

Sembawang Shipyard Clinches LANISTES FSU Conversion Contract

Sembawang Shipyard has successfully secured a major offshore conversion contract from Shell Exploration BV, under a Service Agreement with the National Iranian Oil Company (NIOC) for the re-development of the Nowrooz and Soroosh oil fields in Northern Persian Gulf, carrying out the development operations on behalf of and in the name of NIOC.

The conversion contract calls for the conversion of the 311,896 dwt tanker **LANISTES** into a Floating Storage and Offtake Unit (FSU). Sembawang Shipyard was awarded the contract based on the shipyard's strength and established track record in this highly specialised and sophisticated field of offshore conversions, demanding strong project management skills, high Health, Safety and Environment (HSE) standards, proven engineering and procurement expertise and strong organisational capabilities.

A significant aspect of the conversion will be the fabrication of a new stern structure and the installation of a new stern mounted turret mooring and loading system, which will allow the offshore unit to weathervane freely without power assistance. The FSU will be turret moored at the stern to allow export tankers to moor bow to bow by means of a tandem mooring arrangement.

This FSU conversion calls for extensive modification work in the stern areas, engine room, pump room, main deck, tanks and accommodation areas. Major work in the engine room includes the overhaul of machinery, removal of the main turbine and installation of 3 new electrical power generation units.

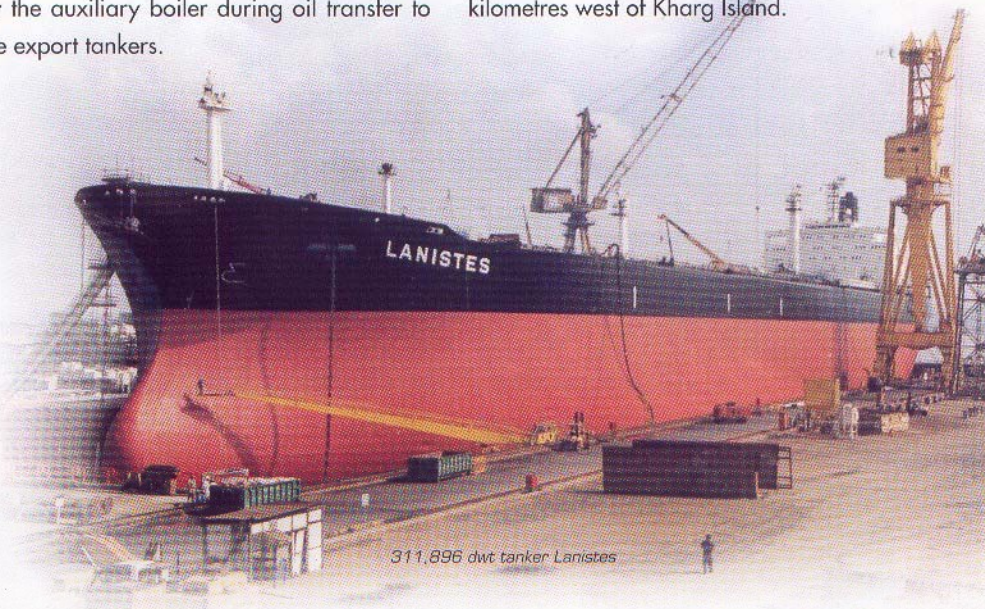
Substantial steelwork of approximately 2,400 tons will be carried out during the conversion, mainly to provide reinforcement in the tanks for longitudinal bulkhead strengthening, stern turret fabrication work and the new stern housing. The cargo and ballast system will also

be renewed and modified, along with the vessel's hydraulic system. The project also calls for the renewal of pipelines and installation of new piping systems for the separate reception and storage of two grades of stabilised crude oil.

In compliance with international regulations and safety standards onboard the vessel, the fire fighting system and life saving equipment will be upgraded together with the fire and gas detection system, including an extensive safety and emergency shutdown system. Additionally, modification and upgrading works will be carried out to the existing utilities systems, including the production of inert gas by the auxiliary boiler during oil transfer to the export tankers.

conversion". Mr Heng Chiang Gnee, Managing Director of Sembawang Shipyard, said "We are pleased and honoured to be chosen by Shell Exploration for the **LANISTES** FSU conversion, which will be another milestone achievement for Sembawang Shipyard. We thank Shell Exploration for its trust and confidence in our project management know-how and engineering capabilities".

Upon completion, the FSU will be stationed at the Soroosh field. The Soroosh / Nowrooz oil fields were discovered in the early 1960s and are located in shallow waters some 80 kilometres west of Kharg Island.



311,896 dwt tanker Lanistes

The conversion also calls for the upgrading and refurbishment of accommodation areas, the extension of the cargo control room and domestic utility equipment such as galley and laundry equipment for a complement in excess of thirty-five personnel.

In the words of Mr Ingo Dijkstra, General Manager of Shell Exploration BV, "Sembawang Shipyard is the most competitive in terms of price, quality and experience. The shipyard has clearly demonstrated its capabilities to handle such conversion work and we are confident that both Shell Exploration and Sembawang Shipyard will be able to work closely towards a successful

Since 1978 after successfully completing the FSU conversion of **JED WARREN**, Sembawang Shipyard has amassed a track record in the highly specialised and demanding offshore conversion work, including the world's most sophisticated FPSO conversions of **Nan Hai Fa Xian** in 1990 and again in 1999, Sembawang Shipyard also successfully completed the **NORTHERN ENDEAVOUR**, recognised as the FPSO with the latest state-of-the art process equipment and systems. We are confident that the FSU conversion of **LANISTES** will further enhance Sembawang Shipyard's skills and expertise in offshore conversions and reinforce our reputation as one of the world's leading shipyards for shiprepair and conversions. 📍