

REPORT ON MACHINERY.

No. 8120.

Received at London Office

FRI. 28 FEB. 1919

MON. 16 FEB. 1919

Date of writing Report *best 11th 1918* When handed in at Local Office *best 14th 1918* Port of *DUNDEE*
No. in Survey held at *Tayport.* Date, First Survey *19th Dec. 1914* Last Survey *10th Dec. 1918*
Reg. Book. *on the S. brifter "STARLIGHT"* (Number of Visits *23*)

Master *Banks* Built at *Banks* By whom built *Stephenson & Asher (No. 29)* Tons { Gross *94.39*
Engines made at *Tayport* By whom made *D. & B. Scott, Eng. No. D.87.* when made *1918* Net *41.13*
Boilers made at *Glasgow* By whom made *A. W. Dalglish No. 736* when made *1918* When built *1918*
Registered Horse Power *42 43* Owners *The Admiralty* Port belonging to
Nom. Hors. Power as per Section 28 *42 43* Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Description of Engines *Triple Expansion, Surface Condensing* No. of Cylinders *3* No. of Cranks *3*
Dia. of Cylinders *9 1/2" 15 1/2" 26"* Length of Stroke *18"* Revs. per minute *140* Dia. of Screw shaft *as per rule 5.45* Material of *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 If two
liners are fitted, is the shaft lapped or protected between the liners Length of stern bush *2'-0"*
Dia. of Tunnel shaft *as per rule 4.80* Dia. of Crank shaft journals *as per rule 5.04* Dia. of Crank pin *5 1/4"* Size of Crank webs *10 x 3 1/2* Dia. of thrust shaft under
collars *5 1/4"* Dia. of screw *6'-9"* Pitch of Screw *8'-6"* No. of Blades *4* State whether moveable *Yes* Total surface *18 sq. ft.*
No. of Feed pumps *One* Diameter of ditto *2 1/2"* Stroke *9"* Can one be overhauled while the other is at work
No. of Bilge pumps *One* Diameter of ditto *2"* Stroke *9"* Can one be overhauled while the other is at work
No. of Donkey Engines *One* Sizes of Pumps *5' 1/4" x 5" x 5" duplex* No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room *One of 2"* In Holds, &c. *fishhold one of 2"*
Also *injectn drawing from all parts with separate suction to engine room*
No. of Bilge Injections *1* sizes *2 1/2"* Connected to condenser, or to circulating pump *O.P.* 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 *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 *Suction from fishhold boiler feed tanks* How are they protected *wood casing*
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
Total Heating Surface of Boilers *814 1/2* Is Forced Draft fitted *no* No. and Description of Boilers *One, Single ended marine.*
Working Pressure *180 Lbs* Tested by hydraulic pressure to Date of test No. of Certificate
Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to
each boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear
Smallest distance between boilers or uptakes and bunkers or woodwork 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
ong. 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 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 Thickness of plates 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?

If so, is a report now forwarded?

SPARE GEAR.

State the articles supplied: Two top end bolts & nuts. Two bottom end bolts & nuts. Two main bearing bolts & nuts. One set valves for air, circulating, feed & bilge pump. One set coupling bolts & nuts. 6 condenser tubes & flanges. 6 cylinders & studs & nuts. 6 pump ring bolts & nuts. 24 Assorted bolts & nuts.

The foregoing is a correct description,

W. R. B. Scott

Manufacturer.

Dates of Survey while building: During progress of work in shops - - - 1914 DEC. 19. 20. 21. 1918 JAN. 30. FEB. 11. 15. 21. MAR. 13. 20. APR. 10. 24. MAY 1. 8. 16. 23. JUNE 6. 13. 20. 27. During erection on board vessel - - - 1919 DEC. 5. 11. 12. 16. 1919 JAN. 13. 14. 15. 20. 31. FEB. 5. 17. 19. 25. - (13) Total No. of visits 23 1/2.

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 19. 9. 18 Slides 17. 10. 18 Covers 19. 9. 18 Pistons 17. 10. 18 Rods 11. 10. 18 Connecting rods 11. 10. 18 Crank shaft 21. 8. 18 Thrust shaft 17. 10. 18 Tunnel shafts ✓ Screw shaft 12. 12. 18 Propeller 12. 12. 18 Stern tube 11. 12. 18 Steam pipes tested 5. 2. 19 Engine and boiler seatings 11. 12. 18 Engines holding down bolts 14. 1. 19 Completion of pumping arrangements 17. 2. 19 Boilers fixed 13. 1. 19 Engines tried under steam 17. 2. 19 Completion of fitting sea connections 12. 12. 18 Stern tube 12. 12. 18 Screw shaft and propeller 12. 12. 18 Main boiler safety valves adjusted 17. 2. 19 Thickness of adjusting washers Port 2 5/8 in. Starboard 3 1/8 in.

Material of Crank shaft Steel Identification Mark on Do. 789 J.H.M. Material of Thrust shaft Steel Identification Mark on Do. 789 J.H.M. Material of Tunnel shafts Steel Identification Marks on Do. ✓ Material of Screw shafts 789 J.H.M. Identification Marks on Do. 812 J.H.M. Material of Steam Pipes Copper 2 1/4 in. Bore 1 1/8 in. B.W.G. ✓ Test pressure 360 lbs. ✓

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 Yes ✓ If so, state name of vessel "Lundau Rpt No. 8119"

General Remarks (State quality of workmanship, opinions as to class, &c. These engines have been built under Special Survey, & in accordance with the terms of the specification, the materials & workmanship are sound & good. The machinery will be eligible in my opinion to have record of L.M.C. (with date when satisfactorily completed on board; and when the spare part has been checked, the pumping arrangements found in order, and the remaining terms of the specification carried out.

These engines with the boiler have now been fitted on board the above vessel and tried under steam with satisfactory results, and in my opinion will be eligible to have the record of L.M.C. 2-19 in the Register Book.

W. Wilson

It is submitted that this vessel is eligible for THE RECORD. + LMC 2.19. *APR 28/2/19*

John Mackirdy
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee £ : : When applied for, 14/12/1918
Special Survey Fee £ 9 : - :
Donkey Boiler Fee £ 4 : 10 : : When received, 17.3.19
Travelling Expenses (if any) £ : : TUE. - 4 MAR. 18.12.18. 18.3.19.

Committee's Minute

Assigned

+ LMC 2.19