

16	<p>All vessels require the following distress frequencies: 4125, 6215, 8291 kHz, (it is recommended that 2182 kHz be retained). All vessels must also fit at least ONE of the following weather warning frequencies appropriate to the area of operation:- 2056, 4149, 6230, 8113, 12362, 16528 kHz, as well as the navigation warning frequency of 8176 kHz.</p> <p>A call sign and tuning card for these frequencies shall be displayed next to the radio. The radio station licence and operator's certificate are to be produced at the time of survey. A test call will be made.</p> <p>An approved EPIRB for waters class D and above (121.5/243 or 406 MHz) shall be carried, mounted in the wheelhouse or liferaft.</p> <p>The Fire pump(s) will be tested with the fire hose and nozzle fitted.</p> <p>Fixed fire fighting installation is to be serviced annually and a copy of the service document provided.</p> <p>Fixed fire fighting systems are to have an alarm fitted that is audible from the helm whilst underway. Detectors that are fitted in lieu of structural fire protection in accommodation, control and high risk spaces, are to meet the same requirements as, and can be incorporated in, the detection system fitted for the propulsion machinery space.</p> <p>CO<sub>2</sub> systems to be fitted with an isolation valve (AS 4214).</p> <p>Minimum size of foam fire extinguisher is 9 litre,  Minimum size of dry powder extinguisher is 4.5kg,  Minimum size of CO<sub>2</sub> extinguisher is 3kg.</p> <p>An Emergency source of electrical power shall be:</p> <ol style="list-style-type: none"> <li>Accumulator Battery (not starting batteries),</li> <li>A generator driven by a compression ignition engine.</li> </ol> <p>For further information on Emergency Electrical Equipment refer to attached sheet (<b>Emergency Electrical Installations</b>).</p> <p>Engine starting batteries on new or modified vessels shall be fitted as high as practicable, above the deepest loaded waterline.</p>
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19	<p><b>All portable extinguishers must be serviced annually.</b></p>
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18	<p><b>AT EACH PERIODICAL SURVEY OF THE VESSEL, THE SURVEYOR MAY ALSO INSPECT THE FOLLOWING:  (MANY SMALL VESSELS WILL NOT HAVE ALL OF THE FOLLOWING ITEMS).</b></p>
22	Main and auxiliary machinery, controls and instruments: engines will be tested whenever practical.
23	Cooling system, exhaust system and fuel system, (exhausts shall be lagged).
24	Steering systems, emergency steering, (recommended but not mandatory on twin-screw vessels).
25	LPG installation, (LPG audible alarm and solenoid cut-off to be functional). Pressure vessels. Electrical installation, (Note: Residual Current Device's ( RCD's) required on systems exceeding 32 volts)
26	Pipe work, (sea water rubber hoses must be double-clipped each end). Approved rubber hose to be used eg "Dunlop Diamond 404".
27	Machinery guards on all rotating machinery.
28	Cargo/fishing gear, including winches, cranes, deck machinery etc.
29	Alarm systems, ( <b>All vessels</b> require a machinery space bilge alarm, <b>audible at helm</b> ).
30	A bilge alarm is required in all compartments where sea water pumping systems are fitted.
31	<b>The bilge alarm must <u>not</u> operate off the same float switch that operates the electric bilge pump.</b>
32	Bilge system. Pumps will be tested whenever practical.
33	Emergency shut-offs on fuel valves, engine room fans etc, vent closures.
34	Watertight integrity - doors, hatches, closing devices, windows, ventilators, etc.
35	Guardrails, freeing ports, emergency escapes.

**EQUIPMENT LIST &  
SURVEY REQUIREMENTS FOR  
CLASS 1B VESSELS**

**Less than 25 Metres in Length  
and under 500 tons GRT**

**DATE OF ISSUE: DEC 2004**

**IMPORTANT**

This leaflet has been designed to assist a vessel owner in preparing a vessel for periodical survey in accordance with the Western Australian Marine Act.

This leaflet is not intended to cover every aspect of survey, and compliance with this leaflet does not necessarily constitute compliance with all relevant statutes.

