

Messrs. The Wallsend Slipway & Engineering Co. Ltd. No. B.W.8.
 Fitting of Bauer Wach Exhaust Steam Turbine
 Single Screw Steamer "CITY OF CAMBRIDGE"

IT IS SUBMITTED that with steam reciprocating engines for open sea service having cylinders 26", 37", 53" and 76" diameter by 51" stroke, working pressure 225 lb. per sq. inch, combined with an exhaust steam turbine on the Bauer Wach system, the reciprocating engine having an I.H.P. of 3040 and the exhaust turbine a S.H.P. of 1240 at the primary pinion, and 83 revolutions per minute of the intermediate shaft when the reciprocating engine and turbine are working in conjunction, the size of the existing intermediate shaft viz:- 14½" merits approval in accordance with the present practice.

Further, the following sizes of proposed new shafting as shewn on the plans merit approval, viz:-

Thrust Shaft	425 mm. dia.	Sketch No. 25854
Turbine transmission shaft	110 mm. "	" 6/BW8
1st Reduction pinion shaft	170 mm. & 130 mm. dia.	" 8/BW8
2nd Reduction pinion shaft	420 mm. with 355 mm. central hole	" 5/BW8
2nd Reduction wheel shaft	550 mm. with 440 mm. central hole	" 14/BW8
Hydraulic Coupling shaft	300 mm. with 175 mm. central hole	" 7/BW8.

The above plans also merit approval.

With reference to the proposed thickness of thrust shaft collar, viz:- 78 mm., it should be pointed out that this is proportionately less than usual in cases of this type and it is suggested that the thickness might be increased to 100 mm.

Return plans.

13.8.29.

J. R. R.
W. D. J.
14/8/29

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