

FREDERIC BERNARD BOLTON, M.C.

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Mr. Bolton was educated at Rugby School and joined The Bolton Steam Shipping Company Ltd. under the Chairmanship of his father in 1940. During the last war, he served, attaining the rank of Major, with the Welsh Guards in North Africa and Italy and was decorated with the Military Cross in Italy in 1945. From 1951–1956 he served to the rank of Major with the Northamptonshire Yeomanry. In 1945 he was elected a member of Lloyd's and in 1946 a member of the Baltic Exchange.

He was appointed a director of The Bolton Steam Shipping Company Ltd., and subsidiaries, and a director of F. Bolton and Company Ltd., now F. Bolton and Company (Holdings) Ltd., and its subsidiaries in 1946. On the death of his father in 1953 he succeeded to the Chairmanship of both companies.

In 1958 he became a director of Atlantic Steam Navigation Company Ltd., and subsidiaries, and was appointed Chairman of the company in 1960.

1963 saw him appointed as a director of Associated Humber Lines Ltd. of which, since 1967, he has also been Chairman.

He is a director of BP Tankers Ltd. and of Transglobe Airways Ltd. and its subsidiaries.

Mr. Bolton holds a number of public positions and appointments. He is a member of the Board of the Port of London Authority, a member of the Council of the Chamber of Shipping and is Chairman of the Technical Policy Committee, and is on a number of its other Committees. He is a member of the General Committee of Lloyd's Register of Shipping and Chairman of the Shipowners' Committee of the British Ship Research Association and, in 1967, became a member of the National Ports Council.

Mr. Bolton is a Past President of the Chamber of Shipping of the United Kingdom, a past Chairman of the Deep Sea Tramp Section of the Chamber and of the London Deep Sea Tramp Shipowners' Association.

## PRESIDENTIAL ADDRESS

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On a previous occasion similar to this, I wanted to start by referring to my remarks as an *apologia pro vita sua*. Then, I was prevented by the staff on the grounds that the words meant "a justification for what I had done" and should thus have been delivered under a hail of brickbats at the end of the term of office. I have since found Cardinal Newman's book with this title, from which it is clear that he was using the words to mean an explanation of his beliefs at the time of writing. In this sense, therefore, I give you this as my *apologia pro vita sua*.

You cannot expect an incoming President, particularly a lay President like myself, to fill his address with much to do with the affairs of the Institute. As he may well not have had any function within the Institute previously he is not qualified to declare the latest Institute policy, nor, really, since he does not know what has gone before and has few illusions about what he can do in the succeeding year, can he hold forth on what he proposes that the Institute should do under his guidance. He can only give his personal thoughts on the rôle, position and place of the marine engineer—which is what I propose to do as a shipowner.

I must speak as a shipowner. I can only speak on what I need, as a shipowner, from marine engineers and, from this standpoint, of the value of the rôle of the Institute.

A shipowner wants his ships kept running, he wants them designed to reduce upkeep to the minimum and to use the minimum of manpower, he wants repair yards ashore for them when they break down and he wants technical advice at his elbow. For all this he looks to marine engineers and his trouble, perhaps, is that, although the marine engineer has to extend his skills across the board—service at sea, in the design office, shiprepairing, consultancy, and superintendence—and experience in most of these branches is essential for efficiency in the others, not the same degree of skill is necessarily required in each.

We are all probably sick and tired of hearing that we are now in a state of change greater than at any other time. As a boy I was not, alas, given any scientific training at all and I have not even an embryonic knowledge of engineering, marine or otherwise. I was however taught a certain amount of history and I am always grateful for having learnt the value of historic perspective—even though I cannot claim to have much of it. My point is that historical perspective would try to point out to us that people have nearly always claimed they were living in a time of change greater than at any time before. Is not our trouble that we have also found ourselves in a time in which it is fashionable to plan—much more so than in the past—and plan we do, even the anti-planners amongst us. When our forefathers were prepared to take things as they came, they accepted the need to adapt for change. We, on the other hand, try to anticipate the changes.

through planning, and whether the two approaches result in equally ghastly mistakes or not, there is no doubt that our approach brings far more nervous wear and tear.

So we try to plan for the best use of what must always have been in very short supply, properly trained and qualified men. The fact that we are planning more intensely now than in the past makes the difficulties of doing so—which must always have been there—appear greater.

What sort of engines will we have at sea in the next generation of ships, which the present generation of young men training to go to sea will have to look after? What sort of tasks will we require of the seagoing engineers in them? What will be the degree of reliability which marine engineers ashore will build into the engine rooms of tomorrow's ships and how far will it be possible to leave all but the most extreme emergency repairs to shore repairers? Answers to these questions will enable us to answer the very vital one "how do we marry up requirements of the sea service in the future—sea service which may require much greater skills than today or very much less—with the very much higher standards which will be required ashore to build and maintain the far more sophisticated ships of the future?"

I fear that I have fallen into the trap which too often awaits me of asking rhetorical questions and ducking the answers. It may be an all too easy way of proceeding, but on the other hand it does clear the mind to the point of seeing what it is all about even if it does not provide any solutions.

I think that sea service will require less skill and the work ashore, more, and I do not suppose that the ships at sea can be maintained exclusively by men who will simply be in training for shore jobs—although I suppose many shipowners would say today that the turnover in seagoing engineers is such that this is virtually what is happening now. It will have to be possible for engineers who want ultimate shore employment to get their sea-time in, and it will have to be organized with this in mind, but it would also have to be recognized that there will need to be two streams, one of the more highly skilled, ultimately destined for the shore, and the other, of the less highly skilled, who will remain at sea. If this is unpalatable to those who have been used to there being one definition of marine engineer and one only, the fact must, I think, be faced.

