

CALLAO, May 13th, 1898.

To LLOYDS REGISTER OF BRITISH & FOREIGN SHIPPING.

I, the undersigned, at the request of the late George Elster, Lloyds Agent at Lima, proceeded on board the British tank steamer "BAKUIN" on the following dates:

2.3.98. MAIN BOILERS.

Surveyed main boilers: externally the shell & mountings in good condition; internally: shell, tubes, furnaces and combustion chambers are in a fair condition, with perceptible traces of a slight deterioration. Condemned the following stays owing to their not being safe at the pressure that was carried by the boiler, viz:

STARBOARD BOILER.

One main and five combustion chamber stays, Starboard combustion chamber,

- (1) starboard wing, top row, 3rd from after end.
- (2) back of same, 2nd row from starboard wing & 4th from
- (3) 2nd row from bottom, 7th row from starboard wing. (top

Port combustion chamber,

- (4) port wing, 6th row & 5th down.
- (5) back, 2nd row from starboard side & 5th down.

Main stay: 1st stay on top row counting from starboard side.

PORT BOILER.

Three main & eight combustion chamber stays.

Main stays: 2 on port wing - 1 5th from port side.

Starboard combustion chamber.

- (1) starboard wing, after row, 6th down.
- (2) back, 6th row from st^d side 3rd down.
- (3) " 6th " " " 4th "
- (4) 4th row, from starboard side 5th down.

Port combustion chamber.

- (5) 4th row from starboard side 4th down.
- (6) 4th " " " 5th "
- (7) 7th " " " 5th "
- (8) 7th " " " 6th "

All the above have been condemned owing to their being very badly corroded away, and, as I have already stated, are not safe to the pressure boilers were then carrying.

14.3.98. Surveyed and examined the four new combustion chamber stays, fixed (at the old size $1\frac{1}{2}$ ") with nuts on both ends, inside and out.

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side of the shell, these four stays replaced those in port combustion chamber of port boiler, which were the most corroded. The Captain, in view of the slowness of the work, caused by not finding a suitable tap either in Lima or Callao, & in view that the making of one would take as long as a trip to Talara and back, from where he was called, solicited of me to have the steam pressure reduced to answer to Lloyds rules for the then condition of the boilers, which I did, reducing from 150 lbs. (when left England) to 135 lbs. pressure per square inch. The safety valves blew & carried off steam in a satisfactory manner at the above reduced pressure.

4th to 13/5/98. On the "Bakuin's" return, & frequently during these dates, I examined as the work of renewing the stays proceeded, finding other five more chamber stays in want of renewing in starboard boiler, which were renewed as well as the others in a very satisfactory way. The new stays have been increased in diameter making a far more substantial job. The main stays were altered from 2" to 2³/₈", and the combustion chamber stays from 1¹/₂" to 1¹/₂", these were screwed through shell of boiler and of combustion chamber, and then secured outside as well as inside with nuts same as the previous four in March. I may say that the old ones were only rivetted.

Tested the boilers up to 150 lbs. pressure, when the safety valves blew and carried off steam in a satisfactory manner at that pressure.

DONKEY BOILER.

- 3.3.98. Tested safety valve whilst under steam to 90 lbs. pressure.
- 9.3.98. Examined internally, where I found the stays slightly deteriorated, but shell, furnace and combustion chambers are in a fair condition.
- 11.3.98. Reduced safety valve from 90 lbs. (as when left England) to 75 lbs. pressure per square inch in view of the present condition of donkey boiler.

F E E received for services rendered $\$$ /105 silver soles.

CONSIDERING therefore that the boilers are in a very satisfactory condition, I have no hesitation in certifying that they fulfil the requirements for the above classification in Lloyd's Register.

(Sd.) J. Russell, Engineer.

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