

REPORT ON MACHINERY.

No. 34278

Received at London Office

SAT. AUG. - 8 1914

THU. AUG. 20. 1914

Writing Report

10

When handed in at Local Office

6-8-14 Port of

GLASGOW

Survey held at Glasgow.

Date, First Survey 7.4.14

Last Survey 13.7.14

1914

Book. on the S.S. Grinkle

(Hull No. 191)

Tons

Gross

Net

Built at Newcastle.

By whom built Wood Skinner & Co. Ltd. 1911. When built

Engines made at Coatbridge

By whom made W.V. Lidgerwood N° 433.

when made 1914.

Engines made at Jarrow.

By whom made Palmers S.D. Co. N° 773.

when made 1914.

Registered Horse Power

Owners Jarrow Tug & Light Co. Port belonging to

Horse Power as per Section 28 38

Is Refrigerating Machinery fitted for cargo purposes No.

Is Electric Light fitted No

ENGINES, &c.—Description of Engines Compound

No. of Cylinders 2

No. of Cranks 2

No. of Cylinders 12' x 28"

Length of Stroke 18"

Revs. per minute

Dia. of Screw shaft

as per rule

as fitted

Material of screw shaft

Iron

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

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

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

Yes

If two

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

Length of stern bush

2'-3"

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

Dia. of thrust shaft under

No. of Blades

State whether moveable

No.

Total surface

22 sq. ft.

Dia. of screw

Pitch of Screw

No. of Blades

State whether moveable

No.

Total surface

22 sq. ft.

Feed pumps

1

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

Yes

Bilge pumps

1

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

Yes

Donkey Engines

one

Sizes of Pumps

4 1/2" x 4" x 2 3/4"

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

In Holds, &c.

two - 2"

Engine Room

one - 2"

Bilge Injections

1 size

2 1/2"

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room

size

2"

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

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

How are they protected

none

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

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

Date of examination of completion of fitting of Sea Connections

31.7.14

of Stern Tube

31.7.14

Screw shaft and Propeller

31.7.14

Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

Yes

MANUFACTURERS, &c.—(Letter for record)

Manufacturers of Steel

Heating Surface of Boilers

Is Forced Draft fitted

No. and Description of Boilers

Working Pressure

140.

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

boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

Least distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

Length

Material of shell plates

Tensile

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

Percentages of strength of longitudinal joint

rivets

plate

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

Thickness of plain part

top

bottom

Thickness of plates

crown

bottom

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness

Sides

Back

Top

Bottom

Working pressure 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

Material

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

Girders across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

Working pressure 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

006332-006342-0207

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		
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating	Per centage of strength of joint	Rivets 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:— 2 Top end, 2 bottom end, 2 Main bearing & one set of coupling bolts, 1 set feed & bilge pump Valves, one Propeller Bolts & nuts assorted, and iron of sizes

The foregoing is a correct description,

LIDGERWOOD LIMITED Manufacturers per R Sneddon

Dates of Survey while building
 During progress of work in shops -- 1914. Apr 7-28. May 1-11-18. June 8-11. July 10-13.
 During erection on board vessel --- at Muc :- Jul 24, 20.31. Aug 4.6.10.
 Total No. of visits 9. Muc. 6.

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 28-4-14 Slides 28-4-14 Covers 28-4-14 Pistons 4-4-14 Rods 4-4-14.
 Connecting rods 7-4-14 Crank shaft 4-4-14 Thrust shaft 11-5-14 Tunnel shafts 11-5-14 Screw shaft 11-5-14 Propeller 23-5-14.
 Stern tube 10-4-14. Steam pipes tested 30-7-14 Engine and boiler seatings 29-7-14 Engines holding down bolts 6-8-14.
 Completion of pumping arrangements 10-8-14 Boilers fixed 31-7-14 Engines tried under steam 6-8-14.
 Main boiler safety valves adjusted 6-8-14 Thickness of adjusting washers Both Valves 5/16".
 Material of Crank shaft Steel Identification Mark on Do. 3688 AMCK 4-4-14 Material of Thrust shaft Steel Identification Mark on Do.
 Material of Tunnel shafts nil. Identification Marks on Do. Material of Screw shafts Iron. Identification Marks on Do. 3688 AMCK 4-4-14.
 Material of Steam Pipes Copper Test pressure 280 lbs

General Remarks (State quality of workmanship, opinions as to class, &c.)

The materials and workmanship are good.
 The engines have been built under special survey, and have been forwarded to Jarrow to be fitted on board.
 The Machinery of this vessel has been satisfactorily fitted on board, the Engines have been tried under steam ahead & astern & the safety Valves adjusted under steam.

We are of opinion that this vessel may have the record of LMC. 8.14 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 8.14

The amount of Entry Fee .. £ 1 : 0 : 0 When applied for, 21.8.14
 Special .. £ 5 : 13 : 0 19 Aug 1914
 Donkey Boiler Fee .. £ : : :
 Travelling Expenses (if any) £ FRI. AUG. 21. 1914

Committee's Minute

Assigned

+ LMC 8.14

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



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GLASGOW

Certificate (if required) to be sent to

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