

REPORT ON OIL ENGINE MACHINERY.

No. 11190

Received at London Office

13 OCT 1928

Date of writing Report 8 October 1928 When handed in at Local Office

19

Port of

AMSTERDAM

No. in Survey held at AMSTERDAM
Reg. Book.

Date, First Survey 24/8 24

Last Survey 4/10

19 28

Number of Visits 53

-- on the Twin
Triple
Quadruple

Screw vessel

"TURICUM"

Scheepswerven

Built at Krimpen a.d. Yssel

By whom built van der Giessen & Zonen's Yard No. 586 When built 1928

Engines made at Amsterdam

By whom made Werkspoor

Engine No. - When made 1928

Donkey Boilers made at Amsterdam

By whom made Werkspoor

Boiler No 2303/1 When made 1928

Brake Horse Power 3000

Owners Camillo Eitzen & Co.

Port belonging to Oslo

Nom. Horse Power as per Rule 2400

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted Yes

Trade for which vessel is intended

OIL ENGINES, &c.

Type of Engines 1

General oil engine

2 or 4 stroke cycle 4

Single or double acting Sa

Maximum pressure in cylinders 35 1/2 per cm²

Diameter of cylinders 640 mm

Length of stroke 1200 mm

No. of cylinders 6

No. of cranks 6

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 890 mm

Is there a bearing between each crank Yes

Revolutions per minute 124

Flywheel dia. 2580 mm

Weight 4800 kg

Means of ignition 44 centum

Kind of fuel used Diesel oil

Crank Shaft, dia. of journals as per Rule 415 mm

as fitted 415 mm

Crank pin dia. 415 mm

Crank Webs

Mid. length breadth 840 mm

Thickness parallel to axis 300 mm

Flywheel Shaft, diameter as per Rule 415 mm

as fitted 415 mm

Intermediate Shafts, diameter as per Rule 310 mm

as fitted 310 mm

Thrust Shaft, diameter at collars as per Rule 330 mm

Tube Shaft, diameter as per Rule 415 mm

as fitted 415 mm

Screw Shaft, diameter as per Rule 350 mm

as fitted 350 mm

Is the { tube screw } shaft fitted with a continuous liner { Yes

Bronze Liners, thickness in way of bushes as per Rule 20 mm

as fitted 20 mm

Thickness between bushes as per rule 15 mm

as fitted 15 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 Yes

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 Yes

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

end of the tube shaft Yes

Length of Bearing in Stern Bush next to and supporting propeller 1500 mm

Propeller, dia. 3900 mm

Pitch 3200 mm

No. of blades 3

Material brass

whether Moveable No

Total Developed Surface 49 sq. feet

Method of reversing Engines by governor or other arrangement fitted to prevent racing of the engine when declutched Yes

Means of lubrication

Thickness of cylinder liners 55/40 mm

Are the cylinders fitted with safety valves Yes

Are the exhaust pipes and silencers water cooled or lagged with non-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

Cooling Water Pumps, No. two in main, 1 centrifugal

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 160 mm

Stroke 240 mm

Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line

No. and Size two of 160 mm

How driven by main engine

Lubricating Oil Pumps, including Spare Pump, No. and size 2 x 160 mm

Are two independent means arranged for circulating water through the Oil Cooler Yes

Pumps, No. and size:—In Machinery Spaces 8 x 1 1/2"

In Holds, &c. 2 x 1 1/2"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 x 1 1/2"

Are the Bilge Suctions in the Machinery Spaces

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

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 fixed sufficiently high on the ship's side to be seen without lifting the platform plates Yes

