Hull Planned Maintenance

Linked Supporting Service

Changes incorporated in June 2006 version
NOTICE OF CHANGES

This document identifies the changes incorporated in the June 2006 release of ShipRight – Hull Planned Maintenance – Linked Supporting Service. These include:

- Modifications to improve clarity.
- All forms in Section B updated.

Changes are as shown on the following pages of this document.
Hull Planned Maintenance

1. Introduction

2. Approved Hull Planned Maintenance Schemes

A Guidance on Planned Maintenance

B Associated Forms and Documentation

1. Introduction

1.2 Overview of Scheme, Operation and Notations

Entry Criteria
The requirements for entry of a ship into the scheme are listed below. Refer to the Classification Group in London if there are any queries regarding these criteria.

- The ship should be of a suitable type (see Applicable Ship Types on page 4).
- The ship should be less than or equal to seven years of age. Maximum ship age criteria may be relaxed as follows:
  - to eight years for identical sister ships where the Operator has implemented or intends to implement HPMS on one or more identical sister ships less than or equal to seven years of age,
  - to ten years for LNG Carriers, LPG Carriers and Passenger Ships where the Operator already has other ships of the same type operating HPMS.
- There shall not be, or have been in the past three years, any history of inherent or recurring structural defects.
- The ISM Code Safety Management Certificate (SMC) should be issued by Lloyd’s Register. (If not, then the SMC is to be issued by either another member of IACS or the Flag State.)
- There should not be, or have been in the past three years, any ISM Code non-conformities relating to maintenance.
- There should be no Memoranda items that indicate
  - _______substantial corrosion or
  - _______ballast tank protective coatings in a poor condition.
- There should be no class suspensions within the past three years involving the current Operator.
- The ship should be operating a Machinery Planned Maintenance Scheme (MPMS) approved by Lloyd’s Register.
- The ship’s crew should conform to the requirements of the STCW White List.

Exit Criteria
Participation of a ship within the scheme will lapse:

- At the completion of the third Continuous Survey Hull (CSH) cycle.
- Should the ship transfer out of Lloyd’s Register class.
- Should the ship change flag and the accepting Flag State authority not recognise HPMS.
- Should the ship change Operator.
- Should the ship’s staff not be authorised by Lloyd’s Register or their authorisation have lapsed.
- Should annual audits indicate a failure to satisfy the HPMS requirements in respect of quality and frequency of inspections performed and reported by ship’s staff.
- At the request of the Operator.
- At the discretion of Lloyd’s Register.

Qualification of Operator’s Ship’s staff
Nominated ship’s staff should have held a senior position with the Operator for at least three years since obtaining their Class 1 or Class 2 Certificate of Competency, as applicable. A senior position is defined as either Master (Class 1), Chief Engineer (Class 1), First Officer (Class 1 or 2), Second Engineer (Class 1 or 2).
or equivalent Maritime Officer (Class 1 or 2). Where the officer has worked for the company for less than three years, evidence of previous experience is to be provided.

**Notations**

Compliance with the procedures may, upon application, lead to is indicated by the descriptive note ShipRight HPMS being assigned for inclusion in Lloyd’s Register’s *Register of Ships*. An appropriate Memoranda item will also be entered on the ship’s survey status.
2. **Approved Hull Planned Maintenance Schemes**

2.1 **Introduction**

The Hull Planned Maintenance Scheme will operate by allowing Lloyd’s Register authorised ship’s staff to carry out inspections of selected hull items to an approved agreed schedule of inspections over a five year period corresponding to the existing classification cycles. Ships currently undertaking classification surveys by either Special Survey (SS) or Continuous Survey Hull (CSH) regimes may be accepted onto the scheme. In order to implement the scheme, however, it will be necessary to divide the items selected for inspection by ship’s staff inspection or survey by Lloyd’s Register Surveyor into a programme similar to that required for CSH in which approximately 20% of all hull master list items are inspected each year. In preparing this schedule of inspections, due account should be taken of the items still required to be surveyed by a Lloyd’s Register Surveyor such that these may be conveniently carried out at the time of the Annual Audit, Intermediate Survey or on completion of the CSH cycle. As such, it may be anticipated that the final year of each CSH cycle will contain a higher proportion of items required to be surveyed by a Lloyd’s Register Surveyor.

