

## REPORT ON OIL ENGINE MACHINERY.

No. 18649

Received at London Office 29 JUL 1929

Date of writing Report 22 July 1929 When handed in at Local Office 19

Port of Rotterdam

No. in Survey held at Reg. Book.

Date, First Survey 16 Aug '27

Last Survey 10 July 1929.

Number of Visits 25

on the <sup>Single</sup> Twin <sup>Triple</sup> Screw vessel

Belgian Guy

Tons Gross 2299 Net 4704

Built at Rotterdam

By whom built Burgerhout

Yard No. 115

When built 1929

Engines made at Rotterdam

By whom made Burgerhout

Engine No. 424

When made 1929

Donkey Boilers made at Rotterdam

By whom made Burgerhout

Boiler No. 608/699

When made 1929

Brake Horse Power 2 x 1750 = 3500

Owners Sch. d. Clemment &amp; Ind. &amp; de Commerce

Port belonging to Antwerp

Nom. Horse Power as per Rule 905

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

Trade for which vessel is intended

General Trade.

OIL ENGINES, &amp;c.—Type of Engines Burgerhout Diesel. 2 or 4 stroke cycle 1 Single or double acting Single

Maximum pressure in cylinders 500 lb. Diameter of cylinders 675 mm Length of stroke 1300 mm No. of cylinders 2 x 4 No. of cranks 2 x 4

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 1000 mm Is there a bearing between each crank Yes

Revolutions per minute 90 Flywheel dia. 1500 mm Weight 134 ton Means of ignition Temperature due Kind of fuel used Diesel oil

Crank Shaft, dia. of journals as per Rule app. Crank pin dia. 440 mm Crank Webs Mid. length breadth 846 mm Thickness parallel to axis 154 mm

as fitted 440 mm Mid. length thickness 175 mm Thickness around eye hole 191 mm

Flywheel Shaft, diameter as per Rule app. Intermediate Shafts, diameter as per Rule app. Thrust Shaft, diameter at collars as per Rule app.

as fitted 440 mm as fitted 375 mm as fitted 375 mm

Tube Shaft, diameter as per Rule app. Screw Shaft, diameter as per Rule app. Is the tube screw shaft fitted with a continuous liner Yes

as fitted as fitted 305 mm as fitted 30 mm

Bronze Liners, thickness in way of bushes as per Rule app. Thickness between bushes as per rule app. Is the after end of the liner made watertight in the

as fitted 18 mm as fitted 20 mm

propeller boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner One length

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 fit tightly

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 No Length of Bearing in Stern Bush next to and supporting propeller 1508 mm

Propeller Dia 4500 mm Pitch 4350 mm No. of blades 4 Material Bronze whether Moveable Moveable Total Developed Surface 699 sq. feet

Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

forged Thickness of cylinder liners 65 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material Both If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine up in funnel

Cooling Water Pumps, No. 4 on each engine &amp; 2 Clock Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Bilge Pumps worked from the Main Engines, No. 1 Diameter 150 mm Stroke 300 mm Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line No. and Size 1 Electric driven a 125 ton per hour; 1 steam driven 8" x 9" x 8"

How driven In pump room; steam driven a 6" x 6" x 6" Pump room on deep tank deck 1 a 12" x 10" x 12"

Ballast Pumps, No. and size 1 a 8" x 9" x 8"; 1 Clock: a 185 ton. Lubricating Oil Pumps, including Spare Pump, No. and size 2 Clock: a 40 ton per hour.

Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Machinery Spaces 1 a 80 mm in after cofferdam; 1 a 80 mm in boiler room; 1 a 80 mm in eng. room bilges; 1 a 80 mm in eng. room

In Holds, &amp;c. 1 a 80 mm in forewell; 1 a 80 mm in afterwell; 2 a 65 mm tank top forewell; 1 a 70 mm on top deep tank; 1 a 70 mm in pump room;

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 a 120 mm; 1 a 150 mm

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces

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

Are all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Valves &amp; Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Yes Are the Overboard Discharges above or below the deep water line Above

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes

What pipes pass through the bunkers How are they protected

What 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 Yes

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 Yes 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. One on each engine No. of stages 3 Diameters 770 (200-620) 45 Stroke 400 mm Driven by Main Engine

Auxiliary Air Compressors, No. 1 No. of stages 3 Diameters 330 (330-190) 74 Stroke 250 mm Driven by Compound Engine

Small Auxiliary Air Compressors, No. 1 No. of stages 3 Diameters 18 x 15 x 4 1/2 Stroke 10 1/2 Driven by Elect. Motor

Scavenging Air Pumps, No. 2 on each engine Diameter 1055 mm Stroke 750 mm Driven by Main Engine

Auxiliary Engines crank shafts, diameter as per Rule as fitted

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

Can the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces Covers

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

High Pressure Air Receivers, No. 6 Cubic capacity of each 190 liter Internal diameter 317.6 mm thickness 13.4 mm

