

REPORT ON MACHINERY.

No. 15291

State of writing Report 31st August 1916 When handed in at Local Office 1/9/16 Port of West Hartlepool

To. in Survey held at W. Hartlepool Date, First Survey 9th Sept/16 Last Survey 31st Aug 1916

Reg. Book. on the Steel Screw Steamer "Wilton" (W. Gray & Co's SS No 867) (Number of Visits 112) Gross 4280.80 Tons Net 2688.78 When built 9-1916

Master J. M. Kelly 05-16 Built at W. Hartlepool By whom built W. Gray & Co. Ltd

Engines made at W. Hartlepool By whom made Central Marine Engine Works when made 1916

Boilers made at W. Hartlepool By whom made Central Marine Engine Works when made 1916

Registered Horse Power 421 Owners Pyman Steamship Co. Ltd. Port belonging to West Hartlepool

Tom. Horse Power as per Section 28 421 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

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

No. of Cylinders 25 " 41 " 68 " Length of Stroke 48 " Revs. per minute 14.48 Dia. of Screw shaft 14.34 " Material of Scrap Iron

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

Is 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 Yes If two

liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 59 "

Dia. of Tunnel shaft 13.69 " Dia. of Crank shaft journals 13.32 " Dia. of Crank pin 13.5 " Size of Crank webs 19 1/4 x 8 " Dia. of thrust shaft under

collars 13 1/2 " Dia. of screw 18-0 " Pitch of Screw 16-6 " No. of Blades 4 State whether moveable No Total surface 102 sq. ft

No. of Feed pumps 2 Diameter of ditto 3 3/4 " Stroke 28 " Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 3 3/4 " Stroke 28 " Can one be overhauled while the other is at work Yes

No. of Donkey Engines four (4) Sizes of Pumps 7 1/2 x 5 x 6 - duplex No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room four (4) 3 1/2 " 7 1/2 x 5 1/2 x 12 - Simplex In Holds, &c. six (6) 3 1/2 " in tunnel, one 3 1/2 "

No. of Bilge Injections six 6 1/2 " Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes 3 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 stowhold 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 Suctions to forward How are they protected Wood-cased

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

Dates of examination of completion of fitting of Sea Connections 18/7/16 of Stern Tube 4/8/16 Screw shaft and Propeller 4/8/16

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top platform

BOILERS, &c. — (Letter for record S) Manufacturers of Steel D. Colville & Sons; J. Spencer & Sons

Total Heating Surface of Boilers 7506 sq. ft. Is Forced Draft fitted No No. and Description of Boilers Two (2), Single-ended

Working Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs. Date of test 19/5/16 No. of Certificate 3430

Can each boiler be worked separately Yes Area of fire grate in each boiler 75 1/2 sq. ft. No. and Description of Safety Valves to

each boiler Two (2), Spring Area of each valve 9.62 sq. in. Pressure to which they are adjusted 185 lbs. Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 20 " Mean dia. of boilers 17-6 " Length 11-6 " Material of shell plates Steel

Thickness 1 3/32 " Range of tensile strength 28/32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams 3ble lap

long. seams 3ble, dble straps Diameter of rivet holes in long. seams 1 7/16 " Pitch of rivets 9 5/8 " Lap of plates or width of butt straps 2 1/2 "

Per centages of strength of longitudinal joint 89 " Working pressure of shell by rules 182 lbs. Size of manhole in shell 16" x 12"

Size of compensating ring flanged No. and Description of Furnaces in each boiler four (4), Brighton Material Steel Outside diameter 47 5/8 "

Length of plain part top bottom 19/32 " Thickness of plates 19/32 " Description of longitudinal joint welded No. of strengthening rings Corrugated

Working pressure of furnace by the rules 188 lbs. Combustion chamber plates: Material Steel Thickness: Sides 10/16 " Back 10/16 " Top 10/16 " Bottom 7/8 "

Pitch of stays to ditto: Sides 8 1/2 x 8 3/4 " Back 9 1/4 x 8 " Top 8 1/2 x 8 3/4 " stays are fitted with nuts or riveted heads nuts Working pressure by rules 180.7 lbs.

Material of stays Steel Diameter at smallest part 1.508 " Area supported by each stay 9 1/4 x 8 " Working pressure by rules 193 lbs. End plates in steam space:

Material Steel Thickness 1 3/8 " Pitch of stays 25 x 19 " How are stays secured dble nuts Working pressure by rules 181 lbs. Material of stays Steel

Diameter at smallest part 3.286 " Area supported by each stay 25 x 19 " Working pressure by rules 185 lbs. Material of Front plates at bottom Steel

Thickness 15/16 " Material of Lower back plate Steel Thickness 3/4 " Greatest pitch of stays 16 x 8 3/4 " Working pressure of plate by rules 195 lbs.

