

South of Perth Yacht Club



**MARINA REQUIREMENTS**

**AND**

**PENS & MOORING REGULATIONS**

### Fuel and Fuelling:

- Fuelling is only permitted at the Club fuelling berth. Closed containers of fuel may be taken off the or on board but transference from one container, or tank, to another is forbidden in the Club grounds, on any Club jetty or wharf, or in a craft in the Marina.
- Securing before taking fuel requires vessels to have all openings shut, all appliances, engines and motors turned off, including automatic bilge pumps and pilot flames and burners of gas units. All crew and other personnel not directly required to assist with the fuelling must be ashore and only re-embark after the engine has been started. All batteries to be isolated from the electrical system.
- Smoking is not permitted while refueling. Cigarette butts shall be extinguished and retained on board for disposal with rubbish and not thrown overboard.
- Pollution by allowing petrol, oil, or other flammable liquid or refuse contaminated with similar combustibles or pollutants to be discharged or thrown into the waters in the marina or precincts of the Club is not allowed.
- Bilge's shall be clean and free of oil and fuel and be adequately vented.
- No engine fuel shall be stored except that contained in the vessel's normal tanks, used when underway.
- Fuel shall only be carried in the Club grounds or mooring areas in containers approved for that purpose.
- No vessel shall be left unattended with its engine running while in the boat harbour or alongside any Club jetty or wharf.

### Equipment:

- As required by Transport: Marine Safety, fire extinguishers shall be readily available on every vessel having an engine of any description and moored in the boat harbour or using the Club's launching ramp. Flares, approved personal flotation devices, suitable anchors, chains and lines must be provided.
- Flares as required by Marine and Harbours Department Regulations shall be stored in a dry and accessible position.
- Personal flotation devices must be approved types meeting specifications of Standards Association of Australia AS1512, AS1499 or AS2260 and one must be provided for each person on board. The locker where life jackets are stowed must be labeled conspicuously "PERSONAL FLOTATION DEVICES"
- All fire extinguishers carried on board each vessel shall be made available for inspection upon request by the Club's Fire and Safety Officers. When instructed, such fire extinguishers shall be recharged at the owner's expense.
- Anchors – Ref: Navigable Waters Act – (52c). Every vessel when proceeding outside protected waters shall be equipped with an efficient anchor and line.
- Bollards – 1 (one) forward bollard and 2 (two) quarter bollards (together able to support half the weight of the basic craft) are required for mooring and rescue duty.
- Refrigerator and gas appliances shall not be fitted to any vessel without the prior approval of the Club's Fire and Safety Officers. Kerosene operated refrigerators are not permitted.

## Safety Requirements.

Under Club Regulations no vessel is permitted in the Club harbour without a current Fire and Safety Certificate, renewable every three years.

### Definitions:

- “Shall” and “Must” indicate provisions considered essential.
- “Should” and “Preferred” indicate advisory provisions.
- “Approved” means approved by or acceptable to any relevant Authority having jurisdiction.
- “S.A.A.” means Standards Association of Australia.
- “Quickly Accessible” means capable of **IMMEDIATE** access under emergency conditions.
- “Accessible” means capable of being reached readily for inspection and maintenance.
- “Portable Fuel Tanks” means tanks with a capacity not exceeding 45 litres which can be removed from the vessel for refilling etc.

### Fuelling Arrangements:

#### Tanks

- Tanks shall be constructed from copper, aluminium, stainless steel monel, terne coated mild steel or other **approved** material. **Note:** Copper is not recommended for use with two-stroke fuel. Reference is made to Navigable Waters Regulations – 52E\* (See page 5).
- Tanks shall not be an integral part of the hull structure and shall be so constructed that removal may be affected for inspection and repair if necessary. Steel and aluminium vessels may have integral tanks where such are certified as fuel tanks by a qualified Marine Surveyor.
- Tanks constructed from metal shall not rely on soft soldered joints alone, but shall be welded or riveted with rivets soldered over. The welding is to be pressure preferred. Fuel tanks should be pressure tested 35 kPa (3m-water head).
- Tanks should be located as far as practicable from engines and preferably as far aft as possible.
- Fuel shall not be carried or stored in plastic containers, except those approved under S.A.A. Standard AS1533 and then only as portable tanks.

### Fuel and Draw Off Lines:

- Tanks shall be filled only from a position outboard of the coaming except in the case of vessels with self draining cockpits when filling from a point in the cockpit floor will be acceptable, subject to 2.2.2 and 2.2.3.
- Fuelling shall be from a metallic deck-plate and when such plate is not connected to the tank by an unbroken metallic line, the deck-plate shall be ‘bonded’ (connected) to the tank by a copper metal strip, or stranded copper wire not less than flexed 2.5mm in size. Neoprene petrol hose having a “copper-earthing strip” embedded therein is acceptable. Care should be taken that the hose is correctly fitted, ensuring that the copper strip is securely clamped to the deck plate and the tank.

- The filling of tanks through a deck plate over a tank opening located under (that is, leaving a space between that opening and the deck plate) is **absolutely prohibited**.
- The use of spring clips to secure neoprene hose to deck plate and tank is prohibited. Positive screw type clamps (hose clamps) alone shall be used. 2 (two) should be used at each joint.
- Fill pipes entering the tank should be from the top and should extend to within about 2cm from the bottom of the tank.
- Gauging by sight glass may be approved for diesel fuel only, providing carefully maintained ball valves with spring loading to the shut position are provided, connected to the tank at the top and bottom. The sight glass should be approved hydrocarbon compatible plastic with 2 lose clips top and bottom or factory made union type ends. The whole assembly should be in a location sheltered from accidental impact or damages.
- Electric fuel gauges may be used. See also 2.2.10.
- Tanks shall be adequately vented outboard. Whilst neoprene or nylon tubing of not less than 1.5cm is acceptable, metallic tubing is preferred.
- The outboard end of such vents shall be covered with fine bronze mesh (90-110 mesh).
- Where aluminium fuel tanks are installed the tank shall be separated from any copper base alloy fittings (which include bronze, brass, etc.) by a galvanic barrier of stainless steel – marine grade or other approved material.

#### Fuel Draw Off Lines

- Fuel draw off lines should enter the tank from the top and extend to about 0.5cm from the bottom of the tank, if fuel pump systems are used.
- Fuel lines shall be metallic – copper, stainless steel, etc., with a minimum wall thickness of 0.9mm. Under no circumstances are plastic lines permitted. Refer Navigable Waters Regulations 52E (b) (see Page 5 Para 2 (c)). See also 2.3.7 relative to the use of flexible lines and 2.2.10 relative to aluminium tanks.
- Draw off lines shall be fitted with the shut off valve located as near to the tank as practicable. The leak proof diaphragm type is to be preferred but the needle type is acceptable. Pet cock and push bar types are prohibited.
- Solenoid shut off valves are acceptable provided that they are so wired that they close when the ignition is switched off in case of petrol engines or are interlocked with the stopping device in the case of diesels. Such valves have the added advantage that they act as anti-syphon devices also.
- Draw off lines shall be of adequate capacity and be adequately secured with the regard to chafing etc., throughout their entire length.
- Fittings should be of the ‘flare’ type, but solder type nipples are acceptable provided that hard solder is used.
- Flex lines, supplied engine or tank manufacturers are acceptable, provided they are visible throughout their entire length. Where the fuel line terminates at the engine a short length of flexible metallic or armoured neoprene shall be inserted to eliminate the risk of fracture through vibration caused hardening.
- Electrical continuity shall be preserved from the tank to the engine.

### Carburetors:

- Where carburetors are not of the 'down draft' type, a copper tray filled with clean sand or slag/wool shall be provided, to trap any fuel drips. The top of such tray shall be covered with fine bronze mesh (90-110 mesh).
- All motors shall be fitted with a functional flame arrestor to protect against 'flash back'.

### Rule 52E

- The following applies to the storage of fuel:
- Para. 2 (a) Fuel shall be carried in containers soundly constructed of metal or any other approved material and shall not be carried in plastic containers.
- Subject to paragraph (c) of this regulation, pipes leading from fuel tank to motor shall be of steel or copper, having all joints braised, and union points ground and made of metal.
- A short length of flexible piping may be used with the approval of the Department.
- An efficient valve shall be fitted against the fuel tank outlet.

### Electrical:

- Batteries shall be adequately secured against movement.
- An isolating switch shall be fitted in an accessible position and should be as close to the batteries as is practicable allowing for free flow of air through battery compartment.
- The isolating switch shall be capable of carrying and rupturing the full load current of the system – including that of the starter motor.
- The master switch shall be of a totally enclosed type.
- All vessels moored in the Boat Harbour or left unattended alongside any Club jetty or wharf shall isolate all batteries from the electrical system by means of approved enclosed switches.
- Regular inspections shall be carried out to ensure that all electrical wiring is in good condition and has not become frayed, or connections loosened. Suitable fuses and switches must protect all electrical circuits (other than self-starter circuits).
- No flammable liquid operated battery charger shall be left running while the vessel is unattended in the Boat Harbour or alongside any Club jetty or wharf.
- Where automatic bilge pumps are fitted, these shall be on a separate circuit protected by a cartridge type fuse located as close to the batteries as practicable and rupturing at not more than 25% above the rated full load current of the motor.

### **Switchboards and Wiring: (Low and Medium Voltage)**

- Wiring shall be of adequate size to carry the demand load – in no case less than the S.A.A. rating.
- Wiring shall be adequately secured with 'straddle' type fastening for preference, but clips are acceptable. The use of monel or other pins through the insulation to secure the cable is prohibited.
- Rubber insulated cable shall not be used.

