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## **Yacht and Powerboat Safety at Sea - Maintenance, Modifications, Damage and Repairs - Good Practice**

**Notice to all owners, managing agents, skippers, designers, builders, surveyors, crew and Certifying Authorities of yachts and powerboats including Pleasure Vessels and Small Commercial Vessels.**

*This notice should be read with:*

*The Merchant Shipping (Vessels in Commercial Use for Sport or Pleasure) Regulations 1998 (SI 1998/2771) as amended\*;*

*The Safety of Small Commercial Motor Vessels - A Code of Practice (Yellow)*

*The Safety of Small Commercial Sailing Vessels - A Code of Practice (Blue)*

*The Safety of Small Vessels in Commercial Use for Sport or Pleasure Operating from a Nominated Departure Point (NDP) - A Code of Practice (Red)*

*The Merchant Shipping (Small Workboats and Pilot Boats) Regulations 1998 (SI 1998/1609) as amended\*;*

*The Safety of Small Workboats and Pilot Boats - A Code of Practice (Brown);  
and MGN 280.*

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### **Summary**

- This MGN offers non-mandatory guidance to both pleasure vessels and Small Commercial Vessels on what is considered good practice when it comes to maintaining a vessel over a period of time.
- This MGN also offers non-mandatory guidance on what is considered to be a modification of a vessel, both in terms of the Codes of Practice as well as the Recreational Craft Regulations 2017 (which give effect to the EU Recreational Craft Directive in the UK).
- Finally, this MGN gives non-mandatory guidance on the different types of damage that may occur and how to best deal with it, including mandatory statutory requirements to report accidents and damage.
- This guidance is non-mandatory for pleasure vessels.
- This MGN is one of six MGNs aimed at providing generic good practice safety advice.

### **1. Introduction**

- 1.1 Every owner, managing agent or skipper should periodically inspect, maintain and service their vessel and its equipment in order to ensure the safe operation of the vessel in



functioning order. The frequency will vary depending on the item of equipment and the vessels use.

- 1.2 Owners, managing agents and skippers should ensure that a modification made to a vessel does not invalidate any certification relating to the vessel. Guidance on the type of modifications and certification is covered as part of this guidance note.
- 1.3 In the event that a vessel is damaged, action should be taken in a reasonable and timely manner to ensure that a vessel (including its equipment) is repaired so that it meets any required safety standards.
- 1.4 For the purposes of this MGN:

“Small Commercial Vessel” means a vessel which is certificated under one of the Yellow, Blue, Red or Brown Codes.

“Pleasure Vessel” has the meaning given in the Merchant Shipping (Vessels in Commercial use for Sport or Pleasure) Regulations 1998, as amended<sup>1</sup>.

## **2. Maintenance**

- 2.1 Maintaining the vessel is key to achieving its safe operation. Maintenance can take the form of servicing which in some cases is essential to ensure that equipment continues to function as intended, e.g. the vessels engine(s) or lifesaving equipment. If a vessel is not properly serviced and maintained in accordance with the manufacturer’s recommendations, damage may occur which could render the vessel or item of equipment unsafe or inoperable.
- 2.2 A Small Commercial Vessel must be maintained in accordance with the Code of Practice under which it has been certificated (including any lawfully permitted equivalent arrangements) and any conditions specified in that vessels certificate.
- 2.3 Maintenance is defined as work required to retain a safe working condition, compensating for normal wear and tear in order to achieve a maximum useful life. Preventative maintenance is where parts of a piece of equipment are replaced, cleaned, inspected etc as part of a planned systematic maintenance schedule. Manufacturer servicing requirements, where applicable and available, should also form part of a planned systematic maintenance schedule and should be followed as far as possible.
- 2.4 Maintenance, where possible, is best carried out ashore where facilities, tools and replacement parts if required are more readily available whilst also allowing for a good overview of parts of the vessel which are usually submerged, i.e. underwater elements such as keel structures or propulsion equipment. Certain elements of maintenance may be more practical when carried out afloat such as servicing of engines. It may be necessary to carry out maintenance whilst at sea. Prior to a voyage, consideration should be made for the carriage of appropriate tools and spares as well as their accessibility and stowage positions. This may be critical for items such as inflatable lifejackets where spare gas canisters may be required to ensure that the lifejacket remains usable.
- 2.5 Unless trained, qualified or experienced to do so, safety critical maintenance should not be carried out by the owner, managing agent or skipper. As an example, gas systems on board a vessel should always be serviced and maintained by a qualified professional such as a Marine level GasSafe inspector (or equivalent). If an item of equipment has specific maintenance instructions, requirements or manufacturer supplied parts, these should be followed and used. Maintenance manuals and servicing instructions (or copies of), where practicable, should be kept on board for ease of reference.



