

THOS. WILSON, SONS & CO., Ltd.

A 2-1500-2/cg-W

TELEGRAPHIC ADDRESS: "WILSONS, HULL."

CODES USED—SCOTT'S, WATKINS & A.B.C.

ENGINEERING DEPARTMENT,

NATIONAL TELEPHONE, No. 54.

All communications and goods for this Department
to be addressed the Superintending Engineer.

Hull, 4th. May 1910.

Messrs. Lloyd's R. of B. & F. Shipping,
Ocean Chambers, Lowgate,
Hull.

Dear Sirs,

s.s. "Galileo". Rudder.

The flawed Rudder which was removed last voyage from this ship, has now had the plate cut off, and we have had the main casting broken in three pieces.

The three breaks were arranged to be in the vicinity of the gudgeons. The first two showed flaws before breaking, and were the cause of the renewal. After seeing these two broken the Writer had the main piece broken again at the top gudgeon with the result of shewing a hidden flaw as shewn in the enclosed photograph, extending about one third the area of the section of the rudder.

The latter fracture showed no flaw before breaking, and on examining the photograph it will be observed that round some part of it there is a thin outer shell of clean metal, and in the other part no doubt the flaw would have been discovered if it had been originally and properly examined before paint had been applied.

During the process of breaking, which only required one blow from a tup for each of the first two breaks, and three blows for the third break, (the casting however shewing a big crack with the first blow) two pieces jarred off one of the arms. The

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ENGINEERING DEPARTMENT

4th May 1910

Messrs. Lloyd's R. & S. Shipping
Company Limited, Liverpool
Hull.

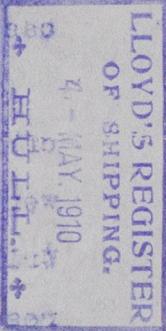
Dear Sirs,
Re. "Bellio", Number.

The rudder which was removed last voyage from
this ship, has now had the plate cut off, and we have had the main

sealing broken in three places.
The three pieces were arranged to be in the vicinity
of the gudgeons. The first two showed signs before breaking, and
after seeing these two broken the
third had the main plate broken again at the top gudgeon with the
result of showing a hidden flaw as shown in the enclosed photograph.

extending about one third the size of the section of the rudder.
The latter fracture showed no flaw before breaking, and on
examining the photograph it will be observed that round some part of
it there is a thin outer shell of clean metal, and in the other parts
no doubt the flaw would have been discovered if it had been

originally and properly examined before being applied.
During the process of breaking which only required
one blow from a sledge hammer of the first two breaks, and three
blows for the third break, the sealing however showing a big crack
with the first blow, two pieces jarred off one of the sides. The



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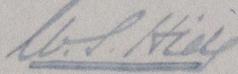
shortness of this casting as shown by the easy way in which it was broken, the nature of the fracture and the pieces jarring off the arm seem to point to the fact that this metal has been from the first totally unsuitable for its required purpose. The tup weighed 14 cwts. and the fall was 11 feet.

We shall be obliged if you will ascertain for us whether this casting had actually passed your tests by your own Surveyor, whether it had been annealed, whether the bending and tensile tests were satisfactory, and also if you would give us the results of the same, and whether the drop and hammer tests were applied. A good casting of ordinary cast iron would not have broken as easily as this presumably ductile steel casting did.

This matter has raised great disquietude in our minds as to the real value of the inspection of these foreign steel castings, and we shall be glad if you can remove the doubt we have in this matter.

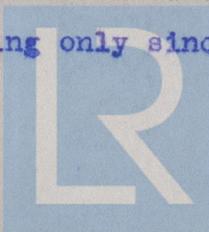
Yours faithfully,

FOR THOS. WILSON, SONS & Co. LTD.


SUPT'G ENGINEER.

P.S.

This vessel has been running only since August 1908.



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shortness of this casting as shown by the easy way in which it was broken, the texture of the fracture and the pieces falling off the same seem to point to the fact that this metal has been from the first defectively manufactured for the required purpose. The two weighed 1 1/2 cwt. and the fall was 11 feet.

We shall be obliged if you will ascertain for us whether this casting had actually passed your tests by your own surveyor, whether it had been annealed, whether the bending and tensile tests were satisfactory, and also if you would give us the details of the same, and whether the drop and hammer tests were applied. A good casting of ordinary cast iron would not have broken so easily as this presumably ductile steel casting did. This matter has raised great doubts in our minds as to the real value of the inspection of these foreign castings, and we shall be glad if you can remove the doubt we have in this matter.

LLOYD'S REGISTER
 OF SHIPPING.
 MAY 1910
 LONDON

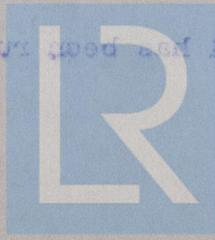
Yours faithfully,

FOR THE REGISTER OF SHIPPING

[Signature]
 General Manager

This vessel has been running only since August 1908.

memo



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