

REPORT ON MACHINERY.

Hall 30104
No. 8004.

Received at London Office

TUE 8-MAY. 1917

SAT 18 AUG. 1917

Date of writing Report

19

When handed in at Local Office

19

Port of

DUNDEE

No. in Survey held at
Reg. Book.

Lundin

Date, First Survey

9th Feb 1914

Last Survey

4th May 1914

(Number of Visits

19)

10

2-17

Hull

on the S. Trawler "THOMAS ATKINSON"

Master

Built at

Leith

By whom built

James Cochran & Co. Ltd (Ls 806)

Tons

Net

When built

1914

Engines made at

Lundin

By whom made

James Cooper & Co. Ltd (N^o 184)

when made

1914

Boilers made at

Hull

By whom made

C.D. Holmes & Co. Ltd (A 4)

when made

1917-8

Registered Horse Power

Owners

The Admiralty

Port belonging to

Nom. Horse Power as per Section 28

87.33

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no

ENGINES, &c.—Description of Engines Triple Expansion surface condensing No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 13" - 23" - 34" Length of Stroke 26" Revs. per minute 114 Dia. of Screw shaft as per rule 7.9 Material of screw shaft as fitted 8 1/2 W. Iron

Is the screw shaft fitted with a continuous liner the whole length of the stern tube 118 1/2 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 2'-11 1/2"

Dia. of Tunnel shaft as per rule 7.041 Dia. of Crank shaft journals as per rule 7.39 Dia. of Crank pin 7 1/2" Size of Crank webs 4 1/2" x 4 1/2" Dia. of thrust shaft under

collars 7 1/2" Dia. of screw 9'-4 1/2" Pitch of Screw 11'-0" No. of Blades 4 State whether moveable Ls Total surface 33 1/2

No. of Feed pumps 2 Diameter of ditto 2 5/8" Stroke 14 3/4" Can one be overhauled while the other is at work — 70 S.H.P.

No. of Bilge pumps 2 Diameter of ditto 2 5/8" Stroke 14 3/4" Can one be overhauled while the other is at work —

No. of Donkey Engines 2 3" girth 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" dia In Holds, &c. one 2" dia in each compartment

all suction also connected to girth

No. of Bilge Injections 2 sizes 3" 1/2 Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 3" girth

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 no

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 casing and with iron

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 (S) Manufacturers of Steel

Total Heating Surface of Boilers 1440 sq ft Is Forced Draft fitted no No. and Description of Boilers 1 S.B.

Working Pressure 200 Lb sq in Tested by hydraulic pressure to Date of test No. of Certificate

Can each boiler be worked separately Area of fire grate in each boiler 48 sq ft 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. seams 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 No. and Description of Furnaces in each boiler Material Outside diameter

Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings

Working pressure of furnace by the rules bottom bottom bottom bottom bottom bottom bottom bottom bottom 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

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 Top end bolts & nuts, 2 Bottom end bolts & nuts, 2 main bearing bolts & nuts, One set of coupling bolts, One set fuel and
 size pump valves, One set air pump valves, then condenser tubes and 12
 females, Six pint ring studs, one main & one donkey chest valve, two valves
 for donkey pump, one safety valve spring, one set of fire bars & a quantity of bolts &
 nuts & nuts of various sizes.

The foregoing is a correct description,

FOR COOPER & CO. LTD.

W. H. Cooper

DIRECTOR

Manufacturer.

Dates of Survey while building { During progress of work in shops -- } Feb. 9, 22, Mar. 2, 5, 6, 12, 13, 16, 22, 28, Apr. 3, 6, 14, 18, 19, 24, 26, MAY 1, 4.
 { During erection on board vessel -- } Apr 25, May 3, Jun 18, Jul 19, 25, 27, 30, 31, Aug 3-10, 7 1/2 weeks 10.
 Total No. of visits 19.

Is the approved plan of main boiler forwarded herewith

Andrew King

Dates of Examination of principal parts—Cylinders 28.3.17 Slides 18.4.17 Covers 18.4.17 Pistons 18.4.17 Rods 24.4.17
 Connecting rods 24.4.17 Crank shaft 6.4.17 Thrust shaft 19.4.17 Tunnel shafts 19.4.17 Screw shaft 19.4.17 Propeller 19.4.17
 Stern tube 19.4.17 Steam pipes tested 31.7.17 Engine and boiler seatings 25.4.17 Engines holding down bolts 27.7.17
 Completion of pumping arrangements 3.8.17 Boilers fixed 2.8.17 Engines tried under steam 3.8.17
 Completion of fitting sea connections 25.4.17 Stern tube 25.4.17 Screw shaft and propeller 25.4.17
 Main boiler safety valves adjusted 2.8.17 Thickness of adjusting washers 7 1/2" 32 2 1/2" 32.

Material of Crank shaft Steel Identification Mark on Do. 692 J.H.M. Material of Thrust shaft Steel Identification Mark on Do. 692 J.H.M.
 Material of Tunnel shafts Steel Identification Marks on Do. 692 J.H.M. Material of Screw shafts Steel Identification Marks on Do. 692 J.H.M.
 Material of Steam Pipes Solid drawn copper Test pressure 4 lbs.

Is an installation fitted for burning oil fuel 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 If so, state name of vessel *Therapy Lass*

General Remarks (State quality of workmanship, opinions as to class, &c. *The engines for this vessel*)
 have been built under special survey, and in accordance with the terms of the specification. The materials and workmanship are sound and good.

The machinery will be eligible in my opinion to have record of S.L.M.C. (with date) when satisfactorily completed on board, & when the spare part has been checked, the pumping arrangements found in order, and the remaining terms of the specification complied with.

The machinery has been properly fitted & secured on board the vessel & on completion was tested under steam for two hours under full power & found satisfactory, the steam pipes have been tested, the spare part checked & in my opinion the vessel is eligible for the record & S.L.M.C. 8.17.

Fee— The fee has not yet been charged, pending the Admiralty's approval of the scale submitted to them. Please see Secretary's letter of 20/4/17 to Bureau.

The amount of Entry Fee ... £

Special ... £ 14: 5 8

Donkey Boiler Fee

Travelling Expenses (if any)

£ 6: 10

£ 12: 3

When applied for,

19

When received, Lon.

27/6/17

31/8/17

17.8.17 W.H.R.

Committee's Minute

Assigned

MACHINERY CERTIFICATE
 WRITTEN.



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