

Aktieselskabet
Burmeister & Wain's
Maskin-og Skibbyggeri
Grundlagt 1843

Postadr.: Strandgade 4.
Telegramadr.: Burmeisters, København
Telefoner: Hovedkontoret - C. 9870.
Skibsværftet - C. 6282.

Deres Ref.:

Vor Ref.:

MN/HF

København, K.

January 20th, 1939.

Lloyds Register of Shipping.

28 St. Annæplads.

K.

Dear Sirs,

Yard No. 646.

Enclosed please find for approval 3 blueprints of each of the drawings:

No. 358/3 - Crankshaft for 6-cyl. main engines.

No. 147070- do for 8-cyl. auxiliary engines.

The main engines are two direct reversible, 6-cylinder, double-acting, two-cycle Diesel engines with solid injection. Cylinder diameter 620 m/m. Length of stroke 1400 m/m. The total output is 14600 IHP. corresponding to approximately 12000 EHP. at about 100 revolutions per minute. Indicated mean pressure 6,3 kg/cm². Maximum pressure 49 kg/cm². The engine is fitted with a turning wheel having $GD^2 = 10.000 \text{ kgm}^2$ and with balance weights with a total $GD^2 = 58.000 \text{ kgm}^2$.

Span of bearings from inner edge to inner edge -
1164 m/m.



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The auxiliary machinery consists of 3 off 8-cylinder Diesel engines each developing 480 EHP. at about 400 r.p.m. Indicated mean pressure 6,2 kg/cm². Maximum pressure 49 kg/cm². The engines will be carried out with solid injection.

Span of bearings from inner edge to inner edge = 300 m/m. As far as cylinder 3 is concerned the span is, however 330 m/m.

The material for the main engine crankwebs, which are made of cast steel as well as the material for the main bearings and crank pins and the shafts of the auxiliary engines, which are made of forged steel, comply with the requirements of the class and has a yield point 50% above the tensile strength.

The shrinking allowance is 1/600 of the diameter.

The exact computation of the IHP. of the main engines is as follows:

Top piston

Indicated mean pressure.....6,3 kg/cm²
IHP.....3550

Bottom piston.

Diameter of piston rod.....240 m/m
Indicated mean pressure.....6,3 kg/cm²
IHP.....3000

Total IHP for main pistons.....6550

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Top exhaust piston.

Diameter of exhaust piston.....350 m/m
Length of stroke.....380 m/m
Indicated mean pressure.....7,9 kg/cm²
IHP.....380

Bottom exhaust piston.

Diameter of exhaust piston.....410 m/m
Diameter of piston rod.....240 m/m
Length of stroke.....380 m/m
Indicated mean pressure.....8,4 kg/cm²
IHP.....370

Total IHP. of the exhaust pistons 685 corresponding
to an increase of the horsepower of 11,5%.

We trust that this information will be sufficient
and ask you to return a copy of each drawing provided with
your signature for approval.

Yours faithfully,

AKTIESELSKABET
BURMEISTER & WAIN'S MASKIN- OG SKIBSBYGGERI

6 prints
4 data sheets

428

415

Sm. An. D/A



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