

# REPORT ON MACHINERY

No. 82966  
SAT. 12 NOV. 1921

Date of writing Report 27 OCT 1921 Port of LIVERPOOL

No. in Survey held at Queensferry near Chester. Date, First Survey 2nd Trip Last Survey October 26<sup>th</sup> 1921  
Reg. Book. 2878 on the Screw Steamer "Coniston". (Number of Visits 15)

Master Built at Queensferry By whom built J. J. Abdela + Mitchell Ltd. Tons Gross 461 Net 286  
Engines made at Brimscombe. By whom made J. J. Abdela + Mitchell Ltd. When built 1921  
Boilers made at Birkenhead By whom made Cammell Laird + Co Ltd. when made 1921  
Registered Horse Power 78 Owners J. G. Frew + Co Port belonging to Glasgow  
Nom. Horse Power as per Section 28 77 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

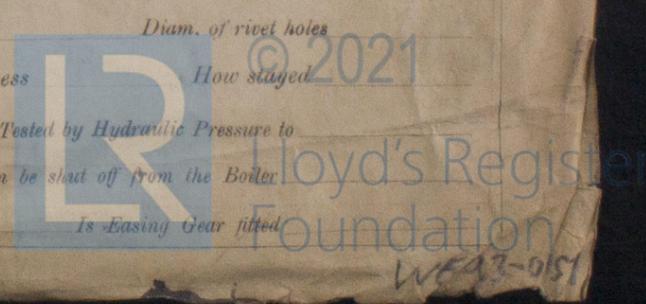
## ENGINES, &c. — Description of Engines Triple expansion. No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 18" 20" 34" Length of Stroke 23" Revs. per minute 115. Dia. of Screw shaft as per rule Material of screw shaft as fitted  
Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes. Is the after end of the liner made water tight in the propeller boss yes. If the liner is in more than one length are the joints burned ✓ If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive ✓ If two liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush  
Dia. of Tunnel shaft as per rule Dia. of Crank shaft journals as per rule Dia. of Crank pin Size of Crank webs Dia. of thrust shaft under collars  
Dia. of screw Pitch of Screw No. of Blades State whether moveable Total surface  
No. of Feed pumps Diameter of ditto Stroke Can one be overhauled while the other is at work  
No. of Bilge pumps Diameter of ditto Stroke Can one be overhauled while the other is at work  
No. of Donkey Engines 1 Sizes of Pumps 5" 3 1/2" No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room 2 - 2" + 1 - 2" direct from engine. In Holds, &c. 2 - 2" F.P. 1 - 2 1/2" A.P. 1 - 2 1/2"  
No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump Air. Is a separate Donkey Suction fitted in Engine room & size 1 - 2 1/2"  
Are all the bilge suction pipes fitted with roses yes. Are the roses in Engine room always accessible yes. Are the sluices on Engine room bulkheads always accessible none.  
Are all connections with the sea direct on the skin of the ship yes. Are they Valves or Cocks both.  
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes. Are the Discharge Pipes above or below the deep water line above.  
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel yes. Are the Blow Off Cocks fitted with a spigot and brass covering plate yes.  
What pipes are carried through the bunkers F.P. Tank + hold bilge. How are they protected Wood casings.  
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes.  
Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yes.  
Is the Screw Shaft Tunnel watertight none. Is it fitted with a watertight door ✓ worked from ✓

## OILERS, &c. — (Letter for record) Manufacturers of Steel

See Liverpool Report No. 81929.  
Total Heating Surface of Boilers 1143 Is Forced Draft fitted no No. and Description of Boilers One S & S Multitubular.  
Working Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs. Date of test 10/9/20. No. of Certificate 2139.  
Can each boiler be worked separately ✓ Area of fire grate in each boiler 49 sq ft No. and Description of Safety Valves to each boiler 2 Direct spring. Area of each valve 4.9 sq in Pressure to which they are adjusted 180 lbs. Are they fitted with easing gear yes.  
Smallest distance between boilers or uptakes and bunkers or woodwork 24" Mean dia. of boilers Length Material of shell plates  
Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams  
Long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps  
Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell  
Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter  
Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings  
Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom  
Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules  
Material of stays Area at smallest part Area supported by each stay Working pressure by rules End plates in steam space:  
Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays  
Area at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom  
Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules  
Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays  
Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and  
Thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each  
Working pressure by rules Steam dome: description of joint to shell % of strength of joint  
Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes  
Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to  
Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler  
Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted



IS A DONKEY BOILER FITTED? *No.*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *Two top + 2 bottom end bolts + nuts, 2 main beam bolts + nuts, set of coupling bolts + nuts. Sets of feed, bilge + circulating pump valves, 3 Condenser tubes, 12 ferrules, 3 escape valve springs, assortment of studs, bolts + nuts, iron etc. 1 set of firebars.*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building: During progress of work in shops -- *1921. Mar. 22. Apr. 8. May 20. June 3. 16. 28. July 6. 24. Aug. 12. 17. Sep. 2. 12. 20. 22. Oct. 21.*  
During erection on board vessel ---  
Total No. of visits *15*

Is the approved plan of main boiler forwarded herewith   
" " " donkey " " "

Dates of Examination of principal parts—Cylinders — Slides — Covers — Pistons — Rods —  
Connecting rods — Crank shaft — Thrust shaft — Tunnel shafts *(Sheffield 20-12-20)* Screw shafts *(Sheffield 20/12/20)* Propeller *22/3/21*  
Stern tube *27/8/21* Steam pipes tested *12/9/21* Engine and boiler seatings *27/3/21* Engines holding down bolts *2/9/21*  
Completion of pumping arrangements *20/9/21* Boilers fixed *12/9/21* Engines tried under steam *20/9/21*  
Completion of fitting sea connections *22/3/21* Stern tube *27/3/21. 8/4/21* Screw shaft and propeller *8/4/21*  
Main boiler safety valves adjusted *20/9/21* Thickness of adjusting washers *P 5" 5" 32"*  
Material of Crank shaft — Identification Mark on Do. — Material of Thrust shaft — Identification Mark on Do. —  
Material of Tunnel shafts — Identification Marks on Do. — Material of Screw shafts — Identification Marks on Do. —  
Material of Steam Pipes *Solid drawn Copper.* Test pressure *360 lbs.*  
Is an installation fitted for burning oil fuel *No.* Is the flash point of the oil to be used over 150°F.   
Have the requirements of Section 49 of the Rules been complied with   
Is this machinery duplicate of a previous case  If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) *This machinery has been securely fitted on board + satisfactorily tried under steam + is eligible for classification with second  $\square$  sub 10.21. — See Bristol Rpt. 10730 Liverpool Rpt. 81929. + Secretary's letter E. 29/5/20*

It is submitted that this vessel is eligible for THE RECORD.  $\square$  L.M.C. - 10.21. C.L.

*Ans.* 16/11/21.

Certificate (if required) to be sent to

The amount of Entry Fee ... £ :  
*Fitting on board / 5.07 Fee* £ 4 : 5 :  
Donkey Boiler Fee ... £ :  
Travelling Expenses (if any) £ 1 : 16/2 :

When applied for, *26th Oct 1921*  
When received, *19*

*A. J. Barnett,*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL. 11 NOV 1921

Assigned

$\square$  L.M.C. 10.21.



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Foundation