Amendment on 29 June 2026
Resolved by Technical Committee on 29 January 2026

Review of Rules related to Discharge Pipes

Object of Amendment

Rules for the Survey and Construction of Steel Ships Part D
Rules for the Survey and Construction of Passenger Ships
Rules for the Survey and Construction of Inland Waterway Ships

Reason for Amendment

Part D of the Rules for the Survey and Construction of Steel Ships requires the installation of emergency bilge suction pipes in the engine rooms of ships using reciprocating internal combustion engines as main propulsion machinery but does not require the same for electric propulsion ships. However, since ensuring a means of drainage in emergencies is also important to the safety of electric propulsion ships the Society decided to review its requirements related to means of drainage for such ships.

In addition, the Society applies its requirements related to corrosion resistance for distance pieces used in discharge pipes of exhaust gas recirculation (EGR) systems mutatis mutandis as the requirements for exhaust gas cleaning systems. EGR drainage, however, is less corrosive, and no corrosion cases have been reported to date. For this reason, the Society decided to review its requirements related to corrosion resistance for distance pieces.

Accordingly, relevant requirements are amended based on these reviews.

Outline of Amendment

The main details of this amendment are as follows:

(1) Specifies the installation of emergency bilge suction pipes is also required for electric propulsion ships.
(2) Deletes requirements related to the corrosion resistance of distance pieces used in EGR discharge pipes.

Effective Date and Application

This amendment applies to ships for which the date of contract for construction is on or after 1 July 2026.

An asterisk (*) after the title of a requirement indicates that there is also relevant information in the corresponding Guidance.

ID:DD25-23

Amended-Original Requirements Comparison Table (Review of Rules related to Discharge Pipes)

Amended	Original	Remarks
RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS **Part D MACHINERY INSTALLATIONS** **Chapter 12 PIPES, VALVES, PIPE FITTINGS AND AUXILIARIES** **12.2 Thickness of Pipes** **12.2.1 Required Thickness of Pipes Subject to Internal Pressure** **2** The thickness of pipes having a negative tolerance in thickness is not to be less than value t_1 determined by the following formula: $$t_1 = \frac{t_r}{1 - \frac{\underline{\underline{\lvert a \rvert}}}{100}}$$ where t_r : Same as in **-1**. a : Maximum negative tolerance (%), in the case of a positive tolerance, a is to be zero.	**RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS** **Part D MACHINERY INSTALLATIONS** **Chapter 12 PIPES, VALVES, PIPE FITTINGS AND AUXILIARIES** **12.2 Thickness of Pipes** **12.2.1 Required Thickness of Pipes Subject to Internal Pressure** **2** The thickness of pipes having a negative tolerance in thickness is not to be less than value t_1 determined by the following formula: $$t_1 = \frac{t_r}{1 - \frac{\underline{\underline{a}}}{100}}$$ where t_r : Same as in **-1**. a : Maximum negative tolerance (%)	Alignment with P1.2.3, IACS UR P1 (Rev.6).

Amended-Original Requirements Comparison Table (Review of Rules related to Discharge Pipes)

Amended	Original	Remarks
Chapter 13 PIPING SYSTEMS **13.5 Bilge and Ballast Piping** **13.5.7 Bilge Suction Arrangements in Engine Rooms** **6** Emergency bilge suction pipes for ships with steam turbines used as main propulsion machinery (<u>including propulsion generating plants</u>) are to comply with the following requirements: (1) In the above ships, an emergency bilge suction pipe with a screw-down non-return valve having a wheel handle which is extended above the floor grating in the engine room, is to be fitted to the suction end of the main circulating pump. The suction pipe of this pump is to be fed into a suitable level in the engine room in order to discharge bilge in case of emergency. The internal diameter of such a suction pipe is not to be less than two-thirds of the diameter of that of pump suction. (2) In cases where the main circulating pump is not considered suitable for bilge discharge, an emergency bilge suction pipe may be fed into the largest available power pump in the engine room other than the bilge pumps specified in **13.5.4-1** in lieu of the main circulating pump. The capacity of this pump is not to be less than that required by **13.5.4-2**. The internal diameter of such a suction pipe is to be equal to that of pump suction. (3) In cases where the pump prescribed in **(1)** or **(2)** is of a self-priming type, the direct bilge suction arranged on the same side of the ship as emergency bilge suction may be omitted.	**Chapter 13 PIPING SYSTEMS** **13.5 Bilge and Ballast Piping** **13.5.7 Bilge Suction Arrangements in Engine Rooms** **6** Emergency bilge suction pipes for ships with steam turbines used as main propulsion machinery (<u>excluding electric propulsion ships</u>) are to comply with the following requirements: (1) In the above ships, an emergency bilge suction pipe with a screw-down non-return valve having a wheel handle which is extended above the floor grating in the engine room, is to be fitted to the suction end of the main circulating pump. The suction pipe of this pump is to be fed into a suitable level in the engine room in order to discharge bilge in case of emergency. The internal diameter of such a suction pipe is not to be less than two-thirds of the diameter of that of pump suction. (2) In cases where the main circulating pump is not considered suitable for bilge discharge, an emergency bilge suction pipe may be fed into the largest available power pump in the engine room other than the bilge pumps specified in **13.5.4-1** in lieu of the main circulating pump. The capacity of this pump is not to be less than that required by **13.5.4-2**. The internal diameter of such a suction pipe is to be equal to that of pump suction. (3) In cases where the pump prescribed in **(1)** or **(2)** is of a self-priming type, the direct bilge suction arranged on the same side of the ship as emergency bilge suction may be omitted.	Electric propulsion ships using steam turbines as propulsion generating plants are also included in the scope of this section.

