These Regulations have been repealed and replaced by the Regulations of 16 December 2025 No. 2652 on the construction, equipment and supervision of small cargo ships (in force on 1 January 2026).

Regulations of 19 December 2014 No. 1853 on the construction and supervision of small cargo ships

Legal basis: Laid down by the Norwegian Maritime Authority on 19 December 2014 under the Act of 16 February 2007 No. 9 relating to ship safety and security (Ship Safety and Security Act) section 2 third paragraph, sections 6, 9, 11, 12, 13 and 21, section 41 third paragraph, section 43 fifth paragraph, sections 45 and 47, cf. Formal Delegation of 16 February 2007 No. 171 and Formal Delegation of 31 May 2007 No. 590.
EEA references: EEA Agreement Annex II chapter XIX point 1 (Directive 98/34/EC as amended by Directive 98/48/EC).
Amendments: Amended by Regulations of 18 December 2015 No. 1769, 20 December 2017 No. 2379, 14 January 2020 No. 67 (in force on 1 February 2020), 24 January 2022 No. 118.
Repealed by Regulations of 16 December 2025 No. 2652 (in force on 1 January 2026).

Chapter 1
General provisions

Section 1
Scope of application

(1) These Regulations apply to Norwegian cargo ships of 8 metres and above in overall length, but of less than 24 metres in length (L).

(2) These Regulations do not apply to ships:

a) of less than 15 metres in overall length which shall not carry out towing operations and which:
   i. carry maximum 1,000 kg of cargo; and
   ii. carry out hoists where the heeling moment arm does not exceed 0.100 metres. Heeling moment arm means heeling moment divided by the ship's displacement (MK/displ.);

b) which are covered by the scope of application of Regulations on vessels of less than 24 metres carrying 12 passengers or less, and which are engaged only in activities described therein;

c) of 500 gross tonnage and upwards.

Amended by Regulation of 14 January 2020 No. 67 (in force on 1 February 2020).

Section 2
Ships used for research and training purposes

(1) Ships which for research or training purposes are used for catching fish, whales, seals or other living resources in the sea shall comply with the requirements applicable to fishing vessels, including the requirement for vessel instructions for fishing vessels.

(2) Ships used for training related to certificates for deck officer class 5 pleasure craft may comply with the requirements applicable to recreational craft.

Section 3
Requirements for ships with building contract placed before 1 January 2015 and delivered before 1 January 2016

(1) Ships for which the building contract was placed before 1 January 2015 and which are delivered before 1 January 2016 shall comply with the provisions of the Norwegian regulations in force at the time of construction of the ship. Later amendments applicable to existing ships, as laid down in regulations previously in force, and in chapter 11 of these Regulations, also apply. For ships without building contract, the keel shall be laid or they shall be at a similar stage of construction before 1 April 2015.

(2) The Norwegian Maritime Authority may order that the ship, wholly or partly, shall comply with requirements applicable to ships for which the building contract is placed on or after 1 January 2015 or which are delivered on or after 1 January 2016, in the event of:

a) modifications in the use or operation;
b) replacement of equipment;
c) repairs,
d) conversions;
e) increased draught;

or for other reasons, after a specific assessment of safety based on the general structural design, equipment, arrangement and condition of the ship.

Section 4
Definitions

For the purpose of these Regulations, the following definitions shall apply:

a) "*Anchor-handling*": work involving anchoring and mooring of floating constructions. Work involving the anchoring and mooring of light objects, such as a light floating wharf or similar, is not considered anchor-handling.
b) "*Cargo ship*": a ship which is not a passenger ship, fishing vessel, barge, recreational craft or a vessel considered to be a part of another ship's outfitting.
c) "*Closed ship*": a ship with deck which can be closed weathertight from the stern to the stem uninterrupted by other than superstructure or deckhouse so constructed that sea water will not flood spaces below deck.
d) "*MK*": Nordic Boat Standard: Materials and Components for Commercial Boats of less than 15 metres, 1990.
e) "*Passenger ship*": ships required to have Passenger Certificate.
f) "*Towing*": towing or pushing of one or more objects. The towing of light objects, such as a dinghy or a light floating wharf or similar, is not considered towing as per this definition.

Section 5
Acceptance of equivalent legislation in another EEA country

As an alternative to chapters 2 to 7 of these Regulations, a ship may be constructed in compliance with a complete and equivalent body of legislation in another EEA country. The body of legislation shall be accepted as equivalent by the Norwegian Maritime Authority before the construction commences. The same applies when purchasing ships from another EEA country.

Section 6
Maintenance requirements

The ship and appurtenant equipment shall be maintained in accordance with the manufacturer's recommendations or with recognised methods. The company shall have a plan for such maintenance.

Chapter 2
Construction

Section 7
Construction requirements

(1) The ship's:

a) hull;
b) outfitting;
c) watertight bulkheads; and
d) means of closure for openings in:
    1. bulkheads;
    2. superstructures; and
    3. deckhouses;

shall be in compliance with the requirements for:

a) material properties;
b) construction;
c) strength; and

d) watertight integrity;

in one standard or set of rules.

(2) The standard or set of rules mentioned in the first paragraph shall be appropriate to the ship being constructed with regard to construction material, size, type and use, and shall either be from a recognised classification society or another accepted recognised standard.

(3) Sections 8 to 25 apply regardless of selected standard or set of rules pursuant to this section.

Section 8

Requirements for strengthening of hull

Areas of the hull which may be subjected to increased loads or damages shall be strengthened. Areas which cannot be strengthened shall have an internal watertight barrier preventing further flooding of the ship in the event of damage.

Section 9

Ice-strengthening requirements

(1) Ships operating in areas with ice shall be strengthened for ice.

(2) The ice-strengthening of the ship shall be done in accordance with rules from a recognised classification society.

(3) For ships constructed in accordance with the Nordic Boat Standard for Commercial Boats less than 15 metres, 1990, C33 in the same standard applies.

Section 10

Requirements for production conditions for ships constructed of cast materials

For ships constructed wholly or partly of reinforced fibre glass polyester or other cast materials, the production conditions shall comply with rules for production conditions from a recognised classification society, or Nordic Boat Standard for Commercial Boats less than 15 metres, 1990, C26 for ships constructed in accordance with this standard.

Section 11

Requirements for anchor and mooring equipment

(1) Ships shall have anchor and mooring equipment.

(2) The anchor and mooring equipment shall be in accordance with the rules of a recognised classification society.

(3) For ships of less than 15 metres the anchor and mooring equipment may be in accordance with the Nordic Boat Standard for Commercial boats less than 15 metres, 1990, C16.

Section 12

Requirements for foundations for lifting equipment for life-saving appliances

The foundations of davit, crane and other lifting equipment for life-saving appliances shall be dimensioned with a safety factor of 4.5 against the tensile strength of the material.

Section 13

Requirements for towing winch or towing hook when towing in small coasting or lesser trade area

(1) Ships carrying out towing operations in small coasting or lesser trade area shall be equipped with a towing winch or towing hook. The towing hook shall be mounted in such a way that it can move freely in the horizontal and vertical sectors in which the towline can move.

(2) The tow shall be attached to the towing winch or towing hook.

(3) The towing equipment shall be so arranged as to make it possible to maintain control of the tow, even under poor weather conditions. The tow connection shall be protected from wear due to movement of the tow, and shall be long enough or be so arranged that the effect of shock loads is reduced.

(4) When towing in a trade area greater than protected waters, a complete spare tow connection shall be available. This shall be so arranged that it is readily available for use under all weather conditions.

Section 14

Requirements for towing equipment for smaller tows in trade areas 1 and 2

(1) Ships carrying out towing operations in trade areas 1 or 2 may as an alternative to towing winch or towing hook have towing mountings or other equipment suitable for towing the object in question, when the towed object is less than 15 metres and does not carry cargo.

(2) The tow shall be capable of being quickly released at maximum bollard pull.

(3) Sections 16 and 17 do not apply to ships covered by the first paragraph.

Section 15

Requirements for stern roller, winch, guide pins, shark-jaw and safety zone for anchor-handling operations in small coasting and lesser trade area

(1) Ships carrying out towing operations in small coasting or lesser trade area shall have stern roller and winch.

(2) The ship shall have a safety zone where the crew may stay when the anchor-handling equipment is in operation.

(3) Ships pursuant to the first paragraph shall have guide pins that can be closed and shark-jaw appropriate to the vessel's intended operations not later than 1 January 2018.

Section 16

Requirements for emergency release for towing or anchor-handling in small coasting or lesser trade area

(1) In ships carrying out towing or anchor-handling operations in small coasting or lesser trade area, winch, towing hook, guide pins and shark-jaw shall be fitted with a reliable and appropriate emergency release mechanism for releasing tow or load.

(2) Emergency release shall be possible:

a) without manual handling on or in the vicinity of the equipment;
b) from the control panel for the equipment;
c) from the relevant steering position for the ship;
d) in dead ship situations; and
e) at the safe working load (SWL) for the equipment in question.

(3) When the emergency release mechanism is activated, the tension on the line shall be gone within 10 seconds.

Section 17

Requirements for automatic audible alarm in small coasting or lesser trade area

Ships operating in small coasting or lesser trade area with shark-jaw or guide pins that can be closed shall be fitted with automatic audible alarm on the working deck. The alarm shall be sounded when the equipment is set in motion.

Section 18

Requirements for dimensioning, etc. of equipment and arrangement for towing or anchor-handling in small coasting or lesser trade area

(1) The requirements of this section apply to ships operating in small coasting or lesser trade area.

(2) Towing hooks, guide pins, cruciform bollards, roller hawses and similar with foundation and mounting shall be dimensioned for the maximum continuous pull (bollard pull) of the vessel with a safety factor of at least 5 in relation to the tensile strength of the material or of 3.5 in relation to the minimum yield stress of the material (R_eH). For materials without an easily defined yield point, the 0.2 per cent proof stress (offset yield stress), i.e. the stress at which the material undergoes a 0.2 per cent non-proportional extension (RP0.2), shall be used instead of R_eH. The same applies to shark-jaw with foundation and mounting, but a force corresponding to 120 per cent of the SWL of the winch shall be used instead of bollard pull.

(3) As an alternative to the requirements of the second paragraph, the mentioned equipment with foundation and mounting may be dimensioned in accordance with a standard or a set of rules from a recognised classification society. The standard or set of rules shall be appropriate to the equipment.

