

## REPORT ON OIL ENGINE MACHINERY.

No. 21511

Received at London Office 7 MAY 1935

Date of writing Report 1-5-35

When handed in at Local Office

Port of Hamburg

No. in Survey held at Kiel

Date, First Survey 23/2/1934

Last Survey 13/4/35

Number of Visits 60

eg. Book.

9472 on the Single  
Twin  
Triple  
Quadruple  
Screw vessel

"Gadila" (oil Eng)

Tons Gross 7999  
Net 4762

Built at Kiel

By whom built Howaldtswerke A.G.

Yard No. 732 When built 1935

Engines made at Kiel

By whom made Howaldtswerke A.G.

Engine No. 6 When made 1935

Monkey Boilers made at Kiel

By whom made Howaldtswerke A.G.

Boiler No. 1512 When made 1935

Horse Power 3500 PS

Owners Petroleum Maats. "La Corona"

Port belonging to The Hague

Horse Power as per Rule 502

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted yes

Trade for which vessel is intended Tanker Trade

L ENGINES, &amp;c. Type of Engines MAN with Werpsoor Supercharging 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 700 lb Diameter of cylinders 680 mm Length of stroke 1400 mm No. of cylinders 8 No. of cranks 8

Position of bearings, adjacent to the Crank, measured from inner edge to inner edge 844 mm Is there a bearing between each crank yes

Revolutions per minute 120 Flywheel dia. 2100 mm Weight 5500 kgs Means of ignition Diesel system Kind of fuel used Diesel oil

Crank Shaft, dia. of journals as per Rule 444.3 mm as fitted 460 mm Crank pin dia. 460 mm Crank Webs Mid. length breadth 870 mm shrunk Thickness parallel to axis 290 mm Mid. length thickness 290/267 mm Thickness around eyehole 204 mm

Flywheel Shaft, diameter as per Rule 444.3 mm as fitted 460 mm Intermediate Shafts, diameter as per Rule 324 mm as fitted 470 mm Thrust Shaft, diameter at collars as per Rule 340 mm as fitted 460 mm

Screw Shaft, diameter as per Rule 357 mm as fitted 420 mm Is the shaft fitted with a continuous liner yes

Bronze Liners, thickness in way of bushes as per Rule 18.5 mm as fitted 23 mm Thickness between bushes as per rule 14 mm as fitted 16.5 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

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

If so, state type Length of Bearing in Stern Bush next to and supporting propeller 1610 mm

Propeller, dia. 4724 mm Pitch 3353 mm No. of blades 4 Material Bronze whether Moveable solid Total Developed Surface 7.246 m<sup>2</sup>

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

Thickness of cylinder liners 46 mm Are the cylinders fitted with safety valves yes The exhaust pipes and steam water cooled or lagged with

non-conducting material 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. 1 Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

What special arrangements are made for dealing with cooling water if discharged into bilges

Large Pumps worked from the Main Engines, No. 2 Diameter rotary Stroke 35% each Can one be overhauled while the other is at work valve casings

Pumps connected to the Main Bilge Line No. and Size 2 of 35% each 1 Gen. Serv. Duplex 90 mm 8" 8" 10" can be overhauled

How driven main motor steam (1 main rotary 40%)

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 steam 43% 8" 8" 10"

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 3.90 p, Coffland. aft 1.125 p 5.10 p, 1.100 p, 1.50 p In Pump Room 1 of 80 p

Holds, &amp;c. Form cargo space 2 of 50 p, Form pump room 1.50 p, Coffland. fore 3.70 p, Form Drapland 2.100 p

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1.100 p (emergency) and 1.125 p (direct)

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

l 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 heating coils &amp; 2 scupper pipes How are they protected

What pipes pass through the deep tanks heating coils and cargo lines Have they been tested as per Rule yes

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 mach. aft 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. solid injection No. of stages Diameters Stroke Driven by

Auxiliary Air Compressors, No. 2 No. of stages 2 x 2 Diameters 2 x 90, 2 x 85 Stroke 180 mm Driven by steam engine

Small Auxiliary Air Compressors, No. none No. of stages Diameters Stroke Driven by

Scavenging Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule See Düsseldorf Rpt No 95, dated 23/11/34 No. 1 oil engine 1 steam engine

Position Engine room, lower platform, stb. side

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 and cleaned yes Is a drain fitted at the lowest part of each receiver yes

Oil and Starting High Pressure Air Receivers, No. 2 Cubic capacity of each 120 litres Internal diameter 302 mm thickness 8 mm