Amended-Original Requirements Comparison Table (Review of Rules related to Discharge Pipes)

Amended	Original	Remarks
7 Emergency bilge suction pipes for ships with reciprocating internal combustion engines or gas turbines used as main propulsion machinery (including propulsion generating plants) and electric propulsion ships with accumulator battery systems are to comply with the following requirements: (1) In the above ships, an emergency bilge suction pipe with a screw-down non-return valve having a wheel handle which is extended above the lower platform in the engine room is to be fitted to the main cooling water pump. The suction pipe is to be fed into a suitable level in the engine room to discharge bilge in case of emergency. The internal diameter of such suctions pipe is to be equal to that of pump suction. (2) In cases where the main cooling water pump is not considered suitable for bilge discharge, the emergency bilge suction pipe may be fed into the largest available power pump in the engine room other than the bilge pumps specified in **13.5.4-1** in lieu of the main cooling water pump. The capacity of this pump is not to be less than that required by **13.5.4-2**. The internal diameter of such a suction pipe is to be equal to that of pump suction. (3) In cases where the pump prescribed in **(1)** or **(2)** is of a self-priming type, any direct bilge suction arranged on the same side of the ship as the emergency bilge suction may be omitted.	**7** Emergency bilge suction pipes for ships with reciprocating internal combustion engines or gas turbines used as main propulsion machinery (excluding electric propulsion ships) are to comply with the following requirements: (1) In the avobe ships, an emergency bilge suction pipe with a screw-down non-return valve having a wheel handle which is extended above the lower platform in the engine room is to be fitted to the main cooling water pump. The suction pipe is to be fed into a suitable level in the engine room to discharge bilge in case of emergency. The internal diameter of such suctions pipe is to be equal to that of pump suction. (2) In cases where the main cooling water pump is not considered suitable for bilge discharge, the emergency bilge suction pipe may be fed into the largest available power pump in the engine room other than the bilge pumps specified in **13.5.4-1** in lieu of the main cooling water pump. The capacity of this pump is not to be less than that required by **13.5.4-2**. The internal diameter of such a suction pipe is to be equal to that of pump suction. (3) In cases where the pump prescribed in **(1)** or **(2)** is of a self-priming type, any direct bilge suction arranged on the same side of the ship as the emergency bilge suction may be omitted.	Electric propulsion ships using reciprocating internal combustion engines, gas turbines and accumulator battery systems as propulsion generating plants are also to be considered within the scope of this section.

Amended-Original Requirements Comparison Table (Review of Rules related to Discharge Pipes)

Amended	Original	Remarks
Chapter 23 EXHAUST GAS RECIRCULATION SYSTEMS AND ASSOCIATED EQUIPMENT	**Chapter 23 EXHAUST GAS RECIRCULATION SYSTEMS AND ASSOCIATED EQUIPMENT**	
23.4 Requirements for Construction and Arrangements, etc.	**23.4 Requirements for Construction and Arrangements, etc.**	
23.4.1 Construction and Arrangement The following **(1)** to **(3)** requirements are to be applied: (1) Construction and arrangements are to comply with **22.4.1**. However, where fuel oil complying with **1.2.2-2, Part 8, Rules for Marine Pollution Prevention Systems** is used, **22.4.1-17** need not be complied with. In cases where fuel oil which does not comply with the requirement, construction and arrangements are to be as deemed appropriate by the Society. (2) Consideration is to be given to ensure that recirculating exhaust gas does not have any adverse effect on engine performance and safety due to corrosion and fouling, etc. (3) Consideration is to be given to ensure taken that temperature of the intake air/scavenging air introduced into cylinders does not exceed the allowable temperatures specified by engine manufacturers.	**23.4.1 Construction and Arrangement** In addition to 22.4.1, the following **(1)** and **(2)** requirements are to be applied: (Newly added) (1) Consideration is to be given to ensure that recirculating exhaust gas does not have any adverse effect on engine performance and safety due to corrosion and fouling, etc. (2) Consideration is to be given to ensure taken that temperature of the intake air/scavenging air introduced into cylinders does not exceed the allowable temperatures specified by engine manufacturers.	Exclude the requirements related to countermeasures against corrosion of distance pieces for fuel oil complying with the requirements of 1.2.2-2, Part 8 of the Rules for Marine Pollution Prevention Systems (having a sulphur content of 0.10 % m/m or less).

