



All communications to be addressed  
THE SURVEYORS  
Lloyd's Register of Shipping,  
Copenhagen, K.  
Reference

# Lloyd's Register of Shipping.

28<sup>1</sup>, Sankt Annæ Plads,

Copenhagen, K. 30th December, 1936.

The Secretary,  
Lloyd's Register of Shipping,  
London.

Dear Sir,

M.S. "BENJAMIN FRANKLIN" of Oslo.

Referring to our letter of the 12th October last regarding crank shafts for the above named vessel, we have to inform you that it has now been decided to fit new crank shafts in the main engines.

We have to-day per commercial papers' post forwarded for the consideration of the Committee plan, in triplicate, of the new crank shafts.

The engines are of the direct reversible 4 SCSA type fitted with solid injection and having 6 cylinders 740 m/m diam. by 1300 m/m stroke. The indicated HP will be 6440 corresponding to 5100 BHP at about 128 R.P.M. The indicated mean pressure will be 6.75 kg/cm<sup>2</sup> and the maximum pressure



2.

in the cylinders 49 kg/cm<sup>2</sup>.

Each engine will be fitted with a turning wheel with  $GD^2 = 15500 \text{ kgm}^2$  and with balance weights at the cranks with a total  $GD^2 = 26000 \text{ kgm}^2$ .

The material for the crank webs which is made of cast steel as well as the material for the journals and crank pins, which is made of forged Ingot Steel are in accordance with the requirements of the Rules having the yield point above 50% of the tensile breaking strength.

The shrinkage allowance is 1/600 of the diameter.

I am, Dear Sir,

Yours faithfully,

*J. Langhila Jensen.*  
SURVEYOR TO LLOYD'S  
REGISTER OF SHIPPING



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Foundation

W340-0001 (2/2)



Referred to the Chief Engineer Surveyor.

31 DEC 1936

*H/B*

RECEIVED AT THE  
SURVEYOR'S OFFICE

*For Chief Engineer*

Yours faithfully,

I am, Dear Sir,

The engine allowance is 1,000 of the diameter.

the engine pressure strength.

Requirements of the engine having the length being above 20% of  
which is made of forged iron steel and in accordance with the  
strength will be the material for the cylinders and crank shaft.

The material for the crank webs which is made of cast

total  $GD_3 = 50000 \text{ kgm}^2$

$GD_3 = 12200 \text{ kgm}^2$  and with reference weights at the crank with a

Each engine will be fitted with a cylinder speed with

in the cylinders  $20 \text{ kg/cm}^2$ .

5.



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