

Doenicke Tide BWTS Retrofit for IMO Regulations Compliance

CLIENT TIDEWATER

YEAR 2025

PLATFORM TYPE

Offshore Support Vessel

CLASS

ABS

SOW

Turnkey engineering, prefabrication support, mechanical and electrical installation



25

INSTALLATION DAYS

5

TEAM MEMBERS

0

DAYS DOWNTIME

CLIENT CONTEXT

Compliance without downtime

Tidewater, a leading operator of offshore vessels globally, required a retrofit of the Doenicke Tide with a ballast water treatment system to comply with international discharge regulations. The retrofit was executed while the vessel remained in operation, eliminating port downtime and ensuring continuous fleet readiness under tight scheduling constraints.

THE WORK TO BE DONE

Project phases

Develop and validate the engineering package using 3D laser scans, point-cloud collision checks, and fabrication drawings. Prefabricate foundations, piping spools, and supports. Supervise mechanical installation of filters, UV chambers, flowmeters, valves, pumps, and associated pipework, removing obsolete components. Perform electrical installation, including power distribution, cabinets, instrumentation, grounding, and automation integration. Conduct functional and leak testing, followed by complete handover documentation for commissioning.

THE CHALLENGE

In-service installation constraints

Voyage-based execution: Installation needed to be carried out without taking the vessel out of service, demanding precise coordination. Limited space: Integrating equipment into the cargo and engine room areas while minimizing disruption. Extreme working conditions: Installation was partially conducted while the vessel was in navigation, with temperatures reaching up to 50°C, demanding careful work planning and to maintain safety and productivity.

Involvement of GLO Marine throughout the project stages

01. Engineering and prefabrication

Full 3D scanning and point-cloud modeling for collision analysis. Prefabrication of spools, foundations for filters and UV chambers, backwash pump supports, and electrical cabinet bases.

02. On-site mechanical installation

Installation of foundations, filters, UV chambers, and backwash pumps. Piping installation including ballast pump tie-ins, overboard discharge lines, bypass lines, and check valves. Removal of outdated discharge spools and systems.

03. On-site electrical installation

Installation of control panels, sensor boxes, UV power cabinets, transformers, and interlock panels. Cable routing and terminations for motors and instrumentation (flowmeters, pressure transmitters, UV sensors, temperature switches). Pneumatic connections for automated valves.

04. Final testing and commissioning preparation

Hydrostatic testing of piping. Pneumatic leak testing. Final safety inspection, corrosion protection with zinc coating, and handover with complete installation dossiers.

The outcomes

Final results

- Retrofit completed in 25 days during vessel operation, avoiding dry-dock extension.
- Full compliance with ABS class and IMO D-2/USCG BWTS discharge requirements.
- Zero Lost Time Incidents (LTIs) throughout the project. Immediate readiness for commissioning upon handover.

By successfully completing the voyage-based retrofit, GLO Marine delivered a turnkey Optimarin BWTS solution for the Doenicke Tide, encompassing engineering, prefabrication, mechanical and electrical installation, and testing.

Executing the project without interrupting vessel operations demonstrated GLO Marine's capability as a trusted EPCI partner for complex, time-sensitive offshore retrofit programs.



OSV Doenicke Tide on station next to a jack-up unit, providing marine support during operations

GLO Marine

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