

REPORT ON MACHINERY.

No. 30,324

Received at London Office

FRI. JAN. 11 1918.

Date of writing Report

18

When handed in at Local Office

4-1-18 Port of

Hull

No. in Survey held at
Reg. Book.

Hull

Date, First Survey

28/3/17

Last Survey

28-12-1917

on the

Steel screw steamer

George Aunger.

(Number of Vols.)

51

Tons

Gross 273

Net 109

When built 1917-12

Master

Built at

Sunderley

By whom built

Cook, Walton & Gurnell

Engines made at

Hull

By whom made

Amos & Smith Ltd

no. 2927

when made

1917

Boilers made at

Hull

By whom made

Amos & Smith Ltd

no. 2925

when made

1917

Registered Horse Power

Owners

British Admiralty

Port belonging to

✓

Nom. Horse Power as per Section 28

83

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no

ENGINES, &c.—Description of Engines

Triple expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

12 1/2" 21 1/2" 35 1/2"

Length of Stroke

24"

Revs. per minute

115

Dia. of Screw shaft

as per rule 7 1/4"

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

the propeller boss

Yes

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

✓

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

✓

If two

liners are fitted, is the shaft lapped or protected between the liners

✓

Length of stern bush

33"

Dia. of Tunnel shaft

as per rule 6 1/4"

as fitted 6 1/4"

Dia. of Crank shaft journals

as per rule 6 9/16"

as fitted 6 9/16"

Dia. of Crank pin

7 1/4"

Size of Crank webs

14 5/8" 4 1/8"

Dia. of thrust shaft under

Diameters

7 1/4"

Dia. of screw

9' 0"

Pitch of Screw

11' 3"

No. of Blades

4

State whether moveable

no

Total surface

31.5 sq ft

No. of Feed pumps

one

Diameter of ditto

2 3/4"

Stroke

12"

Can one be overhauled while the other is at work

✓

No. of Bilge pumps

one

Diameter of ditto

2 3/4"

Stroke

12"

Can one be overhauled while the other is at work

✓

No. of Donkey Engines

One

2" ejector

Sizes of Pumps

6 1/4" 4 1/4" 6"

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

Engine Room

Two

2" diam.

In Holds, &c. One 2" diam in each compartment

All suction also connected to Ejector.

No. of Bilge Injections

1

size

3"

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & 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

None

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

Forward Suctions

How are they protected

Wood covering

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

✓

Is it fitted with a watertight door

✓

worked from

✓

MILERS, &c.—(Letter for record

S.)

Manufacturers of Steel

Messrs John Spencer & Sons Ltd

Total Heating Surface of Boilers

1450 sq ft

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

20-11-17

No. of Certificate

3252 S.A.

Can each boiler be worked separately

✓

Area of fire grate in each boiler

48 sq ft

No. and Description of Safety Valves to

Each boiler

Two spring loaded

Area of each valve

4.9 sq in

Pressure to which they are adjusted

205

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

8"

Mean dia. of boilers

13' 0"

Length

10' 6"

Material of shell plates

S.

Thickness

1 1/4"

Range of tensile strength

28-32 tons

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

double

No. of rivets

22,200

Diameter of rivet holes in long. seams

1 3/16"

Pitch of rivets

7.71"

Lap of plates or width of butt straps

17 3/8"

Percentages of strength of longitudinal joint

rivets 91.1

plate 84.6

Working pressure of shell by rules

200

Size of manhole in shell

16" 12"

No. of compensating ring

30

40

1 1/4"

No. and Description of Furnaces in each boiler

3 plain

Material

S.

Outside diameter

3' 2 1/8"

Length of plain part

top 78"

bottom 73"

Thickness of plates

crown 3/16"

bottom 3/16"

Description of longitudinal joint

Welded

No. of strengthening rings

✓

Working pressure of furnace by the rules

217

Combustion chamber plates: Material

S.

Thickness: Sides

1/16"

Back

1/16"

Top

1/16"

Bottom

1/16"

Pitch of stays to ditto: Sides

8" 10"

Back

8 1/4" 9"

Top

8" 9 1/4"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

200

Material of stays

S.

Area at smallest part

2.4 sq in

Area supported by each stay

97 sq in

Working pressure by rules

222

End plates in steam space:

Material

S.

Thickness

1 1/8"

Pitch of stays

16 1/2" 17 1/2"

How are stays secured

S. & T. & H.

Working pressure by rules

207

Material of stays

S.

