

REPORT ON MACHINERY

No. 16948.

MON. 13 JUN. 1921

Received at London Office

Date of writing Report

19

When handed in at Local Office

11-6-

19

Port of

Leith

No. in Survey held at
Reg. Book.

Leith

Date, First Survey 19-8-20.

Last Survey 8-6-

1921.

on the

S. S. "Brunton"

(Number of Visits 23.)

Gross 325

Tons Net 123

Master James M. W. Ab.

Built at

Leith

By whom built

Cran & Ponterville (N° 124)

When built 1901

Engines made at

Leith

By whom made

Cran & Ponterville (N° 236)

when made 1921

Boilers made at

Renfrew

By whom made

Wm. Pirsons & Co. Ltd.

when made 1920

Registered Horse Power

Owners Messrs G. Y. Gillie Ltd.

Port belonging to Newcastle

Nom. Horse Power as per Section 28

60

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

Dia. of Cylinders

15" 32"

Length of Stroke

24"

Revs. per minute 130

Dia. of Screw shaft

as per rule 7.297

Material of

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

In the 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

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

Yes

Length of stern bush

2.8"

Dia. of Tunnel shaft

as per rule 6.44

Dia. of Crank shaft journals

as per rule 6.76

Dia. of Crank pin

6.15"

Size of Crank webs

13.8" x 5.8"

Dia. of thrust shaft under

collars

6.15"

Dia. of screw

8.6"

Pitch of Screw

10.0"

No. of Blades

4

State whether moveable

No

Total surface

24 sq

No. of Feed pumps

1

Diameter of ditto

2.4"

Stroke

12"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

1

Diameter of ditto

2.4"

Stroke

12"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

1

Sizes of Pumps

6" x 4" x 6"

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

In Engine Room & Blk Rm: 3-2" & 1 spec 2"

In Holds, &c.

3-2"

No. of Bilge Injections

1

sizes

3.2"

Connected to condenser, or to circulating pump

pump

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

Yes

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

Yes

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

none

Is it fitted with a watertight door

Yes

worked from

MILERS, &c.—(Letter for record (S))

Manufacturers of Steel

S. Colville & Son

Total Heating Surface of Boilers

1168 sq

Is Forced Draft fitted

No

No. and Description of Boilers

one single Ended

Working Pressure

130 lbs

Tested by hydraulic pressure to

260 lbs

Date of test

28.9.20

No. of Certificate

15518

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

44 sq

No. and Description of Safety Valves to

each boiler

double spring loaded

Area of each valve

5.93"

Pressure to which they are adjusted

135 lbs

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

19"

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

Percentages of strength of longitudinal joint

rivets

plate

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

Area 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

Area 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 tops: 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

Steam dome: description of joint to shell

% of strength of joint

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

Pitch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

SUPERHEATER. Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

Date of Test

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

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

Lloyd's Register
Foundation

WS32-0208

IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 top end bolts & nuts for connecting rod: 2 connecting rod bottom end bolts & nuts: 2 main bearing bolts: 1 set of couple bolts: 1 set of feed & bilge pump valves: a quantity of assorted bolts & nuts: iron of various sizes: 1 propeller.

The foregoing is a correct description,

JOHN CRAN & SON, LONDON LTD.

J. Duncan Cran.

Manufacturer.

MANAGING DIRECTOR.

Dates of Survey while building { During progress of work in shops - - 1920. May 19. 27. June 3. 16. July 1. Aug. 26. Sept. 2. 7. 17. 24. Oct. 6. Nov. 3. 15. Dec. 13. 21. Jan. 19. 1921. Jan. 27. Feb. 4. 8. 22. April 9. May 26. June 8. 23. Total No. of visits 23.

Is the approved plan of main boiler forwarded herewith

no

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 7. 9. 20 Slides 3. 11. 20 Covers 24. 9. 20 Pistons 3. 11. 20 Rods 26. 8. 20

Connecting rods 26. 8. 20 Crank shaft 26. 8. 20 Thrust shaft 15. 11. 20 Tunnel shafts 21. 12. 20 Screw shaft 21. 12. 20 Propeller 21. 12. 20

Stern tube 21. 12. 20 Steam pipes tested 21. 2. 21 Engine and boiler seatings 27. 1. 21 Engines holding down bolts 21. 2. 21

Completion of pumping arrangements 8. 6. 21 Boilers fixed 21. 2. 21 Engines tried under steam 8. 6. 21.

Completion of fitting sea connections 27. 1. 21 Stern tube 27. 1. 21 Screw shaft and propeller 27. 1. 21

Main boiler safety valves adjusted 8. 6. 21. Thickness of adjusting washers 1/16 P. 1/16 S.

Material of Crank shaft Steel Identification Mark on Do. 5114 Material of Thrust shaft steel Identification Mark on Do. 90

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts steel Identification Marks on Do. 526

Material of Steam Pipes copper Test pressure 260 lbs per sq. in.

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 yes If so, state name of vessel

"Palway Fifth"

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has

been constructed under special survey, in accordance with the approved plans. The materials and workmanship are good. The machinery has been securely fitted on board the vessel and tried under full power with satisfactory.

This vessel is eligible, in my opinion, to class + LMC 6.21 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD + LMC 6.21. CL.

15/6/21.

A. T. Thomas Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 2 : 0 : 0 When applied for, Special Fee ... £ 9 : 0 : 0 11-6-1921 Donkey Boiler Fee ... £ : : : When received, Travelling Expenses (if any) £ : : : 28-7-1921

Committee's Minute FRI. 17 JUN. 1921

Assigned + LMC 6.21

CERTIFICATE WRITTEN C. L.