

REPORT ON OIL ENGINE MACHINERY.

No. 19591

10 NOV 1930

Received at London Office

Port of

HAMBURG

When handed in at Local Office

Date, First Survey 6th June, 1930 Last Survey 21st October, 1930

Survey held at

Hamburg

Number of Visits 22

on the

Single
Twin
Triple
Quadruple

Screw vessel

"KOLL"

Tons Gross 10057
Net 5019

Hamburg

By whom built Deutsche Werft A.G.

Yard No. 142 When built 1930

made at Augsburg

By whom made Maschf Augsburg-Nürnberg A.G.

Engine No. 330420/20 When made 1930

Boilers made at Hamburg

By whom made Deutsche Werft A.G.

Boiler No. 4023-426-441/2 When made 1930

orse Power 3600

Owners Odd Bergs Tankrederi A/S

Port belonging to Oslo

orse Power as per Rule 1175

Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

or which vessel is intended Transatlantic Trade (Carrying Petroleum in bulk)

GINES, &c.—Type of Engines M.A.N. Type 2 x D3Zu 60/90 2 or 4 stroke cycle 2 Single or double acting Double

Pressure in cylinders 45 kg/cm² 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 kgs. Means of ignition Solid inject. 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 580 mm Thickness parallel to axis 220 mm

Intermediate Shafts, diameter as per Rule 330 mm Thrust Shaft, diameter at collars as per Rule 330 mm

Screw Shaft, diameter as per Rule 299 mm Is the shaft fitted with a continuous liner yes

Liners, thickness in way of bushes as per Rule 16.5 mm Thickness between bushes as per Rule 12.4 mm Is the after end of the liner made watertight in the

boss yes 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

no If so, state type Length of Bearing in Stern Bush next to and supporting propeller 1500 mm

eller, dia. 4100 mm Pitch 3000 mm No. of blades 4 Material Bronze whether Moveable no, solid Total Developed Surface 4.828 sq. feet

od of reversing Engines Direct by means of compressed air a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication

Thickness of cylinder liners 42.5 mm Are the cylinders fitted with safety valves yes 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

ng Water Pumps, No. 2, each of 30 m³/hr Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

Pumps worked from the Main Engines, No. none Diameter Stroke Can one be overhauled while the other is at work

ps connected to the Main Bilge Line No. and Size Mach. Space: Dallas 200 m³, Bilge & Sanit. p. 100 m³ Fore Ship: Bilge pump 35 m³

st Pumps, No. and size 2, each of 350 m³/hr capacity Lubricating Oil Pumps, including Spare Pump, No. and size 2 x 100 m³/hr, worked from main engines

two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

ps, No. and size:—In Machinery Spaces 6 x 90 mm f. In fore ship: Cargo hold: 2 x 88.5 mm f. fore Coffin dam: 1 x 88.5 mm

olds, &c. none in fore ship: Cargo hold: 2 x 88.5 mm f. fore Coffin dam: 1 x 88.5 mm

ependent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 x 175 mm f.

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

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

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

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 yes

at pipes pass through the bunkers none How are they protected

at pipes pass through the deep tanks cargo lines Have they been tested as per Rule yes

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

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

partment to another yes Is the Shaft Tunnel watertight mach. aft Is it fitted with a watertight door worked from

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. solid injection No. of stages 2 Diameters 310/275 mm Stroke 180 mm Driven by steam engine

auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 135/50 mm Stroke 100 mm Driven by Diesel engine, main engine

small Auxiliary Air Compressors, No. 2 No. of stages 2 Diameters 1080 mm Stroke 580 mm Driven by extension of crank shaft

scavenging Air Pumps, No. 2 x 1 2 cylinders tandem Diameter 1080 mm Stroke 580 mm

auxiliary Engines crank shafts, diameter as per Rule Diesel Engine 60 mm Steam Engine crank pins: 70 mm journals: 60 mm

