



# The DNV Guide to PORT STATE CONTROL

Version 1.0 (January 2000)

## OBJECTIVE & TARGETS

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## AREAS OF INTEREST

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- [The critical areas](#)

## RESOURCES

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**DNV's main objective is to safeguard life, property and protect the marine environment. The best way of improving safety and the marine environment is to ensure compliance with the international regulations which have been adopted by the International Maritime Organisation (IMO).**

In the 1980s and 1990s the number of substandard ships increased significantly. This was seen by many governments as a threat to life and environment. Therefore, the majority of IMO member Governments have agreed to use greater efforts to ensure compliance with IMO regulations that are in force in order to eliminate substandard ships.

The need for a more efficient Port State Control (PSC) was considered necessary to safeguard their ports and national waters. Consequently, regional agreements concerning Port State Control have been reached resulting in more effective Port State Control around the world.

DNV has developed this guide as a tool to assist ship masters, officers on board and ashore to achieve compliance with the requirements on safety and pollution protection and to be prepared for Port State Control inspections world wide. This is done through an increased awareness of preventive maintenance as well as an increased understanding of PSC scope, procedures and practice. This guide, which may be considered a supplement to ship's maintenance system, will guide those on board to have a better focus on preventive maintenance of main and critical areas on board that are normally in focus of Port State Control. By doing so, they should achieve compliance and be better prepared for PSC inspections.

We wish you good luck on the tour through this guide. Most of all, of course, we wish you good luck on your journey at sea.

DNV, January 2000.



# INTRODUCTION

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## Welcome to DNV Guide on Port State Control

This guide consists of two parts:

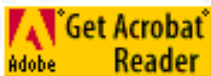
1. The main part consists of a series of pages, each dedicated to one specific item relevant to Port State Control. These pages are organised thematically in the **Main Areas**-section of this guide. A sub-set is presented in the **Critical Areas**-section.
2. DNV has prepared for you a background paper that explains the implications of the various applicable conventions, protocols, codes, resolutions and circulars. This paper – "**Background, Objective, Target Group and Targets**" – requires an hour or so of concentrated reading.  
The paper comes in three different formats (*please click on the bolded titles to fetch the document*): As a **set of webpages**, as a **Microsoft Word 97-file**, and as a **generic textfile** (Rich Text Format).

## We strongly suggest

that you start by browsing through the **Major Areas-** and **Critical Areas-**sections. These materials will give you an indication as to which topics the Port State Control-inspectors will prioritise. When you feel the need for more comprehensive and thorough understanding of Port State Control, please refer to the "Background"-dokument.

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"**Background, Objective, Target Group and Targets**" is also available in a forth version – as an **Adobe Acrobat PDF-file**.



If you do not already have a copy of the Adobe Acrobat reader installed on your PC, you may download one for free from Adobe's website. When you are connected to the internet, please click on the button to fetch the programme.

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# THE MAIN AREAS

**Main areas specified in international, Port State Control-relevant conventions, are described in this section. The list of items should not be considered exhaustive – but they represent areas with frequent deficiencies that are in focus of Port State Control.**

These areas should, based on statistics and experience, be given high priority with respect to maintenance. They should be reviewed carefully when preparing for a Port State Control.

Please browse through the layered menus to identify topics that are most relevant to your area of responsibility. Each menu item lead either to a sub-menu or a page dedicated to a specific topic. Each page contains a reference to the relevant convention(-s), a short text on "what to look for", and an illustration of the topic discussed. The pictures will, as a rule, contain one or more "clickable" hotspots. The hotspots will, when you click on them, activate a corresponding text in the bottom of the page.



By actively using the information provided you should be reminded of mandatory requirements of great importance and as a result have the possibility to identify any significant lack of maintenance. Should such irregularities be discovered, it is important that corrective measures be taken immediately to comply with relevant mandatory provisions.

## THE MAIN AREAS

[Accident prevention](#)  
[Accommodation](#)  
[Cargo](#)  
[Fire fighting](#)  
[Life-saving appliances](#)  
[Load lines](#)  
[Marine Pollution](#)  
[Navigation](#)  
[Propulsion and auxiliary machinery](#)  
[Radio](#)  
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[Working spaces](#)

■ [The main page](#)



## THE CRITICAL AREAS

- [RELOAD menu](#)
- [The main areas](#)  
(Complete index)
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# THE CRITICAL AREAS

## Main Areas

<b>Accommodation</b>	Sanitary facilities	<a href="#">Bathrooms</a> , <a href="#">water closets</a> ;
	Galley and handling room	<a href="#">Cooking place</a> , <a href="#">galley arrangements</a> , <a href="#">washing arrangements</a> .
<b>Life-saving appliances</b>	Life-boats	<a href="#">Interior</a> , <a href="#">inventory</a> , <a href="#">hook and tracing gear</a> , <a href="#">engine and accessories</a> , <a href="#">propeller and rudder</a> , <a href="#">release mechanism</a> , <a href="#">water-spray system</a>
	Life-raft	<a href="#">Container</a> , <a href="#">hydrostatic release</a> , <a href="#">launching procedure</a>
	Launching, embarkation	<a href="#">Launching mechanism</a> , <a href="#">lifeboat launching procedures</a> , <a href="#">muster station symbol</a> , <a href="#">recovering gear</a> , <a href="#">release mechanism manoeuvring handle</a> , <a href="#">stowage</a> , <a href="#">release of free-fall lifeboats</a> , <a href="#">rescue boat painter</a> , <a href="#">rescue boat recovery</a> , <a href="#">rescue boat release</a> .
	Life-buoys	<a href="#">Life-buoy with light</a> , <a href="#">life-buoy with line</a> , <a href="#">quick release arrangement</a>
	Life-jackets	<a href="#">Donning of life-jackets</a> , <a href="#">stowage of immersion suits</a> , <a href="#">stowage of life-jackets</a> .
<b>Fire-fighting appliances</b>	Training, instruction manuals	<a href="#">Muster lists and emergency instructions</a> , <a href="#">on-board maintenance</a> , <a href="#">records</a> .
	Portable equipment	<a href="#">Filling conditions</a> , <a href="#">fire extinguisher</a> , <a href="#">international shore connection</a> .
	Fixed installations	<a href="#">Fixed gas fire extinguishing</a> , <a href="#">foam fire fighting</a> , <a href="#">fixed installations</a> , <a href="#">stowage of equipment</a> .
	Personal equip.	<a href="#">Stowage</a> .
	Ventilation, fire dampers	<a href="#">Fire-damper control panel</a> , <a href="#">indicator for power operated ventilation</a> , <a href="#">manual fire-damper</a> , <a href="#">manually operated quick-closing device</a> , <a href="#">quick-closing device</a> , <a href="#">quick-closing device arrangement</a> , <a href="#">remote controlled fire-damper</a> .
<b>Safety in general</b>	Signs, indications	<a href="#">Control of watertight doors</a> , <a href="#">fire control plans</a> , <a href="#">fire plans</a> , <a href="#">watertight doors indicator panel</a> .
	Construction deck, beams	<a href="#">Car deck drainage</a> , <a href="#">cargo holds</a> , <a href="#">emergency power switchboard</a> , <a href="#">hatch-cover alignment</a> , <a href="#">inside cargo holds</a> .
	Emergency lighting	<a href="#">Emergency power switchboard</a> , <a href="#">emergency power source</a> .
	Electrical equipment	<a href="#">Electric power generator</a> , <a href="#">Main electrical switchboard</a> , <a href="#">Main electric lighting system</a> .
<b>Load lines</b>	Ventilation, air pipes	<a href="#">Air ventilator – air pipe to space below freeboard deck</a> , <a href="#">exposed part of air pipes and ventilators</a> , <a href="#">ball-type ballast tank ventilators headed with wasted inner/outer wall</a> , <a href="#">wasted gooseneck type air pipes</a> , <a href="#">ball-type ballast tank ventilators headed with wasted inner/outer wall</a> , <a href="#">ventilator – air pipe</a> , <a href="#">maintenance of air pipes</a> , <a href="#">wasted gooseneck type air pipes</a> .
<b>Machinery</b>	Cleanliness	<a href="#">Cleanliness of engine room</a> , <a href="#">tank top cleanliness</a> .
	Magnetic compasses	<a href="#">Compass reading</a> .
	Nautical charts	<a href="#">Nautical chart</a> , <a href="#">updating of chart</a> .
<b>Navigation</b>	Nautical publications	<a href="#">Nautical publications</a> .
	Oil record book	<a href="#">Oil record book</a> .
	Retention of oil	<a href="#">Drainage of engine room</a> , <a href="#">suction for cleaning of engine room bilge</a> .
	Oily water separation	<a href="#">Oily water separator</a> , <a href="#">monitoring and control system</a> ,

The critical areas, which are listed above, have been grouped according to relevant conventions and are considered to be of such a serious nature that they may warrant special attention of the ship's master and officers.



The listed areas are not considered to be exhaustive, but are intended to indicate where available statistical data shows that detainable deficiencies are found, meaning that these could be deficiencies which are sufficiently serious to merit detention of a ship.

The master and ship's officers should pay special attention to those areas listed and keep them under continuous review. Sufficient efforts have also to be used to maintain the ship and equipment to conform with relevant provisions of mandatory international instruments.

By searching through the information provided in this CD, you are reminded of important requirements, which are applicable under the various major categories.

**Please observe!**

A broader survey of Port State Control items is presented in the [Main Areas](#) section of this CD.

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# THE CRITICAL AREAS

## Main Areas

### Accommodation

Sanitary facilities

Galley and handling room

### Life-saving appliances

Life-boats

Life-raft

Launching, embarkation

Life-buoys

Life-jackets

Training, instruction manuals

### Fire-fighting appliances

Portable equipment

Fixed installations

Personal equip.

Ventilation, fire dampers

### Safety in general

Signs, indications

Construction deck, beams

Emergency lighting

Electrical equipment

### Load lines

Ventilation, air pipes

### Machinery

### Navigation

Cleanliness

Magnetic compasses

Nautical charts

Nautical publications

## Links to pages

[Bathrooms, water closets;](#)[Cooking place, galley arrangements, washing arrangements.](#)[Interior, inventory, hook and tracing gear, engine and accessories, propeller and rudder, release mechanism, water-spray system](#)[Container, hydrostatic release, launching procedure](#)[Launching mechanism, lifeboat launching procedures, muster station symbol, recovering gear, release mechanism manoeuvring handle, stowage, release of free-fall lifeboats, rescue boat painter, rescue boat recovery, rescue boat release.](#)[Life-buoy with light, life-buoy with line, quick release arrangement](#)[Donning of life-jackets, stowage of immersion suits, stowage of life-jackets.](#)[Muster lists and emergency instructions, on-board maintenance, records .](#)[Filling conditions, fire extinguisher, international shore connection.](#)[Fixed gas fire extinguishing, foam fire fighting, fixed installations, stowage of equipment.](#)[Stowage.](#)[Fire-damper control panel, indicator for power operated ventilation, manual fire-damper, manually operated quick-closing device, quick-closing device, quick-closing device arrangement, remote controlled fire-damper.](#)[Control of watertight doors, fire control plans, fire plans, watertight doors indicator panel.](#)[Car deck drainage, cargo holds, emergency power switchboard, hatch-cover alignment, inside cargo holds.](#)[Emergency power switchboard, emergency power source.](#)[Electric power generator, Main electrical switchboard, Main electric lighting system.](#)[Air ventilator – air pipe to space below freeboard deck, exposed part of air pipes and ventilators, ball-type ballast tank ventilators headed with wasted inner/outer wall, wasted gooseneck type air pipes, ball-type ballast tank ventilators headed with wasted inner/outer wall, ventilator – air pipe, maintenance of air pipes, wasted gooseneck type air pipes.](#)[Cleanliness of engine room, tank top cleanliness.](#)[Compass reading.](#)[Nautical chart, updating of chart.](#)[Nautical publications.](#)

<b>Marine Pollution</b>	Oil record book	<a href="#">Oil record book.</a>
	Retention of oil	<a href="#">Drainage of engine room,</a> <a href="#">suction for cleaning of engine room bilge.</a>
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## BATHROOM – SANITARY ACCOMMODATION

Convention reference: ILO  
Convention no. 92, article 13  
Convention no. 133, article 8

### What to look for

The ship shall have sufficient sanitary accommodation including shower baths or tub.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Sanitary accommodation – floors**

Ensure that the floors in all sanitary accommodation have floors of durable material, easily cleaned and impervious to damp.

### **Sanitary accommodation – drainage**

Ensure drainage of the sanitary accommodation is open and satisfactory. The floors of the sanitary accommodation must be thoroughly clean, without damage and satisfactory maintained.

## WATER CLOSETS

Convention reference: ILO  
Convention no. 92, article 13  
Convention no. 133, article 8

### What to look for

There shall be minimum number of water closets which are convenient located for officers and crew.



### Please

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### **Sanitary accommodation - required water**

Ensure that the required water closets are operating satisfactory, without damages and that the cleanliness is satisfactory.



## COOKING AREA

Convention reference: ILO  
Convention no. 68

### What to look for

The galley shall have satisfactory arrangements for preparation/cooking of food or serving meals.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Preparation and cooking of food**

Ensure that the arrangement for preparation/cooking of food/meals to be served, is satisfactorily maintained.

There shall be no damages or significant deterioration that makes the arrangements useless.

## FOOD AND CATERING

Convention reference: ILO  
Convention no. 68, article 6  
Convention no. 68  
Solas chapter II-2, Regulation 44

### What to look for

The galley shall have arrangements and necessary equipment for the preparation and service of food and meals.



### Please

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### **Preparation and servicing of meals**

Ensure that the arrangements and equipment for handling and preparation of food and servicing meals are satisfactory and that the galley is kept thoroughly clean.



### **Portable fire extinguishers**

Portable fire extinguishers should be stowed in strategic positions in the accommodation and in spaces/room classified with fire risk.

### **Condition of the floor**

Ensure that the condition of the floor in the galley have a cover of material and construction which provide a surface which is easy to clean. The walls and ceiling in the galley shall also have material of a surface which is easy to keep clean. Ensure that the cleanliness of the galley as a whole is satisfactory and that no parasites are discovered.

## CLEANING WASHING ARRANGEMENTS

Convention reference: ILO  
Convention no. 68  
Convention no. 92, article 11

### What to look for

The galley shall be provided with washing basin arrangements satisfactory for cleaning/washing of utensils and equipment necessary for preparation, cooking and service of food/meals.



### Please

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### **Cleaning washing arrangements**

Ensure that the cleaning/washing arrangements in the galley are thoroughly cleaned and without significant or serious deterioration and that there are satisfactory supply of hot and cold fresh water.



## INTERIOR OF A PARTLY ENCLOSED LIFEBOAT

Convention reference: SOLAS  
SOLAS Ch III, Regulation 41, 42, 43 and 44.  
For ships constructed on or after 1 July 1998  
the LSA Code paragraph 4.4, 4.5, 4.6 and 4.7  
shall apply.

### What to look for

The lifeboat shall be so arranged that it can be rapidly boarded by its full complement of persons.  
No equipment shall be stowed in such a way that it will hamper rapid boarding and seating of the full complement of persons.



### Please

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## **Lifeboats**

Ensure free access into the lifeboat and clear passage from the lifeboat entrance to the seats. Required lifeboat accessories stowage must not hinder persons embarking or disembarking the lifeboats. The interior of the lifeboat must be cleaned and satisfactorily maintained.

## EQUIPMENT IN LIFEBOATS

Convention reference: SOLAS  
SOLAS Ch III, Regulation 41.  
For ships constructed on or after 1 July  
1998  
the LSA Code paragraph 4.4 shall apply.

### What to look for

There shall be sufficient  
watertight locker(s) for storage  
of items: equipment,  
pyrotechnics, water and  
provisions etc.



### Please

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### **Watertight lockers**

Ensure that it is possible to close the watertight lockers, that they are undamaged and without significant deterioration.

### **Provision of particular items**

Ensure that the particular items of equipment, water, pyrotechnics and provisions etc. and other inventories are provided as required. Check the expiry date where this is applicable.

### **Lifeboat fittings**

Ensure that required lifeboat fittings such as bailing pump/arrangements are without any significant deterioration.



## LIFEBOAT HOOK AND TRACING GEAR

Convention reference: SOLAS  
SOLAS Ch III, Regulation 11 and 48.  
For ships constructed on or after 1 July  
1998  
the LSA Code paragraph 6.1 shall apply.

### What to look for

The arrangements of the launching appliances shall be such as to enable safe boarding of survival craft. Means shall be provided for bringing the davit launched survival craft against the ship's side and holding them alongside so they can be safely embarked.



### Please

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### **Deterioration**

Ensure that the blocks, padeyes, links, tracing gear and other fittings used to enable safe boarding and lowering of the lifeboat are satisfactory in all respects. There shall be no significant deterioration of the fittings which can reduce its strength or effectiveness. Maintenance instruction must be available.

## LIFEBOAT ENGINE AND ACCESSORIES

Convention reference: SOLAS  
SOLAS Ch III, Regulation 41.  
For ships constructed on or after 1 July  
1998  
the LSA Code paragraph 4.4 shall apply.

### What to look for

The lifeboat engine, transmission and engine accessories shall be enclosed in a fire-retardant casing or other suitable arrangements providing similar protection.



### Please

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### **Installed engine**

Ensure that the installed engine is without any significant deterioration, that the cleanliness inside the casing is satisfactory so that risk of fire is minimized. Arrangements should exist to protect persons from coming in accidental contact with hot or moving parts. Ensure that such arrangements remain in satisfactory condition and are not seriously deteriorated. An assigned crew-member shall be familiarised and trained for operating the engine. Instructions for maintenance, as well as operating procedure, shall be available.

### **Retardant casing**

Ensure the condition of the fire retardant casing or arrangements providing protection of the engine, is without damages or serious deterioration.

## LIFEBOAT PROPELLER AND RUDDER

Convention reference: SOLAS  
SOLAS Ch III, Regulation 41.  
For ships constructed on or after  
1 July 1998 the LSA Code paragraph 4.4.1  
shall apply. Regulation 52 and 36 in  
amended Ch III.

### What to look for

Each lifeboat shall be built and maintained to have sufficient strength to withstand impact against the ship's side and also a drop into the water. The lifeboat hull and lifeboat fittings shall have no damages and be without significant deterioration.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Maintenance**

Ensure that the propeller, rudder and tiller and the hull itself are without damages or significant deterioration. Instructions for on board maintenance shall be readily available and presented on request.

## RELEASE MECHANISM FOR LIFEBOAT HOOKS

Convention reference: SOLAS  
SOLAS Ch III, Regulation 41.  
For ships constructed on or after  
1 July 1998 the LSA Code  
paragraph 4.4 shall apply.

### What to look for

Every lifeboat to be launched by  
a fall or falls shall be fitted with a  
release mechanism. The release  
mechanism shall have two  
release capabilities.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Normal release mechanism**

Ensure that the normal release mechanism is without damage and check during drills that it releases the lifeboat when waterborne. The on-load release capability which releases the boat with load on the hook, shall be adequately protected against unintentional or accidental release. Ensure that the appointed crew-members have been familiarised and trained in the use of the release mechanism.

### **Engine starting and searchlight batteries**

Ensure that the means for recharging all engine starting and searchlight batteries are without significant deterioration. Instructions for service and maintenance must be available on board.

## STARTING AND OPERATION OF WATER SPRAY SYSTEM IN FIRE-PROTECTED LIFEBOATS

Convention reference: SOLAS  
SOLAS Ch III, Regulation 26.1.7 and  
Regulation 31.1.7 in amended chapter III,  
and LSA Code paragraph 4.9. Regulation  
52  
and 36 in amended Ch III

### What to look for

Oil tankers, chemical tankers  
and gas carriers carrying  
cargoes having a flashpoint not  
exceeding 60 degra C shall carry  
fire-protected lifeboats –  
lifeboats with water spray  
system.



### Please

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### **Water spray system**

Ensure that the water spray system in fire-protected lifeboats operates satisfactorily. It shall be verified that the self-priming motor pump is operating as required, be possible to turn "on" and "off" to operate the flow of water over the exterior of the lifeboat.

Ensure that instruction regarding operation and maintenance is readily available and that necessary poster and signs regarding operating and control are provided.



## LIFERAFT CONTAINER

Convention reference: SOLAS  
SOLAS Ch III, Regulation 39.  
For ships constructed on or  
after 1 July 1998 the LSA  
Code paragraph 4.2 shall apply.

SOLAS Ch III, Regulation 19, 23 and 29.  
For ships constructed on or after 1 July  
1998  
Regulation 13, 20 and 24 apply.

### What to look for

The liferaft shall be packed in a container that is so constructed as to withstand hard wear under conditions encountered at sea. The container shall as far as practicable be watertight except for drain holes in the container bottom. The liferaft shall float free, and if inflatable, inflate automatically when the ship sink.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Liferaft container**

Ensure that the liferaft container is undamaged without significant deterioration. It is important that the container remain watertight as far as practicable. The container shall be marked with name and place of servicing station where it was last serviced.

### **Stowing of liferafts**

Ensure that the liferafts are stowed with its painter permanently attached to the ship with a free-float arrangement and so stowed that it will float free and inflate if it is an inflatable liferaft. Ensure that inflatable liferats are serviced during the last 12 months.

## LIFERAFT HYDROSTATIC RELEASE

Convention reference: SOLAS  
SOLAS Ch III, Regulation 23, 29 and 38.  
For ships constructed on or after 1 July  
1998  
Regulations 13, 24 and the LSA Code  
paragraphs  
4.1, 4.1.6 and 4.1.6.2 shall apply.

### What to look for

The liferaft's painter system shall provide a connection between the ship and the liferaft and shall be so arranged as to ensure that the liferaft when released and, in case of an inflatable liferaft, inflated is not dragged under by the sinking ship.

When a weak link is used in the float free arrangement, it shall not be broken by the force required to pull the painter from the liferaft container.



[Alternative image](#)

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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Hydrostatic release units**

Ensure that the hydrostatic release units are so arranged that they automatically release the liferafts at a depth of not more than 4 m. Ensure that the weak link is correctly attached to the painter system and hydrostatic release mechanism.

## LIFERAFT HYDROSTATIC RELEASE

Convention reference: SOLAS Ch III, Regulation 23, 29 and 38.

For ships constructed on or after 1 July 1998 Regulations 13, 24 and the LSA Code paragraphs 4.1, 4.1.6 and 4.1.6.2 shall apply.

### What to look for

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[Back](#)

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[Alternative image](#)

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## LIFERAFT LAUNCHING PROCEDURE

Convention reference: SOLAS

SOLAS Ch III, Regulation 48, and in

addition Regulation 35 of the amended Ch III.

### What to look for

The liferaft launching appliances shall be so arranged that the fully equipped survival craft or rescue boat can be safely lowered.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Davit launched liferafts**

A specific procedure should be developed concerning launching of davit launched liferafts. The procedure must be applicable to the particular launching appliances on board the ship. Crew-members shall be satisfactorily trained in the launching operation.

## LAUNCHING MECHANISM

Convention reference: SOLAS  
SOLAS Ch III, Regulation 48.

For ships constructed on or  
after 1 July 1998 the LSA  
Code paragraph 6.1 shall apply

### What to look for

A launching mechanism shall be  
so arranged that it may be  
actuated by one person from a  
position on the ship's deck, and  
from a position within the  
survival craft or rescue boat.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Launching mechanism**

Ensure that the arrangements which actuate the launching mechanism from a position inside the survival craft, are in satisfactory functional condition without signs of damage or significant deterioration.

## LIFEBOAT LAUNCHING PROCEDURE

Convention reference: SOLAS  
SOLAS Ch III, Regulation 51.  
For ships constructed on or after  
1 July 1998, Regulation 35 apply.

### What to look for

Manuals, instructions and information should be provided in easily understood terms, illustrated wherever possible, on the life-saving appliances provided on the ship. These should discuss the best method of survival, and explain details regarding boarding, launching and clearing the lifeboat, etc.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Lifeboat launching procedures**

Ensure that instructions, etc., provided on the ship, are applicable to the equipment carried on board. Information must be easy to understand and shall be written in a language understood by the crew. The provided manuals, instructions, operating procedure and information should preferably be kept under one cover, readily available in an accessible position.



## MUSTER STATION SYMBOL

Convention reference: SOLAS  
SOLAS Ch III, Regulation 11.5  
SOLAS Ch II-2, Regulation 28.1.10

### What to look for

Routes to muster stations shall be indicated with the muster station symbol, intended for that purpose, in accordance with the recommendations of IMO.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

## Marking

Ensure that access to muster and embarkation stations are marked with the symbols adopted by IMO. Any deteriorated symbols shall be renewed.

### **Emergency lighting**

Ensure that the emergency lighting in alleyways, stairways and exits giving access to muster and embarkation stations is in satisfactory condition. Alleyways, stairways on passenger ships shall have additional photoluminescence strip indicators. Ensure that these strips are maintained satisfactorily.

## RECOVERING GEAR FOR LIFEBOATS

Convention reference: SOLAS  
SOLAS Ch III, Regulation 48.  
For ships constructed on or  
after 1 July 1998 the LSA  
Code paragraph 6.1 shall apply

### What to look for

The launching mechanism shall be so arranged that it may be actuated by one person from a position on the ship's deck. A lifeboat launching appliances shall be capable of recovering the lifeboat with its crew. An efficient hand gear shall be provided for recovery of survival craft.



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Launching mechanism**

Ensure that the launching mechanism is maintained regularly and in satisfactory condition.  
There should be no significant deterioration on the launching appliances.

## RELEASE MECHANISM MANOEUVRING HANDEL

Convention reference: SOLAS  
SOLAS Ch III, Regulation 47 ref.  
Regulation 41.  
For ships constructed on or after 1 July  
1998  
the LSA Code paragraphs 4.4 and 5.1 shall  
apply.

Regulation 53 and 37 in amended Ch III.

### What to look for

One of the release capabilities  
shall be such the it will release  
the boat with a load on the  
hook(s). The on-load release  
capability must be protected  
against premature or  
unintentional release.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **On-load release capability**

Ensure that the on-load release capability is so arranged and maintained that it is adequately protected against accidental or premature use. Relevant instructions regarding warnings with respect to on load release shall be posted.



# STOWAGE OF LIFEBOATS IN A CONTINUES STATE OF READINESS FOR EMBARKATION AND LAUNCHING

Convention reference: SOLAS  
SOLAS Ch III, Regulation 13.1

## What to look for

Each survival craft/lifeboat shall be stowed in a state of readiness so that two crewmembers can carry out preparations for embarkation and launching in less than 5 min.

[Alternative image](#)



## Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Survival craft – lifeboat**

Ensure that each survival craft/lifeboat is in a continuous state of readiness for embarkation and launching. The access to the entrance and the seats shall be free so that immediate embarkation can take place.

## STOWAGE OF LIFEBOATS IN A CONTINUES STATE OF READINESS FOR EMBARKATION AND LAUNCHING

Convention  
reference: SOLAS  
SOLAS Ch III,  
Regulation 13.1

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[Alternative  
image](#)

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[Alternative image](#)





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[Back](#)

## STOWAGE OF LIFEBOATS IN A CONTINUES STATE OF READINESS FOR EMBARKATION AND LAUNCHING

Convention  
reference: SOLAS  
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Each survival craft/lifeboat shall be stowed in a state of readiness so that two crewmembers can carry out preparations for embarkation and launching in less than 5 min.



[Alternative  
image](#)

## RELEASE MECHANISM INSIDE A FREE-FALL LIFEBOAT

Convention reference: SOLAS  
SOLAS Ch III LSA Code paragraph 6.1.4.6,  
Regulation 52 and 36 in amended Ch III.

### What to look for

The release mechanism shall be arranged so that at least two independent actions from inside the lifeboat are required to launch the free-fall lifeboat.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Release mechanism**

Ensure that the release mechanism in free-fall lifeboats is such that accidental release is precluded. Ensure that the release mechanism is safeguarded to preclude accidental release of the lifeboat. Clear instructions to be followed when launching the boat shall be provided.

## RESCUE BOAT PAINTER AND RELEASE ARRANGMENT

Convention reference: SOLAS  
SOLAS Ch ? Regulation 41 and 47.  
For ships constructed on or after  
1 July 1998 the LSA Code  
paragraphs 4.4 and 5.1 shall apply.

### What to look for

All lifeboats and rescue boats  
shall have sufficient  
arrangements to be able of  
being launched and towed when  
the ship is making headway at a  
speed of 5 knots and have  
possibilities to release the boat  
(painter) at such speed.



### Please

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### **Towing arrangements**

Ensure that the painter and its release arrangements is such that it is possible to release the lifeboats and rescue boat(s) from the towing arrangements when the ship is making headway at a speed of 5 knots. There shall be no significant deterioration to these arrangements. Damaged or deteriorated arrangements shall be renewed.

## RESCUE BOAT RECOVERY GEAR

Convention reference: SOLAS  
SOLAS Ch III, Regulations 19 and 48.  
For ships constructed on or after  
1 July 1998, Regulation 20 and  
Paragraph 6.1 of the LSA Code apply.

### What to look for

Every rescue boat launching appliance shall be fitted with a powered winch motor of such capacity that the rescue boat can be raised from the water with full complement of persons and equipment.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Launching appliances - maintenance**

Ensure that the rescue boat launching and recovery gear including fall(s), winch and all structural members of the launching and recovering appliances are in satisfactory condition without significant deterioration. Fall(s) used in launching shall be turned end for end at intervals of not more than 30 months and be renewed when necessary due to deterioration of the falls or at intervals of not more than five years, whichever is the greater. Date of turning and/or renewing the wire falls shall be recorded.

## RESCUE BOAT RELEASE MECHANISM AND TRACING GEAR

Convention reference: SOLAS  
SOLAS Ch III, Regulation 11 and 48.  
For ships constructed on or after 1 July  
1998  
Regulation 11 and the LSA Code  
paragraph 6.1  
shall apply.

### What to look for

Where necessary, means shall  
be provided for bringing the  
davit-launched survival craft  
against the ship's side and  
holding them alongside so that  
persons can safely embark.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Arrangements for holding survival craft**

When it is necessary to provide arrangements for holding the survival craft (rescue boat) alongside for safe embarkation of persons, ensure that such arrangements are properly provided and maintained. Ensure also that there are no significant deterioration on these arrangements. Appointed crew-members shall be trained in the use of the particular arrangement.



## LIFE-BUOYS

Convention reference: SOLAS  
SOLAS Ch III, Regulation 7, 21 and 27.  
For ships constructed on or after 1 July  
1998,  
Regulation 7, 22 and 32 shall apply.

### What to look for

The number of life-buoys shall be as required and so distributed as to be readily available on both sides of the ship and as far as practicable on open decks extending to the ship's side; at least one shall be placed in the vicinity of the stern, and so stowed as to be capable of being rapidly cast loose, and not permanently secured in any way.



### Please

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### **Stowing of lifebuoys**

Ensure that the lifebuoys are stowed as required and at least half of the total number of lifebuoys shall be provided with lifebuoy self-igniting light.

## LIFEBUOY FITTED WITH BUOYANT LIFELINE

Convention reference: SOLAS  
SOLAS Ch III, Regulation 7.1

### What to look for

At least one lifebuoy on each side shall be fitted with a buoyant lifeline equal in length to not less than twice the height at which it is stowed above the waterline in the lightest seagoing condition, or 30 m, whichever is the greater. Each lifebuoy shall be marked in block capitals of the Roman alphabet with the name and port of registry of the ship on which it is carried.



### Please

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### **Buoyant lifeline**

Ensure that at least one lifebuoy on each side of the ship is fitted with buoyant lifeline of required length. The buoyant lifeline shall be without significant deterioration. Lifebuoys and/or lifelines with significant deterioration shall be renewed.

## **Marking of lifebuoys**

Ensure that the lifebuoys on board the ship are all marked with the name and port of registry of the ship on which they are carried.

## LIFE-BUOY WITH QUICK RELEASE ARRANGEMENT

Convention reference: SOLAS  
SOLAS Ch III, Regulation 7.1

### What to look for

Not less than two of the lifebuoys fitted with self igniting lights shall also be provided with self-activating smoke signals and be capable of quick release from the navigation bridge.

### [Alternative image](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Lifebuoys - quick release arrangements**

Ensure that the quick release arrangements for the two lifebuoys arranged for quick release from the navigation bridge are satisfactorily maintained and without significant deterioration.



### **Combined light-smoke signals**

Ensure that two of the required lifebuoys are stowed with quick release from the bridge and that the combined light-smoke signals are without significant deterioration. If significantly deteriorated the light/smoke signals shall be renewed.

## LIFE-BUOY WITH QUICK RELEASE ARRANGEMENT

Convention  
reference: SOLAS  
SOLAS Ch III,  
Regulation 7.1

### **What to look for**

Not less than  
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[Back](#)

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bridge.



[Alternative  
image](#)

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## DONNING OF LIFEJACKETS

Convention reference: SOLAS  
SOLAS Ch III, Regulation 8 and 11

### What to look for

In addition to the markings required by SOLAS regulation II-2/28.1.10, routes to muster stations shall be indicated with muster station symbol. Illustrations and instructions in appropriate language shall be posted in passenger spaces and be conspicuously displayed at muster stations and other passenger spaces to inform passengers of the method of donning of lifejackets.



### Please

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### **Access to muster stations**

Ensure that all access to muster stations are marked as required and that the required markings are without significant deterioration.

### **Required illustrations**

Ensure that required illustrations and instructions in appropriate language are conspicuously displayed at muster stations and wherever applicable. Illustrations regarding method of donning of lifejackets shall be clearly displayed at muster stations. These illustrations shall be easily understood and be without significant deterioration.



## STOWAGE OF IMMERSION SUITS

Convention reference: SOLAS  
SOLAS Ch III, Regulations 7.3 and 27.3.  
(Regulation 32.3 in amended Ch III).

### What to look for

Immersion suits of an appropriate size, complying with the applicable requirements shall be provided for every person to crew the rescue boat(s). Cargo ships shall carry for each lifeboat on the ship at least three immersion suits. If the Administration has considered it necessary and practicable, one immersion suit shall be carried for every person on board the ship. The immersion suit and thermal protective aids need not be required on ships carrying totally enclosed lifeboats on each side of the ship.



[Alternative image](#)

### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Immersion suits**

Ensure that the ship carry approved immersion suits as required. Immersion suits should be stowed easy accessible places marked with appropriate signs.

## STOWAGE OF IMMERSION SUITS

Convention  
reference: SOLAS  
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### What to look for

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[Alternative picture](#)

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### **Retro reflective material**

The suits and accessories including retro reflective material shall not have any significant deterioration. Immersion suits being significantly deteriorated shall be renewed.

## STOWAGE OF IMMERSION SUITS

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[Alternative image](#)

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[Alternative image](#)

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## STOWAGE OF LIFEJACKETS

Convention reference: SOLAS  
SOLAS Ch III, Regulation 7.2  
SOLAS Ch III, Regulation 21, 27 and 30.  
Additional requirements for Ro-Ro  
passenger  
ships, Regulation 24-1.  
For ships constructed on or after 1 July  
1998,  
Regulation 22, 26, 32 and LSA Code  
paragraph 1.2.

### What to look for

A lifejacket shall be provided for every person on board, and in addition, a number of lifejackets suitable for children equal to at least 10% of the number of passengers on board or such greater number as may be required to provide a lifejacket for each child. Lifejackets shall be so placed as to be readily accessible and their position shall be plainly indicated.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

## **Lifejackets**

Ensure that the number of lifejackets are as required and that lifejackets are placed as to be readily accessible and plainly indicated.

### **Retro-reflective material**

Ensure that the lifejackets are fitted with retro-reflective material which is not significantly deteriorated, and where applicable the lifejackets shall be fitted with lifejacket lights. Lifejackets shall be of approved type and be without significant deterioration.

## MUSTER LIST AND EMERGENCY INSTRUCTIONS

Convention reference: SOLAS  
SOLAS Ch III, Regulation 53 and  
Regulation 37 in the amended  
Chapter III

### What to look for

The muster list shall specify details of the general emergency alarm signals and public address system. The muster list shall also show the duties assigned to the different members of the crew.

[Alternative image](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Muster list**

Ensure that the muster list contains details concerning specific duties and essential actions assigned to different crew members. All crew members shall be familiarised with their duties in ship operations and in emergencies. The muster list shall be updated whenever any changes in the crew take place which necessitate an alteration in the list.

Ensure that the format of the muster list on passenger ships has been approved.



## MUSTER LIST AND EMERGENCY INSTRUCTIONS

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[Alternative image](#)

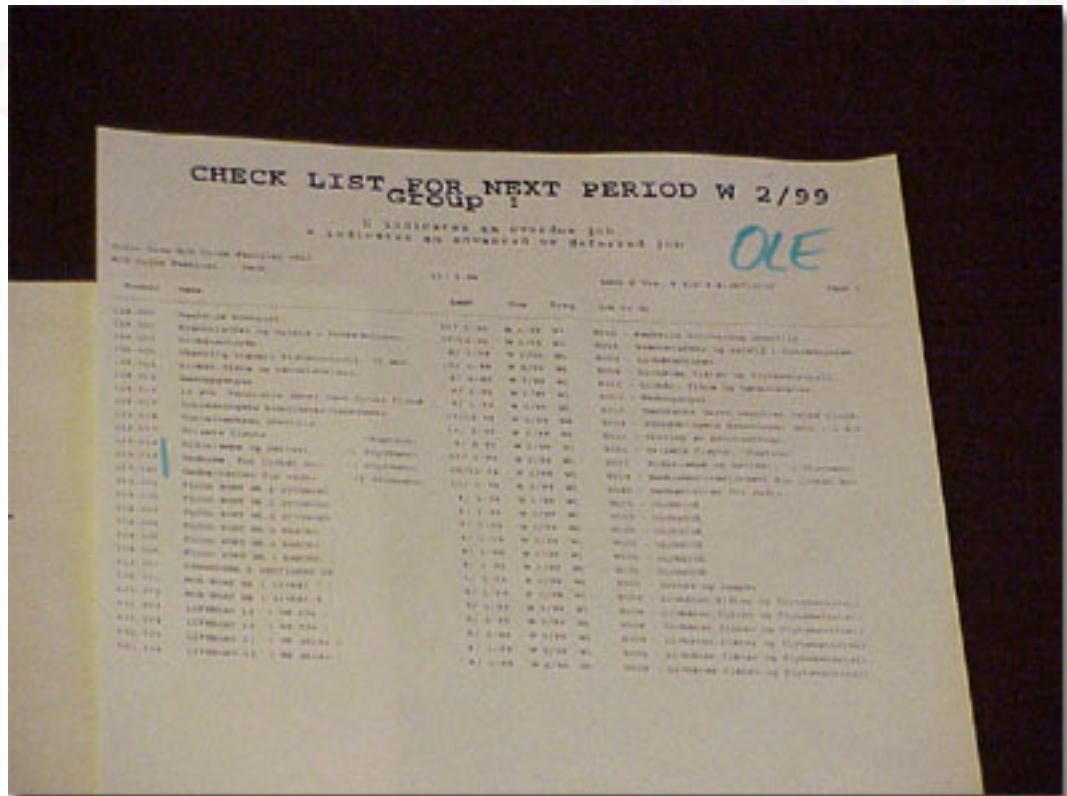


# INSTRUCTIONS FOR ONBOARD MAINTENANCE

Convention reference: SOLAS  
SOLAS Ch III, Regulation 18 and 52  
and in amended Ch III, Regulation 19  
and 36 as appropriate

## What to look for

Instructions for on-board maintenance of life-saving appliances shall be easily understood, illustrated wherever possible, and as appropriate, shall include particulars concerning maintenance and control.



## Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Inspection and maintenance**

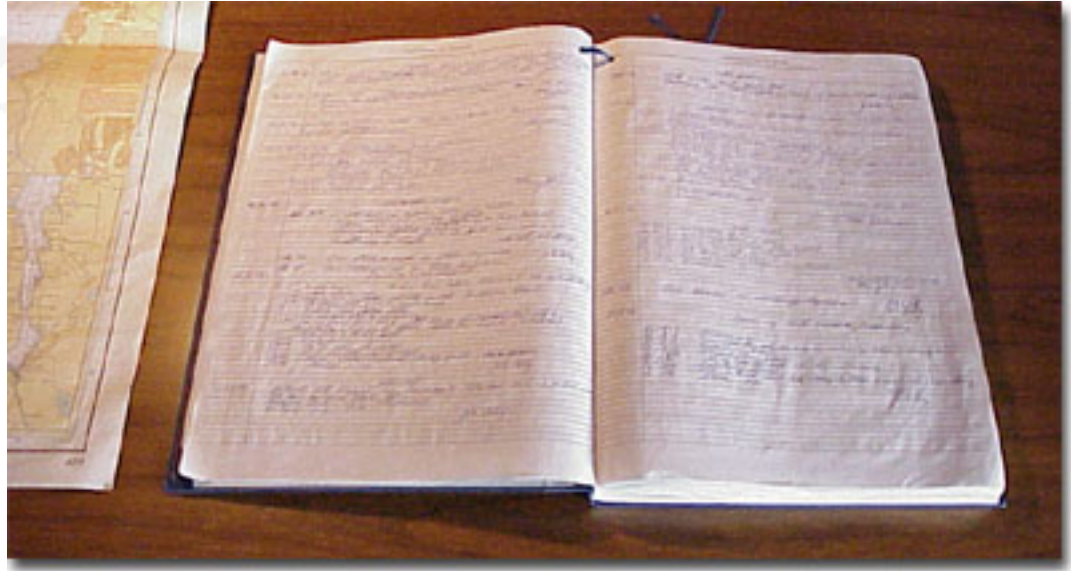
Ensure that instructions concerning conduct of inspection and maintenance, specifies necessary details concerning periodic inspections and maintenance. Records shall be kept regarding conduct of inspections, controls and maintenance, the date of last and next inspection/control and maintenance should be included.

## RECORDS OF MUSTERS AND DRILLS

Convention reference: SOLAS  
SOLAS Ch III, Regulation 18.5 or as  
appropriate Regulation 19.5 in  
amended chapter

### What to look for

The date when musters are held, details of abandon ship drills and fire drills, other drills with other life-saving appliances on board and on-board training, shall be recorded in such log-book as may be prescribed by the Administration.



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

## **Records**

Ensure that records are kept of all musters and drills which have been carried out. Such recordings shall be found in the ship log-book or in a log-book prescribed by the Administration.



## FILLING CONDITIONS OF PORTABLE FIRE EXTINGUISHERS

Convention reference: SOLAS  
SOLAS Ch II-2, Regulation 6

### What to look for

Spare recharges shall be provided in accordance with requirements specified by the flag Administration.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Inspection and maintenance**

Ensure that all portable fire extinguishers are inspected and maintained regularly. Significant deterioration of portable fire extinguishers shall not be acceptable. Spare recharges shall be available on board.

## PORTABLE FIRE EXTINGUISHERS

Convention reference: SOLAS  
SOLAS Ch. II-2, Regulation 6

### What to look for

Accommodation spaces, service spaces and control stations shall be provided with portable fire extinguishers of appropriate types and in sufficient number.



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Portable fire extinguishers**

Ensure that portable fire extinguishers of appropriate types are provided throughout the accommodation, in service spaces and control stations. Fire extinguishers must be appropriately refilled and periodically inspected, serviced, and tested.

## STOWAGE OF INTERNATIONAL SHORE CONNECTION

Convention reference: SOLAS  
SOLAS Ch II-2, Regulation 19

### What to look for

Ships of 500 gross tonnage and upwards shall be provided with at least one international shore connection, complying with specified provisions.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **International shore connection**

Ensure that the required international shore connection is available on board and stowed easily accessible in a conspicuous place.



## FIXED GAS FIRE-EXTINGUISHING SYSTEM

Convention reference: SOLAS  
SOLAS Ch II-2, Regulation 5

### What to look for

The use of a fire-extinguishing medium which gives off toxic gases in such quantities as to endanger persons shall not be permitted. Necessary pipes for conveying fire-extinguishing medium into protected spaces shall be provided with control valves so marked as to indicate clearly the spaces to which the pipes lead.

[Back](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Fixed fire-extinguishing system**

Ensure that the installed fixed fire-extinguishing system has been checked regularly and that it can be documented if requested. The installed system shall be in satisfactory condition and be without any significant deterioration or damages which can have influence on its operating performance.

