

L. Smit + Zoon's Yard no. 889.

<sup>Engg.</sup>  
M.V. "OCEAN" building by Messrs. J. & K. Smit, Kinderdijk.

Vulcan hydraulic couplings and reduction gear No. K.165 by  
Messrs. Deschimag "Weser", Bremen.

IT IS SUBMITTED that with two 4 SCSA heavy  
oil engines for main propelling purposes, each engine having  
6 cylinders, diameter 365 mm. by 550 mm. stroke, <sup>and</sup> developing  
650 BHP at 300 RPM, connected through two Vulcan hydraulic  
couplings and single reduction gearing to one line of  
intermediate shafting running at 115 RPM and transmitting  
a maximum S.H.P. of 1240, the following sizes of shafting  
merit approval, viz:-

Hydraulic coupling .....	230 mm.
Pinion .....	250 mm. with 140 mm. central hole.
Main wheel .....	250 mm. reduced to 240 mm. aft of bearing.

The plan showing arrangement and details of  
<sup>as shown & amended</sup> couplings and gearing <sup>couplings & gearing</sup> also merits approval, provided they be  
constructed under the usual conditions of survey and testing.

It is concluded that the Standard Steel 42.11  
mentioned in the Surveyors' letter, of which are made the  
primary shafts "A" and the wheel shaft "B" on the plan, will  
have a tensile strength of 28-32 tons per square inch, the  
sum of the tensile strength and percentage of elongation on  
the Society's Standard Test Piece being not less than 57, but  
this should be confirmed.

It is noted that the pinion shafts "C" on the  
plan will be made from steel having a tensile strength of  
65-70 Kgs. per sq. mm. with an elongation of 18% on a gauge  
length of 10 diameters, and this is in order.

Return plan.  
Retain copy.

Lr 24/6



23.6.1937.

Lloyd's Register  
Foundation