

## REPORT ON OIL ENGINE MACHINERY.

No. 15784

Date of writing Report

19

When handed in at Local Office

16/7 1928 Port of Antwerp

Received at London Office

17 JUL 1928

5 SEP 1928

No. in Survey held at  
Reg. Book.

Ghent

Date, First Survey 9-5-27

Last Survey 13-6-1928

Number of Visits 24

Single  
on the ~~Triple~~  
Screw vessel

Brunswick

Tons { Gross  
Net

Built at Greenock

By whom built Scotts, L.B. &amp; C. Ltd.

Yard No. 534 When built 1928

Engines made at Ghent

By whom made Soc. d'Electricité de Mécanique  
Procédés Thomson-Houston, Gates

Engine No. 4009 When made 1928

Donkey Boilers made at

By whom made

Boiler No. When made

Brake Horse Power each 750. Total 3000.

Owners Atlantic Refining Co.

Port belonging to P. &amp; O.

Nom. Horse Power as per Rule 888.

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

Trade for which vessel is intended

Foreign

IL ENGINES, &c.—Type of Engines (4 off) Indermoll-Rand 2 or 4 stroke cycle 2 St Single or double acting Single  
Maximum pressure in cylinders 540 lb Diameter of cylinders 495 mm Length of stroke 610 mm No. of cylinders 6 No. of cranks 6  
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 559 mm  
Revolutions per minute 225 Flywheel dia. 2210 mm Weight 5.500 K Means of ignition Solid type Kind of fuel used Fuel oil  
Crank Shaft, dia. of journals as per Rule as fitted 280 mm Crank pin dia. 292 mm Crank Webs Mid. length breadth 405 mm Thickness parallel to axis  
Flywheel Shaft, diameter as per Rule as fitted 250 mm Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted  
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 Non-reversible Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication  
Lubrication Thickness of cylinder liners none Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with  
non-conducting material water-cooled 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

Ballast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size one to each motor

Are two independent means arranged for circulating water through the Oil Cooler one to each motor. Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge  
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 the Bilge Suctions in the Machinery Spaces

from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

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

At pipes pass through the bunkers

How are they protected

At 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

In wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

All Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Exhausting Air Pumps, No.

Diameter

Stroke

Driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Are the internal surfaces of the receivers be examined

What means are provided for cleaning their inner surfaces

Are there a drain arrangement fitted at the lowest part of each receiver

Pressure Air Receivers, No.

Cubic capacity of each

Internal diameter

thickness

Are they less, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

Working Air Receivers, No.

Total cubic capacity

Internal diameter

thickness

Are they less, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

003038-003045-0065



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shifting *yes.*

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR

SOCIÉTÉ D'ÉLECTRICITÉ & DE MÉCANIQUE

Procédés de montage et de description

SOCIÉTÉ ANONYME

Le Directeur Administratif

Le Directeur des Usines

Manufacturer.

Dates of Survey while building

During progress of work in shops - - 1927  
During erection on board vessel - - 1928  
Total No. of visits

Dates of Examination of principal parts - Cylinders 29/10-24/11-1927 Covers 19/1-13/4-1928 Pistons 14/2-13-14/4-1928 Rods 19/1-24/3-14/4-1928 Connecting rods 19/1-24/3-14/4-1928

Crank shaft 27 Flywheel shaft 1-12-27 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 *yes in the works*

Crank shaft, Material *S.M. Ingot Steel* Identification Mark *see below* Flywheel shaft, Material *S.M. Ingot Steel* Identification Mark *(2) 439 - (2) 440 F.L.R. 1-12-28*

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.) *These four motors have been constructed under survey, and the materials tested in accordance with the Society's Rules. All cylinder water jackets & cylinder covers have been tested by hydraulic pressure as per rule requirements and found same tight. The workmanship is good and the motors have been tried under working conditions in the works, the machinery was afterwards opened out and examined and found all in good condition. The machinery is eligible in my opinion to be classed in the Society's Register Book and to have record of S.M.C. with date when fitted and tried on board the vessel.*

Mark on crank shafts:

1<sup>st</sup> Motor: Cyl. N: 4009/14 = LLOYD'S N: 526 AB. 22.8.27  
2<sup>nd</sup> " " N: 4015/20 = LLOYD'S N: 2. F.L.R. 10-10-27  
3<sup>rd</sup> " " N: 4021/26 = LLOYD'S N: 149 AB. 8-11-27  
4<sup>th</sup> " " N: 4027/32 = LLOYD'S N: 148 AB. 8-11-27

Mark on Motor Bed plate.

LLOYD'S. N: 504. F.L.R. 28.2.28.  
LLOYD'S. N: 505. F.L.R. 7.4.28.  
LLOYD'S. N: 506. F.L.R. 15.5.28.  
LLOYD'S. N: 507. F.L.R. 9.6.28.

The amount of Entry Fee ... £13/66.50 When applied for,

Special *Fees* £273.40 6-1928

Donkey Boiler Fee ... £ Travelling Expenses (if any) £1632- 11-1928

Committee's Minute

Assigned

*See Grk. Rm No. 18952*

*J. L. Rabaez*  
Engineer Surveyor to Lloyd's Register of Shipping.



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