

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

(Received at London Office) DEC 8 1937

Date of writing Report 29th Nov. 1937 When handed in at Local Office 19 Port of PORT SAID.

No. in Reg. Book 30104 Survey held at Port Said. Date, First Survey 9th Nov. Last Survey 27th Nov. 1937 (No. of Visits 14.)  
on the Machinery of the Wood, Iron or Steel S.S. "MIRLO".

Age } Gross 7455 Vessel built at Newcastle By whom Armstrong Whitworth & Co. When 1922 Imo  
Net 4415  
Engines made at Newcastle By whom Armstrong Whitworth Co. When 1922  
Main Power } 574 Boilers when made (Main) 1922 (Donkey)  
of Main Boilers 3 Owners With. Wilhelmsen Owners' Address  
of Donkey Boilers Managers Port Jansberg Voyage  
Main Pressure Main Boilers 180 If Surveyed Afloat or in Dry Dock Afloat.  
Donkey Boilers (State name of Dock.)

St Report No. 3811 Port Nat  
Particulars of Examination and Repairs (if any)

Medical Surveys, when held, must be reported in detail and seriatim in the terms of the Rules. State clearly the nature of Repairs, if any, and, 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 the details being detailed in the body of the report, should be briefly summarised at the end of the report. State also the names and initials of any letters respecting this case.

Damage 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

Was a damage report made by anyone else? If so, by whom?

Did the Surveyor personally go inside each Main Boiler separately and make a thorough examination at this time? Yes.

Did the Surveyor personally go inside each Donkey Boiler separately and make a thorough examination at this time? No.

Were any parts of the Boilers not thus thoroughly examined? No.

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? No.

What is the latest date of internal examination of each boiler? Port & Ford. 27/11/37. Strb. 19/11/37 Present condition of funnel(s) Good.

Did the Surveyor examine the Safety Valves of the Main Boiler? No. To what pressure were they afterwards adjusted under steam?

Did the Surveyor examine the Safety Valves of Donkey Boiler? No. To what pressure were they afterwards adjusted under steam?

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

Did the Surveyor examine the drain plugs of the Main Boilers? None. and of the Donkey Boiler?

Did the Surveyor examine all the mountings of the Main Boilers? No. and of the Donkey Boiler?

Has the screw shaft now been drawn and examined? Is it fitted with continuous liner? Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated?

Has the shaft now been changed? If so, state reasons. Has it a continuous liner? Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated?

Has the shaft now fitted been previously used? State the distance between lignum vitae or bearing metal of stern bush and top of after bearing of screw shaft. Is electric light and/or power fitted?

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

The vessel arrived here with furnace crowns down in starboard boiler. Greatest down as per list in report. When steam was got off the other two boilers, it was found that all were in the same condition. I am sorry to have had to fit so many rings, but in my opinion it was either that or wait new furnaces. Furnaces did not show, reduction in thicknesses, but say that the furnaces were fatigued, the same could not be said of the two furnaces renewed within this last year, and the starb. furnace of port boiler (new) was very bad. I am of opinion that it was oil, and bad circulation due to the condition of the internal feed pipes. I could find nothing wrong with the patent circulators.

Proceeded at the request of R. ELKINGTON Esq. Norwegian Vice-Consul, and of Messrs Socony-Vacuum Oil Co. Agents for the Owners, proceed on board the Norwegian Steamer "MIRLO", to ascertain the nature and extent of boiler damage stated to have happened on the voyage from Dutch East Indies, to this port.

For full particulars see log. Report as follows:-

Port boiler. Port furnace Fourth and fifth corrugations had been patent welded circumferentially (over)

General 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, B.S. 9,11, B.&M.S. 9,11, L.M.C. 9,11, or L.M.C. 140 lb., F.D., &c.)

It is my opinion that those boilers are in a good and fit condition and eligible to remain as classed viz:- BS 4-37

CHARACTER. for Special Survey Date of last Survey and of Periodical Surveys.	Years assigned or not restricted.	Machinery and Boiler Surveys (including date of N.B., if any).
+ 100 A I	4.37	+ IMC 3,34
7.35		BS 5.36 4.37
No. 3-3,34		CH N 4.37
Carrying Petroleum in Bulk.		
FITTED FOR OIL FUEL 1,22		
F.P. ABOVE 180°F		



Vertical text on the left margin: "The Surveyor is requested not to... 10m.12.36.—Transfer Ink. The Surveyor is requested not to... Is a Certificate required? If so, to be sent to..."

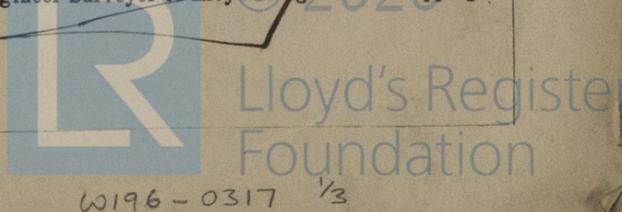
Vertical text on the right margin: "Insert Character of Ship and Machinery precisely as in the Register Book"

Vertical text on the right margin: "Is a Certificate required? If so, to be sent to"

Survey Fee (per Section 29) £ : : Fees applied for 27 Nov 37  
Special Damage or Repair Fee (if any) £ 54 : 12 : 0  
Travelling expenses (if chargeable) £ 3 : 10 : 0  
Received by me, 29 Nov 19 37

Committee's Minute As now  
Assigned  
FRI. 17 DEC 1937  
NORWEGIAN VESSEL

James Macvey  
Engineer Surveyor to Lloyd's Register of Shipping.



