

PROJECT FILE

JUMBO OFFSHORE PROJECT GREATER GABBARD OFFSHORE WIND FARM



TRANSITION PIECE
WEIGHT: 280 T

■ GENERAL

In March 2010 Jumbo Offshore started with the installation of 131 Transition Pieces (TP's) for the Greater Gabbard Offshore Wind Farm (GGOWF). GGOWF is located 27 kilometres off the UK's south-east coast and consists of 140 Wind Turbines that generate a total of 504 MW.

For client Fluor, Jumbo's DP2 heavy lift vessel Jumbo Javelin safely installed the TP's with a record-breaking overall average installation speed of 1 TP per day. It was the first time that TP's were transported and installed using a dynamically positioned, free floating vessel.

■ SCOPE OF WORK

Jumbo's scope included loading, transport, installation, levelling and grouting of the TP's. During the entire project all parties (client Fluor, Jumbo and its subcontractors) worked in close cooperation, resulting in safe and efficient installation.

■ EQUIPMENT

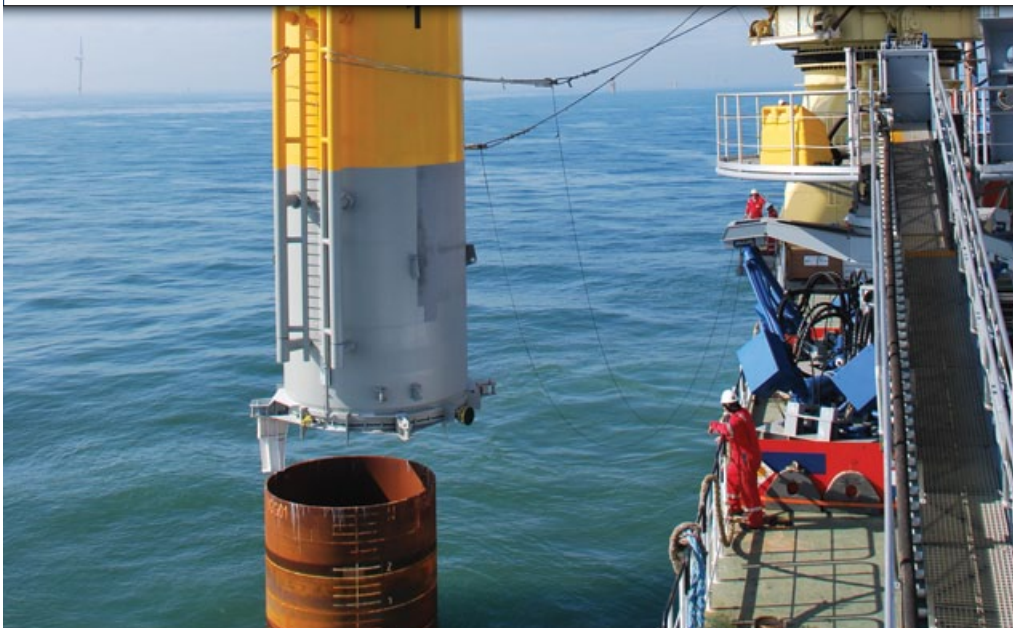
During mobilization the Jumbo Javelin was outfitted with job-specific equipment, amongst others Temporary Living Quarters, a grout plant and a motion compensated access system. This access system was used to give the crew safe access from the vessel to the installed TP as well as supporting the grout hoses.

In addition, Jumbo developed and built its own passive lifting compensators (with 2.5 m stroke and a Safe Working Load of 300 t) and two job-specific, remote-release spreader bars to lift the TP's.



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■ JOB

Each trip the Jumbo Javelin loaded nine 280 t TP's in the Port of Flushing and stowed them vertically in the hold. After the vessel sailed to the offshore location it positioned itself on DP and started overboarding the first TP onto the monopile. Every TP was placed in the specified orientation and then levelled to its final position. Next, the annulus (the space between TP and monopile) was filled with grout to fix the TP permanently.

■ ALL IN ONE GO

Jumbo's two DP2 offshore heavy lift vessels are well-equipped for wind farm installation work: they are free floating, use their DP2 system to create an efficient and safe working environment, have a transit speed of 17 knots and sail with open hatches. This means a large transport capacity, fast transit to the installation site and fast installation and relocation from one position to the next.

Installing the 131 TP's confirmed the suitability of Jumbo's concept: safe and fast transportation and installation with only one vessel.

