

REPORT ON OIL ENGINE MACHINERY.

No. 62950

Received at London Office

Date of writing Report

When handed in at Local Office

21. 10. 40 Port of **GLASGOW**

No. in Survey held at **Glasgow**

Date, First Survey

1st Dec. 1939

Last Survey

28. Oct. 1940

Number of Visits **19**

on the **Single** Screw vessel

"ARDENVOR"

Tons ^{Gross} 5025
_{Net} 2929

Built at **Dumbarton**

By whom built **Wm. Denny & Bros. Ltd.**

Yard No. **1567** When built **1940**

Engines made at **Glasgow**

By whom made **Banley Curle & Co. Ltd.**

Engine No. **127** When made **1940**

Donkey Boilers made at **Glasgow (one)**

By whom made **Banley Curle & Co. Ltd.**

Boiler No. **EW127** When made **1940**

Brake Horse Power **3500**

Owners **Australind SS Co. Ltd.**

Port belonging to **London**

Nom. Horse Power as per Rule **688**

Is Refrigerating Machinery fitted for cargo purposes **No**

Is Electric Light fitted **Yes**

Trade for which vessel is intended

L ENGINES, &c. Type of Engines **Banley Curle - Duplex Opp. Piston** or 4 stroke cycle **2** Single or double acting **single**

Maximum pressure in cylinders **570 lb.** Diameter of cylinders **600 mm** Length of stroke **2310 mm** No. of cylinders **4** No. of cranks **12**

Mean Indicated Pressure **88.75 lb.** Crank pin dia. **450 mm** Crank Webs Mid. length breadth **650 mm** Thickness parallel to axis **255 mm**

Revolutions per minute **112** Flywheel dia. **2300 mm** Weight **3.24 tons** Means of ignition **Comp.** Kind of fuel used **Diesel Oil**

Rank Shaft, ^{Solid forged} dia. of journals **as per Rule** Crank pin dia. **450 mm** Mid. length thickness **192 mm** Thickness around eyehole **200 mm**

Flywheel Shaft, diameter **as per Rule** Intermediate Shafts, diameter **as per Rule** Thrust Shaft, diameter at collars **as per Rule**

Stern Tube Shaft, diameter **as per Rule** Screw Shaft, diameter **as per Rule** Is the shaft fitted with a continuous liner **Yes**

Bronze Liners, thickness in way of bushes **as per Rule** Thickness between bushes **as per Rule** 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 **-**

Does 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 **-**

When two 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 **-**

Length of Bearing in Stern Bush next to and supporting propeller **5'-8"**

Propeller, dia. **16'-6"** Pitch **12'-6"** No. of blades **4** Material **Bronze** whether Moveable **no** Total Developed Surface **102.4** sq. feet

Method of reversing Engines **Comp. Air** Is a governor or other arrangement fitted to prevent racing of the engine when de-clutched **Yes** Means of lubrication **forced**

Thickness of cylinder liners **25 mm** 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 engine driven** Is sea suction provided with an efficient strainer which can be cleared within the vessel **Yes**

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 **One 10 1/2" x 12" x 10"** Two **7 1/2" x 8" 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 **One 10 1/2" x 12" x 10"** Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size **One ME driven 120 mm x 400 mm**

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: **4 @ 3" 30 2 1/2" oily pipe**

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **2 @ 5"**

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes **Yes** Are the Bilge Suctions in the Machinery Spaces from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges **Yes**

Are all Sea Connections fitted direct on the skin of the ship **Yes** 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 **Yes** Are the Overboard Discharges above or below the deep water line **Both**

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel **Yes** Are the Blow Off Cocks fitted with a spigot and brass covering plate **Yes**

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 **upper deck**

On 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 **10 1/2" - 2 1/2"** Stroke **10 1/2" - 8 1/4"** Driven by **-**

Auxiliary Air Compressors, No. **2** No. of stages **3** Diameters **2 1/2"** Stroke **6"** Driven by **Steam**

Small Auxiliary Air Compressors, No. **-** No. of stages **-** Diameters **-** Stroke **-** Driven by **-**

What provision is made for first Charging the Air Receivers **Steam driven Comp.**

Scavenging Air Pumps, No. **One** Diameter **1500 mm** Stroke **1200 mm** Driven by **Steam engine**

Auxiliary Engines crank shafts, diameter **as per Rule** Position **-**

Have the Auxiliary Engines been constructed under special survey **-** Is a report sent herewith **-**

5710-1913M

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 —
Starting Air Receivers, No. 2 Total cubic capacity 278 cu. ft. Internal diameter 4-1/2" thickness 1 3/32"
 Seamless, lap welded or riveted longitudinal joint riveted Material steel Range of tensile strength 29/33 tons Working pressure —
 by Rules — Actual —
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 Yes Receivers Yes Separate Fuel Tanks Yes
 (If not, state date of approval)
 Donkey Boilers Yes General Pumping Arrangements Yes 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 See attached list



The foregoing is a correct description,
FOR BAROLAY, GURLE & CO., LTD
Alexander Macneil Manufacturer.

Dates of Survey while building
 Chief Draughtsman 1939 Dec: 1-13 (1940) Jan: 12-16 Feb: 6-9-14-20-23-27-29 Mar: 8-26 Apr:
 During progress of work in shops --
 During erection on board vessel --
 Total No. of visits 49 Sep: 25 Oct: 2-7-8
 May: 1-6-7-10-14-21-22-28-29-30 June: 5-11-14-17-19-21-25-28 July: 3-5-10-12-16-18-19-23 Aug: 1-15-2

Dates of Examination of principal parts—Cylinders 20-2-40 Covers — Pistons 30-5-40 Rods 30-5-40 Connecting rods 28-5-
 Crank shaft 21-5-40 Flywheel shaft 21-5-40 Thrust shaft 21-5-40 Intermediate shafts 19-7-40 Tube shaft —
 Screw shaft 3-7-40 Propeller 3-7-40 Stern tube 25-6-40 Engine sealings 29-5-40 Engines holding down bolts 15-8-40
 Completion of filling sea connections 12-7-40 Completion of pumping arrangements 2-10-40 Engines tried under working conditions 8-10-40
 Crank shaft, Material SM steel Identification Mark 8909 ATB WEL. HAI Flywheel shaft, Material SM steel Identification Mark 8909 ATB WEL. HAI
 Thrust shaft, Material SM steel Identification Mark 8909 ATB WEL. HAI Intermediate shafts, Material SM steel Identification Marks 8909 ATB WEL. HAI
 Tube shaft, Material — Identification Mark — Screw shaft, Material SM steel Identification Mark 8909 F.D.
 Identification Marks on Air Receivers LLOYD'S TEST 800LBS.
WP 600LBS. ATB 21-6-40

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 NO If so, state name of vessel —

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, in my opinion, is eligible to be classed in the Register Book with head + LMC 10, 40 and notation CL 2 DB 120 lb.

Job 19/10/40

The amount of Entry Fee .. £ 6 : - : When applied for,
 Special £ 109 : 8 : 22 OCT 1940
 Donkey Boiler Fee £ : : :
 Travelling Expenses (if any) £ : : :
 Committee's Minute GLASGOW 22 OCT 1940

M. J. Barr
 Engineer Surveyor to Lloyd's Register of Shipping.



© 2020
 Lloyd's Register Foundation

Assigned -1- LMC 10.40
air try 2 DB 120 lb

GLASGOW

The Surveyors are requested not to write on or below the space for Committee's Minute.