

## REPORT ON OIL ENGINE MACHINERY.

No. 49090

Received at London Office 24 APR 1929

Writing Report

10

When handed in at Local Office

20.4

1029

Port of

Glasgow.

Survey held at

Dumbarton

Date, First Survey

24.5.28

Last Survey

17 April 1929

Number of Visits

51

on the

Single

Screw vessel

M. V. "Australind"

Tons { Gross 5020  
Net 3051

at

Dumbarton

By whom built

W. Denny &amp; Bros Ltd

Yard No.

1217

When built

1929

By whom made

"

Engine No.

969

When made

"

By whom made

"

Boiler No.

"

When made

"

Owners

Australind S. S. Co. Ltd

Port belonging to

London.

Horse Power

582

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

for which vessel is intended

ENGINES, &amp;c.

Type of Engines

23 1/2

Sulzer

41 3/4

2 or 4 stroke cycle

2

Single or double acting

Yes

Mean pressure in cylinders

500

Diameter of cylinders

600 mm

Length of stroke

1060 mm

No. of cylinders

6

No. of cranks

6

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

610 mm

Is there a bearing between each crank

Yes

Revolutions per minute

100

Flywheel dia.

6'-9"

Weight

11-1-

Means of ignition

Comp air

Kind of fuel used

Diesel oil

K Shaft, dia. of journals

as per Rule

17-2-28

Crank pin dia.

405 mm

Crank Webs

Mid. length breadth

550 mm

Thickness parallel to axis

Solid

as fitted

405 mm

as per Rule

22-5-28

Intermediate Shafts, diameter

as per Rule

22-5-28

Thrust Shaft, diameter at collars

as per Rule

22-5-28

as fitted

390 mm

Shaft, diameter

as per Rule

none

Screw Shaft, diameter

as per Rule

22-5-28

as fitted

362 mm

Is the

tube

shaft fitted with a continuous liner

Yes

ze Liners, thickness in way of bushes

as per Rule

3/4"

Thickness between bushes

as per rule

5/8"

Is the after end of the liner made watertight in the

Yes

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

Yes

One length

Tight

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

Yes

One length

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

Yes

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

Yes

One length

Is the

tube

shaft fitted with a continuous liner

Yes

the tube shaft

No

Length of Bearing in Stern Bush next to and supporting propeller

60"

eller, dia.

15'-0"

Pitch

11'-9"

No. of blades

3

Material

Bronze

whether Moveable

No

Total Developed Surface

68.34

sq. feet

od 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 lugged 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

Yes

ing Water Pumps, No.

1-115

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

1650 mm

Stroke

400 mm

Can one be overhauled while the other is at work

Yes

ps connected to the Main Bilge Line

No. and Size

1-50 tons per hr

How driven

Steam

st Pumps, No. and size

1-150 tons per hr

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

1-115 mm x 400 mm

no independent means arranged for circulating water through the Oil Cooler

Yes

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Yes

s, No. and size:—In Machinery Spaces

2-3 1/2", 1-3"

olds, &amp;c.

N<sup>o</sup> 1, 2, 3, 4, 5, each

2-3"

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

2-5"

All the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-bones

Yes

Are the Bilge Suctions in the Machinery Spaces

Yes

om 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

If Sea Connections fitted direct on the skin of the ship

Yes

Are they fitted with Valves or Cocks

Both

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

Below

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

pipes pass through the bunkers

None

How are they protected

None

pipes pass through the deep tanks

None

Have they been tested as per Rule

Yes

all 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

Yes

worked from

Upper Deck

e 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

Yes

worked from

Upper Deck

wood 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

Yes

worked from

Upper Deck

n Air Compressors, No.

1

No. of stages

3

Diameters

L.P. 720-150 mm

Stroke

600

Driven by

Main Eng.

Auxiliary Air Compressors, No.

1

No. of stages

3

Diameters

L.P. 720-650 mm

Stroke

600

Driven by

Main Eng.

Auxiliary Air Compressors, No.

1

No. of stages

3

Diameters

L.P. 720-650 mm

Stroke

600

Driven by

Main Eng.

enging Air Pumps, No.

1 double acting

Diameter

1650 mm

Stroke

740 mm

Driven by

Main Eng.

Auxiliary Engines crank shafts, diameter

as per Rule

as fitted

28.25 mm

Internal diameter

540 mm

thickness

25 mm

Working pressure by Rules

15.380

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

Yes

What means are provided for cleaning their inner surfaces

Yes

the internal surfaces of the receivers be examined

Yes

Is there a drain arrangement fitted at the lowest part of each receiver

Yes

High Pressure Air Receivers, No.

11

Cubic capacity of each

28.25 cu ft

Internal diameter

540 mm

thickness

25 mm

Working pressure by Rules

15.380

unless, lap welded or riveted longitudinal joint

Seamless

Material

S.

Range of tensile strength

28.32

Working pressure by Rules

15.380

Starting Air Receivers, No.

See H.P.R.

Total cubic capacity

Yes

Internal diameter

Yes

thickness

Yes

Working pressure by Rules

Yes

unless, lap welded or riveted longitudinal joint

Seamless

Material

S.

Range of tensile strength

Yes

Working pressure by Rules

Yes

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

Yes

What means are provided for cleaning their



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*

Receivers *Yes*

Separate Tanks *9-10-9-28*

Donkey Boilers *15-3-28*

General Pumping Arrangements *29-6-28*

Oil Fuel Burning Arrangements *6-6-28*

SPARE GEAR

The foregoing is a correct description,

WILLIAM DENNY & BROTHERS, LTD.

*W. H. Wisnom*

Director

Manufacturer.

Dates of Survey while building  
During progress of work in shops - *1928 May 24-30 June 13-27 July 11-27 Aug 9-17-30 Sep 7-14-19-25 Oct 12-25 Nov 6-20-26-28-30 Dec 3-10-17-24-31*  
During erection on board vessel - *25-28 (1929) Jan 8-11-16-18 Feb 1-8-13-15-16-26 Mar 6-9-13-20-22-25-26-29 Apr 4-6-10-12-13-17*  
Total No. of visits *51*

Dates of Examination of principal parts—Cylinders *8-8-28* Covers *30-8-28* Pistons *14-9-28* Rods *8-8-28* Connecting rods *8-8-28*

Crank shaft *25-10-28* Flywheel shaft *14-9-28* Thrust shaft *28-12-28* Intermediate shafts *25-12-28* Tube shaft *✓*

Screw shaft *14-9-28* Propeller *11-12-28* Stern tube *11-12-28* Engine seatings *30-11-28* Engines holding down bolts *26-8-28*

Completion of fitting sea connections *16-1-29* Completion of pumping arrangements *17-4-29* Engines tried under working conditions *17-4-29*

Crank shaft, Material *8* Identification Mark *1579. 1580.* Flywheel shaft, Material *8* Identification Mark *8096*

Thrust shaft, Material *8* Identification Mark *8096* Intermediate shafts, Material *8* Identification Marks *1708.*

Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *8* Identification Mark *2717.*

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 *No*

If so, state name of vessel *✓*

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. 4-29.*

The amount of Entry Fee *£ 6-0-0*

When applied for, *19-4-29*

Special *£ 104-2-0*

When received, *25/4/29*

Donkey Boiler Fee *£ :*

Travelling Expenses (if any) *£ :*

Committee's Minute

GLASGOW

23 APR 1929

Assigned *+ L.M.C. 4-29.*

*Jas. Cairns*

Engineer Surveyor to Lloyd's Register of Shipping



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