



BRITISH MARINE

LOSS PREVENTION SURVEYS - A GUIDE FOR SURVEYORS

(Read these notes before carrying out the survey)

If after reading these guidance notes further advice is needed, contact the BM Survey Department

GENERAL PROCEDURES AND ADMINISTRATION

British Marine has vessels insured for P&I Cover, Hull & Machinery cover or both. The survey report has therefore been designed to cover both aspects of insurance. However, the surveyor should concentrate their report on matters which are relevant to the risk; for instance, if a vessel is insured for Hull & Machinery, a lot of detail about cargoworthiness or personnel risk may not be relevant. Of course, there is a considerable overlap as many aspects of the vessel and its operation, and therefore the report, will have relevance to both types of cover, e.g. Navigation, fire-fighting and general management of the vessel. H&M surveys should include an enhanced review of machinery.

We expect a survey to be completed within a day, but if it is felt that a surveyor needs to attend longer then the Survey Department of British Marine Managers should be advised immediately.

The surveyor should test items wherever appropriate whilst conducting the survey, such tests only being carried out with the prior knowledge and co-operation of the ship's staff. If particular areas appear to be well maintained and operational then it will be beneficial, due to possible time constraints, to limit testing to the more important items or those which condition gives cause for concern. **Passenger carrying vessels** should be subjected to "Safety Audits Of Passenger Vessels" and **Towage Approvals** should include a review of all aspects of the tow, as described on page 7 of this guide, which includes a note on reporting.

Ballast tanks must be pressed-up and holds must be inspected on all general cargo and bulk carriers. Also for P&I Surveys the hatch covers must be tested.

Enclosed spaces adjacent to tanks containing noxious vapours / inert gas or spaces not previously ventilated must not be entered.

REPORTING

The report consists of a front and second page to be filled in with details of the vessel and the survey, the risk analysis pages, and the "Additional Comments Confidential to British Marine" page(s). The Master, or other representative, must sign the risk analysis and a signed copy is to be left on board. All items on the risk analysis should be discussed with the Master, or representative, and serious defects or deficiencies should be particularly emphasised to the Master, or representative, and serious defects or deficiencies should be emphasised.

A typed Microsoft "Word" format version of the report (not pdf) should be e-mailed to the British Marine Survey Department, **and no other party**, as soon as possible after completion of the survey, but normally within one working day/24 hours. The report should include photographs (please note that we only require 6 – 10 photographs unless the observed defects warrant more) and the hatch cover leak test report for **P&I surveys only** (if applicable). The invoice (if applicable) and any other supplementary material can be sent via e-mail at a later date.

The report sent to British Marine, **and no other party**, should include a scanned version of the original risk analysis page signed by the Surveyor and Master/Representative. Other documents copied from the vessel can also be sent as scanned attachments, if relevant.

Do not return the checklist or copies of the vessel's certificates.

The “**Summary**” on the page 2 of the report is intended to provide an indication of the quality for each of the nine listed sections. Please use your opinion to select from the following:

E	Excellent	G	Good	S	Satisfactory
P	Poor	D	Dangerous		

If ‘P’ or ‘D’ is assigned to any section this should be:-

- supported by the content of the risk analysis
- notified to us immediately, if there is likely to be a delay in the sending/receiving of the report. This notification should advise the reason for assigning the rating of “P” or “D”.

Page 2 of the report also includes space for a written “**General Overview Comment**”, which should be a brief statement of the surveyor's opinion regarding the vessel and its operation. More space is provided for “**Additional Comments Confidential to British Marine**” at the end of the report and we require surveyors to use this to help us understand their assessment. These “**additional comments confidential to British Marine**” should be no more than one or two pages long unless the vessel is notably sub-standard.

PHOTOGRAPHS

We require 6 - 10 photographs to indicate the type and layout of the vessel, these should include a sample of the following:

- General views of the ship, deck, hatch coamings, hatch covers, seals and compression bars.
- General internal views of the holds, the engine room and accommodation, as appropriate.

