
No.53 Periodic Survey and Testing of Foam Concentrates and CO₂ Halon Containers

(1998)

53.1 CO₂ and Halon Containers - Testing and Survey

1. General

- 1.1 Survey of containers intended for storage of fire-extinguishing medium is carried out during an annual and special survey of the ship and under special circumstances also during an occasional survey of the ship.
- 1.2 Containers after repair or discharge are to be subject to a hydrostatic test.
- 1.3 External examination is to be carried out at each container annually.

Periodic hydrostatic testing of high pressure CO₂ containers is to be performed at maximum intervals of 10 years. Testing is required for not less than 10% of the containers.

For low pressure CO₂ bulk storage containers hydrostatic testing may be required at the surveyor's discretion, depending on the results from internal survey. In the case of insulated containers, the surface beneath insulation should be spot-checked for corrosion. Removal of insulation should be done as necessary in accordance with the manufacturer's procedure.

More extensive testing may be required by national Administrations.

- 1.4 Low pressure CO₂ bulk storage containers are subject to internal survey if the content has been released and the container is more than 5 years old.
- 1.5 Allowable total loss of CO₂ shall not exceed 10% and for Halon 5% of installed quantity.

2. External Examination

- 2.1 Containers are subject to external examination together with all stationary fittings and devices.
- 2.2 External examination is to include:
 - condition of fittings, manometers, outer surfaces, fastenings and insulation,
 - serviceability of the automatic equipment of alarm and protection systems (if fitted),
 - condition of safety valves, safety membranes and other pressure safety devices.
- 2.3 If the external examination reveals damage, the origin of which can not be determined, the surveyor may require an internal survey or hydrostatic test.

3. Internal Survey

- 3.1 During survey particular attention is to be given to the mounting seats of the valve heads of the pressure vessels, fittings, manhole covers and other areas where damage (corrosion, pitting, cracks etc.) is most likely to occur.
- 3.2 If visual inspection reveals corrosion attacks, thickness measurements should be done. If thickness reduction at any point is found to exceed 10%, repairs of the container or replacement is required.

4. Hydrostatic Testing

- 4.1 The test pressure is to be according to the Rules of each society.



No.53 53.2 Survey and Testing of Foam Concentrates

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Foam concentrates should be subjected to periodical control after a period of 3 years and, after that, every year. The arrangement of periodical control should follow IMO/SC/Circ. 582. Foam concentrates should be type approved.

- Note:
- Recom No. 53.1 (May, 1998) is a reproduction of of the former UR F37 (1989/Rev.1 1994/Rev. 2 1996).
 - Recom No. 53.2 (May, 1998) is a reproduction of the former UR F38 (1989/Rev. 1, 1997).