Amended-Original Requirements Comparison Table (Review of Rules related to Discharge Pipes)

Amended	Original	Remarks
RULES FOR THE SURVEY AND CONSTRUCTION OF PASSENGER SHIPS **Part 5 MACHINERY INSTALLATIONS** **Chapter 2 SCUPPERS, SANITARY DISCHRGES, ETC., BILGE AND BALLAST PIPING SYSTEMS** **2.3 Bilge and Ballast Piping** **2.3.7 Bilge Suction Arrangement in Engine Room (*SOLAS* Reg. II-1/35-1.3)** **6** Emergency bilge suction pipes for ships with steam turbines as the main propulsion machinery (including propulsion generating plants) are to comply with the following requirements. (1) An emergency bilge suction pipe with a screw-down non-return valve having a hand wheel which is easily operable from above the platform in the engine room is to be fitted to the suction end of the main circulating pump, and the suction end of this pump is to be located at a suitable level in the engine room to discharge bilge in case of emergency. The internal diameter of such suction pipe is not to be less than two-thirds of the diameter of that of pump suction. (2) Where the main circulating pump is not considered suitable for bilge discharge, the emergency bilge suction pipe may be fitted to the largest available	**RULES FOR THE SURVEY AND CONSTRUCTION OF PASSENGER SHIPS** **Part 5 MACHINERY INSTALLATIONS** **Chapter 2 SCUPPERS, SANITARY DISCHRGES, ETC., BILGE AND BALLAST PIPING SYSTEMS** **2.3 Bilge and Ballast Piping** **2.3.7 Bilge Suction Arrangement in Engine Room (*SOLAS* Reg. II-1/35-1.3)** **6** Emergency bilge suction pipes for ships with steam turbines as the main propulsion machinery are to comply with the following requirements. (1) An emergency bilge suction pipe with a screw-down non-return valve having a hand wheel which is easily operable from above the platform in the engine room, is to be fitted to the suction end of the main circulating pump, and the suction end of this pump is to be located at a suitable level in the engine room to discharge bilge in case of emergency. The internal diameter of such suction pipe is not to be less than two-thirds of the diameter of that of pump suction. (2) Where the main circulating pump is not considered suitable for bilge discharge, the emergency bilge suction pipe may be fitted to the largest available	Electric propulsion ships using steam turbines as propulsion generating plants are also included in the scope of this section.

Amended	Original	Remarks
power pump in the engine room other than the bilge pumps specified in **2.3.4-1**. The capacity of this pump is not to be less than that required by **2.3.4-2**. The internal diameter of such suction pipe is to be equal to that of pump suction. (3) Where the pump prescribed in **(1)** or **(2)** is of self-priming type, the direct bilge suction arranged on the same side of the emergency bilge suction may be omitted.	power pump in the engine room other than the bilge pumps specified in **2.3.4-1**. The capacity of this pump is not to be less than that required by **2.3.4-2**. The internal diameter of such suction pipe is to be equal to that of pump suction. (3) Where the pump prescribed in **(1)** or **(2)** is of self-priming type, the direct bilge suction arranged on the same side of the emergency bilge suction may be omitted.	
7 Emergency bilge suction pipes for ships in which reciprocating internal combustion engines or gas turbines are used as main propulsion machinery (including propulsion generating plants) and electric propulsion ships accumulator battery systems are to comply with the following requirements. (1) An emergency bilge suction pipe with a screw-down non-return valve having a hand wheel which is easily operable from above the platform in the engine room is to be fitted to the main cooling water pump, and the suction end is to be located at a suitable level in the engine room to discharge bilge in case of emergency. The internal diameter of such suction pipe is to be equal to that of pump suction. (2) Where the main cooling water pump is not considered suitable for bilge discharge, the emergency bilge suction pipe may be fitted to the largest available power pump in the engine room other than the bilge pumps specified in **2.3.4-1**. The capacity of this pump is not to be less than that required by **2.3.4-2**. The internal diameter of such a suction pipe is to be equal to that of pump suction. (3) Where the pump prescribed in **(1)** or **(2)** is of self-priming type, the direct bilge suction arranged	**7** Emergency bilge suction pipes for ships in which reciprocating internal combustion engines or gas turbines are used as main propulsion machinery are to comply with the following requirements. (1) An emergency bilge suction pipe with a screw-down non-return valve having a hand wheel which is easily operable from above the platform in the engine room is to be fitted to the main cooling water pump, and the suction end is to be located at a suitable level in the engine room to discharge bilge in case of emergency. The internal diameter of such suction pipe is to be equal to that of pump suction. (2) Where the main cooling water pump is not considered suitable for bilge discharge, the emergency bilge suction pipe may be fitted to the largest available power pump in the engine room other than the bilge pumps specified in **2.3.4-1**. The capacity of this pump is not to be less than that required by **2.3.4-2**. The internal diameter of such a suction pipe is to be equal to that of pump suction. (3) Where the pump prescribed in **(1)** or **(2)** is of self-priming type, the direct bilge suction arranged	Electric propulsion ships using reciprocating internal combustion engines, gas turbines and accumulator battery systems as propulsion generating plants are also to be considered within the scope of this section.

