

COPY.

Lloyd's Register of Shipping,

71, Fenchurch Street, E.C.3.

Enclosures.

2nd November 1938.

Dear Sirs,

E.

Swan, Hunter & Wigham Richardson Ltd.  
Ship No. 1567 - Engine No. 1606.

I duly received your letters of the 27th and 28th ultimo, with enclosures, respecting machinery proposed for the above Contract.

The plans of shafting have been examined and I have to inform you that with Doxford opposed piston heavy oil engines for main propelling purposes, having 4 cylinders, 600 mm.diameter by lower stroke 1340 mm. upper stroke 980 mm., centres of side rods 1200 mm., revs.per min. 95, maximum pressure in cylinders 680 lb. per sq. inch, M.I.P. 84-85 lb. per sq. inch, B.H.P. 2800, weight of flywheel forward 2.2 tons, aft 3 tons, diameter of flywheel forward 2450 mm., aft 2050 mm., diameter of propeller 16'-6", screw shaft with continuous liner, the following sizes of shafting will be approved, viz:-

Crank - centre pins...	450 mm. with 150 mm. central hole:
side pins.....	450 mm.
Thrust.....	450 mm.
Intermediate.....	13 $\frac{3}{4}$ "
Screw.....	15 $\frac{1}{2}$ "

The plans showing details of shafting and stern tube will also be approved.

It is noted that dowel pins will not be fitted

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Swan, Hunter & Wigham Richardson Ltd. Yard No.1567.

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and the details of the yield point of the crank web material and the proposed shrinkage allowance, as stated on the data sheet, are in order.

The minimum sizes of crank pins and journals that could be approved for engines having the above particulars are -

Crank pins..... 445 mm. (solid shaft):  
Side crank pins & journals... 439 mm.

I have to add that the plan of riveted starting air receivers will be approved for a working pressure of 600 lb. per sq. inch, provided the air receivers be constructed under the usual conditions of survey and testing.

The Steel Testing Surveyors should be advised regarding the tensile strength of the shell plate and butt straps, viz:- 29-33 tons/in<sup>2</sup>.

Two sets of the plans forwarded by you are returned herewith.

I am, Dear Sirs,

Yours faithfully,

Secretary.

The Surveyors,  
NEWCASTLE-ON-TYNE.



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Foundation

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