

Australian Transport Advisory Council

Uniform Shipping Laws Code

**Australian Government Publishing Service
Canberra**

CAT. NO 8908543

© Commonwealth of Australia 1989
ISBN 0 644 10221 7

Published for the Department of Transport and Communications by the Australian
Government Publishing Service, Canberra 1989

Charts and diagrams prepared by Michael Thorne Enterprises.

Printed by R. D. RUBIE, Commonwealth Government Printer, Canberra

cat. no. 8908543.

COMMONWEALTH OF AUSTRALIA
ORDER UNDER SECTION 427 OF NAVIGATION ACT 1912

I, PAUL BARCROFT ECCLES, delegate of the Minister for Transport and Communications, pursuant to section 427 of the Navigation Act 1912, hereby declare that the provisions annexed to this order are the provisions of Section 18 of the Uniform Shipping Laws Code as in existence on the date of this Order.

Dated this 4th day of September 1989.

A handwritten signature in black ink, appearing to read 'P. B. Eccles', written over a horizontal line.

P. B. ECCLES
FIRST ASSISTANT SECRETARY
MARITIME OPERATIONS DIVISION

PART 1—PRELIMINARY

1.1 This Section should be read in conjunction with the Introduction, Definitions and General Requirements Section.

1.2 For the purposes of this Section, unless the contrary intention appears:

1.2.1 The term *Hire and Drive Vessel* means any boat or vessel which is let for hire or reward or for any other consideration whatsoever, including boats or vessels provided in conjunction with holiday establishments or hotels for the use of guests or tenants, and which the hirer uses solely for pleasure.

1.2.2 The term *Hirer* means a person who:

- (a) hires a hire and drive boat or vessel; or
- (b) uses a hire and drive boat or vessel while under hire.

1.2.3 The term *Owner*, in respect of a *Hire and Drive Vessel* includes a part owner and a person who has for the time being the possession of the vessel, but does not include a person who is a hirer; or a person who has a conditional or unconditional right to take possession of the vessel under a hire purchase agreement, bill of sale or other similar instrument, but has not yet exercised that right.

1.2.4 The term *Motor Boat* means any vessel, other than a houseboat, or inflatable boat, which is propelled by mechanical power.

1.2.5 The term *Sailing Boat* means any vessel which is primarily intended for use under sail.

1.2.6 The term *Rowing Boat* means any vessel propelled solely by oars, paddles or other manual devices.

1.2.7 The term *Inflatable Boat* means any vessel which achieves and maintains its intended shape and buoyancy through the medium of inflation, and which is propelled by mechanical power or manual devices.

1.2.8 The term *Houseboat* means any boat, vessel or pontoon having a fixed house above the deck with accommodation which may be used by persons residing on board for an overnight period or longer, and which is propelled by mechanical power.

PART 2—GENERAL PROVISIONS

2.1 Application

2.1.1 This Section shall apply to a hire and drive vessel which is:

- (a) a Motor Boat of not less than 3.5 metres in length or not more than 13 metres in length;
- (b) a Sailing Boat of not less than 3 metres in length or not more than 13 metres in length;
- (c) a Rowing Boat of not less than 3 metres in length;
- (d) an Inflatable Boat of not less than 2 metres in length and not more than 4.5 metres in length; and
- (e) a Houseboat of not more than 20 metres in length.

2.1.2 Hire and Drive vessels of less or greater length than above shall be subject to such special provisions as determined by the Authority.

2.2 Equipment

2.2.1 Except where detailed, the equipment of a hire and drive vessel shall consist of such fire appliances, life-saving appliances and miscellaneous equipment as the Authority shall determine, having regard to the limits of operation.

2.3 Navigation Lights, Shapes and Sound Signals

2.3.1 All hire and drive vessels shall be fitted with such navigation lights, shapes and sound signalling apparatus as the Authority shall determine, having regard to the limits of operation.

2 Section 18

2.4 Maintenance

2.4.1 The owner of a hire and drive vessel shall at all times keep the hull, machinery and equipment in good condition and fit for service during the period for which the vessel is licensed in accordance with Part 3 of this Section.

2.4.2 At all times the vessel is on hire, the equipment shall be kept on board and if necessary shall be secured to the vessel.

2.5 Safe Navigation of Hire and Drive Vessels

2.5.1 A hirer or any other person shall not navigate a hire and drive vessel in a dangerous, negligent or reckless manner.

2.5.2 A hirer or any other person shall not navigate a hire and drive vessel between sunset and sunrise unless the vessel is certificated for such operations and the relevant navigation lights are exhibited.