(4) For shark-jaws, the following technical requirements for materials apply:

a) elongation shall be minimum 12 per cent;
b) notched impact resistance shall be minimum 50 J on average of three single tests at room temperature, where no test value shall fall below 40 J;
c) hardness value shall be minimum 320 HV Vickers.

(5) Dimensioning and testing of winch for towing and winch for anchor-handling shall be in accordance with ISO 7365. The towing line and anchor-handling line shall, when using winch, be dimensioned in accordance with point 4.5.1 of ISO 7365. The foundation and mounting of the winch shall be dimensioned for the SWL of the winch with a safety factor of at least 5 in relation to the tensile strength of the material or of 3.6 in relation to the minimum yield stress of the material (R_eH). For materials without an easily defined yield point, the 0.2 per cent proof stress (offset yield stress), i.e. the stress at which the material undergoes a 0.2 per cent non-proportional extension (RP0.2), shall be used instead of R_eH.

(6) For towing with towing hook, all components of the towing line shall be dimensioned against breakage with a safety factor of at least 3 in relation to the bollard pull of the ship.

(7) When equipment for towing or anchor-handling may be subjected to forces in horizontal or vertical direction, such equipment shall at least be dimensioned for the ship's bollard pull in the least favourable directions from 0 to 60 degrees to either side in relation to the ship's centre line and 30 degrees upwards in relation to the horizontal plane.

(8) All movable equipment used in connection with towing and anchor-handling operations, such as shackles, rings, wires and hawsers, shall be certified.

Section 19

Requirement for documentation to be kept on board

Certificates for movable equipment and the documentation for the towing arrangement and anchor-handling arrangement shall be kept on board.

Section 20

Requirements for equipment and arrangement for towing or anchor-handling in great coasting or greater trade area

Ships carrying out towing or anchor-handling operations in great coasting or greater trade area shall comply with the requirements of the Regulations of 1 July 2014 No. 1072 on the construction of ships, sections 12, 13, 14 and 16.

Section 21

Requirements for watertight subdivision on closed ships

(1) Closed ships of less than 15 metres in overall length shall have at least two watertight bulkheads.

(2) Closed ships of 15 metres in overall length and upwards shall have at least three watertight bulkheads, whereof one bulkhead shall be a collision bulkhead at a distance of at least 0.05L from the forward perpendicular.

(3) Collision bulkheads on closed ships having a whole superstructure or a superstructure in the fore-body which is longer than one-fourth of the ship's length, shall be extended weathertight to the first deck above the freeboard deck. Where the extension is not located directly above the collision bulkhead below, the part of the deck which forms the step shall be weathertight. Openings in the collision bulkhead above the freeboard deck shall be capable of being closed weathertight.

Section 22

Requirements for openings in watertight bulkheads on closed ships

(1) Watertight bulkheads on closed ships shall have as few openings as possible. Cable and pipe penetrations shall be so designed and constructed that the watertight integrity of the bulkhead is maintained.

(2) Doors and hatches in watertight bulkheads shall also be watertight and of equivalent strength to the unpierced bulkhead. Manholes shall be bolted tight.

Section 23

Requirements for openings in collision bulkheads on closed ships

Collision bulkheads below the freeboard deck on closed ships shall not have openings or penetrations. When a tank for liquid has been arranged in front of the collision bulkhead, the collision bulkhead may have a pipe penetration in order to convey this liquid. This pipe shall have a valve fitted where the pipe penetrates the bulkhead. The valve shall be operable from above the freeboard deck.

Section 24

Requirements for moving parts penetrating the hull

(1) Ships with moving parts penetrating the hull below the deepest waterline, such as sonar, shall have an internal watertight barrier which prevents the further flooding of the ship in the event of a leak. The compartment that can be flooded shall not be greater than what is necessary to be able to carry out maintenance, repairs and similar.

(2) Openings in the internal watertight barrier below the freeboard deck shall have watertight means of closure of the same strength as the adjacent structure. The means of closure shall be marked on both sides stating that it shall be kept closed while at sea. The compartment within the opening shall have a water level meter with an alarm to the wheelhouse which is activated when the water level in the compartment reaches a maximum of 0.3 m.

Section 25

Requirements for constructional adaptation for loading and unloading

ILO Convention No. 152 shall apply as regulation when the Convention has constructional significance.

Chapter 3
Stability documentation

Section 26

Requirements for preparation of stability information

(1) Before the ship is put into service, stability information shall be prepared to enable the master by rapid and simple processes to obtain accurate guidance as to the ship's trim and stability under all conditions.

(2) Hull geometry, hydrostatics, cross curves, limit curves and supporting documentation shall be prepared by means of software listed on the Norwegian Maritime Authority's list of approved stability calculation programs.

Section 27

Requirements for stability information to be kept on board

(1) A stability poster with information about the ship's limitations shall be posted in the wheelhouse. The stability poster shall at least include the following information, as appropriate for the ship:

a) type of cargo and maximum amount of cargo in cargo spaces and on decks pursuant to sections 30 to 32;
b) use of ballast;
c) limitations when using anti-rolling tank(s); and
d) the ship's capacities with regard to towing, anchor-handling and use of crane.

(2) The following stability documentation shall be kept on board:

a) tank plan, and tables or curves stating, as a minimum, the volume, centre of gravity and free surface effects at different levels for each tank;
b) hydrostatics;
c) cross curves;
d) limit curves;
e) loading conditions;
f) examples of the preparation of other loading conditions and control against permitted limit curves.

Section 28

Requirements for determination of lightship data

(1) The ship shall be subjected to an inclining test when construction and equipping is completed. The actual displacement and position of the centre of gravity for the lightship condition shall be determined before the ship is put into service.

(2) When several ships are constructed in a series with identical main dimensions, identical structure and hull design, and with equal weight and placement of equipment, the first two ships in the series shall be subjected to an inclining test. For the next ships in the series, the inclining test may be omitted if it can be documented, by calculation or weighing, that the deviation of the lightship weight is less than 2 per cent, and that the deviation of the longitudinal centre of gravity is less than 1 per cent of the overall length.

(3) Within ten years after the last approved lightship data, a displacement measurement shall be made. A new inclining test shall be performed whenever a deviation in the lightship weight exceeding 2 per cent of the ship's weight, or a deviation of the longitudinal centre of gravity exceeding 1 per cent of overall length, is found or anticipated.

(4) Where alterations are made to a ship affecting its lightship condition or the position of the centre of gravity, an approved company or the Norwegian Maritime Authority shall consider whether the ship shall be re-inclined or whether previously determined lightship data can be accepted with corrections for the alterations made. Revised stability calculations shall be prepared based on new lightship data following alterations.

(5) Inclining tests and displacement measurements shall be performed according to procedures laid down by the Norwegian Maritime Authority.

Section 29

Requirements for determination of bollard pull

For ships carrying out towing or anchor-handling operations, the maximum continuous pull (bollard pull) shall be determined by way of a towing test in accordance with procedures laid down by the Norwegian Maritime Authority.

Section 30

Requirements for preparation of loading conditions

(1) Loading conditions which cover all operations of the ship shall be calculated, including the following loading conditions and any less favourable cargo distributions, if they are relevant with regard to the operation of the ship:

a) ship fully equipped without cargo;
b) ship fully equipped with cargo holds fully loaded and the cargo is homogeneously distributed in all holds, including hatches;
c) ship fully equipped with maximum deck cargo and any cargo below deck homogeneously distributed;
d) ship fully equipped with maximum deck cargo.

(2) For the loading conditions described in the first paragraph subparagraphs c and d, the stowage weight of the deck cargo and the length, breadth, height and centre of gravity of the deck cargo shall be given in the calculations.

(3) The loading conditions described in the first paragraph subparagraphs a to c shall be calculated for the ship with 100 per cent stores and 100 per cent fuel, and with 10 per cent stores and 10 per cent fuel.

(4) In the loading conditions described in the first paragraph subparagraphs b and c the ship shall be loaded to the deepest waterline.

(5) For ships with openings or ventilators for free flooding or circulation in wells, loading conditions as described in subparagraphs a to f below shall be calculated instead of the loading conditions of the first paragraph subparagraphs a to d:

a) ship fully equipped, with 100 per cent stores and 100 per cent fuel, empty well and without cargo in cargo holds, if any;
b) as for subparagraph a, but with 10 per cent stores and 10 per cent fuel;
c) ship fully loaded, with 100 per cent stores and 100 per cent fuel, full equipment, flooded well and the amount of water ballast necessary to obtain immersion in accordance with the freeboard;
d) as for subparagraph c, but with empty water ballast tanks;
e) ship fully loaded, with 10 per cent stores and 10 per cent fuel;
f) ship with cargo well partly loaded, indicating the least favourable stability situation that will occur with regard to free surfaces, cargo distribution, etc.

(6) If a ship pursuant to the fifth paragraph is constructed so that the water level inside the well can be increased in relation to the water level outside, stability calculations shall be prepared showing that the requirements for stability have been complied with in such loading conditions. The water level inside the well shall not be below the water level outside in any loading conditions.

(7) When ships carry liquid cargo, and the specific weight of the cargo in the homogeneous conditions is less than for sea water, fully loaded conditions with specific weight as for sea water shall in addition be calculated taking into account the free surface effects.

(8) For ships equipped with one or more anti-rolling tank(s), the stability calculations shall take due account of the reduction in stability caused by the use of such tank(s). If the anti-rolling tank(s) for stability reasons cannot be used for all loading conditions, instructions for the use of the tank(s) shall be prepared, as well as loading conditions corresponding to the instructions.

(9) If the amount of water ballast is different in the departure condition and the arrival condition, intermediate conditions shall be calculated indicating when water ballast shall be replenished or drained. The calculations shall indicate the stability situation immediately prior to replenishing or after drainage of water ballast.

(10) If, in one particular condition, there is a need to use water ballast or a particular distribution of stores in order to achieve a particular capacity, the stability manual shall give clear instructions on the necessary quantity and placement.

Section 31

Requirements for preparation of additional conditions for ships carrying out towing, crane or anchor-handling operations

(1) When ships carrying out towing operations do not comply with the towing criteria of section 38 when the ship is loaded in accordance with section 30 first paragraph subparagraphs a to d, corrected loading conditions shall be calculated, showing the limitations of the loading capacity during towing operations.

