

CORRESPONDENCE

SIR,

The Maintenance Manual

We hear a lot nowadays about tri-Service rationalization of equipments. If an item of equipment is made 'common-service' then so also must be the publications referring to it. But with a little ingenuity this could be carried a step further and just one publication produced that covered every single piece of equipment! It need not be very big either; just written with sufficient flexibility so that the users could readily extract the relevant items.

We are all familiar with the telegram to an engineer on his wedding day, directing his attention to BR 3000, Art. 0602, paras. 6 and 7, but it was only recently that I realized just how comprehensive and all-embracing our *Marine Engineering Manual* is. To illustrate this I give below the relevant extracts from it for the care and maintenance of a small baby, with the assurance that every one is fully complied with—as I have determined by observation.

Examination of Structure—A thorough examination . . . of every accessible part of the inner and outer bottom . . . is to be continually in progress. These examinations are to ensure:

- (a) that compartments are maintained in a watertight condition
- (b) . . . coated efficiently with . . . preservative
- (c) that all . . . which affect the water-tight sub-division are maintained in good condition
- (d) the prompt detection of incipient defects and their early remedy.

In addition . . . all compartments in which water is likely to accumulate are to be inspected . . . to check that they are free of water.

If any vessel has been strained, or it is believed that water has been lodging in any part of her . . . a thorough survey of all the places likely to be affected is to be made, whether the periodical survey is due or not.

Avoidance of Increase in Weight—Experience has shown that . . . an appreciable reduction in speed has resulted from the gradual accretion of weight due to additions, frequently without . . . approval. It should be borne in mind that although the weight of an individual item may be small, the cumulative effect may be large . . . serious reduction in stability has arisen through the same cause.

Knowledge of Fittings—All marine engineer officers are to use all possible diligence to make themselves thoroughly acquainted with all pipe systems, with the ventilation system, the pumping, flooding and draining . . . arrangements . . . and constructional particulars . . . generally.

Reports on Installations—It is most desirable . . . to draw attention to any points in the design or arrangement of . . . their charge which in their opinion, could be improved.

Inspection of Compartments— . . . compartments are to be inspected regularly . . . to check that the machinery is operating correctly and to guard against fire and flooding.

Abnormal Consumption—If an appreciable increase in . . . consumption should be observed above the normal for the prevailing conditions, the cause should be investigated.

Personal Hygiene—Absolute cleanliness is necessary. The face and hands should be washed frequently with hot water and soap, the nails scrubbed with

a nail brush . . . and a hot bath taken at least once a week.

Plenty of fat . . . such as milk, bacon, etc., should be taken.

Use of Sand—The use of sand . . . is unnecessary in view of the provision of modern appliances.

Oil on Internal Surfaces—The entry of oil into the feed system . . . will, if not strictly controlled, lead to difficulties . . . to arrange for the strictest possible supervision to ensure that oil is only used when really essential and then only in the smallest quantities that will meet the need. Heavy mineral oil should be used.

Pumping-up: Procedure—Filling should commence, if practicable, as soon as the pressure . . . has fallen below half . . . special care is to be taken that all air is excluded. Hot feed water is to be used.

Release of Air—Use is to be made of the air-release fittings to prevent the accumulation of air.

Sliding Feet—The means provided to permit free movement of all parts . . . are to be maintained in an efficient state and their lubrication is to be given regular attention.

And so—if the next complete revision of BR 3000 is written with a completely open mind and a little imagination, it might be entitled 'The Manual' and all other BRs rendered obsolete.

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Presentation of Information to the Services

As a result of sending 'Archimedes' a copy of the Proceedings of the Conference, titled as above, extracts from which appeared in the December, 1968, issue of the Journal, the following note was published in the October, 1968, edition of the Chartered Mechanical Engineer. It is reproduced by permission of the Editor.

Consideration is at last being given to those Cinderellas of our profession, the technical writers. The effort wasted in wrestling with badly written communications is growing all the time. Technical writing must be made more attractive.

There are several budding associations in this field and a Reader in Information Studies has been appointed at University College, London; but technical writing is still somehow considered sub-professional.

It is all very well to say that engineers must be taught to communicate: but syllabuses cannot be enlarged indefinitely, and good writing is a special skill which most people lack. It takes years to learn how to express just the right amount of detail clearly and briefly; how to deal with amendments; how to use the illustrations for maximum impact; and how to finish the job on time.

The recent conference on the Presentation of Information to the Services brought out the complexities of producing handbooks for highly technical equipment. This is undoubtedly a task for specialist engineers. And, like most people, they will work as well as they are treated and no better. What sort of novels would we get if novelists were herded into back rooms, paid as clerical staff and made to publish anonymously?

Perhaps one day technical publications will proudly bear the names of their authors, who will work as freelance professionals for fees which will at least compare with those of journalists.

Archimedes