2.5.3 A hirer or any other person shall not navigate or attempt to navigate a hire and drive vessel while under the influence of alcohol or drugs to such an extent as to be incapable of having proper control of the vessel.

PART 3—REGISTRATION AND INSPECTION OF VESSELS

3.1 Hire and Drive Vessels to be Registered

3.1.1 The owner of a hire and drive vessel shall not allow that vessel to be hired out unless:

- (a) current registration has been issued by the Authority for the vessel; and
- (b) a registration plate or equivalent is displayed on the vessel.

3.2 Application for Registration

3.2.1 Before a vessel is used as a hire and drive vessel the owner shall:

- (a) make an application to the Authority for registration of the vessel;
- (b) submit the vessel for survey, together with all equipment used therewith, at a time and place and in such a manner as is acceptable to the Authority;
- (c) submit plans and specifications in respect of the vessel as required in the Introduction, Definitions and General Requirements Section; and
- (d) cause the vessel to be removed from the water for the purposes the survey in accordance with the Construction Section of this code.

3.3 Registration

3.3.1 After survey of a hire and drive vessel, the Authority, if satisfied as to the condition and sufficiency of the vessel and its equipment may:

- (a) issue to the owner of the vessel the certificate of registration stating:
 - (i) the expiry date of the certificate;
 - (ii) the geographical limits of operation within which the vessel may ply or be used;
 - (iii) the maximum number of persons that the vessel is registered to carry;
 - (iv) the hours between which the vessel is permitted to operate; and
 - (v) any other conditions as may be required by the Authority.
- (b) issue a registration number to the vessel; and
- (c) issue a registration plate or its equivalent for the vessel, showing:
 - (i) the expiry date of the certificate of registration;
 - (ii) the maximum number of persons that the vessel is registered to carry;
 - (iii) the registration number; and
 - (iv) if the Authority so desires, the limits within which the vessel is permitted to ply.

3.4 Display of Registration Plate

3.4.1 The registration plate or equivalent issued in accordance with paragraph 3.3:1(c) above shall be firmly affixed in a conspicuous position on the hire and drive vessel.

3.5 Inspections

3.5.1 A hire and drive vessel shall be inspected in accordance with the provisions of the Surveys and Certificates of Survey Section.

3.6 Powers of Inspectors

3.6.1 At all reasonable times during the currency of registration an authorised person may board the vessel and carry out such tests or inspections as the Authority may deem necessary.

3.7 Change of Ownership

3.7.1 The owner of a hire and drive vessel shall, within seven days after the sale or transfer of the vessel to another person, notify the Authority, in writing, of the name and address of the purchaser or transferee;

3.7.2 A person who becomes the owner of a hire and drive vessel after purchase or transfer of the vessel shall, within seven days of taking delivery of or becoming the owner of, the hire and drive vessel, whichever first happens, lodge with or forward to the Authority:

- (a) the current certificate of registration in respect of the vessel; and
- (b) an application for the transfer of registration of the vessel to himself.

3.8 Change of Address of Owner

3.8.1 The owner of a hire and drive vessel who changes his private or business address during the currency of registration, shall, within seven days of the change, give notice thereof in writing to the Authority.

3.9 Loss of Certificate or Plate of Registration

3.9.1 Where the Certificate of Registration or plate in respect of a hire and drive vessel is lost, defaced or destroyed, the Authority may issue a duplicate certificate or plate to the owner of the vessel.

3.9.2 A duplicate issued by the Authority has the same force and effect as the original.

3.10 Cancellation of Registration

3.10.1 Where the registration in respect of a hire and drive vessel is cancelled or suspended, the owner of the vessel shall forthwith:

- (a) remove the registration plate or equivalent from the vessel; and
- (b) deliver both the registration plate or equivalent and the certificate of registration in respect of the vessel to the Authority.

3.11 Vessels without Registration

3.11.1 The owner of a hire and drive vessel in respect of which there is not in force a current registration shall not permit to be displayed on such vessel any registration plate or equivalent which might imply that the vessel is registered by the Authority as a hire and drive vessel.

3.12 Alterations and Major Repairs to Hire and Drive Vessels

3.12.1 The owner of a hire and drive vessel in respect of which registration has been issued by the Authority shall advise the Authority in writing and submit plans and specifications of any major repairs and/or proposed alterations to the hull, machinery or equipment of the vessel.

3.13 Reporting of Accidents to Hire and Drive Vessels

3.13.1 The owner of a hire and drive vessel shall make a report, in writing, to the Authority concerning any accident or damage to vessels or any death or injury to persons.

