



Lloyd's Register of Shipping

UNITED WITH THE BRITISH CORPORATION REGISTER

Surveyors Office

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RECEIVED

24 MAY 1952 12/6

Ref.:

Eng.

[Handwritten scribble]

DUSSELDORF 20th May 1952

[Redacted address]
Breite Str. 29 (2nd Floor) - Tel. 16695 & 27570

Dear Sir,

We have been requested to undertake the Survey of new two bladed bronze propellers for the sailing ships "S.S. Pamir and S.S. Passat".

On looking into the matter, however, I find that these new propellers are to replace ones which, in each case, failed in service on the first voyage.

These propellers were approved by the Germanischer Lloyd and the new propellers have been ordered by Messrs. Howaldtswerke, Kiel, to the dual inspection of both Societies.

I have examined the fractures at the point of failure and in each case they are indicative of fatigue failure.

In the case of the blades of the S.S. Pamir, both failed and it is to be seen that on one blade the failure commenced at a point A Sketch (1) where a small hole 4 mm diam. by 3 mm deep had been drilled to remove a defect and filled, another small defect had been drilled at point B and on either side of this hole is a small crack as shown on the sketch.

With the other blade of this propeller the failure commenced at a very small local indent, the indent was probably made in service, Sketch II.

In the case of the S.S. Passat, failure of one blade occurred Sketch III. Two fatigue cracks are visible, one at the point A emanates from a small indent also probably made in service, and the other at the point B shows no defect at the point of commencement of failure.

As the case of the new propellers was extremely urgent the Surveyor attending the Makers Works forwarded plans of the new propellers to Hamburg for consideration but in

[Handwritten note: Recd 30/5/52]

G

[Handwritten signatures: M. Bunyan & M. Keller]

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Lloyd's Register of Shipping

OFFICE OF THE SUPERVISOR OF SHIPING

Surveyors Office



POSITION: 20th May 1932

[Faded text, possibly a name or address]

RECEIVED

SAMWAYS

[Faded text]

Dear Sir,

We have been requested to undertake the survey of two diesel engine propellers for the sailing ship "S.S. Lantz and S.S. Lantz".

On looking into the matter, however, I find that these two propellers are to replace ones which, in each case, failed in service on the first voyage.

These propellers were approved by the Government Inspector and the new propellers have been ordered by Messrs. Smith-Barrow & Co., Ltd., to the usual inspection of the Government Inspector.

I have examined the drawings of the propellers and find them to be in accordance with the requirements of the Rules.

In the case of the blades of the S.S. Lantz, both blades and it is to be seen that on one blade the leading edge is at a point A (Fig. 1) where a small hole is shown by 2 on the drawing and it is to be seen that the other small hole is at point B, and on either side of this hole is a small crack as shown on the drawing.

With the other blade of this propeller the leading edge is at a point C (Fig. 2) where a small hole is shown by 3 on the drawing, and the other small hole is at point D, and on either side of this hole is a small crack as shown on the drawing.

In the case of the S.S. Lantz, blades of one blade mounted on the S.S. Lantz. The leading edge of the blade is at a point E (Fig. 3) where a small hole is shown by 4 on the drawing, and the other small hole is at point F, and on either side of this hole is a small crack as shown on the drawing.

All the work of the new propellers was examined by the Surveyor attending the Lantz Works concerned and the new propellers are approved for service.

the light of my comments above I have retained the plans from Hamburg in this office, and issued a letter to the Makers as per the enclosed copy which is self explanatory.

A plan of the two bladed propellers is also enclosed on which I have added in blue the dimensions of the original propellers.

I might add that the machined sections of the propeller blades showed a sound clean structure, and I understand physical and chemical check tests have been made at Kiel.

The Makers state that the new propellers must be delivered within 14 days and one is already cast and stamped for tests.

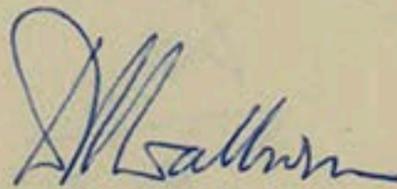
The information I have requested in my letter are full details of the dynamic system but I have pointed out that whereas the Surveyor may continue to witness the material tests, so not to retard progress, this action will in no way be considered that the Society will either proceed with the inspection, or approve the propellers, I might add that the two bladed propellers are arranged to lie vertically in line with the stern post when the engines are not in use.

Please advise this office immediately of any further actions which you may desire to be taken.

It is understood the main engines in each case are 900 BHP, 6 Cylinder.

I am, Dear Sir,

Yours faithfully,



The Secretary,
L o n d o n

C.C. To HAMBURG.

C.C. To KIEL.



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Foundation

URGENT

W.H.H. *[Signature]* ENG

Calculations have shown that the working
propeller are greatly in excess of 5500 hp
which is considered to be exceeded as a
safe working propeller. *[Signature]*
Submitted by Drussel of Sunway

610 = 1000 HP
900 = 1500 HP

10.652 *[Signature]*

Old 201 000
New 10 1000

