

Motor for Seawater Ballast Pumps on Oil Rig

Application market	Industry
Market segment	Oil & Gas
Pumped medium	Seawater
Pump product	Immersible motor with external cooling circuit
Country	Singapore and Worldwide



Challenge

For ballast pumps used on oil platforms, the customer used to have standard IP55 electric motors. In the event of an accident, the pump room was completely flooded, the electric motors and thus also the ballast pumps failed, the entire platform became unstable and finally sank completely. After this tragedy, a much more reliable drive solution was undoubtedly required for the ballast pumps. Various extended requirements were placed on the new drive, including the need to ensure reliable pump operation up to a motor immersion depth of forty (40) meters. The engine must further meet with the DNV Marine Classification Standard.

Solution

The choice fell on a Hidrostaal motor with external cooling that fulfils all criteria. Motor cooling is provided via a circuit where seawater circulates as cooling liquid in the space between the Duplex stainless steel coolant jacket and engine housing.

Benefits

The high requirements and strict criteria of the customer could all be fulfilled completely and reliably.

- Safe operation of the ballast pumps and the entire platform
- High protection against flooding with self-cooling submersible driven ballast pumps

Quantity of units sold	8
Pump type	NF315X6
Motor data	85 kW / 1189 rpm
Material combination	Cast iron motor body with Duplex stainless steel stator housing
Duty point	Flow: 125 litres per second / Head: 52 meters
In operation since	2008