

Rpt. 4.

REPORT ON MACHINERY.

No. 10718

Date of writing Report 17-1-1919 When handed in at Local Office

Received at London Office 19 Port of Rotterdam

No. in Survey held at Rotterdam

Date, First Survey 29/1/1916

Last Survey 13/1/1919

Reg. Book.

on the Steel Screw Steamer "IRIS"

(Number of Visits 62)

Master L. Groendijk Built at Bolnes

By whom built Ceb. Pot.

Tons Gross 3087

Engines made at Rotterdam

By whom made Rotterdam

Droogdok. Mij.

When built 1910

Boilers made at Rotterdam

By whom made Rotterdam

Droogdok. Mij.

when made 1910

Registered Horse Power

Owners Ptoleum Mij. "La Colona"

Port belonging to s. Pravenhage

Nom. Horse Power as per Section 28 428

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines

Vertical triple expansion

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 15" x 41" x 68"

Length of Stroke 45"

Revs. per minute 80

Dia. of Screw shaft 14"

as fitted 15"

Material of screw shaft Steel

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

If the liner is in more than one length are the joints burned One length

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

Dia. of intermediate shaft 13"

Dia. of Crank shaft journals 13 1/2"

Dia. of Crank pin 13 1/2"

Length of stern bush 60"

Dia. of screw 16 1/2"

Pitch of Screw 16-0"

No. of Blades 4

State whether moveable No

Total surface 81,2 sq ft

No. of Feed pumps 2

Diameter of ditto 8"

Stroke 11"

Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2

Diameter of ditto 5"

Stroke 12 1/2"

No. of Donkey Engines 1

Sizes of Pumps 8 1/2" x 6" x 21"

Can one be overhauled while the other is at work Yes

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

In Engine Room 5 to 3 1/2"

In Holds, &c. 3 to 2" on top of deep tank, 2 to 3" in pump room

No. of Bilge Injections 1

Connected to condenser to circulating pump

Is a separate Donkey Suction fitted in Engine room & size 5 to 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

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 None

How are they protected

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 Not turned

Is it fitted with a watertight door

worked from

BOILERS, &c.—(Letter for record 3)

Manufacturers of Steel Thyssen & Co

Total Heating Surface of Boilers 6035 sq ft

Is Forced Draft fitted Yes

No. and Description of Boilers 2 Single ended marine boilers

Working Pressure 100 lbs

Tested by hydraulic pressure to 400 lbs

Date of test 24.8.17

Can each boiler be worked separately Yes

Area of fire grate in each boiler 106 sq ft

No. and Description of Safety Valves to each boiler Two spring loaded

Area of each valve 1257 sq in

Pressure to which they are adjusted 100 lbs

Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork Over 18"

Mean dia. of boilers 16 1/2"

Length 11 1/2"

Material of shell plates Steel

Range of tensile strength 28-32 tons

Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams Lap & riv

Thickens 1 1/2"

Diameter of rivet holes in long. seams 1 1/2"

Pitch of rivets 9 1/2"

Lap of plates or width of butt straps 11 1/2"

Per centages of strength of longitudinal joint rivets 92%

Working pressure of shell by rules 100 lbs

Size of manhole in shell 20 x 16"

Size of compensating ring 4 x 1 1/2"

No. and Description of Furnaces in each boiler 1 Monsoni

Material Steel

Outside diameter 4' 3 1/2"

Length of plain part top 2"

Thickness of plates crown 3 1/2"

Description of longitudinal joint Welded

Working pressure of furnace by the rules 159 lbs

Combustion chamber plates: Material Steel

Thickness: Sides 1 1/2"

Back 2 1/2"

Top 1 1/4"

Bottom 7/8"

Pitch of stays to ditto: Sides 8 1/2" x 8 1/2"

Back 8 1/2" x 8 1/2"

Top 8 1/2" x 10"

If stays are fitted with nuts or riveted heads

Working pressure by rules 216 lbs

Material of stays Steel

Area at smallest part 1.05 sq ft

Area supported by each stay 42 1/2 sq ft

Working pressure by rules 152 lbs

End plates in steam space:

Material of stays Steel

Area at smallest part 7.06 sq ft

Area supported by each stay 557 sq ft

Working pressure by rules 209 lbs

Material of Front plates at bottom Steel

Thickness 2 1/2"

Material of Lower back plate Steel

Thickness 2 1/2"

Greatest pitch of stays 14 1/4"

Working pressure of plate by rules 215 lbs

Pitch across wide water spaces 15 1/4"

Working pressures by rules 266 lbs

Girders to Chamber tops: Material Steel

Depth and

Thickness of girder at centre 8' x 1'

Length as per rule 2' 8"

Distance apart 9 1/2"

Number and pitch of stays in each 3 to 8 1/2"

Working pressure by rules 215 lbs

Steam dome: description of joint to shell

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

How stayed

PERHEATER. Type Schmidt's patent

Date of Approval of Plan

Tested by Hydraulic Pressure to

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

Pressure to which each is adjusted

Is Easing Gear fitted

No. of Visits 8

Pitch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

Date of Test

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

Pressure to which each is adjusted

Is Easing Gear fitted

Diameter of Safety Valve

Pitch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

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