Maritime and Coastguard Agency

MARINE INFORMATION NOTE

MIN 417 (M)

Large Yachts: Examination and Inspection of Carbon Fibre Masts and Spars
Survey of Composite Masts and Spars Used on Large Yachts

Notice to all designers, builders, owners, masters, skippers, surveyors and Classification Societies of large sailing yachts

This MIN expires 30 September 2016

Summary

This Marine Information Note:

- Arises from a research project jointly funded with the Department for Business Innovation & Skills entitled "Maintaining Structural Integrity in Fibre Reinforced Plastic Spars on High Performance Yachts (MSI-SPAR)";
- Is targeted at the examination and inspection of mast and spars;
- Applies principally, but not exclusively, to large sailing yachts as the construction which has been considered is essentially used in larger vessels; and
- Provides guidance to a separate report available at www.dft.gov.uk/mca/ensign on the inspection and examination of masts and spars of large commercial yachts built under the MCA Large Commercial Yacht Code (MSN 1792 (M)) and which have masts (and other major spars) which are constructed from composite carbon fibre material.

1 Introduction

1.1 The report which is available at www.dft.gov.uk/mca/ensign provides guidance which applies specifically, (but not exclusively), to large sailing yachts within the scope of, and subject to, the Large Commercial Yacht Code (MSN 1792 (M)) and with masts (and other major spars) constructed from composite carbon fibre material.

1.2 The proportion of yachts with carbon masts has increased since the late 1980s and many masts of large yachts are now made from this material.

1.3 While the failure of large masts is rare, the safety and commercial implications of failure can be considerable. The research report offers an approach which will assist in ensuring that owners are aware of the condition of their masts and are able to undertake remedial maintenance when this is required.

1.4 This guidance may, with the agreement of the appropriate authorities, be part of a condition survey.

2 Scope

2.1 The report provides guidance which has been prepared primarily for “in service” management of the structural integrity of masts (and other major spars using monolithic, as opposed to sandwich cored carbon composite). It is also applicable for pre-service inspection of masts.

2.2 The report does not aim to duplicate the design process which has been carried out by designers and manufacturers, or the structural assessment process which is offered by one of the Classification Societies.

2.3 The report does not consider the inspection and assessment of aluminium and wooden masts.

2.4 The report does not consider the standing rigging, which is covered by existing protocols for examination and inspection.

3 Revision

3.1 As use will provide further practical experience, these guidelines may be revised from time to time.

More Information

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