

METHOD OF PRODUCING FLOATING FACILITY INCLUDING NATURAL GAS
LIQUEFACTION APPARATUS

DESCRIPTION

Technical Field

[0001]

The present invention relates to a method of producing a floating facility including a natural gas liquefaction apparatus.

Background Art

[0002]

As a facility for performing a liquefaction treatment of natural gas produced from a gas field, a floating facility, called floating liquefied natural gas (FLNG), in which a floating unit such as a hull is disposed on the ocean and a natural gas liquefaction apparatus is provided on the floating unit, has been known. The natural gas liquefaction apparatus provided on the floating unit includes many treatment devices such as a device for performing a pretreatment of removing various types of impurities from natural gas (NG) before being liquefied, and a device for performing a liquefaction treatment of cooling and liquefying natural gas after pretreatment to obtain liquefied natural gas (LNG).

[0003]

In the construction of such an FLNG, reduction in cost and reduction in the construction period have been demanded as described in detail in embodiments of the present invention. Patent Literature 1 describes, as the FLNG, a configuration example of a large floating facility on the ocean, including a natural gas liquefaction plant and an LNG storage tank. However, Patent Literature 1 does not describe a technique that can satisfy the above requirements.

Citation List

Patent Literature

[0004]

Patent Literature 1: JP 2015-13494 A

Summary of Invention

Technical Problem

[0005]

The present invention has been made in view of the above circumstances, and an object of the present invention is to provide a method of producing a floating facility including a natural gas liquefaction apparatus that can achieve low cost and reduce the construction period.

Solution to Problem

[0006]

The method of producing a floating facility including a natural gas liquefaction apparatus of the present invention is a method of producing a floating facility including a natural gas liquefaction apparatus, the natural gas liquefaction apparatus including at least a cold end unit that liquefies natural gas,

the method including:

a step of providing a treatment device constituting the natural gas liquefaction apparatus on a base; and

a step of suspending the base, and then conveying and installing the base to a floating unit disposed on the ocean at the time of operating the natural gas liquefaction apparatus; in which

the step of conveying and installing the base to the floating unit includes a step of conveying a reinforcing member that prevents deformation of the base caused by a load applied to the base when the base is suspended, to the floating unit along with the base.

Advantageous Effects of Invention

[0007]

According to the present invention, the method of producing a floating facility including a natural gas liquefaction apparatus includes a step of providing a

treatment device constituting the natural gas liquefaction apparatus on a base; and a step of suspending the base, and then conveying and installing the base to a floating unit disposed on the ocean; the step of conveying and installing the base to the floating unit including a step of conveying a reinforcing member that prevents deformation of the base caused by a load applied to the base when the base is suspended, to the floating unit along with the base. Accordingly, the production of the floating unit and the production of the treatment device can be performed in parallel, thus enabling to reduce the construction period of the floating facility including the natural gas liquefaction apparatus. Further, conveyance using the base and the reinforcing member prevents a structure body required for conveying the treatment device from becoming a large-scale. This allows the production cost of the floating facility including a natural gas liquefaction apparatus to be reduced.

Brief Description of Drawings

[0008]

Fig. 1 is a block diagram illustrating a flow of a treatment performed in a natural gas liquefaction apparatus constituting an FLNG.

Fig. 2 is a schematic view illustrating an example

of a pallet module.

Fig. 3 is an explanatory view illustrating a state in which a pallet module is conveyed.

Fig. 4 is an explanatory view illustrating another configuration example of a pallet module.

Fig. 5 is a schematic side view illustrating the pallet module to which a temporary jig for performing a production method according to a first embodiment of the present invention is attached.

Fig. 6 illustrates a schematic plan view of a hull constituting the FLNG and a pallet module to which the temporary jig is attached.

Fig. 7 is a process view illustrating an example of a production process of an FLNG using the temporary jig.

Fig. 8 is a process view illustrating an example of a production process of an FLNG using the temporary jig.

Fig. 9 is a process view illustrating an example of a production process of an FLNG using the temporary jig.

Fig. 10 is a process view illustrating an example of a production process of an FLNG using the temporary jig.

Fig. 11 is a process view illustrating an example of a production process of an FLNG using the temporary jig.

Fig. 12 is a process view illustrating an example of a production process of an FLNG using the temporary jig.

Fig. 13 is a schematic side view of a pallet module

used for performing a production method according to a second embodiment of the present invention.

