Boat Safety Scheme

Part 10
Safety Features

Safety Features

This part of the Boat Safety Scheme standards addresses such risks as falling overboard, sinking and personal injury.

Life-buoy 10.1

Standard:10.1

At least one life-buoy shall be carried on each vessel in a readily accessible position.

Life-buoy 10.1

Each boat shall carry at least one lifebuoy in a readily accessible position.

A lifebuoy is a device for supporting a person in water, usually in the shape of a closed ring.

The type in general use is the 610mm (24”) lifebuoy, which provides buoyancy for one person.

A 760mm (30”) version is produced which supports the weight of 2 persons.
They are usually made in three colour ways:

- all orange
- all white
- red/white quarters

Life-buoy 10.1

Visually check
That at least one life-buoy
is carried

Life-buoy 10.1

Visually check

That at least one life-buoy
is carried in a readily accessible position

Life-buoy 10.1

Life-buoy 10.1

Review and discuss

Hand rails 10.2

Standard: 10.2

Where there are walkways, hand rails of adequate strength shall be fitted where practicable for the full length of all cabins tops, or guard-rails shall be fitted around the perimeter of the deck

Hand rails 10.2 (1)

Walkways are to be protected by the fitting of:

- handrails of adequate strength or
- guard rails around the perimeter of the deck

Walkway – any part of the external, exposed deck along which people may normally move from one part of the boat to another, whether it was designed for use as a walkway or not.

Not walkways:

- stern area/steering position of narrowboats with aft cabins
- cabin tops
- cockpits
- wells in the deck

Hand rails 10.2 (2)

Handrail:
A rail fixed to cabin tops or other structures to provide a secure grip for members of the crew

Guard rails:
Horizontal, protective rails of adequate strength and length, on or around the perimeter of the deck or walkway, connected to the deck or walkway by stanchions

Hand rails 10.2

Visually check

That Hand/guardrails are fitted where required

Hand rails 10.2

- Manually check all rigid handrails and guard rails for movement.
- Manually check the supports or stanchions of all flexible guard rails for movement.

Hand rails 10.2

Visually check

All handrails and guardrails,

including supports, fixings, and fastenings

for signs of:

- **Corrosion**
- **Fracture**
- **Damage or deterioration**

Hand rails 10.2

Visually check;

Length of handrails and guard rails in relation to area to be protected.

Hand rails 10.2

Review and discuss

Hull Openings 10.3

Standard: 10.3

Every opening in the hull of a vessel above the NLWL (including those used as air intakes or outlets for air for engine cooling purposes) shall be so positioned that its lowest point is not less than 250mm above the NLWL of the vessel, unless such openings are permanently and securely connected to ducts or pipes which are watertight to that level

(Cont)

Hull Openings 10.3

Standard 10.3

Self draining cockpits are not required to comply with the 250mm height requirement of this standard so long as effective arrangements are made to minimise the ingress of water into other parts of the hull by incorporation of non return valves in the drains and/or by provision of bulkhead(s) or sill(s) to a height of 150mm

A weed hatch if fitted shall have a cover at least 150mm above the NLWL and shall be watertight when secure

Hull Openings 10.3 (1)

Must be either:

- 250mm (10ins) above the normal laden waterline
- permanently & securely connected to ducts or pipes watertight to that level

OPENINGS INCLUDE those used for intakes or outlets for air for engine cooling purposes

Hull Openings 10.3 (2)

In the water:

waterline observed can be taken as the NLWL, providing no attempt has been made to “lighten” the boat and reduce the draft by:

- removing any part of the structure, fittings, or equipment (particularly heavy items such as gas bottles)
- emptying any tanks in whole or part

Not in water:

will be determined by:

- Interference e.g a “tidemark”,
- The level of anti-fouling
- Documentary evidence e.g. boat builder's specification,
- Owner’s manual