- 2.6 For all Small Commercial Vessels, requirements with regards to servicing and maintenance are the responsibility of the owner, managing agent or skipper to comply with. Every Small Commercial Vessel should, as good practice, be equipped with an Instruction Manual. This manual should contain instructions for onboard maintenance of the life-saving appliances and should include a checklist for use when carrying out the required inspections; maintenance repair instructions; a schedule of periodic maintenance; a list of replaceable parts and sources for spares as well as a log of records of inspection. For owners and managing agents of vessels offered for bare-boat charter, these instructions should be kept onboard the vessel. It should be considered good practice for a maintenance manual with similar contents to be available on board for components such as the engine etc.
- 2.7 Where a part of the vessel is replaced as part of a systematic maintenance schedule, care should be taken to ensure that it is done on a like for like basis. As an example when changing a piece of engine room piping, you should ensure that the replacement piping remains in compliance with the fire safety requirements. For Small Commercial Vessels, where a part is not replaced on a like for like basis, that replacement may amount to a modification of the vessel that should be reported to a Certifying Authority. A Certifying Authority may examine vessels which have been modified to ensure that the vessel remains in compliance with its certificate. Section 3 of this MGN below provides more information about modifications. If an owner, managing agent or skipper of a Small Commercial Vessel is not sure whether any maintenance carried out constitutes a modification to the vessel, they should contact the Certifying Authority to seek advice.
- 2.8 It is recommended for an owner, managing agent or skipper to set a schedule of checks for a vessel which may lead to preventative maintenance and is a good method of making sure that damage has not occurred. Examples of checks that should be carried out are shown below but are not exhaustive, the frequency of the checks will vary dependant on the item being checked where some checks should be made before every voyage and others weekly or monthly;
- 2.8.1 Checking terminals for guard wires to ensure that they are properly secured, not worn, and correctly tensioned;
  - 2.8.2 Regularly checking of the bilges for any water such that the source of the water can be identified and rectified;
  - 2.8.3 Checking stanchion bases for corrosion and any cracking in the deck around the base; and
  - 2.8.4 Checking of engine oil levels and fuel filters at periodic intervals to ensure the continued effectiveness of the engines.

### **3. Modification**

- 3.1 When making a modification to a vessel, which would result in a change from its design or configuration, this should only be undertaken with the consultation of an experienced marine professional. The type of marine professional will vary depending on the type of modification made to the vessel and could range from a naval architect, an engineer through to a marine surveyor. Where practical, the manufacturer should be consulted as a minimum in the design and planning of any modification.
- 3.2 The modification of a pleasure vessel (or a component or part) that is certified under the Recreational Craft Regulations 2017, may trigger a legal requirement that the modified vessel (or component or part) be tested to ensure compliance with specified standards under consumer protection laws. Where a modified vessel or product meets the required standards a certificate of compliance will be issued.
- 3.3 For vessels or components as covered by 3.2, a certificate of compliance must be obtained in respect of a modification which:



