

REPORT ON MACHINERY

No. 30492

Received at London Office

Date of writing Report

19

When handed in at Local Office

30/4/18 Port of

Hull

No. in Survey held at
Reg. Book.

Hull

Date, First Survey

5. 10. 17.

Last Survey

25-4-1918

on the

Steam Trawler "Joseph Button"

(Number of Visits)

42

Gross Tons

290

Net Tons

119

When built

1918-4

Master

Built at Beverley

By whom built Cook, Wilton & Gemmell Ltd

Engines made at

Hull

By whom made

Amos & Smith Ltd, No 2934

when made

1918-4

Boilers made at

Hull

By whom made

Amos & Smith Ltd, No 2934

when made

1918-4

Registered Horse Power

Owners

British Admiralty

Port belonging to

Horse Power as per Section 28

87

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no

GINES, &c.—Description of Engines

Triple expansion

No. of Cylinders

3

No. of Cranks

3

No. of Cylinders

12 1/2 - 21 - 35

Length of Stroke

26

Revs. per minute

114

Dia. of Screw shaft

as per rule 7.56

Material of

Iron

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

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

If two

shafts 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

7 1/8

Size of Crank webs

14 1/4 x 9 1/2

Dia. of thrust shaft under

No. of Bars

7 1/8

Dia. of screw

9 - 6

Pitch of Screw

11 - 1 1/2

No. of Blades

4

State whether movable

no

No. of Feed pumps

2

Diameter of ditto

22 1/2

Stroke

12

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

22 1/2

Stroke

12

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

2 + 3

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

Engine Room One 2" fwd; 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

3 1/2

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

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

yes

Is it fitted with a watertight door

worked from

Boilers, &c.—(Letter for record

S)

Manufacturers of Steel

Messrs John Spencer & Sons Ltd.

Total Heating Surface of Boilers

1590 sq ft

Is Forced Draft fitted

no

No. and Description of Boilers

One single ended.

Working Pressure

180

Tested by hydraulic pressure to

360

Date of test

22-2-18

No. of Certificate

3274

Can each boiler be worked separately

yes

Area of fire grate in each boiler

48.75 sq ft

No. and Description of Safety Valves to

boiler

Two spring loaded

Area of each valve

49 sq in

Least distance between boilers or uptakes and bunkers or woodwork

8 in

Mean dia. of boilers

162 in

Length

10-6 15/16

Material of shell plates

steel

Thickness

1 3/32

Range of tensile strength

28/32

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

double

seams

TRDBS

Diameter of rivet holes in long. seams

1 5/32

Pitch of rivets

8 in

Lap of plates or width of butt straps

17 in

Percentages of strength of longitudinal joint

rivets 89.3

plate 85.5

Working pressure of shell by rules

180 lb

Size of manhole in shell

16 x 12

No. of compensating ring

9 x 1 3/32

No. and Description of Furnaces in each boiler

3 plain

Material

S

Outside diameter

40 9/16

Thickness of plain part

top 81 1/2

bottom 76

Thickness of plates

crown 25

Description of longitudinal joint

welded

No. of strengthening rings

yes

Working pressure of furnace by the rules

188

Combustion chamber plates: Material

S

Thickness: Sides

11/16

Back

21/32

Top

11/16

No. of stays to ditto: Sides

9 1/2 x 9 3/8

Back

9 x 9

Top

9 1/2 x 9 1/2

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 sq in

Area supported by each stay

90.25 sq in

Working pressure by rules

206

End plates in steam space:

Material

S

Thickness

1 1/16

Pitch of stays

17 3/8 x 17

How are stays secured

DN & W

Working pressure by rules

181

Area at smallest part

6.10 sq in

Area supported by each stay

295 sq in

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 x 9

Working pressure of plate by rules

219

Diameter of tubes

3 1/2

Pitch of tubes

5 x 4 3/4

Material of tube plates

S

Thickness: Front

31/32

Back

7/8

Mean pitch of stays

10 in

Girders across wide water spaces

14 in

Working pressures by rules

184

Girders to Chamber tops: Material

S

Depth and

thickness of girder at centre

8 1/2 x 1 3/4

Length as per rule

Working pressure by rules

197

Steam dome: description of joint to shell

yes

% of strength of joint

yes

Material

S

Description of longitudinal joint

yes

Diam. of rivet holes

yes

Material of rivets

S

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

No. of stays

yes

Working pressure of plate by rules

219

Material of stays

S

Working pressure of plate by rules

219

IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

✓

SPARE GEAR. State the articles supplied:— Four top end bolts & nuts, two bottom end bolts & nuts, one set of coupling bolts & nuts, two main bearing bolts & nuts; one set of air, feed, & bilge pump valves; one set of piston studs & nuts; Four condenser tubes, three boiler tubes, one escape valve spring each size, two donkey pump suction & delivery valves, a quantity of bolts & nuts (assorted) & iron of various size

The foregoing is a correct description,

FOR AMOS & SMITH LTD

H. B. B. B.

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1917:— Oct. 5, 12, 15, 22, 24. Nov 7, 17, 23, 28. Dec 3, 8, 10, 15, 24, 29. 1918:— Jan 10, 11, 16, 21, 22 Feb 1, 7, 8, 9, 15, 16, 21, 22. Mar 6, 7, 14, 19, 23, 25, 26 Apr 4, 9, 13, 17. Total No. of visits 42

Is the approved plan of main boiler forwarded herewith

no

“ “ “ donkey “ “ “ ✓

Dates of Examination of principal parts—Cylinders 21-1-18 Slides 11-1-18 Covers 11-1-18 Pistons 11-1-18 Rods 11-1-18 Connecting rods 21-1-18 Crank shaft 9-2-18 Thrust shaft 15-2-18 Tunnel shafts ✓ Screw shaft 28-11-17 Propeller 28-11-17 Stern tube 28-11-17 Steam pipes tested 26-3-18 Engine and boiler seatings 10-12-17 Engines holding down bolts 14-3-18 Completion of pumping arrangements 17-4-18 Boilers fixed 14-3-18 Engines tried under steam 9-4-18 Completion of fitting sea connections 10-12-17 Stern tube 10-12-17 Screw shaft and propeller 10-12-17 Main boiler safety valves adjusted 9-4-18 Thickness of adjusting washers P. $\frac{13}{32}$ S. $\frac{11}{32}$ 1856 GA. 185 Material of Crank shaft Iron Identification Mark on Do. 9-2-18 Material of Thrust shaft Iron Identification Mark on Do. 15-1 Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Iron Identification Marks on Do. 183 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 ✓

Is this machinery duplicate of a previous case yes If so, state name of vessel Thomas Connolly, Hull Rept 18

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 & workman are good; the boiler & steam pipes 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 & tested for accumulation, which did not exceed 190 lbs. In my opinion the vessel is eligible for the record + LMC 4.1

It is submitted that this vessel is eligible for THE RECORD. + LMC 4.18.

The amount of Entry Fee ... £ 2 : 0 : 0 When applied for, Special ... £ 26 : 2 : 0 30/4/1918 Donkey Boiler Fee ... £ : : : When received, Travelling Expenses (if any) £ : : : 1-5-1918

For Geo. Allan & self. P. Fitzgerald. Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI. 3-MAY. 1918 Assigned + L. M. C. 4:18