Amendments of the Rules for the Classification of Steel Ships

(Circular)

Pt. 9 Ch. 2 Crago Handling Appliance

2025. 08.

Hull Rule Development Team

Background and main contents of the amendments

1. Background of amendments : (Effective Date : Immediately)

(1) Maintenance of Periodic Inspection Period Window for Cargo Handling Gear on Ships Not Subject to SOLAS Regulation II-1/3-13

: This amendment is intended to ensure the applicability of the inspection window requirements for annual surveys to cargo handling appliance that is not subject to the SOLAS Convention.

- Ch 2, 202. 2 (2) of the rules has been amended.

(2) Clarification of Document Submission Requirements for Registration Inspections after construction under the 2025 Rules

: The 2025 Rules introduced a registration survey during construction and after construction, and it may be misunderstood that documents for registration survey after construction are exempted and self-inspection certificates are acceptable. This amendment is intended to clarify that submission of drawings and other relevant documents is required for registration survey after construction, and to limit the scope of inspection certificates to those issued by the IACS member Society, not by the manufacturer.

- A new requirement has been added to Ch 2 203. 3 (1) (A) of the rules, and renumbered following requirements.

2. Main Contents: Refer to the amendments

Present	Amendment	Note
CHAPTER 2 CARGO HANDLING APPLIANCES **Section 2 Surveys** **202. Surveys of Cargo Handling Appliances** **1. Kinds of Surveys** 〈omitted〉 **2. Due range** The timing of the Surveys of cargo handling appliances are to be in accordance with the followings: (1) 〈omitted〉 (2) Lifting appliances assigned a safe working load shall be subjected to an annual survey at intervals not exceeding 12 months. *(2025)* (3) ~ (5) 〈omitted〉 **3. Periodical Surveys carried out in Advance** 〈omitted〉 **203. Registration Surveys** **1. Registration surveys during construction** ***(2025)*** (1) ~ (3) 〈omitted〉 **2. Registration Surveys after Construction** ***(2025)*** (1) Cargo handling appliances assigned the class notation LG(F) (A) Verification of inspection certificates, or materials and equipment certificates for cargo handing appliances (B) ~ (C) 〈omitted〉 (2) ~ (3) 〈omitted〉	**CHAPTER 2 CARGO HANDLING APPLIANCES** **Section 2 Surveys** **202. Surveys of Cargo Handling Appliances** **1. Kinds of Surveys** 〈same as the present〉 **2. Due range** The timing of the Surveys of cargo handling appliances are to be in accordance with the followings: (1) 〈same as the present〉 (2) Lifting appliances assigned a safe working load shall be subjected to an annual survey at intervals not exceeding 12 months. However, for domestic vessels not subject to the SOLAS Convention or where separate instructions are provided by the flag Administration, annual survey may be carried out within 3 months before or after each anniversary date of periodical survey for Classification. *(2025)* (3) ~ (5) 〈same as the present〉 **3. Periodical Surveys carried out in Advance** 〈same as the present〉 **203. Registration Surveys** **1. Registration surveys during construction** ***(2025)*** (1) ~ (3) 〈omitted〉 **2. Registration Surveys after Construction** ***(2025)*** (1) Cargo handling appliances assigned the class notation LG(F) (A) Submission of Drawings and Other Documents specified in **1** (1) *(2025)* (B) Verification of inspection certificates, or materials and equipment certificates for cargo handing appliances issued by a member Society of IACS *(2025)* (C) ~ (D) 〈same as the present〉 (2) ~ (3) 〈same as the present〉	

Rules for the Classification of Steel Ships

(Development Review : For external opinion inquiry)

Part 9 Additional Installations

2025. 09.

Machinery Rule Development Team

Effective Date : 1 July 2026

(The contract date for ship construction)

Present	Amendment	Note
CHAPTER 8 HIGH VOLTAGE SHORE CONNECTION SYSTEMS	**CHAPTER 8 ~~HIGH VOLTAGE SHORE CONNECTION SYSTEMS~~ ONSHORE POWER SUPPLY (OPS) SYSTEM *(2026)***	(Fully Amended) - Ch.8 of Pt.9 of the Rules has been fully amended to incorporate IACS Rec.182.
Section 1 General	**Section 1 General**	
101. General	**101. General**	
1. **Application** The requirements in this Chapter apply to the ships classed with or intended to be registered under the Society, which are equipped with high voltage shore connection system in accordance with IEC/IEEE 80005-1 and apply for the class notation. *(2022)*	1. **Application** ~~The requirements in this Chapter apply to the ships classed with or intended to be registered under the Society, which are equipped with high voltage shore connection system in accordance with IEC/IEEE 80005-1 and apply for the class notation. *(2022)*~~ (1) The requirements in this Chapter apply to the ships classed with or intended to be registered under the Society, which are equipped with high voltage shore connection system (hereafter refered to as "HVSC") and apply for the class notation. (2) This chapter does not apply to the electrical power supply during docking periods, e.g. dry docking and other out-of-service maintenance and repair. (3) Onshore equipment and installations are not covered by this chapter. (4) General reference is made to IEC/IEEE 80005-1:2019 (+AMD1:2022 +AMD2:2023) and IEC 62613-1:2019.	(Amended) - The scope of application for the OPS system has been clearly defined.
2. **Objectives** Objective is to provide requirements for the design, installation and survey of high voltage shore connection systems.	2. **Objectives** Objective is to provide requirements for the design, installation and survey of ~~high voltage shore connection~~ HVSC systems.	(Amended) - Pt 8 of the Guidance has been deleted and its contents have been moved and incorporated into Pt.9, Ch.8, 101., 4 & 5 of the Rules.
3. 〈same as the present Rules〉	3. 〈same as the present Rules〉	
4. **Class notation** Ships having high voltage shore connection systems which complies with requirements of this section may be assigned with the class notation HVSC. 【See Guidance】	4. **Class notation** ~~Ships having high voltage shore connection systems which complies with requirements of this section may be assigned with the class notation HVSC. 【See Guidance】~~ (1) Ships peramanently installed HVSC systems which complies with requirements of this chapter may be assigned with the class notation HVSC.	

Present	Amendment	Note
	(2) The following Class notation may be assigned depending on the ready levels for high voltage shore connection systems. The requirements for each Class notation are to comply with 5. (A) HVSC Ready D as an additional special feature notation may be assigned to ships for which the generic design is prepared. (B) HVSC Ready I as an additional special feature notation may be assigned to ships for which the detailed design is carried out and parts of the HVSC equipment are installed, in addition to the generic design. 5. Requirements for levels of HVSC Ready (1) General (A) This Section prescribes plans and documents to be submitted for preparing the HVSC systems. (B) Drawing approval and survey for HVSC ready are not accepted as Drawing approval and survey for conversion of HVSC system. When the ship is converted, drawing approval and survey are to be carried out in accordance with relevant requirements of this chapter in force at the time of the ship conversion. Approved Drawings and certifications from new building stage may be used as reference for conversion. (2) Plans and documents (A) Level of preparing concept design (D) (a) General arrangement of electrical systems for high voltage shore connection systems (B) Level of detailed design and installation (I) (a) General arrangement of electrical systems for high voltage shore connection systems (b) Manufacturing drawings for shipboard elements of the high voltage shore connection systems as follows (as appropriate): (i) High voltage shore connection switchboard (ii) Transformer (iii) Cable management system (iv) Control and monitoring system (v) Onboard receiving switchboard	(Amended) - Pt 8 of the Guidance has been deleted and its contents have been moved and incorporated into Pt.9, Ch.8, 101., 4 & 5 of the Rules.

