

Rpt. 4b.

# REPORT ON OIL ENGINE MACHINERY.

No. 129.

-6 SEP 1934

Date of writing Report 3<sup>rd</sup> Sept. 34 When handed in at Local Office 3<sup>rd</sup> Sept. 34 Port of Winterthur  
No. in Survey held at Winterthur Date, First Survey 7<sup>th</sup> Feb. 1934 Last Survey 29<sup>th</sup> Aug. 1934  
Reg. Book. Number of Visits

on the Triple Screw vessel Tons 534 Gross 442 Net

Built at Belfast By whom built Workman, Clark & Co. Ltd. Yard No. 534 When built 1934  
Engines made at Winterthur By whom made Subzer Bros. Ltd. Engine No. 6452 When made 1934

Donkey Boilers made at By whom made Boiler No. When made  
Horse Power 11000 (Two engs.) Owners New Zealand Shipping Co. Ltd. Port belonging to London

Horse Power as per Rule 2238 (2 engs.) Is Refrigerating Machinery fitted for cargo purposes 28 3/4 Is Electric Light fitted 49 3/16

le for which vessel is intended

ENGINE, &c. Type of Engines Subzer Solid Injection Engines 2 or 4 stroke cycle 2 Single or double acting single  
num pressure in cylinders 800 lb. Diameter of cylinders 720 mm. Length of stroke 1250 mm. No. of cylinders 16 (2 engs.) No. of cranks 16 (2 engs.)

of bearings, adjacent to the Crank, measured from inner edge to inner edge 910 mm. 930 Is there a bearing between each crank Yes  
ations per minute 126 Flywheel dia. 2350 mm. Weight 4250 Kg. Means of ignition Compression Kind of fuel used heavy fuel oil

k Shaft, dia. of journals 455 mm. 446 Mid. length breadth ✓ Thickness parallel to axis 305 mm. ✓  
as fitted 490 Crank pin dia. 490 mm. Crank Webs Mid. length thickness ✓ Thickness around eyehole 244 ✓

heel Shaft, diameter 455 as per Rule 361 mm. 368 Thrust Shaft, diameter at collars as per Rule 379 367  
as fitted 490 as fitted 380 as fitted 496 ✓

Shaft, diameter as per Rule Screw Shaft, diameter as fitted Is the { tube { shaft fitted with a continuous liner {  
as fitted

ze Liners, thickness in way of bushes as per Rule Thickness between bushes as fitted Is the after end of the liner made watertight in the 6/9/34  
as fitted

ler boss 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

o 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  
If so, state type Length of Bearing in Stern Bush next to and supporting propeller

eller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet  
od of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when decelerated Yes Means of lubrication

red. Thickness of cylinder liners 45 mm. Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with  
ducting 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

ng Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel  
special arrangements are made for dealing with cooling water if discharged into bilges

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  
How driven

st Pumps, No. and size Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size  
co independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

s, No. and size:—In Machinery Spaces In Pump Room  
lds, &c.

pendent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Are the Bilge Suctions in the Machinery Spaces  
ll the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are they fitted with Valves or Cocks

om easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Are the Overboard Discharges above or below the deep water line  
ll Sea Connections fitted direct on the skin of the ship Are the Blow Off Cocks fitted with a spigot and brass covering plate

ey fixed sufficiently high on the ship's side to be seen without lifting the platform plates How are they protected  
ey each fitted with a Discharge Valve always accessible on the plating of the vessel Have they been tested as per Rule

pipes pass through the bunkers Are the Blow Off Cocks fitted with a spigot and brass covering plate  
pipes pass through the deep tanks How are they protected

ll Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Have they been tested as per Rule  
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  
rtment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

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

Air Compressors, No. No. of stages Diameters Stroke Driven by  
ary Air Compressors, No. No. of stages Diameters Stroke Driven by

l Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by  
enging Air Pumps, No. 1. Tandem D.A. each eng. Diameter 1660 mm. Stroke 750 mm. Driven by Crankshaft.

