

## REPORT ON OIL ENGINE MACHINERY.

No. 58800  
SEP 8 1937

Received at London Office

Date of writing Report

When handed in at Local Office

4.9.1937 Port of Glasgow

No. in Survey held at  
Reg. Book.

Date, First Survey

Last Survey

Number of Visits

35469 on the <sup>Single</sup> ~~Twin~~ <sup>Triple</sup> ~~Quadruple~~ Screw vessel

M.V. "Trevalgan"

Tons Gross 5299  
Net 3120

Built at Port Glasgow

By whom built Lithgous Ltd.

Yard No. 898

When built 1937-8.

Engines made at Glasgow

By whom made Barclay Currie &amp; Co Ltd

Engine No.

When made 1934

Donkey Boilers made at do

By whom made do

Boiler No. do

When made 1934

Brake Horse Power 1890

Owners Nain L.L.C. Ltd.

Port belonging to London

Nom. Horse Power as per Rule 449 Is Refrigerating Machinery fitted for cargo purposes

No. Is Electric Light fitted y/s.

Trade for which vessel is intended

## OIL ENGINES, &amp;c.

Type of Engines

Heavy oil (opposed piston)

2 or 4 stroke cycle

2 Single or double acting Single

Maximum pressure in cylinders

600 lb

Diameter of cylinders

22 1/2" 5607

Length of stroke

21607 (6 in)

No. of cylinders

3

No. of cranks

3

Mean Indicated Pressure

89

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

11207

Is there a bearing between each crank

Revolutions per minute

99

Flywheel dia.

23207

Weight

6.11 Ton

Means of ignition

Bump

Kind of fuel used

Diesel oil

Crank Shaft, dia. of journals

as per Rule app

as fitted 4507

Crank pin dia.

4207

Crank Webs

Mid. length breadth 9107

Mid. length thickness 1487

Thickens parallel to axis 2407

Thickens around eye-hole 1937

Flywheel Shaft, diameter

as per Rule app

as fitted 4007

Intermediate Shafts, diameter

as per Rule app

as fitted 137

Thrust Shaft, diameter at collars

as per Rule app

as fitted 4207

Tube Shaft, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule app

as fitted 1427

Is the tube screw

shaft fitted with a continuous liner

y/s

Bronze Liners, thickness in way of bushes

as per Rule

as fitted 37

Thickness between bushes

as per Rule

as fitted 217

Is the after end of the liner made watertight in the

propeller boss

y/s

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

y/s

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

54 1/2

Propeller, dia.

15-0

Pitch

12-0

No. of blades

4

Material

hemp

whether Moveable

Solid

Total Developed Surface

85

sq. feet

Method of reversing Engines

Bump Air Pist

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

y/s

Means of lubrication

Need

Thickness of cylinder liners

207

Are the cylinders fitted with safety valves

y/s

Are the exhaust pipes and steam pipes lagged with

non-conducting material

y/s

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. 1 2 3 4

No. 1 2 3 4

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

y/s

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 10 1/2 x 12 x 24 + 10 8 x 9 x 18

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 10 1/2 x 12 x 24

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

10 6 1/2 x 7 x 15 (spare)

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

4 2 3

In Pump Room

10 3 1/2

In Hold, &amp;c.

No. 1-2 2 3

No. 2-2 2 3

No. 3-2 2 3

No. 4-2 2 3

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

2 2 5 1/2

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

y/s

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

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

y/s

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

y/s

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

y/s

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

y/s

What pipes pass through the bunkers

How are they protected

What pipes pass through the deep tanks

Bilge Pipes

Have they been tested as per Rule

y/s

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

y/s

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

y/s

Is the Shaft Tunnel watertight

See full report

Is it fitted with a watertight door

y/s

worked from

Upper deck

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.

No. of stages

Diameters

Stroke

Driven by

Small Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Scavenging Air Pumps, No.

Diameter

Stroke

Driven by

Auxiliary Engines crank shafts, diameter

as per Rule

as fitted

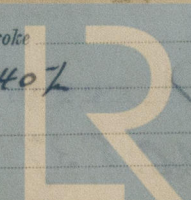
No.

