

REPORT ON MACHINERY.

38644
No. 38658

Received at London Office

APR. 16. 1919

Date of writing Report 19 When handed in at Local Office 5-4-1919 Port of Glasgow Date, First Survey 23-5-18 Last Survey 4-4-1919 (Number of Visits 25)

No. in Survey held at Glasgow Reg. Book. on the Machinery for "Strath" Trawler "John Hens"

Master Built at Paisley By whom built J. Gullerton, Sons & Co. When built 1919

Engines made at Coatbridge By whom made Beardmore & Co. Ld. No. 533. when made 1919

Boilers made at Glasgow By whom made A. W. Dalglis & Co. No. 428 when made 1919

Registered Horse Power 75 Owners H. M. Government Port belonging to Is Electric Light fitted 90

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 12" 20" 34" Length of Stroke 23" Revs. per minute 112 Dia. of Screw shaft as per rule 6.85" Material of screw shaft I.S. as fitted 4.5"

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 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

Dia. of Tunnel shaft as per rule 6.121" Dia. of Crank shaft journals as per rule 6.42" Dia. of Crank pin 6 3/4" Size of Crank webs 12 1/4 x 4 3/4" Dia. of thrust shaft under collars 6 3/4" Dia. of screw 8-4" Pitch of Screw 11-6" No. of Blades 4 State whether moceable No Total surface 29 sq ft

No. of Feed pumps 1 Diameter of ditto 2 7/8" Stroke 12" Can one be overhauled while the other is at work

No. of Bilge pumps 1 Diameter of ditto 2 7/8" Stroke 12" Can one be overhauled while the other is at work

No. of Donkey Engines 1 Sizes of Pumps 5 1/4 x 8 1/2 x 3" Duplex No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room 1-2" 2" slushwell and fuel pool.

No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump C.A. Is a separate Donkey Suction fitted in Engine room of size 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 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 & Below.

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 Forward suction How are they protected Wood & steel trunkway.

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 -

BOILERS, &c.—(Letter for record 8) Manufacturers of Steel I.S.B.

Total Heating Surface of Boilers 1368 sq ft Is Forced Draft fitted 90 No. and Description of Boilers 1 Return Tube Single ended.

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs 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 Pair spring loaded Area of each valve 5.90" Pressure to which they are adjusted 185 Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 8" 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

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

Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings

Working pressure of furnace by the rules Combustion chamber Material Thickness: Sides Back Top Bottom Working pressure by rules

Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules End plates in steam space:

Material of stays Area at smallest part Area supported by each stay Working pressure by rules Material of stays

Material Thickness Pitch of stays How stays secured Working pressure by rules Material of Front plates at bottom

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

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004505-009513-0341

Lloyd's Register Foundation

IS A DONKEY BOILER FITTED? *No.*

If so, is a report now forwarded? *u*

SPARE GEAR. State the articles supplied:—

As per Admiralty Specification now all placed on board + checked.

The foregoing is a correct description,

WILLIAM BEARDMORE & CO., LIMITED, Manufacturer. *Per R. Beardon*

Dates of Survey while building: During progress of work in shops - - 1918 May 23-30 Nov. 14-28 Dec. 5-12-17-19-24 (1919) Jan. 8-10-15-20-22-28 Feb. 3-10-14-17-23
During erection on board vessel - - - March 17-31 April 1-2-4
Total No. of visits 25
Is the approved plan of main boiler forwarded herewith *yes*
" " " donkey " " " *u*

Dates of Examination of principal parts—Cylinders 5-12-18 Slides 23-12-18 Covers 5-12-18 Pistons 12-12-18 Rods 12-12-18
Connecting rods 28-1-19, Crank shaft 12-12-18, Thrust shaft 3-2-19 Tunnel shafts 3-2-19. Screw shaft 3-2-19. Propeller
Stern tube 15-1-19. Steam pipes tested 31-3-19. Engine and boiler seatings 14-3-19. Engines holding down bolts 1-4-19.
Completion of pumping arrangements 1-4-19. Boilers fixed 3-4-19. Engines tried under steam 4-4-19.
Completion of fitting sea connections 24-3-19. Stern tube 24-3-19. Screw shaft and propeller 24-3-19.
Main boiler safety valves adjusted 2-4-19. Thickness of adjusting washers *Int. 11/32 - ext. 13/32*

Material of Crank shaft M.S. Identification Mark on Do. *Lloyds 2616 HB*
Material of Thrust shaft M.S. Identification Mark on Do. *Lloyds 2616 HB*
Material of Tunnel shafts M.S. Identification Marks on Do. *Lloyds 2616 HB*
Material of Screw shafts M.S. Identification Marks on Do. *Lloyds 2616 HB*
Material of Steam Pipes *Copper.* Test pressure *360 lbs*

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 *yes* If so, state name of vessel *H.M. Smith Steamer William Hunter*

General Remarks (State quality of workmanship, opinions as to class, &c.)
The Machinery has been built under special survey, in accordance with the approved Admiralty Specification + has now been fitted into the vessel, tried under full working conditions + found satisfactory. The workmanship + materials are good. The Machinery is eligible, in my opinion, to have notation. T.H.M.C. 4-19.

It is submitted that this vessel is eligible for THE RECORD + LMC 4-19

Boiler Fee £6-2-6 }
Fitting out Fee £6-2-6 } £24-10-0
Machinery Fee 12-5-0 }

The amount of Entry Fee ... £ : : When applied for, 15-4-19
Special ... £ : :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : : When received, 6-6-19

John Barr. Eng. H. Copman
Engineer Surveyor to Lloyd's Register of Shipping.

Wm. G. Hargrave

Committee's Minute *GLASGOW 15 APR 1919*
Assigned *T.H.M.C. 4-19*



Glasgow
Certificate (if required) to be sent to
14-4-19