

Rpt. 4.

# REPORT ON MACHINERY

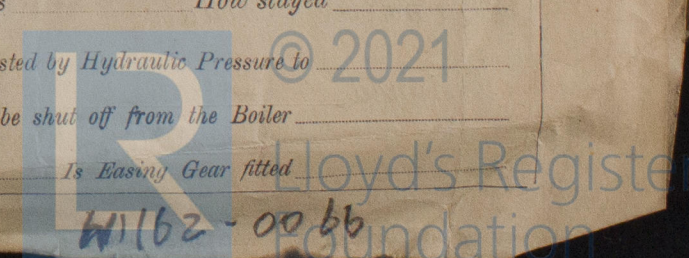
Lon Rpt 85671.  
No. 8298.  
10003

Date of writing Report *4<sup>th</sup> April 1921* When handed in at Local Office *8<sup>th</sup> April 1921* Port of *DUNDEE*  
No. in Survey held at *Lundie* Date First Survey *16<sup>th</sup> Oct. 1919* Last Survey *1<sup>st</sup> April 1921*  
Reg. Book. on the *Engine No 112. H.M. Royal Regis (ex Melcombe Regis)* (Number of Visions *24*) Gross *112* Net *112*  
Master Built at *Lowestoft* By whom built *J. Chambers & Co. Ltd.* Tons *112* When built *1921*  
Engines made at *Lundie* By whom made *Yaman & Ragsen* when made *1921*  
Boilers made at *Glasgow* By whom made *Jas. Neilson & Son, Ltd.* when made *1922*  
Registered Horse Power Owners *Harrisons Sons & Co.* Port belonging to *London*  
Nom. Horse Power as per Section 28 *96* Is Refrigerating Machinery fitted for cargo purposes ☒ Is Electric Light fitted *No*

ENGINES, &c.—Description of Engines *Triple Expansion* No. of Cylinders *3* No. of Cranks *3*  
Dia. of Cylinders *14" 23" 38"* Length of Stroke *24"* Revs. per minute *118* Dia. of Screw shaft *as per rule 7.87* Material of screw shaft *Steel*  
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 *Yes* 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 *Yes* If two  
liners are fitted, is the shaft lapped or protected between the liners *Yes* Length of stern bush *2'-9"*  
Dia. of Tunnel shaft *as per rule 7.11* Dia. of Crank shaft journals *as per rule 7.44* Dia. of Crank pin *7 3/4"* Size of Crank webs *5 1/4"* Dia. of thrust shaft under  
collars *7 3/4"* Dia. of screw *9'-3"* Pitch of Screw *10'-0"* No. of Blades *4* State whether moveable *No* Total surface *35 sq. ft.*  
No. of Feed pumps *2* Diameter of ditto *2 3/4"* Stroke *14"* Can one be overhauled while the other is at work *Yes*  
No. of Bilge pumps *2* Diameter of ditto *2 3/4"* Stroke *14"* Can one be overhauled while the other is at work *Yes*  
No. of Donkey Engines *2* Sizes of Pumps *5 1/2" x 3 1/2" x 5 - General 7" x 4" x 8 - Ballast* No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room *Boiler room; Three 2" dia.* In Holds, &c. *Hold:- Two 2" after peak:- one 2"*  
*Four peak:- one 2" No. 1 Tank:- Three 2" No. 2 Tank:- Three 2"*  
No. of Bilge Injections *One* sizes *3"* Connected to condenser, or to circulating pump *Yes* Is a separate Donkey Suction fitted in Engine room & size *Yes 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 *Yes*  
Are all connections with the sea direct on the skin of the ship *Yes* Are they Valves or Cocks *Valves & cocks*  
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 *None* How are they protected *Yes*  
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 *Yes* Is it fitted with a watertight door *Yes* worked from *Yes*

BOILERS, &c.—(Letter for record *None*) Manufacturers of Steel  
Total Heating Surface of Boilers *1666 sq. ft.* Is Forced Draft fitted *Yes* No. and Description of Boilers *One Single Ended marine*  
Working Pressure *180 lb. sq. in.* Tested by hydraulic pressure to *225 lb. sq. in.* Date of test *1921* No. of Certificate *100*  
Can each boiler be worked separately *Yes* Area of fire grate in each boiler *10 sq. ft.* No. and Description of Safety Valves *2*  
each boiler *Yes* Area of each valve *10 sq. ft.* Pressure to which they are adjusted *180 lb. sq. in.* Are they fitted with easing gear *Yes*  
Smallest distance between boilers or uptakes and bunkers or woodwork *10 ft.* Mean dia. of boilers *14 ft.* Length *10 ft.* Material of shell plates *Steel*  
Thickness *1/2"* Range of tensile strength *45,000 lb. sq. in.* Are the shell plates welded or flanged *Yes* Descrip. of riveting: cir. seams *Yes*  
long. seams *Yes* Diameter of rivet holes in long. seams *1/4"* Pitch of rivets *2"* Lap of plates or width of butt straps *1"*  
Per centages of strength of longitudinal joint *85%* Working pressure of shell by rules *180 lb. sq. in.* Size of manhole in shell *18"*  
Size of compensating ring *18"* No. and Description of Furnaces in each boiler *1* Material *Steel* Outside diameter *14 ft.*  
Length of plain part *10 ft.* Thickness of plates *1/2"* Description of longitudinal joint *Yes* No. of strengthening rings *2*  
Working pressure of furnace by the rules *180 lb. sq. in.* Combustion chamber plates: Material *Steel* Thickness: Sides *1/2"* Back *1/2"* Top *1/2"* Bottom *1/2"*  
Pitch of stays to ditto: Sides *10 ft.* Back *10 ft.* Top *10 ft.* If stays are fitted with nuts or riveted heads *Yes* Working pressure by rules *180 lb. sq. in.*  
Material of stays *Steel* Area at smallest part *10 sq. ft.* Area supported by each stay *10 sq. ft.* Working pressure by rules *180 lb. sq. in.* End plates in steam space: *Yes*  
Material *Steel* Thickness *1/2"* Pitch of stays *10 ft.* How are stays secured *Yes* Working pressure by rules *180 lb. sq. in.* Material of stays *Steel*  
Area at smallest part *10 sq. ft.* Area supported by each stay *10 sq. ft.* Working pressure by rules *180 lb. sq. in.* Material of Front plates at bottom *Steel*  
Thickness *1/2"* Material of Lower back plate *Steel* Thickness *1/2"* Greatest pitch of stays *10 ft.* Working pressure of plate by rules *180 lb. sq. in.*  
Diameter of tubes *10 ft.* Pitch of tubes *10 ft.* Material of tube plates *Steel* Thickness: Front *1/2"* Back *1/2"* Mean pitch of stays *10 ft.*  
Pitch across wide water spaces *10 ft.* Working pressures by rules *180 lb. sq. in.* Girders to Chamber tops: Material *Steel* Depth and  
thickness of girder at centre *10 ft.* Length as per rule *10 ft.* Distance apart *10 ft.* Number and pitch of stays in each *10 ft.*  
Working pressure by rules *180 lb. sq. in.* Steam dome: description of joint to shell *Yes* % of strength of joint *85%*  
Diameter *10 ft.* Thickness of shell plates *1/2"* Material *Steel* Description of longitudinal joint *Yes* Diam. of rivet holes *1/4"*  
Pitch of rivets *2"* Working pressure of shell by rules *180 lb. sq. in.* Crown plates *Yes* Thickness *1/2"* How stayed *Yes*

