

# REPORT ON MACHINERY.

No. 28700

TUE AUG. 3-1915

Received at London Office

of writing Report

19

When handed in at Local Office

17.7 10 15 Port of

Hull

in Survey held at  
eg. Book.

Hull

Date, First Survey

7.10.14

Last Survey

16-7-1915

(Number of Visits

49

Tons

Gross 347  
Net 162

8 on the Steam Trawler "Earl Kitchener"

Master Built at Beverley

By whom built Cook, Welton & Gemmell

When built 1915

Engines made at Hull

By whom made Amos & Smith (No 2619)

when made 1915

Boilers made at Hull

By whom made Amos & Smith

when made 1915

Registered Horse Power

Owners Imperial S.F. Co. Ltd.

Port belonging to Hull

Nom. Horse Power as per Section 28

87

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

ENGINES, &c.—Description of Engines

Triple expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

13-22½-37

Length of Stroke

24

Revs. per minute

114

Dia. of Screw shaft

as per rule

7.22"

Material of

Iron

as fitted

8½"

screw shaft

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

40"

Dia. of Tunnel shaft

as per rule

6.82"

Dia. of Crank shaft journals

as per rule

7.16"

Dia. of Crank pin

7¾"

Size of Crank webs

15x4¾"

Dia. of thrust shaft under

collars

7¾"

Dia. of screw

9.6"

Pitch of Screw

10.9"

No. of Blades

4

State whether moceable

no

Total surface

34 ft

No. of Feed pumps

1

Diameter of ditto

3"

Stroke

13"

Can one be overhauled while the other is at work

—

No. of Bilge pumps

1

Diameter of ditto

3"

Stroke

13"

Can one be overhauled while the other is at work

—

No. of Donkey Engines

2+1-2½

Sizes of Pumps

6x3x6 + 6¼x6½x6"

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

In Engine Room

two 2" dia.

In Holds, &c. Forehold, fishroom, 9 spare

fishroom, each one 2" dia; Forward & aft slushwells, each one 3" dia.

No. of Bilge Injections

1

sizes

3"

Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 2½" gdn.

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 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

Hold Suctions

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

Dates of examination of completion of fitting of Sea Connections

22-1-15

of Stern Tube

22-1-15

Screw shaft and Propeller

22-1-15

Is the Screw Shaft Tunnel watertight

✓

Is it fitted with a watertight door

✓

worked from

✓

BOILERS, &c.—(Letter for record

S)

Manufacturers of Steel

W. Beardmore

Total Heating Surface of Boilers

1476

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

10-6-15

No. of Certificate

3084

Can each boiler be worked separately

✓

Area of fire grate in each boiler

48.5 ft

No. and Description of Safety Valves to

each boiler

2 spring loaded

Area of each valve

4.90"

Pressure to which they are adjusted

205 lbs

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

7¼"

Int.

Mean dia. of boilers

13.0"

Length

10.6"

Material of shell plates

S

Thickness

1½"

Range of tensile strength

29/33 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

1¾"

Pitch of rivets

8¾"

Lap of plates or width of butt straps

17¾"

Per centages of strength of longitudinal joint

rivets

87

plate

85.9

Working pressure of shell by rules

201

Size of manhole in shell

12x16"

Size of compensating ring

9"x1½"

No. and Description of Furnaces in each boiler

3 plain

Material

S

Outside diameter

38¾"

Length of plain part

top

80"

Thickness of plates

crown

25"

Description of longitudinal joint

welded

No. of strengthening rings

✓

Working pressure of furnace by the rules

200

Combustion chamber plates: Material

S

Thickness: Sides

11/16"

Back

11/16"

Top

11/16"

Bottom

3/4"

Pitch of stays to ditto: Sides

9½"x8"

Back

8¾"x8¾"

Top

9¼"x8½"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

208

Material of stays

S

Diameter

at smallest part

2.07"

Area supported by each stay

78.50"

Working pressure by rules

237

End plates in steam space:

Material

S

Thickness

1½"

Pitch of stays

17½"x17"

How are stays secured

secured

nuts

Working pressure by rules

201

Material of stays

S

Diameter at smallest part

7.24"

Area supported by each stay

298.0"

Working pressure by rules



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.

*G. J. Robinson*

Manufacturer.

Secretary.

Dates of Survey while building { During progress of work in shops - - 1914: - Oct. 7. 9. 16 Nov. 11. 24. Dec. 15. 18. 1915: - Jan. 2. 7. 11. 15. 21. 22. 27. Feb. 2. 10. 18. 23. March 5. 9. 12. 18. 22. 26. 29. April 1. 8. 12. 16. 20. 23. 26. May 4. 12. 14. 19. 21. 27. June 4. 10. 17. 21. July 2. 3. 6. 13. 16. Total No. of visits 49

Is the approved plan of main boiler forwarded herewith *Ref 2851*

" " " donkey " " ✓

Dates of Examination of principal parts—Cylinders 12-5-15 Slides 4-6-15 Covers 12-5-15 Pistons 21-5-15 Rods 27-5-15

Connecting rods 21-5-15 Crank shaft 4-6-15 Thrust shaft 4-6-15 Tunnel shafts 4-6-15 Screw shaft 11-11-14 Propeller 11-11-14

Stern tube 11-11-14 Steam pipes tested 3-7-15 Engine and boiler seatings 22-1-15 Engines holding down bolts 1-7-15

Completion of pumping arrangements 13-7-15 Boilers fixed 1-7-15 Engines tried under steam 6-7-15

Main boiler safety valves adjusted 6-7-15 Thickness of adjusting washers F.  $\frac{7}{16}$ , A.  $\frac{3}{8}$

Material of Crank shaft *steel* Identification Mark on Do. 4-6-15 Material of Thrust shaft *steel* Identification Mark on Do. 4-6-15

Material of Tunnel shafts *steel* Identification Marks on Do. 4-6-15 Material of Screw shafts *iron* Identification Marks on Do. 1376 FLS.

Material of Steam Pipes *S.D. Copper* Test pressure 400 lb per sq. inch ✓

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 *Sir John French*.

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 pressure & tested for accumulation, which did not exceed 208 lb. In my opinion the vessel is eligible for the record + LMC 7.15.

It is submitted that this vessel is eligible for THE RECORD.

+ LMC 7.15

*J.H.*  
8.8.15

*G.F.S.*

The amount of Entry Fee ... £ 1 : 0 : 0 When applied for.

Special ... £ 13 : 1 : 0 21-7-15

Donkey Boiler Fee ... £ : : : When received.

Travelling Expenses (if any) £ : 2 : 31/7/15 1915 3/8/15

*P. Fitzgerald*

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute WED. AUG. 4-1915

Assigned

+ LMC 7.15

MACHINERY CERTIFICATE  
8/11/15



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Foundation