

REPORT ON OIL ENGINE MACHINERY.

No. 10942

6 JAN 1927

When handed in at Local Office 6 JAN 1927

Port of

London Ipswich

Date, First Survey 24 June 1926

Last Survey 5th January 1927

Number of Visits EIGHT.

Date of writing Report 6 JAN 1927

Where in Survey held at Ipswich

By Book.

on the ^{Single} Twin ^{Triple} Screw vessels "SOUTHLAND"

Tons Gross Net

Built at Dublin

By whom built Dublin Dockyard Co.

Yard No. 120. When built

Engines made at Ipswich

By whom made Vickers-Petterson Ltd

Aux. Engine No. 886 When made 1927

Monkey Boilers made at

By whom made

Boiler No. When made

Indicated Horse Power 45-50

Owners Bluff Harbour Board. N.Z.

Port belonging to

Indicated Horse Power as per Rule 14

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

ENGINES, &c. Type of Engines

Semi-Diesel

2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 280-300 lb.

No. of cylinders 2

Diameter of cylinders 9"

No. of cranks 2

Length of stroke 10"

Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 11"

Is there a bearing between each crank Yes

Revolutions per minute 375

Flywheel dia. 48"

Weight 764 lb.

Means of ignition Hot surface

Kind of fuel used Grade oil

Crank Shaft, dia. of journals as fitted 4"

as per Rule 4"

Crank pin dia. 4"

Crank Webs

Mid. length breadth 6"

Mid. length thickness 2 5/8"

shrink

Thickness parallel to axis Solid

Thickness around eye-hole Forging

Wheel Shafts, diameter as per Rule

as fitted

Intermediate Shafts, diameter as per Rule

as fitted

Thrust Shaft, diameter at collars as per Rule

as fitted

Screw Shafts, diameter as per Rule

as fitted

Screw Shaft, diameter as per Rule

as fitted

Is the tube screw shaft fitted with a continuous liner

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

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

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IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

HYDRAULIC TESTS:-

| DESCRIPTION. | DATE OF TEST. | WORKING PRESSURE. | TEST PRESSURE. | STAMPED. | REMARKS. |
|---|---------------|-------------------------|------------------------|----------|---------------------|
| ENGINE CYLINDERS <i>Liners</i> | 11.6.26 | 280-300 lbs \square " | 560 lbs \square " | ABF. | <i>Satisfactory</i> |
| " " <i>Heads Covers & Jacks</i> | 12.6.26 | " " (Head) | 560+50 lbs \square " | ABF. | " |
| " " JACKETS..... | 12.6.26 | — | 50 lbs \square " | ABF. | " |
| " PISTON WATER PASSAGES..... | | | | | |
| MAIN COMPRESSORS—1st STAGE.....✓ | | | | | |
| " 2nd ".....✓ | | | | | |
| " 3rd ".....✓ | | | | | |
| AIR RECEIVERS STARTING <i>Value</i> | 26.8.26 | 200 lbs \square " | 400 lbs \square " | ABF. | <i>Satisfactory</i> |
| " INJECTION.....✓ | | | | | |
| AIR PIPES.....✓ | | | | | |
| FUEL PIPES.....✓ | | | | | |
| FUEL PUMPS..... | 26.8.26 | 600 lbs \square " | 1200 lbs \square " | ABF. | <i>Satisfactory</i> |
| SILENCER..... | 28.8.26 | — | 50 lbs \square " | ABF. | " |
| " WATER JACKET..... | 28.8.26 | — | 50 lbs \square " | ABF. | " |
| SEPARATE FUEL TANKS <i>Daily supply</i> | 5.1.27 | — | 7½ lbs \square " | ABF. | " |

PLANS. Are approved plans forwarded herewith for Shafting *Yes*

Receivers ✓

Separate Tanks ✓

Donkey Boilers ✓

General Pumping Arrangements ✓

Oil Fuel Burning Arrangements ✓

SPARE GEAR *As per attached list.*

The foregoing is a correct description.

VICKERS-PETTERS LTD.

Manufacturer.

Dates of Survey while building
During progress of work in shops - -
During erection on board vessel - -
Total No. of visits

Dates of Examination of principal parts—Cylinders 12.6.26 *Heads* 12.6.26 Pistons 27.7.26 Rods ✓ Connecting rods 27.7.26

Crank shaft 27.7.26 Flywheel shaft ✓ Thrust shaft ✓ Intermediate shafts ✓ Tube shaft ✓

Screw shaft ✓ Propeller ✓ Stern tube ✓ Engine seatings ✓ Engines holding down bolts ✓

Completion of fitting sea connections ✓ Completion of pumping arrangements ✓ Engines tried under working conditions ✓

Crank shaft, Material *Steel* Identification Mark *V.P. 1029 26.8.26 ABF.* 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 ✓

Is the flash point of the oil to be used over 150° F. *No*

Is this machinery duplicate of a previous case ✓ If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c. *These engines have been constructed under Survey, & the Society's Rules, the material & workmanship are good. The cylinders, water jackets, cylinder heads, an starting receivers, fuel pump & silencer have been hydraulic tested & stamped as above. On completion the engines were tried under working conditions on a full power shop trial & proved satisfactory.*

These engines have been despatched to Dublin to be fitted in the Dublin Dockyards Co. S.S. 12 for driving the Salvage Pump.

The amount of Entry Fee ... £ : : When applied for,
Special @ 2/- per *NW* ... £ 1 : 8 6 JAN 1927
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ ✓ : : 4-3-1927

Committee's Minute

Assigned

WED. 8 JUN 1927

A.B. Farminer.

Engineer Surveyor to Lloyd's Register of Shipping



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