CONSTRUCTION STANDARDS FOR COMMERCIAL FISHING VESSEL

Fuel systems

Section 7.0

Fuel systems

Actual requirements:

- Main lines in regard to tank construction and components
  - Type of material used and scantling
  - Construction specifications related to tank volume
  - Specifications for filling and vent pipes
  - Tank installation and grounding < 15 grt
  - Valves and liquid level gauge glass
  - Tank considered separate from or as part of the hull
  - Tanks hydrostatic test

- Main lines in regard to fuel line
  - None → maintenance and prevention of fuel leakage mentioned

- Gasoline fuel system
  - Provision made for installation using gasoline engine
Fuel systems

Proposed requirements:

Requirements applied to every component and accessory of the fuel system

-Diesel fuel oil tanks

- Where practical, diesel fuel oil tanks shall be part of the vessel's structure
- Type of material used and scantling defined
- Construction specifications similar to actual requirements
- Shall have permanently affixed to it a label showing at least the manufacturer's particulars and tank capacity
- Installation defined in regard to → ship's structure → location → watertight bulkhead, engine room

-Gasoline fuel tanks

- Type of material used defined → glass reinforced plastic
- Non-metallic material subject to specific requirements
- Shall have permanently affixed to it a label showing at least the manufacturer's particulars and tank capacity
- Permanently installed tank shall be limited to 235 litres → inboard engine
- Installation defined in regard to → ship's structure and location
- Requirements in regard to portable containers → size, number and location

-Fuel oil tanks for cooking and heating appliances shall not be installed in the same space as the appliance and the supply of oil shall be capable of being shut off from positions outside the space in which the appliance is fitted
**Fuel systems**

- **Fuel tank gauge**
  - Mechanical or remote reading fuel gauges → all vessels
  - Means of manual sounding required → vessels > 12 m
  - Liquid level gauge glass → similar to actual requirements

- **Fuel tank fill and venting systems**
  - Metal pipe or approved flexible hoses → vessels < 12m
  - Steel pipe or similar fire and pressure-resistant material (approved flexible hoses may be used to absorb vibration) → vessels > 12m
  - Installation defined in regard to → type of fuel
    → pipes size
    → type of components and grounding
    → deck fill plates

**Fuel systems**

- **Fuel lines**
  - Definite type of material used for piping with approved short flexible hoses to absorb vibration and installation requirements (strapping)
  - Shall have the minimum number of connections practicable and be accessible for inspection and maintenance
  - Components used on the fuel lines shall meet some defined requirements
  - Accessories shall be approved and dedicated for the purposes that were intended for and their installation shall meet some requirements
  - Fuel line length greater than 3.6 m → shut-off valve shall be installed at the distribution point
Fuel systems

-Requirements in regard to gasoline fuelled engine

  • Similar to actual requirements (backfire flame control, carburetor leakage)
  • Provisions in regard to tanks integrated fuel pump and engine driven fuel pump

-Fuel system labelling

  • Warning label shall be placed at each maintenance point stating
    → instructions for maintenance
    → instruction on how to avoid the hazard
  • Each valve shall be clearly marked (function, operating positions)
  • Each valve chest and manifold shall be clearly labelled

-Impact

  • Low to moderate depending on ship size and type of fuel used. Some requirements are already being carried out in practice

THANK YOU

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