HYDREX®

UNDERWATER TECHNOLOGY

NEWS

LETTER | 280

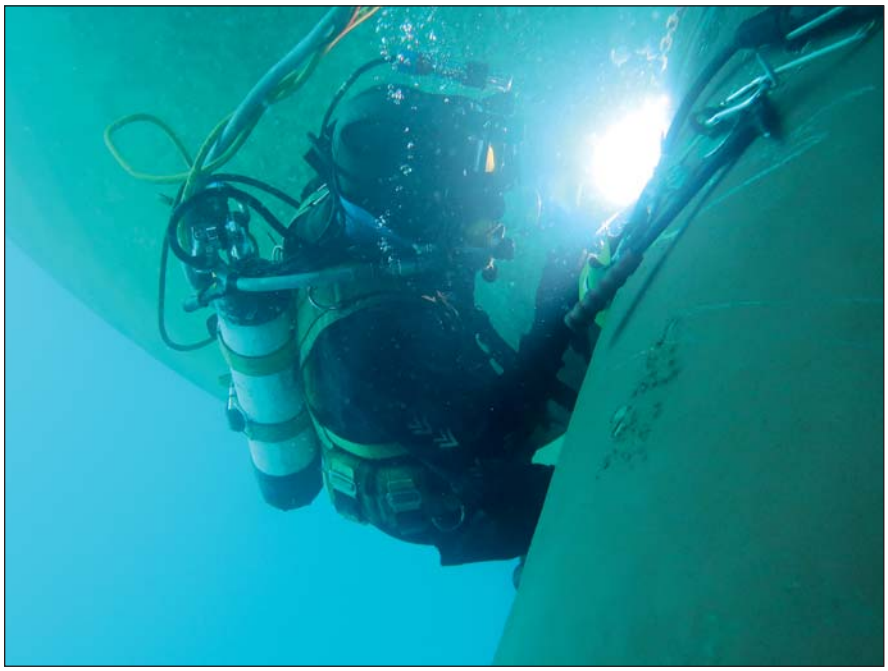
Contents

KEEPING SHIPS IN BUSINESS

ISO 9001 certified

Underwater services and technology approved by:

Hydrex is looking for representative agents



To support our continuous growth, we are expanding our worldwide network of Hydrex agents. This allows us to reach a much bigger public directly than would otherwise be possible.

All our offices have fully operational fast response centers where an extensive range of state-of-the-art equipment is available at all times for immediate deployment with our skilled diver/technician teams to wherever they are needed.

The services that we offer are highly specialized underwater and in water repairs. These include bow thruster repairs and replacements, stern tube seal repairs, hull shell plating repairs and replacements, in water surveys and various maintenance work. More information on our services can be found on our website.

Contact us if you are interested in joining our network and help us build a strong relationship with our prospects and customers. We look forward to hearing from you.

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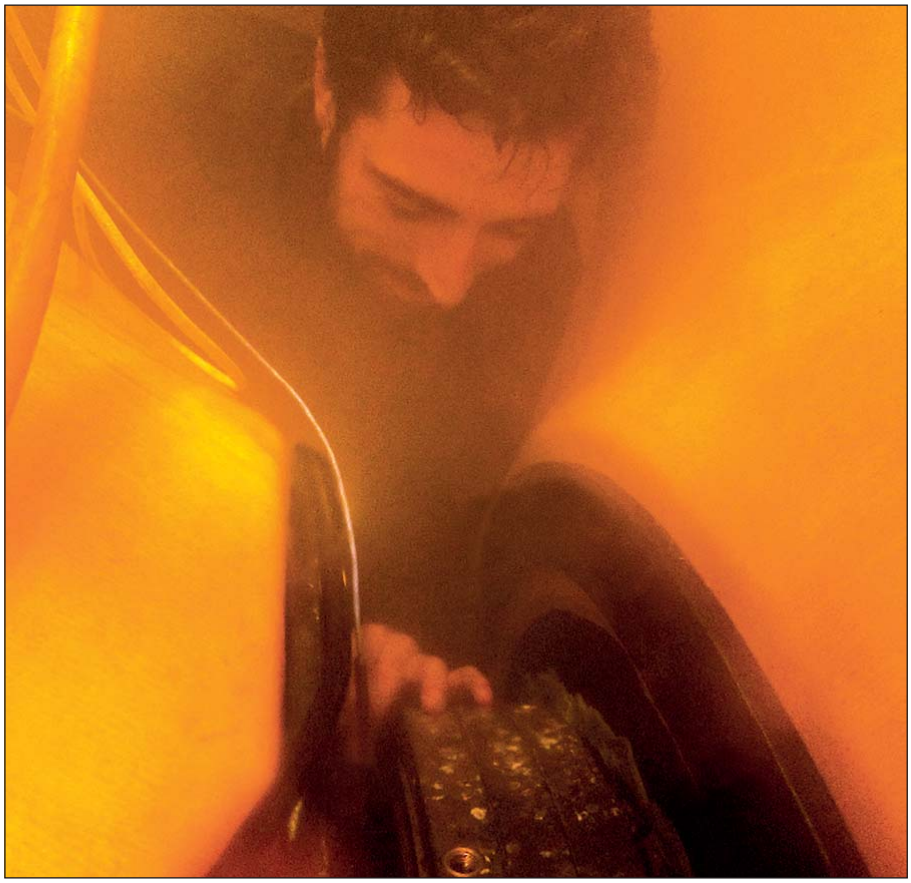
Underwater repairs in Belgium and the Netherlands

