

REPORT OF SURVEY FOR REPAIRS, &c., OF ENGINES AND BOILERS

(Received at London Office)

Date of writing Report.....25. 9. 1947 When handed in at Local Office.....25. 9. 1947 Port of BARROW.

o. in Survey held at Sea and Liverpool Date. First Survey 21. 9. 47 Last Survey 23. 9. 19 47
Book. (No. of Visits.....2)

679 on the Machinery of the Wood, Iron or Steel T.S.M.V. "ACCRA"

Gross 11,600 Vessel built at BARROW By whom VICKERS-ARMSTRONGS, LTD. Year. Month. 1947 9
Net 6,600 Engines made at DO. By whom DO. When 1947
Boilers, when made (Main) - (Donkey) 1947
Owners ELDER DEMPSTER LINES, LTD. Owners' Address -
Managers - (if not already recorded in Appendix to Register Book.)
Port LIVERPOOL Voyage W. AFRICA
Main Boilers -
Donkey Boilers 120
If Surveyed Afloat or in Dry-Dock Sandown Basin
(State name of Dock.)

Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).

CHARACTER. * for Special Survey. Date of last Survey and of Periodical Surveys.	Years assigned now expired	Machinery and Boiler Surveys (including date of N.B., if any)
<u>100 A.1</u> <u>with freeboard.</u> <u>(Class contemplated)</u>		

Report No. - Port -
Particulars of Examination and Repairs (if any) DAMAGE
Special Surveys, when held, must be reported in detail and serially in the terms of the Rules. State clearly the cause of Repairs, if any, in detail, the nature and extent of Examinations and subsequent Repairs. Repairs on account of Damage (the cause of which must be stated) should be separated from Repairs due to other causes; and besides being detailed in the body of the report, should be briefly summarised at the end of the report. State also the dates and initials of any letters respecting this case.

In cases where the Surveyor has not made a special damage report he is required to state whether he offered his services for this purpose, and why they were declined Report attached

Has a damage report made by anyone else? If so, by whom? No.

Has the Surveyor personally go inside each Main Boiler separately and make a thorough examination at this time? -

Donkey " " " No

State for what reasons - What parts of the Boilers could not be thus thoroughly examined? -

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? -

Latest date of internal examination of each boiler - Present condition of funnel(s) -

Has the Surveyor examine the Safety Valves of the Main Boilers? - To what pressure were they afterwards adjusted under steam? -

Has the Surveyor examine the Safety Valves of the Donkey Boilers? externally To what pressure were they afterwards adjusted under steam? -

Has the Surveyor examine all the manholes, doors and their fastenings of the Main Boilers? - and of the Donkey Boilers? Yes

Has the Surveyor examine the drain plugs of the Main Boilers? - and of the Donkey Boilers? -

Has the Surveyor examine all the mountings of the Main Boilers? - and of the Donkey Boilers? -

Has the screw shaft now been drawn and examined? No Has it a continuous liner? - Is an approved oil retaining appliance fitted at the after end? -

Has the shaft now been changed? No If so, state reasons - Has the shaft now fitted been previously used? - Has it a continuous liner? -

Has an approved oil retaining appliance fitted at the after end? - State date of examination of Screw Shaft - State the wear down in the bush -

Is electric light and/or power fitted? Yes If so, did the Surveyor examine the generators, motors, switchgear, cables and fuses? No

Has the insulation resistance of the generators, circuits and apparatus been tested and found to be not less than 100,000 ohms? No.

Engine parts, when referred to by numbers, should be counted from forward.

If the survey is not complete, state what arrangements have been made for its completion and what remains to be done COMPLETE: subject.

DAMAGE stated to have been caused by back-firing of the port main engine.
Waste heat casing of the port boiler burst open on the port side with minor damages in way as detailed in Rpt. D.806 (attached).
Chief Engineer, who was present at the time of the explosion, stated that the engine had been ordered to change a fuel valve and the exhaust had, inadvertently, been left diverted through the waste heat boiler casing; when the valve had been fitted the fuel line was primed (by electrically operated pump) and it was not observed that another fuel valve had stuck open (No.1 Cyl.). Excess of fuel gas, therefore, present and on restarting a back-fire occurred and the boiler casing burst. Explosion was not very violent, judged by ear.

In my opinion it would probably have caused severe injury to anyone in the immediate vicinity. It is not clear whether the back-fire took place in the exhaust manifold or the boiler casing but the former seems to me more probable, and I am of the opinion that no damage would have been done to the engine.
(Continued overleaf)

1. Observations, Opinion, and Recommendation:—
State clearly what alteration, if any, is suggested to be made in the existing classification of the vessel's machinery in the Register Book, consequent upon this survey, and also any alteration required to be made in the records of the vessel's machinery, boilers, working pressures, &c.; thus, for example, BS 9,11, B&MS 9,11 *LMC 9,11 or *LMC 140 lb., FD, &c.)
The machinery of this vessel, as now seen, is in an efficient condition and eligible, in my opinion, to remain as classed: the port boiler not to be used as waste heat boiler until repairs have been effected.

Survey Fee (per Section 29).....£ : : Fees applied for
Special Damage or Repair Fee (if any).....£ 8 : 8 : 0
(per Section 29.)
Travelling expenses (if chargeable).....£ 1 : 19 : 5
Received by me, L.R. Lowe

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute See F.E. memo, rpt. 3125
Signed See F.E. memo, rpt. 3125

occurred if the exhaust had been led direct to the silencer. The Superintendent has renewed the instruction that the exhausts are not to be diverted through the boilers when any manœuvring is taking place. It is submitted for consideration that it might be advisable to fit explosion doors on the boiler casings or make other provision against the accumulation of a dangerous pressure therein.

Drawing No. 4476./A attached.

REPAIRS FOR DAMAGE:-

A few leaking thimble tubes expanded. The boiler pressed up to working pressure and found tight.

The boiler stays overhauled, 3 bolts being renewed.

The easing gear made effective.

It is stated to have been caused by back-firing of the port main engine. The heat casing of the port boiler burst open on the port side with minor damage in way as shown in fig. D.808 (attached).

The Engineer, who was present at the time of the explosion, stated that the engine had been running on a fuel valve and the exhaust had, inadvertently, been left diverted through the heat boiler casing; when the valve had been lifted the fuel line was primed (by electrically pumped) and it was not observed that another fuel valve had stuck open (No. 1 cyl.). Excess of fuel, therefore, present and on restarting a back-fire occurred and the boiler casing burst. The explosion was not very violent, judged by ear.

It is considered that it would probably have caused severe injury to anyone in the immediate vicinity. It is not clear whether the back-fire took place in the exhaust manifold or the boiler casing. The former seems to me more probable, and I am of the opinion that no damage would have been done to the machinery of this vessel, as now seen, is in an efficient condition and capable, in my opinion, to remain as classed: the port boiler not to be used as waste heat boiler until it has been effected.



© 2020

Lloyd's Register
Foundation