## FIXED GAS FIRE-EXTINGUISHING SYSTEM

Convention  
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SOLAS Ch II-2,  
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### What to look for

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[Alternative image](#)

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### What to look for

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## FOAM FIRE FIGHTING

Convention reference: SOLAS  
SOLAS Ch II-2, Regulation 7.1.1 and  
Ch III, Regulation 18.3.10 or  
Regulation 19.3.4 in amended Ch.

### What to look for

Machinery spaces of category A containing oil-fired boilers or oil fuel units shall be provided with any one of the following fixed extinguishing system: a) a gas system, b) a high-expansion foam system or c) a pressure water-spraying system. Also deck areas on tankers shall be provided with foam system for fire fighting.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Maintenance**

Ensure that the installed fire extinguishing systems are maintained satisfactorily and have been checked regularly to verify their operating condition. There should be no significant deterioration or damages to the system.



## FIXED FIRE-FIGHTING INSTALLATION

Convention reference: SOLAS  
SOLAS Ch II-2, Regulation 7.1

### What to look for

Machinery spaces of category A containing oil-fired boilers or oil fuel units shall be provided with fixed fire-extinguishing system.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Fire extinguishing system**

Ensure that the fire-extinguishing system in the engine room – boiler room is as required.  
The equipment must be in satisfactory condition without any significant deterioration.

## STOWAGE – FIRE FIGHTING EQUIPMENT

Convention reference: SOLAS  
SOLAS Ch. II-2 Regulation 16.7.4  
and Regulation 32.1.9.3

### What to look for

Exhaust ducts from galley, in which grease or fat is likely to accumulate, shall be fitted with fixed means for extinguishing a fire within the duct.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Fire fighting arrangements**

Ensure that the fixed fire-fighting arrangements for exhaust ducts from galley are periodically maintained and that there is no significant deterioration on the equipment. Inspection and maintenance shall be recorded, and records of inspection and/or maintenance should be available for control.

## STOWAGE OF FIREMAN'S OUTFIT

Convention reference: SOLAS  
SOLAS Ch II-2, Regulation 17.1.1.1,  
17.1.2.1, 17.1.2.2, 17.4

### What to look for

The personal fire-fighting outfit shall at least comprise of: a) Protective clothing, b) Boots and gloves, c) Rigid helmet, d) Electric safety lamp, e) An axe, f) Breathing apparatus and g) Safety belt and line.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

## **Protective clothing**

Ensure that the protective clothing is in satisfactory condition and ready for immediate use.



### **Breathing apparatus**

Ensure that the breathing apparatus is in satisfactory condition and that the air bottles are always filled with compressed air as required.

### **Readily accessible equipment**

Ensure that all equipment are readily accessible in its stored position. On passenger ships at least two fireman's outfit shall be stored in each main vertical zone.

## FIRE-DAMPER INDICATOR PANEL

Convention reference: SOLAS  
SOLAS Ch II-2, Regulation 16.2.2

### What to look for

Remote control arrangements for fire-dampers shall be provided where applicable. The fire-damper shall be provided with an indicator showing whether the damper is open or closed.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Fire-damper indicating panel**

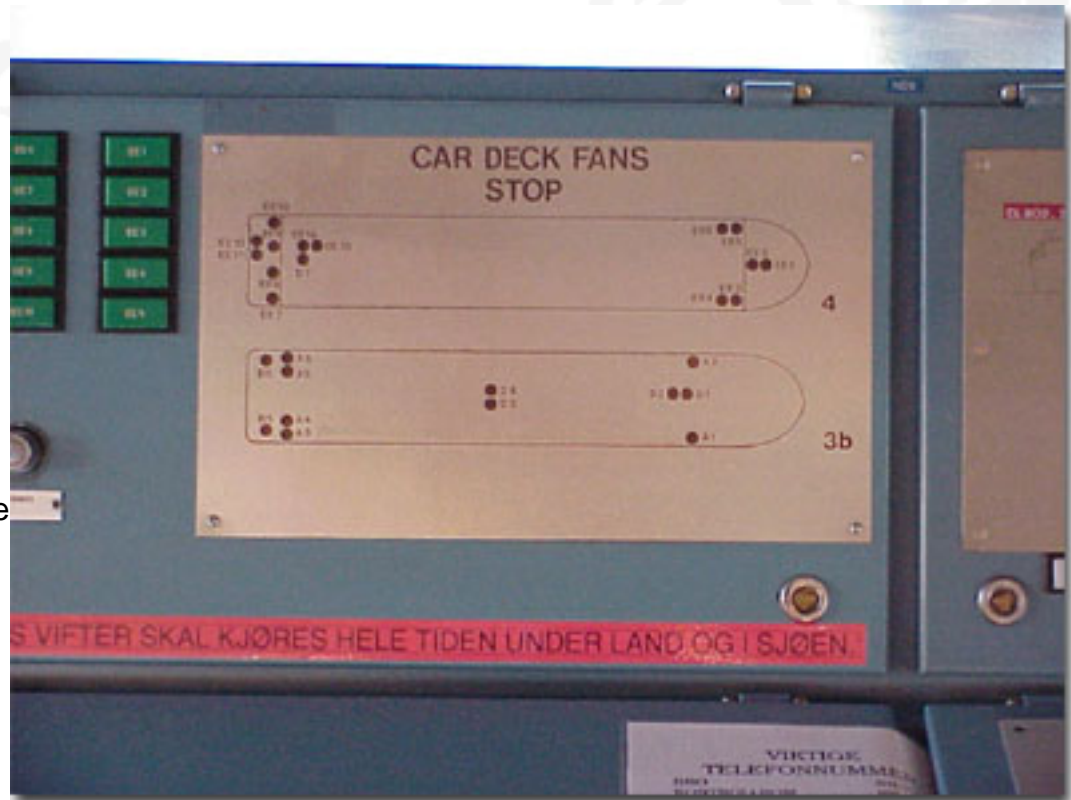
Ensure that the fire-damper indicating panel operates satisfactorily. It should be regularly verified that the indicators on the indicating panel show the actual position of the fire-dampers.

## INDICATOR FOR POWER OPERATED VENTILATION

Convention reference: SOLAS  
SOLAS Ch II-2, Regulation 16.10  
and Regulation 32.1.6

### What to look for

Power ventilation of accommodation spaces, service spaces, cargo spaces control stations and machinery spaces shall be capable of being stopped from easily accessible positions outside the space being served. Means provided for stopping the power ventilation of the machinery spaces shall be entirely separate from means for stopping power ventilation of other spaces.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Visual indication**

Visual indication of the power ventilation operation shall if provided, give indication of fans operation (power ventilation) at any time.



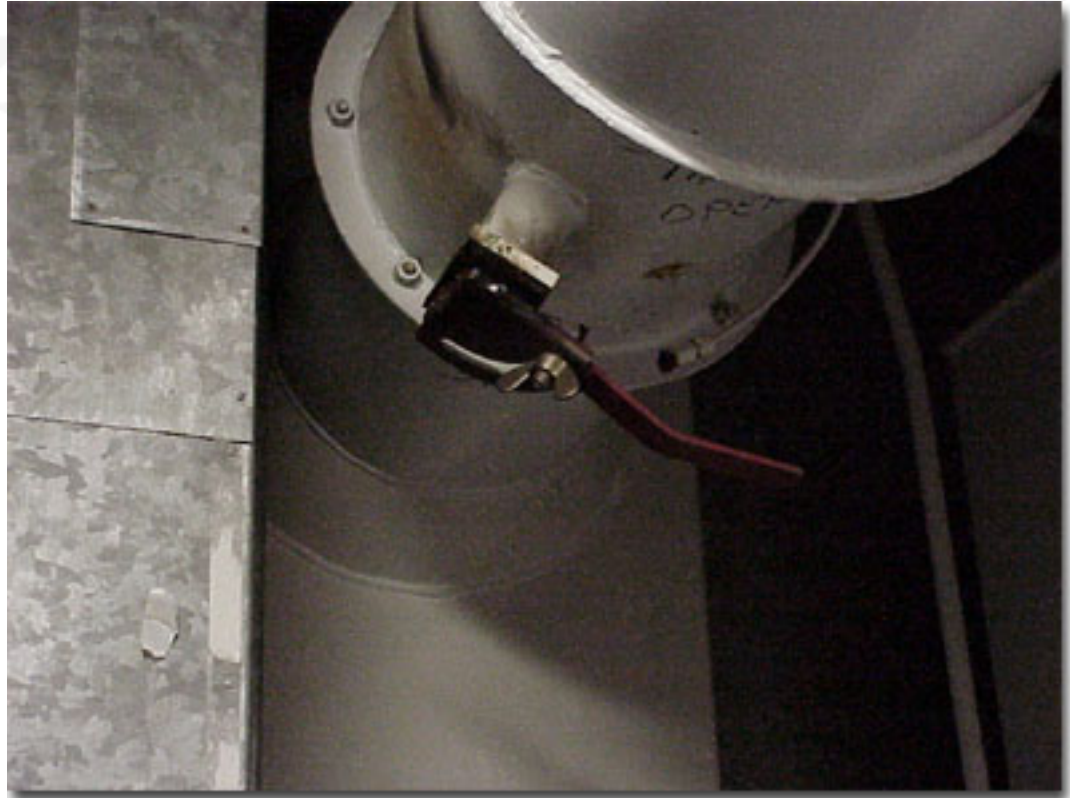
## MANUALLY OPERATED FIRE-DAMPER

Convention reference: SOLAS  
SOLAS Ch II-2, Regulation 16.2.2

### What to look for

Ventilation ducts with a cross-sectional area exceeding 0.075 sq.m shall be fitted with fire-dampers. These fire-damper shall operate automatically but shall also be capable of being closed manually from both sides of the bulkhead.

[Alternative image](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Manually operated fire-damper**

Ensure that when a manually operated fire-damper for closing of ventilation ducts is provided, the manually operated closing device shall operate satisfactorily and that no significant deterioration or damages exists.

## MANUALLY OPERATED FIRE-DAMPER

Convention reference: SOLAS  
SOLAS Ch II-2, Regulation 16.2.2

### What to look for

Ventilation ducts with a cross-sectional area exceeding 0.075 sq.m shall be fitted with fire-dampers. These fire-damper shall operate automatically but shall also be capable of being closed manually from both sides of the bulkhead.

[Alternative image](#)



## MANUALLY OPERATED FIRE-DAMPER

Convention  
reference: SOLAS  
SOLAS Ch II-2,  
Regulation 16.2.2

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[Back](#)

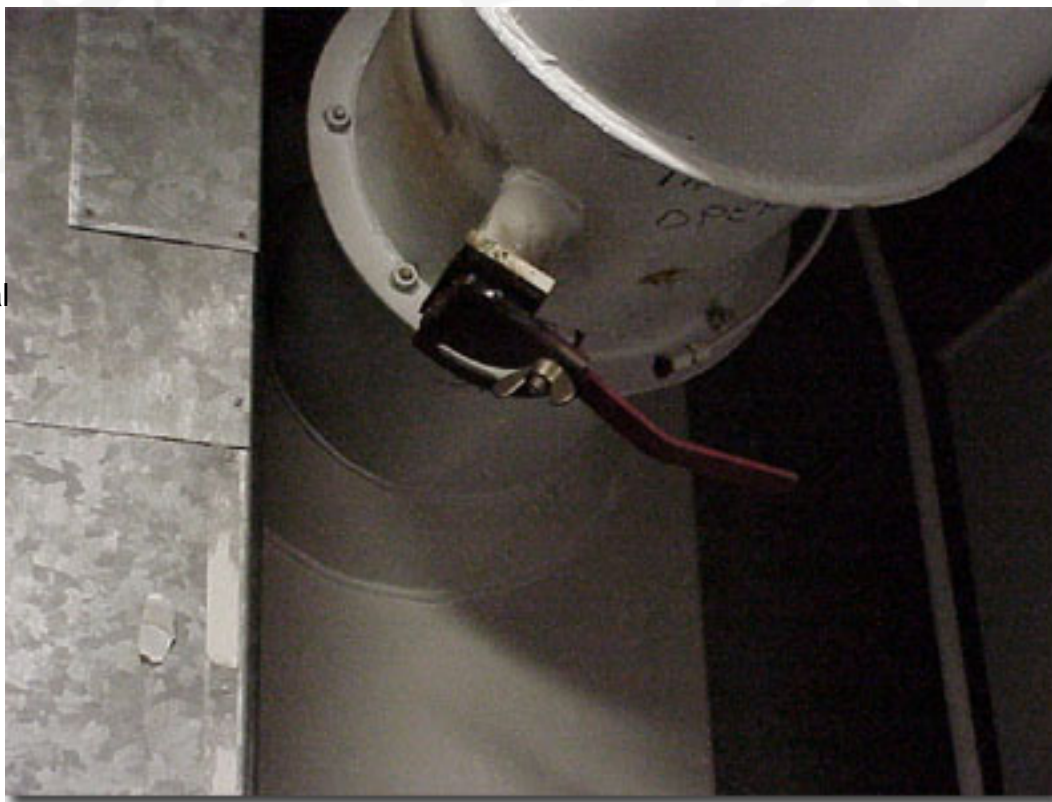
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## MANUALLY OPERATED FIRE-DAMPER

Convention  
reference: SOLAS  
SOLAS Ch II-2,  
Regulation 16.2.2

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[Alternative image](#)

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## MANUALLY OPERATED QUICK CLOSING DEVICE

Convention reference: SOLAS  
SOLAS Ch II-2, Regulation 11.4.5

### What to look for

Means shall be provided for stopping oil fuel transfer pumps, oil fuel unit pumps and other similar pumps.



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Maintenance of quick closing device**

Ensure that manually operated quick closing devices are maintained satisfactorily. There shall be no significant deterioration or damages to these arrangements. Repair or renewal shall be carried out whenever damages or deterioration is significant. Ensure that the ship's crew is familiar with the operation of the quick closing devices.

## QUICK CLOSING DEVICES

Convention reference: SOLAS  
SOLAS Ch II-2, Regulation 11.4.5  
and 11.5

### What to look for

The controls for quick closing devices shall be located outside the space concerned, where they will not be cut off in the event of fire in the space they serve.

In passenger ships such controls and the controls for any required fire-extinguishing system shall be situated at one control position or grouped in as few positions as possible.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Quick closing device**

Ensure that the controls for operating the quick closing device are without significant deterioration or damages. The operation of the controls for quick closing devices should be carried out at regular intervals and recorded so as to be reviewed on request.

## What to look for

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

## **Maintenance**

Ensure that the required quick closing devices or stopping device are maintained satisfactorily and without any significant deterioration. If deteriorated significantly, the quick closing arrangements shall be repaired or renewed immediately.

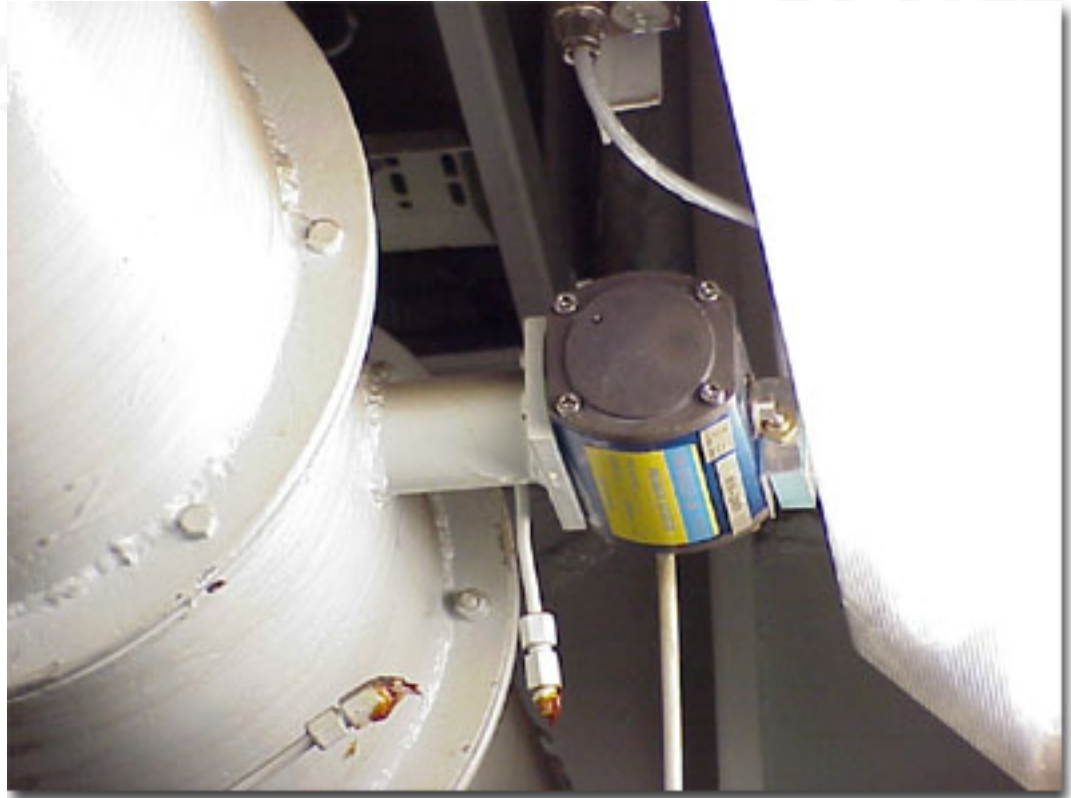
## REMOTE CONTROLLED FIRE-DAMPERS

Convention reference: SOLAS  
SOLAS Ch II-2, Regulation 16 and 32

### What to look for

Remote control arrangements for fire-dampers shall be provided where applicable.

[Alternative image](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Remote control**

Remotely controlled fire-dampers should be regularly tested to ensure their operating performance. Ensure that there are no significant deterioration or damages to any of the fire dampers in ventilation ducts. Testing of fire-dampers should be recorded and documented on request.

## REMOTE CONTROLLED PIPE CLOSING DEVICE

Convention  
reference: SOLAS  
SOLAS Ch II-2,  
Regulation 16 and  
32

**What to look  
for**  
Remote  
control  
arrangements  
for  
fire-dampers  
shall be  
provided  
where  
applicable.

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### **Remote control**

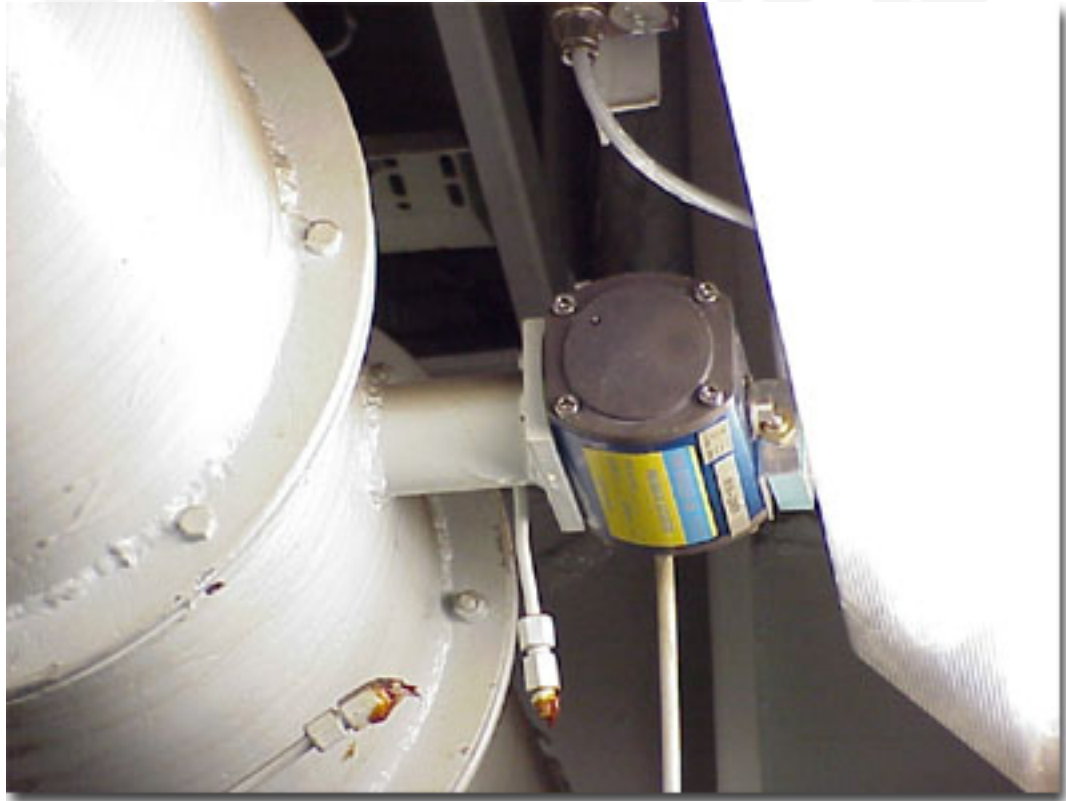
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## REMOTE CONTROLLED FIRE-DAMPERS

Convention  
reference: SOLAS  
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32

**What to look  
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Remote  
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applicable.

[Alternative  
image](#)



## Control of watertight doors

Convention reference: SOLAS

SOLAS Ch II-1, Regulation 15.7.1.5,  
24, 25 and Regulation III/18.3.10.5 or  
Regulation III/19.3.4.2.5 in Amended Ch III

### What to look for

Each power-operated sliding watertight door shall be provided with controls for opening and closing the door by power from both side of the door and also for closing the door by power from the central operating console at the navigation bridge.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Control - watertight doors**

Ensure that the controls for opening and closing of watertight doors are operating satisfactorily. Checking of watertight doors shall take place at every fire drills as well as when conducting the required weekly drills. Ensure that the crew-members are familiar with adopted procedures. Recordings shall be entered in the ship's Log book.



## FIRE CONTROL PLANS

Convention reference: SOLAS  
SOLAS Ch II-2, Regulation 20.2

### What to look for

In all ships a duplicate of fire control plans or a booklet containing such plans shall be permanently stored in a prominently marked weathertight enclosure outside the deckhouse or suitable place for assistance of shorebased fire-fighting personnel.

### [Alternative image](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Fire control plans**

Ensure that the an updated duplicate version of the ship fire control plans or a booklet containing such plans is permanently stored where it will be of assistance to shorebased fire-fighting personnel.

## FIRE PLANS

Convention  
reference: SOLAS  
SOLAS Ch. II-2,  
Regulation 20.2

### What to look for

In all ships a duplicate of fire control plans or a booklet containing such plans shall be permanently stored in a prominently marked weathertight enclosure outside the deckhouse or suitable place for assistance of shorebased fire-fighting personnel.



[Back](#)

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### **Gangways and accommodation ladders**

Ensure that the access to a ship by gangways and/or accommodation ladders are safely arranged. No significant deterioration or damage to gangways and/or accommodation ladders is acceptable.



## FIRE CONTROL PLANS

Convention  
reference: SOLAS  
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[Alternative image](#)

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[Back](#)



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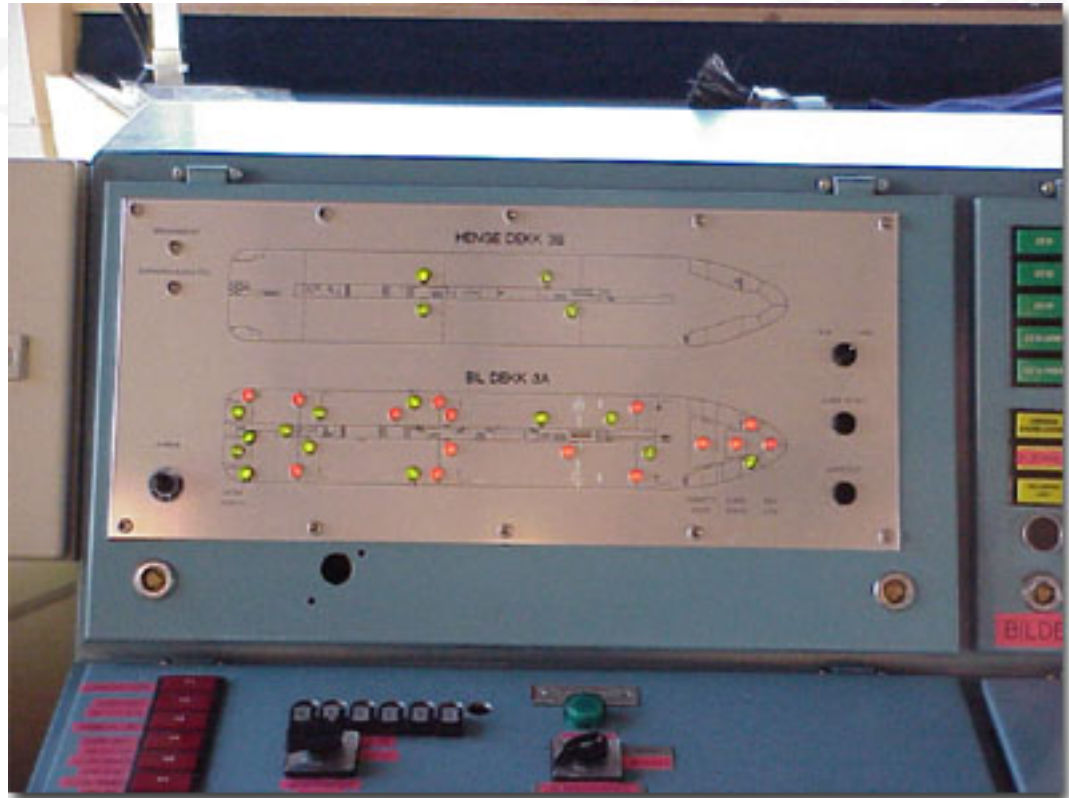


## PANEL REGARDING WATERTIGHT DOORS

Convention reference: SOLAS  
SOLAS Ch II-1, Regulation 15.6.4,  
24 and 25

### What to look for

All power-operated sliding watertight doors shall be provided with means of indication which will show at all remote operating positions whether the doors are open or closed. Remote operating positions shall only be at the navigating bridge, and at the location where hand operation above bulkhead deck is required.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Operating watertight doors**

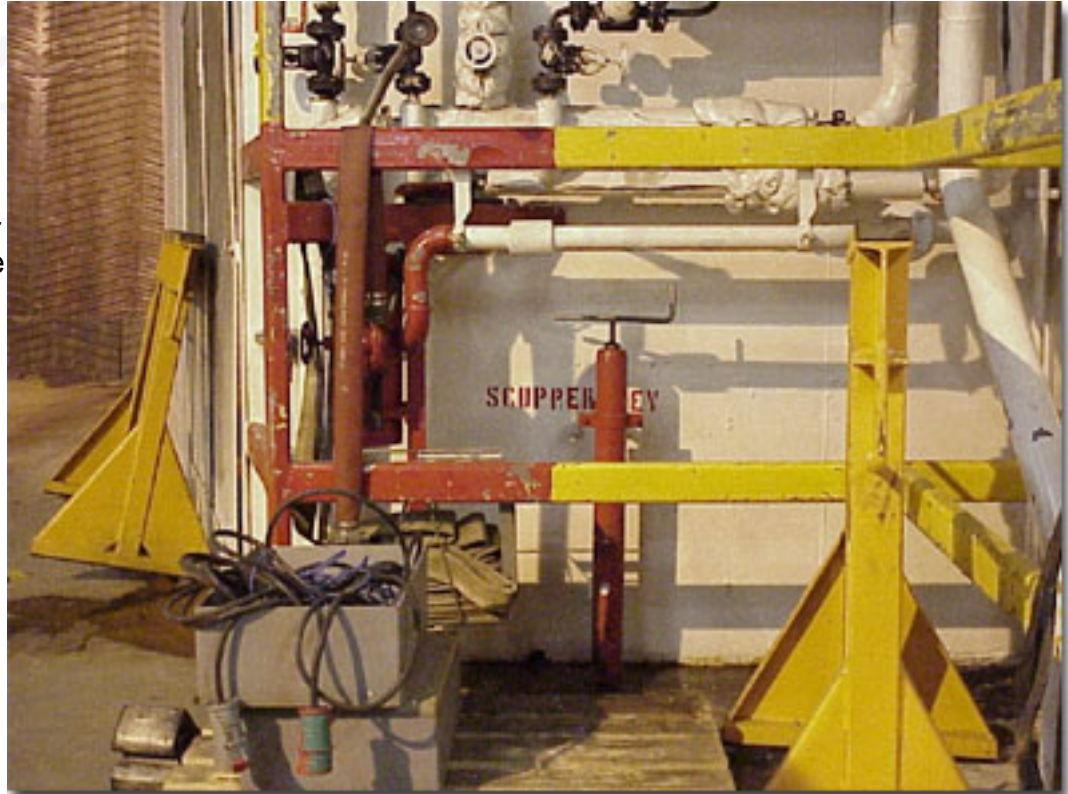
Ensure that the weekly drills for the operating of watertight doors required for all passenger ships always take place; and that remote operating position indicates whether the doors are open or closed. The ship's crew shall have received necessary familiarisation concerning the operation of the doors. It shall be recorded when drills have taken place as well as records of inspection, opening and closing of shell doors during conduct of drills.

## CAR DECK DRAINAGE

Convention reference: SOLAS  
SOLAS Ch II-1, Regulation 21.1.6,  
21.1.6.1 and 21.1.6.2

### What to look for

Provisions shall be made for the drainage of enclosed cargo spaces on bulkhead deck and/or on freeboard deck. The drainage shall be by means of sufficient number of scuppers of suitable size.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Drainage of bulkhead deck**

Ensure that the arrangements required for drainage of bulkhead deck and/or freeboard deck are maintained satisfactorily and not significantly deteriorated or damaged. The crew-members shall have been familiarised with the operation of such arrangements.

## CARGO HOLDS BULKHEAD – INSIDE CARGO HOLD. FIXED STAIRWAY – ENTRANCE TO CARGO HOLD

Convention reference: SOLAS  
SOLAS Ch I, Regulations &(d) and 11(a).

Convention reference: ILO Convention No  
152  
concerning Occupational Safety and Health  
in Dock Works, Article 17.

### What to look for

The condition of the ship or its equipment shall correspond to the particulars of the specifications and certificates of the ship. Further, the condition of the ship and its equipment shall be maintained to confirm with the provisions of the regulations in force.

The access to the ship's hold shall be by means of a fixed stairway of adequate strength and proper construction.



[Alternative image](#)

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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Corrosion and damages**

Ensure that there are no significant areas of damages, corrosion pitting of plating and associated stiffening in the hulls, which could effect the seaworthiness or strength to take local loads. Ensure that the condition of the bulkheads in cargo holds are maintained satisfactorily, and that they are in accordance with the requirements of present regulations. Temporary repairs should not be accepted, except where necessary authorisations are granted.



### **Access to cargo holds**

Ensure that the access to cargo holds are in satisfactory conditions and without any significant deterioration or damages.

## CARGO HOLDS BULKHEAD – INSIDE CARGO HOLD. FIXED STAIRWAY – ENTRANCE TO CARGO HOLD

Convention  
reference: SOLAS  
SOLAS Ch I,  
Regulations &(d)  
and 11(a).

Convention  
reference: ILO  
Convention No 152  
concerning  
Occupational Safety  
and Health  
in Dock Works,  
Article 17.

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Further, the condition of the ship and its equipment shall be maintained to confirm with the provisions of the regulations in force.

The access to the ship's hold shall be by means of a fixed stairway of adequate strength and proper construction.



[Alternative image](#)

## EMERGENCY POWER SWITCHBOARD

Convention reference: SOLAS  
SOLAS Ch II-1, Regulation 42.1.2 and 2,  
and Regulation 43.1.2 and 2,  
and Regulation 43.1.2 and 2

### What to look for

The source of emergency power include emergency switchboard and emergency lighting switchboard shall be located as required. The emergency electrical power available shall be sufficient to supply all those services that are essential for safety in an emergency.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Emergency switchboard**

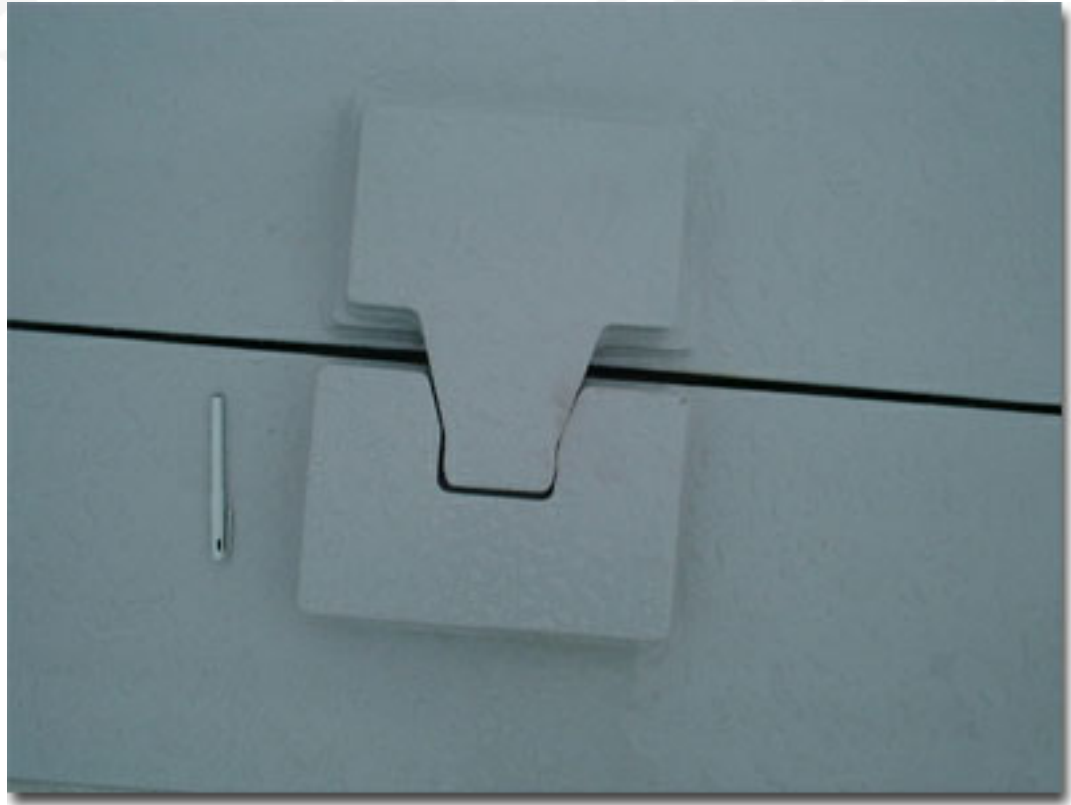
Ensure that the emergency switchboard and emergency lighting switchboard are in satisfactory condition without any significant deterioration and/or damages. Ensure that the crew are familiar with the operation of the source emergency power provided on the ship.

# TOP AND CENTRE OF CARGO HOLD HATCH COVERS ALIGNMENT BRACKET

Convention reference: International  
Convention on Load Lines,  
1966, Regulation 16

## What to look for

The cargo hold steel hatch covers and arrangements shall ensure weathertightness in any sea conditions.



## Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Cargo holds steel hatch covers**

Ensure that the cargo holds steel hatch covers with brackets and arrangements are aligned. Also ensure that there is no significant deterioration or damaged which could cause that weathertightness could not be maintained in any sea conditions that could be expected.

## CARGO HOLDS – BULKHEAD – INSIDE CARGO HOLD

Convention reference: SOLAS  
SOLAS Ch I, Regulation 6(d)

### What to look for

The condition of the ship or its equipment shall correspond to the particulars of the specifications and certificates of the ship.



### Please

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### **Corrosion and damages**

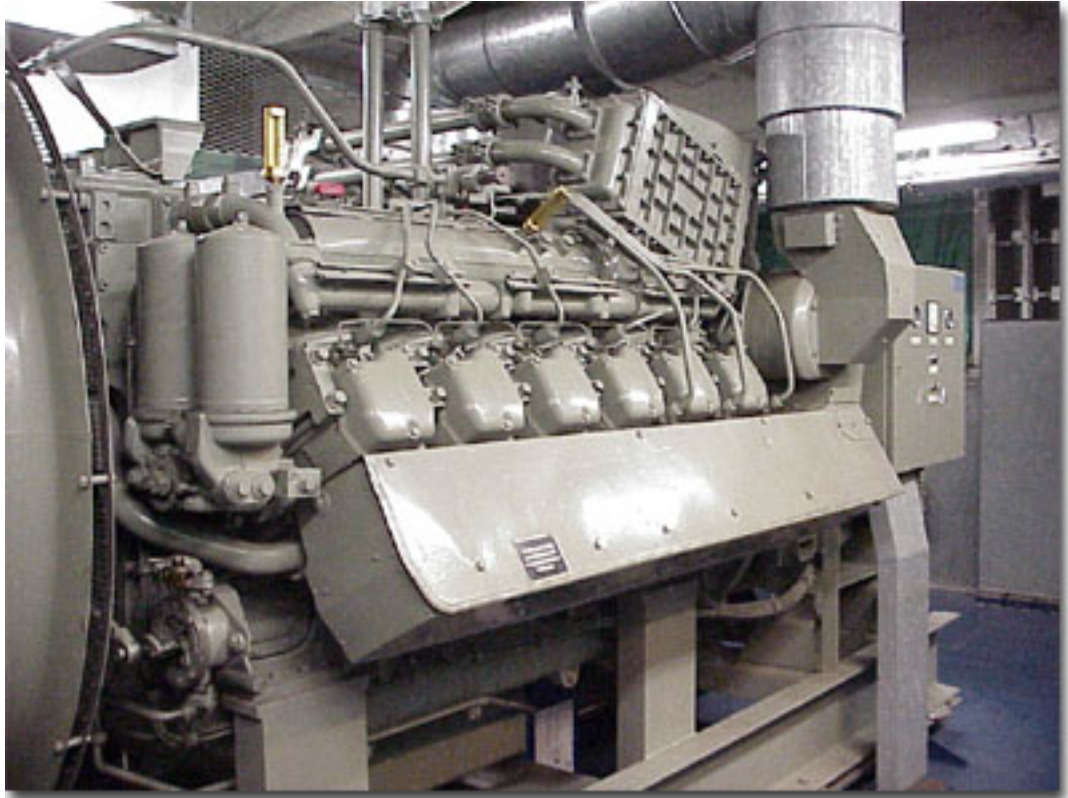
Ensure that there are no significant areas of damages, corrosion pitting of plating and associated stiffening in the hulls, which could effect the seaworthiness or strength to take local loads. Survey files and/or evaluation reports on thickness measurement of ship structure and survey planing should be available for examination.

## EMERGENCY SOURCE OF ELECTRICAL POWER

Convention reference: SOLAS  
SOLAS Ch II-1, Regulations 42.1 and 7,  
and 43.1.1 and 7

### What to look for

A self-contained emergency  
source of electrical power shall  
be provided.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Emergency source**

Ensure that the emergency source of electrical power operates satisfactorily. Periodical testing of the complete emergency system shall be made. This shall include the testing of automatic starting arrangements. Ensure that the automatic starting system is functioning satisfactorily when "black-out" procedures are executed. Ensure crew familiarizations in respect of "black-out" procedures.

## ELECTRIC POWER GENERATOR

Convention reference: SOLAS  
SOLAS Ch II-1, Regulations 40 and 41

### What to look for

Electrical installations shall be such that all electrical auxiliary services necessary for maintaining the ship in normal operational and habitable conditions will be ensured without recourse to the emergency source of electrical power.



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Condition of electrical power generators**

Ensure that the electrical power generators are in satisfactory condition so as to supply the electrical power necessary for all auxiliary services required for normal ship operations. The electrical equipment in general, shall be without significant deterioration. Damaged electrical equipment and/or electrical installations significantly deteriorated shall be repaired or renewed immediately.

## MAIN ELECTRICAL SWITCHBOARD

Convention reference: SOLAS  
SOLAS Ch II-1, Regulation 41.3

### What to look for

The main switchboard shall be so placed relative to one main generator station that, as far as is practicable, the integrity of the normal electrical supply may be effected only by fire or other casualty in one space.

[Alternative image](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

## **Main Switchboard**

The main switchboard shall be maintained satisfactorily to ensure safe distribution of electrical power necessary for safe operation of the ship. The main electric lighting system shall provide illumination throughout those part of the ship normally accessible to and used by passengers or crew. The main electric lighting system shall be without any significant deterioration or damages.

## MAIN ELECTRIC LIGHTING SYSTEM

Convention  
reference: SOLAS  
SOLAS Ch II-1,  
Regulation 41.3

### What to look for

The main switchboard shall be so placed relative to one main generator station that, as far as is practicable, the integrity of the normal electrical supply may be effected only by fire or other casualty in one space.



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Convention  
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SOLAS Ch II-1,  
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[Alternative image](#)

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## MAIN ELECTRIC LIGHTING SYSTEM

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## AIR VENTILATOR – AIR PIPE TO SPACE BELOW FREEBOARD DECK

Convention reference: International Convention on Load Lines 1966, Regulation 20

### What to look for

Where air pipes to ballast and other tanks or spaces extend above the freeboard or superstructure decks; the exposed part of the pipes shall be of substantial construction.

[Alternative image](#)



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

## **Maintenance**

Ensure that exposed part of air pipes or ventilators from ballast or other tanks or spaces passing the freeboard or superstructure decks, are maintained satisfactory and without significant deterioration/corrosions or damages. Severly corroded or damaged air pipes or ventilators shall not be accepted.

## AIR VENTILATOR – AIR PIPE TO SPACE BELOW FREEBOARD DECK

Convention  
reference:International  
Convention on Load Lines  
1966, Regulation 20

### What to look for

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[Back](#)

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[Alternative image](#)



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[Back](#)



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## BALL-TYPE BALLAST TANK VENTILATORS HEADED WITH WASTED INNER/OUTER WALL

Convention reference: International Convention on Load Lines  
1966, Regulation 20

### What to look for

Where ventilators or air pipes to ballast tanks, other tanks or spaces extend above the freeboard or superstructure decks; the exposed part of the pipes shall be of substantial construction.

[Alternative image](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Maintenance – ventilators – air pipes**

Ensure that exposed part of ventilators or air pipes from ballast tanks, other tanks or spaces passing the freeboard or superstructure decks, are maintained satisfactory and without significant deterioration/corrosion or damages. Severely corroded or damaged air ventilators are not acceptable.

## BALL-TYPE BALLAST TANK VENTILATORS HEADED WITH WASTED INNER/OUTER WALL

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[Alternative image](#)



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Lines  
1966, Regulation 20

### **What to look for**

Where ventilators or air pipes to ballast tanks, other tanks or spaces extend above the freeboard or superstructure decks; the exposed part of the pipes shall be of substantial construction.



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## BALL-TYPE BALLAST TANK VENTILATORS HEADED WITH WASTED INNER/OUTER WALL

Convention reference: International Convention on Load Lines  
1966, Regulation 20

### What to look for

Where ventilators or air pipes to ballast tanks, other tanks or spaces extend above the freeboard or superstructure decks; the exposed part of the pipes shall be of substantial construction.

[Alternative image](#)



## WASTED GOOSENECK TYPE AIR PIPES

Convention reference:International  
Convention on Load Lines  
1966, Regulation 20 and SOLAS Ch I,  
Regulation 11(a)

### What to look for

Where air pipes of any type to  
ballast tanks, other tanks or  
spaces extend above the  
freeboard or superstructure  
decks; the exposed part of the  
pipes shall be of substantial  
construction. The condition of  
the ship and its equipment shall  
be maintained to confirm with  
the provisions of the applicable  
regulations.

[Alternative image](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

## **Maintenance**

Ensure that exposed part of air pipes from ballast tanks, other tanks or spaces passing the freeboard or superstructure decks, are maintained satisfactory and without significant deterioration/corrosion or damages. Severely corroded or damaged air ventilators are not acceptable.



## WASTED GOOSENECK TYPE AIR PIPES

Convention reference: International  
Convention on Load Lines  
1966, Regulation 20 and SOLAS Ch I,  
Regulation 11(a)

### What to look for

Where air pipes of any type to ballast tanks, other tanks or spaces extend above the freeboard or superstructure decks; the exposed part of the pipes shall be of substantial construction. The condition of the ship and its equipment shall be maintained to conform with the provisions of the applicable regulations.

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## WASTED GOOSENECK TYPE AIR PIPES

Convention  
reference:International  
Convention on Load  
Lines  
1966, Regulation 20  
and SOLAS Ch I,  
Regulation 11(a)

### What to look for

Where air pipes of any type to ballast tanks, other tanks or spaces extend above the freeboard or superstructure decks; the exposed part of the pipes shall be of substantial construction. The condition of the ship and its equipment

shall be maintained to confirm with the provisions of the applicable regulations.



