

# Ship Inspection

A report to the Members

**Ship Inspection Report**

This report is based on a study of the Club's records which was carried out during 1994 by the Institute of Maritime Law in Southampton.

We wish to acknowledge gratefully the work done by the Institute in preparing their analysis and to thank them for their continuing co-operation.

*Thos. Miller P&I, agents for the Managers of the United Kingdom Mutual Steam Ship Assurance Association (Bermuda) Ltd.*

## Surveys and Inspections

Condition surveys were introduced by the UK P&I Club in 1985 and a ship inspection programme was initiated in 1990. These measures were taken by the Board of Directors of the Association in order to ensure that standards of maintenance and operation aboard ships entered in the Association remained high. The Directors were also aware that a number of ships were currently trading which were not in compliance with classification society rules or the international conventions, notwithstanding that, in many cases, they carried on board all the necessary certification.

In 1985, the Members of the Association approved an amendment to the Rules to enable the managers to order condition surveys of ships that were either entered in or wishing to be entered in the Association. Under the supervision of the Board, two categories of ships were identified. In the case of ships offered for entry into the Association, older ships or ships where there was reason to suspect poor condition were to be surveyed. Ships already entered into the Association would also be surveyed if claims experience indicated that the ships were not being properly maintained.

In the years which followed the Directors continued to see reports of expensive claims which indicated unsatisfactory operating standards or resulted from structural failure, particularly on larger tankers and bulk carriers where maintenance standards were an issue. Additional factors of relevance included the high cost of new building, the problems and expense involved in the maintenance of older ships and the difficult prevailing market conditions. Under these circumstances, and against a background of sharply increasing claims costs, the Board concluded that the Association should take further positive action to encourage better standards and lead the industry by example.

Accordingly, in 1990, the Board decided that the managers should reinforce the condition survey programme with a new inspection system. The managers were asked to create a team of experienced ship masters, with command and superintendent experience, who would visit ships entered in the Association at random in order to assess standards of operation and maintenance. The Directors believed that these visits should supplement the owners' own management systems and that they should be seen as a constructive effort to encourage loss prevention. The inspections were designed to avoid duplicating the important work of classification societies, upon which the Association, like all marine insurers, necessarily relies. The inspections were instead focused upon a range of other factors relevant to the liabilities insured in the Association, including cargoworthiness, crew experience and training, safe working practices, safety management policy and pollution control.

In 1992 and 1993 the Directors reviewed in depth the strategy for the Association and confirmed that one of the principal aims of the Association was to maintain a high quality membership. The inspection programme continues to provide a practical mechanism to achieve that objective.

This report to the Members explains in greater detail the nature of the ship inspection process, and records the overall picture presented from an analysis of the data in the inspectors' reports. It also provides an analysis of the findings from the condition survey programme dating back to 1990. The Members should bear in mind that the data from the ship inspection programme is reflective of the performance of the Association as a whole, since (as explained overleaf) inspections during the period under review were carried out randomly across the Membership. The condition survey data, on the other hand, is not necessarily representative because of the targeted nature of those surveys.

## Ship visits

### THE INSPECTORS' TASK

Following the decision of the Directors in 1990 to set up a ship inspection programme, the first ships to be inspected were those owned by companies represented on the board of Directors. These inspections set the style and depth of the inspection visits for the future. The visits by the inspectors were designed not to be confrontational but more to resemble the type of inspection that might be carried out by a marine superintendent or a prospective charterer. This pattern having been established, the inspection programme was extended to the ships of the membership as a whole, with the initial target of visiting at least one ship from each entered fleet. Since that time, a total of well over 2,000 ships have been inspected out of approximately 7,000 entered ships. The visits have taken place worldwide with an emphasis on ships trading in areas which are less well patrolled by port state control or other inspection bodies. Many ships in the Club are found to be operating to the highest standards and the majority are found to be perfectly acceptable. In other cases, the Club is able, after a visit, to make suggestions for improvements or changes which will lead to a reduced exposure to claims. Most of the members are receptive and cooperative. The small minority who decline to respond satisfactorily are reported to the board of Directors, and in most cases are not offered renewal terms by the Association at the end of the year.

The inspectors themselves are all senior ship masters with additional experience either as surveyors, superintendents or ship managers, specifically appointed because of their competence and skill so as to be able to make the judgements required of them.

The visits usually last about four hours. During that time the inspectors spend some time with the master reviewing operating procedures and manning. They then inspect the navigating bridge, the lifesaving and firefighting equipment, the machinery spaces and the cargo spaces including the cargo hatches and the lifting gear. Throughout the visit, the inspectors refer to a printed notebook which contains for their guidance likely relevant questions. A copy of the notebook (see Appendix III) is attached to this report. As the visit

progresses, the inspector may feel concern for some specific aspect of the ship's operation and may in consequence, spend more time on that area. At the conclusion of his visit, he will make a judgement as to whether he is satisfied that in general the ship meets the requisite standards under six headings: cargoworthiness, manning, general maintenance, safety including safe working practices, operational status and pollution. He is also asked to state in his report whether he is satisfied that the ship conforms to the Club's standards and whether he would be prepared to sail on board himself. If the inspector is not satisfied in relation to some aspect, he gives brief reasons in his written report. No specific standards are laid down by the Club apart from the need to comply with the international conventions and the classification society rules. Quality is intangible and difficult to define, but the inspectors know it when they see it.

As soon as the inspector leaves the ship he will immediately communicate his report (see Appendix II) to the managers' agents in London, having left a copy on board. The Club contacts the owners subsequently by letter enclosing the report with any relevant comment or recommendations.

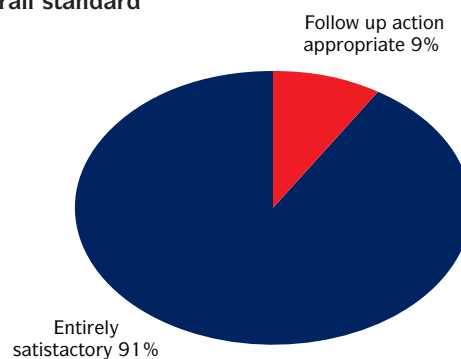
#### **ANALYSIS OF DATA**

Data has been collected over the five years 1990 to 1994 inclusive. The analysis which follows is, however, related only to the first four years of the programme. During 1994, the programme has been more specifically targeted and thus the statistical analysis, while of value to the Association and its managers, is not so indicative of the industry position nor of the profile of the Association as a whole. 1994 data has accordingly been excluded from the statistical analysis, although the general commentary is made against the background of the full programme.

#### **OVERALL RESULTS**

Overall, 91 per cent of the ships visited by the Association's inspectors are entirely acceptable and the inspectors would sail on these ships themselves without hesitation. Of the remainder, the inspectors' observations give rise to some adverse comments which are immediately taken up with the owners of the ships. In most cases, rectification of the problem is carried out immediately or the condition survey process is instigated to explore the problems in greater depth.

