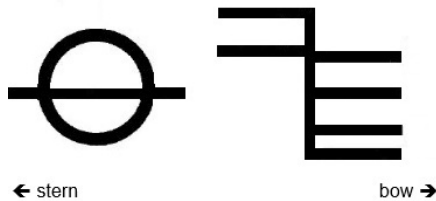


CHECKS ON BOARD

Preventive measures to reduce deficiencies

Load Line

Load line & related



Assigned to:

Master C/O __NWO other: _____
 C/E __TWO _____

Remarks / Findings:


Date: _____ Initial: _____ Signature: _____

It is normal for some technical systems to fail from time to time. Failures are therefore part of managing the bridge. In such a case: Use the available ISM tools of the company!

Be aware: an inspection pursues two main objectives:

- 1) The ship was safely navigated into the port(s).
- 2) The ship can be safely navigated to the next port(s).

The inspection thus aims at both: the past & future.

 Further details: see enclosed information sheet.

Certificates & Loading condition

01. Load Line Certificate

Certificate is valid (not expired, appropriately endorsed), ship's figures are correct and draught marks correspond to the as-is condition.

02. Violations

No present or past load line / draught violations (at no time loaded beyond the limits allowed by the certificate).

03. Draught & Plimsoll Marks (Freeboard)

Hull marks are welded on both hull sides at the main frame below deck. The Plimsoll ring is on the stern and the load line mark on the bow side (see picture on the left). Markings need to be visible and painted in a colour contrasting the hull colour: either white / yellow or black, respectively. Marks & letters correspond to the standard of ICLL and those given in the load line certificate.

04. Stability & Strength

Relevant stability & strength calculations are available for all previous port departures, with calculated draughts corresponding to recorded draught readings in acc. with the IS Code. The stability booklet contains applicable load cases.

05. Cargo Securing

Means of physical cargo securing are complete / operational as designed and at least in satisfactory general condition. Cargo securing manual available. Cargo stowage does not block access to openings and doors.

Hull & structure

06. Hull / Side Shell

Shell plates are in satisfactory condition & show no excessive corrosion, wear and tear. No holes or unsafe damages. If not: Proof is available that Class and flag State have been informed.

07. Structures & Fittings

Structures incl. bulkheads, deck fittings and deck plating are in a properly maintained condition, not detached or loose and free of cracks.

08. Damages, Bents & Dents

Damages are managed, e.g. by Class survey, appropriate internal records, PMS, repair plan, notification to flag State. Sufficient evidence and records are available.

Drains

09. Scuppers, Inlets & Discharges

All drains on main weather deck such as scuppers and freeing ports are functional and clear to prevent accumulation of sea water. Exception: bunker operation or other special circumstances, where they are closed with a plug for pollution prevention.

10. Water Drains Accommodation Deck

All water drains and water passages are functional and clear of garbage, residues, rags, timber and other obstructions. Related piping is in sound condition.

**Openings & Deck****11. Main deck/Accommodation/****Forecastle/Manoeuvring Stations**

Weather- or watertight doors, flaps, cargo & access hatches and their closing appliances are marked and operational as designed. All are at least in satisfactory condition with intact/unpainted rubber seals and mesh wire (if so designed), easy to move, with safe closing & locking arrangements / hinges / bolts.

12. Watertight Manholes

Manholes are in appropriately safe condition with intact and complete seals, nuts and bolts.

13. Accommodation Doors

Doors are in satisfactory condition with non-porous & unpainted rubber seals and rotatable dogs. Those at the lower end of the superstructure are of equivalent strength to the surrounding bulkhead and weathertight when closed. Tip: Weathertightness can be easily tested by applying chalk or detecting translucent light when door is closed.

14. Remote Controls

Controls of watertight doors and closing appliances and their indications are operational and regularly tested.

15. Free of Unapproved Penetrations

No additional modifications or penetrations are present that have not been approved by e.g. Class or flag State.

16. Decks Inside incl. Holds & E/R

No unapproved or corrosion-induced perforations or hidden damages are present (e.g. holes covered by painted textile).

17. Windows, Side Scuttles, Deadlights

They are in an appropriately safe working condition. Rubber seal is in a non-porous condition and free of paint.

Tanks**18. Tank Ventilations / Air Pipes**

Ventilation heads & pipes are marked & operational, closing properly & weathertight when closed with intact seals / balls / closures and mesh wire (if so designed). They are not wasted, free of holes and at least in satisfactory condition.

19. Sounding Pipes of Tanks

Are complete and close well. Caps are not missing, are of an adequate material and of original type (no wood or alternatives). Automatic closing devices are not kept open or blocked. Especially those for engine operation under deck are not kept in open position.

20. Ballast Tank System

In good order. All tank valves, sensors and other means of sounding including level indications are operational. Tanks are subject to regular maintenance & inspections (e.g. PMS). Associated equipment is in good working order.

21. Fuel Oil Tank System

In good order. All tank valves, sensors and other means of sounding including level indications are operational. Tanks are subject to regular maintenance & inspections (e.g. PMS). Associated equipment is in good working order.

