

Bauer-Wach Conversion s.s. "RAZMAK".

Engineers: Messrs. Wm. Beardmore & Co.

Messrs. William Beardmore & Co., Ltd., have forwarded particulars of the Bauer-Wach Exhaust Turbine Installation for this vessel.

It is proposed to develop a total combined indicated horse power of 6,500 at 98 r.p.m. when the exhaust turbine is working in conjunction with the reciprocating engine, the division of power being as follows:-

Reciprocating engine..... 4,600 I.H.P.

Turbine..... 1,900 Equivalent I.H.P.

IT IS SUBMITTED that with steam reciprocating engines for open sea service and having cylinders $30\frac{1}{2}$ " x 44" x 63" x 89" by 54" stroke, working pressure 215 lb. per sq. inch, combined with an exhaust steam turbine on the Bauer-Wach System, the reciprocating engines having an I.H.P. of 4,600 and the exhaust steam turbine an equivalent I.H.P. of 1,900 at the primary pinion, and the revolutions per minute of the intermediate shaft 98 when the reciprocating engines and turbines are working in conjunction, the following existing sizes of straight shafting merit approval, in accordance with the usual practice, viz:-

Intermediate shaft diameter..... $16\frac{1}{2}$ ".
Screwshaft (fitted with C.L. and propeller dia $17\frac{1}{6}$ ")..... $17\frac{3}{4}$ ".

The following sizes of thrust and gear shafts also merit approval, viz:-

Thrust shaft..... 438 mm.
Thickness of thrust shaft collar..... 120 mm.
1st reduction pinion at bearing..... 200 mm.
1st reduction wheel at bearing..... 300 and 230 mm.
2nd reduction pinion at bearing..... 405 mm.
2nd reduction wheel at bearing..... 550 mm.

The Firm should be asked to forward particulars of the internal diameters at the bearings of the 1st and 2nd reduction wheel shafts and the 2nd reduction pinion shaft, if these are being made hollow.