

REPORT ON OIL ENGINE MACHINERY.

No 72489

Received at London Office

4 - FEB 1948

Date of writing Report 29. 1. 48 When handed in at Local Office 30. 1. 48 Port of

No. in Survey held at Glasgow

Date, First Survey 25. 8. 47 Last Survey 16. 1. 1948

Reg. Book.

Number of Visits 22

Single
on the Twin
Triple
Quadruple
Screw vessel

m.v. "Baltic Coast"

Tons
Gross
Net

Built at Androssan.

By whom built

Androssan Belfast Co.

Yard No. 404 When built 1948.

Engines made at Glasgow.

By whom made

British Polar Engines Co.

Engine No. 658/4 When made 1948

Donkey Boilers made at

By whom made

Boiler No. - When made -

Brake Horse Power 1280 each engine

Owners

Coast Line Limited

Port belonging to -

Nom. Horse Power as per Rule 587V

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

✓

Trade for which vessel is intended

Coasting.

OIL ENGINES, &c. Type of Engines 2 s.c.s. 4 Heavy oil Engine 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 800 lb/sq. in.

Diameter of cylinders 340 7/8

Length of stroke 570 7/8

No. of cylinders 8

No. of cranks 8

Mean Indicated Pressure 100.4 lb/sq. in.

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 484 7/8

Is there a bearing between each crank

✓

Revolutions per minute 250

Flywheel dia. 1186 7/8

Weight 1250 lbs.

Means of ignition Compression

Kind of fuel used Diesel

Crank Shaft, Solid forged

as per Rule 219.6 7/8

dia. of journals as fitted 225 7/8

Crank pin dia. 225 7/8

Crank Webs

Mid. length breadth 324 7/8

Thickness parallel to axis

Mid. length thickness 122 7/8

shrink Thickness around eyehole

Flywheel Shaft, diameter

as per Rule 186 7/8

as fitted 225 7/8

Intermediate Shafts, diameter

as per Rule

as fitted

Thrust Shaft, diameter at collars

as per Rule 186 7/8

as fitted 225 7/8

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 the tube

shaft

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 Diesel

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

Means of lubrication

Is the

Thickness of cylinder liners 26.6 7/8

Are the cylinders fitted with safety valves

Are the exhaust pipes and silencers water cooled or lagged with

non-conducting 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

Cooling Water Pumps, No.

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

Bilge Pumps worked from the Main Engines, No.

Diameter

Stroke

Can one be overhauled while the other is at work

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

Ballast Pumps, No. and size

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

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

In Holds, &c.

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 Suctions in the Machinery Spaces

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

Are they fitted with Valves or Cocks

Are they fixed sufficiently 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

What pipes pass through the bunkers

How are they protected

What 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

If 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

Stroke

Driven by

Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Small Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Is provision made for first Charging the Air Receivers

Scavenging Air Pumps, No.

Diameter 832 7/8

Stroke 240 7/8

Driven by

Auxiliary Engines crank shafts, diameter

as per Rule

No.

Have the Auxiliary Engines been constructed under special survey

Is a report sent herewith



002846-002852-0167

AIR RECEIVERS:—Have they been made under survey

State No. of Report or Certificate

62582.

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

by Rules

Starting Air Receivers, No.

Total cubic capacity

Internal diameter

thickness

by Rules

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

Actual

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
(If not, state date of approval)

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 and the particulars of the installation as fitted are as approved for torsional vibration characteristics

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building

During progress of work in shops--

During erection on board vessel--

Total No. of visits

Dates of Examination of principal parts—Cylinders

Covers

Pistons

Rods

Connecting rods

Crank shaft

Flywheel shaft

Thrust shaft

Intermediate shafts

Tube shaft

Screw shaft

Propeller

Stern tube

Engine seatings

Engines holding down bolts

Completion of fitting sea connections

Completion of pumping arrangements

Engines tried under working conditions

Crank shaft, Material

Identification Mark

Flywheel shaft, Material

Identification Mark

Thrust shaft, Material

Identification Mark

Intermediate shafts, Material

Identification Marks

Tube shaft, Material

Identification Mark

Screw shaft, Material

Identification Mark

Identification Marks on Air Receivers

No 62582.

LLOYD'S TEST.

555 lb/a

W.P. 355 lb/a

A.R.R. 26.9.47.

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

If so, state name of vessel

General Remarks

(State quality of workmanship, opinions as to class, &c.)

Three engines have been built under special survey and in accordance with the Rules and Approved Plans.

The materials and workmanship are good and on completion the engines were tried at the test bed at the machine works, under full power, with satisfactory results.

The engines have now been dispatched to Anderson to be installed on board the M.V. "Baltic Coast".

The torsional vibration characteristics have been approved for a speed of 250 R.P.M. provided a notice board to be placed at the controls, stating that the engine has not to run continuously below 185 R.P.M. (See London letter 18.10.46).

The amount of Entry Fee

£ 230 : 18

When applied for,

Special

£

3 FEB 1949

Donkey Boiler Fee

£

When received,

Travelling Expenses (if any)

£

19

Committee's Minute

GLASGOW

-3 FEB 1948

Assigned

Deferred for

Completion

McLennan

Engineer Surveyor to Lloyd's Register of Shipping.

GLASGOW

29 FEB 1948



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