CLAIMS

【Claim 1】A caterpillar device comprising:

a water film removing part which is provided in a power transmission member including chains, presses and removes a water film between an attachment object as a magnetic material and the power transmission member with a magnetic force, and attaches the power transmission member to the attachment object to secure a frictional force; and

an apparatus body magnet attachment part which is connected to the power transmission member and attaches the body of the apparatus to the attachment object,

wherein the water film removing part includes a ferromagnetic body removably coupled to the power transmission member, a water film removing magnet coupled to the ferromagnetic body and a friction member coupled to the water film removing magnet,

wherein a water drainage groove is provided in the friction member, and

wherein the water film removing magnet, the ferromagnetic body and the friction member are stacked in a consecutive order.

【Claim 2】The caterpillar device according to claim 1, wherein the chains are provided to interconnect a plurality of unit chains each having an attachment member, and

wherein the ferromagnetic body is removably coupled to the attachment member.

【Claim 3】The caterpillar device according to claim 1, wherein the water film removing magnet includes one of a permanent magnet and an electromagnet.

【Claim 4】The caterpillar device according to claim 1, wherein the friction member is made of one selected from a group consisting of silicone, rubber and urethane.

【Claim 5】The caterpillar device according to claim 1, wherein at least one of the ferromagnetic body and the water film removing magnet is treated with molding or coating.

【Claim 6】The caterpillar device according to claim 1, wherein the apparatus body magnet attachment part includes:
a plurality of balance blocks each having a supporting shaft; and
a block sprocket which is coupled to the supporting shaft and is connected to the power transmission member in a chain-driving manner.

【Claim 7】The caterpillar device according to claim 6, wherein the apparatus body magnet attachment part further includes a block magnet provided in each of the plurality of balance blocks.

【Claim 8】The caterpillar device according to claim 7, wherein the apparatus body magnet attachment part further includes a magnetic shielding block which is provided in each of the

plurality of balance blocks and shields a magnetic field generated in the block magnet.

【Claim 9】The caterpillar device according to claim 7, wherein the block magnet includes one of a permanent magnet and an electromagnet.

【Claim 10】The caterpillar device according to claim 1, further comprising a tension adjusting part which supports the power transmission member of the water film removing part to adjust the tension of the power transmission member.

【Claim 11】The caterpillar device according to claim 10, wherein the tension adjusting part includes:
a tension sprocket which is connected to the power transmission member in a chain-driving manner and supports the power transmission member; and
a tension support shaft which is coupled to the tension sprocket and supports the tension sprocket.

【Claim 12】The caterpillar device according to claim 1, wherein the water film removing part is provided in two rows, and
wherein the apparatus body magnet attachment part is interposed between the water film removing parts arranged in two rows and has both ends connected to the power transmission member.

【Claim 13】The caterpillar device according to claim 1, wherein the caterpillar device is used for at least one of cleaning and inspection of the bottom of a ship.