

REPORT ON MACHINERY.

No. 30915

Received at London Office FEB. 1919

Date of writing Report 19 When handed in at Local Office 4/11/19 Port of Hull
 No. in Survey held at New Holland Date, First Survey Nov 11th 1917 Last Survey Jan 28th 1919
 Reg. Book. on the steel hulled defence vessel B & 30 (Number of Visits 10)
 Master Built at New Holland By whom built W. H. Warren Tons } Gross
 Engines made at ✓ By whom made ✓ when made 1919-1
 Boilers made at Annan By whom made Cochran & Co when made 1919-1
 Registered Horse Power ✓ Owners British Admiralty Port belonging to ✓
 Nom. Horse Power as per Section 28 ✓ Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted ✓

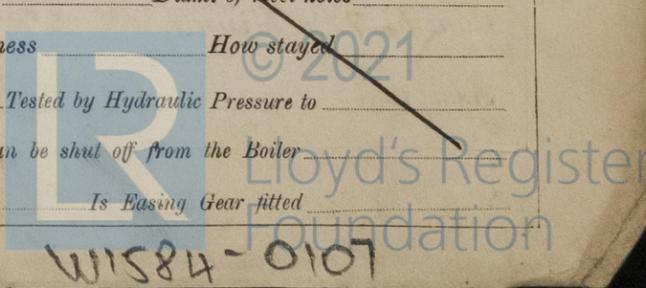
ENGINES, &c.—Description of Engines

Description of Engines		No. of Cylinders	No. of Cranks
Dia. of Cylinders	Length of Stroke	Revs. per minute	Dia. of Screw shaft as per rule as fitted
Is the screw shaft fitted with a continuous liner the whole length of the stern tube		Is the after end of the liner made water tight	
In the propeller boss 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 inspected between the liners		Length of stern bush	
Dia. of Tunnel shaft as per rule as fitted	Dia. of Crank shaft journals as per rule as fitted	Dia. of Crank pin	Size of Crank webs
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 two	Sizes of Pumps 9" 5 1/2, 8 1/2 x 8"	No. and size of Suctions connected to both Bilge and Donkey pumps	
In Engine Room Boiler room one 2 1/2 dia	In Holds, &c. none Holds pumped by Donkey		
pump suction 2 1/2 dia in each compartment	Boiler		
No. of Bilge Injections one sizes 2 1/2	Connected to condenser, or to circulating pump	yes	Is a separate Donkey Suction fitted in Boiler room & size yes 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	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 ✓

OILERS, &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
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	
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
plate.....	No. and Description of Furnaces in each boiler	
Material	Outside diameter	
Length of plain part top.....	Thickness of plates crown.....	Description of longitudinal joint
bottom.....	bottom.....	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
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	

UPERHEATER. 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 _____



WEB
 FRAMES, In
 No. of Side
 FRAMES, In
 No. of Side
 Size of Face
 KET PLATE
 Frames, dept
 KHEADS.
 44
 LKHEADS
 16 x 36
 LISION, 8
 TION
 UDINAL,
 outside Plate
 Sluice Valve
 TRAKES.
 KEEL.
 state Rivet
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IS A DONKEY BOILER FITTED? *Two Cochrane* If so, is a report now forwarded? *see separate report*
 SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops -- } *Nov 11/17 to Jan 28/19*
 { During erection on board vessel --- }
 Total No. of visits *10*

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders ✓ Slides ✓ Covers ✓ Pistons ✓ Rods ✓
 Connecting rods ✓ Crank shaft ✓ Thrust shaft ✓ Tunnel shafts ✓ Screw shaft ✓ Propeller ✓
 Stern tube ✓ Steam pipes tested *19531-12-19* Engine and boiler seatings ✓
 Completion of pumping arrangements Boilers fixed *23-12-18* Engines holding down bolts *23-12-17*
 Completion of fitting sea connections *6-9-18* Stern tube ✓ Engines tried under steam *28/1/18*
 Main boiler safety valves adjusted *28/1/19* Thickness of adjusting washers *S 3/8" P 3/2"* AFTER. BOILER *S 3/2" P 3/2"*
 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 *lap welded iron* Test pressure *540 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 *B. 829.*

General Remarks (State quality of workmanship, opinions as to class, &c.)
The two winches (four cylinder 11" dia x 12" stroke) supplied by the Admiralty, together with the condenser & all auxiliary machinery & two vertical boilers have been properly fitted & secured on board the vessel & on completion tested under steam & found satisfactory. The steam pipes have been tested & safety valves adjusted under steam.

In our opinion the vessel is eligible for the record + to B. 1-19

The boilers are marked

FORD BOILER	AFTER BOILER
No 14256 LLOYD'S TEST 300 LBS W.H.C. 3/5/18	No 14254 LLOYD'S TEST. 300 LBS W.H.C. 1/5/18

It is submitted that this vessel is eligible for THE RECORD + 2 DB 1-19, 150 lbs

The amount of Entry Fee ... £
 Special ... £
 Donkey Boiler Fee ... £
 Travelling Expenses (if any) £

Frank L. Stanger
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. 7 FEB. 1919*
 Assigned *+ DB (2) 1.19.*

