

Clarification of Watertight Doors for Survivability

Amended Rules and Guidance

Rules for the Survey and Construction of Steel Ships Parts C, N, and S
Rules for Marine Pollution Prevention Systems
Guidance for Marine Pollution Prevention Systems

Reason for Amendment

Although SOLAS clearly stipulates requirements for hinged watertight doors with respect to survivability for damage stability, the LL Convention, MARPOL, IGC Code, and IBC Code do not stipulate any such requirements. The inconsistency between SOLAS and the others was recently noticed by IACS while it was developing a unified interpretation. IACS developed a draft proposal to add such requirements to the other conventions and codes and submitted it to IMO's Maritime Safety Committee (MSC) for review at the committee's 101st Session (MSC101) in June 2019.

After deliberations at the IMO, amendments to the LL Convention were adopted by the MSC at its 104th Session (MSC104) as MSC.491(104) and to the IGC Code as MSC.492(104) in October 2021, amendments to MARPOL were adopted by the Marine Environment Protection Committee (MEPC) at its 78th Session (MEPC78) as MEPC.343(78) in June 2022, and amendments to the IBC Code were adopted by the MSC at its 106th Session (MSC106) as MSC.526(106) in November 2022.

The above amendments added hinged watertight access doors normally closed at sea and hinged watertight doors permanently closed at sea to the types of openings not subject to requirements related to survivability for damage stability in order to be consistent with SOLAS.

Accordingly, relevant requirements are amended based on MSC.491(104), MSC.492(104), MEPC.343(78) and MSC.526(106).

Outline of Amendment

Specifies that hinged watertight access doors normally closed at sea and hinged watertight doors permanently closed at sea may be excluded from the openings to be considered with respect to survivability for damage stability.

“Rules for the survey and construction of steel ship” has been partly amended as follows:

Part C HULL CONSTRUCTION AND EQUIPMENT

Part 2-2 BOX-SHAPED BULK CARRIERS

Annex 1.1 ADDITIONAL REQUIREMENTS FOR BULK CARRIERS IN CHAPTER XII OF THE SOLAS CONVENTION

An2 Damage Stability

An2.1 Survivability

An2.1.1

Sub-paragraph -2(1) has been amended as follows.

- 2** The condition of equilibrium after flooding is to be in accordance with the following:
- (1) The final water line after flooding, taking into account sinking, heel, and trim, is to be below the lower edge of any opening through which progressive flooding may take place. Such openings are to include air pipes, ventilators and openings which are closed by means of weathertight doors or hatch covers. The openings closed by means of manhole hatch covers and flush scuttles, watertight hatch covers, remotely operated sliding watertight doors, hinged watertight access doors with open/closed indication locally and at the navigation bridge of the quick-acting or single-action type that are normally closed at sea, hinged watertight doors that are permanently closed at sea, and side scuttles of the non-opening type, may be excluded.
- ((2) to (4) are omitted.)

Part N SHIPS CARRYING LIQUEFIED GASES IN BULK

Chapter 2 SHIP SURVIVAL CAPABILITY AND LOCATION OF CARGO TANKS

2.7 Survival Requirements

2.7.1 Survival Requirements (*IGC Code 2.7*)*

Sub-paragraph -2(1) has been amended as follows.

2 In any stage of flooding

- (1) The waterline, taking into account sinkage, heel and trim, is to be below the lower edge of any opening through which progressive flooding or downflooding may take place. Such openings are to include air pipes and openings which are closed by means of weathertight doors or hatch covers and may exclude those openings closed by means of watertight manhole covers and watertight flush scuttles, small watertight cargo tank hatch covers which maintain the high integrity of the deck, remotely operated watertight sliding doors, hinged watertight access doors with open/closed indication locally and at the navigation bridge of the quick-acting or single-action type that are normally closed at sea, hinged watertight doors that are permanently closed at sea, and sidescuttles of the non-opening type;

((2) and (3) are omitted.)

Part S SHIPS CARRYING DANGEROUS CHEMICALS IN BULK

Chapter 2 SHIP SURVIVAL CAPABILITY AND LOCATION OF CARGO TANKS

2.9 Survival Requirements (*IBC Code 2.9*)

2.9.2 Stability Criteria at Any Stage of Flooding*

Sub-paragraph (1) has been amended as follows.

In any stage of flooding, the requirements are to be according to followings.

- (1) the waterline, taking into account sinkage, heel and trim, are to be below the lower edge of any opening through which progressive flooding or downflooding may take place. Such openings are to include air pipes and openings which are closed by means of weathertight doors or hatch covers and may exclude those openings closed by means of watertight manhole covers and watertight flush scuttles, small watertight cargo tank hatch covers which maintain the high integrity of the deck, remotely operated watertight sliding doors, hinged watertight access doors with open/closed indication locally and at the navigation bridge of the quick-acting or single-action type that are normally closed at sea, hinged watertight doors that are permanently closed at sea, and sidescuttles of the non-opening type;
- ((2) and (3) are omitted.)

“Rules for marine pollution prevention systems” has been partly amended as follows:

Part 3 CONSTRUCTION AND EQUIPMENT FOR THE PREVENTION OF POLLUTION BY OIL

Chapter 3 CONSTRUCTION AND EQUIPMENT FOR THE PREVENTION OF POLLUTION BY OIL CARRIED IN BULK

3.2 Hull Construction

3.2.2 Subdivision and Stability (*Regulations 27 and 28 of Annex I*)*

Sub-paragraph -3(1) has been amended as follows.

3 Oil tankers are to be regarded as complying with the damage stability criteria if the following requirements as shown **(1)** to **(5)** are met:

- (1) The final waterline, taking into account sinkage, heel and trim, are to be below the lower edge of any opening through which progressive flooding may take place. Such openings are to include air pipes and those which are closed by means of weathertight doors or hatch covers and may exclude those openings closed by means of watertight manhole covers and flush scuttles, small watertight cargo tank hatch covers which maintain the high integrity of the deck, remotely operated watertight sliding doors, hinged watertight access doors with open/closed indication locally and at the navigation bridge of the quick-acting or single-action type that are normally closed at sea, hinged watertight doors that are permanently closed at sea, and side scuttles of the non-opening type.

((2) to (5) are omitted.)

“Guidance for marine pollution prevention systems” has been partly amended as follows:

Part 2 SURVEYS

Chapter 2 REGISTRATION SURVEYS

2.1 Registration Surveys during Construction

2.1.3 Inspections of Construction and Equipment

Sub-paragraph -2(7) has been amended as follows.

2 Inspections of equipment for the prevention of pollution by oil carried in bulk by oil tankers are to be carried out specifically in accordance with the following procedures **(1)** through **(8)**:

((1) to (6) are omitted.)

- (7) The watertightness of watertight manhole covers, watertight flush scuttles, small cargo tank hatch covers which maintain the high integrity of the deck, remotely operated watertight sliding doors, hinged watertight access doors with open/closed indication locally and at the navigation bridge of the quick-acting or single-action type that are normally closed at sea, hinged watertight doors that are permanently closed at sea, and side scuttles of the non-opening type approved to be located below the final waterline specified in **3.2.2-3(1) in Part 3 of the Rules** is to be verified. Watertightness may be confirmed merely by checking the number of bolts, and the condition of packing. In case of doubt, a hydrostatic test is to be carried out.