

RECEIVED
28 JAN 1944
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Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 22560.

Received at London Office

27 JAN 1944

Date of writing Report 17th JAN. 1944 When handed in at Local Office 20th JAN. 1944 Port of GREENOCK

No. in Survey held at

GREENOCK

Date, First Survey 27th OCT. 1943.

Last Survey 11th JANUARY 1944.

Reg. Book.

Number of Visits 27.

39937 on the ^{Single} ~~Triple~~ ^{Quadruple} Screw vessel

TREVANION

Tons { Gross 7375.27
Net 5733.54

Built at ~~PORT~~ GLASGOW

By whom built LITHGOWS LTD

Yard No. 985 When built 1944

Engines made at GLASGOW

By whom made HARLAND & WOLFF LTD

Engine No. 8462/2 When made 1943

Donkey Boilers made at GREENOCK

By whom made JOHN G. KINCAID & CO LTD

Boiler No. 153 When made 1943.

Brake Horse Power 3300

Owners Hain Steamship Co Ltd

Port belonging to LONDON

Nom. Horse Power as per Rule 490

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

Trade for which vessel is intended

OPEN SEA SERVICE

OIL ENGINES, &c.—Type of Engines.

2 or 4 stroke cycle

Single or double acting

Maximum pressure in cylinders

Diameter of cylinders

Length of stroke

No. of cylinders

No. of cranks

Mean Indicated Pressure

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge

Is there a bearing between each crank

Revolutions per minute

Flywheel dia.

Weight

Means of ignition

Kind of fuel used

Crank Shaft,

{ Solid forged
Semi built dia. of journals
All built

as per Rule
as fitted

Crank pin dia.

Crank Webs

Mid. length breadth
Mid. length thickness

Thickness parallel to axis
Thickness around eye-hole

Flywheel Shaft, diameter

as per Rule
as fitted

Intermediate Shafts, diameter

as per Rule
as fitted

Thrust Shaft, diameter at collars

as per Rule
as fitted

Tube Shaft, diameter

as per Rule
as fitted

Screw Shaft, diameter

as per Rule
as fitted

Is the { tube
screw } shaft fitted with a continuous liner {

Bronze Liners, thickness in way of bushes

as per Rule
as fitted

Thickness between bushes

as per Rule
as fitted

Is the after end of the liner made watertight in the

propeller boss

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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

Is an approved Oil Gland or other appliance fitted at the after end of the tube

shaft If so, state type

Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia.

Pitch

No. of blades

Material

whether Moveable

Total Developed Surface

sq. feet

Method of reversing Engines

Is a governor or other arrangement fitted to prevent racing of the engine when declutched

Means of lubrication

Thickness of cylinder liners

Are the cylinders fitted with safety valves

Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Cooling Water Pumps, No. Two 1. M. Eng 150 tons/hr 2. Steam 200 tons/hr Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Bilge Pumps worked from the Main Engines, No. NONE Diameter Stroke Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line { No. and Size Two 1 @ 100 tons/hr 1 @ 170 tons/hr

{ How driven Steam

Is the cooling water led to the bilges No

If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements

Ballast Pumps, No. and size 1 @ 170 tons/hr

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size Two.

Are two independent means arranged for circulating water through the Oil Cooler Yes

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Machinery Spaces Two @ 3" Three @ 2 1/2" Tunnel well One @ 2 1/2" In Pump Room

In Holds, &c. N°1—2 @ 3" N°2—2 @ 3 1/2" Deep tank—2 @ 2 1/2" N°3—2 @ 3" N°4—2 @ 3"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Two @ 5"

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes

Are the Bilge Suctions in the Machinery Spaces

led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes

Are all Sea Connections fitted direct on the skin of the ship Yes

Are they fitted with Valves or Cocks Both

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Yes

Are the Overboard Discharges above or below the deep water line Below

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 pass through the bunkers No

How are they protected

What pipes pass through the deep tanks For hold suction

Have they been tested as per Rule Yes

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one

compartment to another Yes

Is the Shaft Tunnel watertight Yes

Is it fitted with a watertight door No

worked from Access from U.D.

