

Strength assessment of flooded condition for fire-fighting

| Related Rules/Guidance | Effective date |
|---|---|
| Pt. 14 Structural Rules for Container Ships Annex 14-1 | - ships contracted for construction on or after 1 July 2021 |

○ Reason for Amendments

1. When a fire breaks out in the cargo hold, it tries to extinguish a fire using a fixed gas fire-fighting system, but there are cases where the fire cannot be extinguished.

Thus, the cargo hold flooding condition has been adopted as additional fire-fighting system.

2. The requirements for the cargo hold flooding system for fire-fighting have been newly established in **Pt 8, Annex 8-9 of Guidance relating to Rules for the Classification of Steel Ships**, and an additional special feature notation is given to ships comply with relevant requirements.

The requirements for strength assessment of flooded condition for fire-fighting have been added to **Pt 14**.

○ Amendments

1. Annex 14-1 newly established.
2. Specify the permissible vertical still water bending moment and shear force in flooded condition for fire-fighting.

In case of cargo hold flooding condition, the actual loading condition and flooding level are entered into the loading instrument to review the longitudinal strength.

3. Specify the maximum flooding level of cargo hold.

Hull local scantling and cargo hold structural strength are to be assessed based on the maximum flooding level.

○ Impact Analysis

- ✓ Indication of any impact on and/or contribution to safety, security or

environmental protection

: Improved structural safety by adding flooded condition for fire-fighting

✓ Indication of any impact on net and gross scantlings

: Depending on the maximum flooding level, it may be required that design changes or increasing scantlings of watertight bulkheads and double bottom girders.