

Number: 754749

Germany

Rpt. 4b.

# REPORT ON OIL ENGINE MACHINERY

No. 140

11 FEB 1937

Date of writing Report 30th Nov. 1936 When handed in at Local Office 19 Port of Busselburg  
No. in Survey held at Calagne Date, First Survey 11th November Last Survey 27th Nov. 1936  
Reg. Book. Number of Visits  
on the Single Twin Triple Quadruple Screw vessel Tons <sup>Gross</sup> <sub>Net</sub>  
Built at Alblasenham By whom built Messrs. M. & C. Naand Yard No. 562 When built 1936  
Engines made at Calagne By whom made Messrs. Humboldt. Benckmann Engine No. 402067 When made 1936  
Donkey Boilers made at By whom made Boiler No. When made  
Brake Horse Power 400 Owners Port belonging to  
Nom. Horse Power as per Rule 94 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted  
Trade for which vessel is intended 11" 17 1/16"

OIL ENGINES, &c. Type of Engines Heavy Oil Engine A.V.M. 345 2 or 4 stroke cycle four Single or double acting single  
Maximum pressure in cylinders 50 kg/cm<sup>2</sup> Diameter of cylinders 280 mm. Length of stroke 450 mm. No. of cylinders eight No. of cranks eight  
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 300 Flywheel dia. 1250 mm. Weight 2600 kg Means of ignition valve injection Kind of fuel used  
Crank Shaft, dia. of journals as per Rule 190 mm. Crank pin dia. 120 mm. Crank Webs Mid. length breadth 340 mm. Thickness parallel to axis as fitted 190 mm. Thickness around eye-hole as fitted 70 mm.  
Flywheel Shaft, diameter as per Rule 190 mm. Intermediate Shafts, diameter as fitted 190 mm. Thrust Shaft, diameter at collars as per Rule 160 mm.  
Tube Shaft, diameter as fitted Screw Shaft, diameter as fitted Is the tube screw shaft fitted with a continuous liner

Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per rule 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 fixed reversible Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication

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

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

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

How are they protected

Have they been tested as per Rule

What pipes pass through the bunkers

What pipes pass through the deep tanks

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

apartment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

on a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

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

Exhausting Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule No.:—

Position —

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

Are 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

Material Range of tensile strength Working pressure by Rules Actual

Working Air Receivers, No. two Total cubic capacity 1000 litres Internal diameter 450 mm. thickness 12 mm. yes

Material lap welded Range of tensile strength 38.7 kg/mm<sup>2</sup> Working pressure by Rules Actual

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

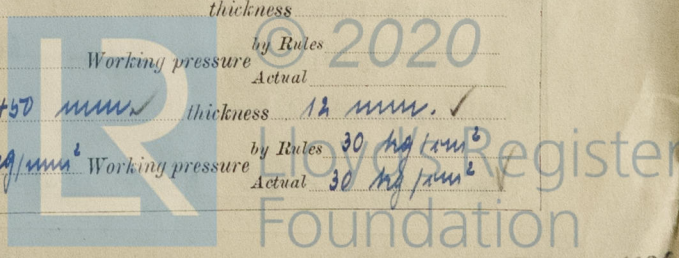
apartment to another

Is the Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

Copy has been forwarded to the German head office.



002923-002928-0206



## 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 1st September 1936 Receivers 21st 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

State the principal additional spare gear supplied

yes  
1 complete fuel valve, 2 sets of section and delivery valves  
of the fuel pumps, 2 valves for fuel pumps, 1 main bearing, 1 crank pin  
bearing, 1 gudgeon and assortment of springs, fuel needles etc. as ordered  
by the owners.

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

11th November - 23rd November - 26th November - 27th November.

Dates of Examination of principal parts—Cylinders 11. 11. 36. Covers 11. 11. 36 Pistons 11. 11. 36 Rods Connecting rods 30. 10. 36

Crank shaft 17. 10. 36 Flywheel shaft Thrust shaft 2. 11. 36 Intermediate shafts 27. 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

Crank shaft, Material 4. M. Steel Identification Mark 282 L.S. 17.10.36 Flywheel shaft, Material Identification Mark

Thrust shaft, Material 4. M. Steel Identification Mark 12622 M.B. 2. 11. 36 Intermediate shafts, Material 4. M. Steel Identification Marks 1172 H.B. 27. 11. 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. My. De. Nant vessel No. 559. Disseldorf report 122.

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

The engines have been built in accordance with the approved plans and the requirements embodied in the Secretary's letter of the 1st September 1936 and otherwise in accordance with 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 manoeuvring conditions for about six hours on the trial stage in machine shops and have given full satisfaction. After trial all working parts have been opened up, and were found in excellent condition. This machinery has been built under special survey and will be fitted on board the vessel No 552, in construction of Messrs. My. De. of Alblasenham.

In my opinion this machinery is eligible for notation N.E.

The amount of Entry Fee .. £40.- When applied for, 2. 12. 1936  
Special ... £421.-  
Donkey Boiler Fee ... £  
Travelling Expenses (if any) £60.- When received, 12. 1. 1937

H. Friggemann  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI 12 FEB 1937

Assigned See Rot 25236



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Foundation