Present	Amendment	Note
102. Definitions Terms used in this Chapter are defined as follows: (1) **High Voltage Shore Connection (HVSC) System** A high voltage shore connection system is designed to receive power from a high voltage shore supply system, and consist of high voltage plugs and sockets, high voltage shore connection switchboard, step-down transformer or isolation transformer, high voltage cable, incoming panel and associated instrumentation. (2) **High Voltage** Nominal voltage is considered to be in the range above 1kV up to and including 15kV.	**102. Definitions** Terms used in this Chapter are defined as follows: (1) **Onshore power supply** (hereafter refered to as "**OPS**") system is the equipment that supplies onshore power to ships berthing in port, including ship-side installations and shore installations. (2) **Ship-side installations** are those onboard systems that are designed to accept shore power, typically involving incoming power receptacles and plugs, shore connection switchboard, and protections, transformer (if applicable), incoming switchgear and protections at the main switchboard (hereafter onboard receiving switchboard), power cables (hereafter referred to as cables), automation, cable management system and associated instrumentation. (3) **Shore installations** is the equipment that is installed at quay or port for OPS, typically involving switchgear and protections, transformers, frequency convertors (if applicable), output power receptacles and plugs, cable management system and associated instrumentation. ~~(1)~~ (4) **High Voltage Shore Connection (HVSC) System** A high voltage shore connection system is designed to receive power from a high voltage shore supply system, and consist of high voltage plugs and sockets, high voltage shore connection switchboard, step-down transformer or isolation transformer, high voltage cable, onboard receiving switchboard and associated instrumentation. ~~HVSC is often referred to as Cold Ironing or Alternative Marine Power (AMP).~~ (5) **Cable management system** is all the equipment designed to control, monitor and handle the flexible power and control cables and their connection devices, allowing transmission of power and electrical signals and compensating for vessel's movement caused by tidal range and/or cargo operation. ~~(2)~~ (6) **High Voltage** ~~Nominal voltage is considered to be in the range above 1kV up to and including 15kV.~~ **High voltage (HV)** is nominal voltage above 1,000 V AC and up to 15kV AC. (7) **Low voltage (LV)** is nominal voltage up to and including 1,000 V AC. (8) **Emergency shutdown** is manual and/or automatic shutdown in critical situations. (9) The **first connection** refers to the OPS connection on ship's first call at a shore power supply point.	(Amended) - The definitions in IACS Rec.182 have been incorporated.

Present	Amendment	Note
(3) **Equipotential bonding** Provision of electric connections between conductive parts, intended to achieve equipotentiality. (4) **Cable Management System** The cable management system is all equipment designed to control, monitor and handle the HV-flexible cable, control cables and their connection devices. (5) **Shore Connection Switchboard** The shore connection switchboard is the ship's interface point with the shore power system. HV shore power is connected to this shore connection switchboard by menas of an HV plug and Socket arrangement. The shore connection switchboard is provided with a shore power connecting circuit breaker with circuit protection devices. (6) **Onboard Receiving Switchboard** The receiving switchboard is normally a part of the ship's main switchboard to which the shore power is fed from the shore connection switchboard.	(10) **Operation** includes all activities necessary to permit the electrical installation to function. These activities include matters as switching, controlling, monitoring and maintenance, as well as both electrical and non-electrical work. (11) **Shore-side circuit breaker** is the dedicated switching and protection device on the shore-side which connects and disconnects shore-side power to the ship. (12) **Ship-side circuit breaker** is the dedicated switching and protection device on the ship-side which connects and disconnects shore-side power on the ship. ~~(3) **Equipotential bonding** Provision of electric connections between conductive parts, intended to achieve equipotentiality.~~ ~~(4) **Cable Management System** The cable management system is all equipment designed to control, monitor and handle the HV-flexible cable, control cables and their connection devices.~~ ~~(5)~~ (13) **Shore Connection Switchboard** The shore connection switchboard is the ship's interface point with the shore power system. HV shore power is connected to this shore connection switchboard by menas of an HV plug and Socket arrangement. The shore connection switchboard is provided with a shore power connecting circuit breaker with circuit protection devices. ~~(6)~~ (14) **Onboard Receiving Switchboard** The receiving switchboard is normally a part of the ship's main switchboard to which the shore power is fed from the shore connection switchboard. (15) **Equipotential bonding** is the provision of electric connections between conductive parts, intended to achieve equipotentiality. (16) **Equipotential bonding monitoring device** is a device that monitors the equipotential bonding between two points. (17) **Pilot contact** is the contact of the plug and socket-outlet, which signals correct plug connection and is a safety-related component. (18) **Supply point** is the connection point of the flexible cable on shore. (19) **Fail-safe** means that it is able to enter or remain in a safe state in the event of failure. (20) **Safety circuit** is normally a closed interlocking circuit with pilot contacts and safety devices that shut down the HVSC system in response to specific initiating events. (21) **Connector** is a coupling device employed to connect conductors of one circuit element with those of another circuit element.	

Present	Amendment	Note
103. Drawings for approval *(2022)* **1. General** In the case of the ships intended to be registered as ships provided with high voltage shore connection systems, the drawings to be submitted for approval before the commencement of work are generally as follows: (1) Drawings (A) – (B) 〈same as the present Rules〉 (C) Wiring diagram for high voltage shore connection systems (D) General arrangement for electrical equipment of the high voltage shore connection systems (E) Manufacturing drawing for shipboard elements of the high voltage shore connection systems as follows; (a) High voltage shore connection switchboard (b) – (e) 〈same as the present Rules〉 **104. Drawings and data for reference *(2022)*** (1) Drawings (A) Manufacturing drawings for shipboard elements of the high voltage shore connection systems as follows; (a) H.V plugs & sockets (b) H.V cable (2) Data (A) Operation manuals (including details of the high voltage shore connection systems)	**103. Drawings for approval *(2022)*** **1. General** In the case of the ships intended to be registered as ships provided with ~~high voltage shore connection~~ HVSC systems, the drawings to be submitted for approval before the commencement of work are generally as follows: (1) Drawings (A) – (B) 〈same as the present Rules〉 (C) Wiring diagram for ~~high voltage shore connection~~ HVSC systems (D) General arrangement for electrical equipment of the ~~high voltage shore connection~~ HVSC systems (E) Manufacturing drawing for shipboard elements of the ~~high voltage shore connection~~ HVSC systems as follows; (a) ~~High voltage~~ HV shore connection switchboard (b) – (e) 〈same as the present Rules〉 **104. Drawings and data for reference *(2022)*** (1) Drawings (A) Manufacturing drawings for shipboard elements of the ~~high voltage shore connection~~ HVSC systems as follows; (a) ~~H.V~~ HV plugs & sockets (b) ~~H.V~~ HV cable (2) Data (A) Operation manuals (including details of the ~~high voltage shore connection~~ HVSC systems)	(Amended) – Terminology standardization: High voltage shore connection → HVSC

