

VESSEL SAIL

DESCRIPTION

5 **Object of the invention**

The present invention relates to a vessel sail, in particular a rigid vessel sail, which allows access to the interior of the sail.

10 **Background of the invention**

The use of rigid sails for the propulsion of vessels is known, comprising an elongated main body situated vertically on the deck of the vessel.

15 These rigid sails comprise a pedestal for their mounting on the deck of the vessel and, if desired, may comprise aerodynamic structures situated near the ends of the elongated main body.

20 For maintenance or repair tasks, it is necessary to be able to access the interior of the rigid sail, for example, through a door situated in the lower part of said elongated main body.

25 In the case of tanker-type vessels, which include vessels carrying oil, chemical substances, LPG, LNG, etc., these vessels have areas above the deck that are explosive atmosphere zones (ATEX); that is, areas in which everything installed must be certified for explosive atmospheres, given the type of vessel they are on. This makes access to the rigid sail more complicated, as it is necessary to respect these explosive atmosphere zones.

30 **Description of the invention**

Therefore, an objective of the present invention is to provide a vessel sail in which access to its interior is as simple and economical as possible, and which is suitable for use on vessels that have explosive atmosphere zones.

With the vessel sail of the invention, the aforementioned drawbacks are resolved, presenting other advantages that will be described below.

5 The vessel sail according to the present invention is described in claim 1, and the dependent claims include additional features that are optional.

 In particular, the vessel sail comprises a main body provided with an entrance to the interior of the main body, a pedestal, the main body being situated on said pedestal, and
10 in which the entrance is an entrance situated on a side of the main body.

 Furthermore, the vessel sail according to the present invention also preferably comprises an access element that is exterior to the pedestal to access said entrance.

15 In this way, the sail can be accessed in a simple manner through the platform, and it allows for the separation of an explosive atmosphere zone, which must be certified, from other zones, for example, zones for the installation of electrical equipment.

 Preferably, the access element is an access ladder that extends vertically along the
20 pedestal.

 Furthermore, the vessel sail according to the present invention may also comprise an access platform situated around said pedestal.

25 Advantageously, said access platform has a circular crown shape in plan view, which allows for circulation around the entire main body of the sail, regardless of the position of the entrance of said main body.

 Furthermore, the vessel sail according to the present invention preferably comprises an
30 access ladder to said platform that extends vertically along the pedestal, allowing for easy access to the platform from the deck of the vessel.

 Furthermore, for safety reasons, said platform preferably comprises an outer railing.

To facilitate reaching the entrance of the main body of the sail, it preferably comprises an additional ladder, for example, a removable one, situated between the platform and the entrance of the main body.

5 If desired, the vessel sail according to the present invention may comprise an aerodynamic structure situated at the end of the main body closest to the pedestal, in which case the aerodynamic structure comprises a hatch.

10 Advantageously, the platform is joined to the pedestal; for example, the platform is welded to the pedestal.

Brief description of the drawings

15 For a better understanding of what has been stated, drawings are attached in which, schematically and only by way of non-limiting example, a practical embodiment is represented.

20 Figure 1 is a perspective view of the vessel sail according to a first embodiment of the present invention;

Figure 2 is an elevation view of the vessel sail of the first embodiment of the present invention;

25 Figure 3 is an elevation view of the vessel sail of a second embodiment of the present invention; and

Figure 4 is a perspective view of the vessel sail of a third embodiment of the present invention.

30 Description of a preferred embodiment

The figures show a vessel sail according to the present invention. It should be noted that the vessel sail according to the present invention is preferably a rigid sail, such as, for example, a suction sail, a Flettner rotor, or any other type of rigid sail.

5 The vessel sail according to the present invention comprises a main body (1) which is elongated and is provided with a lateral entrance (2), for example, an entrance door that is situated on a side of the main body (1), to access the interior of said main body (1), as can be seen in Figure 1.

The main body (1) is situated on a pedestal (3), which supports the body (1) on the deck of the vessel.

10 Furthermore, the vessel sail comprises an access element (5) that is exterior to the pedestal (3) to access said entrance (2), said access element being preferably an access ladder (5).

15 According to a first embodiment, an access platform (4) is arranged around said pedestal (3), preferably situated at the upper part of said pedestal (3), the access platform (4) comprising a railing (6) for user safety.

20 According to a second embodiment, shown in Figure 3, there is no access platform, and access to the entrance (2) is carried out directly via the access ladder (5).

This access platform (4) is preferably in the shape of a circular crown, such that it completely surrounds the pedestal (3).

25 Access to the platform (4) is carried out by means of the access ladder (5) situated along the pedestal (3), and to reach the entrance (2) of the main body (1), an additional ladder (7) situated between the platform (4) and the entrance (2) is preferably used.

30 Although not essential, the figures show that the sail comprises an aerodynamic structure (8), which is situated at the end of the main body (1) closest to the pedestal (3). In this case, this aerodynamic structure (8) comprises a hatch (9).

In the third embodiment shown in Figure 4, the sail does not comprise any access platform; instead, it is the aerodynamic structure (8) itself that performs the function of the access platform previously described.

In this way, to access the interior of the main body (1) of the sail, a user climbs the access ladder (5) toward the access platform (4), and on this access platform (4) the user can access the additional ladder (7) to reach the entrance (2) of the main body (1), for example, through the hatch (9), if the aerodynamic structure (8) is present.

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Despite reference being made to a specific embodiment of the invention, it is evident to a person skilled in the art that the described vessel sail is susceptible to numerous variations and modifications, and that all mentioned details may be replaced by others that are technically equivalent, without departing from the scope of protection defined by the attached claims.

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CLAIMS

- 5 1. Vessel sail, comprising a main body (1) provided with an entrance (2) to the interior of the main body (1), and a pedestal (3), the main body (1) being situated on said pedestal (3), characterized in that the entrance (2) is arranged on a side of the main body (1).
2. Vessel sail according to claim 1, which also comprises an access element (5) that is exterior to the pedestal (3) to access said entrance (2).
- 10 3. Vessel sail according to claim 2, in which the access element (5) is an access ladder extending vertically along the pedestal (3).
4. Vessel sail according to any one of the preceding claims, which also comprises an access platform (4) situated around, at least partially, said pedestal (3).
- 15 5. Vessel sail according to claim 4, in which said access platform (4) has a circular crown shape in plan view.
6. Vessel sail according to claim 4 or 5, in which said platform (4) comprises an outer railing (6).
- 20 7. Vessel sail according to any one of claims 4 to 6, comprising an additional ladder (7) situated between the platform (4) and the entrance (2) of the main body (1).
- 25 8. Vessel sail according to any one of the preceding claims, comprising an aerodynamic structure (8) situated at the end of the main body (1) closest to the pedestal (3), the aerodynamic structure (8) comprising a hatch (9).
- 30 9. Vessel sail according to any one of claims 4 to 8, in which the access platform (4) is joined to the pedestal (3).