2.4 **Roles and Responsibilities**

**Lloyd’s Register**

The planned maintenance scheme will be reviewed and, if acceptable, a *Certificate of Operation* of an approved Hull Planned Maintenance Scheme will be issued to the Operator. Where an Operator is implementing Hull Planned Maintenance Schemes on the first ship or on the first ship of an additional ship type within the Operator’s fleet, the *Certificate of Operation* will be issued to the Operator following completion of training and authorisation of sufficient ship’s staff to allow operation of the scheme to be commenced. A copy of the Certificate is to be retained on board the subject ship for the information of the Master, Chief Engineer and Lloyd’s Register’s Surveyors. The ShipRight HPMS descriptive note will be assigned to the ship if requested and an appropriate memoranda item entered on the ship’s survey status. The *Certificate of Operation* will be valid until the end of the current survey cycle and, on completion of a satisfactory audit, the attending Surveyor or Scheme Manager will reissue the certificate until the end of the following survey cycle or up to a maximum ship age of 15 years, whichever is earlier.

**Lloyd’s Register Scheme Manager**

1. **Scheme Set-up**

The Scheme Manager will, on obtaining a request from an Operator to include a ship on the Scheme:

- Identify the ship(s) to be assessed with the Operator.
- In conjunction with the Classification Group in London, carry out a formal Operator and Ship Assessment to confirm the suitability of the Operator and nominated ship(s) to participate in the scheme.
- Obtain scheme approval from the Classification Group in London.
- Co-ordinate with the Classification Group in London for any special requirements. (For example there may be specific conditions imposed by the Flag State or surveyable items areas where Lloyd’s Register will not credit inspections by a ship’s staff due to a history of defects.)
- Guide the Operator through the various steps required for completion of the Hull Planned Maintenance Scheme implementation checklist (see Annex B3).
- Review ship’s Master List of Surveyable Items to determine which items may be inspected by the ship’s staff.
- Liaise with the Operator to determine a schedule of inspections to include the items agreed to be inspected by the ship’s staff and taking due account of the items still required to be surveyed by a Lloyd’s Register Surveyor.
- Agree with the Operator the method and frequency of submission of ship’s staff’s reports.
- Issue certification for the ship (i.e. *Certificate of Operation*) following the satisfactory completion of training of sufficient ship’s staff to commence operation of the scheme.
- Advise the Classification Group in London of the details of certificates issued.

2. **Training**

The Scheme Manager will carry out the following actions associated with training:

- Arrange distribution of distance learning material to nominated ship’s staff.
- Prepare training documentation and training workshops.
- Deliver training to the ship’s staff and issue certification (i.e. *Certificate of Authorisation*).
- Advise the Classification Group in London of the names of authorised ship’s staff and details of certificates issued.
3. Scheme Operation
During operation, the Scheme Manager will act as the primary contact for Hull Planned Maintenance issues:
- Confirm operation of the scheme through contact with the Operator's office.
- Review and process ship's staff reports.
- Perform, where practicable, shipboard Annual Audits of the scheme.
- Where the shipboard Annual Audit is undertaken through another Lloyd's Register office, act as liaison and contact point for the local Lloyd's Register Surveyor.
- Advise the Classification Group of any changes relating to Operator or ship(s) that may affect the continued operation of the scheme.
- Assess progress of the scheme at the end of each survey cycle and report to the Classification Group in London and the Operator.
- Undertake a review at the end of the second survey cycle (i.e. when the ship is 10 years of age) and, if appropriate, make a recommendation to the Classification Group in London that the ship be considered for extension of the scheme to the end of the third survey cycle.

Authorised Operator's Ship's Staff
Authorised ship's staff will carry out inspections of the hull structural items for which they are authorised in accordance with the approved schedule of inspection. Authorised ship's staff are reminded that inspection of hull items whilst at sea must not compromise the hull integrity which is a requirement of Classification Rules. Inspections of individual master list items are required to be carried out in accordance with the applicable requirements of Lloyd's Register's Rules and Regulations. In certain circumstances the internal examination of lubricating oil, fresh water and fuel oil tanks may be waived in accordance with the provisions of the Rules and Regulations. Notwithstanding these provisions, the ship's staff should take every opportunity to carry out internal examinations of such tanks and report on the condition found. Inspection reports of these tanks may be used to modify the scope of Annual Audits, as appropriate.