Fig. 14 is a schematic perspective view of a pallet module according to the second embodiment.

Fig. 15 is a process view illustrating an example of a production process of an FLNG using a pallet module according to the second embodiment.

Fig. 16 is a process view illustrating an example of a production process of an FLNG using a pallet module according to the second embodiment.

Description of Embodiments

[0009]

Fig. 1 is a block diagram illustrating a flow of a treatment performed in a natural gas (NG) liquefaction apparatus constituting an FLNG 1. In the NG liquefaction apparatus of this example, liquefaction is performed by separating methane contained in NG. Further, the FLNG 1 includes, as a floating unit, a hull 11 disposed on the ocean at the time of operating the NG liquefaction apparatus. The hull 11 is not illustrated in Fig. 1, and will be described later.

[0010]

NG received through a riser transporting NG produced in a gas field in the bottom of water is supplied to a gas-

liquid separation unit 21 illustrated in Fig. 1. Liquid contained in the NG is separated in the gas-liquid separation unit 21, and then a pretreatment of removing various types of impurities is performed. In an acid gas removal unit 22, acid gas is first removed from the NG from which liquid has been separated in the gas-liquid separation unit 21. The acid gas removal unit 22 is composed of an absorbing facility including, for example, a contact column for bringing an absorbing liquid for absorbing acid gas and natural gas into contact into countercurrent contact. Carbon dioxide and hydrogen sulfide, which are an acid gas and may be solidified in LNG upon liquefaction, are absorbed and removed from the natural gas to the absorbing liquid in the acid gas removal unit 22.

[0011]

In a moisture removal unit 23, moisture is further removed from the NG treated in the acid gas removal unit 22, and then mercury is removed in the mercury removal unit 24. The moisture removal unit 23 includes an absorbing column filled with an absorbing agent for absorbing moisture, and the mercury removal unit 24 includes an absorbing column filled with a mercury absorbing agent for absorbing mercury, for example. The above-described gas-liquid separation unit 21, acid gas removal unit 22, moisture removal unit 23,

and mercury removal unit 24 separate liquid in the NG before cooling and then remove impurities from the gas. Therefore, the entire of these treatment units 21, 22, 23, and 24 is also referred to as a hot end unit 2. Incidentally, the mercury removal unit 24 may be provided upstream of the acid gas removal unit 22.

[0012]

Subsequently, the natural gas from which impurities have been removed is cooled, and separated into methane and heavy hydrocarbon which is a liquid hydrocarbon component having two or more carbon atoms in a hydrocarbon separation unit 31. The hydrocarbon separation unit 31 is provided with, for example, a demethanizer which is a distillation column. The methane separated in the hydrocarbon separation unit 31 is cooled and liquefied into liquefied natural gas (LNG) in a liquefaction unit 32. The liquefaction unit 32 is provided with a main cryogenic heat exchanger (MCHE) for liquefying methane with a main refrigerant (mixed refrigerant composed of methane, ethane, propane, butane, nitrogen, and the like, or nitrogen refrigerant). Note that the main cryogenic heat exchanger (MCHE) refers to a spiral wound type or cold box type heat exchanger.

[0013]

Further, in a distillation unit 34, ethane, propane,

and butane are sequentially separated by distillation from the heavy hydrocarbon having two or more carbon atoms which has been separated from the methane in the hydrocarbon separation unit 31. A light fraction containing ethane and a small amount of methane is returned to the liquefaction unit 32, and propane and butane are utilized as LPG in the FLNG 1 (a part of ethane is also utilized as a refrigerant in the FLNG 1) or shipped. Further, a remaining heavy fraction is sent as a condensate to a later-described condensate tank 43. The distillation unit 34 is provided with a deethanizer, a depropaniser, and a debutaniser which are a distillation column performing separation of each of ethane, propane, and butane by distillation.

[0014]

A part of the LNG is then vaporized (end flash), whereby the resulting liquid is supplied to an LNG tank 44 through an end flash unit 33 that performs adjustment of the temperature of the LNG. The LNG stored in the LNG tank 44 is shipped toward, for example, an LNG tanker which is brought alongside the hull 11. Here, the hydrocarbon separation unit 31, the liquefaction unit 32, the end flash unit 33, and the distillation unit 34 treat a liquid of cooled hydrocarbon, and therefore, the entire of these treatment units 31, 32, 33, and 34 is also referred to as a cold end unit 3.

