

## REPORT ON OIL ENGINE MACHINERY.

No. 34<sup>6</sup>

AUG 26 1938

Received at London Office

Date of writing Report 24-8-1938 When handed in at Local Office

Port of Groningen

No. in Survey held at Waterhuizen

Date, First Survey 8-6-38 Last Survey 16-8-1938

Reg. Book.

Number of Visits 13

on the <sup>Single</sup>  
~~Twin~~  
<sup>Triple</sup>  
~~Quadruple~~ Screw vessel"BART"Tons <sup>Gross</sup> 434.85  
<sup>Net</sup> 228.77

Built at Waterhuizen

By whom built Scheepswerf Waterhuizen

Yard No. 173 When built 1938

Engines made at Cologne

By whom made Humboldt &amp; Patsche

Engine No. 491020/126 When made 1938

Donkey Boilers made at -

By whom made -

Boiler No. - When made -

Brake Horse Power 350

Owners J. Dekker

Port belonging to Groningen

Nom. Horse Power as per Rule 81.5

Is Refrigerating Machinery fitted for cargo purposes -

Is Electric Light fitted yes

Trade for which vessel is intended sea going trade

See Summary report No 278.

L ENGINES, &amp;c.—Type of Engines HEAVY OIL ENGINE 7 V. 7 H. 345 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders

Diameter of cylinders

Length of stroke

No. of cylinders 7

No. of cranks

Mean Indicated Pressure

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

Is there a bearing between each crank

Revolutions per minute 300

Flywheel dia.

Weight

Means of ignition

Kind of fuel used

Crank Shaft, dia. of journals <sup>as per Rule</sup>  
<sup>as fitted</sup>

Crank pin dia.

Crank Webs

Mid. length breadth

Thickens parallel to axis

Mid. length thickness

shrink Thickens around eyehole

Flywheel Shaft, diameter <sup>as per Rule</sup>  
<sup>as fitted</sup>Intermediate Shafts, diameter <sup>as per Rule</sup>  
<sup>as fitted</sup> 190 mmThrust Shaft, diameter at collars <sup>as per Rule</sup>  
<sup>as fitted</sup> 160 mmTube Shaft, diameter <sup>as per Rule</sup>  
<sup>as fitted</sup>Screw Shaft, diameter <sup>as per Rule</sup>  
<sup>as fitted</sup> 140 mmIs the <sup>tube</sup> <sup>screw</sup> shaft fitted with a continuous liner { no }Bronze Liners, thickness in way of bushes <sup>as per Rule</sup>  
<sup>as fitted</sup> ✓Thickness between bushes <sup>as per rule</sup>  
<sup>as fitted</sup> ✓

Is the after end of the liner made watertight in the

Propeller boss ✓

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 two liners are fitted, is the shaft lapped or protected between the liners. ✓

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

Shaft no If so, state type ✓

Length of Bearing in Stern Bush next to and supporting propeller 560 mm

Propeller, dia. 1750 mm

Pitch 1225 mm

No. of blades 4

Material Bronze

whether Moveable no

Total Developed Surface 1.073511<sup>2</sup> sq. feet

Method of reversing Engines directly

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

Means of lubrication

forced Thickness of cylinder liners 25 mm

Are the cylinders fitted with safety valves yes

Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material water If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine. ✓

Cooling Water Pumps, No. ONE

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. ONE

Diameter 100 mm

Stroke 85 mm

Can one be overhauled while the other is at work yes

Pumps connected to the Main Bilge Line

No. and Size TWO OF 2 1/2"

(40 Tons and 30 Tons per hour) / ONE 2 1/2" Tons per hour

How driven 10 B.H.P. auxiliary duty heavy oil engine

and by main engine

Is the cooling water led to the bilges no

If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

arrangements ✓

Ballast Pumps, No. and size ONE 2 1/2"

40 Tons per hour

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size capacity 80 lts/min

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 one 2 3" and three 2 1/2"

In Pump Room ✓

In Holds, &amp;c. three a 2 1/2"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size ONE 2 3"

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

Are the Bilge Suctions in the Machinery Spaces

fitted 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 Valves

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 ✓

What pipes pass through the bunkers none

How are they protected ✓

What pipes pass through the deep tanks ✓

Have they been tested as per Rule ✓

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 none

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.

No. of stages

Diameters

Stroke

Driven by

Auxiliary Air Compressors, No. one

No. of stages two

Diameters 145/60 mm

Stroke 85 mm

Driven by main engine

Small Auxiliary Air Compressors, No. one

No. of stages two

Diameters 110/40 mm

Stroke 85 mm

Driven by auxil. motor

Scavenging Air Pumps, No. ✓

Diameter

Stroke

Driven by

Auxiliary Engines crank shafts, diameter <sup>as per Rule</sup>  
<sup>as fitted</sup> 70 mm

No. ONE ENGINE NO 502989

Position on Port side in Engine room

Summary report No 251

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