We also require photographs of defects where they usefully supplement the report.

We do not require a large number of photographs showing satisfactory items.

RISK ANALYSIS

When making entries in the report about the probability, the consequence, and the risk factor the surveyor is referred to the following notes and the relevant tables.

Loss prevention surveys have traditionally focused on the condition of the ship and in some cases the manner in which it is managed or operated. Whilst acknowledging the value of this, we require the surveyor to look at the RISK involved and to make judgements on our behalf, as insurers of the vessel, whether it is for Hull & Machinery, or P&I, or both. The surveyor is required to look at the vessel and its operation, so far as he is able, and to identify those aspects that may lead to an incident, which may result in a claim.

Each identified hazard, (structure, equipment, procedures or management), must include the reason why it affects the insured risk, be assessed for probability and consequence, and a corrective action and time period suggested

A systematic approach is required using the following steps:

1. What omission, defective practice / management, ship or equipment defect has been identified?
Identify the Hazard.

2. What can go wrong?
Relate the hazard to the risk covered by the insurance.
3. How likely is it that an incident will occur?
Assess the likelihood (probability) of the incident occurring {See Table 1 below}.
4. What effect may it have?
Assess the potential severity (consequences) if the incident occurs (See Table 2 below).
5. How serious is the risk?
Compute the Risk Factor by multiplying the probability and consequence ratings (See Table 3 below)
6. How can the risk be reduced?
Methods of risk reduction to be proposed.
7. How quickly should these hazards be addressed?
The time scale will reflect the importance and practicality based on the risk analysis.

Unjustified defect reporting is not acceptable.

The following notes give some assistance with the terms used in the report form.

HAZARD DESCRIPTION

Situations or events that are a potential source of harm, accident, or damage.

Examples are:

Defective or worn structure or equipment due to corrosion, lack of maintenance or damage.

Missing safety equipment, e.g. guards on machinery, or fire-fighting equipment.

Dangerous or inadequate procedures, e.g. unsafe working practices, or poor supervision.

It is most important that the hazard is reported, not just a 'defect'.

PERCEIVED RISK

The reason why the identified hazard should be addressed.

Examples are:

Hazard - Defective structure (steel wastage or cracks in main structural members).

Risk - the vessel breaking up with potential for loss of life, pollution, cargo loss, hull loss, wreck removal etc.

Hazard - No enclosed space entry procedure.

Risk – Loss of life.

It is most important that the most likely risks arising from a hazard are identified.

The hazard must be evaluated for the frequency or probability of its occurrence and the consequence(s) that may arise, should the incident actually occur, assuming that no newly initiated preventive measures are taken. Risk is assessed according to the probability of an event occurring and the potential severity of the consequences.

PROBABILITY – the surveyor should consider how likely it is that the identified hazard will cause or contribute towards an incident. This should be evaluated according to Table 1.

Table 1 - Probability

Probability	Code	Description
High	4	Almost certain to cause or contribute
Probable	3	Likely
Possible	2	Not likely
Improbable	1	Not impossible but most unlikely

CONSEQUENCE – the severity of the outcome if a hazardous incident occurs. The surveyor should consider how severe the consequences could be in the event of such incident occurring. This should be evaluated according to Table 2.

Table 2 - Consequence

Consequence	Code	Description
Catastrophic	4	Loss of life, total loss of ship and/or cargo, or Widespread and very severe environmental damage.
Major	3	Serious injury, major fracture or loss of limb – requires hospitalisation. Severe damage to ship and/or cargo, or severe environmental damage.
Significant	2	Injury/illness requiring medical attention; some temporary impairment. Significant damage to ship and/or cargo, or significant but localised environmental damage.
Minor/negligible	1	Minor injury. Medical expertise not required; no impairment of ability. Minor or inexpensive damage to ship and/or cargo, or none or very limited local environmental damage.

