【CLAIMS】

【Claim 1】

A generator for a vessel connected to an engine room accommodating an engine provided with a crankshaft, the generator for a vessel comprising:

a detachable vibration prevention unit connected to the crankshaft and having a predetermined level of mass to reduce vibrations of the engine;

a rotor unit connected to and supported by the detachable vibration prevention unit;

a stator unit fixed to the engine room to face the rotor unit;

a cooling unit connected to the stator unit; and

an exciter connected to the crankshaft and the stator unit,

wherein the detachable vibration prevention unit comprises,

a support body having one end connected to the crankshaft and the other end extending in a radial direction of the crankshaft; and

an anti-vibration member provided to be coupled to, or separated from, a surface of the support body, and having a predetermined level of mass,

wherein the rotor unit comprises a rotor spaced apart from an outer circumferential surface of the crankshaft by being connected to the support body.

【Claim 2】

The generator for a vessel of claim 1, wherein the detachable vibration prevention unit further comprises a sub-support body coupled to the one surface of the support body and having an end extending by being bent in a longitudinal direction of the crankshaft, and

the rotor unit comprises the rotor fixed to the sub-support body and disposed parallel to the crankshaft.

【Claim 3】

The generator for a vessel of claim 1, wherein the anti-vibration member comprises,

a first anti-vibration member provided to be coupled to or separated from one surface of the support body and having a predetermined level of mass; and

a second anti-vibration member provided to be coupled to or separated from the first anti-vibration member, and having a predetermined level of mass.

【Claim 4】

The generator for a vessel of claim 3, wherein the detachable vibration prevention unit comprises,

the support body having a screw groove in one surface to

which the anti-vibration member is coupled;

the first and second anti-vibration members each having a fastening hole corresponding to the screw groove; and

a fastening member having an end penetrating through the fastening hole and inserted into the screw groove.

【Claim 5】

The generator for a vessel of claim 2, wherein the rotor is fixed to an extension of the sub-support body by a bolt.

【Claim 6】

The generator for a vessel of any one of claims 1 to 5, wherein the stator unit comprises,

a first frame coupled to the engine room;

a second frame connected to the first frame and to which a stator is connected;

a third frame having one side connected to the second frame and an end extending in an outer circumferential direction of the crankshaft; and

a fourth frame connected to the end of the third frame.

【Claim 7】

The generator for a vessel of claim 6, wherein the exciter comprises,

an exciter rotor connected to the crankshaft; and

an exciter stator connected to the fourth frame, to face the exciter rotor,

wherein at least a portion of the exciter rotor and the exciter stator is present within an extension line of an outer circumferential surface of the rotor.

【Claim 8】

The generator for a vessel of claim 6, wherein the cooling unit comprises,

a cooling housing connected to the second frame;

a cooler present in the cooling housing;

an air pump fixed to the outside of the cooling housing; and

an air duct connected to the air pump, the fourth frame, and the crankshaft.

【Claim 9】

The generator for a vessel of claim 8, wherein the cooling unit further comprises an air guide member connected to the third frame and having an end bent and extending to face the rotor.

【Claim 10】

The generator for a vessel of claim 2, wherein the cooling unit comprises a first cooling fan connected to an end of the

sub-support body and having an end extending toward the outer circumferential surface of the crankshaft.

【Claim 11】

The generator for a vessel of claim 7, wherein the exciter rotor is connected to the crankshaft by a coupling member, and

the cooling unit comprises a second cooling fan connected to the coupling member and having an end extending toward an outer circumferential surface of the rotor.

【Claim 12】

The generator for a vessel of claim 1, wherein the detachable vibration prevention unit further comprises a first sealing member provided on at least one of the support body and the anti-vibration member, and extending in a direction of the stator unit.

【Claim 13】

The generator for a vessel of claim 6, wherein the stator unit further comprises a second sealing member provided on at least one of the first frame and the second frame, and extending in a direction of the crankshaft.

【Claim14】

The generator for a vessel of claim 9, wherein the air duct and the air guide member are provided as non-magnetic bodies.

【Claim 15】

The generator for a vessel of claim 12, wherein the first sealing member is provided as a non-magnetic body.

【Claim 16】

The generator for a vessel of claim 13, wherein the second sealing member is provided as a non-magnetic body.

【Claim 17】

A generator for a vessel connected to an engine room accommodating an engine provided with a crankshaft, the generator for a vessel comprising:

a detachable vibration prevention unit connected to the crankshaft, and having a predetermined level of mass to reduce vibrations of the engine;

a rotor unit connected to and supported by the detachable vibration prevention unit;

a stator unit fixed to the engine room, to face the rotor unit;

a cooling unit connected to the stator unit; and

a flow guiding unit connected to the crankshaft and the stator unit,

wherein the detachable vibration prevention unit comprises,

a support body having one end connected to the crankshaft and the other end extending in a radial direction of the crankshaft; and

an anti-vibration member provided to be coupled to, or separated from, a surface of the support body, and having a predetermined level of mass,

wherein the rotor unit comprises a rotor spaced apart from an outer circumferential surface of the crankshaft by being connected to the support body.

【Claim 18】

The generator for a vessel of claim 17, wherein the stator unit comprises,

a first frame coupled to the engine room;

a second frame connected to the first frame and to which a stator is connected; and

a third frame having one side connected to the second frame and an end extending in an outer circumferential direction of the crankshaft,

wherein the flow guiding unit is connected to the crankshaft and the third frame.

【Claim 19】

The generator for a vessel of claim 18, wherein the flow guiding unit comprises,

a first flow guide frame connected to the third frame and provided to be inclined; and

a second flow guide frame connected to the crankshaft, and extending in a direction of the first flow guide frame in such a manner that an end thereof is spaced apart from the first flow guide frame.

【Claim 20】

The generator for a vessel of claim 18, wherein

the stator unit comprises the stator connected to the second frame and facing the rotor.

【Claim 21】

The generator for a vessel of claim 20, wherein the engine room comprises an engine room cover, and

the stator unit comprises the first frame coupled to the engine room cover of the engine room,

wherein the engine room cover and the first frame are provided with a first connection pad therebetween, provided as a non-magnetic body.

【Claim 22】

The generator for a vessel of claim 20, wherein the support body and the crankshaft are provided with a second connection pad therebetween, provided as a non-magnetic body.