[Alternative image](#)

## BALL-TYPE BALLAST TANK VENTILATORS HEADED WITH WASTED INNER/OUTER WALL

Convention reference: International Convention on Load Lines 1966, Regulation 20

### What to look for

Where ventilators or air pipes to ballast tanks, other tanks or spaces extend above the freeboard or superstructure decks; the exposed part of the pipes shall be of substantial construction.

[Alternative image](#)



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## VENTILATOR – AIR PIPE

Convention reference: International  
Convention on Load Lines,  
1966, Regulation 20

### What to look for

Where air pipes to ballast and other tanks extend above the freeboard or superstructure decks, the exposed parts of the pipe shall be substantial constructed. Satisfactory means permanently attached, shall be provided for closing the openings of the air pipes.

### [Alternative image](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Air pipes**

Ensure that the air pipes are without damages, satisfactory maintained and that satisfactory means for closing the openings are permanently attached and without significant deterioration.



## VENTILATOR – AIR PIPE

Convention  
reference:  
International  
Convention on Load  
Lines,  
1966, Regulation 20

### **What to look for**

Where air  
pipes to ballast  
and other  
tanks extend  
above the  
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exposed parts  
of the pipe  
shall be  
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Satisfactory  
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permanently  
attached, shall be provided for closing the openings of the air pipes.



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## VENTILATOR – AIR PIPE

Convention  
reference:  
International  
Convention on Load  
Lines,  
1966, Regulation 20

### What to look for

Where air  
pipes to ballast  
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[Alternative image](#)

## VENTILATOR – AIR PIPE

Convention reference: International  
Convention on Load Lines,  
1966, Regulation 20

### What to look for

Where air pipes to ballast and other tanks extend above the freeboard or superstructure decks, the exposed parts of the pipe shall be substantial constructed. Satisfactory means permanently attached, shall be provided for closing the openings of the air pipes.

[Back](#)



### Please

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## WASTED GOOSENECK TYPE AIR PIPES

Convention reference: International Convention on Load Lines 1966, Regulation 20 and SOLAS Ch I, Regulation 11(a)

### What to look for

Where air pipes of any type to ballast tanks, other tanks or spaces extend above the freeboard or superstructure decks; the exposed part of the pipes shall be of substantial construction. The condition of the ship and its equipment shall be maintained to confirm with the provisions of the applicable regulations.

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### Please

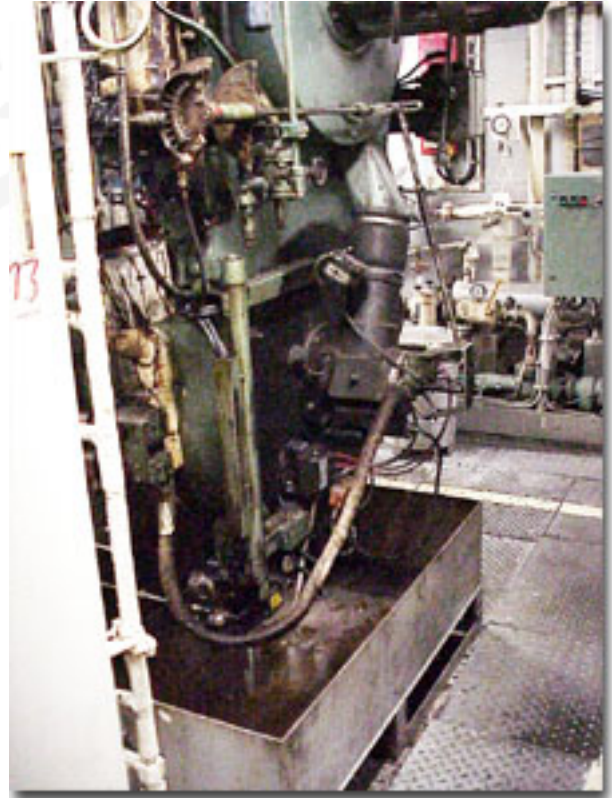
search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

## CLEANLINESS OF ENGINE ROOM

Convention reference: SOLAS  
SOLAS Ch II-1, Regulation 26.7

### What to look for

Provisions shall be made to facilitate cleaning, inspection and maintenance of main propulsion and auxiliary machinery including boilers and pressure vessels.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Cleanliness**

Ensure that the boiler(s) itself and the boiler room as a whole is kept clean and free from oily slippery surfaces and thereby minimising the risk of fire and personal accidents on board.

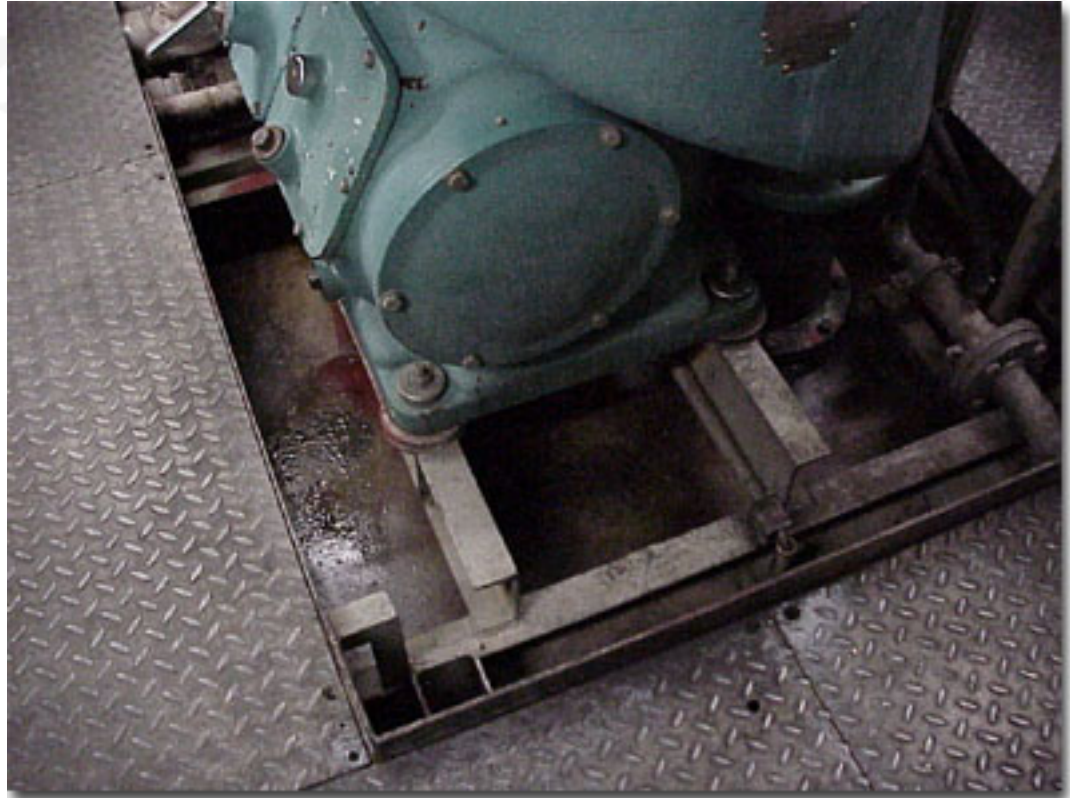


## TANK TOP CLEANLINESS

Convention reference: SOLAS  
SOLAS Ch II-1, Regulation 26.7

### What to look for

Provisions shall be made to facilitate cleaning, inspection and maintenance of main propulsion and auxiliary machinery including boilers and pressure vessels.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Cleanliness**

Ensure that the main engine, auxiliary engine and engine room as a whole are kept clean and free from oily slippery surfaces

## COMPASS READING

Convention reference: SOLAS  
SOLAS Ch V, Regulation 12 (b) (i) (1) and (2)  
SOLAS Ch V, Regulation 12 (m), (n)

### What to look for

Ships of 150 gross tonnage (grt) shall be fitted with magnetic compass which provide heading information clearly readable by the helmsman's at the main steering position. Every ship of convention size shall be fitted with rudder angle indicator. Rate of turn indicator is applicable on ships of 100.000 grt.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Heading information**

Ensure that the heading information provided by magnetic and gyro compasses is clearly readable at the main steering position.

## **Rudder angel indicator**

The rudder angel indicator should also be clearly readable from the main steering position.

### **Rate-of-turn indicator**

The rate-of-turn indicator should be readable from the main steering position. Ensure that required equipment is functioning satisfactorily.

## NAUTICAL CHART

Convention reference: SOLAS  
SOLAS Ch V, Regulation 20

### What to look for

All ships shall carry adequate nautical charts necessary for the intended voyage.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Nautical chart**

Ensure that the nautical chart portfolio on board is adequate for the intended voyage.

## UP-DATING OF CHART

Convention reference: SOLAS  
SOLAS Ch V, Regulation 20

### What to look for

All ships shall carry adequate and up-to-date charts for the intended voyage.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Chart corrections**

Ensure that the nautical charts necessary for the intended voyage, are all up-to-date as required. The chart-corrections shall be indicated on the chart itself.

## NAUTICAL PUBLICATIONS

Convention reference: SOLAS  
SOLAS Ch V, Regulation 20

### What to look for

All ships shall carry adequate sailing directions, list of lights, notices to mariners, tide tables and all other nautical publications necessary for the intended voyage.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Nautical publications**

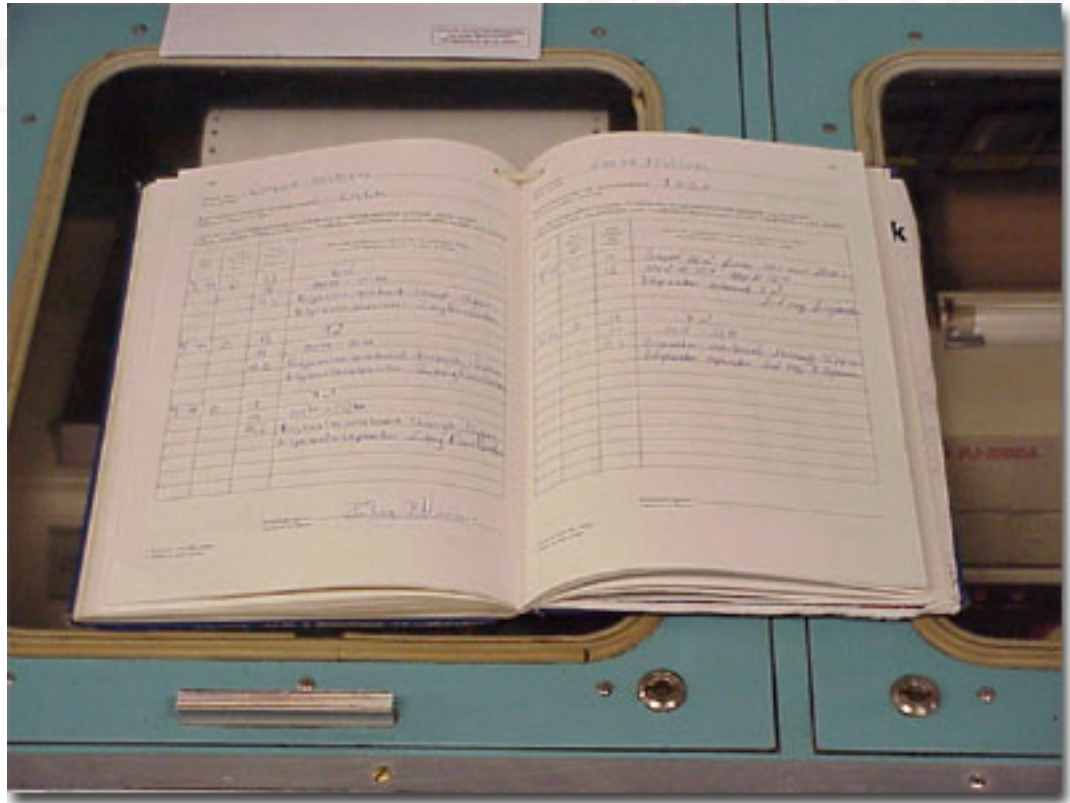
Ensure that the required/necessary nautical publications carried on board are adequate for the intended voyage. The nautical publications shall be updated or renewed as appropriate.

## OIL RECORD BOOK

Convention reference: MARPOL  
MARPOL 73/78 Annex I,  
Regulation 20

### What to look for

Every oil tanker of 150 tons gross tonnage and above and every ship of 400 tons gross tonnage and above other than an oil tanker shall be provided with an Oil Record Book Part I (Machinery space Operations). Every oil tanker of 150 tons gross tonnage and above shall also be provided with an Oil Record Book Part II (Cargo Ballast Operations).



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



## **Recordings**

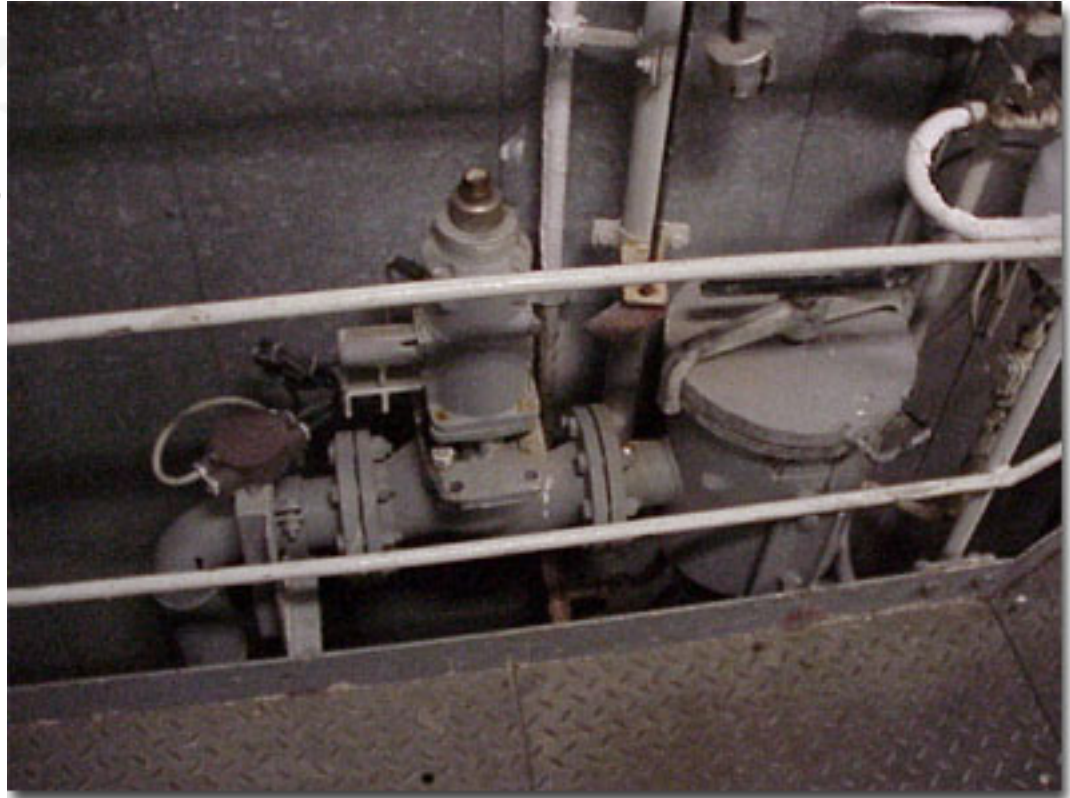
Ensure that the each operations described in appropriate regulations shall be fully recorded in the Oil Record Book(s). Ensure also that the Oil Record Book(s) are kept in such place(s) as to be readily available for inspection. All entries must be complete, correct and up-to-date.

## DRAINAGE OF ENGINE ROOM

Convention reference: MARPOL  
MARPOL 73/78 Annex I,  
Regulation 9

### What to look for

Any discharge into the sea of oil or oily mixtures from the ships to which Annex I applies, shall be prohibited except under certain conditions.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Drainage**

Ensure that no oil or oily mixtures from engine room/engine room bilges is discharged direct into the sea except under the circumstances which are specified in MARPOL.

## SUCTION FOR CLEANING OF ENGINE ROOM BILGES

Convention reference: MARPOL  
MARPOL 73/78 Annex I,  
Regulation 9 and 16

### What to look for

Discharge of oily mixtures from engine room bilges or engine room shall pass through oil filtering system or systems except under specified conditions.

[Alternative image](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Cleanliness**

Ensure that the engine room and engine room bilges are as clean as possible. Ensure also that any discharge of oily mixtures shall pass through oily filtering system or systems.

## ENGINE ROOM BILGES CLEANLINESS

Convention  
reference:MARPOL  
MARPOL 73/78  
Annex I,  
Regulation 9 and 16

### What to look for

Discharge of  
oily mixtures  
from engine  
room bilges or  
engine room  
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except under  
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conditions.

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## SUCTION FOR CLEANING OF ENGINE ROOM BILGES

Convention  
reference:MARPOL  
MARPOL 73/78  
Annex I,  
Regulation 9 and 16

### **What to look for**

Discharge of oily mixtures from engine room bilges or engine room shall pass through oil filtering system or systems except under specified conditions.

[Alternative image](#)



## OILY WATER SEPARATOR

Convention reference: MARPOL  
MARPOL 73/78 Annex I  
Regulation 16

### What to look for

Any ship of 400 tons gross tonnage and above but less than 10.000 tons gross tonnage and any ship of 10.000 tons gross tonnage and above shall be provided with oil filtering equipment. The oil filtering equipment shall be such as will ensure that any oily mixture discharged into the sea after passing through the system has an oil content not exceeding 15 parts per million.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Oil filtering – separator**

Ensure that any oil discharge from the ship into the sea passes through the required oil filtering/separating equipment.

## MONITORING AND CONTROL SYSTEM

Convention  
reference:MARPOL  
MARPOL 73/78  
Annex I  
Regulation 16(5)

### What to look for

The oil filtering system shall be such as will ensure that any oily mixture discharged into the sea after passing through the system or systems has an oil content of less than 15 parts per million. The system shall

be provided with arrangements such as will ensure that any discharge of oily mixtures is automatically stopped when the oil content of effluent exceeds 15 parts pr million.



### **Monitoring**

Ensure that the provided system for monitoring content of oily mixtures is actually functioning so that it stops automatically if the oil content of the effluent exceeds 15 parts per million.



# ON-LINE MATERIALS

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The hyperlinks below lead to a few, selected internet sites. They are included here because they contain valuable information; because they are reported to be stable; and because they include a multitude of links that will lead you further on your internet journey.

- **DNV – Det Norske Veritas**  
[Homepage](#)  
[STCW '95](#)
  - **Paris Memorandum Of Understanding (Paris MOU) on PSC**  
[Homepage](#)
  - **Tokyo Memorandum Of Understanding (Tokyo MOU) on PSC**  
[Homepage](#)
  - **USCG – United States Coast Guard**  
[Homepage](#)  
[USCG Port State Control Page](#)
  - **MCA – United Kingdom Maritime & Coast Guard Agency**  
[Homepage](#)  
[MCA Port State Control Page](#)
  - **AMSA – Australian Maritime Safety Authority**  
[Homepage](#)  
[AMSA Port State Control Page](#)
  - **TC – Transport Canada**  
[Homepage](#)  
[TC Port State Control Page](#)
  - **Hong Kong Marine Department**  
[Homepage](#)  
[Monthly Detention Lists](#)
  - **IMO – International Maritime Organisation**  
[Homepage](#)  
[IMO Conventions](#)  
[IMO Links](#)
-



# ON THIS GUIDE

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**In the last years Port State Control (PSC) has increased world wide. The demands from the Port State Control Officers (PSCO) have shown a similar development.**

The aim of this guide is to make those on board more aware of the importance of preventive maintenance especially for areas that are normally in focus of PSC inspection, to ensure compliance with international requirements on safety and pollution prevention – and thereby having a greater chance to pass PSC inspection satisfactorily.

This guide contains a substantial amount of information. DNV recommends the use of this CD as a reference book. The guide is not meant to be read through in one session.

You may browse through this guide by selecting items in the lefthand menus. Please select any area that you are interested in, or areas you want to know more about.

The text and photographs in this guide will give you useful information that can help you to achieve compliance and thus avoid PSC detentions.

## **Image "hot spots"**

By searching the photographs you will find "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor. When it turns into a hand, you have detected a hotspot!)

## **Lack of proper maintenance**

is the main cause for deficiencies. The guide shows that you need to pay attention to details in all routine maintenance to have the best chance of passing an inspection.

DNV hope you find this guide useful and recommend you to give us any relevant feedback.

Best regards DNV.

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# ON DNV

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**Det Norske Veritas (DNV) is an independent, autonomous foundation established in 1864 with the objective of safeguarding life, property and the environment. DNV has 5,300 employees and 300 offices in 100 countries.**

As one of the world's leading maritime classification societies, Det Norske Veritas establishes rules for the construction and carries out in-service inspection of ships and mobile offshore units.

Det Norske Veritas provides safety, quality and reliability services to the world's offshore and process industries, with major markets in the United States, Europe and Asia.

DNV is also active in the aerospace and aviation industries. It has extensive Research and Development facilities, with laboratories in Norway, the Netherlands, Singapore, Fujairah and the US.



# The DNV Guide to PORT STATE CONTROL

Version 1.0 (January 2000)

**DNV's main objective is to safeguard life, property and protect the marine environment. The best way of improving safety and the marine environment is to ensure compliance with the international regulations which have been adopted by the International Maritime Organisation (IMO).**

In the 1980s and 1990s the number of substandard ships increased significantly. This was seen by many governments as a threat to life and environment. Therefore, the majority of IMO member Governments have agreed to use greater efforts to ensure compliance with IMO regulations that are in force in order to eliminate substandard ships.

The need for a more efficient Port State Control (PSC) was considered necessary to safeguard their ports and national waters. Consequently, regional agreements concerning Port State Control have been reached resulting in more effective Port State Control around the world.

DNV has developed this guide as a tool to assist ship masters, officers on board and ashore to achieve compliance with the requirements on safety and pollution protection and to be prepared for Port State Control inspections world wide. This is done through an increased awareness of preventive maintenance as well as an increased understanding of PSC scope, procedures and practice. This guide, which may be considered a supplement to ship's maintenance system, will guide those on board to have a better focus on preventive maintenance of main and critical areas on board that are normally in focus of Port State Control. By doing so, they should achieve compliance and be better prepared for PSC inspections.

We wish you good luck on the tour through this guide. Most of all, of course, we wish you good luck on your journey at sea.

DNV, January 2000.





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## ACCIDENT PREVENTION

- [Protective cover](#)
- [Rotating machinery](#)
- [Engine exhaust](#)

- [Main Areas menu](#)
- [The main page](#)



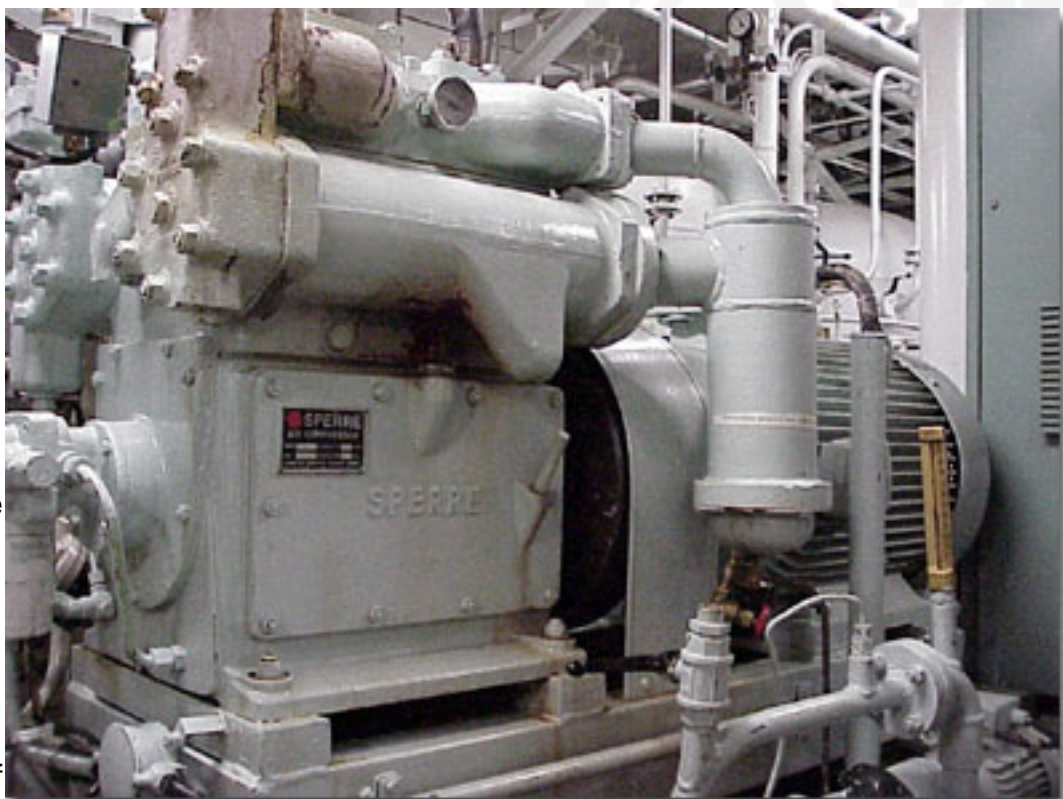
## PROTECTIVE COVER

Convention reference: ILO and SOLAS  
Convention no. 134  
Prevention of accidents, article 4.  
SOLAS Ch II-1, Regulation 26.1

### What to look for

The machinery, boilers and other pressure vessels, associated piping system and fittings shall be of a design and construction adequate for the service for which they are intended and shall be so installed and protected as to reduce to a minimum any danger to persons on board, due regard being paid to moving parts, hot surfaces and other hazards.

Provisions concerning the prevention of occupational accidents shall be laid down in particular regulations or codes of practice or other means.



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Protective covers**

Ensure that all protection of moving parts, remain in position so as to protect personnel from injuries. If protective covers have to be removed due to work etc, the covers shall be replaced before the machinery is restarted.



## PROTECTION ON ROTATING MACHINERY

Convention reference: ILO and SOLAS  
Convention no. 134, article 4  
SOLAS Ch II-1, Regulation 26.1

### What to look for

Rotating machinery parts shall be protected to avoid accidents.

Provisions concerning the prevention of occupational accidents shall be laid down in particular regulations or codes of practice or other provisions.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Prevention of accidents**

Ensure that necessary means have been taken to prevent accidents. Moving machinery parts shall be adequately protected. Protection covers should never be removed if the machinery is running.

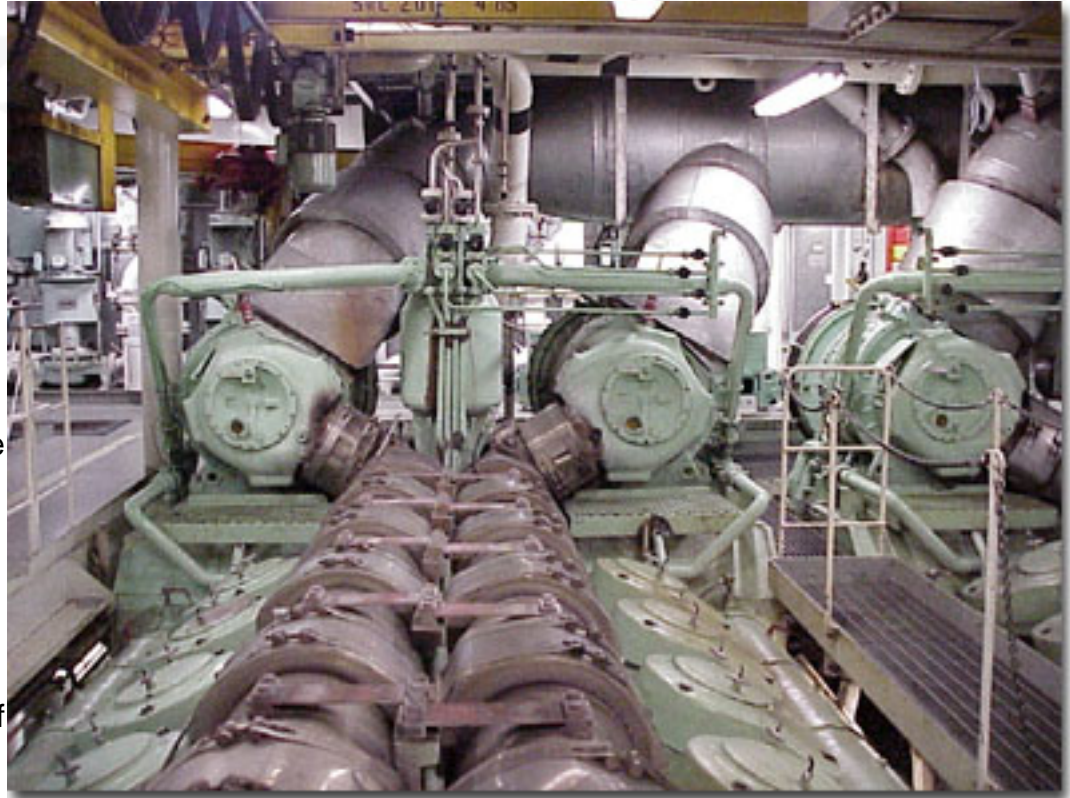
## ENGINE EXHAUST

Convention reference: SOLAS  
SOLAS Ch II-1, Regulation 26.1

### What to look for

The machinery, boilers and other pressure vessels, associated piping system and fittings shall be of a design and construction adequate for the service for which they are intended and shall be so installed and protected as to reduce to a minimum any danger to persons on board, due regard being paid to moving parts, hot surfaces and other hazards.

Provisions concerning the prevention of occupational accidents shall be laid down in particular regulations or codes of practice or other means.



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### Please

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### **Insulation of hot surfaces**

Ensure that the insulation of all hot surfaces, including flanges on exhaust pipes, shall remain in satisfactory condition. There should be no significant deterioration of insulation material. Damaged or deteriorated insulation material shall be renewed immediately. Insulation that is soaked with oil must be immediately replaced.



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## THE MAIN AREAS

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[Accommodation](#)

[Cargo](#)

[Fire fighting](#)

[Life-saving appliances](#)

[Load lines](#)

[Marine Pollution](#)

[Navigation](#)

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## ACCOMODATION

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- [Bathroom](#)
- [Broken light](#)
- [Cooking place](#)
- [Crew cabin](#)
- [Crew dayroom](#)
- [Electric reading light](#)
- [Floor/deck coverage](#)
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- [Main Areas menu](#)
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## ARTIFICIAL LIGHTING

Convention reference: ILO  
Convention no. 92, article 9

### What to look for

The recreation accommodation and elsewhere in the accommodation, there shall be adequate lighting.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Lighting and switches**

Ensure that the artificial lighting and switches are in satisfactory condition in the accommodation as a whole.

## BROKEN LIGHT

Convention reference: ILO  
Convention no. 92, article 9

### What to look for

The artificial lighting shall be kept in satisfactory condition throughout the ship's accommodation.



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Condition of artificial light**

Ensure that every artificial light is undamaged and otherwise in satisfactory condition.

### **Renewal of artificial light**

Whenever an artificial light is broken, it shall be renewed immediately.

## CREW CABIN – BERTH AND FURNITURE

Convention reference: ILO  
Convention no. 92, article 10

### What to look for

The cabin shall have berth(s), furniture such as clothes locker, table or desk, mirror, small cabinets for toilet requisites, chair(s) book rack and sufficient number of coat hooks.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Cabin**

The cabin berth shall fitted with linen and suitable mattress. Ensure that everything is clean and in satisfactory condition.

**Drawer**

The drawer shall be satisfactory without significant deterioration.

### **Table or desk**

Ensure that the table or desk is without significant deterioration or damages.

### **Damages**

Ensure that there are no damages or serious deterioration on the required book rack or other required furniture in the cabin.

## RECREATION ACCOMMODATION – CREW DAYROOM

Convention reference: ILO  
Convention no. 133, article 7

### What to look for

Ensure that the recreation accommodation such as crew dayroom, is furnished with adequate furniture as required and where practical, there shall be possibilities for games. The cleanliness shall be satisfactory in the recreation room.



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Crew dayroom - recreation**

Ensure that the recreation accommodation such as crew dayroom, is furnished with adequate furniture as required and where practical, there shall be possibilities for games. The cleanliness shall be satisfactory in the recreation room.



## ELECTRIC READING LIGHT

Convention reference: ILO  
Convention no. 92, articles 9

### What to look for

Each cabin shall be properly lighted by natural light and shall be provided with adequate artificial lighting.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Electric reading light**

Ensure that all artificial lighting is in operative condition and that there is an electric reading light at the head of each berth that it is without damages and operates satisfactory.

## FLOOR AND DECK COVERAGE

Convention reference: ILO  
Convention no. 92, article 6

### What to look for

The deck/floor coverage in crew accommodation shall be of approved material and construction, and shall provide a surface impervious to damp and easily kept clean.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Deck/floor coverage**

Ensure that the deck or floor coverage is in satisfactory condition without significant deterioration and that the cleanliness is satisfactory.

### **Significant deterioration**

Whenever the deck or floor coverage has suffered significant deterioration it shall be renewed.

## MARKING OF ESCAPE ROUTE

Convention  
reference: SOLAS  
SOLAS Ch II-2,  
Regulations 45  
SOLAS Ch III,  
Regulation 11.5

### What to look for

At all levels of accommodation there shall be provided at least two widely separated means of escape from each restricted space or group of spaces. Below the lowest open deck,



means of escape shall be a stairway and the second escape (emergency escape) may be a trunk or a stairway. Routes to muster and embarking stations including emergency exits shall be indicated with symbols in accordance with recommendations adopted by IMO.

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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Emergency exits**

Ensure that the emergency exits are clearly marked and that there is always free passage through such escapes. Ensure that all emergency exits are indicated with symbols as required.

## MEDICINE CHEST – LOCKERS

Convention reference: ILO  
Convention no. 92, article 14

### What to look for

An approved medicine chest with readily understandable instructions shall be carried in every ship which does not carry a doctor.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Lockers for medicine equipment**

There shall be lockers satisfactory for the medicine and equipment which shall be carried.  
The medicine shall be checked periodically to ensure that the quantity of medicine and equipment are as required.

## MEDICINE AND INSTRUCTIONS

Convention reference: ILO  
Convention no. 92, article 14

### What to look for

The content (medicine and equipment) of the medicine chest shall be according to recommendation issued by ILO.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

## **Instructions**

Ensure that the medicine chest has understandable instructions which is available as required.

## MESSROOM

Convention reference: ILO  
Convention no. 92, articles 9 and 11  
Convention no. 133, article 11

### What to look for

Mess rooms shall be equipped with suitable tables and seats sufficient for the number of persons likely to use them at any time. All public rooms shall have sufficient lighting, heating and ventilation and shall be in an acceptable hygienic condition.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Table and seats**

Ensure that the tables, seats and mess room itself are clean without damages and otherwise in satisfactory condition

### **General Conditions**

Ensure adequate lighting, heating and ventilation in messroom and living quarters.

## MESSROOM UTENSILS

Convention reference: ILO  
Convention no. 92, article 11

### What to look for

The mess room or pantry shall be provided with adequate utensils sufficient for the number of persons likely to use the room at any time.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Messroom utensils**

Ensure that the mess utensils are of material which are easy to clean, without cracks or other damages and thoroughly clean.

## PANTRY ARRANGEMENT

Convention reference: ILO Convention no 133, article 6 and 92, article 11

### What to look for

Mess room or mess room pantries shall be provided with mess utensils, proper facilities for washing utensils, and there shall be available at all times when members of the crew are on board a refrigerator, which shall be conveniently situated, of sufficient capacity for the number of persons using the mess room(s).



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### **Refrigerator**

Ensure that the refrigerator in the mess room or pantry is operating satisfactory, clean and otherwise in satisfactory condition.



### **Washing of utensils**

The mess room or pantry shall have proper facilities for washing of utensils.

## PANTRY LOCKERS

Convention reference: ILO  
Convention no. 92, article 11

### What to look for

The mess room or pantry shall have adequate lockers for mess room utensils.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Messroom lockers**

Ensure that the lockers in mess room or pantry are arranged for satisfactory stowage of mess utensils. The cleanliness must be satisfactory.

## SHIP HOSPITAL

Convention reference: ILO  
Convention no. 92, article 14

### What to look for

The hospital accommodation shall be suitably situated, so that it is easily accessed. The berth(s) shall be arranged with easy access, preferably from both sides.



### Please

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**Ship hospital**

Ensure that the hospital is arranged and furnished with berth(s) as required to ensure the comfort and facilitate the treatment of the occupant(s). The hospital shall not be used for other than medical purposes.

## STOWAGE OF PROVISION

Convention reference: ILO  
Convention no. 68

### What to look for

There shall be necessary spaces for storage of food, provision that need to be carried chilled and/or frozen.



### Please

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### **Storage and handling**

The store-room/spaces for storage and handling of various types of provisions, shall be equipped with shelves and have satisfactory arrangement for the storage and handling of food/provisions which are needed during a voyage.

### **Stowage of frozen or chilled food**

Ensure that food which need to be stored frozen or chilled are carried under satisfactory conditions.



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## CARGO

- [Cargo Gear](#)
- [Securing of cargo](#)
- [Securing cargo units](#)

- [Main Areas menu](#)
- [The main page](#)

## CARGO GEAR – LIFTING APPLIANCES

Convention reference: ILO  
Convention no. 152, articles 21 - 29

### What to look for

Every lifting appliance, every item of loose gear and every sling or lifting device forming part of an integral part shall be of adequate strength for the purpose for which it is used, maintained in good repair and working order and properly installed.



### Please

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### **Ship cargo gear and lifting appliances**

Ensure that ship cargo gear and other lifting appliances are kept in satisfactory condition, tested every fifth year and inspected every year. The required tests and inspections shall be recorded in the Cargo gear record book. All lifting appliances shall be marked as appropriate.

## SECURING OF CARGO

Convention reference: SOLAS  
SOLAS Ch VI, Regulation 5.6

### What to look for

Cargo units, including containers, shall be loaded, stowed and secured throughout the voyage in accordance with the Cargo Securing Manual approved by the Administration.



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### **Cargo securing arrangements**

Ensure that the cargo securing arrangements are as specified in the approved Cargo Securing Manual.

## SECURING CARGO UNITS

Convention reference: SOLAS  
SOLAS Ch VI, Regulation 5.6 and  
Conference **Resolution 13 Cargo  
securing equipment**, adopted on  
29 November 1995

### What to look for

Provisions should be included in  
the Cargo Securing Manual  
concerning minimum strength  
requirements for equipment  
used for securing cargo units,  
including vehicles and  
containers on ro-ro ships.



### Please

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### **Securing cargo units**

Ensure that the equipment and arrangements used for securing cargo units, including vehicles and containers have the necessary minimum strength taking into account forces due to motion of the ship, angle of heel after damage or flooding.



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**FIXED FIRE FIGHTING  
INSTALLATIONS**

- [Fixed fire exting.  
equipment](#)
- [Fixed fire-fighting system](#)
- [Fixed gas fire-exting.  
system](#)
- [Foam fire-fighting](#)
- [Sprinkler system](#)

- [Main Areas menu](#)
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## FIXED FIRE EXTINGUISHING EQUIPMENT

Convention reference: SOLAS  
SOLAS Ch II-2, Regulation 8.4  
(other machinery spaces)

### What to look for

Fire-extinguishing appliances in other machinery spaces. Where a fire hazard exists, in any machinery space for which no specific provisions for fire-extinguishing appliances are prescribed in any paragraphs of Regulation 7, there shall be provided portable extinguishers or other means of fire extinction as the Administration may deem sufficient.



### Please

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### **Fire-extinguishing arrangements**

Ensure that the fire-extinguishing arrangements in the emergency generator room are maintained satisfactorily and without any significant deterioration or damages which will reduce the effectiveness of the equipment or arrangements.



## FIXED GAS FIRE-EXTINGUISHING SYSTEM

Convention reference: SOLAS  
SOLAS Ch II-2, Regulation 5

### What to look for

The use of a fire-extinguishing medium which gives off toxic gases in such quantities as to endanger persons shall not be permitted. Necessary pipes for conveying fire-extinguishing medium into protected spaces shall be provided with control valves so marked as to indicate clearly the spaces to which the pipes lead.

### [Alternative image](#)



### Please

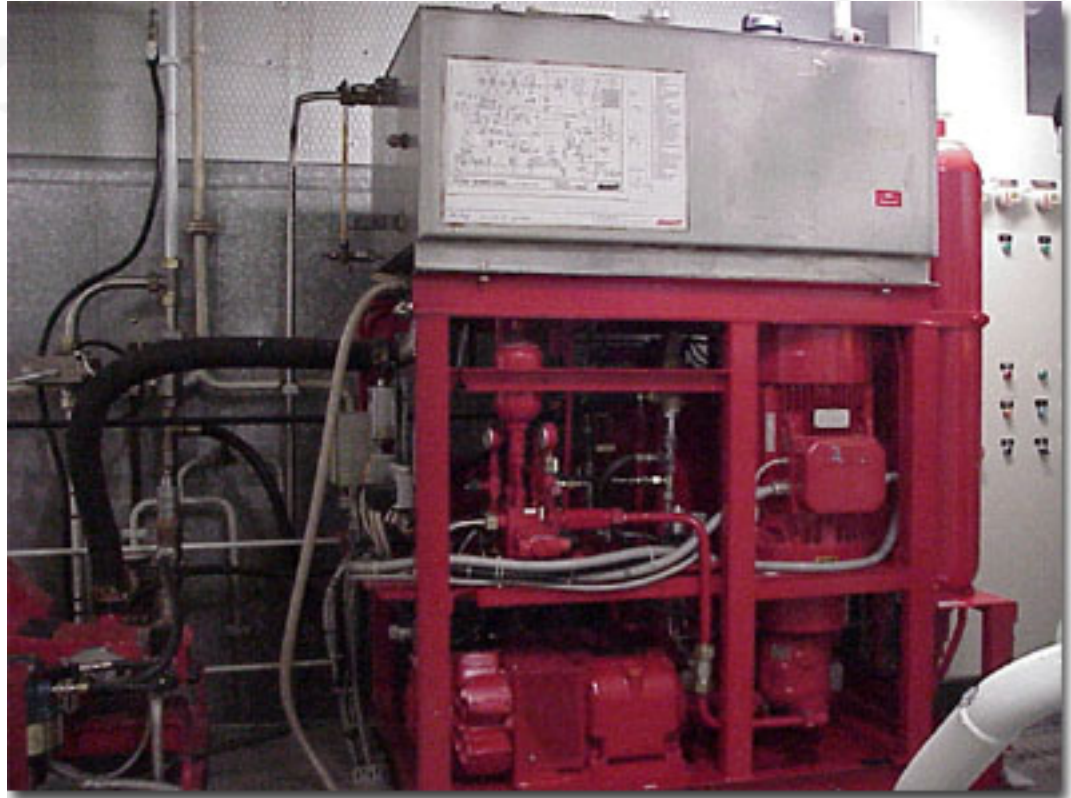
search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

## SPRINKLER FIRE-EXTINGUISHING APPLIANCES

Convention reference: SOLAS  
SOLAS Ch II-2, Regulation 36.1.2  
or 36.2

### What to look for

Passenger ship shall be equipped with an automatic sprinkler system of an approved type and complying with the requirements of SOLAS Ch II-2 Regulation 12, or the guidelines developed by IMO for an approved equivalent sprinkler system in all service spaces, control stations and accommodation spaces.



### Please

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### **Sprinkler system**

Ensure that the sprinkler system installed is in satisfactory condition. There shall be no significant deterioration or damage to system.



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## LIFE-SAVING APPLIANCES

- [Lifeboats – rescueboat – constructions](#)
- [Launching appliances and assessories](#)
- [Lifeboat – rescueboat fittings and equipment](#)
- [Liferafts and assessories](#)
  
- [Lifebuoys and assessories](#)
- [Distress signals](#)
- [Lifejackets and immersion suits](#)
- [Emergency applications – drills and maintenance](#)
  
- [Main Areas menu](#)
- [The main page](#)



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LIFEBOATS –  
RESCUEBOATS  
CONSTRUCTION

- [Rescue boat arrangements](#)
  - [Exterior – interior of a rigid rescue boat](#)
  - [Interior of partly enclosed lifeboat](#)
  - [Lifeboat engine and accessories](#)
  - [Lifeboat hook and tricing gear](#)
  - [Lifeboat propeller and rudder](#)
  - [Lifeboat propulsion](#)
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  - [Lifeboat rigid cover](#)
  - [Lifeboat steering position](#)
  - [Lifeboat tiller](#)
  - [Rescue boat manoeuvring position](#)
  - [Rescue boat stowage](#)
  - [Stowage of lifeboats](#)
- 
- [Main Areas menu](#)
  - [The main page](#)

## RESCUE BOAT ARRANGEMENTS

Convention reference: SOLAS  
SOLAS Ch III, Regulation 41 and 47.  
For ships constructed on or after 1 July  
1998  
the LSA Code paragraphs 4.4 and 5.1 shall  
apply.

