

## REPORT ON OIL ENGINE MACHINERY.

No. 15188

20 SEP 1933

19 OCT 1933

Received at London Office

Date of writing Report

11.9.33

When handed in at Local Office

19.9.33 Port of

Southampton

No. in Survey held at  
Reg. Book.

Single

Date, First Survey

28.7.33

Last Survey

7.9.1933

Number of Visits 3

19520. on the

Screw vessel

Motor and Barge

"SEVERN CARRIER"

Tons

Gross 109.62  
Net

at

Bristol

By whom built

Charles Hill &amp; Co.

Yard No. 205

When built 1933

Lines made at

Yeovil, England

By whom made

Pettus Ltd.

Engine No. 220777

When made 1933

Boilers made at

By whom made

Boiler No. ✓

When made ✓

Horse Power

120

Owners London &amp; Canal Barge Co

Port belonging to

Bristol

Horse Power as per Rule

45

Is Refrigerating Machinery fitted for cargo purposes

Is

Is Electric Light fitted

Yes

For which vessel is intended

Service in the Bristol Channel

ENGINES, &amp;c.—Type of Engines

Pettus Atomic Diesel

2 or 4 stroke cycle 2

Single or double acting Single

Mean pressure in cylinders

630 lb/sq. in.

Diameter of cylinders

8"

Length of stroke

11 3/4"

No. of cylinders

4

No. of cranks

4

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

12 1/4"

Is there a bearing between each crank

Yes

Revolutions per minute

450

Flywheel dia.

30"

Weight

1152 lb

Means of ignition

Compression

Kind of fuel used

Heavy oil

Shaft, dia. of journals

as per Rule

4 1/2"

Crank pin dia.

4 1/2"

Crank Webs

Mid. length breadth 6 1/4"

Mid. length thickness 2 1/2"

shrink

Thickness parallel to axis

as per Rule

Thickness around eye-hole

as per Rule

Propeller Shaft, diameter

as fitted

4 1/2"

Intermediate Shafts, diameter

as per Rule

as fitted

Thrust Shaft, diameter at collars

as fitted

3 1/4"

Shaft, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

as fitted

3 1/2"

Is the

shaft fitted with a continuous liner

No

liner

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

stern 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 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

If so, state type

Length of Bearing in Stern Bush next to and supporting propeller 14"

Pitch

27"

No. of blades

4

Material

C I

whether Moveable

No

Total Developed Surface

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

Are the cylinders fitted with safety valves

Yes

Are the exhaust pipes and silencers water cooled or lagged with

Is the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

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

Yes

Pumps worked from the Main Engines, No.

1

Diameter

2 3/4"

Stroke

2 1/4"

Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line

No. and Size

one 2" direct + one 2" hand pump

Pumps, No. and size

None

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

Sulphate fitted 1 1/2" diam x 1 1/2" stroke

Independent means arranged for circulating water through the Oil Cooler

None

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Machinery Spaces

None

In Pump Room

Pumps, &amp;c.

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

Semi-rotary hand pump

Appd.

Are the Bilge Suction pipes in Hold and Tank Well fitted with strum-boxes

Yes

Are the Bilge Suctions in the Machinery Spaces

Are the Bilge Suctions in the Machinery Spaces easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Yes

Sea Connections fitted direct on the skin of the ship

Yes

Are they fitted with Valves or Cocks

Both

Are the Overboard Discharges above or below the deep water line

Yes

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

Yes

How are they protected

How are they protected

Have they been tested as per Rule

Have they been tested as per Rule

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

Yes

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

Is the Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

None

worked from

Yes

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

Air Compressors, No.

1

No. of stages

Single

Diameters

3 3/8"

Stroke

3 3/8"

Driven by Main Engine

Auxiliary Air Compressors, No.

1

No. of stages

- do -

Diameters

3

Stroke

3 1/2"

Driven by Aux

Auxiliary Air Compressors, No.

✓

No. of stages

-

Diameters

-

Stroke

-

Driven by

Air Pumps, No.

✓

Diameter

-

Stroke

-

Driven by

Air Engines crank shafts, diameter

as per Rule

as fitted

2 1/2"

No.:

Position

-

AIR RECEIVERS:—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

One only

Is a drain fitted at the lowest part of each receiver

Yes

High Pressure Air Receivers, No.

One

Cubic capacity of each

Internal diameter

7 1/2"

Thickness

1/4"

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

by Rules

Starting Air Receivers, No.

1

Total cubic capacity

Internal diameter

18"

Thickness

1/4"

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

by Rules



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

Is the donkey boiler intended to be used for domestic purposes only?

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

12-7-33

Receivers 4-7-33

24-7-33

Separate Tanks

15-7-33

Donkey Boilers

General Pumping Arrangements 1-9-33, 5-9-33

Oil Fuel Burning Arrangements

### SPARE GEAR.

Has the spare gear required by the Rules been supplied?

State the principal additional spare gear supplied

See list attached & London letter of 12-6-33 to builders & 30-6-33 to Shipbuilders.

The foregoing is a correct description.

Robertson P.P. Henderson & Co. Ltd. Manufacturer.

Dates of Survey while building  
During progress of work in shops - 28-7-33, 28-8-33, 7-9-33  
During erection on board vessel - Sep 8, 11, 13, 14, 20, 21, 22, Oct 9.  
Total No. of visits 3 + 10 = 13.

Dates of Examination of principal parts—Cylinders 28-7-33 Covers 28-7-33 Pistons 28-7-33 Rods 28-7-33 Connecting rods 28-7-33

Crank shaft 28-7-33 Flywheel shaft 28-7-33 Thrust shaft 28-8-33 Intermediate shafts Tube shaft

Screw shaft 6-9-33 Propeller 6-9-33 Stern tube 14-9-33 Engine seatings 22-8-33 Engines holding down bolts 19-9-33

Completion of fitting sea connections 14-9-33 Completion of pumping arrangements Engines tried under working conditions 22-9-33

Crank shaft, Material ON Steel Identification Mark NO 3274 GA Flywheel shaft, Material Identification Mark

Thrust shaft, Material ON Steel Identification Mark NO 3274 GA + JA Intermediate shafts, Material Identification Marks

Tube shaft, Material ON Steel Identification Mark NO 3274 GA + JA Screw shaft, Material Identification Mark

Is the flash point of the oil to be used over 150° F. 740.

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo

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 No If so, state name of vessel

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

This machinery has been constructed under Special Survey, according to Rules and approved plans & the materials & workmanship are sound & good. It has been tried in the shop under working conditions & found satisfactory.

This machinery has now been fitted & secured on board according to the Rules, tested under working conditions & found satisfactory & is now eligible for issue of T.L.M.C. 10-33.

The amount of Entry Fee .. £ 2 0 0 When applied for,

Special 4/5 only... £ 12 0 0 19/9/1933

Donkey Boiler Fee ... £ 3 0 0 18/10/33

Travelling Expenses (if any) £ 3-7-0 17-7-0 11/34

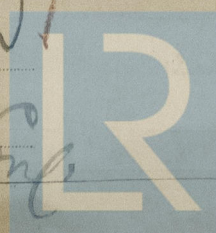
Committee's Minute

Assigned

FRI. 3 NOV 1933

H. Lamb 10. 33

John L. Gwynne Macmillan Engineer Surveyor to Lloyd's Register of Shipping



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