



Bunker Management & Operations

Thursday 12th January 2012

Recently we have seen issues arising under time charter contracts concerning bunker management and operations which led us to draft this circular.

Under a Time Charter Party it is the Charterers' obligation to arrange for the supply of bunkers to the vessel. It's important for the Charter Party (C/P) to make clear reference to the required specifications of the fuels. Bimco has recently issued a special circular of Bunker clauses for Time Charter Parties with explanatory notes which would be useful to consider during C/P negotiations.

The C/P description of the vessel usually includes the 100% capacity of the fuel tanks on board. However, discussions could arise regarding bunker management due to practical restrictions which may be unknown to the Charterer at the time of the fixture.

NUMBER OF FUEL GRADES

In the past, most sea-going vessels were built to accommodate the storage and consumption of 2 grades of fuels, but with the ongoing attempt to reduce sulphur emission, it is not unusual for a vessel to have 4 different grades of fuel on board nowadays; 1) high sulphur fuel oil (HSFO), 2) low sulphur (1.0%) fuel oil (LSFO), 3) 'normal' marine diesel or gas oil (MDO or MGO) and 4) ultra low sulphur (0.1%) marine gas oil (0.1% MGO). This requires good bunker management and planning for smooth operations.

MAXIMUM FILLING OF FUEL TANKS

While the vessel's C/P description refers to 100% capacity of the fuel tanks, the maximum filling of the tanks can be found in the Safety Management System (SMS). Such written procedures are determined by "the Company" as defined by the International Safety Management Code (ISM Code), usually being the Owners or technical manager of the vessel. Filling up to 100% is not possible as it would lead to overflowing of the tank resulting in liability for pollution, costs for cleaning the ship and

environment, potential fines and delay. A maximum filling range from 80% to 98% is not uncommon since a certain safety margin is required. As fuel needs to be heated, margin for expansion is necessary.

The vessel's movement has to be taken into account as slamming and rolling could cause a fuel tank to overflow, especially when located forward. Other factors such as the shape of the tank or whether automatic sounding is available or not, can affect the Company's decision on how high to set the maximum filling level. For comparison, the maximum filling of cargo tanks on a tanker is up to 98% capacity.

FUEL REQUIRED FOR THE INTENDED VOYAGE

It is good seamanship to have more fuel on board than the minimum quantity required for the intended voyage to provide a safety margin for adverse weather or other unforeseen circumstances. The safety margin can usually be found in the SMS and ranges from 3 to 5 days.

NON-MIXING FUEL & TRANSFER

It is not advisable to mix fuel remaining on board with bunkers newly supplied, as compatibility is unknown unless this has been specifically tested prior to bunker operations. Under most supply contracts, the supplier excludes liability for quality claims in case the bunkers supplied have been mixed with other fuel on board.

However, fuel remaining on board and supplied as part of one batch (same grade, same specs, same supplier) can be consolidated and transferred into the smallest possible tank(s), in order to maximise bunker intake.

OTHER OPERATIONAL RESTRICTIONS

If fuel tanks are located adjacent to the cargo area where heat-sensitive cargo is loaded, this could reduce the maximum fuel intake as the tank may only be partly used or not used at all.

The vessel's maximum fuel intake can be limited by load line or deadweight restrictions as well as stability and



stress calculations. A good voyage preparation includes a check to make sure that during all stages of the voyage the vessel can comply with any draft or load line restriction for passage, channel or berth and always can proceed in a safe condition taking into account intended cargo operations and bunkering.

FOOD FOR THOUGHT

Not all Charterers might be aware that neither maximum filling nor safety margin for additional fuel are requirements carved in stone by either flag state or Classification society. What is to be considered reasonable is therefore debatable.

Voyage results can be negatively affected if an additional port call for the sole purpose of bunkering has to be scheduled (e.g. due to a filling restriction of 80%) which could have been avoided if a higher (90%) limit would have been applicable or because of the required safety margin being 5 days and fuel on board only providing for a 3.5 days margin.

A good working relationship between Charterers and Owners, technical managers and crew on board is always important but all the more if Charterers want to discuss the restricting factors implemented by the SMS if questioning whether these are reasonable.

For example, is it reasonable for Owners to hold on to their 5 day safety margin if the total voyage is only 5 days? Would it be reasonable for one Owner to allow for a 90% maximum filling level applying on one vessel while for a sister vessel with identical tanks being managed by another technical manager only 80% maximum filling is allowed?

Usually it is possible for vessel's Owner or technical manager to make an exception to the rule in their SMS, provided a thorough risk assessment is carried out. The assessment should consider all relevant factors for the intended voyage and the identified risks. If the risks are within acceptable limits and sufficient preventive measures can be taken, an exception could be allowed.

The Company can even consider a permanent change to the SMS.

MODIFICATION

As referred to earlier, most sea-going vessels have been built for only 2 or 3 different fuel grades and have insufficient storage capacity for 4 grades. If Charterers regularly trade into emission controlled areas this can create some challenges for both Charterers and the crew to manage the bunkers. Changing over from one fuel grade to the next and back again all the time increases the risk of errors if the vessel is not properly equipped to accommodate handling 4 fuel grades. Change-over procedures need to be carried out timely and additional fuel tank cleaning might be necessary when changing over to a fuel grade with lower sulphur content. Depending on the remaining lifespan of the vessel and the agreed period of the C/P, permanent modifications could be considered, such as splitting one bigger storage tank into 2 smaller tanks. However Class approval is required and there are costs involved.

EXAMPLES OF NEGATIVE EFFECTS

A vessel being delivered to Charterers with HSFO and MDO on board in the Far East will be trading to the Netherlands. Due to insufficient storage capacity available the Charterer has no other option than to instruct the unnecessary consumption of MDO during the voyage to free up a storage tank to be able to bunker 0.1% MGO. The costs are considerable as the price of MDO is much higher than HFO.

Due to the limited number of tanks some Charterers are forced to decide to use 0.1% MGO all the time to avoid having to change-over when trading to and from emission controlled areas.

A short term time C/P contains a clause with fuel on redelivery to be about the same quantity as fuel on delivery with agreed prices basis the HSFO and MDO on delivery Far East. At re-delivery in the Netherlands the vessel will have HSFO, LSFO and 0.1 MGO on board at a likely higher cost.

**CHECK BEFORE FIXING!**

When negotiating fixtures Charterers should not only know the 100% capacity of fuel tanks. They also should get to know the number of tanks available, maximum filling and how many different grades of fuel can be carried and/or consumed simultaneously and kept fully segregated at the same time.

We strongly advise Charterers to investigate and discuss in more detail the vessel's description during C/P negotiations to fully understand what to expect from the vessel in order to avoid any unexpected operational restriction and subsequent additional costs after delivery.

For any queries on this topic, please do not hesitate to contact our Support Desk:

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