(2) For ships carrying out crane operations, the maximum permitted heeling moment from crane when the ship is loaded as described in section 30 first paragraph subparagraphs a to d shall be calculated. The calculations shall be based on the criteria of section 39. Information regarding maximum permitted weight shall be calculated as a function of extension and direction of the crane boom. The Safe Working Load (SWL) of the crane shall in no case be exceeded.

(3) Ships carrying out anchor-handling operations shall calculate a loading condition where the ship is fully equipped and loaded in the least favourable condition under which the ship can carry out anchor-handling operations. The stability criteria of section 39 shall be met when the maximum pulling force of the winch is placed as a weight in the stern. The weight shall be placed in the outermost point bounding the area of movement of the anchor-handling line. If limitations of the loading capacity or similar are assumed, this shall be clearly stated in the instructions for the master in the stability manual.

Section 32

Requirements for preparation of additional conditions for ships operating in areas where there is a danger of ice accretion

(1) When the ship is operating in areas where there is a danger of ice accretion:

a) loading conditions with the weight of ice added shall be prepared;

b) the ship shall be capable of satisfying the stability requirements in all loading conditions, with the weight of ice added; and

c) the weight of ice shall not cause submersion of the deepest waterline.

(2) The weight of ice shall be assumed to be at least 30 kg/m^2 for exposed weather decks, gangways and front bulkheads of superstructures and deckhouses, and at least 7.5 kg/m^2 for projected lateral planes on both sides of the ship above the waterline. The weight of ice on non-continuous surfaces such as railings, rigging, spars (except masts) and equipment shall be included by increasing the total area of the projected lateral plane of the ship's sides by 5 per cent. The static moment of this area shall be increased by 10 per cent.

Section 33

Preconditions to apply when calculating loading conditions

For the calculation of the loading conditions described in sections 30 to 32, the following shall apply:

a) In the fully loaded conditions, the cargo shall be assumed to be homogeneously distributed among all holds, hatch coamings and trunks, if any.

b) When calculating the free surface effects in tanks for consumable liquids it shall be assumed that, for each type of liquid, at least one pair of transverse side tanks or at least one centre tank has a free surface. The tank(s) that shall be assumed to have free liquid surface shall be the tank(s) where the free surface effects are the largest. The maximum free surface effects that the tank(s) can have between associated departure condition and arrival condition shall be used as basis.

c) For vessels with cargo wells arranged with free flooding of the well, in other words with direct communication to the sea, the following shall in addition apply:

1. The loading conditions shall be calculated with correction for free surface effects in the cargo well. Cargo holds shall be included in the stability calculations as an integrated part of the hull, and documented in the specifications for the other parts of the hull. The specific weight of the cargo shall be set at 1.025 tonnes/m^3 for such calculations.
2. When the ship is fully fuelled and fully equipped, the draught shall not exceed the draught corresponding to the assigned freeboard. The water level inside the well shall then be regarded as equal to the water level outside.

Section 34

Requirements for calculation of stability curves

(1) Hydrostatic curves shall be laid out, containing the hydrostatic parameters necessary for the calculation of the stability.

(2) The cross curves shall be calculated for a sufficient number of angles of heel, depending on the shape and size of the ship.

(3) In the calculation of cross curves the ship shall be capable of trimming freely during heeling.

(4) Hydrostatic curves, cross curves and KG limit curves shall be calculated for the ship without trim, for maximum trim and for intermediate trim values. The curves shall be calculated for a total of at least three trim values.

(5) Superstructures, deckhouses, trunks, etc. may be included in the buoyancy, provided that the openings in such volumes are fitted with means of closure in accordance with these Regulations.

(6) When the ship will sink due to flooding through an opening, the GZ curve shall be terminated at the angle of flooding in question, and the ship shall be considered to have lost all stability.

(7) The KG limit curves, or equivalent tables, shall show the maximum permissible height of the ship's centre of gravity for intact stability at various draughts and trim values. The KG limit curves shall be based on the stability criteria applicable for the ship. KG limit curves shall be drawn up for trim values corresponding to those for which hydrostatics and cross curves have been calculated.

(8) Ships carrying out towing or anchor-handling operations shall also have limit curves showing KG_{max} during such operations.

Chapter 4
Stability criteria

Section 35
Stability requirements

(1) All ships shall have sufficient stability and satisfactory trim in all relevant loading conditions. Any list shall be avoided.

(2) Ballast shall be located and secured so that it cannot shift. Permanent ballast shall not be removed or moved.

(3) Where liquid ballast is to be used as permanent ballast, it shall be stored in sealed tanks which are completely full. Detailed information thereof shall be included in the stability manual.

Section 36
Requirements for intact stability for closed ships

(1) For closed ships, the following stability criteria shall be satisfied for all loading conditions, unless otherwise provided by sections 38 to 40:

a) The area below the righting arm curve (GZ curve) shall be at least 0.055 metre radians calculated up to an angle of heel of 30 degrees, and at least 0.09 metre radians calculated up to 40 degrees or the angle of flooding if that angle is less than 40 degrees. In addition, the area below the GZ curve between the heeling angles of 30 and 40 degrees, or between 30 degrees and the angle of flooding if that angle is less than 40 degrees, shall be at least 0.03 metre radians.

b) The righting arm (GZ) shall be at least 0.20 metres at an angle of heel of 30 degrees or more.

c) The angle of heel at which the righting arm (GZ_{max}) is at its maximum value shall not be less than 25 degrees.

d) The initial metacentric height (GM) shall be at least 0.15 metres.

(2) When the ship because of its shape fails to comply with the first paragraph subparagraph c, the first paragraph subparagraphs a and c may be replaced by the following:

a) The area below the GZ curve shall be at least 0.07 metre radians calculated to an angle of heel of 15 degrees when the maximum righting arm (GZ_{max}) occurs at 15 degrees, and 0.055 metre radians up to 30 degrees when GZ_{max} occurs at 30 degrees or more. When GZ_{max} occurs between 15 and 30 degrees, the area requirement below the GZ curve up to the angle where GZ_{max} occurs shall be determined by this formula:
Minimum area = $0.055 + 0.001\ (30 \text{ degrees} - \theta_{max})$,
where θ_{max} is the angle where GZ_{max} occurs. In addition the area below the GZ curve between 30 and 40 degrees, or between 30 degrees and the angle of flooding if the latter is less than 40 degrees, shall be not less than 0.03 metre radians.

b) The angle of heel where GZ_{max} occurs shall not be less than 15 degrees.

Section 37
Requirements for intact stability for open ships

Open ships shall comply with the Nordic Boat Standard for Commercial Boats less than 15 metres, 1990, C3 point 4, but with a requirement for minimum GM equal to 0.50 metres.

Section 38

Additional stability requirements for ship carrying out towing operations

(1) Ships carrying out towing operations shall be closed ships.

(2) When a ship carrying out towing operations is exposed to a transverse force giving the ship a transverse speed through the water of 5 knots, the first intersection between the heeling arm curve and the righting arm curve (GZ curve) shall occur at an angle which is less than the angle of flooding.

(3) When a ship carrying out towing operations is exposed to a transverse force equal to the ship's bollard pull multiplied by 0.65, the area between the righting arm curve (GZ curve) and the heeling arm curve calculated from the first point of intersection to the angle which occurs first of 40°, the angle of GZ_{max} and the angle of flooding, shall be equal to or greater than 0.010 metre radians. The vertical arm of the heeling moment shall be taken from the centre of the propeller(s) to the fastening point of the hawser.

Section 39

Additional stability requirements when using crane and in connection with anchor-handling operations

(1) Ships which shall use deck crane, and ships which shall carry out anchor-handling operations, shall be closed ships.

(2) The maximum angle of heel due to heeling moment from the crane shall be 7 degrees, or the angle resulting in parts of the freeboard deck being located 200 mm from the waterline, if this angle is smaller. The area between the righting arm curve (GZ curve) and the heeling arm curve calculated from the first point of intersection to the angle which occurs first of 40° and the angle of flooding, shall be equal to or greater than 0.090 metre radians.

(3) The maximum angle of heel may be between 7 and 10 degrees if the following conditions are satisfied when the crane or winch is operating at maximum loading moment:

a) The righting arm curve (GZ curve) has a positive extent of at least 20 degrees beyond the state of equilibrium. Flooding shall be assumed to take place through openings which do not have weathertight closing appliances.
b) The area requirement of the second paragraph is satisfied.
c) No parts of the freeboard deck are located less than 200 mm from the waterline.

(4) Information from the manufacturer shall be available concerning the maximum angle of heel for which the cargo-handling appliance is intended. The maximum permitted angle of heel of the second and third paragraphs shall not exceed the maximum angle of heel from the manufacturer.

(5) If, when lifting by crane, counter ballasting is used in order to counterbalance heeling moment due to weight in the crane, the consequence of loss of crane load shall be considered.

Section 40

Alternative stability requirements for vessels with cargo wells

Loading conditions for partly flooded wells may have a GZ_{max} of at least 0.10 m and a positive GZ curve up to at least 20 degrees, provided that the flooding and discharging of the well takes place only in calm seas, and that the cargo well is either completely empty or completely flooded when the vessel is at sea.

Chapter 5
Freeboard

Section 41

Freeboard requirements for closed ships

The freeboard shall be determined based on stability, trim and hull strength, etc., but shall in no place or in no loading condition be less than 200 mm from the upper edge of the deck at side to the waterline.

Section 42

Requirements for indication of draught marks for closed ships

(1) For ships of 15 metres and above in overall length, the draught marks and deck line shall be indicated on both sides of the ship in accordance with the marking form laid down by the Norwegian Maritime Authority.

(2) For ships of less than 15 metres in overall length, the draught marks shall be indicated on both sides of the ship in accordance with the Nordic Boat Standard for Commercial boats less than 15 metres, 1990, C2.

Section 43

Freeboard requirements for open ships

(1) The freeboard shall be determined based on stability, trim and hull strength, etc., but shall amidships not be less than the greatest of:

a) F= (4.5 x Δ) / (1000 x overall length x breadth) m

b) F= 0.5 m

(2) The forward freeboard shall not be less than 1.2F. The aft freeboard shall not be less than 0.8F.