[0015]

Further, a part of a liquid component (condensate) which has been separated from the natural gas through gas-liquid separation in the gas-liquid separation unit 21 is subjected to a treatment of removing light hydrocarbon in a vapor pressure adjustment unit 41, then stored in the condensate tank 43 and shipped. Further, an anti-freezing liquid containing moisture is phase-separated from the condensate which has been subjected to gas-liquid separation, and subjected to a regeneration treatment in an anti-freezing liquid regeneration unit 42. Monoethylene glycol (MEG) or the like is used as the anti-freezing liquid, and the regenerated anti-freezing liquid is recharged into the well sites of natural gas.

[0016]

Also, the pressures of end flash gas and boil off gas (BOG) which has been vaporized from the LNG in the LNG tank 44 are increased in a pressure increasing unit 45 composed of a compressor and the like. A part of the gas whose pressure has been increased is used as combustion gas and the remainder is returned to the inlet side of the liquefaction unit 32.

[0017]

A unit that performs a treatment such as temperature adjustment or pressure adjustment for natural gas

introduced into the NG liquefaction apparatus via the riser, or gas and liquid generated from this natural gas is defined as a treatment unit. Accordingly, in addition to the above-described units constituting each of the hot end unit 2 and the cold end unit 3, the vapor pressure adjustment unit 41, the anti-freezing liquid regeneration unit 42, and the pressure increasing unit 45 in Fig. 1 are also included in the treatment unit. Each treatment unit includes, as a treatment device, static devices such as a column tank and a heat exchanger and/or dynamic devices such as a pump. The above respective treatment units constituting the NG liquefaction apparatus are provided on a later-described deck (upper deck) 14 provided on the uppermost side among a plurality of decks provided in the hull 11, as illustrated in Fig. 6. In this example, tanks 43 and 44 which respectively store LNG and a condensate as final products in the NG liquefaction apparatus are provided, as a device not included in the treatment unit, inside the hull 11, that is, provided downward of the deck 14.

[0018]

In order to reduce the construction period of the FLNG 1, it is desirable to construct the hull 11, the tanks 43 and 44 included in the hull 11, and a construction constituting the above treatment units provided on the deck

14 of the hull in parallel with each other. Here, an integrally constructed construction in which treatment devices constituting the above treatment units are designated is referred to as a module. The construction of the hull 11 and the construction of many modules are performed at different sites. Then, after completion of the construction of the modules, each module is generally lifted by a crane and conveyed to the hull 11, thus installing each module in the hull 11. Here, the module means a construction which is integrally constructed, including the treatment devices provided on the deck 14 of the hull 11 as described above, but also means constructions which are collectively conveyed to the hull 11 because conveyance is performed in this way.

[0019]

The above module is generally constructed as follows: for example, steel is used to form a frame, and this is utilized for the foothold of workers; and then, constructions such as the above treatment devices and pipes attached to the devices are installed in the frame, thereby constructing the module. A conventional module including such a frame is referred to as a block module. As for the block module, the frame is supported and lifted by a crane to thereby lift the above construction connected to this frame together, thus conveying and installing the frame and

the construction to the hull 11. When the FLNG 1 is constructed by using the block module in this way, a large amount of steel is used for forming the frame, and thus the production cost of the FLNG 1 increases.

[0020]

In view of the circumstances described above, the inventor of the present invention studies use of a module having a configuration different from that of the block module for the construction of the FLNG 1. Specifically, the inventor of the present invention studies use of a module having a configuration in which constructions constituting treatment units such as the above treatment devices are provided on a base, for the construction of the FLNG 1, and such a module including a base is referred to as a pallet module.

[0021]

As an example of the pallet module, Fig. 2 illustrates a schematic side view of a pallet module 51. In Fig. 2, the reference numeral 52 is a base, and a plurality of treatment devices 53 are provided on the base 52. Additionally, a pipe 54 attached to the treatment device 53, and a pipe rack 55 for supporting the pipe 54 are provided on the base 52. The number of treatment devices 53 provided on the base 52 is not limited to plural numbers as illustrated in Fig. 2, and may be one. It is

possible that the pipe 54 and the pipe rack 55 are not provided. As described above, the construction of the pallet module 51 is performed in a facility at a place different from that of the hull 11. Specifically, the base 52 is constructed, and the treatment device 53 is then mounted on this base 52. Further, the above pipe 54, pipe rack 55, and the like are mounted on the base 52 as necessary.

