

CORRESPONDENCE

PROGRESSIVE UPKEEP AND STRUCTURAL SURVEYS

SIR,

At a time when the MOD appears to be galloping towards a maintenance regime based upon progressive upkeep, I note with interest that Lloyd's Register (Lloyd's List, September 23, 1992) has decided to discontinue their practice of permitting continuous survey over a five year period (i.e. a fifth of the ship per year) as being costly and open to abuse. My section (NA123—surface ship structures) has always recognized that there is no fundamental objection to progressive survey, but has always been concerned that the problem is one of management, and this requires a commitment by Managers at all levels to the surveying of the whole ship at the appointed time (and not just the easy parts). This, in turn, will mean that they must remain unswayed by excessive budgetary constraints or anything other than the most urgent of operational imperatives.

NA123 has also been concerned that the full implications to cost and disruption have never been given adequate exposure. From our perspective of administering the Structural Safety Certification Scheme, the difficulties faced by operational staff in preparing the more inaccessible spaces in the typical periods that will be allowed under a progressive upkeep regime are severe; to open up and survey one chain of fuel tanks does not take any less time to organize, and proportionately a greater time (and cost) per tank to achieve than to open up and survey all fuel tanks. If one then considers that the abbreviated progressive upkeep period may not permit repair at the same time as survey a second opening up (and possibly docking) will be needed.

A number of new construction projects have a stated Requirement for the ship to be maintained on a progressive upkeep basis, but we are much closer to such an upkeep regime than just for these new projects. The CVSGs, which have no significant opportunity for full survey between refits, are effectively now on progressive upkeep basis for structure, while the recently published revisions to the COGOG ship upkeep cycles mean that they are going the same way (this latter change was little more than a legitimization of the cycle that was actually being worked, and one can be perhaps be forgiven for thinking that eight years between refits now means ten years).

Realistically (and this is the subject of current study by NA123), steel ship structure cannot remain for more than 5 years or so (variable upon the age of the ship) without survey; a conclusion that the Classification Societies came to long ago. Together with initiatives being taken to set up a structural data base for the effective management of surveys (a joint UK/Canadian initiative for which due acknowledgement must be given to Canada for making their database available to the UK), I believe that the safety organization recently established by the Conrollerate will go a long way towards solving some of the problems. However, I remain less convinced that the Royal Navy will actually like what it gets, and will rue the day that concentrated survey opportunities (in the form of refits or longer DEDs) were lost.

*(Sgd.) G. E. Gibbons
Constructor, RCNC*

SS GREAT BRITAIN PROJECT

SIR,

Many of your readers will know about the 1843 steamship *Great Britain*, the second of Brunel's essays in shipbuilding, and the first genuine ocean liner, salvaged from the Falklands in 1970, and now being restored in her original building dock in Bristol, and some will be aware that we have for some time been working on a replica of the original engine. When made and built into the ship this will rotate, but not steam.

In building the replica, we had to accept the naval architects' constraint that the 340 tons of the original engine would be too much for the remaining structure, so we have had to design a visual replica in more modern materials which should weigh no more than 90 tons. This has considerably complicated a design already made difficult by the limited number of contemporary drawings from which to work. The original was the world's most powerful in its day, and was based on a design by Brunel's father.

We have been fortunate in finding, in Lieutenant Commander James Richard, an engineer whose enthusiasm for the project, capacity for painstaking research, and design ability matched this challenge. We are well along with design and manufacture and have made a good start on erection. However, time flies by and it is clear that someone is needed to take on the last few items of design from James Richard, and to help with bringing the replica into service. Others are available to deal with manufacture of components and installation on board, so what we need is an engineer who will work either as a volunteer, or for modest consultancy fees, on the relatively straightforward remaining design items. Deep knowledge of antique steam engines is *not* an essential requirement—like James Richard, the incumbent can learn on the job, and in any case the main guidelines are already set.

May I, through your pages, ask any reader who is interested in joining this fascinating project to contact me at the SS Great Britain Project, Great Western Dock, Gas Ferry Road, Bristol BS1 6TY.

(Sgd.) E. J. W. Flower
Rear Admiral
Chairman, Engine Sub-Committee

ENGINEERS' NAMES FOR SHIPS?

SIR,

Many navies have named ships after famous engineers and, while it is appreciated that the Ship Names Committee have more names than ships, it might be fun to suggest some possibilities. My list of six follows with none later than World War II and with two constructors, two naval engineers and two from outside. Titles are omitted.

Thomas Lloyd, Chief Engineer.

John Durston, Engineer in Chief.

William White, Director of Naval Construction.

Stanley Goodall, Director of Naval Construction.

Charles Parsons—Turbine development.

William Froude—Hydrodynamics.

One could add an electrical and a weapons man—Armstrong? It would be interesting to see other people's lists.

(Sgd.) David K. Brown
RCNC