The **RISK FACTOR** is then determined by multiplying the probability code by the consequence code and using Table 3 to determine 3 risk regions.

Table 3 – Risk Factor

		Probability			
		1 Improbable	2 Possible	3 Probable	4 High
Consequence	4 Catastrophic	4 Significant	8 Significant	12 Intolerable	16 Intolerable
	3 Major	3 Significant	6 Significant	9 Intolerable	12 Intolerable
	2 Significant	2 Negligible	4 Significant	6 Significant	8 Significant
	1 Minor	1 Negligible	2 Negligible	3 Significant	4 Significant

RISK REGIONS:

INTOLERABLE REGION, (Risk Factor 9 –16) – the risk is absolutely unacceptable and immediate or urgent action must be taken to reduce the risk.

SIGNIFICANT REGION, (Risk Factor 3 - 8) – whilst the risk is acceptable in the short term, preventive action for risk reduction must be taken within a specified time period.

NEGLIGIBLE REGION, (Risk Factor 1–2) – the risk is acceptable but risk reduction may be recommended if the effort and expense can be justified.

RISK REDUCTION (and recommendations for action).

This can be achieved by:

- Reducing the probability or likelihood of the occurrence
- Reducing the severity or seriousness of the occurrence consequences
- Reducing both the probability and the severity of the occurrence

Risk reduction may be implemented, for example, by adjusting management procedures, engineering or maintenance action, reviewing and changing operational procedures or emergency procedures, or by training. The surveyor should make appropriate recommendations.

The risk analysis page(s) should clearly state any hazards found, including anything related to crew or management. It is important that the nature and extent of the hazard is clearly stated so that it is apparent to the owner. A recommendation for risk reduction should also be made, but in suitable broad terms to allow the operator or owner to make his own arrangements as appropriate.

TIME SCALE - The time period for implementation should also be indicated.

The time periods for implementation of the recommendations should be selected from:

Immediate	I	within 7 days
Urgent	U	within 1 month
Non-urgent	NU	within 3 months
Dry-dock	D	at the next scheduled dry-docking or first opportunity.

COMPLETING THE RISK ANALYSIS REPORT FORM

Item

Number each item sequentially, ie 1, 2, 3, 4 etc.

Section

See the summary section on page 2 of the report and the section numbers of the checklist.

Hazard and Risk Description

Identify and briefly describe a situation or procedure that may lead to an accident or damage.
State the reason why this hazard affects the insured risk.

Probability and Consequence

Enter the values by reference to the Tables.

Risk Factor

Enter the value of (Probability x Consequence).

Corrective action for risk reduction

Describe the action that is required to eliminate or reduce the hazard and therefore the risk, but do not be too specific e.g. Do not advise renewal hatch seals; because more in-depth repairs may also be required.

Time period

Enter I, U, NU or D, as appropriate. The extent of urgency will be determined by the risk factor.

SAFETY AUDITS OF PASSENGER VESSELS

Requires a review of the vessels safety procedures and should cover the ability of the vessel's crew to respond to an emergency situation.

It should incorporate such areas passenger safety information, clarity of signs for muster stations, evacuations routes and life jacket location.

The effectiveness of the fire detection system should be tested as well as procedures for ventilation, flooding control and passenger evacuation.

The crew should be questioned regarding their knowledge and understanding of their duties in an emergency together with the company procedures for emergency situations.

Whilst it is not a safety equipment survey random inspections and testing of safety equipment should be included in this survey and records of safety equipment maintenance and safety drills reviewed.

Identified hazards and shortcomings in the systems and crew should be reported using the same form as for the Loss Prevention Survey as described in the first part of these guidelines.

TOWAGE APPROVALS

Require a surveyor to survey and certify the Tug, Tow and towage arrangements (including but not limited to weather routing and voyage planning) as fit for the intended voyage/employment. The surveyor should make it clear to the Assured's Representative that they shall comply with the surveyor's requirements at all times.

