



Survey performance requirements

In–construction surveys

July 2014

Prepared by
Director of Maritime New Zealand



Pursuant to Maritime Rule 44.25(3), and having met the relevant obligations of Maritime Rule 44.25(5) I, Keith Manch, hereby impose the following requirements as to the performance of surveys (survey performance requirements):

Signed at Wellington

This 16th day of June 2014

A handwritten signature in black ink, consisting of a stylized 'K' followed by a horizontal line and a period.

Keith Manch

Director of Maritime New Zealand

Survey performance requirements for in-construction surveys

1. Basis in maritime rules

Survey performance requirements (SPRs) complement maritime rules that require a surveyor to exercise judgment. In the event of any conflict between an SPR and a maritime rule, the rule prevails.

These 'in-construction' survey SPRs have their basis in the following maritime rules:

Rule 44.25

Rule 44.25(3) states that: *"the Director may impose requirements as to the performance of a survey"* and rule 44.25(4) states that *"when undertaking a survey, a surveyor must comply with any requirements imposed by the Director as to the performance of a survey"*.

40-series rules

Maritime Rule Parts 40A, 40C, 40D, and 40E relating to ship design and construction require that a new ship must amongst other things, be 'constructed under survey', before being first issued with a certificate of survey.

"Constructed under survey" is defined in maritime rules as meaning *"constructed subject to an initial survey conducted by a surveyor recognised by the Director under rule 46.29¹ for that purpose from the time of commencement of building of the ship until the completion of the building of that ship"*.

The 40 series rules also require that *"the construction of a ship must provide strength for the safe operation of the ship and to withstand the sea and weather conditions likely to be encountered in the intended area of operation, assuming that the ship is operated at its service draught and driven prudently at its maximum service speed"*.

Rule Part 44 appendices 1.1.2(b) and 1.1.3(d)

Appendix 1.1.2(b) requires that each initial survey portfolio must include: *"a construction report based on a physical inspection of the ship"*.

Appendix 1.1.3(d) requires that each report for the initial survey portfolio must include *"a statement from the person who completed the report attesting to the fact that the ship is in all respects fit for its intended service and meets all relevant maritime safety and maritime protection rules"*.

2. Application

These in-construction survey SPRs apply to what is required of an appropriately recognised surveyor (an IC category surveyor) when requested to survey a ship under construction.

For compliance with the requirement in Rule 44.25(1) for surveyors to act with objectivity, the surveyor performing an in-construction survey of a ship must not be the same surveyor that approved the design of the ship.

The surveyor must comply with these SPRs when undertaking that work for the production of a construction report intended for inclusion in the ship's initial survey portfolio.

Unless otherwise stated, reference to 'the surveyor' in this SPR is the surveyor performing the in-construction survey.

¹ From 1 July 2014, the applicable rule is Rule 44.22

3. The survey performance requirements

Whenever a surveyor is engaged to provide surveying services for the purpose of supporting 'construction under survey' and providing the associated 'construction report' specified in Rule Part 44 Appendix 1.1.2(b), the surveyor must:

1. ensure that the builders of the ship are made aware of the hold points required by the surveyor, prior to the commencement of construction;
2. inspect all strength members (including plate) used in the construction of the ship, to determine whether their critical specifications (materials and dimensions) are in accordance with those approved in the design report for the ship;
3. detail in the construction report, any equivalence accepted by the surveyor, and the basis for acceptance of the equivalence. For clarity, in this context equivalence exists when a variation to an approved design specification is treated as equivalent to the approved specification for the purpose of design compliance);
4. inspect, and test where applicable, any construction materials or techniques (eg metal specification, weld details, resin/fibre ratios, fibre types and orientation) identified in the design report as critical to the structural strength of the ship;
5. inspect, test and measure (as applicable) the dimensions and closure mechanisms for all watertight and weathertight closures on the ship, to determine whether they are in accordance with the design approval;
6. inspect the dimensions and positions of freeing arrangements; through-deck scuppers; sea chests; overboard vents and valves; and any watertight bulkhead penetrations, to determine whether they are in accordance with the design approval;
7. visually inspect the locations and dimensions of all means of crew and passenger egress and access, to determine whether they are in accordance with the design approval;
8. verify that the fixed fire-fighting equipment; fixed lifesaving appliances and launching facilities; communications and navigation equipment; emergency power and lighting arrangements are in accordance with maritime rules relevant to the intended service and operating limits of the ship;
9. visually inspect that the bilge systems and alarms are in accordance with maritime rules relevant to the intended service and operating limits of the ship;
10. for applicable ships, verify whether main engine (including the maximum power output), gearbox, shafts and propellers are in accordance with that approved for the design;
11. inspect the main and emergency steering systems (including rudder and water jet assemblies) to determine whether they are in accordance with the design approval;
12. verify that all hydraulic; lifting; refrigeration; compressed air; ventilation and air conditioning appliances and systems are installed and commissioned by suitably competent persons;
13. if applicable, verify that the ship's electrical system installed is in accordance with the electrical design approved by a design approver recognised for that purpose by the Director.

The construction report must include all verifications, exceptions, conditions and limitations (including features not verified during construction), in a form that enables the information to be readily referenced during future surveys.

In the event that the design report referenced for the in-construction survey does not include references to the minimum specifications of strength members, propulsion shafts, and rudderstocks and pintles (or the maximum allowable diminution from original dimensions of each of those elements), these must be obtained from an appropriately recognised surveyor and included in the construction report.

The requirements in these SPRs complement the standards and requirements specified in the rules. The SPRs do not replace or reduce any responsibility the surveyor has under the rules.