

REPORT ON OIL ENGINE MACHINERY.

No. 51471

-6 MAY 1931

Site of writing Report

When handed in at Local Office

Port of

Received at London Office

o. in Survey held at
g. Book.

Date, First Survey 18. 12. 26

Last Survey 25. April 1931.

364. on the *Single*
Twin
Triple
Quadruple
Screw vessel

Tons { Gross 10107.
Net 6068.

uilt at *Glasgow*

By whom built *A. Stephen & Sons Ltd.*

Yard No. 532 When built 1931.

Engines made at *do.*

By whom made *do.*

Engine No. 532 When made 1931.

Boilers made at *do.*

By whom made *Babcock & Wilcox Ltd.*

Boiler No. 11577 When made 1930.

ke Horse Power 9390.

Owners *New Zealand Shipping Co. Ltd.*

Port belonging to *Plymouth.*

n. Horse Power as per Rule 2243.

Is Refrigerating Machinery fitted for cargo purposes *Yps.*

Is Electric Light fitted *Yps.*

de for which vessel is intended

26 1/4

47 1/4

ENGINES, &c. Type of Engines *Stephen - Sulzer Diesel* 2 or 4 stroke cycle *2* Single or double acting *Single*

imum pressure in cylinders *580 lb* Diameter of cylinders *680 mm* Length of stroke *1200 mm* No. of cylinders *18* No. of cranks *18*

of bearings, adjacent to the Crank, measured from inner edge to inner edge *900 mm* Is there a bearing between each crank *Yps.*

utions per minute *120* Flywheel dia. *2200 mm* Weight *3.1 tons* Means of ignition *Compression* Kind of fuel used *Diesel oil*

ak Shaft, dia. of journals as per Rule *486 mm* Crank pin dia. *470 mm* Crank Webs Mid. length breadth *410 mm* Thickness parallel to axis *290 mm*

as fitted *470 mm* Intermediate Shafts, diameter as per Rule *348 mm* Thrust Shaft, diameter at collars as per Rule *435 mm*

as fitted *470 mm* as fitted *381 mm* as fitted *470 mm*

Shaft, diameter as per Rule *14.99* Is the tube shaft fitted with a continuous liner *Yps.*

as fitted *16 mm* as fitted *16 mm* Is the after end of the liner made watertight in the

liner boss *Yps.* If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner *—*

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 *—*

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

70 If so, state type *—* Length of Bearing in Stern Bush next to and supporting propeller *684 mm*

eller, dia. *15'-6"* Pitch *15'-6"* No. of blades *4* Material *Cast Iron* whether Moveable *Yps.* Total Developed Surface *42* sq. feet

od of reversing Engines *Direct* Is a governor or other arrangement fitted to prevent racing of the engine when declutched *Yps.* Means of lubrication

Thickness of cylinder liners *58 mm* Are the cylinders fitted with safety valves *Yps.* Are the exhaust pipes and silencers water cooled or lagged with

insulating material *Yps.* If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine *3 funnels*

ing Water Pumps, No. *3* dual purpose *60 T/H to pump 200 T/H to funnel* Is the pump provided with an efficient strainer which can be cleared within the vessel *Yps.*

Pumps worked from the Main Engines, No. *—* Diameter *—* Stroke *—* Can one be overhauled while the other is at work *—*

ps connected to the Main Bilge Line No. and Size *2 1/2 113 tons, 2 1/2 100 tons* How driven *Electric motor*

ast Pumps, No. and size *2 1/2 113 T/H, 3 1/2 100 T/H* Lubricating Oil Pumps, including Spare Pump, No. and size *3 1/2 35 T/H*

wo independent means arranged for circulating water through the Oil Cooler *Yps.* 1 Stand by pump Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

rs, No. and size:—In Machinery Spaces *2 1/2 113, 2 1/2 100 in Thrust room, 2 1/2 100 in gutting room, 1 1/2 100 in Pump Room Well.*

lds, &c. *No. 1-1 1/2 100, No. 2-2 1/2 100, No. 3-2 1/2 100, No. 4-3 1/2 100, No. 5-3 1/2 100, No. 6-2 1/2 100.*

pendent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *2 1/2 100*

At the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes *Yps.* Are the Bilge Suctions in the Machinery Spaces

om easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges *Yps.*

Sea Connections fitted direct on the skin of the ship *Yps.* Are they fitted with Valves or Cocks *Both.*

ey fixed sufficiently high on the ship's side to be seen without lifting the platform plates *Yps.* Are the Overboard Discharges above or below the deep water line *Below.*

ey each fitted with a Discharge Valve always accessible on the plating of the vessel *Yps.* Are the Blow Off Cocks fitted with a spigot and brass covering plate *Yps.*

pipes pass through the bunkers *None* How are they protected *—*

pipes pass through the deep tanks *None* Have they been tested as per Rule *—*

Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times *Yps.*

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

iment to another *Yps.* Is the Shaft Tunnel watertight *See hull Report* Is it fitted with a watertight door *Yps.* worked from *Above upper deck.*

ood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork *—*

Air Compressors, No. *2* each engine No. of stages *3* Diameters *5 1/2, 1 1/2, 1 1/2* Stroke *600 mm* Driven by *Brank Shaft.*

ary Air Compressors, No. *2* No. of stages *3* Diameters *12 1/2, 10 1/2, 8* Stroke *5 1/8* Driven by *Elec. Motor*

