

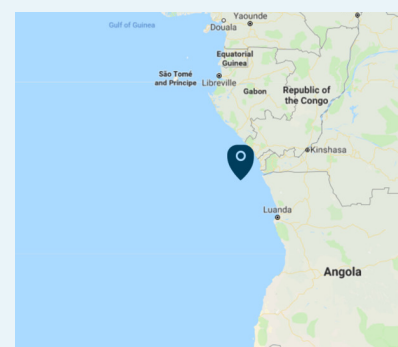
# Angola Block 15 Jumper Installation

## Project deliverables

- Project management
- Engineering
- Offshore crew
- Subcontractor management
- Local fabrication
- Jumper installation

## Maersk Supply Service is project managing, engineering and executing the installation of jumpers over multiple fields in Angola's Block 15, in the Lower Congo Basin.

Expanding from a standard time charter providing marine services to Esso Angola, Maersk Supply Service is performing project management, engineering and installation of several jumpers. Leveraging project management experience and a 50 year legacy of delivering safe and efficient marine operations, Maersk Supply Service is delivering the full scope of services, including local fabrication and supply.



### Scope

Management and marine services

Responsibilities undertaken in the project include project management, engineering, subcontractor management, fabrication, provision of offshore crew, interface management, installation and associated logistics required.



### Engineering

Installation work scopes

Maersk Supply Service is providing the engineering management for the installation work scopes covering jumper load out operations, crane operations, rigging calculation, sea fastening, installation analysis, installation procedures, and construction/modification of jumper stands used to support equipment during load out and transportation.



### Local commitment

Local office and network

Maersk Supply Service has been operating in Angola for over 25 years, with Maersk Supply Service Angola established in Luanda in 2012. This local presence and knowledge allows us to leverage partnerships with local contractors. We are focused on developing the capabilities of the local community, educating future seafarers and employing them in our operations to create job opportunities and ease interface management.

## Key facts

### Client:

Esso Angola

### Project:

Jumper installation

### Location:

Multiple fields, Block 15, Lower Congo Basin

### Water depth:

1300 m

### No of vessels used:

1

### Project timing:

2017 to 2020

### Operations:

Subsea construction



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## Jumper installation work scope

### JUMPER BATUQUE 113



Maersk Nomad

### JUMPER DIKANZA 120 STEP OVER MODULE



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### JUMPER DIKANZA 120 PRODUCTION



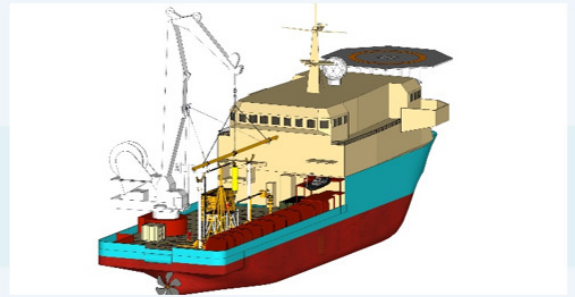
Maersk Nomad

### JUMPER DIKANZA 121 WATER INJECTION



Maersk Nomad

### TOTAL VESSEL DAYS: 260



## Work scopes executed as of May 2018

### Jumpers

- Development of installation analysis and procedures
- Risk assessment
- Modification of jumper and spreader bar stands
- Fabrication of access platform
- Seafastening of stands
- Supply of rigging, consumables and accessories
- Installation of jumper

### Jumper Batuque 113

- 4.5 t in air
- 24m x 12m x 1m
- Jumper + spreader: 14 t in air, 10 t in water

### Jumper Dikanza 120 step over module

- 15 t in air
- 30m x 8m x 1m
- Jumper + spreader: 26 t in air, 21.5 t in water

### Jumper Dikanza 120 production

- 16.4 t in air
- 24m x 10m x 1m
- Jumper + spreader: 27 t in air, 21.5 t in water

### Jumper Dikanza 121 water injection

- 15 t in air
- 21m x 8m x 1m
- Jumper + spreader: 23 t in air, 20 t in water



Maersk Nomad Subsea Support Vessel



Load out of jumpers and locally fabricated stands



Offshore jumper installation

### 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.

 **Safe hands.** Sound business.