

**MGN 422 (M)** 

# Use of Equipment to Undertake Work Over the Side on Yachts and Other Vessels

Notice to all Shipowners, Masters and Crew

This notice should be read with the Code of Safe Working Practices for Merchant Seamen Chapters 4 and 15

#### PLEASE NOTE:-

Where this document provides guidance on the law it should not be regarded as definitive. The way the law applies to any particular case can vary according to circumstances - for example, from vessel to vessel and you should consider seeking independent legal advice if you are unsure of your own legal position.

#### **Summary**

This MGN provides guidance on the use of "rail and trolley" and similar systems for undertaking "overside" work on yachts and other vessels. The main points are:

- to ensure that new systems comply with BS standards;
- to ensure that existing systems have been checked to an equivalent standard;
- to ensure operators have been trained in their use;
- to ensure maintenance is carried out to the manufactures advice

Annex 1 give details of the relevant legislation that applies and Annex 2 give details of testing and operation.

#### 1. Introduction

- 1.1 The use of single point safety "rail and trolley" systems is becoming more prevalent on vessels, especially mega-yachts. These allow crewmembers to work outside conventional guardrails for cleaning and maintenance purposes on yachts or other vessels. In recent years there have been a number of accidents using substandard equipment of this type. Also there has been evidence that the manufacturers' instructions on their use are not being followed. The purpose of this notice is to give guidance on their use.
- 1.2 Most consist of two travellers linked in tandem that can be separated if necessary into independent units. These are fitted to a metal track rail which allows the travellers to glide along it. There is the option of having more than one traveller on the rail. However, many of these systems have been designed, and installed, for the sole purpose of sail handling and not for supporting workers working over the side of the vessel.
- 1.3 Equipment which is used for lifting persons must be designed for the purpose and it is not acceptable to use a work station harness or a bosun's chair attached to a rail and trolley system designed for sail handling to enable window cleaning or other overside maintenance to be undertaken.

#### 2. Installation

- 2.1 Any newly installed rail and trolley system used should be tested, certified and approved to a recognised European Union standard for fall protection equipment (EN795; 1996; Class D) and should display the CE mark. More information on these requirements is contained in Annex 2.
- 2.2 Where it is proposed to use a rail and trolley system, or other system, (ie. a system already fitted) that has not been specifically designed for supporting crew members over the side, its use for overside work is not permitted without written confirmation having been received from the manufacturer, preferably by means of a certificate, that use for such purposes is permissible including any conditions attached to its use for that purpose.

#### 3. Operation

- 3.1 Before use the employer should ensure that:
  - 3.1.1 the manufacturers' instructions are read and understood by the persons who will be using the equipment;
  - 3.1.2 a risk assessment is carried out and an appropriate rescue plan developed to recover persons who fall into the water; and
  - 3.1.3 crew members are competent to use the equipment and are aware of any conditions relating to its use and their safety.
- 3.2 Rail and trolley systems for working overside should not be used whilst the vessel is underway.
- 3.3 These systems are designed to be used with the appropriate PPE (harnesses, lanyards, fall arresters and other devices).
- 3.4 On systems referred to in paragraph 2.1 there is a single attachment on each traveller designed to accommodate a single line such as a harness. One of the travellers is fitted with a locking device. The device which locks the traveller in position along the track rail must ONLY be disengaged from the track rail while the user is changing position. Once the user is in position, the locking MUST be re-engaged to hold the car in position and limit the user's movement along the track rail.
- 3.5 The user must **NEVER** rely on only one attachment point for personal protective equipment. The working harness should be attached to one traveller and a fall arrestor, or other safety device, to the other. A third traveller could be used to attach work tools.
- 3.6 More guidance can be found in the Code of Safe Working Practices Chapters 4 and 15.
- 3.7 The use of systems for overside work that do not meet the requirements of either paragraphs 2.1 or 2.2 above, or fail to provide instructions in the use of such equipment in accordance with paragraph 3.1, could potentially place the employer of the crew, and also the master, in breach of their obligations under relevant Merchant Shipping health and safety legislation and render them liable to prosecution and a fine for non-compliance. Further information on relevant legislation is set out in Annex 1.

#### 4. Maintenance

- 4.1 Where systems meeting the requirements of either paragraphs 2.1 or 2.2 are used for overside work, relevant information regarding the maintenance and testing of such systems should be obtained from the system manufacturer. Such information is to be in written form and a copy of it is to be kept on board the vessel to which it applies.
- 4.2 More information on the use of these systems is contained in Annex 2.

#### **More Information**

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#### MERCHANT SHIPPING LEGISLATION RELEVANT TO OVERSIDE WORK

The following provisions of Merchant Shipping Legislation are relevant to overside work. However only the main points especially relevant to the use or selection of *rail and trolley systems* are listed. In order to meet the requirements of the legislation completely it will be necessary to comply fully with all the requirements of this legislation.

