

# Report of Survey for Repairs, &c., of Engines & Boilers.

(Received at London Office,

SAT. 25 APR 1891

No. 37027 Date of Writing Report April 22<sup>nd</sup> 1891 Port of LIVERPOOL  
 No. in Reg. Book. 101 Survey held at Liverpool Date, first Survey Dec 15<sup>th</sup> Last Survey April 16<sup>th</sup> 1891  
 on the Machinery of the S.S. "Lake Superior" Master W Stewart No. of Visits 28  
 Tonnage { Gross 4562 Net 2966 Vessel built at Glasgow By whom J & G Thomson When 1884 Year. Month. 12  
 Registered Horse Power 430 Engines made at Do When 1884 Boilers, when made (Main) 1884 (Donkey) 1884  
 No. of Main Boilers 2 Owners Canada Shipping Co<sup>th</sup> Port Liverpool Voyage Montreal  
 Steam Pressure in Main Boilers 90 lb & Surveyed in Dry Dock Dandon & BK Class of Vessel & Machinery 100 A-1  
 in Donkey Boiler 90 lb (State name of Dock.) As in Register Book, including dates of Special Surveys of Ship and of last Boiler Survey. L.M.C. 4.89

Last Survey No. 3537 Port hiv

## Particulars of Examination and Repairs (if any) Damage and Boiler Survey

(State clearly the cause of Repairs if any, and, in detail, the nature and extent of Examinations and subsequent Repairs.) Repairs on account of Damage should be separated from Repairs due to other causes. State also the dates and initials of any letters respecting this case

Did the Surveyor personally go inside each Boiler separately (including the Donkey Boiler, if any), and make a thorough examination at this time? Yes

If this was not done, state for what reasons? —

And what parts of the Boilers could not be thus thoroughly examined? —

Also what special means, in the absence of internal examination, were adopted by the Surveyor to assure himself of the thorough efficiency of those parts of each boiler? —

During the recent voyage from Liverpool to Montreal and back severe weather was encountered which resulted in the engines racing heavily and working loose in their seatings, which were seriously damaged, the rods in same being started and broken. Main steam pipe distorted and started at joints, engine bed plate cracked in three places, and holding down bolts for some loose or broken.

On examination it was found necessary that the whole of the engine seating should be renewed, and in order to do this efficiently all steam, feed, suction, and discharge pipes had to be disconnected and removed, and engines lifted out of vessel, to enable the various parts to pass through the engine room hatch the cylinders, columns, condenser shafting and other parts had to be dismantled.

After new seatings were fitted, and bed plate repaired, by having four cast iron girders bolted along cross webs, the engines, which have been thoroughly overhauled, were replaced and properly secured in place with new holding down bolts. All pipes, sea cocks, donkey pump, condenser tubes and other parts removed or fixed in place, main steam pipe repaired, partly renewed, tested and re jointed in place. Propeller shaft drawn in, examined, and bush re lined up with Lignum vitae.

## General Observations, Opinion, and Recommendation:—

(State clearly what alteration, if any, is suggested to be made in the existing classification and notification of the vessel's machinery in the Register Book, consequent upon this survey: thus, for example, B.S. 1/89, B. & M.S. 1/89, or L.M.C. 1/89, as the case may be.)

In our opinion the machinery of this vessel is now in safe working condition, and the requirements of the rules for Special Survey, having been carried out it is now eligible for the notification + L.M.C. 4.91 in the Register Book.

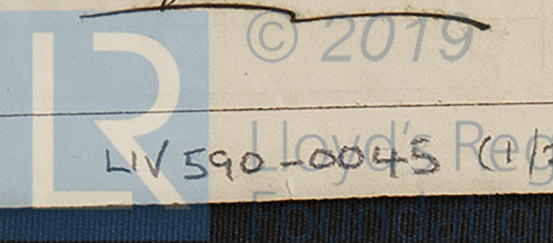
Fee or Registration Fee (per Sec. 27).....	£	0	0	Fees applied for <u>21/4/91</u> received by me, <u>21/4/91</u>
Survey Fee (per Section 28).....	£	2	0	
Special Damage Fee (per Section 28).....	£	15	0	
Certificate (if required) as per margin.....	£	:	:	
Travelling Expenses (if chargeable).....	£	:	:	

Committee's Minute LIVERPOOL 24 APR. 91

Assigned + L.M.C. 4.91. Sep 91

G. A. Milner & J. M. G. G. G.  
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Liverpool



Insert Character of Ship and Machinery precisely as in the Register Book



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Port of LIVERPOOL.

Continuation of Report No. 37027 dated 16/4/91 on the

S.S. "Lake Superior"

Line of shafting tested and lined up true. Engine afterwards tested under steam and found to work satisfactory.

Donkey The two main boilers opened out cleaned and examined, furnace sides showing signs of pitting, but general condition of boilers satisfactory.

Donkey boiler in good condition.

All safety-valves overhauled and adjusted under steam to retain a working pressure of 90 lbs per sq inch.

Geo. A. Milner + W. Chagnon

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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