



# Ship Building

industry

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## UAL TEXAS

Strengthening Oil & Gas Logistics

## Cable Lay Conversion

Tideway's Pompei

Shaping the Landscape

IHC BEAVERS' 50 YEARS



KCI Engineer Arash Ramezani working on board during the conversion of the Pompei at Shipyard Reimerswaal.

TIDEWAY'S ROCK PLACEMENT VESSEL TRANSFORMED FOR CABLE LAY

# Pompei's Swift Conversion

In March 2013, just two weeks before Tideway planned to utilise its 65m vessel Pompei to lay 14 km of cable from the Dutch coast to an offshore platform, the DEMA subsidiary approached Dutch engineers KCI with an urgent challenge – the vessel was a rock placement vessel without cable lay capabilities. For SBI, KCI outlines how they completed the task.

## Multipurpose Project

Tideway's Side Stone Placement Vessel Pompei (infamously hijacked by Somali pirates in 2009) was built in 1988. Well suited for operations in shallow water >>



Fitted with temporary cable lay equipment engineered by KCI, Tideway's Pompei installed 14.1 km from the Scheveningen shore to an oil production platform.

Photo courtesy of Tideway

locations (as from 5 m under the water line), the vessel is equipped with a six point mooring system and also features DP capability.

In fact, throughout her years in service, she has become a multipurpose vessel – variously equipped with a crane on the aft-deck and other equipment depending on the requirements of the project. The vessel proved her multipurpose capacity on Thornton Bank, supporting offshore wind

park inter-array and export cable installation. So, while Tideway had already completed studies and projects which utilised the vessel for cable lay operations, the specifications for the cable lay project in April required a complete vessel conversion.

### Peanut Butter Sewer

Dutch electricity grid operator Stedin provided an offshore oil production platform in the Amstel field with electricity from



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*An important part of the deck layout design was to determine the exact location of turntable.*

shore. Due to limited associated gas production, the platform would have required diesel-fuelled generators. However, the operator chose a green alternative – connecting the platform to the onshore network across the relatively short distance from the coast. The connection became Stedin’s first subsea connection to the regular onshore grid of Stedin. From the Stedin electricity grid at the Municipality of The Hague, the 14.1 km

cable (manufactured by TKF) was pulled for a large part through an existing sewer that had been exclusively used by an old peanut butter factory to the Scheveningen shore. The platform operator contracted Tideway for the onshore landfall construction and offshore cable laying.

### Calculating Conversion

At the end of March, KCI received the challenge from Tideway. In only two weeks

time, Tideway wished to temporarily convert Pompei into a cable lay vessel. KCI’s scope encompassed the detailed design of the basic deck layout, calculations on the modifications of the construction of the vessel and the seafastening of various deck items. An important part of the deck layout design was to determine the exact location of turntable.

KCI started with a structural analysis of Pompei. On 3 April, the actual conversion of Pompei started and finished only six days later on 9 April. KCI rendered on-site assistance during the conversion which took place at Shipyard Reimerswaal at Hansweert, near Vlissingen. The yard assembled the turntable, gooseneck, tensioner, chute as well as fitting the crane beam, control units and storage and workshop containers. The yard also fitted the vessel with various project equipment including winches, handrails and boat landings.

Later in April, Pompei completed its cable laying mission in the Southern North Sea successfully and without any mechanical setbacks.

**i. [www.kci.nl](http://www.kci.nl)**