

pt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 49652

-3 OCT 1929

of writing Report 25-9-1929 When handed in at Local Office

Port of Glasgow

in Survey held at Dumbarton

Date, First Survey 12.10.28

Last Survey 24-9-1929

Number of Visits 59

Single
on the Twin
Triple
Screw vessel

"Amadale"

Tons Gross 5066
Net 3079

built at Dumbarton

By whom built W. Denny & Bros

Yard No. 1273 When built 1929

engines made at Dumbarton

By whom made W. Denny & Bros

Engine No. 973 When made 1929

Boilers made at Dumbarton

By whom made W. Denny & Bros

Boiler No. 973 When made 1929

Horse Power

Owners Australind S.S.C.

Port belonging to London

Horse Power as per Rule 582

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

for which vessel is intended Australian

ENGINES, &c.—Type of Engines Sulzer

2 or 4 stroke cycle 2 Single or double acting Yes

Pressure in cylinders 500

Diameter of cylinders 600 mm

Length of stroke 1060 mm

No. of cylinders 6

No. of cranks 6

bearings, adjacent to the Crank, measured from inner edge to inner edge 810 mm

Is there a bearing between each crank Yes

Revolutions per minute 96

Flywheel dia. 6'-9"

Weight 11-1-0-0

Means of ignition Comp. air

Kind of fuel used Diesel oil

Shaft, dia. of journals 405 mm

Crank pin dia. 405 mm

Mid. length breadth 550 mm

Mid. length thickness 225 mm

Thickness parallel to axis solid

Propeller Shaft, diameter 405 mm

Intermediate Shafts, diameter 331 mm

Thrust Shaft, diameter at collars 390 mm

as fitted 331 mm

as fitted 390 mm

Shaft, diameter 405 mm

Screw Shaft, diameter 362 mm

Is the after end of the liner made watertight in the

Yes

Yes

Liners, thickness in way of bushes 3/4"

Thickness between bushes 5/8"

Is the after end of the liner made watertight in the

Yes

Yes

boss Yes

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

One length

Is an approved Oil Gland or other appliance fitted at the after end of the tube

Yes

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

One length

Is an approved Oil Gland or other appliance fitted at the after end of the tube

Yes

Yes

liners are fitted, is the shaft lapped or protected between the liners

One length

Is an approved Oil Gland or other appliance fitted at the after end of the tube

Yes

Yes

no If so, state type

Length of Bearing in Stern Bush next to and supporting propeller 60"

Material Bronze whether Moveable No

Total Developed Surface 68.34 sq. feet

Yes

of reversing Engines ecc. shaft

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

Yes

Means of lubrication

Yes

Thickness of cylinder liners 1 5/8"

Are the cylinders fitted with safety valves

Yes

Are the exhaust pipes and silencers water cooled or lagged with

Yes

ducting material W.C.

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

funnel

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

Yes

ing Water Pumps, No. 1-180 mm x 400 mm

1-115 mm x 400 mm

Can one be overhauled while the other is at work

Yes

Yes

Pumps worked from the Main Engines, No. 1

Diameter 180 mm Stroke 400 mm

Can one be overhauled while the other is at work

Yes

Yes

s connected to the Main Bilge Line

No. and Size 1-50 tons per hr, 1-150 tons per hr.

How driven Steam

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

1-115 mm x 400 mm

st Pumps, No. and size 1-150 tons per hr

Oil Cooler Yes

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Yes

Yes

No. and size—In Machinery Spaces 2-3 1/2"

2-3 1/2"

2-5"

1-2 1/2"

Yes

ds, &c. Nos. 1. 2. 3. 4. 5. each 2-3"

2-3"

2-5"

1-2 1/2"

Yes

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

2-5"

1-2 1/2"

Yes

Yes

l the Bilge Suction pipes in Holds and Tunnel Well fitted with strainers

Yes

Are the Bilge Suctions in the Machinery Spaces

Yes

Yes

m easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Yes

Are they fitted with Valves or Cocks

Both

Yes

l Sea Connections fitted direct on the skin of the ship

Yes

Are the Overboard Discharges above or below the deep water line

below

Yes

ey fixed sufficiently high on the ship's side to be seen without lifting the platform plates

Yes

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

Yes

Yes

ey each fitted with a Discharge Valve always accessible on the plating of the vessel