- Cabling shall be routed so that it cannot come in contact with hot metal or be subject to chafing or strain.
- All switchboards should be of fire resisting material and where any individual switch or fuse is carrying more than 5 amps or the voltage exceeds 32, the board shall be of fire resisting material.
- Automatic circuit breakers are acceptable.
- Wiring for general lighting should be spread over several circuits, each separately fused.
- Wiring to running lights shall be of a separate circuit separately fused with separate switching for sidelights and masthead if the masthead is also used as an anchor light.
- If a separate 'anchor light' is fitted it shall be on a separate switch. Reference should be made to the Western Australian Marine Act relative to lighting.
- Starters and generators, if not of the fully enclosed type, shall have open-end bells with fine bronze gauze (90 - 110 mesh).
- Reverse current relays, voltage regulators etc., shall be situated where they cannot be surrounded by fuel vapour or shall be of the totally enclosed type.
- Permanent shore power 240v installations shall comply with Western Power regulations with appropriate certification.

#### Fire Extinguishers:

- Reference should be made to the Western Australian Marine Act \* (Section 52) relevant to the necessity for extinguishers to comply with the appropriate SAA Code for the type used.
- \*NB (Section 52 – Every motor boat propelled by an outboard of 13.5 kW (10 HP) shall be equipped with an efficient fire extinguisher.
- Relevant SAA codes:
- Foam Types AS 1841.1 & 1841.4
- Dry Chemicals AS 1841.1 & 1841.5
- Carbon Dioxide AS 1847

Craft shall be equipped with the fire extinguishers and minimum number and sizes according to the Table hereunder:

|                              | Min<br>Nos. | Type      | Min<br>Size |
|------------------------------|-------------|-----------|-------------|
| Open boats under 4.8m LOA    | 1           | DC or HHC | 0.9 kg      |
| Open boats over 4.8m LOA     | 2           | DC or HHC | 0.9 kg      |
| Cabin or enclosed under 7.5m | 2           | DC or HHC | 0.9 kg      |
| Cabin or enclosed over 7.5m  | 3           | DC or HHC | 0.9 kg      |

Extinguishers shall be located in a conspicuous and quickly accessible position. Where not located in a conspicuous position, their location shall be indicated in an appropriate and obvious manner.

## L.P. GAS:

It is a requirement of Alinta Gas that all LP and HP gas installations in marine craft be carried out by a licensed installer, who will issue a compliance sticker to the vessel on completion.

- All LP gas appliances shall be installed according to the regulations of Alinta Gas. Proof of compliance is required. The Safety Officer will inspect installations prior to October 1984, and not carrying a compliance sticker.
- All LP gas cylinders shall be located above the water line and, except where carried on a flying bridge, in a secure container or box, gas tight to the interior of the vessel and shall be vented to the outside of the hull, or properly constructed self draining cockpit.
- The pressure-reducing valve between cylinder and appliance shall be located as close as practicable to the cylinder. If not fastened to the cylinder then it must be secured to the structure of the vessel and connected by a looped pipe to allow a degree of flexibility.
- Gas lines shall be to the same specifications as those for fuel, (see 2.3.2) – and where lines are of metal and to be connected to gimballed appliances, a flexible line of adequate length and of approved construction shall be inserted between the appliance and the end of the line.
- Each LP gas appliance shall have a notice fixed adjacent to it where such notice can be readily seen. The notice is to be a minimum of 75mm high and 150mm wide, and have white letters on a red background reading as follows:

### **REMEMBER TO TURN OFF GAS AT BOTTLE**

- Where more than one LP gas appliance is installed, each appliance shall have an approved type shut off valve located adjacent to the appliance.

## High Pressure Gas

- Maximum gas capacity will be 10 kg per bottle.
- HPG bottles and appliances must be properly secured.

## Other Requirements:

- Kerosene refrigerators are **not** permitted.
- All craft shall carry other safety equipment as required by Department of Marine and Harbours WA. Ref: Navigable Waters Regulations.

## Battery Chargers:

Battery trickle chargers or other electrical equipment attached to the Club's power mains, are permitted to be left unattended under the following conditions only and after inspection by the Club's Fire and Safety Officer.

- A suitable fuse shall be fitted on the AC side of the Battery Charger.
- The lead from AC mains to the vessel shall be of 3 core PVC or TRS in good condition. Such lead shall be attached to the vessel in such a manner that no chafing or rubbing can occur at the point of attachment to the vessel and jetty, wharf or pile, or between the vessel and any other vessel.

- Where applicable any or all of the above rules are for **Trailer Vessels** with engines of any type or size, using the Club's launching ramps or operating in the Club's areas.
- Trailers entering the Club's premises shall have the owner's and phone number painted visibly on the tow bar in waterproof paint.
- Vessels must be re-inspected for Marina Compliance if:
  - Ownership changes
  - (Note: Marina Compliance certificates are in the Owner's name as well as the craft).
  - Engines are replaced.
  - Any alterations or additions are carried out which effect fuel, gas or electrical installations.
- To avoid the risk of fire on board:
  - Keep bilges clean and free from petrol and oil by regularly using some detergent liquid poured into the bilges.
  - No gas-operated refrigerator shall be left in operation while the vessel is in the Boat Harbour or alongside any Club jetty or wharf.
  - No vessel shall have stored on board any thinners, paint or lacquer or any flammable liquids not used for heating, cooking or lighting.
  - Rags soaked in paint, thinners or oil shall not be left on board.