Present	Amendment	Note
Section 2 Requirements of High Voltage Shore Connection (HVSC) systems	**Section 2 Requirements of ~~High Voltage Shore Connection (HVSC)~~ HVSC systems**	
201. General	**201. General**	(Amended) - The requirements related to the configuration and design of the HVSC system have been amended.
1. The ships intended to be registered as ships provided with high voltage shore connection (HVSC) systems are to be provided the high voltage shore connection (HVSC) systems specified in this section.	1. ~~The ships intended to be registered as ships provided with high voltage shore connection (HVSC) systems are to be provided the high voltage shore connection (HVSC) systems specified in this section.~~ 1. General (1) The ships intended to be registered as ships provided with HVSC systems are to be provided the HVSC systems specified in this section. (2) A typical HVSC system consists of all hardware components necessary to electrically connect ship to shore such as plugs and sockets, transformers (where applicable), switchboards, (static or rotating) frequency converters and alarm, control and safety systems. (3) Protection and safety systems are to be designed based on the fail-safe principle and hard-wired. (4) Electrical power supply from an HVSC system is not to adversely affect the availability of main, auxiliary or emergency machinery, including ship sources of electrical power to allow ship power to be restored.	
2. Equipotential bonding An equipotential bonding between the ship's hull and shore earthing electrode is to be established.	2. Equipotential bonding ~~An equipotential bonding between the ship's hull and shore earthing electrode is to be established.~~ (1) An equipotential bonding between the ship's hull and shore grounding electrode is to be established. (2) Integrity of the equipotential bonding is to be continuously checked as a part of the ship shore safety circuit. (3) Loss of continuity in the equipotential bonding is to result in the shutdown of the HVSC and the ship system is to perform a standard restart after blackout. (4) As an alternative to the continuous checking of the equipotential bonding, periodic testing and maintenance of the bonding connections may be permitted on a case-by-case basis, taking into account the ship's operational profile. In such cases, relevant documentation is to be kept on board for reference by the attending surveyor.	(Amended) - The requirements for equipotential bonding have been supplemented and revised.
3. 〈same as the present Rules〉	3. 〈same as the present Rules〉	

Present	Amendment	Note
	4. Failures An alarm is to be given at the ship's manned station during HVSC system operation whenever a failure occurs on the HVSC system or in ship's systems required to maintain ready availability. 5. Short-circuit calculation (1) In calculating the maximum prospective short-circuit current, the fault current contributions of all simultaneously connected sources are to be considered. This includes the fault contributions of the maximum permitted number of generators, the maximum number of motors and the contribution of the shore supply system. (2) The maximum number of generators or transformers may be evaluated without taking into consideration short-term parallel operation for load transfer, provided that suitable interlocks are foreseen.	(Amended) - Requirements for providing alarms in the event of a fault have been added. (Amended) - Considerations for short-circuit current calculation have been added.
4. Emergency shutdown	~~4.~~ 6. Emergency shutdown and emergency stop (1) Emergency shutdown system is to be provided to open instantaneously all shore connection circuit-breakers at ship-side, when activated. (2) The high voltage power connections are to be: (A) automatically earthed (so that they are safe to touch) immediately following the isolation from ship and shore electrical supply, or (B) arranged for manual earthing, routed and located such that personnel are prevented from access to live connection cables and live connection points by barriers and/or adequate distance(s) (see Note) under normal operational conditions. (3) Where connection equipment can move into a potentially hazardous area, HVSC equipment that is not certified safe type is to be automatically isolated and earthed in accordance with (2) (A).	(Amended) - The regulations related to the emergency shutdown system and emergency stop have been amended.
(1) The emergency shutdown facilities are to be activated in the event of: (A) loss of equipotential bonding, via the equipotential bond monitoring relays (as appropriate) *(2022)* (B) overtension on the flexible cable (mechanical stress) (as appropriate) *(2022)* (C) 〈same as the present Rules〉	~~(1)~~ (4) The emergency shutdown ~~facilities are to~~ system is to be activated in the event of: (A) loss of equipotential bonding, via the equipotential bond monitoring relays (~~as appropriate~~ if applicable) ~~*(2022)*~~ (B) over-tension on the flexible cable (mechanical stress) (~~as appropriate~~ if applicable) ~~*(2022)*~~ (C) 〈same as the present Rules〉	

Present	Amendment	Note
(D) activation of any manual emergency stop (E) – (F) 〈same as the present Rules〉 (2) Emergency stop push buttons, activating emergency shutdown facilities, are to be provided at: (A) an attended on board ship control station during HVSC (B) in the vicinity of the socket outlet (C) at active cable management system control locations (as appropriate) *(2022)* (D) at the circuit-breaker locations for shore connections (as appropriate) *(2022)*	(D) activation of any ~~manual~~ emergency stop buttons (E) – (F) 〈same as the present Rules〉 ~~(2) Emergency stop push buttons, activating emergency shutdown facilities, are to be provided at:~~ (5) Emergency stop push buttons, manually activating the emergency shutdown system, are to be provided at least at the: (A) ~~an attended on board ship~~ ship's manned control station during HVSC system operation ~~(B) in the vicinity of the socket outlet~~ ~~(C)~~ (B) ~~at~~ active cable management system control locations (~~as appropriate~~ if installed onboard) ~~*(2022)*~~ ~~(D)~~ (C) ~~at the~~ ship-side circuit-breaker locations ~~for shore connections (as appropriate) *(2022)*~~ (6) The emergency stop devices are to be clearly visible, protected against accidental or inadvertent operation. They are to require a manual action to reset. (7) An alarm is to be given at the ship's manned station during HVSC system operation, upon emergency shutdown activation. The alarm is to indicate the cause of the activation of the emergency shutdown system.	
202. Ship to shore connection and interface equipment 1. General *(2022)* Where ship-to-shore connection and interface equipment or system is installed onboard, it is to comply with **202.** of this section.	**202. Ship to shore connection ~~and interface equipment~~** 1. General ~~*(2022)*~~ ~~Where ship-to-shore connection and interface equipment or system is installed onboard, it is to comply with **202.** of this section.~~ (1) Standardized HVSC systems, including cables and their accessories, socket-outlets, data and communication links between ship and shore and earthing, are to be used as far as practicable. (2) The ship to shore connection cable installation and operation are to be arranged to provide adequate ship movement compensation, cable guidance and tension control, anchoring and positioning of the cable during normal planned ship to shore connection conditions.	(Amended) – Considerations for ship-to-shore connection have been added.

Present	Amendment	Note
2. Cable management system (1) The cable management system is to: (A) be capable of maintaining an optimum length of cable which minimizes slack cable, and prevents the tension limits from being exceeded, (B) be positioned to prevent interference with ship berthing and mooring systems, including the systems of ships that do not connect to shore power while berthed at the facility, (C) maintain the bending radius of cables above the minimum bending radius recommended by the manufacturer during deployment, in steady state operation and when stowed, (D) be capable of retrieving and stowing the cables once operations are complete. (2) – (3) 〈same as the present Rules〉 (4) Equipotential bond monitoring The equipotential bond created by the ship to shore connection cables is to be constantly monitored.	**2. Cable management system (when provided on board)** (1) The cable management system is to: (A) be capable of moving the ship to shore connection cable, enabling the cable to reach between the supply point and the receiving point, ~~(A)~~ (B) be capable of maintaining an optimum length of cable which minimizes slack cable, and prevents the tension limits from being exceeded, (C) be equipped with a device (e.g. limit switches), independent of its control system, to monitor maximum cable tension and maximum cable pay-out, (D) address the risk of submersion by prevention or through the equipment's design, ~~(B)~~ (E) be positioned to prevent interference with ship berthing and mooring systems, including the systems of ships that do not connect to shore power while berthed at the facility, ~~(C)~~ (F) maintain the bending radius of cables above the minimum bending radius recommended by the manufacturer during deployment, in steady state operation and when stowed, (G) be capable of supporting the cables over the entire range of ship draughts and tidal ranges, and ~~(D)~~ (H) be capable of retrieving and stowing the cables once operations are complete. (2) – (3) 〈same as the present Rules〉 (4) Equipotential bond monitoring ~~The equipotential bond created by the ship to shore connection cables is to be constantly monitored.~~ (A) Equipotential bond monitoring is to be carried out in accordance with 201.1. (B) The equipotential bond monitoring device, where utilized, is to be installed either ashore or onboard where the cable management system is installed.	(Amended) – The requirements for the cable management system have been amended.