Chapter 6
Machinery and electrical installations

Section 44

Machinery requirements

(1) Ships shall have machinery, generators, steering gear, pumps, piping systems, etc. in compliance with the Nordic Boat Standard for Commercial boats less than 15 metres, 1990, C6 to C10.

(2) The following equipment shall be type-approved by and in accordance with rules from a recognised classification society:

a) propulsion and auxiliary machinery, gears, etc. with a 100 kW rating and above, on ships of 15 metres in overall length and upwards;

b) steering gear installations with appurtenant control systems on ships of 15 metres in overall length and upwards;

c) boiler installations and pressure vessels with a working pressure of 3.5 bar or more;

d) flexible pipes and hoses conveying flammable liquids.

(3) Couplings on oil fuel lines shall be screened to avoid oil spray onto hot surfaces or other sources of ignition. Such piping systems shall have as few couplings as possible. Flexible hoses may only be used wherever necessary in order to absorb movement between machinery and fixed piping system.

(4) Oil tanks in machinery spaces shall, as far as practicable, have drip trays with sufficient capacity for the collection of leakages from couplings. This also applies to the parts of the oil fuel system which are often opened for cleaning purposes.

(5) Air pipes from oil fuel tanks shall be led to open deck.

Section 45

Requirement for means of communication in the event of emergency steering

Communication between the bridge and the emergency steering position shall be possible.

Section 46

Requirements for main source of power

Where the auxiliary services essential for the safety and propulsion of the ship are dependent on electrical power, the ship shall have two or more main generating sets. One of the main generating sets may be operated by the main engine for propulsion.

Section 47

Requirements for emergency source of electrical power

(1) An emergency source of electrical power with emergency switchboard shall be provided. The emergency source of power with emergency switchboard shall be located above the bulkhead in a space not contiguous to the boundaries of machinery spaces, or those spaces containing the main source of electrical power or main switchboard. Machinery spaces means spaces containing internal combustion machinery used for propulsion, internal combustion machinery with a total power output of not less than 375 kW, oil-fired boilers or other oil-fired equipment such as gas generators, incinerators, etc.

(2) There shall be a clear division between the main and emergency source of power so that fire or other casualty or malfunction in one installation does not affect the other.

(3) The emergency source of electrical power shall be an accumulator battery or a generator that complies with the requirements of section 48. The accumulator battery shall be capable of carrying the load pursuant to the requirements of section 48 without recharging, with a reduction in the voltage of the battery limited to 12 per cent of its nominal voltage. Where the emergency source of electrical power is a generator, the generator shall be provided with a separate fuelling system.

(4) The emergency source of electrical power shall be automatically connected in the event of loss of the main source of electrical power. It shall be so arranged that it will operate efficiently even if the ship is listed to 22.5 degrees and the trim of the ship is up to 10 degrees from an even keel.

(5) The emergency switchboard shall be situated as close to the emergency source of electrical power as possible.

(6) It shall be possible to restore propulsion to the ship from a dead ship condition within 30 minutes after a blackout.

(7) The requirement for an emergency source of electrical power pursuant to the first paragraph shall be considered to have been satisfied if:

a) the main source of power is located in two or more rooms which are not adjacent, and every room:
   1. has its own complete system, including power distribution and control systems; and
   2. is completely independent of each other, so that a fire or other accidents in any of the rooms will not affect the power distribution from the others or to services listed in section 48;
b) an emergency source of electrical power is installed above the bulkhead deck, which at least has the capacity of supplying the services listed in section 48 first paragraph subparagraph a No. 1 and 2 and subparagraph b.

Section 48

Requirements for the capacity of the emergency source of power

(1) The emergency source of electrical power shall be capable of operating the following services for three hours:

a) emergency lighting:
   1. at every muster or embarkation station and over the sides;
   2. in all alleyways, stairways and exits giving access to the muster or embarkation stations;
   3. in the machinery spaces and at the source of emergency power;
   4. in the spaces where radio and main navigating equipment are situated; and
   5. at the fire pump and at the starting position of the fire pump's motor;
b) navigation lights;
c) internal means of communication necessary in an emergency situation;
d) the fire detection system, the fire alarm system and the general alarm system;
e) the ship’s sprinkler pump, if any and if it is electrically operated; and
f) the ship’s daylight signalling lamp, if it is operated by the ship’s main source of electrical power.

(2) On ships of 15 metres in overall length and upwards the emergency source of electrical power shall in addition have sufficient capacity to supply the fire pump for 30 minutes. This does not apply if the fire pump can be operated for 30 minutes by another source of power which is located outside of the machinery space, and which is independent of both the main and emergency sources of power.

Section 49

Requirements for transitional source of power for emergency generator

(1) Where a generator is used as emergency source of power, a transitional source of electrical power shall be provided. The transitional source of electrical power shall consist of one or more accumulator batteries, and shall be capable of supplying electrical power for 30 minutes without recharging to:

a) emergency lighting as laid down in section 48 first paragraph subparagraph a; and
b) the fire detection system, the fire alarm system and the general alarm system.

(2) If the emergency generator has automatic start and is capable of supplying services as mentioned in the first paragraph within 45 seconds of loss of main power, the requirement for transitional source of power is considered to have been satisfied.

Section 50

Requirements for power supply to the general alarm system and public address system

The general alarm system and the public address system (PA system) shall be supplied with electrical power both from the ship's main source of power and from an emergency source of power.

Chapter 7
Fire protection

Section 51
Definitions

For the purpose of these Regulations, the following definitions shall apply:

a) *"Fire load (MJ)"*: the sum of thermal energies which are released by combustion of all fixed and mobile combustible materials in a space, i.e. the sum of the permanent and variable fire loads. The calculated fire load must include all combustible content in the building and the relevant parts of the construction, including linings and accommodation.

b) *"Fire-restricting material"*: a material satisfying the requirements for fire-restricting material of the FTP Code.

c) *"FSS Code"*: the International Code for Fire Safety Systems (Fire Safety Systems Code), as adopted by the Maritime Safety Committee by resolution MSC.98(73), as last amended by MSC.339(91).

d) *"FTP Code"*: the International Code for Application of Fire Test Procedures, 2010 (Fire Test Procedures Code), as adopted by the Maritime Safety Committee by resolution MSC.307(88).

e) *"HSC Code"*: the International Code of Safety for High-Speed Craft (High-Speed Craft Code), as adopted by the Maritime Safety Committee by resolution MSC.97(73), as last amended by MSC.352(92).

f) *"Low flame-spread"*: that the surface thus described will adequately restrict the spread of flame, this being determined in accordance with the FTP Code.

g) *"'A' class divisions"*: those divisions formed by bulkheads and decks which comply with the following criteria:
   1. they are constructed of steel or other equivalent material;
   2. they are suitably stiffened;
   3. they are insulated with approved non-combustible materials such that the average temperature of the unexposed side will not rise more than 140 degrees C above the original temperature, nor will the temperature, at any one point, including any joint, rise more than 180 degrees C above the original temperature, within the time listed below:
      class 'A-60': 60 min
      class 'A-30': 30 min
      class 'A-15': 15 min
      class 'A-0': 0 min
   4. they are so constructed as to be capable of preventing the passage of smoke and flame through the division to the end of the one-hour standard fire test described in the FTP Code.

h) *"'B' class divisions"*: those divisions formed by bulkheads, decks, ceilings or linings which comply with the following criteria:
   1. they are constructed of approved, non-combustible materials, and all materials entering into the construction and erection of 'B' class divisions shall be non-combustible;
   2. they have an insulation value such that the average temperature of the unexposed side will not rise more than 140 degrees C above the original temperature, nor will the temperature at any one point, including any joint, rise more than 225 degrees C above the original temperature, within the time listed below:
      class 'B-15' 15 min
      class 'B-0' 0 min
   3. they are so constructed as to be capable of preventing the passage of flame through the division to the end of the one-hour standard fire test described in the FTP Code.

i) *"Fire load density (MJ/m^2)"*: the total fire load per area unit in a fire cell. The area unit can be the enveloping surface (the sum of the floor, ceiling and wall surfaces) or the floor surface. The area unit to use depends on the applied method or standard.

j) *"Steel or other equivalent material"*: any non-combustible material which, by itself or due to insulation provided, has structural and integrity properties equivalent to steel at the end of the applicable exposure to the standard fire test (e.g. aluminium alloy with appropriate insulation).

k) *"Non-combustible material"*: a material which neither burns nor gives off flammable vapours in sufficient quantity for self-ignition when heated to approximately 750 degrees C, this being determined in accordance with the FTP Code.

Section 52

Requirements for insulating materials and materials used in accommodation spaces

(1) Insulating materials shall, except in cargo spaces and refrigerated compartments, be non-combustible.

(2) Insulation in the vicinity of engines and oil fuel lines, and on all surfaces with a temperature of 220 degrees C or more, shall be protected against absorbing flammable liquid or gas.

(3) The following shall apply in accommodation spaces, service spaces and control stations:

a) sheeting, ceilings, smoke barriers and associated fixings shall be of non-combustible material; and

b) interior surfaces shall have low flame-spread characteristics, and shall not produce smoke at elevated temperatures or give off substances which may be toxic or give rise to a risk of explosion.

(4) Ships of less than 15 metres constructed of a composite material or aluminium may, as an alternative to non-combustible material provided in the first paragraph and the third paragraph subparagraph a, use fire-restricting material.

Section 53

Possibility of restricted use of combustible materials

(1) The interior sheeting, ceilings and associated fixings in accommodation spaces and service spaces may be of combustible material if these spaces are enclosed by non-combustible bulkheads and decks satisfying the requirements of section 52 third paragraph subparagraph b, and the amount of combustible material in the surfaces has a fire load density of maximum 45 MJ/m^2 in a fire cell. The total volume of combustible material shall furthermore not exceed a volume equivalent to 2.5 mm sheeting on the surfaces of the space.

(2) The first paragraph does not apply to ships of less than 15 metres in overall length not satisfying the requirements of section 54.

Section 54

Requirements for fire-resisting divisions

(1) Fire-resisting divisions shall be provided in bulkheads and decks as described in table 1.

(2) In machinery spaces of ships constructed of composite material or aluminium, the ship's sides shall also be fitted with thermal boundaries up to 300 mm below the minimum draught.

(3) Where there is doubt as to the classification of a space, or where it is possible to assign two or more classifications to a space, it shall be treated as a space within the relevant category having the most stringent division.