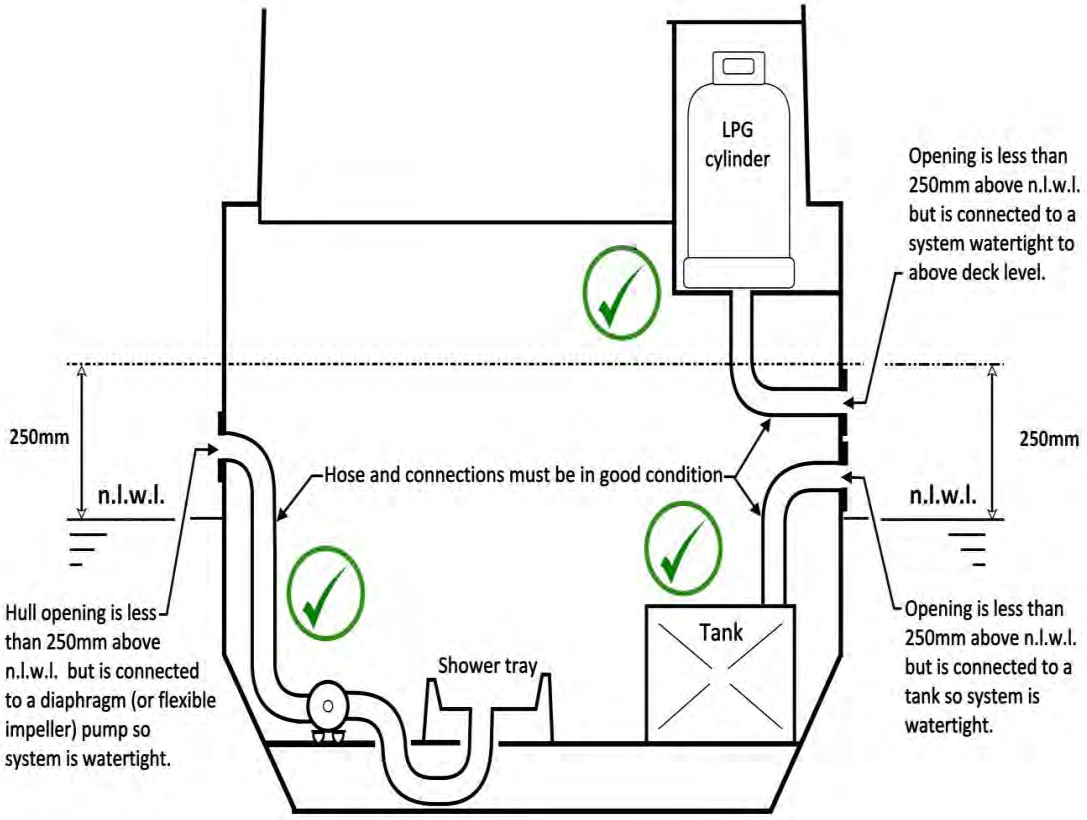
Hull Openings 10.3

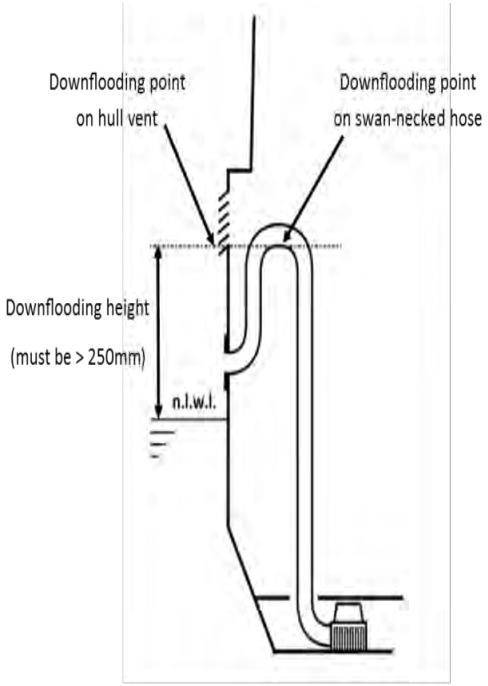
Measure height of all hull openings:

For any opening less than 250mm above NLWL visually and manually check where possible, that a duct or pipe takes it to a height not less than 250mm above the NLWL

The duct or pipe must be permanent and secure and there must be no signs of leakage at connections or in the immediate vicinity

