

TMS Maritime is a leading UK specialist in marine civil engineering, ancillary floating plant and diving services

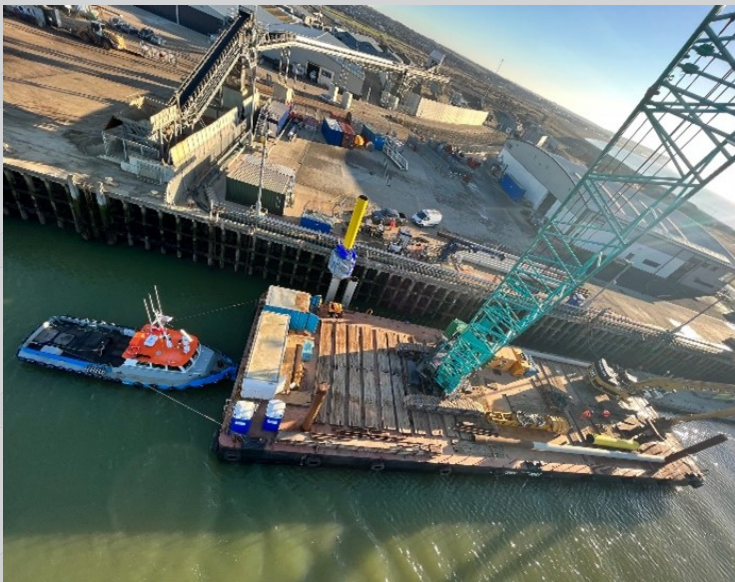
**Client:** Rampion Offshore Windfarm

**Value:** £693,000

**Project:** Pontoon Piles, Newhaven

**5 months, 2022**

**Description:** Working on behalf of Knights Brown, TMS were appointed to complete the marine works for the installation of new pontoons at Rampion Offshore Wind Farm's landing facility in the Port of Newhaven. TMS completed the piling works from marine floating plant with a 135t crawler crane and 60t long-reach mobilised on the barge deck. The piles were installed using a PVE 25M standard frequency vibro hammer. All of the new pontoons were successfully configured on the new piles as all of the piles were positioned within small tolerance.



The scope of the project included:

- Removal and lifting ashore of the existing pontoon access linkspan, weighing 11t, for refurbishment and re-purposing.
- Release of the 4 existing berthing pontoons from the chain and anchor mooring system, each 30m x 5m.
- Complete removal of the chain and anchor moorings, which used granite boulders for anchors.
- Granite boulders were buried under approximately 3m of accumulated silt making safe recovery very challenging. Boulders were removed using a rock grab on a 60t long reach excavator.
- The existing berthing pontoons were towed off site and subsequently re-purposed to avoid disposal.
- Proof digging of each new pile location using a long reach excavator to clear obstructions and minimise piling risk.
- Installation of two 'push on point' piles to recreate the wind farm transition piece for crew training. Each pile was 25.5m long and 914mm outside diameter.
- Installation of 2 linkspan brow support piles, both 610mm outside diameter and up to 24m long.
- Installation of 6 marine pontoon mooring piles, at 24m long and 610mm outside diameter.
- Piling was in close proximity to the existing dilapidated jetty so was subject to strict vibration monitoring.
- Before piling works were approved, TMS provided ground vibration estimates for the piling equipment to ensure the methodology was feasible within the vibration limits determined for the structure.
- Following pile installation, the piles were lateral load tested using a lorry recovery winch to pull-test the pile heads while deflection was monitored.
- Tow to site and installation of the 5 new 'floating breakwater' pontoons to the newly installed mooring piles. Each pontoon was 18.5m x 5m and 65 tonnes.
- The pontoon removal and replacement required TMS to obtain MCA 'Load Line Exemption' certification for each pontoon in order to tow at sea.