Claims

1. A tug boat (1) having at least one towing winch (5) and a movable towing point (2) apparatus, wherein said towing point (2) apparatus can guide a towing cable (4) from a towing winch (5) to a vessel (V) to be assisted, comprising a rotating element (9) that at least partly guides the towing cable (4) such that the pulling force (7) on said cable (4) is transmitted to the tug boat (1) at least partly through said rotating element (9) when in use, said rotating element pivoting freely around a first axis (Y-Y) and said first axis (Y-Y) fixed to an arm (10) which in turn can pivot about a second axis (X-X), said second axis (X-X) being spaced apart from said first axis (Y-Y) and the second and first axis (X-X and Y-Y) being non-parallel.

2. A tug boat (1) of claim 1, wherein the second axis (X-X) is fixed to a movable member (11), wherein said member (11) can move along a curve (12) in a plane preferably substantially parallel to a deck of the tug boat (1).

3. A tug boat (1) of claim 1, wherein the second axis (X-X) is fixed to a movable member (11), wherein the member (11) can move along a substantial straight line in a plane preferably substantially parallel to a deck of the tug boat (1).

4. A tug boat (1) of claim 1, wherein the second axis (X-X) is fixed to a movable member (11), wherein said movable member (11) can move partly along a straight line and partly along an curve in a plane preferably substantially parallel to a deck of the tug boat (1).

5. A tug boat (1) of claim 1, 2, 3, or 4 wherein a guiding apparatus (13) is provided, guiding the towing cable (4) onto rotating element (9), wherein said guiding apparatus (13) is preferably attached to an arm (14) pivoting freely about first axis (Y-Y), preferably parallel to and more preferably coinciding with first axis (Y-Y).

6. A tug boat (1) of claim 5 wherein said guiding apparatus (13) can comprise four or more rotating elements.

7. A tug boat (1) of claim 5 wherein said guiding apparatus (13) can comprise a towing eyelet, fairlead, chock or similar device.

8. A tug boat (1) of anyone of claim 1 to 7 with a balancing system for at least the arm, preferably comprising a counter weight attached to arm (10) juxtaposed to rotating element (9) with respect to the pivot axis.

9. A tug boat (1) of anyone claim 1 to 8 with an additional rotating element attached to arm (10) between towing cable (4) and second axis (X-X) with said rotating element pivoting freely along an axis substantially parallel to first axis (Y-Y).

10. A tugboat (1) of anyone claim 1 to 9 wherein said rotating element (9) can pivot freely around a further axis (A-A), which further axis can preferably extend:

- substantially parallel to the arm (10);
- substantially parallel to a line crossing both second axis (X-X) and first axis (Y-Y); and/or
- crossing the first axis (Y-Y) substantially perpendicularly when the arm is in a substantially upright mid position.

11. A tugboat (1) according to claim 10 with an additional guiding apparatus (16) between rotating element (9) and towing winch (5) that can also freely pivot around an axis substantially parallel to or coinciding with first axis (Y-Y).

12. A tugboat according to anyone claim 1 to 11, wherein the winch is a render and recovery winch.

13. A movable towing point apparatus for use in a tugboat according to anyone claims 1 to 11, said movable towing point apparatus comprising a rotating element (9) that at least partly guides the towing cable (4) such that the pulling force (7) on said cable (4) is transmitted to the tug boat (1) at least partly through said rotating element (9) when in use.

14. Method for assisting a vessel (V) by a tug boat (1) by connecting a towing cable (4) between a winch (5) on the tug boat (1) and the vessel (V), wherein on the tugboat (1) the towing cable (4) is guided by a movable towing

point (2) apparatus, such that the position of the towing point (2) apparatus is adjusted relative to the tugboat (1) depending on the position of the vessel (V) relative to the tug boat (1), wherein the towing cable (4) is guided by and/or over the towing point (2) apparatus substantially friction free.

15. Method for assisting a vessel (V) with a tug boat (1), by connecting a towing cable (4) between a winch (5) on the tug boat (1) and the vessel (V), wherein on the tugboat (1) the towing cable (4) is guided by a movable towing point (2), and wherein the position of the towing point (2) is adjusted relative to the tugboat (1) depending on the position of the vessel (V) relative to the tug boat (1), wherein the towing cable (4) is guided over a rotating element (9) such as a roll or wheel of the towing point (2) or forming the towing point (2), which rotating element is rotated on an axis which is moved relative the tug boat.