

REPORT ON OIL ENGINE MACHINERY

No. 55657

Date of writing Report 19 July 1946 When handed in at Local Office 19 July 1946 Port of CARDIFF
No. in Survey held at CARDIFF Date, First Survey 31 May Last Survey 18 July 1946
Reg. Book.

LO639 on the Single Triple Quadruple Screw vessel "LUCIA" ex "CHANT 52" Tons Gross 100
Built at HAVERTON HILL ON TEES By whom built FURNESS S.B. CO. LTD. Yard No. - When built 1944
Engines made at MANCHESTER By whom made CROSSLEY BROS. LTD. Engine No. - When made 1944
Donkey Boilers made at - By whom made - Boiler No. - When made -
Brake Horse Power 240 220 Owners COMPANIA DE NAVEGACION LUCIA Port belonging to PANAMA CITY
Nom. Horse Power as per Rule 277 Is Refrigerating Machinery fitted for cargo purposes NO. Is Electric Light fitted YES
Trade for which vessel is intended Carrying petroleum in bulk.

IL ENGINES, &c. Type of Engines 4 cylinder solid injection. 2 or 4 stroke cycle 2 Single or double acting single
Maximum pressure in cylinders 680 lb Diameter of cylinders 10 1/2" Length of stroke 13 1/2" No. of cylinders 4 No. of cranks 4
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 13 1/2" Is there a bearing between each crank yes
Revolutions per minute 340 300 Flywheel dia. 37 1/2" Weight - Means of ignition compression Kind of fuel used light diesel
Crank Shaft, dia. of journals as per Rule 7 1/2" Crank pin dia. 7 1/2" Crank Webs Mid. length breadth 9 1/2" Mid. length thickness 3 1/2" Thickness parallel to axis - Thickness around eye hole Solid
Flywheel Shaft, diameter as per Rule - Intermediate Shafts, diameter as per Rule 4 1/2" Thrust Shaft, diameter at collars as per Rule 4 1/2"
Tube Shaft, diameter as per Rule - Screw Shaft, diameter as per Rule 5" in body Is the tubex shaft fitted with a continuous liner No.

Bronze Liners, thickness in way of bushes as per Rule - Thickness between bushes as per Rule 4 7/8 at top of cones Is the after end of the liner made watertight in the
propeller boss yes 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 yes Vickers Leads - Length of Bearing in Stern Bush next to and supporting propeller 20"

Propeller, dia. 51-0" Pitch 3 8 1/2" No. of blades 4 Material Cast Iron Whether Moveable No. Total Developed Surface 10.3 sq. feet
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 Thickens of cylinder liners - Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled yes lagged with
non-conducting material yes 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. Two Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes
Bilge Pumps worked from the Main Engines, No. Two Diameter 4 1/2" Stroke 3" Can one be overhauled while the other is at work yes

Pumps connected to the Main Bilge Line { No. and Size Three 4 1/2" x 3" Centrifugal 2 1/2" suction (40 ton per hour)
How driven Two by main engines and one by 2 Cyl. Aux. diesel engine.

Ballast Pumps, No. and size one 40 ton per hour Lubricating Oil Pumps, including Spare Pump, No. and size 2-1 1/2" x 2" one semi
Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Machinery Spaces Two 2 1/2" Rotary hand.
In Hold, etc. Pump room. one 2 1/2"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size one - 2 1/2"
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes no. See Cf letter 21.9.46. Are the Bilge Suctions in the Machinery Spaces

and 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 valves

Are 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 on LWL.
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 -

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 yes 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 - 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. one No. of stages 2 Diameters 2 1/2" & 5 1/2" Stroke 4" Driven by Main engine
Auxiliary Air Compressors, No. one No. of stages 2 Diameters 1 1/2" & 4 1/2" Stroke 3 1/2" Driven by Aux. Engine

Small Auxiliary Air Compressors, No. - No. of stages - Diameters - Stroke - Driven by -
Savenging Air Pumps, No. one Diameter 20 1/2" Stroke 6 1/2" Driven by Main engine

Auxiliary Engines crank shafts, diameter as per Rule No. 1 Port aft 2" No. 2 Port forward 3" No. 3 Starboard 3"
RE RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes

Are the internal surfaces of the receivers be examined by light only yes What means are provided for cleaning their inner surfaces Two small doors,
Is there a drain arrangement fitted at the lowest part of each receiver yes

High Pressure 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. Two Total cubic capacity 30 cu ft. Internal diameter 24 1/2" thickness 5" Working pressure by Rules 350 lbs.
Seamless, lap welded or riveted longitudinal joint yes Material steel Range of tensile strength - Working pressure by Rules -

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IS A DONKEY BOILER FITTED?