Hull Openings 10.3



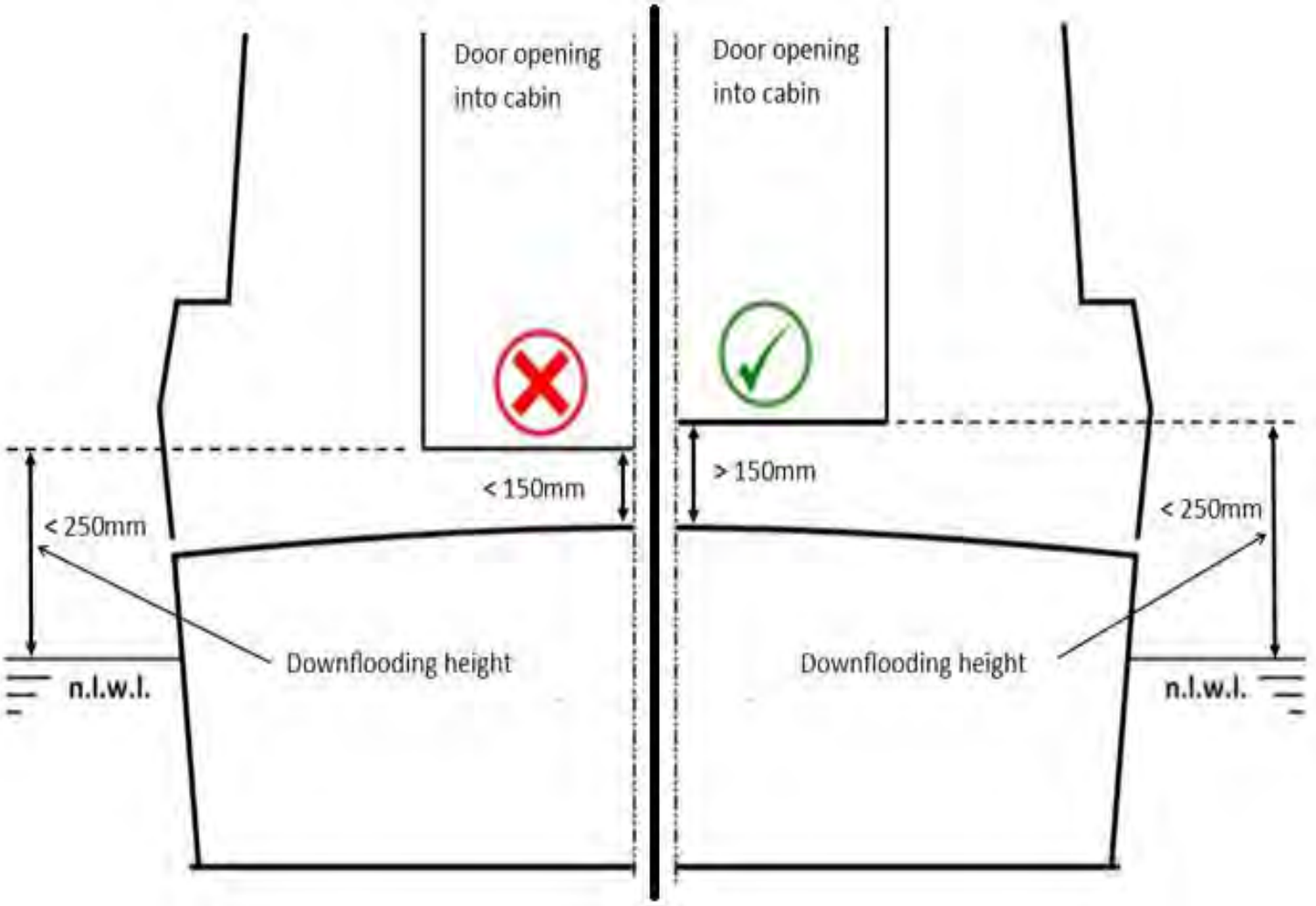


Hull Openings 10.3

Identify self draining cockpit and determine height above waterline;

- **If height less than 250mm, visually check for presence of non-return valves in scuppers**
- **If non-return valves are not fitted, measure height of any sill(s) and bulkhead(s) and confirm height is at least 150mm above the level of the cockpit deck**