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Amended-Original Requirements Comparison Table (Review of Rules related to Discharge Pipes)

Amended	Original	Remarks
RULES FOR THE SURVEY AND CONSTRUCTION OF INLAND WATERWAY SHIPS **Part 7 MACHINERY INSTALLATIONS** **Chapter 10 PIPES, VALVES, PIPE FITTINGS AND AUXILIARIES** **10.2 Thickness of Pipes** **10.2.1 Required Thickness of Pipes subject to Internal Pressure*** **2** Notwithstanding the requirements specified in **-1** above, the thickness of pipes having a negative tolerance in thickness is not to be less than value t_1 determined by the following formula: $t_1 = \frac{t_r}{1 - \frac{\lvert a \rvert}{100}}$ where t_r: Same as in **-1**. a: Maximum negative tolerance (%), in the case of a positive tolerance, a is to be zero.	**RULES FOR THE SURVEY AND CONSTRUCTION OF INLAND WATERWAY SHIPS** **Part 7 MACHINERY INSTALLATIONS** **Chapter 10 PIPES, VALVES, PIPE FITTINGS AND AUXILIARIES** **10.2 Thickness of Pipes** **10.2.1 Required Thickness of Pipes subject to Internal Pressure*** **2** Notwithstanding the requirements specified in **-1** above, the thickness of pipes having a negative tolerance in thickness is not to be less than value t_1 determined by the following formula: $t_1 = \frac{t_r}{1 - \frac{a}{100}}$ Where: t_r: Same as in **-1**. a: Maximum negative tolerance (%)	Alignment with P1.2.3, IACS UR P1 (Rev.6)

Amended-Original Requirements Comparison Table (Review of Rules related to Discharge Pipes)

Amended	Original	Remarks
EFFECTIVE DATE AND APPLICATION **1.** The effective date of the amendments is 1 July 2026. **2.** Notwithstanding the amendments, the current requirements apply to ships for which the date of contract for construction* is before the effective date. * "contract for construction" is defined in the latest version of IACS Procedural Requirement (PR) No.29. IACS PR No.29 (Rev.0, July 2009) **1.** The date of "contract for construction" of a vessel is the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. This date and the construction numbers (i.e. hull numbers) of all the vessels included in the contract are to be declared to the classification society by the party applying for the assignment of class to a newbuilding. **2.** The date of "contract for construction" of a series of vessels, including specified optional vessels for which the option is ultimately exercised, is the date on which the contract to build the series is signed between the prospective owner and the shipbuilder. For the purpose of this Procedural Requirement, vessels built under a single contract for construction are considered a "series of vessels" if they are built to the same approved plans for classification purposes. However, vessels within a series may have design alterations from the original design provided: (1) such alterations do not affect matters related to classification, or (2) If the alterations are subject to classification requirements, these alterations are to comply with the classification requirements in effect on the date on which the alterations are contracted between the prospective owner and the shipbuilder or, in the absence of the alteration contract, comply with the classification requirements in effect on the date on which the alterations are submitted to the Society for approval. The optional vessels will be considered part of the same series of vessels if the option is exercised not later than 1 year after the contract to build the series was signed. **3.** If a contract for construction is later amended to include additional vessels or additional options, the date of "contract for construction" for such vessels is the date on which the amendment to the contract, is signed between the prospective owner and the shipbuilder. The amendment to the contract is to be considered as a "new contract" to which **1.** and **2.** above apply. **4.** If a contract for construction is amended to change the ship type, the date of "contract for construction" of this modified vessel, or vessels, is the date on which revised contract or new contract is signed between the Owner, or Owners, and the shipbuilder. Note: This Procedural Requirement applies from 1 July 2009.		