Present	Amendment	Note
3. Plugs and socket-outlets (1) General (A) Details including general arrangement of plug and socket-outlet are to be in accordance with IEC/IEEE 80005-1 Annex, IEC 62613-1 and IEC 62613-2. *(2022)* (B) The plug and socket-outlet arrangement is to be fitted with a mechanical-securing device that locks the connection in the service position. (C) The plugs and socket-outlets are to be designed so that an incorrect connection cannot be made. (D) Socket-outlets are to be interlocked with the earth switch so that plugs cannot be inserted or withdrawn without the earthing switch in the closed position.	3. ~~Plugs and socket-outlets~~ Connectors ~~(1) General~~ ~~(A) Details including general arrangement of plug and socket-outlet are to be in accordance with IEC/IEEE 80005-1 Annex, IEC 62613-1 and IEC 62613-2. *(2022)*~~ ~~(B) The plug and socket-outlet arrangement is to be fitted with a mechanical-securing device that locks the connection in the service position.~~ ~~(C) The plugs and socket-outlets are to be designed so that an incorrect connection cannot be made.~~ ~~(D) Socket-outlets are to be interlocked with the earth switch so that plugs cannot be inserted or withdrawn without the earthing switch in the closed position.~~ (1) Connectors are to comply with IEC 62613-1:2019 and the following. (2) The shore-side of the connection cable is to be fitted with plug(s) if a socket-outlet is used onshore. (3) The shipside of the connection cable is to be fitted with connector(s) if a socket-inlet is used onboard. (4) Sockets of the ship are to be interlocked with the earth switch so that plugs or connectors cannot be inserted or withdrawn without the earthing switch in closed position. (5) Contact sequence is to be the following: (A) connection: earth contact, power contacts and pilot contacts, (B) disconnection: pilot contacts, power contacts and earth contact. (6) Each plug and socket-outlet are to have a permanent, durable and readable nameplate with the following information: (A) Manufacturer's name and trademark, (B) type designation, and (C) applicable rated values. (7) Support arrangements are to be foreseen so that the weight of connected cable is not to be borne by any plug or ship connector termination or connection.	(Amended) - The requirements for connectors have been amended.

Present	Amendment	Note
4. High voltage cable The high voltage cable is to be in accordance with IEC 60092-353, IEC 60092-354 or relevant standards which the Society considers appropriate. (1) - (4) 〈same as the present Rules〉	4. ~~High voltage cable~~ Ship to shore connection power cable, control & monitoring cable (when provided onboard) The high voltage cable is to be in accordance with IEC 60092-353, IEC 60092-354 or relevant standards which the Society considers appropriate. (1) - (4) 〈same as the present Rules〉	(Amended) - Title amended. (Amended) - Requirements for the storage of equipment related to the OPS system have been added.

Present	Amendment	Note
203. Ship requirements **1. Shore connection switchboard** (1) General (A) The shore connection switchboard is to be in accordance with IEC 62271-200. (B) The switchboard is to include a circuit-breaker to protect the ship electrical equipment downstream. (2) Circuit-breaker, disconnector and earthing switch (A) In order to have the installation isolated before it is earthed, the circuit-breaker, disconnector and earthing switch are to be interlocked in accordance with the requirements of IEC 62271-200. (B) The rated breaking capacity of every protective device is not to be less than the maximum value of the short-circuit current which can flow at the point of installation at the instant of contact separation. (C) The making capacity of every circuit-breaker or switch intended to be capable of being closed, if necessary, on short-circuit, is not to be less than the maximum value of the short-circuit current at the point of installation. (D) Circuit breaker is to be remotely operated. (3) Instrumentation and protection The shore connection switchboard is to be equipped with at least the following measuring equipment and indicators: (A) - (D) 〈same as the present Rules〉	**203. Ship requirements** **1. Shore connection switchboard** (1) General (A) A shore connection switchboard for the reception of the ship to shore connection is to be provided at a suitable location, near the supply point. ~~(A)~~ (B) The shore connection switchboard is to ~~be in accordance with IEC 62271-200.~~ comply with IEC 62271-200:2021 or other recognized standards as appropriate. ~~(B)~~ (C) The switchboard is to include a circuit-breaker to protect the ~~ship~~ shipboard fixed electrical cables and electrical equipment downstream. (2) Circuit-breaker, disconnector and earthing switch (A) In order to have the installation isolated before it is earthed, the circuit-breaker, disconnector and earthing switch are to be interlocked in accordance with ~~the requirements of~~ IEC 62271-200:2021. ~~(B) The rated breaking capacity of every protective device is not to be less than the maximum value of the short-circuit current which can flow at the point of installation at the instant of contact separation.~~ ~~(C) The making capacity of every circuit-breaker or switch intended to be capable of being closed, if necessary, on short-circuit, is not to be less than the maximum value of the short-circuit current at the point of installation.~~ ~~(D)~~ (B) ~~Circuit breaker is to be remotely operated.~~ A circuit-breaker and automatically controlled or manually controlled earthing switch are to be provided. (3) Instrumentation and protection The shore connection switchboard is to be equipped with at least the following measuring equipment and indicators: (A) - (D) 〈same as the present Rules〉 (E) Unbalanced protection for systems with more than one ship inlet	(Amended) - Requirements for the shore connection switchboard have been amended.

Present	Amendment	Note
(4) The protection systems are to be provided with battery back-up adequate for at least 30 minutes.	(4) ~~The protection systems are to be provided with battery back-up adequate for at least 30 minutes.~~ The protection and safety system is to be continuously powered. A reserve battery for power supply to the protection and safety system with automatic change-over is to be provided with a capacity for at least 30min. Upon failure of the battery's charging or activation of the back-up system, an alarm is to be activated to warn relevant duty personnel. (5) Alarms and indications are to be provided at the ship's manned station during HVSC system operation and at any other appropriate location for safe and effective operation.	(Deleted) - The requirements related to transformers have been deleted, as they are already covered by Pt.6 of the Rules and do not need to be specified in Pt.9, Ch.8.
2. Transformer Where transformers are provided, transformers are to be in compliance with the requirements for transformers in **Pt 6, Ch 1, Sec 6** and **Sec 15**.	~~2. Transformer~~ ~~Where transformers are provided, transformers are to be in compliance with the requirements for transformers in Pt 6, Ch 1, Sec 6 and Sec 15.~~	
3. Onboard receiving switchboard (1) General The high voltage onboard receiving switchboard is to be in accordance with IEC 62271-200.	~~3.~~ 2. Onboard receiving switchboard (1) General ~~The high voltage onboard receiving switchboard is to be in accordance with IEC 62271-200.~~ (A) An additional panel is to be provided in the ship's receiving switchboard (in general a section of the main switchboard). (B) Where parallel operation of the HV-shore supply and ship sources of electrical power for load transfer is possible, necessary instruments and synchronizing devices are to be provided, with the shore connection circuit breaker suitable for short time parallel operation.	(Amended) - Requirements for the onboard receiving switchboard have been amended.
(2) Circuit-breaker and earthing switch (A) The rated breaking capacity of every protective device is not to be less than the maximum value of the short-circuit current which can flow at the point of installation at the instant of contact separation. (B) The making capacity of every circuit-breaker or switch intended to be capable of being closed, if necessary, on short-circuit, is not to be less than the maximum value of the short-circuit current at the point of installation. (C) Circuit breaker is to be remotely operated.	~~(2) Circuit-breaker and earthing switch~~ ~~(A) The rated breaking capacity of every protective device is not to be less than the maximum value of the short-circuit current which can flow at the point of installation at the instant of contact separation.~~ ~~(B) The making capacity of every circuit-breaker or switch intended to be capable of being closed, if necessary, on short-circuit, is not to be less than the maximum value of the short-circuit current at the point of installation.~~ ~~(C) Circuit breaker is to be remotely operated.~~	