Hull Openings 10.3

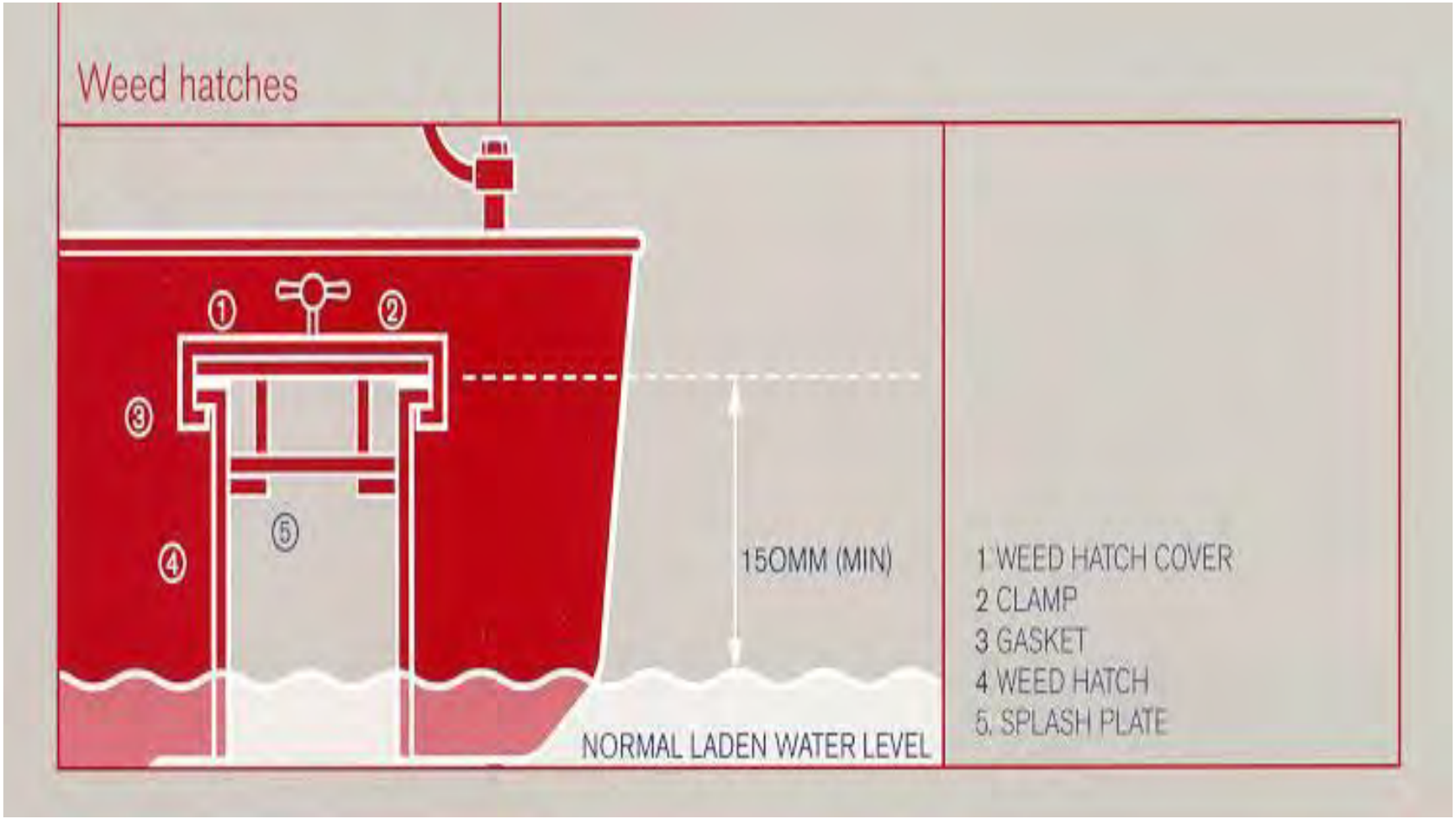


Hull Openings 10.3

Identify presence of weed hatch and, if present, verify that cover is watertight and is at least 150mm above normal waterline

Hull Openings 10.3

Hull Openings 10.3



Hull Openings 10.3

Visually check;

Weed hatch cover for signs of damage and deterioration to:

