

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

(Received at London Office

14 JUN 1944)

Date of writing Report 18th May, 1944 When handed in at Local Office 18th May, 1944 Port of Baltimore, Maryland  
 No. in Survey held at Baltimore, Maryland Date, First Survey Aug. 28, 1943 Last Survey March 20th, 1944  
 Reg. Book 22098 on the Machinery of the ~~Wood Iron~~ Steel M. V. "COPIAPO" (No. of Visits 24)

Tonnage { Gross 7279  
 Net 5155  
 Nominal Horse Power 1027 NHP  
 No. of Main Boilers -  
 No. of Donkey Boilers 1  
 Steam Pressure in Main Boilers 160  
 in Donkey Boilers 160 lbs.  
 Vessel built at Naksoy By whom Naksoy Skibs A/S When 1937 12  
 Engines made at Copenhagen By whom Akt Burmelatr & Wain When 1937  
 Boilers, when made (Main) - (Donkey) 1910  
 Owners ~~S. S. Army Transport Service~~ Owners' Address -  
 Managers United States War Shipping Admin. Port United States Voyage -  
 If Surveyed Afloat & in Dry Dock Bethlehem Steel Co.,  
 (State name of Dock.) Key Highway

Last Report No. Port Dkg., Alt., T.S., Part C. S.  
 Particulars of Examination and Repairs (if any)

(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 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 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?

Donkey " " " 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?

State latest date of internal examination of each boiler D.B. 8-2-44

Present condition of funnel (a) Good

Did the Surveyor examine the Safety Valves of the Main Boiler?

To what pressure were they afterwards adjusted under steam?

Did the Surveyor examine the Safety Valves of Donkey Boiler?

Yes

To what pressure were they afterwards adjusted under steam? 150 lbs.

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

and of the Donkey Boilers? Yes

Did the Surveyor examine the drain plugs of the Main Boilers?

and of the Donkey Boilers?

Did the Surveyor examine all the mountings of the Main Boilers?

and of the Donkey Boilers? Yes

Has screw shaft now been drawn and examined? Yes Is it fitted with continuous liner? Yes

Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated?

His shaft now been changed? No If so, state reasons.

Has the shaft now fitted been previously used?

Has it a continuous liner?

Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated?

State date of examination of Screw Shaft 5-3-44 State the distance between lignum vitae or bearing metal of stern bush and top of after bearing of screw shaft close

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

Is electric light and/or power fitted? Yes

If so, did the Surveyor examine the generators, motors, switchgear, cables and fuses? Yes

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

If the Survey is not complete, state what arrangements have been made for its completion and what remains to be done. Complete except for C.S.

Whilst the vessel was on the drydock the fastenings of the propeller, the stern tube and the sea valves were examined and found in order.

Done for T.S.: The T. S. drawn, examined, found in order, the spare C I, propeller removed, a new bronze propeller fitted, the fit of propeller on shaft examined and found good and the T.S. replaced.

Done for C. S.: Main engines :- The Nos. 1, 2, 3, 4 and 5 top and bottom pistons, rods, cylinder heads and liners examined.

Auxiliaries:- The three electric generator engine cylinders, heads, pistons, valves, valve gear, top and bottom end pins and brasses, the crankshaft bearings and journals, the scavengers, and the soleplate and holding down bolts examined. The emergency electric generator engine examined in its entirety. The two starting air receivers with all mountings examined internally and externally. The fuel oil transfer pump, ballast pump, (P.T.O.)

## 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.E.M.S. 9,11, \*L.M.C. 9,11, or \*L.M.C. 140 lb., F.D., &c.)

The machinery of this vessel so far as now seen is in good and efficient condition and

is eligible in my opinion to be continued as now classed with fresh records of New Donkey Boiler built 1910, refitted

3,44, C. L. 3,44 and a record of \* L.M.C. (CS) with dates when the C.S. is completed.

Survey Fee (per Section 29) Pt. CS £ \$175.00 Fees applied for May 13, 1944  
 Special Damage Fee (if any) Alt. £ 150.00  
 (per Section 29.) Sun. Fee 20.00  
 Travelling expenses (if chargeable) £ 11.25 Received by me,

Committee's Minute

NEW YORK MAY 24 1944

Assigned N.D.B. MADE '10 REFITTED '44. 150 LBS. PER " D.B.S. 3,44. T.S. 3,44.

at Gardin. PROPLR

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation

004440-004450-0163

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

Is a Certificate required? If so, to be sent to



M. V. "COPIAPO"

Machy. Cont

independent bilge pump, main engine F.W. Circulating water and lubricating oil pumps and the auxiliary S.W. circ water pump examined throughout and placed in order.

Done for Alterations:- The 100 lbs. vertical donkey boiler cut up and removed and a used, two furnace Scotch type boiler previously fitted in S.S. "OCTORARA", 4329 gross tons of Erie, Pennsylvania for a working pressure of 210 lbs. per square inch, now fitted on board for a working pressure of 150 lbs. per square inch. The boiler is fitted with forced draught and for oil burning (See First Entry Report)

The original F. W. cooling expansion tank in funnel removed and a new tank of the same capacity installed starboard after E. R. Bulkhead.

The salt water sanitary pump disconnected from salt water system and connected up as fresh water pump.

The fuel oil discharge pump relocated and connected up as salt water sanitary pump.

A new motor driven centrifugal fire pump and engine installed port side of engine room as independent fire pump.

An 80 ton evaporator with necessary pumps, piping and distiller condenser installed on machinery flat under "D" deck between frames 67 and 77 port side for domestic purposes. The installation carried out in accordance with the Rules.

On completion of all repairs and alterations the main and auxiliary machinery was subjected to an eight hour sea trial and all found satisfactory.

R. E. ALTERATIONS:- D. B. 100 lbs. Now 150 lbs.

The following plans (7) were approved in connection with the alterations, are being retained for the sister vessel "IMPERIAL", and will be forwarded with the report on the vessel.

Boiler Foundation

Fathometer Housing Frs. 134 - 136

Boiler Mountings

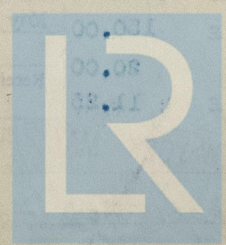
Feed water and Boiler Blow Piping

Sea Chest Frs. 69 - 70 Port Side

Isometric Diagram - Shaft Speed Indicator, Rudder Angle Indicator, Electric Log and Echo Depth Sounding System.

Boilers # 181

Noted  
Amend Record NDB 10 refitted 4/15/65  
CB advanced  
without conditions  
TS 3-44  
26/6/44



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