Table 1

Space category		*(1)*	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Control stations	(1)	*	B-15[b]	B-15	A-15	B-15	A-15
Accommodation spaces	(2)		*	B-15	A-15	B-15	B-15
Service spaces	(3)			B-15[a]	A-15	B-15	B-15
Machinery spaces	(4)				*	A-15	B-15
Galley	(5)					*	B-15
Cargo spaces	(6)						B-15

a A bulkhead or deck of the rating shown in the table is only required when the adjacent spaces are used for a different purpose. If the spaces are used for the same purpose, the division shall be of non-combustible material.

b Public spaces, mess rooms, offices and lavatories on ships of less than 15 metres may be arranged in connection with wheelhouse without requirement for fire-resisting division.

* The division shall be of non-combustible material.

(4) For the purpose of the table, the following definitions shall apply:

a) *"Control stations (1)"*: navigation bridge, control room for propulsion machinery when located outside the machinery space, and spaces containing sources of emergency power, radio equipment, fire-extinguishing medium for gas-based fire-extinguishing systems and fire alarm centres.

b) *"Accommodation spaces (2)"*: spaces used as public spaces, corridors, stairways, lavatories and bathrooms, cabins, offices, hospitals, recreation rooms and pantries containing no cooking appliances.

c) *"Service spaces (3)"*: paint lockers and store-rooms having a floor area of 4 m^2 or more, spaces for the storage of flammable liquids, saunas and workshops other than those forming part of the machinery spaces.

d) *"Machinery spaces (4)"*: spaces containing internal combustion machinery used for propulsion, internal combustion machinery with a total power output of not less than 375 kW, and spaces with oil-fired boilers or other oil-fired equipment such as gas generators, incinerators, etc.

e) *"Galley (5)"*: spaces, with the exception of pantries, containing electrical cooking plates, stove, deep fryer, gas stove, gas-fired installations without open flame and similar kitchen appliances. "Pantry" means an area in connection with wheelhouse or mess room which contains electrical cooking plates, stove or similar kitchen appliances with a total effect of 5 kW or less.

f) *"Cargo spaces (6)"*: all spaces used for the storage of cargo, including tanks for the carriage of oil, and trunks and hatch coamings to such spaces.

(5) Ships of less than 15 metres in overall length may, as an alternative to the requirements of the first to fourth paragraphs, comply with the Nordic Boat Standard for Commercial boats less than 15 metres, 1990, C14 point 3.3., the requirements of a standard or set of rules from a recognised classification society or another accepted recognised standard.

Section 55

Alternative requirements for ships constructed of composite material or aluminium

Ships constructed of composite material or aluminium may, as an alternative to sections 52 to 54, section 56 first paragraph and section 57 first and fifth paragraphs comply with the HSC Code chapters 7.2, 7.3 and 7.4.1 to 7.4.3. The requirement for protection time given in the HSC Code need not exceed 30 minutes.

Section 56

Requirements for arrangement of fire insulation

(1) Fire insulation shall be carried at a distance of at least 450 mm past the intersection and terminal points for struts, bulkheads and decks and in the penetrations of bulkheads and decks. Where there are different class standard requirements for the fire insulation in accordance with the table in section 54, the insulation with the highest class standard shall be carried at a distance of 450 mm past the relevant area.

(2) All surfaces with a temperature of 220 degrees C or more, which may come into contact with flammable liquids as a result of system failure, shall be adequately insulated.

Section 57

Requirements for openings in and penetrations of bulkheads and decks

(1) Doors, hatches and other openings in bulkheads and decks shall have the same fire integrity as the bulkhead or deck in which they are located. Watertight doors need not be insulated.

(2) Ventilation openings may be placed in the lower portion of doors or under doors in accommodation leading to corridors, except stairway enclosures. The total area of any such openings shall not exceed 0.05 m^2.

(3) Doors between an accommodation space and a machinery space shall be self-closing and gas-tight. No direct access between a control station or cabin and a machinery space shall be permitted.

(4) If self-closing doors are fitted with hold-back mechanisms, these shall be capable of remote release from the navigation bridge.

(5) Penetrations for the passage of pipes, cables, trunks, beams and similar shall not reduce the fire integrity of the bulkhead or deck.

Section 58

Requirements for stairway enclosures

(1) Stairway enclosures which penetrate only a single deck shall have at least 'B-0' class divisions against adjacent spaces on one of the decks, and a self-closing door.

(2) Stairway enclosures which penetrate more than a single deck shall have at least 'B-0' class divisions against adjacent spaces on all decks. All doors to these spaces shall be self-closing.

Section 59

Requirements for means of escape

(1) Stairways, ladders or corridors, or combinations thereof, which provide safe escape to open deck, muster stations and life-saving appliances, shall be provided. The means of escape shall be clear of obstacles.

(2) In accommodation spaces, service spaces and control stations, at least two separate means of escape shall be provided from each space or group of spaces on each deck.

(3) On ships with superstructure where only one door may be arranged, a window may be used as one of the means of escape. Ships having only wheelhouse may have one means of escape therefrom.

(4) All machinery spaces shall have at least two separate means of escape, except in the cases described below where one means of escape is permitted:

a) the machinery space is so small that two separate means of escape is not practicable;

b) the machinery space has an exit giving direct access to the open deck.

(5) No dead-end corridors shall be of a length of more than 7 m.

(6) Doors and hatches in escape routes shall open in-way of the direction of escape. Cabin doors and doors to smaller spaces may as an alternative be fitted with a kick plate. The kick plate shall not be less than 400 mm × 500 mm. Doors and hatches in escape routes shall be operable from both sides in a simple manner.

(7) Means of escape shall have a clear width of at least 700 mm. For hatches, these dimensions shall apply to both the length and width of the hatch. Corridors and other alleyways shall have guard rails or grab rails or have other means to ensure safe passage.

Section 60

Requirements for ventilation system

(1) Ventilation openings to machinery spaces, cargo spaces and accommodation spaces shall have means of closure of non-combustible material. These openings, and appurtenant ventilation fans, shall be capable of being closed and stopped from outside the space.

(2) Ventilation ducts shall be of non-combustible material.

(3) The requirement for wheel-marking does not apply to penetrations where steel sleeves are directly attached to the ventilation duct.

(4) In galleys and pantries a separate extract to the open air shall be provided.

Section 61

Requirements for arrangement of ventilation ducts

(1) Ventilation systems to machinery spaces and galleys shall be separated from other ventilation systems.

(2) Ventilation ducts to galleys or machinery spaces which pass through accommodation spaces, service spaces or control stations, and ventilation ducts to accommodation spaces, service spaces or control stations which pass through galleys or machinery spaces shall:

a) be fitted with automatic fire dampers at the penetration and be insulated so that the fire integrity of machinery spaces or galley is maintained at a distance of at least 5 metres from the damper; or

b) be insulated so that the fire integrity of machinery spaces or galley is maintained throughout the entire length of the ventilation duct.

Section 62

Requirements for materials in piping systems

(1) Pipes conveying oil and other pipelines required for the safety of the ship shall be made of non-combustible material.

(2) Seawater pipes and bilge pipes shall be made of a material which is resistant to fire.

(3) Short, flexible pipe connections may be used on pipes conveying oil, if necessitated by vibrations. Such pipe connections shall be resistant to oil, reinforced and made of a material which is resistant to fire.

(4) Where failure of the material due to fire may lead to flooding, scuppers, sanitary discharges or other outlets which are close to the waterline shall be made of materials which are resistant to fire.

Section 63

Requirements for oil fuel tanks and piping systems

(1) Lines from storage, settling or service tanks which are arranged above a double bottom shall have a valve fitted on the tank. The valve shall be capable of being closed from outside the space where the tank is located.

(2) Deep tanks adjacent to shaft or pipe tunnel shall have a valve fitted on the tank. Pipelines outside the pipe tunnel shall have an additional valve.

(3) Oil fuel lines and other lines conveying liquids which may afford a fire risk in the event of a line failure, shall be placed as far away as possible from hot surfaces.

(4) Pumps of lines covered by the third paragraph shall be capable of being stopped from a position outside the space in which they are located.

Section 64

Requirements for heating installations

(1) Heating elements shall be arranged and fixed so that the risk of fire is minimal. The arrangement and placement of the sources of heat shall be such that materials nearby are not charred or catch fire.

(2) Heating by means of open flame shall not permitted in accommodation spaces.

Section 65

Requirements for storage of combustible substances

(1) Combustible substances not carried as cargo, but intended for use on board the ship, shall be stored in a separate store-room which:

a) has direct access from the open deck;
b) is ventilated in such a way that gases do not accumulate in the space;
c) has only the necessary electrical equipment; and
d) does not contain sources of heat.

(2) One of the following fixed fire-extinguishing systems shall be installed in spaces for the storage of combustible substances:

a) CO_2 system providing a minimum volume of free gas equal to 40 per cent of the gross volume of the space;
b) dry powder system with 0.5 kg powder per m^3 gross volume of the space;
c) water-based sprinkler system supplying 5 l/m^2 per minute, which may be connected to the fire main.

(3) Where the store-room has a deck area of less than 4 m^2, a CO_2 portable fire extinguisher providing a minimum volume of free gas equal to 40 per cent of the gross volume of the space may be used in lieu of a fixed fire-extinguishing system. In this case, a hatch shall be arranged so that the extinguisher may be used without persons having to enter the space.

(4) Cylinders, valves, regulators and pipes shall be protected against damage, large fluctuations of temperature and frost.

Section 66

Requirements for fire detection and fire alarm systems

(1) Ships shall have a fire detection and fire alarm system.

(2) The type, number and location of detectors shall be adapted to the conditions in the area to be monitored.

(3) A fire detection and fire alarm system with a sufficient number of fire detectors in relation to the size of the space shall be installed in machinery spaces and in cargo spaces with flammable or explosive cargo. Nevertheless, at least one smoke detector and one heat detector shall be installed.

(4) Where five or more detectors are installed in the machinery space or more than ten detectors are installed in the accommodation, the detectors shall be distributed in one loop serving the machinery space and another serving the accommodation.

(5) Manually operated call points shall be provided at exits of means of escape and otherwise on the ship in sufficient number.

