【CLAIMS】

【Claim 1】

A support structure of a large floater using a guide pile, comprising:

a large floater floating on the sea;

at least one guide pile vertically inserted into the large floater to enable the large floater to move vertically; and

a base structure installed on a seabed surface, a lower portion of the guide pile being coupled to the base structure,

wherein the large floater includes a plurality of pile sleeves having the guide piles inserted thereinto and including at least one shock absorbing member.

wherein the guide pile is made from at least one of steel, high strength concrete, and watertight coated light weight concrete, and includes an outside reinforcing member and an inside reinforcing member made of a metal material, and futher includes a concrete part formed by casting concrete between the outside reinforcing member and the inside reinforcing member, and futher includes a outermost reinforcing member made of a stainless material to prevent a corrosion.

【Claim 2】

The support structure of a large floater using a guide pile of claim 1, wherein the large floater further includes at least one of a storage unit, a system for producing, storing, and loading and unloading liquefied gas, a system for producing, storing, and loading and unloading hydrocarbon, and a system for storing or loading freights.

【Claim 3】

The support structure of a large floater using a guide pile of claim 2, wherein the liquefied gas includes at least one of liquefied natural gas, liquefied petroleum gas, natural gas liquid, crude oil, and natural gas.

【Claim 4】

The support structure of a large floater using a guide pile of claim 2, wherein the large floater is made of at least one of metal, high strength concrete, and watertight coated light weight concrete.

【Claim 5】

The support structure of a large floater using a guide pile of claim 1, wherein the base part is fixed to the seabed surface by at least one base fixing pile and includes at least one guide pile tube to which the lower portion of the guide pile is fixed.

【Claim 6】

The support structure of a large floater using a guide pile of claim 2, wherein the large floater includes at least one ballast tank.

【Claim 7】

The support structure of a large floater using a guide pile of claim 1, wherein the pile sleeve includes a sleeve fixing part fixed to the large floater and a pile fixing part into which the guide pile is inserted.

【Claim 8】

The support structure of a large floater using a guide pile of claim 7, wherein the pile fixing part includes:

a pile hole having the pile sleeve inserted thereinto;

an inside guide member located at a portion to which an outer circumferential surface of the guide pile is bonded;

an outside guide member forming an appearance of the pile fixing part and located at an outside; and

the plurality of shock absorbing members located between the inside guide member and the outside guide member and spaced apart from each other by a predetermined distance.

【Claim 9】

The support structure of a large floater using a guide pile of claim 8, wherein the shock absorbing member is made of an elastic material.

【Claim 10】

The support structure of a large floater using a guide pile of claim 1, further

comprising:

a fender located on an outer circumferential surface of the large floater and absorbing shocks and vibrations from the outside.

【Claim 11】

The support structure of a large floater using a guide pile of claim 10, wherein the fender is made of at least one of steel, high strength concrete, and watertight coated light weight concrete.

【Claim 12】

A method for installing the support structure of a large floater using a guide pile of any one of claims 1 to 11, comprising:

installing a base fixing the base part to the seabed surface (S10);

transporting the floater to transport the large floater and the guide pile manufactured on a land to the sea where the base part is located using a carrier (S20); and

fixing the floater to fix the guide pile to the base part (S30).