

Comm: 754708

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 132

8 JAN 1937

3. 36.

Received at London Office

Date of writing Report 7th Decemb 36 When handed in at Local Office

Port of *Hirschberg*

No. in Survey held at *Calagne*

Date, First Survey 21st August Last Survey 7th Decemb. 1936

Reg. Book. Single on the Twin Triple Quadruple Screw vessel

Tons Gross Net

Built at *Calagne* By whom built *Messrs. The Grate Ship and Repair Yard* No. 323 When built
Engines made at *Calagne* By whom made *Messrs. Humboldt-Schramm AG* Engine No. 39244 When made 1936
Donkey Boilers made at By whom made Boiler No. When made
Brake Horse Power 350 Owners Port belonging to
Nom. Horse Power as per Rule 70 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 RV6M 345* 2 or 4 stroke cycle *four* Single or double acting *single*
Maximum pressure in cylinders 50 kg/cm² Diameter of cylinders 280 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 307.5 mm. Is there a bearing between each crank *yes*
Revolutions per minute 350 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. as fitted 190 mm. Crank pin dia. 170 mm. Crank Webs Mid. length breadth 325 mm. Thickness parallel to axis
Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule 190 mm. as fitted Thrust Shaft, diameter at collars as per Rule
Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the tube screw shaft fitted with a continuous liner

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

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
Hy pressure 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 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
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 and 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 145/60 mm. Stroke 85 mm. Driven by *main engine*
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

AIR 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 *SM Steel* Range of tensile strength 39.1 kg/mm² Working pressure by Rules 30 kg/mm² Actual 30 kg/mm²
WS18-0261

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 *13 February 1935* Receivers
(If not, state date of approval)

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 pin 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.

*Humboldt-Deutzmaschinen
Aktiengesellschaft*

Manufacturer.

Dates of Survey while building
During progress of work in shops -
During erection on board vessel -
Total No. of visits

21.11.36 - 20.11.36 - 26.11.36 - 5.12.36 and 7.12.36

Dates of Examination of principal parts—Cylinders *26.11.36* Covers *26.11.36* Pistons *26.11.36* Rods *26.11.36* Connecting rods *26.11.36*

Crank shaft *20.11.36* Flywheel shaft *20.11.36* Thrust shaft *20.11.36* Intermediate shafts *20.11.36* 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 *5.12.36*

Crank shaft, Material *4. M. Steel* Identification Mark *11199 JL 22.9.36* Flywheel shaft, Material Identification Mark

Thrust shaft, Material *4. M. Steel* Identification Mark *548 HB 20.5.36* Intermediate shafts, Material *4. M. Steel* Identification Marks *16300 K.H. 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. The Lynde Shipb. & Rep. Co. Lynde's 312
Düsseldorf Shipyard No. 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 of the rules. Material and workmanship are of the best quality, the outfit is ample. The engines have been tested under full working and maximum running 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 in examination in good condition. This machinery has been built under special survey and will be fitted on board the vessel No. 323 in construction at Messrs. Lynde Shipbuilding and Repairing Co. Lynde.

*In my opinion this machinery is eligible for notation. * N. B. 12.36.*

The amount of Entry Fee *£40.-* When applied for *2. of account*
Special *£350.-* *14.12.1930 to 9.1.31*
Donkey Boiler Fee *£* When received *19.3.37*
Travelling Expenses (if any) *£60.-* *25/3*

H. J. Jüngemann
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE 26 JAN 1937

Assigned

See Incl 2.6.47544



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