No.

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shifting.

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR

See attached follower.

The following auxiliary engines are fitted in Engine Room.

No. 1 Port side engine room 2 cyl. 4 S.C.S.A. Ruston & Hornsby Heavy oil engine.

Driving air compressor, Generator & General service pump. Crank shaft dia. 2"

No. 2 Starboard side engine room 4 cyl. 4 S.C.S.A. "Hercules" U.S.A. Heavy oil engine.

Driving Generator for Ventilation fans. crankshaft dia. 5"

No. 3 Starboard side engine room 4 cyl. 4 S.C.S.A. Paxman Richardo. Heavy oil engine.

Driving cargo pump and pump room bilge pump. crank shaft dia. 3"

Plans have been forwarded. 7 are with Case

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

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

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.)

For the information of the Committee.

The amount of Entry Fee ... £

Special ... £

Donkey Boiler Fee ... £

Travelling Expenses (if any) £

Committee's Minute

Assigned

FIL 20 SEP 1946

Engineer Surveyor to Lloyd's Register of Shipping.

Rpt. 9a.

Port of C A R D I F F

Continuation of Report No. 55651 dated 19th July 1946 on the

M.V. "LUCTA 2"

List of Spare Gear.

Crossley Main Engine.

2 fuel pump plungers and casings.

1 set bottom end brasses.

1 main bearing locating pin.

1 piston ring and enterer.

3 valve collets.

16 piston rings.

2 injectors.

Hercules Auxiliary Engine.

1 gudgeon pin.

1 cylinder head with inlet and exhaust valves complete.

1 top end bush.

1 air starter valve.

2 sets piston rings.

1 air master valve.

1 gudgeon pin.

8 bottom end holding clips.

1 lubricating oil filter.

6 shaft coupling bolts.

1 water pump seal.

7 shaft coupling nuts.

1 water pump belt.

2 after main bearing nuts.

2 pliable fuel pipes.

3 main bearing studs.

4 rubber water pipe joints.

2 main bearing nuts.

2 pistons with pins and rings.

2 bottom end bolts and nuts.

1 set brushes complete.

10 header studs - 9 cuts.

2 cylinder head gaskets.

2 circulating pump valve seats.

1 box assorted joints.

3 pump plunger rubbers.

5 main bearings.

1 complete scavenger transfer valve.

2 top end bushes.

96 assorted scavenger pump valve plates.

2 bottom ends.

8 lengths injector fuel piping.

1 fuel injector.

2 fuel pump plungers and casings.

1 governor high spring.

1 fuel injector needle.

1 oil regulator spring.

1 fuel pump test pipe.

1 governor idling spring.

8 thrust pads.

4 inner valve springs.

1 circulating pump plunger.

4 outer valve springs.

18 header water joints.

3 fuel pipe lines.

8 header copper joints.

2 thrust pieces for crankshaft.

1 rubber liner joint.

1 packet main bearing shims.

1 turning valve.

1 gear cover seal.

Ruston Hornsby Auxiliary Engine.

Paxman Auxiliary Engine.

2 injectors.

3 inner and outer springs for inlet and exhaust valve.

2 inlet valves.

1 gudgeon pin.

2 exhaust valves.

9 piston rings.

2 bottom end bolts and nuts.

1 inlet valve

1 gudgeon pin.

1 exhaust valve.

6 spare studs.

2 valve collars.

1 top end bush

1 turning bar.

1 header gasket.

4 bottom end nuts.

2 fuel injection pumps.

6 pair bottom end bearings.

4 valve collars.

10m.3.42. T. (MADE AND PRINTED IN ENGLAND)

Hannish W. Paton

Lloyd's Register

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