

GWYNT Y MÔR OFFSHORE WIND FARM OFFSHORE NORTH WALES, UK

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SCOPE

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RWE wanted a more powerful drilling system than existed in the market for its flagship project and LDD was appointed main drilling contractor after demonstrating a high level of capability and innovation which gave RWE the confidence that LDD could deliver a brand new drilling system within the 10 months available. LDD designed and built the drill system which was fully function tested within the available timeframe as promised.

Piles at Gwynt y Môr have a tapered profile which meant the drill-bit had to be designed specifically to fit through the 4.6m diameter neck of the pile, yet have the ability to stabilise inside and under-ream below the 6m diameter body of the foundations. LDD designed a fully adjustable system around a 4.3m diameter drill bit, allowing for infinite adjustment of the under-reaming system from 4.3m diameter to 6.0m diameter. The drill-bit was designed to be fully modular, allowing for the drill to be converted up to 8.0m diameter, which was anticipated for future drilling opportunities.

Our LD5000 is equipped with Programme Logic Control (PLC) which greatly simplifies operation of the drill system via an electronic interface or through the more traditional, manual controls. The system provides real-time feedback that LDD technicians use to fine tune drilling operations as they progress.

During the execution of the Gwynt y Môr Project, the LD5000 operated for over two years without any significant breakdowns, a testament to the engineering skills and experience of the LDD team.



Photo: LDD's multi-skilled crew, integrated with MENCK's operators maximising the team's efficiency.

INTEGRATED SERVICES & PERSONNEL

Alongside LDD's operations, Acteon sister company MENCK performed pile driving services for the client with their MHU 1900S hydraulic hammer.

The two companies worked side by side from the same vessel to optimise pile installation time, integrating the relief drilling service with pile driving operations to provide the client with a seamless installation method.

LDD's multi-skilled crew, integrated with MENCK's operators maximising the team's efficiency. LDD also supplied additional technical personnel to assist the client with deck operations.

SAFETY

Work took place from the client's Jack-up vessel, the Friedrich Ernestine, through two harsh winters off the North Wales Coast.

Throughout the project LDD maintained its safe working practices and, in recognition of this, received an award from RWE Innogy for achieving zero lost time incidents (LTIs) during offshore works.



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