PROTECTION TO PROPELLER SHAFT
Shaft Grounding System

Shaft Grounding essential for the protection your propeller shaft from Corrosion

EICS Technology Shaft Grounding Device are designed to ensure that a complete and total Cathodic Protection is applied to the entire wetted surface area of the hull. Even as adequate protection has been installed to the Hull such as Impressed Current Cathodic Protection System or Sacrificial Zinc or Aluminium Anodes would still causes corrosion on the propeller bearings and etc.

PRODUCT DETAILS

High Quality Brushes
Our Brushes are manufactured with 80% Silver and 20% Graphite. This recipe provides a high electrical continuity and wear resistance.

High Quality Brush Holder
Brush Holder is crucial to maintain the Silver Graphite brush contact with the Slip Ring and Shaft constantly.

High Quality Slip Ring
Slip Ring made of 75% silver that ensure durable and continuity during operation.
Complete Cathodic Protection
Shaft Grounding System will be required to protect the Shaft Bearing even if the vessel is installed with ICCP System or Sacrificial Anodes.

Prevents Corrosion
Prevents Corrosion on Bearings, Propeller Tips and Propelller.

WHY DO YOU NEED SHAFT EARTHING SYSTEM
Complete Cathodic protection should be installed together with any Cathodic protection systems that is applied to the Hull.

The Shaft Earthing System is essential for any vessel that has installed either an Impressed Current Cathodic system or Sacrificial Anodes as commonly the propeller bearings, propeller tips are usually left unprotected. Which could incur high cost during dry dock, where further repairs will need to be carried out on the Propeller. The system consist of a Digital or Analog type potential monitoring panel, Silver Graphite brushes, brush holder and accessories to aid installation.

SPARK EROSION
When two current carrying dissimilar metals in contact, a spark travels at the point of contact which erodes the metal by making a cavity.

On the vessels, many variety of metals are used for different parts of the vessel such as the Propeller, Hull, Bedplate, Crankshaft and shaft bearing. The current from the either the impressed Current Cathodic system or Sacrificial Anode which would potentially create a spark erosion.

However, the propeller which usually is a larger surface area which is able to attract protective the ICCP current that produces an arc while discharging from the Lubricating film. This causes spark erosion to form on the bearings, leading to lubrication oil contaminating the sea water. If it is not attended to, over long period of time it will lead to overheating of the main engine bearing caused by lubrication from spark erosion.