

## REPORT ON OIL ENGINE MACHINERY.

No. 10461

Received at London Office

30 DEC 1926

Date of writing report 19 December 1926. When handed in at Local Office

Port of AMSTERDAM

No. in Survey held at AMSTERDAM.

Date, First Survey 8 December 1924. Last Survey 17 December 1926

Reg. Book.

Number of Visits 89

90455 on the ~~Triplex~~ <sup>Single</sup> Screw ~~motor~~ Motorship "PHOBOS"Tons: Gross 7412  
Net 4235

Built at Amsterdam

By whom built Ned Scheepsbouw My

Yard No. 181

When built 1926

Engines made at Amsterdam

By whom made Werkspoor

Engine No.

When made 1926

Donkey Boilers made at Amsterdam

By whom made Werkspoor

Boiler No.

When made 1926

Brake Horse Power 3500

Owners Ned Indische Tankstoomboot My

Port belonging to s' Gravenhage

Nom. Horse Power as per Rule 1200

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted yes

## OIL ENGINES, &amp;c.—Type of Engines

Diesel Type

2 or 4 stroke cycle

Single or double acting

Maximum pressure in cylinders 500/425 No. of cylinders 6 Diameter of cylinders 32 1/4" No. of cranks 6 Length of stroke 59"

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 48 3/4" Is there a bearing between each crank Yes

Revolutions per minute 90 Flywheel dia. 10' 0" Weight 9 tons Means of ignition Self-igniting Kind of fuel used Diesel oil

Crank Shaft, dia. of journals as per Rule Approp. 5 1/4" Crank pin dia. 2 1/4" Crank Webs Mid. length breadth 4 1/2" Thickness parallel to axis 13 3/8"

Flywheel Shafts, diameter as per Rule Approp. 2 1/2" Intermediate Shafts, diameter as per Rule Approp. 2 1/2" Thrust Shaft, diameter at collars as per Rule Approp. 2 1/2"

Main Shafts, diameter as per Rule Approp. 18 5/16" Is the tube screw shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per Rule Approp. 1/8" Thickness between bushes as per Rule 25/32" 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 One length

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 tight fit

If two liners are fitted, is the shaft lapped or protected between the liners L Is an approved Oil Gland or other appliance fitted at the after

end of the tube shaft United States packing Length of Bearing in Stern Bush next to and supporting propeller 6' 2 1/16"

Propeller, dia. 18' 6" Pitch 16' 3" No. of blades 4 Material Bronze whether Moveable Solid Total Developed Surface 95 sq. feet

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

Need Thickness of cylinder liners 45, 24 1/2, 50 7/8 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

conducting material water cooled the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine to funnel

Suction Water Pumps, No. 2 300 x 300 1/2 Abt. 100 Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Suction Pumps fitted to the Main Engines, No. 2 Diameter 140/120 1/2 Stroke 300 7/8 Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line No. and size Two 8 x 10 1/4 x 10" and 6" x 4" x 10" How driven Steam driven

Waste Pumps, No. and size One, 8 x 10 1/4 x 10" Lubricating Oil Pumps, including Spare Pump, No. and size 1-50 tons relay, 2-2 1/2 1/2 stroke 300

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 Engine and Boiler Room 6 of — 3 1/2" How driven Steam driven

Holds, &amp;c. Pump room 20' 2 1/2"; Deep Tank 30' 2 1/2"; Two other 40' 2"; Cofferdams 40' 2"; 20' 2 1/2" and 10' 2 1/2"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Two 1 x 4 1/2" and 1 x 6 1/2"

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

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 Both

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

Do all pipes pass through the tankers L How are they protected L

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

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

apartment to another Yes Is the Shaft Tunnel watertight L Is it fitted with a watertight door L

On 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. 2 No. of stages 3 Diameters 150/500-150 Stroke 550 Driven by main engine shaft

Auxiliary Air Compressors, No. 2 No. of stages 3 Capacity 300 cub. feet Stroke one Driven by steam the

Small Auxiliary Air Compressors, No. L No. of stages L Diameters L Stroke L Driven by 3 cylinders by 4 S.C.S.A.

Exhausting Air Pumps, No. L Diameter L Stroke L Driven by L

Auxiliary Engines crank shafts, diameter as per Rule Approp. 1 1/2" (3-1 cylinder and 1-3 cylinder) 4 S.C.S.A. Diesel engine

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

Are the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces Manholes

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

High Pressure Air Receivers, No. 3 Cubic capacity of each 20 cub. ft. Internal diameter 5 1/2" thickness 22.5 7/8"

Seamless, lap welded or riveted longitudinal joint Stamped Material Steel Range of tensile strength 32/38 tons Working pressure by Rules 415 lb.

Starting Air Receivers, No. 4 Total cubic capacity 1848 cub. ft. Internal diameter 10 3/4" thickness 7 3/32"

Seamless, lap welded or riveted longitudinal joint riveted Material Steel Range of tensile strength 29/35 tons Working pressure by Rules 462 lb.

Air receivers for reversing gear, number 6 Capacity 22 cub. ft. Internal dia. 30" thickness 2 1/2"; long joint riveted Material Steel



Retained in London  
Office.

PLANS. Are approved plans forwarded herewith for Shafting *McDonald* Receivers *to* *Separate Tanks*  
(If not, state date of approval) Shafting *24th. 1914;* *16th. 1915.* Receivers *22.12.24,* *23.3.26.* *Shooping arrangements, 16.9.15,* *15.3.26*  
Boilers *12.1.26* *to* Oil Fuel Burning Arrangements *to*  
General Pumping Arrangements *to*

The foregoing is a correct description,

Manufacturer.

Dates of Examination of principal parts—Cylinders  $\frac{5}{15}$  -  $\frac{24}{16}$  Covers  $\frac{5}{15}$  -  $\frac{26}{16}$  Pistons  $\frac{4}{5}$  -  $\frac{14}{4}$  Rods  $\frac{15}{5}$  -  $\frac{14}{4}$  Connecting rods  $\frac{14}{5}$  -  $\frac{2}{2}$

Screw shaft *11/15* - *17/3.26* Propeller *14* - *17* Stern tube *14* - *17*  
 Completion of fitting sea connections *4/6.26* Completion of pumping arrangements *4/11* Engines tried under working conditions *17/12*

Thrust shaft, Material	Steel	Identification Mark	12-268. K. H. 4-6.85	Intermediate shaft, Material	Steel	Identification Marks	125, 78 4-3.
					Steel	Identification Mark	12594. K. 2. 10

Tube shaft, Material 4 Identification Mark 1500 F Screw shaft, Material Steel Identification Mark 1

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

If so, state name of vessel *SS. Telene Amsterdam Paper 10443.*

Is this machinery duplicated in a previous case? *Not. By such to's yard. sr. 100.*

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

The engines of this vessel have been constructed under special survey, in accordance with

plans, Rules and Secretary's letters; workmanship good. The envelopes have been tested under

full working condition and good. The vessel is in my opinion superior to  
any to be tested or required.

The amount of Entry Fee ... 742. :  
When applied for, 1560

Special	...	1200.00	:	19	
4 air receivers	...	201.60	:		
Doukey Boiler Fee	...	25.20	:		
	...	1521.60	:		

When received,

Engineer Surveyor to Lloyd's Register of Shipping.

Travelling Expenses (if any) 88.80 : 10/11 1927 129m

Committee's Minute

Assigned + 12.26 C-2. Lloyd's Register

Out Engines 2 D.D.

CERTIFICATE WRITTEN