Auxiliary Air Compressors, No. *1* No. of stages *2* Diameters *5 3/4, 1 1/8* Stroke *3"* Driven by *Steam.*

aging Air Pumps, No. *1* *Kinden 2A* each engine Diameter *1660 mm* Stroke *150 mm* Driven by *Brank Shaft.*

ary Engines crank shafts, diameter as per Rule *See Grimsby Report P. 2407.*

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

the internal surfaces of the receivers be examined and cleaned *Yps.* Is a drain fitted at the lowest part of each receiver *Yps.*

Pressure Air Receivers, No. *6* *See hull* Cubic capacity of each *1845 Lbs.* Internal diameter *300 mm* thickness *32.5 mm*

Material *Steel* Range of tensile strength *28-32 tons* Working pressure *by Rules 1310 & 1460*

Actual *1000 lbs.* thickness *23.5 mm*

Working Air Receivers, No. *2* Total cubic capacity *24* Internal diameter *1400 mm* thickness *23.5 mm*

Material *Steel* Range of tensile strength *28-32 tons* Working pressure *by Rules 433 & 425*

W1153-0212

IS A DONKEY BOILER FITTED? ^{2 Wash Heat Boiler.} ^{1 Cochran Boiler} If so, is a report now forwarded? *y/s.*
Is the donkey boiler intended to be used for domestic purposes only? *Cochran Boiler for Turbo Superheater Wash Heat Boiler for Generator, Sea*
PLANS. Are approved plans forwarded herewith for Shafting *22-11-29* Receivers *m. m. v. 6021* Separate Tanks *y/s*
Donkey Boilers *y/s.* General Pumping Arrangements *y/s.* Oil Fuel Burning Arrangements *y/s.*

SPARE GEAR.
Has the spare gear required by the Rules been supplied? *y/s*
State the principal additional spare gear supplied

The foregoing is a correct description.

ALEXANDER STEPHEN & SONS, LIMITED.

J. G. Stephen

Manufacturer.

Dates of Survey while building
During progress of work in shops - 19.29 Dec 18.27 (1930) Jan 7.13.20.22 Feb 3.6.9.24.26 Mar 5.6.11.13.16.17.19.20.24 Apr 22.29.29 May 5.6.7.8.12.20.27.29 June 9.12.16.20.23.30 June 9.12.16.20.23.30 July 4.9.11 Aug 4.12
During erection on board vessel - 26 Sep 1.9.10.11.16.17.19.23.26.30 Oct 1.3.6.8.10.13.14.15.16.20.21.22.23.24.27.28.29.30.31 Nov 3.4.5.6.7
Total No. of visits 156 29.30.31 Feb 2.3.9.11.13.16.17.19.20.23.26.27 Mar 3.4.9.12.16.17.19.24.26.31 Apr 1.9.16.17.20

Dates of Examination of principal parts—Cylinders 3.11.30 Covers 6.11.30 Pistons 22.12.30 Rods 9.12.30 Connecting rods 29.12.30
Crank shaft 10.9.30 Flywheel shaft and Thrust shaft 1.10.30 Intermediate shafts 4.12.30 Tube shaft —
Screw shaft 5.12.30 Propeller 29.11.30 Stern tube 23.12.30 Engine seatings 20.10.30 Engines holding down bolts 9.4.31

Completion of fitting sea connections 20.10.30 Completion of pumping arrangements 23.4.31 Engines tried under working conditions 23.4.31
Crank shaft, Material 9m light steel Identification Mark 26.8.30 10.9.30 Flywheel shaft, Material 9m light steel Identification Mark 22.7.30-26
Thrust shaft, Material — Identification Mark — Intermediate shafts, Material do. Identification Marks 532-26
Tube shaft, Material — Identification Mark — Screw shaft, Material do. Identification Mark 20.10.30

Is the flash point of the oil to be used over 150° F. *y/s.*
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *y/s.*
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 *y/s.*
If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with *y/s.*
Is this machinery duplicate of a previous case *y/s.* If so, state name of vessel *M.V. ORARI*

General Remarks (State quality of workmanship, opinions as to class, &c.)

The Machinery of this vessel has been built under Special License and in accordance with the Rules. The materials and workmanship are of the best. It has been efficiently secured in position on board and afterwards tried under full working conditions and found in order.

The Machinery of this vessel is eligible, in my opinion, to be classed in the Register Book with notation of + L.M.C. 4.31.

The 19 starting air receiver originally intended for the M.V. Orari has been fitted in this vessel.

The amount of Entry Fee ... £ 6 : - :
Special ... £ 168 : 12.6 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 5 MAY 1931
When received, 22.5.31

Committee's Minute GLASGOW 5 MAY 1931

Assigned + L.M.C. 4.31
CERTIFICATE WRITTEN

Engineer Surveyor to Lloyd's Register of Shipping



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