The Hydrex headquarters is located in Antwerp and Rotterdam. Our fully equipped workboats allow us to mobilize immediately to operations in all ports in Belgium and the Netherlands.

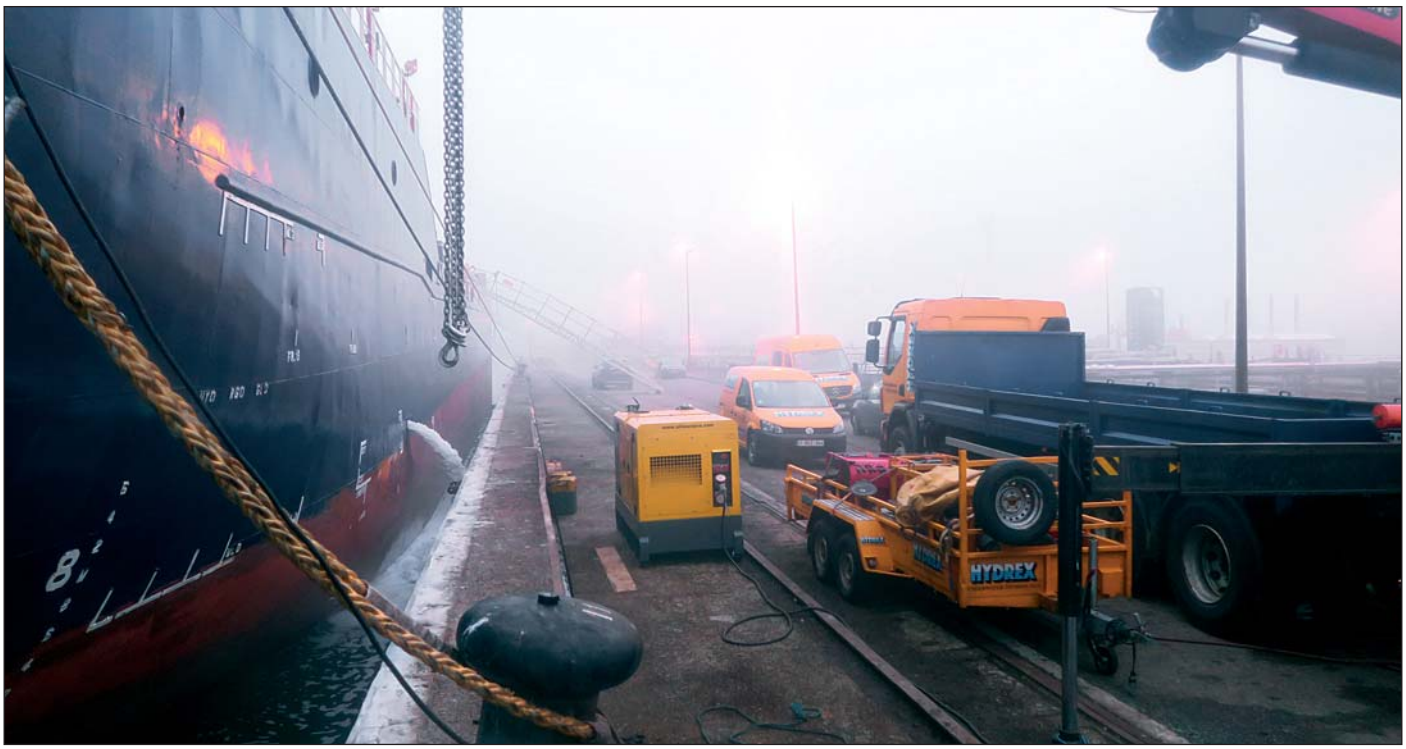
In this article you can read about some of the many, many underwater repair operations our diver/technician teams have carried out in both countries.

