

# REPORT ON OIL ENGINE MACHINERY.

No. 1194.

Received at London Office 10 SEP 1930  
10 NOV 1930

Writing Report 31st August 1930 When handed in at Local Office 2nd Sept 1930 Port of Bremen  
Survey held at Augsburg Date, First Survey 23rd January 1930 Last Survey 27th August 1930  
Number of Visits 66

Tons { Gross  
Net

on the Single  
Twin  
Triple  
Quadruple  
Screw vessel

Hamburg  
made at Augsburg

Boilers made at

Horse Power 1800

Horse Power as per Rule 1175

for which vessel is intended

By whom built Deutsche Werft A. G.

By whom made Maschinenfabrik Augsburg-Nürnberg

By whom made

Owners Mams Odd. Berg

Yard No. 142 When built 1930

Engine No. 330420/430 When made 1930

Boiler No. When made

Port belonging to Oslo

Is Electric Light fitted

Is Refrigerating Machinery fitted for cargo purposes

ENGINES, &c. Type of Engines 2 x 53 in 60/90 23 1/2 - 35 1/2 2 or 4 stroke cycle 2 Single or double acting double

Pressure in cylinders 45 kg/cm<sup>2</sup> Diameter of cylinders 600 mm Length of stroke 900 mm No. of cylinders 2 x 3 No. of cranks 2 x 3

Bearings, adjacent to the Crank, measured from inner edge to inner edge 869 mm Is there a bearing between each crank yes

Revolutions per minute 125 Flywheel dia. 2100 mm Weight 3400 kg Diesel principle, solid injection Kind of fuel used Diesel oil

Shaft, dia. of journals as per Rule 390 mm Crank pin dia. 390 mm Crank Webs Mid. length breadth 520 mm Thickness parallel to axis 220 mm

Intermediate Shafts, diameter as per Rule 390 mm Thrust Shaft, diameter at collars as per Rule

Screw Shaft, diameter as per Rule Is the tube screw shaft fitted with a continuous liner

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

boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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

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

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, by means of a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication

Are the exhaust pipes and silencers water cooled or lagged with

ducting material Lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Water Pumps, No. Can one be overhauled while the other is at work

Pumps worked from the Main Engines, No. Diameter Stroke

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

Lubricating Oil Pumps, including Spare Pump, No. and size 2 x 1 1/2 inch, 15.2 m<sup>3</sup>/h each, worked from main engine

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

two independent means arranged for circulating water through the Oil Cooler In Pump Room

Pumps, No. and size:—In Machinery Spaces

Olds, &c.

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

Are the Bilge Suctions in the Machinery Spaces

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

from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Are they fitted with Valves or Cocks

all Sea Connections fitted direct on the skin of the ship

Are the Overboard Discharges above or below the deep water line

they fixed sufficiently high on the ship's side to be seen without lifting the platform plates

Are the Blow Off Cocks fitted with a spigot and brass covering plate

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

How are they protected

Have they been tested as per Rule

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

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

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

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

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

Driven by main engine

Driven by

Driven by

Driven by

Driven by

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

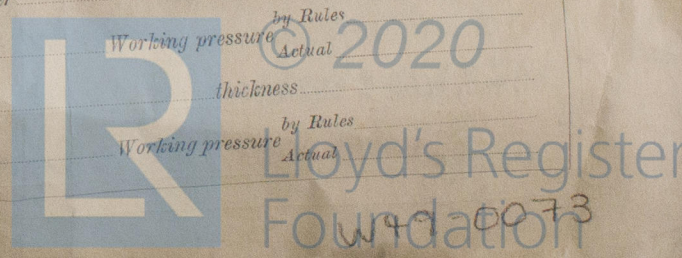
High Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure Actual

Starting Air Receivers, No. Total cubic capacity Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure Actual

Working pressure Actual





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 *See London letter E 4.12.29, 16.5.30*

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied *as per Rules.*

State the principal additional spare gear supplied

The foregoing is a correct description,  
**Maschinenfabrik Augsburg-Nürnberg A.G.**

*M. A. N.*

Manufacturer.

Dates of Survey while building  
During progress of work in shops -- *23 Jan; 8.17. Feb; 7.21.24. March; 10.11.14.16.26.28.29 April; 1.6.13.19.20.21.22.31. May; 2.3.4.5.6.7.10.11.21.25.26.28.30 June; 1.5.7.8.10.11.12.14.19.21.22.23.24.25.26 July; 1.2.4.5.6.7.8.9.16.18.19.21.23.27. August 1930.*  
During erection on board vessel --  
Total No. of visits

Dates of Examination of principal parts—Cylinders *3/5.6.30* Covers *19.5.30* Pistons *26.4.30* Rods *13/15.5.30* Connecting rods *1.5.30*  
Crank shafts *11/21.6.30* Flywheel shaft *23.8.30* Thrust shaft Intermediate shafts 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 shafts Material *S.M. Steel* Identification Mark *LLOYD'S 1858/59 F.K. 18.6.30* Flywheel shaft, Material *S.M. Steel* Identification Mark *LLOYD'S F.S. 705/706*  
Thrust shaft, Material Identification Mark Intermediate shafts, Material Identification Marks  
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 *no* If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. *These heavy oil engines have been constructed under survey in accordance with the Soc. Rules and Regulations as well as with the approved plans and instructions thereto. The materials used in the construction are good and the workmanship is satisfactory.*

In my opinion the vessel for which these engines are intended will be eligible for the notation of *[with date]* when the machinery has been fitted satisfactory on board and tried under full working conditions

The material of the tie rods has been tested by the Germ. Lloyd. See London letter E 16.5.30.

A copy of this report has been sent to the Hamburg Surveyors.

The amount of Entry Fee ... £ 4 : 16 :  
4/5 Special ... £ 103 : 10 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ 2 : 10 :  
When applied for, 8.9.1930  
When received, 13.10.1930

Committee's Minute

FRI. 21 NOV 1930

Assigned

*See Ham. J.E. 19591*

*L. Hoar*  
Engineer Surveyor to Lloyd's Register of Shipping



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