

REPORT ON OIL ENGINE MACHINERY.

No. 16818

Date of writing Report 2nd May 1926 When handed in at Local Office

Port of

Received at London Office

HAMBURG.

No. in Survey held at
Reg. Book.

TIEL

Date, First Survey 8th July 1925 Last Survey 20th April 1926

Number of Visits 40

Single
on the Twin
Triple
Quadruple

Screw vessel

M. S. "THALIA"

Tons { Gross 8745
Net 5026

By whom built HOWALDTSWERKE

Yard No. 673 When built 1926

s made at WINTERTHUR

By whom made GEB. SULZER

Engine No. 5157 When made 1926

Boilers made at TIEL

By whom made HOWALDTSWERKE

Boiler No. 1413 When made 1926

Horse Power 2700 (Two Eng.)

Owners BALTISSCH-AMERIK. PETR. IMP. & CO. Port belonging to DANZIG.

Horse Power as per Rule 776 (Two Eng.) Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted yes

for which vessel is intended NORTH ATLANTIC - CARRYING PETROLEUM IN BULK.

ENGINES, &c. Type of Engines 2 Sulzer Diesel Engines

2 or 4 stroke cycle 2 Single or double acting single

Pressure in cylinders 38 kg/cm

Diameter of cylinders 600 mm

Length of stroke 1060 mm

No. of cylinders 2 x 4 = 8

bearings, adjacent to the Crank, measured from inner edge to inner edge 780 mm

Is there a bearing between each crank yes

Revolutions per minute 110

Flywheel dia. 2100 mm

Weight 10170 kg

Means of ignition Diesel principle

Kind of fuel used Diesel - Heavy fuel oil

Shaft, dia. of journals as per Rule 375.5 mm

as fitted 390 mm

Crank pin dia. 390 mm

Crank Webs

Mid. length breadth 540 mm

Thickness parallel to axis

Wheel Shaft, diameter as per Rule 375.5 mm

as fitted 390 mm

Intermediate Shafts, diameter as per Rule 276 mm

as fitted 344 mm

Thrust Shaft, diameter at collars as per Rule 289 mm

Shaft, diameter as per Rule 190 mm

as fitted 345 mm

Screw Shaft, diameter as per Rule 15 mm

as fitted 344 mm

Is the tube screw shaft fitted with a continuous liner yes

Liners, thickness in way of bushes as per Rule 17 mm

as fitted 24.5 mm

Thickness between bushes as per Rule 13 mm

as fitted 17 mm

Is the after end of the liner made watertight in the

liner boss yes

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

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

If liners are fitted, is the shaft lapped or protected between the liners yes

Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft

Length of Bearing in Stern Bush next to and supporting propeller 1200 mm

Pitch 3850 mm

No. of blades 4

Material Iron whether Moveable yes

Total Developed Surface 519.44 sq. feet

Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes

Means of lubrication

Thickness of cylinder liners 15 mm

Are the cylinders fitted with safety valves yes

Are the exhaust pipes and silencers water cooled or lagged with 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

Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

Can one be overhauled while the other is at work yes

No. and size 1. 2 cyl. D.F. 150 mm diam. 220 mm stroke. 2. 1 cyl. to main engine D.F. 160 x 140 mm

How driven electric driven

Lubricating Oil Pumps, including Spare Pump, No. and size 2 D.F. 100 mm diam x 140 mm stroke

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 10 each of 90 mm 3.54 1 of 100 mm 1 of 100 mm from bilge pump 1 of 80 mm from pump room - Cargo Space

Holds, &c. 1 of 90 mm from aft ship. 2 of 60 mm. Cofferdam. Lubric. Tank. 2 of 110 mm from Cofferdam - a/c 2 of 130 mm

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 of 130 mm. 1 of 90 mm

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

Are the Bilge Suctions in the Machinery Spaces

Are all Sea Connections fitted direct on the skin of the ship yes

Are they fitted with Valves & Cocks yes

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 cargo tanks main cargo pump line

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 Machinery 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. 1 each eng. No. of stages 3

Diameters 640-580-140 Stroke 560 mm

Driven by Crank shaft, machinery

Auxiliary Air Compressors, No. 1 (Five type) No. of stages 3

Diameters 325/290/65 Stroke 180 mm

Driven by Electric motor

Small Auxiliary Air Compressors, No. 1 No. of stages 2

Diameters 110/35 Stroke 120 mm

Driven by Oil eng. Type 1 R 4 20

Scavenging Air Pumps, No. 2 No. of stages 2

Diameters 110/35 Stroke 120 mm

Driven by Electric motor

Auxiliary Engines crank shafts, diameter as per Rule 150.9 mm

as fitted 160 mm

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 by: screw hole 150 mm diam at one end.