Underwater stern tube seal repair in Antwerp

One of our diver/technician teams carried out an underwater stern tube seal repair on a tanker berthed in Antwerp. The ship was suffering from an oil leak, making an on-site repair necessary. Using a Hydrex flexible mobdock the team was able



Hydrex diver working inside the flexible mobdock.



Hydrex vans and equipment next to tanker in Antwerp.

Diver getting ready to take the plunge.

The rope guard was reinstalled after the successful seal replacement.

to carry out the entire operation on-site and underwater, saving the owner an expensive and time-consuming trip to drydock.

Despite the vessel's location close to our headquarters in Antwerp our well stocked fast response center nevertheless saved the owner a costly and unwelcome trip to drydock.

Once the operation was approved all preparations were handled swiftly and the lightweight equipment was mobilized immediately. Our team was on-site and ready to start the seal replacement when the vessel arrived in Antwerp.

The operation started with a thorough underwater inspection of the stern tube seal assembly. It was revealed that a rope and a fishing net were entangled around it. Both were removed by our divers and the flexible mobdock was installed to allow for work in dry conditions.

During the operation our divers removed the three damaged seals and replaced them with new ones. Working together with the OEM allowed us to provide our customer with original spare parts which guarantees the best quality material. A technician of the seal manufacturer was also present during the operation.

Taking advantage of the Hydrex flexible mobdock technique the team was able to carry out the entire repair on-site and underwater. Because all the required material is ready to be transported at all times, no time is lost making preparations.

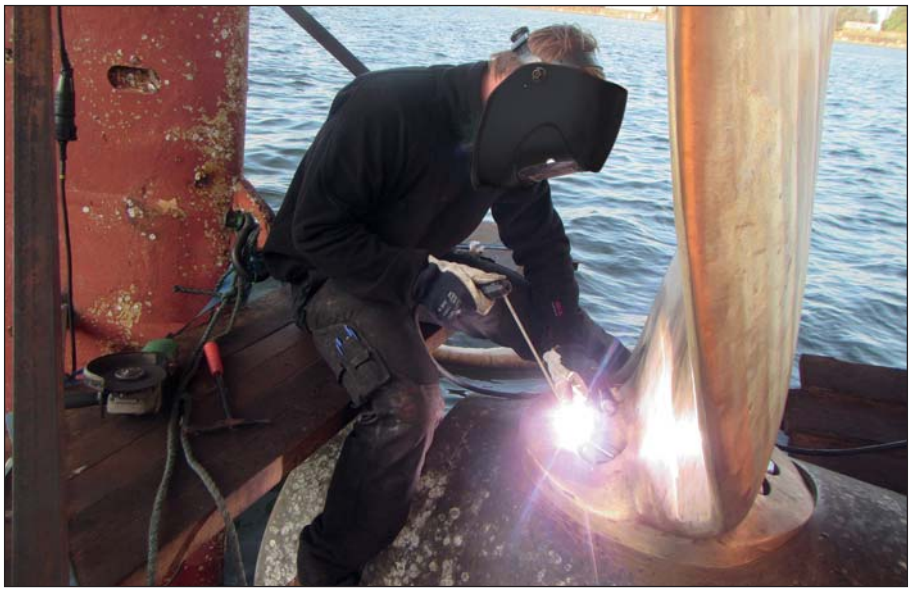
Propeller blade removal and reinstallation in Ghent

An oil tanker needed its four propeller blades overhauled during a stop in Ghent, Belgium. We therefore sent a team to the vessel's location to remove the blades on-site and reinstall them when they returned from the workshop.

The operation was carried out while the vessel was alongside and trimmed so that the blades could be surfaced one by one. Our men started the operation with the installation of chain blocks to rig the first blade. They then removed the blade bolts and lifted the blade. A blind flange

Propeller blade returning after the overhaul.

The blades were reinstalled by our technicians.