3.13.2 Such report shall be forwarded to the Authority within 48 hours of any such accident.

PART 4—RESPONSIBILITIES OF OWNERS AND HIRERS**4.1 Register Book**

4.1.1 The owner of a hire and drive vessel shall maintain, in respect of that vessel, a Register in an approved form in which shall be shown details of all hire and drive contracts entered upon, including:

- (a) the full name, address and signature of hirer;

4 *Section 18*

- (b) the date and time when vessel hired out;
- (c) the date and time when vessel returned by the hirer;
- (d) the number of persons declared by the hirer to be carried; and
- (e) where appropriate, the number of the hirer's licence or permit to drive.

4.1.2 The hirer of a hire and drive vessel shall not refuse to supply the details required by sub-paragraphs 4.1.1(a) and 4.1.1(d) above.

4.1.3 The owner of a hire and drive vessel shall produce the Register for perusal on demand by the Authority.

4.2 Number of Persons Declared or Carried

4.2.1 The owner of a hire and drive vessel shall not hire out such vessel if the number of persons declared by the hirer is in excess of the number the vessel is licensed to carry.

4.2.2 The hirer of a hire and drive vessel shall not permit more than the maximum number of persons the vessel is licensed to carry to be on board.

4.3 Use of Hire and Drive Vessel

4.3.1 The hirer shall not:

- (a) permit any prescribed equipment to be improperly used or handled; or
- (b) permit such vessel to proceed beyond or outside such limits as are specified on the licence, licence plate or equivalent or given in instructions by the owner.

4.4 Instructions to Hirers

4.4.1 The owner of a hire and drive vessel shall satisfy himself that the hirer is competent to take charge of that vessel within the limits endorsed on the registration plate.

4.4.2 The owner of a hire and drive vessel shall ensure the issue to a hirer of clear and concise instructions on:

- (a) correct and safe handling and navigation of the vessel;
- (b) correct and safe operation of machinery, fuel, gas and pumping systems and valves or openings in the hull;
- (c) stowage and use of life-saving appliances;
- (d) location and use of fire appliances; and
- (e) limits of operation.

4.4.3 Further to sub-paragraph 4.4.2(e) above the owner shall exhibit for the use of the hirer a plan showing the geographical limits within which the hirer may operate the vessel; and

4.4.4 The owner shall obtain from the hirer a signed statement indicating that the hirer fully understands the limits and restrictions and any conditions that have been placed on the use of the vessel.

PART 5—REQUIREMENTS FOR HIRE AND DRIVE VESSELS

5.1 General

5.1.1 Having regard to the material from which its hull is constructed, a hire and drive vessel shall be constructed in accordance with the appropriate Sections or Sub-sections of the Code, in respect of its hull, machinery and equipment, except as may be provided elsewhere in this Part.

5.1.2 Accommodation spaces in hire and drive vessels designed to be used by persons residing on board for an overnight period or longer shall comply at least with the following requirements.

5.1.2.1 *Dimensions*

- (a) headroom in accommodation spaces shall not be less than 1.9 metres;
- (b) passageways under 4.5 metres in length shall be not less than 600 mm wide. Passageways of 4.5 metres and over shall be not less than 800 mm wide;

- (c) bunks shall have a minimum length of 1.9 metres and a minimum width of 600 mm. Arrangement shall not be more than two high with a minimum vertical distance of 600 mm between bunks. Aisles between bunks shall be not less than 600 mm;
- (d) not less than two avenues of escape shall be provided from all general areas available to the persons on board. Opening windows having a minimum dimension of clear opening of 460 mm diameter or of 460 mm vertically and 410 mm horizontally and having sufficient accessibility may be used as one avenue of escape;
- (e) doors to all accommodation spaces shall be capable of being opened from inside the spaces without the use of a key; and
- (f) all toilets and wash basins shall be fitted with adequate plumbing. A toilet compartment shall be not less than 700 mm square and its interior vertical and deck linings shall be covered with materials impervious to water.

5.1.2.2 *Ventilation*

- (a) each accommodation sleeping space shall be provided with a ventilator having an area of 80 square centimetres for each person in the space. All other spaces shall be adequately ventilated in a manner suitable for the purpose of the space.

5.1.2.3 *Sundecks*

- (a) where an area of open deck space on a houseboat is intended to be used as a sundeck that area shall be constructed so that it is capable of supporting the maximum number of persons that the houseboat is licensed to carry;
- (b) a person shall not be allowed on any awning or roof of a hire and drive houseboat unless that awning or roof is of such strength as to be capable of supporting the maximum number of persons that the houseboat is licensed to carry and is fitted with safety rails in accordance with 5.1.2.4.

