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# **RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS**

**Part O**

**Work-Ships**

**RULES**

**2021 AMENDMENT NO.1**

Rule No.29      30 June 2021

Resolved by Technical Committee on 27 January 2021

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

Rule No.29 30 June 2021

AMENDMENT TO THE RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

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

Amendment 1-1

**Part O WORK-SHIPS**

**Chapter 1 GENERAL**

**1.3 Definitions**

Paragraph 1.3.5 has been added as follows.

**1.3.5 SPS Code**

“SPS Code” is the “Code of Safety for Special Purpose Ships”.

## Chapter 11 WIND TURBINE INSTALLATION SHIPS

### 11.1 General

#### 11.1.1 Application

Sub-paragraph -1 has been amended as follows.

**1** Wind turbine installation ships (hereinafter referred to as “ships” in this Chapter) are to apply the requirements in this Chapter in addition to the relevant requirements of other Parts. In this chapter, “ships which have large passenger embarking capacities” means “ships other than passenger ships for which the number of persons on board (excluding the ship crew) exceeds 12 persons”.

### 11.8 Electrical Installations

Paragraph 11.8.1 has been amended as follows.

#### 11.8.1 General\*

**1** Electrical installations of the ship are to be according to this **11.8** in addition to **Part H**.

**2** Emergency sources of electrical power are to be capable, in addition to applicable loads given in 3.3.2-2, Part H, of supplying simultaneously at least the following services for those periods specified hereinafter, if they depend upon electrical sources for operation:

(1) For a period of 18 *hours*, the emergency lighting specified in the following:

(a) at every muster and embarkation station; and

(b) on helicopter landing decks.

(2) For a period of 4 *days*, any signalling lights or sound signals which may be required for marking of offshore structures.

(3) For a period of 30 *minutes*, the services listed in the following (a) and (b):

(a) Devices to operate the watertight doors required by 5.2.2, Part P, but not necessarily all of them simultaneously, unless an independent temporary source of stored energy is provided; and

(b) Control devices and indicators required by 5.2.2, Part P.

~~**3**~~ Regarding the main sources and emergency sources of electrical power of ship which has a large embarking capacity, special consideration is to be paid in addition to -1 and -2 above.

#### EFFECTIVE DATE AND APPLICATION (Amendment 1-1)

1. The effective date of the amendments is 1 July 2021.
2. Notwithstanding the amendments to the Rules, the current requirements apply to ships for which the date of contract for construction is before the effective date.
3. Notwithstanding the provision of preceding 2., the amendments to the Rules may apply to ships for which the date of contract for construction is before the effective date upon request of the owner.

## Chapter 4 VESSELS ENGAGED IN TOWING OPERATIONS

### 4.4 Hull Equipment

#### 4.4.2 Towing Equipment\*

Sub-paragraph -3 has been amended as follows.

**3** In the case of tugs and escort tugs including those ships normally not intended for towing operation in transverse direction, engaged in towing operations within close quarters, ports or terminals, towing winches other than those on board ships used solely for long distance ocean towage, anchor handling or similar offshore activities are to be fitted with an emergency release system complying with the requirements of **Annex 4.4.2-3**.

## Annex 4.4.2-3 TOWING WINCH EMERGENCY RELEASE SYSTEMS

### 1.1 General

Paragraphs 1.1.1 and 1.1.2 have been amended as follows.

#### 1.1.1 General

1 This annex defines minimum safety standards for winch emergency release systems provided on towing winches that are used on towing ships and escort tugs within close quarters, ports or terminals, including those ships normally not intended for towing operation in transverse direction (hereinafter referred to as “~~tug~~ships” in this annex).

