

# REPORT ON OIL ENGINE MACHINERY.

No. **16908**

7 - JUL 1926

Received at London Office

to of writing Report **30<sup>th</sup> JUNE 1926** When handed in at Local Office

10 Port of **FRANKFURT**

in Survey held at **KIEL**

Date, First Survey **8<sup>th</sup> July 1925** Last Survey **29<sup>th</sup> June 1926**

Number of Voids **38**

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

**M.S. "URANIA"**

Tons **Gross 8744**  
**Net 5026**

alt at **KIEL** By whom built **HOWALDTSWERKE** Yard No. **674** When built **1926**  
gines made at **LUDWIGSHAFEN** By whom made **Geb. SULZER A.G.** Engine No. **13-12** When made **1926**  
nkey Boilers made at **KIEL** By whom made **HOWALDTSWERKE** Boiler No. **1415** When made **1926**  
ake Horse Power **2700 (Two Engines)** Owners **BALTISCH-FYMERIK PETROL-IMP. G.m.b.H.** Port belonging to **DANZIG**  
m. Horse Power as per Rule **776** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **yes**  
ade for which vessel is intended **NORTH-ATLANTIC-CARRYING PETROLEUM IN BULK**

**ENGINES, &c.**—Type of Engines **2 Single Diesel Engines** 2 or 4 stroke cycle **2** Single or double acting **single**  
imum pressure in cylinders **39 kg/cm<sup>2</sup>** Diameter of cylinders **600 mm** Length of stroke **1060 mm** No. of cylinders **2x4** No. of cranks **2x4**  
of bearings, adjacent to the Crank, measured from inner edge to inner edge **780 mm** Is there a bearing between each crank **yes**  
olutions per minute **100** Flywheel dia. **2100 mm** Weight **10,300 kg** Means of ignition **Diesel Principle** Kind of fuel used **Diesel Heavy oil**  
nk Shaft, dia. of journals **as per Rule 375.5 mm** Crank pin dia. **390 mm** Crank Webs **Mid. length breadth 540 mm** Thickness parallel to axis **shrunk**  
wheel Shaft, diameter **as per Rule 375.5 mm** Intermediate Shafts, diameter **as per Rule 276 mm** Thrust Shaft, diameter at collars **as per Rule 289 mm**  
ade Shaft, diameter **as per Rule 290 mm** Screw Shaft, diameter **as per Rule 315 mm** Is the tube screw shaft fitted with a continuous liner **yes**  
ize Liners, thickness in way of bushes **as per Rule 17 mm** Thickness between bushes **as per rule 13 mm** Is the after end of the liner made watertight in the **yes**  
ller boss **yes** If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner **yes**  
e 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 **yes**  
o liners are fitted, is the shaft lapped or protected between the liners **lapped with rubber feet rising** Is an approved Oil Gland or other appliance fitted at the after **yes**  
of the tube shaft **yes** Length of Bearing in Stern Bush next to and supporting propeller **1300 mm in propeller bracket 1400 mm**  
peller, dia. **3900 mm** Pitch **3850 mm** No. of blades **4** Material **Grange** whether Moveable **yes** Total Developed Surface **5.9 m<sup>2</sup> approx.**  
hod of reversing Engines **direct** Is a governor or other arrangement fitted to prevent racing of the engine when declutched **yes** Means of lubrication **yes**  
ed. 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 **yes**  
conducting 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 **yes**  
ing Water Pumps, No. **2 Centrifugal pumps (1 Hand by)** Is the sea suction provided with an efficient strainer which can be cleared within the vessel **yes**  
e Pumps worked from the Main Engines, No. **2 D.A.** Diameter **160 mm** Stroke **140 mm** Can one be overhauled while the other is at work **yes**  
ps connected to the Main Bilge Line **No. and Size 1.2 cyl. D.A. 150 mm diam. 220 mm stroke** How driven **Electric driven** **2. 1.5 cyl. D.A. 135 mm diam. 140 mm stroke**  
st Pumps, No. and size **1. 1.5 cyl. D.A. 150 mm diam. 220 mm stroke** Lubricating Oil Pumps, including Spare Pump, No. and size **2. 1.5 cyl. D.A. 135 mm diam. 140 mm stroke**  
vo independent means arranged for circulating water through the Oil Cooler **yes** Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge **yes**  
s, No. and size:—In Machinery Spaces **2 each of 90 mm 1 of 130 mm** Fore peak **2 of 80 mm 1 of 100 mm 1 of 130 mm**  
olds, &c. **1 of 90 mm from aft ship - 2 of 60 mm Cofferdam Lubric. Oil Tanks - 2 of 110 mm from Cofferdam - 2 of 130 mm from Cofferdam - 1 of 130 mm from**  
pendent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **1 of 130 mm - 1 of 90 mm**  
all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes **yes** Are the Bilge Suctions in the Machinery Spaces **yes**  
om easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges **yes**  
Sea Connections fitted direct on the skin of the ship **yes** Are they fitted with Valves or Cocks **valves and cocks**  
ey 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 & below**  
ey 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**  
pipes pass through the bunkers **yes** How are they protected **yes**  
pipes pass through the tanks **main cargo portion liner** Have they been tested as per Rule **yes**  
l Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times **yes**  
f not g 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 **yes**  
ement to another **yes** Is the Shaft Tunnel watertight **machinery aft** Is it fitted with a watertight door **yes** worked from **yes**  
ood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork **yes**

