

# 3D LASER SCAN AND SPACE STUDY FOR OCEANGUARD BWT INSTALLATION

## BULK CARRIER - M/V HARRIETTE N

Kyodo USA, the agent of the Headway Oceanguard ballast treatment system, engaged Goltens to perform a laser scan and space study on a bulk carrier, the Harriette N. The owner was interested in the Oceanguard system but had doubts if it would be possible to fit the system in the available space.

It was essential for the cargo operation of the vessel that the full ballast water capacity could be maintained.

Goltens went on board in a Chinese port and performed a laser scan during the port stay while the ship was in normal service. A model of the Headway system was overlaid in a 3D model created from the scan of the engine room.

A video animation of the result provided a powerful aid to Kyodo USA to show their customer how this installation would fit on their vessel.

### WORK CONSISTED OF:

- 3D laser scan on board of vessel
- Study of operational requirements of the ship
- Modeling of all components
- Integration in existing ballast system
- Technical report with recommendations
- Video animation of system modeled in engine room
- Delivery of a 3D pdf file with the complete model

### RESULTS AND CUSTOMER TESTIMONIAL:

*"We would like to thank your team and especially your laser specialists for the outstanding 3D laser scanning work and modeling that was conducted on board the Harriette N vessel. Your team's performance, demonstrated by the results and outcome of their work would be considered as high quality and professional by any standards and proved to be extremely helpful in terms of delivering a proper, trouble free and cost effective BWMS installation project. My thanks and appreciation"*

Isaac Yohanar  
Managing Director  
Kyodo USA

### PROJECT FACTS: M/V Harriette N.

Ship Type:	Bulk Carrier
DWT:	176,000 DWT
Ballast flowrate:	5000 m <sup>3</sup> /hr
Ballast treatment system:	Headway Oceanguard 2 x 2.500 m <sup>3</sup> /hr

