M25 Astern power for main propulsion

(1975) (Rev.1 1984) (Rev.2 1997) (Rev.3 July 2003) (Rev.4 June 2017)

M25.1 In order to maintain sufficient manoeuvrability and secure control of the ship in all normal circumstances, the main propulsion machinery is to be capable of reversing the direction of thrust so as to bring the ship to rest from the maximum service speed. The main propulsion machinery is to be capable of maintaining in free route astern at least 70% of the ahead revolutions~~[1]~~.

M25.2 Where steam turbines are used for main propulsion, they are to be capable of maintaining in free route astern at least 70% of the ahead revolutions~~[1]~~ for a period of at least 15 minutes. The astern trial is to be limited to 30 minutes or in accordance with manufacturer's recommendation to avoid overheating of the turbine due to the effects of "windage" and friction.

M25.3 For the main propulsion systems with reversing gears, controllable pitch propellers or electric propeller drive, running astern should not lead to the overload of propulsion machinery.

M25.4 Main propulsion systems are to undergo tests to demonstrate the astern response characteristics.
The tests are to be carried out at least over the manoeuvring range of the propulsion system and from all control positions. A test plan is to be provided by the yard and accepted by the surveyor. If specific operational characteristics have been defined by the manufacturer these shall be included in the test plan.

M25.5 The reversing characteristics of the propulsion plant, including the blade pitch control system of controllable pitch propellers, are to be demonstrated and recorded during trials.

~~NOTES:~~

1. The ~~head~~ ahead revolutions as mentioned above are understood as those corresponding to the maximum continuous ahead power for which the vessel is classed.

~~2. The reversing characteristics of the propulsion plant are to be demonstrated and recorded during trials.~~

Note:

1. Rev.4 of this UR is to be uniformly implemented by IACS Societies on:

   (a) ships contracted for construction on or after 1 July 2018.
   (b) ships other than those specified in the preceding (a) on which astern testing is carried out in accordance with Z18 on or after 1 July 2018.

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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