

9/5/04.

Amard T.S.S.

760 x 87.5 x 60.25 mld.

Proportion 12.22 to the sk.

Displacement say:

$$\frac{760 \times 87.5 \times 33.5 \times .581}{35} = 37,000 \text{ tons.}$$

6000 tons of coals & stores consumed.

Bending moment say } at 31000 tons.

$$= 31000 \times \frac{760}{24.8} = 950,000 \text{ ft tons.}$$

Moment of Inertia = 3,494,000 inch² ft²
allowing 1/6 for rivet-holes and
excluding wood decks.

Moment of Resistance = 99,000 inch² ft

$$\text{Stress} = \frac{950,000}{99,000} = 9.6 \text{ tons pr. sq. in.}$$

Tension on gunmetal.

$$\text{Compression on Keel} = 9.6 \times \frac{26.98}{35.27} = 7.3 \text{ tons pr. sq. in.}$$

$$\text{Shearing force say} = \frac{3.5 \times 950,000}{760} = 4400 \text{ tons.}$$

$$q = \frac{4400 \times 37200}{24 \times 3,494,000 \times 1} = 1.95 \text{ tons pr. sq. in. relid plth.}$$

$$1\frac{1}{8}'' - 7 \text{ rivets} - 3 \text{ rows. stress on perforated plth} = 1.95 \times \frac{4 \times 1}{2.54 \times 1} = 3.08 \text{ tons.}$$

$$'' '' '' '' '' \text{ rivets} = 1.95 \times \frac{4 \times 1}{3 \times 785 \times 1.18} = 2.37 ''$$

$$1'' - 8 \text{ rivets} - 3 \text{ rows stress on perforated plth} = 1.95 \times \frac{4 \times 1}{2.54 \times 1} = 3.10 \text{ tons.}$$

$$1'' - 8 '' '' '' '' '' \text{ rivets} = 1.95 \times \frac{4 \times 1}{3 \times 785 \times 1.04} = 2.60 ''$$



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