Maersk Supply Service was awarded a contract by an American oil major to deliver an integrated FPSO mooring installation and replacement solution in the Gulf of Guinea.

The project was for the disconnection of a temporary FPSO mooring system and installation of the permanent replacement mooring system. Maersk Supply Service’s full-scope delivery included project management, planning, engineering, design, procurement and marine execution. It also entailed the transport of mooring chains and connectors from China, and Intermoor SEPLA anchors and follower from Louisiana.

Maersk Maker, a 2019 new-build AHTS vessel, transported and installed nine 25 tonne SEPLA anchors using a 120 tonne follower of 4.3m diameter. The anchors were installed to 27m below seabed, while Maersk Achiever concurrently deployed 650m-long studless chains of 157mm diameter. With some of the most advanced capabilities in the industry, our AHTS and SSV vessels are designed to handle the large mooring systems of tomorrow.

By working with Maersk Maker and Maersk Achiever in tandem, we were able to save time and reduce the number of port calls required. Together, the vessels carried and installed five SEPLA anchors and chain sets per mobilisation, as well as five sheathed spiral strand wires and chains. Tandem operations also prevented entanglement of the large chains and follower during installation in deep waters.

We approach every project from a background of over 50 years of hands-on offshore experience. As it was the first time the mooring equipment was installed at this large size, the on- and offshore project team was able to address the associated challenges, and ensure installation was completed safely and efficiently.

Key facts

Client:
American oil major

Project:
FPSO mooring installation & replacement

Location:
Gulf of Guinea

Water depth:
500m

No of vessels used:
4

Project timing:
April - December 2019

Operations:
Mooring equipment transportation
Temporary moorings disconnection
Permanent moorings installation

Safety performance:
Zero incidents
Vessels involved in the FPSO mooring installation and replacement project:

Maersk Maker  Maersk Laser  Maersk Lancer  Maersk Achiever

End-to-end project management of:

Equipment procurement and transportation
- Mooring chains and connectors mobilised from Shanghai
- Anchors and follower mobilised from Louisiana

Anchor mobilisation and installation
- Transport and installation by Maersk Maker and Maersk Achiever
- Installation using a 120 tonne follower of 4.3m diameter
- 9x 25 tonne SEPLA anchors installed

Chain mobilisation and installation
- Transport and installation by Maersk Maker and Maersk Achiever
- 6200m of 157mm chain installed in 650m-long sections
- 4600m of sheathed spiral strand wire installed
- Total 4000 tonnes of mooring equipment transported and installed

Temporary mooring system disconnection
- 9x Omni-Max anchors recovered
- Mud mats and associated mooring chains of various sizes recovered