

Rpt. 4b.

## REPORT ON OIL ENGINE MACHINERY.

No. 62686

AUG 21 1940

Received at London Office

Date of writing Report

When handed in at Local Office

17. 8. 1940 Port of GLASGOW

No. in Survey held at

GLASGOW

Date, First Survey

(1939) Aug 23<sup>rd</sup>

Last Survey

8A. Aug 1940

Reg. Book.

Number of Visits

15176 on the

Single  
Twin  
Triple  
Quadruple

Screw vessel

"TREVILLY"

Tons Gross 5300

Net

Built at PT GLASGOW

By whom built LITHGOWS LTD.

Yard No. 928 When built 1940

Engines made at

GLASGOW

By whom made BARCLAY CURLE &amp; CO. LD.

Engine No. EW188 When made 1940

Donkey Boilers made at

-DO-

By whom made

-DO-

Boiler No. W184 When made 1940

Brake Horse Power

1660

Owners HAIN STEAMSHIP CO. LD.

Port belonging to LONDON

Nom. Horse Power as per Rule

449

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Trade for which vessel is intended

OIL ENGINES, &amp;c.—Type of Engines BARCLAY CURLE OPPOSED PISTON 2 or 4 stroke cycle 2 Single or double acting SINGLE

Maximum pressure in cylinders

600 lb.

Diameter of cylinders

560 mm

Length of stroke

2160 mm

No. of cylinders

3

No. of cranks

9

Mean Indicated Pressure

84.5 lb.

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

1120 mm

Is there a bearing between each crank

No

Revolutions per minute

95

Flywheel dia.

AFT 2320 mm

Weight

AFT 6.11 Tons

Means of ignition

COMP

Kind of fuel used

DIESEL OIL

Crank Shaft, { Solid forged  
Semi built  
All built

dia. of journals

as per Rule App.  
as fitted 420 mm

Crank pin dia.

420 mm

Crank Webs

Mid. length breadth 610 mm  
Mid. length thickness 240 mm

Thrust Shaft, diameter at collars

as per Rule App.  
as fitted 420 mm

Thrust Shaft, diameter at collars

as per Rule App.  
as fitted 420 mm

Flywheel Shaft, diameter

as per Rule App.  
as fitted

Intermediate Shafts, diameter

as per Rule App.  
as fitted 13"

Tube Shaft, diameter

as per Rule App.  
as fitted

Screw Shaft, diameter

as per Rule App.  
as fitted 14 1/2"Is the { tube  
screw } shaft fitted with a continuous liner

Yes

Bronze Liners, thickness in way of bushes

as per Rule App.  
as fitted 3/4"

Thickness between bushes

as per Rule App.  
as fitted 9/16"

Is the after end of the liner made watertight in the

propeller boss

Yes

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

No

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

shaft

No

If so, state type

-

Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia.

15'-0"

Pitch

12'-0"

No. of blades

4

Material

BRONZE

whether Moveable

No

Total Developed Surface

85 sq. feet

Method of reversing Engines

DIRECT

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

Yes

Means of lubrication

FORCED Thickness of cylinder liners

23"

Are the cylinders fitted with safety valves

Yes

Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material

Yes

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.

ONE M.E. DRIVEN

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.

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

10 1/2" x 12" x 24"

208" x 9" x 15"

10 5" x 4 1/2" x 12"

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

10 1/2" x 12" x 24"

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

M.E. 85" x 540 mm

STEAM 6 1/2" x 7" x 15"

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

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

Yes

Pumps, No. and size

In Machinery Spaces

4 @ 8" in E.R.

10 1/2" in B.A.

10 2 1/2" in Tunnel Well

In Pump Room

In Holds, &amp;c.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

2 @ 5 1/2"

2 @ 2" oil bilge

Are the Bilge Suctions in the Machinery Spaces

Yes

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

Yes

Are they fitted with Valves or Cocks

Both

Are the Overboard Discharges above or below the deep water line

Both

Are the Blow Off Cocks fitted with a spigot and brass covering plate

Yes

What pipes pass through the bunkers

None

How are they protected

-

Have they been tested as per Rule

-

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

Yes

worked from Bulkhead

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.

-

No. of stages

-

Diameters

-

Stroke

-

Driven by

-

Auxiliary Air Compressors, No.

2

No. of stages

3

Diameters

10 1/2" - 2 1/2"

Stroke

6"

Driven by

Steam engine

Small Auxiliary Air Compressors, No.