- Fastenings including any nuts and bolts
- Gaskets

Hull Openings 10.3

Hull Openings 10.3

Hull Openings 10.3

Review and discuss

Water intakes 10.4

Standard:10.4

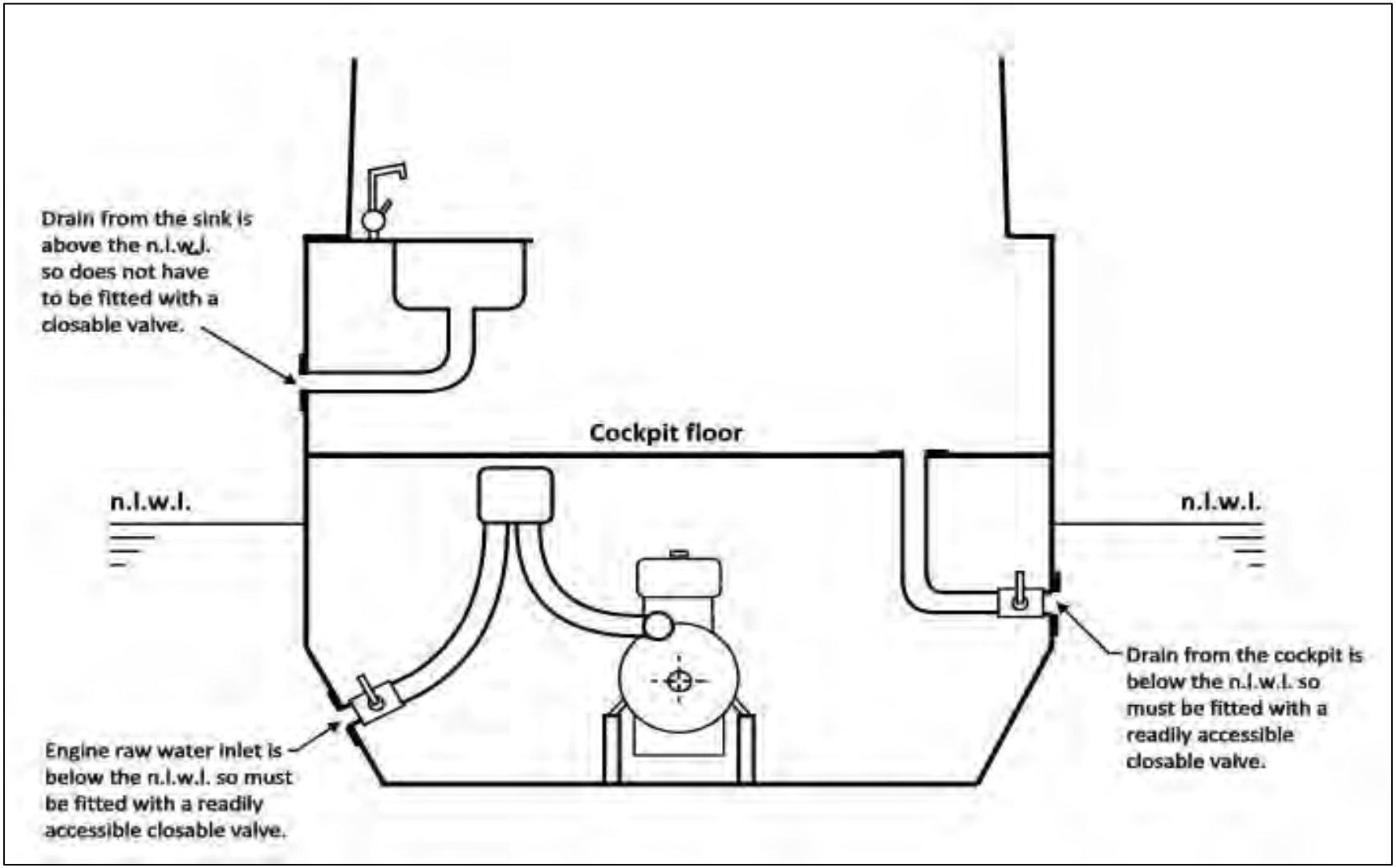
Every opening in the hull of a vessel below the N.L.W.L provided for use as an intake for water shall be fitted with an adequate valve or cock directly adjacent to it and be readily accessible for immediate use