2.5 Annual Audit
The following information is to be made available:
- Inspection and maintenance records for each item to be credited for Class. These records should give details of any repairs carried out.
- Written details of any breakdown, malfunction or defect in hull structure. Such details should include the main cause of failure if known.
- A valid Lloyd's Register Certificate of Authorisation for all authorised ship's staff who have carried out inspection or planned maintenance work on items to be credited for Class.
- A valid Lloyd's Register Certificate of Operation of an approved Hull Planned Maintenance Scheme.
- Confirmation of the type of planned maintenance software in use is the same as that specified in the Certificate of Operation.

Items approved for inspection by ship's staff, but not inspected by them between Annual Audits according to the approved schedule of inspections, will require to be examined by the Lloyd's Register Surveyor at the time of the Annual Audit. Alternatively, items may be postponed by the Surveyor in accordance with existing procedures, subject to the agreement of the Scheme Manager.

2.5.6 Inspection Results and Reporting
Results of the inspections carried out by authorised ship's staff in accordance with the approved schedule of inspection should be recorded on the report forms provided by Lloyd's Register and transmitted to the Scheme Manager at the required intervals. Reports will be required to be forwarded to the Scheme Manager at three-monthly intervals or less. Where previously agreed with the Scheme Manager, alternative methods of reporting may be accepted.
A Guidance on Planned Maintenance

A1 The Planned Maintenance Approach

The relationship between these maintenance concepts is illustrated in Figure A1. The foundations of a planned maintenance scheme acceptable to Lloyd’s Register are preventive and condition based maintenance. In practice many schemes are made up of a combination of the two methods. In addition, to deal with unforeseen circumstances, any planned maintenance scheme must also be able to deal with corrective maintenance.

A2 Computerised Planned Maintenance Systems

The type of graphical information displayed in a typical computerised planned maintenance system may simply reproduce the chart often used in manual systems, see Figure A1-12. The chart shows the maintenance and survey schedules for main engine cylinder units, pistons, rods and covers over a five year period. The half squares indicate when a particular item is due for maintenance and with the use of different colours the operator can distinguish whether it is routine maintenance, major overhaul, survey, etc. Maintenance instructions are provided separately using similar colour codes. When a particular maintenance function is completed the square is completely coloured in; thus it is easy to see if the maintenance planned for any particular period has been completed.
Certificate of Operation
of an approved Hull Planned Maintenance Scheme

Name of ship

Operator

This is to certify that the operator of the above named ship has been granted a special arrangement for dealing with hull surveys in conjunction with an approved Hull Planned Maintenance Scheme.

The arrangement has been granted provided that the conditions for the approval of the Hull Planned Maintenance Scheme are complied with, together with the conditions listed on page 2 of this document, and is valid until the date shown below or until cancelled in writing either by the certifier or the operator. It will automatically be cancelled if the operator or flag of the ship changes.

Ship’s officers participating in the scheme are required to have a valid Certificate of Authorisation and may carry out inspections as listed under the approved Hull Planned Maintenance Scheme for this ship. A copy of the schedule of inspection, produced in accordance with the approved Hull Planned Maintenance Scheme, is to be appended to this certificate and made available to attending Surveyors.

Details
Name and version number of planned maintenance software:

This scheme is operated with the agreement of the Government of

ShipRight descriptive note HPMS assigned.

This certificate is to be presented to Surveyors at the time of the annual audit of the approved Hull Planned Maintenance Scheme.

Date of issue

Date of expiry

Surveyor to Lloyd’s Register EMEA

A member of the Lloyd’s Register Group

1 Operator may be the Shipowner or Manager responsible for the day-to-day operation and maintenance of the ship.

Lloyd’s Register, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd’s Register Group'. The Lloyd’s Register Group assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd’s Register Group entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Form 1489 (2006.03)
Conditions for carrying out inspections under the approved Hull Planned Maintenance Scheme

For items to be credited towards survey, the ship's officers responsible for carrying out inspections and reporting the results of inspection of allowable items, must be in possession of valid Certificates of Authorisation under the terms of the approved Hull Planned Maintenance Scheme.

The Hull Planned Maintenance Scheme as submitted for approval must be adhered to.

Satisfactory records of inspection and maintenance carried out together with details of minor or routine repairs are to be available on board. The records are to be prepared in the English language and to be available for examination upon request by Surveyors.