- 3.3.1 changes the means of propulsion of a vessel,
  - 3.3.2 involves a major engine modification (being either a modification that could potentially cause the engine to exceed prescribed emissions limits or increase the rated power of the engine by more than 15%); or
  - 3.3.3 would result in any change which would mean that the vessel may not meet the specified safety requirements.
- 3.4 Any use of a vessel which has been modified and which does not comply with the relevant regulatory requirements could face enforcement action and may ultimately result in a fine or imprisonment. If you are in any doubt as to whether the modification of a vessel (or component or part) falls within the scope of the Recreational Craft Regulations, you should seek independent professional advice.
- 3.5 Modifications to the structure, machinery, loading and trim, or propulsion system can have a substantial effect on the handling, performance, stability or structural integrity of a vessel. Examples of modifications and unintended outcomes are shown below but are not exhaustive;
- 3.5.1 Upgrading an engine on a RIB to a larger horsepower/engine or changing the propeller size/pitch will normally increase the speed of the vessel or thrust capability but could also affect the trim of the vessel and it may not turn or corner as the designer intended.
  - 3.5.2 Adding a radar to the mast and changing to in-mast furling mainsail on a sailing vessel will have a negative effect on the stability of the vessel as the increased weight aloft will reduce the righting moment.
  - 3.5.3 Adding a tender to the fly bridge of a motor vessel along with adding an extendable launching davit will raise the centre of gravity of the vessel and when launching the tender, will have a negative effect on the vessel stability.
  - 3.5.4 If replacing an internal engine, that the new engine uses the same engine support mounts and through hull fittings for any piping. If incorrectly fitted/mounted, this could have a negative effect on the structural integrity of the vessel as well as the effective running of the engine.

#### **4. Damage and Repairs**

- 4.1 Any damage to a vessel, regardless of the scale or location of that damage, should be fixed promptly, ideally before the next passage, and in accordance with any advice, guidance or instructions provided by the manufacturer. Failure to do so could worsen the damage which may render the vessel unseaworthy. Small Commercial Vessels must be maintained and examined in accordance with their certification regime.
- 4.2 It is important to document any damage that occurs to a vessel over the course of its life so as to identify areas of repeated damage; which allows an owner, managing agent or skipper to take precautionary action to ensure the maintenance and safe functioning of any such identified areas in the future. A damage log is also useful in managing repairs and will allow a repair yard to identify what is an original piece of material over what has been previously repaired and what may need further repair.
- 4.3 Damage can occur in a number of different ways. An owner, managing agent or skipper should regularly check their vessels, even if no obvious collision or grounding has occurred, to ensure that their vessel is well maintained and is not damaged. Where damage is clearly visible, it is worth considering whether any secondary damage has occurred which may lead to more problems in the future. For example, in a grounding the leading edge of the keel may be visibly damaged by the seabed but this may have caused secondary issues within



the vessels structure which may not be visible and which would need further investigation by an experienced marine professional.

4.4 Unless specifically trained, experienced or qualified to do so, repairs should not be carried out by the owner, managing agent or skipper.

4.5 Small Commercial Vessels are required to report damage to the Certifying Authority. Damage should be reported by the owner, managing agent or skipper directly to the Certifying Authority who will promptly determine whether its approval of the repair is required and whether a further examination is necessary to determine the seaworthiness of the vessel.

## Note

\* A consolidated copy of an amended statutory instrument can be made available upon request

<sup>1</sup> A Pleasure Vessel is a vessel which is either (a) wholly owned by an individual or individuals and used only for the sport or pleasure of the owner or owners or their immediate family or friends; or (b) owned by a body corporate and used only for sport or pleasure by the employees or officers or the body corporate or their immediate family or friends. In scenarios (a) or (b) the owner or owners must not receive money or any other payment for such use other than as a contribution towards the direct expenses incurred in relation to the operation of the vessel during the voyage or excursion in question. A vessel will also be a pleasure vessel if it is (c) wholly owned by or on behalf of a members' club formed for the purpose of sport or pleasure and used only for the sport or pleasure of members of that club or their immediate family. Any charges levied for such use must be paid into club funds and applied for the general use of the club.

## More Information

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