[0022]

Incidentally, in installing this pallet module 51 in the hull 11, it is conceivable that the base 52 is supported and lifted by a crane 56, and the base 52 is conveyed and installed to the deck of the hull 11. However, when the base 52 is suspended by a crane 56 in this way, a relatively large load is applied to the base 52. As a result, strain may occur in the base 52 as illustrated in Fig. 3. Fig. 4 is a schematic view illustrating another configuration example of the base 52. In the example illustrated in this Fig. 4, occurrence of the above strain is prevented by increasing the thickness of the base 52 more than the example illustrated in Fig. 2 to thereby increase the strength of the base 52. However, increasing the thickness of the base 52 in this way is uneconomical.

[0023]

In light of the above, in the first embodiment of

the present invention, the FLNG1 is constructed by installing a large number of pallet modules 51 described in Fig. 2 in the hull 11. The temporary jig 61 is used for conveyance of this pallet module 51 to the hull 11. Fig. 5 illustrates a schematic side view of the pallet module 51 to which the temporary jig 61 is attached. Also, Fig. 6 illustrates a schematic plan view of the pallet module 51 to which the temporary jig 61 is attached, and the hull 11. [0024]

A description of the hull 11 to which the pallet module 51 is conveyed in this way is given with reference to Fig. 6. A turret 12 is provided in a bow. The hull 11 is disposed on the ocean at the time of operating the FLNG1. A riser 13 for supplying NG to the gas-liquid separation unit 21 as described above, and a mooring line (not illustrated) for mooring the hull 11 are extended from the turret 12 toward the bottom of the water. A portion surrounded by the dot-dash frame in the drawing is an installation region 15 of the base 52 of the pallet module 51 on the deck 14. As illustrated in the drawing, the pallet modules 51 are respectively installed in a plurality of installation regions 15. A plurality of pedestals 16 for supporting the base 52 of the pallet module 51 are provided in each installation region 15. Note that the configuration of the hull 11 illustrated in Fig. 6 is an

example. The installation regions 15 are provided to form a row in the front-back direction in the right part and left part of the hull 11 in Fig. 6, but the layout of respective installation regions 15 is not limited thereto. [0025]

The temporary jig 61 is a frame composed of at least a plurality of vertical columns 62 and beams 63 connecting a plurality of columns 62 to each other. The columns 62 are disposed, for example, along the peripheral part of the base 52 with a space interposed therebetween, and also provided at the center of the base 52. The beams 63 are vertically provided in a plurality of stages, for example. The number of such columns 62 and the number of stages of such beams 63 are optionally set so that deformation of the base 52 is prevented upon conveying each pallet module 51 as described later. Each column 62 is configured to be attachable and detachable to the base 52 with a fixing tool such as a bolt, or welding or cutting. Further, a diagonal member may be added, as necessary, in addition to the column 62 and the beam 63. As described later, the temporary jig 61 may be repeatedly used among the pallet modules 51 in this example. In this case, the temporary jig 61 can be commonly used in respective pallet modules 51. Incidentally, a temporary jig 61 having a different size may be used.

[0026]

The hull 11 and the tanks 43 and 44 included in the hull 11 are constructed in parallel with the construction of the pallet modules 51 described above. An example of the production process of the FLNG 1 using the above temporary jig 61 after each of the pallet module 51 and the hull 11 including the tanks 43 and 44 are constructed in this way will be described using Figs. 7 to 12.

Specifically, Figs. 7 to 12 illustrate a state in which two pallet modules 51 out of a plurality of constructed pallet modules 51 are conveyed from a pedestal 18 provided in a facility 17 in which modules stand ready to be conveyed to the hull 11 which is waiting at the quay, and installed.

[0027]

The temporary jig 61 is first attached to one of the pallet modules 51 (Fig. 7). Subsequently, the temporary jig 61 is supported and lifted by the crane 56, and the pallet module 51 is conveyed onto the deck 14 of the hull 11 (Fig. 8). A stress is applied to the temporary jig 61 suspended by the crane 56 at that time, whereby a stress applied to the base 52 is reduced compared to a case of lifting the base 52 by the crane 56 as illustrated in Fig. 3. In other words, the concentration of the stress on the base 52 is suppressed, and the stress is distributed to the temporary jig 61. As a result, deformation of the base 52

is prevented.