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

High Pressure Air Receivers, No. 8

Cubic capacity of each 800 litres

Internal diameter 540 mm

thickness 25 mm

Seamless, lap welded or riveted longitudinal joint riveted

Material S. M. Steel

Range of tensile strength 50-60 kg/cm²Working pressure by Rules 102.8 kg/cm²

Intermediate

Starting Air Receivers, No. 2

Total cubic capacity 2 x 5000 litres

Internal diameter 1200 mm

thickness 18.5 mm

Seamless, lap welded or riveted longitudinal joint riveted

Material Steel

Range of tensile strength 40-50 kg/cm²Working pressure by Rules 102.8 kg/cm²

W220-0060 Foundation

IS A DONKEY BOILER FITTED?

ye.

If so, is a report now forwarded?

ye.

PLANS. Are approved plans forwarded herewith for Shafting.

Yes. 4.6.25.

Receivers

1.6.24

Separate Tanks

Compartment

Donkey Boilers

Yes. 16.5.22

General Pumping Arrangements

ye. now

Oil Fuel Burning Arrangements

ye. now.

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.

Dates of Survey while building
During progress of work in shops -- 8/7-15/7-1/9-4/9-11/9-29/9-2/10-9/10-16/10-3/11-17/11-19/11-23/11-29/11-4/12-11/12-14/12-23/12-29/12-5/1-8/1-
During erection on board vessel -- 29/1-3/2-5/2-11/2-13/2-18/2-23/2-24/2-2/3-9/3-12/3-16/3-23/3-29/3-31/3-7/4-20/4.
Total No. of visits 40 at Kiel

Dates of Examination of principal parts—Cylinders 19/11/25-23/11/25 Covers 19/11/25-23/11/25 Pistons 19/11/25 Rods 19/11/25 Connecting rods 19/11/25.
Crank shaft 20/11/25 Flywheel shaft 20/11/25 Thrust shaft 20/11/25 Intermediate shafts 23/12/25 Tube shaft 23/12/25
Screw shaft 23/12/26 Propeller 2/3/26 Stern tube 11/12/25-23/12/26 Engine seatings 29/1/26 Engines holding down bolts 2/3/26
Completion of fitting sea connections 23/1/26 Completion of pumping arrangements 7/4/26 Engines tried under working conditions 29/4/26
Crank shaft, Material Steel Identification Mark K.H. 11460-112/11-7.25 Flywheel shaft, Material Steel Identification Mark K.H. 12419-124/11-7.25
Thrust shaft, Material Steel Identification Mark K.H. 12419-124/11-7.25 Intermediate shafts, Material Steel Identification Mark K.H. 12419-124/11-7.25
Tube shaft, Material Steel Identification Mark K.H. 12419-124/11-7.25 Screw shaft, Material Steel Identification Mark K.H. 12419-124/11-7.25
Is the flash point of the oil to be used over 150° F. ye.

Is this machinery duplicate of a previous case

ye.

If so, state name of vessel

PENELOPE & LEDA

General Remarks

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

Main and Auxiliary Diesel engines have

been built under Special Survey at Kiel (See attached Report of Winterthur) and fitted board at Kiel in accordance with the approved plans, the Secretary's letter and otherwise in conformity with the requirements of the Rules. The machine has given full satisfaction under full working and manœuvring conditions during an 8 hours trial trip and is eligible, in my opinion for registration "L.M.C.-4, 26"-OIL ENG.-T.S.H. C.L."

The amount of Entry Fee ... £ 2.00
Special ... £ 2.00
Donkey Boiler Fee ... £ 4.00
Travelling Expenses (if any) £ 20.00
When applied for, 3rd May 1926
When received, 7.6.19

Committee's Minute

Assigned

+ L.M.C. 4:26 C.L.
Oil Engines

CERTIFICATE WRITTEN

Friedrich J. J. J.

Engineer Surveyor to Lloyd's Register of Ship



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