5.1.2.4 *Deck Rails*

- (a) handrails or equivalent protection shall be installed around all decks accessible to persons on board. The safety barrier shall extend to a height above the level of the deck as provided by Clause E.10 of the Construction Section and shall consist of stanchions supporting either rails not more than 250 mm apart or strong netting.

5.1.2.5 *Sewage Disposal System*

- (a) Vessels provided with overnight accommodation may be required to be fitted with a sewage disposal system meeting the requirements of Appendix B.

5.1.3 The maximum speed limit for any hire and drive boat will be determined by the Authority.

5.1.4 Structural fire protection of high fire risk spaces should be fitted to the satisfaction of the Authority. At least the following provisions should be made:

- (a) the engine room or engine box where fitted should be lined with non-combustible material having a low flame spread surface sufficient to achieve one half hour integrity as provided in Sub-section F, Structural Fire Protection, of the Construction Section;
- (b) the galley area should be protected by non-combustible material having a low flame spread surface sufficient to achieve one half hour integrity as provided in Sub-section F, Structural Fire Protection, of the Construction Section;
- (c) liquefied petroleum gas installations should comply with Section 9, Engineering;
- (d) the general construction of a vessel shall be such as to minimise fire hazards insofar as is reasonable and practicable;

- (e) all exposed lining surfaces in accommodation spaces shall be of approved low flame spread material. Linings within the vicinity of a stove shall be of non-combustible material;
- (f) where an approved automatic sprinkler system is fitted in accommodation spaces the linings of the spaces shall be subject to special consideration.

5.1.5 Hire and drive boats shall have sufficient freeboard, reserve buoyancy and subdivision to satisfy the requirements of AS 1799-1975—*SAA Small Boats Code* where not otherwise provided in this Part.

5.1.6 Hire and drive boats which do not fall within the categories of vessel covered by AS 1799-1975—*SAA Small Boats Code* or are not otherwise covered in this Part, shall meet the requirements of paragraph C.1.3.4 of Section 8, Stability.

5.1.7 Engines shall be provided with instrumentation necessary to ensure their safe operation.

5.1.8 Exhaust pipes from inboard engines shall comply with Clause 10 of the Engineering Section.

5.1.9 All exposed moving parts of machinery shall be guarded as necessary to protect persons from injury.

5.1.10 Except as provided in 5.1.11, machinery space boundaries shall be sealed to prevent gas or vapours emanating from the machinery from entering accommodation spaces.

5.1.11 Where the engine and its associated exhaust gas system is not separated from the accommodation space by gas tight boundaries, then an extraction fan or ventilation system that is capable of removing any dangerous or toxic gases that may accumulate in such space may be required to be fitted to the satisfaction of the Authority.

5.1.12 The ventilation of machinery spaces shall comply with Clause 12 of the Engineering Section.

5.1.13 The fuel tanks and fuel system shall comply with Clause 15 of the Engineering Section.

5.1.14 Sea valves and piping shall comply with Clause 16 of the Engineering Section.

5.1.15 Electrical installations shall comply with Part 4 of the Engineering Section.

5.1.16 Liquefied petroleum gas installations shall comply with Part 5 of the Engineering Section.

5.1.17 Freshwater facilities to the satisfaction of the Authority shall be provided having regard to the number of persons the vessel is registered to carry and the length of time they are on board.

5.2 Catamarans

5.2.1 Vessels of catamaran configuration will be given special consideration by the Authority.

5.2.2 The minimum freeboard, measured from the loaded waterline to the lowest point of the deck of each hull, henceforth known as the freeboard deck, shall correspond to a twenty five per centum (25%) reserve of buoyancy. This may be determined as follows (refer to figure A):

- (a) Draw a waterline (gg) tangential to the lowest point of the freeboard deck;
- (b) Calculate the volume enclosed by the hulls from the keel to waterline (gg);
- (c) Position the load waterline corresponding to the fully loaded condition so that the volume within the hulls enclosed by waterline (gg) and the load waterline is not less than twenty five per centum (25%) of the total volume as calculated above.

5.2.3 Catamaran vessels shall be subdivided so as to comply with a one compartment standard of subdivision. When the compartment giving the most adverse heel and trim effect in the flooded condition is considered, then the vessel must not heel or trim such that the waterline crosses an imaginary line taken at 75 mm below the freeboard deck at side. In the case of cylindrical hulls the margin line will be 75 mm below the highest point of the hull.

5.2.4 As an alternative to the requirements of paragraph 5.2.3, buoyancy in the form of an approved material may be provided as follows:

(i) *Wooden Hulls*

Sufficient to float at least 25 per cent more than the mass of machinery, shafting, propeller(s), tanks, equipment and ballast plus an allowance of 0.014 cubic metre for each person carried.