Present	Amendment	Note
(3) Instrumentation (A) If load transfer via parallel connection is chosen, the following instrumentation is to be provided: (a) – (b) 〈same as the present Rules〉 (c) One ammeter with an ammeter switch to enable the current in each phase to be read, or an ammeter in each phase (d) Phase sequence indicator (e) 〈same as the present Rules〉 (B) If load transfer via blackout is chosen, the following instrumentation is to be provided: (a) One voltmeter for shore power (b) One frequency meter for shore power (c) One ammeter with an ammeter switch to enable the current in each phase to be read, or an ammeter in each phase (d) Phase sequence indicator	~~(3)~~ (2) Instrumentation (A) If load transfer via parallel connection is chosen, the following instrumentation is to be provided: (a) – (b) 〈same as the present Rules〉 (c) One ammeter (with an ammeter switch to ~~enable~~ read the current in each phase), ~~to be read,~~ or an ammeter in each phase (d) Phase sequence indicator or lamps, and (e) 〈same as the present Rules〉 (B) ~~If load transfer via blackout is chosen,~~ When transfer of supply from ship to shore and vice-versa is made passing through blackout condition, the following instrumentation is to be provided: (a) One voltmeter ~~for shore power~~ (b) One frequency meter ~~for shore power~~ (c) One ammeter (with an ammeter switch to ~~enable~~ read the current in each phase), ~~to be read,~~ or an ammeter in each phase (d) Phase sequence indicator or lamps (3) Protection (A) The following alarms and circuit-breaker trips are to be implemented in the event of: (a) short-circuit: tripping with alarm, (b) overcurrent: in two steps – alarm, and tripping with alarm, (c) earth fault: tripping with alarm if required by the type of isolation system used, (d) over/under voltage: in two steps – alarm, and tripping with alarm, (e) over/under frequency: in two steps – alarm, and tripping with alarm, (f) reverse power: tripping with alarm, (g) phase sequence protection with alarm and interlock. (B) At least the following protective devices, or equivalent protective measures, are to be provided to satisfy the requirements of (A): (a) synchrocheck (b) undervoltage (c) reverse power	

Present	Amendment	Note
	(d) phase sequence voltage (e) overload (f) instantaneous overcurrent (g) overcurrent (h) earth fault (i) overvoltage (j) frequency (under and over) (C) Load shedding of unessential consumers and restoration of ship power are to be considered where these measures could prevent complete power loss. (4) Shore connection circuit-breaker (A) Interlocks are to be provided to ensure that the shore connection circuit-breakers cannot be closed when: (a) one of the earthing switches is closed (shore-side/ship-side), (b) the safety circuit is not established, (c) the emergency shutdown system is activated, (d) self-monitoring properties of ship or shore alarm, control and safety systems detect an error that would affect safety of the connections, (e) the data communication link between shore and ship is not operational (where applicable), (f) the high voltage supply is not present, (g) equipotential bonding is not established, if applicable, (h) an earth fault on ship distribution system is detected. **3. Ship power restoration in case of failure of HVSC** (1) If any failure occurs on the HVSC supply, all shore connection circuit-breakers are to automatically open. Failures include loss of HV power and disconnection (including activation of emergency shutdown or electrical system protective device activation). (2) An alarm is to be given at the ship's manned station during HVSC system operation to indicate activation of the shore connection circuit-breaker opening required in (1). The alarm is to indicate the failure that caused the activation.	(Amended) - Additional requirements have been included for cases of HVSC system failure.

Present	Amendment	Note
204. High voltage shore connection system control and monitoring 1. General Load transfer is to be provided via blackout or automatic synchronization. 2. Load transfer via blackout (1) – (2) 〈same as the present Rules〉 3. Load transfer via automatic synchronization (1) Load is to be automatically synchronized and transferred between the high voltage shore supply and ship source(s) of electrical power following their connection in parallel. (2) Any system or function used for paralleling or controlling the shore connection is to have no influence on the ship's electrical system, when there is no shore connection. (3) If the defined transfer time limit for transferring of load between HV-shore supply and ship source(s) of electrical power is exceeded, one of the sources is to be disconnected automatically and an alarm is to be provided to advise relevant duty personnel.	~~204. High voltage shore connection system control and monitoring~~ ~~1. General~~ ~~Load transfer is to be provided via blackout or automatic synchronization.~~ ~~2.~~ 4. Load transfer via blackout (1) – (2) 〈same as the present Rules〉 ~~3.~~ 5. Load transfer via temporary parallel operation and automatic synchronization (1) ~~Load is to be automatically synchronized and transferred between the high voltage shore supply and ship source(s) of electrical power following their connection in parallel.~~ When parallel operation for load transfer is foreseen, loads are to be automatically synchronized and transferred between the HV shore supply and ship source(s) of electrical power after their connection in parallel. (2) The load transfer is to be completed in as short a time as practicable without causing machinery or equipment failure or intervention of protective devices. ~~(2)~~ (3) ~~Any system or function used for paralleling or controlling the shore connection is to have no influence on the ship's electrical system, when there is no shore connection.~~ When the HVSC system is not connected, systems or functions used for paralleling or controlling the shore connection load transfer are not to affect the ship's electrical system. ~~(3)~~ (4) ~~If~~ When the defined transfer time limit for transferring of load between HV-shore supply and ship source(s) of electrical power is exceeded, ~~one of the sources~~ the connected source is to be automatically disconnected ~~automatically~~ and an alarm is to be ~~provided to advise relevant duty personnel.~~ given at the ship's manned station during HVSC system operation. (5) When load reductions are required to transfer load, this is not to result in the loss of essential or emergency services. (6) Where operation of only designated or a restricted number of ship's generators is required to permit the safe transfer of load between an HV shore supply and ship source of electrical power, the arrangements are to fulfil this requirement before and during parallel connection.	(Amended) - The requirements for load transfer between ship and shore have been amended.

Present	Amendment	Note
Section 3 Testing and Inspection **301. General** **1. 〈same as the present Rules〉** **2. Shop tests** The components for high voltage shore connection system, except junction box and socket box, are to be subjected to shop tests after completion of assembly. **302. Test after installation** (1) – (10) 〈same as the present Rules〉 **303. Survey assigned to maintain classification** Periodical survey items of high voltage shore connection system are to be applied as follows. **1. Special survey *(2022)*** Special survey for high voltage shore connection system is to be in accordance with **Pt 1, Ch 2, Sec 5-1, 502. 3**. **2. Annual survey *(2022)*** Annual survey for high voltage shore connection system is to be in accordance with requirements for electrical part in **Pt 1, Ch 2, 203**.	**Section 3 Testing and Inspection** **301. General** **1. 〈same as the present Rules〉** **2. Shop tests** The components for ~~high voltage shore connection~~ HVSC system, except junction box and socket box, are to be subjected to shop tests after completion of assembly. **302. ~~Test after installation~~ Classification survey** **1. Test after installation** (1) – (10) 〈same as the present Rules〉 **303. Survey assigned to maintain ~~classification~~ Classification** Periodical survey items of ~~high voltage shore connection~~ HVSC system are to be applied as follows. **1. Special survey *(2022)*** Special survey for ~~high voltage shore connection~~ HVSC system is to be in accordance with **Pt 1, Ch 2, Sec 5-1, 502. 3**. **2. Annual survey *(2022)*** Annual survey for ~~high voltage shore connection~~ HVSC system is to be in accordance with requirements for electrical part in **Pt 1, Ch 2, 203**.	(Amended) - Terminology standardization: High voltage shore connection → HVSC

Amendments to the Guidance relating to the Rules for the Classification of Steel Ships

(External Review)

Pt. 9 Ch. 2 Crago Handling Appliance

2026. 01.