**Table 1. Overall standard**



Although it is always a disappointment when it is necessary for the inspector to make adverse comments, and the Association would like to have one hundred per cent success, the level of ships proving to be entirely satisfactory remains encouragingly high.

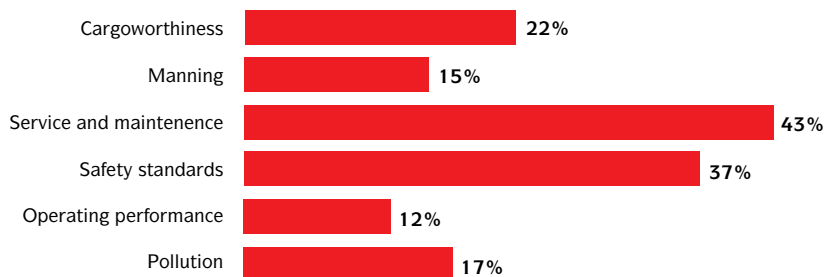
### AREAS OF COMMENT

As well as identifying any defect or problem area that comes to their attention, the inspectors, as experienced professional seamen who have themselves sailed in command, will offer comments and suggestions in other areas where they believe it will be helpful to the owner or master of a ship or assist in loss prevention. These comments are recorded in six categories as shown in Table 2 below; the categories are then analysed further in the succeeding paragraphs.

The inspectors have considered it appropriate to record one or more comments in respect of 64 per cent of ships visited – although it is stressed that many of these comments are constructive suggestions rather than serious deficiencies.

The percentages shown indicate the proportion of visits where the inspector was able to make a comment which would contribute to better performance in that area; it is not necessarily indicative of an adverse finding or defect.

**Table 2. Categories attracting comment**

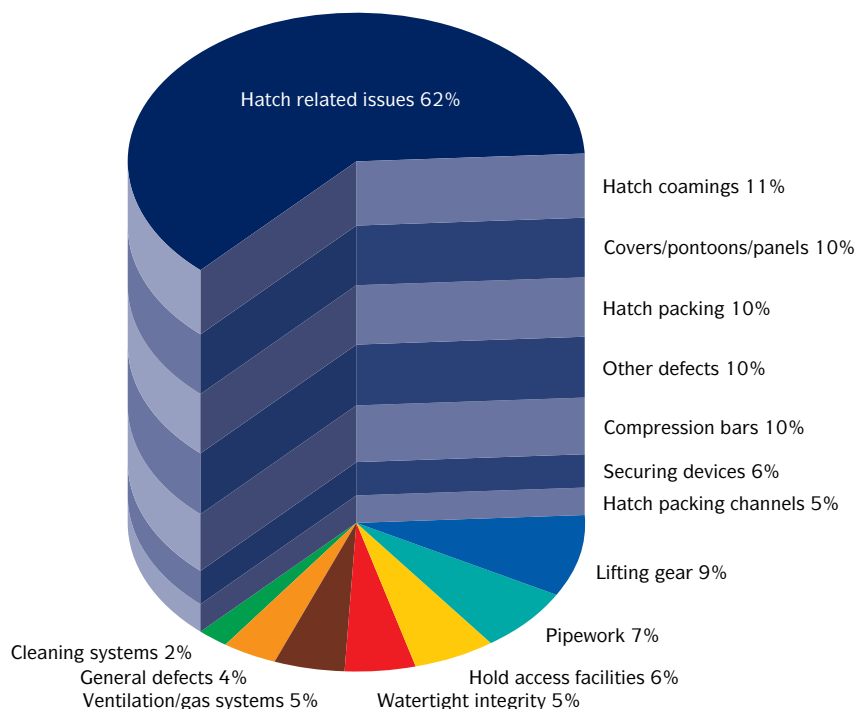


This result emphasises the importance of unremitting vigilance by owners, ship managers, masters and officers; while the inspector can bring to bear a fresh pair of eyes and different experience, ship staff must be encouraged continually to remain alert and to maintain best practice, striving towards ever better standards.

### CARGOWORTHINESS

The UK Club’s Analysis of Major Claims has shown that one third of major claims are cargo related. Inspectors have therefore paid close attention to cargo handling equipment and procedures on board for cargo management. Of the 22 per cent of visits where they have been able to make comments, Table 3 shows the detailed areas which have been identified.

**Table 3. Cargo related comments**



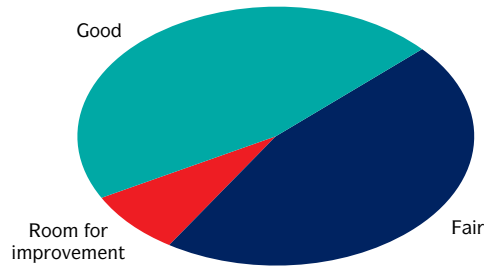
As can be seen, hatch covers featured particularly strongly in the inspectors' comments, underlining the importance the Association attaches to maintenance of hatch covers. Defects in this area are a particularly common cause of expensive claims and the fact that the inspectors were able to make suggestions in so many cases should reinforce the determination of owners to continue to require hatch covers to be given the closest attention by ship staff. The breakdown of the hatch-related comments, however, shows that there is no single cause or predominant defect; the range of differing factors illustrates the complexity of the challenge faced by owners.

### **MANNING**

The Analysis of Major Claims demonstrated that over two thirds of all major claims had human error on board ship as their immediate cause. Since January 1993, therefore, the inspectors have been gathering additional manning information from each ship visited, recording numbers and nationality of officers and ratings, source of employment, length of service, experience in rank, previous experience in that ship, working language of the ship, mother tongue and so forth. A report including an analysis of this data is to be published by the Club separately.

As part of their routine visit, inspectors endeavour to meet and work with a range of officers as well as the master, and are thus able to take a view as to the competence of those officers. The inspectors judge the officers strictly by reference to the position held on board the ship concerned. The result is an important indicator to the Association as to the emphasis attached by the particular owner to ensuring that he has an appropriately qualified, experienced and competent team of officers.

**Table 4. Individual officer performance**



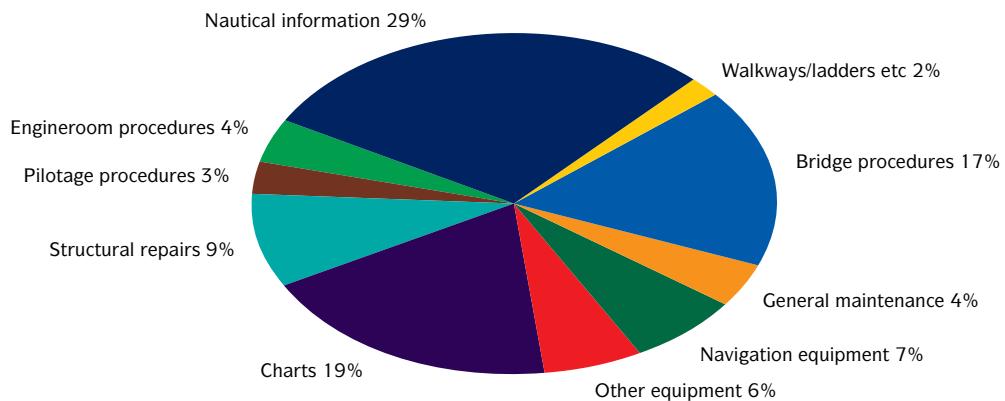
The fact that so many officers merit an assessment of only ‘fair’ or worse, despite the qualifications held, indicates the continuing need for owners not to rely exclusively upon paper certificates, but instead to insist upon and measure standards of performance of their ship staff.

**SERVICE AND MAINTENANCE**

Standards of service and maintenance on board vessels have come under increasing scrutiny as the needs for cost saving exercises, including the use of smaller crews have become widespread. Routine maintenance on board has often been reduced in favour of either an on board riding crew or shore based repairs. However, of the 555 inspections made in 1993 which collected manning information, only 39 reported the presence on board of riding crews. Furthermore, the very commercial pressures (low freight rates and strictly enforced delivery schedules) which have led to the need to reduce the number and experience of crew members, have also created a climate which discourages the laying-up of ships for repair.

The consequence of this situation is clearly seen in the results obtained from the inspections. Service and maintenance issues have attracted comment from inspectors in 43 per cent of their visits (as shown in Table 2); the range of their comments is set out in Table 5 below.

**Table 5. Service and maintenance shortcomings**





Missing or inadequately presented information included:

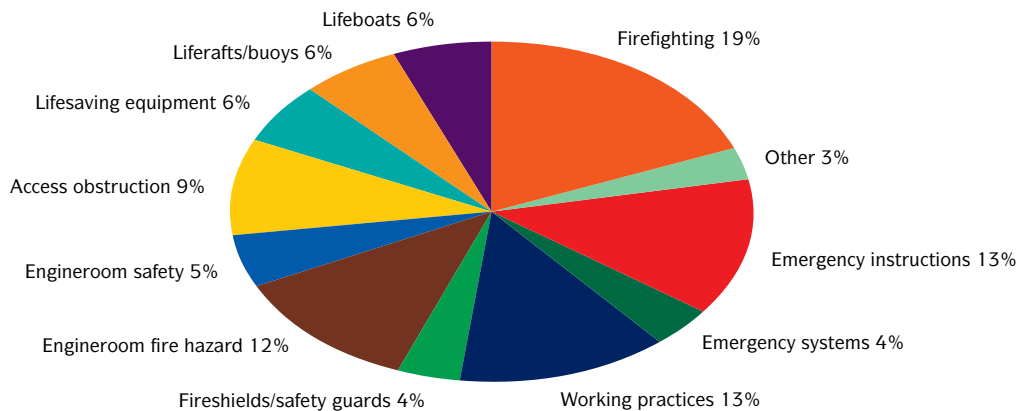
- Company regulations and policy statements
- P&I literature
- Notices to Mariners
- US coastguard requirements
- Service manuals in the wrong language
- Uncorrected nautical publications

All these points illustrate the need for owners to pay continuous and close attention to maintaining high management standards on board, and with proper systems to ensure masters and officers have all necessary material.

### **SAFETY STANDARDS**

It is perturbing that the inspection results indicate that in 37 per cent of the inspected fleet the safety standards were subject to comment. Unsatisfactory firefighting equipment and engine fire hazards make up 32 per cent of all safety related comments which is of note given that the first compounds the gravity of the second.

**Table 6. Shortcomings in safety standards and equipment**



Most of these comments related to factors within the knowledge of ship staff – the very individuals most likely to suffer the consequences of accidents. Complacency, habit and cultural indifference to safety are always a threat to the maintenance of a safe environment. Maintenance of a practical safety culture is a continuing challenge for all owners.

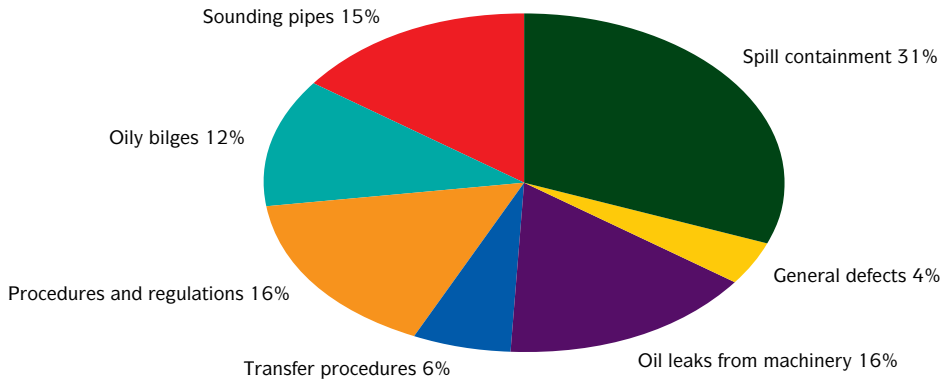
### **OPERATIONAL PERFORMANCE**

In this category, there are many fewer comments than is the case under the other headings. Since the topic is very general the comments tend to overlap and to reflect those made in other sections of the report. Nearly half the comments relate to a concern that operational status will be affected as a consequence of defects noted elsewhere.

## POLLUTION CONTROL

Like safety, pollution has created much interest among the general public, the media and the legislators. Many of the regulations designed to prevent marine pollution have been devised in response to particular casualties. However, perhaps because of this array of international, regional and unilateral action, 17 per cent of all comments concerned defects or shortcomings in pollution prevention measures or procedures on board inspected ships.

**Table 7. Pollution control**



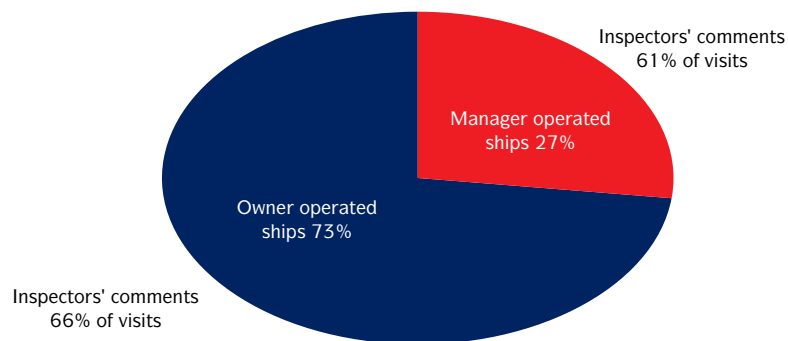
It is worth remembering that half the major pollution claims paid by the Association arose from incidents on ships not carrying oil cargo. Spillages of bunker oil and collisions account for over one third of the total number of pollution claims.

## MANAGEMENT SYSTEMS

As part of their function, the inspectors have also been gathering data about the management structures within the Association's fleet, and the different management system approaches within that structure.

