

PROJECT SHEET

P67 FPSO TRANSPORTATION

BOSKALIS

Royal Boskalis Westminster is a leading global marine contractor and services provider. With safety as our core value, we offer a wide variety of specialist activities to the oil & gas and renewables sectors. These activities include marine installation and decommissioning, seabed intervention, marine transport and services, subsea services and marine survey. In addition, Boskalis is a global dredging contractor, provides towage and terminal services across the globe and delivers marine salvage solutions.

By understanding what drives our clients we are able to provide the solutions that enable them to meet their specific business goals. For this reason we are constantly looking for new ways to broaden and optimize our offering and are committed to expanding our proposition, supported by our financial strength.

With our committed professionals in engineering, project management and operations, 900 specialized vessels and an unprecedented breadth of activities in 90 countries across six continents we help our clients in the offshore industry push boundaries and create new horizons.

INTRODUCTION

On behalf of Company Petrobras and Client COOEC, Boskalis executed the dry transportation of the P-67 FPSO in 2018 from the COOEC Qingdao yard in China to Rio de Janeiro in Brazil. The P-67 FPSO will produce 150,000 bpd

FEATURES

Client	COOEC (Offshore Oil Engineering Co., Ltd.)
Location	Shanghai, China/Qingdao, China/ Rio de Janeiro, Brazil
Period	December 2017 - July 2018
Equipment	MV Boka Vanguard

CARGO PARTICULARS

Item	Value	Unit
Total weight (transportation condition)	90,000	[t]
Length overall	316	[m]
Width overall	74	[m]
Total height	115.3	[m]
loading draft	6.3	[m]

and compress six million cubic meters of natural gas daily in the Lula North section of the Lula-Cernambi field in the Santos basin. The transportation of the 90,000-tonne box-shaped P-67 unit around the Cape of Good Hope poses various challenges to Petrobras which incentivized the dry-tow operation method in order to ensure a seamless and safe delivery of the unit at location. The operation was executed with the Boskalis semi-submersible heavy lift vessel, Boka Vanguard and is the heaviest cargo ever to be transported by this method.



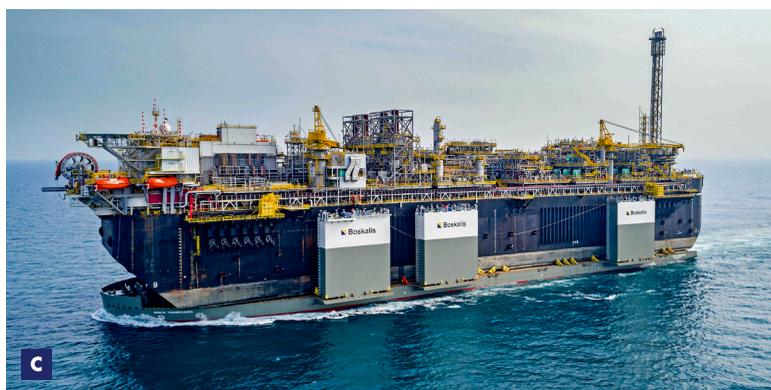
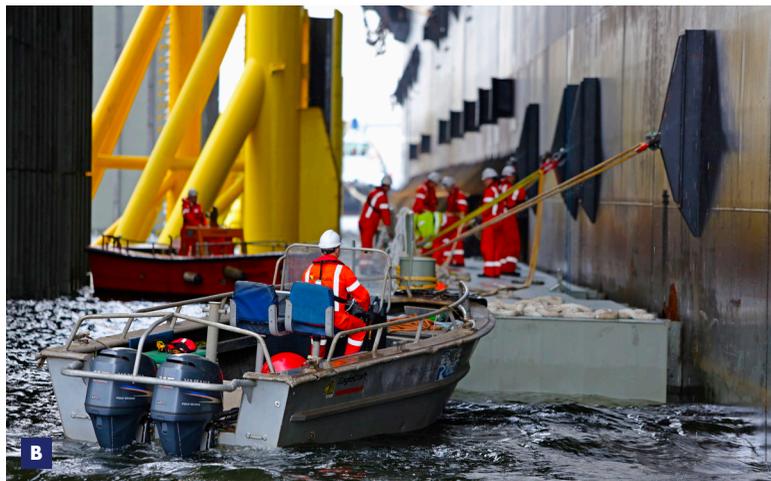
SCOPE

The Boskalis scope for the P67 FPSO Transportation project consist out of:

- Outfitting of the Boka Vanguard
- Wet-tow of the FPSO from the quay side to the loading location
- Loading of the FPSO onboard the Boka Vanguard
- Dry transport from Qingdao (China) via Cape of Good Hope to Rio de Janeiro (Brazil)
- Discharge of the FPSO from the Boka Vanguard
- Wet-tow of the FPSO from the discharge location to the hand-over location
- Provision of permits necessary for the performance of above mention activities
- Detailed engineering of the above mentioned activities
- Procurement, supply, delivery, and logistics of all materials, equipment, goods required for the scope of work

CONCLUSION

The dry transportation of the P67 FPSO provided Petrobras with huge benefits in terms of time and reliability. The Boka Vanguard is the largest and only open bow and open stern semi-submersible vessel in the world. The construction of the Boka Vanguard in 2012 opened up opportunities for transports like the P-67 and will provide the same opportunities for the FSRU and FLNG markets to utilize this vessel to increase their schedule reliability and reduce their time to market.



- A** Float-on Qingdao
- B** Removal of spacer barge required for loading
- C** BOKA Vanguard during transit
- D** Arrival in Guanabara bay, Rio de Janeiro