

REPORT ON OIL ENGINE MACHINERY.

No. 72960

30 JUN 1948

Received at London Office.

Date of writing Report 24.6.1948 When handed in at Local Office 24.6.1948 Port of GLASGOW.
No. in Survey held at ARDROSSAN Date, First Survey 18.11.47 Last Survey 1st June, 1948.
Reg. Book. Number of Visits.
on the Twin Screw vessel. M.V. "BALTIC COAST" Tons Gross 1722 Net 780
Built at ARDROSSAN By whom built ARDROSSAN DOCKYARD LTD. Yard No. 404 When built 1948
Engines made at GLASGOW By whom made BRITISH POLAR ENGINES LTD. Engine No. 603/4 When made 1948
Skey Boilers made at - By whom made - Boiler No. - When made -
ake Horse Power 2560 Owners COAST LINES LTD. Port belonging to LIVERPOOL
N. Power as per Rule 587 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
ade for which vessel is intended Coasting

ENGINES, &c. — Type of Engines 2 or 4 stroke cycle Single or double acting
Maximum pressure in cylinders Diameter of cylinders Length of stroke No. of cylinders No. of cranks
Mean Indicated Pressure Ahead Firing Order in Cylinders Span of bearings, adjacent to the crank, measured
from inner edge to inner edge Is there a bearing between each crank Revolutions per minute
Flywheel dia. Weight SEE GLASGOW REPORT NO. 72489 Moment of inertia of flywheel (16lbs. in² or Kg.cm.²) Means of ignition Kind of fuel used
Crank shaft, Solid forged dia. of journals as per Rule Crank pin dia. Crank webs Mid. length breadth Thickness parallel to axis
Semi built dia. of journals as fitted Crank webs Mid. length thickness shrunk Thickness around eyehole
All built as per Rule as fitted
Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as fitted
as fitted as fitted 7 1/2" as fitted
Main Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the (tube) shaft fitted with a continuous liner No
as fitted as fitted 8 5/8" as fitted (screw)
Cylinder 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
as fitted as fitted propeller boss
If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner
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 Yes If so, state type Cederval Length of bearing in Stern Bush next to and supporting propeller 2'10"
Propeller, dia. 8'0" Pitch 7'0" No. of blades 3 Material Bronze whether moveable No Total developed surface 22.2 sq. feet
Moment of inertia of propeller (16lbs. in² or Kg.cm.²) not available in this office Kind of damper, if fitted none each propeller
Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of
lubrication Forced Thickness of cylinder liners Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled
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. 2 @ 100 tons/hr. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
Large 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 @ 45 tons per hr. one @ 100 tons/hr.
How driven Motor Motor
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
Blast Pumps, No. and size 1 @ 100 ; 1 @ 45 tons/hr.; tons/hr. Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2 @ 65 tons/hr.
Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both main bilge pumps and auxiliary
oil pumps, No. and size:—In machinery spaces 4 @ 2 1/2" Wings, Aft. E.R. well 1 @ 3" cofferdam In pump room -
holds, &c. No. 1 Hold 2 @ 3" No. 2 Hold 1 @ 3 1/2" No. 3 Hold 2 @ 3" and 1 @ 2 1/2"
Independent Power Pump Direct Suctions to the engine room bilges, No. and size 2 @ 3 1/2"
Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes Yes 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 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
efficiently 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 above
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 -
What pipes pass through the bunkers None How are they protected -
What pipes pass through the deep tanks None 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 deck
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. None No. of stages - diameters - stroke - driven by -
Auxiliary Air Compressors, No. 2 No. of stages 2 diameters - stroke - driven by 35 B.H.P. motor
Small Auxiliary Air Compressors, No. - No. of stages - diameters - stroke - driven by -
What provision is made for first charging the air receivers Hand start
Scavenging Air Pumps, No. One diameter 832 mm. stroke 240 mm. driven by Main engine
Auxiliary Engines crank shafts, diameter as per Rule 3 @ 4 1/2", 1 @ 3 1/4" No. 73136, 73119, 73137, and 73102
as fitted Position 2 Port side, 2 Starboard side
Have the auxiliary engines been constructed under special survey Yes Is a report sent herewith Yes

002846-002852-0166

AIR RECEIVERS:—Have they been made under survey.....State No. of report or certificate.....

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, welded or riveted longitudinal joint.....

Material.....

Range of tensile strength.....

Working pressure.....

by Rules.....

Actual.....

Starting Air Receivers, No.....

Total cubic capacity.....

Internal diameter.....

thickness.....

Seamless, welded or riveted longitudinal joint.....

Material.....

Range of tensile strength.....

Working pressure.....

by Rules.....

Actual.....

350

IS A DONKEY BOILER FITTED **No** . 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.....**Yes**
(If not, state date of approval)

Receivers.....

Separate fuel tanks.....

Donkey boilers.....

General pumping arrangements.....

Yes

Pumping arrangements in machinery space.....

Yes

Oil fuel burning arrangements.....

Have Torsional Vibration characteristics been approved.....

Yes

Date of approval.....

18th October, 1946.

SPARE GEAR.

Has the spare gear required by the Rules been supplied.....

Yes See Glasgow Report No. 72489

State the principal additional spare gear supplied.....

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.....

1947 Nov. 18, 20, 25, 27 Dec. 2, 4, 15, 19, 23, 29 1948 Jan. 8, 12, 15, 22, 26 Feb. 3, 5, 27 Mar. 5, 12, 23 Apr. 20, 28

May 4, 11, 13, 25, 27, 28, 31 Jun. 1

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Dates of examination of principal parts—Cylinders.....

Covers.....

Pistons.....

Rods.....

Connecting rods.....

Crank shaft.....

Flywheel shaft.....

Thrust shaft.....

Intermediate shafts.....

11.12.47

Tube shaft.....

Screw shaft.....

11.12.47

Propeller.....

8.1.48

Stern tube.....

19.11.47

Engine seatings.....

25.11.47

Engine holding down bolts.....

23.3.48

Completion of fitting sea connections.....

25.11.47

Completion of pumping arrangements.....

31-5-47

Engines tried under working conditions.....

1.6.48

Crank shaft, material.....

Identification mark.....

Flywheel shaft, material.....

Identification mark.....

Thrust shaft, material.....

Identification mark.....

Intermediate shafts, material.....

Steel

Identification marks.....

L.R. 138

Tube shaft, material.....

Identification mark.....

Screw shaft, material.....

Steel

Identification mark.....

L.R. 1388

Identification marks on air receivers.....

3 @ 62582, 1 @ 64350

Welded receivers, state Makers' Name.....

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

Description of fire extinguishing apparatus fitted.....

5 - 2 gallon portable foam extinguisher

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.....)

The machinery has been installed on board the

vessel under Special survey in accordance with the Rules and approved plans, the mater

and workmanship are good. It has been tested under full power and found satisfactory.

The torsional vibration characteristics as required by the Rules have been submitted

for approval and found satisfactory, and is eligible in my opinion to be classed with

the record of + L.M.C. 6,48 and notation T.S.O.G.

A notice board has been placed at the controls stating that the engine has not to

run continuously below 85 R.P.M. (See London letter 18.10.46)

The amount of Entry Fee ... £ :

Special ... £ :

Donkey Boiler Fee... £ :

Travelling Expenses (if any) £ **6 : 0 : 0**

When applied for.....

When received.....

23 JUN 1948

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(The Committee's Minute.....)

Assigned.....

+ Enc 6.48

GLASGOW

all Eng

James Crawford
Engineer Surveyor to Lloyd's Register of Shipping
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