Requirements for maintaining the approval of the Hull Planned Maintenance Scheme

Annual Audit
Surveyors will carry out an annual audit held concurrently with the Classification Annual Survey and may request that items be opened out for confirmatory inspection as part of the audit. At this time the hull records and documentation will be examined in sufficient depth by the Surveyors to ensure that the Scheme has been operated correctly and that the structure and coatings/corrosion prevention systems have functioned satisfactorily since the previous audit. The records should indicate that all scheduled maintenance has been carried out. Any items not dealt with as per the schedule will be discussed with the senior ship's staff. If the Surveyor is not satisfied with any aspect of the scheme's operation the Surveyor may request that further items be opened out for inspection. Following the satisfactory completion of the Classification Annual Survey and verification of the scheme operation an Interim Certificate of Class will be issued detailing the related masterlist items to be credited.

Damages
Hull structural items suffering from damage, defect or breakdown, to an extent that may affect the safe operation of the ship or which could invalidate the conditions for which class has been assigned, are to be reported to the Lloyd’s Register Group without delay. This requirement overrides all other terms of the Scheme. (See Rules & Regulations for the Classification of Ships, Part 1, Chapter 2, 1.1.5)

Repairs
All hull repairs, which may be required in order that the ship retains its Class, are to be carried out under the supervision and to the satisfaction of Surveyors. (See Rules & Regulations for the Classification of Ships, Part 1, Chapter 2, 3.4)
Certificate of Authorisation
for senior ship’s staff to undertake the duties permitted by the approved Hull Planned Maintenance Scheme

This is to certify that

Name
Job designation,

is authorised in accordance with the procedures for operation of the scheme, to inspect items of hull structure as detailed and appended to the Certificate of Operation of an approved Hull Planned Maintenance Scheme on classed Select ship type operated by:

Name
Address
Street
City
Country

in which this officer serves.

This officer has completed a course of study to enable enrolment into the Hull Planned Maintenance Scheme. Authorisation to operate within the scheme is based upon the named officer remaining in the employment of the above operator and also serving on the ship type named in this certificate.

The operation of the scheme will be subject to confirmatory annual audits. Items included in the Hull master list NOT specifically mentioned in the appendix to the Certificate of Operation of an approved Hull Planned Maintenance Scheme will require the attention of a Surveyor.

Hull structural items suffering from damage, defect or break-down, to an extent that may affect the safe operation of the ship or which could invalidate the conditions for which class has been assigned, are to be reported to your Lloyd’s Register Group office without delay. This requirement over-rides all other terms of the Scheme. (See Rules & Regulations for the Classification of Ships, Part 1, Chapter 2, 1.1.5)

All hull repairs, which may be required in order that the ship retains its Class, are to be carried out under the supervision and to the satisfaction of Surveyors. (See Rules & Regulations for the Classification of Ships, Part 1, Chapter 2, 3.4)

This certificate is to be presented to Surveyors at the time of the annual audit of the approved Hull Planned Maintenance Scheme.

Date of issue Date of expiry

Surveyor to Lloyd’s Register EMEA

A member of the Lloyd’s Register Group

Lloyd’s Register, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the ‘Lloyd’s Register Group’. The Lloyd’s Register Group assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd’s Register Group entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Form 1393 (2006.03)

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Lloyd’s Register
# Hull Planned Maintenance Scheme

