

## REPORT ON MACHINERY

No. 5724

Received at London Office

Date of writing Report 12 Aug 1917 When handed in at Local Office 10 Port of Plymouth  
No. in Survey held at Dartmouth Date, First Survey 23 Aug 1916 Last Survey 30 March 1917  
Reg. Book. on the Steel Twin Se Lug - Hs 21 - (Number of Visits 12)  
Master Built at Dartmouth By whom built Philip & Son Ltd Tons Gross ✓  
Engines made at Dartmouth By whom made Philip & Son Ltd When built 1917-3  
Boilers made at Pollackhams By whom made Arrr Dalglisk when made 1917  
Registered Horse Power Wax Office Port belonging to Wax Office  
Nom. Horse Power as per Section 28 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines (Twin Screw) C.S.C. No. of Cylinders 4 No. of Cranks 4  
Dia. of Cylinders 11 and 23 (2 each) Length of Stroke 16" Revs. per minute 180 Dia. of Screw shaft as per rule Material of steel  
the screw shaft fitted with a continuous liner the whole length of the stern tube No Is the after end of the liner made water tight  
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 1'-9"  
Dia. of Tumbler shaft as per rule 5" Dia. of Crank shaft journals as per rule 5" Dia. of Crank pin 5" Size of Crank webs 5 3/4" x 4" Dia. of thrust shaft under  
bearings 5" Dia. of screw 5-9" Pitch of Screw 6'-6" No. of Blades 4 State whether moveable No Total surface 16 sq ft  
No. of Feed pumps 2 Diameter of ditto 1 3/4" Stroke 16 Can one be overhauled while the other is at work Yes  
No. of Bilge pumps 2 Diameter of ditto 1 3/4" Stroke 16 Can one be overhauled while the other is at work Yes  
No. of Donkey Engines one Sizes of Pumps 5 1/2 x 4 1/2 x 6 1/2 No. and size of Suctions connected to both Bilge and Donkey pumps  
Engine Room One 2" In Holds, &c. One - Forehold, One in Eng Room  
One in Aft Hold, One in aft Peak all 3"  
No. of Bilge Injections 1 sizes 4" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size No  
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 ✓  
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  
Are the pipes carried through the bunkers None How are they protected ✓  
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 ✓ Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.—(Letter for record) Manufacturers of Steel  
Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers  
Working Pressure 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  
g. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps  
Percentages of strength of longitudinal joint Working pressure of shell by rules Size of manhole in shell  
No. 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 2020  
SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to Lloyd's Register  
Site of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler  
Material of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted Foundation

009601 - 009609 - 0075



IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 1 propeller - 1 steam tube bush after, 1 for neck ring - 1 set piston springs for HP & LP Cyls, 1 pair bearings of each kind for main engines, 1 set bolts for one coupling, 2 connecting rod bolts for Top & 2 for bot end, 2 main bearing bolts, 1 Valve spindle, 2 set valves air pump 1 set feed pump 1 set bilge pump, 1 set feed check valves only, 1 Spring for each fixed for escape valves, 12 Tubes & 24 ferrules for Condenser - 6 Tubes (Boiler) - 6 Boiler Tube Stoppers, 1 complete set firebars for 2 furnaces, 1 set safety Valve Springs - 2 Kluge Gauge flares, joints & 1 day ordinary flares, Spanners in tank 1 complete set for engine 1 in for propeller - 1 40 gall oil tank with tap & filling plug - 1 Oil drum 15 Gall with tap, 1 Oil drum 5 Gall - 1 1/2 Gall measure - 6 main & mud hole boiler door joints - water valves piston rings for donkey 1 set - for air feed pump 1 set complete - 1 Boiler Tube expander - 3 ash brackets, 1 Valve spindle for air and 1 set piston rings for circulating Eng -

The foregoing is a correct description,

For PHILIP & SON, LIMITED.

Gen<sup>l</sup> Philip

Manufacturer.

Dates of Survey while building

{ During progress of work in shops - -  
{ During erection on board vessel - - -  
Total No. of visits

1916 Aug 23 Sep 19 23 Oct 31 Nov 17 Dec 5 20 - 1917 Jan 22 31 Feb 14  
1917 Feb 28 Mar 16 21 30  
14

Is the approved plan of main boiler forwarded herewith

Yes No

Dates of Examination of principal parts—Cylinders 31.10.16 Slides 31.10.16 Covers 31.10.16 Pistons 31.10.16 Rods 31.10.16  
Connecting rods 31.10.16 Crank shaft 5.12.16 Thrust shaft 28.2 Tunnel shafts 28.2 Screw shaft 21.1.17 Propeller 28.2 21.7  
Stern tube 21.1.17 Steam pipes tested 21.3.17 Engine and boiler seatings 20.12.16 Engines holding down bolts 28.2.17  
Completion of pumping arrangements 21.3.17 Boilers fixed 16.3.17 Engines tried under steam 12 April 1917  
Completion of fitting sea connections 14.2.17 Stern tube 20.12.16 Screw shaft and propeller 21 Mar 17  
Main boiler safety valves adjusted 12.4.17 Thickness of adjusting washers

Material of Crank shaft Steel Identification Mark on Do. Material of Thrust shaft Steel Identification Mark on Do.

Material of Intermediate shafts Steel Identification Marks on Do. Material of Screw shafts Steel Identification Marks on Do.

Material of Steam Pipes Solid drawn copper Test pressure 280 lbs per sq in

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 No If so, state name of vessel

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

This vessel has been supervised by me during construction at the works of Messrs Philip & Son Ltd of Dartmouth in accordance with instructions contained in the Secretary's letter dated 30 June 1916

As this vessel is not intended for classification it is submitted further action is unnecessary.

HW 15/9/17

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

The amount of Entry Fee ... £ : : When applied for,  
Special ... £ 20 : : 19  
Donkey Boiler Fee ... £ : : When received,  
Travelling Expenses (if any) £ 7 : 8 : 11 4/10/17 19

Committee's Minute

Assigned

See hon rpt No 91184



© 2020

Lloyd's Register Foundation