Securing a bolt on one of the overhauled blades.

Permanent in-water rudder repairs now possible without drydocking

Hydrex has developed an entirely new method enabling permanent repairs of rudders without drydocking the ship. Permanent repairs were hitherto not possible and ships had to drydock in case a major defect was found. The newly designed equipment is light-weight and can be mobilized very rapidly in our special flight containers. Therefore this new service is now available world-wide.

Major defects on rudders very often cause unscheduled drydocking of ships. The new method designed by our technical department allows engineers, welders and inspectors to perform their tasks in dry conditions. Class approved permanent repairs on-site, without moving the ship, are now possible and commercial operations can continue. Steel repairs and replacements can be performed and pintle and bushing defects can be solved without the loss of time and money associated with drydocking.

The equipment can be mobilized within hours to any port in the world and is available for rapid mobilization from the Hydrex headquarters in Antwerp.

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Propeller with overhauled blades ready to sail.

was installed to prevent water ingress during the overhaul. The ship crew then turned the propeller 90° to surface the second blade. Our technicians repeated the same procedure on this blade, followed by the third and fourth one.

While the blades were transported to the workshop and overhauled, our team carried out several other operations on the vessel. A full inspection of the propeller hub was done, as well as an inspection of the blade carriers and the propeller shaft. They also installed anodes on the rudder. By combining these operations, time between the removal and reinstallation was used as efficiently as possible.

Hydrex team leader monitoring underwater operation.

When the blades arrived back on location, they were installed using the reverse procedure. The operation was finished swiftly to enable the owner to sail his ship with only the bare minimum of delay. No costly drydock visit had to be planned.

Underwater rudder repair in Rotterdam

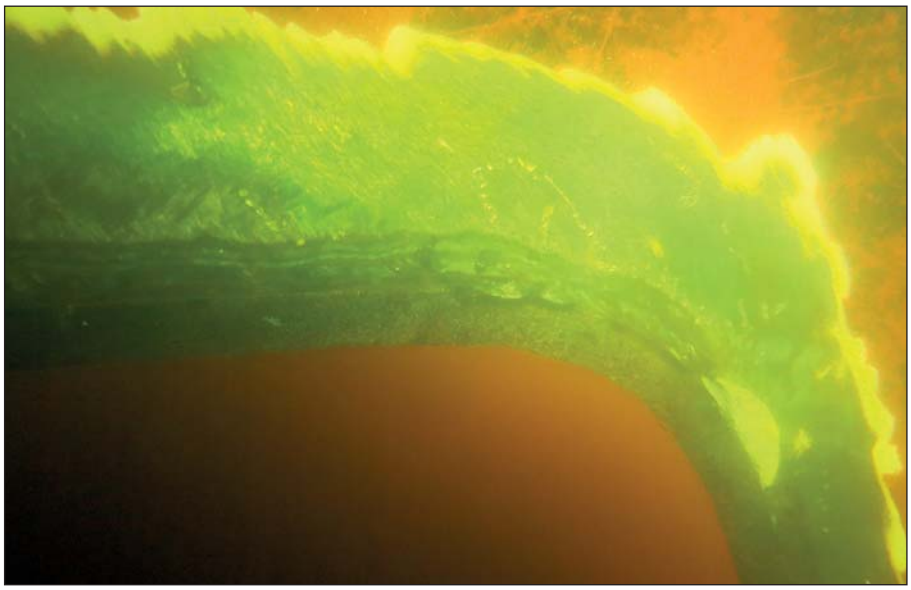
One of our diving teams mobilized to a 170-meter container vessel. The team installed a doubler plate over the cavitated area of the rudder during the ship's scheduled maintenance stop in Rotterdam.