Area at smallest part

6.10

Area supported by each stay

289 sq in

Working pressure by rules

219

Material of Front plates at bottom

S.

Thickness

1 1/4"

Material of Lower back plate

S.

Thickness

1/16"

Greatest pitch of stays

14 1/4" 9"

Working pressure of plate by rules

203

Diameter of tubes

3 1/2"

Pitch of tubes

4 3/4"

Material of tube plates

S.

Thickness: Front

1 1/4"

Back

7/8"

Mean pitch of stays

10"

Pitch across wide water spaces

14"

Working pressures by rules

202

Girders to Chamber tops: Material

S.

Depth and

✓

Thickness of girder at centre

9 1/2" 1 3/4"

Length as per rule

34"

Distance apart

9 1/4"

Number and pitch of stays in each

3-8"

Working pressure by rules

206

Steam dome: description of joint to shell

✓

%

of strength of joint

✓

Diameter

✓

Thickness of shell plates

IS A DONKEY BOILER FITTED?

No.

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— Four top end bolts and nuts, two bottom end bolts and nuts, two main bearing bolts and nuts, one set of coupling bolts and nuts, one set of Air, Feed and Bilge pump valves, one set of piston rods and nuts. Four Condenser tubes, three Boiler tubes, one escape valve spring each size, two donkey pump suction and delivery valves, one impeller and shaft for circulating pump, a quantity of assorted bolts and nuts and iron of various sizes.

The foregoing is a correct description,

FOR AMOS & SMITH LTD.

W. Prackebury

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1917. Mar 28, Apr. 14, 17, 21, May 24, June 25, July 10, 11, 16, 28, 31, Aug 13, 16, 17, 21, 24, 27, 29, 31, Sept 4, 10, 13, 18, 19, 21, 26, 29, Oct 6, 6, 12, 15, 22, 24, 30, Nov 2, 6, 7, 10, 16, 17, 20, 21, 22, 29, Dec 1, 4, 10, 11, 15, 22, 27, 28.
During erection on board vessel ---
Total No. of visits 51.

Is the approved plan of main boiler forwarded herewith *per rough sent*

" " " " " "

Dates of Examination of principal parts—Cylinders 13.8.17 Slides 10.9.17 Covers 16.8.17. Pistons 10.9.17 Rods 16.8.17. Connecting rods 10.9.17. Crank shaft 21.9.17. Thrust shaft 10.9.17. Tunnel shafts ✓. Screw shaft 18.9.17. Propeller 18.9.17. Stern tube 19.9.17. Steam pipes tested 10.12.17. Engine and boiler seatings 19.9.17. Engines holding down bolts 4.12.17. Completion of pumping arrangements 28.12.17. Boilers fixed 4.12.17. Engines tried under steam 22.12.17. Completion of fitting sea connections 19.9.17. Stern tube 19.9.17. Screw shaft and propeller 19.9.17. Main boiler safety valves adjusted 22.12.17. Thickness of adjusting washers P $\frac{1}{32}$ S $\frac{3}{32}$ T.L.S. Material of Crank shaft Iron Identification Mark on Do. 2010 Material of Thrust shaft Iron Identification Mark on Do. 2024 T.L.S. Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Iron Identification Marks on Do. 1796 T.L.S. Material of Steam Pipes S.D. 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 Yes.

Is this machinery duplicate of a previous case Yes. If so, state name of vessel "James Perry" ✓

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 approved plans and the rules of this Society, the material and workmanship are good, the Boiler and Steam pipes have been tested as above and found sound and good. The machinery has been properly fitted and secured on board the vessel and on completion tested under full power for two hours as required by the Admiralty and found satisfactory. The Safety valves have been adjusted under steam and tested for accumulation which did not exceed 208 lbs.

In our opinion the vessel is eligible for the record + L.M.C. 12.17.

It is submitted that
this vessel is eligible for
THE RECORD. + L.M.C. 12.17.

J.W.D.

15/1/18.

The amount of Entry Fee ... £ 1 : 0 :
Special *Row* £ 24 : 18 :
Donkey Boiler Fee ... £ - : - :
Travelling Expenses (if any) £ - : 3 :
When applied for, 10/1 1918
When received, 30/1/1918

Geo. Allan Frank A. Stanger.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE JAN 15 1918.

Assigned + L.M.C. 12.17.



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Foundation