Water intakes 10.4

Identify all through-hull openings below the normal laden waterline. Examples may include:

- Toilet inlets/discharge;
- Raw water intakes for engines;
- Cockpit drains.
- Sink wastes

Water intakes 10.4

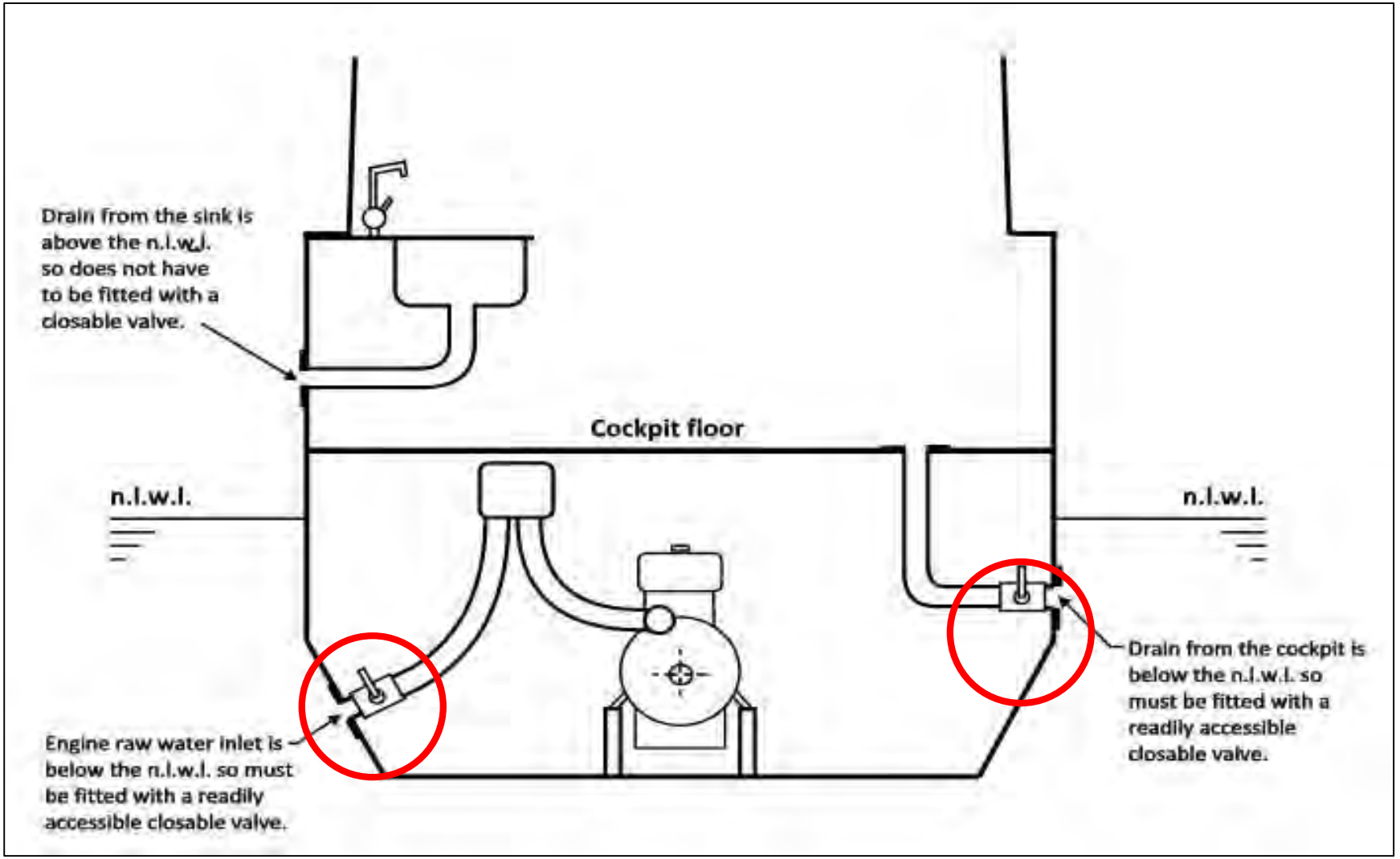


Water intakes 10.4

Visually and /or manually;

Check that cocks or valves fitted to hull openings below the waterline are readily accessible

Water intakes 10.4



Water intakes 10.4

Water intakes 10.4

Note, do not operate valves or cocks !!!!!