(6) Audible alarm instruments shall be fitted in sufficient number, and at least one for each deck. The system shall in addition to an audible alarm provide an audio-visual alarm at the steering position or other manned control room. In the event that the combination of a high noise level on board the vessel and the use of ear protection may make it difficult to hear an audible fire alarm, a visual fire alarm shall be fitted.

Section 67

Requirements for fire pumps

(1) Closed ships, except for ships with a wheelhouse only, shall have at least one fire pump.

(2) The fire pump shall:

a) be capable of being started from the steering position or other readily accessible position;

b) have relief valves where fire pump delivery pressure may exceed the designed working pressure of the fire main; and
c) have a non-return valve if backflow may occur.

(3) Sanitary, ballast, bilge and any other general service pumps may be used as fire pumps if they comply with the requirements for fire pumps, do not affect the ability to cope with pumping of the bilges, and are normally not used for pumping oil or other flammable liquids.

(4) When more than one fire pump is installed, each of the pumps shall have a capacity of not less than 80 per cent of the total capacity divided by the number of pumps.

Section 68

Requirements for fire pump capacity

(1) The minimum total fire pump capacity (Q) shall be calculated by this formula:

$$Q = \left(0.15\sqrt{L_{pp}(B + D)} + 2.25\right)^2 \quad [m^3 / t]$$

where the following is indicated in metres:
L_{pp} = the ship's length between perpendiculars
B = the ship's maximum moulded breadth
D = the ship's moulded depth to bulkhead deck amidships.
The fire pump capacity (Q) shall in any case be at least 16 m^3/t.

(2) When the fire pump is delivering the quantity of water indicated in the first paragraph, the pressure maintained at the hydrant(s) shall be at least 2.5 bar.

Section 69

Requirements for fire mains

(1) Ships equipped with fire pumps shall have a fire main. The ship's arrangement for washing the deck may be used as a fire main if it satisfies the requirements related to a fire main.

(2) The fire main and associated valves shall be arranged so that no damage is caused by deck cargo or by typical operations.

(3) The fire main shall:
a) have a diameter based on the capacity of the pumps and be sufficient to ensure an even distribution and an even pressure to the fire hoses;
b) be made of non-combustible materials which are heat-resistant; and
c) be self-draining or have drain cocks to avoid frost damage.

Section 70

Requirements for hydrants

(1) The ship shall have one or more hydrants so positioned that:
a) at least one jet of water from one single length of hose is capable of reaching any part of the ship to which the crew has access;
b) the entire machinery space can be reached by the jet of water from a single length of hose;
c) they do not become inaccessible due to deck cargo or the ship's intended operations; and
d) fire hoses may be readily connected.

(2) The hydrants shall have couplings enabling the removal of fire hoses when the fire pump or fire pumps are in operation.

Section 71

Requirements for hose stations

(1) A hose station shall be provided near each hydrant. This shall consist of a fire hose with connection to the hydrant, appurtenant nozzle(s) and two sets of coupling spanners.

(2) In addition to the fire hoses required by the first paragraph, there shall be at least one spare fire hose.

(3) Fire hoses shall not be more than 20 metres long.

Section 72

Requirements for portable fire extinguishers

(1) The fire-extinguishing medium shall be suitable for extinguishing the types of fire that may arise, in accordance with table 2.

Table 2

Fire-extinguishing medium	*Suitable for use on fires involving:*
Water	wood, paper, textiles and similar materials
Foam	wood, paper, textiles and flammable liquids
Dry powder/dry chemical (standard/classes B, C)	flammable liquids, electrical equipment and flammable gases
Dry powder/dry chemical (standard/classes A, B, C)	wood, paper, textiles, flammable liquids, electrical equipment and flammable gases
Dry powder/dry chemical (metal)	combustible metals
CO_2	flammable liquids and electrical equipment
Wet chemical	cooking grease, fats or oil fires

(2) The quantity of fire-extinguishing medium in fire extinguishers shall at least be as follows:
- a) dry powder extinguishers: 5 kg
- b) CO_2 extinguishers: 5 kg
- c) foam extinguishers: 9 l

(3) Fire extinguishers with a weight of more than 23 kg are not considered portable.

(4) The number of suitable fire extinguishers in the various spaces shall at least be as indicated in table 3:

Table 3

Type of space	*Minimum number of fire extinguishers*
Accommodation spaces	One extinguisher per deck, placed easily accessible from all spaces. The walking distance between the extinguishers shall not be more than 15 metres.
Galleys and pantries	One extinguisher. One additional extinguisher if deep fryer is installed in galley.
Machinery spaces	Two extinguishers. They shall be so located that no point in the machinery space is more than 10 metres walking distance from an extinguisher. One of the extinguishers shall be placed near the entrance.
Service spaces	One extinguisher
Room for main electrical switchboard	One extinguisher
Wheelhouse/bridge	One extinguisher. Two extinguishers where the wheelhouse is larger than 50 m^2.

(5) A fire extinguisher may be placed at the entrance, either inside or outside the space in question.

(6) Fire extinguishers placed in locations where they may be exposed to frost shall be of a frost-proof type.

(7) Pressurised extinguishers shall not be placed in cabins.

(8) CO_2 extinguishers shall not be placed in accommodation spaces.

(9) Fire extinguishers containing a fire-extinguishing medium which, either by itself or under expected conditions of use, gives off toxic gases in such quantities as to endanger persons are not permitted on board.

(10) Spare extinguishers equivalent to 50 per cent of the number required by table 3 shall be provided.

(11) Fire extinguishers shall be subject to yearly inspections and service. Inspections and service shall be undertaken by a competent person in accordance with NS 3910:2006. The fire extinguishers shall be pressure-tested every ten years.

Section 73

Requirements for fire blanket

A fire blanket shall be placed easily accessible in galley and pantry.

Section 74

Requirements for fixed fire-extinguishing systems, etc.

(1) When a fixed fire-extinguishing system is required in a space, the system shall be of one of the following types:

a) gas-based system in compliance with chapter 5 of the FSS Code;
b) foam-based system in compliance with chapter 6 of the FSS Code;
c) water-based system in compliance with chapter 7 of the FSS Code.

(2) Ventilation fans to spaces protected by fire-extinguishing systems shall be capable of being stopped near the place where the fire-extinguishing system is started. This also applies in the case of arrangements as described in section 76.

(3) A description of the fire-extinguishing system with instructions for use and maintenance of the system in accordance with the manufacturer's instructions shall be provided on board. The instructions for use shall be posted near the point of operation.

(4) Necessary spare parts for the fire-extinguishing system shall be available on board.

Section 75

Requirements for fire-extinguishing system in machinery spaces and cargo spaces for dangerous goods

A fixed fire-extinguishing system satisfying the requirements of section 74 shall be installed in:

a) machinery spaces; and
b) cargo spaces for dangerous goods or other flammable cargo.

Section 76

Alternative solutions for fire-extinguishing systems in small machinery spaces

In machinery spaces with a gross volume of up to 10 m^3 an arrangement with a fire extinguisher complying with the following may be used as an alternative to a fixed fire-extinguishing system as mentioned in section 74 first paragraph:

a) The quantity of fire-extinguishing medium shall be such that a sufficient extinguishing effect is achieved.
b) It shall be possible to check that the fire extinguisher is intact and in working order.
c) When the fire extinguisher is placed outside the machinery space, it shall be possible to distribute the fire-extinguishing medium in the machinery space through a pipe penetration or hatch.
d) When the fire extinguisher is placed inside the machinery space, it shall be fixed, arranged with one or more nozzles so that the fire-extinguishing medium is distributed in the machinery space and be capable of being released from a position outside the machinery space. The release mechanism shall not easily be rendered inoperative in the event of a fire.

Section 77

Requirements for fire control plan

The fire control plan shall be exhibited in a central and conspicuous position. The plan shall show the actual location of the fire safety equipment at any time, and be on a scale sufficient to give a clear overview of the ship's arrangement and equipment in the case of fire, escape and rescue.

Section 78

Requirements for wheelmarking

Equipment and materials required by this chapter and covered by Regulations of 30 August 2016 No. 1042 on marine equipment shall be wheelmarked.

Amended by Regulation of 20 December 2017 No. 2379 (in force on 1 January 2018).

Chapter 8
Duty to notify and document control

Section 79
Duty to notify

(1) When a contract has been placed for the construction, conversion or major repair of a ship, or for the purchase of a ship from abroad, for which a trading certificate is required, the company shall without delay send a notification thereof to the Norwegian Maritime Authority.

(2) When a contract has been placed for the construction, conversion or major repair of a ship, or for the purchase of a ship from abroad, for which vessel instructions are required, the company shall without delay send a notification thereof to approved company.

(3) The notification shall be submitted on the prescribed form together with a drawing of the general arrangement.

(4) In the event of cancellation, changes in the contractual relationship, modification of the design of the ship or similar, a notification thereof shall be sent to the Norwegian Maritime Authority or approved company.

Section 80
Requirements for submission of documentation

(1) Documentation as indicated in Appendix 1 shall be submitted as soon as possible following notification concerning the construction, conversion or major repair of a ship, or purchase of a ship from abroad. The Norwegian Maritime Authority may require further documentation as necessary.

(2) The documentation shall be submitted to the Norwegian Maritime Authority in the case of ships requiring a trading certificate, and to approved company in the case of ships requiring vessel instructions.

(3) A report regarding the inclining test and calculation of lightship data shall be received before the ship is put into service or does a trial run.

(4) Final loading conditions based on the preliminary loading conditions and corrected with regard to lightship data shall be submitted at the latest within one month of the date of delivery of the ship.

(5) The documentation shall demonstrate that the requirements of both these Regulations and other regulations applicable to the ship, are satisfied.

Chapter 9
Supervision during construction, conversion and major repair

Section 81
Requirements for supervision during construction, conversion and major repairs

The company shall submit a request for supervision during construction, conversion or major repair, and shall facilitate that the Norwegian Maritime Authority or approved company can supervise to the extent considered necessary. The necessary supporting documentation shall be made available to the surveyor.

Chapter 10
Vessel instructions issued by approved company for ships of less than 15 metres in overall length

Section 82
Requirements for vessel instructions

Ships of 8 metres in overall length and upwards, but of less than 15 metres, shall have vessel instructions with vessel data and limitations on the use of the vessel. The vessel instructions shall be exhibited in a conspicuous place on board.

Section 83

Requirements for supervision for vessel instructions

(1) In order for vessel instructions to be issued, the ship shall be presented for a complete inspection by an approved company.

