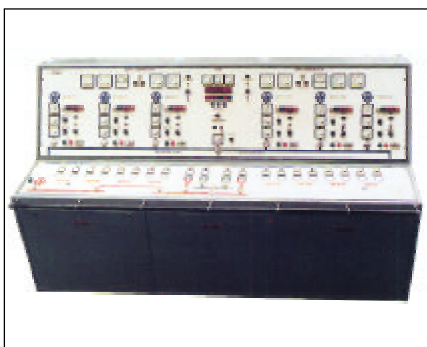
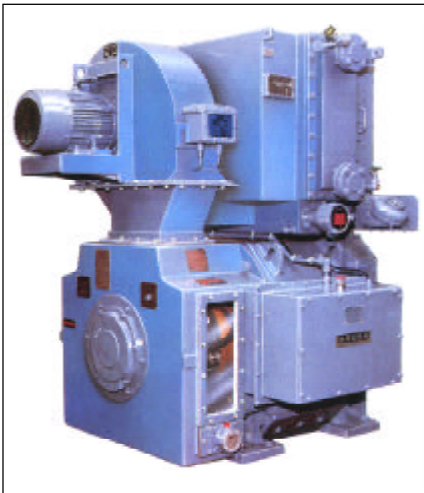


SEMI-SUBMERSIBLE DYNAMICALLY POSITIONED DRILLING VESSEL**OCEAN ALLIANCE**

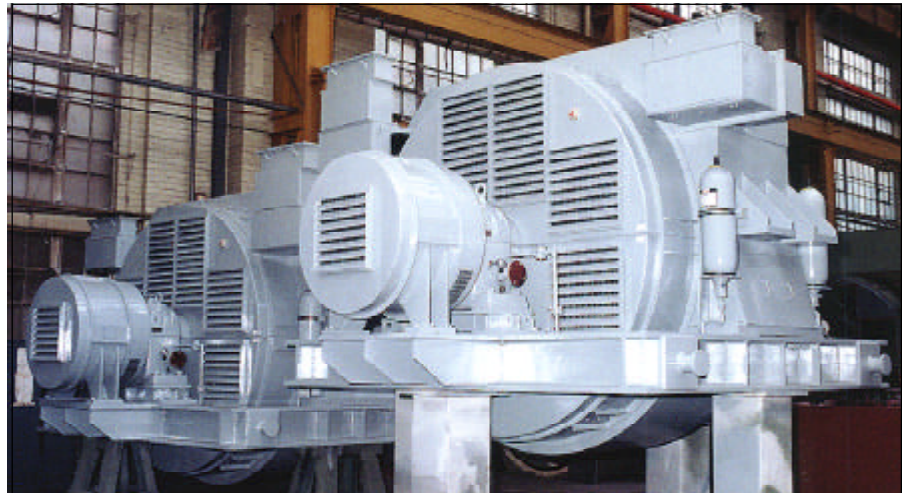
Central control and mimic console

Brush supplied the complete 28MW, 6.6kV power system of six generators and 32 motors, including sixteen 1500kW propulsion motors for this 45000 tonne vessel, built by Scott Lithgow, Scotland, for operation by Benline-Odeco for Britoil. Ocean Alliance is one of the world's largest dynamically positioned drilling rigs, capable of operating in more than 1800 metres of water, and is now currently operated by Diamond Offshore Drilling (UK) Ltd. The vessel is classified to ABS Rules.

When working in water up to 460m deep, the vessel is anchored; up to 915m it operates with thruster assistance; beyond that, and up to 1830m, station keeping is through dynamic positioning by eight controllable pitch azimuth thrusters, each driven by two Brush ac induction motors. The 6.6kV power system has a total capacity of 28MW and is controlled by a Brush "Prismic" power management system.



One of the eight drilling motors

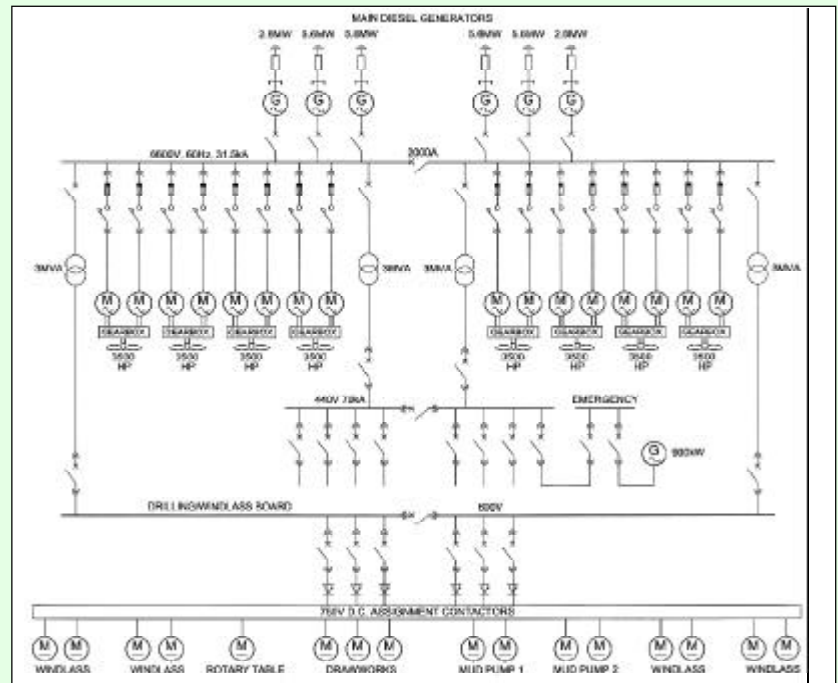


Two of the four 5.6MW diesel driven generators



One of the eight anchor windlass motors

One line diagram of electrical system



Liaison was undertaken with:

Rolls-Royce Crossley for Pielstick main engines.

Woodward for governor controls.

SIMRAD for dynamic positioning system.

Schottel for thrusters.

Summary of equipment supplied by BEM:

- 4 5.6MW 6.6kV 514 rev/min diesel generators.
- 2 2.8MW 6.6kV 514 rev/min diesel generators.
- 1 6.6kV 31.5kA vacuum circuit breaker and starter board.
- 16 1500kW motors for the eight 2600kW propulsion thrusters.
- 4 3000kVA transformers for 600V and 440V supplies.
- 8 850hp dc drilling, rotary table, drawworks, and mud pump motors, BASEEFA approved.
- 8 850hp dc anchor windlass motors.
- 1 600V/SCR drilling package (by Hill Graham Controls).
- 1 Prismatic engine power management computer system.
- 1 Central control and mimic console.
- 1 Complete 440/220V distribution switchgear and motor starter system.
- 1 924kW emergency diesel generator set suitable for operation at 35 degrees inclination (by Aggreko-Cummins).
- 1 Drawworks brake battery system.



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