

3D LASER SCANNING AND SPACE SURVEY ONBOARD BULK CARRIER

SEVERN TRENT DE NORA BALPURE SYSTEM

Goltens Green Technologies was approached by the owner of a 90,000 DWT Bulk Carrier to perform a 3D Laser scan and space study onboard. The owner needed to resolve open questions about the proper location of the various components of the selected Balpure ballast water treatment system from Severn Trent De Nora.

Goltens technicians boarded the vessel and performed extensive scans of the vessel's engineering spaces in order to provide the customer with a variety of options for the ideal placement of the system. The results of the scan were then analyzed and overlays of the system components completed to find proper placement as well as identify required modifications to piping and cabling as well as any required relocation of equipment.

BALLAST WATER TREATMENT RETROFIT WORK CONSISTED OF:

- 3-D Scanning and Modeling
- Space Study detailing:
 - System placement options Filter recommendations (horizontal vs. vertical)
 - Required piping relocations
 - Switchboard modifications
 - Required cable rerouting
 - Routing for equipment transit to installation location

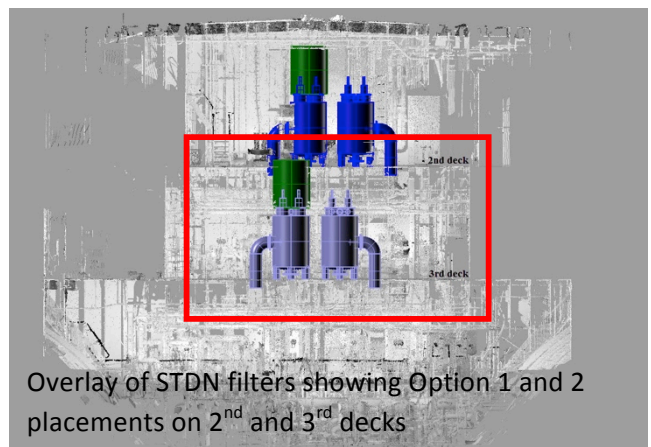
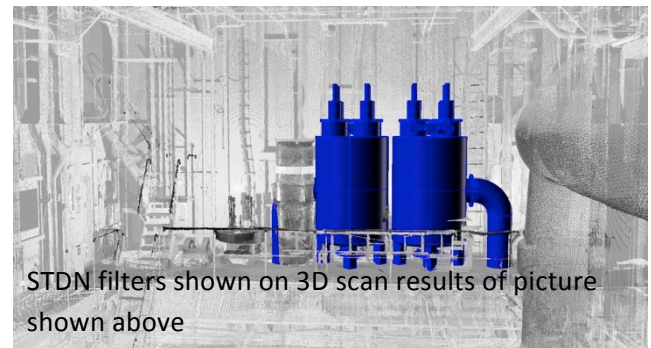
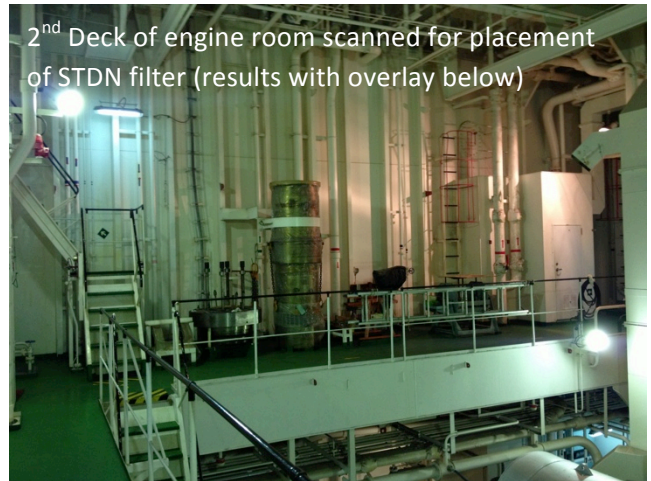
RESULTS:

The scan and space study revealed that it would be possible to install this 5000 m³/hr STDN system onboard the bulk carrier or one of her sister ships. Goltens determined that a suitable location could be found for all components of the STDN system without the requirement for relocation of too much equipment.

PROJECT FACTS: BULK CARRIER BWT

Vessel type:	Bulk Carrier
Ballast flowrate:	2 x 2500m ³ /hr
Ballast treatment system:	STDN Balpure

2nd Deck of engine room scanned for placement of STDN filter (results with overlay below)



(Additional pictures can be found on the next page)

