

## REPORT ON OIL ENGINE MACHINERY.

No. 49089

Received at London Office 24 APR 1929

10 When handed in at Local Office

19 1929 Port of GLASGOW.

Date, First Survey 3 APR 28

Last Survey

16 April 1929

Number of Visits 77

of writing Report  
in Survey held at  
Book.

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Last Survey

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Number of Visits 77

Single  
on the Twin Screw vessel

MANUNDA.

Tons Gross 9115  
Net 5300Triple  
QuadrupleGalvin  
Glasgow

By whom built N. Beardmore &amp; Co. Ltd.

Yard No. 651 When built 1929.

By whom made Harland &amp; Wolff Ltd.

Engine No. 3363 When made 1929

By whom made

Boiler No. When made

Horse Power 16800

Owners The Adelaide H. Co. Ltd.

Port belonging to

Horse Power as per Rule 1304 Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted Yes.

for which vessel is intended

**ENGINES, &c.—Type of Engines** Vertical, reciprocating. **2 or 4 stroke cycle** 4 Single or double acting **single**  
 maximum pressure in cylinders 500 lb/in<sup>2</sup>. **Diameter of cylinders** 740 mm. **Length of stroke** 1500 mm. **No. of cylinders** 16 **No. of cranks** 16  
 of bearings, adjacent to the Crank, measured from inner edge to inner edge 1004 mm. **Is there a bearing between each crank** Yes  
 Revolutions per minute 118. **Torsion Steel** dia. 2489 mm. Weight 2.4 tons. **Means of ignition** compression. **Kind of fuel used** Diesel  
**Shaft. dia. of journals** as per Rule 485 mm. **Crank pin dia.** 495 mm. **Crank Webs** Mid-length breadth 820 mm. **Thickness parallel to axis** 300 mm.  
**Wheel Shaft. diameter** as per Rule approx. 495 mm. **as fitted** approx. 495 mm. **M. d. length thickness** 300 mm. **Thickness around hub** 285 mm.  
**Intermediate Shafts, diameter** approx. 4-2-28 **Thrust Shaft, diameter at collar** approx. 4-2-28  
**Screw Shaft, diameter** as per Rule approx. 4-3-28 **as fitted** approx. 4-3-28 **as fitted** 16<sup>3</sup>/<sub>16</sub>" **Is the screw shaft fitted with a continuous liner** Yes

**Shaft, diameter** as per Rule **Thickness of liner** as per Rule **Thickness of liner** as per Rule **Is the after end of the liner made watertight in the**  
**as fitted** **as fitted** **as fitted** **liner boss** Yes **Is the liner in more than one length with the joints made by fusion through the hole. Thickness of the liner** One length  
**liner does not fit tightly at the part between the bearing and the very top, with some charged yellow plastic material insoluble in water and non-corrosive** Tight  
**liners are fitted, is the space unoccupied between the liners** **One liner** an approved oil gland, & other appliance fitted at the after end of the tube

**Shaft, diameter** as per Rule **Length of Bearing in Stern Bush** next to and supporting propeller 66" **sq. feet**  
**eller, dia. 14-6"** Pitch 15-6" **No. of blades** 3 **Material** Bronze **whether Movable** Yes **Total Developed Surface** 60 **sq. feet**

**od of reversing Engines** **Governor** **Is a governor or other arrangement fitted to prevent raising of the engine** **Yes** **Means of lubrication**

**Thickness of cylinder liners** 53<sup>1</sup>/<sub>32</sub>" **Are the cylinders fitted with safety valves** Yes **Are the exhaust pipes and silencer water cooled or lagged with**  
**ducting material** lagged **If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine** ✓

**Water Pumps, No.** 2 **Is the sea suction provided with an efficient strainer which can be closed within the vessel** Yes

**Pumps worked from the Main Engines, No.** Two **Diameter** 156 mm. **Stroke** 254 mm. **Can one be overhauled while the other is at work** Yes

**ss connected to the Main Bilge Line** **No. and Size** 1-Ball - 200 tons, 2-Bilge - 156<sup>1</sup>/<sub>2</sub> x 254<sup>1</sup>/<sub>2</sub>, 1-G. S. - 100 tons, 1-Emm 100 tons  
**How driven** Motor **main** 379. **motor** motor

**st Pumps, No. and size** 1-200 tons per hr **Lubricating Oil Pumps, including Spare Pump, No. and size** 2-140 tons each per hr

**o independent means arranged for circulating water through the Oil Cooler** Yes **Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge**

**s, No. and size** In Machinery Spaces 4-2<sup>1</sup>/<sub>2</sub>, 1-3<sup>1</sup>/<sub>2</sub>.

**Chain Locker 1-2", N° 1-2-3, holds each 2-3<sup>1</sup>/<sub>2</sub>", Tunnel space 2-3", 1-3<sup>1</sup>/<sub>2</sub>"**

**endent Power Pump Direct Suctions to the Engine Room Bilges, No. and size** 1-6", 1-5", 1-4", (5-2<sup>1</sup>/<sub>2</sub> to copperdams).

**the Bilge-Suction pipes in Holes and Tunnel Well fitted with strain-bores** Yes **the Bilge Suctions in the Machinery Spaces**

**accessory mud-bores, 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

**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** Above

**each fitted with a Discharge Valve always accessible on the hulling of the vessel** Yes **Are the Blow Off Cocks fitted with a spigoted brass cover ingate** Yes

**pipes pass through the bunkers** None **How are they protected** ✓

**pipes pass through the deep tanks** None **Have they been tested as per Rule** ✓

**Pipes, Cocks, Valves, and Pumps in connection with the machinery and all 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**

**ment to another** Yes **Is the Shaft Tunnel watertight** Yes **Is it fitted with a watertight door** Yes **worked from upper deck**.

**ood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodcork** Steel

**Air Compressors, No.** Two **No. of stages** Three **Diameters** 750, 675 & 190 **Stroke** 610 mm. **Driven by** Main engines.

**ary Air Compressors, No.** One **No. of stages** 2 **Diameters** 16" & 7<sup>1</sup>/<sub>2</sub> **Stroke** 7" **Driven by** E. motor Remond 840

**Auxiliary Air Compressors, No.** One **No. of stages** 2 **Diameters** 3<sup>1</sup>/<sub>2</sub> & 1<sup>1</sup>/<sub>2</sub> **Stroke** 3" **Driven by** Motor.

**ng Air Pumps, No.** ✓ **Diameter** Stroke Driven by

**ary Engines** **each** **No. and size** See separate Report.

**RECEIVERS** Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes.

**internal surfaces of the receivers to be examined** Yes **What means are provided for cleaning their inner surfaces** Scouring.

**a dry arrangement fitted at the lowest part of each receiver** Yes

**pressure Air Receivers, No.** 4 **Cubic capacity of each** 230 litres **Internal diameter** 46mm. **thickness** .68 in.

**top welded or riveted longitudinal joint** Seamed **Material** Steel **Range of tensile strength** 28-32 ton/in<sup>2</sup> **Working pressure by Rules** 1170 lb/in<sup>2</sup> ✓

**ng Air Receivers, No.** 3 **Total cubic capacity** 2646 cu ft **Internal diameter** 6' 9" **thickness** 1<sup>1</sup>/<sub>2</sub>" © 2018

**riveted longitudinal joint** Yes **Material** S **Range of tensile strength** 28-32 **Working pressure by Rules** 354



## IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

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

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR.

as per attached list.

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