Table 8 below shows the proportion of ships visited by the inspectors which were managed by the owner, or a management company associated with the owner in some way, contrasted with those where the management has been contracted out to an independent ship manager.

**Table 8. Ship visit by operator**



Using the number of inspectors' comments as a measure of best practice, it is interesting to note that there is no significant difference between the performance of ships in either category. If anything, those employing contracted managers performed marginally better than those which could be described as owner-managed.

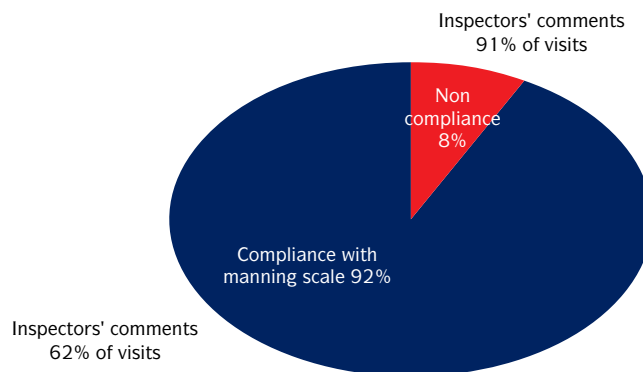
**Table 9. Ship visits with no comments**



A formal written management policy is now increasingly common on board ships; this policy and its active use was evident in 81 per cent of ships. Again using comments by inspectors as a measure of best practice, it is interesting to note that there were on average almost twice as many comments made on ships without an active management policy when compared with the ships where the policy was more active.

There was also an interesting variance in the number of comments made by inspectors where there was a manning scale deficiency (including those ships where that deficiency had flag-state approval). Table 10 shows that, in the 8 per cent of ships in this category, nine out of ten attracted comment; in many cases, moreover, these comments were of an adverse nature.

**Table 10. Compliance with manning scale**



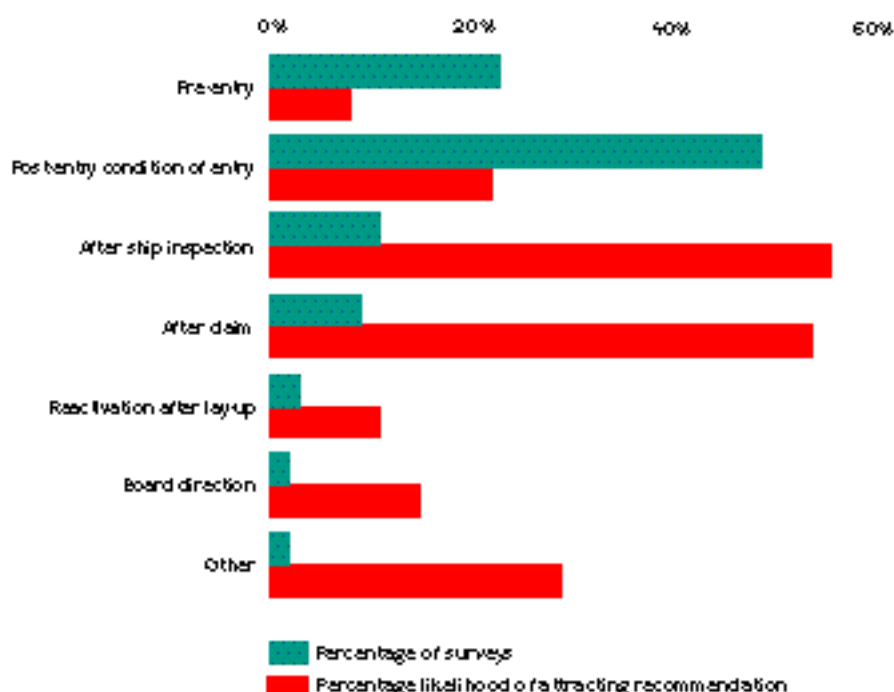
## Condition surveys

Unlike the ship visits, surveys are carried out by independent consultants and not by the Association's own inspectors. The Members have an obligation under the Club rules to make their ships available for survey when required and to complete any recommendations made by the Association within the time stipulated. On those rare occasions when a Member does not respond correctly, any claims made by the Member for payment by the Association can only be paid with the approval of the Board of Directors.

In this report, a total of 1,035 surveys have been analysed. The surveys are commissioned for a variety of reasons. 72 per cent of surveys were in relation to ships offered for entry. Of this percentage, 23 per cent of surveys were carried out before entry and 49 per cent as soon as possible after entry. In the latter case, a satisfactory survey was a condition of continuing membership.

The remaining 28 per cent of surveys were ordered in relation to ships where the managers or Board concluded a survey was necessary. These arose following adverse ship inspectors' adverse findings (11 per cent), claims indicating an underlying defect, reactivation of a laid-up older ship or when specifically ordered by the Board following evidence of apparent sub-standard practices by an owner having come to their attention.

Table 11. Reason for survey



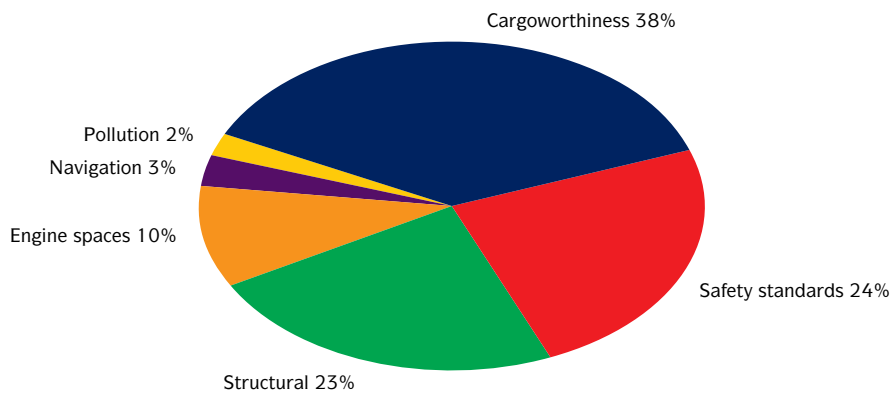
The proportion requiring subsequent action in each category is included to show that not all surveys result in immediate corrective action being necessary as a condition for continuing cover or membership. It can be seen, however, that 56 per cent of ships surveyed following an adverse report by a ship inspector have

required remedial action, whereas only 8 per cent of those ships surveyed pre-entry were found to be unsatisfactory. Overall, while surveys ordered after ship inspections represent only 11 per cent of the total number of surveys, they account for 24 per cent of the ships where action was required following a condition survey. This is an indication of the effectiveness and importance of the ship inspection programme in maintaining the quality of the Association's entered tonnage.

The majority of ships surveyed meet the necessary standards, but in other cases the managers make recommendations for work to be completed within a certain time in order to comply with the required standards. Of the ships considered in this report, 61 per cent passed without the need for recommendations from the Association, although 31 per cent required guidance from the surveyor regarding defects which were rectified during the course of the survey.