#### ~~1.1.2 Application~~

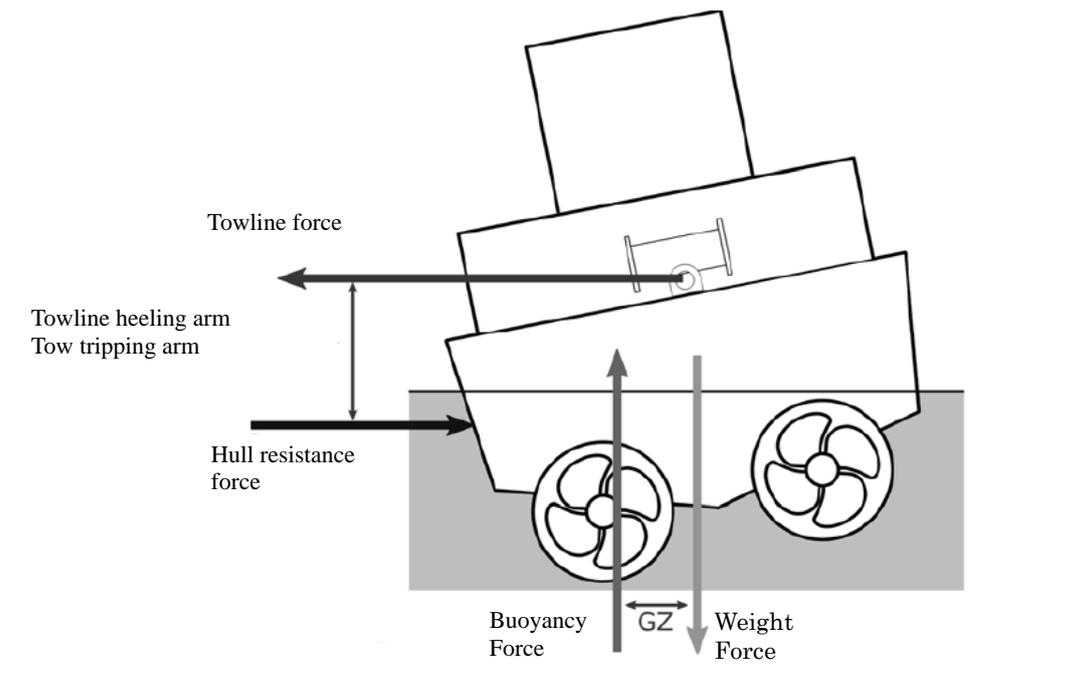
2 The requirements of this annex apply to towing winches of the ships referred to in ~~1.1.1-1~~ above but do not apply to towing winches on board ships used solely for long distance ocean towage, anchor handling or similar offshore activities.

Paragraph 1.1.2 has been added as follows.

#### 1.1.2 Purpose

The purpose of this annex is to provide requirements to prevent the capsize of ships when in the act of towage as a result of the towline force acting transversely to ships (in beam direction) as a consequence of an unexpected event (could be loss of propulsion/steering or otherwise), whereby the resulting couple generated by offset and opposing transverse forces (towline force is opposed by thrust or hull resistance force) causes the ships to heel and, ultimately, to capsize. This capsize may be referred to as “girting”, “girthing”, “girding” or “tripping”. See Fig. 1.2.1-1 which shows the forces acting during towage operations.

Fig. 1.2.1-1 Forces During Towing



## 1.2 Terminology

Paragraph 1.2.1 has been amended as follows.

### 1.2.1 Definitions

For the purpose of this annex, the following definitions are to apply.

- (1) “Emergency release system” refers to the mechanism and associated control arrangements that are used to release the load on the towline in a controlled manner under both normal and ~~dead ship~~ blackout conditions.
- (2) “Maximum design load” is the maximum load that can be held by the winch as defined by the manufacturer (the manufacturer’s rating).
- ~~(3) “Girting” means the capsize of a tug when in the act of towage as a result of the towline force acting transversely to the tug (in beam direction) as a consequence of an unexpected event (could be loss of propulsion/steering or otherwise), whereby the resulting couple generated by offset and opposing transverse forces (towline force is opposed by thrust or hull resistance force) causes the tug to heel and, ultimately, to capsize. This may also be referred to as “girting”, “girding” or “tripping”. See Fig. 1.2.1-1 which shows the forces acting during towage operations.~~
- (43) “Fleet angle” is the angle between the applied load (towline force) and the towline as it is wound onto the winch drum. See Fig. 1.2.1-2.