(ii) *Metal and G.R.P. Hulls*

Sufficient to float at least 25 per cent more than the mass of hull, machinery, shafting, propeller(s), tanks, equipment and ballast plus an allowance of 0.014 cubic metre for each person carried.

5.2.5 A practical stability test is to be carried out upon the vessel in its fully loaded condition. With a mass, representing the number of persons for which the vessel is to be certificated at 65 kg per person, positioned as far outboard as possible on the main deck or on the uppermost deck so as to provide the most adverse condition of heel and/or trim, the vessel shall have a minimum residual freeboard of not less than 25 per centum of the freeboard in the fully loaded upright condition, and this shall not be less than 75 mm.

5.2.6 No alteration to the buoyancy or structural alteration should be carried out without the prior approval of the Authority.

5.3 Motor Boats

5.3.1 A motor boat of less than 7.5 metres in length and which is intended for use as a hire and drive vessel shall be constructed in accordance with the provisions of this Code for hull, machinery, equipment and buoyancy, subject to the following exceptions or additions:

- (a) the bow shall be decked in for a length of not less than 500 mm measured from the aft side of the stem piece.
- (b) sea valves and associated piping shall comply with Clause 16 of the Engineering Section;
- (c) inboard engines shall be designed for marine use and shall use only those fuels with a flashpoint of 60°C or higher;
- (d) the exhaust system shall comply with Clause 10 of the Engineering Section;
- (e) the fuel system shall be constructed and installed in accordance with the provisions of Appendix A of this Section;
- (f) freshwater facilities shall be constructed and installed to the satisfaction of the Authority;
- (g) solid foam buoyancy shall be tested in accordance with Appendix O of the Life-saving Appliances Section;
- (h) where required by the Authority, the vessel shall be fitted with grab rails or grab lines on the underside of the vessel to provide handholds in the event of the vessel capsizing; and
- (i) where a hire and drive boat is to be used by persons residing on board for an overnight period or longer, accommodation consistent with paragraph 5.1.2 shall be installed subject to the following relaxations:
 - (i) the headroom in accommodation spaces may be reduced to 1.6 metres;
 - (ii) the passageway widths should not be less than 600 mm;
 - (iii) a bunk should be provided for each person for whom the boat is certificated;
 - (iv) fixed cooking facilities shall be provided; and
 - (v) a portable toilet may be provided.

5.3.2 A motor boat of 7.5 metres or more in length and which is intended for use as a hire and drive vessel shall be in accordance with such provisions of this Code as the Authority shall determine, subject to the following additions:

- (a) the bow shall be decked in for a length of not less than 500 mm measured from the after side of the stem piece;

- (b) the maximum number of persons to be carried on a hire and drive motor boat of 7.5 metres or more in length shall be determined in accordance with the provisions of Appendix D of this Section;
- (c) the hull shall be subdivided into watertight compartments as required by Sub-section C of the Construction Section;
- (d) notwithstanding sub-paragraph (c) above, hire and drive motor boats of 7.5 metres or more in length but less than 13 metres in length may be fitted instead with approved buoyancy foam meeting the requirements of Appendices N and O of the Life-saving Appliances Section;
- (e) where a hire and drive motor boat is to be used by persons residing on board for an overnight period or longer, accommodation shall be fitted, consistent with the type of vessel and the area of operations, as required by paragraph 5.1.2 of this Part.

5.4 Sailing Boats

5.4.1 A sailing boat of less than 7.5 metres in length which is intended for use as a hire and drive vessel shall:

- (a) be of an established and/or proven design;
- (b) be constructed in accordance with appropriate sections of the *S.A.A. Small Boats Code* or with such other requirements as the Authority shall determine;
- (c) have locking nuts or pins fitted to the rudder, tiller and centreboard to prevent their loss in the event of capsizing;
- (d) have sails capable of being lowered or hoisted while the vessel is afloat;
- (e) have securely fixed to it in the bows a towing point suitable for securing a two line or painter;
- (f) have a flotation device fitted to the top of the mast to prevent complete capsize; and
- (g) where used by persons residing on board for an overnight period or longer, be provided with accommodation, consistent with paragraph 5.1.2, subject to the following relaxations:
 - (i) the headroom in accommodation spaces may be reduced to 1.6 metres;
 - (ii) the passageway widths should not be less than 600 mm;
 - (iii) a bunk should be provided for each person for whom the boat is certificated;
 - (iv) fixed cooking facilities shall be provided;
 - (v) a portable toilet may be provided;
- (h) where not of unballasted type, meet the following stability criteria:
 - (i) wind moment = $M_w = 0.005 Ah$
 where A = total sail area in square metres
 h = distance between centroids of the above waterline projected lateral area and of the below waterline projected lateral area
 - (ii) the vessel loaded in the worst foreseeable condition should be gradually inclined to about 12°. Readings of the heel angle are to be taken as the moment is increased at enough intervals to provide sufficient points to draw a curve of heel angle versus moment;
 - (iii) the curve derived in (ii) is to be extrapolated to intersect the theoretical heeling moment calculated in (i);
 - (iv) the stability will be considered satisfactory if the intersection of the two lines occurs at an angle less than 25°.