When the surveyor has completed his survey, he is required immediately to draw up a 'list of defects' (see Appendix IV) which includes details of any work which he deems necessary. The list is transmitted to the managers' ship inspections department at once, a copy being left with the master of the ship or the owner's representative. The Association then considers what recommendations may need to be made before formally notifying the member. Depending upon their nature, the Association may not include in these recommendations every one of the defects noted by the surveyor but all defects which affect operational safety or classification will invariably be included.

**Table 12. Condition survey recommendations**

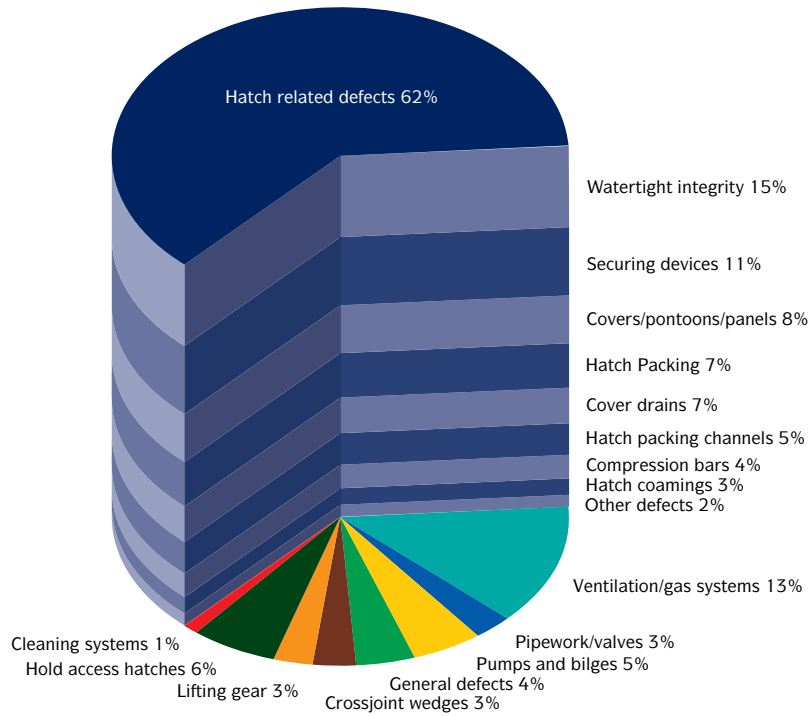


Like the comments made during ship visits, these groupings can be further broken down to give a more detailed picture of areas most likely to produce unsatisfactory results on a survey.

**CARGOWORTHINESS**

Defects relating to cargoworthiness amount to 38 per cent of all defects identified. These are broken down in the following table. It can be seen that hatch related defects amount to 62 per cent of all cargoworthiness defects; these are further sub-divided in the table. As with the findings of the ship inspection programme, this predominance of hatch cover related defects illustrates the need for owners and ship staff to emphasise proper maintenance.

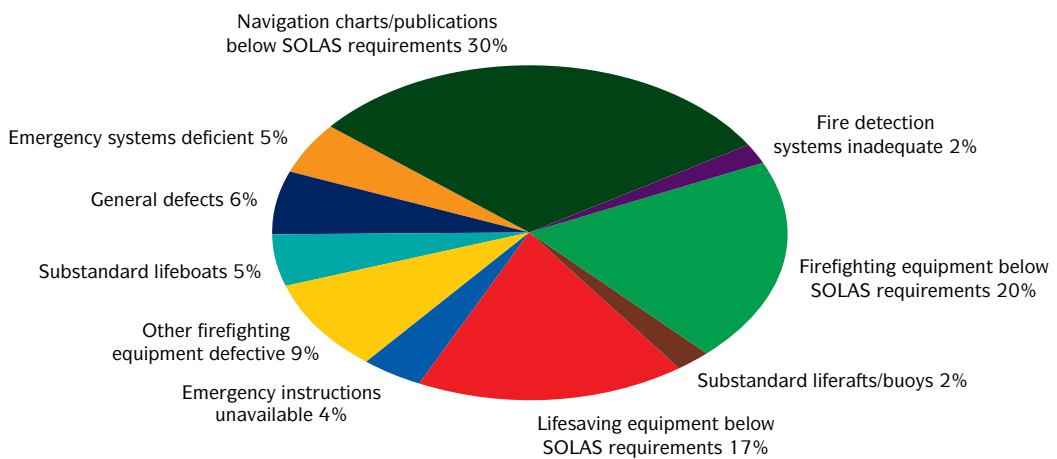
**Table 13. Cargoworthiness**



**SAFETY STANDARDS**

The scope of a condition survey is often defined to include matters specifically relevant to operational safety. 24 per cent of recommendations fall into this category.

**Table 14. Safety standards**

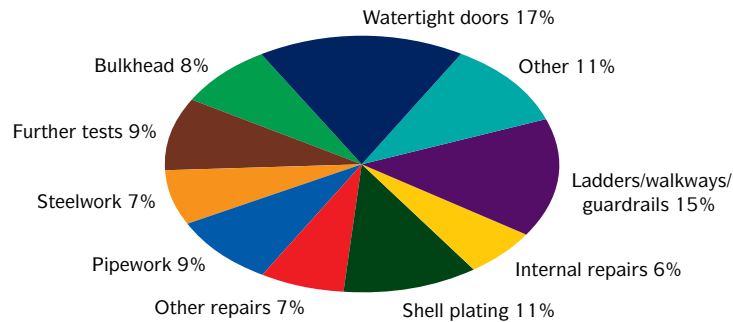


It is noted that navigation charts and publications head the list of failures in this category. Again, this is an area well within the expected knowledge of both masters and owners, and clearly has significant implications for safety at sea, as does the inadequacy of firefighting and life saving equipment.

## STRUCTURAL RECOMMENDATIONS

Table 15 shows the range of structural problems identified in the surveys. It is noted that a substantial number of these defects were not defects which required the technical expertise of a surveyor to note, but must have been readily apparent to ship staff and owners' representatives.

**Table 15. Structural problems**



## ENGINE SPACES AND POLLUTION CONTROL

The most common recommendations made regarding machinery spaces tend to relate to general housekeeping and to the presence of oil which constitutes a fire hazard and a pollution risk. Safety procedures and the condition of fire fighting equipment in machinery spaces are dealt with under the appropriate headings. Mechanical defects account for only 6 per cent of the recommendations. With respect to pollution control, the most common failure is the absence of proper oil-tight save-alls in the way of oil tank ventilator pipes and header pipes. 10 per cent of recommendations related to the presence of oil in the duct keel.

## General condition of the ships surveyed

The following analyses have been taken from the results of 1704 surveys. It should be noted that the ships in question do not constitute a totally random sample of the ships in the Club fleet, having been already targeted for survey for one specific reason or another and including ships not subsequently admitted for entry.