(2) The validity of the vessel instructions shall be renewed in that the ship is presented for periodic simplified inspection by an approved company within a period of 30 months of the date for the last complete inspection or of the date for the last periodic simplified inspection.

(3) The periodic simplified inspection may be carried out within six months prior to the expiry of the current validity period of the vessel instructions, without the date of the next inspection being changed. If the ship is not presented for periodic simplified inspection by the expiry of the validity period, a new complete inspection shall be carried out.

(4) The company shall conduct a control before the ship is presented for periodic simplified inspection. The control shall be documented on the notification form and report form prescribed by the Norwegian Maritime Authority. These forms shall be filled out and submitted to approved company before the inspection by the approved company commences.

(5) The report forms for completed complete inspection and completed periodic simplified inspection, including company's control, shall be kept on board and submitted to the Norwegian Maritime Authority via an approved company.

Section 84

Requirements for presenting report form issued by accepted electrical enterprise and radio safety certificate

(1) Before vessel instructions are issued, a report form from an accepted electrical enterprise, a declaration of survey issued by the Norwegian Directorate for Civil Protection (DSB) or an installation attestation issued prior to 1 January 2014 shall be issued. A radio safety certificate from an approved radio inspection company, if required, shall in addition be issued.

(2) The documents mentioned in the first paragraph shall be valid at the time of issuance of the vessel instructions or at the time of renewal of the validity period of the vessel instructions and at least until the next renewal.

Section 85

Special provisions for inspection of towing and anchor-handling winches, towing hooks and safety equipment for use during towing and anchor-handling

(1) On ships where towing or anchor-handling operations are carried out, qualified personnel on board shall, at least once annually, conduct thorough tests and inspections of:

a) towing winch and anchor-handling winch with appurtenant equipment, including testing of emergency release at full towing power;
b) towing hook and appurtenant equipment; and
c) guide pins, wire, shark-jaw, towing eyes and similar, including load tests and tests of the emergency release, if applicable.

(2) Tests shall be carried out in accordance with the manufacturer's instructions.

(3) The completion of such inspections shall be documented, and the documentation shall be kept on board.

(4) Tests and inspections as mentioned in the first paragraph shall also form part of the complete inspection and thereafter of every second periodic simplified inspection. For these inspections the winch shall, after function testing, be disassembled as necessary.

Section 86

Special requirements for inspection of hull and machinery

Inspections of hull and machinery shall be carried out in accordance with rules from a recognised classification society, and shall form part of the complete inspection and thereafter of periodic simplified inspections.

Section 87

Requirements for inspections in the event of modification, damage or loss of function

In the event of damage, loss of function, repairs or changes in the ship or its equipment, the ship shall be inspected by an approved company before it is put back into service. This does not apply if the change or repair is part of the normal maintenance.

Chapter 11
Ships with building contract placed before 1 January 2015 and delivered before 1 January 2016

Section 88
Requirements for ships with building contract placed before 1 January 2015 and delivered before 1 January 2016

Ships with building contract placed before 1 January 2015 and delivered before 1 January 2016 shall comply with the following provisions:

a) Chapter 1 regarding general provisions.
b) Chapter 2 regarding construction:
    1. section 11 regarding requirements for anchor and mooring equipment;
    2. section 13 regarding requirements for towing winch or towing hook when towing in small coasting or lesser trade area;
    3. section 14 regarding requirements for towing equipment for smaller tows in trade areas 1 and 2;
    4. section 15 regarding requirements for stern roller, winch, closed guide pins, shark-jaw and safety zone for anchor-handling operations in small coasting and lesser trade area;
    5. section 16 regarding requirements for emergency release for towing or anchor-handling in small coasting or lesser trade area;
    6. section 17 regarding requirements for automatic audible alarm in small coasting or lesser trade area;
    7. section 18 regarding requirements for dimensioning, etc. of equipment and arrangement when towing or anchor-handling in small coasting or lesser trade area;
    8. section 19 regarding requirement for documentation to be kept on board; and
    9. section 20 regarding requirements for equipment and arrangement for towing or anchor-handling in great coasting or greater trade area.
c) Chapter 3 regarding stability documentation and chapter 4 regarding stability criteria, when the ship does not already have stability calculations for cargo ships approved by the Norwegian Maritime Authority. For ships which have stability calculations for cargo ships approved by the Norwegian Maritime Authority, the following shall apply: For ships carrying out towing operations, and which do not have towing stability for cargo ships approved by the Norwegian Maritime Authority, and for ships carrying out crane operations or anchor-handling operations, stability calculations for such operations shall be prepared in accordance with chapters 3 and 4 in addition to the existing stability manual. For ships of less than 15 metres in overall length, the Nordic Boat Standard for Commercial boats less than 15 metres, 1990, C3 may be satisfied as an alternative to the first and second paragraphs of section 36 regarding requirements for intact stability for closed ships.
d) Chapter 5 regarding freeboard:
    1. section 41 regarding freeboard requirements for closed ships; and
    2. section 42 regarding requirements for indication of draught marks for closed ships.
e) Chapter 7 regarding fire safety:
    1. section 72 regarding requirements for portable fire extinguishers;
    2. section 73 regarding requirements for other fire-fighting equipment;
    3. section 77 regarding requirements for fire control plan; and
    4. section 78 regarding requirements for wheelmarking.
f) Chapter 8 regarding duty to notify and document control. The chapter applies correspondingly for the issuance of vessel instructions or trading certificate to ships to which these have not previously been issued.
g) Chapter 9 regarding supervision during construction, conversion and major repairs.
h) Chapter 10 regarding vessel instructions issued by an approved company for ships of less than 15 metres in overall length.
i) Chapter 11 regarding ships with building contract placed before 1 January 2015 and delivered before 1 January 2016.
j) Chapter 12 regarding concluding provisions.

Section 89
Transitional provisions for ships with building contract placed before 1 January 2015 and delivered before 1 January 2016

(1) For ships with building contract placed before 1 January 2015 and delivered before 1 January 2016, chapter 11 shall apply at the latest on:

a) 1 January 2017 for ships the keel of which was laid on or after 1 January 1990; and

b) 1 January 2018 for ships the keel of which was laid before 1 January 1990.

(2) Until these dates the regulations which were in force for the various ships on 31 December 2014 shall apply, with the exception of chapter 11 of Regulations of 15 June 1987 No. 506 on survey for the issue of certificates to passenger ships, cargo ships and lighters, and on other surveys, etc.

Amended by Regulation of 18 December 2015 No. 1769 (in force on 1 January 2016).

Section 89a

(Repealed)

Added by Regulation of 18 December 2015 No. 1769 (in force on 1 January 2016), repealed by Regulation of 18 December 2015 No. 1769 (in force on 1 January 2018).

Chapter 12
Concluding provisions

Section 90

Exemptions

The Norwegian Maritime Authority may upon written application exempt one ship, or a limited series of ships which are identical, from one or more of the requirements of these Regulations if it is established that one of the following conditions is met:

a) special reasons make the requirement less essential for this ship, and the exemption is justifiable in terms of safety;
b) compensating measures will maintain the same level of safety as the requirement of these Regulations;
c) the requirement hinders the testing, development or use of an innovative solution, and the innovative solution is justifiable in terms of safety.

Section 91

Entry into force

These Regulations enter into force on 1 January 2015. As from the same date, the following amendments are made to other regulations:

a) Regulations of 1 July 2014 No. 1072 on the construction of ships are amended as follows:
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b) Regulations of 1 July 2014 No. 1099 on fire protection on ships are amended as follows:

Appendix 1

List of drawings

Documentation which clearly demonstrates compliance with the requirements applicable to the vessel in question shall be submitted. Not all documentation in the list below is relevant for all vessels; the documentation to be submitted is decided by the requirements applicable for the vessel in question. If documentation has been submitted at an earlier stage, and the vessel, outfitting or equipment has not been changed, it is sufficient to refer to previously submitted documentation.

Column 2 indicates groups of vessels to be inspected with regard to delivery date (new or existing) and size (less than or more than 15 metres), columns 3 and 4 contain the designation of the documentation to be submitted and the information which at a minimum should be contained therein, while column 5 refers to the Regulations where the requirements in question are laid down.

The company shall submit the documentation to the Norwegian Maritime Authority for trading certificate and to an approved company for vessel instructions.

The Norwegian Maritime Authority or approved company may request that further documentation, including documentation not listed below, be submitted as necessary.

1	*2*	*3*	*4*	*5*

C – Common	All Ships	General arrangement		
N13 – Nautical	All Ships	Accommodation drawing (May be included in general arrangement drawing.)	Area of cabins, mess-rooms, day rooms and galleys. Width of corridors and doors. Height from deck up to below deck. Location of cabins in relation to the waterline.	Regulations of 21 April 2017 No. 151 on accommodation, recreational facilities, food and catering on ships
	All Ships	Means of escape (May be included in a fire control and safety plan)	Means of access, exits and emergency exits. Stairways and ladders Width of stairways and appurtenant doors.	Regulations of 21 April 2017 No. 151 on accommodation, recreational facilities, food and catering on ships
	All Ships	Navigating bridge visibility (May be included in general arrangement drawing.)	Blind sectors on bridge Details of windows on bridge	Regulations of 5 September 2014 No. 1157 on navigation and navigational aids for ships and mobile offshore units
	All Ships	Lighting arrangement	Placement Blind sectors Type approval certificate	Regulations of 1 December 1975 No. 5 for preventing collisions at sea
	All Ships	Wheelhouse arrangement	Layout Profile Cross-section of forward and after sections and sides. Seats in radio room. Location of equipment Information about equipment regarding manufacturer and type approval.	Regulations of 5 September 2014 No. 1157 on navigation and navigational aids for ships and mobile offshore units
RM9 – Life-saving appliances	All Ships	Life-saving arrangements	Rescue boats with davits in relation to hull and propeller.	Regulations of 1 July 2014 No. 1019 on life-