5.4.2 A sailing boat of 7.5 metres or more in length, which is intended for use as a hire and drive vessel, shall:

- (a) be of an established and/or proven design;
- (b) be constructed in accordance with:
 - (i) such provisions of this Code as the Authority shall determine; or
 - (ii) the rules and requirements of such other bodies as the Authority shall allow;
- (c) be provided with an auxiliary motor designed for marine use and using only those fuels with a flash point of 60°C or higher; and
- (d) where to be used by persons residing on board for an overnight period or longer, have accommodation fitted consistent with the type of vessel and the area of operations, as required in paragraph 5.1.2 of this Part;
- (e) meet the following stability criteria:
 - (i) wind moment = $M_w = 0.005 Ah$
 where A = total sail area in square metres
 h = distance between centroids of the above waterline projected lateral area and of the below waterline projected lateral area
 - (ii) the vessel loaded in the worst foreseeable condition should be gradually inclined to about 12°. Readings of the heel angle are to be taken as the moment is increased at enough intervals to provide sufficient points to draw a curve of heel angle versus moment;
 - (iii) the curve derived in (ii) is to be extrapolated to intersect the theoretical heeling moment calculated in (i);
 - (iv) the stability will be considered satisfactory if the intersection of the two lines occurs at an angle less than 25°.

5.5 Rowing Boats

5.5.1 A rowing boat of 3 metres or more in length, which is intended for use as a hire and drive vessel shall:

- (a) be constructed to the satisfaction of the Authority;
- (b) be of such form and proportion as to have, with a full complement of persons on board:
 - (i) basic stability as defined in AS 1799-1975 omitting engine, fuel tank and fuel masses; or
 - (ii) a clear side amidships out of the water of not less than 230 mm when on an even keel;
- (c) have the bow decked in for a length of not less than 400 mm taken from the aft side of the stem or fore end of boat;
- (d) have all thwarts and side seats fitted as low in the boat as possible;
- (e) have rowlock chocks fitted with rowlock pipes or plates; and
- (f) be provided with reserve buoyancy in the form of approved flotation material (i.e. meeting the requirements of Appendix N of the Life-saving Appliances Section) sufficient to prevent the boat from sinking when swamped in a condition of maximum load and persons capacity and with all equipment in its normal position.

5.5.2 The maximum carrying capacity of a hire and drive rowing boat shall be based:

- (a) on the seating capacity of the thwarts for the number of persons who would normally be seated when the boat is underway, at 600 mm length of thwart per person; and
- (b) on the number of persons, reduced as necessary, to ensure basic stability of the boat as defined in sub-paragraph 5.5.1 (b) (i).

5.6 Inflatable Boats

5.6.1 An inflatable boat which is intended for use as a hire and drive vessel shall be constructed and equipped in accordance with the provisions of British Standard MA 16:1971 and the following additional requirements:

(a) Maximum number of person to be carried

Subject to sub-paragraphs (b) and (c) below the maximum number of persons to be carried in an inflatable boat shall be obtained from the following formula:

$$\text{Maximum No.} = \frac{\text{Rated Load} - F}{75}$$

where Rated Load = (750 x V)-M (kg)

V = volume of inflated buoyancy chambers (m³)

M = load of boat (kg) with equipment normally supplied by the manufacturer and inclusive of the following items of equipment required to be provided by the manufacturer under sub-clause 6.1 of British Standard MA 16:1971—

- (a) Hand-operated or foot-operated bellows
- (b) One pair of oars (with rowlocks) or paddles
- (c) Repair outfit
- (d) A manual of instructions

F = load of maximum recommended motor and fuel (kg).

(b) Damage Test

The Authority may require an inflatable boat to be tested with the largest buoyance chamber deflated, to ensure that the boat will support the number of persons it is intended to accommodate, together with weights equivalent to the engine and fuel; the persons being inside the boat.

(c) Swamp Test

The Authority may require a demonstration that the boat when fully swamped is capable of supporting the number of persons it is intended to accommodate together with weights equivalent to the engine and fuel.

(d) Satisfaction of Authority

The Authority may require such other data or tests as may be considered necessary to ensure that an inflatable boat is satisfactory for its intended use as a hire and drive vessel.