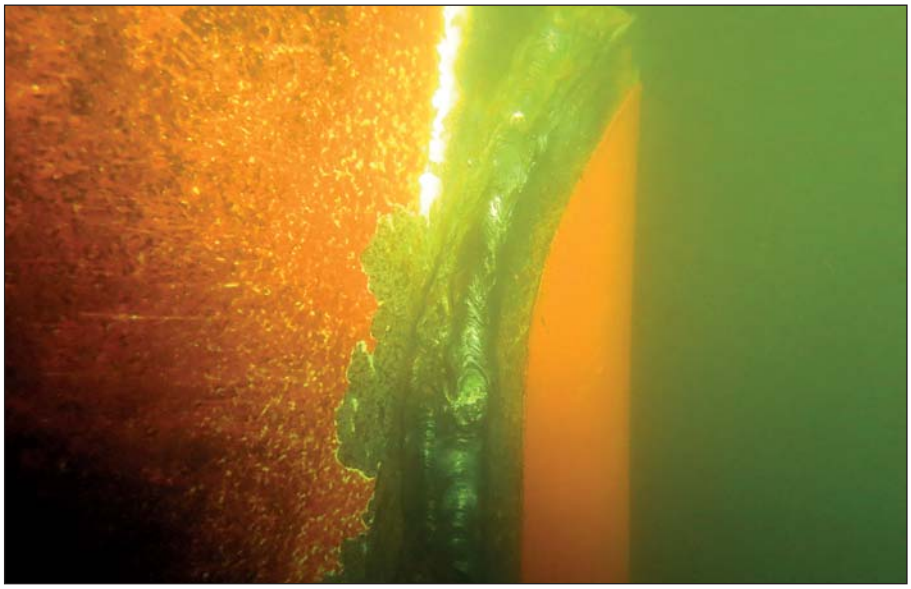
A condition of class was imposed on the vessel and a custom solution was needed. We proposed a repair plan to the class that would allow the vessel to keep sailing until the next scheduled docking.

After our team arrived on-site with one of our workboats, they performed an underwater inspection of the leading edge of the rudder, where the damage was situated. The divers then started preparing the affected area for the installation of the doubler plate.

When the rudder had been prepared our certified diver/welders fitted the plate and secured it. The team then installed anodes on both sides of the rudder for further protection. This concluded the repair.

Hydrex team members on workboat discussing the operation.





Doubler plate secured by certified Hydrex welders.

The diver/technician team worked in shifts and finished the operation in 24 hours. By doing this the repair fitted in nicely within the schedule of the container vessel.

During the operation a representative of the classification society was present. He gave his approval for the repair. The owner could sail his ship until the next scheduled drydocking without having to worry about further unscheduled delays or repairs to its rudder. ■

If you have received this magazine at the wrong address or if your company is going to move, please let us know.

You can contact us at:
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or at
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Installation of the final anodes on trimmed part of the rudder.

Dive and afloat repair workboats in Rotterdam and Antwerp

Our offices in Antwerp and Rotterdam have workboats available for immediate mobilization. These vessels can be used for a wide range of operations in Belgium, the Netherlands, the United Kingdom and France.

The catamarans are fully equipped as dive support stations for welding and general repair with hydraulic cranes, hydraulic winches, nautical and communication equipment and a dive control room. A PDF document with details about the boats can be found on our website (http://www.hydrex.be/case-story/89) or by contacting one of our offices.

The workboats are docked right outside the Antwerp office, where a wide range of state-of-the- art equipment and tools is available at all times and in the center of the

Hydrex has experienced diver/technicians ready to mobilize together with the workboats.

Both workboats are fully equipped as dive support stations.

Hydrex workboat during operation.

The workboats are stationed in Antwerp and Rotterdam where a wide range of extra equipment is available.

Rotterdam port from where we can mobilize throughout the entire port within hours.

Hydrex has experienced and certified teams of diver/technicians ready to mobilize together with the workboats. They can carry out routine operations as well as highly technical repair work within a very short time frame and all to Hydrex's well-known high quality standards.

Contact us 24/7 for more information about these vessels or the underwater services Hydrex offers. ■

Hydrex workboat with equipment next to tanker during underwater operation.

Large fuel savings with new propeller surface treatment technique

We discovered an unsophisticated but very efficient technology to enhance propeller blade surfaces. With this method we can achieve surface conditions that were never seen before. This can only be done underwater.

We have four workboats equipped to deliver this service on a very short notice in the Rhine-Scheldt delta from Antwerp to Rotterdam.

When a comparison is made between the surface condition of an average propeller, as our divers regularly see it, and the smoothness that is obtained with our cleaning technique, savings are in the 5-10% range. These results are easily achieved. The cost of such an operation is very attractive and is very easily gained back in a matter of days (or even hours).

Regular maintenance is easy to schedule and results in ultra-smooth propeller surfaces. Continuous and large fuel savings are now possible.

This award-winning surface treatment technique justifies having the propeller cleaned every time it calls a port.

Please contact us for more information, we will gladly discuss the benefits of this new technology with you.

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