

# REPORT ON OIL ENGINE MACHINERY.

No. 840

19 APR 1926

Received at London Office

t. 4b

of writing Report 27 MARCH 1926 When handed in at Local Office

Port of BREMEN

in Survey held at LUDWIGSHAFEN

Date, First Survey 13<sup>TH</sup> JULY 1925 Last Survey 24<sup>TH</sup> MARCH 1926

Number of Visits 23

on the Twin Screw vessels

"URANIA"

Tons Gross Net

at WIEH

By whom built HOWALDTSWERKE

Yard No. 674 When built 1926

ines made at LUDWIGSHAFEN

By whom made GEBR. SULZER A.G.

Engine No. 5509-12 When made 1926

key Boilers made at

By whom made

Boiler No. When made

ce Horse Power 2700

Owners DEUTSCH-AMERIK. PETROL-GEZ.

Port belonging to HAMBURG

ce Horse Power as per Rule 776

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

ENGINES, &c.—Type of Engines 2 SETS OF SULZER DIESEL ENGS. 2 or 4 stroke cycle 2 Single or double acting SINGLE

num pressure in cylinders 39 kg/cm No. of cylinders 2 x 4 Diameter of cylinders 600 mm No. of cranks 2 x 4 Length of stroke 1060 mm

of bearings, adjacent to the Crank, measured from inner edge to inner edge 780 mm Is there a bearing between each crank YES

utions per minute 100 Flywheel dia. 2100 mm Weight 10,300 kg Means of ignition DIESEL SYST Kind of fuel used GAS + CRUDE OIL

k Shaft, dia. of journals as per Rule 390 mm Crank pin dia. 390 mm Crank Webs Mid. length breadth 540 mm Thickness parallel to axis NOT

as fitted 390 mm Mid. length thickness 220 mm Thickness around eye-hole SHRUNK

heel Shafts, diameter as per Rule 390 mm Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule

as fitted 390 mm as fitted Shafts, diameter as per Rule Screw Shaft, diameter as per Rule 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 per rule Is the after end of the liner made watertight in the

as fitted If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

ler boss 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

the tube shaft Length of Bearing in Stern Bush next to and supporting propeller

ller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet

nd of reversing Engines DIRECT Is a governor or other arrangement fitted to prevent racing of the engine when declutched YES Means of lubrication

ED Thickness of cylinder liners 45/20 mm Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled on 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

Pumps fitted to the Main Engines, No. 17 EACH Diameter 160 mm Stroke 140 mm Can one be overhauled while the other is at work YES

s connected to the Main Bilge Line No. and Size GENERAL LUBR. OIL PUMP: Ø 125 mm, STROKE: 140 mm

How driven CROSS HEAD " " " : Ø 50 mm, STROKE: 140 mm

st Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size Ø 2 x 110 mm, STROKE 100 mm

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

, No. and size:—In Engine and Boiler Room

ds, &c.

endent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

l the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Space

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

Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks.

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

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

pipes pass through the bulkheads How are they protected

pipes pass through the deep tanks Have they been tested as per Rule

l Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

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

Air Compressors, No. 1 EACH No. of stages THREE Diameters 640/580/140 Stroke 560 mm Driven by CRANK SHAFT

lary 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. 2 TURBO BLOWERS Diameter Stroke Driven by

lary Engines crank shafts, diameter as per Rule

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

the internal surfaces of the receivers be examined YES What means are provided for cleaning their inner surfaces FLANGES

ppire a drain arrangement fitted at the lowest part of each receiver YES

Pressure Air Receivers, No. 2 Cubic capacity of each 150 LITRES Internal diameter 300 mm thickness 16 mm

ss, lap welded or riveted longitudinal joint SEAMLESS Material S.M. STEEL Range of tensile strength 50-60 kg/cm Working pressure by Rules 82 kg/cm

ing Air Receivers, No. 8 Total cubic capacity 6400 LITRES Internal diameter 540 mm thickness 25 mm

ss, lap welded or riveted longitudinal joint SEAMLESS Material S.M. STEEL Range of tensile strength 50-60 kg/cm Working pressure by Rules 78 kg/cm

