

COPY

# LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

71, Fenchurch Street, London, E.C.3

Telegram: Committee, Fen, London

Telephone: ROYal 3551 (6 Lines)

Enclosures.

29th July, 1952.

Ref: Eng.

Dear Sirs,

Auxiliary Propelling Machinery.  
Sailing Ships "PAMIR" & "PASSAT"  
Messrs. Howaldtswerke A.G.  
Torsional Vibration Characteristics.

I have to acknowledge the receipt of your letter of the 22nd instant enclosing torsional data in respect of the proposed replace propellers intended for the above vessels.

The torsional vibration characteristics of the shafting installation of the auxiliary propelling machinery have been re-examined in conjunction with Messrs. Howaldtswerke's diagrams showing estimated stresses and recommended restricted ranges of revolutions when the new propellers having  $GD^2 = 416 \text{ kgm}^2$  are fitted, and will be approved for a service speed of 350 R.P.M., provided:

1. A notice board be fitted at the control station stating that the engine is not to be operated continuously  
a) in the case of "PAMIR" between 291 and 314 R.P.M.  
b) in the case of "PASSAT" between 291 and 308 R.P.M.

2. The engine tachometers be marked accordingly;

or alternatively, and preferably, provided torsigraph records are taken after fitting the new propellers for the purpose of determining whether stresses in the straight shafting arising from the 1-node 6th order critical speed calculated to occur at about 300 R.P.M. are satisfactory for continuous operation.

Such records may be taken from one ship only and together with full particulars forwarded to this Office for examination.

Two sets of the Firm's calculation sheets are returned herewith.



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# LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

-2-

71, Fenchurch Street, London, E.C.3

Telephone: 2071 and 18 1101

For your information I enclose a copy of a letter  
to-day addressed to the Dusseldorf Surveyors in the matter.

22nd July, 1932.

Enclosures.

Yours faithfully,

Ref: 100.

pro Secretary.  
Dear Sir,

Auxiliary Propelling Machinery.  
Sailing Ship "PAMIR" & "PASAT"  
Messrs. Howaldtswerke A.G.  
Torsional Vibration Characteristic  
The Surveyors, Hamburg.

I have to acknowledge the receipt of your letter  
of the 22nd instant enclosing torsional data in respect of the  
proposed replace propellers intended for the above vessels.

The torsional vibration characteristics of the  
existing installation of the auxiliary propelling machinery have  
been re-examined in conjunction with Messrs. Howaldtswerke's  
diagrams showing estimated stresses and recommended restricted  
ranges of revolutions when the new propellers having 602  
diameter are fitted, and will be approved for a service speed  
of 300 R.P.M., provided:

1. A notice board be fitted at the control station  
stating that the engine is not to be operated continuously  
a) in the case of "PAMIR" between 291 and 314 R.P.M.  
b) in the case of "PASAT" between 291 and 308 R.P.M.

2. The engine tachometers be marked accordingly:

or alternatively, and preferably, provided tachograph records  
are taken after fitting the new propellers for the purpose of  
determining whether stresses in the shafting existing  
from the 1-node 6th order critical speed calculated to occur  
at about 300 R.P.M. are satisfactory for continuous operation.

Such records may be taken from one ship only and  
together with full particulars forwarded to this Office for  
examination.

The sets of the firm's calculation sheets are

FTD.

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