Yes

How are they protected

Yes

Yes

pipes pass through the bunkers

None

Have they been tested as per Rule

Yes

Yes

pipes pass through the deep tanks

None

Have they been tested as per Rule

Yes

Yes

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

Yes

Is the Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

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

Yes

Is the Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

rtment to another

Yes

Is the Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

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

Yes

Is the Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Air Compressors, No. 1

No. of stages 3

Diameters 2. R 720 mm to 180 mm

600

Driven by main Eng

liary Air Compressors, No. 1

No. of stages 3

Diameters 2. R 720 mm to 180 mm

600

Driven by Steam

liary Air Compressors, No. 1

No. of stages 3

Diameters 2. R 720 mm to 180 mm

600

Driven by

enging Air Pumps, No. 1- double acting

Diameter 1650 mm

Stroke 740 mm

Driven by main Eng

Yes

liary Engines crank shafts, diameter

as per Rule

as fitted

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Yes

he internal surfaces of the receivers be examined

Yes

What means are provided for cleaning their inner surfaces

removing corrosion

Yes

ere a drain arrangement fitted at the lowest part of each receiver

Yes

Pressure Air Receivers, No. 11

Cubic capacity of each 28.25

Internal diameter 540 mm

less, lap welded or riveted longitudinal joint

Yes

Material 8

Range of tensile strength 28-32

Working pressure by Rules 18 1380

ting Air Receivers, No. See H.P.A.R.

Total cubic capacity

Internal diameter

thickness

Working pressure by Rules

less, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

Yes

IS A DONKEY BOILER FITTED? *Yes*

If so, is a report now forwarded? *Yes*

PLANS. Are approved plans forwarded herewith for Shafting *17-2-28*
(If not, state date of approval)

Receivers *Yes*

Separate Tanks *See 10-9-28*

Donkey Boilers *Yes*

General Pumping Arrangements *Yes*

Oil Fuel Burning Arrangements *Yes*

SPARE GEAR *As per Rule requirements, and attached list.*

The foregoing is a correct description,

Wm. H. Morrison
Manufacturer.

Dates of Survey while building
During progress of work in shops - *1928 Oct 12 Nov. 4-20-30 Dec 11-18-25 (1929) Jan 5-11-16 Feb. 1-13-18-26 March 6-13-20-25-29 Apr 4-8*
During erection on board vessel - *22-25 May 1-2-6-9-10-13-17-21-24-27 June 3-4-11-13-17-20 July 5-9-24-30 Aug 4-9-13-19-22-26-28 Sep 3-10-23-24*
Total No. of visits *59*

Dates of Examination of principal parts—Cylinders *30-11-28* Covers *2-6-29* Pistons *3-7-29* Rods *25-12-28* Connecting rods *25-12-28*

Crank shaft *13-2-29* Flywheel shaft *13-2-29* Thrust shaft *11-12-28* Intermediate shafts *11-12-28* Tube shaft *✓*

Screw shaft *13-2-29* Propeller *1-5-29* Stern tube *1-5-29* Engine seatings *3-7-29* Engines holding down bolts *11-9-29*

Completion of fitting sea connections *11-6-29* Completion of pumping arrangements *20-9-29* Engines tried under working conditions *24-9-29*

Crank shaft, Material *8* Identification Mark *5123.2641* Flywheel shaft, Material *8* Identification Mark *1733*

Thrust shaft, Material *8* Identification Mark *1733* Intermediate shafts, Material *5* Identification Marks *1729.1730.1731*

Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *8* Identification Mark *1732.1712.283*

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 *✓*

Is this machinery duplicate of a previous case *Yes*

If so, state name of vessel *"Australind"*

General Remarks (State quality of workmanship, opinions as to class, &c.) *The machinery of this vessel has been built under special survey in accordance with the approved plans, and the Society's Rules and requirements, the materials and workmanship are good, it has been securely fitted on board, and satisfactorily tried under working conditions, and in my opinion is eligible for the record + L.M.C. 9-29, and 2-I.B. - 125 lbs.*

The amount of Entry Fee ... £ *6 7 0*

Special ... £ *104 2 0*

Donkey Boiler Fee ... £ :

Travelling Expenses (if any) £ :

Committee's Minute *GLASGOW 2 OCT 1929*

Assigned *+ L.M.C. 9.29*

2 I.B. - 125 lbs.

Jas Cairns
Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation