

FACT SHEET
Semi-submersible Crane Vessel (SSCV) Sleipnir
World's Largest Semi-submersible Crane Vessel Built by Sembcorp Marine

1. SSCV Sleipnir

The world's largest dual-fuel (LNG and MGO) semi-submersible crane vessel built by Sembcorp Marine Ltd for Heerema Marine Contractors (HMC).

2. What does SSCV Sleipnir do?

The vessel is used for installation and decommissioning of major offshore facilities world-wide. The dual cranes provide for heavy lifting capacity both to install and remove jackets, topsides, and new types of seabed processing equipment. Furthermore, the cranes can be utilised for installation of foundations, moorings and structures in deep water. It can work in shallow water as well as ultra deepwater.

3. SSCV Sleipnir's specifications

Length	220 m (721 ft)
Width	102 m (334 ft)
Length over Work Deck	180 m (590 ft)
Beam over Work Deck	97.5 m (320 ft)
Depth to Work Deck	49.5 m (162 ft)
Draft range	12-32 m (39-104 ft)
Lifting Capacity	Two heavy-lift cranes, each with a lifting capacity of 10,000 tonnes (able to lift 20,000 tonnes when working in tandem)
Crew Accommodations	Up to 400
Helicopter Deck	<ul style="list-style-type: none"> • Diameter - 28 m • Load Capacity – 15.6 tonnes
Thrusters	<ul style="list-style-type: none"> • Forward end - Four (4) retractable, underwater demountable fixed pitch, variable speed azimuth thrusters of 5.5 MW each • Aft end - Four (4) underwater demountable fixed pitch, variable speed azimuth thrusters of 5.5 MW each
Mooring System	<ul style="list-style-type: none"> • 4 x 3 point mooring system, 3 1/8" wire ropes of 1,750m, minimum breaking strength 578 tonnes • Stevpris Mk-6 anchors of 12 ton each
Speed	Cruising speed of 10 knots
Engines	12 engines of 8MW each
Fuel	Dual-Fuel (Marine Gas Oil and Liquefied Natural Gas)

Measuring 220 metres (722 ft) in length and 102 metres (334 ft) in width, Sleipnir is the largest offshore vessel Sembcorp Marine has built, to date.

The vessel has two heavy-lifting offshore cranes with 10,000-tonne lifting capacity each, which can lift the equivalent weight of 20,000 cars in tandem.

The 129m (423-ft) high lifting capacity provided by the cranes' main hoist also facilitates placement of heavy topsides modules at higher elevations. Other stand-out features include greater workability in harsher environments due to the design of the columns. The vessel also boasts a large reinforced work deck area for carrying multiple modules.

When the cranes are fully extended, the vessel will reach 220 metres – more than 20 metres higher than the iconic Marina Bay Sands in Singapore (or 85 metres higher than the London Eye).

The Sleipnir is self-propelled and has a minimum service speed of 10 knots, with power generated by means of dual fuel engines – Marine Diesel Oil (MGO) & LNG. Station-keeping is by means of dynamic positioning (DP3) or mooring system.

The living quarters accommodate up to 400 persons in single and double cabins. All quarters have heating and air conditioning facilities.

Sleipnir's dynamic ballast and de-ballast system is a joint engineering effort by Sembcorp Marine and Heerema. Its Liquefied Natural Gas (LNG) system is the world's first Type-C LNG tank installed in an enclosed column.

4. When did Sembcorp Marine win this project?

On July 15, 2015, Sembcorp Marine announced that it has entered into an Engineering and Construction contract worth approximately USD1 billion with Heerema Offshore Services B.V. (HOS) to build a new DP3 semi-submersible crane vessel (SSCV). The letter-of-intent was signed between Sembcorp Marine's wholly owned subsidiary Jurong Shipyard Pte Ltd and HOS in March 2015.

For more information, visit: <https://hmc.heerema.com/fleet/sleipnir>