### What to look for

Lifeboat and rescue boat shall  
be designed with due regard to  
safety of persons in the water  
and to the possibility of damage  
to the propulsion system by  
floating debris.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Propulsion system**

Ensure that the lifeboat and rescue boat propulsion system is without damage and that there is no significant deterioration of the system that could have influence on the manoeuvrability of the boat.

### **Self-bailing arrangements**

If a lifeboat or rescue boat has been equipped with self-bailing arrangements, ensure that such arrangements are without serious deterioration which will reduce the efficiency or functionality of the arrangements.

## **Maintenance**

Ensure that the arrangements on the lifeboat and rescue boat which shall protect persons in the water and the propulsion system from floating debris, are without significant deterioration.

## EXTERIOR – INTERIOR OF A RIGID RESCUE BOAT

Convention reference: SOLAS  
SOLAS Ch III, Regulation 47.  
For ships constructed on or after  
1 July 1998 the LSA Code paragraph  
5.1 shall apply.

### What to look for

Immersion suits of an appropriate size, complying with the applicable requirements shall be provided for every person to crew the rescue boat(s). Cargo ships shall carry at least three immersion suits for each life boat. If the Administration has considered it necessary and practical, one immersion suit shall be carried for every person on board the ship. The immersion suit and thermal protective aids need not be required on ships carrying totally enclosed lifeboats on each side of the ship.



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search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Launching of rescue boat**

Ensure that the ship carries approved immersion suits as required. Immersion suits should be stowed in easy accessible places marked with appropriate signs.

### **Boarding and launching of rescue boat**

The suits and accessories, including retro reflective material, shall not have any significant deterioration. Immersion suits being significantly deteriorate shall be renewed.



## LIFEBOAT PROPULSION

Convention reference: SOLAS

SOLAS Ch III, Regulation 41.

For ships constructed on or after 1 July 1998  
the LSA Code paragraph 4.4 shall apply.

### What to look for

Every lifeboat shall be powered by a compression ignition engine. No engine shall be used for any lifeboat if its fuel has a flash point of 43 degr. C or less.



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### **Exhaust pipe**

Ensure that the exhaust pipe is provided with satisfactory insulation and without significant deterioration which could cause leakage of exhaust into the engine room or into the lifeboat itself. This is especially important if the lifeboat is partly or totally enclosed.

## LIFEBOAT – RESCUE BOAT HOOK

Convention reference: SOLAS  
SOLAS Ch III, Regulation 47 ref.  
Regulation 41.

For ships constructed on or after 1 July  
1998  
the LSA Code paragraphs 4.4 and 5.1 shall  
apply.  
Regulation 53 and 37 in amended Ch III.

### What to look for

The hooks in ridged rescue  
boats or lifeboats shall be  
properly secured to the hull of  
the boat with a designed safety  
factor of 6.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Hooks in rigid boats**

Ensure that the hooks in rigid boats are properly secured to the lifeboat/rescue boat hull and are without any significant deterioration. Ensure also that there is no significant deterioration on the hooks and/or its accessories which might reduce the designed strength. Posters and signs in the vicinity of the survival craft and the launching appliances, shall be provided giving procedure for operation and relevant warnings.

## LIFEBOAT RIGID COVER

Convention reference: SOLAS  
SOLAS Ch III, Regulation 30 and 48.  
For ships constructed on or after  
1 July 1998 the LSA Code  
paragraph 1.2 and 6.1 shall apply.

### What to look for

All life-saving appliances prescribed in Part C of SOLAS Ch. III shall be fitted with retro-reflective material to assist in detection.

Leading links and structural members of the launching appliances shall always remain in satisfactory condition.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Retro-reflective material**

Ensure that the retro-reflective material which are fitted to the lifeboat is in place and remain in a condition so it will assist in detection of the boat/survival craft.



### **Leading links**

Ensure that the leading links at the top of the davit arms are without damages and/or significantly deteriorated.

## LIFEBOAT STEERING POSITION

Convention reference: SOLAS  
SOLAS Ch III, Regulation 41.  
For ships constructed on or after 1 July  
1998  
the LSA Code paragraph 4.4 shall apply.

### What to look for

Lifeboats may be provided with a wheel or other remote steering mechanism. There shall be an efficient compass in a binnacle provided with suitable means of illumination. In totally enclosed lifeboats the binnacle shall be permanently fitted at the steering position.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Steering mechanism and compass**

Ensure that the steering mechanism and compass are functioning properly and without serious deterioration.

## LIFEBOAT TILLER

Convention reference: SOLAS  
SOLAS Ch III, Regulation 41.  
For ships constructed on or after 1 July  
1998  
the LSA Code paragraph 4.4 shall apply.

### What to look for

The tiller shall be permanently  
installed on, or linked to, the  
rudder stock. If the lifeboat has a  
remote steering mechanism, the  
tiller may be removable and  
securely stowed near the rudder  
stock.



### Please

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### **Stowing of tiller or similar arrangement**

Ensure that the tiller or similar arrangement are securely stowed near the rudder stock and easy to apply. Ensure that the steering arrangement (tiller or similar) is without damages. In some cases it is easily damaged when operating the releases arrangement.

## RESCUE BOAT MANOEUVRING POSITION

Convention reference: SOLAS  
SOLAS Ch III, Regulation 47.  
For ships constructed on or after  
1 July 1998 the LSA Code paragraph 5.1  
shall apply.

### What to look for

Rescue boats shall be capable  
of manoeuvring at speed of 6  
knots and maintain that speed  
for a period of at least 4 hours.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Steering manoeuvring position**

Ensure that there is free access to the rescue boat manoeuvring position. The steering mechanism and manoeuvring facilities must be in full operative condition, maintained satisfactorily and be without significant deterioration.

## RESCUE BOAT STOWAGE

Convention reference: SOLAS  
SOLAS Ch III, Regulation 16 or Regulation 17  
in the amended chapter if the ship is  
constructed on or after 1 July 1998.

SOLAS Ch III, Regulations 11, 16 and 47.  
For ships constructed on or after 1 July  
1998,  
Regulation 11, 17 and paragraph 5.1 of the  
LSA Code.

### What to look for

The rescue boat embarkation  
and launching arrangements  
shall be such that the rescue  
boat can be boarded and  
launched in the shortest possible  
time. Rapid recovery of the  
rescue boat shall be possible  
when loaded with its full  
complement of persons and  
equipment.



### Please

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### **Procedures and lowering**

If the rescue boat is lowered by single suspension, ensure that the rescue boat equipment is stowed accordingly and that the launching crew can demonstrate the lowering procedures if requested.

### **Stowing**

Ensure that the rescue boat is readily accessible and stowed in the required state of readiness for launching. There shall always be free access to the rescue boat for boarding and launching.



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## LAUNCHING APPLIANCES AND ACCESSORIES

- [Davit arms and accessories](#)
- [Launching appliance](#)
- [Launching mechanism](#)
- [Launching procedure](#)
- [Lifeboat wire falls](#)
- [Lifting block and accessories](#)
- [Recovering gear for lifeboat](#)
- [Release mechanism for lifeboat hooks](#)
- [Release mechanism inside a free-fall lifeboat](#)
- [Release mechanism manoeuvring handle](#)
- [Rescue boat hook and release wire](#)
- [Rescue boat recovery gear](#)
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## DAVIT ARMS AND ACCESSORIES

Convention reference: SOLAS  
SOLAS Ch III, Regulation 48.  
For ships constructed on or after 1. July  
1998  
the LSA Code paragraph 6.1 shall apply.

### What to look for

Each launching appliance shall  
be so constructed that a  
minimum amount of routine  
maintenance is necessary. Parts  
which require regular  
maintenance shall be readily  
accessible and easily  
maintained.



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search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



## **Maintenance**

Ensure that blocks, links and all other fittings of the launching appliances needing regular maintenance, remain in satisfactory condition. Regular maintenance should be documented and available on request.

## LAUNCHING APPLIANCE

Convention reference: SOLAS  
SOLAS Ch III LSA Code paragraph 6.1.4.5,  
Regulation 52 and 36 in amended Ch III

### What to look for

The launching appliance shall be arranged so as to preclude accidental release of the lifeboat in its unattended stowed position. If the means provided to secure the lifeboat cannot be released from inside the lifeboat, it shall be so arranged as to preclude boarding the lifeboat without first releasing it.



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## **Maintenance**

Ensure that the free-fall lifeboat release mechanism and securing arrangement are maintained satisfactorily and without significant deterioration. Instruction and signs regarding operation and launching procedure must be provided.

## LIFEBOAT WIRE FALLS

Convention reference: SOLAS  
SOLAS Ch III, Regulation 48.  
For ships constructed on or after  
1 July 1998 the LSA Code paragraph 6.1  
shall apply.

\* SOLAS Ch III, Regulation 19.  
For ships constructed on or after  
1 July 1998 Regulation 20 shall apply.

### What to look for

When the launching appliances are using falls and a winch, the falls shall be of rotation-resistant and corrosion resistant steel wire ropes. The falls shall be maintained and renewed when required.



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search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Maintenance of falls**

Ensure that the falls used in launching of survival craft are satisfactorily maintained and without severe deterioration. The falls shall be turned end for end of not more than 30 months\* and renewed when necessary due to deterioration. Maintenance or renewal of wire falls should be recorded and documented if required.

## LIFTING BLOCK AND ACCESSORIES

Convention reference: SOLAS  
SOLAS Ch III, Regulation 48.  
For ships constructed on or after  
1 July 1998 the LSA Code paragraph 6.1  
shall apply.

### What to look for

The structural members and  
blocks, padeyes, links,  
fastenings and all other fittings  
used in connection with  
launching equipment shall have  
a minimum factor of safety.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Deterioration**

Ensure that all blocks, padeyes, links, fastenings and all other fittings which are part of the launching arrangement, are without significant deterioration that might weaken any part of the launching appliances.

## RESCUE BOAT HOOK AND RELEASE WIRE

Convention reference: SOLAS  
SOLAS Ch III, Regulation 47 ref.  
Regulation 41.  
For ships constructed on or after 1 July  
1998  
the LSA Code paragraphs 4.4 and 5.1 shall  
apply.

### What to look for

The rescue boat shall be fitted  
with hook(s) and release  
mechanism which shall release  
the hook(s) when the boat is  
waterborne or when there is no  
load on the hook(s).



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Rescue boat hook**

Ensure that the rescue boat hook(s) is securely locked before commencing the launching procedures. Ensure that the release mechanism is adequately protected against accidental or premature release.

### **Maintenance of wire**

If a wire line is used to release the hook(s), ensure that the wire is maintained satisfactorily and without significant deterioration.



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## LIFEBOAT/RESCUEBOAT FITTINGS AND EQUIPMENT

- [Air support system in lifeboats](#)
  - [Battery switches](#)
  - [Equipment in lifeboat](#)
  - [Lifeline – retro-reflective material](#)
  - [Rescue boat bailing pump](#)
  - [Rescue boat painter and release arrangement](#)
  - [Rescue boat starting battery stowage](#)
  - [Self righting arrangement](#)
  - [Stowage of equipment](#)
  - [Stowage of rechargeable batteries](#)
  - [Stowage of sea-anchor](#)
  - [Water spray system in fire-protected lifeboats](#)
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## AIR SUPPORT SYSTEM IN LIFEBOATS

Convention reference: SOLAS  
SOLAS Ch III Regulation 26.1.6 and  
Regulation 31.1.6  
in amended chapter III, and LSA Code  
paragraph 4.8.  
Regulation 52 and 36 in amended Ch III.

### What to look for

Chemical tanker and gas  
carriers carrying cargoes  
emitting toxic vapours or gases,  
shall carry lifeboats with self  
contained air support system.

[Alternative image](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Air support system**

Ensure that the air support system in lifeboats on chemical tankers and gas carriers is maintained satisfactorily and that the visual indicators indicating air supply pressure have appropriate pressure reading at all times. Instruction regarding the operation and maintenance shall be readily available.

## AIR SUPPORT SYSTEM IN LIFEBOATS

Convention reference: SOLAS  
SOLAS Ch III Regulation 26.1.6 and Regulation 31.1.6  
in amended chapter III, and LSA Code paragraph 4.8.  
Regulation 52 and 36 in amended Ch III.

### What to look for

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## AIR SUPPORT SYSTEM IN LIFEBOATS

Convention  
reference: SOLAS  
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and Regulation  
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in amended chapter  
III, and LSA Code  
paragraph 4.8.  
Regulation 52 and  
36 in amended Ch  
III.

**What to look  
for**  
Chemical  
tanker and gas  
carriers  
carrying  
cargoes  
emitting toxic  
vapours or  
gases, shall  
carry lifeboats  
with self  
contained air  
support  
system.



[Alternative image](#)

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## BATTERY SWITCHES

Convention reference: SOLAS  
SOLAS Ch III, Regulation 41.  
For ships constructed on or after  
1 July 1998 the LSA Code paragraph 4.4  
shall apply. Regulation 52 and 36 in  
amended Ch III.

### What to look for

Accessories important for  
starting and operation of lifeboat  
engine shall be clearly marked.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Starting of engine**

Ensure that accessories important for starting of engine and operation and manoeuvring of the lifeboat, are marked satisfactorily. Necessary instructions, posters and signs shall be provided.

## BUOYANT LIFELINE – RETRO-REFLECTIVE MATERIAL

Convention reference: SOLAS  
SOLAS Ch III, Regulation 30, 41 and 47.  
For ships constructed on or after  
1 July 1998 the LSA Code paragraphs  
1.2, 4.4 and 5.1 shall apply.

### What to look for

Except in the vicinity of the  
rudder and propeller, a buoyant  
lifeline shall be becketed around  
the outside of the lifeboat and  
rescue boat.

Lifeboat and rescue boat shall  
be fitted with retro-reflective  
material to assist in the  
detection.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Buoyant lifeline**

Ensure that the required buoyant lifeline becketed around the outside of the lifeboat and rescue boat is in satisfactory condition and without severe deterioration.

### **Retro-reflective material**

Ensure that the required retro-reflective material is properly fitted to the exterior of the lifeboat and rescue boat and that the material is in satisfactory condition for detection. Retro-reflective material with significant deterioration shall renewed.

## RESCUE BOAT BAILING PUMP

Convention reference: SOLAS  
SOLAS Ch III, Regulation 41.7.12 and  
47.1.1.  
For ships constructed on or after 1 July  
1998,  
Ref. LSA Code paragraph 4.4.8.25.

### What to look for

Unless provided otherwise,  
every lifeboat and rescue boat  
shall be provided with effective  
means of bailing or be automatic  
self-bailing.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Bailing or self-bailing arrangement**

Ensure that the lifeboat – rescue boat's bailing or self bailing arrangements are maintained and functioning satisfactorily and without significant deterioration.

## RESCUE BOAT STARTING BATTERY STOWAGE

Convention reference: SOLAS

SOLAS Ch III, Regulation 41.6.11 and 47.1.1.

For ships constructed on or after 1 July 1998

Ref. LSA Code paragraph 4.4.6.11 and 5.1.1.1.

### What to look for

The starting system shall not be impeded by the engine casing, seating or other obstructions. Means shall be provided for recharging lifeboat and rescue boat batteries from the ship's power supply.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Maintenance of batteries**

The batteries provided for power starting the engine shall be maintained properly and be continuously recharged. Ensure that the power starting system is in satisfactory condition.



### **Recharging batteries**

Ensure that the unit provided for recharging the starting batteries are operating satisfactorily at a supply voltage not exceeding 50\* V.

## SELF RIGHTING ARRANGEMENT

Convention reference:IMO  
IMO Res. A 656 (16)

### What to look for

Fast rescue boat shall be approved by the Administration having due regard to the recommendations adopted by the organisation (IMO).



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Self righting arrangement**

Ensure that the self righting arrangement on a fast rescue boat is without significant deterioration. Information regarding operation shall be available on a poster.

## STOWAGE OF EQUIPMENT

Convention reference: SOLAS  
SOLAS Ch III, Regulation 41.  
For ships constructed on or after 1 July  
1998  
the LSA Code paragraph 4.4 shall apply.

### What to look for

The equipment required in a  
lifeboat shall be stored safely.  
The buoyant oars shall be  
stowed in such a way that they  
do not interfere with embarkation  
or disembarkation of the lifeboat.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Stowage of buoyant oars**

Ensure that the buoyant oars which shall be in the lifeboat, are properly stowed and secured. The stowage must be such that the carrying capacity of the lifeboat are not reduced and that their stowage do not interfere with the embarkation procedures and the access into the boat.

## STOWAGE OF RECHARGEABLE BATTERIES

Convention reference: SOLAS

SOLAS Ch III, Regulation 41.6 and 42.1.1.

For ships constructed on or after 1 July 1998

Ref. LSA Code paragraph 4.4.6 and 5.1.1.1.

### What to look for

The lifeboat and rescue boat engine shall be provided with either a manual starting system, or a power starting system with two independent rechargeable energy sources (batteries).



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Recharging rescue boat batteries**

Ensure that the lifeboat and rescue boat batteries for the engine power starting system are continuously recharged so that the engine can be started at an ambient temperature of minus 15 C.

## STOWAGE OF SEA-ANCHOR

Convention reference: SOLAS  
SOLAS Ch III, Regulation 41.  
For ships constructed on or after 1 July  
1998  
the LSA Code paragraph 4.4 shall apply.

### What to look for

A sea-anchor of adequate size  
fitted with a shock-resistant  
hawser and a tripping line which  
provide a firm hand grip when  
wet, shall be stowed for easy  
display.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Sea-anchor and required accessories**

Ensure that the sea-anchor and required accessories are stowed and secured in a position where it do not interfere with the embarkation or abandonment procedures. The sea-anchor and accessories shall have no significant deterioration.



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## LIFERAFT AND ACCESSORIES

- [Davit launched liferaft hook](#)
- [Hydrostatic release](#)
- [Liferaft container](#)
- [Liferaft launching procedure](#)
  
- [Main Areas menu](#)
- [The main page](#)

## DAVIT LAUNCHED LIFERAFT HOOK

Convention reference: SOLAS

SOLAS Ch III, Regulation 48.

For ships constructed on or

after 1 July 1998 the LSA

Code paragraph 6.1 shall apply

### What to look for

The launching appliances for davit launched liferafts shall be provided with a lifting hook, and the rafts shall be stowed within the reach of the hook. The liferaft launching appliances shall be so arranged as to prevent premature release during lowering and shall release the liferaft when waterborne.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Locking of liferaft hook**

Before embarking the liferaft, ensure that the liferaft hook is properly locked to prevent premature or accidental release. Poster(s) regarding operation of the hook shall be provided on the equipment.



### **Liferaft hook**

Ensure that the liferaft hooks are provided with instruction to prevent premature release during lowering. Appointed crew-members shall have sufficient knowledge concerning the operation of the liferaft hook(s).



## LIFEBUOYS AND ACCESSORIES

- [Lifebuys](#)
  - [Lifebuys fitted with buoyant lifeline](#)
  - [Lifebuoy with quick release arrangement](#)
  - [Quick release of lifebuoy](#)
- 
- [Main Areas menu](#)
  - [The main page](#)

## QUICK RELEASE OF LIFEBOUY FROM NAVIGATION BRIDGE

Convention reference: SOLAS  
SOLAS Ch III, Regulation 7.1

### What to look for

Not less than two of the lifebuoys fitted with self igniting lights shall also be provided with self-activating smoke signals and be capable of quick release from the navigation bridge.



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Quick release of lifebuoys**

Ensure that two of the required lifebuoys are provided with quick release from the bridge and that the required combined light-smoke signals are without significant deterioration. If significantly deteriorated the light/smoke signals shall be renewed.

### **Quick release arrangements**

Ensure that the quick release arrangements for the two lifebuoys arranged for quick release from the navigation bridge are satisfactorily maintained and without significant deterioration.



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## DISTRESS SIGNALS

- [Distress flares](#)
- [Distress flares – date of fabrication and date expiry](#)
- [Validity date](#)
  
- [Main Areas menu](#)
- [The main page](#)



## DISTRESS FLARES

Convention reference: SOLAS  
SOLAS Ch III, Regulation 6.3

### What to look for

Not less than 12 rocket parachute flares, that comply with applicable requirements, shall be carried and stowed on or near the navigation bridge.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Required distress flares/pyrotechnics**

Ensure that the required distress flares/pyrotechnics are available on board and that they are stowed as required.

## DISTRESS FLARES – DATE OF FABRICATION AND DATE EXPIRY

Convention reference: SOLAS  
SOLAS Ch III, Regulation 30.3 and  
LSA Code paragraph 1.2.3 as  
appropriate

### What to look for

The administration shall determine the acceptability of life-saving appliances which are subject to deterioration with age. Such life-saving appliances shall be marked with a means of determining their age or the date by which they must be replaced.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Marking of distress flares**

Ensure that distress flares/pyrotechnics are marked with means for determining their age or the date of expiry - date by which they must be replaced.

## VALIDITY DATE

Convention reference: SOLAS  
SOLAS Ch III, Regulation 19.  
For ships constructed on or after 1 July  
1998,  
Regulation 20 apply.

### What to look for

The hydrostatic release units shall be serviced at intervals not exceeding 12 months, or if the hydrostatic release unit is of a make that need not to be serviced, it shall be marked with its validity date.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Hydrostatic release units**

Ensure that the hydrostatic release units have been serviced during the last 12 months or is marked with validity date and renewed as appropriate.





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## LIFEJACKETS AND IMMERSION SUITS

- [Donning of lifejackets](#)
- [Stowage of lifejackets](#)
  
- [Main Areas menu](#)
- [The main page](#)



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## EMERGENCY APPLICATIONS – DRILLS AND MAINTENANCE

- [Illumination of survival craft](#)
- [Instructions for onboard maintenance](#)
- [Marking of emergency exits](#)
- [Muster list and emerg. instructions](#)
- [Muster station symbol](#)
- [Records of musters and drills](#)
  
- [Main Areas menu](#)
- [The main page](#)

## ILLUMINATION OF SURVIVAL CRAFT

Convention reference: SOLAS  
SOLAS Ch III, Regulation 15.7 and  
amended Ch III, Regulation 16.7  
as appropriate

### What to look for

During preparation and launching the survival craft, its launching appliances, and the area of water into which it is to be launched shall be adequately illuminated by emergency source of electrical power lighting.

### [Alternative image](#)



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Lighting arrangement**

Ensure that the lighting arrangement required for lighting the area of water into which the survival craft/rescue boat is to be launched is in satisfactory condition.

## ILLUMINATION OF SURVIVAL CRAFT

Convention  
reference: SOLAS  
SOLAS Ch III,  
Regulation 15.7 and  
amended Ch III,  
Regulation 16.7  
as appropriate

### **What to look for**

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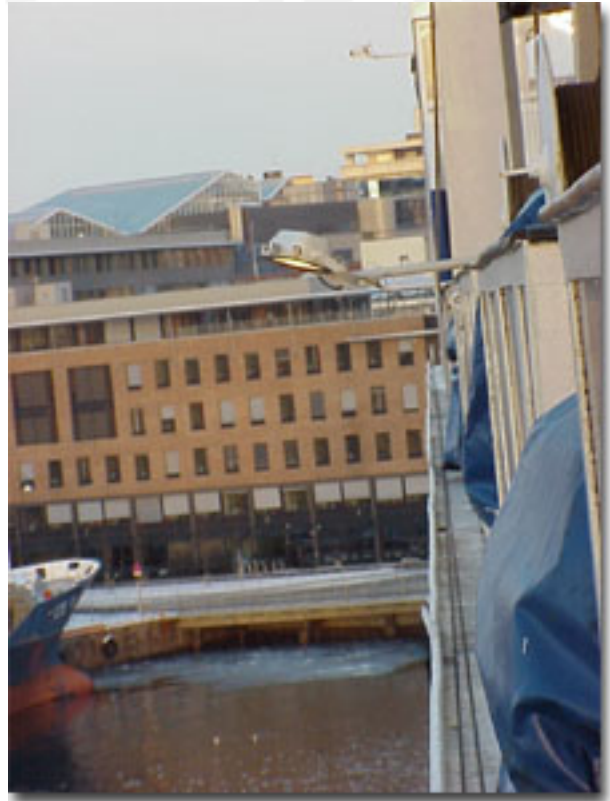
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[Alternative image](#)





## MARKING OF EMERGENCY EXITS

Convention  
reference: SOLAS  
SOLAS Ch. III,  
Regulation 11.5

### What to look for

Routes to  
muster and  
embarkation  
stations  
including  
emergency  
exits shall be  
indicated with  
symbols in  
accordance  
with  
recommendations  
adopted by  
IMO.



[Alternative  
image](#)

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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Symbols for emergency exits**

Ensure that all emergency exits are indicated with symbols adopted by IMO. The appropriate symbols shall be clearly visible and have no significant deterioration. Ensure that emergency exits can be opened/closed from both sides. Deteriorated or damaged symbols shall be renewed immediately.

## MARKING OF EMERGENCY EXITS

Convention  
reference: SOLAS  
SOLAS Ch. III,  
Regulation 11.5

### **What to look for**

Routes to muster and embarkation stations including emergency exits shall be indicated with symbols in accordance with recommendations adopted by IMO.

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## MARKING OF EMERGENCY EXITS

Convention



reference: SOLAS  
SOLAS Ch. III, Regulation 11.5

### What to look for

Routes to muster and embarkation stations including emergency exits shall be indicated with symbols in accordance with recommendations adopted by IMO.

[Alternative image](#)

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## LOAD LINES

- [Ventilator](#)
  - [Ball-type ventilator](#)
  - [Hatch cover opening & closing mechanism](#)
  - [Hatch cover rollers & claming devices](#)
  - [Hatchway coaming and cover](#)
  - [Cat walk – guard rails](#)
  - [Hatch cover clamping device](#)
  - [Freeboard marks](#)
  - [Guard rail](#)
  - [Hatchway coamings](#)
  - [Small Hatchways](#)
  - [Hatch cover securing arrangements](#)
  - [Manhole covers](#)
  - [Cat walk – gangway view](#)
  - [Air pipe](#)
  - [Gooseneck type air pipes](#)
  - [Watertight doors](#)
- 
- [Main Areas menu](#)
  - [The main page](#)

## BALL-TYPE BALLAST TANK VENTILATORS HEADED WITH WASTED INNER/OUTER WALL

Convention reference: International Convention on Load Lines  
1966, Regulation 20

### What to look for

Where ventilators or air pipes to ballast tanks, other tanks or spaces extend above the freeboard or superstructure decks; the exposed part of the pipes shall be of substantial construction.

[Alternative image](#)



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



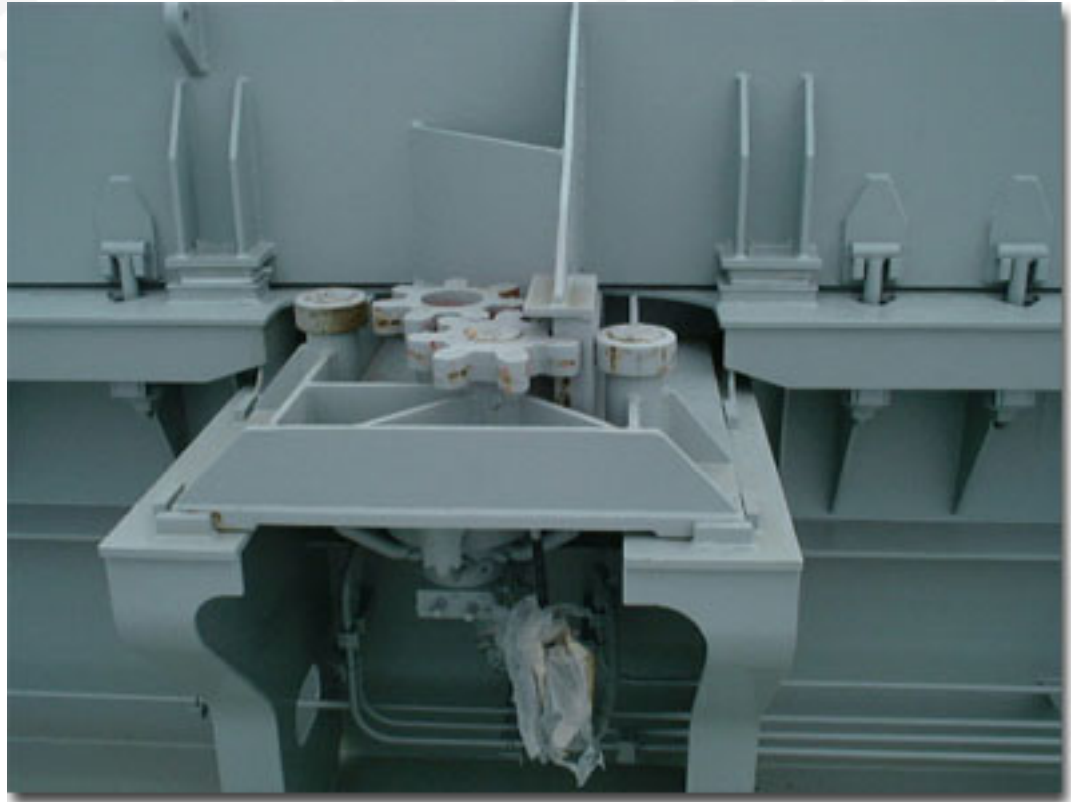
## CARGO HOLD HATCH COVER OF STEEL – OPENING/CLOSING MECHANISM AND ARRANGEMENTS

Convention reference: International Convention on Load Lines, 1966, Regulation 15 and 16. SOLAS Ch I, Regulation 11(a)

### What to look for

The means for securing and maintaining weathertightness shall be to the satisfaction of the Administration. The arrangements shall ensure that the tightness can be maintained in any seaway. The cargo hold hatchcovers must be maintained satisfactory for easy operation.

[Alternative image](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Cargo hold hatch cover**

Ensure that the opening/closing mechanism and arrangements are in good condition and properly maintained. There should be no significant deterioration or damages to the mechanism and arrangements.



## CARGO HOLD HATCH COVER OF STEEL – OPENING/CLOSING MECHANISM AND ARRANGEMENTS

Convention  
reference:  
International  
Convention on Load  
Lines,  
1966, Regulation 15  
and 16.  
SOLAS Ch I,  
Regulation 11(a)

### **What to look for**

The means for  
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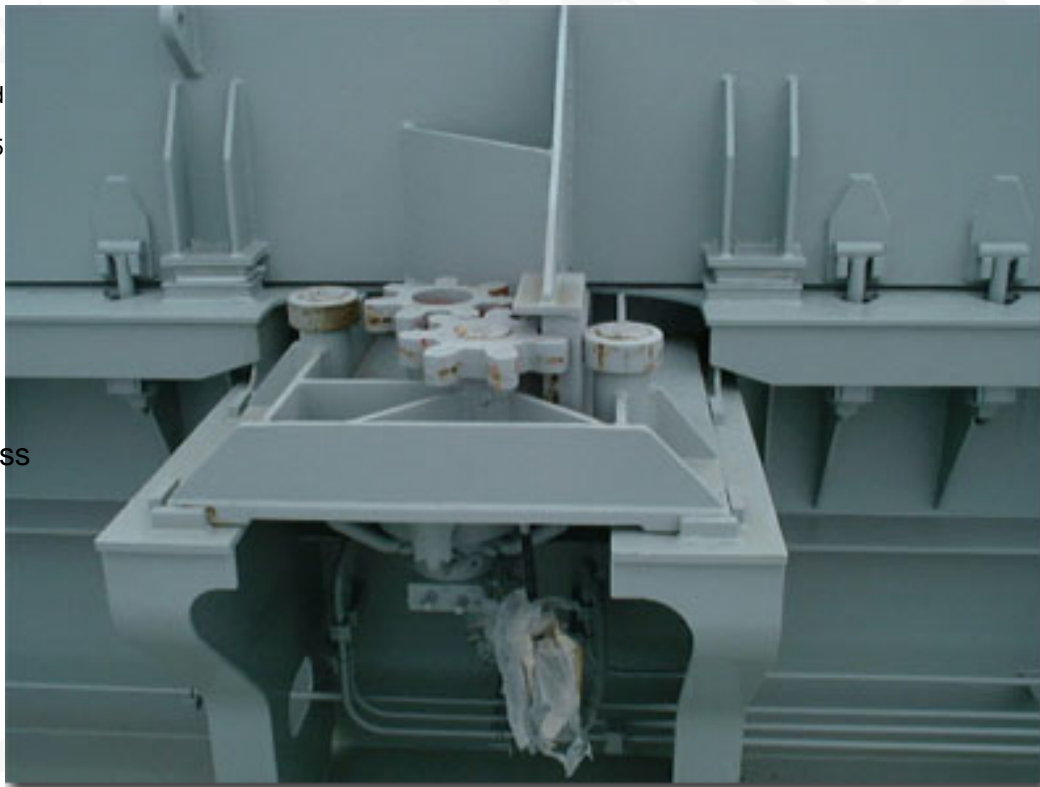
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## CARGO HOLD HATCH COVER OF STEEL – OPENING/CLOSING MECHANISM AND ARRANGEMENTS

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### **What to look for**

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operation.



[Alternative image](#)

## CARGO HOLD HATCH COVER WITH ROLLERS AND CLAMPING DEVICES

Convention reference: International Convention on Load Lines, 1966, Regulation 16

### What to look for

The cargo hold closed by weathertight covers of steel or other equivalent material shall be fitted with gaskets and clamping devices. Means for securing and maintaining weathertightness and operation arrangements shall be to the satisfaction of the Administration.

[Alternative image](#)



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Maintenance of rollers and roller bars**

Ensure that the rollers and roller bars are satisfactory maintained without any significant deterioration or damages.

### **Maintenance of clamping devices**

Ensure that the clamping devices are satisfactory maintained and without any significant deterioration or damages. The arrangements shall ensure that the tightness can be maintained in any sea condition.

## CARGO HOLD HATCH COVER WITH ROLLERS AND CLAMPING DEVICES

Convention  
reference:International  
Convention on Load  
Lines,  
1966, Regulation 16

### What to look for

The cargo hold closed by weathertight covers of steel or other equivalent material shall be fitted with gaskets and clamping devices.

Means for securing and maintaining weathertightness and operation arrangements shall be to the satisfaction of the Administration.



[Alternative image](#)

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## CARGO HOLD HATCH COVER WITH ROLLERS AND CLAMPING DEVICES

Convention  
reference:International  
Convention on Load  
Lines,  
1966, Regulation 16

### What to look for

The cargo hold closed by weathertight covers of steel or other equivalent material shall be fitted with gaskets and clamping devices.

Means for securing and maintaining weathertightness and operation arrangements shall be to the satisfaction of the Administration.



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## CARGO HOLD HATCH COVER WITH ROLLERS AND CLAMPING DEVICES

Convention  
reference:International  
Convention on Load  
Lines,  
1966, Regulation 16

### What to look for

The cargo hold closed by weathertight covers of steel or other equivalent material shall be fitted with gaskets and clamping devices. Means for securing and maintaining weathertightness and operation arrangements shall be to the satisfaction of the Administration.



[Alternative image](#)

# CARGO HOLD HATCHWAY COAMING AND HATCHWAY COVERS

Convention reference: International Convention on Load Lines 1966 Regulations 15 (1), 15 (2), 16 (1) and 16 (2)

## What to look for

Hatchway coamings fitted with weathertight hatch covers of steel or other equivalent material fitted with gaskets and clamping devices shall be as specified in the International Load Line (ILL) Convention.

[Alternative image](#)



## Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Construction of hatchway coamings**

Hatchway coamings shall be of substantial construction. Ensure that the hatchway coamings are maintained satisfactory and without significant deterioration or damages

### **Maintenance of hatchway covers**

Hatchway covers shall be of substantial construction and arranged as required in the ILL Convention. Ensure that the hatchway covers and arrangements are maintained satisfactorily and without damages.

## CARGO HOLD HATCHWAY COAMING AND HATCHWAY COVERS

Convention reference: International Convention on Load Lines 1966 Regulations 15 (1), 15 (2), 16 (1) and 16 (2)

### What to look for

Hatchway coamings fitted with weathertight hatch covers of steel or other equivalent material fitted with gaskets and clamping devices shall be as specified in the International Load Line (ILL) Convention.

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## CARGO HOLD HATCHWAY COAMING AND HATCHWAY COVERS

Convention  
reference:  
International  
Convention on Load  
Lines  
1966 Regulations  
15 (1), 15 (2), 16 (1)  
and 16 (2)

### **What to look for**

Hatchway  
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with gaskets  
and clamping  
devices shall  
be as specified  
in the  
International  
Load Line (ILL) Convention.



[Alternative image](#)



## CAT WALK – GUARD RAILS

Convention reference: International  
Convention on Load Lines,  
1966, Regulation 25 (4)

### What to look for

Satisfactory means (in form of  
guard rails, life lines, gangways  
or underdeck passages etc)  
shall be provided for the  
protection of the crew in getting  
to and from their quarters,  
machinery space and all other  
parts used in the necessary  
work of the ship.

### [Alternative image](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Cat walk – guard rails**

Ensure that the cat walks, passageways and similar for safe passages to and from accommodation, work and service spaces are maintained satisfactorily and without significant deterioration.

## CAT WALK – GUARD RAILS

Convention  
reference:  
International  
Convention on Load  
Lines,  
1966, Regulation 25  
(4)

**What to look  
for**  
Satisfactory  
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of guard rails,  
life lines,  
gangways or  
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space and all other parts used in the necessary work of the ship.



[Alternative image](#)

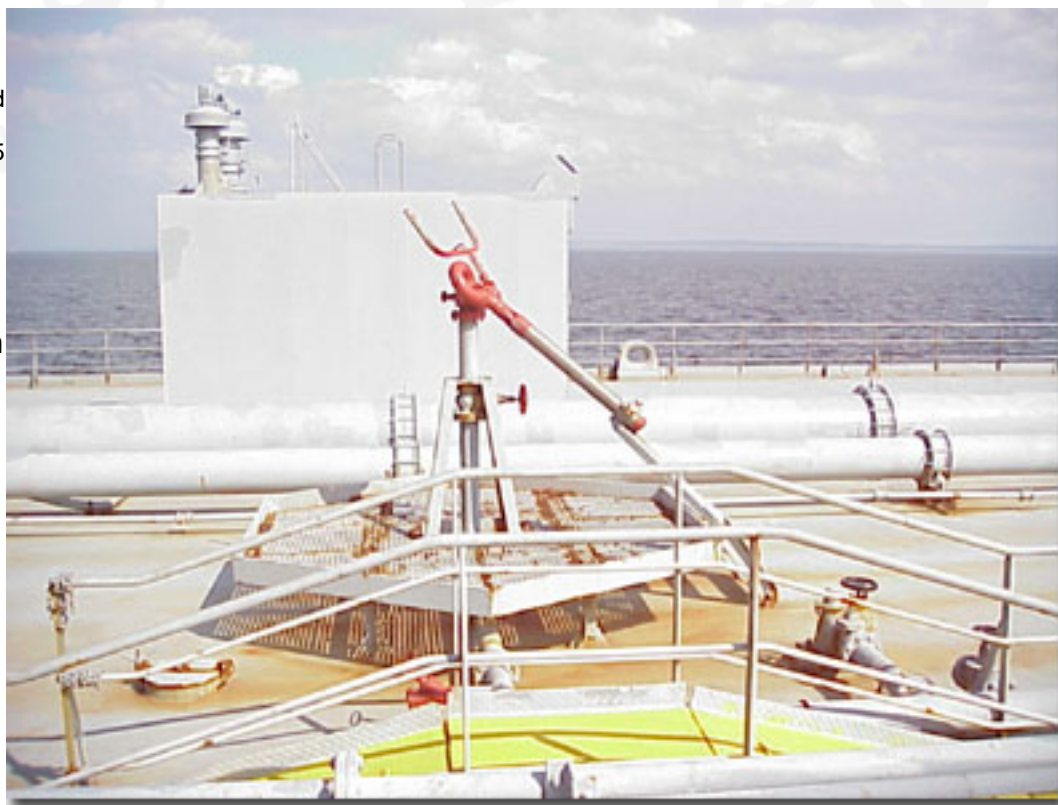
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## CAT WALK – GUARD RAILS

Convention  
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International  
Convention on Load  
Lines,  
1966, Regulation 25  
(4)

### What to look for

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## CAT WALK – GUARD RAILS

Convention  
reference:  
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Convention on Load  
Lines,  
1966, Regulation 25  
(4)

### What to look for

Satisfactory  
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machinery  
space and all other parts used in the necessary work of the ship.



[Alternative image](#)

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## CLAMPING DEVICE – TIGHTNESS IN ANY SEA CONDITIONS

Convention reference: International Convention on Load Lines, 1966, Regulation 16(4)

### What to look for

Hatchways closed by weathertight covers of steel shall be fitted with gasket and clamping devices to ensure that the tightness can be maintained in any sea conditions.



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Clamping device**

Ensure that the clamping devices for cargo hold hatch covers are in satisfactory condition without any significant deterioration or damages.



## What to look for

### Alternative image



**Please**

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Ship freeboard mark**

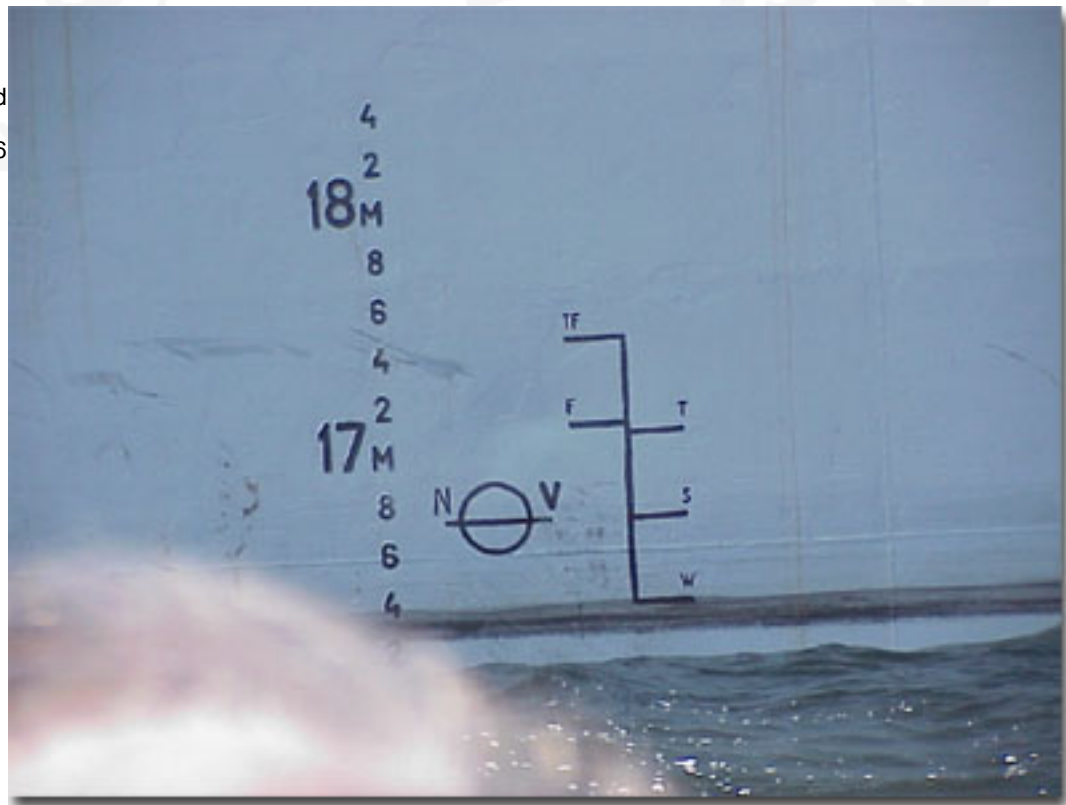
Ensure that the ship freeboard mark is clearly visible on the ships sides, and that the various lines are indicated/used with the Load Line Mark as required. The lines shall be as required for the various Zone areas.

