

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 8395
-8 AUG 1935

Date of writing Report

1.8.35

When handed in at Local Office

7.8.35

Port of

Received at London Office

MANCHESTER

No. in Survey held at
Reg. Book.

MANCHESTER

Date, First Survey

15 Febry

Last Survey

24 July 1935

Number of Visits

9

Single
Twin
Triple
Quadruple
Screw vessel

LUNEVALE

Tons
Gross
Net

Built at

Northwich

By whom built

W. J. Jarwood & Sons Ltd

Yard No. 490

When built

119092+

Engines made at

Manchester

By whom made

Crosley Bros. Ltd

Engines No. 49093

When made

1935

Donkey Boilers made at

By whom made

Boiler No. ✓

When made

Brake Horse Power

150

Owners

Nom. Horse Power as per Rule

516 5/8

Is Refrigerating Machinery fitted for cargo purposes

Port belonging to

Trade for which vessel is intended

Is Electric Light fitted

MAIN ENGINES, &c.—Type of Engines *Vertical airless injection*

Maximum pressure in cylinders *700 lbs* Diameter of cylinders *7"* Length of stroke *9"* 2 or 4 stroke cycle *2* Single or double acting *Single*

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge *9 9/16"* No. of cylinders *3* No. of cranks *3*

Revolutions per minute *450* Flywheel dia. *27"* Weight *576 lbs* Means of ignition *Compression* Kind of fuel used *Heavy Oil*

Crank Shaft, dia. of journals *as per Rule approved* Crank pin dia. *4 1/2"* Crank Webs *Mid. length breadth 6 1/8"* Kind of fuel used *Heavy Oil*

Flywheel Shaft, diameter *as per Rule as fitted* Intermediate Shafts, diameter *as per Rule as fitted* Thrust Shaft, diameter at collars *as per Rule approved 3 1/4"*

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 *✓* 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 *Direct* Is a governor or other arrangement fitted to prevent racing of the engine when declutched *type governor* Means of lubrication *autoclrical*

Thickness of cylinder liners *1 1/2" to 1 3/4"* Are the cylinders fitted with safety valves *Yes* Are the exhaust pipes and silencers water cooled *on lagged with*

cooling Water Pumps, No. *One each engine* Is the sea suction provided with an efficient strainer which can be cleared within the vessel *into funnel*

Bilge Pumps worked from the Main Engines, No. *2* Diameter *2 1/2"* Stroke *2 1/4"* Can one be overhauled while the other is at work *Yes*

Pumps connected to the Main Bilge Line { No. and Size *1. Self priming centrifugal type. 19 Tons capacity main port etc.* How driven *Any single cyl. diesel eng. (actually a general service pump can be coupled with circulation & ballast)*

Ballast Pumps, No. and size *Lubricating Oil Pumps, including Spare Pump, No. and size*

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

Pumps, No. and size:—In Machinery Spaces

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 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 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

How are they protected

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

apartment to another

Is the Shaft Tunnel watertight

Is it fitted with a watertight door

Are the Bilge Suctions in the Machinery Spaces

Are they fitted with a watertight door

Are they worked from

Are they driven by



8/8/35

W1319-0164

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting (If not, state date of approval)

Yes.

Receivers

Yes.

Separate Tanks

Yes

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR FITTED AS REQUIRED BY THE RULES.

PRINCIPAL ADDITIONAL SPARE GEAR SUPPLIED.

- 1. Fuel pump complete. 1 Cylinder head (with valves & springs complete)
- 1. Piston complete with rings & pin. 1. Crankshaft Gear wheel.
- 4. Bottom end bolts & nuts. 1. Water pump complete. 1 Set Spray pipes
- Assorted bolts & nuts.

The foregoing is a correct description,

J. D. Bunter

Manufacturer.

Dates of Survey while building

During progress of work in shops--	1935	Feb 15	Mar 15	Apr 9	June 13	26	July 2	15	22	24
During erection on board vessel---										
Total No. of visits	9									

Dates of Examination of principal parts—Cylinders 21.5.35 Covers 21.5.35 Pistons 26.6.35 Rods Connecting rods 15.2.35

Crank shaft 9.4.35 Flywheel shaft Thrust shaft 15.3.35 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 M. STEEL. Identification Mark 653P+654S. Flywheel shaft, Material Identification Mark

Thrust shaft, Material M. STEEL. Identification Mark 644P+4S. 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. Yes.

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

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

Is this machinery duplicate of a previous case Yes.

If so, state name of vessel

Severn Ferry (Except Aux. Equipment)

General Remarks (State quality of workmanship, opinions as to class, &c. These propelling engines (Woods Gross Bros. Std Type DR3) have been built under special survey of tested materials and are in accordance with Secretary's letters, approved plans and the Society's Rules and Regulations.

The material and workmanship are of good quality and the engines when tested in shop under full load conditions gave satisfactory results. These engines are, in our opinion, suitable to be placed on board vessel classed with this Society and to have the notation of +LMC with date when satisfactorily fitted on board.

An auxiliary engine type BVD1. No. 119031 has been constructed in accordance with London Letter F dated May 9th 1935. This engine is directly coupled to a Reavell 20 air compressor No. 40503. It has been constructed under survey of tested material examined once & tested under full load conditions & found satisfactory. In our opinion this engine is suitable for the purpose intended & has been dispatched to Northwich with the main engines.

The amount of Entry Fee ...	£	20.00	When applied for,
4/5 Special ...	£	10.60	7.8.1935
Donkey Boiler Fee ...	£	:	When received,
Travelling Expenses (if any) £	:	9.00	4.10.1935

W. Black & J. Munn
Engineers, Surveyors to Lloyd's Register of Shipping

Committee's Minute

Assigned



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