

# Technical advantage of water lubricated bearing

## Green environmental protection

Lubricated bearing uses water as lubricant, without considering environmental pollution caused by leakage, and has natural environmental advantages. In 2013, the US Environmental Protection Agency (EPA), in order to prevent contamination of the sea area caused by the leakage of lubricating oil, pointed out in the newly issued general licensing of ships (Final 2013 VGP) that all ships entering the US waters (3 nautical miles) must use environmentally friendly lubricants (EAL) at the oil-water interface. Maintenance of stern tube seals. This has virtually increased the operation cost of ships, and will be punished at a high price once a large area is leaked. The use of water lubricated bearings can solve difficult environmental problems.

## Simple structure

Because there is no need to worry about leakage, the sealing structure of water lubricated bearing is much simpler than that of oil lubricated bearing. According to actual needs, many times, it can be designed as an open structure. This saves the complex circulation oil circuit, facilitates the use and maintenance, and saves the manufacturing cost.

## High safety in use

In the running process of water lubricated bearings, water is both lubricant and coolant, and the specific heat of water is more than 2 times that of oil. The cooling effect is good, and there is no overheating phenomenon in long time running. In addition, even if there is no water, there will be no safety accidents such as axle holding. Once the lubricating oil of the oil lubricated bearing is leaked in large quantities, the bearing is easily occluded with the shaft due to the heat generated by friction, and it is very easy to occur the malignant accident such as the equipment can not operate. Therefore, at present, the world's naval ships use water lubricated bearings, and safety performance is the primary reason for its widespread adoption.

## Save resources

First of all, water lubricated bearings use water as lubricant, which can save a lot of lubricating oil consumption. Secondly, water lubricated bearings are mostly made of synthetic materials, which can save a lot of consumption of non-ferrous metals such as copper and tin.