

SC 246 Steering gear test with the vessel not at the deepest seagoing draught

(June 2011)
(Corr.1 Dec 2011)

Regulations

1. SOLAS II-1/29.3:

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.

2. SOLAS II-1/29.4:

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.

Note:

1. This UI is to be uniformly implemented by IACS Societies on ships contracted for construction (as defined in IACS PR29) on or after 1 July 2012.
2. The “contracted for construction” date means the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. For further details regarding the date of “contract for construction”, refer to IACS Procedural Requirement (PR) No. 29.

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(cont)**Interpretation**

In order for ships to comply with the performance requirements stated in regulations 29.3.2 and 29.4.2 they are to have steering gear capable of meeting these performance requirements when at their deepest seagoing draught. In order to demonstrate this ability, the trials may be conducted in accordance with Section 6.1.5.1 of ISO 40949/19019:2005 Seagoing vessels and marine technology – Instructions for planning, carrying out and reporting sea trials. On all occasions when trials are conducted with the vessel not at the deepest seagoing draught the loading condition can be accepted on the conditions that either the rudder is fully submerged (at zero speed waterline) and the vessel is in an acceptable trim condition, or the rudder load and torque at the trial loading condition have been reliably predicted and extrapolated to the full load condition, to the satisfaction of the Administration or Recognized Organization. In any case for the main steering gear trial, the speed of the ship corresponding to the number of maximum continuous revolution of main engine and maximum design pitch applies.

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