

Goliath appears on the Polish horizon

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Mammoet, the world's largest service provider specializing in engineered heavy lifting and transport, has successfully lifted up a 120-meter-high crane for its installation in the port of Szczecin in Poland. The Goliath crane was built by Van Haagen Kraanbouw in the Netherlands and transported to the fabrication site of Bilfinger Mars Offshore. Mammoet constructed a tailor-made gantry with a height of 127 meters especially for this project – the tallest gantry ever built by the company in Europe – to execute this unique lifting operation.

Mammoet constructs its tallest gantry ever in Europe for a unique lifting operation to raise a giant gantry crane onto its feet

Gantries normally raise loads from an overhead beam between two supporting towers. This project was unique because the load – the Goliath crane – was assembled around the gantry before it was raised into place. Hence the gantry was at the center of the construction and was used to literally raise the Goliath crane onto its legs.

At this stage of construction the Goliath crane had a weight of 1,200 tons. Its four legs were tailed while Goliath's main crane girders were raised by the gantry – introducing the challenge of dealing with four additional points affecting the forces on the gantry and its stability.

Now installed on its wheel sets, Goliath is one of the largest gantry cranes in Europe standing over 120 meters tall with a total weight of 1,800 tons and a lifting capacity of 1,400 tons. This state-of-the-art gantry crane will be used at the Bilfinger Mars Offshore production site to support the fabrication of steel offshore foundations including transition pieces, jackets and monopiles and to load them onto pontoons.

Mammoet engineered the 127-meter-high gantry especially for this project. It consisted of 95% standard components and 5% custom-designed equipment. The combination of creative engineering with a large and flexible collection of equipment enabled Mammoet to execute an unusual, technically challenging lift, which was tailor-made for the customer's requirements.