## FREEBOARD MARKS AMIDSHIPS

Convention  
reference:  
International  
Convention on Load  
Lines,  
1966 Regulation 5,6  
and Annex II

### What to look for

Load Line  
Mark. The  
Load Line  
Mark shall  
consist of a  
ring 300  
millimetres in  
outside  
diameter. The  
centre of the  
ring shall be  
placed  
amidships and  
at a distance  
equal to the  
assigned summer freeboard measured vertically below the upper edge of the deck line.



[Back](#)

## FREEBOARD MARKS AMIDSHIPS

Convention  
reference:  
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Lines,  
1966 Regulation 5,6  
and Annex II

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assigned summer freeboard measured vertically below the upper edge of the deck line.

[Alternative image](#)

## GUARD RAIL ON THE FREEBOARD DECK

Convention reference: International  
Convention on Load Lines,  
1966, Regulation 25 (2)

### What to look for

Efficient guard rails or bulwark  
shall be fitted on all exposed  
parts of the freeboard and  
superstructure deck.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Inspection of guard rail or bulwark**

Ensure that the guard rail or bulwark on exposed freeboard and superstructure deck for protection of crew, remain in satisfactory condition without damages or significant deterioration.



## HATCHWAY COAMINGS

Convention reference: International Convention on Load Lines, 1966, Regulations 16 and 26 (4).

### What to look for

Exposed hatchways on the freeboard and forecastle deck shall have hatchway coamings fitted with watertight hatch covers of steel fitted with gaskets and clamping devices.

### [Alternative image](#)



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Maintenance of hatchways**

Hatchways on exposed freeboard and forecastle deck shall be maintained satisfactorily to ensure that they are watertight. Ensure that the hatchcoaming is maintained satisfactorily and without significant deterioration or damages.

## **Maintenance**

Hatchways on freeboard deck, including steel covers, gaskets and clamping devices, must be maintained satisfactory and shall be without significant deterioration. Damaged or deteriorated covers, gaskets and clamping devices shall be repaired or renewed.

## HATCHWAYS ON FREEBOARD DECK

Convention  
reference:  
International  
Convention on Load  
Lines,  
1966, Regulations  
16 and 26 (4)

### **What to look for**

Exposed  
hatchways on  
the freeboard  
and forecastle  
deck shall  
have hatchway  
coamings fitted  
with watertight  
hatch covers  
of steel fitted  
with gaskets  
and clamping  
devices.



[Back](#)

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Exposed hatchways on the freeboard and forecastle deck shall have hatchway coamings fitted with watertight hatch covers of steel fitted with gaskets and clamping devices.

[Alternative image](#)





## INSIDE HATCHWAY COVERS WITH ARRANGEMENTS FOR SECURING WEATHERTIGHTNESS

Convention reference: International  
Convention on Load Lines  
1966, Regulations 15(2) (3) (5) and 16(4)

### What to look for

The means for securing and maintaining weathertightness shall be satisfactory. The arrangements shall ensure that the tightness can be maintained in any sea conditions,



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Maintenance and weathertightness**

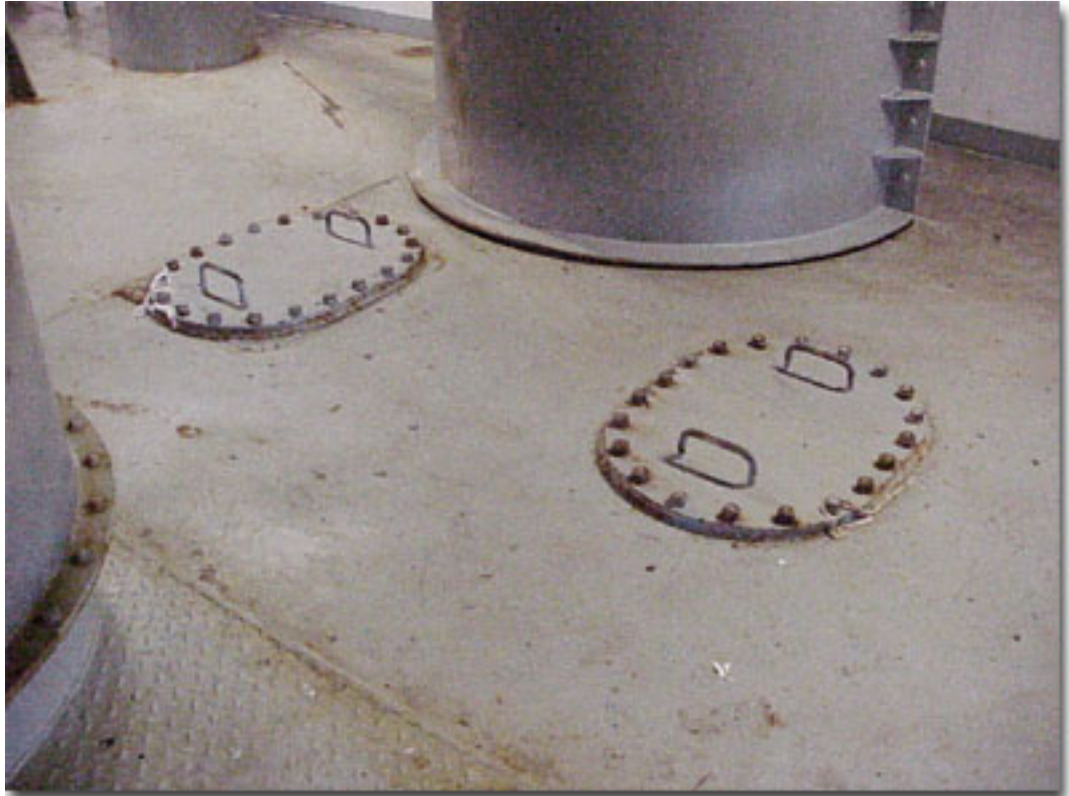
Ensure that the hatch covers of steel and the required arrangements to maintain weathertightness are satisfactory maintained, and without significant deterioration or damages.

## MANHOLE COVERS

Convention reference: International Convention on Load Lines, 1966, Regulation 18 (1) and (2).

### What to look for

Manholes and flush scuttles in freeboard and superstructure decks shall be closed by substantial covers capable of being made watertight. Unless secured by closely spaced bolts, the covers shall be permanently attached.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Closing of manholes and flush scuttles**

Ensure that manholes and flush scuttles are closed by substantial covers and that the gaskets, bolts and nuts are in satisfactory condition and without significant deterioration or damages which could reduce their strength and watertightness.

## UPPER DECK – CAT WALK – GANGWAY VIEW

Convention reference:International  
Convention on Load Lines,  
1966, Regulation 25

### What to look for

Satisfactory means (in form of guard rails, life lines, gangways etc) shall be provided for the protection of the crew in getting to and from their quarters, the machinery space and all other parts used in the necessary work of the ship.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

## **Maintenance**

Ensure that the required guard rails, gangways, cat walks, bulwark etc are satisfactory maintained, and have no significant damages, deterioration/corrosion. Gangways, guard rails, passages way shall be in safe and satisfactory condition.



## VENTILATOR – AIR PIPE

Convention reference: International  
Convention on Load Lines,  
1966, Regulation 20

### What to look for

Where air pipes to ballast and other tanks extend above the freeboard or superstructure decks, the exposed parts of the pipe shall be substantial constructed. Satisfactory means permanently attached, shall be provided for closing the openings of the air pipes.

### [Alternative image](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

## WATERTIGHT DOORS OF STEEL

Convention reference: International Convention on Load Lines, 1966, Regulation 12 (1)

### What to look for

All access openings in bulkheads at end of enclosed superstructures shall be fitted with doors of steel or other equivalent material, permanently and strongly attached to the bulkhead.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Gasket and clamping devices**

The gaskets and clamping devices shall be in satisfactory condition to ensure that the doors remain weathertight under all weather conditions.

### **Securing watertight doors**

Ensure that the means for securing doors weathertight such as gaskets and clamping devices or other equivalent means, are maintained satisfactorily without significant deterioration. Ensure that the clamping devices are so arranged that the doors can be operated from both sides.



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## MARINE POLLUTION

- [Cargo tank cleaning system](#)
  - [Drainage – engine room](#)
  - [Garbage handling](#)
  - [Garbage management](#)
  - [Garbage record book](#)
  - [Monitoring control system](#)
  - [Oil filtering equipment](#)
  - [Oil record book](#)
  - [Oily water separator](#)
  - [Shipboard oil pollution emergency plan](#)
  - [Slop tanks and transfer of oily waste](#)
  - [Suction of engine room bilges – cleanliness of bilges](#)
  - [Decontamination and eyewash](#)
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- [Main Areas menu](#)
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## CARGO TANK CLEANING SYSTEM

Convention reference: MARPOL  
Annex I Regulation 13 and 13B

### What to look for

Crude oil tankers of 20.000 tons dead-weight and above shall be fitted with a cargo tank cleaning system using crude oil washing.

[Alternative image](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Cargo tank cleaning system**

Ensure that cargo tank cleaning system using crude oil washing is operating satisfactorily. Ensure that all tank washing machines are working satisfactory. Significant deterioration of the cleaning system shall not be acceptable.

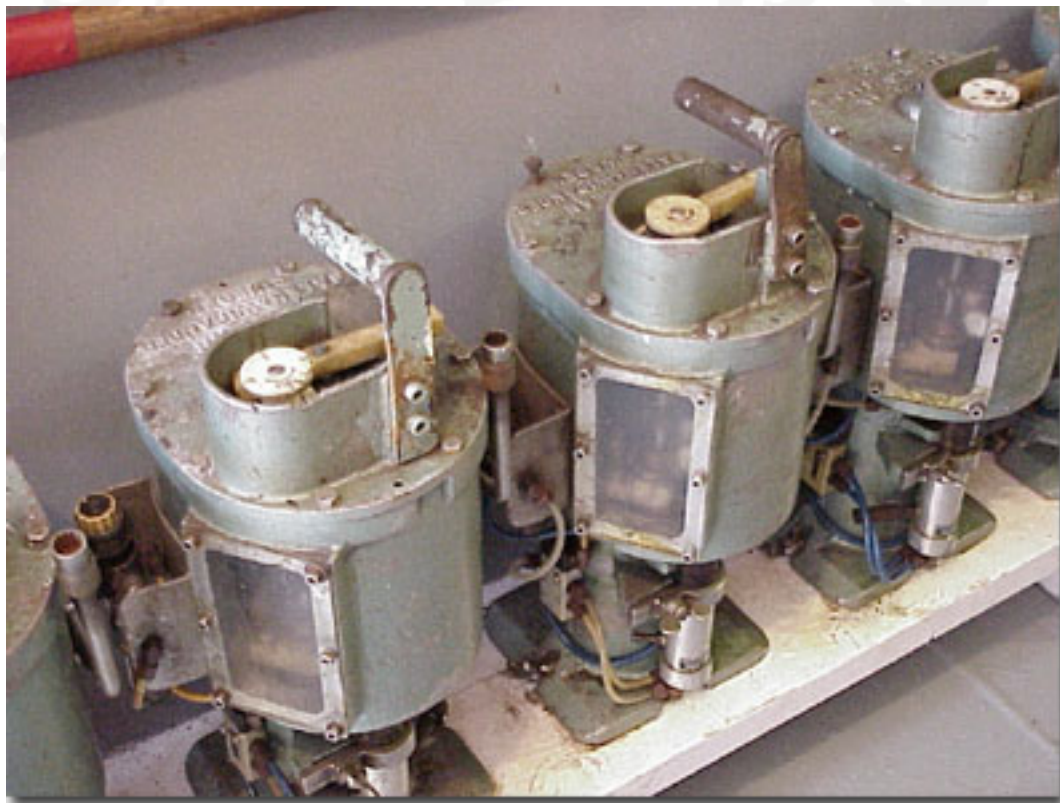
## CARGO TANK CLEANING SYSTEM

Convention  
reference:  
MARPOL  
Annex I Regulation  
13 and 13B

### **What to look for**

Crude oil  
tankers of  
20.000 tons  
dead-weight  
and above  
shall be fitted  
with a cargo  
tank cleaning  
system using  
crude oil  
washing.

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## CARGO TANK CLEANING SYSTEM

Convention  
reference:  
MARPOL  
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13 and 13B

### **What to look for**

Crude oil  
tankers of  
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system using  
crude oil  
washing.

[Alternative  
image](#)



## GARBAGE HANDLING

Convention reference: MARPOL  
MARPOL 73/78 Annex V,  
Regulation 9

### What to look for

Every ship of 400 tons gross tonnage and above, and every ship which is certified to carry 15 persons or more, shall carry a garbage management plan. The plan shall provide written procedures for collecting, storing, processing and disposing of garbage, including the use of the equipment on board.



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Garbage management plan**

Ensure that the garbage management plan to be provided is updated to cover the procedures concerning collecting, storing, processing and disposing of garbage. The equipment for processing the garbage shall be satisfactory for disposing of garbage.



## GARBAGE MANAGEMENT

Convention reference: MARPOL  
MARPOL 73/78 Annex V,  
Regulation 9

### What to look for

Placards shall notify the crew and passengers of the disposal requirements inside and outside special areas. Every ship of 400 tons gross tonnage and above, and every ship which is certified to carry 15 persons or more, shall carry a garbage management plan.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Garbage management plan**

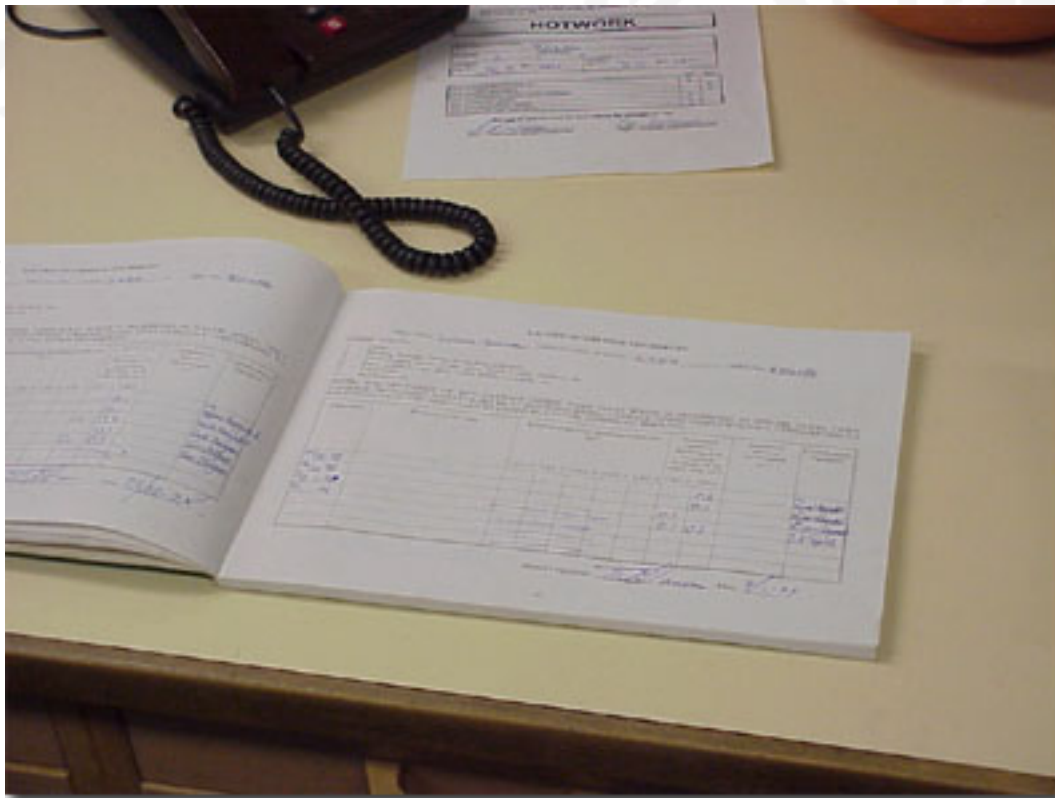
Ensure that placards are displayed to notify crew and passengers concerning disposal of garbage and that the ship is provided with a garbage management plan.

## GARBAGE RECORD BOOK

Convention reference: MARPOL  
MARPOL 73/78 Annex V  
Regulation 9 (3) and Appendix to Annex V,  
Form of Garbage Record Book etc.

### What to look for

Every ship 400 tons gross tonnage and above and every ship which is certified to carry 15 persons or more engage in voyages to ports or offshore terminals under the jurisdiction of other Parties to the Convention and every fixed and floating platform engaged in exploration and exploitation of the sea-bed shall be provided with a Garbage Record Book.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Entries**

Ensure that the entries in the Garbage Record Book shall be both in an official language of the State whose flag the ship is entitle to fly, and in English or French.

## MONITORING AND CONTROL SYSTEM

Convention reference: MARPOL  
MARPOL 73/78 Annex I  
Regulation 16(5)

### What to look for

The oil filtering system shall be such as will ensure that any oily mixture discharged into the sea after passing through the system or systems has an oil content of less than 15 parts per million. The system shall be provided with arrangements such as will ensure that any discharge of oily mixtures is automatically stopped when the oil content of effluent exceeds 15 parts per million.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

## OIL FILTERING EQUIPMENT – MONITORING ALARM

Convention reference: MARPOL  
MARPOL 73/78 Annex I,  
Regulation 16(5)

### What to look for

The oil filtering equipment required to be provided shall have arrangements for an alarm and for automatically stopping the discharge of oily mixtures when oil content in the effluent exceeds 15 parts per million.



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Alarm arrangements**

Ensure that the required alarm arrangements to indicate when the level of 15 parts per million of oily mixtures cannot be maintained is functioning satisfactorily and stops the system or systems automatically when the level is exceeded.



# SHIPBOARD OIL POLLUTION EMERGENCY PLAN

Convention reference: MARPOL  
MARPOL Annex I Regulation 26

## What to look for

Every oil tanker of 150 tons gross tonnage and above and every ship other than an oil tanker of 400 tons gross tonnage and above shall carry on board a shipboard oil pollution emergency plan approved by the Administration.



## Please

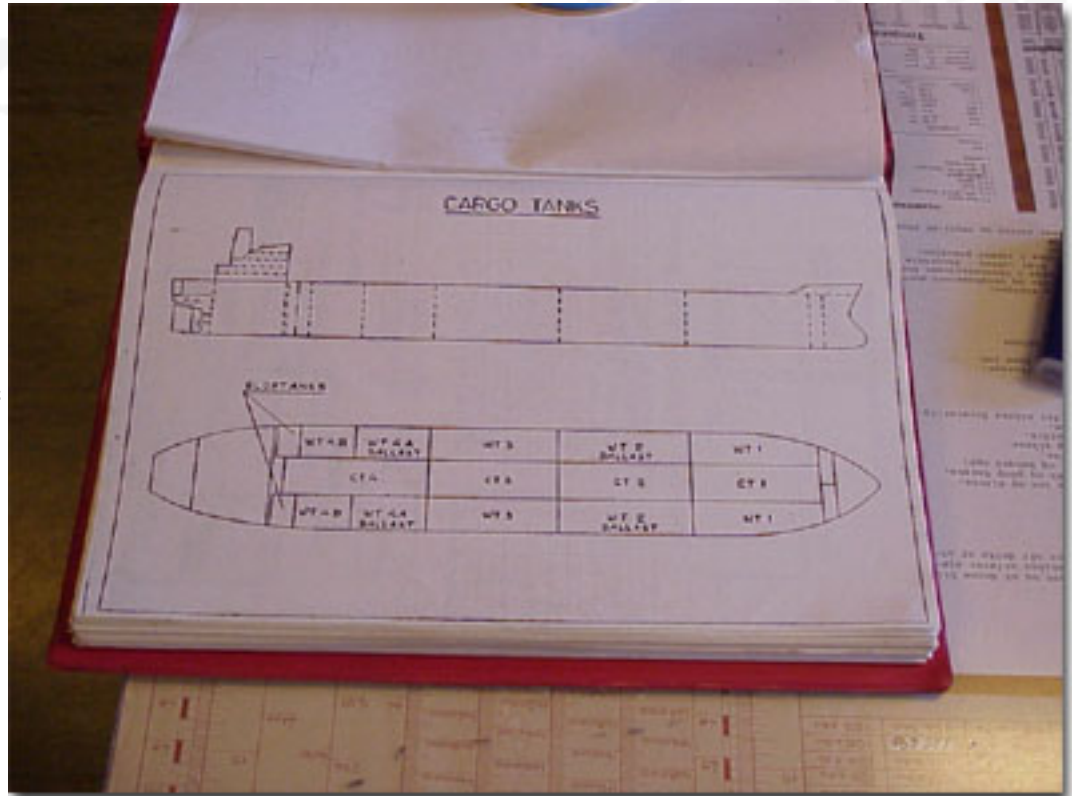
search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Oil pollution emergency plan**

Ensure that ship has a relevant approved shipboard oil pollution emergency plan. The plan shall consist of procedure to be followed by the master or other persons having charge of the ship, and a list of authorised persons to be contacted in the event of an oil pollution incident. Ensure that the crewmembers are familiar with the plan and the procedure to be followed.

MARPOL, Regulation 15 (b)

The arrangements of the slop tank or combination of slop tanks shall have the capacity necessary to retain the slop generated by tank washings oil residues and dirty ballast residues. There shall be provided a system for transfer of the oily waste into slop tank or combination of slop tanks in such a way that any effluent discharge into the sea will be such as to comply with the provisions of regulation 9 of MARPOL Annex 1.



### Alternative image

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

**Slop tank(s)**

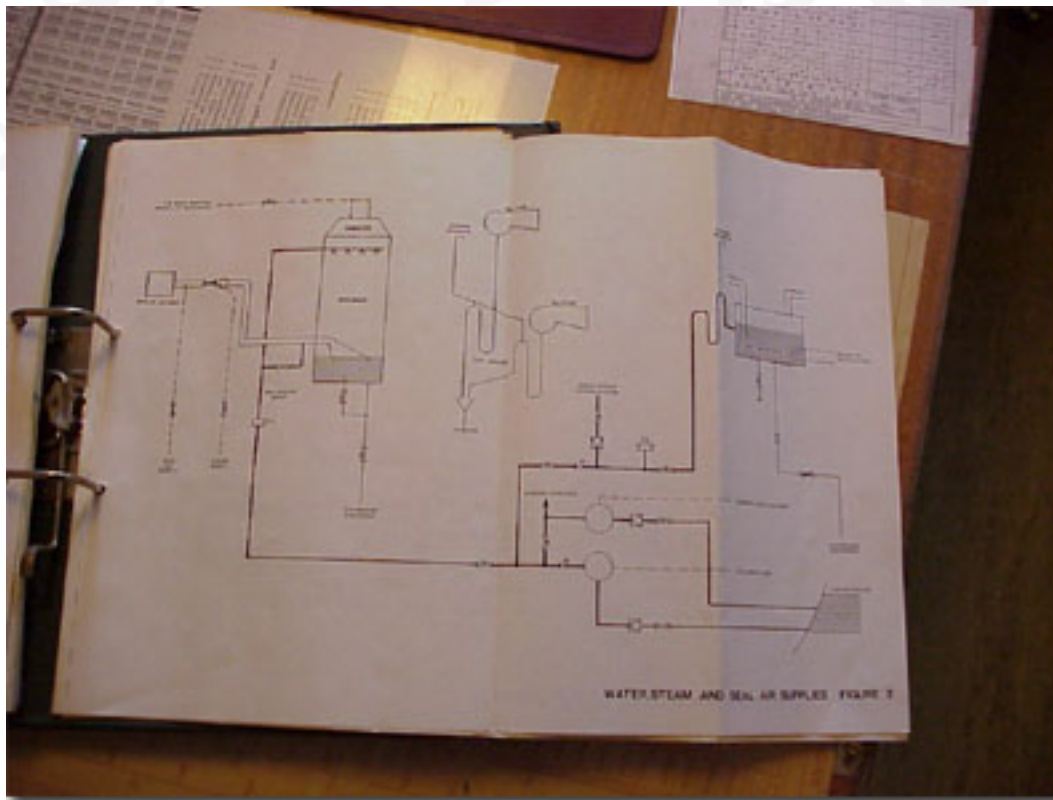
Ensure that there always are sufficient capacity in the slop tank(s) to retain tank washings oil residues and dirty ballast residues on board.

## SLOP TANKS AND TRANSFER OF OILY WASTE

Convention  
reference:MARPOL  
MARPOL,  
Regulation 15 (c)  
MARPOL,  
Regulation 15 (b)

### What to look for

The arrangements of the slop tank or combination of slop tanks shall have the capacity necessary to retain the slop generated by tank washings oil residues and dirty ballast residues.



There shall be provided a system for transfer of the oily waste into slop tank or combination of slop tanks in such a way that any effluent discharge into the sea will be such as to comply with the provisions of regulation 9 of MARPOL Annex 1.

[Alternative image](#)

### **System for transfer of tank wash oil**

Ensure that the that the system for transfer of tank wash oil residues and dirty ballast residues is satisfactory operating at all times.

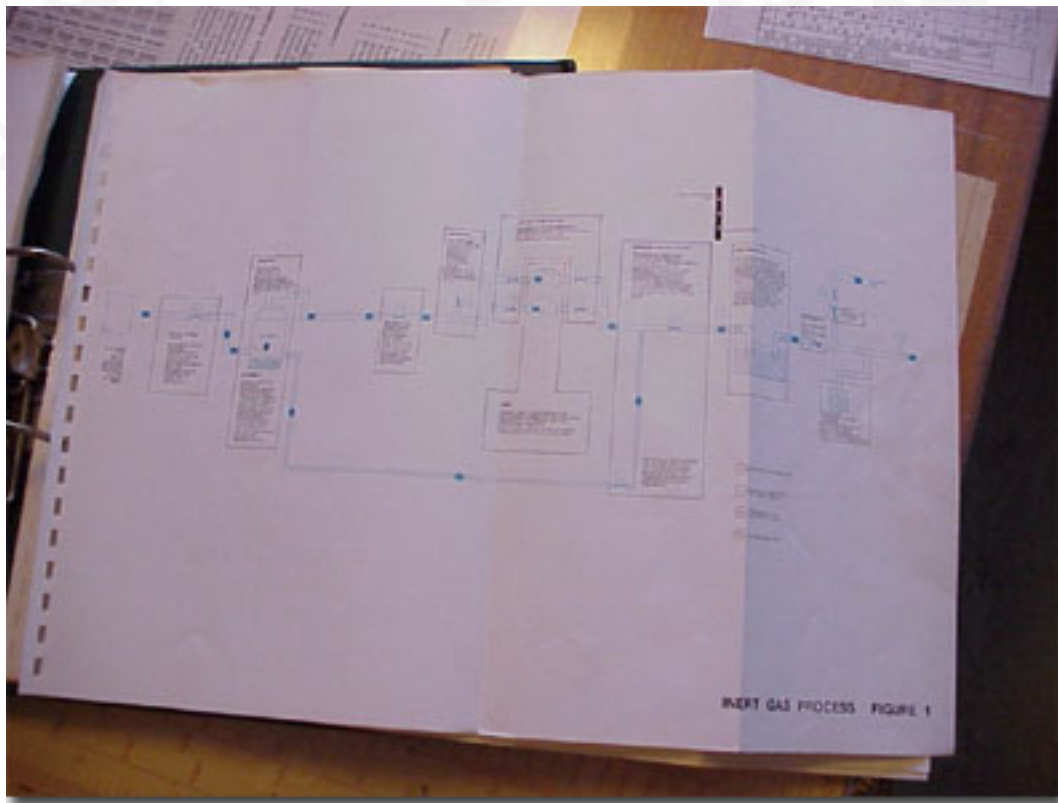


## SLOP TANKS AND TRANSFER OF OILY WASTE

Convention  
reference:MARPOL  
MARPOL,  
Regulation 15 (c)  
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### What to look for

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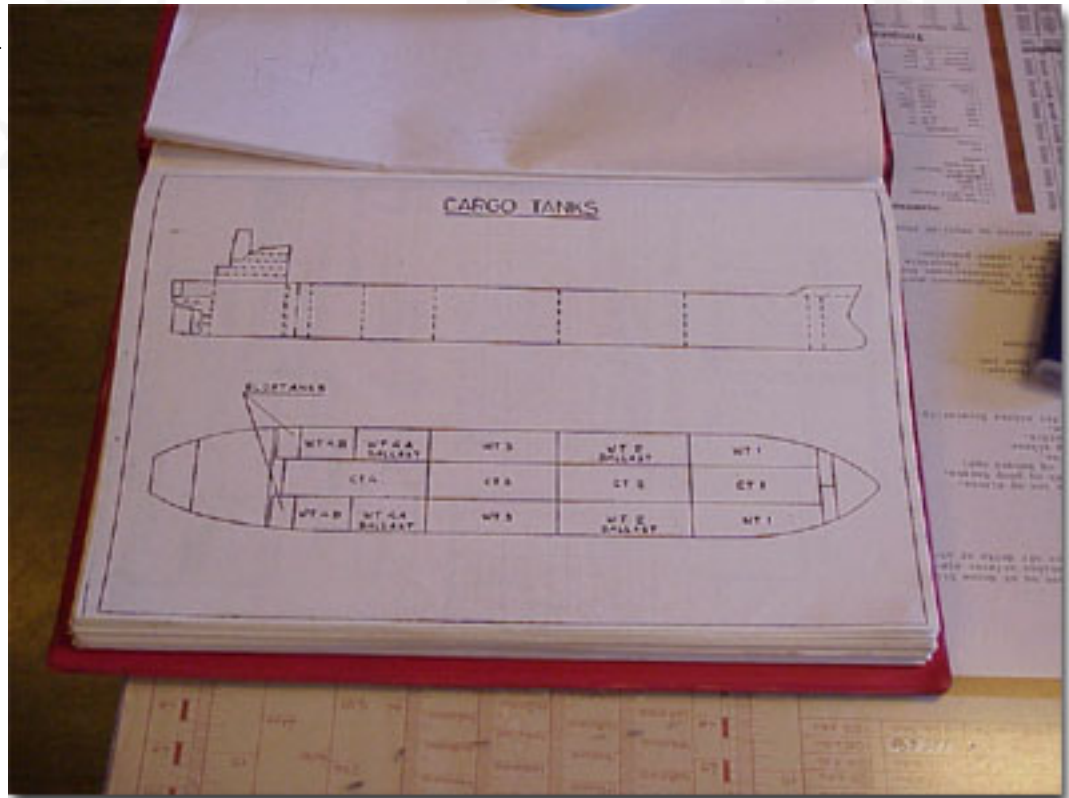
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Convention  
reference:MARPOL  
MARPOL,  
Regulation 15 (c)  
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### What to look for

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There shall be provided a system for transfer of the oily waste into slop tank or combination of slop tanks in such a way that any effluent discharge into the sea will be such as to comply with the provisions of regulation 9 of MARPOL Annex 1.

[Alternative image](#)

## DECONTAMINATION SHOWER AND EYEWASH

Convention reference:IBC  
IBC Code paragraph 14.2.10

### What to look for

On Chemical Tankers, decontamination showers and eyewash should be easily accessible on deck in convenient locations and suitably marked. The showers and eyewash should be operable in all ambient conditions.



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Decontamination shower and eyewash**

Ensure that the decontamination shower and eyewash is easily accessible and operable at all times and all ambient conditions.

## **Marking of decontamination shower and eyewash**

Ensure that the decontamination shower and eyewash is clearly marked.



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## NAVIGATION

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- [Compass reading](#)
- [Echo sounding device](#)
- [Helmsman's position](#)
- [Helmsman's position and equipment](#)
- [Installed gyro compass](#)
- [Nautical chart](#)
- [Nautical publications](#)
- [Pilot ladder](#)
- [Radar screens](#)
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## BRIDGE LAYOUT

Convention reference: IMO, SOLAS and STCW  
IMO Resolution A. 708(17),  
SOLAS Ch V, Regulation 22 and  
STCW/95 Regulation I/14.4

### What to look for

Every effort should be made to place the navigation bridge above all other decked structures, not including funnels, which are on or above the freeboard deck.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Shipboard navigational equipment**

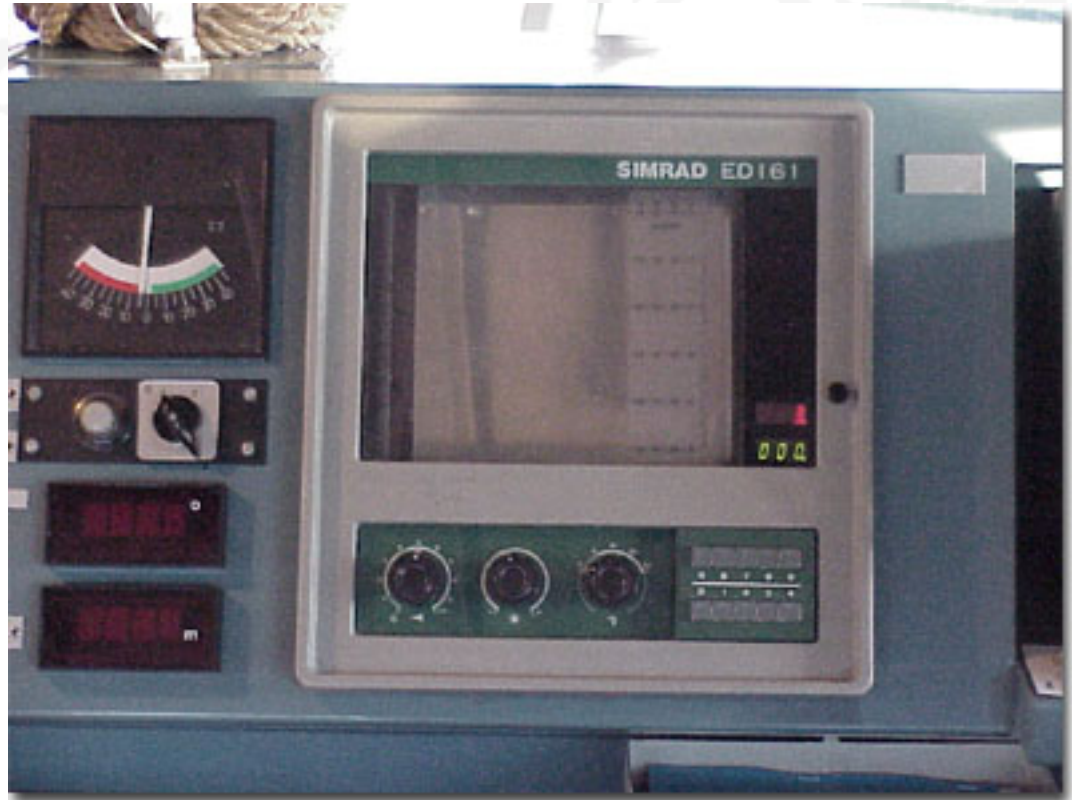
Ensure that no rearrangement of the shipboard navigational equipment take place without approval from Administration. Officers in charge of navigational watches shall be familiar with the bridge controls, shipboard navigational equipment and all procedures related to manoeuvring of the ship and bridge procedure.

## ECHO SOUNDING DEVICE

Convention reference: SOLAS  
SOLAS Ch V, Regulation 12 (k)

### What to look for

Ships engaged on international voyages shall be fitted with an echo sounding device as appropriate.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Echo sounding device**

Ensure that the required echo sounding device is functioning satisfactorily as required.

## HELMSMAN'S POSITION

Convention reference:STCW/95  
STCW/95, Regulation I/14.4

### What to look for

Seafarers assigned to shipboard duties shall be familiarised with their specific duties and arrangements related to such duties especially those forming part of the navigational watch.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Navigational watch**

Ensure that the seafarers/ratings forming part of the navigational watch such as the helmsman and emergency duties has received necessary familiarisation training as required for his duties.



## HELMSMAN'S POSITION AND EQUIPMENT

Convention reference: SOLAS

SOLAS Ch V, Regulation 12(b) (i) (1) and (2).

SOLAS Ch V, Regulation 12(b) (i) (2)

### What to look for

Ships of 150 gross tonnage (grt) shall be fitted with magnetic compass which provide heading information clearly readable by the helmsman's at the main steering position. Every ship of convention size shall be fitted with rudder angle indicator. Rate of turn indicator is applicable on ships of 100.000 grt.



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Heading information**

Ensure that the heading information provided by magnetic compass is clearly readable at the main steering position.

### **Magnetic compass**

Ensure that the magnetic compass is clearly readable from the main steering position.

## INSTALLED GYRO COMPASSES

Convention reference: SOLAS  
SOLAS Ch V, Regulation 12 (d)  
and (e)

### What to look for

Ships of 500 grt and upwards  
constructed on or after 1  
September 1984 shall be fitted  
with a gyro-compass. Ships of  
1.600 grt and upwards  
constructed before 1 September  
1984 shall also be fitted with a  
gyro-compass.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Master gyro compass**

Ensure that the master gyro-compass or a gyro repeater is clearly readable by the helmsman at the main steering position. The required gyro-compass shall be function satisfactorily.

## PILOT LADDER ARRANGED FOR BOARDING OF PILOTS

Convention reference: SOLAS  
SOLAS Ch. V, Regulation 17

### What to look for

Ships engaged on voyages in the course of which pilots are likely to be employed shall be provided with pilot transfer arrangements.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Pilot transfer arrangement**

Ensure that the pilot transfer arrangements – pilot ladders or mechanical pilot hoists – are provided as required, maintained satisfactorily and safe for embarkation and disembarkation of pilots. Ensure proper cleanliness of the pilot transfer arrangement.

## RADAR SCREENS AND BRIDGE ARRANGEMENTS

Convention reference: SOLAS  
SOLAS Ch V, Regulation 12 (g) - (j)

### What to look for

Ships of 500 grt and upwards  
constructed on or after 1  
September 1984 and ships of  
1.600 grt and upwards  
constructed before 1 September  
1984 shall be fitted with radar  
installation.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

## **Radar**

Ensure that ships required to be fitted with radar installations, automatic radar plotting aids (ARPA) have such installations and that the equipment is functioning as required. Officers in charge of navigational watches shall have received required familiarisation with regard to operating, testing and maintenance procedure.

## SOUND SIGNALS

Convention reference: Regulations for Preventing Collision at Sea, Rule 33

### What to look for

A vessel of 12 metres or more shall be provided with a whistle to give the required sound signals. Means for giving the sound signals shall be operable from the wheel house.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Functionality of apparatus**

Ensure that the sound signals can be given from the wheel-house and that the apparatus is functioning as required.

## WHISTLE-SOUND SIGNALLING APPLIANCE

Convention reference:  
Regulations for Preventing Collision at Sea,  
Rule 33.

### What to look for

A vessel of 12 metres or more  
shall be provided with a whistle  
to give the required sound  
signals.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Whistle-sound signalling apparatus**

Ensure that the whistle-sound signalling apparatus is functioning as required and make efficient sound signals.



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## PROPULSION AND AUXILIARY MACHINERY

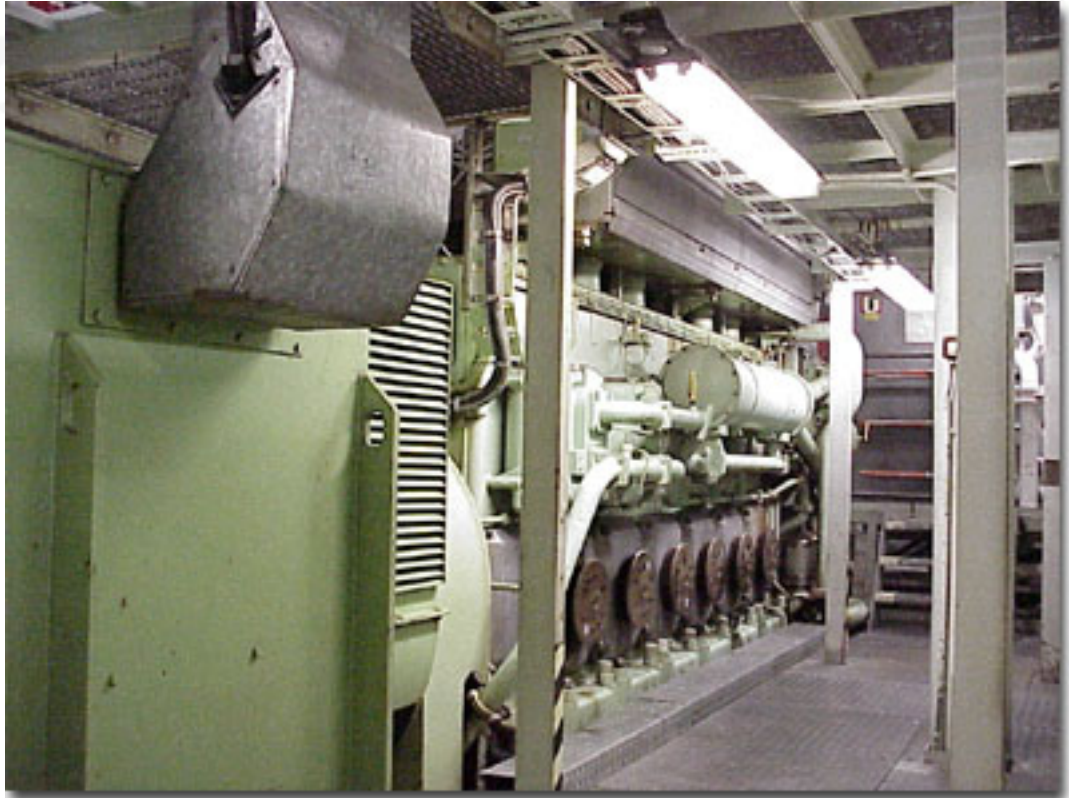
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  - [Bilge pump arrangement](#)
  - [Cleanliness – engine room](#)
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  - [Engine control room](#)
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  - [Manouvering position – navigation and communication](#)
  - [Oil-fired boiler](#)
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## AUXILIARY ENGINE

Convention reference: SOLAS  
SOLAS Ch II-1, Regulation 26.3 and  
26.6

### What to look for

All auxiliary machinery essential to the propulsion and the safety of the ship shall be fitted in the ship. Special consideration shall be given to the malfunctioning of generating sets which serves as main source of electrical power.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Maintenance – auxiliary engines**

Ensure that auxiliary engines are satisfactorily maintained and that there are no significant deterioration which can reduce the efficiency of the auxiliary engines. Ensure also that the means provided whereby normal operation of propulsion machinery can be sustained or restored even though one of the essential auxiliaries becomes inoperative, are functioning satisfactory.

## BILGE PUMP ARRANGEMENTS

Convention reference: SOLAS  
SOLAS Ch II-1, Regulation 26

### What to look for

#### Passenger ships:

An efficient bilge pumping system shall be provided, capable of pumping from and draining any watertight compartment other than a space permanently appropriated for the carriage of fresh water, water ballast, oil fuel or liquid cargo and for which other efficient means of pumping are provided.

#### Cargo ships:

At least two power pumps connected to the main bilge system shall be provided, one of which may be driven by the propulsion machinery.



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Bilge pumping**

Ensure that the bilge pumping arrangements are in satisfactory operating condition, without any significant deterioration. The crew shall be familiarised with the operation of the bilge pumping arrangements. The operation of the bilge pumping system should be inspected/controlled regularly.

## DISPLAY OF BRIDGE EQUIPMENT

Convention reference: SOLAS

SOLAS Ch V, Regulation 12

SOLAS Ch II-1, Regulation 49.1, 49.2 and 49.3

### What to look for

Display of Shipborne navigational equipment necessary for the manoeuvring of the ship should be clearly visible from the manoeuvring work station. On ships with periodically unattended machinery spaces it shall under all sailing conditions, including manoeuvring, be possible to control fully the speed, direction of thrust and if applicable the pitch of propeller from the navigation bridge.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Navigational equipment**

Ensure that shipborne navigational equipment displays are function satisfactory.

### **Remote control**

Ensure that the remote control of the propulsion machinery is maintained satisfactorily and that there are no significant deterioration which will have effect on the manoeuvring controllability from the navigation bridge.

## ENGINE CONTROL ROOM

Convention reference: SOLAS  
SOLAS Ch II-1, Regulation 46 and 46.2

### What to look for

On ships with periodically unattended machinery spaces, the arrangements provided shall be such that the safety of the ship in all sailing conditions, including manoeuvring, is equivalent to that of a ship having the machinery spaces manned.

