

LIFE-SAVING APPLIANCES POCKET CHECKLIST

Reducing the risk of Port State Control detentions

In conjunction with:

UK P&I CLUB 



**Lloyd's
Register**

LIFE MATTERS

Introduction

During the period 2005–2007, approximately 2,500 crew and passengers were reported killed or missing from lost ships. Additionally, there are increasing numbers of accidents and fatalities during routine lifeboat and inspection drills. It is therefore essential that ship personnel are appropriately trained in how to inspect, maintain and operate equipment and that the equipment is ready for use at all times.

Being prepared can mean the difference between lives lost or lives saved.

In conjunction with an industry partner, the UK P&I Club, we have analysed data relating to life-saving appliances, including deficiencies found by Port State Control officers. The result is this re-usable checklist, which highlights the most common deficiencies and lists them in convenient sections.

As a minimum, the items on the chart on page 4 should be included as part of your final checks prior to voyage and port entry. It is strongly advised that all items in this *aide memoire* are checked on an ongoing basis to supplement your own operational and maintenance procedures and your flag State's requirements.

This is the third in a series of pocket checklists to help you comply with international convention requirements. For information about our other checklists please visit www.lr.org.

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Are you prepared for a Port State Control Inspection?

PSC officers always commence their inspection in the Master's office. It is essential that certification is up-to-date and valid. All other necessary documents, records and manuals should, where required, be approved and on board.

If equipment is broken or missing, or the ship has suffered damage enroute, the Master must notify the port authorities prior to port entry. If the port authorities are informed of the problem and of any permanent or temporary remedies agreed with the flag State, the vessel should not be detained. However, if notice is not given before entry, the Port State has clear grounds for inspection, possibly leading to a detention.

If your ship is detained, or appears to be in the process of being detained, you should contact the nearest Lloyd's Register Group office immediately for assistance.

The major PSC organisations publish their criteria for targeting a ship on their web sites. Ship owners and operators should use these criteria to calculate the target rating of their ships.

Paris MOU - www.parismou.org

Tokyo MOU - www.tokyo-mou.org

USCG - <http://homeport.uscg.mil/mycg/portal/ep/home.do>

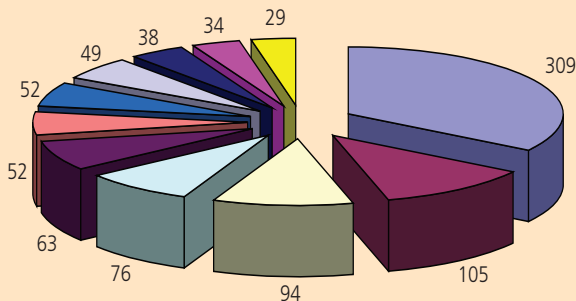
Other MOUs include Abuja, Black Sea, Caribbean, Indian Ocean, Mediterranean, Riyadh and Vina del Mar.

A ship operator may disagree with the findings of the PSC Authority and the majority of the regional PSC organisations have guidelines on how to appeal against a detention. These can also be found on the above web sites.

IMO Procedures for Port State Control, Appendix 1 also provides guidelines on detentions [ISBN: 92-801-5099-5].

Life-Saving Appliance deficiencies

The following are the most common Life-Saving appliance deficiencies (by number) found by Port State Control officers on ships classed by Lloyd's Register between 2005–2007



- 0610 lifeboats [309]
- 0630 launching arrangements for survival craft [105]
- 0650 lifebuoys [94]
- 0611 lifeboat inventory [76]
- 0620 inflatable liferafts [63]
- 0660 lifejackets [52]
- 0692 operational readiness maintenance and inspections [52]
- 0695 on board training and instructions [49]
- 0680 embarkation arrangements survival craft [38]
- 0615 rescue boats [34]
- 0628 stowage of liferafts [29]

1. Certificates

The following certificates must be carried on board.

- Cargo Ship Safety Equipment or Passenger Ship Safety**
 - including the Record of Safety Equipment (Form E or Form P)
- Cargo Ship Safety Radio**
 - including the Record of Equipment (Form R)
- Lifeboat**
 - certificate of approval and for self-contained air support system, fire protection and on-load release gear, if provided
- Rescue boats (together with release arrangements)**
 - certificate of approval
- Liferaft**
 - certificate of approval
 - hydrostatic release unit other than disposable
- Launching Appliances**
 - certificate of approval for davits including liferaft davits if fitted
- Air supply bottles hydrostatic test, if fitted**
- Search and Rescue Transponder (SART)**
- Emergency Position Indicating Radio Beacon (EPIRB)**

2. Documents and records

The following documents and records must be carried on board and be current, original and approved, where required.