SUPERHEATER. Type *Horizontal* Date of Approval of Plan *1921* Tested by Hydraulic Pressure *Yes*  
Date of Test *1921* Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler *Yes*  
Diameter of Safety Valve *10 ft.* Pressure to which each is adjusted *180 lb. sq. in.*





Yes

*If so, is a report now forwarded?*

Yes

SPARE GEAR. State the articles supplied:—Two top end bolts + nuts. Two bottom end bolts + nuts. Two main bearing bolts + nuts. Set of coupling bolts + nuts. Spare valves for air circulating feed + bilge pumps. 6 pump ring studs. Main + donkey check valves. Assorted bolts + nuts, & iron of various sizes.

*The foregoing is a correct description.*

2. Lamm & Baggesen

*Manufacturers*

Dates of Survey while building	<div> <div> During progress of work in shops -- </div> <div> <div>1919</div> <div> OCT. 10. NOV. 19. </div> <div> <div>1920</div> <div> MAR. 22 MAY 28. JUNE 22. JULY 12. AUG. 26. SEP. 2. 8. 20. OCT. 10. NOV. 2. DEC. 14. </div> <div> <div>1921</div> <div> JAN. 19. 25. 31. FEB. 2. 9. 18. MAR. 4. 10. 22. 30. APR. 1. </div> </div> </div> </div> </div>
During erection on board vessel --	
Total No. of visits	24.

Is the approved plan of main boiler forwarded herewith ✓

Is the approved plan of main boiler forwarded herewith ☒

“ “ “ donkey “ “ “

Dates of Examination of principal parts—Cylinders 18.2.21 Slides 22.3.21 Covers 18.2.21 Pistons 22.3.21 Rods 16.3.21

Connecting rods 16.3.21. Crank shaft 19.1.20 Thrust shaft 20.9.20 Tunnel shafts ✓ Screw shaft 14.12.20 Propeller 14.12.20

Stern tube 14:12:20 Steam pipes tested 24-1-22 Engine and boiler seatings 26-10-21 Engines holding down bolts 0.1-22

Completion of pumping arrangements 7. 7. 22      Boilers fixed 26-10. 21      Engines tried under steam 7. 7. 22

Completion of fitting sea connections 8. 2. 21      Stern tube 5. 4. 21      Screw shaft and propeller 5. 4. 21

Main boiler safety valves adjusted 7.7.22. Thickness of adjusting washers Port  $\frac{9}{16}$ " Steam  $\frac{5}{8}$ "

Material of Crank shaft Steel Identification Mark on Do. 900 J.H.M. Material of Thrust shaft Steel Identification Mark on Do. 900 J.H.M.

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Steel Identification Marks on Do. 900 J.H.

Material of Steam Pipes	Test pressure
Copper.	

Is an installation fitted for burning oil fuel ☒ 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 No If so, state name of vessel Seander Lpt. 8290.

*General Remarks* (State quality of workmanship, opinions as to class, &c.)

This engine has been built under special survey. The materials & workmanship all sound & good.

It has been despatched to Lowestoft, where it will be fitted on board.

The Engines and boilers have been satisfactorily installed, tried under working conditions, and the Safety valves of main and donkey boiler adjusted under steam, and is now in my opinion eligible for the record of + L.M.C. 7.22.

It is submitted that  
this vessel is eligible for  
THE RECORD. + LMC 7.22. CL

24/7/22

The amount of Entry Fee ... £ 2 :  
 Special Filing on board (LON A/C) £ 9 : 12 }  
 Donkey Boiler Fee ... £ 4 : 16 }  
 Travelling Expenses (if any) £ 7 : 17 }  
 (LON A/C)

When applied for,  
 8/4/1921  
 15/6/22

When received,  
 12.13.6  
 21.6.22

*A.E. Salminen.*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI JUL 28 1972  
Assigned \_\_\_\_\_ - L.R. 6.7.22  
MACHINERY 0550

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