[Alternative image](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

## **Measurements**

Ensure that ships allowed to sail with periodically unattended machinery spaces, are provided with documentary evidence, to the satisfaction of the Administration, of its fitness to operate with periodically unattended machinery spaces. Measures shall be taken to ensure that the equipment is functioning in a reliable manner.

### **Inspections and routine tests**

Ensure that the measures provided to control that the equipment is functioning in a reliable manner, and operating satisfactorily. Ensure also that provisions which are made for regular inspection and routine tests for continuous reliable operations, are functioning satisfactorily.

## ENGINE CONTROL ROOM

Convention  
reference: SOLAS  
SOLAS Ch II-1,  
Regulation 46 and  
46.2

### What to look for

On ships with periodically unattended machinery spaces, the arrangements provided shall be such that the safety of the ship in all sailing conditions, including manoeuvring, is equivalent to that of a ship having the machinery spaces manned.



[Back](#)

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### **Measure and control of equipment**

Ensure that the measures provided to control that the equipment is functioning in a reliable manner, and operating satisfactorily. Ensure also that provisions which are made for regular inspection and routine tests for continuous reliable operations, are functioning satisfactorily.

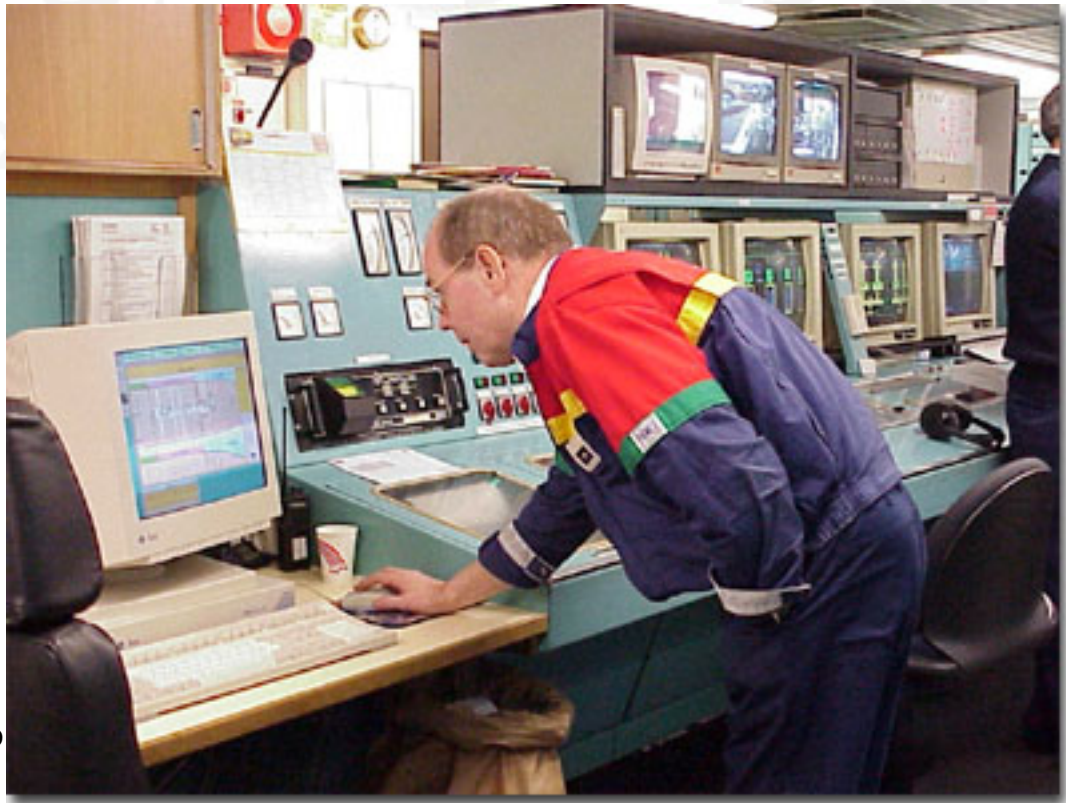


## ENGINE CONTROL ROOM

Convention  
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46.2

### What to look for

On ships with periodically unattended machinery spaces, the arrangements provided shall be such that the safety of the ship in all sailing conditions, including manoeuvring, is equivalent to that of a ship having the machinery spaces manned.



[Alternative image](#)

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## MAIN ENGINE

Convention reference: SOLAS  
SOLAS Ch II-1, Regulation 26.1

### What to look for

The machinery, associated piping systems and fittings shall be of a design and construction adequate for the service for which they are intended and shall be so installed and protected as to reduce to a minimum any danger to persons on board.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

## **Maintenance**

The machinery installation, associated piping systems and all protective arrangements shall be kept in satisfactory condition and be maintained in such a way that there is a minimum of danger to persons on board. Ensure that due regards has been paid to moving parts, hot surfaces and other hazards, and that there is no significant deterioration or damages to the machinery or piping systems which will endanger personnel performing their duties in the engine room.

## MANOUEVRING POSITION

Convention reference: SOLAS  
SOLAS Ch II-1, Regulation 49.1,  
49.2 and 49.3

### What to look for

On ships with periodically unattended machinery spaces it shall under all sailing conditions, including manoeuvring, be possible to control fully the speed, direction of thrust and if applicable the pitch of propeller from the navigation bridge.

[Alternative image](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Propulsion machinery**

Ensure that the control of propulsion machinery from the navigation bridge is function satisfactorily and that main propulsion machinery orders from the navigation bridge are indicated in the main machinery control room. Ensure that the remote control of the propulsion machinery is maintained satisfactorily and that there are no significant deterioration which will have effect on the manoeuvring controllability from the navigation bridge.



## NAVIGATION AND COMMUNICATION

Convention  
reference: SOLAS  
SOLAS Ch II-1,  
Regulation 49.1,  
49.2 and 49.3

### What to look for

On ships with  
periodically  
unattended  
machinery  
spaces it shall  
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conditions,  
including  
manoeuvring,  
be possible to  
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pitch of  
propeller from the navigation bridge.



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Ensure that the control of propulsion machinery from the navigation bridge is function satisfactorily and that main propulsion machinery orders from the navigation bridge are indicated in the main machinery control room. Ensure that the remote control of the propulsion machinery is maintained satisfactorily and that there are no significant deterioration which will have effect on the manoeuvring controllability from the navigation bridge.



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Convention  
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49.2 and 49.3

### **What to look for**

On ships with periodically unattended machinery spaces it shall under all sailing conditions, including manoeuvring, be possible to control fully the speed, direction of thrust and if applicable the pitch of propeller from the navigation bridge.



[Alternative image](#)

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## OIL-FIRED BOILER

Convention reference: SOLAS  
SOLAS Ch II-1, Regulations 26.1,  
32 and 33

### What to look for

Each oil-fired boiler which is intended to operate without manual supervision shall have safety arrangements which shut off the fuel supply and give an alarm in the case of low water level, air supply failure or flame failure.



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Oil-fired boilers**

Ensure that the operation of the safety arrangements on oil-fired boilers such as the alarms in case of low water level and/or air supply failure are functioning satisfactory

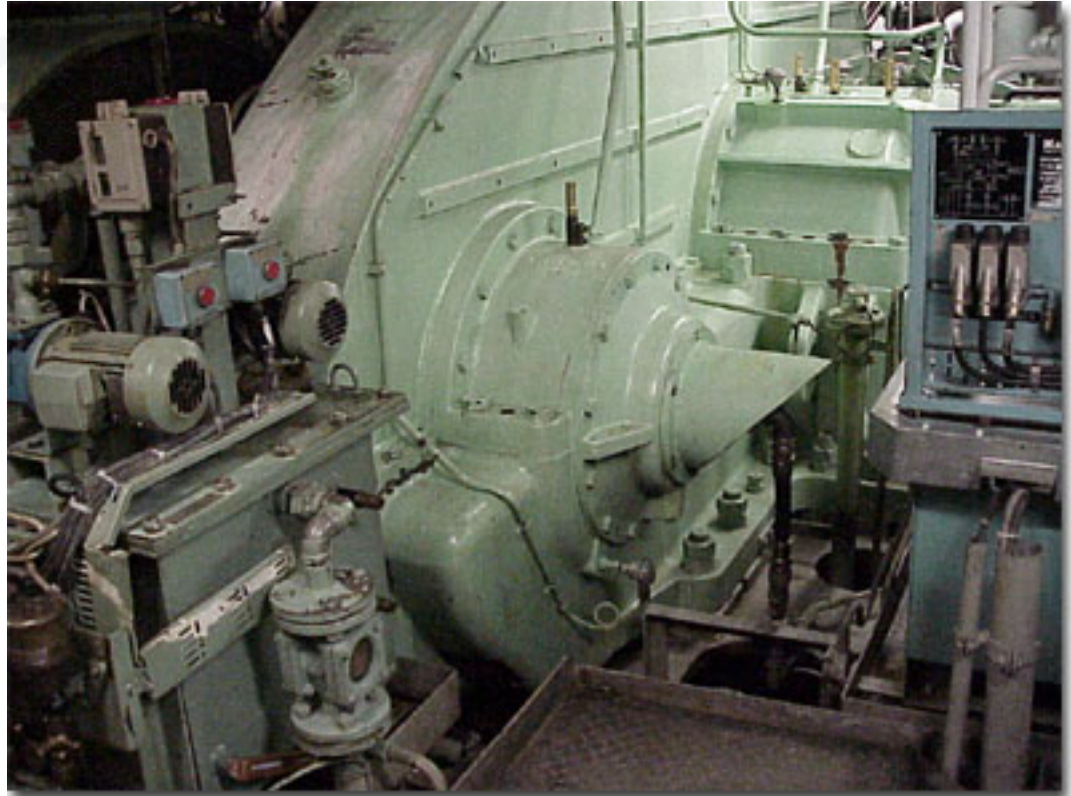
Ensure also that every boiler, steam pipe and/or fittings connected thereto through which steam may pass, have been maintained and are without significant deterioration so as to withstand the maximum working stresses to which it may be subject. Hot surfaces shall have protection to reduce danger and/or hazards to persons on board.

## TRANSMISSION OF POWER

Convention reference: SOLAS  
SOLAS Ch II-1, Regulation 27.3

### What to look for

All gearing and every shaft and coupling used for transmission of power to machinery essential for the propulsion and safety of the ship or for the safety of persons on board shall be so designed and constructed that they will withstand the maximum working stresses to which they may be subject in all service conditions.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

## **Maintenance**

Ensure that all gearing and every shaft and coupling used for transmission of power to machinery essential for propulsion and safety of the ship and personnel on board, are maintained satisfactorily and are without significant deterioration. The machinery shall be maintained so that it will withstand the maximum working stresses to which it may be subject in all service conditions.



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## RADIO

- [Float free epirb](#)
  - [Radio installations](#)
  - [Radio installations](#)
  - [Radio installations –  
source of energy](#)
  - [Storage of epirb](#)
  - [Stowage of radar  
transponder](#)
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## FLOAT FREE EPIRB

Convention reference: SOLAS  
SOLAS Ch IV, Regulation 7.1.6

### What to look for

Every ship shall be provided with a satellite emergency position-indicating radio beacon (EPIRB) which shall be installed in an easily accessible position capable of floating free if the ship sinks and being automatically activated when afloat.



### Please

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### **Float free EPIRB**

Ensure that the required float free EPIRB is checked regularly and dummy tested to verify its operating capability. Officers in charge of navigational watches shall be familiar with the EPIRB required to be placed on or close to the navigation bridge.

## MESSROOM

Convention reference: SOLAS  
SOLAS Ch. IV, Regulation 6.1 and  
Regulation 15

### What to look for

Every ships shall be provided with radio installations capable of complying with the functional requirements prescribed by regulation 4 throughout its intended voyage and, unless exempted under regulation 3, complying with the requirements of regulation 7 and, as appropriate for the sea area or areas through which it will pass during its intended voyage.

[Alternative image](#)



### Please

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## **Maintenance**

Ensure that all radio installations and equipment are satisfactory maintained and kept in operating condition at all time. Radio instalation/equipment shall be such that the main units can be replaced readily, without elaborate recalibration or adjustment.

## MESSROOM

Convention  
reference: SOLAS  
SOLAS Ch. IV,  
Regulation 6.1 and  
Regulation 15

### What to look for

Every ships  
shall be  
provided with  
radio  
installations  
capable of  
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the functional  
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regulation 4  
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Convention  
reference: SOLAS  
SOLAS Ch. IV,  
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[Alternative image](#)

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## RADIO INSTALLATIONS

Convention reference: SOLAS  
SOLAS Ch IV, Regulation 7 and  
15

### What to look for

Every ships shall be provided with radio installations capable of complying with the functional requirements prescribed by regulation 4 throughout its intended voyage and, unless exempted under regulation 3, complying with the requirements of regulation 7 and, as appropriate for the sea area or areas through which it will pass during its intended voyage.



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Maintenance of radio installations and equipment**

Ensure that all radio installations and equipment - including the antennas for receiving and transmitting on the frequencies required - are satisfactory maintained and kept in satisfactory condition at all time.

## RADIO INSTALLATIONS – SOURCE OF ENERGY

Convention reference: SOLAS  
SOLAS Ch IV, Regulation 13 and 15

### What to look for

There shall be available at all times, while the ship is at sea, a supply of electrical energy sufficient to operate the radio installations and to charge any batteries used as part of a reserve source of energy for the radio installations



### Please

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### **Reserve source - source of energy**

Ensure that the provided reserve source, or sources of energy, are kept in satisfactory condition at all time. They are there to supply power to radio installations for the purpose of conducting distress and safety radiocommunication, Where a reserve source of energy consists of a rechargeable accumulator battery or batteries, a means of automatically charging such batteries shall be provided and kept in satisfactory operating condition.

## STORAGE OF EPIRB

Convention reference: SOLAS  
SOLAS Ch IV, Regulation 8.3.2  
and 8.3.3

### What to look for

An emergency position-indicating radio beacon (EPIRB) ready to be manually released and capable of being carried by one person into a survival craft.



### Please

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## **EPIRB**

Ensure that the EPIRB stowed in the wheelhouse ready to be manually released, is readily available in satisfactory operating condition and tested regularly. Ensure that officers to be in charge of navigational watches are familiar with the operation of the EPIRB stored on the navigation bridge/wheelhouse.



## RADAR TRANSPONDER

Convention reference: SOLAS  
SOLAS Ch III, Regulation 6.2.2

### What to look for

There shall be available at all times, while the ship is at sea, a supply of electrical energy sufficient to operate the radio installations and to charge any batteries used as part of a reserve source of energy for the radio installations.

### [Alternative image](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Radar transponders stowed on the navigation bridge**

At least one radar transponder shall be carried on each side of every passenger ship and every cargo ship of 500 gross tonnage and upwards. One transponder shall be carried on ships of between 300 and 500 gross tonnage. On ships carrying at least two radar transponders and equipped with free-fall lifeboats, one of the radar transponders shall be stowed in a free-fall lifeboat.

## RADAR TRANSPONDER

Convention  
reference: SOLAS  
SOLAS Ch III,  
Regulation 6.2.2

### What to look for

There shall be available at all times, while the ship is at sea, a supply of electrical energy sufficient to operate the radio installations and to charge any batteries used as part of a reserve source of energy for the radio installations.



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## RADAR TRANSPONDER

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[Alternative image](#)





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## SAFETY IN GENERAL

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  - [Car deck drainage](#)
  - [Cargo holds – bulkhead – inside cargo hold](#)
  - [Cargo holds – inside cargo hold. Fixed stairway – entrance to cargo hold](#)
  - [Cargo holds S-Steel gasket main surface](#)
  - [Compass reading](#)
  - [Control of watertight doors](#)
  - [Electric power generator](#)
  - [Emergency power switchboard](#)
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  - [Panel – watertight door](#)
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  - [Top and centre of cargo hold hatch covers alignment bracket](#)
  - [Watertight bulkheads](#)
  - [Watertight doors](#)
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## BOWPORT – SECURING ARRANGEMENTS

Convention reference: SOLAS  
SOLAS Ch II-1, Regulations 20.4,  
24 and 25

### What to look for

Cargo and coaling ports and other means for closing openings in the shell plating above margin line shall be of efficient design and construction and of sufficient strength having regard to the space in which they are fitted. Reference is made to the recommendation on strength and securing and locking arrangements of shall doors on ro-ro passenger ships adopted by IMO (Res. A.793(19)).

### [Alternative images](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Locking and securing of shell doors**

The locking and securing arrangements of shell doors, bow ports, cargo loading doors mechanisms and indicators connected therewith, all valves, the closing of which is necessary to make a compartment watertight, shall be regularly inspected for possible damages and/or deterioration. Records of inspections etc shall be entered in the log book with an explicit record of defects which may be disclosed.

## BOWPORT – SECURING ARRANGEMENTS

Convention  
reference: SOLAS  
SOLAS Ch II-1,  
Regulations 20.4,  
24 and 25

### **What to look for**

Cargo and  
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[Alternative image](#)

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[Alternative image](#)

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### [Alternative images](#)

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## CARGO HOLDS S-STEEL GASKET MAIN SURFACE

Convention reference: International  
Convention on Load Lines,  
1966, Regulation 16

### What to look for

Cargo holds closed by  
weathertight steel covers shall  
be fitted with gaskets, which  
ensure that the tightness can be  
maintained in any sea  
conditions.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Maintenance of required gaskets**

Ensure (where appropriate) that the required gaskets are maintained satisfactory - and that they are without significant deterioration or damages. This to ensure weathertightness in any sea condition.

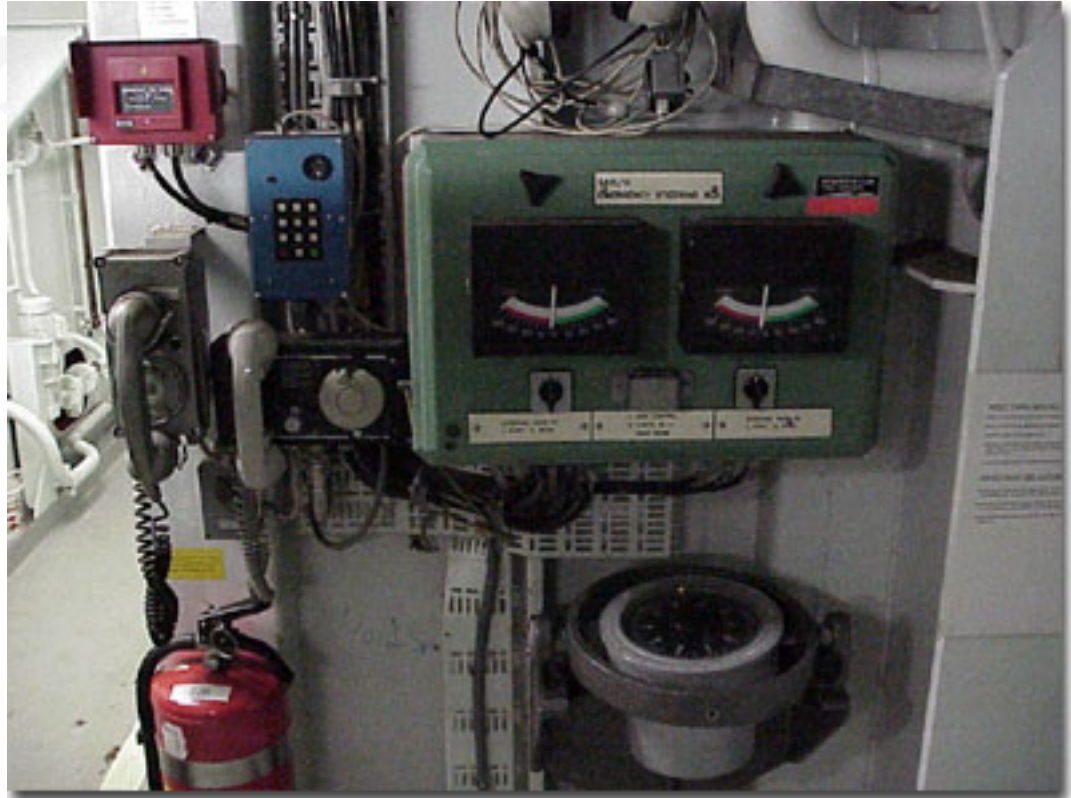
## COMPASS READING

Convention reference: SOLAS  
SOLAS Ch V, Regulation 12(f).  
(Applicable for ship of 500 grt and  
above as from 1 Feb. 1992)

### What to look for

Ship with emergency steering positions shall be provided with a telephone or other means of communication for relaying heading information to such positions. In addition, ships of 500 gross tonnage and upwards constructed on or after 1 February 1992 shall be provided with arrangements for supplying visual compass readings to the emergency steering position.

Service spaces shall be provided with portable fire extinguishers of appropriate types and in sufficient number.



### Please

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### **Testing of steering gear**

When testing the steering gear, ensure that that the arrangements for *supplying visual compass readings* are operating satisfactorily. Ensure crew familiarizations with the system.

### **Rudder angel indications**

If there are arrangements for supply of rudder angel indications, ensure that the correct readings are given.

### **Stowance of portable fire extinguishers**

Ensure that portable fire extinguishers are stowed at the entrance of the steering gear compartment.

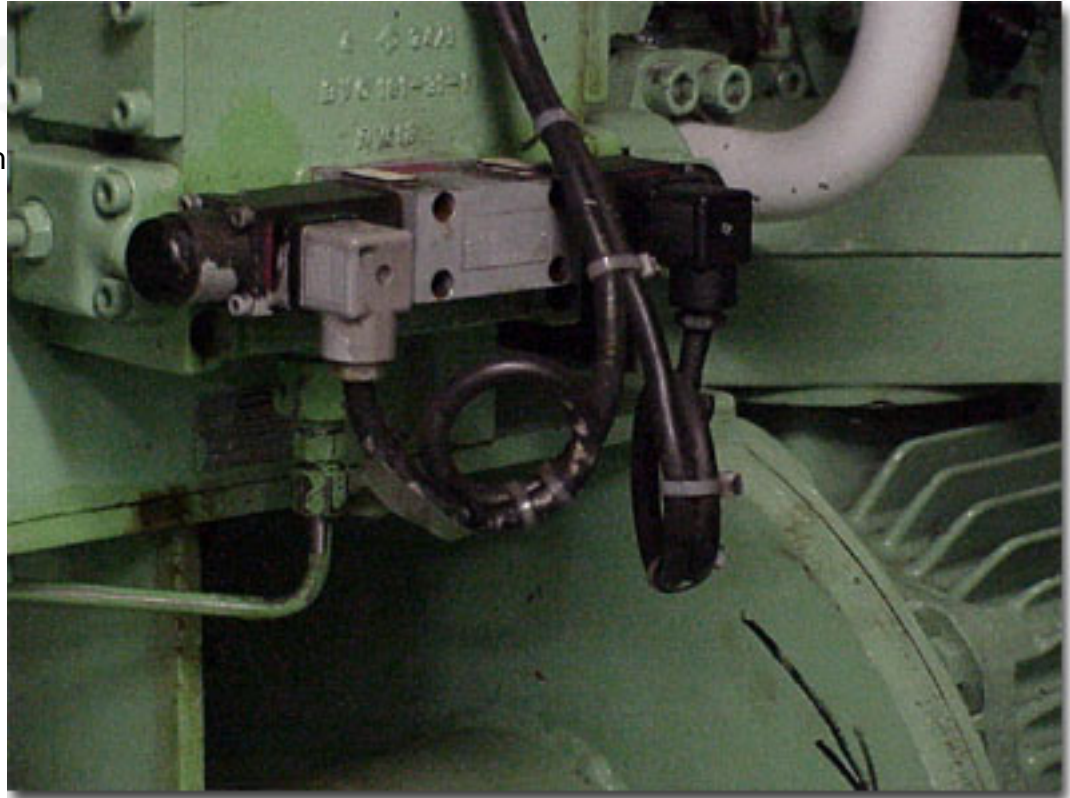
## EMERGENCY STEERING GEAR

Convention reference: SOLAS  
SOLAS Ch II-1, Regulation 29 and  
Ch V, Regulation 19-2

### What to look for

Every ship shall be provided with a main steering gear and an auxiliary steering gear to the satisfaction of the Administration. The main steering gear and the auxiliary steering gear shall be so arranged that the failure of one of them will not render the other one inoperative.

[Alternative image](#)



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### **Auxiliary steering gear control**

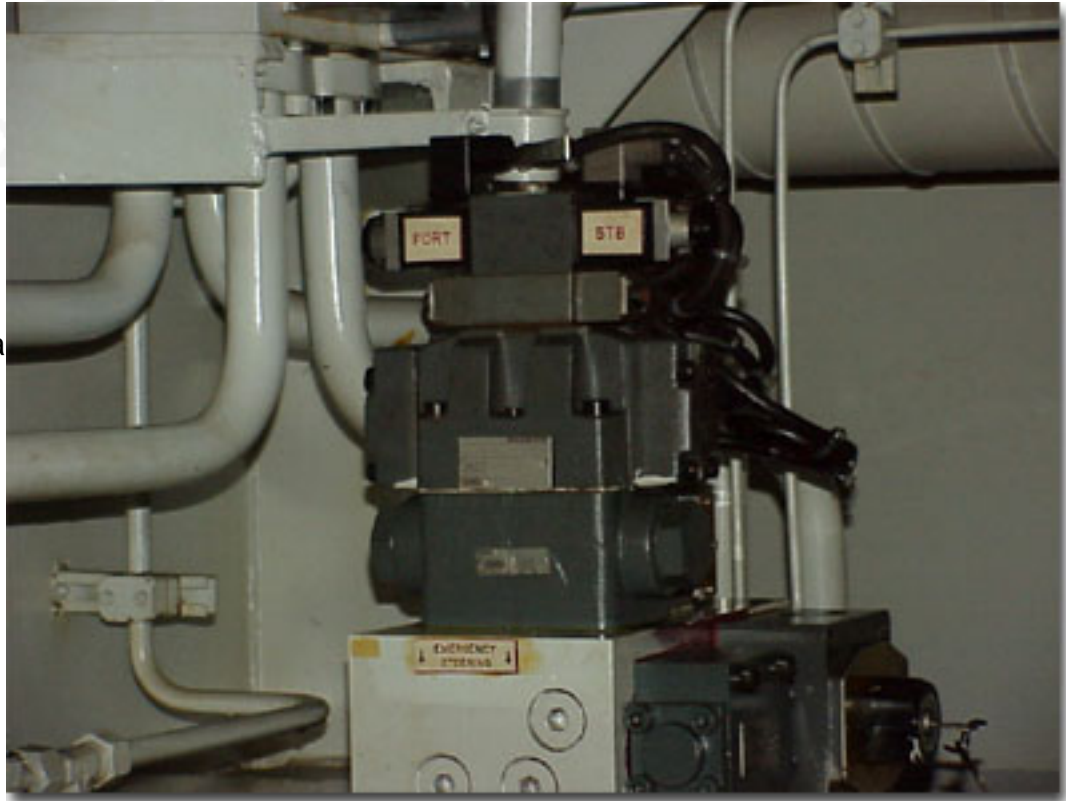
Ensure that the auxiliary steering gear control, which shall be provided in the steering gear compartment, functions well. If power operated, it shall also be operable from the navigation bridge. Ensure that the auxiliary steering gear is tested regularly as required. Ensure that the crew is familiarised with the operation of the auxiliary/emergency steering arrangements.

## EMERGENCY STEERING GEAR

Convention  
reference: SOLAS  
SOLAS Ch II-1,  
Regulation 29 and  
Ch V, Regulation  
19-2

### What to look for

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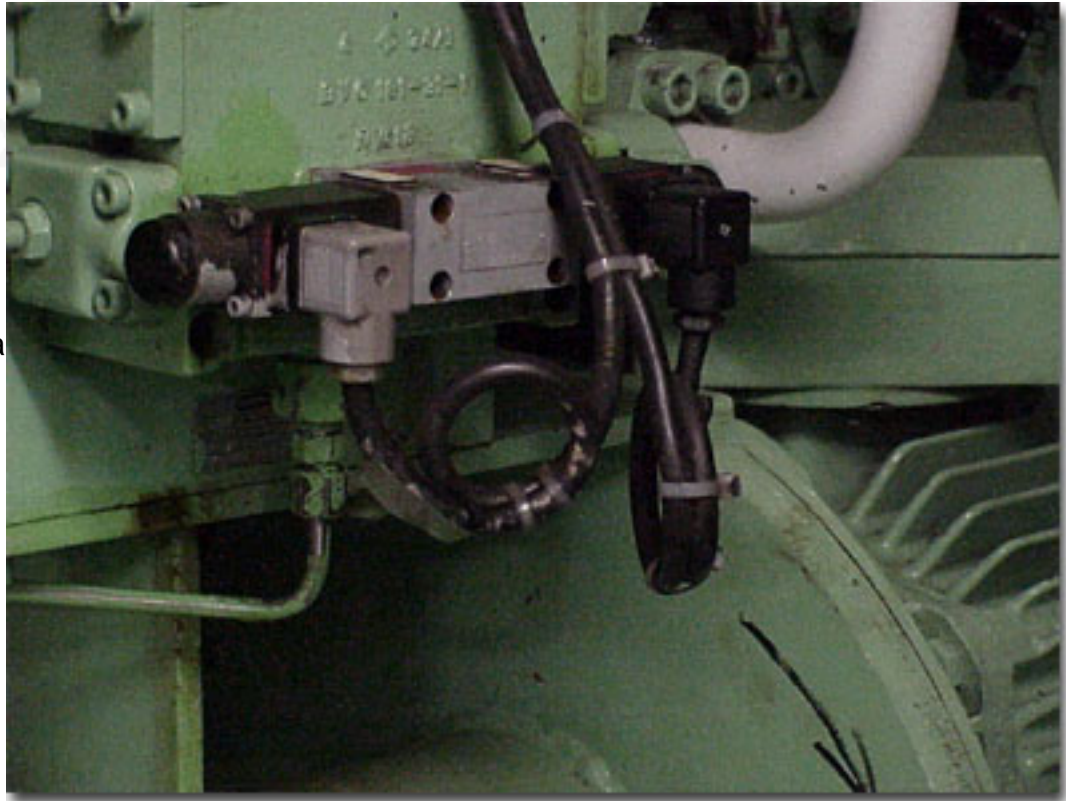
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[Alternative image](#)

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## GANGWAYS AND ACCOMMODATION LADDERS

Convention reference: ILO

Convention no. 152, article 15 and 16

### What to look for

When a ship is being loaded or unloaded alongside a quay or another ship, adequate and safe means of access to the ship, properly installed and secured, shall be provided and kept available.

When workers have to be transported to or from a ship or other place by water, adequate measures shall be taken to ensure their safe embarking, transport and disembarking.

### [Alternative image](#)



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



## GANGWAYS AND ACCOMMODATION LADDERS

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[Alternative image](#)

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### What to look for

When a ship is being loaded or unloaded alongside a quay or another ship, adequate and safe means of access to the ship, properly installed and secured, shall be provided and kept available.

When workers have to be transported to or from a ship or other place by water, adequate measures shall be taken to ensure their safe embarking, transport and disembarking.



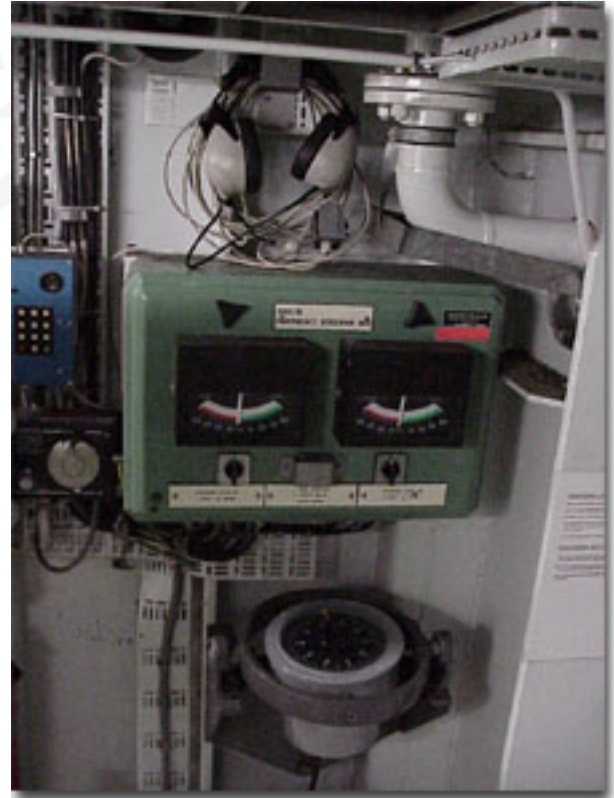
[Alternative image](#)

## MEANS OF COMMUNICATION

Convention reference: SOLAS  
SOLAS Ch V, Regulation 19-2 (b) (iii)

### What to look for

A means shall be provided for communication between the navigation bridge and the steering gear compartment.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Communication arrangements**

The operation of the communication arrangements between steering gear compartment and the navigation bridge shall be included in the testing procedure for the steering gear. Ensure crew familiarizations in respect of the functionality of the communication arrangements.

## SUPERVISION OF DOORS AND BOW VISORS

Convention reference: SOLAS  
SOLAS Ch II-1, Regulation 20-1.4,  
20-1.5 and 25

### What to look for

Supervision and reporting of closing and opening of cargo loading doors, bow visors, watertight ramps etc shall have been implemented



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **System of supervision**

The ship master shall ensure that an effective system of supervision and reporting of the closing and opening of the loading doors, bow visors, watertight ramps etc. is implemented. Entries shall be found in the ship's Log book concerning opening and closing of loading doors etc.

## WATERTIGHT BULKHEADS

Convention reference: SOLAS  
SOLAS Ch II-1, Regulation 20-4,  
(applicable from 1 July 1997)

### What to look for

All transverse or longitudinal bulkheads which are taken into account as effective to confine the seawater accumulated on ro-ro deck shall be in place and secured before ro-ro ships leave the berth.

### [Alternative image](#)



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### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Transverse or longitudinal bulkheads**

Ensure that the transverse or longitudinal bulkheads on ro-ro deck operate satisfactorily and can be put in place and secured as required. There shall be no significant deterioration or damage which may reduce the efficiency of the bulkheads.

## WATERTIGHT BULKHEADS

Convention  
reference: SOLAS  
SOLAS Ch II-1,  
Regulation 20-4,  
(applicable from 1  
July 1997)

### **What to look for**

All transverse  
or longitudinal  
bulkheads  
which are  
taken into  
account as  
effective to  
confine the  
seawater  
accumulated  
on ro-ro deck  
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place and  
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ro-ro ships  
leave the  
berth.



[Back](#)

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## WATERTIGHT BULKHEADS

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### What to look for

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[Alternative image](#)



## WATERTIGHT DOORS

Convention reference: SOLAS

SOLAS Ch II-1, Regulation 15.6.1 and

Regulation III/19.3.4.2.5 in amended Ch III

### What to look for

Watertight doors shall be power-operated sliding doors capable of being closed simultaneously from the central operating console at the navigating bridge in not more than 60 s with the ship in upright position.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Watertight doors**

Ensure that the watertight doors are all in satisfactory operating condition without significant deterioration. The operation of all watertight doors shall be checked at each fire drill which is conducted. Data concerning records of checks during drills etc. shall be entered in the ship's Log book.



## WATERTIGHT DOORS – PILOT EMBARKATION

Convention reference: SOLAS  
SOLAS Ch II-1, Regulation 20-1

### What to look for

There shall be an effective system of supervision and reporting of the closing and opening of doors located above the margin line.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)



### **Supervision and reporting**

Ensure that doors in the shell for embarkation or disembarking pilots are under the same effective system of supervision and reporting of the closing and opening of doors as is used for embarking and disembarking of passengers etc.



DNV  
GUIDE TO  
PORT  
STATE  
CONTROL

## WORKING SPACE

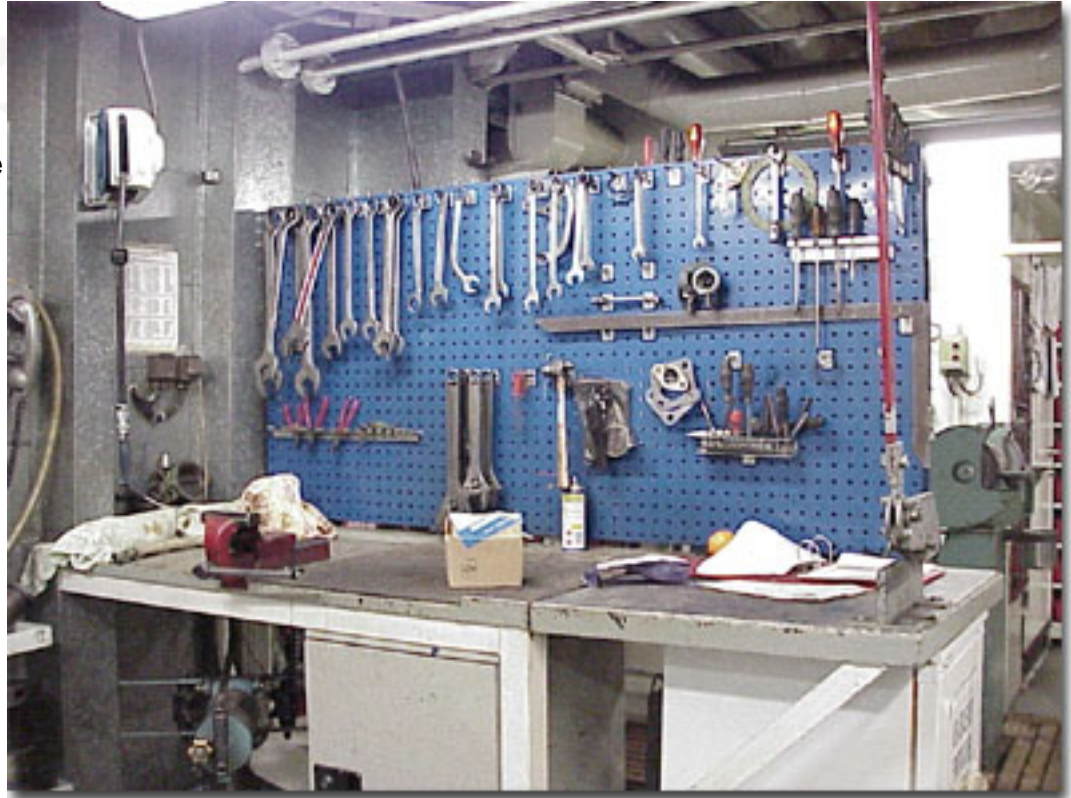
- [Work room](#)
- [Service room](#)
  
- [Main Areas menu](#)
- [The main page](#)

## WORK ROOM

Convention reference: ILO  
Convention no. 134

### What to look for

Working spaces shall be arranged satisfactorily, and have entrances and escapes which are not blocked by equipment/stores or similar.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Arrangement in working space**

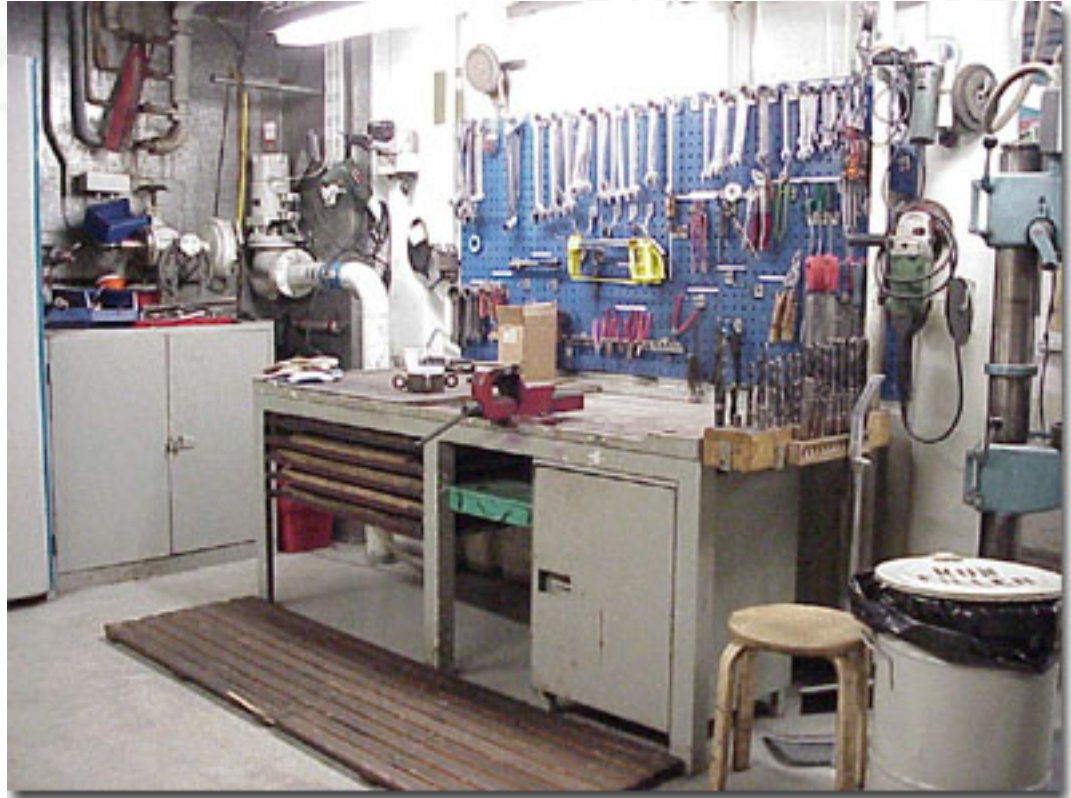
Ensure that the arrangement in any working space is satisfactory to prevent accidents and that there are always free entrances/escapes to and from such spaces.

## SERVICE ROOM

Convention reference: ILO  
Convention no. 134 and 147

### What to look for

The working spaces shall be so arranged that accident can be prevented. There shall be sufficient lighting to perform the work to be carried out.



### Please

search the photograph above for "hotspots", ie. hyperlinks that allow you to point-and-click at the image in order to see explanations and hints here ... (Check your screen cursor..... when it turns into a hand, you have detected a hotspot!)

### **Cleanliness of working spaces**

Ensure that the working spaces are kept clean without slippery floor which might result in accidents and injured seafarers.



### **Lighting condition**

Ensure that the lighting condition in any working space is satisfactory, undamaged and that the lights have sufficient intensity for the intended work.



# PORT STATE CONTROL: BACKGROUND, OBJECTIVE, TARGET GROUP and TARGETS

## BACKGROUND, OBJECTIVE, TARGET GROUP, AND TARGETS

- [Background](#)
- [Objective](#)
- [Target Group](#)
- [Targets](#)
  - [PSC Definitions](#)
  - [PSC Legal Basis](#)
  - [Preventive Maintenance](#)
  - [Class Attendance](#)
  - [Required Documentation](#)
  - [PSC Inspection Types](#)
  - [PSC & Cargo Operations](#)
  - [PSC & Manning](#)
  - [PSC & Safety Management](#)
- [The main page](#)

### Background

In order to phase out substandard ships, Port State Control (PSC) has been intensified world-wide in the nineties to ensure compliance with applicable requirements for safety, pollution prevention and manning conditions on board. Substandard or non-compliant ships are detained and can not leave the port until reported serious/detainable deficiencies have been rectified. This of course implies possible delay and financial losses to ship operators.

DNV has developed this guide in order to further enhance compliance with safety and pollution prevention requirements on board. Compliance can be achieved by effective implementation of an acceptable safety management system including preventive maintenance. DNV Guide on PSC provides an additional tool to focus on **preventive maintenance** on board.

# PORT STATE CONTROL: BACKGROUND, OBJECTIVE, TARGET GROUP and TARGETS

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## Background

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# PORT STATE CONTROL: BACKGROUND, OBJECTIVE, TARGET GROUP and TARGETS

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## Objective

The objective of DNV Guide on PSC is to focus on **preventive maintenance** on board and improve safety and environment awareness to achieve compliance and thus preparedness for Port State inspections, Flag State inspections and class surveys.

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# PORT STATE CONTROL: BACKGROUND, OBJECTIVE, TARGET GROUP and TARGETS

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## Taget group

DNV Guide on PSC is aimed at all personnel, both on board and at the Company, involved in ship management, operation, maintenance, inspection and control.

The user will find photographs for items normally need extra attention between surveys and during the operation of the ship, based on experience and statistics. Each photograph has a text on "What to look for" and has one or more "hot spot" that can give additional text.

