

WOODWARD 2300E CONTROLLER RETROFIT FOR OFFSHORE VESSEL

OBSOLETE WOODWARD 723PLUS CONTROLLERS UPGRADED WITH WOODWARD 2300E CONTROLLERS

Goltens was engaged by the owner of an offshore supply vessel to upgrade two medium speed engines operating with obsolete Woodward 723Plus controllers. The retrofit was completed during a major engine service interval to ensure continued support and control continuity. Goltens recommended the installation of the Woodward 2300E for the upgrade as it closely matched the existing I/O requirements.

RETROFIT EXECUTION AND TESTING

Goltens saved the original configuration file from the 723 controls to ensure parameters such as number of teeth and rated speed were copied across to the new controller. Goltens also updated the original GAP™ application program to the latest version to ensure compatibility with the new 2300E controllers. The application program retained all the original logic functionality and I/O points. As the 2300E footprint is less than that of the 723 it was easily mounted in the same location and the wiring simply connected back to the 2300E. As part of the retrofit, Goltens also completed service of the existing UG actuators and overhaul of the main engines.

Prior to installation, the original cabling from the controls to the engines and ship systems were checked and tested and the MPU's inspected and adjusted. The converted 2300E software was simulated and the control tested within Goltens' facilities where the original configuration files were entered. After installation in the vessel, each I/O point was again tested and verified by the control. The updated wiring diagram and manual were also updated and provided to the customer.

RESULT

The retrofit was completed efficiently without affecting the operating philosophy of the engines. Both engines were started and completed dock and sea trials without any issues.

The client now enjoys the knowledge that the 2300E will be supported by Woodward and Goltens for many years into the future.

RECOMMENDATION

To avoid unwanted down time and associated costs it is recommended to assess your Woodward control inventory to ensure they are still supported. If they are not, then consider a retrofit as part of your fleet maintenance schedules where Goltens can offer an economical solution.

PROJECT FACTS: CONTROLS UPGRADE

Description: Retrofit Woodward 723Plus to Woodward 2300E
Location: Dubai Maritime City, U.A.E.



Figure 1: Project Vessel



Figure 2: 2300E Controller



Figure 3: 2300E Tuning via PC



Figure 4: Main Engine with UG Actuator