REPORTING FOR NON-STANDARD SURVEYS

The reporting on non-standard surveys, such as towage approvals and passenger safety audits, should be done using the standard forms, as closely as possible, by noting "Not Applicable" (N/A) against sections, where appropriate and using the "General Overview Comment" and "Summary Comment" sections to report relevant items that do not readily fit into the other headings. Separate attachments may also be used, where appropriate, if diagrams etc are required.

SURVEYORS OPTIONAL CHECKLIST

NOTE THAT THIS CHECKLIST IS NOT PART OF THE REPORT

The purpose of this checklist is to provide an aide-memoire for the surveyor. It is not intended to be comprehensive and the surveyor should use his own experience and opinion to report and assess anything that may be a hazard and lead to a claim.

SHIPS CERTIFICATES

All Ships

Tick box as appropriate

Registry	<input type="checkbox"/>		
Classification	<input type="checkbox"/>		
International Loadline – Issue/Annual	<input type="checkbox"/>	<input type="checkbox"/>	
Safety Construction - Issue/Annual	<input type="checkbox"/>	<input type="checkbox"/>	
Safety Equipment - Issue/Annual	<input type="checkbox"/>	<input type="checkbox"/>	
Safety Radio	<input type="checkbox"/>		
Hull - Special/Annual/Intermediate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Machinery - Special/Annual	<input type="checkbox"/>	<input type="checkbox"/>	
Drydock Survey	<input type="checkbox"/>		
Firefighting Appliances	<input type="checkbox"/>		
Liferaft Servicing	<input type="checkbox"/>		
ISM Safety Management Certificate	<input type="checkbox"/>		
ISM Document of Compliance	<input type="checkbox"/>		
ISPS Certificate	<input type="checkbox"/>		
Enhanced Survey report	<input type="checkbox"/>		
Refrigeration Machinery	<input type="checkbox"/>		
Cargo Gear - Quadrennial/Annual	<input type="checkbox"/>	<input type="checkbox"/>	
Intl. Oil Pollution Prevention Cert - Issue/Annual	<input type="checkbox"/>	<input type="checkbox"/>	
Shipboard Oil Pollution and Environmental Protection (SOPEP)	<input type="checkbox"/>		
Civil Liability Cert. (CLC)	<input type="checkbox"/>		
Oil Record Books (ER and deck)	<input type="checkbox"/>	<input type="checkbox"/>	
Marpol Garbage Certificate	<input type="checkbox"/>		
Garbage Log	<input type="checkbox"/>		
Record of last Port State Control inspection	<input type="checkbox"/>		
SOPEP (shipboard oil pollution plan)	<input type="checkbox"/>		
Last flag state inspection	<input type="checkbox"/>		

In addition, for Chemical and Gas tankers, as appropriate

Noxious Liquid Substances Certificate

☐

Certificate of Fitness for Dangerous Chemicals in Bulk

☐

Certificate of Fitness for Liquefied Gases in Bulk

☐

The following should be reported as a hazard:

