

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

(Received at London Office) **FRI. DEC 28 1900**

Date of writing Report **27 DEC 1900** When handed in at Local Office **27 DEC 1900** 10 Port of **Newcastle**

No. in **1075** Survey held at **Newcastle** Date, First Survey **Oct 26** Last Survey **Dec 19** 1900  
 on the Machinery of the **Steel** **Murex** Master **Halliday**  
 Gross **3564** Net **2329** Vessel built at **West Hartlepool** By whom **W. Gray & Co Ltd** When **1892** Boilers, when made (Main) **1892** (Donkey) **1899**  
 Registered **324** Engines made at **West Hartlepool** Owners **Shell Transport & Trading Co Ltd** Port **London** Voyage **Batoum**  
 No. of Main Boilers **3** If Surveyed Afloat or in Dry Dock **Wallsend Dock** (State name of Dock.)  
 No. of Donkey Boilers **2** Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).

Last Survey No. **1075** Port **Newcastle**

Particulars of Examination and Repairs (if any) **Comp SS No 1 & all +100 AI**  
 Periodical Surveys, when held, must be reported in detail and verbatim in the terms of the Rules. State clearly the cause of Repairs, if any, and, in detail, the nature and extent of examinations and subsequent repairs. Repairs on boilers being detailed in the body of the report, should be separated from repairs due to other causes; and dates and initials of any letters respecting this case.

Did the Surveyor personally go inside each Main Boiler separately and make a thorough examination at this time? **No**  
 Do. " Donkey " **yes**  
 Was this not done, state for what reasons? **see Hamburg report - No 5948**  
 What parts of the Boilers could not be thus thoroughly examined?  
 To 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?  
 Did the Surveyor examine the Safety Valves of the Main Boiler? **yes** To what pressure were they afterwards adjusted under steam? **165 lbs**  
 Did the Surveyor examine the Safety Valves of Donkey Boiler? **yes** To what pressure were they afterwards adjusted under steam? **100 lbs**  
 Has the propeller shaft been drawn and examined at this time? **No** If spare propeller shaft fitted, state whether new?  
 Is the distance between lignum vitae of stern bush and top of after bearing of screw shaft? **1/8"**

The Survey is not complete state what arrangements have been made for its completion and what remains to be done? **Complete**

Vessel placed in Wallsend graving dock, propeller, sea fastenings and connections examined, also cylinders, pistons slide valves, pumps and condenser & sea connections all opened out & examined.

Repairs - New piston rods fitted to HP & MP, LP rod skimmed up in lathe & glands rebrushed. All valve spindles skimmed up & glands rebrushed. New packing rings fitted to LP cylinders. Pumps overhauled & two new feed rams fitted. All steam pipes (main) taken off annealed & tested by hydraulic test to 320 lbs.

Two Donkey boilers safety valves, also safety valves of main boilers all examined. Patch fitted on furnace also on boiler shell of port boiler where wasted, new safety valves fitted to St boiler. 37 screwed stays in main boilers renewed. Boilers all tested under steam & adjusted as above.

Oil fuel The main & donkey boilers have been fitted to burn oil fuel with **Edwards & Ruden's** burners. The oil fuel will be carried in **alterd in accordance with letter from Mr. Haig 29.12.00**

General Observations, Opinion, and Recommendation: - The machinery of this vessel is now in safe working condition & eligible in my opinion to receive the record of **+LMC 9-00** as recommended in the Hamburg report No 5948.

Fee or Registration Fee (per Sec. 27) **£ 3.10** Fees applied for **27 DEC 1900**  
 Roy Fee (per Section 28) **£ 7**  
 Mal Damage Fee (per Section 28) **£ 3.3**  
 Rolling Expenses (if chargeable)  
 If Certificate is required  
 Committee's Minute **TUES. JAN 1 1901**  
 signed **+LMC 9.00** Fitted for burning liquid fuel  
 Robert Haig.  
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.



Port of Newcastle-on-Tyne. Continuation of Report No. 41033 dated 27 DEC 1900 on the

%s "Murex"

in the ballast tanks under the engines & boilers, also the peaks & cofferdams. The oil to be used is Borneo oil of a flash point not less than 200°F.

Insulation — The boilers are covered with insulating compound, the tank top under the boilers is covered with 3" of cement the cement being held in its place by bars on the tank top placed 4'-0" apart.

Pumping Arrangement — A well is formed at the fore side of the after peak bulkhead in the engine room, also at the after side of the after cofferdam in the stokehold, to take up any leakage of oil fuel, suction are led to these wells from the oil fuel donkeys direct. The ordinary pumping arrangement is quite separate from the oil fuel pumping system. The connections for the feed donkey to ballast tanks has been cut off. Two Worthington duplex pumps 4x2 $\frac{3}{4}$ x4" have been fitted in stokehold, to pump oil fuel from tanks & oil wells up to settling tanks or overboard as required. A separate Worthington duplex pump <sup>4x2 $\frac{3}{4}$ x4"</sup> has been fitted on the tank top in the fore peak for the purpose of pumping out the fore hold. A drain pipe has been fitted to carry any leakage from settling tanks to oil wells.

Evaporators Two Morrison's evaporators 16 ton capacity have been fitted, in addition to one 12 ton already on board, to make up the loss of water due to spraying the oil by steam.

Air pipes — Air pipes have been fitted to all oil fuel tanks the pipes being carried well up above the decks. The oil fuel installation has been fitted in accordance with the approved plans and as previously approved in the %s Cowrie & %s Conch Newcastle reports N<sup>o</sup> 40109-40466.

The vessel left here burning coal, the oil fuel arrangement will be refitted at Suez about the middle of January 1901.

P. Harg