

pt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 43132

28 SEP 1932

Site of writing Report.

When handed in at Local Office

26 SEP 1932

Port of

Received at London Office

No. in Survey held at

Hull & Beverley

Date, First Survey

26.9.32

Last Survey

24/9/1932

Reg. Book.

Number of Visits

1394 on the

Single

Screw vessel

"Lizzie & Annie"

Tons { Gross 119
Net 65

Built at

North Shields

By whom built

J. Softley & Sons

Yard No.

When built 1877-6 mo

Engines made at

Stockholm

By whom made

A/B Svenska Maskinverke

Engine No.

When made 1932

Donkey Boilers made at

By whom made

Boiler No.

When made

Brake Horse Power

90

Owners

G. F. Birch & Sons (1919) Ltd.

Port belonging to

Hull

Nom. Horse Power as per Rule

34

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 stroke cycle* *2* Single or double acting *Single*Maximum pressure in cylinders *36 kg/cm²* Diameter of cylinders *250 mm* Length of stroke *330 mm* No. of cylinders *2* No. of cranks *2*Span of bearings, adjacent to the Crank, measured from inner edge to inner edge *371 mm* Is there a bearing between each crank *yes*Revolutions per minute *360* Flywheel dia. *950 mm* Weight *655 kg* Means of ignition *Compression* Kind of fuel used *Heavy oil*Crank Shaft, dia. of journals *as per Rule* Crank pin dia. *150 mm* Crank Webs *Mid. length breadth 192 mm* Thickness parallel to axis *shrunk* Thickness around eye hole *✓*Flywheel Shaft, diameter *as per Rule* Intermediate Shafts, diameter *as per Rule* Thrust Shaft, diameter at collars *as per Rule*Tube Shaft, diameter *as per Rule* Screw Shaft, diameter *as per Rule* Is the *tube* shaft fitted with a continuous liner *No*Bronze 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 thepropeller 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 tubeshaft *No* If so, state type *✓* Length of Bearing in Stern Bush next to and supporting propeller *As at present*Propeller, dia. *As at present* Material *✓* whether Moveable *✓* Total Developed Surface *sq. feet*Method of reversing Engines *Reverse Gear* Is a governor or other arrangement fitted to prevent racing of the engine when declutched *Yes* Means of lubricationThickens of cylinder liners *Solid cyl* Are the cylinders fitted with safety valves *Yes* Are the exhaust pipes and silencers water cooled or lagged withnon-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. *One* Is the sea suction provided with an efficient strainer which can be cleared within the vessel *As at present*Bilge Pumps worked from the Main Engines, No. *One* Diameter *3 1/8"* Stroke *1 5/8"* Can one be overhauled while the other is at work *✓*Pumps connected to the Main Bilge Line { No. and Size *As at present* How driven *As at present*Ballast Pumps, No. and size *✓* Lubricating Oil Pumps, including Spare Pump, No. and size *Mechanical Lubricator*Are two independent means arranged for circulating water through the Oil Cooler *✓* Suctions, connected to both Main Bilge Pumps and Auxiliary BilgePumps, No. and size:—In Machinery Spaces *As at present* In Pump Room *✓*In Holds, &c. *As at present*

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 Spacesled from easily accessible mud-boxes, placed above the level of the working floor *✓* straight tail pipes to the bilgesAre all Sea Connections fitted direct on the skin of the ship *✓* Are they fitted with Valves or CocksAre they sized sufficiently high on the ship's side to be seen without lifting platform plates *✓* Are the Overboard Discharges above or below the deep water lineAre 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 plateWhat pipes pass through the bunkers *As at present* How are they protectedWhat pipes pass through the deep tanks *As at present* 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. *None* No. of stages *None* Diameters *None* Stroke *None* Driven by *None*Auxiliary Air Compressors, No. *None* No. of stages *None* Diameters *None* Stroke *None* Driven by *None*Small Auxiliary Air Compressors, No. *One* No. of stages *One* Diameters *3 1/4"* Stroke *3 1/4"* Driven by *Hand*Scavenging Air Pumps, No. *Crankcase Scavenging* Diameter *None* Stroke *None* Driven by *None*Auxiliary Engines crank shafts, diameter *as per Rule* No. *None* Position *None*

AIR RECEIVERS:—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*High Pressure Air Receivers, No. *None* Cubic capacity of each *None* Internal diameter *None* thickness *None*Seamless, lap welded or riveted longitudinal joint *Material* Range of tensile strength *Working pressure* by RulesStarting Air Receivers, No. *Under construction* See Sec letter E of 8/9/32 approving Temporary Use of 2 solid *draw steel oxygen bottles tested to 1000 lbs. These have now been fitted on board*Seamless, lap welded or riveted longitudinal joint *Material* Range of tensile strength *Working pressure* Actual

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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
(If not, state date of approval)

Donkey Boilers

General Pumping Arrangements

Retained for use
Receivers during construction Separate Tanks as at present

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied?

State the principal additional spare gear supplied

See Sec letter of 19/9/32 approving the following minimum
Spare gear:- 1 set cyl. studs & nuts, 1 gudgeon pin, 2 conn rod
bolts & nuts, 2 main bearing bolts & nuts, 1 set bolts for crankshaft
coupling, 1 set bolts for inter shaft coupling, 1 set parts for 1 fuel pump,
1 set large & air pump valves & springs.

This spare gear has not yet been supplied but the Owner's Rep. states he is
obtaining this as soon as possible.

The following additional items have already been supplied viz:-

4 piston rings, 2 sets parts for injection valves, steel blades for air valves, 1 set
of packings & rings, 1 set springs, 2 fuel injection pipes, quantity of assorted
bolts & nuts & iron bars.

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 27-8-32 Covers 27-8-32 Pistons 27-8-32 Rods Connecting rods 27-8-32
Crank shaft 27-8-32 Flywheel shaft Thrust shaft 27-8-32 Intermediate shafts 14-9-32 Tube shaft
Screw shaft Propeller Stern tube Engine seatings 30-8-32 Engines holding down bolts 30-8-32
Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions 13/9/32
Crank shaft, Material Steel Identification Mark 2151 Flywheel shaft, Material Identification Mark
Thrust shaft, Material Steel Identification Mark Intermediate shafts, Material Steel 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.

Yes

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

Original fittings used.

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 cylinder, pistons, valves & gearing
conn rods, top & bottom ends, framing, main bearings, crankshaft, reversing
gear, & thrusts inter shafts examined and found in good order. Scantlings
checked with approved plans. Seating examined and adapted to suit
new bedplate. The temporary starting air receivers approved in Sec. letter
of 8/9/32 have now been installed.

This machinery has been satisfactorily fitted on board, tried
under working conditions and found in good order. It is eligible
in my opinion to have record of LMC. 9.32 subject to a permanent starting
air receiver and the items of spare gear approved in Sec. letter of 19/9/32
being placed on board at the earliest convenient opportunity.

The amount of Entry Fee

£ 5 : 0

Special

Donkey Boiler Fee

Travelling Expenses (if any)

When applied for,

27.9.1932

When received,

8/11/32

A. W. B. Edwards. John Mackinday
Engineer Surrogate to Lloyd's Register of Shipping.

TUE. 23 MAY 1933

FRI. 23 DEC 1932

Committee's Minute

FRI. 14 OCT 1932

Assigned

Lmb. 9.32

MC. 9.32 Subject

Amend Eng. plans in R.B.

CERTIFICATE WRITTEN



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