



Technical Circular

No.: 022/2014

Date: 12th August 2014

To Whomsoever it may concern

Subject : EARLY IMPLEMENTATION OF THE AMENDMENTS TO SOLAS REGULATION II-1/29

I) The Maritime Safety Committee, at its ninety-third session adopted, amendments to SOLAS regulation II-1/29, concerning the methods to demonstrate compliance with the requirements relating to the main and auxiliary steering gear.

II) Amendments adopted are as follows:

SOLAS Ch.II-1/ Regulation 29 - Steering gear

AA) New paragraph 3.5 is added after existing paragraph 3.4:

"3. The main steering gear and rudder stock shall be:

.1. of adequate strength and capable of steering the ship at maximum ahead service speed which shall be demonstrated;

.2. capable of putting the rudder over from 35° on one side to 35° on the other side with the ship at its deepest seagoing draught and running ahead at maximum ahead service speed and, under the same conditions, from 35° on either side to 30° on the other side in not more than 28 s;

.3. operated by power where necessary to meet the requirements of paragraph 3.2 and in any case when the Administration requires a rudder stock of over 120 mm diameter in way of the tiller, excluding strengthening for navigation in ice; and

.4. so designed that they will not be damaged at maximum astern speed; however, this design requirement need not be proved by trials at maximum astern speed and maximum rudder angle.

.5 Where it is impracticable to demonstrate compliance with the requirements in paragraph 3.2 during sea trials with the ship at its deepest seagoing draught and running ahead at the speed corresponding to the number of maximum continuous revolutions of the main engine and maximum design pitch, one of the following methods is acceptable:

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.1 during sea trial the ship is at even keel and the rudder fully submerged whilst running ahead at the speed corresponding to the number of maximum continuous revolutions of the main engine and maximum design pitch; or

.2 where full rudder immersion during sea trials cannot be achieved, an appropriate ahead speed shall be calculated using the submerged rudder blade area in the proposed sea trial loading condition. The calculated ahead speed shall result in a force and torque applied to the main steering gear which is at least as great as if it was being tested with the ship at its deepest seagoing draught and running ahead at the speed corresponding to the number of maximum continuous revolutions of the main engine and maximum design pitch; or

.3 the rudder force and torque at the sea trial loading condition have been reliably predicted and extrapolated to the full load condition. The speed of the ship shall correspond to the number of maximum continuous revolutions of the main engine and maximum design pitch of the propeller."

BB) New paragraph 4.4 is added after existing paragraph 4.3:

"4. The auxiliary steering gear shall be:

.1. of adequate strength and capable of steering the ship at navigable speed and of being brought speedily into action in an emergency;

.2. capable of putting the rudder over from 15° on one side to 15° on the other side in not more than 60 s with the ship at its deepest seagoing draught and running ahead at one half of the maximum ahead service speed or 7 knots, whichever is the greater; and

.3. operated by power where necessary to meet the requirements of paragraph 4.2 and in any case when the Administration requires a rudder stock of over 230 mm diameter in way of the tiller, excluding strengthening for navigation in ice.

.4 Where it is impracticable to demonstrate compliance with the requirements in paragraph 4.2 during sea trials with the ship at its deepest seagoing draught and running ahead at one half of the speed corresponding to the number of maximum continuous revolutions of the main engine and maximum design pitch or 7 knots, whichever is greater, one of the following methods is acceptable:

.1 during sea trial the ship is at even keel and the rudder fully submerged whilst running ahead at one half of the speed corresponding to the number of maximum continuous revolutions of the main engine and maximum design pitch or 7 knots, whichever is greater; or

.2 where full rudder immersion during sea trials cannot be achieved, an appropriate ahead speed shall be calculated using the submerged rudder blade area in the proposed sea trial loading condition. The calculated ahead speed shall result in a force and torque applied to the auxiliary steering gear which is at least as great as if it was being tested with the ship at its deepest seagoing draught and running ahead at one half of the speed corresponding to the number of maximum continuous revolutions of the main engine and maximum design pitch or 7 knots, whichever is greater; or

.3 the rudder force and torque at the sea trial loading condition have been reliably predicted and extrapolated to the full load condition."

III) In adopting the aforementioned amendments, the Committee agreed to allow compliance to be demonstrated in accordance with the methods listed under paragraphs 3.2 and 4.2 of the amended SOLAS regulation II-1/29 before the entry-into-force date of the related amendments.

IV) Above will be applicable for both new and existing ships.

V) Shipowners/Managers and Shipyards are invited to take note of this circular.

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