5.7 Houseboats

5.7.1 A houseboat shall comply with the provisions of this Section and such other Sections of the Code as the Authority may determine, including the following:

5.7.1.1 Freeboard

- (a) when fully loaded the height of the deck or top of the pontoon above the water at the lowest point, shall be:
 - (i) not less than 400 mm for houseboats of less than 6 metres in length;
 - (ii) 600 mm for houseboats of 20 metres or more in length; and
 - (iii) for houseboats of lengths between 6 metres and 20 metres, the minimum freeboard shall be determined by interpolation.

5.7.1.2 Subdivision and Buoyancy

- (a) The hull of a houseboat shall be sub-divided into watertight compartments so arranged as to provide an adequate reserve of buoyancy with any one compartment flooded; or
- (b) the hull of a houseboat shall be filled with 1 cubic metre of approved foam buoyancy per 800 kg of flooded mass.

5.7.1.3 Stability

A houseboat shall comply with the following elementary stability test:

when a number of persons equal to the total number for which the vessel is required to be certificated are placed on one side of the uppermost deck at its extreme breadth from the centreline of the hull, then the angle of heel shall not exceed seven degrees from the upright provided also that the freeboard of the hull on the heeled or immersed side measured from the inclined waterline to the intersection of the edge of the main deck line and sheerline of the main hull at its lowest point shall be not less than 25 per centum of the freeboard in the upright condition when fully loaded.

5.7.1.4 Engines

Houseboats may be propelled by:

- (a) inboard engines that operate on fuel having a flashpoint of not less than 60°C; or
- (b) outboard engines with fuel storage arrangements acceptable to the Authority.

5.7.1.5 Equipment

Every houseboat shall carry the following equipment:

- (a) navigation lights which comply with the requirements of the Authority;
- (b) a sound signalling device, which may be electric or other power operated, horn, whistle, siren or klaxon;
- (c) an electric signalling torch;
- (d) a hand bilge pump with a capacity of not less than 90 litres per minute provided that bilge pump may not be required on a houseboat with pontoon hulls having one compartment sub-division;
- (e) one 1.5 kilogram B.C.F. fire extinguisher;
- (f) one 4 kilogram dry powder, or an approved 9 litre foam extinguisher;
Note: Other types of approved extinguishing devices will be considered.
- (g) two metal buckets each of not less than 9 litre capacity and fitted with a lanyard of 2 metres; the buckets shall be painted red and shall have the word 'FIRE' marked on them in prominent white letters;
- (h) one 750 mm lifebuoy painted in a highly visible colour with 15 metres of line attached;
- (i) one 'Coastal' lifejacket for every person the vessel is certificated to carry;
- (j) (i) one anchor of weight to be specified by the Authority; and
(ii) one anchor line fitted with a chain pendant both of size and length as required by the Authority;
- (k) a first aid kit—in accordance with Appendix C;
- (l) one boat hook or barge pole.

5.7.7 Visibility

Every houseboat shall be constructed with a view to allowing maximum possible visibility for the helmsman from the operating position. The Authority may permit the use of rear vision mirrors to improve visibility astern.

APPENDIX A
FUEL SYSTEM

This Appendix contains the requirements for the fuel system of a Hire and Drive motor boat. It shall comply with clause 15 of the Engineering Section with the addition of the following:

Refuelling Instructions

Refuelling instructions should be permanently displayed in a position where they will be read by the operator. They should include the following (typical wording):

Refuelling Instructions. No Smoking. Engine Off, all switches off, all galley appliances or naked lights extinguished, ports, doors and hatches closed. Passengers ashore if practicable. Portable tanks to be taken out of boat for filling.

After refuelling, remove spillage, open ports, doors and hatches. The vessel is to be clear of explosive gases before relighting galley appliances or starting the engine .

APPENDIX B
SPECIFICATION FOR SEWAGE HOLDING TANKS

1. Materials

The tank shall be fabricated from non-corrodible materials such as fibreglass or approved plastic to the satisfaction of the Authority. Alternatively the tank may be protected internally by a continuous liner such as fibreglass mat or rubber and externally by a suitable coating. The tank shall be made in such a manner as to have a smooth uninterrupted interior surface free from projections or stiffeners. The shape of the tank may conform to that of the hull of the vessel, but the lower part shall be sloped to be self-cleansing.

