

Rpt. 4.

## REPORT ON MACHINE

No. 10552

MON. MAY 3 1910

Received at Local Office

Date of writing Report

1/5/10

When handed in at Local Office

1/5/10

Port of

Southampton

No. in Survey held at

Southampton

Date, First Survey

8.12.19

Last Survey

28-4-20 1920

Reg. Book.

19665 on the

Steam tug "Foremost" ex. "M. Moran"

(Number of Visits)

19

Gross

315

Tons

Net

111

When built

1912

Master

Built at Camden N.J. U.S.A. By whom built

J. H. Dialogue &amp; Son.

Engines made at

Camden N.J. U.S.A.

By whom made

J. H. Dialogue &amp; Son.

when made

1912

Boilers made at

Camden N.J. U.S.A.

By whom made

J. H. Dialogue &amp; Sons

when made

1912

Registered Horse Power

54

Owners

Janus Dredging Towing &amp; Transport Coy Port belonging to Southampton

Nom. Horse Power as per Section 28

110

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes.

ENGINES, &amp;c.—Description of Engines Compound Surface Condensing No. of Cylinders 2 No. of Cranks 2

Dia. of Cylinders

H.P. 16" L.P. 36"

Length of Stroke

26"

Revs. per minute

110

Dia. of Screw shaft

as per rule

8.776"

Material of

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

no

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

lapped

Length of stern bush

2' 7 3/4"

Dia. of Tunnel shaft

as per rule

7.735"

Dia. of Crank shaft journals

as per rule

8.12"

Dia. of Crank pin

L.P. 8"

Size of Crank webs

H.P. 5"

L.P. 5"

Dia. of thrust shaft under

collars

7 3/4"

L.P. 5"

Dia. of screw

9-8"

Pitch of Screw

9-9"

No. of Blades

4

State whether moveable

no

Total surface

45-32 sq

ft

Inspector and general service

pump comm. to borders

No. of Feed pumps

1 duplex

Diameter of ditto

5"

Stroke

6"

Can one be overhauled while the other is at work

yes

(fitted on main engines)

No. of Bilge pumps

2

Diameter of ditto

2 5/8"

Stroke

13"

Can one be overhauled while the other is at work

yes

(fitted on main engines)

No. of Donkey Engines

2

Sizes of Pumps

Centrifugal pump

General Service 10 1/2 x 10" dia.

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

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

In Holds, &amp;c.

one 2" dia chain locker, one 2 1/2" dia trimming tank

one 2 1/2" dia store, one 2 1/2" dia trimming tank aft

No. of Bilge Injections

1 sizes

3 1/2"

Connected to condenser, or to circulating pump

yes

Is a separate Donkey Suction fitted in Engine room &amp; size

one 2" dia

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

Valves &amp; 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

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

That pipes are carried through the bunkers

bilge and heating pipes

How are they protected

wood casings

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

yes

Is it fitted with a watertight door

packing flange bolted from engine room

OILERS, &amp;c.—(Letter for record

(S)

Manufacturers of Steel

Lukens Iron &amp; Steel Coy. Coatesville Pa. U.S.A.

Heating Surface of Boilers

24374

Is Forced Draft fitted

no

No. and Description of Boilers

One cyl. multitubular single end

Working Pressure

150 lbs

Tested by hydraulic pressure to

300 lbs

Date of test

31-1-20

No. of Certificate

yes

Is each boiler be worked separately

one boiler

Area of fire grate in each boiler

81 sq

No. and Description of Safety Valves to

each boiler

one spring loaded

Area of each valve

18-66 sq

Pressure to which they are adjusted

150 lbs

Smallest distance between boilers or uptakes and bunkers or woodwork

8"

Mean dia. of boilers

15' 0"

Length

10' 9"

Material of shell plates

steel

Thickness

1 1/4"

Range of tensile strength

not known

Are the shell plates welded or flanged

yes

Descrip. of riveting: cir. seams

D.R. Zigzag

Pitch of rivets

9 1/2"

Lap of plates or width of butt straps

1' 6 1/2"

Size of compensating ring

2' 8 1/2" x 2' 4 1/4"

No. and Description of Furnaces in each boiler

3

Material

steel

Outside diameter

4' 3 1/4"

Length of plain part

top 14"

Thickness of plates

bottom 32"

Description of longitudinal joint

weld

No. of strengthening rings

15

Working pressure of furnace by the rules

184.2

Combustion chamber plates: Material

steel

Pitch of stays to ditto: Sides

7 1/2" x 7"

Back

7 1/2" x 7 3/8"

Top

7 1/2" x 7"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

139

Material of stays

steel

Area at smallest part

1.19 sq

Area supported by each stay

55.32 sq

Working pressure by rules

172

End plates in steam space:

165 sq

Material of stays

steel

Material

steel

Thickness

7/8"

Pitch of stays

14" x 13 1/2"

