CCS Classification Information

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Notice on USCG Requirements for Hydrostatic Testing of Bunkering Line

All relevant shipping companies, shipyards:

Bunking and transferring of fuel oil are the key operations on board, for which each company has its own strict operation procedures. Conditions of bunkering piping, which is part of the fuel oil system, and its pressure testing records are therefore gain more and more attention. Recently USCG has begun to carry out the inspections of bunkering piping pressure testing pursuant to the requirements in Federal Regulations. All shipping companies are advised to pay great attention to it.

Sector New Orleans Port State Control Officers (PSCOs) issued bulletin on 18 Feb.2011 claiming that the Port State Control Officers have discovered an increasing number of vessels (more than 30%) that are not in compliance with the requirements of 33 Code of Federal Regulations 156.170, which requires each transfer pipe system used in a transfer to, from or within a vessel with a capacity of 250 barrels (about 40m^3/35 tons) or more on the navigable waters or contiguous zone of the United States, to be tested under static liquid pressure at least 1.5 times the maximum allowable working pressure (MAWP) annually.

Hydrostatic pressure could be simply understood as the pressure on the article by homogeneous liquid. In most cases, the PSCOs found that the vessels had tested the systems, but with air vice liquid, therefore the test is ineffective and not acceptable. Several vessels could not provide the written records of the most recent test and inspection of the vessel's bunker lines/transfer systems as required by 33 Code of Federal Regulations 156.820.

However, achieving the test pressure of 150% MAWP for annual test on vessels is often impractical while vessels are in service or outside of shipyards. Sector New Orleans of USCG issued Marine Safety Bulletin on Mar. 3, 2011 to make clarification of the acceptance of alternative bunker line testing procedures. The alternative procedures may be considered or approved in lieu of any requirements in 33 CFR 156 if:

1. Compliance with the requirement of pressure testing is economically or physically impractical;

2. A written request for alternative is to be submitted to USCG at least 30 days before bunkering operations, unless the Captain of the port authorizes a shorter time;

3. The alternative provides an equivalent level of safety and protection from pollution by oil or hazardous material, which is documented in the request.

Meanwhile, the Bulletin accepts the alternative testing procedures pursuant to USCG Marine Safety Manual Volume II as follows:

The alternative test pressure of not less than 100% MAWP for annual bunkering and/or cargo piping tests are allowed, provided that a 1.5 times MAWP test of the piping is conducted at least twice in any five years period. The 1.5 times MAWP tests may be conducted during drydock periods, and a request is not required to be submitted to USCG for approval.

Shipping companies are suggested to carry out the test according to the alternative testing procedures which are regarded comparatively simple and practical.

"Bunkering cargo piping" is referred as the piping between the transfer pumps and bunkering connections, which generally include piping from bunkering connections on upper deck (P & S), to manifold, to control valves on subsidiary pipe and then to the tank. The piping from bunkering connections to control valves on subsidiary pipe and from outlet of transfer pump to valves on subsidiary pipe (to each tank) shall be tested.

When conducting pressure testing, firstly fill the bunkering piping with fuel oil or similar liquid, then close all the valves connected to bunkering piping or sealed by blind plates, and use the designated pump to pressurize to 1.5 times MAWP.

The foresaid method can be adopted for annual test on board with the testing pressure as 100% MAWP; Shipping companies can also use transfer pump to make testing pressure. Ensure that pressure of safety valve of the transfer pump was adjusted greater than MAWP before operation.

1.5 times MAWP test is to be carried out combined with drydock survey with the assistance of the shipyard. The shipyard prepares the report the same as that of ordinary pressure tests. As to annual test, it is to be carried out by crews on board during navigation at sea, generally, and the report should be prepared by the master. The testing medium should not be air, but fuel oil or similar liquid.

In consideration of the foresaid cases, as to the ships engaging to ports of United States, all shipping companies are requested to note the following:

1. Check that the effective written records of the date and result of bunking piping are maintained on board, including the pressure testing records with 150% MAWP of the piping at least twice in any five years period and with test pressure of not less than 100% MAWP annually; Check the bunkering piping is properly marked (date of test, pressure etc.).

2. Check the maintenance condition of bunking piping, ensuring there is no corrosion on piping and valves; Keep the pressure meters, thermometers (if any) in good working order; Ensure that all the marks are explicit and clear.

3. Check the MAWP of the bunking piping is marked in the bunking procedure.

Hereby notify the above.

Classed Ship in Service Department

China Classification Society