Hull Rule Development Team

Background and main contents of the amendments

1. Background of amendments : (Effective Date : 1 July 2026**)**

(1) Reflection of the requirement of IACS Rec.191.

:

- Appendix 9-2 “Requirements for Personnel Lifting Appliances” amended to incorporate IACS Rec.191.

(2) Reflection of the Internal Identification Item.

:

- Appendix 9-3 “Offshore Cranes” revised to reflect the requirements for minimum impact load factors according to the Safe Working Load of heavy-lift cranes.

2. Main Contents: Refer to the amendments

Present	Amendment	Not
Annex 9-2 Personnel Lifting Appliances	**Annex 9-2 Personnel Lifting Appliances**	
101. General	101. General	
1. Application *(2025)*	1. Application *(2026)*	
(1) Cranes registered in accordance with the **Pt 9, Ch 2** of the Rules(hereinafter referred to as the Rules) that are used for personnel lifting are to comply with the requirements specified in this annex in addition to the requirements of the Rules.	(1) Lifting appliances intended to be used for cargo/load handling operation and registered in accordance with the **Pt 9, Ch 2** of the Rules (hereinafter referred to as the Rules) that are used for personnel lifting are to comply with the requirements specified in this annex in addition to the requirements of the Rules. In addition, dedicated personnel lifting appliances shall also comply with the relevant requirements of the Rules in addition to the requirements of this annex.	
(2) The means of embarkation and disembarkation required by the SOLAS convention are not to be substituted by personnel lifting appliances in accordance with this annex.	(2) The means of embarkation and disembarkation as required by the SOLAS convention are not to be substituted by personnel lifting appliances in accordance with this annex.	- reflect IACS Rec.191, 1.1
〈newly added〉	(3) These guidelines do not apply to the following appliances: (A) life-saving appliances within the scope of application of the IMO LSA Code; (B) lifts; (C) escalators; (D) conveyors; (E) stand-alone man-riding winches (not being part of or installed in the lifting appliances covered by the Rules).	- reflect IACS Rec.191, 1.1
〈newly added〉	2. Definitions *(2026)*	
	(1) **Personnel handling safe working load** means the maximum static load, in tons (t), that a personnel handling appliance or loose gear is capable of lifting at a specified radius under designated operating conditions. The personnel handling safe working load is not to exceed 50% of the cargo/load handling safe working load (SWL). The personnel handling safe working load shall be designated using a symbol distinct from "SWL", such as "PA_SWL", if accepted by the Society.	- reflect IACS Rec.191, 2.1 and Pt9 Ch2 102. 3
	(2) **Dynamic brake** means a braking device capable of retarding, stopping any movement and holding the lifting appliance and personnel handling safe working load at standstill, without overheating or sustaining damage.	- reflect IACS Rec.191, 5.1
	(3) **Static brake (or parking brake)** means a braking device capable of holding the lifting appliance and its load at standstill, and is to be capable of functioning as an emergency dynamic brake.	

Present	Amendment	Not
102. Surveys	102. Surveys	
1. Registration Surveys	**1. Registration Surveys**	
(1) Drawings and Other Documents to be Submitted	(1) Drawings and Other Documents to be Submitted	
(A) ~ (B) 〈omitted〉	(A) ~ (B) 〈same as the present〉	
(C) The operation manual specified in (B) (a) is to contain the following (a) to (c).	(C) The operation manual specified in (B) (a) is to contain the following (a) to (c).	
(a) Restrictions on personnel lifting appliance operations, which are to contain at least the following: *(2025)*	(a) Restrictions on personnel lifting appliance operations, which are to contain at least the following: *(2025)*	
(i) ~ (ii) 〈omitted〉	(i) ~ (ii) 〈same as the present〉	
(iii) Safe working loads and hoisting, lowering, and swinging speeds	(iii) PA SWL and hoisting, lowering, and swinging speeds *(2026)*	- reflect IACS Rec.191, 2.1 & 2.4
(iv) 〈omitted〉	(iv) 〈same as the present〉	
(b) 〈omitted〉	(b) 〈same as the present〉	
(c) Items to be checked prior to use of the basket, which are to contain at least the following: *(2025)*	(c) Items to be checked prior to use of the basket, which are to contain at least the following: *(2025)*	
(i) Specifications of the basket such as its own weight, SWL and capacity	(i) Specifications of the basket such as its own weight, PA SWL and capacity *(2026)*	
(ii) ~ (iii) 〈omitted〉	(ii) ~ (iii) 〈same as the present〉	
(D) 〈omitted〉	(D) 〈same as the present〉	
(2) Registration Surveys *(2025)*	(2) Registration Surveys *(2025)*	
(A) ~ (B) 〈omitted〉	(A) ~ (B) 〈same as the present〉	
2. Annual Surveys *(2025)*	**2. Annual Surveys *(2025)***	
〈omitted〉	〈same as the present〉	
〈newly added〉	**3. Load Test *(2026)***	- reflect IACS Rec.191, 2.2
	(1) The test load for personnel lifting appliances is to be based on a load equivalent to twice the personnel handling safe working load, which shall be considered as the safe working load (SWL) in accordance with paragraph **204. 2** of the Rules.	- reflect IACS Rec.191, 12.2
	(2) All braking systems are to be statically tested at standstill with a load of at least 1.5 times the personnel handling safe working load. Dynamic brakes are to be also dynamically tested with the system operating at nominal speed with a load of at least 1.1 times the personnel handling safe working load. Separate testing of each of the two brakes is to be conducted on every hoisting, luffing, folding, or telescoping winch engaged in personnel handling operations.	- reflect IACS Rec.191, 12.3
	(3) The emergency recovery system (ERS) is to be functionally tested with a test load corresponding to 100% of the personnel handling safe working load.	

Present	Amendment	Not
103. Cranes	103. Cranes	
1. Safe Working Load The safe working load of the cranes in personnel transfers is to be less than 50 % of the safe working load specified in **102.** of the **Rules**. The total weight of the basket (sum of its own weight and capacity load) is not to be more than this load. ~~*(2025)*~~	1. Personnel handling safe working load (PA_SWL) *(2026)* (1) The personnel handling safe working load of the cranes in personnel transfers is to be less than 50 % of the safe working load (SWL) specified in **102.** of the **Rules**. The total weight of the basket, including its own weight and capacity load, is not to be more than this load.	- reflect IACS Rec.191, 2.4
〈newly added〉	(2) For lifting appliances solely dedicated to personal handling, the static load to be considered in the design and structural analysis of the lifting appliance is to be twice the personnel handling safe working load (PA_SWL), in accordance with the relevant requirements of the Rules.	- reflect IACS Rec.191. 2.2
2. Operational limitation Except for emergency operations, the operational limitations for lifting of personnel are to be as follows: ~~*(2025)*~~ (A) Mean wind velocity: 10 m/s (B) Significant wave height: 2 m (C) Visibility: daylight or equivalent	2. Operational limitation *(2026)* (1) Except for emergency operations, the operational limitations for handling of personnel are to be as follows: (A) Mean wind speed: 10 m/s (B) Significant wave height: 2 m (C) Visibility: daylight or equivalent	
〈newly added〉	(2) For handling of personnel in offshore (i.e. open sea) conditions with a significant wave height exceeding 0.6 m, the lifting appliance is to be specifically designed for such conditions and a risk assessment is to be conducted to demonstrate that the lifting appliance system can be safely operated under these conditions. In such cases, the requirements specified in **Annex 9-3** for offshore cranes are to be complied with, and the operational limitations of the design as defined by the manufacturer are also to be taken into account.	- reflect IACS Rec.191, 3.2
3. Arrangement and Construction *(2025)* 〈omitted〉	3. Arrangement and Construction *(2025)* 〈same as the present〉	
104. Loose gear	104. Loose gear	
1. General The safety factor of any loose gear is to be 10 and more on the basis of the breaking strength against the safe working load specified in **103.**	1. General The safety factor of any loose gear is to be 10 and more on the basis of the breaking strength against the personnel handling safe working load specified in **103.** *(2026)*	- reflect IACS Rec.191, 8.1.1

