
Low-resistance hull system

▶ Propeller boss cap fins System introduction

Propeller boss cap fins (referred to as vortex-eliminating fins) are a type of energy-saving auxiliary device installed on the propeller boss cap (i.e., the cylindrical protrusion at the center of the propeller) of ships. The core principle is that when the propeller rotates, the fins of the propeller boss cap fins generate a reverse thrust and turbulence effect on the boss cap vortex, which on the one hand offsets the rotational energy of the vortex and reduces energy waste; on the other hand, optimizes the flow field around the boss cap, allowing water to flow more smoothly through the propeller, thereby improving propulsion efficiency.

▶ System composition

Mechanical structure: made of high-strength corrosion-resistant alloys (such as nickel-aluminum bronze, stainless steel);

▶ Advantages and characteristics

Energy saving and consumption reduction: Achieves an average energy saving of 1.5-3% per unit

Simple structure and convenient installation: Can be integrated into new ships during the design phase; for old ship retrofits, it can be quickly installed through positioning marks during docking;

Convenient maintenance: The fins only require regular inspection and cleaning.

▶ Application scenarios

It is applicable to both new ships and retrofits of old ships, and is effective for various ship types such as LNG carriers, bulk carriers, and container ships.