Bilge / Water Ingress / Sea Chest**22. Bilge System & Related Controls**

Operational & regularly tested, appropriate records available incl. forecastle (bosun store) and drain of chain locker.

23. Water Ingress

Alarm system regularly tested (records) & working properly. Damage control plan & booklet available.

24. Sea Chest & Related Pipes/Valves

Operational, not wasted and in an appropriately safe condition with intact seals, nuts and bolts. Appropriately maintained.

25. Valves/Inlets & Discharges

Regularly inspected & maintained, in good working order and easily accessible. Indicators show open/closed status.

26. Spurling Pipe for Anchor Chain

Provided with permanently attached closing appliances to minimize water ingress and ready to use.

Holds & Hatch Covers (H/C)**27. Hatch Cover**

Appropriate weathertight condition, no damages, no holes, complete with intact seals as designed.

28. H/C Locking & Securing System

Complete, maintained, operational, at least in satisfactory condition and aligned.

29. H/C Hydraulic/ Chain system

Safe operational condition, no hydraulic leakage, no signs of wear and tear, planned maintenance (PMS).

Stairs, Ladders, Guards & Rails**30. Handrails, Guards & Chains**

All handrails, guard rails & chains – especially those protecting from falls from a height – are complete and in sound condition incl. free of corrosion, protecting as designed. Including those in cargo holds, engine room, accommodation.

31. Bulwark

Appropriately safe and undamaged condition.

32. Walkways

Consist of non-slip and fire-protected floor materials accompanied by full length handrails, as specified.

33. Gangway

Permanent constructions and their platforms, footings & handrails are safe for access and equipped with a safety net or side net system.

34. Pilot door

Seals intact, no substantial corrosion of locking device. Door easy to open and close.

35. Weathertight/Watertight integrity

In summary, weathertight/watertight integrity must always be ensured. Its aim is having a closed system ensuring buoyancy with a reliable stability. Proper maintenance avoids unnecessary leaks, i.e. dangerous but avoidable water ingress.

Information to prepare for inspections

LOAD LINE

Load line & related

Objectives

Generally, the inspection pursues two main objectives:

- 1) The ship was safely navigated into the port(s).
- 2) The ship can be safely navigated to the next port(s).

**The inspection thus aims at both
the past and the future.**

Therefore, inspectors examine existing records such as logbooks, maintenance records and instructions as well as stability records, booklets and plans. Together with the general impression and results of direct interviews, which also give an indication of the familiarization and understanding of the company procedures of the crew members, a picture emerges.

During a PSC inspection, an overall check of the ship hull will be carried out to the extent possible. Beside the Load Line certificate and stability documents and records, the inspection may focus on the condition of the vessel:

- deck plating, walkways, bulwarks, and guardrails
- superstructure, deckhouse, exposed engine casing
- miscellaneous openings in exposed decks
- cargo hatches and securing devices
- small hatches and skylights
- ventilators and air pipes
- sounding pipes
- side scuttles and windows
- shell & watertight doors
- scupper, inlets and discharges

Technical failure and reporting

It is normal for technical systems to fail from time to time. For these cases, the reporting and documentation as per SOLAS and the company's ISM/SMS system is a routine and essential standard. The crew should not try to hide or disregard a deficiency – instead the team should discuss deficiencies/deviations and use the available ISM tools of the company.

Use the available ISM tools of the company.

Need advice?

BG Verkehr - Ship Safety Division

- Nautical Dep. ✉ nautik@bg-verkehr.de
 Machine Dep. ✉ maschine@bg-verkehr.de
 Shipbuilding/LLC ✉ schiffbau@bg-verkehr.de

