

## TRIYARD SHIPYARD - CABLE LAYER VESSEL “LEWEK CONSTELLATION”

### 2 X 6 MW STERN THRUSTER INVERTED FLANGE MACHINING

Goltens has a long history of taking on the most challenging in-situ machining work and providing our customers a full package solution. So when Goltens was contacted by TriYard Shipyard Co Ltd in Vietnam, part of the Ezra Group, to undertake large-scale flange facing of 2 – 6 Megawatt Stern Thruster flanges on a Cable Laying Vessel, Goltens jumped at the opportunity.

While the flange size itself, with an outside diameter of 4,700mm and an inside diameter of 2,850mm, presented no challenge to the equipment, the logistics and positioning were a different story.

The flange position required Goltens to mount the flange facing equipment inverted at the top of 12 meter staging. This required Goltens to fabricate a special lifting bracket to hoist the 6000i Facing Machine into the Thruster Tunnel once it was atop the staging.

DTI equipment was then used to ensure that the machine was in the correct position to enable machining to commence.

#### ON-SITE FLANGE MACHINING CONSISTED OF:

- Dial gauge flatness checking & inverted milling of thruster OD 4,700mm x ID 2,850mm x 40 mm thick by large flange facing machine 6000i.
- Carried out roughness checking on flange surface to confirm final tolerances were in accordance with specifications.

#### FLANGE FACING RESULTS:

The job was completed ahead of time with a job process approved by class. The end result was within the tolerances set by the yard and the Thruster Supplier.

#### CUSTOMER TESTIMONIAL:

*“Thank you very much for your great support. Your team did very good job from progress and technical point of view”*

- David Zhang  
General Manager  
TriYard –Vung Tau

#### PROJECT FACTS: H1002/LEWEK CONSTELLATION 6MW Stern Thruster Flange - Inverted On-Site Machining

Customer: TRIYARD Shipyard Co Ltd. Vung Tau- Vietnam  
Flange size : OD 4700mm x ID 2850mm x 40 mm thick  
Tolerance of flange flatness max: 0.15 mm  
Quantity : 2 flanges  
Class surveyor : DNV

