
M43 Bridge control of propulsion machinery for unattended machinery spaces

(1982)

- M43.1 Under all sailing conditions, including manoeuvring, the speed, direction of thrust and, if applicable, pitch of the propeller shall be fully controllable from the navigating bridge.
- M43.2 In principle the remote control mentioned under M43.1 is to be performed by a single control device for each independent propeller, with automatic performance of all associated services including, where necessary, means of preventing overload and prolonged running in critical speed ranges of the propelling machinery.
- M43.3 The bridge control system is to be independent from the other transmission system; however, one control lever for both system may be accepted.
- M43.4 Operations following any setting of the bridge control device including reversing from the maximum ahead service speed in case of emergency are to take place in an automatic sequence and with time intervals acceptable to the machinery.
- M43.5 The main propulsion machinery shall be provided with an emergency stopping device on the navigating bridge and independent from the bridge control system.
- M43.6 Remote starting of the propulsion machinery is to be automatically inhibited if conditions exist which may hazard the machinery, e.g. shaft turning gear engaged, drop of lubricating oil pressure.
- M43.7 For steam turbines a slow-turning device should be provided which operates automatically if the turbine is stopped longer than admissible. Discontinuation of this automatic turning from the bridge must be possible.
- M43.8 The design of the bridge control system shall be such that in case of its failure an alarm is given. In this case the speed and direction of the propeller thrust is to be maintained until local control is in operation, unless this is considered impracticable. In particular, lack of power (electric, pneumatic, hydraulic) should not lead to major and sudden change in propulsion power or direction of propeller rotation.
- M43.9 The number of automatic consecutive attempts which fail to produce a start shall be limited to maintain sufficient starting air pressure. An alarm shall be provided at an air pressure level, which still permits main engine starting operation.
- M43.10 It shall be possible for the propulsion machinery to be controlled from a local position even in the case of failure in any part of the automatic or remote control systems.
- M43.11 Remote control of the propulsion machinery shall be possible only from one control location at one time; at such locations interconnected control positions are permitted.
- M43.12 The control system shall include means to prevent the propelling thrust from altering significantly when transferring control from one control to another.
- M43.13 Each control location is to be provided with means to indicate which of them is in control. Propulsion machinery orders from the navigating bridge shall be indicated in the engine control room or at the manoeuvring platform, as appropriate.
- M43.14 The transfer of control between the navigating bridge and machinery spaces shall be possible only in the main machinery space or the main machinery control room.