2. Capacity

The system consisting of the toilet unit plus the holding tank shall have a capacity for storing wastes not less than that determined from the following tables:

<i>Length overall (metres)</i>	<i>Category of installation</i>			
	<i>Number of berths</i>			
	<i>9 or more</i>	<i>5-8</i>	<i>1-4</i>	<i>None but toilet fitted</i>
12 or more	A	A	A	A
9 or more but less than 12	A	B	B	B
6 or more but less than 9	A	B	C	C
less than 6, fitted with toilet	A	B	C	C

<i>Category of installation</i>	<i>Minimum volume of holding tank (litres)</i>	
	<i>Conventional toilet</i>	<i>Recirculating toilet</i>
A	180	90
B	140	70
C	70	35

3. Inlet to Tank

The toilet pan shall be located as close to the top of the tank as is practicable. The inlet connection should preferably terminate not less than 75 mm inside the tank.

4. Outlet from Tank

The outlet pipe from the tank shall be a minimum of 40 mm diameter and shall be so arranged that not more than 40 mm depth of waste shall remain in the tank after evacuation of the contents. The upper end of this pipe shall be rigidly attached to the vessel, and be exposed on, or accessible from, the deck external to the superstructure. The female side of a 40 mm diameter approved quick coupling shall be fitted to the upper end. A removable gas tight cover capable of protecting the seal shall be provided over this coupling.

5. Venting

A vent pipe of 40 mm diameter non-corrodible material shall be fitted to the top of the tank and extended to a point external to the superstructure and not less than 300 mm above the level of the pan seat.

6. Flushing Water Inlet

A 40 mm diameter pipe shall be fitted into the top of the tank for this purpose. This pipe shall be fitted with the female side of a 40 mm approved quick coupling device. This coupling end shall be rigidly attached to the vessel and be accessible from, or exposed on the deck, external to the superstructure. A removable gas tight cover capable of protecting the seal shall be provided over this coupling. The outlet may be used as the flushing water inlet.

7. Inspection Openings

A 100 mm diameter removable accessible inspection opening shall be provided in the top of the tank and shall be fitted with a gas tight cover except that an inspection opening need not be provided when a toilet with a mechanical seal is mounted directly on top of the holding tank.

8. Overflow

No overflow device shall be fitted to the holding tank.

9. Gas Tightness

When all removable gas tight covers are secured in position the tank and its fittings shall be thoroughly gas tight under all normal operating conditions except for the vent pipe provided specifically for that purpose.

APPENDIX C

FIRST AID KIT FOR HOUSE BOATS

To be a proprietary line first aid kit of common manufacture containing items similar to the following:

- Acriflavine
- Adhesive Plaster
- Aspirin
- Bandages
- Calomine Lotion
- Cotton wool
- Dressings
- Finger stall
- First aid pamphlet
- Gauze
- Burn and antiseptic cream
- Safety pins
- Sunburn cream
- Scissors
- Splinter forceps
- Splinter probe
- Torniquet

APPENDIX D

The maximum number of persons allowed on a Hire and Drive Motor Boat of 7.5 metres or more in length

1. The maximum number of unberthed persons allowed shall not exceed twelve or the least number arrived at by applying each of the provisions contained in the following paragraphs whichever is the lesser number:

1.1 the number arrived at by dividing by 0.56 the clear space available for their accommodation on the main and/or well deck, measured in square metres;

1.2 the number for which the seating accommodation is provided, by dividing by 0.6 the total length in metres of fixed seating;

1.3 the maximum number of persons obtained by loading the motor boat with weights representing the full number of persons at 90 kg to each person, and with full stores, equipment and fuel. In such conditions the freeboard at the lowest point shall be not less than 400 mm.

2. The maximum number of berthed persons allowed shall not exceed twelve or the number of berths provided, whichever is the lesser.

3. The number of persons as determined above shall not be allowed unless the Authority is satisfied that the seaworthiness and stability of the motor boat are such that it can with safety carry such number of persons on the waters on which it is to navigate.

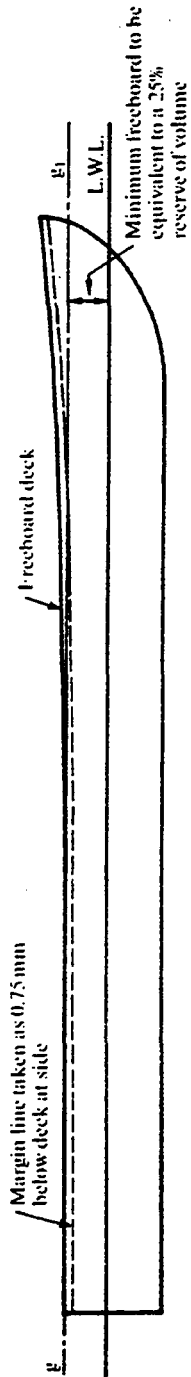


Figure A