Seamless, lap welded or riveted longitudinal joint seamless Material O.H. Steel Range of tensile strength 60-36 kg/cm<sup>2</sup> Working pressure Actual 25-12 kg/cm<sup>2</sup>Starting Air Receivers, No. 2 Total cubic capacity 24.8 m<sup>3</sup> Internal diameter 1600/1705 mm thickness 29 mmSeamless, lap welded or riveted longitudinal joint yes Material O.H. Steel Range of tensile strength 44-50 kg/cm<sup>2</sup> Working pressure Actual 24.6 kg/cm<sup>2</sup>

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IS A DONKEY BOILER FITTED?

yes

If so, is a report now forwarded? yes

Is the donkey boiler intended to be used for domestic purposes only? no

PLANS. Are approved plans forwarded herewith for Shafting 4/5/34, 13/8/34, 20/1/34 Receivers 1/8/34

Separate Tanks 24/12/34, 18/12/34

Donkey Boilers 28/7/34

General Pumping Arrangements 20/10/34

Oil Fuel Burning Arrangements 16/10/34

### SPARE GEAR.

Has the spare gear required by the Rules been supplied? yes

State the principal additional spare gear supplied :-

1 piston with rod, 1 cylinder cover, 2 cylinder liners, 1 connecting rod, 7 exhaust valves, 1 intake valve, 1 starting valve, 4 telescope pipes, 1 crosshead, 1 guide shoe, 50 piston rings, 2 sets of thrust pads, 1 armature with shaft for turn gear.

The foregoing is a correct description,

**HOWALDTSWERKE A.G.**

*H. Howaldt, rpa Glimmerbeck*

Manufacturer.

Dates of Survey while building  
During progress of work in shops - 1934 I: 23, II: 8, 17, 22, III: 13, 17, 24, IV: 18, 26, 29, V: 24, 27, VI: 17, 21, 24, 28, 30, VII: 3, 4, 7, 14, 18, 15, VIII: 12, 16, 23, 30, IX: 9, 13, 16, 20, 23, 30, 4, 7, 11, 18.  
During erection on board vessel - II: 21, 28, 1935 I: 4, 8, 11, 12, 29, II: 1, 5, 12, 15, 19, 22, 26, III: 1, 8, 13, IV: 2, 13  
Total No. of visits 60

Dates of Examination of principal parts - Cylinders 4-11-14/12/34 Covers 11/12/34 Pistons 11/12/34 Rods 4/1/35 Connecting rods 4/1/35

Crank shaft 16/10/34 Flywheel shaft 20/11/34 Thrust shaft 13-20/11/34 Intermediate shafts 13-20/11/34 Tube shaft

Screw shaft 13-20/11/34 Propeller 29/11/34 Stern tube 13/11/34 Engine seatings on tank top Engines holding down bolts 1/2/35

Completion of fitting sea connections 20/11/34 Completion of pumping arrangements 12/2/35 Engines tried under working conditions 13/4/35

Crank shaft, Material O.H. Steel Identification Mark M.B. 2/2/34 Flywheel shaft, Material O.H. Steel Identification Mark J.S.H. 3/10/34

Thrust shaft, Material O.H. Steel Identification Mark J.G. 16/10/34 Intermediate shafts, Material O.H. Steel Identification Marks J.S.H. 2/10/34

Tube shaft, Material Identification Mark Screw shaft, Material O.H. Steel Identification Mark J.S.H. 22/10/34

Is the flash point of the oil to be used over 150° F. yes Spare: 401 J.S.H. 22/10/34

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with yes

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo tanker 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 no If so, state name of vessel (See please Aleria, Genota.)

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

Material and workmanship of this machinery are of good quality and the outfit is ample. The materials used in the construction are made at works recognized by the Committee and have been tested by the Society's Surveyors in compliance with the requirements of the Rules. It has been constructed under Special Survey in accordance with the approved plans, the Secretary's letters and otherwise in compliance with the Rules. During an extensive trial trip the machinery has given full satisfaction under working and manoeuvring conditions. In my opinion the machinery is eligible for notation of:-

✱ LMC-4, 35 (oil engs) and Tail shaft (CL)

2 Starting Air Receivers 8 : 8

The amount of Entry Fee .. £ 6 : - : When applied for,

Special ... £ 100 : 2 : 29/4/35 19

Donkey Boiler Fee ... £ 16 : 14 : When received,

Travelling Expenses (if any) £ 39 : 16 : 2-7 1935

Committee's Minute

Assigned

J.A. Murphy  
Engineer, Surveyor to Lloyd's Register of Shipping.



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