of:

a) providing frame sections and multiple winches;

b) affixing the winches to a work platform;

c) rigging a cutter cable to the frame sections and to the winches, one end of the cutter cable being wound upon a first winch, the other end of the cutter cable being wound on a second winch; and

d) moving the cable to cut the platform along a selected cut line, wherein the winches gradually shorten the cable during such cutting.

2. The method of claim 1 wherein in step "d" the winches gradually shorten the cable by taking up the cable upon one or both of said winches.

3. The method of claim 1 wherein in step "d" the cutter cable is shortened by taking up the cable upon both of the winches.

4. The method of claim 3 wherein the winches are mounted on the work platform above the water surface.

5. The method of claim 1 wherein step "d" includes moving the cable in a first direction and then moving the cable in a second direction that is not the first direction.

6. The method of claim 5 wherein step "d" includes moving the cable in a first direction and then moving the cable in a second direction that is generally opposite the first direction.

7. The method of claim 1 wherein each frame section has an anchor arm that moves to engage the seabed.

8. The method of claim 1 wherein each frame section has a plurality of sheaves and in step "c" the cable is rigged to a digger arm that moves to engage the seabed.

9. The method of claim 1 further comprising the step of providing a lifting device and lowering the frame sections to the seabed, wherein a lower portion of each frame section is lowered until below the seabed.

10. The method of claim 1 wherein in step "d" the cable is moved by winding up cable on one winch while paying out cable from the other winch.

11. The method of claim 1 wherein the cutter cable includes a plurality of sleeves placed upon a wire rope cable.

12. The method of claim 11 wherein the sleeves have an outer coating of tungsten carbide members.

13. A method of removing an abandoned marine platform that extends below a water surface, comprising the steps of:

a) providing a lifting device having winches and multiple frame sections;

b) lowering the frame sections from the lifting device downwardly with winches mounted on the lifting device to a selected location below the water surface;

c) placing the frame sections next to the platform;

d) using the frame sections to support a movable cutter cable, and wherein the movable cutter cable has first and second portions;

e) moving the first and second portions of the cutter cable relative to the frame sections while taking up the cable with the winches; and

f) cutting the platform with the cable during step "e".

14. The method of claim 13 wherein in step "e" the cable is pulled in a first direction with the first said winch and then a second direction with a second said winch while engaging the platform to be cut.

15. The method of claim 13 wherein the platform has multiple jacket leg members and the cable is moved back and forth until multiple leg members of the platform are cut with the cutter cable.

16. The method of claim 13 wherein the platform includes a jacket that has multiple vertical or inclined members and the cable is moved back and forth until the multiple vertical and inclined members of the jacket are cut.

17. The method of claim 13 wherein the platform is anchored to the seabed with multiple piling members and the cable is moved back and forth until multiple piling members of the platform are cut.

18. The method of claim 15 wherein the winches move the cable back and

forth.

19. A method of removing an abandoned marine platform that extends below a water surface and into a seabed below a mud line, said platform having platform legs to be cut, comprising the steps of:

a) providing a lift device and one or more frame sections;

b) lowering the frame sections with the lifting device downwardly to a selected location below the water surface;

c) placing the frame section next to the platform at selected locations;

d) using the frame to support a movable cutter cable;

e) wherein in step "c" at least a first portion of the cutter cable extends between the mud line and at least a second portion of the cutter cable forms an angle with the said first portion; and

f) moving the first and second portions of the cable relative to the frame sections while taking up the cable to cut one or more of the platform leg.

20. The method of claim 19 wherein in step "f" the cable is pulled in a first direction and then a second direction while engaging the platform leg or legs to be cut.

21. The method of claim 19 wherein the platform has multiple jacket leg members and the cable is moved back and forth until multiple legs of the platform are cut.

22. The method of claim 19 wherein the platform includes a jacket that has multiple vertical or inclined members and the cable is moved back and forth until multiple of the vertical and inclined members of the jacket are cut.

23. The method of claim 19 wherein the platform is anchored to the seabed with multiple piling members and the cable is moved back and forth until multiple of the piling members of the platform are cut.

24. The method of claim 19 wherein winches are mounted on the lift device and further comprising powering the winches sequentially to pay out and take up cable in order to move the cable back and forth.

25. A method of removing an abandoned marine platform that extends above and below a water surface, comprising the steps of:

a) providing a floating lifting device, one or more frame sections, and multiple winches;

b) affixing the winches to a work platform at a selected location, wherein the work platform is rigged to be lifted or lowered by the lifting device;

c) rigging a cutter cable to the frame sections and to the winches, one end of the cutter cable being wound upon one winch, the other end of the cutter cable being wound on another winch;

d) moving the cable to cut the platform along a selected cut line, below the seabed;

e) wherein each frame section has a digger arm that moves relative to the frame section; and

f) wherein the cutter cable spans from a digger arm on one frame section to the digger arm on the other frame section.

26. The method of claim 25 wherein in step "d" the winches gradually shorten the cable by taking up the cable upon one or both of said winches.

27. The method of claim 25 wherein in step "d" the cutter cable is shortened by taking up the cable upon both of the winches.

28. The method of claim 27 wherein the winches are mounted on the work platform above the water surface.

29. The method of claim 25 wherein step "d" includes moving the cable in a first direction and then moving the cable in a second direction that is not the first direction.

30. The method of claim 29 wherein step "d" includes moving the cable in a first direction and then moving the cable in a second direction that is generally opposite the first direction.