**Implementation Checklist**

**Designated HPMS Scheme Manager:**

**Responsible Operator**: (Full style)

**Proposed ship** | **Ship Name:**

**Date of proposed implementation of HPMS:**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DATE/COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheme Approval and Contract</td>
<td></td>
</tr>
<tr>
<td>Operator Assessment completed / submitted to Classification Group, London</td>
<td>☐</td>
</tr>
<tr>
<td>Ship Assessment completed / submitted to Classification Group, London</td>
<td>☐</td>
</tr>
<tr>
<td>Flag State agreement/approval for implementation of HPMS confirmed</td>
<td></td>
</tr>
<tr>
<td>already existing, or, if not:</td>
<td></td>
</tr>
<tr>
<td>Flag State agreement / approval requested</td>
<td>☐</td>
</tr>
<tr>
<td>Flag State agreement / approval received</td>
<td>☐</td>
</tr>
<tr>
<td>Operator and Ship Assessments approved by Classification Group, London</td>
<td>☐</td>
</tr>
<tr>
<td>Formal Proposal/Request for Marine Services issued to Operator</td>
<td>☐</td>
</tr>
<tr>
<td>Request for Marine Services signed by Operator</td>
<td>☐</td>
</tr>
<tr>
<td>Training and Authorisation of Ship’s Staff</td>
<td></td>
</tr>
<tr>
<td>Nominated ship’s staff qualification / experience confirmed</td>
<td>☐</td>
</tr>
<tr>
<td>Nominated ship’s staff issued with distance learning material</td>
<td>☐</td>
</tr>
<tr>
<td>Nominated ship’s staff completed distance learning material</td>
<td>☐</td>
</tr>
<tr>
<td>Nominated ship’s staff attended LR workshop training course</td>
<td>☐</td>
</tr>
<tr>
<td>Certificate of Authorisation issued to nominated ship’s staff</td>
<td>☐</td>
</tr>
<tr>
<td>Implementation of Scheme On Board Ship</td>
<td></td>
</tr>
<tr>
<td>Approved Machinery Planned Maintenance Scheme confirmed already in operation, or, if not:</td>
<td></td>
</tr>
<tr>
<td>MPMS approval requested</td>
<td>☐</td>
</tr>
<tr>
<td>MPMS approval completed</td>
<td>☐</td>
</tr>
<tr>
<td>CSH survey cycle confirmed already in operation, or, if not:</td>
<td></td>
</tr>
<tr>
<td>Continuous Survey plan consisting of 20% of Hull items per year agreed with Operator</td>
<td>☐</td>
</tr>
<tr>
<td>Schedule of inspection consisting of division of responsibilities for inspection of each Hull item agreed with Operator and submitted to Classification Group, London</td>
<td>☐</td>
</tr>
<tr>
<td>Method and frequency of ship’s staff inspections reported to Scheme Manager agreed with Operator</td>
<td>☐</td>
</tr>
<tr>
<td>Description of scheme, including flow of maintenance documents and method of filing same confirmed</td>
<td>☐</td>
</tr>
<tr>
<td>Training material, scheme procedures, report forms and a marked up copy of Hull Master List (Schedule of Inspection) confirmed available on board ship</td>
<td>☐</td>
</tr>
<tr>
<td>Planned maintenance software confirmed part of an existing LR approved Machinery Planned Maintenance Scheme, or, if not:</td>
<td></td>
</tr>
<tr>
<td>Checklist for Approval of Machinery Planned Maintenance Schemes including details of planned maintenance system completed / submitted to Classification Group, London</td>
<td>☐</td>
</tr>
<tr>
<td>Agreed Schedule of Inspection confirmed against ShipRight Procedures</td>
<td>☐</td>
</tr>
<tr>
<td>Survey Status updated to include agreed Schedule of Inspection, item due dates under CSH cycle and addition of Memoranda HPM</td>
<td>☐</td>
</tr>
<tr>
<td>HPMS Descriptive Note confirmed assigned in Register Book</td>
<td>☐</td>
</tr>
<tr>
<td>HPMS Descriptive Note confirmed assigned in Ship Division Data Base</td>
<td>☐</td>
</tr>
<tr>
<td>HPMS Scheme Manager authorised to issue Certificate of Operation to ship</td>
<td>☐</td>
</tr>
</tbody>
</table>

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1 Operator may be the Shipowner or Manager responsible for the day-to-day operation and maintenance of the ship, i.e. the company who has assumed the responsibility for the operation of the ship as defined by the International Safety Management Code (ISM Code).

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**B3 Checklist for Approval of Hull Planned Maintenance Schemes**
Audit Checklist
For an approved Hull Planned Maintenance Scheme.

<table>
<thead>
<tr>
<th>Name of ship</th>
<th>LR number</th>
<th>Surveyor’s signature</th>
<th>Date</th>
</tr>
</thead>
</table>

For annual audits and extended audits mark 'X' to indicate ‘yes’ and 'O' to indicate an outstanding action in appropriate block for each item. If an item is not applicable mark 'N/A' in the appropriate block.

