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Singapore area very busy with repairs and conversions

N-KOM wins first drydocking contracts

ISC takes over BP's lay-up facility

The Hydrex boat alongside at the anchorage off Singapore

Activities at Hydrex

Last month a Hydrex diver-technician team performed a crack repair on the pintle area of the rudder of a 181 m tanker and performed a detailed inspection of the stern tube seal assembly of the vessel while it was berthed in Ghent. Following this inspection the team replaced the worn seals and installed a spacer ring, thus creating a new running area for the seals.

Prior to the operation the vessel was trimmed as much as possible. Hydrex then built scaffolding around the rudder pintle and the stern tube seal assembly. Next they removed the rope guard and the damaged areas of the outer plating of the rudder. This allowed them to perform an inspection of the stern tube seal assembly and start the repair in the rudder.

While the team prepared a first insert plate on shore, the inspection of the seal assembly revealed that the seals were worn and needed replacement. Next they installed the first insert and secured it while the second plate was prepared. Simultaneously another part of the team opened the stern tube seal assembly and it became clear that they needed to renew the running area of the seals as well. The team did this by installing a new spacer ring on the stern tube flange after which they replaced and bonded the three seals.

By this time the second insert on the rudder had also been fitted and welded according to the approved procedures. Independent ultrasonic testing confirmed that the insert repair was successful. The only thing the team needed to do to conclude the rudder repair was grinding away a small crack located on the other side of the rudder. By then the rest of the team had closed the stern tube seal assembly and an oil test had been performed, verifying the seal repair had been carried out with satisfactory results.

Hydrex performed all operations under DNV requirements which were verified by an attending surveyor. The diver-technician team rotated in shifts to finish both repairs in the shortest possible time and avoid any unnecessary delays for the vessel.

In February Hydrex performed an inspection and realignment of the rudder of a 245 m tanker while the vessel was afloat in Mobile, Alabama. A Hydrex diver/technician team mobilised from the office in Clearwater to assist the vessel during stops in Fairground in the Gulf of Mexico and Mobile and correct the alignment of its rudder.

After the team carried out both an internal and external inspection of the rudder it was confirmed that it was not in its normal pitch position and needed to be realigned. No other damage was found on the rudder so that no further repairs were necessary.

Because the team needed additional diving and hydraulic equipment to perform the operation, the decision was made to move the vessel to Mobile, Alabama. At this location the team first positioned two barges with all their equipment next to the rudder, after which they started the operation.

With the assistance of the vessel's mooring lines and several slings the team secured the rudder.

Using special hydraulic equipment, the team was able to detach the rudder from the vessel and align it correctly, in close communication with a representative of the manufacturer.

During the operation the team worked in shifts around the clock. Extra welders were also mobilised to secure to the rudder again after the alignment. This was done to finish the operation as soon as possible and avoid any additional loss of time for the customer

During the second half of 2010 Hydrex carried out a full inspection and removed all fouling from three drilling vessels in the Gulf of Mexico owned by Transocean, the world's largest offshore drilling company. This was done to reduce the weight and drag of the vessels and increase their available deck load. For the maintenance operation in the Gulf of Mexico, an inspection team and two cleaning teams were mobilised from the Hydrex offices.

Impressed by the complete package of both engineering and project management that Hydrex offers, the owner then asked Hydrex to perform the inspection and cleaning of one of their drilling vessels in the Gulf of Mexico. Satisfied with the way the operation was handled, a second and third drilling vessel were soon added.

The scope of work consisted of a comprehensive UWILD inspection of the three vessels, and an inspection of the weld seams in particular, and a cleaning of the underwater parts of the units. Replacement of anodes was also performed wherever needed and all overboard lines were blanked in order to enable inspection from the inside. The Hydrex teams also assisted with the removal of one of the vessels' thrusters so that they could be overhauled.

The vessels were away from the field and because the crew also needed to carry out other maintenance and repair work on the vessels a very tight schedule had to be followed. This schedule allowed the team to plan the inspection and cleaning operation around the other work.

Four months after Hydrex diver/technicians removed the bow thruster of a 280 m container vessel in Singapore, a Hydrex team once again mobilized to this location to reinstall the overhauled unit underwater with the use of the Hydrex flexible mobdock.

The superintendent of the ship was very satisfied with the first part of the operation. He said that "The job was completed well within the timeframe of forty hours thanks to good team work of the Hydrex divers, the ship staff and the floating crane operator." For this reason the customer asked Hydrex to take care of the reinstallation as well, which was carried out last month while the vessel was at anchorage in Singapore.

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After setting up a monito ring station on a workboat next to the vessel, the team lowered the bow thruster in the water and manoeuvred it inside the thruster tunnel. The team then used the lightweight flexible mobdocks developed by Hydrex to close off the thruster tunnel on both sides. This allowed the diver/technicians to evacuate all the water from the tunnel and create a dry working environment around the bow thruster.

The team then reconnected the unit to the thruster room. Next they secured the unit and installed the blades. Time constraints had prevented the reinstallation of the feedback chain which is necessary to communicate the pitch of the thruster blades to the crew. The diver/technicians reconnected this chain after they had fully secured the unit. After carrying out final testing, the team removed the mobdocks and flooded the thruster tunnel again, thus concluding the operations swiftly and successfully.