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Rpt. 9a.

Port of PORT SAID.

Continuation of Report No. 2355 dated 29th. November, 1937. on the

round the crown at some time and those corrugations showed down 1 1/2".

Centre furnace. This furnace had two plate rings all round, patent welded at parts to the furnace, position about the middle of length. The crown had come down and left the patent welding. From the third to seventh corrugations were down in the crown, greatest down 3".

Starboard furnace. This furnace had also two plate rings similar to above and the crown and side had come down and left the patent welding. From the third to the seventh corrugations are down in the crown, greatest down 3", and the starboard side of the same corrugations have come into towards the fire side, greatest 1 1/2".

Internal feed pipe. Joint of internal feed pipe to boiler back, blown out, (main check) On the pipe being taken off it was found that the flange and the boiler plate were badly scoured. This joint is between the combustion chambers and is difficult to get at.

Starboard boiler.

Port furnace. From the third to the seventh corrugations were down in the crown, greatest 3".

Centre furnace. From the third to the seventh corrugations were down in the crown, greatest 3 1/2".

Starboard furnace. From the third to the seventh corrugations were down in the crown, greatest 3".

Internal feed pipe. Main check. This check is in the wing between the starboard combustion chamber and boiler shell. The internal pipe comes up in front of the combustion chamber and is lead over the tubes extending about half way across the one nest.

Forward boiler.

Port furnace. From the fourth to the seventh corrugations are down in the crown, greatest 2 3/4".

Centre furnace. From the third to the sixth corrugations are down in the crown, greatest 2 1/2".

Starboard furnace. From the fifth to the eighth corrugations are down in the crown, greatest down 3".

Internal feed pipe. Main check. Comes up at the after end of boiler and extends about half way across the tubes.

General.

All the boilers were clean internally, but showed signs of oil. The feed filter tank is open and can be seen at any time and the cloths can be easily cleaned or renewed. I understand that those furnaces have given trouble for some time, and that the starboard furnace in the port boiler and the starboard furnace in the starboard boiler have been renewed during this last year. One of those furnaces has already had rings fitted.

Recommendations.

Repairs required to enable vessel to continue running. Repairs to be made here by jacking up and fitting rings. The rings to be off bulb plate, extending over the top half to three inches below the centre in either side and electrically welded to the furnace having clearing spaces as marked. Only one furnace will have bottom half rings. Internal pipes to be altered as required.

Port boiler.

Port furnace. Fit two top rings, between corrugations 2&3 and 6 & 7.

Centre furnace. Cut out the present rings. Jack up the crown. Fit three top rings, between corrugations 3/4, 5/6, 7/8.

Starboard furnace. Cut out the present rings. Jack up the crown and side. The top was put up fairly good but when the side was tried, I found that this brought down the crown, and I left the side alone. Fit four top rings between corrugations, 2/3, 4/5, 6/7, & 8/9. To each of those four top rings, fit a double plate dog ring to take the bottom half of furnace, this double ring to be bolted to the top ring to rest on the furnace in three places equidistant round, having a screwed 3/4" gas threaded stay coming between the double plate to act as dog stays. Those stays to be screwed into the furnace, rivetted on the fire side, and to have jamm nuts on the water side, inner end.

Internal feed pipe. This pipe comes along between the two nests of tubes. Rejoint flange, and lengthen the pipe by about two feet, having outlet holes to the bottom.

Flange to be refaced, and a special manganesite and gauze wire joint made.

Patent Circulator. Take out for examination. On this being taken out and taken to pieces the flange of the nozzle piece was broken. This part was renewed in brass, the whole erected and fitted back into the boiler.

Starboard boiler.

Port furnace. Jack up the crown. Fit three top rings between corrugations 3/4, 5/6, & 7/8.

Centre furnace. Jack up the crown. Fit four top rings, between corrugations 2/3, 4/5, 6/7, & 8/9.

Starboard furnace. Jack up the crown. Fit three top rings, between corrugations 3/4, 5/6, & 7/8.

Internal feed pipe. Renew this pipe, bringing it across the wing nest of tubes and extending it along between the wing and centre nests of tubes, with outlet holes downward, and having the necessary hangers.

Forward boiler.

Port furnace. Jack up the crown. Fit two top rings, between corrugations 5/6, 7/8.

Centre furnace. Jack up the crown. Fit one top ring, between corrugations 4/5.

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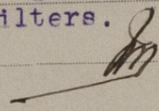
Starboard furnace. Jack up the crown. Fit two top rings, between corrugations 3/4, & 6/7.

Internal feed pipe. Renew similar to starboard boiler.

General.

All the work was carried out to my satisfaction and I consider it a strong job, but there is always the chance of the furnaces coming down in pockets, and I would advise the Owner to consider the renewal of all furnaces at an early date. Great care will require to be taken in cleaning the furnace tops. Also in keeping the filters clean for the feed water, and that all feed water goes through the filters.

*Three photo prints enclosed.*



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