The following table analyses the sample by reference to the flag state. Flag was not a targeting factor through the period. The following table shows, in relation to each of the major flags or groupings, the proportion of ships that attracted adverse survey findings.

**Table 16. Surveys and flag states**

Flag	Ships visited	Ships attracting recommendations	Percentage
CIS	251	186	74
Cyprus	195	133	68
North America	19	13	68
The Bahamas	35	23	66
Liberia	49	32	65
South & Central America	38	24	63
Panama	210	130	62
Greece	146	90	62
Caribbean States	37	22	59
South East Asia	66	38	58
Malta	119	67	56
Romania	140	75	54
Turkey	103	52	50
Other European	75	44	59
Other	170	34	20
Not recorded	151	53	35
<b>Total</b>	<b>1704</b>	<b>1016</b>	<b>60</b>

Those surveys which arose following an adverse finding by a ship inspector can be regarded as a more representative sample given the random nature of the ship visit programme over the period which led to the requirement for the survey. Table 17 analyses these surveys by reference to the flag state of the ships concerned.

**Table 17. Ships requiring survey after visit, analysed by flag state**

Flag	Ships visited	Ships requiring survey	Percentage
Argentina	5	3	60
Romania	51	30	59
Turkey	50	11	22
South Korea	38	8	21
St. Vincent & Grenadines	22	3	14
France	17	2	12
Malta	53	6	11
Singapore	28	3	11
Russian Federation	87	9	10
Brazil	21	2	9
Cyprus	180	15	8
Panama	165	13	8
People's Republic of China	43	3	7
Liberia	128	6	5
Greece	231	9	4
Other	194	17	9
<b>Total</b>	<b>1313</b>	<b>140</b>	<b>10.6</b>

The same surveys, namely those following adverse ship inspection reports, have also been analysed by reference to the classification societies of the ships involved as well as by age and by type of ship.



**Table 18. Ships requiring survey after visit, analysed by classification society**

Class society	Ships visited	Ships requiring survey	Percentage
Registru Naval Roman	49	26	53
Korean Register	43	7	16.3
Polish Register	7	1	14.3
Nippon Kaiji Kyokai	166	19	11.4
American Bureau of Shipping	263	21	8
Bureau Veritas	202	16	7.9
Russian Register	119	9	7.6
Chinese Classification Society	40	3	7.5
Norske Veritas	132	7	5.3
Lloyd's Register	392	17	4.3
Registro Italiano Navale	26	1	3.8
Germanischer Lloyd	102	5	4.9
Other	9	3	33
Not recorded	38	5	13.1
N/A	33	0	0
<b>Total</b>	<b>1621</b>	<b>140</b>	<b>8.6</b>

The high percentage achieved by the Romanian Register (Table 17) and Classification Society (Table 18) reflects the difficulties being encountered by a number of Romanian fleets. The Romanian Classification Society is not a member of IACS. All IACS Classification Societies performed rather better, although some variation in performance can be seen.

**Table 19. Ships requiring survey after a ship visit, analysed by age group**

Range	Ships visited	Ships requiring survey	Percentage
0-4 years	146	2	1.4
5-9 years	268	13	4.8
10-14 years	433	34	7.8
15-19 years	504	48	9.5
20 years or more	270	43	15.9
<b>Total</b>	<b>1621</b>	<b>140</b>	<b>8.6</b>

Table 19 demonstrates that age is clearly a vital factor in assessing the results of ship visits. During the period under review, age was not taken into consideration when selecting ships for visits. By contrast, pre-entry condition surveys are as stated earlier, routinely focussed on older ships.

**Table 20. Ships requiring survey after visit, analysed by ship type**

Type	Ships visited	Ships requiring survey	Percentage
Ore	12	6	50
Log	6	2	33.3
Coaster	3	1	33.3
Tug	5	1	20
Dry	261	44	16.8
Bulk	532	61	11.5
Chemical	46	4	8.7
Ro/ro	73	4	5.5
Passenger	24	1	4.1
Container	121	5	4.1
Tanker	245	9	3.7
Obo	31	1	3.2
Reefer	101	1	1
Other	160	0	0
Total	1622	140	8.6

Although some types of ships appear to perform significantly worse than others, it should be noted that the numbers of ships visited by the inspectors were relatively low in these categories.

## Conclusion

The inspection and conditions survey programmes operated by the Association are designed to identify sub-standard ships and management practices, and encourage the owners of ships identified as unsatisfactory to improve their standards and performance. Although the Association exists to provide P&I insurance to its shipowner members, the determination to eradicate poor quality owners from the membership is not primarily motivated by the desire to reduce claims – although it is believed that a reduction will result. It is a primary strategic objective of the Association to achieve and maintain a membership of high quality owners who can respect each other and through the mutual membership structures of the Association are then prepared to support each other. Without that underlying shared commitment to high quality, the fundamental operation of the Association would be less strong.

Shipowners and others reading this publication are well able to draw their own conclusions and lessons. Attention is particularly drawn to the observations made in respect of Tables 9 and 10. With the advent of the ISM Code, it appears there is increasing evidence that the structural approach to safety management advocated in the Club and proper manning to flag state standards are both important contributions to a high quality operation.

The data gathered from both programmes provides a valuable insight into the standards not only of the membership, but also of international shipping generally. Within the Association, the programmes and data they provide assists the Board of Directors and managers by delivering objective assessment of quality as well as the more fundamental measure of acceptability to the Association.

It is the policy of the Association also to contribute to worldwide efforts to improve safety and standards overall. By publishing the data in this booklet, it is hoped that all owners, whether Members of the Association or not, will be assisted in focusing attention in areas commonly found to be weak. It is also hoped that the publication will be seen as a contribution to the industry's data on ship quality arising from other inspections and survey programmes, and contribute to the knowledge and understanding of those sectors of the wider industry, including flag states, classification societies, shipbuilders and charterers, where a shared commitment to quality will further improve safety.

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March, 1990

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**TO THE MEMBERS**

Dear Sirs,

### **MAINTENANCE AND OPERATION OF SHIPS**

The Directors have for some time, expressed concern that the standards to which some ships are operated and maintained may be falling below acceptable levels. They believe that this may be one significant factor contributing to the sharp increase in claims payments which has, over the last three years, been experienced by this and other Associations in the International Group. The Directors wish this Association to be seen positively to encourage better standards in the industry, with the aim of reducing the Members' exposure to high levels of claims.

The Board has therefore decided that, as from 20th February, 1990, a small number of inspectors will be employed to visit entered ships, in order to assess general standards of operation and maintenance. These visits are viewed by the Directors as complementary to the Members' own management systems and as a positive and constructive effort to assist in setting proper standards, with a view to loss prevention. Traditionally, the Association has relied heavily on the Classification Societies, but their survey systems are related predominantly to safety considerations and to the ship's physical condition. To make a sound assessment for the purposes of the Association it is judged necessary also to consider such factors as cargoworthiness, crew experience and training, management policy, safety practices and pollution control.