Any surveys that are overdue

Conditions of Class, Memoranda and Recommendations

SECTION 1 - NAVIGATION AND COMMUNICATIONS

Gyrocompass and repeaters	<input type="checkbox"/>
Magnetic compass and deviation calibration curve	<input type="checkbox"/>
Record of compass error observations	<input type="checkbox"/>
Radar sets, ARPA	<input type="checkbox"/>
GMDSS equipment	<input type="checkbox"/>
Echo sounder	<input type="checkbox"/>
Course recorder	<input type="checkbox"/>
Engine order recorder	<input type="checkbox"/>
Speed log	<input type="checkbox"/>
Shaft revolution indicators	<input type="checkbox"/>
Rudder angle indicator	<input type="checkbox"/>
Procedure for change over of steering control	<input type="checkbox"/>
GPS	<input type="checkbox"/>
Notices to Mariners (Latest edition on board)	<input type="checkbox"/>
Charts for next passage(s) corrected to date	<input type="checkbox"/>
Passage planning	<input type="checkbox"/>
ICS/IMO Bridge Procedures Guide	<input type="checkbox"/>
Sailing Directions for current voyage (Pilot books)	<input type="checkbox"/>
Navigation publications, as appropriate	<input type="checkbox"/>
List of Radio Signals	<input type="checkbox"/>
List of Lights	<input type="checkbox"/>
Navtex receiver	<input type="checkbox"/>
Daylight signalling lamp	<input type="checkbox"/>
VHF radios	<input type="checkbox"/>
EPIRB	<input type="checkbox"/>
AIS	<input type="checkbox"/>
VDR	<input type="checkbox"/>
Master's Standing Orders	<input type="checkbox"/>
Deck Log Book	<input type="checkbox"/>
Pyrotechnics	<input type="checkbox"/>
Line throwing appliance	<input type="checkbox"/>
General alarm system	<input type="checkbox"/>

SECTION 2 - MANAGEMENT AND MANNING

Company Standing Orders and Instructions	<input type="checkbox"/>
Master's Standing Orders	<input type="checkbox"/>
Superintendent or other head office attendance on board	<input type="checkbox"/>
Intact stability book	<input type="checkbox"/>
Loading manual	<input type="checkbox"/>
Method of calculating stability condition at all stages of the voyage	<input type="checkbox"/>
Calculations of bending and torsion moments and shear forces	<input type="checkbox"/>
Record of previous cargoes and ship loading and stability condition	<input type="checkbox"/>
Compliance with appropriate codes of practice	<input type="checkbox"/>
Emergency response procedures and their effectiveness	<input type="checkbox"/>
Compliance with safe manning certificate	<input type="checkbox"/>
Certificates of competency	<input type="checkbox"/>
Dangerous cargo endorsements	<input type="checkbox"/>
Adequate experience for cargoes carried and trading pattern	<input type="checkbox"/>
Knowledge of English	<input type="checkbox"/>
Common working language on board	<input type="checkbox"/>
Opinion of on-board management	<input type="checkbox"/>

Safety Management System (ISM)

SMS Manuals on board and in use	<input type="checkbox"/>
Master's understanding of the safety management system	<input type="checkbox"/>
Do officers know who the Designated Person is?	<input type="checkbox"/>
Records of non-conformances	<input type="checkbox"/>
Reports of accidents and hazards	<input type="checkbox"/>
Records of corrective actions	<input type="checkbox"/>
Internal safety audits	<input type="checkbox"/>

SECTION 3 FIRE PREVENTION AND EMERGENCY RESPONSE

Identification of fire hazards in ALL parts of the ship	<input type="checkbox"/>
Measures to control ventilation and the spread of heat and smoke	<input type="checkbox"/>
Fire detection system	<input type="checkbox"/>
Muster List posted, in date, and all crew aware of and understand their duties	<input type="checkbox"/>
Firefighting appliances and equipment ready for immediate use	<input type="checkbox"/>
Lifesaving appliances and equipment ready for immediate use	<input type="checkbox"/>
Instructions in suitable language for all FFE and LSA	<input type="checkbox"/>
Equipment checks and record of maintenance as required by SOLAS Chap III	<input type="checkbox"/>
Procedures for pollution prevention when bunkering (SOPEP)	<input type="checkbox"/>
Drills and exercises for different emergency situations	<input type="checkbox"/>

