Culzean FSO Towing and Installation

Project deliverables: FSO tow Mooring installation FSO station keeping FSO hook-up

Maersk Supply Service is managing and executing the towing and installation of the Ailsa Floating Storage and Offloading facility.

Maersk Oil UK, later acquired by Total, awarded a single contract for the tow and hook-up of their Ailsa FSO to Maersk Supply Service. The responsibilities undertaken in the project include project management, engineering, subcontractor management, offshore planning, interface management, and execution of marine services and associated logistics required for the FSO tow and mooring installation. By assuming this responsibility, we align our incentives with our customer to maximise value for all parties. With our versatile fleet, specialist industry knowledge and marine experience, we are able to optimise project operations, every step of the way.



Advanced capabilties Anchor installation by Maersk Master

Maersk Master, an M-class 2017 new-build, is the perfect tool for anchor transport, installation and tensioning. Due to the high capacity of her chain lockers and winches and the large size of her available deck space, the load out of the twelve 50t anchors was able to be performed in only two mobilisations.



Fuel efficiency

Utilised throughout the project, the M-class vessels are modern vessels that provide high fuel economy. Powered by five medium speed engines, a flexible hybrid propulsion system and fixed pitch on all side thrusters, M-class vessels maintain efficient fuel consumption and low Low fuel consumption emissions during transit. and emissions in transit



Offshore expertise 50 years of safe and successful operations With 50 years of experience operating safely and successfully in the offshore industry, we are able to provide the right solution, the right way. The Culzean project requires installing the highest tensioned mooring system in the North Sea, as well as twelve delicate sheathed spiral strand steel wires.



Key facts

Client: Total E&P UK **Project:** FSO tow, mooring and hook-up Location: Culzean field, UK North Sea Water depth: $90 \,\mathrm{m}$ No of vessels used: 7 **Project timing:**

2017 to 2018 **Operations:** FSO Tow, Mooring Installation, FSO Hook-up Safety performance: Zero incidents



Work scope for the Culzean FSO Towing and Installation



End to end project management of:

Boulder clearance

Identified and removed boulders for clearance of chain lay down corridors using orange peel grab Performed by Maersk Achiever

Drag anchor installation and tensioning

12x 50t anchors constructed and installed in two mobilisations

140mm bottom chain assemblies

723t holding tension achieved using stev tensioner

Performed by Maersk Master

Tow of Ailsa FSO

12,200 miles from Singapore to UK North Sea via Cape of Good Hope Performed by three L-class anchor handling vessels

Mooring leg installation

12x sheathed spiral strand steel wires 140mm top chain assemblies Performed by M-class AHTS new-build vessel

Hook up of FSO mooring system

12x mooring legs pulled into FSO turret FSO operations and winches installed FSO station keeping performed by four L-class AHTS vessels Chain tensioning operations Final surveys and inspections



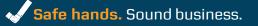






Maersk Supply Service - Provider of vessels and full service solutions to the energy sector

Maersk Supply Services is a leading provider of global offshore marine services. We bring more than 50 years of hands-on marine experience from vessel operations on a global scale, serving a broad range of clients in the energy sector.



Our Integrated Solutions division delivers full service solutions, which include scoping, planning, subcontracting and execution of marine projects as well as access to in-house cost-competitive vessels with competent and experienced crew that meet the highest standards of quality and safety.

