

REPORT ON OIL ENGINE MACHINERY.

No. 116897

Received at London Office

of writing Report

19

When handed in at Local Office

19

Port of

London

in Survey held at

Lawbury

Date, First Survey

18 Mar 1948

Last Survey

29 Apr 1948

Reg. Book.

Single
on the ~~Triple~~
Screw vessel

M.V. "Aspidochelone"

Number of Visits

Tons

Gross
Net

Built at

By whom built

Yard No.

When built

Engines made at

By whom made

Lawbury Diesel Eng Co.

Engine No.

When made

Boilers made at

By whom made

Boiler No.

When made

Horse Power

300

Owners

Port belonging to

as per Rule

95

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Trade for which vessel is intended

OIL ENGINES, &c. — Type of Engines

2 S.C.S.A.

2 or 4 stroke cycle

2

Single or double acting

Single

Maximum pressure in cylinders

700 lb

Mean Indicated Pressure

80 lb

Diameter of cylinders

240%

Length of stroke

345%

No. of cylinders

6

No. of cranks

6

Span of bearings, adjacent to the crank, measured from inner edge to inner edge

321%

Is there a bearing between each crank

Yes

Revolutions per minute

330

Flywheel dia

23.6"

Weight

465 lb

Means of ignition

Compression

Kind of fuel used

Pool diesel

Crank Shaft

(Solid forged)

dia. of journals

as per Rule

as fitted

150%

Crank pin dia

150%

Crank webs

Mid. length breadth

200%

Mid. length thickness

83%

shrunk

Thickness parallel to axis

Thickness around eye-hole

Flywheel Shaft, diameter

as per Rule

as fitted

Intermediate Shafts, diameter

as per Rule

as fitted

Thrust Shaft, diameter at collars

as per Rule

6"

Tube Shaft, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

as fitted

Is the { tube screw } shaft fitted with a continuous liner

Bronze 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

propeller boss

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

If 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 tube shaft

If so, state type

Length of bearing in Stern Bush next to and supporting propeller

Propeller, dia

Pitch

No. of blades

Material

whether moveable

Total developed surface

sq. feet

Method of reversing Engines

Air

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

Yes

Means of

Thickens of cylinder liners

32%

Are the cylinders fitted with safety valves

Yes

Are the exhaust pipes and silencers water cooled

gged with non-conducting material

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

to the engine

Cooling Water Pumps, No.

1

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

Bilge Pumps worked from the Main Engines, No.

1

Diameter

123%

Stroke

125%

Can one be overhauled while the other is at work

Yes

Pumps connected to the Main Bilge Line

No. and size

How driven

Is the cooling water led to the bilges

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

Power Driven Lubricating Oil Pumps, including spare pump, No. and size

1. 9 S.P.L.

Are two independent means arranged for circulating water through the Oil Cooler

Suctions, connected to both main bilge pumps and auxiliary

bilge pumps, No. and size:—In machinery spaces

In pump room

Independent Power Pump Direct Suctions to the engine room bilges, No. and size

Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes

Are the bilge suction in the machinery spaces led from easily

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

Are all Sea Connections fitted direct on the skin of the Ship

Are they fitted with valves or cocks

Are they fixed

ufficiently high on the ship's side to be seen without lifting the platform plates

Are the overboard discharges above or below the deep water line

Are they each fitted with a discharge valve always accessible on the plating of the vessel

Are the blow off cocks fitted with a spigot and brass covering plate

That pipes pass through the bunkers

How are they protected

That pipes pass through the deep tanks

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

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

Is the shaft tunnel watertight

Is it fitted with a watertight door

worked from

of 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.

1

No. of stages

1

diameters

110%

stroke

80%

driven by

M.E.

Auxiliary Air Compressors, No.

No. of stages

diameters

stroke

driven by

Small Auxiliary Air Compressors, No.

No. of stages

diameters

stroke

driven by

That provision is made for first charging the air receivers

Scavenging Air Pumps, No.

1

diameter

536%

stroke

300%

driven by

main engine

Auxiliary Engines crank shafts, diameter

as per Rule

as fitted

No.

Position

Is a report sent herewith

Have the auxiliary engines been constructed under special survey

002536-002542-0041

© 2020

Lloyd's Register Foundation

AIR RECEIVERS:—Have they been made under survey Existing

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

Can the internal surfaces of the receivers be examined and cleaned. Is a drain fitted at the lowest part of each receiver.

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. Total cubic capacity. Internal diameter. thickness.

Seamless, lap welded or riveted longitudinal joint. Material. Range of tensile strength. Working pressure.

IS A DONKEY BOILER FITTED. If so, is a report now forwarded.

Is the donkey boiler intended to be used for domestic purposes only.

PLANS. Are approved plans forwarded herewith for shafting. 2. 7. 48 Receivers. Separate fuel tanks.

Donkey boilers. General pumping arrangements. Pumping arrangements in machinery space.

Oil fuel burning arrangements.

SPARE GEAR.

Has the spare gear required by the Rules been supplied.

State the principal additional spare gear supplied.

The foregoing is a correct description,

For & on behalf of
THE NEWBURY DIESEL CO. LTD.

Dates of Survey while building. During progress of work in shops - - 1948 MAR 18. APR 15. 26. 29

During erection on board vessel - -

Total No. of visits 4 (in 1948)

Dates of examination of principal parts—Cylinders 15. 4. 48 Covers 18. 3. 48 Pistons 15. 4. 48 Rods. Connecting rods 15. 4. 48

Crank shaft 29. 4. 48. Flywheel shaft. Thrust shaft. Intermediate shafts. Tube shaft.

Screw shaft. Propeller. Stern tube. Engine scatings. Engine holding down bolts.

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

Crank shaft, material Semin Steel Identification mark 326 BH 10. 9. 47 Flywheel shaft, material. Identification mark.

Thrust shaft, material " Identification mark 551 CP 16. 1. 48 Intermediate shafts, material. Identification marks.

Con Rods. Identification mark 653 BH 22. 8. 47. Screw shaft, material. Identification mark.

Identification marks on air receivers.

Is the flash point of the oil to be used over 150°F.

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with.

Description of fire extinguishing apparatus fitted.

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo. 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. Yes. If so, state name of vessel. Engine No 739.

General Remarks (State quality of workmanship, opinions as to class, &c. This engine has been built under Special

Survey in accordance with the approved plans & the requirements of the Rules.

Steel used in its manufacture has been made at works approved by the Committee

& under the supervision of their Surveyors. The workmanship is good & the engine

in my opinion eligible to receive the notation L M C (with date) when satisfactory

in the vessel intended. It has now been despatched to Messrs F. J. Eward at

Greenbaths.

Attached Engrs Rpts No. 46182 46288 And No. 712333.

The Torsion & Vibration Characteristics of the Machinery appear in Spec Letter 7/2/48 for

Spec 1330 provided a NOTICE BOARD, stating that the engine is not to be operated

Continuously between 232 & 269 RPM and the Engine Tachometer

marked accordingly. A. C. Wedgwood

The amount of Entry Fee ... £ 25 : 6/8 : When applied for 19.

Special ... £ : : When received 19.

Donkey Boiler Fee... £ : : Travelling Expenses (if any) £ 2 : : FRI. 20 AUG 1948

Assigned See Lon. 116912