### 1. To be completed at each Audit and in conjunction with the Classification Annual Survey

<table>
<thead>
<tr>
<th></th>
<th>X, O, N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Confirm that the ship’s Certificate of Operation for the Scheme remains valid.</td>
</tr>
<tr>
<td>1.2</td>
<td>Confirm that each participating officer’s Certificate of Authorisation remains valid.</td>
</tr>
<tr>
<td>1.3</td>
<td>Confirm that copies of training material, scheme procedures, report forms and the agreed schedule of inspection are available on board</td>
</tr>
<tr>
<td>1.4</td>
<td>Confirm that the planned maintenance software being used is that which is stated on the Certificate of Operation</td>
</tr>
<tr>
<td>1.5</td>
<td>Confirm that all inspections have been carried out in accordance with the agreed schedule of inspection attached to the Certificate of Operation. An explanation is to be obtained from the Master or Chief Engineer for any items not dealt with. Overdue items are to be dealt with at the time of the audit.</td>
</tr>
<tr>
<td>1.6</td>
<td>Examine the records of inspections (i.e. inspection reports) carried out since the last audit to determine/identify:</td>
</tr>
<tr>
<td>a)</td>
<td>Any reported damage, defect or breakdown of the hull structure and any subsequent repairs</td>
</tr>
<tr>
<td>b)</td>
<td>The reported condition of the protective coating in water ballast tanks and details of any repairs. Photographs, if any, showing tank condition to be made available to the Surveyor during the audit.</td>
</tr>
<tr>
<td>1.7</td>
<td>General examination of selected hull structural items inspected since the last audit. A minimum of 10% of the hull structural items completed since the last audit are to undergo general examination.</td>
</tr>
<tr>
<td>1.8</td>
<td>Examination of those master-list items where structural repairs have been carried out and/or where the protective coating has been repaired since the last audit.</td>
</tr>
<tr>
<td>1.9</td>
<td>Examination and gauging as necessary of salt-water ballast tanks reported since the last audit to have protective coatings in POOR condition and not repaired.</td>
</tr>
</tbody>
</table>

### 2. To be completed at the Extended Audit to be held at the end of the first survey cycle

(Declaration 1 above)

<table>
<thead>
<tr>
<th></th>
<th>X, O, N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>General examination of representative spaces, including:</td>
</tr>
<tr>
<td>a)</td>
<td>one selected peak tank</td>
</tr>
<tr>
<td>b)</td>
<td>at least 10% of all water ballast tanks</td>
</tr>
<tr>
<td>c)</td>
<td>at least 10% of all void spaces</td>
</tr>
<tr>
<td>d)</td>
<td>for Gas Carriers: all hold spaces not already audited in this survey cycle, for all other ships: at least 10% of all cargo holds</td>
</tr>
<tr>
<td>e)</td>
<td>all chain lockers</td>
</tr>
<tr>
<td>2.2</td>
<td>Examination of other selected spaces, as deemed necessary by the Surveyor.</td>
</tr>
</tbody>
</table>

### 3. To be completed at the Extended Audit to be held at the end of the second and third survey cycle

(Declaration 1 above)

<table>
<thead>
<tr>
<th></th>
<th>X, O, N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>General examination of representative spaces, including:</td>
</tr>
<tr>
<td>a)</td>
<td>one selected peak tank</td>
</tr>
<tr>
<td>b)</td>
<td>at least 20% of all water ballast tanks</td>
</tr>
<tr>
<td>c)</td>
<td>at least 20% of all void spaces</td>
</tr>
<tr>
<td>d)</td>
<td>for Gas Carriers: all hold spaces not already audited in this survey cycle, for all other ships: at least 20% of all cargo holds</td>
</tr>
<tr>
<td>e)</td>
<td>all chain lockers</td>
</tr>
<tr>
<td>3.2</td>
<td>Examination of other selected spaces, as deemed necessary by the Surveyor.</td>
</tr>
<tr>
<td>3.3</td>
<td>Confirm that all ballast tank protective coatings have been reinstated to GOOD condition</td>
</tr>
</tbody>
</table>

---

1. The general examination is to include representative tanks, holds, spaces and other items to a sufficient extent to enable the Surveyor to confirm that both the quality and accuracy of the reporting by participating officers and that the Scheme is operating satisfactorily.

2. Tanks, holds or spaces required to be examined by the Surveyor as part of the Classification Annual or Intermediate Surveys may be considered towards the audit examination requirements.

3. Spaces examined under the requirements of Section 1 of this check-list may be considered towards the Extended Audit requirements.

4. Cargo holds where fitted, otherwise inspection of selected hold spaces, vehicle spaces or equivalent depending upon the ship’s type and configuration.

Form 2100HPMS (2006.05)
## Audit Checklist

For an approved Hull Planned Maintenance Scheme.

<table>
<thead>
<tr>
<th>Name of ship</th>
<th>LR number</th>
<th>Surveyor’s signature</th>
<th>Date</th>
</tr>
</thead>
</table>

4. Tanks and spaces subjected to examination as part of the audit to be listed below:

<table>
<thead>
<tr>
<th>Tanks or space</th>
<th>Remarks</th>
</tr>
</thead>
</table>

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B4 Audit Checklist for an approved Hull Planned Maintenance Scheme  
(Form 2100HPMS (2003.09-2006.05))