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes

What pipes pass through the bunkers None

How are they protected Yes

What pipes pass through the deep tanks

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 Yes

Is it fitted with a watertight door Yes

worked from Yes

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. Two

No. of stages 3

Diameters 520-440-110

Stroke 450

Driven by M. engine

Auxiliary Air Compressors, No. One

No. of stages 3

Diameters 4. 350 - 290

Stroke 250

Driven by Steam

Small Auxiliary Air Compressors, No. 1

No. of stages 1

Diameters 1

Stroke 1

Driven by

Scavenging Air Pumps, No. 1

Diameter 1

Stroke 1

Driven by

Auxiliary Engines crank shafts, diameter as per Rule 1

as fitted 1

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

What means are provided for cleaning their inner surfaces manhole

Can the internal surfaces of the receivers be examined Yes

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

High Pressure Air Receivers, No. 2

Cubic capacity of each 340 litres

Internal diameter 450 mm

thickness 21 mm

Seamless, lap welded or riveted longitudinal joint Seam lap

Material Steel

Range of tensile strength 50/60 kg

Working pressure by Rules 10/10 atm

Starting Air Receivers, No. 4

Total cubic capacity 2118 cu ft

Internal diameter 450 mm

thickness 15 mm

Seamless, lap welded or riveted longitudinal joint riveted

Material Steel

Range of tensile strength 28 1/2/32 kg

Working pressure by Rules 25/25 atm

003175-003180-0090

IS A DONKEY BOILER FITTED? *Yes.*

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

PLANS. Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

Receivers

Separate Tanks

Donkey Boilers..... 23/5. 24

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR

Two top end bolts and nuts, 2 bottom end bolts and nuts, 1 main
bearing bolts, 1 set of bilge and circlin. pump valves, 3 pistons with
rings complete, 1 quantity of osentive bolts and nuts, 2 set of coupling
bolts, cylinder complete with all valves, valve covers, springs etc
Please see further list attached.

The foregoing is a correct description,

WERKSPOR

Manufacturer.

[illegible]

Dates of Examination of principal parts—Cylinders $\frac{24}{11}$ — $\frac{10}{12}$ Covers $\frac{24}{11}$ — $\frac{4}{12}$ Pistons $\frac{15}{11}$ — $\frac{19}{12}$ Rods $\frac{9}{11}$ — $\frac{19}{12}$ Connecting rods $\frac{12}{11}$ — $\frac{13}{12}$
Crank shaft $\frac{7}{12}$ — $\frac{6}{11}$ Flywheel shaft $\frac{7}{12}$ — $\frac{6}{11}$ Thrust shaft $\frac{7}{12}$ — $\frac{6}{11}$ Intermediate shafts $\frac{7}{12}$ — $\frac{4}{11}$ Tube shaft $\frac{12}{11}$
Screw shaft $\frac{25}{14}$ — $\frac{20}{11}$ Propeller $\frac{20}{11}$ Stern tube $\frac{14}{11}$ Engine seatings $\frac{30}{18}$ — $\frac{10}{12}$ Engines holding down bolts $\frac{30}{18}$ — $\frac{10}{12}$
Completion of fitting sea connections $\frac{24}{11}$ — $\frac{15}{12}$ Completion of pumping arrangements $\frac{20}{12}$ Engines tried under working conditions $\frac{2}{11}$
Crank shaft, Material *Steel* Identification Mark *PK 1104-1105* Flywheel shaft, Material *Steel* Identification Mark *1104-1105 PK 1104-1105*
Thrust shaft, Material *Steel* Identification Mark *PK 1104-1105* Intermediate shafts, Material *Steel* Identification Marks *422- PK 1104-1105*
Tube shaft, Material *Steel* Identification Mark *422- PK 1104-1105* Screw shaft, Material *Steel* Identification Mark *852 PK 1104-1105*

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

Is this machinery duplicate of a previous case *Yes*

If so, state name of vessel. *M. V. ...*

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

The engines of this vessel have been made in accordance with the Rules, Approval plans and Secretary's letter, and on this 4th. The engines have been tested under full working conditions and satisfactory. The vessel is in my opinion eligible to be cleared & L.M.C. 10.28

The amount of Entry Fee

Special

Donkey Boiler Fee

Travelling Expenses (if any)

Committee's Minute

Assigned

When applied for,

When received

TUES. 30 OCT 1928

June 10. 28

Oil Engines

20B-18076

Engineer Surveyor to Lloyd's Register of Shipping.

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Lloyd's Register
Foundation