1. **Instructions for on-board maintenance or a ship-board planned maintenance programme**
2. **SOLAS training manuals and on-board training aids**
3. **Muster list and emergency instructions**
4. **Radio station licence**
5. **Records of inspection, maintenance, testing and drills**
6. **Records of crew familiarisation with fire and abandon ship drills**

Inspection and testing

7. **Inspection and testing of life-saving and launching appliances**
 - includes on-load release gear, where fitted
8. **Communications equipment**
9. **Lifeboat / rescue boat engine**
 - weekly test conducted and recorded
10. **Emergency lighting**
11. **Weekly and on-load engine tests conducted and recorded**
12. **EPIRB shore-based maintenance**
13. **Liferaft servicing at an approved service station**

2. Documents and records, continued

- 14. Servicing of fire-extinguishers in lifeboats
- 15. Hydrostatic test of air supply bottles, where fitted

Correctly mounted Hydrostatic Release Unit (HRU) on an inflatable liferaft



Incorrectly mounted HRU on an inflatable liferaft. The painter should be attached to the HRU

Note:

Photograph records, with dates, provide good evidence of drills being regularly held.

3. Launching and stowage arrangements for lifeboats

At all times, all equipment should be ready for operation, well maintained and inspected regularly.

1. **Davits and falls**
 - all moving parts well greased and free
 - no corrosion, knife edges, cracks or holes
 - correctly marked
 - winches and brakes in good order and maintained
 - cut-out switches properly maintained
 - fall wires to be maintained as per SOLAS
 - securing devices and terminations properly maintained
 - tricing pendant and man ropes correctly maintained and rigged (as applicable)
2. **Bowsing tackles (if applicable) properly attached and ready for use**
3. **Embarkation arrangements**
 - Adequate lighting, emergency lighting, signs, etc.
 - Embarkation ladder and securing arrangements in good condition and of adequate length
 - Applicable launching instructions displayed

Notes:

1. It is recommended that the decks at the embarkation areas have a non-skid coating.
2. Launching arrangements are to be checked annually by the manufacturer or person certified by the manufacturer.

4. Lifeboats all types

At all times, all equipment should be ready for operation, well maintained and inspected regularly.

Structure

- Hull in good condition**
 - No deterioration in way of bearing surfaces
 - No cracks in hull and buoyancy tanks or corners of thwarts and, if required, all cracks repaired by approved means
 - Bilge keels not corroded and effectively attached
 - Grab lines effectively attached
- Connections to boat / rafts in good condition**
 - Hanging hooks not corroded
 - Keel plate connections and pins in good condition

Engine

- Starts readily**
- Battery charger(s) connected and maintained**
- Batteries tested to ensure charged, alternative starting arrangement present (hand crank)**
- Exhaust protected (insulated)**
- Sufficient fuel and no leaks of fuel or lubeoil**

General

- Rudder and stock in good working order**
- Hook release mechanism well maintained**
- Brake release arrangement functions correctly**

4. *Lifeboats all types, continued*

- 11. **Bilge pump in good condition**
 - evidence of suction
- 12. **Plugs operable and free but permanently attached**
- 13. **Lifeboat painter in good condition and correctly rigged**
- 14. **All markings clear and visible, including seat markings**
 - white painted or retro-reflective tape for night visibility
- 15. **Grab rails and lanyards in good condition**
- 16. **On-board air system, where provided, in good order**
- 17. **Overall water-spray systems, where provided, tested and operational**
- 18. **Operational instructions correctly displayed inside and outside boat(s)**
- 19. **VHF radio-telephone, where provided, in good order**

Notes:

1. Engine must be able to start without 'magic spray' (engine spray).
2. Test for deterioration of gel coat and fibre layers and check for glazing of the gel coat.
3. The lifeboat capacity which is marked on the outside of the boat should be the same as the number on the certificate of approval.

5. Free-fall lifeboats

At all times, all equipment should be ready for operation, well maintained and inspected regularly.

1. **Correctly secured and stowed**
2. **Well maintained with seat belts and head restraints in good order**
3. **Hook release well maintained and charged with hydrostatic oil as necessary**

6. Lifeboat inventory

At all times, all equipment should be available, ready for operation, well maintained and inspected regularly.