		(Fire control plan and life-saving arrangements may be combined in a fire and safety plan)	Arrangements for bringing persons gently on board, if any. Liferafts Means of embarkation Radar transponders and EPIRB. Lifejackets Lifebuoys Immersion suits Water outlets in the vessel's side. Manufacturer, size, type, capacity, etc., shall be indicated for the life-saving equipment. Symbols shall be in accordance with a recognised international standard.	saving appliances on ships
	All Ships	Rescue boat arrangement	Foundation and underlying structure of davit with appurtenant calculations.	Regulations of 1 July 2014 No. 1019 on life-saving appliances on ships
M12 – Machine	All new ships between 8 and 15 metres All ships between 15 and 24 metres	Oil fuel arrangement	Arrangement for filling, discharging and trimming of oil fuel tanks Make and type of essential components which form part of the system Diameter, material thickness and material type for pipes Operating position for quick-action closing valves	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	All new ships between 8 and 15 metres	Bilge water arrangement	Arrangement showing collection of oily bilge water	Regulations of 19 December 2014 on the construction and supervision of small cargo ships

	All ships between 15 and 24 metres		Make and type of essential components which form part of the system Pump capacity Diameter, material thickness and material type for pipes	
	All new ships between 8 and 15 metres All ships between 15 and 24 metres	Sea water inlets and outlets	Make and type of essential components which form part of the system Diameter, material thickness and material type for pipes Position of overboard valves in relation to the waterline	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	All new ships between 8 and 15 metres All ships between 15 and 24 metres	Starting air system	Make and type of essential components which form part of the system Diameter, material thickness and material type for pipes	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	All new ships between 8 and 15 metres All ships between 15 and 24 metres	Machinery space arrangement	Arrangement of machinery spaces Means of escape from machinery spaces	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	All new ships between 8 and 15 metres All ships between 15 and 24 metres	Ballast water arrangement	Make and type of essential components which form part of the system Diameter, material thickness and material type for pipes Position of overboard valves in relation to the waterline Calculations of system capacity	Regulations of 19 December 2014 on the construction and supervision of small cargo ships

	All new ships between 8 and 15 metres All ships between 15 and 24 metres	Propulsion and propeller arrangement	Type Make	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	All new ships between 8 and 15 metres All ships between 15 and 24 metres	Documentation for machinery	Type approval from recognised classification society for propulsion machinery, auxiliary machinery, steering gear, boilers and pressure vessels.	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	All new ships between 8 and 15 metres All ships between 15 and 24 metres	Report or confirmation concerning a completed torsional oscillation check for machinery with an output of more than 500 kW, or 300 kW if the length of the shaft arrangement exceeds 6 metres.		Regulations of 19 December 2014 on the construction and supervision of small cargo ships
E16 – Electrical documentation	All new ships	Layout of emergency generator room	Make, type and capacity of essential components which form part of the system The specific oil fuel consumption of the emergency generator	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	All new ships	Power balance of emergency source of electrical power	Power balance/load analysis for the emergency source of electrical power	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	All new ships		Power balance	

		Emergency lighting arrangement	Make, type and location	Regulations of 19 December 2014 on the construction and supervision of small cargo ships

S-14 Hull	All new ships between 8 and 15 metres All ships between 15 and 24 metres	Documentation demonstrating that the production conditions for ships constructed wholly or partly of fibreglass-reinforced polyester or other cast materials comply with the regulatory provisions for production conditions.		Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	New ships between 8 and 15 metres All ships between 15 and 24 metres	Profile and deck plan	Longitudinal in vertical and horizontal plane. Shall show water ballast tanks, bulkheads, erections, hatches, etc. Shall include the vessel's main dimensions, baseline, maximum draught and frame spacing.	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	New ships between 8 and 15 metres All ships between 15 and 24 metres	Midship section	Transverse showing design of bottom, camber etc. Shall show the frames essential for the dimensioning, generally at least one frame in each space. The midship section drawing shall contain information about the vessel's equipment number and anchor equipment. The baseline shall be sketched in for each frame.	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	New ships between 8 and 15 metres	Shell expansion	Shall show the shell expansion in unfolded condition.	Regulations of 19 December 2014 on the construction and

	All ships between 15 and 24 metres			supervision of small cargo ships
	New ships between 8 and 15 metres All ships between 15 and 24 metres	Watertight bulkheads / tank bulkheads		Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	New ships between 8 and 15 metres All ships between 15 and 24 metres	Foundations of deck machinery and launching arrangements for life-saving appliances	The drawing shall show foundations including underlying structure. Shall be submitted for winch, towing hook, davit, etc. The SWL shall be indicated on the drawing.	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	New ships between 8 and 15 metres	Deck arrangement	The drawing shall show the location of deck machinery, winches, containers, cranes and similar with fittings.	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	All ships between 15 and 24 metres			
	New ships between 8 and 15 metres All ships between 15 and 24 metres	Hatch cover for cargo spaces	The drawing shall show dimensions, materials and gaskets along with the number of hinges.	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	New ships between 8 and 15 metres All ships between 15 and 24 metres	Rudder arrangement		Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	New ships between 8 and 15 metres	Dimensioning calculations	Dimensioning calculations showing regulatory requirements and achieved values in compliance with the construction	Regulations of 19 December 2014 on the construction and

	All ships between 15 and 24 metres		standard in accordance with which the ship is constructed.	supervision of small cargo ships
	All Ships	Documentation for winch, towing hook, guide pins, shark-jaw and other fixed equipment.	Documentation from the manufacturer shall be submitted, which shows that the requirements of the Regulations are satisfied. The documentation shall also include information regarding SWL.	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	All Ships	Documentation for towing and anchor-handling equipment (Vessels with a particular class for anchor-handling and towing equipment may instead submit documentation thereof.)	Drawings and calculations of the towing and/or anchor-handling winch, wire/chain stopper, guide pins, towing hooks, etc. Anchor-handling plan showing the arrangement of the anchor-handling system, including the line routing, all equipment forming part of the anchor-handling system and fastenings on deck which may be used during the anchor-handling. The drawing shall also indicate the SWL for all components forming part of the system. Towing arrangement plan for ocean towing.	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
S10 – Stability	All Ships	Preliminary stability calculations	Intact stability calculations, with loading conditions Input data for hull description Instructions for use of anti-rolling tanks, indicating limitations when using anti-rolling tanks. The instructions shall be supported by loading conditions. GM_{min}/ KG_{max} curves with examples of the use of these. Cross curves	Regulations of 19 December 2014 on the construction and supervision of small cargo ships

			Hydrostatic curves and tables: For vessels with cargo wells, hydrostatics shall in addition be laid out with the well totally excluded from the buoyancy. The hydrostatics shall be clearly marked to the effect that it applies only when the well is excluded from the buoyancy. Tank plan Sounding tables for tanks Lines drawing Outline of buoyancy volumes with means of closure and flooding openings. Stability information for towing, if any. Information about maximum permitted weight as a function of extension and direction of crane, if applicable. Stability information for anchor-handling, if any.	
	All Ships	Inclining test report	The inclining test shall be carried out in accordance with the Norwegian Maritime Authority's procedure, and the report shall contain: Lightship data Draught measurements Description of inclining weights, with weight and centre of gravity Length of pendulums and pendulum readings Description of the movements of the inclining weights Arm for moved weights	Regulations of 19 December 2014 on the construction and supervision of small cargo ships

			Heeling moment for each move and plot of heeling moment Calculation of GM for the listed ship Additional weights Hydrostatics for heeling waterline Calculation of lightship data	
	All Ships	Final stability calculations	Stability calculations with updated lightship data according to approved inclining test report	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
LS6 – Load line	New ships between 8 and 15 metres All ships between 15 and 24 metres	Freeboard plan	The overall length, length (L) and moulded depth of the vessel. Extension and height of weathertight enclosed superstructure. Location and type of means of closure for hatches in freeboard deck and superstructure. Exterior doors in weathertight superstructure and deckhouse protecting accesses to below freeboard deck and first superstructure deck. Sidescuttles in ship's sides and superstructure. Windows in erections on freeboard deck and first superstructure deck. The heights of coamings and sills of hatches and doors. Location and area of freeing ports. Location and type of valves for sanitary pipelines, scuppers, etc. and of other overboard ventilators.	Regulations of 19 December 2014 on the construction and supervision of small cargo ships

			Outline of means of closure, location and indication of height above deck for air pipes and ventilators. Location of deck line at L/2. Bulwarks and guard rails. Doors in shipside, bow and outboard side.	
B19 – Structural fire protection	All new ships	Insulation arrangement or fire divisions	Structural fire protection with subdivision into A and B class divisions. Location of all A and B class divisions in bulkheads and decks. Details of A class divisions, with regard to connections and materials used. Categorisation of rooms.	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	All new ships	Door plan	Fire class standard of doors Dimensions of doors Hold-back mechanisms, if any Ventilation openings or similar in the doors, if any.	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	All new ships	Ventilation arrangement	Arrangement/layout of the ventilation ducts in accommodation spaces, control stations, service spaces, store-rooms, machinery spaces and, if applicable, cargo spaces and pump rooms. Details of penetrations in bulkheads and decks.	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
B11 – Fire-fighting	All Ships	Fire control plan (Fire control plan and life-saving arrangements may be combined in a	The drawing shall show the location of: The vessel's structural fire protection with A and B class bulkheads Fire detection and fire alarm	Regulations of 19 December 2014 on the construction and supervision of small cargo ships

		fire and safety plan)	Sprinkler systems Fixed fire-extinguishing equipment Portable fire-extinguishing equipment Access to spaces and decks etc. Stopping of fans and dampers in the ventilation system. Shut-off valves for oil fuel and lubricating oil. Fire pump and emergency fire pump, if any, with capacity. Symbols shall be in accordance with a recognised international standard.	
	All new ships	Fire main	Arrangement of fire main system Location of main fire pumps and hydrants Location of emergency fire pump Capacity of main fire pumps and emergency fire pumps	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	All new ships	Fire alarm and fire detection	General arrangement showing the location of: – fire detection in accommodation, service and machinery spaces – fire alarms Connection diagram (one-line diagram) showing: – coupling of the loops for the units indicated on the general arrangement Copy of type approval certificate.	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	All new ships		Type approval certificate	

		Fixed fire-extinguishing system in machinery spaces	Manual showing documentation required by type approval certificate Arrangement drawings showing location of nozzles and release stations Capacity calculations Instructions for activation of system	Regulations of 19 December 2014 on the construction and supervision of small cargo ships
	All new ships	Manual for fire-extinguishing system		Regulations of 19 December 2014 on the construction and supervision of small cargo ships

Amended by Regulation of 24 January 2022 No. 118.