**Air Compressors, No.** **1 each engine** No. of stages **3** Diameters **640-580-140 mm** Strokes **560 mm** Driven by **Crankshaft - Main eng.**  
**lary Air Compressors, No.** **1 (Main Type)** No. of stages **3** Diameters **325+290-65 mm** Stroke **180 mm** Driven by **Electric Motor**  
**Auxiliary Air Compressors, No.** **1** No. of stages **2** Diameters **110+35 mm** Stroke **120 mm** Driven by **with hand starting**  
nging Air Pumps, No. **Pro turbo scavenging** each having air intake **Stroke of 400 cubm. of free air per min.** Driven by **Electric Motor**  
**lary Engines crank shafts, diameter** **as per Rule 150.9 mm**  
**as fitted 160 mm**

**RECEIVERS:—**Is each receiver, which can be isolated, fitted with a safety valve as per Rule **yes**  
e internal surfaces of the receivers be examined **yes** What means are provided for cleaning their inner surfaces **Hot air from boiler**  
e a drain arrangement fitted at the lowest part of each receiver **yes**  
**Pressure Air Receivers, No.** **2** Cubic capacity of each **each 800 liter** Internal diameter **540 mm** thickness **25 mm**  
s, lap welded or riveted longitudinal joint **seamless** Material **S. M. Steel** Range of tensile strength **50-60 kg/cm<sup>2</sup>** Working pressure by Rules **11 kg/cm<sup>2</sup>**  
ng Air Receivers, No. **2** Total cubic capacity **2x5000 liter** Internal diameter **1200 mm** thickness **18.5 mm**  
s, lap welded or riveted longitudinal joint **long. joint** Material **Steel** Range of tensile strength **40-50 kg/cm<sup>2</sup>** Working pressure by Rules **4.5 kg/cm<sup>2</sup>**

W270-0136

Register  
Foundation



IS A DONKEY BOILER FITTED?

Yes

If so, is a report now forwarded?

Yes

PLANS.

Are approved plans forwarded herewith for Shafting

Crankshaft: 4/6/25  
Flywheel shaft: 29/9/25  
Fly Rep. 16818 Receivers Internum. Fly Rep. 16822

Separate Tanks

Compartmented

Donkey Boilers.

Fly Rep. 16822

General Pumping Arrangements

Fly Rep. 16818

Oil Fuel Burning Arrangements

Fly Rep. 16818

SPARE GEAR

All spare articles as required per Section 6 of the Rules for the Construction and Survey of Diesel Engines and their Auxiliaries (1925-26) have been supplied.

The foregoing is a correct description,

HOWALDTSWERKE

Manufacturer.

ALSO SEE BREITENY Rev. 12840.

Dates of Survey while building  
During progress of work in shops - 8/12-15/7-4/9-4/9-11/9-29/9-2/10-9/10-3/11-17/11-4/12-4/12-14/12-23/12-29/12-25-6/1-19/1-22/1-29/1-2/3-4/3-9/3-23/3-26  
During erection on board vessel - 30/3-16/4-27/4-28/4-4/5-14/5-19/5-21/5-1/6-8/6-11/6-15/6-22/6-29/6-26  
Total No. of visits 38 at Kiel

Dates of Examination of principal parts - Cylinders 23/11-10/12-25 Covers 13/2/26 Pistons 12/2-24/2/26 Rods 3/2-13/2/25 Connecting rods 7/7-12/7-25

Crank shaft 12/9/25-14/8/25 Flywheel shaft 10/7-13/7/25 Thrust shaft See flywheel shaft Intermediate shafts 2/3/26 Tube shaft See Inter

Screw shaft 2/3-23/3/26 Propeller 9/2-23/3/26 Stern tube 2/3/26-23/3/26 Engine seatings 23/3-27/4/26 Engines holding down bolts 21/5-1/6

Completion of fitting sea connections 23/3/26 Completion of pumping arrangements 15/6/26 Engines tried under working conditions 22/6/26

Crank shaft, Material S. M. Steel Identification Mark 617879. N. 2. 12. 9. 25 Flywheel shaft, Material S. M. Steel Identification Mark 132. 7. 5. 11

Thrust shaft, Material S. M. Steel Identification Mark 6494. M. B. 27. 1. 26 Intermediate shafts, Material S. M. Steel Identification Marks 12393. K. 2

Tube shaft, Material See Inter shaft Identification Mark 12413. K. 2. 11 Screw shaft, Material S. M. Steel Identification Mark 12465. K. 1. 11

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

Is this machinery duplicate of a previous case Yes. If so, state name of vessel DEVELOPE - THALIA

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

Survey at Ludwigschafen and the Aus. Diesel engines at Humberthor (See attached German Re

and have been fitted on board at Kiel in accordance with the approved plans, the

larger letters and other work in conformity with the requirements of the Rules. The

very has given full satisfaction under full working and manoeuvring conditions.

an 8 hours trial trip and is eligible in my opinion for certification.

+ L. M. C. - 6, 26 - OIL - ENG. - T. S. H. C. L.