1. **Distress flares in date**
2. **Stores correctly maintained and well stowed including water and rations**
3. **Buoyant oars and rowlocks, where required**
4. **Protecting cover provided**
5. **Sails provided, where required**
6. **Sea anchor with shock resistant hawser and a tripping line**



Corroded stores compartment

Note:

The above items are those which are most commonly found deficient by Port State Control Officers. A full list of lifeboat stores / inventory can be found in the LSA Code - International Life-Saving Appliance Code.

7. Inflatable Liferafts

At all times, all equipment should be ready for operation, well maintained and inspected regularly.

1. **Weak link correctly positioned and hydrostatic release in date**
2. **Number and capacity as per Form E or Form P**
3. **Fall wires to be maintained as per SOLAS**
4. **Launching arrangements approved by manufacture and instructions clearly visible**
5. **Correctly stowed, secured and clear of obstructions and free from damage to packaging and sealing**
6. **Correctly positioned on board**
7. **Correctly marked with ships' name, servicing details, validity period and capacity**
8. **Painter of adequate length according to the stowed height to the water**

Note:

If a forward liferaft is required, it should be provided with an embarkation ladder, emergency lighting and the required number of lifejackets. This is also applicable to the aft liferaft of many ro-ro ships and some other ships with forward accommodation.

8. Rescue boats (if fitted)

At all times, all equipment required in accordance with the LSA Code should be ready for operation, well maintained and inspected regularly.

Also see deficiencies relating to lifeboats.

1. **Stowed and positioned correctly**
2. **Inventory correct and up-to-date**
3. **Launching and recovery arrangements**
4. **Lighting, emergency lighting and signs**
5. **Inflatable compartments appropriately pressurised**
6. **Propeller guard in place**
7. **Rescue boat personnel documented and fully familiar with all details of launching and operation**
8. **Engine should be serviced in accordance with the engine manual**

9. Miscellaneous

At all times, all equipment should be ready for operation, well maintained and inspected regularly.

1. **Lifebuoys**
 - correct numbers and location with appropriate marking
 - Lights and lines of correct type and fitted and rigged as per SOLAS
 - bridge wing man overboard light and smoke floats in date, correctly rigged, not damaged and fitted to correct weight lifebuoys
2. **Lifejackets and inflatable lifejackets**
 - correct numbers and location with appropriate marking
 - infant lifejackets to be provided, if appropriate and marked, as necessary
 - in good condition, securing tapes not knotted and not rotten
 - lights not cracked and in date
 - servicing, where applicable
 - equipped with operational whistle
 - reflective tapes in good order
3. **Immersion suits, if required**
 - correct numbers, correctly positioned and in good condition
4. **Radio life-saving appliances**
 - float-free EPIRB checked for date verification of hydrostatic release unit (HRU) and batteries
 - at least one SART provided on each side of the bridge and battery dates verified

9. *Miscellaneous, continued*

- 5. **2-way radiotelephone apparatus for survival craft**
 - 2 or 3 sets as applicable to ship type and size
 - spare sealed lithium batteries available for all sets and in date
 - do not use sets for general communication on board
- 6. **General emergency alarm is functional**
- 7. **Line throwing appliances**
 - appropriate numbers
 - lines in good condition and inspected
 - instructions in use provided

Notes:

1. In the case of large ships with high accommodation blocks, which have lifeboats stowed considerably lower, SARTS may be stowed each side in the vicinity of the lifeboats.
2. In the case of a stern-launched freefall lifeboat, one SART is kept on the bridge and one SART is kept in the vicinity of the lifeboat.

10. Drills

At all times, all equipment should be ready for operation, well maintained and inspected regularly.

- Drills are to be carried out in accordance with SOLAS**
 - check that the sheaves are running free
 - check winch operation, brakes and clutch
 - check man ropes
 - check condition and attachments of the bowsing tackles
 - check davit limit switches
 - check crew familiarisation with fire and abandon ship drills
- On-board training and instructions**
 - manuals available including maintenance
 - ongoing training and familiarisation with all equipment
- Abandon ship drill**
 - lifeboats and rescue boats to be launched, lowered and manoeuvred in water in accordance with SOLAS and flag Administration requirements.
- Man Overboard drills carried out**
 - crew musters
 - rescue boat launched
 - Williamson Turn (Man overboard turn) completed

Note:

IMO MSC.1/Circ.1206 provides guidance on 'Measures To Prevent Accidents With Lifeboats'.

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The UK P&I Club is the world's largest mutual P&I club currently insuring over 150 million gross tons of owned and chartered shipping in sixty countries.

The Club publishes loss prevention material through a wide range of media on topics such as hazardous cargo in containers, human error, personal injury and maritime security.

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