Present	Amendment	Not
2. Wire Ropes 〈omitted〉 **〈newly added〉**	**2. Wire Ropes** 〈same as the present〉 **3. Hooks *(2026)*** Hooks used for personnel handling operation are to be fitted with a latch or other securing devices, and with positively locking means to prevent inadvertent or accidental opening of the latch, or other accidental loss of the load.	- reflect IACS Rec.191, 8.2
105. Machinery, electrical installations and control engineering systems **1. General** 〈omitted〉 **2. Brakes** (1) Hoisting and luffing winches shall be equipped with two mechanically and functionally independent brakes. (2) Means shall be provided for separate testing of each brake. (3) Mechanical brakes shall fulfil the requirements for brakes as given in **702. 2** of the **Rules** based on SWL for the actual load cases. SWL will be replaced by rated capacity for personnel handling, provided the brake is used in personnel handling mode only. *(2025)* 〈newly added〉	**105. Machinery, electrical installations and control engineering systems** **1. General** 〈same as the present〉 **2. Brakes *(2026)*** (1) Hoisting and (where fitted) luffing, folding or telescoping winches are to be equipped with at least two mechanically and operationally independent brakes, with separate control circuits. At least one of the brakes is to be of the dynamic type, and is to operate, preferably, directly on the winch drum but a fully independent load path is to be considered acceptable. (2) Means are to be provided for separate testing of each brake. (3) Mechanical brakes are to fulfil the requirements for brakes as given in **702. 2** of the **Rules** based on personnel handling safe working load for the actual load cases. Personnel handling safe working load will be replaced by rated capacity for personnel handling, provided the brake is used in personnel handling mode only. (4) All hoisting, luffing, folding or telescoping systems using systems other than winches or hydraulic cylinders are to be equipped with a dynamic and an operationally independent static brake with separate control circuits, mechanically operable under all operational load conditions. (5) All brakes are to engage automatically in case the control lever is in its neutral position or in case of an emergency stop being initiated or in case of a failure in the control or power system.	- IACS Rec.191, 5.2 반영 - reflect IACS Rec.191, 5.3 - reflect IACS Rec.191, 5.4

Present	Amendment	Not
	(6) Where necessary, brakes are to be provided with means of adjustment to compensate for wear and to maintain the spring force on spring-loaded brakes.	- reflect IACS Rec.191, 5.5
	(7) Mechanisms such as ratchets and pawls are not to be used as dynamic or static brakes.	- reflect IACS Rec.191, 5.6
	(8) Swing (slewing) mechanisms are to be provided with at least a static brake.	- reflect IACS Rec.191, 5.7
〈newly added〉	**3. Hydraulic cylinders *(2026)***	
(4) Where cylinders are used for luffing, folding or telescopic, they shall be provided with a hydraulic shutoff valve. Alternatively each motion shall have two independent cylinders where each cylinder is capable of holding the rated capacity for lifting of persons.	(1) Where cylinders are used for hoisting, luffing, folding or telescopic, they are to be provided with a hydraulic shutoff valve. Alternatively each motion is to have two independent cylinders where each cylinder is capable of holding the rated capacity for lifting of persons. Alternatively, a single hydraulic cylinder may be used, provided that no single point hydraulic failure is likely to lead to uncontrolled motion of the lifting appliance under the personnel handling safe working load.	- reflect IACS Rec.191, 6.1
	(2) Appropriate means, such as pilot-operated non-return valves, are to ensure that the cylinders remain in position in the event of hydraulic failure.	- reflect IACS Rec.191, 6.2
	(3) Means defined in (2) to ensure the hydraulic cylinder remains in position are to comply with the following. (A) The means are to retard, stop and hold the hydraulic cylinder in position in all circumstances. (B) The means are to be fail safe. (C) The means are to apply without undue delay in case the control lever is in its neutral position or in case of an emergency stop being initiated or in case of a failure in the power or control system. (D) The means are to be attached directly on the hydraulic cylinder ports with no hose or pipe in between. (E) The means are to close as a result of a loss of pressure at the low-pressure connection. (inlet connection). The pilot line to accomplish this is to be as short as possible.	- reflect IACS Rec.191, 6.3
	(4) Sufficient hydraulic working fluid supply is to be ensured.	- reflect IACS Rec.191, 6.4
	4. Safety Devices *(2026)*	- reflect IACS Rec.191, 7.1
	(1) Lifting appliances are to be fitted with safety devices and features in compliance with the applicable requirements of the Rules or an appropriate International Standard (ISO), National Standard (KS), or other equivalent standards.	

Present	Amendment	Not
	(2) Lifting appliances solely dedicated to handling of personnel are not to be fitted with systems which according to paragraph **7** (2) may need to be deactivated.	- reflect IACS Rec.191, 7.2
〈newly added〉	**5. Emergency Recovery System (ERS)** ***(2026)***	
	(1) An independent emergency recovery system is to be arranged for controlled recovery operations of the personnel load in the event of a (single point) failure or interruption of the power system or (single point) failure of the control system. The ERS is to ensure that the lifting appliance is capable of moving the personnel being handled from any position to a predetermined safe recovery position. Recovery of the personnel being handled by the lifting appliance may require one or more lifting appliance motions such as lowering, hoisting, luffing, slewing, telescoping and folding to be possible, depending on the actual situation on-board and the design of the lifting appliance.	- reflect IACS Rec.191, 9.1
	(2) The ERS is to be in compliance with the applicable requirements of the Rules or an appropriate International Standard (ISO), National Standard (KS), or other equivalent standards.	- reflect IACS Rec.191, 9.2
	(3) When the lifting appliance ERS is fitted with a secondary power and/or independent control system, its activation is to be enabled by "hold-to-run" type controls (switches or handles), clearly and permanently marked for their purpose and protected from inadvertent operation.	- reflect IACS Rec.191, 9.3
	(4) Instructions for the ERS are to be distinctly posted at the operator's station and are to be included in the Instruction Manual as required by **905. 2** of the Rules.	- reflect IACS Rec.191, 9.4
	6. Control Systems ***(2026)***	
〈newly added〉	Where fitted, computer-based control systems of cranes intended for personnel lifting are to comply with the requirements of Category II systems specified in **Table 6.2.2** of **Pt 6, Ch 2, 403.** of the **Rules**.	- reflect IACS Rec.191, 4.2
3. Mode selection for lifting of persons	**7. Mode Selection for Personnel Handling** ***(2026)***	
The control station is to be equipped with a manual switch for selection between cargo and personnel lifting modes. When the mode for personnel lift is selected, the following functions shall be maintained:	(1) Lifting appliances intended to be used for cargo/load handling operations which may also be used for personnel handling operations are to be fitted with a manual switch for the selection between the personnel handling mode and cargo/load handling mode. Means are to be provided to prevent inadvertent change between modes.	- reflect IACS Rec.191, 10.1

