

Offshore Energy Law

Charterparty terms relating to heel

The transportation of LNG by sea differs in significant respects from that of other commodities. The sophisticated infrastructure that must be in place to transport natural gas as a liquid, the constant loss of cargo as boil-off, and the use of cargo as fuel for propulsion are among the factors which make the LNG trade unique.

One issue in particular that does not arise in the non-gas trade is that of heel. The heel is a small portion of LNG which is retained on board the vessel following the discharge of a cargo.

"The heel is a small portion of LNG which is retained on board the vessel following the discharge of a cargo."

The main function of heel in the LNG logistics chain is to keep the ship's cargo tanks cool in between cargoes. It can also be used in the ship's propulsion system, in substitution for (or in addition to) conventional fuel oil. As some of the LNG will inevitably boil off during a voyage, this is a good way of ensuring that the gas is not wasted.

Furthermore, depending upon the relative prices of LNG against fuel oil, it may be more economical to sacrifice some of the LNG in propulsion of the vessel, and orders can be given to "force boil-off" so as to achieve this.

The use of heel is important to both parties at different stages of the LNG logistics operation and charterparties will contain a range of standard form and bespoke terms dealing with this. Such terms will take on a greater or lesser significance depending upon whether the parties are entering into a long or short term charterparty.

Generally speaking, under a long-term time charter owners will be less concerned about what happens to the heel in between voyages, as their interest only really comes to the fore when ownership of the heel is

transferred at the beginning or at the end of the charterparty period.

In contrast, where the charterparty concerned is short term, perhaps only for a single voyage, owners will want to know more precisely the quantity of heel that will be returned so that they can plan for the next employment for the vessel.

The ShellLNGTime 1 standard form charter, one of the most widely used forms in the LNG shipping industry for both short and long term time charters, sets out a variety of clauses which attempt to reconcile each party's interest in the heel. In this article we will consider these clauses by examining how they operate at each stage of a typical LNG shipment.

"ShellLNGTime 1 standard form charter, one of the most widely used forms in the LNG shipping industry."

Arrival at the load port

If this is the first loading operation for the charterers, then any heel that has been retained on board will be transferred to them. This is a relatively straightforward transaction, similar to the transfer of bunkers on delivery. In ShellLNGTime 1, this is dealt with in the same clause which provides that "Charterers shall accept and pay for ... LNG Heel on board at the time of delivery." The Heel is to be valued at the "LNG Price", a price which is set between the parties at the outset of the charter (clause 5). Any heel left on board at the end of the time charter is bought back by owners at the same price.

If the vessel has arrived following a previous discharge operation under the same charter, then it is likely that it will have arrived cool and ready to load, having retained a certain amount of heel after the last discharge. The default position is that, following discharge, owners will retain on board sufficient heel to arrive at the next load port in a cool and ready to load condition and to remain in that condition for 24 hours

(cl. 16(a)). The quantity of heel required will depend upon several factors, including the distance from the previous discharge port to the loading port and the rate of boil-off expected to occur during the ballast voyage. It also depends upon charterers' requirements: the amount of heel to be retained on board is to be agreed, and charterers can stipulate that no heel be retained following discharge. If the charterers exercise this right to "heel-out", the vessel would arrive at the next load port warm.

In this scenario, the vessel would need to be cooled down in order to prepare it for loading, and so would need to be supplied with LNG for spray cooling by the terminal. Who pays for the LNG required for cooling down is dealt with in clause 16(b). Charterers pay where additional LNG is required as a result of events which fall on charterers' side of the line e.g. strikes, seizure, restraint of labour, act of God, or war, whereas owners pay where it is required as a result of (amongst other things) an off-hire event (clause 16(c)). In the situation where LNG is required because charterers have ordered the vessel to arrive warm then they will have to pay for the LNG required for cool-down (clause 16(b)(i)).

During the laden voyage

Upon loading a cargo of LNG, what remains of the heel will become mixed with the new cargo and it will remain mixed throughout the remainder of the voyage. Title to the heel will generally remain with the charterers throughout the period of the charterparty, so charterers will in most cases own the entire quantity of the LNG on board. It follows that there is little requirement to distinguish between heel and cargo during the voyage, and this is reflected in the terms of ShellLNGTime.

So, for example, the definition of "fuel" in Appendix C includes "Boil-off". "Boil-Off" means vapour which results from vaporisation of LNG in the cargo tanks, with no distinction being made between heel and cargo. The practical effect is that, when LNG boil-off is used as fuel, the LNG comes from both the heel and the cargo.

The situation is similar where the vessel is off-hire for one of the reasons set out in clause 22, in which case owners would be required to reimburse charterers for any LNG that is lost during any off-hire period (clause 22(g)(ii)). Again, no distinction is made between LNG which is cargo and LNG which is heel.

One situation in which it might become necessary to ascertain how much is cargo and how much is heel is where the vessel is redelivered following an off-hire cancellation. Clause 22(h) provides that charterers may terminate the charter once the vessel has been off-hire for a certain period of time. However, they can only do so where the vessel is free of cargo (other than heel) at the time the notice is given. How do the parties decide whether the vessel is cargo free when a small amount

of heel remains on board? Owners might want to argue that whatever is left is cargo, so that charterers are unable to terminate, whereas charterers would suggest that it is all heel and the vessel is effectively cargo free. It is not clear how the courts would deal with such a situation.

"How do the parties decide whether the vessel is cargo free when a small amount of heel remains on board?"

At the discharge port

The position here will depend upon whether charterers intend to perform a further voyage or whether the vessel is to be redelivered to owners following discharge.

If a further voyage is to take place, a certain amount of heel will usually be retained in order for the vessel to arrive at the next load port cool and ready to load. As we saw above, ShellLNGTime provides for owners and charterers to agree upon a quantity of LNG to be retained as heel depending upon the distance to the next load port, the daily rate of boil-off and whether charterers wish to heel-out.

Where the discharge is to take place at the end of a voyage which is the final voyage before redelivery to owners, whether or not a quantity of heel must be retained will depend on what has been agreed in clause 5. If the price of LNG is favourable, charterers may wish to maximise their returns by discharging all the LNG on board. They are not concerned about retaining a heel so that the vessel can arrive cool at the next load port. However, in most cases the owners will have specified at the outset a minimum quantity of heel that is to be on board upon redelivery. Failure to redeliver with the minimum quantity of heel on board would likely result in a damages claim from owners who may have to load additional LNG to prepare for loading under their next employment.

LNGVoy

This article has focussed on the terms most likely to be familiar to those in the LNG shipping industry, being terms from ShellLNGTime 1.

LNGVoy, a new form which is nearing finalisation with BIMCO, is expected to achieve recognition as the industry standard as a voyage charter alternative for use in the nascent LNG spot market.

The fundamental difference as far as heel is concerned is that, under an LNGVoy voyage charter, owners retain title to any heel which is in the cargo tanks at the commencement of loading, and title does not transfer at any stage of the voyage.

This will result in a shift in many of the assumptions that are made, for example, in relation to which party is responsible for ensuring the vessel is cooled down at the loading terminal.

It will be interesting to see how the industry responds. We will cover this in a later issue of Well Heeled.