

Rpt. 4.

REPORT ON MACHINERY

No. 4026

Date of writing Report

19

When handed in at Local Office

1917

Port of

Received at London Office

SAT 12 DEC 1917

No. in Survey held at

Manchester

Date, First Survey

March 12

Last Survey

Dec. 14 1917

Reg. Book.

on the Admiralty Trawler (Mersey Class) Ship N° 817 Eng. N° C17

(Number of Visits

22

Jan 15/18

324

Master

Built at

Skelby

By whom built

Messrs. Cochrane & Co

When built

1918-1

Engines made at

Manchester

By whom made

Messrs. Crossley Bros.

when made

1917A-1

Boilers made at

Glasgow

By whom made

Messrs. Burnet

when made

1918-1

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

Three line, triple expansion, surface condensing

No. of Cylinders

Three

No. of Cranks

Three

Dia. of Cylinders

37x23x13

Length of Stroke

26

Revs. per minute

114

Dia. of Screw shaft

as per rule 7.90

Material of

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

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

Yes

Length of stern bush

36

Dia. of Tunnel shaft

as per rule 7.393

Dia. of Crank shaft journals

as per rule 7.500

Dia. of Crank pin

7.50

Size of Crank webs

4 7/8 x 1 1/4

Dia. of thrust shaft under

collars

7.50

Dia. of screw

115.50

Pitch of Screw

11 1/2

No. of Blades

4

State whether moveable

No

Total surface

33 1/2

No. of Feed pumps

Main Eng.

Diameter of ditto

2 1/8

Stroke

14 3/4

Can one be overhauled while the other is at work

No. of Bilge pumps

Main Eng.

Diameter of ditto

2 1/8

Stroke

14 3/4

Can one be overhauled while the other is at work

No. of Donkey Engines

One & 3

Sizes of Pumps

6" 4 1/2 x 6"

Duplex

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

In Engine Room

Two 2" diam

In Holds, &c. one 2" diam in each compartment

all suction also connected to ejector

No. of Bilge Injections

One size 3 1/2"

Connected to condenser or to circulating pump

Yes

Is a separate Donkey Suction fitted in Engine room & size 3" 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

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

Strong 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

Yes

BOILERS, &c.—(Letter for record

Manufacturers of Steel

Total Heating Surface of Boilers

1440

Is Forced Draft fitted

No

No. and Description of Boilers

One single ended

Working Pressure

200 lbs.

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

2 Spring

Area of each valve

4.9

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

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. seams

Pitch of rivets

Lap of plates or width of butt straps

Per centages of strength of longitudinal joint

Working pressure of shell by rules

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

top

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

007266-007275-0052

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

2 Top end bolts - 2 bottom end bolts - 2 main bearing bolts & nuts - 5 coupling bolts - 2 feed and 2 bilge pump valves 1 head 1 foot and 1 bucket valve for his pump - 3 condenser tubes and 2 ferrules - 6 pump ring studs. Two valves for donkey pump, one main & one donkey check valve, one safety valve spring one set of fire bars & a quantity of bolts & nuts of various sizes

The foregoing is a correct description,

CROSLEY BROTHERS LTD.,

[Signature]

Managing Director, Manufacturer.

Dates of Survey while building { During progress of work in shops -- } March 12. 21. Aug. 22. 28. Sep 3 12. 17. Oct. 10. 31. Nov. 5. 23. Dec. 6. 14.
{ During erection on board vessel -- } Hull Dec 27 1918 Jan 2. 3. 7. 9 11. 15
Total No. of visits 22

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders Feb 18. Nov 23 Slides Nov. 23 Covers Nov. 23 Pistons Nov. 23 Rods Feb 10 Nov 5

Connecting rods March 21. Crank shaft Oct. 10. Thrust shaft March 12. 21 Tunnel shafts — Screw shaft 29-8-17 Propeller 29-8-17

Stern tube 29-8-17 Steam pipes tested 3-1-18 Engine and boiler seatings 3-9-17 Engines holding down bolts 2-1-18

Completion of pumping arrangements 11-1-18 Boilers fixed 9-1-18 Engines tried under steam 11-1-18

Completion of fitting sea connections 3-9-17 Stern tube 3-9-17 Screw shaft and propeller 3-9-17

Main boiler safety valves adjusted 7-1-18 Thickness of adjusting washers 7 1/32 & 1/32

Material of Crank shaft Steel Identification Mark on Do. M 5893 AB Material of Thrust shaft Steel Identification Mark on Do. 5891 AE

Material of Tunnel shafts — Identification Marks on Do. — Material of Screw shafts Steel Identification Marks on Do. 2007 FA

Material of Steam Pipes solid drawn copper Test pressure 400 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 C 13-14-15-16

General Remarks (State quality of workmanship, opinions as to class, &c.)

The main Engines with the shafting of pumps have been constructed under survey; the material - tested in accordance with rule requirements - and the workmanship is good, the work having been carried out according to specification & plans.

So far as seen this machinery is eligible, in my opinion, to be classed +100 A1. and to have the record of +LMC with date when the main & auxiliary machines and boilers have been fitted on board to the satisfaction of the Society's Surveyors

The Machinery has been properly fitted & secured on board the vessel on completion tested under full power for two hours, as required by the Admiralty found satisfactory. The steam pipes have been tested & the safety valves adjusted as above & tested for accumulation which did not exceed 215 lbs.

In my opinion the vessel is eligible for the record +L A C. 1-18

It is submitted that this vessel is eligible for THE RECORD + LMC 1-18

The amount of Entry Fee ... £ 14 : 0 :
Hull Special Fitting out ... £ 6 : 10 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : 12/3 :

When applied for,

Dec 21 1918

When received,

Feb 23 1919

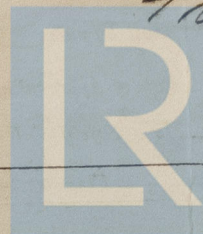
14. Jan 11-2-18

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE JAN 22 1918.

Assigned

+ L A C 1-18.



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