

REPORT ON MACHINERY.

No. 39276

Received at London Office

Date of writing Report

19

When handed in at Local Office

18/10/19 Port of Glasgow

WED. 29 OCT. 1919

No. in Survey held at Glasgow & Irvine

Date, First Survey 9/5/18

Last Survey 2/1/19

1919

Reg. Book.

(Number of Visits) 32

on the H M Minesweeper "BRADFIELD"

Tons } Gross
 } Net

ster Built at Irvine By whom built Clyde Ship Co (No 481) When built 1919

ines made at Glasgow By whom made W Rowan & Co (No 699) when made 1919

lers made at Renfrew By whom made Babcock & Wilcox when made 1919

istered Horse Power _____ Owners _____ Port belonging to _____

2. Horse Power as per Section 28 378 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

GINES, &c.—Description of Engines Two screw triple expansion No. of Cylinders 6 No. of Cranks 6

of Cylinders (2) 13 1/4 - 21 1/4 - 34 Length of Stroke 27 Revs. per minute 256 Dia. of Screw shaft 7 1/2 Material of screw shaft 8

he 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

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

een the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive — If two

rs are fitted, is the shaft lapped or protected between the liners — Length of stern bush 36

of Tunnel shaft 6 3/4 Dia. of Crank shaft journals 6 3/4 Dia. of Crank pin 7 Size of Crank webs 5" thick Dia. of thrust shaft under

ars 6 3/4 Dia. of screw 6-6 Pitch of Screw 8-3 No. of Blades 4 State whether moveable No Total surface 18 1/4

of Feed pumps 3 Diameter of ditto 5 1/2 Stroke 12 Can one be overhauled while the other is at work Yes

of Bilge pumps Diameter of ditto 7 Stroke 12 Can one be overhauled while the other is at work Yes

of Donkey Engines one Sizes of Pumps 5 x 5 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room (1) 3, (2) 2 1/2, (2) 2 1/2 in each boiler room In Holds, &c. (13) 2 1/2

of Bilge Injections 2 sizes 6 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 3"

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

all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Valves

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 Below

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

at pipes are carried through the bunkers Bilge How are they protected wood casing

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes

es of examination of completion of fitting of Sea Connections 23.4.19 of Stern Tube 17.5.19 Screw shaft and Propeller 17.5.19

he Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from _____

MAKERS, &c.—(Letter for record 5) Manufacturers of Steel Steel Co of Scotland Ltd, Stewart & Lloyd, Glasgow & Strathclyde

al Heating Surface of Boilers 6990 Is Forced Draft fitted Yes No. and Description of Boilers Two Yarrow water tube

orking Pressure 235 lb Tested by hydraulic pressure to 352 1/2 Date of test 30.6.19 No. of Certificate 14783

each boiler be worked separately Yes Area of fire grate in each boiler 654 No. and Description of Safety Valves to

boiler Two Cockburn full bore Area of each valve 2.76 Pressure to which they are adjusted 240 lb Are they fitted with easing gear Yes

llest distance between boilers or uptakes and bunkers or woodwork 8" Mean dia. of boilers _____ Length _____ Material of shell plates _____

ickness _____ Range of tensile strength _____ Are the shell plates welded or flanged _____ Descrip. of riveting: cir. seams _____

seams _____ Diameter of rivet holes in long. seams _____ Pitch of rivets _____ Lap of plates or width of butt straps _____

centages of strength of longitudinal joint _____ Working pressure of shell by rules _____ Size of manhole in shell _____

of compensating ring _____ No. and Description of Furnaces in each boiler _____ Material _____ Outside diameter _____

th of plain part _____ Thickness of plates _____ Description of longitudinal joint _____ No. of strengthening rings _____

orking pressure of furnace by the rules _____ Combustion chamber plates: Material _____ Thickness: Sides _____ Back _____ Top _____ Bottom _____

h of stays to ditto: Sides _____ Back _____ Top _____ If stays are fitted with nuts or riveted heads _____ Working pressure by rules _____

aterial of stays _____ Diameter at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ End plates in steam space: _____

aterial _____ Thickness _____ Pitch of stays _____ How are stays secured _____ Working pressure by rules _____ Material of stays _____

meter at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ Material of Front plates at bottom _____

ickness _____ 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 _____

Aug pitch across wide water spaces _____ Working pressures by rules _____ Girders to Chamber tops: Material _____ Depth and _____

May thickness of girder at centre _____ Length as per rule _____ Distance apart _____ Number and pitch of stays in each _____

Working pressure by rules _____ Superheater or Steam chest; how connected to boiler _____ Can the superheater be shut off and the boiler worked _____

separately _____ Diameter _____ Length _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet _____

oles _____ Pitch of rivets _____ Working pressure of shell by rules _____ Diameter of flue _____ Material of flue plates _____ Thickness _____

stiffened with rings _____ Distance between rings _____ Working pressure by rules _____ End plates: Thickness _____ How stayed _____

Working pressure of end plates _____ Area of safety valves to superheater _____ Are they fitted with easing gear _____

101394-0050

VERTICAL DONKEY BOILER— Manufacturers of Steel

No. _____ Description *None*

Made at _____ By whom made _____ When made _____ Where fixed _____

Working pressure tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____ Fire grate area _____ Description of _____

Valves _____ No. of Safety Valves _____ Area of each _____ Pressure to which they are adjusted _____ Date of adjustment _____

If fitted with easing gear _____ If steam from main boilers can enter the donkey boiler _____ Dia. of donkey boiler _____ Length _____

Material of shell plates _____ Thickness _____ Range of tensile strength _____ Descrip. of riveting long. seams _____

Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____ Lap of plating _____ Per centage of strength of joint _____

Working pressure of shell by rules _____ Thickness of shell crown plates _____ Radius of do. _____ No. of stays to do. _____ Dia. of stays _____

Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace plates _____ Description of joint _____

Working pressure of furnace by rules _____ Thickness of furnace crown plates _____ Radius of do. _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:— *2 top and bolts + nuts 2 bottom and bolts + nuts 2 main bearing bolts + nuts fuel and barge pump valves iron bolts and nuts of various sizes also all other items as specified*

The foregoing is a correct description,

David Rowan & Co Ltd Manufacturer.

Dates of Survey while building: During progress of work in shops -- *1918 May 9, 22 June 11, 24 1919 Mar 14, Apr 23, May 5, 12, 14, 29 June 3, 5, 9, 18, 30 July 7, 14, 17 Aug 1, 2*

During erection on board vessel --- *18, 20, 21, 22, 28, Sept 1, 9, 23, 25, 26 Oct 1, 2*

Total No. of visits *32*

Is the approved plan of main boiler forwarded herewith _____

Dates of Examination of principal parts—Cylinders *B.C.* Slides *B.C.* Covers *B.C.* Pistons *B.C.* Rods *B.C.*

Connecting rods *B.C.* Crank shaft *B.C.* Thrust shaft *B.C.* Tunnel shafts *B.C.* Screw shaft *B.C.* Propeller *12.5*

Stern tube *17.5.19* Steam pipes tested *17.7.19* Engine and boiler seatings *23.4.19* Engines holding down bolts *30.6.19*

Completion of pumping arrangements *23.9.19* Boilers fixed *22.8.19* Engines tried under steam *23.9.19*

Main boiler safety valves adjusted *22.8.19* Thickness of adjusting washers *7d B 64 P 24 S 21 P 22 B 64 P 64*

Material of Crank shaft *Steel* Identification Mark on Do. *B.C. S.L.B 42.04* Material of Thrust shaft *Steel* Identification Mark on Do. *S.L 4.2*

Material of Tunnel shafts *Steel* Identification Marks on Do. *14.3.19* Material of Screw shafts *Steel* Identification Marks on Do. *14.3*

Material of Steam Pipes *Steel* Test pressure *705 lb*

General Remarks (State quality of workmanship, opinions as to class, &c. *The Engines of this Vessel have been constructed under the Special Survey of the British & Foreign as per certificate attached hereto. The Boilers have been built under the Special Survey of this Society. The fitting of the machinery to the Vessel and the trials, have been carried out under the Society's Survey, in accordance with London letter (E) dated 4th October 1918.*

The machinery of this Vessel is eligible in our opinion to be Classed LMC 10.19.

It is submitted that this vessel is eligible for THE RECORD LMC 10.19. F.D.

Subject to the Water Tube Boiler being surveyed annually.

The amount of Entry Fee .. £ *62:17* : : When applied for, *London 6/11/1919*

Special .. £ *125* : : : : When received, *15/11/1919*

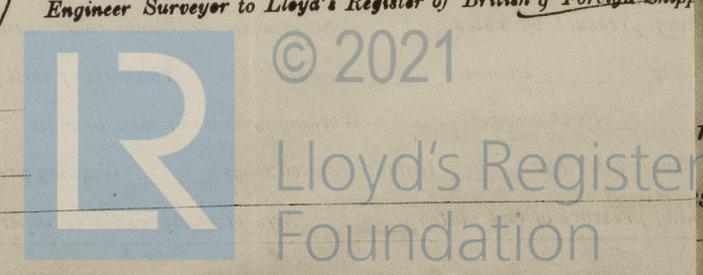
Donkey Boiler Fee .. £ : : : : *RBN 16*

Travelling Expenses (if any) £ : : : : *16*

as & asthpe. Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

Committee's Minute **GLASGOW 28 OCT 1919**

Assigned *Lmc 10,19*



GLASGOW

Certificate (if required) to be sent to

H.C. 18.10.19

The Surveyors are requested not to write on or below the space for Committee's Minute.