ary Engines crank shafts, diameter as per Rule Position  
as fitted

R RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Is a drain fitted at the lowest part of each receiver  
in the internal surfaces of the receivers be examined and cleaned Is a drain fitted at the lowest part of each receiver

igh Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness  
unless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure Actual



## IS A DONKEY BOILER FITTED?

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 17-1-34, 16-4-34 Receivers  
(If not, state date of approval)

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

## SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

Sulzer Brothers

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building

During progress of work in shops - 7-2-34, 16-2-34, 16-3-34, 21-3-34, 27-3-34, 29-3-34, 5-4-34, 6-4-34, 10-4-34, 11-4-34, 13-4-34, 17-4-34, 18-4-34, 24-4-34, 26-4-34, 27-4-34, 1-5-34, 14-5-34, 17-5-34, 18-5-34, 24-5-34, 28-5-34, 29-5-34, 30-5-34, 31-5-34, 4-6-34, 7-6-34, 8-6-34, 12-6-34, 13-6-34, 18-6-34, 19-6-34, 20-6-34, 21-6-34, 22-6-34, 27-6-34, 28-6-34, 29-6-34, 2-7-34, 4-7-34, 5-7-34, 9-7-34, 12-7-34, 17-7-34, 23-7-34, 1-8-34, 3-8-34, 7-8-34, 29-8-34.

During erection on board vessel - 29-8-34.

Total No. of visits

Dates of Examination of principal parts - Cylinders 7-2-34, 16-2-34, 16-3-34, 21-3-34, 27-3-34, 29-3-34, 5-4-34, 6-4-34, 10-4-34, 11-4-34, 13-4-34, 17-4-34, 18-4-34, 24-4-34, 26-4-34, 27-4-34, 1-5-34, 14-5-34, 17-5-34, 18-5-34, 24-5-34, 28-5-34, 29-5-34, 30-5-34, 31-5-34, 4-6-34, 7-6-34, 8-6-34, 12-6-34, 13-6-34, 18-6-34, 19-6-34, 20-6-34, 21-6-34, 22-6-34, 27-6-34, 28-6-34, 29-6-34, 2-7-34, 4-7-34, 5-7-34, 9-7-34, 12-7-34, 17-7-34, 23-7-34, 1-8-34, 3-8-34, 7-8-34, 29-8-34.

Crank shaft 9-7-34, 3-8-34. Flywheel shaft 3-8-34. Thrust shaft 3-8-34. Intermediate shafts 3-8-34. Tube shaft 4-7-34, 1-8-34.

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 Ann. S.M. Ing. Stl. Identification Mark 10287 M.B. 21-3-34. Flywheel shaft, Material Ann. S.M. Ing. Stl. Identification Mark 10299 T.M. 120-3-34.

Thrust shaft, Material Ann. S.M. Ing. Stl. Identification Mark 15245 K.H. 8-3-34. Intermediate shafts, Material Ann. S.M. Ing. Stl. Identification Mark 10296-97 M.B. 27-3-34.

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

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

If so, state name of vessel

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

These engines have been constructed under special survey in accordance with the requirements of the Rules, the Secretary's letters, and the approved plans. Materials and workmanship good. Full power trials of engines in shop satisfactory.

These engines have been dispatched to Messrs. Workman, Clark & Co. Ltd., Belfast, to be installed in the vessel.

The amount of Entry Fee .. £ 6-0-0 : When applied for, 31<sup>st</sup> Aug. 1934

Special ... £ 155-19-0 : When received, 3<sup>rd</sup> Sept. 1934

Donkey Boiler Fee ... £ :

Travelling Expenses (if any) £ :

Committee's Minute

Assigned

TUE. 20 NOV 1934

See Bel. J.E. 11408

W.B. Gallis

Engineer Surveyor to Lloyd's Register of Shipping.



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