### 1. Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997

1.1 Under regulation 5 of the Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997 (No 2962) (the "General Duties" Regulations), guidance on which is contained in Marine Guidance Note MGN 20, a general duty is placed on an employer to ensure, so far as is reasonably practicable, the health and safety of workers and other persons on board a UK registered vessel. In meeting this requirement the employer is required to undertake a risk assessment to determine whether any risks to the health and safety of workers will, or potentially could, arise in the normal course of their activities or duties. Where any such risks, or potential risks, are identified the employer is required to take appropriate measures to either remove such risks entirely or, where that is not possible, reduce those risks as far as is reasonably practicable. It is for the employer to decide what measures are taken to reduce any risks.

# 2. Merchant Shipping and Fishing Vessels (Provision and Use of Work Equipment) Regulations 2006

- 2.1 In addition to the provisions of the General Duties Regulations referred to above, the provisions of the Merchant Shipping and Fishing Vessels (Provision and Use of Work Equipment) Regulations 2006 (No 2183), guidance on which is contained in Marine Guidance Note MGN 331 (M+F), require an employer to ensure that all work equipment made available to workers on the ship:
  - (a) is suitable for the work to be carried out; or
  - (b) is properly adapted for that purpose; and
  - (c) may be used by workers without impairment to their health or safety.
- 2.2 When selecting work equipment the employer is required to take into account the conditions under which the work is to be undertaken and the characteristics of that work as well as having regard to any risks to the health and safety of workers arising from the use of that work equipment. The employer must also ensure that any work equipment is used only for operations, and under conditions, for which it is suitable. "Suitable" in this context means suitable in any respect which it is reasonably foreseeable will affect the health and safety of any worker. Any work equipment to be used by workers must be maintained in an efficient state, in efficient working order and in good repair.

# 3. Merchant Shipping and Fishing Vessels (Lifting Operations and Lifting Equipment) Regulations 2006

3.1 Should the use of the access systems referred to in paragraph 1.1 of the main body of this MGN involve raising or lowering of any worker it is likely the provisions of the Merchant Shipping and Fishing Vessels (Lifting Operations and Lifting Equipment) Regulations 2006 (SI 2006/2184), guidance on which is contained in Marine Guidance Note MGN 332 (M+F), could also apply. Under these Regulations an employer is required to ensure that all lifting equipment is of adequate strength and stability having regard in particular to the stress induced at its mounting or fixing point. In addition the Regulations provide that, except in exceptional circumstances, no lifting equipment shall be used for lifting persons unless it is designed for the purpose.

- 4 Merchant Shipping and Fishing Vessels (Heath and Safety at Work) (Work at Height) Regulations 2010
- 4.1 The Merchant Shipping and Fishing Vessels (Heath and Safety at Work) (Work at Height) Regulations 2010 (No 332), guidance on which is contained in Marine Guidance Note MGN 410, require employers to ensure that work equipment used for work at height is the most suitable to ensure and maintain safe working conditions for workers using that equipment. The Regulations also require the employer to select work equipment which is appropriate to the nature of the work to be performed and is appropriate to foreseeable loads and stresses. In addition specific "Requirements for Rope Access and Positioning Techniques" are set out in Schedule 3 to the draft Regulations.

## PROTECTION AGAINST FALLS FROM A HEIGHT – ANCHOR DEVICES – REQUIREMENTS AND TESTING

- 1. Anchor devices fitted on vessels must comply with EN795; 1996; Class D or similar.
- 2. The main requirements are that tests should be carried out on a sample of the medium to which the anchor devices, in this case the traveller and bar to which it is attached.
- 3. A static test with a weight of 10kN should be applied for a period of no less than 3 minutes. If there is more than one traveller, ie more than one load can be carried, an additional 1kN for each attachment should be added. The device should suffer no distortion or damage.
- 4. A dynamic test consists of a 100kg mass being dropped a distance of 2.5m between the anchor points of the traveller bar. Again there should be no damage to the structure. This test should be repeated at the extreme anchor points and at an intermediate one.
- 5. Precise descriptions of the required tests can be found in BS EN 795:1997.
- 6. Below is an example of a traveller showing its construction.



Lanyard Attachment Points

End stop

Tandem Car

(Optional Equipment Car & Connector Plate)

Track Rail

#### 7. Below is a typical setup for attachments to the traveller.

#### 1.Full-Body Safety Harness

Use a full-body safety harness attached to the access traveller with lock.
Full-body safety harness must meet
CE/ANSI support standards.

#### 2. Working Harness

Use a working harness or chair attached to the access traveller without lock. Working harness or chair must meet **CE/ANSI** support standards.

#### **Additional Options**

3. Tool Service Car

Add an optional lockable traveller or traveller with coupler to work as your tool service carrier.