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

Can the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces flanges

Is there a drain arrangement fitted at the lowest part of each receiver yes

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

Starting Air Receivers, No. 2 Total cubic capacity 32 m³ Internal diameter 1950 mm thickness 22.5 mm

Seamless, lap welded or riveted longitudinal joint yes Material S.M. Steel Range of tensile strength 41-42 kg/mm² Working pressure by Rules 25.5 kg/cm²

Foundation

IS A DONKEY BOILER FITTED? *Yes*

PLANS. Are approved plans forwarded herewith for Shafting *8/5/30 30/6/30*
(If not, state date of approval)

If so, is a report now forwarded? *now*

Donkey Boilers *2/6/30, 7/4/30, 13/2/30* General Pumping Arrangements *24/4/30*

Receivers *29/4/30*

Separate Tanks *9/8/30*

Oil Fuel Burning Arrangements *13/9/30*

SPARE GEAR

As per Rules.

The foregoing is a correct description,

DEUTSCHE WERFT
AKTIENGESellschaft

Manufacturer.

Dates of Survey while building
During progress of work in shops -- *66 at Augsburg. June: 30, 6, July: 3, 7, August: 6, 14, 21, 24, 28, Sept: 11, 12, 18, 19, 18*
During erection on board vessel -- *Sept: 23, 25 October: 2, 6, 7, 9, 16, 21*
Total No. of visits *66 + 22 = 88*

Dates of Examination of principal parts—Cylinders *3-5/6/30* Covers *10/5/30* Pistons *13-21/6/30* Rods *13-15/5/30* Connecting rods *1/5/30*
Crank shafts *11-21/6/30* Flywheel shafts *23/8/30* Thrust shafts *6/8/30* Intermediate shafts *11/9/30* Tube shaft *1/5/30*
Screw shafts *6/8/30* Propellers *11/9/30* Stern tubes *2/9/30* Engine seatings *18/9/30* Engines holding down bolts *9/10/30*
Completion of fitting sea connections *18/9/30* Completion of pumping arrangements *16/10/30* Engines tried under working conditions *21/10/30*
Crank shaft, Material *S.M. Steel* Identification Mark *3402/8 MK 14.5.30* Flywheel shaft, Material *S.M. Steel* Identification Mark *FS. 205/6 Ph 3652/2/4 Ph*
Thrust shaft, Material *S.M. Steel* Identification Mark *914/1 MB 18/7/30* Intermediate shafts, Material *S.M. Steel* Identification Marks *14230 K.H.*
Tube shaft, Material *—* Identification Mark *—* Screw shaft, Material *S.M. Steel* Identification Mark *14222/5/9 MK*

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 *oil tanker*

If so, have the requirements of the Rules been complied with *yes*

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.)

Material and workmanship of this Oil Engine machinery are of good quality and the outfit is complete. The materials used in the construction are made at works recognized by the Committee and tested in accordance with the Rules. The machinery has been built under special survey in accordance with approved plans, the Secretary's letters and otherwise in conformity with the Society's requirements. It has given full satisfaction under full working and manœuvring conditions during a 14 hours trial trip and is eligible in my opinion for notification of LMC-10,30, Oil Engines, Tail shaft CL, Machinery aft.

It is submitted that this vessel is eligible for

THE RECORD. + L.M.C. 10.30 C-L
Oil Engines 2.S.C.D.A. 6cy 23 5/8 — 35 7/16
2DB — 170% 3DB (Vertical) 100%.

18/11/30.

The amount of Entry Fee *1/5 £ 1 : 4* When applied for, *5.11.19.30*
Special *1/5 £ 05 : 14*
Donkey Boiler Fee *— £ —*
Travelling Expenses (if any) *5.14 £ 6 : 12/12/19.30* When received, *6/6*

Committee's Minute

Assigned

FRI. 21 NOV 1930

+ d.m.b. 10.30 CL
oil engs. 2DB-170%



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Lloyd's Register
Foundation

Has the Steel been tested as required by the Rules?