Seamless, lap welded or riveted longitudinal joint Seamless Material S.M. steel Range of tensile strength 45-51.9 Working pressure by Rules 47.4 kg

Starting Air Receivers, No. 4 Total cubic capacity 4 x 102 = 408 c.c. Internal diameter 155.1 mm thickness 22 mm

Seamless, lap welded or riveted longitudinal joint riveted Material S.M. steel Range of tensile strength 45-51.9 Working pressure by Rules 47.4 kg



IS A DONKEY BOILER FITTED? *Yes.*

If so, is a report now forwarded? *Yes.*

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

Donkey Boilers

General Pumping Arrangements

Receivers

Separate Tanks

Oil Fuel Burning Arrangements

SPARE GEAR

*Cls per attached list.*

The foregoing is a correct description,

BURGERHOUT'S MACHINEFABRIEK & SCHEEPSWERF, N.V.

Manufacturer.

Dates of Survey while building  
During progress of work in shops - 1917 Aug 16 Sept 7 Nov 15-17; Dec 2-6-20-28; 1918 Jan 2-17-24-31 Feb 20; March 2-19-27  
During erection on board vessel - April 13 May 4-16-23-31; June 6-13-15-18-21-23-28; July 3-5-10-12-16-30  
Total No. of visits 85  
1918 Jan 2-8-10-18-22-25-31; Feb 5-15-22 March 18-22-26-28; April 5-8-10-18-19-27  
May 3-8-16-22-28 June 4-6-10-14-21-25-27; July 5-9-10-16-18-27  
Aug 1-15-18-21-24-28-29-31  
Sept 1-4-11-18-25-28-30-31  
Oct 1-4-9-11-18-25-28-30-31  
Nov 1-5-20-28-30-31  
Dec 1-5-10-14-21-28-31

Dates of Examination of principal parts - Cylinders 10/9/20 Covers 10/9/20 Pistons 10/9/20 Rods 10/9/20 Connecting rods 10/9/20

Crank shaft 10/9/20 Flywheel shaft 10/9/20 Thrust shaft 10/9/20 Intermediate shafts 10/9/20 Tube shaft 10/9/20

Screw shaft 12/1/29 Propeller 19/4/29 Stern tube 18/4/29 Engine sealings 28/3/29-5/4/29 Engines holding down bolts 14/6/29

Completion of fitting sea connections 19/4/29 Completion of pumping arrangements 5/7/29 Engines tried under working conditions 9-10-18/29

Crank shaft, Material *S.M. steel* Identification Mark *see below* Flywheel shaft, Material *S.M. steel* Identification Mark *see below*

Thrust shaft, Material *S.M. steel* Identification Mark *see below* Intermediate shafts, Material *S.M. steel* Identification Marks *see below*

Tube shaft, Material *S.M. steel* Identification Mark *see below* Screw shaft, Material *S.M. steel* Identification Mark *see below*

Is the flash point of the oil to be used over 150° F. *Yes.*

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.) *This machinery has been constructed under Special Survey in accordance with the requirements of the Rules. The Secretary's letters and the approved plans material and workmanship good. I am of opinion that this vessel is eligible to be recorded in the Society's register-book with LLOYD'S + L.M.C. 7-29. C.L. 7-29.*

Marks on Shafting.

Port	Overhauls	Int. shafts	Int. shafts	Collar shaft	Flywheel shaft	Crank shafts	Comp. shafts
Engine	LLOYD'S NO 4936 J.L. 10-10-20	LLOYD'S NO 2538 J.B. 24-0-20	LLOYD'S NO 2530 J.B. 21-0-20	LLOYD'S NO 344 F.H. 27-4-20	LLOYD'S NO 13460 H.H. 13-0-20	LLOYD'S NO 4347-4348 J.L. 19-5-20	LLOYD'S NO 2858 H.H. 4-5-20
Starb.	LLOYD'S NO 13573 K.H. 3-1-29	LLOYD'S NO 2537 J.B. 24-0-20	LLOYD'S NO 13462 K.H. 13-0-20	LLOYD'S NO 2525 J.B. 9-0-20	LLOYD'S NO 13461 K.H. 13-0-20	LLOYD'S NO 306-1307 M.H. 20-3-20	LLOYD'S NO 2857 H.H. 4-5-20
Spare	LLOYD'S NO 8408 M.B. 14-3-29					LLOYD'S NO 1518 M.H. 27-6-20	LLOYD'S NO 2856 H.H. 4-5-20

The amount of Entry Fee ... \$ 72.00

Special ... \$ 149.00

Donkey Boiler Fee ... \$ 200.00

Travelling Expenses (if any) ... \$ 97.00

Committee's Minute

Assigned

When applied for,

When received,

Engineer Surveyor to Lloyd's Register of Shipping.

CERTIFICATE WRITTEN.

Lloyd's Register Foundation