For further information, please contact the **COMMERCIAL VESSEL SAFETY BRANCH** at:.

1 ESSEX ST, FREMANTLE.  
P.O. BOX 402, FREMANTLE, W.A. 6959  
TELEPHONE: (08) 9216 8237  
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**CLASS 1B EQUIPMENT CHECK LIST: (To be read with corresponding note numbers below).**

NOTE	SURVEY ITEM	VESSEL LENGTH	REQUIREMENTS
1	LIFERAFT	LESS THAN 25m	Coastal liferaft/lifeboat for 100% complement, <b>REFER NOTE 1</b>
2	LIFEBUOYS	10m TO 25m LESS THAN 10m	2 Lifebuoys, one with self-igniting light, one with buoyant line, 1 Lifebuoy, with self-igniting light.
3	LIFEJACKETS	ALL LENGTHS	A SOLAS Lifejacket fitted with a light and whistle for each person of mass 32kg and over that the vessel is certified for, plus A SOLAS Lifejacket for each person of mass of less than 32kg that the vessel is certified for,
4	PYROTECHNICS	ALL LENGTHS	3 Parachute Rockets, 2 Red hand flares and 1 Orange smoke signal.
5	SOUND SIGNAL	ALL LENGTHS	Horn or portable air/gas horn.
6	MISCELLANEOUS EQUIPMENT	ALL LENGTHS	Chronometer, Deck Watch or timepiece of equivalent accuracy, Sextant, ( <i>Exemption may apply</i> ) Pair of Binoculars fitted with neck strap and carrying case, Barometer, Depth Sounding Device (Echo Sounder), Hand lead line, ( <i>Exemption may apply</i> ) Daylight Signalling light, Flags N & C of International Code of Signals, Charts and Nautical publications suitable for the vessel's area of operation, An Accommodation Ladder or Gangway, Safety Net, Electronic navigational aids as are considered necessary by the Department, Anchors, anchor chain (or rope), anchor winch, Ropes and Lines of sufficient number, length and strength for the size and service of the vessel, First aid kit to Scale D (Unberthed and Berthed passengers), Vessel Record Book (Log Book), Navigation lights and shapes appropriate to vessel's operation, Compass, Gas detector for LPG installations, Approved radio installation and an approved EPIRB.
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17	FIRE PUMP	15m TO 25m	1 Fire pump, with hydrants and hoses with nozzles to suit for every hydrant fitted.
	EMERGENCY FIRE PUMP	LESS THAN 25m	1 manually operated fire pump in a position outside the machinery space.
18	FIXED FIRE SYSTEM	12.5m and over but less than 25m	Fitted in propulsion machinery space.
19	FIRE EXTINGUISHERS	ALL LENGTHS 20m TO 25m 15m TO 20m LESS THAN 15m	1 for each passenger space and crew space on each deck and one in each galley, 3 suitable for extinguishing oil fires, for use in each propelling machinery spaces, 2 suitable for extinguishing oil fires, for use in each propelling machinery spaces, 1 suitable for extinguishing oil fires, for use in each propelling machinery spaces. <b>REFER NOTE 19</b>
20	EMERGENCY ELECTRICAL EQUIPMENT	ALL LENGTHS	A self contained emergency electrical installation, in addition to main generating set, able to simultaneously operate emergency bilge pumps, watertight doors, indicators, fire protection system, emergency lighting, emergency signals, navigation lights and communications equipment for continuous operation for 12 hours.
	<b>21 to 33 - VARIOUS</b>	ALL LENGTHS	ITEMS CHECKED AT PERIODIC SURVEY - <b>REFER NOTES 21 to 33 BELOW</b>

