

Naval Survey Guidance for Steel Ships

Lloyd's Register is one of the world's leading classification societies. We publish requirements for the classification and certification of marine and industrial systems, and with more than two centuries of marine experience, we are at the forefront of ship and machinery technology.

The *Naval Survey Guidance for Steel Ships* sets out the requirements of a Lloyd's Register Group surveyor when surveying a naval ship. It is an invaluable reference document for surveyors, builders, repair yards, naval staff and others involved in the construction or maintenance of naval ships.

Navies benefit from the experience of the Lloyd's Register Group. The *Naval Survey Guidance for Steel Ships* was developed by Lloyd's Register in conjunction with navies to provide advice to surveyors, owners, operators, repairers and shipbuilders on the classification standards to be used in hull construction, survey and repair. Complementing the *Rules and Regulations for the Classification of Naval Ships* published by Lloyd's Register, the *Guidance*:

- provides detail of the classification standards required for new construction, typical defects and repairs for ships in service
- takes account of the particular features and survey regime that can be applied to a naval ship
- provides advice on the procedures to be used in construction, material defect tolerance and NDE requirements
- provides advice on materials for repair and for the survey and inspection of the statutory or military aspects that may be incorporated in a naval ship and are part of the survey regime.

The *Guidance* contains sections dealing with structural defects that are typical for all ships plus those that are particular to naval ships. The following defects are covered:

- corrosion
- pitting
- fracture
- distortion and deformation.

The *Guidance* includes pictures for each defect, showing the location and recommended repair of typical defects.



Using the *Guidance*

The *Naval Survey Guidance* provides valuable information during new construction and in-service surveys.

New construction surveys:

- help ensure that the ship is built in accordance with the approved plans
- assess suitability of materials and workmanship
- benefit from the global network of Lloyd's Register Group offices worldwide to support most material suppliers, equipment manufacturers and shipyards
- provide opportunities for surveyors to discuss production faults, deviations and rectification schemes based on the *Rules* and *Guidance*.



Although their frequency is flexible and subject to negotiation, in-service surveys typically consist of:

- a substantial assessment of the vessel every 5 or 6 years (special survey)
- a mid-cycle survey (intermediate and docking or in-water surveys), and
- a relatively brief, yearly assessment of the vessel's condition (annual survey).

In-service survey regimes:

- help verify that the ship is maintained to the nominated standard
- are an important part of the system to manage the materiel condition of the ship.



Benefits of naval classification and the surveying programme

The *Guidance*:

- reflects recent changes in the procurement methods of navies to adopt commercial solutions
- provides advice on the requirements of the survey of defects and repairs
- allows for the scope of the survey regime to be expanded to suit a navy's requirements
- is based on commercial standards of classification and so will be familiar to shipbuilders and repairers
- recognises certain 'naval' features and characteristics
- addresses military aspects of naval ship design
- allows for fire safety and safety equipment aspects to be specifically considered for each ship type.

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