Present	Amendment	Not
(A) All brakes shall automatically be activated when the controls are in neutral position and in cases where the emergency stop has been activated. (B) Where fitted, automatic overload protection system (AOPS) and manual overload protection system (MOPS) shall be overridden. (C) Where fitted, motion compensators; i.e. cable tensioning systems and heave compensator systems shall be overridden. (D) Where fitted, emergency release systems shall be overridden. (E) A continuously illuminated warning light is provided. *(2025)*	(2) When the personnel handling mode is selected, a continuous visual indication is to be activated, the maximum value of the load limiting system is to be adjusted to the maximum personnel handling safe working load and the following systems (if fitted) are to be automatically overridden and deactivated: (a) automatic overload protection systems (AOPS) or manual overload protection systems (MOPS), and emergency load release systems that may result in the lowering of the personnel being handled (b) all types of motion compensation systems (c) all types of rope tensioning systems.	- reflect IACS Rec.191, 10.2
106. Other appliances	**106. Other appliances**	
〈omitted〉	**〈same as the present〉**	
107. Certification, marking and documentation	**107. Certification, marking and documentation**	
1. Marking of Safe Working Load, etc.	**1. Marking of Safe Working Load, etc.**	
(1) Marking for Cranes	(1) Marking for Cranes	
(A) At the location specified in **903. 1** of the Rules, the safe working load, the maximum slewing radius, and other restrictive conditions of personnel transfers are to be marked. *(2025)*	(A) At the location specified in **903. 1** of the Rules, the personnel handling safe working load, the maximum slewing radius, and other restrictive conditions of personnel transfers are to be marked. *(2026)*	
(B) At the locations of the crane control position and embarkation area, a notice indicating the safe working load, the maximum slewing radius, maximum wind velocity, maximum wave height, minimum visibility, and other restrictive conditions for personnel transfers is to be provided.	(B) At the locations of the crane control position and embarkation area, a notice indicating the personnel handling safe working load, the maximum slewing radius, maximum wind velocity, maximum wave height, minimum visibility, and other restrictive conditions for personnel transfers is to be provided. The personnel handling safe working load, radii / boom angles and limiting environmental conditions for personnel handling are to be indicated on load chart(s)/table(s) to be securely fixed to the lifting appliance in a location easily visible to the operator. *(2026)*	- reflect IACS Rec.191, 11.2
(C) 〈omitted〉	(C) 〈same as the present〉	
	(D) Appropriate clearly visible labels are to be applied at the manual switch to allow switching between “cargo handling” and “personnel handling”, indicating the actual mode of operation. *(2026)*	- reflect IACS Rec.191, 11.3

Present	Amendment	Not
	(2) Marking for loose gears *(2026)* (A) Loose gear items used for both cargo/load handling and personnel handling are to be permanently marked with both the maximum cargo/load handling safe working load (SWL) and personnel handling safe working load. (B) Where it is difficult to make direct stamp mark or marking with paint, other means may be taken when approved by the Society.	- reflect IACS Rec.191, 11.4

Present	Amendment	Not
Annex 9-3 Offshore Crane *(2025)*	**Annex 9-3 Offshore Crane *(2025)***	
101. ~ 102. 〈omitted〉	**101. ~ 102. 〈same as the present〉**	
103. Cranes	**103. Cranes**	
1. General In addition to the requirements of **Sec 4** of the Rules, the requirements of this section are to also satisfied.	**1. General** In addition to the requirements of **Sec 4** of the Rules, the requirements of this section are to also satisfied.	
2. Impact Loads (1) The impact loads for offshore cranes is to include effects due to normal lifting impacts, dynamic effects, and the relative movement between the crane and the cargo. (2) The impact load is to be the product of the lifting load and the impact load factor. For offshore cranes intended for use in open sea conditions with significant wave heights of 0.6 m or more, the impact load factor is to be determined in accordance with (3) or (4) below, provided that the impact load factor is to be at least 1.15 for on-board lifting and at least 1.30 for off-board lifting.	**2. Impact Loads** (1) The impact loads for offshore cranes is to include effects due to normal lifting impacts, dynamic effects, and the relative movement between the crane and the cargo. (2) The impact load is to be the product of the lifting load and the impact load factor. For offshore cranes intended for use in open sea conditions with significant wave heights of 0.6 m or more, the impact load factor is to be determined in accordance with (3) or (4) below, provided that the impact load factor is not to be less than the following. *(2026)* **Table 9-3.1 Impact load factor *(2026)*** Safe working load W (t) / Impact load factor $W \leq 250$ / 1.3 $250 < W \leq 500$ / $(1875 - W)/1250$ $500 < W$ / 1.1	- stipulate the minimum impect load factors for Heavy-lift crane
(3) ~ (6) 〈omitted〉	(3) ~ (6) 〈same as the present〉	
104. ~ 107. 〈omitted〉	**104. ~ 107. 〈same as the present〉**	

Guidance Relating to the Rules for the Classification of Steel Ships

(Development Review : For external opinion inquiry)

Part 9 Additional Installations

2025. 09.

Machinery Rule Development Team

Effective Date : 1 July 2026

(The contract date for ship construction)

Present	Amendment	Note
〈Deleted〉	~~**CHAPTER 8 HIGH VOLTAGE SHORE CONNECTION SYSTEMS**~~ ~~**Section 1 General**~~ ~~**101. General** *(2025)* **【See Rule】**~~ ~~**1. Class notation**~~ ~~(1) In application to 101. 4 of the Rules, ships permanently installed high voltage shore connection systems in accordance with the requirements of Ch 8 of the Rules may be assigned with the class notation HVSC.~~ ~~(2) The following Class notation may be assigned depending on the ready levels for high voltage shore connection systems. The requirements for each Class notation are to comply with 2.~~ ~~(A) HVSC Ready D as an additional special feature notation may be assigned to ships for which the generic design is prepared.~~ ~~(B) HVSC Ready I as an additional special feature notation may be assigned to ships for which parts of the systems are installed with the detailed design in addition to the generic design.~~ ~~**2. Requirements for levels of HVSC Ready**~~ ~~(1) General~~ ~~(A) This Section prescribes plans to be submitted and consideration for preparing(refer to below 3) the high voltagel shore connection systems. The detailed design requirements are to be in accordance with applicable requirements in Ch 8 of the Rules.~~	(Deleted) - Pt 8 of the Guidance has been deleted and its contents have been moved and incorporated into Pt.9, Ch.8, 101., 4 & 5 of the Rules.

Present	Amendment	Note
	(B) Drawing approval and survey for HVSC ready are not accepted as Drawing approval and survey for conversion of high voltage shore connectiong system. When the ship is converted, drawing approval and survey are to be carried out in accordance with Ch 8 of the Rules in force at the time of the ship conversion. Approved Drawings and certifications from new building stage may be used as reference for conversion. (2) Level of preparing concept design (D) (A) Plans and documents (a) General arrangement of electrical systems for high voltage shore connection system (3) Level of detailed design and installation (I) (A) Plans and documents (a) General arrangement of electrical systems for high voltage shore connection systems (b) Manufacturing drawing for shipboard elements of the high voltage shore connection systems as follows (as appropriate); (i) High voltage shore connection switchboard (ii) Transformer (iii) Cable management system (iv) Control & monitoring system (v) Onboard receiving switchboard	