

MAIN PROPELLING OIL ENGINES.

E1.

Shafting Endorsement.

M. Y. "AMULREE"

Shipbuilders: Messrs. *Gebr. Niestern*

Yard No. 217

Engineers: Messrs. *Humboldt-Deutz*

Engine No. *TYPE SA6M 220*

It is submitted that with engines for main propelling purposes, having particulars as stated below, the following sizes of shafting merit approval, viz.:

Sizes of Shafting:

Crank	{ Pins 110 mm dia. Journals 120 mm dia.	Flywheel	Thrust
Intermediate		Tube	Screw

Particulars of Engines:

Engine Type	<i>4-S.C.S.A.</i>	Max. Press. in Cylinders	<i>55 kgs/cm<sup>2</sup></i>
<del>Open Sea Service</del>		<del>M.I.P. or M.E.P.</del>	<i>6.0 kgs/cm<sup>2</sup></i>
<del>Smooth Water Service</del>		<del>I.H.P. or B.H.P.</del>	<i>115</i>
No. of Cylinders	<i>6</i>	<del>Weight of Flywheel</del>	
Diam. of Cylinders	<i>190 mm</i>	<del>Diam. of Flywheel</del>	
Stroke	<i>200 mm</i>	<del>GD<sup>2</sup> of Balance Weights</del>	
Span of Bearings	<i>191.5 mm</i>	<del>GD<sup>2</sup> of Turning Wheel</del>	
Revs. per Min.	<i>750</i>	<del>Diam. of Propeller</del>	

The plan of crankshaft also merits approval, provided the thickness of the webs be not less than 45.5 mm, or alternatively, the minor axis of the elliptical webs be not less than 206 mm, it being noted that the minimum tensile strength of the material will be 52 kgs/mm<sup>2</sup>.

It should be pointed out that whereas the Düsseldorf Surveyors in their letter of the 26<sup>th</sup> ult. state that the crankshafts for these engines were approved in the Sec's letter of the 6<sup>th</sup> Dec., 1937, the crankshaft approved at that time was for engines having a cylinder diameter of 170 mm, and with engines having a cylinder diameter of 170 mm and all other particulars as stated above, the crankshaft sizes proposed, together with the plan now forwarded, merit approval.

The Surveyors should, however, be requested to confirm the cylinder diameter intended for these engines.

Return Plan (1) by the engine Builders & it is concluded the testing of the material will be carried out as required  
 Retain Copy (1) by the Rules & in the presence of the Society's Surveyor. *Lr 11/3*

*Lloyd's Register*  
*Foundation S.A.*  
*10/3/38*