CLAIMS

1. A hull ~~(1)~~ for a vessel for towing, comprising

   - a deck ~~(13)~~; and

   - a towing staple ~~(14)~~ for guiding a towing line ~~(10)~~,

wherein the towing staple ~~(14)~~ comprises:

   - a guiding element ~~(20)~~ having a symmetrical extension in a first plane parallel to the deck ~~(13)~~, wherein the guiding element ~~(20)~~ comprises a first and a second mounting section ~~(21A, 21B)~~ mounting the guiding element ~~(14A)~~ to the hull ~~(1)~~, wherein the first and second mounting sections ~~(21A, 21B)~~ are connected by means of a main section ~~(22)~~ of the guiding element ~~(20)~~, wherein the guiding element ~~(20)~~ comprises a towing line guiding surface ~~(23)~~ located on a bottom side of the main section ~~(22)~~ facing the deck ~~(13)~~, the towing line guiding surface ~~(23)~~ being configured to, during a towing procedure, slidably contact the towing line ~~(10)~~, such that the towing line can freely move along a periphery of the main section ~~(22)~~ in the first plane while being restricted in movement by the main section ~~(22)~~ in a direction perpendicular to the first plane, and

   - a support element ~~(16)~~, wherein the support element ~~(16)~~ is arranged on a top side of the main section ~~(22)~~ and extends at an angle to the first plane from the top side of the guiding element ~~(20)~~ to a second plane perpendicular to the first plane and extending through the first and second mounting sections ~~(21A, 21B)~~.

2. The hull ~~(1)~~ according to claim 1, wherein the guiding element ~~(20)~~ of the towing staple ~~(14)~~ has an arch-shaped form, when seen in the first plane.

3. The hull ~~(1)~~ according to claim 1 or 2, wherein the guiding element ~~(20)~~ has a U-shape, when seen in the first plane, such that the main section ~~(22)~~ comprises two parallel sections ~~(22A)~~ and a curved section ~~(22B)~~, wherein the end sections of the two parallel sections ~~(22A)~~ of the U-shaped guiding element ~~(20)~~ constitute the mounting sections ~~(21A, 21B)~~.

4. The hull ~~(1)~~ according to any one of the claims 1 to 3, the hull ~~(1)~~ further comprising a fairlead ~~(15)~~ for guiding the towing line ~~(10)~~, wherein the fairlead is arranged at a longitudinal center plane of the towing staple ~~(14)~~.

5. The hull ~~(1)~~ according to claim 4, wherein the guiding element ~~(20)~~ is shaped so that the distance from the fairlead to the towing line guiding surface ~~(23)~~ of the guiding element ~~(20)~~ varies over the periphery of the guiding element ~~(20)~~.

6. The hull ~~(1)~~ according to claim 4 or 5, wherein the towing staple ~~(14)~~ spans a viewing angle ~~(α)~~ of at least 140° seen from the fairlead ~~(15)~~ in a direction of a longitudinal centerline of the hull ~~(1)~~.

7. The hull ~~(1)~~ according to any one of the claims 4 to 6, wherein the support element ~~(16)~~ extends from a top side of the towing staple ~~(14)~~ facing away from the deck ~~(13)~~ to a connection point ~~(17)~~ located further away from the deck than the fairlead ~~(15)~~ in a vertical direction of the hull ~~(1)~~.

8. The hull ~~(1)~~ according to any one of the claims 1 to 7, wherein the towing staple ~~(14)~~ is arranged within an inner periphery of the hull ~~(1)~~.

9. The hull ~~(1)~~ according to any one of the claims 1 to 8, wherein a width ~~(W)~~ of the guiding element ~~(20)~~ between the first and second mounting sections ~~(21A, 21B)~~ is adapted to move a towing point away from the longitudinal centerline of the hull ~~(1)~~ towards an outer side of the hull ~~(1)~~.

10. The hull ~~(1)~~ according to any one of the previous claims, wherein a distance from the towing staple ~~(14)~~ to the deck ~~(13)~~ is in a range of 10cm to 200cm.

11. The hull ~~(1)~~ according to any of the previous claims, wherein the support element ~~(16)~~ comprises a sheet material extending from the top side of the guiding element ~~(20)~~ to the second plane, such that the support element ~~(16)~~ creates an enclosure covering the guiding element ~~(20)~~.

12. The hull ~~(1)~~ according to claim 11, wherein the support element ~~(16)~~ has a first edge ~~(16A)~~ being arranged on and following the circumference of the guiding element ~~(20)~~ along the top side of the guiding element ~~(20)~~, and a second edge ~~(16B)~~ being parallel to the second plane and mounted to the hull at the second plane.

