



Royal Oak Oil Removal Programme

Project Name:
Royal Oak Removal Programme

Location:
Scapa Flow

Client Name:
MoD

Date:
2003 - 2010

Project Summary

On October 31 1939 HMS Royal Oak was sunk by U Boat attack in Scapa Flow, with the loss of 914 sailors. At the time of sinking the vessel was loaded with a full complement of munitions and Bunker oil. The vessel lies undisturbed in 30 meters of water, and has been afforded protection under the military remains act 1986. Since the time of sinking the wreck has leaked small quantities of oil, as the hull aged, the leak increased, prompting action to remove remaining oil.

Our Work

Briggs Marine was awarded the contact for conducting oil removal operations under MoD Salvage & Marine Operations direction. HMS Royal Oak was a Sovereign class battle ship built originally as a coal burner for WW1. The vessel was later converted to fuel oil, consequently, oil tanks are sporadic and in unconventional positions within the hull.

The initial operation was to determine where the tanks were and form a navigation grid on the hull; this was key to the success of the operation as spaces adjacent to bunker tanks were containing sensitive munitions and human remains.

Once navigation was established the hot tap procedure took place. BMC manufactured their own diver operated "hot tap" equipment to extract the oil from the double bottom tanks. Later versions of our "Hot tap" equipment were manufactured to enable deeper penetration, into inner wing tanks and previously inaccessible spaces.

Due to the close proximity of highly sensitive munitions, a phased approach has been taken to extract the oil, causing minimum stress and disturbance to the wreck.

For the project, BMC provided all necessary salvage vessels, "Hot Tap" equipment and operators to enable a smooth successful operation.

Result

To date the operation has been a huge success with over 1600 tons of heavy fuel oil removed from the wreck on budget and to program. The wreck is no longer leaking into the environmentally sensitive waters of Scapa Flow. Remaining pockets of oil leaking from within the hull will be contained within the "hot tapped" valves. The hull continues undisturbed with occasional visits to pump off remaining oil from previously tapped valves.