

Rpt. 4.

REPORT ON MACHINERY

No. 30473

THU. 18 APR. 1918

Received at London Office

Date of writing Report

19

When handed in at Local Office

17.4-18 Port of

Hull

No. in Survey held at
Reg. Book.

Hull

Date, First Survey

13.9.17.

Last Survey

11-4-

1918

on the

Steam Trawler "Thomas Connolly."

(Number of Visits 42)

Gross 290

Tons Net 119

When built 1918.4

Master

Built at

Brierley

By whom built

Cook, Wilton & Lummell

Engines made at

Hull

By whom made

Amos & Smith L^{td} No. 2933

when made 1918.4

Boilers made at

Hull

By whom made

Amos & Smith L^{td} No. 2933

when made 1918.4

Registered Horse Power

Owners

British Admiralty

Port belonging to

✓

Nom. Horse Power as per Section 28

87. ✓

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

114 ✓

Dia. of Screw shaft

as per rule 7.56

Material of screw shaft

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

✓

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

34" ✓

Dia. of Tunnel shaft

as per rule 6.57 ✓

Dia. of Crank shaft journals

as per rule 6.9 ✓

Dia. of Crank pin

7½"

Size of Crank webs

14" 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

35½ ft ✓

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 & 3 "ejector"

Sizes of Pumps

6" 3" 6" 4" 6" 4" 6"

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

In Engine Room One - 2" For. One - 2" Aft. & One - 2" Bilge Aft. In Holds, &c. One - 2" from Fore hold, One - 2"

from slush well, Also separate 2" ejector suction from slush well.

No. of Bilge Injections

1

sizes

3½"

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & size

Yes & 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 suction

How are they protected

Hood 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

✓

BOILERS, &c.—(Letter for record S.)

Manufacturers of Steel

Messrs John Spencer & Sons L^{td}Total Heating Surface of Boilers 1590 ft²

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

8.2.18

No. of Certificate

3270 G.A. ✓

Can each boiler be worked separately

✓

Area of fire grate in each boiler

48.75 ft²

No. and Description of Safety Valves to

each boiler

Two spring loaded

Area of each valve

4.9 ft²

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

8"

Sub.

Mean dia. of boilers

16.2"

Length

10' 6½"

Material of shell plates

S. ✓

Thickness

1½"

Range of tensile strength

28.32 ✓

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

double ✓

long. seams

Z.P.D.S.S.

Diameter of rivet holes in long. seams

1½"

Pitch of rivets

8"

Lap 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

180 lbs.

Size of manhole in shell

16" 12"

Size of compensating ring

9" 1½"

No. and Description of Furnaces in each boiler

3 plain ✓

Material

S. ✓

Outside diameter

40½"

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

✓

Working pressure of furnace by the rules

188

Combustion chamber plates: Material

S. ✓

Thickness: Sides

11/16"

Back

21/32"

Top

11/16"

Bottom

7/8" ✓

Pitch of stays to ditto: Sides

9½" 9½"

Back

9" 9"

Top

9½" 9½"

If stays are fitted with nuts or riveted heads

Nuts ✓

Working pressure by rules

181

Material of stays

S. ✓

Area at smallest part

2.07

Area supported by each stay

90.25

Working pressure by rules

206

End plates in steam space:

Material

S. ✓

Thickness

11/16"

Pitch of stays

17½" 17"

How are stays secured

2.2.74 ✓

Working pressure by rules

181

Material of stays

S. ✓

Area at smallest part

6.10

Area supported by each stay

295

Working pressure by rules

215

Material of Front plates at bottom

S. ✓

Thickness

31/32"

Material of Lower back plate

S. ✓

Thickness

15/16"

Greatest pitch of stays

14" 9"

Working pressure of plate by rules

219

Diameter of tubes

3½"

Pitch of tubes

5" 4¾"

Material of tube plates

S. ✓

Thickness: Front

31/32"

Back

7/8"

Mean pitch of stays

10"

Pitch across wide water spaces

14" ✓

Working pressures by rules

184

Girders to Chamber tops: Material

S. ✓

Depth and

thickness of girder at centre

8½" 1¾"

Length as per rule

32" ✓

Distance apart

9½"

Number and pitch of stays in each

200 - 9½"

Working pressure by rules

197

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

✓

2021

SUPERHEATER.

Type

✓

Date of Approval of Plan

✓

Tested by Hydraulic Pressure to

✓

Date of Test

✓

Is a Safety Valve fitted to each Section of

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 studs and nuts. Four condenser tubes, three boiler tubes, one escape valve spring each size, two donkey pump suction and delivery valves, a quantity of assorted bolts and nuts and iron of various sizes.

The foregoing is a correct description,

FOR AMOS & SMITH LTD.

Manufacturer.

Dates of Survey while building { During progress of work in shops - 1917: Sep 13. 29. Oct 5. 11. 12. 15. 22. 24. 30. Nov 7. 9. 17. 23. 27. 28. 29. Dec 3. 8. 10. 15. 24. 29. 1918: Jan 2. 10. 11. 16. 21. 22 Feb 1. 7. 8. 15. 18. 21. Mar 7. 8. 18. 19. 23. Apr 3. 11. During erection on board vessel - - - - - Total No. of visits 42

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

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 24.12.17 Slides 29.11.17 Covers 29.11.17 Pistons 2.1.18 Rods 29.11.17. Connecting rods 2.1.18 Crank shaft 7.2.18 Thrust shaft 7.1.18 Tunnel shafts ✓ Screw shaft 27.11.17 Propeller 27.11.17. Stern tube 28.11.17 Steam pipes tested 7.3.18 Engine and boiler seatings Engines holding down bolts 7.3.18 Completion of pumping arrangements 3.4.18 Boilers fixed 7.3.18 Engines tried under steam 29.3.18 Completion of fitting sea connections 28.11.17 Stern tube 28.11.17 Screw shaft and propeller 28.11.17. Main boiler safety valves adjusted 23.3.18 Thickness of adjusting washers P. $\frac{11}{32}$ S. $\frac{13}{32}$ Material of Crank shaft Iron Identification Mark on Do. 185547. Material of Thrust shaft Iron Identification Mark on Do. 184897. Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Iron Identification Marks on Do. 2061745. Material of Steam Pipes S.D. Copper ✓ Test pressure 360 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 "William Brown" (Castle Class)

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 and the rules of this Society. The materials 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 was 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 190 lbs.

In my opinion the vessel is eligible for the record + L.M.C. 4.18.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 4.18.

J.W.D.
18/4/18.

The amount of Entry Fee ... £ 2 : 0 : When applied for, Special ... £ 26 : 2 : 17.4 19.18 Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ : : 18.4 19.18

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

Committee's Minute FRI. APR. 19 1918. 22.4.18 Assigned + d. M.C. 4.18