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# PORT STATE CONTROL: BACKGROUND, OBJECTIVE, TARGET GROUP and TARGETS

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## Targets

In addition to increased focus on preventive maintenance of items that result in the most common and critical deficiencies, DNV Guide on PSC shall help the user to become familiar with:

- the **definitions** used in connection with Port State Control
  - the **legal basis** for Port State Control
  - the importance of the **preventive maintenance**
  - the importance of **class attendance**
  - the importance of having all **required documentation** available prior to port arrival
  - the **inspection types** of Port State Control
  - Port State Control & **Cargo Operations**
  - Port State Control & **Manning**
  - Port State Control & **Safety Management**
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# PORT STATE CONTROL: BACKGROUND, OBJECTIVE, TARGET GROUP and TARGETS

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## Port State Control Definitions

**Clear grounds:** Evidence that the ship, or its crew or its safety management system does not comply with the requirements of the relevant conventions. Such evidence needs not necessarily be a deficiency, but may be an incident, and accident or and indication of substantial non-compliance/detainable deficiencies.

**Deficiency** A non-compliance, discrepancy or a deviation from the requirements of the relevant instruments/conventions.

**Detainable Deficiency:** A deficiency that presents an immediate threat to the ship, its personnel or the environment, which renders the ship unsafe to proceed to sea.

**Detention:** Intervention action taken by the port State in case of detainable deficiencies or substantial non-compliance to ensure that the ship does not sail until detainable deficiencies have been rectified..

**Expanded inspection:** An inspection conducted according to non-mandatory guidelines only once during 12 months period for certain types of ships (tankers, bulkers and passenger ships) and certain categories of age and size.

**Inspection:** A visit on board a ship to check both the validity of relevant certificates and other documents, and the overall condition of the ship, its equipment, and its crew.

**More detailed inspection:** An inspection conducted when there are clear grounds for believing that the condition of the ship, its equipment, or its crew does not comply with the the requirements of the relevant conventions. The inspection may focus on one area or be across various areas.

**Port State Control Officer (PSCO):** A person duly authorised by a Port State authority to carry out port State control inspections, and responsible exclusively to that authority

**Recognised organisation:** An organisation which meets the relevant conditions set forth by resolution A.739(18), and has been delegated by the flag State Administration to provide the necessary statutory services and certification to the ships entitled to fly its flag.

**Serious Deficiency:** A deficiency that may present an immediate threat to the ship, its personnel or the environment, and that could be qualified as a detainable deficiency.

**Stoppage of an operation:** Formal prohibition against a ship to continue an operation due to an identified deficiency(ies) which, singly or together, render the continuation of such operation hazardous.

**Substandard ship:** A ship whose hull, machinery, equipment, or operational safety is substantially below the standards required by the relevant convention or whose crew is not in conformance with the safe manning document.

**Valid certificate:** A certificate that has been issued directly by a Flag Administration or on its behalf by a recognised organisation and contains accurate and effective dates; meets the provisions of the relevant convention; and with which the particulars of the ship, its crew and its equipment correspond.

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# PORT STATE CONTROL: BACKGROUND, OBJECTIVE, TARGET GROUP and TARGETS

## Port State Control Legal Basis

### Conventions, protocols, codes & resolutions:

Port State Control inspections (PSC) is exercised on the legal basis specified in applicable regulations specified in the following International instruments:

- SOLAS
- LOAD LINE
- MARPOL
- STCW
- COLLREG
- TONNAGE
- ISM
- ILO 147
- BCH CODE
- IGC CODE
- IBC CODE
- IMO Res. A.787(19)

Regulation 19 specify the control procedure in SOLAS

Article	21	"	"	"	"	"	Load Lines 66 Conv.
"	5	"					inspection procedures of ships
"	X						and Regulation I/4 specify the control procedures of STCW

Furthermore, IMO resolution A.787(19), adopted on 23 November 1995, describes in more details "Procedures for Port State Control".

To exercise control of the provisions of the Codes is covered by SOLAS. An overview of mandatory certificates and mandatory documentation are listed later in this document.

# PORT STATE CONTROL: BACKGROUND, OBJECTIVE, TARGET GROUP and TARGETS

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## Preventive maintenance

Due to the operation of the ship and exposure to environmental conditions, such as air, humidity, heat and sea water, the ship and its equipment deteriorate. Further, as the time passes by, certain documentation, services and equipment become invalid, out-dated or non-compliant.

This makes maintenance necessary in order to maintain compliance with the applicable requirements on safety and pollution prevention. Operators carry out maintenance either as corrective maintenance or preventive maintenance.

**Corrective maintenance** means taking corrective actions **after** deficiencies have occurred. This is an **unacceptable** approach because it implies that at times deficiencies can be found on board compromising the safety of the ship, its personnel and the environment. When serious deficiencies are found during class surveys, Flag State inspections or Port State inspection, the ship may be detained until rectification.

**Preventive maintenance** means taking preventive actions **before** deficiencies occur. This means continuous compliance, no deficiencies on board and therefore no ground for detention.

**Every Company, master and/or responsible officers should remind themselves of the provisions of SOLAS Regulation I/11 "Maintenance of condition after survey", which states that;**

***The condition of the ship and its equipment shall be maintained to confirm with the provisions of the present regulations to ensure that the ship in all respects will remain fit to proceed to sea without danger to the ship or persons on board.***

This means that the ship shall in all respect be kept to the same standard as it was when inspected and the applicable certificate(s) issued.

Necessary maintenance of the ship to keep its standards are necessary, otherwise the requirements of SOLAS Reg. I/11 is not complied with.

If lack of maintenance results in deterioration of the ship's standards to a degree that it is considered by the PSCO "*not in all respect fit to proceed to sea*", it might be clear grounds for **the PSCO on the basis of the provisions of SOLAS Regulation I/11, for more detailed inspections or detention.**

Otherwise *clear grounds* means also that the PSCO has found that the ship, its equipment, or its crew does not corresponds substantially with the provisions of the relevant conventions or that the master or crewmembers are not familiar with essential shipboard procedures relating to the safety of the ship or prevention of pollution.

Even though the condition is that the ship's standards shall correspond to the applicable provisions of Conventions after survey, normal wear and tear resulting in deterioration of the overall standards pending on ships age, should be kept in mind when inspections are carried out.

However, the master and/or responsible officer(s) should always maintain the ship's condition to a highest possible maintenance level to be prepared for possible inspections also by PSCO. They should consider whether any inspection items could be a problem for the ship concerned, and if that is the case take necessary steps to improve the condition so that the standards correspond to the particular provisions of applicable Conventions.

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# PORT STATE CONTROL: BACKGROUND, OBJECTIVE, TARGET GROUP and TARGETS

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## Class attendance

In cases of detention, it is important to request class surveyor as soon as possible because of:

- The operator/owner has an **obligation to notify the class society immediately** in case of deficiencies or discrepancies that significantly affect certificates issued by the society.
  - The class surveyor will in many cases communicate and co-operate with the PSCO in order to **expedite the release of the ship**. This may include clarification on applicability, interpretation, temporary rectification, alternative solutions
  - The class surveyor offer an acceptable mechanism (Conditions of Class) for following up on outstanding deficiencies that can not be rectified before leaving ports.
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# PORT STATE CONTROL: BACKGROUND, OBJECTIVE, TARGET GROUP and TARGETS

## Required Documentation

1	International Tonnage Certificate (1969) (Int. Tonnage Conv. 1969)	ITC
2	Passengers Ship Safety Certificate (SOLAS 74/Ch. I/7)	PSSC
3	Cargo Ship Safety Construction Certificate(SOLAS 74/CH. I/10)	SAFCON
4	Cargo Ship Safety Equipment Certificate (SOLAS 74/Ch. I/8)	CSSEC
5	Cargo Ship Safety Radio Radiotelegraphy Certificate (SOLAS 74/CH. IV)	
6	Cargo Ship Safety Radio telephony Certificate "	SRC
7	Cargo Ship Safety Certificate(Comb. Cert. SOLAS Ch. I/8-9-10)	CSSC-HSSC
8	Exemption Certificate)(SOLAS 74/Ch.I/4)	EXMC
9	Document of Compliance)(SOLAS 74 R II-2/54)	DOC/IMDG
10	Trading Certificate or Trading Permit (National Req. Pending Flag)	TC/TP
11	International Certificate of Fitness for the Carriage of Liquefied Gases in Bulk; Certificate of Fitness for the Carriage of Liquefied Gases in Bulk (SOLAS Ch. VII, IGC-Code)	ICLFCLGB
12	International Certificate of Fitness for the Carriage of Dangerous Chemical in bulk; Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk or the ships P & A Manual(SOLAS 7/ MARPOL 73/78 – Annex II/IBC-Code)	ICFCBCH
13	International Oil Prevention Certificate(MARPOL 73/78 Annex II/5)	IOPP
14	International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in bulk(MARPOL 73/78 Annex II/11)	IOPP-NOX
15	International Load Line Certificate (1966); International Load Line Exemption Certificate(Int. LL Conv. Article 16)	ILLC
16	Oil Record Book part I(MARPOL Annex I/20 )	ORB –I
17	Oil Record Book part II (MARPOL 73/78 Annex I/20)	ORB-II
18	Oil Record Book Chemicals (MARPOL 73/78 Annex II/9)	ORBCH
19	Cargo Record Book(MARPOL Annex II/9)	CRB
20	Cargo Gear Record Book(ILO Conv. 134 Article 4.3e)	CGRB

21	Minimum Safe Manning Document; <b>Certificates of Competency</b> (SOLAS74 Ch.V/13)	MSMD
22	Medical certificates, Cf. ILO Conv. No 73 concerning Medical Examination of seafarers	MEDC
23	Approved Stability information (SOLAS 74 Ch. II-1/22)	ASTABI
24	Approved Shipboard Oil Pollution Emergency Plan(MARPOL Annex I/26)	SOPEP
25	Safety Management Certificate (1 July 1998) pending ship type(SOLAS Ch. IX/4 – ISM – Code)	ISMC
26	Certificates as to ship's hull strength and machinery installations issued by the classification society if the ship is classed (SOLAS 74 Ch. I/7 and I/10)	CSHMIC
27	Survey Report Filed(in case of bulk carriers or oil tankers)	SRF
28	Report of previous Port State Control inspections	RPPSCI
29	For ro-ro passenger ships, information on A/Amax ratio	Ro/Ro Max-Rat
30	Valid Certificate for inflatable life-rafts and Free-Float release equip(SOLAS Ch. III/19.8 and III/19.9)	.CILF/FFR
31	Valid Certificate for fixed fire-fighting equip.(SOLAS Ch. I/7 and I/10)	CFFFEQ
32	Garbage Record Book (Mandatory as from 1 July 1998)) (MARPOL Annex V)	(GRB
33	Dangerous goods manifest or stowage plan (SOLAS VII/5(5)MARPOL Annex III/4)	DGMSP
34	Document of authorisation for the carriage of grain (SOLAS VI/9)	DAFCG
35	Certificate of insurance or other financial security in respect of civil liability  For pollution damage(CLC 69, art VII)	CLC
36	Approved cargo securing manual(SOLAS VI/5.6 and VII/5.6)	ACSM

Cert/Doc	Pass.Ship	Dry Cargo Ship	Oil Tankers	Bulk Carriers	Chem. Carriers	Liq. Gas Carriers
ITC	X	X	X	X	X	X
PSSC	X					
SAFCON		X	X	X	X	X
CSSEC		X	X	X	X	X



SRC RAD		X	X	X	X	X
CSSC-HSSC	NM	NM	NM	NM	NM	NM
EXMC	X	X	X	X	X	X
DOC/IMDG		X				
TC/TP						
ICLFCLGB						X
ICFCBCH					X	
IOPP-NOX					X	
ILLC	X	X	X	X	X	X
ORB-I	X	X	X	X	X	X
ORB-II			X			
ORBCH					X	
CRB					X	
CGRB	X IF EQI	X	X	X IF EQI	X	X
MSMD	X	X	X	X	X	X
MEDC	X	X	X	X	X	X
ASTABI	X	X	X	X	X	X
SOPEP	X	X	X	X	X	X
ISMC	X		X	X	X	X
CSHMIC	X	X	X	X	X	X
SRF			X	X		
RPPSCI	X	X	X	X	X	X
Ro/Ro Max Rat	X					
CILF/FFR	X	X	X	X	X	X
CFFFEQ	X	X	X	X	X	X
GRB	X	X	X	X	X	X
IOPP	X	X	X	X	X	X

DGSMP	X	X				
DAFCG		X		X		
CLC	X	X	X	X	X	X
ACSM	X	X				

If the ship does not have the relevant valid documentation's (certificates), it would be a criteria for a detainable deficiency or clear grounds for more a detailed inspection.

In addition to the general control of above listed certificate and documents, examinations/inspections of the following will normally be given priority by PSCO;

Nautical publication	(SOLAS 74 R V/20)
Navigational equipment	(SOLAS 74 R V/12 and 19)
Emergency starting and running tests	(SOLAS 74 R II-2 - 4.3)
Lifesaving equipment. Rafts FF	(SOLAS 74 R III/20, 23, 26 and 29)
Emergency Generator (start/stop only)	(SOLAS 74 R II-1/42&43)
Hull corrosion and damages (Load Lines)	(SOLAS 74 R I/11)
Main engine & aux. eng.	(SOLAS 74 R II/26, 27 &28)
Oily water separator 15 ppm alarm	(MARPOL Annex I/16(1))
Oil discharge monitor (ODM)	(MARPOL Annex I/16)
Charts corrected and proper scale	(SOLAS 74 R V/20)
Fire safety Control plan	(SOLAS 74 R II-2/20)
Ventilation inlets/outlets	(SOLAS 74 R II-2/16.9 & 48)
Emergency training and drills	(Log book rec. SOLAS 74 R III/18)
Emergency lighting/batteries	(SOLAS 74 R II/42 &43)
Deck- and hatches corrosion and damages	(LL 1966)
Steering gear – incl. auxiliary & emergency	(Bridge inspection only – SOLAS 74 R V/19)
Cleanliness in engine room	(SOLAS 74 R II-1/26 and ILO 134)
Cleanliness in accommodation	(ILO 92 & 133)



# PORT STATE CONTROL: BACKGROUND, OBJECTIVE, TARGET GROUP and TARGETS

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## Port State Control Inspection Types

**Every ship should be prepared for survey and/or inspection by a Port State Control Officer (PSCO). The PSCO shall prior to any Port State Control inspection follow applicable procedure by introducing himself to the master and/or the responsible officers on board prior to the control. Every PSCO shall be duly qualified to conduct Port State Control inspections.**

Port State Control Inspections may be conducted on the following basis;

1. initiative of the Port State Administration;
2. the request of, or on the basis of, information regarding a ship provided by another Administration
3. information regarding a ship provided by a member of the crew, a professional body, an association, a trade union or any other individual with an interest in the safety of the ship, its crew and passengers, or the protection of the marine environment.

PSC inspections may be on random, targeted or periodical basis. The following types of PSC inspections are used in PSC:

1. **Initial Inspection (random)**
2. **More detailed inspection (escalated)**
3. **Expanded inspection (targeted/periodical)**

### 1. Initial Inspection

The PSCO will normally examine the vessels relevant certificates and documents etc. and the overall condition of the ship.

The certificates and documents listed above should therefore be readily accessible available and presented to the PSCO on at his request.

### 2. More detailed inspection

An inspection conducted when there are **clear grounds** for believing that the condition of the ship, its equipment, or its crew does not comply with the requirements of the relevant conventions. The inspection may focus on one area or be across various areas.

The following may be considered to be clear grounds for more detailed inspections by a PSCO:

1. the absence of principle equipment or arrangements required by the conventions;
2. evidence from the review of the ship's certificates that a certificate or certificates are clearly invalid;
3. evidence that the ship's logs, manuals or other documentation are not on board, are not maintained, or are falsely maintained;
4. in the opinion of the PSCO's general impression and observation serious hull or structural deterioration or deficiencies exist that may place at risk the structural, watertight or weathertight integrity of the ship;
5. in the opinion of the PSCO's general impression or observation serious deficiencies exist in the safety, pollution prevention, or navigational equipment;
6. information or evidence that the master or crew is not familiar with essential shipboard operations relating to safety of ships or the prevention of pollution, or that such operations have not been carried out
7. indication that key crew members may not be able to communicate with each other or with

other persons on board;

8. absence of an up-to-date muster list, fire control plan, and for passenger ships, a damage control plan;
9. the emission of false distress alerts not followed by proper cancellation procedures;
10. receipt of a report or complaint containing information that a ship appears to be substandard;
11. the ship has been reported by pilots or port authorities or others as having deficiencies which may prejudice safe navigation;
12. ships whose statutory certificates have been issued by an organisation which is not recognised under the term of Council Directive 94/57/EC of 22 November 1994 on common rules and standards for ship inspection and survey organisations and for the relevant activities of maritime Administration;
13. the ship has been involved in a collision on its way to the port;
14. the ship is in a category for which expanded inspection has been decided;
15. the ship has been suspended from their class for safety reasons in the preceding six months;
16. the ship has been accused of an alleged violation of the provisions on discharge of harmful substances or effluents
17. the ship's statutory certificates on the ship's construction and equipment, have been issued by an organisation which is not recognised by the Authority
  - i. ship flying the flag of a State appearing in the three-year rolling average table of above average detentions in the annual report of MOU.

### 3. Expanded inspection

An inspection conducted according to non-mandatory guidelines only once during 12 months period for certain types of ships (tankers, bulkers and passenger ships) and certain categories of age and size.

**Oil tankers, bulk carriers, gas and chemical carriers and passenger ships are subject to expanded inspections once during a period of 12 months. These inspections could be carried out in accordance with provisions stated below;**

Oil tankers, five years or less from the date of phasing out in accordance with MARPOL 73/78, Annex I Regulation 13 G, i. e.

- a crude oil tanker of 20.000 DWT and above or a product carrier of 30.000 DWT and above, not meeting the requirements of a new oil tanker as defined in Regulation 1 (26) of Annex I of MARPOL 73/78, will be subject to expanded inspection 20 years after its date of delivery as indicated on the Supplement, Form B, to the IOPP Certificate, or 25 years after that date, if the ship's wing tanks or double bottom space not used for carriage of oil meet the requirements of Regulation 13 G (4) of the Annex, unless it has been reconstructed to comply with Regulation 13 F of the same Annex.
- an oil tanker as mentioned above meeting the requirements of a new oil tanker as defined in Regulation 1 (26) of Annex I to MARPOL 73/78 will be subject to expanded inspection 25 years after its date of delivery as indicated on the Supplement, Form B, to the IOPP Certificate, unless it complies with or has been reconstructed to comply with Regulation 13 F of the Annex.
  - i. bulk carrier, older than 12 years of age, as determined on the basis of the date of construction indicated in the ship's safety certificate. **Such expanded inspection will be conducted only ones during a period of 12 months by any of the competent authorities of the MOU.**
  - ii. gas and chemical tankers older than 10 years of age, as determined on the basis of construction indicated in the ship's safety certificate
  - iii. in case of passenger ship operating on a regular schedule in or out of a port in an EU member state, an expanded inspection of each ship shall be carried out by the competent authority of the Member State. When a passenger ship operates such a schedule between ports in Member States, one of the States between which the ship is operating shall undertake the expanded inspection.

**To the extent it is applicable, the following examinations may be considered as part of an expanded inspection.**

**However, when the examinations are carried out, the master and/or responsible officers should remind the PSCO that it may jeopardise the safe execution of certain on-board operations, e. g. cargo operation, if the tests having a direct effect thereon, and are required to be executed during such operations.**

- a. execution of black-out and start of emergency generator;
- b. inspection of emergency lighting and back up sources including batteries;
- c. operation of emergency fire-pump with two firehouses connected to the main fire- line;
- d. operation of bilge pumps;
- e. closing of watertight doors;
- f. lowering of a seaside lifeboat to the water level and test the release mechanism;
- g. inspection of fire dampers to engine room, cargo holds and accommodation;
- h. test of remote emergency stop e. g. boiler, ventilation and fuel pumps;
- i. testing of steering gear including auxiliary steering gear;
- j. inspection and testing of emergency source of power to radio installations;
- k. inspection and, to the extent possible, test of engine-room separators;

**Additional expanded inspections, which might be carried out for oil tankers;**

- fixed-deck foam system;
- fire-fighting equipment in general;
- inspections of fire dampers to pump room;
- control of pressure of inert gas and oxygen content thereof; check of survey report file to identify possible suspect areas requiring inspections.

**Additional expanded inspections, which might be carried out for bulk carriers;**

- corrosion of deck machinery foundations
- deformation and/or corrosion of hatch covers
- cracks and/or local corrosion in transverse bulkheads
- access to cargo holds
- check of Survey Report File to identify possible suspect areas requiring further inspections

**Additional expanded inspections, which might be carried out on Gas- and Chemical carriers;**

- cargo tank monitoring and safety devices relating to temperature, pressure, gas detection, and ullage
- oxygen analysing and explosimeter devices, inc. their calibration
- availability of chemical detection equipment (bellows) with an appropriate number of suitable gas detection tubes for the specific cargoes being carried
- cabin escape sets giving suitable respiratory and eye protection, for every person
- onboard (if required by products listed on International Certificate of Fitness or Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk or Liquefied Gases in Bulk as Applicable)
- check that the product(s) being carried is listed in the International Certificate of Fitness or Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk or Liquefied Gases in Bulk as applicable
- the fixed fire fighting installations on deck whether they be foam or dry chemical or other as required by the product(s) carried

**Additional expanded inspections, which might be carried out on passenger ships;**

- testing of fire detection and alarm system
- testing of proper closing of fire doors
- testing of public address system
- fire drill where, as a minimum, all sets of fireman's outfits must be demonstrated and part of the



catering staff shall take part

- demonstration that key crew members are acquainted with the damage control plan

As mentioned above a PSCO might always find "clear grounds" for carrying out more detailed inspections.

"**Clear grounds**" exist when the inspector finds evidence which in his professional judgement warrant a more detailed inspection of the ship, its equipment or its crew.

During an expanded inspection the PSCO might find evidence which in his judgement warrants a more detailed inspection – "**Clear grounds**".

Whenever there are clear grounds for believing that the condition of a ship or its equipment or crew does not substantially meet the relevant requirements of a Convention, a more detailed inspection shall be carried out, including further examination of compliance with on-board operational requirements.

Therefore the master and/or responsible officers should bear in mind that an expanded inspection could be continued by a more detailed inspection, concentrating on an area which in the opinion of the PSCO need further examination, and might comprise of the following priorities;

- navigational safety
  - communication
  - fire safety
  - life-saving appliances etc
-

# PORT STATE CONTROL: BACKGROUND, OBJECTIVE, TARGET GROUP and TARGETS

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## Port State Control and Cargo Operations

**There are areas, which not warrant a detention of a ship, but might lead to suspension of cargo operation e. g. if failure of the proper operation of inert gas system, improper operation of cargo related gear or machinery, crude oil washing procedures might be considered as sufficient grounds for such suspensions.**

### Inert gas system

If an examination/inspection of the inert gas system is carried out, it will be required that instrumentation shall be fitted for continuously indicating an permanently recording at all times when inert gas is being supplied, the pressure and the oxygen content of the gas in the inert gas supply main. Reference to the permanent recorder must indicate if the system had been operating before and during the cargo discharge in a satisfactory manner.

If conditions specified in the COW Operation and Equipment Manual are not being met, then the washing will be stopped until satisfactory conditions are restored.

A further precautionary measure is that the oxygen level in each tank to be washed, is to be determined at the tank. The metres must have been calibrated and will be inspected to ensure that they are in good working order. Readings from tanks already washed in port prior to inspection should be available for examination, and spot checks on readings might be instituted

### Crude oil washing.

Normally the PSCO will ensure that all crude carriers either required to have crude oil washing system or where the owner or operator chooses to install a crude oil washing system in order to comply with Regulation 13 of Annex I of MARPOL 73/78. In addition, compliance will be ensured with the operational requirements set out in the revised Specifications of the Design Operation and Control of Crude Oil Washing Systems (IMO Res. A.446(XI), as amended by IMO Res. A.497(XII)) This is done in the ports where the cargo is unloaded.

Further, the inspection may cover the entire operation of crude oil washing or only certain aspects of it. It is, however, in the interest of all concerned that the ship's records with regard to the crude oil washing operations are maintained at all times so that a PSCO may verify those operations undertaken prior to the applicable inspection.

It will be determined from the ship's records that the pre-crude oil wash operation has been carried out and that all instruments functioned correctly.

If a tanker is engaged in multiple port discharge, the Oil Record Book (ORB) should indicate if tanks have been crude oil washed at previous discharge ports or at sea. It will be determined that all tanks which will or may be used to contain ballast on the forthcoming voyage will be crude oil washed before the ship departs from the port. There is no obligation to wash any tank other than ballast tanks at a discharge port except that each of these other tanks must be washed at least in accordance with paragraph 6.1 of the revised Specifications (IMO Res. A.446(XI) as amended by Res. A.497(XII)). The ORB will be examined to verify this has been complied with.

All crude oil washing must be completed before a ship leaves its final port of discharge.

If tanks are not being washed in one of the preferred orders given in the COW Operations and Equipment Manual, the PSCO will determine the reasons for this, and decide whether the order of tank washing are acceptable.

For each tank being washed it will be ensured that the operation is in accordance with the COW

Operations and Equipment Manual and that;

- the deck mounted machines and the submerged machines are operating either by reference to indicators, the sound patterns or other approved methods
- the deck mounted machines, where applicable, are programmed as stated
- the duration of wash is as required, and
- the number of tank washing machines being used simultaneously does not exceed that specified.

All tanks that have been crude oil washed are to be stripped. It will be ascertained that the adequacy of stripping has been checked or will be checked before the ship leaves its final port of discharge.

Tanks that have been crude oil washed at sea should be recorded in the ORB. These tanks must be left empty between discharge ports for inspections at the next discharge port.

Tanks that are designated ballast tanks should be listed in the COW Operations and Equipment Manual. It is, however, left to the discretion of the master and/or responsible officer to decide which tanks may be used for ballast on the forthcoming voyage.

It should be determined from the ORB that additional ballast water has not been put into tanks which have not been crude oil washed during previous voyages.

It will be verified that the departure ballast tanks are stripped as complete as possible.

The methods to avoid vapour emission where locally required should be provided in the COW Operations and Equipment Manual and they must be adhered to. The PSCO will ensure that this has been complied with

When departure ballast has to be shifted, the discharge into the sea must be in compliance with Regulation 9 of Annex I to MARPOL 73/78. The ORB will be examined to ensure compliance with this.

# PORT STATE CONTROL: BACKGROUND, OBJECTIVE, TARGET GROUP and TARGETS

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## Port State Control and Manning

### I. Number & Composition

The master and/or responsible officer(s) should be aware that if Port State

Control inspections are carried out, the ship's manning will probably be examined in addition to the ship's certificate and documents, and will be given high priority. It is therefore important to know the guiding principles used by a PSCO in respect of manning control. Firstly this control will be to establish to verify that the ship manning is in conformity with the Flag State's safe manning document, based on:

- the Flag State's safe manning requirements. (If there is any doubt the Flag State will be consulted)
  - the international provisions which are laid down in SOLAS Reg. V/13, STCW 78 Convention as amended in 95 and IMO Resolution A.481(XII)
  - the provisions of ILO 147 which inter alia refer to the ILO Convention 53, Article 3 and 4
1. If the ship is manned in accordance with a safe manning document or equivalent document issued by the Flag State, the PSCO should accept that the ship is safely manned unless the document has clearly been issued without regard to principles in relevant instruments
  2. If the actual crew number or composition does not confirm to the manning document, the Port State control Authority should request the Flag State for advice as to whether or not the ship should be allowed to sail with the actual number of crew and composition. (The request and response should be by expedient means and in writing. If the actual number of crew or composition is not brought in accordance with the safe manning document or the Flag State does not advise that the ship could sail, the ship may be considered for detention).
  3. If a ship does not carry a safe manning document or equivalent, the Port State Authority should request the Flag State to specify the number and composition of the crew and issue the required document as soon as possible. (In case the actual number and composition of the crew does not confirm to the specifications received from the Flag State Authority, the ship might be detained until the crew is brought in conformity with the Flag State specifications).

### II. Qualifications, Certificates of Competence & Fitness for Watchkeeping

The Responsibilities of Companies are set forth in regulation I/14 of STCW 95 and section A-I/14 of the STCW-Code.

Accordingly the Flag State Administration holds the companies responsible for the assignment of seafarers for service in their ship to ensure that each seafarer holds an appropriate certificate and/or document of evidence in accordance with the provisions of the Convention.

The master of every ship should on this basis ensure that all persons employed or engaged in any capacity on board his ship holds the appropriate certificate and/or document of evidence.

However, without prejudice to other rights and obligations on control by PSCO concerning communication and information on board, control exercises by PSCO should be limited to the following;

- verification that all seafarers serving on board, who are required to be certified, hold an

appropriate certificate and/or document of evidence as required or a valid dispensation, or provide documentary evidence that an application for an endorsement has been submitted to the Flag State Administration.

- verification that the numbers and certificates of the seafarers serving on board are in conformity with the applicable safe manning requirements of the Flag State Administration
- assessment of the ability of the seafarers on board the ship to maintain watchkeeping standards as specified by the Convention; and
- assess that all persons who are assigned duty as officer in charge of a watch or as rating forming part of a watch are provided with the minimum rest hours as prescribed by section A-VIII/1 of the STCW-Code (1995 amendments).

Further, companies should be aware that their responsibilities are not limited to the following;

- ensuring that seafarers assigned to any company ship hold an appropriate certificate and/or documentary evidence,
- manning requirements issued by Administrations are complied with
- have established procedures to ensure that records are kept and maintained for each licensed and documented seafarer on board ships,
- upon first assignment to ship, the employee must be provided reasonable opportunity to become familiar with all arrangements, installations, equipment, procedures and ship characteristics relevant to their routine and emergency duties,
- **provide written instructions to masters on policies and procedures to be followed by all newly employed or arrived ship personnel. (The written instruction could be in the form of a checklist).**

### III. Amendments

**The Final Act of the 1995 Conference adopted amendments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 78. The adopted amendments entered into force 1 February 1997 upon acceptance in accordance with paragraph 2 of Resolution 1 attached to the Final Act to the Convention**

### IV. Document Preparation

**To assist companies to be prepared for examination by a PSCO, the following certificates and/or documentary evidence are applicable for the various ship types and rank of the employee, and prior to arrival the master and/or responsible officer should verify that applicable documentation's are available for examination;**

Cert. and /or Doc. Of evidence	Passenger ship Ro-Ro	Dry cargo ship	Oil tanker	Chemical carrier	Liq. Gas carrier
Master	X	X	X	X	X
Chief mate	X	X	X	X	X
Deck officer	X	X	X	X	X
Chief engineer off.	X	X	X	X	X
Engineer off.	X	X	X	X	X
Second engineer off.	X	X	X	X	X
Deck rating	XNB	XNB	XNB	XNB	XNB
Engine room rating	XNB	XNB	XNB	XNB	XNB
Radio pers. Non GMDSS	X	X	X	X	X
Radio pers. GMDSS ship	X	X	X	X	X
Tanker pers. With cargo responsib.			X	X	X
Ro-Ro passenger ship pers.	X				
Basic safety training	X	X	X	X	X
Survival craft rescue boat profic.	X PS	X PS	X PS	X PS	X PS



Fast rescue boat (FRB) profic.	Ships fitted with FRB X	Ships fitted with FRB X			
Advanced Fire Fight. Pers. With spec.design.	X	X	X	X	X
Pers. Design. to provide medic. First aid	X	X	X	X	X
Pers. In charge of medic. Care	X	X	X	X	X

**NB.** Document of evidence according to STCW 78 Conv. or certificate according to STCW 95 Conv. Regulation II/4 or III/4 as applicable, or under training to meet the standards of competence of section A-II/4 or A-III/4 as applicable.

**PS.** Only deck officers with certificate according to STCW 78 Conv or personnel with document of evidence or certificate for survival craft and rescue boat proficiency shall be placed in charge of a survival craft or rescue boat.

## V. Special Training

**The following special training for personnel on certain types of ships, and survival functions are applicable for the various ranks, functions, and responsibilities on board ships.**

Crowd management . section A - V/2, para 1  
Familiarisation training section A – V/2 para 2  
Safety training section A – V/2 para 3  
Passenger safety, cargo safety, hull integrity training section A – V/2 para 4  
Crisis management section A – V/2 para 5  
Basic safety training section A – VI/1 para 2  
Radio certification chapter IV  
Tanker familiarisation training  
Tanker expanded training  
Proficiency in survival craft and rescue boat  
Proficiency in fast rescue boat  
Advanced fire fighting  
Medical first aid  
Medical care  
Shipboard familiarisation training

CMT  
FAT  
SFT

PSCSIT  
CRSMT  
BSFT  
RC  
TFAT  
TEXT  
PSCRB  
PFRB  
AFF  
MFA  
MC  
SFMT

All ships						Oil Tanker	Chemi.-carrier	Liq Gas Carrier	Ro-Ro passenger ships				
Rank/ Functions/ Responsib.													
Master	RC					TEXT	TEXT	TEXT	CMT	FAT	PSC-SIT	CRS-MT	
If responsible			MC										
Chief mate						TEXT	TEXT	TEXT	CMT	FAT	PSC-SIT	CRS-MT	
If responsible				PFRB									
	RC		MC	PFRB									SFT
Deck off.			MC	PFRB		TFAT	TFAT	TFAT	CMT	FAT	SFT	PSC-SIT	
If responsible	RC					TEXT	TEXT	TEXT					RS-MT



Radio off If assign. If responsible	RC	AFF	MFA	BSFT	PFRB PSC- RB				CM	FAT	SFT	CRS- MT	
Deck rating If responsible	AFF	PSC-RB	PFRB	BSFT		No manda- tory Training TFAT	No mandatory training TFAT	No mandatory training TFAT	SFT	CMT		CRS-MT FT	PSC- SIT
Chief engineer officer If responsible	MC	PFRB				TEXT	TEXT	TEXT	CMT	FAT	PSC- SIT	CRS-MT	
Second engineer officer If responsible	MC	PFRB				TEXT	TEXT	TEXT	CMT	FT	PSC- SIT	CRS- MT	SFT
Engineer officer If responsible	MC	PFRB				TFAT TEXT	TFAT TEXT	TFAT TEXT	CM	FAT	PSC- SIT	CRS- MT	SFT
Pump- Man If responsible	BSFT	MFA	PSC- RB	PFRB		TEXT	TEXT						
Engine room rating If responsible	AFF	PFRB	PSC- RB	BSFT		TFAT TEXT	TFAT TEXT	TFAT TEXT	SFT	FT	CRS- MT	CMT	PSC- SIT
Other Persons Assigned Shipboard duties If responsible	MFA	BSFT	PSC- RB	PFRB	SF-MT					FAT	SFT	CRS- MT	

**NB**

**In addition to the special training for personnel on certain types of ships, training in emergency, occupational safety medical care and survival functions required by Chapter V and VI of the Convention, all persons on board shall receive ship specific familiarisation required by Regulation I/14.**

## VI. Further assessment by PSCO on manning provisions

If any of the following have occurred;

- the ship has been involved in a collision, grounding or stranding, or
- there has been a discharge of substances from the ship when underway, at anchor or at berth which is illegal under any international Conventions, or
- the ship has been manoeuvred in an erratic or unsafe manner whereby routing measures adopted by IMO or safe navigation practices and procedures have not been followed, or
- the ship is otherwise being operated in such a manner to pose a danger to persons, property or the environment;

there are clear grounds for believing that these occurrence are because the watch keeping standards and/or the minimum hours of rest required by the Convention are not being maintained or complied with. The PSCO will certainly carry out further examination in respect of records of hours of work and rest periods specified in STCW 95, if watch schedules have been posted and followed. If not it should have been recorded in the ship log-book.

The PSCO might find reasons to believe that any of the occurrences are related to lack of competency, in fact that members of the crew who are required to be competent do not possess the necessary skill as required by the STCW Convention. If that should be the case, the PSCO will probably carry out necessary assessment as indicated in the STCW Code section A – I/4.

### **NB**

**Failure to correct any of the deficiencies related to items referred to under Manning Control above might result in detention. Companies, masters and/or responsible officers should therefore make all efforts to comply with the safe manning provisions, certification of seafarers and related requirements.**

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# PORT STATE CONTROL: BACKGROUND, OBJECTIVE, TARGET GROUP and TARGETS

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## Port State Control and Safety Management

### I. Assessment of the ISM Code Implementation

The ISM Code enters into force 1 July 1998. Both Paris MOU & Tokyo MOU , have decided to carry out a concentrated inspection campaign on selected items to assess compliance. The selected question/items indicated below were used by PSCOs in the campaign, but are also relevant after the campaign. The master and/or responsible officers should be prepared to reply to the following questions:

1. Is the ISM Code applicable to the particular ship as of 1 July 1998?
2. Is the ISM certification available on board?
3. Are the certificates and other particulars in order?
4. Is the relevant Safety Management documentation (e.g. manuals) readily available on board? (Ref.: Section 1.4 of the ISM Code)
5. Is the relevant documentation on the SMS in a working language or language understood by the ship's personnel? (Ref.: Section 6.6 of the ISM Code)
6. Can senior officers identify the Company responsible for the operation of the ship and does this correspond with the entity on the ISM certificates? (Ref.: Section 3 of the ISM Code)
7. Can the senior officer identify the "designated person"? (Ref.: Section 4 of the ISM Code)
8. Are procedures in place for establishing and maintaining contact with shore management in an emergency? (Ref.: Section 8.3 of the ISM Code)
9. Are programmes for drills and exercises to prepare for emergency actions available on board? (Ref.: Section 8.2 of the ISM Code)
10. Can the master provide documented proof of his responsibilities and authority, which must include his overriding authority? (Ref.: Section 5 of the ISM Code)
11. Does the ship have a maintenance routine and records available? (Ref.: Section 10.2 of the ISM Code)

### II Application & Certification of the ISM Code

SOLAS Chapter IX, regulation 2 Application. If not applicable, the rest of the form does not need to be completed and shall not be sent in for evaluation.

#### Regulation 2 Application

- i. This chapter applies to ships, regardless of the date of construction, as follows:
- ii. passenger ships including high – speed craft, not later than 1 July 1998;
- iii. oil tankers, chemical tankers, gas carriers, bulk carriers and cargo high-speed craft of 500 gross tonnage and upwards, not later than 1 July 1998; and
- iv. other cargo ships and mobile offshore drilling units of 500 gross tonnage and upward, not later than 1 July 2002.
- v. This chapter does not apply to government-operated ships used for non-governmental purposes.

#### Bulkcarriers:

- i. **Unless it is clear from statutory certificates issued by or on behalf of the flag State Administration that a vessel is typed as "bulk carrier", the definition given in SOLAS**

**Reg. IX/1.6 should be interpreted for the purpose of port State control in such a way that only those ships being constructed with single deck, top-side tanks and hopper tanks in cargo spaces and intended primarily to carry dry cargo in bulk, and including ore carriers and combination carriers come within the scope of definition, whether or not they are actually carrying dry cargo in bulk.**

- ii. When in doubt about the application of the definition above, particular when one or more of the elements below apply, the PSCO will consult the flag State for clarification:
  - class certificates indication the classification of the ship as "bulk carrier",
  - documentation showing that the vessel is subject to "Enhanced Survey" in accordance with SOLAS Reg. XI/2
  - the vessel being exempted under SOLAS Reg. II-2/53,1.2 from having a fixed gas fire extinguishing system in its cargo spaces.

Copy of document of Compliance (DOC) and original of Safety Management Certificate (SMC).

The interim certificate may be used in appropriate. The following guidance on interim certificate apply:

- Vessel may have a copy of an interim DOC and hold an interim SMC. The vessel shall not hold a certificate copy of an interim DOC and a full term SMC.

Interim DOC is issued to:

- i. Facilitate initial implementation of the Code, and
- ii. Implementation when a Company is newly established;
- iii. Or new ship types added to existing DOC

An interim DOC is valued for maximum 12 months.

An Interim SMC is issued for:

- i. New ship on delivery; and
- ii. When companies takes on the management of a ship new to the company.

An Interim SMC is valid for 6 months. In special cases the issuing body may extend the validity of the Interim SMC for further six months.

Before an Interim SMC is issued the following apply and will be checked by PSCOs:

- The DOC, or Interim DOC, shall be relevant to that type of ship.
- SMS provided by the Company which address the key elements of the Code. Written procedure and/or plans should be in place.
- Master and responsible officers should be familiar with the SMS and implementation plans.
- Instructions essential prior to sailing (Section 6.3 of the ISM Code) have been given.
- Plans for a Company audit of the system within 3 months should be in place.
- Relevant information given in a working language or languages understood by the ship's personnel

### **Section 6.3 of the ISM Code;**

The Company should have established procedures to ensure that new personnel and personnel transferred to new assignments related to safety and protection of the environment are given proper familiarisation with their duties. Instructions which are essential to be provided prior to sailing should be identified, documented and given.

Certificates should be issued by, or at the request of, the flag State.

This does not mean that the documented SMS has to be in a particular language. It is for the Company to decide on the "working language" of the ship and provide pertinent and relevant information to the ship's personnel in a language understood by them

It is not a requirement for the SMS to be in a language understood by the PSCO. If in

doubt as to the effectiveness, the PSCO may ask for drills to be conducted or witness the operation of machinery and systems.

SOLAS Chapter IX Reg. 1.2 and ISM Code 1.1.2;

**Company** means the owner of the ship or any organisation or person such as the manager, or the bare boat charterer, who has assumed the responsibility for the operation of the ship from the owner of the ship and who on assuming such responsibility has agreed to take over all the duties and responsibilities imposed by the ISM Code.

The master must know his identity and be aware of the role of the DP. Other responsible officers should be aware of identity and role. He does not have to be directly contactable. He may not even have any role to play in an emergency. The master should be able to explain the route of non-conformities that the DP will be seeing. The DP is the "manager" of the system.

Reference to the contacts in the SOPEP could suffice if so stated in the SMS. PSCOs will not expect to see a neat list posted in the radio room although many ships will have this type of list.

A programme of drills and exercises covering more than those required by SOLAS Chapter III – Reg. 18, should be in place. The crews responses to potential emergencies should be practised in drills. These drills should cover all documented responses to critical and emergency situation. Records of all emergency drills and exercises on board should be maintained and available for verification.

#### *ISM Code – Section 8 EMERGENCY PREPAREDNESS*

1. The Company should establish procedures to identify, describe and respond to potential emergency shipboard situations.
2. 8.2 The Company should establish programmes for drills and exercises to prepare for emergency actions

A planned maintenance system is not a requirement of the Code but it is difficult to confirm with section 10 without one. The system may just be based on class CSM/CSH and ME/GE running hours.

Detainable deficiencies may indicate a failure of the SMS. The PSCO will examine The relevant areas of the system to identify non-conformities.

#### **General information**

The following results from the checklist will normally be considered as major non-conformities\* and would make the vessel liable for detention.

Question	Result
1	ISM certificate not on board
2	Company on the DOC not the same as on SMC
3	Safety Management document not on board
4	Relevant documentation not in a working language or a language understood by the crew
6 – 7	Responsible officers unable to identify operator and designated person (ship/shore system breaks down with this)
8	No procedures to contact the Company in emergency situations
9	Drills have not been carried out according to program
10	Master's overriding authority no documented and master unaware of his authority

11	No evidence of maintenance being carried out
----	----------------------------------------------

**Major non-conformity**

means an identifiable deviation which poses a serious threat to personnel or ship or a serious risk to the environment and requires immediate actions; in addition, the lack of effective and system implementation of a requirement of the ISM Code is also considered as a major non-conformity. A ship must correct all major non-conformities before departure.

The selected questions on the checklist do not cover all the parts of the ISM Code and will not be considered as a substitute for a full audit. Since the control is based on sampling, parts of the system will not be covered. If a PSCO finds evidence of non-conformities, which are not included in the checklist, he will act and take all necessary actions.

Depending on the possibilities for a PSCO to communicate with other than the responsible officers, other members of the ships personnel included in the Company's SMS could be controlled according to the checklist.



# DNV Guide On Port State Control

## Background, Objective, Target Group & Targets

### Background

In order to phase out substandard ships, Port State Control (PSC) has been intensified world-wide in the nineties to ensure compliance with applicable requirements for safety, pollution prevention and manning conditions on board. Substandard or non-compliant ships are detained and can not leave the port until reported serious/detainable deficiencies have been rectified. This of course implies possible delay and financial losses to ship operators.