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Main Air Compressors, No. One

No. of stages 2

Diameters 4 3/4 & 11 1/4

Stroke 8"

Driven by Steam engine

Auxiliary Air Compressors, No. —

No. of stages —

Diameters —

Stroke —

Driven by —

Small Auxiliary Air Compressors, No. —

No. of stages —

Diameters —

Stroke —

Driven by —

What provision is made for first Charging the Air Receivers. Steam compressor above

Scavenging Air Pumps, No. —

Diameter —

Stroke —

Driven by —

Auxiliary Engines crank shafts, diameter

as per Rule
as fitted

1PSWICH CER 9-4-43

No. 1

Position

Engine room platform

Have the Auxiliary Engines been constructed under special survey

Is a report sent herewith

014887-014898-0331

AIR RECEIVERS:—Have they been made under survey *yes* State No. of Report or Certificate *—*
Is each receiver, which can be isolated, fitted with a safety valve as per Rule *yes*
Can the internal surfaces of the receivers be examined and cleaned *yes* Is a drain fitted at the lowest part of each receiver *yes*
Injection Air Receivers, No. *—* Cubic capacity of each *—* Internal diameter *—* thickness *—*
Seamless, lap welded or riveted longitudinal joint *—* Material *—* Range of tensile strength *—* Working pressure *—*
Starting Air Receivers, No. *6 one* Total cubic capacity *750 cu ft* Internal diameter *6'-4"* thickness *1/32"*
Seamless, lap welded or riveted longitudinal joint *T.P.D.B.* Material *S* Range of tensile strength *29/33 tons* Working pressure *by Rules 368 lb Actual 356 lb*

IS A DONKEY BOILER FITTED? *yes* *two* If so, is a report now forwarded? *yes*
Is the donkey boiler intended to be used for domestic purposes only *—*

PLANS. Are approved plans forwarded herewith for Shafting *425* Receivers *29-5-42* Separate Fuel Tanks *1-4-43*
8-5-43 (If not, state date of approval)
Donkey Boilers *20-10-42* General Pumping Arrangements *25-11-42* Pumping Arrangements in Machinery Space *9-1-43*
Oil Fuel Burning Arrangements *16-6-43*

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

See separate list.
The foregoing is a correct description,
For JOHN G. KINCAID & CO. LIMITED.

W. G. Kincaid Director. Manufacturer.

Dates of Survey while building { During progress of work in shops - - }
{ During erection on board vessel - - } (1943) OCT. 27-29. NOV. 1-3-5-8-10-12-15-16-17-19-23-26. DEC. 2-7-9-13-14-15-16-20-27-28-29. (1944) JAN. 11.
Total No. of visits *24*

Dates of Examination of principal parts—Cylinders *—* Covers *—* Pistons *—* Rods *—* Connecting rods *—*
Crank shaft *—* Flywheel shaft *—* Thrust shaft *—* Intermediate shafts *—* Tube shaft *—*
Screw shaft *—* Propeller *—* Stern tube *—* Engine seatings *12-11-43* Engines holding down bolts *15-12-43*
Completion of fitting sea connections *8-11-43* Completion of pumping arrangements *11-1-44* Engines tried under working conditions *11-1-44*
Crank shaft, Material *—* Identification Mark *—* Flywheel shaft, Material *—* Identification Mark *—*
Thrust shaft, Material *—* Identification Mark *—* Intermediate shafts, Material *—* Identification Marks *—*
Tube shaft, Material *—* Identification Mark *—* Screw shaft, Material *—* Identification Mark *—*
Identification Marks on Air Receivers *N° 2332*
LLO405 TEST
556 lb
WP 356 lb
CHH 7-5-43

Is the flash point of the oil to be used over 150° F. *yes*
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *yes*
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *War emergency only* If so, have the requirements of the Rules been complied with *See app. 2 plans*
If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with *—*
Is this machinery duplicate of a previous case *No* If so, state name of vessel *—*

General Remarks (State quality of workmanship, opinions as to class, &c.)
The boiler & machinery of this vessel have been built under Special Survey in accordance with the Rules & approved plans. They have been efficiently installed in the vessel & tested out on a short sea trial with satisfactory results. This installation is eligible in my opinion to be Classed in the Society's Register Book with Record
+ LMC 1-44 and Notation Screw shaft CL 20B. 150 lbs/"

For particulars not on this report please see Glasgow report N° 6774.

The amount of Entry Fee .. £ : : When applied for,
98-10. Jan 94 to 65-13. ... £ 32 : 17 : *21st JAN. 1944.*
Special ...
Donkey Boiler Fee ... £ 19 : 10 : When received,
AIR RECEIVER ... £ 4 : 4 :
Travelling Expenses (if any) £ : : 19

Committee's Minute

Assigned *+ LMC 1-44* *20B. 150 lb.*

Charles J. Hunter
Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation