

## LASER ALIGNMENT & IN-SITU MACHINING

### STERN TUBE INNER SEALING SURFACE

Goltens received an enquiry from a regional Naval Shipyard related to providing a permanent repair solution for a leaking stern tube seal.

The vessel was inspected, and the point of the leak was identified as the inner sealing surface for the stern tube housing. A proposal was made and approved shortly after.

Since the vessel was in a dry-dock and the propeller shaft had to be removed due to the leaking stern tube, Goltens was also appointed to carry out laser alignment on the propeller shaft line, which confirmed that propeller shaft arrangements were in good condition.

The inner sealing area was manually welded up, and one of our In-Situ flange facer machines was mounted and aligned against reference points from the laser alignment done earlier. The damaged sealing was machined back to original measurements so the original seals could be used.

#### REPAIRS CONSISTED OF:

- Inspection and isolation of leak
- Laser alignment of propeller shaft line
- Welding of damaged sealing area
- In – Situ machining of sealing flange and inside diameter

#### RESULTS:

The leaking flange seating was repaired in only 4 days by the Goltens team consisting of 1 laser specialist and 1 In-Situ machining specialist.

All work was approved and accepted by the yard and the end customer.

#### PROJECT STATS: LEAKING PROPELLER SHAFT SEAL

Diameter of flange:	1200 mm
Tolerance of flange flatness:	±0.05 mm
Machined Length:	130 mm
Number of flanges machined:	1