Checklist: Notes on selected references

| | |
|-------------------------|--|
| 01. Certificate | ICLL Art.3, 21, Annex III, R5ff |
| 02. Violations | ICLL Art.3, Art.21 |
| 03. Draught / Plimsoll | ICLL R4, 5, 6, 7, 8, 9, ISM 10 |
| 04. Stability | ICLL R10; SOLAS II-1/5, 19, 20, VI/7 |
| 05. Cargo securing | ICLL Annex I, Ch. I, R25, 44, SOLAS VI/5.6, VII/5, MSC.1/Circ.1353, ISM 10 |
| 06. Hull / side shell | SOLAS I/11, ISM 10 |
| 07. Structure / fitting | ICLL Art.15, R11, SOLAS II-1/3-1, ISM 10 |
| 08. Damages | ICLL Art.10, SOLAS II-1/24 |
| 09. Drains hull/deck | ICLL R22, 24, ISM 10 |
| 10. Drains accom. | ICLL R22, 24, ISM 10 |
| 11. Openings | ICLL R17ff, ISM 10 |
| 12. Manholes | ICLL R18, R27, ISM 10 |
| 13. Accom. doors | ICLL R12, ISM 10 |
| 14. Remote controls | SOLAS II-1/13-1, ISM 10 |
| 15. Penetrations | ICLL Art.10, SOLAS II-1/24 |
| 16. Decks inside | ICLL Art.10, ISM 10 |
| 17. Side scuttles | ICLL R23, ISM 10 |
| 18. Tk vent / air pipe | ICLL R20, ISM 10 |
| 19. Sounding pipe | ICLL R21, SOLAS II-1/16, ISM 10 |
| 20. BW tank sys. | ICLL Art.15, ISM 10 |
| 21. FO tank sys. | ICLL Art.15, ISM 10 |
| 22. Bilge sys. | ICLL Art.15, ISM 10 |
| 23. Water ingress | SOLAS II-1/19, 35-1, ISM 8, 10 |
| 24. Sea chest | ICLL Art.15, R22, SOLAS II-1/15, ISM 10 |
| 25. Valves | ICLL Art.15, R22, SOLAS II-1/15, ISM 10 |
| 26. Spurling pipe | ICLL R22-2 |
| 27. Hatch cover | ICLL Art.15, R13, 16, ISM 10 |
| 28. H/C locking | ICLL Art.15, R13, 16, 36, ISM 10 |
| 29. H/C hydraulic | ICLL Art.15, ISM 10 |
| 30. Handrail, guard | ICLL R25, 36, 44, ISM 10 |
| 31. Bulwark | ICLL R25, 43, SOLAS II-1/3-3 |
| 32. Walkways | ICLL R25-1, SOLAS II-1/3-9, (MSC.1/Circ.1331/Rev.1), ISM 10 |
| 33. Gangway | ICLL R25-1, SOLAS II-1/3-9, (MSC.1/Circ.1331/Rev.1), ISM 10 |
| 34. Pilot door | ICLL R12, ISM 10 |
| 35. Integrity | ICLL in general |

Common deficiencies noted

Load line & Plimsoll & Stability

- Certificate expired / Survey out of window / Marks deviating between as-is built and certificate
- Draught exceeded / Violations detected / Loaded beyond the limits allowed by the certificate
- Incomplete stability calculations / Different values between draught reading & calculations

Hull, Structure & Drains

- Excessive corrosion, wear and tear / Perforated, pitting / Significant damages which are not recorded and/or not reported to Class/flag State
- Drains clogged or wasted
- Cracks / Holes in decks
- Corroded structures

Openings

- Watertight/Weathertight doors, flaps, access hatches etc. not weathertight / Damaged, porous, painted, discontinuous rubber seals or closings, indicated e.g. by water accumulation
- Manholes wasted / Damaged seals, nuts or bolts
- Lower accommodation doors to weather decks not closing appropriately
- Remote controls inoperable
- Unapproved penetrations in bulkhead, door, deck

Tanks

- Ventilation heads or pipes are inoperable / closing position cannot be achieved (e.g. by ball, flap)
- Caps of sounding pipes are missing / Cap reproductions made of wood / Left open
- Ballast water tank system not fully operable
- Fuel oil tank system not fully operable

Various

- Bilge system and controls not fully operable
- Water ingress alarm system not operable
- Poor condition of overboard valves

Hatch cover and holds

- Hatch cover sealing not weathertight / damaged / holed
- Locking system not aligned / not operational / missing
- Poor condition of holds

Stairs, ladders & guards

- Poor condition / wasted / bent
- Rails & guards missing

Common grounds for PSC detention

- Recognized case of insufficient stability
- Overloading, deeper immersion than related marks
- Absence of or illegible draught marks and/or Load Line Marks.
- Means of freeing water from the deck (drains) not in satisfactory or operational condition
- Absence of, substantial deterioration of or defective closing devices, hatch closing arrangements or watertight / weathertight doors
- Inoperative or incomplete tank vents / air pipes

Concern

Procedures for Port State Control, 2025

Extracts of IMO Res. A.1206(34)

A PSCO may proceed to the ship and, before boarding, gain, from its appearance in the water, an impression of its standard of maintenance from such items as the condition of its paintwork, corrosion or pitting or unrepaired damage

During inspection, the PSCO should further assess whether the ship and/or crew, throughout its forthcoming voyage, is able to:

- *maintain adequate stability,*
- *maintain adequate watertight integrity,*
- *prevent pollution of the environment,*
- *provide safe and healthy conditions on board.*

The PSCO's impression of hull maintenance and the general state on deck, the condition of such items as ladderways, guard rails, pipe coverings and areas of corrosion or pitting should influence the PSCO's decision as to whether it is necessary to make the fullest possible examination of the structure with the ship afloat. Significant areas of damage or corrosion or pitting of plating and associated stiffening in decks and hull affecting seaworthiness or strength to take local loads, may justify detention.

If dissatisfied on the basis of observations on deck, with items such as defective hatch closing arrangements, corroded air pipes and vent coamings, the PSCO should examine closely the conditions of assignment of load lines, paying particular attention to closing appliances, means of freeing water from the deck and arrangements concerned with the protection of the crew.

The PSCO should pay particular attention to the structural integrity and seaworthiness of bulk carriers and oil tankers and note that these ships must undergo the enhanced programme of inspection during surveys under the provision of SOLAS 1974 regulation XI-1/2.