

REPORT ON MACHINERY.

No. 8850
THU. JUN. 12. 1913

Hull No. 26974

Received at London Office

Date of writing Report 19 When handed in at Local Office

10/6/13 Port of Grimsby

No. in Survey held at Reg. Book.

Date, First Survey Aug 8/12 Last Survey 1913

33 Supt-on the steel tug "Salmon."

(Number of Visits 26)

Gross 62
Net 18

Master

Built at New Holland By whom built N. H. Warren

When built

Engines made at

Grimsby

By whom made

R. C. Walker

when made 1913

Boilers made at

Glasgow

By whom made

A. W. Dalglish

when made 1912

Registered Horse Power

Owners

Thomas Milward

Port belonging to

Liverpool

Nom. Horse Power as per Section 28 30

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted no

ENGINES, &c.—Description of Engines

Compound Inverted

No. of Cylinders 2

No. of Cranks 2

Dia. of Cylinders 12" x 24"

Length of Stroke 18"

Revs. per minute

Dia. of Screw shaft as per rule 5.67

Material of screw shaft Steel

Is 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

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

liners are fitted, is the shaft lapped or protected between the liners

Length of stern bush 25"

Dia. of Tunnel shaft as per rule 4.98

Dia. of Crank shaft journals as per rule 5.23

Dia. of Crank pin 5 1/2

Size of Crank webs 3 1/4 x 7 1/2

Dia. of thrust shaft under collars 5 1/2

Dia. of screw 6-4"

Pitch of Screw 10'-6"

No. of Blades 4

State whether moveable yes

Total surface 20"

No. of Feed pumps 1

Diameter of ditto 2 1/4"

Stroke 9"

Can one be overhauled while the other is at work

No. of Bilge pumps 1

Diameter of ditto 2 1/4"

Stroke 9"

Can one be overhauled while the other is at work

No. of Donkey Engines 1

Sizes of Pumps 5 1/4 x 3 x 6"

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4-2" 2 forward 2 aft

In Holds, &c. One 2" to forward bilge One 2" to mid bilge one 2" to after bilge one 2" to fore castle, one 2" to after cabin

No. of Bilge Injections 1

sizes 3"

Connected to condenser, or to circulating pump

condens.

Is a separate Donkey Suction fitted in Engine room & size

yes-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

To fore-castle

How are they protected

Wood casing iron sheathed

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

6. 6. 13.

of Stern Tube

6. 6. 13.

Screw shaft and Propeller

Is the Screw Shaft Tunnel watertight

no

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

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 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

Diameter 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

Diameter 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 taps: 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

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

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

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Lloyd's Register Foundation

W 1599-0026

VERTICAL DONKEY BOILER— Manufacturers of Steel

No. _____ Description _____

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 Safety _____

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 _____ Rivets _____

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

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: *Two connecting rods each top & bottom end bolts one set of feed & bilge pump valves, one set of coupling bolts, one set of feed & bilge pump valves, one set air pump valves, check valve, one propeller blade, a quantity of assorted bolts nuts. Iron of various sizes.*

The foregoing is a correct description,

Manufacturer. _____

Dates of Survey while building _____

During progress of work in shops - - - *18 trials Hull: - Nov 14 Dec. Jan 6. July 3-8. 22. 30 Oct 6 - Nov 5*

During erection on board vessel - - - _____

Total No. of visits *26*

Is the approved plan of main boiler forwarded herewith *yes*

Dates of Examination of principal parts—Cylinders _____ Slides _____ Covers _____ Pistons _____ Rods _____

Connecting rods *Nov 12* Crank shaft *Sep 16* Thrust shaft *Jan 25/13* Tunnel shafts *Nov 12* Screw shaft *Nov 12* Propeller *Nov 5*

Stern tube *Oct 17* Steam pipes tested *8.7.13.* Engine and boiler seatings *6.6.13.* Engines holding down bolts *22.7.13.*

Completion of pumping arrangements *30.9.13.* Boilers fixed *22.7.13.* Engines tried under steam *6.10.13.*

Main boiler safety valves adjusted *6.10.13.* Thickness of adjusting washers *SV 5/16" PV 9/32"*

Material of Crank shaft *Steel* Identification Mark on Do. *N° 586 6.9.12 C.M.* Material of Thrust shaft *Steel* Identification Mark on Do. *N° 616 25.1.13 C.M.*

Material of Tunnel shafts *Steel* Identification Marks on Do. *N° 590 12.11.12 C.M.* Material of Screw shafts *Steel* Identification Marks on Do. *N° 588 12.11.12 C.M.*

Material of Steam Pipes *Copper solid drawn.* Test pressure *230 lbs. hyd. pressure.*

General Remarks (State quality of workmanship, opinions as to class, &c.) *This machinery has been built under special survey and the material and workmanship is good, and with the Boiler secured on board and tested under steam it is now in good working order, and respectfully submitted as being eligible to be classed with the notation of +L.M.C 11.13. in the Register book.*

The engineers that built the engines of this vessel are now in liquidation and the fitting of same was completed by Messrs. J. H. H. Grassby, Barton-on-Humber.

It is submitted that this vessel is eligible for THE RECORD, + L.M.C 11.13.

The amount of Entry Fee .. £ 1 : - : When applied for, *Mar 27 1913*

Special .. £ 5-18 : : When received, *5/13/13*

Donkey Boiler Fee .. £ : : *Ch. J. G. Mackillop*

Travelling Expenses (if any) £ : : *Ch. J. G. Mackillop*

Ch. J. G. Mackillop
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

Committee's Minute TUE. DEC. 9-1913

Assigned *Hume 11.13*

MACHINERY CERTIFICATE

