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FÉCAMP OFFSHORE WIND PROJECT

Belgian international heavy lift and transport company Sarens played a major role in the construction of the Fécamp offshore wind farm at a yard in Le Havre, France. Commissioned by the consortium BSB - Bouygues Travaux Publics, Saipem and Boskalis - the company carried out the lifting, moving and load out operations for the 71 concrete mast foundation structures which have a 31 metre diameter at the base and heights of between 48 and 50 metres, while weighing up to 4,800 tonnes. They had to be moved from the manufacturing site in Le Havre onto transport barges which moved them to their final locations 13 to 22km off the Normandy coast.

To lift and move each structure, Sarens designed a system of two, SPMT mounted moveable gantry units, which were positioned either side of the structure. The load was secured to four cast in lugs and lifted with the two gantry systems connected by data cables allowing them to operate as one. After raising the structure, it was lowered into position on 180 SPMT axle lines and moved to one of three cargo barges at the quay side.

Sarens had installed a sounding system on each barge capable of measuring the amount of water in the ballast tanks, and a series of interconnected pumps for de-ballasting was used during loading operations. To ensure the offshore

installation process did not suffer downtime, Sarens conducted a 24 hour loading regime. Three foundation bases are loaded onto each barge in a continuous operation with a maximum of 38 hours per barge - a process that must be repeated 24 times - requiring skilled personnel not only for the loading manoeuvre itself, but also the handling of the winches, the preparation of the gantry system and reconfiguration of the SPMTs prior to the loading of each barge.

Sarens equipment on site required 120 delivery trucks over a three month period. The 71 turbines will generate 500 MW of electricity - enough for 770,000 homes. ■