13. The hull ~~(1)~~ according to any of the previous claims, wherein the guiding element ~~(20)~~ comprises a lubrication system for lubricating the towing line during a towing procedure.

14. The hull ~~(1)~~ according to claim 13, wherein the lubrication system comprises a plurality of openings ~~(18)~~ in the towing line guiding surface ~~(23)~~ of the guiding element ~~(20)~~ and a lubricant feeding system for feeding lubricant through the plurality of openings ~~(18)~~ onto the towing line ~~(10)~~.

15. The hull ~~(1)~~ according to any one of the previous claims, wherein the hull ~~(1)~~ comprises an accommodation building ~~(19)~~, and wherein the second plane is located on an aft or fore facing wall ~~(19A)~~ of the accommodation building ~~(19)~~.

16. The hull ~~(1)~~ according to any one of the previous claims, wherein the towing staple ~~(14)~~ is an integral part of the hull ~~(1)~~.

17. A towing staple ~~(14)~~ for a vessel for towing, wherein the towing staple is configured to guide a towing line, the towing staple ~~(14)~~ comprising:

- a guiding element ~~(20)~~ having a symmetrical extension in a first plane, wherein the guiding element ~~(20)~~ comprises a first and a second mounting section ~~(21A, 21B)~~ for mounting the guiding element ~~(14A)~~ to a hull of the vessel for towing, wherein the first and second mounting sections ~~(21A, 21B)~~ are connected by means of a main section ~~(22)~~ of the guiding element ~~(20)~~, wherein the guiding element ~~(20)~~ comprises a towing line guiding surface ~~(23)~~ located on a bottom side of the main section ~~(22)~~, the towing line guiding surface ~~(23)~~ being configured to, during a towing procedure, slidably contact the towing line ~~(10)~~, such that the towing line can freely move along a periphery of the main section ~~(22)~~ in the first plane while being restricted in movement by the main section ~~(22)~~ in a direction perpendicular to the first plane, and

- a support element ~~(16)~~, wherein the support element ~~(16)~~ is arranged on a top side of the main section ~~(22)~~ and extends at an angle to the first plane from the top side of the guiding element ~~(20)~~ to a second plane perpendicular to the first plane and extending through the first and second mounting sections ~~(21A, 21B)~~.

18. The towing staple according to claim 17, wherein the guiding element ~~(20)~~ of the towing staple ~~(14)~~ has an arch-shaped form, when seen in the first plane.

19. The towing staple ~~(14)~~ according to claim 17 or 18, wherein the guiding element ~~(20)~~ has a U-shape, when seen in the first plane, such that the main section ~~(22)~~ comprises two parallel sections ~~(22A)~~ and a curved section ~~(22B)~~, wherein the end sections of the two parallel sections ~~(22A)~~ of the U-shaped guiding element ~~(20)~~ constitute the mounting sections ~~(21A, 21B)~~.

20. The towing staple ~~(14)~~ according to any one of the claims 17 to 19, wherein the support element ~~(16)~~ has a base end ~~(16A)~~ and a top end ~~(16B)~~, wherein the base end ~~(16A)~~ is arranged on the guiding element ~~(20)~~ and the top end ~~(16B)~~ is configured for being mounted to a mounting area located in the second plane.

21. The towing staple ~~(14)~~ according to any of the claims 17 to 20, wherein the support element ~~(16)~~ comprises a sheet material extending from the top side of the guiding element ~~(20)~~ to the second plane, such that the support element ~~(16)~~ creates an enclosure covering the guiding element ~~(20)~~.

22. The towing staple ~~(14)~~ according to claim 21, wherein the support element ~~(16)~~ has a first edge ~~(16A)~~ being arranged on and following the circumference of the guiding element ~~(20)~~ along the top side of the guiding element ~~(20)~~, and a second edge ~~(16B)~~ being parallel to the second plane.

23. The towing staple ~~(14)~~ according to any one of the claims 17 to 22, wherein the guiding element ~~(20)~~ comprises a lubrication system for lubricating the towing line during a towing procedure.

24. The towing staple ~~(14)~~ according to claim 23, wherein the lubrication system comprises a plurality of openings ~~(18)~~ in the towing line guiding surface ~~(23)~~ of the guiding element ~~(20)~~ and a lubricant feeding system for feeding lubricant through the plurality of openings ~~(18)~~ onto the towing line ~~(10)~~.