

1.Application Documents

参考文献

1.1 Sacrificial anode design and installation(GB8841-88)

牺牲阳极的设计与安装 GB8841-88

2.Technical Requirements

技术要求

2.1 The vessel registered in DNV class

本船入DNV船级社

2.2 The zinc anodes in water ballast tanks for 5 years life span.

压载水舱的牺牲阳极设计寿命为5年

2.3 The zinc anodes outside rudder for 5 years life span.

外部舵叶的牺牲阳极设计寿命为5年

3.Calculation For The Sacrificial Anode

牺牲阳极计算

3.1 The zinc anodes chosen as followings:

选用的牺牲阳极为

3.1.1 THE anodes in W.B.tank is Al-Zn-In,with weight 7.4Kg,and dimension is (90+110)x300x100mm.

压载水舱中的阳极为铝-锌-镉合金,重量为7.4Kg,尺寸(90+110)x300x100mm.

3.1.2 THE anodes for outside rudder is Al-Zn-In,with weight 11.25Kg, and dimension is 600x150x50mm.

舵叶外的阳极为铝-锌-镉合金,重量为11.25Kg,尺寸600x150x50mm.

3.2 The Calculation For The Out Put Current Of Above Two Type Of Anodes

选用的两种阳极的发生电流计算

3.2.1 Calculation Fomular

计算公式

$$I_f = \frac{\Delta E \times 1000}{R}$$

 I_f -the out put current of the sacrificial anodes(mA)

牺牲阳极的发生电流量(mA)

 ΔE -the driving voltage of sacrificial anode.For zinc anode is 0.25V.

牺牲阳极的驱动电位,锌阳极时取0.25V

R-The resistance(water touching) of the anode

牺牲阳极的接水电阻