

REPORT ON MACHINERY

No. 30900

Received at London Office

FRI. 24 JAN. 1919

Date of writing Report

19

When handed in at Local Office

22/1/19 Port of Hull.

Date, First Survey May 15/18 Last Survey 15 Jan^y 1919

No. in Survey held at Hull.

Reg. Book.

(Number of Visits 52)

Tons { Gross 290

Net 127

When built 1918

Master

Built at Beverley

By whom built Cook Welton & Gemmell Ltd

Engines made at Hull

By whom made Amos & Smith Ltd (n^o. 2961)

when made 1918

Boilers made at Hull

By whom made Amos & Smith Ltd (n^o. 2961)

when made 1918

Registered Horse Power

Owners British Admiralty

Port belonging to

Nom. Horse Power as per Section 28

8786

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 12½"-21" & 35"

Length of Stroke 26"

Revs. per minute 108

Dia. of Screw shaft

as per rule 7.57

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 34"

Dia. of Tunnel shaft

as per rule 6.58

as fitted 6¾"

Dia. of Crank shaft journals

as per rule 6.95

as fitted 6.91"

Dia. of Crank pin

7½"

Size of Crank webs

14" x 4½"

Dia. of thrust shaft under

collars

7½"

Dia. of screw

9'-6"

Pitch of Screw

11'-1½"

No. of Blades

4

State whether moveable

No

Total surface

35.5 sq

No. of Feed pumps

2

Diameter of ditto

2½"

Stroke

12"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

2½"

Stroke

12"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

2 & ejector

Sizes of Pumps

6" x 3" x 6" & 6" x 4" x 6"

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

In Engine Room One 2" engine room one 2" after one 2" for

In Holds, &c. One 2" from forehold one 2" from shushwell

also separate 2" ejector suction from shushwell.

No. of Bilge Injections

One size 3½"

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

Yes

Are all connections with the sea direct on the skin of the ship

Yes

Are they Valves or Cocks

Valves & Cocks

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 suction

How are they protected

Wood casings

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

Yes

Is it fitted with a watertight door

Yes

worked from

BOILERS, &c.—(Letter for record

S)

Manufacturers of Steel

Port Talbot Steel Co. Ltd—Port Talbot

Total Heating Surface of Boilers

1590

Is Forced Draft fitted

No

No. and Description of Boilers

One single ended.

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

6/12/18

No. of Certificate

3338

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

48.75 sq

No. and Description of Safety Valves to

each boiler

Two spring loaded

Area of each valve

4.9 sq

Pressure to which they are adjusted

185 lbs

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

12"

Mean dia. of boilers

162"

Length

10'-6½"

Material of shell plates

steel

Thickness

1½"

Range of tensile strength

28/32 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

double

long. seams

T.R.D.B.S.

Diameter of rivet holes in long. seams

1½"

Pitch of rivets

8"

Top of plates or width of butt straps

17"

Per centages of strength of longitudinal joint

rivets 89.3

plate 85.5

Working pressure of shell by rules

182 lbs

Size of manhole in shell

16" x 12"

Size of compensating ring

9" x 1½"

No. and Description of Furnaces in each boiler

3 plain

Material steel

Outside diameter

40 9/16"

Length of plain part

top 81½"

bottom 76"

Thickness of plates

crown 25/32"

bottom 25/32"

Description of longitudinal joint

welded

No. of strengthening rings

40 9/16"

Working pressure of furnace by the rules

188

Combustion chamber plates: Material steel

Thickness: Sides 1/16"

Back 3/16"

Top 1/16"

Bottom 7/8"

Pitch of stays to ditto: Sides

9½" x 9½"

Back 9" x 9"

Top 9½" x 9½"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

182

Material of stays steel

Area at smallest part

2.07 sq

Area supported by each stay

90.25 sq

Working pressure by rules

206

End plates in steam space:

Material steel

Thickness

1 1/16"

Pitch of stays

17 3/8" x 17"

How are stays secured

DN & W

Working pressure by rules

181

Material of Front plates at bottom steel

Area at smallest part

6.10 sq

Area supported by each stay

295 sq

Working pressure by rules

215

Material of Front plates at bottom steel

Thickness

3 1/2"

Material of Lower back plate steel

Thickness

15/16"

Greatest pitch of stays

14" x 9"