Diameter of tubes 3 1/2 " Pitch of tubes 4 3/4 " Material of tube plates Steel Thickness: Front 1 " Back 3/4 " Mean pitch of stays 9 1/2 "

Pitch across wide water spaces 14 1/2 " Working pressures by rules 182 lbs. Girders to Chamber tops: Material Steel Depth and

thickness of girder at centre 10 1/4 x 1 1/4 " Length as per rule 33 5/8 " Distance apart 8 3/4 " Number and pitch of stays in each 3, 8 1/2 "

Working pressure by rules 182 lbs. Superheater or Steam chest: how connected to boiler Can the superheater be shut off and the boiler worked

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

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

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

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

IS A DONKEY BOILER FITTED? *No.*

If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:— 2 connecting rod tops and bolts & nuts; 2 connecting rod bottom and bolts & nuts; 2 main bearing bolts & nuts; one set of coupling bolts; 2 feed pump valves; 2 bilge pump valves; one set of H.P. piston springs; one screw shaft fitted with continuous liner; one propeller; & assorted bolts & nuts & iron bars.

The foregoing is a correct description,
FOR THE CENTRAL MARINE ENGINE WORKS,
(Limited & Co. Ltd.)

John Williams Manufacturer.
ASSISTANT MANAGER.

Dates of Survey while building { During progress of work in shops - 1915 Sep 9, Dec 10, 1916 Jan 14, 21, 26, 28, 31, Feb 1, 2, 3, 4, 7, 8, 9, 10, 11, 15, 16, 17, 21, 22, 23, 24, 25, 28, 29, March 1, 2, 10, 13, 14, 15, 17, 22, 23, 24, 27, 28, 29, 30, Apr 7, 11, 12, 13, 18, 19, 20, 27, 28, May 1, 3, 4, 5, 10, 11, 12, 15, 16, 18, 19, 22, 24, 25, 26, 30, 31, June 2, 5, 8, 9, 14, 15, 16, 19, 20, 22, 27, 29, 30, July 3, 4, 5, 6, 7, 10, 11, 12, 13, 17, 18, 24, 26, 28, Aug 3, 4, 7, 8, 9, 14, 15, 16, 21, 22, 23, 24, 29, 30, 31.
During erection on board vessel - 21, 29, 30, 31.
Total No. of visits 112.

Is the approved plan of main boilers forwarded herewith *Yes*

" " " Auxiliary *Yes*

Dates of Examination of principal parts—Cylinders 29/6/16 Slides 10/7/16 Covers 8/8/16 Pistons 6/7/16 Rods 6/6/16

Connecting rods 6/6/16 Crank shaft 2/6/16 Thrust shaft 5/6/16 Tunnel shafts 14/6/16 Screw shaft 2/6/16 Propeller 13/7/16

Stern tube 17/7/16 Steam pipes tested 2/7/16 Engine and boiler seatings 3/8/16 Engines holding down bolts 9/8/16

Completion of pumping arrangements 14/8/16 Boilers fixed 7/8/16 Engines tried under steam 24/8/16

Main boiler safety valves adjusted 24/8/16 Thickness of adjusting washers S. " " 3/4" P. boiler - P. valve 19/32" S. valve 21/32" 11/16

Material of Crank shaft *Hot Steel* Identification Mark on Do. 5775 Material of Thrust shaft *Hot Steel* Identification Mark on Do. 5775

Material of Tunnel shafts *Hot Steel* Identification Marks on Do. 5775 Material of Screw shafts *Steel* Identification Marks on Do. 5775

Material of Steam Pipes *Steel* lap welded Test pressure 600 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 *S.S. Hawker (W. Gray & Co. 858)*

General Remarks (State quality of workmanship, opinions as to class, &c. *Workmanship good.*

Evaporator fitted on board - coils of same having been tested to 400 lbs & body to 50 lbs. pressure.

The Engines & Boilers of this vessel have been constructed under special survey & fitted on board in accordance with the requirements of the Society's Rules. They are now, in my opinion, in safe working condition & the case is respectfully submitted for the record of LMC 8,16 in the Register Book.

It is submitted that
this vessel is eligible for
THE RECORD + LMC 8,16.

2SB & 1AuxSB.

The amount of Entry Fee ... £ 3 - - : When applied for, 1/9/1916
Special ... £ 41 - - :
Donkey Boiler Fee ... £ ... :
Travelling Expenses (Guany) £ ... : 5/9/1916

Committee's Minute FRI. SEP. 22. 1916

Assigned

Engineer-Surveyor to Lloyd's Register of British & Foreign Shipping

TUE. - 4 MAR. 1919

TUE. - 2 MAY. 1917

FRI. 11 MAY. 1917

TUE. OCT. - 9 1917

FRI. 21 FEB. 1919

MACHINERY CERTIFICATE
WRITTEN 22/9/16



© 2020

Lloyd's Register
Foundation

Rpt. 5a.

Date of writing Report

No. in Survey
Reg. Book.

on the

Master

Engines made at

Boilers made at

Registered Horse

MULTITUB

(Letter for record)

Boilers One; C

No. of Certificate

safety valves to e

Are they fitted wi

Smallest distance

Material of shell

Descrip. of riveti

Lap of plates or

rules 182 lbs

boiler two (2),

Description of lon

plates: Material

Top 8 1/2" X 8 1/2"

smallest part 1/5

Pitch of stays 1/8"

Area supported b

Lower back-plate

Pitch of tubes

water spaces

girder at centre

Working pressure

separately

holes Pito

If stiffened with r

Working pressure

Dates of Survey while building { During work on board

GENERAL

This Aux

" & found
the approved

Survey Fee

Travelling E

Committee's

Assigned