It is intended that ships of each Member of the Association will be visited within a period of two years. The first ships to be visited will be selected at random. The Managers will of course contact Members in advance, so that masters may be made aware of the visit, which is not expected to last more than three hours. After the visit the Managers will notify the Member of the result and discuss, in confidence, any areas where it is believed improvements might lead to better loss prevention. The inspector will have notified the master of his findings before disembarking.

These visits should be seen as distinct from the established condition survey system operated under Rules 5(Q) and (R) which carry with them sanctions as to Club cover.

The Directors have made it clear that they wish the Managers to continue to use the existing survey system in appropriate cases, in accordance with the policy of the Association. Clearly, where the results of a ship visit give rise to concern, full condition surveys will be arranged at the earliest opportunity.

The Directors believe that in the present climate of shipping and with the increasing average age of world tonnage dictated partly by the high cost of new building, Members will welcome this development as a potential benefit in alerting them to any deficiencies, so enabling them to take corrective action before an accident or claim occurs.

Yours faithfully,

**THOS. R. MILLER & SON (BERMUDA)**



White –Thos. Miller P&I  
 Pink – Owners  
 Green – Inspectors  
 Blue – Master

Ship name: ..... Group no: .....

Port: .....

Date of visit: ..... by: .....

**Overall assessment**

Under the following six headings, does the ship generally, in your view meet the appropriate standards? Alternatively, if you wish to make comments or recommendations please indicate and list them on the separate sheet provided.

	Yes	See comments
1. Cargoworthiness	<input type="checkbox"/>	<input type="checkbox"/>
2. Manning	<input type="checkbox"/>	<input type="checkbox"/>
3. Service and maintenance	<input type="checkbox"/>	<input type="checkbox"/>
4. Safety Standards (including Crew safe working practices)	<input type="checkbox"/>	<input type="checkbox"/>
5. Operational performance (including likely future performance)	<input type="checkbox"/>	<input type="checkbox"/>
6. Pollution control (including recent pollution record)	<input type="checkbox"/>	<input type="checkbox"/>
	Yes	No (See comments)
Is the ship acceptable by UK Club standards?	<input type="checkbox"/>	<input type="checkbox"/>
Would you sail on this ship without reservation under its present management?	<input type="checkbox"/>	<input type="checkbox"/>

**Last port control inspection:**

Date: ..... Place: .....

Signature: ..... Club representative

Signed (receipt only): ..... Master

This superficial inspection report is not a full condition survey and any statement or recommendation relating to the ship's condition, maintenance, management, crewing or otherwise is not nor intended to be comprehensive or exhaustive. Proper maintenance and management remain the obligation and responsibility of the Member and nothing included in or omitted from this report shall be construed as an admission by the Club or a waiver by them of any rights under the Rules which are hereby expressly reserved.



White –Thos. Miller P&I  
Pink – Owners  
Green – Inspectors  
Blue – Master

Ship name: ..... Group no: .....

Port: .....

Date of visit: ..... by: .....

Continuation sheet no: .....

Comments:

Signature: ..... Club representative

Signed (receipt only): ..... Master

## Ship Inspector's Notebook

Ship: .....  
 .....  
 Port: .....  
 Date: .....  
 Inspector: .....  
 Time on: .....  
 Time off: .....  
 Operational status: .....  
 ETD This port: .....  
 ETA Next port (where/when): .....  
 .....  
 Syn/Group no: .....

### GENERAL GUIDELINES

This booklet is intended to be used by the Inspector as an aide-memoire but is not a definitive check list. After a ship visit the Inspector in making his assessment is likely to have answered most of the questions included although some questions may have been omitted and others added to suit individual cases.

### TOPSIDES

Loadlines and Draftmarks  
 Gangway/Net/Lifebuoy etc.  
 Watch on deck  
 Notice board  
 Classification society:  
 Flag:  
 Trading pattern:

### GENERAL

Was Master aware of the visit?  
 Does Master have relevant P&I information?  
 Date and place of last Dry Dock  
 Are company regulations available?  
 Does Master communicate regularly with Owners?  
 Do Owners communicate regularly with Master?  
 When did a company Supt. last visit the ship?  
 Does company regularly circulate relevant information/literature to the Master. e.g. 'M' notices?  
 Is ship properly supplied with other relevant maintenance manuals, company & statutory regulations, plans. etc.  
 Does Master have adequate

stability information?  
 Are these in the appropriate language?  
 Is the ship supplied with adequate spare gear as indented for by the Master?  
 Does Master consider himself authorised to sign LOF?  
 Does company have a Policy Statement with guidelines on:  
 Safety  
 Training  
 Maintenance  
 Spares  
 Job descriptions  
 Is there a Ship Management team?

### MANNING

Manning certificate available?  
 Total Number of Officers & Crew:  
 Officers:  
 Crew:  
 What is the ship's working language?

*\*See grid at end of Notebook – to be completed by Master.*

### OTHER OFFICERS AND CREW

The Inspector should obtain a copy of the current crew-list.  
 He should endeavour to establish a general view of the following:  
 Age  
 Previous employment  
 Length of sea-service  
 Formal training of crew-members  
 Whether company employed or other source e.g. Manning Agency?  
 If so, name of agency.  
 Does the member keep a list of undesirable crew members?  
 Average likely length of service aboard this ship  
 General knowledge of ship (officers and crew)  
 Please record details where your questions are incorrectly or inadequately answered (i.e. include your question and the answer).

### BRIDGE EQUIPMENT & PROCEDURES

Is the navigational equipment as fitted in full working order?  
 Number of Radars? ARPA?

Are charts corrected up to latest notice to mariners received?  
 Date and number of latest notice to mariners received?  
 Are nautical publications corrected up to date?  
 Are the charts in use appropriate for the port and prior to entry into this port was position fixing carried out at sufficiently frequent intervals?  
 During pilotage was position fixing carried out at sufficiently frequent intervals?  
 Is the navigation & bridge organisation manual available?  
 Are standing orders and night orders issued by the Master or Company with the duties of the watchkeeping officers clearly defined?  
 Is a passage plan available for the current voyage?  
 Is SATNAV fitted & working?  
 Is compass error log maintained and up to date and is the deviation table posted?  
 Date?  
 Is radio DF calibration table posted?  
 Date?  
 Are manoeuvring characteristics displayed on bridge?  
 Are auto-manual steering changeover procedures displayed?  
 Is radio equipment as fitted in full working order?  
 Are radio publications corrected and up to date?  
 Is the apparatus in the radio room maintained in a satisfactory condition?  
 Satcom? Tel. no?  
 Weather Fax?  
 Telex?  
 Fax?  
 NAVTEX?  
 Guide to Port Entry?  
 Portable VHF's?  
 Bridge Procedures Guide?  
 Mariners' Handbook?