Refer to corresponding notes

**NOTES**

**THESE NOTES REFER TO CORRESPONDING EQUIPMENT NOTE NUMBERS ABOVE**

- Inflatable Liferaft's shall be serviced annually.** Inflatable Liferaft's shall be identified with vessel's name, fitted with reflective tape 300mm long, 50mm wide and spaced at 500mm centres. Liferaft's are to be fitted with hydrostatic release and weak link, or be float free with a weak link, or be fitted to approved launching device. Vessels of less than 15 metres fitted with approved internal buoyancy in lieu of single compartment subdivision are required to carry the prescribed Liferaft(s) for 100% complement.
- Lifebuoys shall be identified with vessel's name and four bands of reflective tape at 90° to each other. The self-igniting light is to be attached to one lifebuoy and a minimum of 27m of buoyant line attached to the other. Lifebuoys must be readily accessible.
- Lifejackets shall be identified with vessel's name, fitted with reflective tape, SOLAS approved self-igniting light and whistle. Jackets are to be stowed in an easily accessible place for emergency use. 5% of each size of Lifejacket shall be stowed in a conspicuous place on deck.  
**"SOLAS" jackets are minimum requirement for Class B vessels.**
- Pyrotechnics shall be renewed by the manufacturer's expiry date marked on each one.
- Horn must give a minimum of 110 dB.
- Clock shall be positioned so to be in view of radio installation.
- Hand Lead Line if used is to consist of at least a 3kg lead and line of at least 46m, correctly marked.
- Daylight Signalling Light shall have the facility for flashing, not just an on/off switch. The signalling light shall not be solely dependant upon the vessel's main source of power.
- The minimum size of the flags is 600mm x 400mm.
- Anchors up to 25kg may be fitted with rope in lieu of chain; but at least 3m of chain must be shackled between rope and anchor, Anchors 25kg to 49kg may be fitted with rope, providing 6m of chain is shackled between rope and anchor, Anchors 50kg to 100kg:- one anchor to have a chain shackled to it, the other anchor may be fitted with rope with 6m of chain shackled to it, Anchors over 100kg:- both anchors require chain to be shackled to them.  
**A manual anchor winch is required for anchors over 30kg, with a powered anchor winch for anchors over 50kg.**
- For a complete First Aid equipment list, contact the Department, (contact numbers can be found on the front of this Pamphlet).
- A book designated as the log book is required to be kept on board at all times and made available to the surveyor on completion of the survey.
- Navigation lights will be tested at survey. Anchor and Masthead lights are to be individually switched.
- The compass is to be adjusted every 3 years and the deviation card displayed adjacent to the steering position.
- If LPG is fitted a gas detector is required if it is possible for the gas to leak below deck or accumulate in the vessel.

**CONTINUED OVERLEAF**

# Class 1B - Emergency Electrical Installation

The emergency source of power including any fuel supply shall be situated outside of the propulsion machinery space, not forward of the collision bulkhead and be above the uppermost continuous deck.

An emergency source of electrical power including any fuel supply shall be so situated within the vessel in relation to the main source of electrical power, that a fire or other casualty occurring in the propulsion machinery space will not interfere with the supply or distribution of emergency power outside that space.

The emergency generator and its prime-mover and any emergency accumulator battery shall be so arranged as to ensure that it will operate at full rated power when it is upright and when inclined at any angle of list up to and including 22° either way or up to and including 10° inclination either way in the fore and aft direction, or is in any combination of angles within those limits.

## Battery

An accumulator battery shall be capable of carrying the total emergency load without recharging or excessive voltage drop for the time specified at item 20 for Class 1B which is 12 hours. An accumulator battery shall comply with Section 9, sub-clause 27.12 of the Uniform Shipping Laws Code where applicable. Where a Class 1B vessel has an emergency source of power from an accumulator battery only, then in the event of failure of the main electrical supply the emergency lighting shall automatically come into operation.

## Internal Combustion Engine Prime Mover.

Fuel for an internal combustion engine shall:

- (a) have a flash point of not less than 60 °C; and
- (b) be sufficient for the time specified at item 20, where an emergency fire pump is supplied with power from an emergency generator, be sufficient for 12 hours full rated operation of the pump.

An emergency generator shall be installed in a space affording protection from the weather and such space shall be adequately ventilated to allow the generator to operate at full power.