Working pressure of plate by rules

219

Diameter of tubes

3½"

Pitch of tubes

5" x 4¾"

Material of tube plates steel

Thickness: Front 3 1/2"

Back 7/8"

Mean pitch of stays

10"

Pitch across wide water spaces

14"

Working pressures by rules

184

Girders to Chamber tops: Material steel

Depth and

thickness of girder at centre

8½" x 1¾"

Length as per rule

32"

Distance apart

9½"

Number and pitch of stays in each

two 9½"

Working pressure by rules

197 lbs

Steam dome: description of joint to shell

%

of strength of joint

Yes

Diameter

Yes

Thickness of shell plates

Yes

Material

Yes

Description of longitudinal joint

Yes

Diam. of rivet holes

Yes

Pitch of rivets

Yes

Working pressure of shell by rules

Yes

Crown plates

Yes

Thickness

Yes

How stayed

Yes

SUPERHEATER. Type

Yes

Date of Approval of Plan

Yes

Tested by Hydraulic Pressure to

Yes

Date of Test

Yes

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

Yes

Diameter of Safety Valve

Yes

Pressure to which each is adjusted

Yes

Is Easing Gear fitted

Yes

002051-002061-0025

IS A DONKEY BOILER FITTED?

No.

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

Two top & two bottom end bolts & nuts, one set coupling bolts & nuts, two main bearing bolts & nuts, one set each of Air Reed & Bilge Pump Valves, one set piston studs & nuts, three condenser tubes, three boiler tubes, one escape valve spring of each size, two donkey pump suction & delivery valves, a quantity of assorted bolts & nuts, & iron of assorted sizes.

The foregoing is a correct description,

For AMOS & SMITH

A. J. Rolinson

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1918: May 15. 22. Jun 7. 14. 16. 20. 25. 29 July 3. 8. 9. 11. 13. 15 19. 24. 26. 30. Aug 3. 12. 15
During erection on board vessel -- 19. 22. 29 Sep 2. 5. 10. 14. 17 30 Oct 3. 28. Nov 5. 14. 18. 28. 29. Dec 3. 5. 6. 11. 17. 21. 30. 1919: Jan 2
Total No. of visits 52

Is the approved plan of main boiler forwarded herewith previously sent.

Dates of Examination of principal parts—Cylinders 5/11/18 Slides 14/11/18 Covers 14/11/18 Pistons 14/11/18 Rods 18/11/18

Connecting rods 18/11/18 Crank shaft 18/11/18 Thrust shaft 20/11/18 Tunnel shafts 26/7/18 Screw shaft 26/7/18 Propeller 26/7/18

Stern tube 26/7/18 Steam pipes tested 2/1/19 Engine and boiler seatings 3/12/18 Engines holding down bolts 30/12/18

Completion of pumping arrangements 6/1/19 Boilers fixed 17/12/18 Engines tried under steam 4/1/19

Completion of fitting sea connections 22/7/18 Stern tube 26/7/18 Screw shaft and propeller 26/7/18

Main boiler safety valves adjusted 4/1/19 Thickness of adjusting washers P 1/32 S 1/32

Material of Crank shaft steel Identification Mark on Do. 2975 G.P.W. Material of Thrust shaft steel Identification Mark on Do. 2976 W.N.S. 1900 J.R.

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts iron Identification Marks on Do. ✓

Material of Steam Pipes Solid drawn copper ✓ Test pressure 360

Is an installation fitted for burning oil fuel ✓ 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 "William Darnold"

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 the Society. The materials & workmanship are good. The boiler & steam pipe have been tested as above & found sound & good. The machinery has been properly fitted & secured on board the vessel & on completion was tested at full power for two hours as required by the Admiralty & found satisfactory. The safety valves have been adjusted under steam & accumulation did not exceed 6 lbs.

In my opinion the vessel is eligible for the record + L.M.C. 1.19.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 1.19.

The amount of Entry Fee £ 2 : 0 : When applied for, 23-1-19
Special ... £ 26 : 2 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : : When received, 24.1.19 R.E.N. 25/1/19

Committee's Minute

Assigned

TUE 28 JAN. 1919

+ L.M.C. 1.19.

W. H. Stone. John Rolinson

Engineer Surveyor to Lloyd's Register of Shipping.



© 2020

Lloyd's Register Foundation