

Comm. 254704.
Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 129
14 AUG 1936

Date of writing Report 3rd Aug. 1936. When handed in at Local Office

Port of *Nusseldorf*
Date, First Survey 6th July 1936 Last Survey 28th July 1936
Number of Visits

No. in Survey held at
Reg. Book.

Single
Twin
Triple
Quadruple
Screw vessel

Tons
Gross
Net

Built at *Goole* By whom built *Messrs Goole Shipbuilding Rep. Co.* Yard No. *319* When built *1936*
Engines made at *Goole* By whom made *Messrs Humboldt & Co. A.G.* Engine No. *382099/104* When made *1936*
Donkey Boilers made at By whom made Boiler No. When made
Brake Horse Power *300* Owners *Approved for 350 BHP.* Port belonging to
Nom. Horse Power as per Rule *20* Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
Trade for which vessel is intended

OIL ENGINES, &c.—Type of Engines *Heavy Oil Engine 2 1/2" 6" No 345* 2 or 4 stroke cycle *four* Single or double acting *single*
Maximum pressure in cylinders *50 kg cm²* Diameter of cylinders *380 mm* Length of stroke *450 mm* No. of cylinders *Six* No. of cranks *Six*
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge *304.5 mm* Is there a bearing between each crank *Yes*
Revolutions per minute *300* Flywheel dia. *1250 mm* Weight *2600 kg* Means of ignition *solid injection* Kind of fuel used
Crank Shaft, dia. of journals *as per Rule 190 mm* Crank pin dia. *170 mm* Crank Webs *325 mm* Mid. length breadth *40 mm* Thickness parallel to axis
Flywheel Shaft, diameter *as per Rule 190 mm* as fitted *See Page 16* Thrust Shaft, diameter at collars *as per Rule* as fitted
Tube Shaft, diameter *as per Rule* as fitted *See Page 16* Is the { tube { shaft fitted with a continuous liner {
Screw Shaft, diameter *as per Rule* as fitted

Bronze Liners, thickness in way of bushes *as per Rule* as fitted Thickness between bushes *as per Rule* as fitted 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 If so, state type Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface *sq. feet*

Method of reversing Engines *Direct reversible* Is a governor or other arrangement fitted to prevent racing of the engine when declutched *Yes* Means of lubrication

Thickness of cylinder liners *2.5 mm* 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 *water cooled*

Cooling Water Pumps, No. *one* Is the sea suction provided with an efficient strainer which can be cleared within the vessel

What special arrangements are made for dealing with cooling water if discharged into bilges

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

Pumps connected to the Main Bilge Line { No. and Size
How driven

Ballast Pumps, No. and size Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size *1 tooth wheel pump & 1 spare*

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 In Pump Room

In Holds, &c.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

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

Are all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Are the Overboard Discharges above or below the deep water line

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

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 Is the Shaft Tunnel watertight 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. *one* No. of stages *Two* Diameters *145x60 mm* Stroke *85 mm* Driven by *main engines*

Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Scavenging Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter *as per Rule* as fitted No. — Position —

IR RECEIVERS:—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

High Pressure 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 *1000 litres* Internal diameter *450 mm* thickness *12 mm*

Seamless, lap welded or riveted longitudinal joint *lap welded* Material *SA* Range of tensile strength *38 + 4 mm²* Working pressure by Rules Actual *30 kg cm²*

003147-003153-0070

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 *13th February 1935* Receivers *2nd July 1932* Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes*State the principal additional spare gear supplied *1 main bearing, 1 crank bearing, 1 gudgeon bearing, 1 complete fuel valve, 2 sets of suction and delivery valves of the fuel pumps, an assortment of valve springs, fuel needles.*

The foregoing is a correct description.

Manufacturer.

Humboldt-Deutzmotoren,
AktiengesellschaftDates of Survey while building
During progress of work in shops - -
During erection on board vessel - -
Total No. of visits*6th July - 9th July - 25th July and 28th July 1936.*Dates of Examination of principal parts—Cylinders *6.7.36* Covers *6.7.36* Pistons *6.7.36* Rods *6.7.36* Connecting rods *6.7.36*Crank shaft *9.7.36* Flywheel shaft *9.7.36* Thrust shaft *9.7.36* Intermediate shafts *9.7.36* Tube shaft

Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions

Crank shaft, Material *S. M. S.* Identification Mark *12016 N.B. 1/4.36* Flywheel shaft, Material Identification MarkThrust shaft, Material *S. M. S.* Identification Mark *1008 R. 15/5.36* Intermediate shafts, Material *S. M. S.* Identification Marks *16300 K.B. 16/4.36*

Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark

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

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

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo

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

Messrs Goole Shipb. & Rep. Co. yard No. 319 2nd Report 125

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

The engines have been built in accordance with the approved plans and the requirements embodied in the Secretary's letter of the 13th February 1935 and otherwise in accordance with the requirements of the Rules. Material and workmanship are of best quality, the outfit is ample. The engines have been tested under full working and manoeuvring conditions for six hours on the trial stage in machine shop and have given full satisfaction. After trial all working parts have been opened up and were found on examination in good condition. This machinery has been built under special survey and will be fitted on board the vessel No. 319 in construction at Messrs Goole Shipbuilding Repairing Co. of Goole.

In my opinion this machinery is eligible for notation.

8.11.36

The amount of Entry Fee	..	<i>32.-</i>	When applied for,	<i>5. Aug. 1936</i>	Account
4/5 Special	...	<i>280.-</i>	When received,	<i>3.11.1936</i>	<i>6/11</i>
Donkey Boiler Fee	...	<i>40.-</i>			
Travelling Expenses (if any)	...				

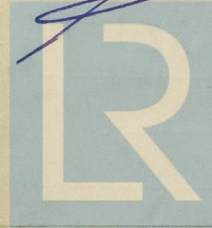
Committee's Minute

Assigned

See Hull 47324

FRI. 6 NOV 1936

Engineer-Surveyor to Lloyd's Register of Shipping.



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