

COPY.

LLOYDS REGISTER OF SHIPPING,  
71 FENCHURCH STREET,  
LONDON, E.C.3.

24th August, 1928.

S.S. "PORT MELBOURNE".

Dear Sirs,

E. I am in receipt of your letter of the 20th instant forwarding particulars of shafting relating to the Bauer-Wach Gear proposed by Messrs. Swan, Hunter & Wigham Richardson Ltd., for vessels of the Commonwealth & Dominion Line, and have to acquaint you as follows:-

S.S. "PORT MELBOURNE" and "PORT SYDNEY".

With steam reciprocating engines for open sea service and having cylinders 24", 40 $\frac{1}{2}$ ", 68" diameter by 48" stroke, working pressure 200 lb. per sq. inch, combined with an exhaust steam turbine on the Bauer-Wach system, each reciprocating engine having an I.H.P. of 2240 and the exhaust steam turbine a S.H.P. of 1280 at the primary pinion, the sizes of shafting, viz:- existing intermediate shafts 13 $\frac{1}{2}$ " and proposed new thrust shaft 360 mm. (14.18") diameter, will be approved, provided the revolutions per minute of the intermediate shafting be not less than 84, when the reciprocating engine and turbine are working in conjunction at the maximum powers stated above.

I shall be glad however if you will state the intended revolutions per minute.

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S.S. "PORT DARWIN" and "PORT DENISON".

With steam reciprocating engines for open sea service and having cylinders  $22\frac{1}{2}$ ", 38",  $63\frac{1}{2}$ " diameter by 45" stroke, working pressure 200 lb. per sq. inch, combined with an exhaust steam turbine on the "Bauer-Wach" system, each reciprocating engine having an I.H.P. of 1750 and the exhaust steam turbine a S.H.P. of 1000 at the primary pinion, and revolutions per minute of the intermediate shaft 84.6 when the reciprocating engine and turbine are working in conjunction, the sizes of shafting, viz:- existing intermediate shafts  $12\frac{3}{4}$ " and proposed new thrust shaft 350 mm. (13.78") diameter, will be approved.

S.S. "PORT HARDY".

With steam reciprocating engines for open sea service and having cylinders  $22\frac{1}{2}$ ", 38",  $63\frac{1}{2}$ " diameter by 48" stroke, working pressure 200 lb. per sq. inch, combined with an exhaust steam turbine on the "Bauer-Wach" system, each reciprocating engine having an I.H.P. of 2100, and the exhaust steam turbine a S.H.P. of 1200 at the primary pinion and revolutions per minute of the intermediate shaft  $91\frac{1}{2}$  when the reciprocating engine and turbine are working in conjunction, the sizes of shafting as stated in Messrs. Swan, Hunter & Wigham Richardson's letter, viz:- intermediate shafts  $12\frac{3}{4}$ " and proposed new thrust shaft 350 mm. (13.78") diameter will be approved.

I have, however, to point out that the diameter of intermediate shafting is given as  $12\frac{3}{4}$ " in the First Entry

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Report and also in a letter received from the Engine Builders, Messrs. Hawthorn, Leslie & Co., Ltd., and in these circumstances the size as now stated, viz:-  $12\frac{7}{8}$ " diameter, should be confirmed.

Further, for an intermediate shaft diameter of  $12\frac{3}{4}$ ", the proposed powers as stated above will be approved, provided the revolutions per minute of the line shafting be not less than  $93\frac{1}{2}$  as for the sister vessels "Port Campbell", "Port Brisbane" etc.

I am, Dear Sirs,

Yours faithfully,

Secretary.

The Surveyors,

NEWCASTLE-ON-TYNE.



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