

COPY.

# Lloyd's Register of Shipping.



Port NEW YORK

JANUARY 8th, 1937.

**This is to Certify** that

W. H. RUNHAM & JOHN S. HECK

the undersigned Surveyors to this Society did at the request of the Owners' Representative attend on board the Steamer "THODE FAGELUND" 4332 tons gross register of Tonsberg to examine her boilers.

Upon 18th November, 1936 and following days, the vessel lying afloat at Philadelphia, the undersigned made examination and

FOUND

CENTRE BOILER

Port Butt Strap fractured and leaking badly. Shell plate fractured under Port Butt Strap. One rivet broken in Starboard Butt Strap, this being a sign that this butt is probably in similar condition to the Port Butt.

RECOMMENDED

This boiler not to be used again, and to be renewed as soon as new boilers can be obtained.

FOUND

PORT BOILER

Wrapper plate of Port Combustion Chamber fractured.

RECOMMENDED

Rivets in way of fracture to be taken out, fracture weeded out and electric welded and rivets re-driven.

Insulation to be removed from Butt Straps for examination of riveting, and it appeared to be good.

Boiler to be tested to 200 lbs. by Hydraulic Pressure. This was done and during test 3 rivets on Port Butt Strap leaked. On attempting to caulk these rivets, 1 rivet head fell off.

THEN RECOMMENDED

AS A TEMPORARY REPAIR 3 rivets in Port Butt Strap to be made tight

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"While the Committees of the Society use their best endeavours to ensure that the functions of the Society are properly executed, it is to be understood that neither the Society nor any Member of any of its Committees is under any circumstances whatever to be held responsible for any inaccuracy in any report or certificate issued by the Society or its Surveyors, or in any entry in the Register Book or other publication of the Society, or for any error of judgment, default or negligence of any of its committees or any Member thereof, or the Surveyors, or other Officers or Agents of the Society."



by electric welding.

Vessel to proceed on Port and Starboard Boilers only. Port and Centre Boilers to be renewed in three months' time. Upon consideration at New York, it was felt that it would be prudent to reduce the working pressure. Therefore, on 4th December and following days the vessel lying afloat at Pier 6, Brooklyn examination was made of

PORT BOILER and

FOUND

Port Butt Strap leaking badly. Another rivet head had fallen off and about 20 other rivets leaking badly. When boiler had cooled down, 4 other rivets were broken off with an ordinary hand hammer.

Upon removal of leaky rivets, the Port Butt Strap and shell plate underneath were found badly cracked.

Several minor fractures in shell plate, between rivet holes in way of heads.

RECOMMENDED

Port Boiler to be repaired before going to sea.

As it would take six months to get new boilers,

RECOMMENDED

4 rivets to be removed from Starboard Butt Strap for examination of shell plate, and this was found good. Then

RECOMMENDED

AS A TEMPORARY REPAIR Port Butt Strap to be renewed and extended upwards to take 4 rows of single shear rivets through good part of shell plate.

Rivet Holes in Starboard Butt Strap to be closed with screwed plugs.

About 20 rivets at bottom of heads to be made tight by caulking and electric welding.

Boiler to be tested to 175 lbs. by Hydraulic Pressure and it was found good.

Working pressure to be reduced to 150 lbs. Safety valves to be set at 155 lbs.

The above having been done, boiler was examined under full steam and found or made absolutely tight.

Finally-

RECOMMENDED

Centre Boiler not to be used again.

Vessel to proceed on Port & Starboard Boilers only.

Working Pressure to be reduced to 150 lbs.

Port & Starboard Boilers to be again examined in 3 months time.

Port & Centre Boilers to be renewed as soon as new boilers can be obtained.

Starboard Boiler to be renewed, or rigorously tested and examined when others are renewed.



STARBOARD BOILER NOTE:

The Starboard Boiler was examined externally only and appeared good. A slight leak under Forward Head caulked and made tight.

Insulation removed from Butt Straps and riveting appeared good.

This boiler as far as seen is in safe working condition, but the leak under the front head is an indication that it may be proceeding to the same condition as the other two boilers.

If it is desired to attempt to save this boiler it should be rigorously tested and examined. In my opinion, it would be in the Owners interest to renew this boiler when the other two boilers are renewed.

CAUSE

The cause or causes of the cracking of the boilers are obscure. In my opinion, it is due to local brittleness of the steel due to aging of the steel under high local stress between rivet holes.

*John S. Heck*

Surveyors to Lloyd's Register of Shipping.  
For William H. Runham & Self.



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