

# ABI Equipment Limited

## Piling Equipment Specialists

Sales - Hire - Parts and Service - Project Support



ABI Equipment Limited was asked to supply specialist equipment consisting of a Delmag RH28 drilling rig, complete with rotary head and Kelly bar by piling contractor Fugro Geoservices.

The piling works for the jetty were carried out between November 2016 and May 2017.

### Jetty for Hinkley Point C Power Station

**Main Contractor:** Costain

**Client:** EDF Energy

**Piling contractor:** Fugro Geoservices

**Piling Equipment supplier:** ABI Equipment Limited

### The Project

Main contractor Costain and piling contractor Fugro Geoservices used a unique 'walking' jack-up barge to construct the 490m long jetty in the Bristol Channel. The jetty will be used to import aggregate for the construction of the £18bn Hinkley Point Power Station. The aggregate is for the four

batching plants which will make the nuclear grade concrete. It is estimated that 80% of the aggregate needed for the Power Station will be brought to site via the jetty and thereby saving 120,000 HGV movements which would have had to be made on roads through the local community.



Source: EDF/Costain

### ABI Equipment Limited

Barn Way, Lodge Farm Industrial Estate, Northampton NN5 7UW, UK

Tel: +44 (0) 1604 586960 - Fax: +44 (0) 1604 586961 - Email: [sales@abi-eqp.com](mailto:sales@abi-eqp.com) - [www.abi-eqp.com](http://www.abi-eqp.com)

# ABI Equipment Limited

## Piling Equipment Specialists

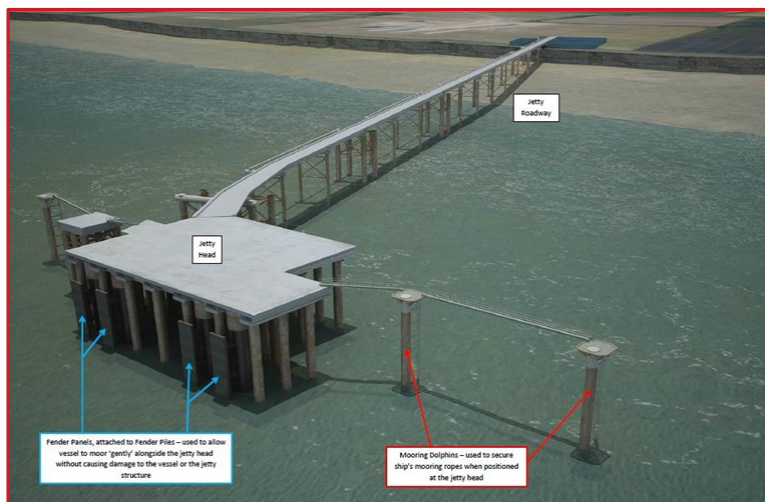
Sales - Hire - Parts and Service - Project Support



### Piles

The jetty was constructed from 80No. steel tubular piles, Ø914mm and Ø1750mm for the jetty structure and Ø3600mm for the fender piles. The jetty bridge consisted of a number of 'Pile Bents', which were the jetty support structures. Each of these structures was supported by a pair of piles, some of which were Ø914mm and some Ø1750mm.

Fugro Geoservices asked ABI Equipment Limited to supply a Delmag RH28 drilling rig, and this was set up to install all the piles used for the jetty support structure. The rig was mounted onto a specialist jack up platform called WaveWalker 1 which 'walked' along the foreshore to the required position for the piles to be installed.



Source: EDF/Costain



Source: EDF/Costain

### ABI Equipment Limited

Barn Way, Lodge Farm Industrial Estate, Northampton NN5 7UW, UK

Tel: +44 (0) 1604 586960 - Fax: +44 (0) 1604 586961 - Email: [sales@abi-eqp.com](mailto:sales@abi-eqp.com) - [www.abi-eqp.com](http://www.abi-eqp.com)



# ABI Equipment Limited

## Piling Equipment Specialists

Sales - Hire - Parts and Service - Project Support



Source: EDF/Costain

### Wavewalker 1

This is an innovative eight-legged 32m x 32m walking jack-up barge, especially designed to operate in rough seas, surf zones, beaches and other inter tidal locations, where there are difficulties using a self-elevating platform. The barge can 'walk' on the foreshore in different directions at a rate of up to 40m per hour.

The design, construction and operation of this platform are a joint effort of **Fugro Seacore** and **Van Oord/Wicks**. Drilling takes place through a central 'moon pool' rather than over the side of the barge.

### Large Diameter Bored Piling

The piles were installed using rotary bored piling techniques. Permanent casings of Ø1250mm and Ø2050mm were rotated into the ground to the required depth.

The pile was then inserted into the casing and once in the correct position, it was then secured by means of cement grout. The rock sockets varied in length between 6 and 10m. The ground consisted of bands of mudstone and limestone.

The RH28 was set up with a drill axis offset so as to accommodate the larger diameter drilling and provide significant headroom under the drilling tools.



Source: EDF/Costain

The project required close collaboration between Fugro engineers and ABI Equipment Limited to ensure the rig could be safely positioned and tied-down within limited deck space. Unlike conventional jack-up barges drilling was mainly carried out through a circular hole in the middle of the deck, a so called 'moon pool'. This permitted the drilling rig to work closer to minimum reach, maximising its working load and applied drilling forces.

### ABI Equipment Limited

Barn Way, Lodge Farm Industrial Estate, Northampton NN5 7UW, UK

Tel: +44 (0) 1604 586960 - Fax: +44 (0) 1604 586961 - Email: [sales@abi-eqp.com](mailto:sales@abi-eqp.com) - [www.abi-eqp.com](http://www.abi-eqp.com)