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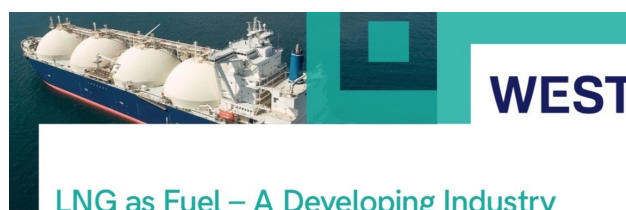
LNG as fuel - A developing industry



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This publication provides insight on how LNG could be an integral part of the future of this fast developing industry.

LNG is increasingly being used as fuel on vessels other than LNG carriers. The search for 'green' fuel, as well as developments in engine and LNG storage technology, have helped the industry develop quickly in recent years. This guide looks at issues that a ship owner or charterer may want to consider when negotiating a contract for the supply of LNG as fuel such as, scheduling and responsibility for delays, quantity / composition (i.e. quality), and operational aspects of the bunkering operation.



LNG is increasingly being used as fuel on vessels other than LNG carriers. The search for 'green' fuel, as well as developments in engine and LNG storage technology, have helped the industry develop quickly in recent years. However, as with any fuel there must be sufficient infrastructure to supply it, reliably and on time, to vessels whose schedules can be unpredictable.

LNG bunkering vessels are relatively expensive and the technological requirements for transferring LNG are more demanding than for conventional fuel oil. There are therefore some significant hurdles to overcome, but there are signs already that suggest that use of LNG will become more widespread and easier to adopt.

At present there are still relatively few locations where LNG can be supplied as fuel, making it better suited to smaller vessels operating close to home (e.g. tugs) or those with a fixed schedule such as ferries, cruise ships or container ships. The LNG bunkering infrastructure is currently concentrated in areas where there are established ECAs in place. It is likely that these initial developments will assist in growing the wider LNG infrastructure such that vessels with global trading patterns could bunker for LNG as fuel as they currently do for traditional bunkering. Plans are already afoot to establish LNG bunkering infrastructure in Singapore which is arguably one of the world's busiest bunkering ports. Japan, South Korea and Australia are also working to develop LNG bunkering facilities.

Typically, an LNG bunkering vessel will supply the LNG whilst alongside the receiving vessel, but it can also be supplied from a dedicated shore terminal (e.g. for local ferries and tugs) or even by road tanker for small vessels. On the receiving vessel, different types of tank are used to store the LNG either close to atmospheric pressure, or at higher pressure. These may even be housed in a standard 20 foot or 40-foot container frame, but for larger vessels requiring a greater range, more space will be needed. The LNG will be stored in the tank until needed, when it is vaporised and burned in the ship's engine(s), which are 'dual fuel', i.e. they can burn both LNG and conventional fuel oil. Of course, where LNG is carried, the intention will usually be to burn gas rather than fuel oil where possible, but there may still be times when conventional fuel is needed.

This guide looks at issues that a ship owner or charterer may want to consider when negotiating a contract for the supply of LNG as fuel, including cover issues from a P&I insurance perspective. BIMCO is developing a standard form contract for the purchase of LNG, but most of the current suppliers are oil majors or large operators and it remains to be seen whether a BIMCO form (as opposed to the supplier's terms) will become acceptable.

DNV GL has also created Fuel Boss, which is a fully digital tool for LNG fuel suppliers and shipowners that allows them to plan, execute and communicate about LNG bunkering operations. The platform provides suppliers with a tool to manage the operation of their entire LNG contract portfolio and shipowners with one common interface for their LNG bunkering operations across different suppliers.



Even in the conventional fuel market, only the largest of buyers use their own standard terms. Of course, that does not mean that the supplier's terms are non-negotiable, and an owner / charterer will be particularly interested in (i) scheduling and responsibility for delays, (ii) quantity / composition (i.e. quality), and (iii) the operational aspects of the bunkering operation. We will now look at each of these aspects in turn.

Contact

If you would like further information on this topic then please contact our Underwriting Department or your dedicated relationship manager.

Find here 

This news publication was put together with the assistance of Ingolf Kaiser from Stephenson Harwood.