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## The Owner's/Operator's Perspective on Inspection and Maintenance

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I'm listed as speaking for INTERTANKO Corporation, but obviously my remarks can only be based on our own company's experience, and as many of you may know, Maritime Overseas acts as the operating agent for Overseas Ship Holding Group. We operate 65 vessels, 43 of which are tankers, 13 U.S. flag and 30 non-U.S. flag. Structural maintenance requirements are significantly established when the ship is built. I'm fortunate that our company has built most vessels we now operate. We maintain our own newbuilding department, we review the plans and specifications based on our experience. This experience has taught us to try to eliminate as many of the problem details as possible. Also, for the last 25 years, perhaps a little bit ahead of IACS, we have applied coatings to all ballast spaces and to significant areas of cargo tanks. It is not to say that we haven't had our problems. Indeed, with a particular vessel about 12 years ago after the umpteenth drydocking, which had exceeded its budget by a factor of two or three because of necessary but undetected steel renewals, we established our own in-house department of steel supervisor. We now have five men in the department whose primary role is to monitor the condition of the steel work in each of our ships; first of all to detect problems early, and secondly to ensure that all of the problems which arise are taken care of and taken care of properly.

I'd like now to turn to our responsibility, as we see it, as operators. It is to operate the ships as safely as possible. Economically, certainly, but safety is the first concern. We also have a duty to our owners to maintain their assets. Here I'd like to say that there cannot be a policeman to prevent every crime, there cannot be a garbage man to pick up every piece of litter, the population at large has to do these things by themselves. And similarly, responsible owners who are using classification societies and other regulatory bodies as technical auditors do not rely on them to determine their maintenance policy. Here I think the casualty statistics show that the vast majority of owners are responsible, and perhaps rather than more legislation and bureaucracy, if the major charters would eliminate all substandard ships from consideration before they start to trade, the quality of the other vessels would very quickly improve.

I think we've heard a great deal of the specifics of inspection and maintenance, but obviously these demands vary from ship to ship. Fully coated new ships do not require as frequent inspections as the older vessels, but our standard is to inspect all our vessels at drydocking to look for problems and to try to perceive what will be required at the subsequent drydocking. In addition, our older vessels are inspected on an annual basis for pits, fractures, and other things. If they're found, we then turn to our classification society friends and ask them whether, if our own experience doesn't give us the answer, there's something systemic in it and should we modify the ship or do we just go in and vee-out and weld.

These inspections, as Mr. Nisbet has said, are of necessity done with the vessel in service, and here I would like to say that rafting is a reasonable place to do it. This practice really lends itself more to the oil companies than to an independent operator like ourselves because the weather plays a large role in whether you can raft. While the oil companies can send their own ships into reasonably long calm passages and select where they're going to do it, we don't have that privilege. We go where we're sent, and although some of our VLCCs operate in the longest shipping passages in the world, from Valdez around Cape Horn to the Virgin Islands, we've found even in that run, where you have 44 days at sea, it's sometimes very difficult to get a sufficient period of good weather where you can adequately raft the tanks. So, since they're done in service, the areas that we can look at are of necessity constrained to those which are accessible. And here I'd like to say, as Mr. Nisbet has pointed out, that many parts of the ship which are accessible to our steel men would certainly not be accessible to me.

The ships we've been dealing with up until now have, of course, been conventional single hull ships. In the future with minimally spaced double hulls, inspection will become almost impossible. Rafting is certainly out of the question in something that's two meters wide and something like 30 meters high. These ships will have a number of very small compartments and so with inspection limited, maintenance will consist of renewal after failure and I hope there are not catastrophic failures, although I have some hesitation about that.

## **Don Roseman**

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I have a question for Mr. Blake. I'm aware that Maritime Overseas operates both OBOs, dry bulk carriers and tankers. Would you comment on the relative experiences in inspection, particularly with the OBOs versus the tankers, as far as your experience in inspection and maintenance, structural failures and so on.

## **G. Blake**

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We do not have any OBOs at the moment. We did have some a number of years ago, we had two oil/ore carriers and I think that our experience with them has been that it is a little more difficult to inspect the ore/oilers than it is tankers. Bulk carriers are relatively easy because you've got comparatively small tanks and you can get around them reasonably easy. It's the large tankers, the OBOs, the older oilers that I'm talking about that are 160,000 tonners. They are, I think, more difficult to inspect than the tankers.

## **Robert A. Sielski**

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The first question is to Mr. Lindfelt, who gave us the impression that in showing those pictures and the discussion that proceeded it that things have suddenly gotten a lot worse than they use to be. I get the impression that you could have taken the same kind of pictures 50 years ago. What's new, what's different? Have ships really degraded recently in their structural condition?

## **L. Lindfelt**

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I'm sorry, you've got me absolutely wrong. I tried to say that people are now aware about the bad condition of ships and efforts are made in order to improve and lots of improvements have been made but still, we meet these things. I think that is portrayed in my paper. If I may make one point and that is that if I may ask the people that are here, is anybody here representing cargo? You see the difficulty with a conference like this is that no cargo owner ever appears, but still the cargo owner is the guy who gives the cargo to the substandard ships and is ultimately to be blamed for the substandard ship being kept in operation. From my point as an insurance man I can also tell you that in this work there does not exist any cargo underwriters. They seem to do cargo underwriting on the sly, you never seen them at a conference like this.

