

REPORT ON OIL ENGINE MACHINERY.

No. 19824

11 APR 1931

Received at London Office

Form of Working Report 31.3. 1031 When handed in at Local Office

Port of HAMBURG

No. in Survey held at Reg. Book.

KIEL

Date, First Survey 18th Nov. 1929 Last Survey 30th March 1931

Number of Visits 39

Single
Twin
Triple
Quadruple

1 OIL ENGINE FOR Stock.

See Ham. ltr 27/1/32

Tons { Gross
Net

Built at _____ By whom built Deutsche Werke Yard No. 228 When built _____
 Engines made at KIEL By whom made DEUTSCHE WERKE KIEL A.G. Engine No. 456-63 When made 1931
 Donkey Boilers made at _____ By whom made _____ Boiler No. _____ When made _____
 Brake Horse Power 3200 Owners DEUTSCHE WERKE KIEL A.G. Port belonging to _____
 Nom. Horse Power as per Rule 672 Is Refrigerating Machinery fitted for cargo purposes _____ Is Electric Light fitted _____
 Trade for which vessel is intended _____

OIL ENGINES, &c.—Type of Engines DEUTSCHE WERKE DIESEL MOTOR - 14075 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 35 kg/cm² Diameter of cylinders 750 mm Length of stroke 1400 mm No. of cylinders 8 No. of cranks 8

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 1000 mm Is there a bearing between each crank yes

Revolutions per minute 115 Flywheel dia. 2770 Weight 16400 kg Means of ignition Diesel principle Kind of fuel used gas oil

Crank Shaft, dia. of journals as per Rule 477 mm Crank pin dia. 480 mm Crank Webs Mid. length breadth _____ Mid. length thickness _____ Thickness parallel to axis 300 mm
as fitted 480 mm shrunk Thickness around eye-hole 209 mm

Flywheel Shaft, diameter as per Rule _____ Intermediate Shafts, diameter as per Rule _____ Thrust Shaft, diameter at collars as per Rule _____
as fitted _____ as fitted _____ as fitted 430 mm

Tube Shaft, diameter as per Rule _____ Screw Shaft, diameter as per Rule _____ Is the { lube screw } shaft fitted with a continuous liner { _____
as fitted _____ as fitted _____

Liner, 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
as fitted _____ as fitted _____

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

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

forced Thickness of cylinder liners 75 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with

non-conducting 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 _____

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

Bilge Pumps worked from the Main Engines, No. _____ Diameter _____ Stroke _____ 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 _____ Lubricating Oil Pumps, including Spare Pump, No. and size _____

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

Pumps, No. and size:—In Machinery Spaces _____

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. 1 No. of stages 3 Diameters 700/620/140 mm Stroke 670 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 _____

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 _____ What means are provided for cleaning their inner surfaces _____

Is there a drain arrangement 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 _____

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

Seamless, lap welded or riveted longitudinal joint _____ Material _____ Range of tensile strength _____ Working pressure by Rules _____

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting 23.9.29. Receivers Separate Tanks

Donkey Boilers General Pumping Arrangements Oil Fuel Burning Arrangements

SPARE GEAR no spare gear

The foregoing is a correct description,

DEUTSCHE WERKE KIEL
AKTIENGESELLSCHAFT

Mrs. Dr. J. J. J. J. J. Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1929 Nov. 11, Dec. 9, 18, 1930 Jan. 6, 10, 15, 17, 20, 29, 31, Febr. 3, 5, 10, 19, March 19, 24, 29,
During erection on board vessel -- April 4, 11, 14, 17, 22, 25, 28, May 2, 6, 16, 19, 23, 26, June 2, 25, 27, 30, July 14, 18, 21, 1931 March 27, 30
Total No. of visits 39

Dates of Examination of principal parts—Cylinders 14/4, 25/4, 30 Covers 19/3-28/4, 30 Pistons 26/5, 30 Rods 15/1, 30 Connecting rods 5, 2, 30
Crank shaft 22, 4, 30 Flywheel shaft Thrust shaft 25, 4, 30 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 shaft, Material S. M. Steel Identification Mark No 207-9, F. S. 1833 Flywheel shaft, Material Identification Mark
Thrust shaft, Material S. M. Steel Identification Mark 64L 8054/806 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. yes
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
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. This Engine has been built under Special Survey in accordance with the approved plans, the Secretary's letters and otherwise in conformity with the requirements of the Rules. The materials used in the construction are made of works recognized by the Committee and tested by the Port Surveyors. The Thrust shaft has been tested by the Germanischer Lloyd. In the crank shaft dowel pins have not yet been fitted. This Engine has been tried on test bed under full load conditions and has given full satisfaction. Materials & workmanship are of good quality. The Engine will be placed on stock for sale. This engine will be eligible in my opinion for notation of * LMC with date when fitted on board.)

Accepted without demurs
L. J.

The amount of Entry Fee ... £	<input checked="" type="checkbox"/>	When applied for,
Special ...	<u>(7/5) £ 86 : 18</u>	<u>31. 3 1931</u>
Donkey Boiler Fee ... £	:	When received,
Travelling Expenses (if any) £	<u>19 : 12</u>	<u>30. 4 1931</u>

A. Carstensen
Engineer Surveyor to Lloyd's Register of Shipping.
FRI. 27 APR 1934

FRI. 20 JAN 1934

TUE. 3 JUL 1934

TUE. 16 OCT 1934

Committee's Minute

Assigned

Not for Classification Committee

See Ham. J.C. 21017



Certificate (if required) to be sent to
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

Date of writing
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