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(54) Title: SYSTEM FOR DRIVING A WIRE LOOP CUTTING ELEMENT

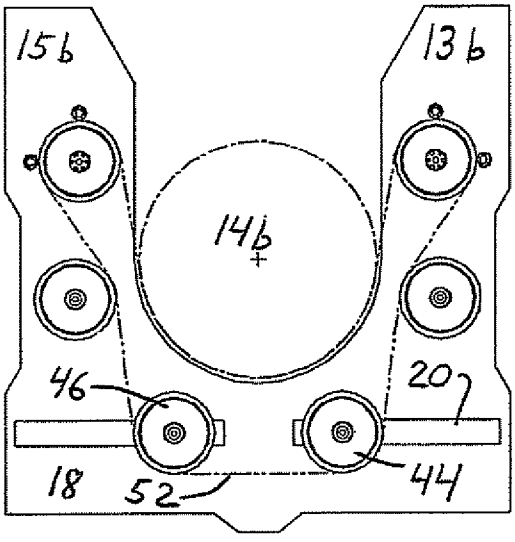

Fig. 1a

(57) Abstract: This invention is directed toward a system for driving a wire loop cutting element. More particularly, the disclosed invention employs a frame and pulleys to drive a wire loop cutting element.

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AMENDED CLAIMS

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(claims 1-16, 18,19 are unchanged)

17. A subsea system for driving a wire loop cutting element, comprising:

a. a frame comprising a lower plate comprising a buoyant member, right and left arms defining a lower central gripping region, said frame further comprising a bracket connected to the lower plate, and an upper plate connected to the bracket, said upper plate comprising two pulley slots, a right arm comprising a first drive wheel axle opening, and a left arm opposite the right arm, comprising a second drive wheel axle opening, said right and left arms defining an upper central gripping region in substantial longitudinal alignment with the lower central gripping region;

b. a first drive wheel axle rotatably mounted in the first drive wheel axle opening;

c. a first drive wheel coupled to the first drive wheel axle;

d. a second drive wheel axle rotatably mounted in the second drive wheel axle opening;

e. a second drive wheel coupled to the second drive wheel axle;

f. a first drive wheel motor attached to the frame and operatively coupled to the first drive wheel axle;

g. a second drive wheel motor attached to the frame and operatively coupled to the second drive wheel axle;

h. a clamping device attached to the frame and positioned such that it can clamp objects to be cut in a fixed position in the central gripping regions, said clamping device comprising a first clamping arm on one side of the central gripping regions and a second clamping arm on the other side of the central gripping regions;

i. a first pulley comprising a first pulley axle mounted in the first pulley slot;

j. a second pulley comprising a second pulley axle mounted in the second pulley slot; and

k. a pulley positioning system attached to the first and second pulleys for varying the separation distance between the first and second pulleys.

18. The system of claim 17, further comprising a continuous loop wire cutting blade extending around the outer periphery of the first and second pulleys and the first and second drive wheels.

19. The system of claim 17, wherein the pulley positioning system comprises:

a. a threaded translation member operatively coupled to the first and second pulley axles such that rotation of the translation member is a first direction causes the separation distance between the first and second pulleys to increase, and rotation of the translation member is a second direction opposite the first direction, causes the separation distance between the first and second pulleys to decrease; and

b. a hydraulically driven motor operatively coupled to the translation member, such that the motor can cause rotation of the translation member in the first direction or in the second direction.

20. The system of claim 17, further comprising:

a. a first clamping pad attached to the first clamping arm; and

b. a second clamping pad attached to the second clamping arm.

STATEMENT UNDER ARTICLE 19 (1)

Claims 1-16, 18 and 19 are unchanged.

Claims 17 and 20 are replaced by amended claims bearing the same numbers.