-

What provision is made for first Charing the Air Receivers

Steam driven compressors

Scavenging Air Pumps, No.

ONE

Diameter

1600 mm

Stroke

540 mm

Driven by

Main engine

Auxiliary Engines crank shafts, diameter

as per Rule App.  
as fitted

Have the Auxiliary Engines been constructed under special survey

-

Is a report sent herewith

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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 by Rules —

Starting Air Receivers, No. 2

Total cubic capacity 250 cu. ft.

Internal diameter 4'-1 1/2"

thickness 1 3/8"

Seamless, lap welded or riveted longitudinal joint riveted

Material steel

Range of tensile strength 29/33 tons

Working pressure by Rules 600 lb.

Actual 600 lb.

IS A DONKEY BOILER FITTED? Yes

If so, is a report now forwarded? Yes

Is the donkey boiler intended to be used for domestic purposes only No

PLANS. Are approved plans forwarded herewith for Shafting 18-5-39  
(If not, state date of approval)

Receivers Yes

Separate Fuel Tanks —

Donkey Boilers Yes

General Pumping Arrangements —

Pumping Arrangements in Machinery Space Yes

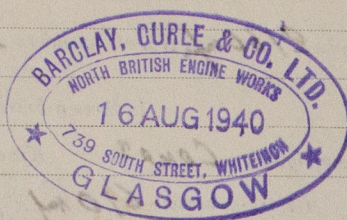
Oil Fuel Burning Arrangements Yes

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes

State the principal additional spare gear supplied

List attached



The foregoing is a correct description of BARCLAY, CURLE & CO. LTD.

Albion Marine

Manufacturer.

Dates of Survey while building: During progress of work in shops—(1939) Aug. 23, Sept. 12, 29, Oct. 5, 19, 27, Nov. 6, 8, 10, 17, 20, Dec. 1, 8, (1940) Jan. 26, 30, Feb. 9, 12, 21, Mar. 4, 8, 15, 20, 26, Apr. 2, 8, 17, 19, May 1, 6, 7, 13, 28, June 5, 7, 17, 19, 26, July, 8, 23, Aug. 8.  
During erection on board vessel—  
Total No. of visits 43

Dates of Examination of principal parts—Cylinders 8-11-39 Covers — Pistons 12-2-40 Rods 12-2-40 Connecting rods 2-4-40

Crank shaft 17-6-40 Flywheel shaft 17-6-40 Thrust shaft 17-6-40 Intermediate shafts 7-5-40 Tube shaft —

Screw shaft 26-3-40 Propeller 26-3-40 Stern tube 4-4-40 Engine seatings 4-4-40 Engines holding down bolts 8-7-40

Completion of fitting sea connections 19-4-40 Completion of pumping arrangements 23-7-40 Engines tried under working conditions 8-8-40

Crank shaft, Material S.M. steel Identification Mark 1313-33HDB-ATB Flywheel shaft, Material S.M. steel Identification Mark 1324HDB-ATB

Thrust shaft, Material S.M. steel Identification Mark 1331ATB-HDB Intermediate shafts, Material S.M. steel Identification Marks 8692ATB

Tube shaft, Material — Identification Mark — Screw shaft, Material S.M. steel Identification Mark 8692ATB

Identification Marks on Air Receivers LLOYD'S TEST 800LBS

WP 600LBS ATB 10-10-39

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 No

If so, have the requirements of the Rules been complied with —

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 Yes If so, state name of vessel "TREVETHOE" GLS. R. N. 62435

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery has been built under special survey in accordance with the Rules and approved plans and the materials and workmanship are good. It has been satisfactorily installed in the vessel, tested under working conditions and found efficient and, in my opinion, is eligible to be classed in the Register Book with record + LMC 8, 40 and notation CL 2 DB 120 lb.

The amount of Entry Fee .. £ 5 : — : When applied for 20 AUG 1940  
Special .. £ 92 : 7 :  
WELDING FEE .. £ 12 : 12 :  
Donkey Boiler Fee .. £ 4 : 4 :  
AIR RECEIVERS .. £ 4 : 4 :  
Travelling Expenses (if any) £ : : : When received, 30-9-1940

Committee's Minute GLASGOW 20 AUG 1940

Assigned 1- RMC 8.40 Air Eng  
2 DB 120 lb.

N. Brown  
Engineer Surveyor to Lloyd's Register of Shipping

