

IIMS In-Country Report for South Korea (China & Japan) **June 2019**

The past 12 months has shown a considerable upsurge in the commercial marine new building market with the three main Korean yards (HHI, SHI and DSME) have strong order books for 2020 going forward. The extensive building of 20 very large container vessels (Triple E Class - 18,000 TEU) by Maersk, at DSME, (contract value circa US\$3.8bn) has now come to an end and the yards are now focusing again on the high value and high tech market of LNGC's and LPG's and the new type of vessel Very Large Ethanol Carriers (VLEC's).

The Korean shipbuilding order book has been boosted recently by the announcement that Qatar Gas requires 100 new vessels to be provided for the export of their own countries LNG. The initial order has been fixed for 60 vessels to be built across the three main Korean yards. The building will start in about 24 months' time. Other ship owner such as Shell have also placed some significant orders for LNGC's which will be concurrent with the Qatari vessels.

The advances in dual fuel propulsion technology still progress at a pace with the IMO 2020 Global Marine Fuel Sulphur (see foot note 1) limits fast approaching. We are seeing a rapid up-take in non-LNGC ships (Mainly Tankers and Container vessels) being built with LNG ready engines and specialist gas fuel handling equipment.

There is however a huge market share in China, and to a lesser extent in Philippines, Vietnam and Singapore, for refit work and the fitting of Exhaust Scrubbers for compliance with IMO 2020 Global Marine Fuel Sulphur limits. There are 100's of vessels being refitted in China within the next 6 to 12 months. This will be a very short-lived high work period and many 'new and unproven' companies have jumped into the market to make 'Scrubbers', that may or may not work in the long term. The main scrubber manufactures like Alfa Laval, have closed their order books as they have too much work. This is enabling 'Others' to get their foot in the door.

The need for LNG Bunkers is also on the increase and there are a number of smaller Korean Yards and in China and Japan, as well as Singapore who are focussing on these specialist but essential vessels.

The four ship (tri-fuel diesel electric - TFDE) LNGC building programme by Teekay joint venture in China (Shanghai) has come to an end in January 2019, but other owners are now looking to build in China as part of Chinese JV's. The quality of work remains a considerable challenge in China and the length of build time is almost 10 to 12 months longer per vessel in China. So, Owners have to compensate these factors by having a larger Owners Site Team and they have to be very experienced staff to

Foot Note 1: Until 31 December 2019, for ships operating outside Emission Control Areas, the limit for sulphur content of ships' fuel oil is 3.50% m/m (mass by mass). The 0.50% m/m limit will apply on and after 1 January 2020.

be able to 'support' the shipyard's lack of skills. Consequently, the cost of building an LNGC in China is more expensive than Korea.

Shipbuilding in Japan is now mainly restricted to Japanese Owners building for their own companies 'with state subsidies'. The material costs and labour costs in Japan make it prohibitively expensive to build normal commercial vessel there for other foreign owners.

The Offshore sector has a few orders progressing but much less than the past 10 years. SHI has the ENI Coral FLNG project for Mozambique. HHI has closed its Offshore Yard since August 2018, they have not received any new orders in the past three years.

The merger of DSME with HHI is ongoing with HHI being instructed by the Korean Government to move on this. This is causing considerable uncertainty within DSME as there will be many 1000's of job losses. Also, some owners are waiting until the last quarter of 2019 to place orders with DSME, as their order book is not full and the prices will inevitably be discounted at the end of the year.

Marine surveying – the local rates are low in South Korea and as such most of the cargo survey work is undertaken by local companies. Some special cargo work and Marine Warranty Survey (MWS) work can attract higher fees and often overseas companies prefer to use Non-Korean companies for this type of work. Being based in Korea is an advantage for our company as we have very low travel costs and expenses.

IIMS Membership remains static in the Region. I had intended on having a stand, in the UK Pavilion, at KORMARINE in Busan in September, but the cost and time involved is not within my budget this year. We can aim for this again in 2021.

We are intending to take on our own Broadreach Marine Apprentice from September to participate in a two-year training program for New Construction Site Team Management. This will enable the Trainee to attend and witness all aspects of ship building from Steel Cutting to Delivery of a number of vessel and also witness all aspects of machinery factory testing and commissioning. We also intend to introduce the Trainee to all aspects of Marine Surveying (Class, Statutory, WMS, etc). The aim is for our Trainee to achieve CEng through IMarEST after the two years. He will become a Member of IIMS as well.

Broadreach Marine remains busy within the LNG newbuilding market and consultancy work and some MWS work.

We remain at your disposal: info@broadreachmarine.com

Prepared by: Peter Broad, CEng, CMarENG, FIMarEST, FIIMS,
IIMS In-Country Representative for South Korea.