

LEAD INDUSTRIES ASSOCIATION

60 EAST 42ND STREET

NEW YORK 17, N. Y.

February 17, 1959

SUBJECT: CALCULATING PAINT
REQUIREMENTS FOR SHIP'S HULLS

To Members of the Lead Pigments Technical Committee:

The January, 1959, issue of "Marine Engineering/Log" contained the following formula that may be of interest to the committee for estimating paint requirements for ship's hulls:

$$S = 1.7 \times L \times D \div \frac{35 \times \text{delta}}{100}$$

Where:

S = hull surface in square feet.

L = length in feet between perpendiculars

D = mean draft in feet

delta = displacement in long tons at draft "D"
in salt water.

This formula gives the square feet of hull surface to be covered and excludes all appendages such as bilge keels, rudders, skegs, stabilizing fins, etc. These can be calculated readily from their dimensions. The docking plan will give the necessary information if the detail drawings are not available.

If "delta," the displacement in tons, is not known, it can be calculated as follows:

$$\text{delta} = \frac{L \times B \times H}{35} \times C_b$$

Where:

B = beam

C_b = block

The block coefficient varies from 0.6 to 0.85, depending on the type of vessel under consideration.

All answers are given in square feet of paintable surface to which should be applied spreading ability of the paint to determine gallonage requirements.

Sincerely yours,

David M. Borcina

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Secretary, Lead Pigments Technical Committee