~~Fig. 1.2.1-1 Forces During Towing~~

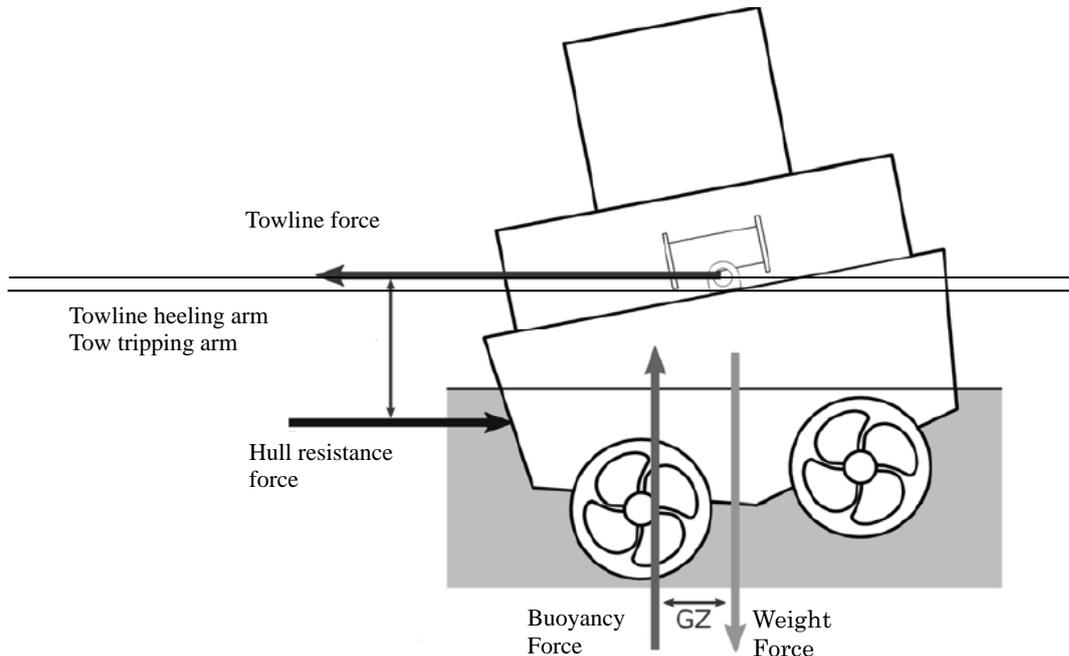
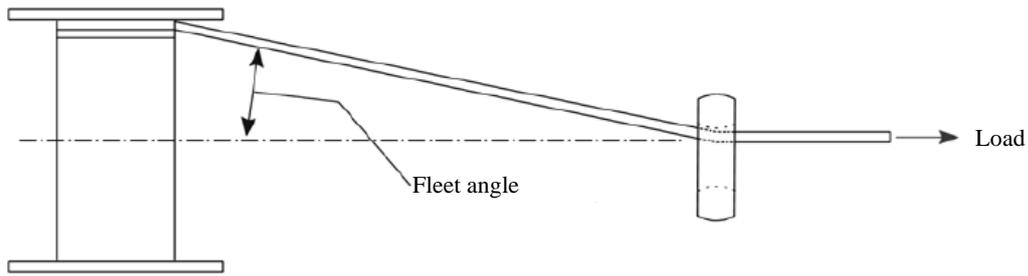


Fig. 1.2.1-2 Towline “Fleet Angle”



## 1.4 Emergency Release System Requirements

### 1.4.1 Performance requirements

Sub-paragraphs -6 and -7 have been amended as follows.

~~6 An alternative source of energy is to be provided such that normal operation of the emergency release system can be sustained under dead ship conditions.~~ Emergency release of the towline is to be possible in the event of a blackout. For this purpose, where additional sources of energy are required, such sources are to comply with -7 below.

7 The ~~alternative~~ sources of energy required by -6 above ~~is~~ are to be sufficient to achieve the most onerous of the following conditions (as applicable):

- (1) Sufficient for at least three attempts to release the towline (i.e. three activations of the emergency release system). Where the system provides energy for more than one winch it is to be sufficient for three activations of the most demanding winch connected to it.
- (2) Where the winch design is such that the drum release mechanism requires continuous application of power (e.g. where the brake is applied by spring tension and released using hydraulic or pneumatic power) sufficient power is to be provided to operate the emergency release system (e.g. hold the brake open and allow release of the towline) ~~in a dead ship situation~~ in the event of a blackout for a minimum of 5 minutes. This may be reduced to the time required for the full length of the towline to feed off the winch drum at the load specified in -5 above if this is less than 5 minutes.

### 1.4.2 Operational Requirements

Sub-paragraphs -1 and -2 have been amended as follows.

1 Emergency release operation is to be possible from the bridge and from the winch control station on deck. The winch control station on deck is to be in a safe location. A position in close proximity to the winch is not regarded as “safe location”, unless it is documented that the position is at least protected against towline break or winch failure.

2 The emergency release control is to be located ~~in close proximity to the~~ emergency stop button for winch operation, if provided, and ~~both~~ are to be clearly identifiable, clearly visible, easily accessible and positioned to allow safe operability.

Sub-paragraphs -10 and -11 have been deleted.

