

Rpt. 4.

Hull Rpt No. 32014
REPORT ON MACHINERY

No. 345-a

Received at London Office

Date of writing Report 26/4/1920 When handed in at Local Office

19 Port of SHEFFIELD

No. in Survey held at
Reg. Book.

SHEPBY BRIDGE Date, First Survey 20/3/19

Last Survey

22/7 1920

on the

DRIFTER ENGINE N: 23. Chimera

(Number of Visits)

Tons

Gross

Net

When built

95

42

1920

Master

Built at

Hull

By whom built

GOOLE SHIP BROS COY LTD

Engines made at

SHEPBY BRIDGE

By whom made

PILKITT & HAZELL LTD

when made

1920

Boilers made at

Lush

By whom made

Clayton, Son & Co. Ltd.

when made

1920

Registered Horse Power

270

Owners

Admiralty

Port belonging to

Nom. Horse Power as per Section 28

42-4

43

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

9 1/2 x 15 1/2 x 26

Length of Stroke

18

Revs. per minute

Dia. of Screw shaft

as per rule 5 9/16

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

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

24

Dia. of Tunnel shaft

as per rule 4 7/8

Dia. of Crank shaft journals

as per rule 5

Dia. of Crank pin

5 1/2

Size of Crank webs

10 3/4

Dia. of thrust shaft under

collars

5 1/2

Dia. of screw

6 9/16

Pitch of Screw

No. of Blades

4

State whether moveable

No

Total surface

15 1/2

No. of Feed pumps

No

Diameter of ditto

24

Stroke

9

Can one be overhauled while the other is at work

No. of Bilge pumps

No

Diameter of ditto

22

Stroke

9

Can one be overhauled while the other is at work

No. of Donkey Engines

1 & 2 injecta

Sizes of Pumps

5 1/4 x 3 1/2 x 5 Duplex

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

In Engine Room

two 2" dia.

In Holds, &c.

one 2" dia.

No. of Bilge Injections

1 sizes 2 1/2

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & size

2 injecta

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

wood casing

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)

Manufacturers of Steel

Total Heating Surface of Boilers

Is Forced Draft fitted

no

No. and Description of Boilers

one single ended

Working Pressure

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Area of fire grate in each boiler

No. and Description of Safety Valves to

each boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

Length

Material of shell plates

Thickness

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

long. seams

Diameter of rivet holes in long

Pitch of rivets

Lap of plates or width of butt straps

Per centages of strength of longitudinal joint

rivets

Working pressure of shell by rules

Size of manhole in shell

Size of compensating ring

top

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

bottom

Thickness of plates

crown

bottom

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Material of stays

Area at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space:

Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

Area at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

thickness of girder at centre

Length as per rule

Distance apart

Number and pitch of stays in each

Working pressure by rules

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

SUPERHEATER. Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

Date of Test

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

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

005961-005980-0182

IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— Two top end bolts & nuts; 2 bottom end bolts & nuts; 2 main bearing bolts; 1 set coupling bolts; 1 set air, circulating fuel & bilge pump valves. 6 condenser tubes & 12 ferrules; 6 cylinder cover studs & nuts, 6 junk ring bolts & nuts; a quantity of assorted bolts & nuts & iron of various sizes, & other articles as per specification.

The foregoing is a correct description,
FOR POLLIT & WIGZELL, LIMITED.

E. J. Pollit

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 20/3-20/3-2/4-30/4-15/5-28/5-12/6-27/6-9/7-22/7-3/8-12/8-17/10-4/11-18/11-4/12-2/1-22/1-26/2-6/3
During erection on board vessel -- Hull:- Jan 8/20 to 22/7/20 = 19
Total No. of visits 39

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 20/3/1920 6/3/20 Slides 20/3/1920 6/3/20 Covers 4/6/1920 6/3/20 Pistons 17/4/20 2/1/20 Rods 17/4/20 6/3/20
Connecting rods 15/4/1920 6/3/20 Crank shaft 15/4/1920 6/3/20 Thrust shaft 15/4/1920 6/3/20 Tunnel shafts 15/4/1920 6/3/20 Screw shaft 15/4/1920 6/3/20 Propeller 15/4/1920 6/3/20
Stern tube 15/4/1920 6/3/20 Steam pipes tested 28-5-20 Engine and boiler seatings 2-2-20 Engines holding down bolts 13-5-20

Completion of pumping arrangements 18-6-20 Boilers fixed 28-5-20 Engines tried under steam 18-6-20

Completion of fitting sea connections 30-1-20 Stern tube 8-1-20 Screw shaft and propeller 30-1-20

Main boiler safety valves adjusted 7-7-20 Thickness of adjusting washers 7/16 P & S

Material of Crank shaft Steel Identification Mark on Do. 4764 J.P.W. Material of Thrust shaft Steel Identification Mark on Do. 3069 J.B.

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Steel Identification Marks on Do. 3038 J.B.

Material of Steam Pipes S.D. Copper Test pressure 400 lbs per sq. in.

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 Drifter Engine

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under special survey and in accordance with the Specification and the Society's Rules. Material and workmanship are found and good. The machinery has been properly fitted & secured on board the drifter "Chimera". The steam pipe has been tested as above, & the safety valves tested for accumulation. On completion the machinery was tested under full power as required by the Admiralty, & found satisfactory.

It is submitted that
this vessel is eligible for
THE RECORD. + L.M.C. 7.20

P. Fitzgerald

RM

9/8/20

A.P.R.

The amount of Entry Fee ... £ : : When applied for,
Special Installing Machy. £ 9.0.0 : 15/3/1920 Hull
Donkey Boiler Fee ... £ 4.10 : 31-17-20 Don
Travelling Expenses (if any), £ : : 9/8/1920 RM
30/9/20 RM

P. F. Morton

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. AUG. 13 1920

Assigned + L.M.C. 7.20

FRI. OCT. 15 1920

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Lloyd's Register
Foundation