Every effort is being made today towards greater reliability of machinery installations. The development and increasing popularity of automatic controls tend to reduce the variations in machinery operation which inevitably occur with manual control by different individuals and, with automatic controls, machinery can be run at a steady optimum level. Data recorders and electronic warning devices coupled with automatic cutting out in advance of failure—all these things must reduce the work load at sea and hence the skills required. Is it too far fetched an analogy to say that you do not have to be able to make a car today in order to drive it? When ship's engines achieve motor car reliability will not the same sort of criteria apply?

On the other hand, much more skill will be needed to build and repair the more complicated machinery and equipment of the ship of tomorrow. Of course, sea experience will still be necessary and there can be no suggestion that the title "marine" will become unnecessary in the sense that there will be no difference between land and sea engineering. But I wonder, and if I were in closer touch I should know better, how much more benefit could be achieved if there were closer liaison between the marine engineering industry and shore engineering. I suspect that at present they are regarded too much as separate arts and that there is too big a gulf between them, because rather too often do I hear comments on the differences in, for instance, standards of cleanliness in fitting out and installation, and references to precision workmanship which are not at all favourable to marine engineering. This suggests to me that the insistence on the individuality of the art of marine engineering can be pushed too far.

Nevertheless, it is clear that marine engineering must continue to be a separate art, as it caters for quite different conditions. There can be no pulling down of the barricades between marine engineering and the rest, and no acceptance of complete interchangeability. On the other hand, I am sure that there is a very real danger—for the shipping industry and for the country as a whole—in the perpetuation of distinctions between those who are technical and those who are not, in particular between the technical department and management. A man specializes in his education but should not necessarily stay in his specialization—a man trains in his specialization, but, although it is accepted that a man educated or trained as an accountant can change his spots and become a manager, it is not so readily acceptable for an engineer to do so—he tends to remain a technical man all his career.

If then I am right in thinking that two streams of seagoing engineers are required—one for tending the more reliable engines of the future and the other to design and build them ashore—then it will give additional encouragement to the second stream if shipowners are more ready than in the past to accept seagoing engineering time (backed by technical education to the appropriate standard) as being as sound a background for management potential as accountancy training.

If that is what the shipowner wants from the marine engineer and how he can help, what is, to him, the place of the Institute? I have found it difficult, since I was asked if I would allow my name to go forward as a possible President of this Institute, to be quite clear about the functions of the Institute and hence for what a shipowner can look to it. It sets standards but has it not for too long accepted the standards set by others—the Board of Trade—and ought it not nowadays to set its own, having determined what it considers a marine engineer should be, whether the definition I gave earlier is right or not and whether the Board of Trade definition is adequate or not?

It does seem to me that any cross-purpose there might be between the Institute and shipowners, as to how marine engineers should be trained, becomes of secondary importance if the Institute set standards irrespective of how shipowners allowed or encouraged their seagoing engineers to reach them. A re-valuation of membership through increased standards would set a goal towards which the engineer would wish to move and the shipowner wanting the higher skills would encourage him to move.

Next, the Institute is a learned society partially devoted to the promotion of study and discussion on topics of interest to its membership generally. It seems to me that the rôle of a learned society has been somewhat overtaken by other developments in recent years. The first, classic, learned society was of course the Royal Society. When Charles II founded it there was no other forum for the discussion of any subject of scientific or technical interest. As the other societies sprang up under it covering specialities, so in their turn they became the only places in which particular technical discussions could take place and they were in fact the most appropriate place for new ideas to be shown the light of day through presentation in a paper. Now, however, we live in the new and splendid world when we research or die, and considerable sums of Government money are devoted to the turning up of stray facts and their dissemination to people who do not always want them, even if they should, and do not always intend, even if they know how, to do anything at all with the extra knowledge just acquired.

Although it is true that quite a lot of research is done because it would be bad for the public image if it appeared that none was being done, it is also true that much of the dissemination rôle once carried out by the learned societies has been taken over and perhaps sophisticated by research associations and there is a real danger of duplication. It may be that a research association is too content to publish in writing and should organize more discussions on its results and, because it does not, a learned society should encourage just that discussion—but I am not sure that greater coherence could not be achieved by better liaison on the point between research associations and the learned societies.

However, I really think that there is at the moment a vacuum in the actual selection by those with practical experience of these areas where investigation can eliminate troubles and, above all, save costs. As Chairman of the Chamber of Shipping's Research Committee, on and off for the last six years, I have found that the most difficult thing is to pinpoint things we ought to investigate. I would not have believed it was so hard for people to propose items for a research programme, and items which so obviously are cost effective (I hope that phrase really means what I think it does—that in terms of money the prize is worth the effort) and could be shown to be so, so that shipowners would be immediately prepared to pay for them.

It is in this area that, as a shipowner, I consider that this Institute could do work of real value. If there is a danger of overlap with say, the British Ship Research Association, in the publication of studies, investigations and experiences, if there is scope for rationalization of discussion on such studies, there is real promise from a forum of marine engineers in indicating those problems which need to be investigated to achieve technical progress which we all so much want. Maybe I am wrong in assuming this does not happen now. If I am, then I know I am right in saying that what is needed is a better channel of communication of what has been thought through, to those whose responsibility it is to organize a worthwhile research effort, at least for the shipowners' side of the combined marine industries.

I started by saying that I was essentially a lay President. I fear that my remarks will have made this only too plain. I can only add that I am very conscious indeed not only of the honour you have done me in electing me your President for the next year, but also of all the gaps in my knowledge. And I can assure you that I will do all I can to repair this, when I can, in the time available and to serve the Institute to the best of my ability in the coming year.