CLAIMS

1. A propeller cap (20,30) for reducing hub vortex cavitation and improving propulsive efficiency configured to be manufactured at a low cost more easily in a simple configuration, as compared with the existing PBCF, the propeller cap having:

a first diffusive section (21,31) having a diameter that increases from an end of a propeller as it goes away from the propeller;

a straight section (22,32) horizontally extending from the first diffusive section (21,31);

a contractive section (23,33) extending from the straight section (22,32) and having a diameter that decreases as it goes away from the propeller; and

a second diffusive section (24,34) extending from the contractive section (23,33) and having a diameter that increases as it goes away from the propeller.

2. The propeller cap of claim 1,

wherein the propeller cap (20,30) is convexly formed at a front portion by the first diffusive section (21,31), so pressure at a pressure side of the propeller increases and propulsive efficiency is improved,

pressure of a flow passing the propeller cap (20,30) from the propeller is recovered by the contractive section (23,33), so the propulsive efficiency is improved, and

rotational flow (vortex) of a flow from the propeller is weakened by the second diffusive section (24,34), so hub vortex cavitation is reduced.

3. The propeller cap of claim 1, wherein inclination angles of the first diffusive section (21,31) and the second diffusive section (24,34) are set to equal to or below 40°.

4. The propeller cap of claim 1, wherein a side of the contractive section (23,33) is formed straight.

5. The propeller cap of claim 1, wherein a side of the contractive section (23,33) is curved to be convex outwardly with a predetermined curvature.

6. The propeller cap of claim 1, wherein a side of the contractive section (23,33) is curved to be convex inwardly with a predetermined curvature.