WZ70-0138

Lloyds Register Foundation



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE. kg. per sq. cm.	TEST PRESSURE. kg. per sq. cm.	STAMPED. No 300	REMARKS.
ENGINE CYLINDERS ..... LINERS .....	6.14.25, 12.11.25, 12.12.25, 12.2.26	39	75	6	LLOYD'S TEST 6/75 ATM. P.K. D.
" " COVERS .....	6.14.25, 12.11.25, 12.2.26	0.5	75	6	LLOYD'S TEST 6/75 ATM. P.K. D.
" " JACKETS .....	12.11.25 10.12.25	0.5	6		LLOYD'S TEST 6 ATM. P.K. 23.
" PISTON WATER PASSAGES .....	23.11.25, 12.12.25, 12.2.26	2.5	5		LLOYD'S TEST 5 ATM. P.K. 23.
MAIN COMPRESSORS—1st STAGE .....	6.10, 23.11, 24.11.25	5	30	6	LLOYD'S TEST 30/6 ATM. P.K. 23.
" 2nd " .....		18	0.5	6	
" 3rd " .....	12.11.25	75	0.5	120	6 LLOYD'S TEST 120/6 ATM. P.K. 23.
AIR RECEIVERS—STARTING .....	19.1.26 12.2.26	75	150		LLOYD'S TEST 150 ATM. W.P. 75 HT.
" INJECTION .....	24.8.25 [DÜSSELDORF] 12.1.26 12.2.26	75	1700 LBS		LLOYD'S TEST 1700 LBS W.P. 850 LBS
AIR PIPES ..... STARTING INJECTION	12.2.26 12.2.26	25	75	80 240	MARKED WITH INITIALS OR
FUEL PIPES .....	12.1.26 12.2.26	75	240		WHERE POSSIBLE.
FUEL PUMPS .....	23.11.25	75	140		LLOYD'S TEST 140 ATM. P.K. 23.
SILENCER .....	12.1.26	0.05	30 LBS		LLOYD'S TEST 30 LBS. P.K. 12.1.26
EXHAUST PIPES					
" WATER JACKET .....	24.11.25 12.2.26 29.3.26	0.05	6		LLOYD'S TEST 6 ATM. P.K. DATE
SEPARATE FUEL TANKS .....					

PLANS. Are approved plans forwarded herewith for Shafting 4/6/25

Receivers 29/10/25

Separate Tanks

COMPRESSOR

10/6/25

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR: AS PER RULES.

GEBRÜDER SULZER

The foregoing is a correct description.

E. Bruns

H. Müller

Manufacturer.

Dates of Survey while building	During progress of work in shops -	JULY: 13, 14. AUG: 27, 28, 29. OCT: 5, 6, 7. NOV: 22, 23, 24, 25. DEC: 9, 11, 16, 17.
	During erection on board vessel -	JAN 1926: 17, 18, 19. FEB: 12, 13. MAR: 24.
	Total No. of visits	23.
Dates of Examination of principal parts—Cylinders	23.11.25 6-7.10, 13-24.11.25	23.11.25 8.8.25 9.7.25
Crank shaft	12.9.25, 14.8.25 Flywheel shaft	10.12.25 12.2.26 24.3.26
Thrust shaft	10.7.25 12.7.25	
Screw shaft	Propeller	Combined.
Completion of fitting sea connections	Completion of pumping arrangements	Engines tried under working conditions
Crank shaft, Material	S.M. STEEL Identification Mark	M.B. 12.25, 13.14.25, 14.8.25
Thrust shaft, Material	S.M. STEEL Identification Mark	M.B. 12.25, 13.14.25, 14.8.25
Tube shaft, Material	Identification Mark	
Screw shaft, Material	Identification Mark	

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 "THALIA" 41,170.

General Remarks (State quality of workmanship, opinions as to class, &c. THESE DIESEL ENGINES AND THEIR ACCESSORIES HAVE BEEN CONSTRUCTED UNDER SPECIAL SURVEY IN ACCORDANCE WITH THE APPROVED PLANS AND INSTRUCTIONS AS WITH THE PRINTED RULES. THE MATERIALS USED IN THE CONSTRUCTION ARE GOOD AND THE WORKMANSHIP SATISFACTORY. THE INJECTION AIR RECEIVERS AND THE STARTING AIR RECEIVERS HAVE BEEN EXAMINED MANUFACTURED AND FOUND TO BE IN CONFORMITY WITH THE APPROVED PLANS. THEY HAVE BEEN TESTED INTERNAL HYDRAULIC PRESSURE TO 1700 LB AND 150 ATM. RESP. AND FOUND SATISFACTORY IN MY OPINION VESSEL FOR WHICH THESE ENGINES ARE INTENDED WILL BE ELIGIBLE FOR THE RECORD OF L.M.C. WHEN THESE ENGINES AND THEIR ACCESSORIES HAVE BEEN SATISFACTORILY FITTED ON BOARD AND EXAMINED FULL WORKING CONDITION. THE CYLINDER JACKETS HAVE BEEN STAMPED: No 300 LLOYD'S TEST 6 ATM. P.K. 23.11.25 AND 10.12.25

The amount of Entry Fee ... £	To BE	When applied for,
Special ... £	CHARGED	19
Donkey Boiler Fee ... £	ON	When received,
Travelling Expenses (if any) ... £	COMPLETION	19

Committee's Minute

16 JUL 1927

Assigned

See Nam. P. 8 p. 1 No 16908 attached

Engineer Surveyor to Lloyd's Register of Shipping



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