How are stays secured

double nuts

Working pressure by rules

178.5

Material of Front plates at bottom

steel

Area at smallest part

3.43 sq

Area supported by each stay

192.37 sq

Working pressure by rules

184.8

Material of tube plates

steel

Thickness: Front

3/4"

Back

3/4"

Thickness

3/4"

Material of Lower back plate

steel

Thickness

5/8"

Greatest pitch of stays

14" x 15"

Working pressure of plate by rules

212 lbs

Material of tube plates

steel

Diameter of tubes

3 1/2"

Pitch of tubes

1 1/2" x 4 1/4"

Material of tube plates

steel

Thickness: Front

3/4"

Back

3/4"

Mean pitch of stays

13 1/2" x 8 1/2"

Pitch across wide water spaces

14" x 8 1/2"

Working pressures by rules

170 lbs

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

9 5/8"

Length as per rule

3-0

Distance apart

7"

Working pressure by rules

181.5

Steam dome: description of joint to shell

none

% of strength of joint

yes

Diameter

yes

Thickness of shell plates

yes

Material

yes

Description of longitudinal joint

yes

Diam. of rivet holes

yes

Pitch of rivets

yes

Working pressure of shell by rules

yes

Crown plates

yes

Thickness

yes

How stayed

yes

SUPERHEATER. Type

None

Date of Approval of Plan

yes

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

yes

Pressure to which each is adjusted

yes

Is Easing Gear fitted

yes

Date of Test

yes

Diameter of Safety Valve

yes



IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *2 Connecting rod top end bolts; 2 connecting rod bottom bolts; 2 main bearing bolts; 1 set of coupling bolts; 1 set of bilge & feed pump valves; 1 set of piston rings; 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 -- *✓*  
During erection on board vessel -- *8.9.16.18.22/12/19 - 1.8.16.20.30.31/1/20 - 4.9.23-26/2/20 - 18.19.23.31/3/20 - 1.3.24 28/4*  
Total No. of visits *22*

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

Dates of Examination of principal parts—Cylinders *16.1.20* Slides *16.1.20* Covers *16.1.20* Pistons *16.1.20* Rods *16.1.*

Connecting rods *16.1.20* Crank shaft *26.2.20* Thrust shaft *26.2.20* Tunnel shafts *26.2.20* Screw shaft *5.12.19* Propeller *5.12.*

Stern tube *✓* Steam pipes tested *22.12.19* Engine and boiler seatings *✓* Engines holding down bolts *✓*

Completion of pumping arrangements *✓* Boilers fixed *✓* Engines tried under steam *28-4-20*

Completion of fitting sea connections *✓* Stern tube *✓* Screw shaft and propeller *✓*

Main boiler safety valves adjusted *28-4-20* Thickness of adjusting washers *3/8" from top of compression screw to top of valve*

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

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

Material of Steam Pipes *Copper* Test pressure *400 lbs sq*

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 *No* If so, state name of vessel *✓*

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

*This vessel was placed in dry dock, propeller, sea connections & their fastenings examined. Cylinders, pistons, slide valves, shafting, pumps, Condenser and all auxiliary machinery were opened out, examined, and now in good condition. Condenser was satisfactorily tested. The propeller shaft was drawn inboard and examined. 5.12.19*

*The main boiler was examined internally & externally with mountings, and tested satisfactorily to 300 lbs per sq inch hydraulically.*

*The safety valves were adjusted under steam to 150 per sq inch and worked satisfactorily. Machinery tried under working conditions & proved satisfactory.*

*The recommendations made in Secretary's letters dated Feb 16<sup>th</sup> & March 5<sup>th</sup> 19 have been satisfactorily carried out.*

*It is recommended this vessel's machinery be classed in the Register Book with the record L.M.C. 4-20 and Tail shaft run 12-19*

The amount of Entry Fee ... £ : : When applied for,

Special ... £ *10* : : 19

Donkey Boiler Fee ... £ : : When received,

Travelling Expenses (if any) £ : : *7.5.19*

*Yhos. R. N. Morrison* *✓*  
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

FRI. MAY. 14 1920

Assigned

*L.M.C. 4.20*

Subject

CERTIFICATE WRITTEN

DEC 14 1920

FRI OCT 15 1920

TUE JAN 25 1921

Lloyd's Register Foundation



Southampton

Continuation of Report No. 10552 dated

1/5/20.

on the

Steam Tug "Foremost" ex "M. Moran"

Repairs effected:- Thrust shoes renewed; condenser tube plates  
rejointed; new internal feed pipe fitted in boiler; main steam pipes  
repacked, annealed, and tested; stern bush renewed; condenser  
discharge valve fitted to ship's side; boiler blow down cock fitted  
under water line; relief valve on feed pump discharge fitted;  
10 additional stay tubes have been fitted in boiler as per plan.

OK

6/02 2 1/2



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