

REPORT ON MACHINERY.

No. 13939

Received at London Office **MUN. 6 JUN 1910**

Date of writing Report

19

When handed in at Local Office

4/6/10.

19

Port of West Hampton

No. in Survey held at

West HamptonDate, First Survey 1909 Dec 20thLast Survey 5th June 1910

Reg. Book.

on the

Steel Screw Steamer Harpagus

(Number of Visits 8)

Master

Built at West Hampton By whom built W. Hay & Co. Ltd

Tons

Gross

Net

When built 1910

Engines made at West Hampton

By whom made

Central Marine & Wk.

when made 1910

Boilers made at West Hampton

By whom made

Central Marine & Wk.

when made 1910

Registered Horse Power

Owners

J. & C. Harrison Ltd.Port belonging to London

Horse Power as per Section 28

574

Is Refrigerating Machinery fitted for cargo purposes

NoIs Electric Light fitted Yes

INES, &c.—Description of Engines

Triple CompoundNo. of Cylinders ThreeNo. of Cranks Three

of Cylinders

28" 45" 75"Length of Stroke 51"

Revs. per minute

65

Dia. of Screw shaft

as per rule 15.59Material of S steel

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

YesLength of stern bush 67"

of Tunnel shaft

as per rule 15.9

Dia. of Crank shaft journals

as per rule 14.59Dia. of Crank pin 15 1/4"Size of Crank webs 26 1/2" 9 1/8"

Dia. of thrust shaft under

s 15 1/4"

Dia. of screw

Pitch of Screw

17:6

No. of Blades

4

State whether moveable

YesTotal surface 112 sq ft

Feed pumps

Two

Diameter of ditto

4 1/4"

Stroke

30"

Can one be overhauled while the other is at work

Yes

Bilge pumps

Two

Diameter of ditto

5"

Stroke

30"

Can one be overhauled while the other is at work

Yes

Donkey Engines

Three

Sizes of Pumps

5 1/2" 6" 3" 5" 1 1/2" 10"

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

Engine Room

Three3 1/2"

one 3" in any tank

In Holds, &c.

Eight3 1/2"

Tunnel

3 1/2"

Bilge Injections

Onesize 6 1/2"

Connected to condenser, or to circulating pump

Blank

Is a separate Donkey Suction fitted in Engine room & size

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

connections with the sea direct on the skin of the ship

Yes

Are they Valves or Cocks

both

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

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

pipes are carried through the bunkers

Yes

How are they protected

Yes

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

Yes

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

Yes

of examination of completion of fitting of Sea Connections

7/4/10

of Stern Tube

27/4/10

Screw shaft and Propeller

10/5/10

Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yesworked from top platformERS, &c.—(Letter for record R)

Manufacturers of Steel

J. & C. Harrison

Heating Surface of Boilers

7736 sq ft

Forced Draft fitted

YesNo. and Description of Boilers Three Single Ended

ing Pressure

180 lb

Tested by hydraulic pressure to

360 lb

Date of test

6/4/10

No. of Certificate

3190

h boiler be worked separately

Yes

Area of fire grate in each boiler

58 sq ft

No. and Description of Safety Valves to

er Two Spring

Area of each valve

9.62 sq

Pressure to which they are adjusted

185 lb

Are they fitted with easing gear

distance between boilers or uptakes and bunkers or woodwork

4:2"

Mean dia. of boilers

14:9"

Length

12:0"

Material of shell plates

s 1 1/4"

Range of tensile strength

27/30

Are the shell plates welded or flanged

both

Descrip. of riveting: cir. seams

ms all ship side

Diameter of rivet holes in long. seams

15/16"

Pitch of rivets

9"

Lap of plates or width of butt straps

19 1/4"

ages of strength of longitudinal joint

rivets 89.5%plate 85.4%

Working pressure of shell by rules

184 lb

Size of manhole in shell

16" 12"compensating ring 32" 28" 1 1/4"

No. and Description of Furnaces in each boiler

3

Material

Steel

Outside diameter

44 1/2"

plain part

top

Thickness of plates

crown 17/32"

Description of longitudinal joint

Welded

No. of strengthening rings

One

pressure of furnace by the rules

183 lb

Combustion chamber plates: Material

Steel

Thickness: Sides

10/16"

Back

10/16"

Top

10/16"

stays to ditto: Sides

9:8"

Back

9:8"

Top

9:8"

If stays are fitted with nuts or riveted heads

One

Working pressure by rules

181 lb

of stays

One

Diameter at smallest part

1 1/2"

Area supported by each stay

9:8 1/2"

Working pressure by rules

181 lb

End plates in steam space:

Thickness

1 1/4"

Pitch of stays

20:19"

How are stays secured

all one

Working pressure by rules

183 lb

Material of stays

Steel

at smallest part

2.911

Area supported by each stay

20:19"

Working pressure by rules

182 lb

Material of Front plates at bottom

Steel

1 1/2" Material of Lower back plate

Steel

Thickness

3 1/2"

Greatest pitch of stays

16 1/2"

Working pressure of plate by rules

180 lb

of tubes

2 1/4"

Pitch of tubes

4"

Material of tube plates

Steel

Thickness: Front

3 1/2"

Back

12/16"

Mean pitch of stays

cross wide water spaces

13 1/4"

Working pressures by rules

190 lb

Girders to Chamber tops: Material

Steel

Depth and

One

s of girder at centre

8 1/4" 1 1/4"

Length as per rule

10:10"

Distance apart

8 1/4"

Number and pitch of stays in each

One9"

g pressure by rules

180 lb

Superheater or Steam chest; how connected to boiler

One

Can the superheater be shut off and the boiler worked

Yes

Diameter

One

Length

One

Thickness of shell plates

One

Material

Steel

Description of longitudinal joint

One

Diam. of rivet

Pitch of rivets

One

Working pressure of shell by rules

One

Diameter of flue

One

Material of flue plates

Steel

Thickness

One

ed with rings

One

Distance between rings

One