## **Gus Bourneuf**

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I think the answer to your question is the shipping business has changed quite a bit. The ships are a lot bigger, the crews are smaller, scantlings are a little bit less than they were. Fifty years ago or 30 or 40 years ago ships were drydocked on an annual basis, they were put in shipyards for extensive repairs. That's now trying to be done with the ship's crew, sometimes a riding crew and also the very

size of the tankers or the vessels themselves, even the OBOs or bulk carriers, ULCCs, VLCCs, I think all these contribute to make a very difficult situation, particularly for the classification society and also the ship owner.

## **Paul Cojeen**

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Question for Mr. Blake and Mr. Nisbet and a point of information for those of you who might be interested. The United States at the 30th session of the Marine Environmental Pollution Committee proposed a new regulation 13F in MARPOL for requiring double bottoms in new vessels. We went in with the thought of a minimum of two meters having come out of MARPOL wing tank requirements. There have been some alternative proposals though, that have been put on the street and I'd like comments from you gentlemen on that. One of the proposals is for a minimum of 760 millimeters up to 150,000 ton deadweight tanker. If you thought two feet by 30 meters, how about that?

## **G. Blake**

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I just don't think that ships should be designed by congressmen. I'm appalled at the thought of 2 meter deep, double bottoms and 760 millimeter wide wing tanks. We have a series of relatively new 40,000 ton deadweight product carriers, which by virtue of the MARPOL ballast requirements are in effect double sided ships and these tanks are I think about 3 1/2 meters wide. But each transverse that comes down has an access hole through it about 700 millimeters and that means that you have a series of mini-compartments to inspect and to inspect them is difficult, to do any maintenance coating will be virtually impossible. I think that far from helping the problem of pollution, I think that these new double-sided ships, if the coatings are not applied properly and are not maintained, we will certainly not be able to inspect them as well as we can inspect the ships today and you will see many more sides fall off ships in 10 years. This is aggravated, of course, by the greater use of high tensile material, the optimized ship design, and all the other things which have taken place over the last 10 years.

## **Ron Nisbet**

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The double bottom ships can be designed to facilitate inspection, for example there exists now the *Ecology Class* tankers which include the *TONSINA* and the *KENAI*, which are very easy to inspect and that type of vessel is a pleasure to go through the wing tanks and even the double bottom. Everything is accessible and easy to move through, so let's hope the designers have a little thought at this stage for future inspection.

## **Andrew Kendrick**

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I'd like to follow up on the point that was raised by Paul Cojeen and some of the points that were raised by Mr.

Blake in response to that. When designing ships, and I think I'm probably speaking for a number of designers in this, I have never yet run into an example of a classification society emphasizing requirements for access when looking at plan approvals. What you do find very frequently is requirements for a large number of additional structural details which add to the inspection requirements. Is this class or any class now aiming to develop a policy for looking at the lifetime inspection requirement during the plan approval stage?

## **Gus Bourneuf**

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We certainly are concerned about the access for maintenance, but it's not generally put into our rules because the actual maintenance and repair of the ship and the inspection of the ship is really up to the owner and I know that may be a little contradictory, but we are reviewing the matter of access to ships. At ABS, we are reviewing our rules with the point of looking into this matter of access, not only into the structure but up onto the structure, and underneath the structure, particularly in relation to double bottoms, double sides and ULCCs and VLCCs.

## **George Stiehl**

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Contrary to the show of hands for Mr. Lindfelt's comment there's quite a few cargo owners represented here. Most of the major oil companies are represented and at least to the extent of my knowledge locally, all of them have rather extensive requirements for chartering and it's very difficult to get through their minefield into a ship charter with one of the majors without being in reasonably good condition. I don't know if they would all admit it but they all have extensive lists of banned vessels because of their condition, maintenance or safety.

## **L. Lindfelt**

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With the cargo I would like to have said excluding oil, because I know about the very good systems that the major oil companies run, but I think that too much attention is focused on the tankers because in 1990 it's claimed by Lloyd's Register of Shipping that 24 dry cargo bulk carriers had total losses or major damage. And you know that some of the classification societies are now looking into the problem of the aging dry bulk carriers and that's where

I put the blame on the cargo owner because he brings the cargo to these substandard ships and maybe there's a dry cargo owner around too.

## **G. Blake**

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I recognize that the major oil companies do carry out inspection of vessels before they will take them into their terminals or before they will charter them. We have ships chartered to, I think, all of the major oil companies. My point was not that the major oil companies charter the ships but in the course of negotiations in charters they are prepared to use the rate which the substandard vessel is prepared to accept to beat down my rate to that level. This is the problem. If they were to eliminate banned ships before the trading started then we would get to a two-tiered market if you like, but a market of good ships which would then be able to compete against each other. There would still be a great deal of competition but there would be good ship against good ship, not good ship against junk.

## **G. Pattofatto**

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I don't want to speak on behalf of the classification society I work for but to pass on information about the work carried out by the IMO subcommittee on Ship Design and Equipment, which I chaired a couple of weeks ago. I'd like to pass on information on the matter of the minimum width of the sides mentioned by Paul Cojeen and the problem of access to the tanks. We discussed the outcome of the Marine Environmental Protection Committee that Paul Cojeen referred to. The majority, I'd say the large majority of the Administrations who took part in that subcommittee expressed the view that the 76 centimeters mentioned as a minimum should be kept. It was not mentioned that this measurement is suitable for large tankers, because it certainly is not. For small ships this should be suitable, as it is now for gas carriers and chemical tankers. As you know, for chemical tankers, type II, we have the minimum of 76 centimeters. The Administrations, at present, feel this is suitable for small ships. This allows for good inspection and access. In the Bulk Chemical Code and the International Gas Carrier Code the minimal dimensions for access are specified to take into account the necessity for inspection and to rescue people in the tank.