[0028]

Then, the base 52 is installed and fixed in the pedestal 16 of the deck 14 of the hull 11 (Fig. 9), and the fixing between the base 52 and the temporary jig 61 is released. The temporary jig 61 is lifted by the crane 56 (Fig. 10) and returned to the facility 17. After this operation, the temporary jig 61 is attached to another pallet module 51 (Fig. 11), and this pallet module 51 is conveyed onto the pedestal 16 of the hull 11 in the same manner as in the pallet module 51 which has been first conveyed to the hull 11. Then, this pedestal 16 and the base 52 of the pallet module 51 are fixed (Fig. 12).

[0029]

A large number of the pallet modules 51 are conveyed to the hull 11 as described above, and the other pallet modules 51 are conveyed in the same manner as in the two pallet modules 51 described in Figs. 7 to 12. In other words, the temporary jig 61 is attached to the pallet module 51 which has not been conveyed, and this pallet module 51 is conveyed to the hull 11. Thereafter, the temporary jig 61 is removed from the pallet module 51 which has been conveyed. Then, the temporary jig 61 is attached to another pallet module 51 which has not been conveyed. Whereby, the pallet modules 51 are sequentially conveyed to

the hull 11.

[0030]

According to the production method of the FLNG 1 in the first embodiment, a construction including the treatment device 53 constituting the NG liquefaction apparatus can be constructed as the pallet module 51 during the construction of the hull 11 including tanks 43 and 44. Further, conveyance is performed by utilizing the base 52 of the pallet module 51. Therefore, the necessity of construction of a large and complicated frame enclosing the treatment device 53 is eliminated compared to a case of using the box module described above. Moreover, utilization of the temporary jig 61 for conveyance suppresses the thickness of the base 52, which can prevent increase in the construction cost of the base 52. Thus, according to this production method, it is possible to reduce the construction period of the FLNG 1 and also reduce the production cost of the FLNG 1. Further, the temporary jig 61 is commonly used among the plurality of pallet modules 51, and therefore the production cost of the FLNG 1 can be reduced.

[0031]

Incidentally, the base 52 is illustrated as a plate-like body in each drawing, but is not limited to such a plate-like body, and may be, for example, a frame.

Additionally, the temporary jig 61 is not always removed from the pallet module 51 after the pallet module 51 is installed in the hull 11. For example, the temporary jig 61 may be kept attached to the pallet module 51 which has been lastly conveyed to the hull 11 among the large number of pallet modules 51. Also, a configuration is not restricted to a case where the temporary jig 61 is commonly used among the plurality of pallet modules 51, and conveyance can be performed by providing the temporary jig 61 for each module.

[0032]

In the first embodiment, the treatment device is mounted on a place (on the base) where the treatment device is operated, as described above, whereas in the second embodiment of the present invention which will be described next, the treatment device is mounted on a hull structure block. A description will be given focusing on the difference between the first embodiment and the second embodiment. In the second embodiment, constructions such as the above treatment devices 53 are constructed on a block constituting the hull 11 to form a pallet module. The above block includes the deck of the hull 11 as a plate-like body which forms a base for supporting each construction constituting the module. This deck includes the deck 14 which is an upper deck among a plurality of

decks provided in the hull 11 as described above. In other words, the block constituting the pallet module may include a part of the hull structure connected to the deck 14.

[0033]

Fig. 13 illustrates a schematic side view of a block 72 as an example of the block as described above. This block 72 includes only the deck 14 and a structure member attached to the deck 14. Fig. 13 illustrates the block 72 before and after the treatment device 53 is constructed. Fig. 13 also illustrates a pallet module formed by constructing the treatment device 53 on the block 72, as the reference numeral 71. Further, Fig. 14 illustrates a schematic perspective view of the above block 72. The block 72 is composed of the deck 14 and a lattice beam 73 which is a structure member supporting this deck 14. The lattice beam 73 is composed of, for example, vertical plates, and is connected to the deck 14 from the lower side.

[0034]

In the second embodiment, the construction of the pallet module and the construction of the hull 11 and the tanks 43 and 44 included in the hull 11 are performed in parallel, in the same manner as in the first embodiment. Hereinafter, an example of the production method of the FLNG 1 using the constructed pallet module 71 will be given with reference to Figs. 15 and 16. Respective reference

numerals 74 in the drawings indicate blocks which each constitute the hull 11 and are vertically stacked and fixed. The tanks 43 and 44 are provided inside the laminate of the blocks 74 (only the tank 44 out of the tanks 43 and 44 is illustrated).

