

W87-0138

Messrs. Swan, Hunter & Wigham Richardson Ltd., Yard Nos. 1580
and 1582.

Ice Navigation.

IT IS SUBMITTED that with triple expansion steam reciprocating engines for open sea service, having cylinders $19\frac{1}{2}$ ", 33" and 54" diameter, by 36" stroke, working pressure 210 lb. per sq. inch, working in conjunction with an exhaust steam turbine on the Bauer-Wach system, developing a combined equivalent IHP of 2200, consisting of 1475 IHP and 725 equivalent IHP developed by the reciprocating engines and turbine respectively, revolutions per minute of the propeller 115, diameter of the propeller 15 ft. 3 ins., and screwshaft with continuous liner, the following sizes of shafting merit approval, viz:-

Crank..... 10.75".
Intermediate..... 10.4375".
Screw..... 12.125".

The plans showing details of the shafting also merit approval provided the diameter of the screwshaft at the forward end be not less than 11.4".

It is concluded that these vessels are to have the notation "Strengthened for Navigation in Ice", as in the case of the Builders' Yard No. 1444, and that the propellers will be of cast steel or other approved material in accordance with the requirements of the Rules.

It is further concluded that the engine particulars are precisely as stated above, but this should be confirmed.

Return 2 sets of plans.
Retain 1 set.

28/4/37

[Signature]

5th April, 1937.