Starting arrangements shall comply with the following:

- (a) An engine may be hand started;
- (b) Where an engine is not hand started, the starting equipment shall be capable of effecting 12 consecutive cold starts in a period of not more than 30 minutes and where the emergency generator supplies power to an emergency fire pump shall also be capable of effecting 4 cold starts in a period of not more than 10 minutes;
- (c) The consecutive starts required by the preceding sub-paragraph shall be obtained independently of any machinery wiring or other equipment situated:
  - (i) below the bulkhead deck in the case of a passenger vessel;
  - (ii) forward of the collision bulkhead;
  - (iii) in the space containing the main source of electrical power; and
  - (iv) in a space which would be rendered inaccessible or uninhabitable by a fire or other casualty in the space containing the main source of electrical power; and
- (d) Where compressed air is used as the sole means of starting an engine then a manually operated air compressor or manual start mechanically driven air compressor unit shall be provided. If only a manual operated compressor is fitted a small air bottle which will provide one start of the engine shall be fitted in addition to the main air receiver for the engine and both shall be capable of being supplied from the vessel's main compressed air system. Where an air receiver for an emergency generator has a supply from the main or auxiliary compressed air system then the air supply line shall be fitted with a non-return valve and the non-return valve shall be located in the emergency generator space.

## Temporary Source of Emergency Power

Where a Class 1B vessel is provided with a generator as an emergency power source then a temporary source of emergency power shall be provided consisting of an accumulator battery of sufficient capacity:

- (a) to supply emergency lighting continuously for half an hour;
- (b) to close the water tight doors (if electrically operated) but not necessarily to close them all simultaneously;
- (c) to operate the indicators (if electrically operated) which give warning that power operated watertight doors are about to close; and
- (d) to operate the sound signals (if electrically operated) which give warning that power operated watertight doors are about to close.

The temporary source of emergency power shall come into operation automatically in the event of failure of the main electrical supply.

## Emergency Switchboard

An emergency switchboard forming part of the emergency electrical installation shall be installed as near as practicable to the source of emergency power except that:

- (a) Where a generator is provided as the emergency source of electrical power then the emergency switchboard shall be located in the same space as the generator, unless the operation of the emergency switchboard would be impaired; and
- (b) Where an accumulator battery is provided as the emergency source of electrical power then the battery shall not be installed in the same space as the emergency switchboard.

An emergency switchboard may be supplied from the main switchboard in normal operation.

## Items Supplied With Emergency Power

Items required to be supplied with emergency power are as follows:

- (a) An emergency bilge pump where electrically operated;
- (b) A watertight door where electrically operated;
- (c) An indicator which shows whether a power operated door is open or closed and the sound signals which give warning that a power operated door is about to close ;
- (d) A fire protection system;
- (e) Emergency lighting;
- (f) Emergency signals;
- (g) Navigation lights
- (h) Communication equipment;

CONTINUED OVERLEAF

- (j) A day light signaling lamp;
- (k) The fire protection system; and
- (l) An audible gas release alarm fitted to any vessel fitted with a fixed smothering gas installation.

Where a vessel is fitted with an automatic sprinkler system for the protection of an accommodation space, then the sprinkler pump shall be capable of being operated by the emergency supply.

#### **Emergency Lighting**

Emergency lighting shall be so situated to illuminate:

- (a) service and accommodation alleyways, stairways and exits and personnel lift cars;
- (b) the trunks of personnel lifts, where the lifts are not for use by passengers;
- (c) the machinery spaces and main generating stations including their control positions;
- (d) control stations and all machinery control rooms;
- (e) the stowage positions for firemen's outfits;
- (f) the steering gear;
- (g) sprinkler pumps, emergency fire pumps, emergency bilge pumps and the starting position for the motors of these pumps;;
- (h) stowage positions of life rafts for which launching devices are not provided; and
- (i) life rafts and the launching devices for the life rafts during the preparation for and the process of launching and the water into which the life rafts are launched until the process of launching is completed.

#### **Lifts**

A lift for use by crew or passengers, that is not arranged such that in the event of a main power failure the lift car will come to rest at a normal or emergency exit point, shall be supplied from an emergency source of power which would allow the loaded lift car to be brought abreast of an exit point and the lift car doors to be opened.

#### **Notes:**