

# REPORT ON OIL ENGINE MACHINERY.

No. 18649

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Date of writing Report 22 July 1929 When handed in at Local Office 10 Port of Rotterdam  
No. in Survey held at Rotterdam Date, First Survey 16 Aug '27 Last Survey 10 July 1929  
Reg. Book. Number of Visits 05

on the <sup>Single</sup> ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel Belgian Guy Tons Gross 2399 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 Set. d'Allemant d'Ind. & 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, &c.**—Type of Engines Burgerhout Nobel Diesel. 2 or 4 stroke cycle 1 Single or double acting Single  
Maximum pressure in cylinders 500 lb. Diameter of cylinders 645 mm. Length of stroke 1200 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 No Compressor Kind of fuel used Diesel oil  
**Crank Shaft**, dia. of journals as per Rule app. as fitted 440 mm. Crank pin dia. 440 mm. Crank Webs Mid. length breadth 846 mm Thickness parallel to axis 154 mm  
Mid. length thickness 175 mm Thickness around eye-hole 197 mm.  
**Flywheel Shaft**, diameter as per Rule app. as fitted 440 mm. **Intermediate Shafts**, diameter as per Rule app. as fitted 375 mm. **Thrust Shaft**, diameter at collars as per Rule app. as fitted 375 mm.  
**Tube Shaft**, diameter as per Rule app. as fitted. **Screw Shaft**, diameter as per Rule app. as fitted 305 mm. Is the <sup>tube</sup> ~~screw~~ shaft fitted with a continuous liner Yes.  
**Bronze Liners**, thickness in way of bushes as per Rule app. as fitted 28 mm. Thickness between bushes as per rule app. as fitted 20 mm. Is the after end of the liner made watertight in the 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 & 2 Cold: 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. 2 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 deck and deck 1 a 12" x 10" x 12"  
**Ballast Pumps**, No. and size 1 a 8" x 9" x 8"; 1 Cold: a 185 ton. **Lubricating Oil Pumps**, including Spare Pump, No. and size 2 Cold: 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; 1 a 80 mm in Eng. room; 1 a 80 mm in Hold, &c. 1 a 80 mm in Forewell; 1 a 80 mm in Afterwell; 2 a 65 mm tank top fore well; 2 a 70 mm on top of deep tank; 1 a 70 mm in pump room; 1 a 100 mm in forward cofferdam; 2 a 75 mm in main 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 & 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.

**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 liters Internal diameter 317.6 mm. thickness 12.4 mm.  
Seamless, lap welded or riveted longitudinal joint Seamless Material S.M. steel Range of tensile strength 45-51 lb. Working pressure by Rules 47 lb. g.  
**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 lb. Working pressure by Rules 29 lb. g.

IS A DONKEY BOILER FITTED? *Yes.*

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

PLANS. Are approved plans forwarded herewith for Shafting *4/6/20 - 4/6/21*  
(If not, state date of approval)

Donkey Boilers *2/3/24*

General Pumping Arrangements *18-23-34*

Receivers *30/20*

Separate Tanks *9/3/20 - 7/3/20*

Oil Fuel Burning Arrangements *10-14/29*

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 - *1927 Aug 16 Sept 7 Nov 15-17 Dec 2-6-20-28; 1928 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*

Dates of Examination of principal parts - Cylinders *28/25-4/11* Covers *28/29/3* Pistons *10/12/28* Rods *11/11-19/28* Connecting rods *19/18-19/28*

Crank shaft *10/9/28* Flywheel shaft *10/9/28* Thrust shaft *10/9/28* Intermediate shafts *10/9/28* Tube shaft *10/9/28*

Screw shaft *22/2/29* Propeller *19/4/29* Stern tube *18/11/29* 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 Surveyor'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 Engine	Doner shafts	Int. shafts	Int. shafts	Collar shaft	Flywheel shaft	Crank shafts	Comp. shafts
	LLOYD'S NO 4926 J.L. 10-10-20	LLOYD'S NO 2538 J.G. 24-0-20	LLOYD'S NO 2530 J.G. 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
	LLOYD'S NO 13573 H.H. 3-1-29	LLOYD'S NO 2537 J.G. 24-0-20	LLOYD'S NO 13462 H.H. 13-0-20	LLOYD'S NO 2525 J.G. 9-0-20	LLOYD'S NO 13461 H.H. 13-0-20	LLOYD'S NO 1306-1307 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 ... \$ 142.00  
 Special ... \$ 149.00  
 4 Donkey receivers ... \$ 200.00  
 Travelling Expenses (if any) ... \$ 97.00

Committee's Minute  
 Assigned *+ L.M.C. 7: 29 Oil Engines*

CERTIFICATE WRITTEN. *28th 180lb 10th 100lb*

