

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

(Received at London Office THU. 10 NOV. 1921)

Date of writing Report *5 Nov* to *21* When handed in at Local Office *10* Port of *Rathfriland*

No. in Reg. Book. *20231* Survey held at *Rathfriland* Date, First Survey *11 Nov 1921* Last Survey *22 Oct 1921* (No. of Visits *2*)

*20231* on the Machinery of the *Wood, Iron or Steel* *5/5* *RADIX EX LINE 7* Master

Tonnage { Gross *6853* Vessel built at *Liverpool* By whom *Douglas Bros Ltd* When *1919-10*  
 Net *3967* Engines made at *ditto* By whom *ditto* When *1919*

Registered *619* Boilers, when made (Main) *ditto* (Donkey) ☒  
 Horse Power *3* Owners *Anglo-Saxon Trading Co Ltd* Port *London* Voyage  
 No. of Main Boilers *3* If Surveyed Afloat or in Dry Dock *P.H. Dock*  
 Steam Pressure in Main Boilers  
 in Donkey Boilers

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

CHARACTER.	Year Assigned	Machinery and Boiler Surveys (including date of N.B., if any).
CHARACTER. for Special Survey. Date of last Survey and of Periodical Surveys.		

Last Report No. *Port*

Particulars of Examination and Repairs (if any) *Don Repair*

(Periodical Surveys, when held, must be reported in detail and variation 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? *Yes, not by* Was a damage report made by anyone else? If so, by whom? *Yes*

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

Do. " Donkey " " " " " " "

If this was not done, state for what reasons? *Yes*

And what parts of the Boilers could not be thus thoroughly examined? *All parts opened out*

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?

Did the Surveyor examine the Safety Valves of the Main Boiler? *Yes* To what pressure were they afterwards adjusted under steam? *100 lbs*

Did the Surveyor examine the Safety Valves of Donkey Boiler? To what pressure were they afterwards adjusted under steam? *Yes*

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

Did the Surveyor examine the drain plugs of the Main Boilers? , and of the Donkey Boiler? *Yes*

Did the Surveyor examine all the mountings of the Main Boilers? *Yes* , and of the Donkey Boiler? *Yes*

Has screw shaft now been drawn and examined? *Yes* Is it fitted with continuous liner? *Yes* or two liners? *No* or is it without liners? *Yes*

Has shaft now been changed? *No* If so, state reasons

Is the shaft now fitted new? *Yes* Has it a continuous liner? *Yes* or two liners? *Yes* or is it without liners? *Yes*

state the distance between lignum vitae of stern bush and top of after bearing of screw shaft? *4 ft.*

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

*Vessel is reported as stranded in Kumb 1919, refloated and towed to this port in two parts for repairs and conversion into a tank steamer.*

*Engines and boilers unshipped and placed in workshop for repairs*

*H.P. cylinder found broken piston rod badly bent, bad plate fracture. Thrust bearing broken, shaft bent.*

*A new beaplate and new H.P. cylinder have been made, engines reassembled, crankshaft and H.P. cones for rod tested on lathe and found good, new H.P. piston and piston rod fitted, all other parts examined overhauled and found to be made good*

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, or E.L.M.C. 9.11, 140 lb., E.D., &c.)

*The machinery being now in good and efficient condition I am of opinion that the vessel is eligible for the reclassification L.M.C. 10.21, fitted for burning oil fuel. Flash point above 150°F. instead of T.S. 10.21. cont. hms.*

Survey Fee (per Section 25) *£45* Fees applied for *19*  
 Special Damage or Repair Fee (if any) *£12.50* Received by me, *17.11.1921*  
 Travelling Expenses (if chargeable) *£12.50*

Committee's Minute *FRI. NOV. 18 1921* *TUE. NOV. 22 1921*

Assigned *+ Ldn 6. 10.21* *MACHINERY CERT. WRITTEN*

*Fitted for oil fuel 10.21* *200 above 150°F.*

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

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

W1196-0111 1/3

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation



11-19  
Vessel's class expunged & stranded, self-ported  
indented.

Survey now held for reclassification engines  
removed to shop. Red plate, D.P. cylinder & thrust

shaft unrolled engines reerected in shop

Reerect shaft examined engines refitted aft.

clean paper removed  
It is submitted that

this vessel is eligible for

THE RECORD. + L.M.C. 10.21

S. 10.21. Fitted for oil fuel 10.21

FP 150° F  
Reinstated R.B. press 180 (S)

note that aft

fl.

16/11/21

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## S/S "RADIX" EX LINERTON

A new thrustblock made complete.  
new thrustshaft of annealed S&W steel, ~~thrust~~  
tested as required, marked LLOYD'S No. 648. A.B.  
3-21, now fitted.

The engines being now placed aft, six lengths  
of sunnshafting have been discarded and  
a new make up shaft fitted, material  
tested as required, shaft marked LLOYD'S.

No. 645. A.B. 2-21. Tailshaft drawn ex<sup>d</sup> and  
found good, a new bronze propeller now fitted  
Pentube tested to 20 lbs and found good and  
tight. Seaconnections removed and fitted  
aft, all fastenings good.

Boilers examined internally and externally  
and found in good and efficient condition  
and afterwards tested to 240 lbs. and found  
good and tight at that pressure. Mountings and  
fittings good. Boiler seats replaced and rearranged  
engine seating refitted and good. Boilers and  
engines replaced on board and properly  
fastened, all holding down bolts good. Forward  
boiler reversed, extra gauge glass fitted and  
check valve made workable from forward end  
New steam pipe <sup>main</sup> solid drawn steel, now fitted  
tested to 540 lbs and found good and tight, all  
other new pipes tested as per Rules and found  
good and tight. Auxiliaries thoroughly  
overhauled and found or made good.

A transfer pump 10" x 14" x 24" as general dewatering  
pump has been installed.

The pumping arrangements have been fitted as  
per approved plan and Secretary's letter.

Diesel burning system has been fitted as  
per approved plan, all pipes tested as per  
Rules and all requirements of § 49 complied  
with.

+ L.T.C.

Keel placed in dry dock, screwshaft drawn  
examined and found good. Propeller, stern bush  
and all fastenings good. Seaconnections opened  
out ex<sup>d</sup> and found good.

Ex<sup>d</sup> all cylinders, pistons, valves and found good.  
Ex<sup>d</sup> crank, thrust and sunnshafting and found good.  
Ex<sup>d</sup> and tested condenser and found good and tight.

To be continued.



S/S "RADIX" EX. LINERTON.

Examined all pumps and found in good condition

Exd the arrangements of cocks pipe helix, water rises and found or made good.

Exd the mainboilers internally and externally their mountings and fittings and found same in good and efficient condition

Adjusted all safety valves under steam to the working pressure. 180 lbs

A. F. Doyle

W/1196 - 0111 3/3



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