## F15

(1982) (Rev.4 1989) (Rev.5 1996) (Rev.6 Feb 2021) (Corr.1 Feb 2022) (<u>Rev.7</u> Sep 2023)

## Reinforced thickness of ballast and cargo oil piping

F15.1 Ballast piping passing through cargo tanks and cargo oil pipes passing through segregated ballast tanks, as permitted by Regulation 19.3.6 of MARPOL Annex I, are to comply with the following requirements.

F15.1.1 The pipes are to be of heavy gauge steel of minimum wall thickness according to the table hereunder with welded or heavy flanged joints<sup>1</sup> the number of which is to be kept to a minimum.

Expansion bends<sup>2</sup> only (not glands) are permitted in these lines within cargo tanks for serving the ballast tanks and within the ballast tanks for serving the cargo tanks.

Nominal diameter	Minimum wall thickness
(mm)	(mm)
50	6.3
100	8.6
125	9.5
150	11.0
200 and above	12.5

<sup>&</sup>lt;sup>1</sup>Heavy flanges joints means welded flange joints rated at least PN10 or one pressure rating higher than required design pressure, whichever is greater.

F15.2 The thicknesses shown in the above table refer to carbon steel.

F15.3 Connection between cargo piping and ballast piping referred to above is not permitted except for emergency discharge as specified in the Unified Interpretation to Regulation 1.18 of MARPOL Annex I.

Nevertheless, provision may be made for emergency discharge of the segregated ballast by means of a connection to a cargo pump through a portable spool piece. In this case non-return valves should be fitted on the segregated ballast connections to prevent the passage of oil to the ballast tanks. The portable spool piece should be mounted in a conspicuous position in the pump room and a permanent notice restricting its use should be prominently displayed adjacent to it.

Shut-off valves shall be provided to shut off the cargo and ballast lines before the spool piece is removed.

F15.4 The ballast pump is to be located in the cargo pump room, or a similar space within the cargo area not containing any source of ignition.

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1. Rev.6 of this Unified Requirement is to be uniformly implemented by IACS Societies on ships contracted for construction on or after 1 July 2022.

 $<sup>\</sup>frac{2}{Expansion bends means expansion loops such as an omega bend ('<math>\Omega$ ') in piping system to counteract excessive stresses or displacement caused by thermal expansion or hull deformation which could be fabricated from straight lengths of pipe.

## F15 (cont)

- 1. Rev.7 of this Unified Requirement is to be uniformly implemented by IACS Societies on ships contracted for construction on or after 1 January 2025.
- 2. The "contracted for construction" date means the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. For further details regarding the date of "contract for construction", refer to IACS Procedural Requirement (PR) No. 29.

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