### ENGINE ROOM AND STEERING GEAR

Are all items of main and auxiliary machinery fully operational?  
 In the case of UMS Vessels is alarm system operational?



Are engine room emergency stops/shutoffs operational and clearly marked?  
 Is condition of emergency generator or emergency batteries satisfactory?  
 Does steering gear/steering gear compartment comply with latest Solas requirements?  
 Has emergency steering gear been tested recently?  
 General housekeeping standards (including bilges, oil leaks, etc.)  
 Condition of:  
 Oily water separator  
 Sewage plant  
 Does planned maintenance take place?  
 Does Company supply operating guidelines?  
 What maintenance records are kept?

#### **SAFETY**

Are there sufficient crew on duty at time of inspection to handle emergencies, cargo, moorings, etc?  
 Are officers familiar with the operation of emergency equipment?  
 Are muster lists/emergency instructions conspicuously displayed?  
 In the case of multi-national crews are these readily understood by all?  
 Is a fire control plan exhibited within the accommodation?  
 Is such a plan also available externally?  
 Are necessary safety signs and other important information prominently displayed?  
 Is personal protective equipment such as safety harness, boilersuits, safety footwear, eye protection, protective helmets, etc. available?  
 Is this equipment being worn?  
 Cargo safety precautions advice available?  
 Are hearing protection aids provided?  
 Is lighting adequate in enclosed spaces/on deck?  
 What is general standard of housekeeping?  
 Are proper procedures utilised for hot work?  
 Is there an O<sub>2</sub> analyser available?  
 Are tank entry procedures laid down?  
 Is there a planned maintenance system for LSA/FFE equipment?

Does vessel have Training & Maintenance Manuals for lifesaving appliances in the appropriate language?  
 Are lifeboats and other safety equipment in good condition?  
 Are regular lifeboat and fire drills held?  
 Are pilot ladders in good condition?  
 Are firemen's outfits in good condition and ready for immediate use?  
 CABA Compressor fitted? Working?  
 Fire hoses & nozzles/fire boxes in good condition?  
 Condition of fire flaps/bunker shut-offs/CO<sub>2</sub> lines?  
 Explosimeters working?  
 Bridge pyrotechnics in good condition?  
 Location of lifeboat transmitter?  
 What records are kept of maintenance of safety equipment?  
 Is there a Safety Officer on board?  
 When were lifeboats last swung out?  
 Solas publications all on board as required?

#### **POLLUTION**

Are written procedures for cargo, ballast and bunker transfers posted/available?  
 Is there a contingency plan to limit pollution effects?  
 Are suitable spill containers around bunker/diesel vents?  
 Are hydraulic lines and machinery free of leaks?  
 Is deck free of oily material?  
 Are means readily available for dealing with small oil spills (oil dispersants)?  
 Is engine room bilge oily water separator control system in good condition?  
 Are engine room bilges clean and free of oil?  
 Is oil record book Part I & Part II up to date?

#### **CARGO/BALLAST SYSTEM**

Are cargo hatch covers and ancillary equipment maintained satisfactorily?  
 Are other deck openings including external doors and access hatches W/T and properly secured?  
 Are cargo holds/tanks maintained to satisfactory standards (e.g. tank tops,

sounding pipes, coatings, ladders, bilges, etc.)? See 'Club Instructions to Surveyors when carrying out Condition Surveys on Bulk Carriers'.  
 Are permanent ballast tanks maintained satisfactorily?  
 Is COW and IG system operating and satisfactory?  
 Is container lashing system correctly supplied and maintained?  
 Is condition of reefer compartments satisfactory?  
 Are cargo handling procedures being carried out as per agreed plan?  
 Are there any interconnections between cargo/ballast systems? This relates particularly to tankers.  
 Are there any interconnections between cargo/bunker systems?  
 Are P/V valves properly maintained?  
 Is the hydraulic valve control system tight?  
 Are remote tank sounding systems working?  
 Ship to shore communications?  
 Are bunker tanks gas free? (Test ship's explosimeter.)

#### **MOORING EQUIPMENT**

Is mooring arrangement satisfactory?  
 Are moorings attended?  
 Are mooring ropes and wires in good condition?  
 Are spare mooring ropes and wires available?  
 Are deck winches and windlasses in good condition?  
 Are fairleads and rollers free?  
 Are anchors and cables in good condition?  
 Are cargo/hose handling and stores handling derricks/cranes/gantries and associated equipment in good condition?  
 Properly greased over full length?  
 Is safe working load (SWL) clearly marked on all equipment?  
 Are winches used in association with lifting equipment in good condition?  
 Is chain register or equivalent up to date?  
 Date of last derrick tests/survey  
 Overall view of cargo gear maintenance



**Manning and Management**

Numbers/Age	Total	Average age	Nationality*	Dominant nationality
Officer				
Ratings				
Full crew				
Riding crew				

\*Enter nationality (e.g. British) or mixed.

Compliance manning scale? Y/N/Dispensation .....

Master	Age		LOSS	
Chief engineer	Age		LOSS	

Officer manning agency (name) .....

Crew manning agency (name) .....

**Language**

Language of ship	Officers' mother tongue (same or other)	Ratings' mother tongue (same or other)

Owner/Manager operated? .....

Management policy? Y/N .....

Policy in place? Y/N .....

Ship condition reflects (answer in one square)	
Management	
Master	
Superintendent	

**Pilotage** (Yes/Strict/Moderate/Lax/Nil)

Pre-pilotage conference?	
Master's supervision of pilot	
Officer's supervision of pilot	
Standards of vigilance under pilot	

**P&I Involvement** Current P&I literature on board? Y/N .....

	Master	C/Off.
Date of last contact with P&I correspondent?		
Understand impact of P&I costs/claims on operating cost of ship? (Y/N)		
Officer believes he has Owners' interests at heart? (e.g. in the case of Agency employed officers) (Y/N)		
Present cargo		
Previous experience of this cargo? (Y/N)		



## Condition Survey – List of defects

To .....

The Master, SS .....

Port .....

Date .....

On instructions from Thomas Miller P&I, Agents for the Managers of the United Kingdom Steam Ship Assurance Association Bermuda Limited, we have today completed a condition survey of the above ship. The following defects have been noted. Thomas Miller P&I will be immediately notified. They, on behalf of the Association's Managers will communicate formally with the owners either directly or through their brokers.

Number	Defect	Recommended action

Blank

**THE UNITED KINGDOM MUTUAL  
STEAM SHIP ASSURANCE ASSOCIATION  
(BERMUDA) LIMITED**

**THE MANAGERS**

Thos. R. Miller & Son (Bermuda)  
Windsor Place, 18 Queen Street  
PO Box HM665  
Hamilton HMCX, Bermuda  
Telephone: 809 29-24724  
Telex: 3317 MUTAL BA  
Cables: MUTUALITY BERMUDA  
Facsimile: 809 29-23694

**THE MANAGERS' LONDON AGENTS**

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Telephone: 0171 283 4646  
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and

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