~~10 The method for annual survey of the winch is to be documented.~~

~~11 Where necessary for conducting the annual survey of the winch, adequately sized strong~~

~~points are to be provided on deck.~~

## 1.5 Test Requirements

### 1.5.1 General

Sub-paragraph -3 has been amended as follows.

**3** The performance capabilities ~~and~~ as well as instructions for operating on, instructions of the emergency release system are to be documented by the manufacturer and made available on board the ship on which the winch has been installed.

Sub-paragraphs -4 and -5 have been added as follows.

**4** Instructions for surveys of the emergency release system are to be documented by the manufacturer, agreed by the Society and made available on board the ship on which the winch has been installed.

**5** Where necessary for conducting the annual and special surveys of the winch, adequately sized strong points are to be provided on deck.

#### EFFECTIVE DATE AND APPLICATION (Amendment 1-2)

1. The effective date of the amendments is 1 July 2021.
2. Notwithstanding the amendments to the Rules, 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.

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# **GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS**

**Part O**

**Work-Ships**

**GUIDANCE**

**2021 AMENDMENT NO.1**

Notice No.28      30 June 2021

Resolved by Technical Committee on 27 January 2021

AMENDMENT TO THE GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

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

**Part O WORK-SHIPS**

**O11 WIND TURBINE INSTALLATION SHIPS**

Section O11.5 has been added as follows.

**O11.5 Hull Equipment**

**O11.5.1 General**

Where 11.5.1-2, Part O of the Rules is applied and dynamic positioning systems (hereinafter referred to as “DPS”) are provided in accordance with 10.2.1(2), Part P of the Rules, the number of required mooring equipment for temporary mooring may be reduced to one. However, the DPS provided in such cases are to satisfy the following:

- (1) They are either a the Class 2 or Class 3 DPS specified in 10.2.3, Part P of the Rules.
- (2) They take into account the environmental conditions specified in Table C27.1, Chapter 27 of Part C of the Rules and the assumed position keeping time. However, in the case of ships for restricted service, the environmental conditions may be specified by the owner.
- (3) The operational procedure followed when they are used in conjunction with mooring equipment for temporary mooring is to be included in the operation manual specified in 18.2.2, Part P of the Rules.

**O11.7 Machinery**

Paragraph O11.7.1 has been amended as follows.

**O11.7.1 General**

1 With respect to the provisions of 11.7.1-1, Part P of the Rules, 13.6.5, Part D of the Rules need not be applied to non self-propelled self-elevating ships.

2 “Special consideration” specified in 11.7.1-2, Part O of the Rules means that measures deemed appropriate by the Administration (for example, risk assessments and treatments for the ship which has a large embarking capacity, or application of the SPS Code) are to be taken.

**O11.8 Electrical Installations**

Paragraph O11.8.1 has been amended as follows.

**O11.8.1 General**

The “special consideration” specified in ~~11.8.1-23~~, Part O of the Rules means that measures deemed appropriate by the Administration (for example, risk assessments and other measures for ships which have large embarking capacities, or application of the SPS Code) are to be taken.

## **O11.9 Fire Protection and Means of Escape**

Paragraph O11.9.1 has been amended as follows.

### **O11.9.1 General**

“Special consideration” specified in **11.9.1-2, Part O of the Rules** means that measures deemed appropriate by the Administration (for example, the requirements specified in **Part 7 of the Rules for the Survey and Construction of Passenger Ships** are applied mutatis mutandis, risk assessments and treatments for the ship which has a large embarking capacity are conducted, etc., or application of the *SPS Code*) are to be taken.

## **O11.10 Fire Extinguishing Systems**

Paragraph O11.10.1 has been amended as follows.

### **O11.10.1 General**

**1** In **11.10.1-2, Part O of the Rules**, ships not engaged in international voyages which are also intended for restricted service may be exempted from **15.2.2-11(1) or (2), Part P of the Rules**.

**2** “Special consideration” specified in **11.10.1-3, Part O of the Rules** means that measures deemed appropriate by the Administration (for example, the requirements specified in **Part 7 of the Rules for the Survey and Construction of Passenger Ships** are applied mutatis mutandis, risk assessments and treatments for the ship which has a large embarking capacity are conducted, etc., or application of the *SPS Code*) are to be taken.

## EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 1 July 2021.
2. Notwithstanding the amendments to the Guidance, the current requirements apply to ships for which the date of contract for construction is before the effective date.
3. Notwithstanding the provision of preceding 2., the amendments to the Guidance may apply to ships for which the date of contract for construction is before the effective date upon request of the owner.