

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

No. 3544 Date of Writing Report 28th September 91 Port of Falmouth
 Survey held at Falmouth Date, first Survey 5th Sep 1891 Last Survey 19th Sep 2 1891
 on the Machinery of the S.S. "Mineral" Master L. Hubbard No. of Visits 9
 Gross 1304 Vessel built at Sunderland By whom W. Pile When 1886-11
 Net 849 Engines made at Greenock When 1866 Boilers, when made (Main) 1886 (Donkey) ✓
 120 Owners A. Stuart Port Sunderland Voyage Batoum
 Main Boilers 65 If Surveyed Afloat or in Dry Dock Afloat Class of Vessel & Machinery +90A1
 Donkey Boiler 50 (As in Register Book, including date of last Boiler Survey.) +NB, 86 LMC 6, 90

Particulars of Examination and Repairs (if any) Repairs from Wear and Tear and Negligence
 (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? No
 Was this not done, state for what reasons? Not done
 What parts of the Boilers could not be thus thoroughly examined?
 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?

Piston faced up in Lathe and a new Packing Ring fitted, Piston Rod made Parallel and Two new Steel set Bolts fitted to Piston Rod Nuts, a new Neck Ring fitted and Gland rebushed, A new Cast Iron Air Pump made and the old Brass Liner and Head Valve turned to fit the same also a new Brass ring fitted as a distance piece for Valve, A new Cast Iron Mudbox Door made and fitted, After Well Suction Pipe resoldered and Pipe cut in Two and Flanges fitted so as to make it accessible at all times, Sea Suction Pipe for washing Decks rebrazed, Main Bilge Suction Pipe resoldered, Water Service Pipes rebrazed and three new handles fitted to Cocks, Two new Handles fitted to Boiler Water Gauge Cocks, Spare Top Brass for forward Main Bearing fitted, Nuts on Port Cylinder Column secured up tight, A new Crosshead made and fitted to High Pressure Engine, A new Inlet Valve Seating and spindle fitted for Circulating Pump and a new Brass Knuckle fitted to Cover of same for securing the Nut, A new Brass Liner fitted to Circulating Pump Rod, Slide Rod for both Engines straightened and tried in Lathe, Low Pressure Engine Cylinder opened out and examined, Two Piston Rod Nuts faced in Lathe and secured up tight and all piston Springs reset, Four new studs and a new bottom Cover fitted to Low Pressure Engine Cylinder, Holes at back of Slide Valves chipped out on the after side to allow the Slides to fit on the Faces, Hole in Top end of Crosshead on Main Feed Donkey bored out and a new pin fitted, a new end welded on Pump Slide Valve Spindle and Two new nuts fitted, Pump Rod made parallel and a new Brass Bucket and Brass Spring Ring fitted also a new neck ring and Gland, A new steel bush and pin
 General Observations, Opinion, and Recommendation:— As far as seen the Machinery of this vessel is in a good and efficient condition and eligible in my opinion to remain as classed without fresh record

Office or Registration Fee (per Sec. 27)
 Survey Fee (per Section 28)
 Special Damage Fee (per Section 28)
 *Certificate (if required) as per margin
 Travelling Expenses (if chargeable)
 Fees applied for 9.12.1891
 received by me, 9.12.1891

R. H. Cooper
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

Assigned

fitted to Valve Spindle, a new neck Ring and Gland fitted to Piston Rod Stuffing Box

The Repairs enumerated above are caused through Wear and Tear.

The Repairs named below was caused through negligence on the part of the People who lined up the Main Shaft three eights of an inch, and a liner one quarter of an inch was put on the Crown of the Connecting Rod Brass, Raising the Pistons five eights of an inch. The Cylinders were not opened out at that time, but when opened out at Falmouth and examined by me, I found a Ridge one sixteenth of an inch high extending all round the Top of the Cylinder of the High Pressure Engine. On examining the High Pressure Piston I found the Tonguepiece very small which allowed the Packing Ring to close each time the Piston struck the Ridge. The Chief Engineer informed me there was a very heavy Knock when the Engines came on the Top Centre. The Consulting Engineer was asked by the new Chief Engineer if he had ever heard this Knock before, he said no, and did not think much of it, and that it would get better the further they went. The Chief Engineer kept the Engines going for several Hours, and the Knock was increasing and shaking every thing to pieces. He became afraid at last, and told the Captain he must put into one of the Channel Ports as he could not take the responsibility of keeping Machinery working in that Condition.

Repairs Caused through Negligence

The Lining up of the Main Bearing and the Connecting Rod Brasses and leaving a Ridge one sixteenth of an inch high on the Top of the High Pressure Engine Cylinder which caused the Piston to strike this very Stroke