Position

Steam

No.

Position

Lloyd's Register  
Foundation

W224-0160

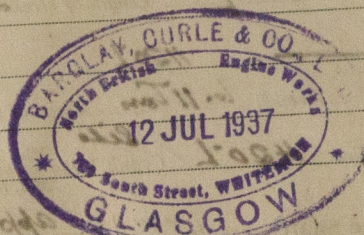


AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule *Yps.*  
Can the internal surfaces of the receivers be examined and cleaned *Yps.* Is a drain fitted at the lowest part of each receiver *Yps.*  
High Pressure Air Receivers, No. *1* Cubic capacity of each *250 1/2* Internal diameter *4-1 1/2* thickness *1 3/4*  
Seamless, lap welded or riveted longitudinal joint *Welded* Material *3* Range of tensile strength *29-33 tons* Working pressure *1000 lb*  
Starting Air Receivers, No. *2* Total cubic capacity *250 1/2* Internal diameter *4-1 1/2* thickness *1 3/4*  
Seamless, lap welded or riveted longitudinal joint *Welded* Material *3* Range of tensile strength *29-33 tons* Working pressure *1000 lb*  
If so, is a report now forwarded? *Yps.*

IS A DONKEY BOILER FITTED? *Yps.*  
Is the donkey boiler intended to be used for domestic purposes only *No.*

PLANS. Are approved plans forwarded herewith for Shafting *6-6-36* Receivers *17-10-36*  
(If not, state date of approval) Pumping Arrangements in Machinery Space *17-10-36*  
Donkey Boilers *17-10-36* General Pumping Arrangements *17-10-36*  
Oil Fuel Burning Arrangements *17-10-36* SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yps.*  
State the principal additional spare gear supplied *See List attached*



The foregoing is a correct description,  
For BARCLAY, CURLE & CO. LTD. Manufacturer.  
*Alexander Macnair*

Dates of Survey while building  
During progress of work in shops--  
During erection on board vessel--  
Total No. of visits *68*  
Dates of Examination of principal parts—Cylinders *16-3-34* Covers *16-3-34* Pistons *6-4-34* Rods *6-4-34* Connecting rods *2-4-34*  
Crank shaft *22-4-34* Flywheel shaft *24-4-34* Thrust shaft *24-4-34* Intermediate shafts *6-4-34* Tube shaft *8-4-34*  
Screw shaft *22-4-34* Propeller *24-4-34* Stern tube *24-4-34* Engine seatings *13-5-37* Engines holding down bolts *30-8-37*  
Completion of fitting sea connections *26-6-37* Completion of pumping arrangements *19-8-37* Engines tried under working conditions *30-8-37*  
Crank shaft, Material *1802/8-HAT-2* Identification Mark *EW 109. 86* Flywheel shaft, Material *do.* Identification Mark *1809/10-HAT-2*  
Thrust shaft, Material *do.* Identification Mark *do.* Identification Mark *do.*  
Tube shaft, Material *do.* Identification Mark *do.* Identification Mark *do.*

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

General Remarks (State quality of workmanship, opinions as to class, &c.)  
*This machinery has been built under special Survey and in accordance with the Rules. The materials and workmanship are good. It has been efficiently secured in position on board and afterwards tried under full working conditions with satisfactory results.*

*This machinery is eligible, in my opinion to be classed in the Register Book with notation of + L.M.C. 8-37. 2 D.B.-120 lb.*

The amount of Entry Fee .. £ 5 : - :  
Special ... £ 92 : 4 :  
WELDING Donkey Boiler Fee ... £ 12 : 12 :  
Travelling Expenses (if any) £ : :  
When applied for, *7-SEP-1937*  
When received, *30/10 1937*

Committee's Minute *GLASGOW 7-SEP-1937*  
Assigned *+ L.M.C. 8-37 2 D.B.-120 lb.*

*James D. R. R. R.*  
Engineer Surveyors to Lloyd's Register of Shipping.