SECTION 4 - HULL AND STRUCTURE

Watertight doors	<input type="checkbox"/>
Fan flaps and ventilator closures - labelled as to space and opened/closed	<input type="checkbox"/>
Sounding pipes and screwed caps - labelled as to space served	<input type="checkbox"/>
Air pipes and gauzes – labelled as to space served	<input type="checkbox"/>
Guardrails	<input type="checkbox"/>
Steps, ladders, gangways and safety nets	<input type="checkbox"/>
Shell plating decks and superstructure	<input type="checkbox"/>
Doublers fitted only as a temporary measure and class approved	<input type="checkbox"/>
Date of last measurements of steel thickness	<input type="checkbox"/>

Ballast tanks

Extent and seriousness of any wastage	<input type="checkbox"/>
Type and condition of coating	<input type="checkbox"/>
Fitting and wastage of sacrificial anodes	<input type="checkbox"/>

SECTION 5 - MACHINERY

Does the ship operate with UMS?	<input type="checkbox"/>
General condition of machinery spaces, stores and workshop	<input type="checkbox"/>
Main engine	<input type="checkbox"/>
Auxiliaries, generators and power source	<input type="checkbox"/>
Adequate lighting	<input type="checkbox"/>
Emergency escape routes clearly signed	<input type="checkbox"/>
Lift to have current test/maintenance certificate	<input type="checkbox"/>
Class approved planned maintenance system	<input type="checkbox"/>
Maintenance records for all machinery	<input type="checkbox"/>
Records of lube oil analysis	<input type="checkbox"/>
Insulation tests	<input type="checkbox"/>
Engine room log	<input type="checkbox"/>
Testing of alarms and shutdowns	<input type="checkbox"/>
Quick closing valves / remote stops	<input type="checkbox"/>
Oil water separator	<input type="checkbox"/>
Seawater inlets and discharge valves	<input type="checkbox"/>
Bilge alarms	<input type="checkbox"/>
Stern seal	<input type="checkbox"/>
Pipe systems labelled or colour coded	<input type="checkbox"/>
Steering gear	<input type="checkbox"/>
Adequate spares on board	<input type="checkbox"/>
Emergency generator	<input type="checkbox"/>

SECTION 6 - CARGOWORTHINESS

Cargo holds

Fitness for the intended cargo	<input type="checkbox"/>
Bilges clean and free of debris	<input type="checkbox"/>
Suctions tested	<input type="checkbox"/>
Air pipes and sounding pipes pressure tested	<input type="checkbox"/>
Tanktops pressure tested and examined	<input type="checkbox"/>

General cargo ships and bulk carriers

Opening and closing of hatchcovers	<input type="checkbox"/>
Overall condition of covers	<input type="checkbox"/>
Compression bars and sealing arrangements	<input type="checkbox"/>
Securing devices	<input type="checkbox"/>
Drain channels and non-return devices	<input type="checkbox"/>
Tarpaulins, battens and wedges, and locking bars (where fitted)	<input type="checkbox"/>
Coaming structure	<input type="checkbox"/>
Access hatches	<input type="checkbox"/>
Container fittings on covers	<input type="checkbox"/>
Check for watertightness - ultrasonic preferred. Complete a separate report form.	<input type="checkbox"/>
Hold coatings	<input type="checkbox"/>
Presence of corrosion and scale	<input type="checkbox"/>
Access ladders and guard rails	<input type="checkbox"/>
Tween deck covers	<input type="checkbox"/>
Spar ceiling	<input type="checkbox"/>
Tanktop and manholes - pressure test	<input type="checkbox"/>
Bilge wells and suction	<input type="checkbox"/>
Air and vent pipes - pressure test	<input type="checkbox"/>
Hold ventilation system	<input type="checkbox"/>
Lighting	<input type="checkbox"/>

Refrigerated cargo vessels

Cleanliness and suitability for cargo	<input type="checkbox"/>
Insulation and lagging	<input type="checkbox"/>
Refrigerant / brine	<input type="checkbox"/>
Ventilation control	<input type="checkbox"/>
Temperature monitoring	<input type="checkbox"/>
Air delivery and return sensors	<input type="checkbox"/>
Airflow measurement; changes per hour	<input type="checkbox"/>
CO2 monitoring	<input type="checkbox"/>
Humidity recording	<input type="checkbox"/>
Emergency alarms	<input type="checkbox"/>
Temperature records of previous cargoes	<input type="checkbox"/>
Classification requirements	<input type="checkbox"/>