Water intakes 10.4

Review and discuss

Ventilation labels 10.5

Standard: 10.5

Instructions prohibiting the blocking of ventilators shall be inscribed on permanent labels prominently displayed on board the vessel

Ventilation labels 10.5

Visually check;

For presence of permanent labels If ventilators are required

Ventilation labels 10.5

Must be:

- inscribed permanent labels
- prominently displayed

Permanent means:

- securely attached by bolts, screws, appropriate adhesive

The lettering must not:

  - be capable of being removed by abrasion or contact
  - become illegible through cleaning, fading, normal use

Additional information

An appropriate adhesive:

- Does not permit the bond to be broken without damaging the label or the surface to which it adheres
- Is approved for bonding the material of the label to the material of the display surface

The following systems are not suitable:

- embossed lettering on stick-on tapes
- printed paper labels however attached
- transfers
- vinyl letters

Ventilation labels 10.5

Visually check;

That labels are prominently displayed in relation to ventilators.

Ventilation labels 10.5

Ventilation labels

Review and discuss

Glass 10.6

Standard:10.6

All port lights, side scuttles, windows and interior glass partitions shall be safety glass to BS 952 Part 1 or of suitable acrylic or polycarbonate materials

Glass 10.6

Visually check;

All glass for presence of marking to indicate use of safety glass to one of the standards listed below, or an equivalent or higher standard.

Examples of acceptable standards are;

BS MA 24: BS MA 25: BS 857: BS 952: BS6206

BS EN 12600: BS ISO 21005

Glass 10.6

At present the use of suitable acrylic or polycarbonate materials is not being checked

Glass 10.6

Exemption 11.21

Vessels manufactured prior to 16 June 1998 are not required to comply with the requirements of standard 10.6 Which requires safety glass to BS 952 Part 1 or suitable acrylic or polycarbonate material to be fitted providing that all existing vessels with non safety glass are protected by the use of suitable stick on film by 16 June 2000 or the first Boat Safety Certificate examination after this date

Glass 10.6

It is not possible by visual examination to determine the nature or suitability of the stick-on material used. However, to be effective and provide the protection implied in this exemption the applied film must;

Be free of defects:

- In total contact with the glass – no bubbles etc
- Completely cover the glass surface
- Show no signs of lifting at the edges or corners

Supplementary information

Toughened glass – is treated after manufacture and cannot be cut or worked

Glass is always marked with a standard such as:

- BS MA 24 Ship's side scuttles
- BS MA 25 Ship's windows
- BS 857 Specification for safety glass for land transport
- BS 952 Glass for glazing
- BS 6206 Impact performance requirements for flat safety glass and safety plastics for use in buildings
- BS EN 12600 Toughened Glass Standards
- BS ISO 21005 Toughened Glass Standards

Other "Standards" marks may not mean safety glass

- Laminated glass can be cut or worked after manufacture and may not be marked
- Wire-reinforced glass – reinforcement is readily visible & marking is unnecessary

Glass 10.6

Review and discuss

Unpowered hotel Boats 10.7 (1)

Those that do not carry fuel nor fitted with appliances for:

- **cooking**
- **heating**
- **refrigeration**
- **Lighting**

shall comply with the requirements of Standard 6.1 for portable fire extinguishers as though they were a powered boat

Unpowered hotel Boats 10.7 (2)

Requirements of Standard 6.1 applicable:

- correct number of portable extinguishers of an approved type
- readily accessible
- kept at fire risk points
- maintained in good condition
- of the correct fire rating

If vessel cannot be identified as an unpowered hotel boat, the examiner may need to refer to the Navigation Authority

Unpowered hotel Boats 10.7

Identify unpowered hotel boat and carry out checks 6.1.1 to 6.1.8 inclusive

Unpowered hotel Boats 10.7

Review and discuss

Boat Safety Scheme

End of Part 10

Safety Features