

REPORT ON MACHINERY

No. 28310

SAT. FEB. 27. 1915

Received at London Office

Date of writing Report

is

When handed in at Local Office

18-2-15 Port of Hull

No. in Survey held at
Reg. Book.

Hull

Date, First Survey Apr. 27 = Last Survey Jan 15 1915

(Number of Vessels 33)

Gross 227.20

Net 93.20

When built 1915

Master

Built at Gool

By whom built Gool & Bx Regg & Co Ltd

Engines made at

Hull

By whom made

Arnold Smith Ltd (No 2557)

when made 1915

Boilers made at

Hull

By whom made

Arnold Smith Ltd

when made 1915

Registered Horse Power

Owners Hellyers & Fisher & Co Ltd

Port belonging to Hull

Nom. Horse Power as per Section 28

47

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no

ENGINES, &c.—Description of Engines

Triple expansion

No. of Cylinders Three

No. of Cranks 3

Dia. of Cylinders 10-16 3/4-28

Length of Stroke 24

Revs. per minute

Dia. of Screw shaft

as per rule 7.22

Material of

Iron

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

Length of stern bush 2'-2"

Dia. of Tunnel shaft

Dia. of Crank shaft journals

Dia. of Crank pin 6 1/2"

Size of Crank webs 12 1/2 x 4 1/2"

Dia. of thrust shaft under

collars 6 1/2"

Dia. of screw 10'-0"

Pitch of Screw 8'-6"

No. of Blades 4

State whether moveable

no

Total surface 38 ft²

No. of Feed pumps one

Diameter of ditto 2 1/2"

Stroke 11"

Can one be overhauled while the other is at work

No. of Bilge pumps one

Diameter of ditto 2 1/2"

Stroke 11"

Can one be overhauled while the other is at work

No. of Donkey Engines 2 & 2

Sizes of Pumps 6 x 3-6 & 5 x 5 x 5"

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

In Engine Room Two 2"

In Holds, &c. one 2" dia in each compartment

all suction connected to ejector

No. of Bilge Injections one

size 2 1/2"

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room of size 2" ejector

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 stowhold 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

Forward suction

How are they protected

Wooden casing

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

Dates of examination of completion of fitting of Sea Connections

7-8-14

of Stern Tube 7-8-14

Screw shaft and Propeller 10-8-14

Is the Screw Shaft Tunnel watertight

yes

Is it fitted with a watertight door

yes

worked from

BOILERS, &c.—(Letter for record

S)

Manufacturers of Steel

Phoenix & Hadley & Co Ltd

Total Heating Surface of Boilers

760 ft²

Is Forced Draft fitted

no

No. and Description of Boilers one single ended

Working Pressure

200

Tested by hydraulic pressure to

400

Date of test

1-10-14

No. of Certificate 3026

Can each boiler be worked separately

yes

Area of fire grate in each boiler

25.5 ft²

No. and Description of Safety Valves to

each boiler two spring loaded

Area of each valve

3 1/4 ft²

Pressure to which they are adjusted

205

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

abt 7"

Mean dia. of boilers

12 1/2 ft

Length 9'-4"

Material of shell plates

S

Thickness 15/16"

Range of tensile strength

29 to 33 tons

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

double

long. seams

Y.P.B.

Diameter of rivet holes in long. seams

1 3/32"

Pitch of rivets

7'-4"

Lap of plates or width of butt straps 16 1/4"

Per centages of strength of longitudinal joint

plate 85.2

Working pressure of shell by rules

201

Size of manhole in shell 16" x 12"

Size of compensating ring

9" x 16 1/16"

No. and Description of Furnaces in each boiler

Two plain

Material

steel

Outside diameter 35 1/32"

Length of plain part

top 66"

Thickness of plates

crown 4 9/16"

Description of longitudinal joint

welded

No. of strengthening rings

Working pressure of furnace by the rules

230

Combustion chamber plates: Material

S

Thickness: Sides

2 3/32"

Back 1 1/16"

Top 1 1/16"

Bottom 2 3/32"

