

Maritec Tanker Management Pvt Ltd

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GENERAL CIRCULAR - SOPP

74/2019

Date: 23rd Sept 2019.

SUBJECT: Standard Operating Policy & Procedure for Cargo Heating

Dear Captain / Chief Engineer / Chief Officer,

Often during a sea passage and always during the discharging operations, we see that the THO Heating valves to those cargo tanks which are EMPTY are left OPEN. The consequence of this incorrect action is:

- Wastage of heat
- Wastage of Fuel Oil consumed by the Boiler
- Increased running of the THO Boilers and thereby reducing the maintenance interval
- 'Coking' of the THO pipes inside the tanks which then, over time progressively result in 'reduced' effect of the heating coils.
- Seized / Frozen THO Valves on deck.
- Leaking glands from the THO Valve Spindles as a result of not having been operated.

All of the above can be avoided, by implementing simple discipline and understanding of the Cargo Heating System onboard your vessel.

In view the following procedures are to be strictly adhered to onboard with regards to the subject of Cargo Heating

Procedures to be implemented

- Familiarize yourself with the THO Heating arrangement and pipelines
- Ensure that the 'auto by-pass' valve located on the Main THO Line (connecting the delivery and return lines) is in a good and reliable operating condition.
- Prior arrival at a Load Port, please seek written guidance from the Office as to when to start with Cargo Tank Pre- Heating.
- Ensure that the Thermal Oil level in the Expansion Tank is maintained just above the Low-Level Alarm, with the THO Pumps in operation. (This is extremely important to mitigate any pollution or other hazard, should there be a leak in the system)



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The Low Level Alarm and the Low – Low Level Alarm which shuts down the THO Boiler and THO Circulating Pumps must be tested prior to each loading operation.

- Once the vessel is alongside loading, and if it is seen necessary to continue running the THO Boiler, the Temp Set Point should not be more than 175 deg C.
- At no point of the heating process is the THO Set Point on the Boilers to be increased beyond 200 deg C. (If there is any requirement to increase the Temp more than 200 deg C, then prior written permission must be taken from your Superintendent).
- During a loaded sea passage, heating to the EMPTY Cargo Tanks to be SHUT OFF by closing both the Inlet & Outlet THO Valves on Deck for the Heating Coils.
- At the START of a loaded passage please ensure that you have received instructions from the Office on the requirement of Cargo Temperature at the discharge port.
- Once the vessel has Cargo onboard, Daily Cargo Tank Temperatures are to be recorded in JoT and the Graphical Log to be sent at noon, to Operations & Technical Departments, only.
- Arrival at a Discharge Port the THO Boiler Set Point should be maintained no more than 175 deg C.
- During Cargo Operation (Discharging) as the individual tanks are <u>nearing</u> to be empty, shut off the heating by closing both the individual tanks Inlet & Outlet THO Valves on Deck.
- SHUT down the THO Boiler well before the completion of Cargo Operations (the ambient air temperature should be considered when doing this), but DO NOT STOP THE THO CIRCULATING PUMPS.
- Once the temperature of the Circulating THO drops below 100 deg C, STOP the THO Circulating Pumps.
- Then REOPEN all the previously CLOSED THO VALVES on Deck for the Cargo Tanks Heating Coils.
- During the Ballast passage, keep all the THO Valves open and the Circulating Pump stopped.



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CAUTION: You are dealing with very hot fluid and hence utmost precaution must be taken at all times.

Remember:

Greater the temperature difference between the Cargo Tank Temperature and the Ambient temperature, bigger will be the heat loss.

The lower the temperature difference between the THO Inlet and Return from the Cargo Tanks, the lesser is the heat transfer taking place inside the tanks.

Thank You,

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