

## REPORT ON OIL ENGINE MACHINERY.

No. 246.

Received at London Office

JUN 29 1938

Date of writing Report 25-6-1938 When handed in at Local Office

Port of Groningen

No. in Survey held at Groningen

Date, First Survey 14-4-1938 Last Survey 22-6-1938

Reg. Book.

Number of Visits 10

Single  
on the Twin  
Triple  
Quadruple } Screw vessel"ALOUETTE"Tons { Gross 275.74  
Net 92.81

Built at Groningen

By whom built Scheepswerk "Gideon"

Yard No. 162 When built 1938/6

Engines made at Cologne

By whom made Humboldt Benitz Motoren A.G.

Engine No. 439489/194 When made 1937

Donkey Boilers made at -

By whom made -

Boiler No. - When made -

Brake Horse Power 300

Owners The General Steam Navigation Co.

Port belonging to LONDON

Nom. Horse Power as per Rule 71 ✓

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted yes

Trade for which vessel is intended Sea going trade

OIL ENGINES, &amp;c.—Type of Engines SEE DUSSELDORF REPORT No 211 Heavy oil engine 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders

Mean Indicated Pressure

Diameter of cylinders 11"

Length of stroke 17 1/16"

No. of cylinders

No. of cranks

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

Is there a bearing between each crank

Revolutions per minute

Flywheel dia.

Weight

Means of ignition

Kind of fuel used

Crank Shaft, { Solid forged  
Semi built dia. of journals as per Rule  
All built as fitted

Crank pin dia.

Crank Webs

Mid. length breadth

Thickness parallel to axis

Mid. length thickness

Thickness around eyehole

Flywheel Shaft, diameter as per Rule as fitted

Intermediate Shafts, diameter as per Rule as fitted

Thrust Shaft, diameter at collars as per Rule as fitted

Tube Shaft, diameter as per Rule as fitted

Screw Shaft, diameter as per Rule as fitted 130 mm

Is the tube screw shaft fitted with a continuous liner no ✓

Bronze Liners, thickness in way of bushes as per Rule as fitted 11.5 mm

Thickness between bushes as per Rule as fitted 130 mm

Is the after end of the liner made watertight in the

propeller boss yes rubber ring If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner two separate liners

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 no 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 670 mm

Propeller, dia. 1750 ✓ Pitch 1.120 mm No. of blades four Material Bronze whether Moveable no Total Developed Surface 1.0567 sq. feet

Method of reversing Engines directly by hand Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes ✓ Means of lubrication forced

Thickness of cylinder liners

Are the cylinders fitted with safety valves yes ✓

Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material water cooled 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 0.5 mm Can one be overhauled while the other is at work yes ✓

Pumps connected to the Main Bilge Line { No. and Size one à 50 Tons/hour and one à 10 tons/hour ✓  
How driven 15 B.H.P. auxiliary Dentsyl 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 3" rotary pump 50 Tons/hour Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size two à 80 lbs/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 3 à 2" and one à 2 1/2" ✓ In Pump Room

In Holds, &amp;c. 2 à 2" ✓ and two à 2" in tunnel well (one forward and one aft) ✓

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size one à 2 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 Spaces

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 fitted with Valves or Cocks Valves and cocks ✓

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 -

How are they protected -

What pipes pass through the deep tanks one sounding pipe ✓ 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 Bridge deck ✓

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 3 3/4" x 1 7/8"

Stroke 3 1/4"

Driven by 15 BHP Dentsyl ✓

Small Auxiliary Air Compressors, No. one

No. of stages two

Diameters 1 1/2" x 1 1/2"

Stroke 0.5 mm

Driven by main engine ✓

What provision is made for first Charging the Air Receivers small auxiliary air compressor driven by 15 B.H.P. Heavy oil engine ✓

Scavenging Air Pumps, No. -

Diameter

Stroke

Driven by -

Auxiliary Engines crank shafts, diameter as per Rule as fitted 75 mm

No.

Position one engine No 466438 on Port side in engine room ✓

Have the Auxiliary Engines been constructed under special survey yes ✓

Is a report sent herewith yes Dusseldorf report No 194 ✓

012066-012077-0018



**AIR RECEIVERS:**—Have they been made under survey

State No. of Report or Certificate

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

Can the internal surfaces of the receivers be examined and cleaned

Is a drain fitted at the lowest part of each receiver

Injection Air Receivers, No.

Cubic capacity of each

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

Actual

Starting Air Receivers, No. *two*

Total cubic capacity *2 x 500 lbs*

Internal diameter *450 mm*

thickness *12 mm*

Seamless, lap welded or riveted longitudinal joint *lap welded*

Material *S.H. steel*

Range of tensile strength

Working pressure by Rules

Actual *30 kg/cm<sup>2</sup>*

**IS A DONKEY BOILER FITTED?**

If so, is a report now forwarded?

Is the donkey boiler intended to be used for domestic purposes only

**PLANS.** Are approved plans forwarded herewith for Shafting *23-11-1937*

Receivers *60244 21-7-32*

Separate Fuel Tanks *9-4-37*

Donkey Boilers

General Pumping Arrangements *22-2-1938*

Pumping Arrangements in Machinery Space *22-2-1938*

Oil Fuel Burning Arrangements *22-2-1938*

**SPARE GEAR.**

Has the spare gear required by the Rules been supplied *yes*

State the principal additional spare gear supplied

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building

During progress of work in shops--

During erection on board vessel--

Total No. of visits

*14, 20, 27-4-38; 6, 21, 28-5-38; 17, 21, 22-6-38*

Dates of Examination of principal parts—Cylinders

Covers

Pistons

Rods

Connecting rods

Crank shaft

Flywheel shaft

Thrust shaft *21-5-38*

Intermediate shafts *21-5-38*

Tube shaft

Screw shaft *27-4-38*

Propeller *27-4-38*

Stern tube *27-4-38*

Engine seatings *6-5-38*

Engines holding down bolts *28-5-38*

Completion of fitting sea connections *27-4-38*

Completion of pumping arrangements *28-6-38*

Engines tried under working conditions *21 and 22-6-38*

Crank shaft, Material

Identification Mark

Flywheel shaft, Material

Identification Mark

Thrust shaft, Material *S.H. steel*

Identification Mark *44040'S N°471*

Intermediate shafts, Material *S.H. steel*

Identification Marks *155. H/Jan 14-4*

Tube shaft, Material

Identification Mark

Screw shaft, Material *S.H. steel*

Identification Mark *44040'S N°482*

Identification Marks on Air Receivers

*4513*

*2 1016*

*44040'S TEST*

*60 ATM.*

*W.P. 30 ATM.*

*4.3.15-10-37*

*V.S. 25-10-37*

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

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *yes*

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *no*

If so, have the requirements of the Rules been complied with

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with

Is this machinery duplicate of a previous case *yes*

If so, state name of vessel *KINGFISHER*

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

*The machinery has been fitted in accordance with the approved plans and Secretary's letters.*

*Machinery examined during the trial and found working satisfactory.*

*We are of opinion that this vessel is eligible for notation of + LMC 6-38 oil Engine*

The amount of Entry Fee .. £

Special ... £

Donkey Boiler Fee ... £

Travelling Expenses (if any) £

When applied for,

19

When received,

19

Committee's Minute

Assigned

*+ LMC 6.38*

*TUE 5 JUL 1938*

*5/9*

Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register Foundation