Container vessels

Stowage plan, Class approved	<input type="checkbox"/>
Lashing manual, Class approved	<input type="checkbox"/>
Sufficient lashing equipment tested and examined; record maintained	<input type="checkbox"/>
Sufficient fixed and portable securing devices	<input type="checkbox"/>
Cell guides and pads	<input type="checkbox"/>
Bilge wells and suctions	<input type="checkbox"/>
Officers aware of tier and weight restrictions	<input type="checkbox"/>
Hazardous cargo separation	<input type="checkbox"/>
Temperature control facilities and electrical connections	<input type="checkbox"/>

Passenger and/or RoRo vessels

Fire detection system	<input type="checkbox"/>
Fixed firefighting system	<input type="checkbox"/>
Fire control boundaries and doors	<input type="checkbox"/>
Watertight doors	<input type="checkbox"/>
Bow, shell and stern doors	<input type="checkbox"/>
Water ingress and flooding alarms	<input type="checkbox"/>
CCTV monitoring	<input type="checkbox"/>
Crew clearly identifiable as such	<input type="checkbox"/>
Passengers cleared from RoRo spaces before passage commences	<input type="checkbox"/>
Safety in public spaces	<input type="checkbox"/>
Galley and food handling and consumption areas	<input type="checkbox"/>
Safety notices and information for passengers	<input type="checkbox"/>
Passenger control and assistance in an emergency	<input type="checkbox"/>
Escape routes clearly marked	<input type="checkbox"/>
Condition and certificates of ramps and lifts	<input type="checkbox"/>
Vehicle lashings	<input type="checkbox"/>

Tankers

Safe access to bow	<input type="checkbox"/>
Emergency towing arrangements	<input type="checkbox"/>
Technical and operational information	<input type="checkbox"/>
Awareness of operational parameters of pressure, loading rate, venting etc	<input type="checkbox"/>
Cargo handling plan and procedures	<input type="checkbox"/>
Availability of product data sheets	<input type="checkbox"/>
Implementation of safe operating procedures	<input type="checkbox"/>
Valve operating system	<input type="checkbox"/>
Pipeline condition	<input type="checkbox"/>
Manifold valves, blanks and savealls	<input type="checkbox"/>
Oily water discharge at manifold ('Marpol' line)	<input type="checkbox"/>
Venting system and P/V valves	<input type="checkbox"/>
Seals of ullage ports and tank lids	<input type="checkbox"/>
Ullaging system	<input type="checkbox"/>
Level alarms	<input type="checkbox"/>
Tank washing system	<input type="checkbox"/>
Tank cleaning guide	<input type="checkbox"/>
Heating coils	<input type="checkbox"/>
Pumproom	<input type="checkbox"/>
Permanent warning signs at entrances	<input type="checkbox"/>
Rescue equipment immediately available	<input type="checkbox"/>
Gas detection system	<input type="checkbox"/>
Firefighting system and equipment	<input type="checkbox"/>
Lighting	<input type="checkbox"/>
Ladders and guardrails	<input type="checkbox"/>
General cleanliness	<input type="checkbox"/>
Ventilation	<input type="checkbox"/>
Bilges and bilge level alarm	<input type="checkbox"/>
Pipework and valves - permanent identification	<input type="checkbox"/>
Pumps and prime movers	<input type="checkbox"/>
Cargo pump relief valves; last test	<input type="checkbox"/>

Bulkhead seals	<input type="checkbox"/>
Pump emergency stops	<input type="checkbox"/>
Stripping pumps	<input type="checkbox"/>
Instrumentation and controls	<input type="checkbox"/>
Communications to CCR and ER	<input type="checkbox"/>
Inert gas system	<input type="checkbox"/>
Fixed and portable measuring equipment	<input type="checkbox"/>
Fixed and portable oxygen measuring equipment	<input type="checkbox"/>
Pressure recording equipment for system and in tanks	<input type="checkbox"/>
Oxygen levels at generator and in tanks	<input type="checkbox"/>
Pressure in tanks (random checks)	<input type="checkbox"/>
Deck water seal	<input type="checkbox"/>
Alarms	<input type="checkbox"/>

Chemical tankers

IMO Ship Type	<input type="checkbox"/>
Coating compatibility guide	<input type="checkbox"/>
Cargo compatibility guide	<input type="checkbox"/>
Cargo handling manual	<input type="checkbox"/>
Deck tanks	<input type="checkbox"/>
Protective clothing and SCBA	<input type="checkbox"/>
Decontamination showers	<input type="checkbox"/>
Eyewash stations	<input type="checkbox"/>

Gas carriers

Cargo tank type and construction	<input type="checkbox"/>
Permitted temperature and temperature	<input type="checkbox"/>
Void spaces; inert condition	<input type="checkbox"/>
Cargo pumps	<input type="checkbox"/>
Emergency cargo pump	<input type="checkbox"/>
Tank relief valves	<input type="checkbox"/>
Instrumentation and recording equipment	<input type="checkbox"/>

SECTION 7 - POLLUTION PREVENTION

Crew awareness	<input type="checkbox"/>
Oily water separator and instructions for operation	<input type="checkbox"/>
Entries in Oil Record Book	<input type="checkbox"/>
Shipboard Oil Pollution Emergency Plan (SOPEP)	<input type="checkbox"/>
Oil spill control measures	<input type="checkbox"/>
Emergency response procedures	<input type="checkbox"/>
Connections, valves, scupper plugs and manifold savealls	<input type="checkbox"/>
Written procedures sighted and understood by ship's staff	<input type="checkbox"/>
Named of responsible officer and assistants	<input type="checkbox"/>
Communications between ship and bunker point	<input type="checkbox"/>
Bunkering procedure and communications	<input type="checkbox"/>

SECTION 8 - PERSONAL SAFETY

Protective clothing and safe working equipment	<input type="checkbox"/>
Safe stowage of flammable stores and chemicals	<input type="checkbox"/>
All gas cylinders safely stowed in sheltered external location	<input type="checkbox"/>
Permit system for hot work	<input type="checkbox"/>
Permit system for entering enclosed spaces	<input type="checkbox"/>
Medical facilities	<input type="checkbox"/>
Care and security of dangerous/restricted drugs	<input type="checkbox"/>
Adequate instruction and maintenance manuals in suitable language	<input type="checkbox"/>
Notices and labels in suitable language	<input type="checkbox"/>
ISPS related activities, including gangway security and stowaway searches	<input type="checkbox"/>

SECTION 9 - DECK MACHINERY AND MISCELLANEOUS

Deck machinery - including capstans, winches	<input type="checkbox"/>
Cranes, derricks, wires and ropes	<input type="checkbox"/>
Mooring ropes, wires, bitts and fairleads	<input type="checkbox"/>
All parts of lifting machinery examined at least annually by competent person	<input type="checkbox"/>
Record of maintenance and examinations	<input type="checkbox"/>
Proof load certificates for all derricks and cranes - SWL clearly marked	<input type="checkbox"/>
Test certificates for all wires	<input type="checkbox"/>
Condition of blocks, wires and shackles	<input type="checkbox"/>
Condition of winches and cranes	<input type="checkbox"/>
Adequate spares	<input type="checkbox"/>
Pilot ladders	<input type="checkbox"/>
Accommodation ladders / gangways	<input type="checkbox"/>
Galley and stores	<input type="checkbox"/>