[0035]

First, the block 72 of the pallet module 71 is supported by the crane 56 to suspend the pallet module 71, and the pallet module 71 is conveyed onto the hull 11 in the same manner as in the first embodiment (Fig. 15). Then, the block 72 is lowered onto the laminate of the blocks 74 constituting the hull 11 to install the block 72. The block 72 is then fixed to and integrated with the block 74 (Fig. 16). Such conveying and fixing of a plurality of pallet modules 71 to the hull 11 are performed. In suspending the pallet module 71 by the crane 56, the deck 14, which is a base for supporting the treatment device 53, is reinforced by the lattice beam 73 which is a reinforcing member. Therefore, deformation of the deck 14 is prevented.

[0036]

In this second embodiment also, the construction of the hull 11 and the construction of the pallet module 51 can be performed in parallel, in the same manner as in the first embodiment. Thus, the construction period of the FLNG 1 can be reduced. Also, there is no need to form a

large and complicated frame enclosing the treatment device 53 compared to a case of using the box module described above. Therefore, reduction in the production cost of the FLNG 1 can be achieved. Further, the lattice beam 73 which constitutes the block 72 forming the hull 11 is utilized as a reinforcing member at the time of suspending the deck 14. Thus, even larger reduction in the production cost can be achieved. Also, there is no need to remove this reinforcing member after the module is installed in the hull 11, and therefore reduction in the construction period can be further achieved.

[0037]

In the second embodiment, the shape of the beam provided downward of the deck 14 as described above is not limited to the lattice beam, but can be appropriately set. Further, the structure member connected to the lower side of the deck 14 is not limited to a structure member composed of one stage of beam as in the example described above. The structure member may include columns connected by the beam, a bed supporting the column or beam, or the like. Accordingly, the structure member may be composed of, for example, a plurality of columns 62 and a plurality of beams 63 vertically provided in a plurality of stages, as in the temporary jig 61 of the first embodiment. Further, the base 52 of the first embodiment may include the lattice

beam 73 as in this second embodiment. Further, the natural gas liquefaction apparatus constituting the FLNG is not limited to the configuration example illustrated in Fig. 1. For example, the pretreatment which has been described as a treatment in the hot end unit 2 is performed on the land, and a subsequent natural gas liquefaction treatment can be performed by the natural gas liquefaction apparatus constituting the FLNG. In other words, the FLNG is only required to have a configuration including at least the above cold end unit 3. In a case of constructing the FLNG having such a configuration, the above described respective embodiments can be applied.

[0038]

It should be construed that embodiments disclosed herein are given by way of illustration in all respects, not by way of limitation. The above embodiments may be omitted, substituted, or modified in various forms without departing from the scope and spirit of the appended claims.

Reference Signs List

[0039]

- 1 FLNG
- 11 Hull
- 13 Riser
- 14 Deck

2 Hot end unit
3 Cold end unit
51, 71 Pallet module
52 Base
53 Treatment device
61 Temporary jig

CLAIMS

1. A method of producing a floating facility including a natural gas liquefaction apparatus, the natural gas liquefaction apparatus including at least a cold end unit that liquefies natural gas,

the method comprising:

a step of providing a treatment device constituting the natural gas liquefaction apparatus on a base; and

a step of suspending the base, and then conveying and installing the base to a floating unit disposed on the ocean at the time of operating the natural gas liquefaction apparatus; wherein

the step of conveying and installing the base to the floating unit includes a step of conveying a reinforcing member that prevents deformation of the base caused by a load applied to the base when the base is suspended, to the floating unit along with the base.

2. The method of producing a floating facility according to claim 1, wherein

the reinforcing member is a jig composed of at least a plurality of columns provided on the base and a beam connecting the plurality of columns; and

the step of conveying and installing the base to the floating unit includes a step of suspending and conveying the jig.

3. The method of producing a floating facility according to claim 2, further comprising a step of removing the jig from the base after the base is installed in the floating unit.

4. The method of producing a floating facility according to claim 3, wherein

the step of conveying and installing the base to the floating unit includes a step of conveying and installing each of a plurality of the bases to the floating unit; and

the jig is commonly used for conveying the plurality of the bases.

5. The method of producing a floating facility according to claim 1, wherein

the floating unit is a hull;

the base is a plate-like body forming a deck of the hull; and

the reinforcing member includes a structure member connected to a lower side of the plate-like body.