DNV has developed this guide to further enhance compliance with requirements for safety and pollution prevention on board. Compliance can be achieved by effective implementation of an acceptable safety management system including preventive maintenance. DNV Guide on PSC provides an additional tool to focus on **preventive maintenance** on board.

### Objective

The objective of DNV Guide on PSC is to help achieve compliance with requirements for safety and pollution prevention through **preventive maintenance** on board. Thus, enhance preparedness for Port State Control inspections, Flag State inspections and class surveys.

### Target Group

DNV Guide on PSC is aimed at all personnel both on board and at the Company involved in ship management, operation, maintenance, inspection and control.

The user will find photographs for items normally need extra attention between surveys and during the operation of the ship, based on experience and statistics. Each photograph has a text on "What to look for" and has one or more "hot spot" that can give additional text.

## Targets

In addition to increased focus on preventive maintenance of items that result in the most common and critical deficiencies, DNV Guide on PSC shall help the user to become familiar with:

- the **definitions** used in connection with Port State Control
- the **legal basis** for Port State Control
- the importance of the **preventive maintenance**
- the importance of **class attendance**
- the importance of having all **required documentation** available prior to port arrival
- the **inspection types** of Port State Control
- Port State Control & **Cargo Operations**
- Port State Control & **Manning**
- Port State Control & **Safety Management**

# Definitions Used In Connection With Port State Control

**Clear grounds:** Evidence that the ship, its crew or its safety management system does not comply with the requirements of the relevant conventions. Such evidence needs not necessarily be a deficiency, but may be an incident, and accident or and indication of substantial non-compliance/detainable deficiencies.

**Deficiency:** Non-compliance, discrepancy or deviation from the requirements of the relevant instruments/conventions.

**Detainable Deficiency:** A deficiency that presents an immediate threat to the ship, its personnel or the environment, which renders the ship unsafe to proceed to sea.

**Detention:** Intervention action taken by the port State in case of detainable deficiencies or substantial non-compliance to ensure that the ship does not sail until detainable deficiencies have been rectified.

**Expanded inspection:** An inspection conducted according to non-mandatory guidelines only once during 12 months period for certain types of ships (tankers, bulkers and passenger ships) and certain categories of age and size.

**Inspection:** A visit on board a ship to check both the validity of relevant certificates and other documents, and the overall condition of the ship, its equipment, and its crew.

**More detailed inspection:** An inspection conducted when there are clear grounds for believing that the condition of the ship, its equipment, or its crew does not comply with the requirements of the relevant conventions. The inspection may focus on one area or be across various areas.

**Port State Control Officer (PSCO):** A person duly authorised by a Port State authority to carry out port State control inspections, and responsible exclusively to that authority

**Recognised organisation:** An organisation which meets the relevant conditions set forth by resolution A.739(18), and has been delegated by the flag State Administration to provide the necessary statutory services and certification to the ships entitled to fly its flag.

**Serious Deficiency:** A deficiency that may present an immediate threat to the ship, its personnel or the environment, and that could be qualified as a detainable deficiency.

**Stoppage of an operation:** Formal prohibition against a ship to continue an operation due to identified deficiency that, singly or together, render the continuation of such operation hazardous.

**Substandard ship:** A ship whose hull, machinery, equipment, or operational safety is substantially below the standards required by the relevant convention or whose crew is not in conformance with the safe manning document.

**Valid certificate:** A certificate that has been issued directly by a Flag Administration or on its behalf by a recognised organisation and contains accurate and effective dates; meets the provisions of the relevant convention; and with which the particulars of the ship, its crew and its equipment correspond.

# Legal Basis for Port State Control

## Conventions, protocols, codes & resolutions:

Port State Control inspections (PSC) is exercised on the legal basis specified in applicable regulations specified in the following International instruments:

- SOLAS
  - LOAD LINE
  - MARPOL
  - STCW
  - COLLREG
  - TONNAGE
  - ISM
    - ILO 147
    - BCH CODE
    - IGC CODE
    - IBC CODE
    - IMO Res. A.787(19)

Regulation 19 specifies the control procedure in SOLAS

Article 21 “ “ “ “ “ Load Lines 66 Convention.

“ 5 “ inspection procedures of ships

“ X and Regulation I/4 specify the control procedures of STCW

Furthermore, IMO resolution A.787(19), adopted on 23 November 1995, describes in more details "Procedures for Port State Control".

To exercise control of the provisions of the Codes is covered by SOLAS. An overview of mandatory certificates and mandatory documentation are listed later in this document.

## Importance of Preventive Maintenance

Due to the operation of the ship and exposure to environmental conditions, such as air, humidity, heat and seawater, the ship and its equipment deteriorate. Further, as the time passes by, certain documentation, services and equipment become invalid, out-dated or non-compliant.

This makes maintenance necessary in order to maintain compliance with the applicable requirements on safety and pollution prevention. Operators carry out maintenance either as corrective maintenance or preventive maintenance.

**Corrective maintenance** means taking corrective actions **after** deficiencies have occurred. Corrective maintenance is an **unacceptable** approach as it implies that at times deficiencies can be found on board compromising the safety of the ship, its personnel and the environment. When serious deficiencies are found during class surveys, Flag State inspections or Port State inspection, the ship may be detained until rectification.

**Preventive maintenance** means taking preventive actions **before** deficiencies occur. This means continuous compliance, no deficiencies on board and therefore no ground for detention.

**Every Company, master and/or responsible officers should remind themselves of the provisions of SOLAS Regulation I/11 “Maintenance of condition after survey”, which states that;**

***The condition of the ship and its equipment shall be maintained to conform with the provisions of the present regulations to ensure that the ship in all respects will remain fit to proceed to sea without danger to the ship or persons on board.***

This means that the ship shall in all respect be kept to the same standard as it was when inspected and the applicable certificate(s) issued.

Necessary maintenance of the ship to keep its standards are necessary, otherwise the requirements of SOLAS Reg. I/11 is not complied with.

Lack of maintenance may result in deterioration of the ship's standards to a degree that it is considered by the PSCO “*not in all respect fit to proceed to sea*”. This may be considered clear grounds for **the PSCO on the basis of the provisions of SOLAS Regulation I/11, for more detailed inspections or detention.**

Otherwise *clear grounds* means also that the PSCO has found that the ship, its equipment, or its crew does not corresponds substantially with the provisions of the relevant conventions. Also when the master or crewmembers are not familiar with essential shipboard procedures relating to the safety of the ship or prevention of pollution, this may be considered as clear grounds.

Even though the condition is that the ship's standards shall correspond to the applicable provisions of Conventions after survey, normal wear and tear resulting in deterioration of the overall standards pending on ships age, should be kept in mind when inspections are carried out.

However, the master and/or responsible officer(s) should always maintain the ship's condition to a highest possible maintenance level to be prepared for possible inspections also by PSCO. They should consider whether any inspection items could be a problem for the ship concerned, and if that is the case take necessary steps to improve the condition so that the standards correspond to the particular provisions of applicable Conventions.



## Importance of Class Attendance In Connection with PSC Detention

In cases of detention, it is important to request class surveyor to attend on board as soon as possible because of:

- The operator/owner has an **obligation to notify the class society immediately** in case of deficiencies or discrepancies that significantly affect certificates issued by the society.
- The class surveyor shall communicate and co-operate with the PSCO in order to **expedite the release of the ship**. This may include clarification on applicability, interpretation, temporary rectification and alternative solutions.
- The class surveyor can offer an acceptable mechanism (Conditions of Class) for following up outstanding deficiencies that can not be rectified before leaving ports.

## List of Documentation & Requirement According to Ship Type

1	International Tonnage Certificate (1969) (Int. Tonnage Conv. 1969)	ITC
2	Passengers Ship Safety Certificate (SOLAS 74/Ch. I/7)	PSSC
3	Cargo Ship Safety Construction Certificate (SOLAS 74/CH. I/10)	SAFCON
4	Cargo Ship Safety Equipment Certificate (SOLAS 74/Ch. I/8)	CSSEC
5	Cargo Ship Safety Radio Radiotelegraphy Certificate (SOLAS 74/CH. IV)	
6	Cargo Ship Safety Radio telephony Certificate “	SRC
7	Cargo Ship Safety Certificate (Comb. Cert. SOLAS Ch. I/8-9-10)	CSSC-HSSC
8	Exemption Certificate)(SOLAS 74/Ch.I/4)	EXMC
9	Document of Compliance)(SOLAS 74 R II-2/54)	DOC/IMD G
10	Trading Certificate or Trading Permit (National Req. Pending Flag)	TC/TP
11	International Certificate of Fitness for the Carriage of Liquefied Gases in Bulk; Certificate of Fitness for the Carriage of Liquefied Gases in Bulk (SOLAS Ch. VII, IGC-Code)	ICLFLG B
12	International Certificate of Fitness for the Carriage of Dangerous Chemical in bulk; Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk or the ships P & A Manual(SOLAS 7/ MARPOL 73/78 – Annex II/IBC-Code)	ICFCBCH
13	International Oil Prevention Certificate(MARPOL 73/78 Annex II/5)	IOPP
14	International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in bulk(MARPOL 73/78 Annex II/11)	IOPP- NOX
15	International Load Line Certificate (1966); International Load Line Exemption Certificate(Int. LL Conv. Article 16)	ILLC
16	Oil Record Book part I(MARPOL Annex I/20 )	ORB –I
17	Oil Record Book part II (MARPOL 73/78 Annex I/20	ORB-II
18	Oil Record Book Chemicals (MARPOL 73/78 Annex II/9)	ORBCH
19	Cargo Record Book(MARPOL Annex II/9)	CRB
20	Cargo Gear Record Book(ILO Conv. 134 Article 4.3e)	CGRB
21	Minimum Safe Manning Document; <b>Certificates of Competency</b> (SOLAS74 Ch.V/13)	MSMD
22	Medical certificates, Cf. ILO Conv. No 73 concerning Medical Examination of seafarers	MEDC
23	Approved Stability information (SOLAS 74 Ch. II-1/22)	ASTABI
24	Approved Shipboard Oil Pollution Emergency Plan(MARPOL Annex I/26)	SOPEP
25	Safety Management Certificate (1 July 1998) pending ship type(SOLAS Ch. IX/4 – ISM – Code)	ISMC
26	Classification Certificate of the hull, electrical and machinery installations issued by the classification society if the ship is classed (SOLAS 74 Ch. I/7 and I/10)	CSHMIC
27	Survey Report Filed(in case of bulk carriers or oil tankers)	SRF
28	Report of previous Port State Control inspections	RPPSCI
29	For ro-ro passenger ships, information on A/Amax ratio	Ro/Ro Max-Rat
30	Valid Certificate for inflatable life-rafts and Free-Float release equip(SOLAS Ch.	.CILF/FFR

	III/19.8 and III/19.9)	
31	Valid Certificate for fixed fire-fighting equipment. (SOLAS Ch. I/7 and I/10)	CFFFEQ
32	Garbage Record Book (Mandatory as from 1 July 1998)) (MARPOL Annex V)	(GRB
33	Dangerous goods manifest or stowage plan (SOLAS VII/5(5)MARPOL Annex III/4)	DGMSP
34	Document of authorisation for the carriage of grain (SOLAS VI/9)	DAFCG
35	Certificate of insurance or other financial security in respect of civil liability For pollution damage(CLC 69, art VII)	CLC
36	Approved cargo securing manual(SOLAS VI/5.6 and VII/5.6)	ACSM

Certificate/ Document	Passenger Ship	Dry Cargo Ship	Oil Tankers	Bulk Carriers	Chemical Carriers	Liquefied Gas Carriers
ITC	X	X	X	X	X	X
PSSC	X					
SAFCON		X	X	X	X	X
CSSEC		X	X	X	X	X
SRC RAD		X	X	X	X	X
CSSC-HSSC	NM	NM	NM	NM	NM	NM
EXMC	X	X	X	X	X	X
DOC/IMDG		X				
TC/TP						
ICLFLGB						X
ICFCBCH					X	
IOPP-NOX					X	
ILLC	X	X	X	X	X	X
ORB-I	X	X	X	X	X	X
ORB-II			X			
ORBCH					X	
CRB					X	
CGRB	X IF EQI	X	X	X IF EQI	X	X
MSMD	X	X	X	X	X	X
MEDC	X	X	X	X	X	X
ASTABI	X	X	X	X	X	X
SOPEP	X	X	X	X	X	X
ISMC	X		X	X	X	X
CSHMIC	X	X	X	X	X	X
SRF			X	X		
RPPSCI	X	X	X	X	X	X
Ro/Ro Max Rat	X					
CILF/FFR	X	X	X	X	X	X
CFFFEQ	X	X	X	X	X	X
GRB	X	X	X	X	X	X
IOPP	X	X	X	X	X	X
DGSMP	X	X				

DAFCG		X		X		
CLC	X	X	X	X	X	X
ACSM	X	X				

If the ship does not have the relevant valid documentation's (certificates), it would be a criteria for a detainable deficiency or clear grounds for more a detailed inspection.

In addition to the general control of above listed certificate and documents, examinations/inspections of the following will normally be given priority by PSCO:

Nautical publication	(SOLAS 74 R V/20)
Navigational equipment	(SOLAS 74 R V/12 and 19)
Emergency starting and running tests	(SOLAS 74 R II-2 - 4.3)
Lifesaving equipment. Rafts FF	(SOLAS 74 R III/20, 23, 26 and 29)
Emergency Generator (start/stop only)	(SOLAS 74 R II-1/42&43)
Hull corrosion and damages (Load Lines)	(SOLAS 74 R I/11)
Main engine & aux. engines	(SOLAS 74 R II/26, 27 &28)
Oily water separator 15 ppm alarm	(MARPOL Annex I/16(1))
Oil discharge monitor (ODM)	(MARPOL Annex I/16)
Charts corrected and proper scale	(SOLAS 74 R V/20)
Fire safety Control plan	(SOLAS 74 R II-2/20)
Ventilation inlets/outlets	(SOLAS 74 R II-2/16.9 & 48)
Emergency training and drills	(Log book rec. SOLAS 74 R III/18)
Emergency lighting/batteries	(SOLAS 74 R II/42 &43)
Deck- and hatches corrosion and damages	(LL 1966)
Steering gear – incl. auxiliary & emergency	(Bridge inspection only – SOLAS 74 R V/19)
Cleanliness in engine room	(SOLAS 74 R II-1/26 and ILO 134)
Cleanliness in accommodation	(ILO 92 & 133)

# Inspection Types of Port State Control

Every ship should be prepared for survey and/or inspection by a Port State Control Officer (PSCO). The PSCO shall prior to any Port State Control inspection follow applicable procedure by introducing himself to the master and/or the responsible officers on board prior to the control. Every PSCO shall be duly qualified to conduct Port State Control inspections.

Port State Control Inspections may be conducted on the following basis:

- 1 initiative of the Port State Administration;
- 2 the request of, or on the basis of, information regarding a ship provided by another Administration
- 3 information regarding a ship provided by a member of the crew, a professional body, an association, a trade union or any other individual with an interest in the safety of the ship, its crew and passengers, or the protection of the marine environment.

PSC inspections may be on random, targeted or periodical basis. The following types of PSC inspections are used in PSC:

1. **Initial Inspection** (random)
2. **More detailed inspection** (escalated)
3. **Expanded inspection** (targeted/periodical)

## 1. Initial Inspection

The PSCO will normally examine the vessels relevant certificates and documents etc. and the overall condition of the ship.

The certificates and documents listed above should therefore be readily available and presented to the PSCO at his request.

## 2. More detailed inspection

An inspection conducted when there are **clear grounds** for believing that the condition of the ship, its equipment, or its crew does not comply with the requirements of the relevant conventions. The inspection may focus on one area or be across various areas.

The following may be considered to be clear grounds for more detailed inspections by a PSCO:

1. the absence of principle equipment or arrangements required by the conventions;
2. evidence from the review of the ship's certificates that a certificate or certificates are clearly invalid;

3. evidence that the ship's logs, manuals or other documentation are not on board, are not maintained, or are falsely maintained;
4. in the opinion of the PSCO's general impression and observation serious hull or structural deterioration or deficiencies exist that may place at risk the structural, watertight or weathertight integrity of the ship;
5. in the opinion of the PSCO's general impression or observation serious deficiencies exist in the safety, pollution prevention, or navigational equipment;
6. information or evidence that the master or crew is not familiar with essential shipboard operations relating to safety of ships or the prevention of pollution, or that such operations have not been carried out
7. indication that key crew members may not be able to communicate with each other or with other persons on board;
8. absence of an up-to-date muster list, fire control plan, and for passenger ships, a damage control plan;
9. the emission of false distress alerts not followed by proper cancellation procedures;
10. receipt of a report or complaint containing information that a ship appears to be substandard;
11. the ship has been reported by pilots or port authorities or others as having deficiencies which may prejudice safe navigation;
12. ships whose statutory certificates have been issued by an organisation which is not recognised under the term of Council Directive 94/57/EC of 22 November 1994 on common rules and standards for ship inspection and survey organisations and for the relevant activities of maritime Administration;
13. the ship has been involved in a collision on its way to the port;
14. the ship is in a category for which expanded inspection has been decided;
15. the ship has been suspended from their class for safety reasons in the preceding six months;
16. the ship has been accused of an alleged violation of the provisions on discharge of harmful substances or effluents
17. the ship's statutory certificates on the ship's construction and equipment, have been issued by an organisation which is not recognised by the Authority
18. the ship flying the flag of a State appearing in the three-year rolling average table of above average detentions in the annual report of MOU.

### ***3. Expanded inspection***

An inspection conducted according to non-mandatory guidelines only once during 12 months period for certain types of ships (tankers, bulkers and passenger ships) and certain categories of age and size.

**Oil tankers, bulk carriers, gas and chemical carriers and passenger ships are subject to expanded inspections once during a period of 12 months. These inspections could be carried out in accordance with provisions stated below:**



- Oil tankers, five years or less from the date of phasing out in accordance with MARPOL 73/78, Annex I Regulation 13 G, i. e.
- a crude oil tanker of 20.000 DWT and above or a product carrier of 30.000 DWT and above, not meeting the requirements of a new oil tanker as defined in Regulation 1 (26) of Annex I of MARPOL 73/78, will be subject to expanded inspection:
  - 20 years after its date of delivery as indicated on the Supplement, Form B, to the IOPP Certificate, or
  - 25 years after that date, if the ship's wing tanks or double bottom space not used for carriage of oil meet the requirements of Regulation 13 G (4) of the Annex, unless it has been reconstructed to comply with Regulation 13 F of the same Annex.
- an oil tanker as mentioned above meeting the requirements of a new oil tanker as defined in Regulation 1 (26) of Annex I to MARPOL 73/78 will be subject to expanded inspection:
  - 25 years after its date of delivery as indicated on the Supplement, Form B, to the IOPP Certificate, unless it complies with or has been reconstructed to comply with Regulation 13 F of the Annex.
- Bulk carrier, older than 12 years of age, as determined on the basis of the date of construction indicated in the ship's safety certificate. **Such expanded inspection will be conducted only ones during a period of 12 months by any of the competent authorities of the MOU.**
- Gas and chemical tankers older than 10 years of age, as determined on the basis of construction indicated in the ship's safety certificate
- In case of passenger ship operating on a regular schedule in or out of a port in an EU member state, the competent authority of the Member State shall carry out an expanded inspection of each ship. When a passenger ship operates such a schedule between ports in Member States, one of the States between which the ship is operating shall undertake the expanded inspection.

**To the extent it is applicable, the following examinations may be considered as part of an expanded inspection.**

**However, when the examinations are carried out, the master and/or responsible officers should remind the PSCO that it may jeopardise the safe execution of certain on-board operations, e. g. cargo operation, if the tests having a direct effect thereon, and are required to be executed during such operations.**

- a. execution of black-out and start of emergency generator;
- b. inspection of emergency lighting and back up sources including batteries;
- c. operation of emergency fire-pump with two firehouses connected to the main fire-line;
- d. operation of bilge pumps;
- e. closing of watertight doors;
- f. lowering of a seaside lifeboat to the water level and test the release mechanism;
- g. inspection of fire dampers to engine room, cargo holds and accommodation;

- h. test of remote emergency stop e. g. boiler, ventilation and fuel pumps;
- i. testing of steering gear including auxiliary steering gear;
- j. inspection and testing of emergency source of power to radio installations;
- k. inspection and, to the extent possible, test of engine-room separators;

**Additional expanded inspections, which might be carried out for oil tankers:**

- fixed-deck foam system;
- fire-fighting equipment in general;
- inspections of fire dampers to pump room;
- Control of pressure of inert gas and oxygen content thereof; check of survey report file to identify possible suspect areas requiring inspections.

**Additional expanded inspections, which might be carried out for bulk carriers:**

- corrosion of deck machinery foundations
- deformation and/or corrosion of hatch covers
- cracks and/or local corrosion in transverse bulkheads
- access to cargo holds
- check of Survey Report File to identify possible suspect areas requiring further inspections

**Additional expanded inspections, which might be carried out on gas and chemical carriers:**

- cargo tank monitoring and safety devices relating to temperature, pressure, gas detection, and ullage
- oxygen analysing and explosimeter devices, inc. their calibration
- availability of chemical detection equipment (bellows) with an appropriate number of suitable gas detection tubes for the specific cargoes being carried
- cabin escape sets giving suitable respiratory and eye protection, for every person
- onboard (if required by products listed on International Certificate of Fitness or Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk or Liquefied Gases in Bulk as Applicable)
- check that the product(s) being carried is listed in the International Certificate of Fitness or Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk or Liquefied Gases in Bulk as applicable
- the fixed fire fighting installations on deck whether they be foam or dry chemical or other as required by the product(s) carried

**Additional expanded inspections, which might be carried out on passenger ships;**

- testing of fire detection and alarm system

- testing of proper closing of fire doors
- testing of public address system
- fire drill where, as a minimum, all sets of fireman's outfits must be demonstrated and part of the catering staff shall take part
- demonstration that key crew members are acquainted with the damage control plan

As mentioned above a PSCO might always find "clear grounds" for carrying out more detailed inspections.

**"Clear grounds"** exist when the inspector finds evidence which in his professional judgement warrant a more detailed inspection of the ship, its equipment or its crew.

During an expanded inspection the PSCO might find evidence which in his judgement warrants a more detailed inspection – **"Clear grounds"**.

Whenever there are clear grounds for believing that the condition of a ship or its equipment or crew does not substantially meet the relevant requirements of a Convention, a more detailed inspection shall be carried out, including further examination of compliance with on-board operational requirements.

Therefore the master and/or responsible officers should bear in mind that an expanded inspection could be continued by a more detailed inspection, concentrating on an area which in the opinion of the PSCO need further examination, and might comprise of the following priorities;

- navigational safety
- communication
- fire safety
- life-saving appliances etc

# Port State Control & Cargo Operations

**There are areas, where deficiencies do not warrant a detention of a ship, but might lead to suspension of cargo operation. Deficiencies such as failure of the proper operation of inert gas system, improper operation of cargo related gear or machinery, crude oil washing procedures might be considered as grounds for such suspensions.**

## **Inert gas system**

If an examination/inspection of the inert gas system is carried out, it may include examination of instrumentation fitted for continuous monitoring. Such monitoring includes indicating and permanently recording at all times when inert gas is being supplied, the pressure and the oxygen content of the gas in the inert gas supply main. Reference to the permanent recorder must indicate if the system had been operating before and during the cargo discharge in a satisfactory manner.

If conditions specified in the COW Operation and Equipment Manual are not being met, then the washing will be stopped until satisfactory conditions are restored.

A further precautionary measure is that the oxygen level in each tank to be washed, is to be determined at the tank. The metres must have been calibrated and will be inspected to ensure that they are in good working order. Readings from tanks already washed in port prior to inspection should be available for examination, and spot checks on readings might be instituted

## **Crude oil washing.**

Normally the PSCO will ensure that all crude carriers either required to have crude oil washing system or where the owner or operator chooses to install a crude oil washing system in order to comply with Regulation 13 of Annex I of MARPOL 73/78. In addition, compliance will be ensured with the operational requirements set out in the revised Specifications of the Design Operation and Control of Crude Oil Washing Systems (IMO Res. A.446(XI), as amended by IMO Res. A.497(XII)) This is done in the ports where the cargo is unloaded.

Further, the inspection may cover the entire operation of crude oil washing or only certain aspects of it. It is; however, in the interest of all concerned that the ship's records with regard to the crude oil washing operations are maintained at all times so that a PSCO may verify those operations undertaken prior to the applicable inspection.

It will be determined from the ship's records that the pre-crude oil wash operation has been carried out and that all instruments functioned correctly.

If a tanker is engaged in multiple port discharge, the Oil Record Book (ORB) should indicate if tanks have been crude oil washed at previous discharge ports or at sea. It will

be determined that all tanks which will or may be used to contain ballast on the forthcoming voyage will be crude oil washed before the ship departs from the port. There is no obligation to wash any tank other than ballast tanks at a discharge port except that each of these other tanks must be washed at least in accordance with paragraph 6.1 of the revised Specifications (IMO Res. A.446(XI) as amended by Res. A.497(XII)). The Oil Record Book (ORB) will be examined to verify this has been complied with.

All crude oil washing must be completed before a ship leaves its final port of discharge.

If tanks are not being washed in one of the preferred orders given in the COW Operations and Equipment Manual, the PSCO will determine the reasons for this, and decide whether the order of tank washing are acceptable.

For each tank being washed it will be ensured that the operation is in accordance with the COW Operations and Equipment Manual and that;

- the deck mounted machines and the submerged machines are operating either by reference to indicators, the sound patterns or other approved methods
- the deck mounted machines, where applicable, are programmed as stated
- the duration of wash is as required, and
- the number of tank washing machines being used simultaneously does not exceed that specified.

All tanks that have been crude oil washed are to be stripped. It will be ascertained that the adequacy of stripping has been checked or will be checked before the ship leaves its final port of discharge.

Tanks that have been crude oil washed at sea should be recorded in the ORB. These tanks must be left empty between discharge ports for inspections at the next discharge port.

Tanks that are designated ballast tanks should be listed in the COW Operations and Equipment Manual. It is, however, left to the discretion of the master and/or responsible officer to decide which tanks may be used for ballast on the forthcoming voyage.

It should be determined from the ORB that additional ballast water has not been put into tanks, which have not been crude oil washed during previous voyages.

It will be verified that the departure ballast tanks are stripped as complete as possible.

The methods to avoid vapour emission where locally required should be provided in the COW Operations and Equipment Manual and they must be adhered to. The PSCO will ensure that this has been complied with

When departure ballast has to be shifted, the discharge into the sea must be in compliance with Regulation 9 of Annex I to MARPOL 73/78. The ORB will be examined to ensure compliance with this.



# Port State Control & Manning

## I. Number & Composition

The master and/or responsible officer(s) should be aware that if Port State Control inspections are carried out; the ship's manning will probably be examined in addition to the ship's certificate and documents, and will be given high priority. It is therefore important to know the guiding principles used by a PSCO in respect of manning control. Firstly this control will be to establish to verify that the ship manning is in conformity with the Flag State's safe manning document, based on:

- the Flag State's safe manning requirements. (If there is any doubt the Flag State will be consulted)
  - the international provisions which are laid down in SOLAS Reg. V/13, STCW 78 Convention as amended in 95 and IMO Resolution A.481(XII)
  - the provisions of ILO 147 which, inter alia, refer to the ILO Convention 53, Article 3 and 4
1. If the ship is manned in accordance with a safe manning document or equivalent document issued by the Flag State, the PSCO should accept that the ship is safely manned unless the document has clearly been issued without regard to principles in relevant instruments
  2. If the actual crew number or composition does not confirm to the manning document, the Port State control Authority should request the Flag State for advice as to whether or not the ship should be allowed to sail with the actual number of crew and composition. The request and response should be by expedient means and in writing. If the actual number of crew or composition is not brought in accordance with the safe manning document or the Flag State does not advise that the ship could sail, the ship may be considered for detention).
  3. If a ship does not carry a safe manning document or equivalent, the Port State Authority should request the Flag State to specify the number and composition of the crew and issue the required document as soon as possible. (In case the actual number and composition of the crew does not confirm to the specifications received from the Flag State Authority, the ship might be detained until the crew is brought in conformity with the Flag State specifications).

## II. Qualifications, Certificates of Competence & Fitness for Watch-keeping

The Responsibilities of Companies are set forth in regulation I/14 of STCW 95 and section A-I/14 of the STCW-Code.



Accordingly the Flag State Administration holds the companies responsible for the assignment of seafarers for service in their ship to ensure that each seafarer holds an appropriate certificate and/or document of evidence in accordance with the provisions of the Convention.

The master of every ship should on this basis ensure that all persons employed or engaged in any capacity on board his ship holds the appropriate certificate and/or document of evidence.

However, without prejudice to other rights and obligations on control by PSCO concerning communication and information on board, control exercises by PSCO should be limited to the following;

- verification that all seafarers serving on board, who are required to be certified, hold an appropriate certificate and/or document of evidence as required or a valid dispensation, or provide documentary evidence that an application for an endorsement has been submitted to the Flag State Administration.
- verification that the numbers and certificates of the seafarers serving on board are in conformity with the applicable safe manning requirements of the Flag State Administration
- assessment of the ability of the seafarers on board the ship to maintain watch-keeping standards as specified by the Convention; and
- assess that all persons who are assigned duty as officer in charge of a watch or as rating forming part of a watch are provided with the minimum rest hours as prescribed by section A-VIII/1 of the STCW-Code (1995 amendments).

Further, companies should be aware that their responsibilities are not limited to the following;

- ensuring that seafarers assigned to any company ship hold an appropriate certificate and/or documentary evidence,
- manning requirements issued by Administrations are complied with
- have established procedures to ensure that records are kept and maintained for each licensed and documented seafarer on board ships,
- upon first assignment to ship, the employee must be provided reasonable opportunity to become familiar with all arrangements, installations, equipment, procedures and ship characteristics relevant to their routine and emergency duties,
- **provide written instructions to masters on policies and procedures to be followed by all new personnel. (The written instruction could be in the form of a checklist).**

### **III. Amendments**

**The Final Act of the 1995 Conference adopted amendments to the International Convention on Standards of Training, Certification and Watch-keeping for Seafarers 78. The adopted amendments entered into force 1 February 1997 upon acceptance in accordance with paragraph 2 of Resolution 1 attached to the Final Act to the Convention**

## IV. Document Preparation

To assist companies to be prepared for examination by a PSCO, the following certificates and/or documentary evidence are applicable for the various ship types and rank of the employee, and prior to arrival the master and/or responsible officer should verify that applicable documentation's are available for examination;

<b>Cert. And /or Doc. Of evidence</b>	<b>Passenger ship Ro-Ro</b>	<b>Dry cargo ship</b>	<b>Oil tanker</b>	<b>Chemical carrier</b>	<b>Liq. Gas carrier</b>
Master	X	X	X	X	X
Chief mate	X	X	X	X	X
Deck officer	X	X	X	X	X
Chief engineer off.	X	X	X	X	X
Engineer off.	X	X	X	X	X
Second engineer off.	X	X	X	X	X
Deck rating	XNB	XNB	XNB	XNB	XNB
Engine room rating	XNB	XNB	XNB	XNB	XNB
Radio personnel, non GMDS	X	X	X	X	X
Radio personnel. GMDS ship	X	X	X	X	X
Tanker personnel, with cargo responsible			X	X	X
Ro-Ro passenger ship personnel	X				
Basic safety training	X	X	X	X	X
Survival craft rescue boat proficiency	X PS	X PS	X PS	X PS	X PS
Fast rescue boat (FRB) proficiency	Ships fitted with FRB X	Ships fitted with FRB X			
Personnel designated to Advanced Fire Fighting	X	X	X	X	X
Personnel designated to provide Medical First Aid	X	X	X	X	X
Personnel in charge of Medical Care	X	X	X	X	X

**NB.** Document of evidence according to STCW 78 Conv. or certificate according to STCW 95 Conv. Regulation II/4 or III/4 as applicable, or under training to meet the standards of competence of section A-II/4 or A-III/4 as applicable.

**PS.** Only deck officers with certificate according to STCW 78 Conv or personnel with document of evidence or certificate for survival craft and rescue boat proficiency shall be placed in charge of a survival craft or rescue boat.

## **V. Special Training**

**The following special training for personnel on certain types of ships, and survival functions are applicable for the various ranks, functions, and responsibilities on board ships.**

Crowed management section A - V/2, paragraph 1	CMT
Familiarisation training section A – V/2 paragraph 2	FAT
Safety training section A – V/2 paragraph 3	SFT
Passenger safety, cargo safety, hull integrity training section A – V/2 paragraph 4	PSCSIT
Crisis management section A – V/2 paragraph 5	CRSMT
Basic safety training section A – VI/1 paragraph 2	BSFT
Radio certification chapter IV	RC
Tanker familiarisation training	TFAT
Tanker expanded training	TEXT
Proficiency in survival craft and rescue boat	PSCRB
Proficiency in fast rescue boat	PFRB
Advanced fire fighting	AFF
Medical first aid	MFA
Medical care	MC
Shipboard familiarisation training	SFMT

All ships Rank/ Functions/ Responsibility						Oil Tanker	Chemical Carrier	Liquefied Gas Carrier	Ro-Ro passenger ships				
Master If responsible	RC		MC			TEXT	TEXT	TEXT	CMT	FAT	PSC-SIT	CRS-MT	
Chief mate If responsible	RC		MC	PFRB		TEXT	TEXT	TEXT	CMT	FAT	PSC-SIT	CRS-MT	SFT
Deck off. If responsible	RC		MC	PFRB		TFAT TEXT	TFAT TEXT	TFAT TEXT	CMT	FAT	SFT	PSC-SIT	RS-MT
Radio off If assign. If responsible	RC	AFF	MFA	BSFT	PFR B PSC-RB				CM	FAT	SFT	CRS-MT	
Deck rating If responsible	AFF	PSC-RB	PFRB	BSFT		No mandatory Training TFAT	No mandatory training TFAT	No mandatory training TFAT	SFT	CMT	CRS-MT	FT	PSC-SIT
Chief engineer officer If responsible	MC	PFRB				TEXT	TEXT	TEXT	CMT	FAT	PSC-SIT	CRS-MT	
Second engineer officer If responsible	MC	PFRB				TEXT	TEXT	TEXT	CMT	FT	PSC-SIT	CRS-MT	SFT
Engineer officer If responsible	MC	PFRB				TFAT TEXT	TFAT TEXT	TFAT TEXT	CM	FAT	PSC-SIT	CRS-MT	SFT
Pump-Man If responsible	BSFT	MFA	PSC-RB	PFRB		TEXT	TEXT						
Engine room rating If responsible	AFF	PFRB	PSC-RB	BSFT		TFAT TEXT	TFAT TEXT	TFAT TEXT	SFT	FT	CRS-MT	CMT	PSC-SIT
Other Persons Assigned Shipboard duties If responsible	MFA	BSFT	PSC-RB	PFRB	SF-MT					FAT	SFT	CRS-MT	

**NB**

**In addition to the special training for personnel on certain types of ships, training in emergency, occupational safety medical care and survival functions required by Chapter V and VI of the Convention, all persons on board shall receive ship specific familiarisation required by Regulation I/14.**

## **VI. Further assessment by PSCO on manning provisions.**

If any of the following have occurred;

- the ship has been involved in a collision, grounding or stranding, or
- there has been a discharge of substances from the ship when underway, at anchor or at berth which is illegal under any international Conventions, or
- the ship has been manoeuvred in an erratic or unsafe manner whereby routing measures adopted by IMO or safe navigation practices and procedures have not been followed, or
- the ship is otherwise being operated in such a manner to pose a danger to persons, property or the environment;

there can be clear grounds for believing that these occurrence are because the watch keeping standards and/or the minimum hours of rest required by the Convention are not being maintained or complied with. The PSCO will certainly carry out further examination in respect of records of hours of work and rest periods specified in STCW 95, if watch schedules have been posted and followed. If not it should have been recorded in the ship log-book.

The PSCO might find reasons to believe that any of the above occurrences are related to lack of competence, i.e. that members of the crew who are required to be competent do not possess the necessary skill as required by the STCW Convention. If that should be the case, the PSCO will probably carry out necessary assessment as indicated in the STCW Code section A – I/4.

**NB**

**Failure related to any of the deficiencies related to items referred to under Manning Control above might result in detention. Companies, masters and/or responsible officers should therefore make all efforts to comply with the safe manning provisions, certification of seafarers and related requirements.**

# Port State Control & Safety Management

## I. Assessment of the ISM Code Implementation

**The International Safety Management (ISM) Code enters into force 1 July 1998. Both Paris MOU & Tokyo MOU have decided to carry out a concentrated inspection campaign on selected items to assess compliance. The selected question/items indicated below were used by PSCOs in the campaign, but are also relevant after the campaign. The master and/or responsible officers should be prepared to reply to the following questions:**

- 1 Is the ISM Code applicable to the particular ship as of 1 July 1998?
- 2 Is the ISM certification available on board?
- 3 Are the certificates and other particulars in order?
- 4 Is the relevant Safety Management documentation (e.g. manuals) readily available on board? (Ref.: Section 1.4 of the ISM Code)
- 5 Is the relevant documentation on the Safety Management system (SMS) in a working language or language understood by the ship's personnel? (Ref.: Section 6.6 of the ISM Code)
- 6 Can senior officers identify the Company responsible for the operation of the ship and does this correspond with the entity on the ISM certificates? (Ref.: Section 3 of the ISM Code)
- 7 Can the senior officer identify the "designated person"? (Ref.: Section 4 of the ISM Code)
- 8 Are procedures in place for establishing and maintaining contact with shore management in an emergency? (Ref.: Section 8.3 of the ISM Code)
- 9 Are programmes for drills and exercises to prepare for emergency actions available on board? (Ref.: Section 8.2 of the ISM Code)
- 10 Can the master provide documented proof of his responsibilities and authority, which must include his overriding authority? (Ref.: Section 5 of the ISM Code)
- 11 Does the ship have a maintenance routine and records available? (Ref.: Section 10.2 of the ISM Code)

## II Application & Certification of the ISM Code

- 1 SOLAS Chapter IX, regulation 2 Application. If the ISM Code is not applicable, the rest of the form needs not be completed nor sent in for evaluation.

### Regulation 2 Application

- i. This chapter applies to ships, regardless of the date of construction, as follows:
- ii. passenger ships including high – speed craft, not later than 1 July 1998;



- iii. oil tankers, chemical tankers, gas carriers, bulk carriers and cargo high-speed craft of 500 gross tonnage and upwards, not later than 1 July 1998; and
- iv. other cargo ships and mobile offshore drilling units of 500 gross tonnage and upward, not later than 1 July 2002.
- v. This chapter does not apply to government-operated ships used for non-governmental purposes.

**Bulk carriers:**

- i. Unless it is clear from statutory certificates issued by or on behalf of the flag State Administration that a vessel is typed as “bulk carrier”, the definition given in SOLAS Reg. IX/1.6 should be applied for the purpose of port State control. This implies that only those ships being constructed with single deck, top-side tanks and hopper tanks in cargo spaces and intended primarily to carry dry cargo in bulk come within the scope of definition, whether or not they are actually carrying dry cargo in bulk, including ore carriers and combination carriers
  - ii. When in doubt about the application of the definition above, particular when one or more of the elements below apply, the PSCO will consult the flag State for clarification:
    - class certificates indication the classification of the ship as “bulk carrier”,
    - documentation showing that the vessel is subject to “Enhanced Survey” in accordance with SOLAS Reg. XI/2
    - the vessel being exempted under SOLAS Reg. II-2/53,1.2 from having a fixed gas fire extinguishing system in its cargo spaces.
- 2 Copy of document of Compliance (DOC) and original of Safety Management Certificate (SMC).

The interim certificate may be used in appropriate. The following guidance on interim certificate apply:

- Vessel may have a copy of an interim DOC and hold an interim SMC. The vessel shall not hold a certificate copy of an interim DOC and a full term SMC.

Interim DOC is issued to:

- i. Facilitate initial implementation of the Code, and
- ii. Implementation when a Company is newly established;
- iii. Or new ship types added to existing DOC

An interim DOC is valued for maximum 12 months.

An Interim SMC is issued for:

- i. New ship on delivery; and
- ii. When companies takes on the management of a ship new to the company.

An Interim SMC is valid for 6 months. In special cases the issuing body may extend the validity of the Interim SMC for further six months.

Before an Interim SMC is issued the following apply and will be checked by PSCOs:

- The DOC, or Interim DOC, shall be relevant to that type of ship.
- SMS provided by the Company which address the key elements of the Code. Written procedure and/or plans should be in place.
- Master and responsible officers should be familiar with the SMS and implementation plans.
- Instructions essential prior to sailing (Section 6.3 of the ISM Code) have been given.
- Plans for a Company audit of the system within 3 months should be in place.
- Relevant information given in a working language or languages understood by the ship's personnel

### **Section 6.3 of the ISM Code**

The Company should have established procedures to ensure that new personnel and personnel transferred to new assignments related to safety and protection of the environment are given proper familiarisation with their duties. Instructions that are essential to be provided prior to sailing should be identified, documented and given.

- 3 Certificates should be issued by, or at the request of, the Flag State.
- 4 This does not mean that the documented SMS has to be in a particular language. It is for the Company to decide on the "working language" of the ship and provide pertinent and relevant information to the ship's personnel in a language understood by them

It is not a requirement for the SMS to be in a language understood by the PSCO. If in doubt as to the effectiveness, the PSCO may ask for drills to be conducted or witness the operation of machinery and systems.

- 5 SOLAS Chapter IX Reg. 1.2 and ISM Code 1.1.2;

**Company** means the owner of the ship or any organisation or person such as the manager, or the bare boat charterer, who has assumed the responsibility for the operation of the ship from the owner of the ship. The Company has agreed to take over all the duties and responsibilities imposed by the ISM Code.

- 6 The master must know his identity and be aware of the role of the Designated Person (DP). Other responsible officers should also be aware of the identity and role of DP. He does not have to be directly contactable. He may not even have any role to play in an emergency. The master should be able to explain the cause of

non-conformities that the DP will be seeing. The DP is the “manager” of the system ashore.

- 7 Reference to the contacts in the SOPEP could suffice if so stated in the SMS. PSCOs will not expect to see a neat list posted in the radio room although many ships will have this type of list.
- 8 A programme of drills and exercises covering more than those required by SOLAS Chapter III – Reg. 18, should be in place. The crew response to potential emergencies should be practised in drills. These drills should cover all documented responses to critical and emergency situation. Records of all emergency drills and exercises on board should be maintained and available for verification.

#### *ISM Code – Section 8 EMERGENCY PREPAREDNESS*

- 8.1 The Company should establish procedures to identify, describe and respond to potential emergency shipboard situations.
- 8.2 The Company should establish programmes for drills and exercises to prepare for emergency actions
- 9 A planned maintenance system is not a requirement of the Code but it is difficult to confirm with section 10 without one. The system may just be based on class CSM/CSH and ME/GE running hours.
- 10 Detainable deficiencies may indicate a failure of the SMS. The PSCO will examine the relevant areas of the system to identify non-conformities.

#### **General information**

The following results from the checklist will normally be considered as major non-conformities\* and would make the vessel liable for detention.

#### Question   Result

##### ISM certificate not on board

- |       |                                                                                                                  |
|-------|------------------------------------------------------------------------------------------------------------------|
| 2     | Company on the DOC not the same as on SMC                                                                        |
| 3     | Safety Management document not on board                                                                          |
| 4     | Relevant documentation not in a working language or a language understood by the crew                            |
| 6 – 7 | Responsible officers unable to identify operator and designated person (ship/shore system breaks down with this) |
| 8     | No procedures to contact the Company in emergency situations                                                     |
| 9     | Drills have not been carried out according to program                                                            |

- 10 Master's overriding authority no documented and master unaware of his authority
- 11 No evidence of maintenance being carried out

. **Major non-conformity** means an identifiable deviation that requires immediate actions as it poses a serious and immediate threat or risk to personnel, ship or to environment. In addition, the lack of effective and systematic implementation of a requirement of the ISM Code is also considered as a major non-conformity. A ship must correct all major non-conformities before departure.

The selected questions on the checklist do not cover all the parts of the ISM Code and will not be considered as a substitute for a full audit. Since the control is based on sampling, parts of the system will not be covered. If a PSCO finds evidence of non-conformities, that are not included in the checklist, he will act and take all necessary actions.

PSCO may communicate with other crew members than the responsible officers, included in the Company's SMS, for control according to the checklist.