31. The method of claim 25 wherein each frame section has an anchor arm that moves to engage the seabed.

32. The invention(s) substantially as shown and described herein.

CLAIMS

1. A method of removing an abandoned marine platform that extends below a water surface and into a seabed, comprising the steps of:

a) providing frame sections and multiple winches;

b) affixing the winches to a work platform;

c) rigging a cutter cable to the frame sections and to the winches, one end of the cutter cable being wound upon a first winch, the other end of the cutter cable being wound on a second winch; and

d) moving the cable to cut the platform along a selected cut line, wherein the winches gradually shorten the cable during such cutting.

2. The method of claim 1 wherein in step "d" the winches gradually shorten the cable by taking up the cable upon one or both of said winches.

3. The method of claim 1 wherein in step "d" the cutter cable is shortened by taking up the cable upon both of the winches.

4. The method of claim 3 wherein the winches are mounted on the work platform above the water surface.

5. The method of claim 1 wherein step "d" includes moving the cable in a first direction and then moving the cable in a second direction that is not the first direction.

6. The method of claim 5 wherein step "d" includes moving the cable in a first direction and then moving the cable in a second direction that is generally opposite the first direction.

7. The method of claim 1 wherein each frame section has an anchor arm that moves to engage the seabed.

8. The method of claim 1 wherein each frame section has a plurality of sheaves and in step "c" the cable is rigged to a digger arm that moves to engage the seabed.

9. The method of claim 1 further comprising the step of providing a lifting device and lowering the frame sections to the seabed, wherein a lower portion of each frame section is lowered until below the seabed.

10. The method of claim 1 wherein in step "d" the cable is moved by winding up

cable on one winch while paying out cable from the other winch.

11. The method of claim 1 wherein the cutter cable includes a plurality of sleeves placed upon a wire rope cable.

12. The method of claim 11 wherein the sleeves have an outer coating of tungsten carbide members.

13. A method of removing an abandoned marine platform that extends below a water surface, comprising the steps of:

a) providing a lifting device having winches and multiple frame sections;

b) lowering the frame sections from the lifting device downwardly with winches mounted on the lifting device to a selected location below the water surface;

c) placing the frame sections next to the platform;

d) using the frame sections to support a movable cutter cable, and wherein the movable cutter cable has first and second portions;

e) moving the first and second portions of the cutter cable relative to the frame sections while taking up the cable with the winches; and

f) cutting the platform with the cable during step "e".

14. The method of claim 13 wherein in step "e" the cable is pulled in a first direction with the first said winch and then a second direction with a second said winch while engaging the platform to be cut.

15. The method of claim 13 wherein the platform has multiple jacket leg members and the cable is moved back and forth until multiple leg members of the platform are cut with the cutter cable.

16. The method of claim 13 wherein the platform includes a jacket that has multiple vertical or inclined members and the cable is moved back and forth until the multiple vertical and inclined members of the jacket are cut.

17. The method of claim 13 wherein the platform is anchored to the seabed with multiple piling members and the cable is moved back and forth until multiple piling members of the platform are cut.

18. The method of claim 15 wherein the winches move the cable back and forth.

19. A method of removing an abandoned marine platform that extends below a water

surface and into a seabed below a mud line, said platform having platform legs to be cut, comprising the steps of:

a) providing a lift device and one or more frame sections;

b) lowering the frame sections with the lifting device downwardly to a selected location below the water surface;

c) placing the frame section next to the platform at selected locations;

d) using the frame to support a movable cutter cable;

e) wherein in step "c" at least a first portion of the cutter cable extends between the mud line and at least a second portion of the cutter cable forms an angle with the said first portion; and

f) moving the first and second portions of the cable relative to the frame sections while taking up the cable to cut one or more of the platform leg.

20. The method of claim 19 wherein in step "f" the cable is pulled in a first direction and then a second direction while engaging the platform leg or legs to be cut.

21. The method of claim 19 wherein the platform has multiple jacket leg members and the cable is moved back and forth until multiple legs of the platform are cut.

22. The method of claim 19 wherein the platform includes a jacket that has multiple vertical or inclined members and the cable is moved back and forth until multiple of the vertical and inclined members of the jacket are cut.

23. The method of claim 19 wherein the platform is anchored to the seabed with multiple piling members and the cable is moved back and forth until multiple of the piling members of the platform are cut.

24. The method of claim 19 wherein winches are mounted on the lift device and further comprising powering the winches sequentially to pay out and take up cable in order to move the cable back and forth.

25. A method of removing an abandoned marine platform that extends below a water surface, comprising the steps of:

a) providing a floating lifting device, one or more frame sections, and multiple winches;

b) the floating lifting device including a work platform at, wherein the work platform is rigged to be lifted or lowered by the lifting device;

c) rigging a cutter cable to the frame sections and to the winches, one end of the cutter cable being wound upon one winch, the other end of the cutter cable being wound on another winch;

d) moving the cable to cut the platform along a selected cut line, below the seabed;

e) wherein each frame section has a digger arm that moves relative to the frame section; and

f) wherein the cutter cable spans from a digger arm on one frame section to the digger arm on the other frame section.

26. The method of claim 25 wherein in step "d" the winches gradually shorten the cable by taking up the cable upon one or both of said winches.

27. The method of claim 25 wherein in step "d" the cutter cable is shortened by taking up the cable upon both of the winches.

28. The method of claim 27 wherein the winches are mounted on the work platform.

29. The method of claim 25 wherein step "d" includes moving the cable in a first direction and then moving the cable in a second direction that is not the first direction.

30. The method of claim 29 wherein step "d" includes moving the cable in a first direction and then moving the cable in a second direction that is generally opposite the first direction.

31. The method of claim 25 wherein each frame section has an anchor arm that moves to engage the seabed.