

MID has proven capability with providing project related electrical support services, professional electrical engineering and project management in regard to electrical power generation, power management, distribution and control for new-builds, conversions, upgrades, surveys and dockings.

Electrical engineering services including;

- Electrical specification development
- Principle electrical schematic designs
- Detailed circuit diagrams
- Control system applications
- Cable calculations and scheduling
- Project cost budgeting estimates
- As Built documentation & drawings



The MID electrical design engineering services are provided in conjunction with our project management capability providing:

- Electrical Surveys, proposals
- Installation supervision
- Owners Representation
- Managing Class Society submissions and compliance
- Design coordination with Architects, Engineers, manufacturers & yards.



Our electrical design and project management services have been developed in conjunction with MID's naval architectural and engineering skills to provide our Owners and Clients with a complete professional project design engineering package.

MID has also acted on behalf of Clients assisting with an independent review & vetting of 3rd party engineering offers and electrical equipment installations.



Our experience has included marine and specialist land based installations for Clients on:

- Tugs & Barges
- Naval Vessels
- Ferries & Workboats
- Fishing factory ships & Seiners
- Super yachts, motor & Sail
- Racing Yachts
- Specialist marine equipment

59 M MOTOR YACHT NEW BUILD

In conjunction with a valued client and his preferred designer MID were asked to detail the electrical installation for his new motor yacht.

Based on a general arrangement and a list of preferred equipment manufacturers' hardware, MID developed the detailed specification required to meet the client's needs.



MID collated all the electrical power requirements to generate the overall electrical requirements for the vessel and then selected of the generation system, monitoring & control, distribution and reticulation to meet those scheduled loads. In addition to the medium voltage power system, there were low voltage DC systems and a complete propriety ship monitoring and alarm system.

The electrical engineering scope included providing adequate detailed drawings and schedules to satisfy the requirements of Flag and Class and to provide sufficient detail for the installer to execute the electrical installation and for the switchboard manufacturer to build the switchgear.

MID was then charged to provide installation supervision and document management and control for all the drawings and documentation, through to As Built status and project completion.

70 M VESSEL CONVERSION – to AUTR (DP II)

Utilising MID's Engineering and Naval Architectural expertise MID were charged with the design coordination of this vessel upgrade to Dynamic Positioning (DNV Class notation AUTR). The conversion concept was initially developed by the original Norwegian ship designers on behalf of the owners. MID was then charged with the design development of this concept through to fruition.

The electrical engineering scope included providing adequate detailed drawings and schedules to satisfy the requirements of Flag and Class and to provide sufficient detail for the conversation works tender.



One of the two new 1800kVA Gen. Sets

As a Class requirement of this level of DP, the Ship's alarm monitoring, fire detection, steering, communications and bridge controls were all upgraded. In addition to changes to the medium voltage power system, there was an upgrade for the low voltage DC Systems, completely new control wiring for the new 600 & 800 kW electrical thrusters' primary cabling, and redundancy for the DP control system.

MID participated in the successful DP capability Sea Trials and followed up with As Built documentation for the completion of the conversation.