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 8 1/2"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules 240

Material of stays

steel

Diameter at smallest part

2.07 ft

Area supported by each stay

74.5 ft²

Working pressure by rules 250

End plates in steam space

Material

steel

Thickness

15/16"

Pitch of stays 16 x 12"

How are stays secured

2 x W

Working pressure by rules

208

Material of stays

S

Diameter at smallest part

5.05 ft

Area supported by each stay

192 ft²

Working pressure by rules

273

Material of Front plates at bottom

S

Thickness 1"

Material of Lower back plate

steel

Thickness

1 15/16"

Greatest pitch of stays

14" x 8"

Working pressure of plate by rules

246

Diameter of tubes

3 1/4"

Pitch of tubes

4 3/4" x 4 1/2"

Material of tube plates

S

Thickness: Front

1"

Back 7/8"

Mean pitch of stays 9 1/4"

Pitch across wide water spaces

13 3/4"

Working pressures by rules

203

Girders to Chamber tops: Material

S

Depth and

thickness of girder at centre

8 1/2" x 1 3/4"

Length as per rule

30 7/8"

Distance apart

8 1/2"

Working pressure by rules

214

Superheater or Steam chest; how connected to boiler

yes

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

yes

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

yes

Foundation

IS A DONKEY BOILER FITTED? *no*

If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:— *Two top end bolts & nuts, two bottom end bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set of feed, bilge, & air pump valves, one main & one donkey check valve, a quantity of bolts & nuts & iron of various sizes.*

The foregoing is a correct description,

FOR AMOS & SMITH LTD.

J. Braehabury

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1914:— Apr 27 May 28 Jun 23 Jul 3 31 Aug 7 10 20 21 26 28 Sep 1 4 9 10 15
During erection on board vessel - - 18 21 23 25 29 Oct 1 2 7 14 16 18 26 28 30 Dec 8 11 - 1915: Jan 15
Total No. of visits *33*

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

" " " *donkey* " " " ☒

Dates of Examination of principal parts—Cylinders *15-9-14* Slides *29-9-14* Covers *15-9-14* Pistons *18-9-14* Rods *4-9-14*

Connecting rods *18-9-14* Crank shaft *18-9-14* Thrust shaft *23-9-14* Tunnel shafts ☒ Screw shaft *10-8-14* Propeller *10-8-14*

Stern tube *7-8-14* Steam pipes tested *28-11-14* Engine and boiler seatings *7-8-14* Engines holding down bolts *8-12-14*

Completion of pumping arrangements *15-1-15* Boilers fixed *8-12-14* Engines tried under steam *12-12-14*

Main boiler safety valves adjusted *12-12-14* Thickness of adjusting washers *both 7/16*

Material of Crank shaft *steel* Identification Mark on Do. *1277 FLS* Material of Thrust shaft *steel* Identification Mark on Do. *1282 FLS*

Material of Tunnel shafts ☒ Identification Marks on Do. Material of Screw shafts *iron* Identification Marks on Do. *1305 J. G. M.*

Material of Steam Pipes *solid drawn copper* Test pressure *400 lbs.*

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. *The machinery of this vessel has been constructed under special survey in accordance with the approved plans & the rules of this Society, the materials & workmanship are good, the boiler & steam pipes have been tested as above by hydraulic pressure & found sound & good. The machinery has been properly fitted & secured on board, & on completion tried under steam & found satisfactory. The safety valves have been adjusted under steam & tested for accumulation, which did not exceed 210 lbs.*

In our opinion the vessel is eligible for the record + LMC 1-15.

It is submitted that
this vessel is eligible for
THE RECORD + LMC 1-15.

The amount of Entry Fee ... £ 1 : 0 :
Special ... £ 2 : 0 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ 3/2

When applied for,

26.2.1915

When received,

31.2.1915

Frank A. Sturgeon, P. Fitzgerald.
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute *FRI. MAR 5 1915*

Assigned *+ Lmc 1-15*

MAINTENANCE CERTIFICATE



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Foundation