

REPORT ON OIL ENGINE MACHINERY. *92* No. *23*⁶

Received at London Office

Date of writing Report *31-5-1938* When handed in at Local Office19 Port of *Groningen*No. in Survey held at *Groningen*
Reg. Book.Date, First Survey *30-3-38* Last Survey *30-5-1938*
Number of Visits *12*on the *Single*
Triple
Quadruple *Motor*
Screw vessel

"KINGFISHER"

Tons *Gross 275.74*
*Net 92.81*Built at *Groningen*By whom built *Schipswerf "Gideon" Koster's Yard No. 161* When built *1938*Engines made at *Cologne*By whom made *Humboldt Deutz Motor & Engine No. 439483* When made *1937*Donkey Boilers made at *-*By whom made *-* Boiler No. *-* When made *-*Brake Horse Power *300*Owners *The General Steam Navigation Co. Ltd* 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, &c.—Type of Engines *Heavy Oil Engine R.V. 6/342 or 4 stroke cycle 4* Single or double acting *single*

Maximum pressure in cylinders Diameter of cylinders Length of stroke No. of cylinders 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

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

Mid. length thickness

Thickness parallel to axis

Thickness around eye-hole

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 *shaft* fitted with *continuous* liners *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* *rubbering* If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner *no* *fusion* *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 tubeshaft *no* If so, state type *Length of Bearing in Stern Bush next to and supporting propeller 670 mm*Propeller, dia. *1750 mm* Pitch *1090 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 withnon-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 *yes*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 ONE 2 1/2" 50 Tons/hour and one 2 1/2" 10 Tons/hour*
*How driven 15 B.H.P. auxiliary 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 arrangementsBallast Pumps, No. and size *ONE 3" ROTARY PUMP 50 Tons/hour* Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size *two 2 1/2" 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 BilgePumps, No. and size:—In Machinery Spaces *3 2 1/2" and one 2 1/2"* In Pump RoomIn Holds, &c. *2 2 1/2" and two 2 1/2" in tunnel well* *(one forward and one aft)*Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *ONE 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 Spacesled 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 *yes* How are they protected *yes*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 *yes*Main Air Compressors, No. *-* No. of stages *-* Diameters *-* Stroke *-* Driven by *-*Auxiliary Air Compressors, No. *ONE* No. of stages *two* Diameters *14 1/2" 60 mm* Stroke *85 mm* Driven by *main engine*Small Auxiliary Air Compressors, No. *ONE* No. of stages *two* Diameters *3 3/4" 1 1/8"* Stroke *3 3/4"* Driven by *15 B.H.P. DEUTZ HEAVY OIL ENGINE*What provision is made for first Charging the Air Receivers *small auxiliary air compressor driven by 15 B.H.P. HEAVY OIL ENGINE STARTED BY HAND*Scavenging Air Pumps, No. *-* Diameter *-* Stroke *-* Driven by *-*Auxiliary Engines crank shafts, diameter *as per Rule*
as fitted *75 mm* No. *ONE* Eng. No. *466939* Position *in engine room on Port side*Have the Auxiliary Engines been constructed under special survey *yes* Is a report sent herewith *yes* *Düsseldorf report N° 193*

AIR RECEIVERS:—Have they been made under survey
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.M. Steel* Range of tensile strength Working pressure by Rules Actual *30 kg/cm²*

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 28-7-32* Separate Fuel Tanks *9-4-37 Rotterdam*
(If not, state date of approval)

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

Dates of Examination of principal parts—Cylinders. Covers Pistons Rods Connecting rods
Crank shaft Flywheel shaft Thrust shaft *25-5-38* Intermediate shafts *25-5-38* Tube shaft *✓*
Screw shaft *30-3-38* Propeller *2-4-38* Stern tube *30-3-38* Engine seatings *30-3-38* Engines holding down bolts *25-5-38*
Completion of fitting sea connections *2-4-38* Completion of pumping arrangements *27-5-38* Engines tried under working conditions *30-5-38*
Crank shaft, Material Identification Mark Flywheel shaft, Material Identification Mark *240406 154, 156*
Thrust shaft, Material *S.M. Steel* Identification Mark *440403 1338* Intermediate shafts, Material *S.M. Steel* Identification Marks *440403 31-3-38*
Tube shaft, Material Identification Mark Screw shaft, Material *S.M. Steel* Identification Mark *440403 440*
Identification Marks on Air Receivers *N° 1519 LLOYD'S TEST 60 ATM. N.P. 30 ATM. 4.5.15-10-37*
N° 1010 LLOYD'S TEST 60 ATM W.P. 30 ATM. 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 *no* If so, state name of vessel *✓*

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 + G.M.C. 5-38 oil Engine

The amount of Entry Fee .. £ : : When applied for,
Special £ : : 19
Donkey Boiler Fee £ : : When received,
Travelling Expenses (if any) £ *10 : 29* : *2/9* 19 *380 5/9*

Committee's Minute
Assigned *+ Lmb 5-38*
oil by

W. Williams
Engineer Surveyor to Lloyd's Register of Shipping.

